Commission Agenda Report

Planning Commission Meeting
01-20-26
Item 5.A.

To: Chair Riddick and Members of the Planning Commission

Prepared by: Richard Greenbauer, Contract Planner

Reviewed by: Joseph Smith, AICP, Contract Principal Planner

Approved by: Yolanda Bundy, MS, PE, CBO, CFCO, Community Development Director and Tyler Eaton, Assistant Community Development Director

Date prepared: January 8, 2026 Meeting date: January 20, 2026

Subject: Coastal Development Permit No. 25-032, Site Plan Review No. 25-039, and Demolition Permit No. 25-027 – An application to implement the Malibu Middle and High School (MMHS) Campus Specific Plan (Phases 2, 3a, and 4a) with the construction of a new two-story 18,911 square-foot middle school gym (Building D) and outdoor sports courts, one-story 9,243 square-foot middle school student activity, food service, and special education building with canopy (Building D/I), one-story 333 square foot broadcasting/media arts building (Building D), middle school quad and walkways, site improvements, landscaping, on-grade solar installation, grading, and underground utility work, including a site plan review for a height increase over 18 feet, not to exceed 36 feet as allowed in the MMHS Specific Plan and a demolition permit for the demolition of existing classroom Buildings K and I, seven portable classroom buildings, and one portable restroom building

Location: 30215 Morning View Drive, within the non-appealable coastal zone
APN: 4469-017-901
Owner: Santa Monica-Malibu Unified School District

RECOMMENDED ACTION: Adopt Planning Commission Resolution No. 26-04 (Attachment 1) certifying that the project is consistent with the Final Environmental Impact Report (EIR) (State Clearinghouse [SCH] No. 202008350), the Mitigation Monitoring and Reporting Program (MMRP), and the Statement of Overriding Considerations (SOC) adopted by the Santa Monica-Malibu Unified School District (SMMUSD) Board of

Education (Board) on January 26, 2022 and certified by the City Council on July 11, 2022 in Resolution No. 22-32, and approving Coastal Development Permit (CDP) No. 25-032, Site Plan Review (SPR) No. 25-039, and Demolition Permit (DP) No. 25-027 to implement the MMHS Campus Specific Plan (Specific Plan) (Phases 2, 3a, and 4a) with the construction of a new two-story 18,911 square-foot (sf) middle school gym (Building D) and outdoor sports courts, one-story 9,243 sf middle school student activity, food service, and special education building with canopy (Building D/I), one-story 333 sf broadcasting/media arts building (Building D), middle school quad and walkways, site improvements, landscaping, on-grade solar installation, grading, and underground utility work, including a site plan review for a height increase over 18 feet, not to exceed 36 feet as allowed in the MMHS Specific Plan and a demolition permit for the demolition of existing classroom Buildings K and I, seven portable classroom buildings, and one portable restroom building located in the Institutional Zone and MMHS Campus Specific Plan Overlay District at 30215 Morning View Drive (APN 4469-017-901) (SMMUSD).

DISCUSSION: This agenda report provides a project overview, a summary of the surrounding land uses and project setting, a description of the proposed project, the Planning Division's analysis of the proposed project's consistency with the Specific Plan, Local Coastal Program (LCP), Malibu Municipal Code (MMC), and environmental review pursuant to the California Environmental Quality Act (CEQA). The analysis and findings contained herein demonstrate the proposed project is consistent with the LCP and MMC.

Surrounding Land Uses and Project Setting

The MMHS campus includes 86.69 acres in the Malibu Park neighborhood of west Malibu and is comprised of a high school, middle school, several outdoor sports fields and courts, support facilities, infrastructure, the Boys and Girls Club, the Malibu Equestrian Center, and approximately ten acres of undeveloped land. The MMHS campus is located on Morning View Drive, approximately one-quarter mile northeast of both Pacific Coast Highway (PCH) and Zuma Beach and generally between Merritt Drive to the west, Via Cabrillo Street to the east, and Harvester Road to the north. Residential properties are located north and west of the MMHS campus. The Malibu Equestrian Center is located east of developed campus area behind a large berm separating the equestrian use from the MMHS's main sports field. The Malibu United Methodist Church/Nursery School and residences along Morning View Drive are located south of the MMHS Campus. Figure 1 provides a vicinity aerial of the MMHS campus.

Figure 1 – Vicinity Aerial



Source: City GIS

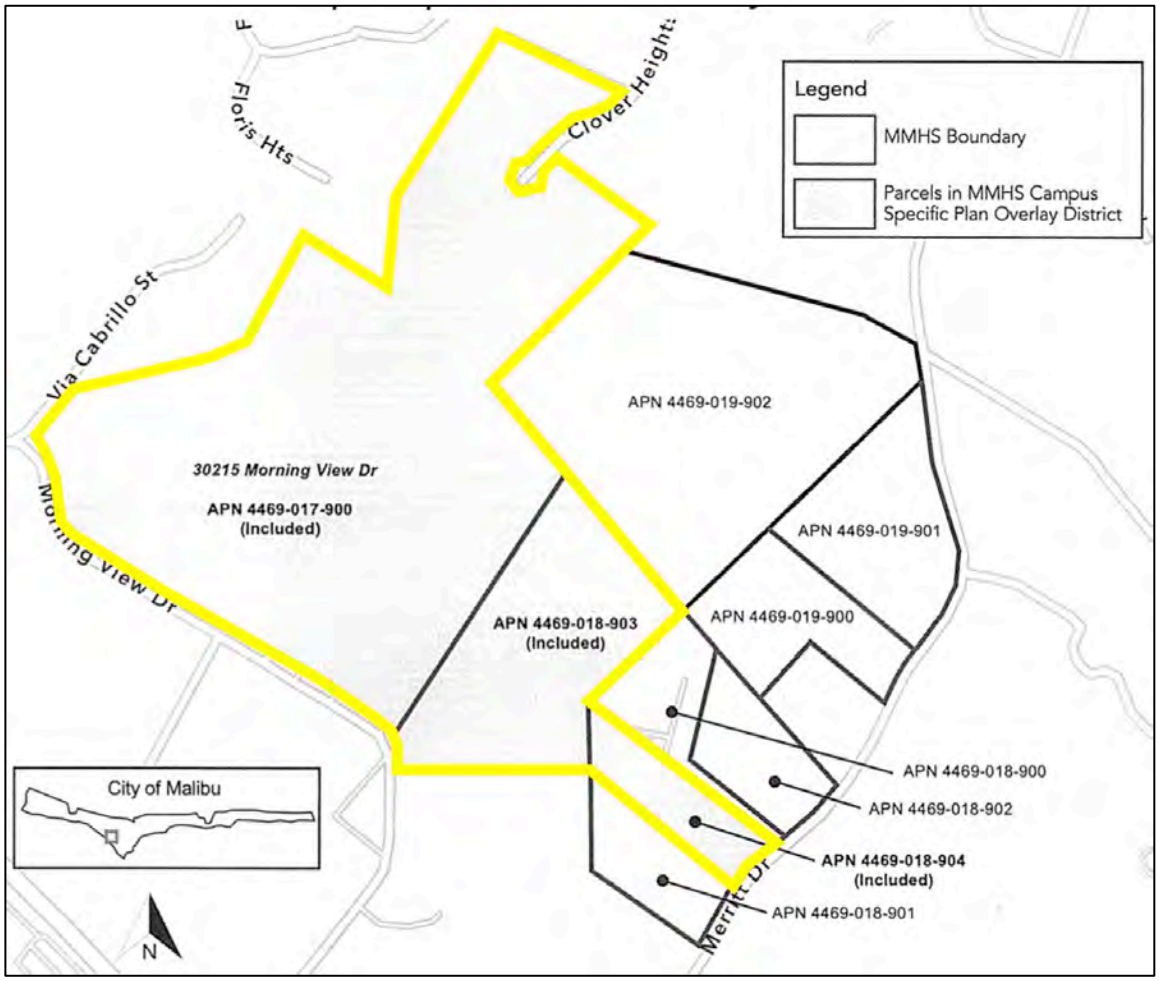
Maximum topographic relief across the MMHS campus is approximately 94 feet, with elevations ranging from 86 feet above mean sea level near Morning View Drive to 180 feet in the north. There is limited natural vegetation onsite consisting primarily of grasses, ivy, brush, shrubs, and scattered trees, with some patches of disturbed and isolated coastal sage scrub in and around the main sports field. A blueline stream enters the MMHS campus in the northwest and flows under the property in a drainage pipe from Clover Heights Avenue to the west/southwest property line where it daylights into a natural streambed. Drainage from the MMHS campus flows overland and along parking lots and driveways in a southerly direction to Morning View Drive, where it collects into existing storm drains. The Phase 2, 3a, and 4a development areas are well outside of the natural vegetation area, stream, and stream setback area and not located within the CCC appeal jurisdiction.

Background Overview

In 2019, the District launched the specific plan process with the purpose of defining long-range facility goals that support the District's educational goals. A specific plan enables the classification and development of a parcel(s) of land as a coordinated, comprehensive project. The intent is to achieve a more desirable development or physical environment than would be possible through the strict application of conventional zoning regulations

and standards. The Specific Plan was eventually developed and illustrates a strategic vision for the MMHS campus over the next 10 to 15 years. On January 26, 2022, the District approved the Specific Plan, which established development standards and provided a framework for a cohesive redevelopment of the MMHS campus. Figure 2 delineates the parcels that comprised the MMHS campus at that time, with a yellow outline of the parcels associated with the Specific Plan. The Specific Plan area represents 49.46 acres of the overall 86.69 acre MMHS campus. Phase 1 approvals merged Assessor Parcel Numbers (APNs) 4469-017-900 and 4469-018-903 into the current APN 4469-017-901, which now represents the bulk of the campus.

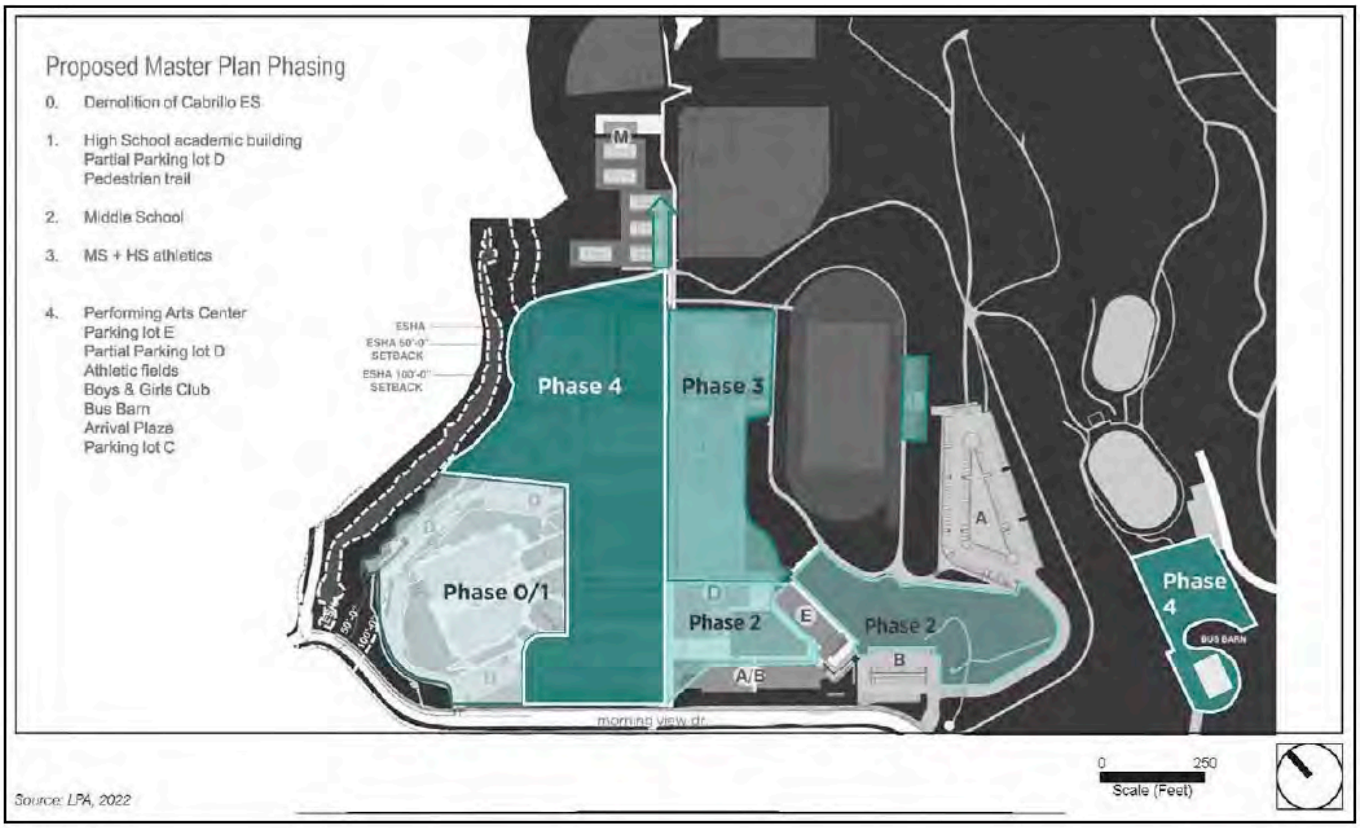
Figure 2 – Specific Plan



Source: City Ordinance 512

The Specific Plan includes four phases of development with completion anticipated in 2031. Figure 3 depicts the general area of each phase of development.

Figure 3 – Specific Plan Phasing



Source: Specific Plan

The following summarizes the main components of each phase. Due to construction efficiencies and logistics, the District may adjust some components with another phase.

- Phase 1 (Complete): Phase 1 included the demolition of all existing former Juan Cabrillo Elementary School (JCES) campus buildings, construction of Building C (high school classrooms, support services, and administration), Parking Lot C, Parking D, the Drop-off/Pick-up area, the after-the fact relocation of five portable buildings, restoration of Environmentally Sensitive Habitat Area (ESHA), and associated development.

- Phase 2 (Permitting): Phase 2 is the proposed scope of development as detailed under the Project Description section. Phase 2 includes the construction of Building D (middle school gym, student activities, and food services, as well as broadcast/media arts). Some components from Phases 3 and 4 were adjusted into Phase 2 by the District. This includes some grading, demolition of portable buildings, and the construction of a portion of planned Building I (special needs) into Building D. Construction is expected to occur over a two-year period.

- Phase 3 (Upcoming): Phase 3 would consist of the demolition of Buildings F and I, the existing field house, the construction of Buildings J (high school gym), L (shared aquatics center/field house), and M (shared upper field house), and Parking Lots E and F. Construction is expected to occur over a two-year period.

- Phase 4 (Upcoming): Phase 4 would involve the demolition of Buildings H, K, J, and J1, the pool and pool building, the bus barn, the demolition and/or relocation of the Boys & Girls Club, and construction of the new Building H (shared visual and performing arts) and the remaining portion of Building I (campus wellness). Construction is expected to occur over a one-year period.

This Specific Plan would result in the demolition of 18 existing buildings with only the existing athletic fields and recently completed Building A/B (Administration/Library) and Building E (middle school classrooms) to remain. Once completed, the Specific Plan would create dedicated spaces for Middle School and High School, resulting in a total of 54 classrooms, 12 labs, and 222,425 sf of building space at full Specific Plan buildout.

On August 8, 2022, the City Council approved the Specific Plan, which included an amendment to the LCP (LCPA). The LCPA was reviewed by the California Coastal Commission (CCC) on September 8, 2023 and conditionally certified with revisions. On October 23, 2023, the City Council adopted a revised LCP amendment. On November 17, 2023, the CCC Executive Director reported the City's adoption to the CCC and the City formally completed its final certification review of the LCPA. As of November 17, 2023, the Specific Plan is part of the City's LCP and used when conducting conformance reviews of all proposed development on the MMHS Campus. On September 5, 2023, the Planning Commission adopted Resolution No. 23-39 approving CDP No. 21-068 and implementing Phase 1.

Project Description

The District is proposing to move forward with Phase 2 which is focused on improvements to the middle school. To facilitate the development of Phase 2 and allow for efficiencies in construction, the District has included some demolition and development from later phases as part of the requested CDP. These components are referred to as Phases 3a and 4a. Figure 4 highlights the area of Phase 2, 3a, and 4a in red outline with green shading.

Figure 4 – Scope of Work Area



Source: City GIS

The proposed scope of work is described as follows:

Phase 2 scope:

- Two-story, 18,911 sf middle school gym (Building D) and reconfiguration of non-illuminated outdoor sports courts to meet emergency vehicle access (two full courts and two half courts);
- One-story 9,243 sf middle school student activity and food service building with a centralized steel canopy (Building D), referred to as the MS HUB. This building also integrates a special education component that was anticipated for Phase 4 as part of planned Building I;
- One-story 333 sf broadcasting/media arts building, referred to as the Main Distribution Framework (MDF) building (Building D);
- Middle school quad, walkways, stairways, and related site improvements;
- Fire lane for building access;
- Landscaping and fencing;
- On-grade solar installation with related components;
- Grading in the amount of 5,175 cubic yards (cy) of cut (including additional cut/fill

grading from the Phase 3a scope, total approximate grading for the proposed scope of work is 8,340 cy of cut, 4,303 cy of fill, and 4,037 cy designated for export).

- Underground utility work and connections to the wastewater treatment system.

Phase 3a scope:

- Demolition of a 4,561 sf classroom building (Building I);
- Demolition of seven 960 sf portable classrooms (6,720 sf total);
- Demolition of one 480 sf portable restroom; and
- Grading in the amount of approximately 3,165 cy cut and 4,303 cy fill (total grading reflected above in the Phase 2 scope).

Phase 4a scope:

- Demolition of a 12,698-sf classroom building (Building K);
- Construction of the special education component (Building I) as part of Phase 2 Building D.

The proposed project includes two discretionary requests as summarized below:

1. SPR No. 25-039 for construction over 18 feet, up to a maximum height not to exceed 36 feet from finished grade as allowed in the Specific Plan for Building D. Additional components such as chimneys, rooftop antennas, and light standards may extend to 40 feet. As proposed, the components of Building D is split into three buildings with the maximum heights provided below. Per the Specific Plan, all heights are measured from finished grade.
    a. Building D Gym: 35 feet to top of parapet (rooftop solar <35 feet)
    b. Building D MS HUB: 17 feet
    c. Building D Canopy: 21 feet, 7 inches
    d. Building D MDF: 13 feet, 4 inches

2. DP No. 25-027 for the demolition of existing classroom Buildings I (4,561 sf) and K (12,698 sf), seven 960 sf portable classroom buildings (6,720 sf), one 480 sf portable restroom, and associated site development.

Other Approvals

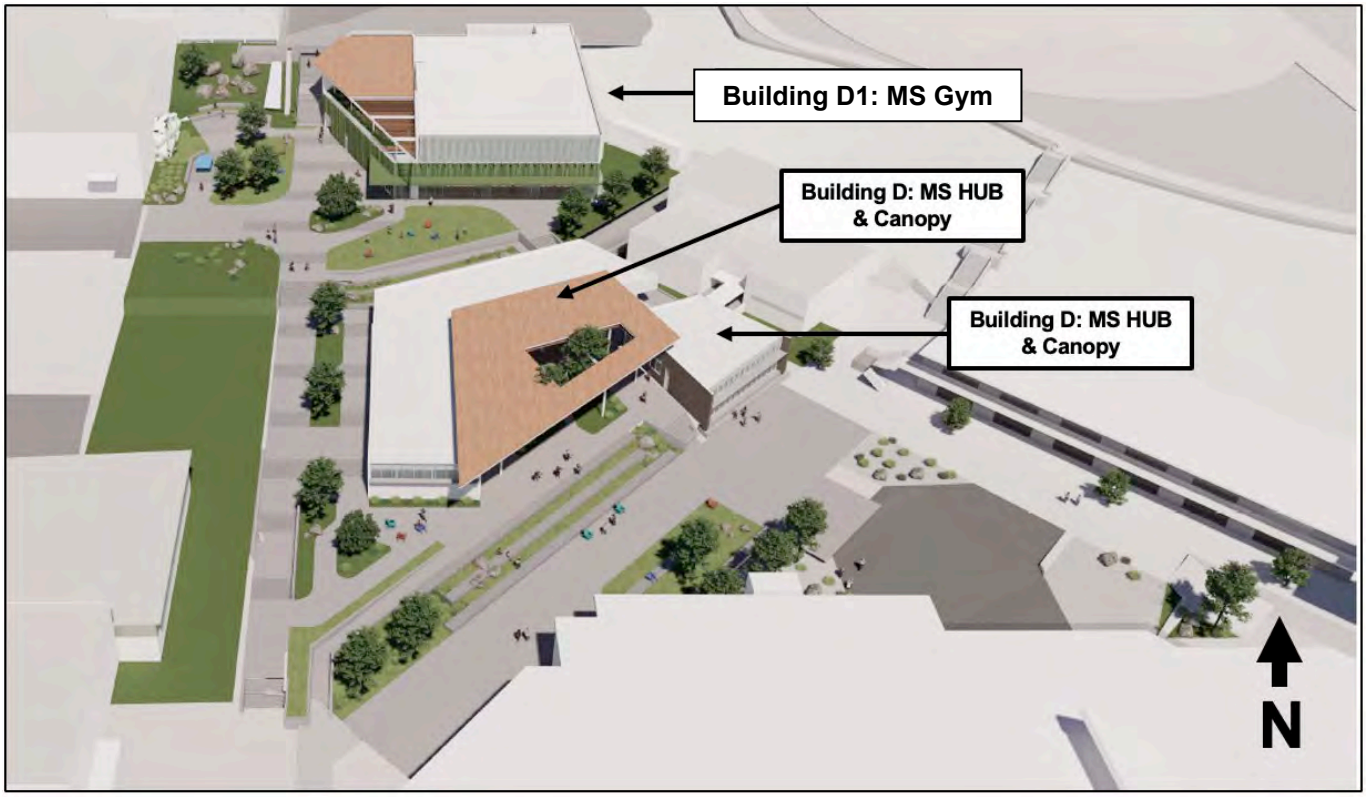
Additional approvals are also required from the following agencies:

1. County of Los Angeles
    - Fire Department *(fire access and fire flow approved)*

- Water District 29 *(water service)*

2. State of California
   - Division of State Architect (DSA) *(approval of construction drawings and grading and building permits)*

Figure 5 – Proposed Building D & Grounds



LIP Conformance Analysis

The City Planning Division, City Biologist, City Environmental Health Administrator, City geotechnical consultant reviewers, City Public Works Department, Los Angeles County Fire Department (LACFD), and Los Angeles County Waterworks District No. 29 (WD29) reviewed the proposed project (Attachment 4 – Department Review Sheets). These specialists found the proposed project, as conditioned, is consistent with all applicable LCP codes, standards, goals and policies, with the inclusion of the requested SPR and subject to approval of the requested DP.

The LCP consists of a Land Use Plan (LUP) and LIP. The LUP contains programs and policies to implement the Coastal Act in the City. The purpose of the LIP is to carry out the policies of the LUP. The LIP contains specific policies and regulations to which every project requiring a CDP must adhere.

There are 14 LIP chapters that potentially apply depending on the nature and location of the proposed project. Of these, five are for conformance review only and contain no findings: 1) Zoning, 2) Grading, 3) Archaeological/Cultural Resources, 4) Water Quality, and 5) Onsite Wastewater Treatment System (OWTS). These chapters are discussed in the LIP Conformance Analysis section.

The nine remaining LIP chapters contain the required findings: 1) CDP; 2) ESHA; 3) Native Tree Protection; 4) Scenic, Visual and Hillside Resource Protection; 5) Transfer of Development Credits; 6) Hazards; 7) Shoreline and Bluff Development; 8) Public Access; and 9) Land Division. For the reasons described in this report, including the project site, the scope of work, and substantial evidence in the record, only findings in the following chapters are applicable to the proposed project: CDP (including the required findings for the SPR), and Hazards[1]. LIP Section 13.27.5(A) requires that the City make four findings in consideration and approval of a SPR. Five additional findings are required pursuant to MMC Section 17.62.040(D). The findings in MMC Section 17.70.060 also apply for the requested DP. These chapters are discussed in the LIP Findings section of this report. Additionally, the proposed project is subject to the Landscape Water Conservation Ordinance in MMC Chapter 17.53 as the project is proposing a new landscape area of 2,500 square feet or more.

Zoning (LIP Chapter 3)

While the MMHS campus is in the Institutional zone, the applicable development standards are provided in LIP Section 3.4.7(B) (MMHS Campus Specific Plan Overlay District) and 3.5 (General to All). This section states that the Institutional development standards in LIP Section 3.9 shall not apply. The applicable grading standards for development are provided in LIP Section 3.4.7(B)(6). This section states that the grading requirements of LIP Section 8.3(B) shall not apply.

Table 1 provides a summary of the lot dimensions and lot area of the subject parcel.

Table 1 – Property Data	
Lot Depth	2,030 ft
Lot Width	1,055 ft
Gross Lot Area	2,154,477 sf (49.46 ac)
Street Easement	0 sf
Area Comprised of 1:1 Slopes	12,196 sf
Net Lot Area	**2,142,281 sf (49.18 ac)**

[1] The ESHA, Native Tree Protection, Scenic, Visual and Hillside Resource Protection, Transfer of Development Credits, Shoreline and Bluff Development, Public Access, and Land Division findings are neither applicable nor required for the proposed project.

*Net Lot Area = Gross Lot Area minus the area of street easements and 1 to 1 slopes.

Table 2 summarizes the Specific Plan development standards and the project's consistency with each. Inclusive of the SPR request, the project is consistent with the applicable development standards.

Table 2 – Zoning Conformance			
Development Standard	**Allowed/Required**	**Proposed**	**Conformance**
SETBACKS (ft)			
Front Yard (from street easement)	10 ft	177 ft	Complies
Rear Yard (abuts residential zone)	304 ft	>700 ft	Complies
Side Yard (abuts residential zone)	105 ft	250 ft	Complies
ESHA	50[2] ft	125 ft	Complies
PARKING SPACES	322	389	Complies
FLOOR AREA RATIO (FAR) (sf)	0.15 (321,342 sf)	0.108[3] (28,487 sf)	Complies
HEIGHT (ft)	18ft or 36 ft with SPR (40 ft rooftop items)	Gym: 35 ft (<40 ft rooftop solar) MS HUB: 17 ft Canopy: 21 ft, 7 in MDF: 13 ft, 4 in	*SPR No. 21-003 (Specific Plan)*
NUMBER OF STORIES	2	Gym: 2 MS HUB: 1 MDF: 1	Complies
LANDSCAPING	25 percent minimum 535,570 sf	77.2 percent 1,653,841 sf	Complies
SITE PERMEABILITY	30 percent 642,675 sf	78 percent 1,662,624 sf	Complies
TOTAL GRADING (cy)	Phase 2: 5,175 cy (Cut: 5,175 cy) (Fill: 0 cy) Phase 3: 39,300 cy (Cut: 25,300 cy) (Fill: 14,000 cy)	Phase 2: 5,175 cy (Cut: 5,175 cy) (Fill: 0 cy) Phase 3: 7,468 cy (Cut: 3,165 cy) (Fill: 4,303 cy)	Complies (Specific Plan)

[2] The Specific Plan allows limited development to encroach in the 100-foot ESHA setback, but in no case can be closer than 50 feet. These limited improvements include drive aisles, permeable parking areas, fuel modification,
[3] FAR inclusive of existing Phase 1 and proposed development for Phases 2, 3a and 4a.

FENCE/WALL HEIGHT			
Retaining Walls	6 ft max, 12 ft cumulative	6 ft max, 0 ft cumulative	Complies
Front Yard			
Impermeable	42 in	None Proposed	Complies
Permeable	6 ft	None Proposed	Complies
Rear & Side Yard	6 ft	None Proposed	Complies

Table 3 provides a summary of MMHS campus size and the existing and proposed floor area ratio (FAR) for Phase 1:

Table 3: Floor Area Ratio Calculations		
Item	**Square Feet**	**FAR**
Net Lot Area	2,142,280 sf	.15 (maximum)
Existing MMHS Campus w/Phase 1 Completed	229,449 sf	.101
Proposed MMHS Campus w/ Phases 2, 3a, 4a	28,487 sf	.007
Total FAR with Proposed	257,936 sf	.108

Table 4 provides a summary of required parking per the City's LCP. Table 5 provides a summary of the existing and proposed parking inventory for the MMHS campus as a whole.

Table 4 – MMHS Required Parking Calculations		
Location	**Teaching stations**	**Parking Phase 2**
Buildings D and D1 (Proposed)	3	**4**
Malibu High School (Existing)	38	**266**
Malibu Middle School (Existing)	26	**52**
Total	67	**322**

Table 5 –MMHS Onsite Parking Tabulation		
Location / Parking Lot	**Existing**	**Parking Phase2**
150-Space Parking Lot (E) to Remain	150	**150 - No Change**
Lower Parking Lot (D) to Remain	59	**59 - No Change**
Student Parking Lot (A) to Remain	119	**119 - No Change**
Service Lots to be Removed	7	**0**
Parking Lot D (PH1 HS)	61	**61 - No Change**
Total	**396**	**389**

Lighting

Proposed exterior lighting for Buildings D1 (MS Gym) & D (MS HUB) would consist of low-intensity, full cut-off shielded light fixtures that maintain safe light levels while avoiding off-site lighting and night sky pollution, as required by the Specific Plan and MMC Chapter 17.41 (Dark Sky Ordinance). There will be no new sports field lighting developed as part of Phase 2, and no changes to the existing sports field lighting will occur. Lastly, all new Phase 2 lighting delineated as "night lighting" shall be shut off automatically at 11:00 p.m. as required by the Specific Plan. Security lighting will include motion sensors that extinguish lighting ten minutes after activation as required by the Specific Plan.

Grading (LIP Section 3.4.7(B)(6) and LIP Chapter 8)

The project site has varied topography within which the Special Education and Campus Wellness Center (identified as Building I in the Specific Plan) proposed for Phase 3 is being incorporated into Phase 2. The Phase 2 Project design results in two separate structures originally identified as Building D and orients them to the existing topography - minimizing grading and creating nuanced and varied outdoor spaces. The Middle School HUB Building completes the middle school quad, while the gymnasium building D1 is pulled away from Morning View Drive and setback behind the MS HUB to better mitigate its height, placing it near the existing high school gym and tucked into the terraced portion of the site.

The Specific Plan limits grading per phase of development pursuant to LIP Section 3.4.7(6), versus by acre pursuant to the general grading requirements in LIP Section 8.3(B). Table 6 summarizes the grading allowances for MMHS development by phase and the proposed grading included in Phase 2 and 3a:

Table 6 – MMHS Specific Plan Grading		
Phase	**Allowance**	**Proposed**
Phase 1	35,200 cy (cut) 10,400 cy (fill)	**Completed**
Phase 2	5,175 cy (cut) 0 cy (fill)	**5,175 cy (cut)** **0 cy (fill)**
Phase 3	25,300 cy (cut) 14,000 cy (fill)	**3,165 cy (cut)** **4,303 cy (fill)**
Phase 4	10,000 cy (cut) 33,350 cy (fill)	**0 cy (cut)** **0 cy (fill)**

The MMRP contains several mitigation measures to minimize potential impacts to traffic, noise, and air quality (Exhibit A to Attachment 1).

Further, the LIP limits the maximum height of cuts and fills with retaining walls to 6 feet in height for each wall, or 12 feet for any combination of walls, where a minimum 3-foot

separation exists between walls, except single cuts up to 12 feet in height which are an integral part of the structure are permitted. All proposed cuts and fills with retaining walls will not exceed 6 feet in height for any one wall and all proposed retaining walls conform to the existing topography of the site. With the allowances in the Specific Plan, the project complies with grading requirements set forth under LIP Section 3.4.7(B)(6) and LIP Chapter 8 as applicable.

Archaeological / Cultural Resources (LIP Chapter 11)

LIP Chapter 11 requires certain procedures be followed to determine potential impacts on archaeological resources. A Phase I Archaeological Survey was prepared by ECORP Consulting, Inc. for the subject property in August 2021. No indication of prehistoric or historic archaeological resources was discovered in the project area. ECORP Consulting, Inc. determined that any proposed improvements should have no adverse impacts to known cultural resources. Nevertheless, a condition of approval is included in the resolution which states that in the event that potentially important cultural resources are found in the course of geologic testing or during construction, work shall immediately cease until a qualified archaeologist can provide an evaluation of the nature and significance of the resources, and until the Community Development Director can review this information.

Water Quality (LIP Chapter 17)

The City Public Works Department reviewed and approved the proposed project for conformance to LIP Chapter 17 requirements for water quality protection and requirements of the State Water Resources Control Board because the property is located in an Area of Special Biological Significance (ASBS). The ocean between Latigo Point and the west City limits has been established by the State Water Resources Control Board as an ASBS as part of the California Ocean Plan. Standard conditions of approval include the implementation of approved storm water management plans during construction activities and to manage runoff from the development, including recordation of a water quality mitigation plan, and best management practices in compliance with ASBS standards. With the implementation of these conditions, the proposed project conforms to the water quality protection standards of LIP Chapter 17.

Wastewater Treatment System Standards (LIP Chapter 18)

LIP Chapter 18 addresses OWTS. LIP Section 18.7 includes specific siting, design, and performance requirements. On November 17, 2025, the SMMUSD amended CDP No. 21-068 to relocate a previously approved replacement OWTS. The replacement OWTS will serve the new MMHS campus buildings and consist of a 20,000-gallon Xerxes primary tank, 20,000- gallon Xerxes equalization tank, 5,000-gallong Xerxes grease interceptor, and four MicroSepTec Enviroserver ES25 treatment tanks housed in fiber glass reinforced plastic (FRP) tanks with effluent filters and ultraviolet disinfection systems. Effluent will be

disposed in six existing seepage pits. The existing OWTS components that will not be re-used for the new OWTS will be properly abandoned in place. The project to develop Phase 2, 3a, and 4a of the MMHS SP only involves connecting to the previously approved OWTS (CDP Amendment No. 24-005, Resolution No. 25-72). A conformance review of the proposed connection to the previously approved OWTS was completed by the City's Environmental Health Administrator on November 19, 2025. As part of that review, it was determined that the proposed project and connection to the previously approved OWTS was in conformance with LIP Section 18.7.

LIP Findings

A. Coastal Development Permit (LIP Chapter 13)

LIP Section 13.9 requires that the following four findings be made for all CDPs:

Finding 1. That the project as described in the application and accompanying materials, as modified by any conditions of approval, conforms with the certified City of Malibu Local Coastal Program.

The project is located completely within the Specific Plan area. The Planning Division, City Biologist, City geotechnical consultant reviewers, City Environmental Health Administrator, City Public Works Department, along with the LACFD and WD29 reviewed the project for conformance with the LCP. As discussed herein, based on submitted reports, project plans, visual analysis and site investigation, the project, as conditioned, was found to conform to the LCP in that it meets all applicable MMHS Specific Plan development standards. The build-out of Phases 2, 3a, and 4a achieves LIP Sections 1.2(D) and (G) (guides future growth and development), LIP Section 1.2(F) (promotes public health, safety, and general welfare) and LIP Section 1.2(K) (assures adequate public uses, facilities, and improvements).

Finding 2. If the project is located between the first public road and the sea, that the project is in conformity to the public access and recreation policies of Chapter 3 of the Coastal Act of 1976 (commencing with Sections 30200 of the Public Resources Code).

The project is not located between the first public road and the sea. There are no known or LCP-designated planned trails onsite. Therefore, no potential project-related or cumulative impact on public access is anticipated to result from the project. The project conforms to the public access and recreation policies of Chapter 3 of the Coastal Act of 1976 (commencing with Section 30200 of the Public Resources Code).

Finding 3. The project is the least environmentally damaging alternative.

There is no evidence that an alternative project would substantially lessen any potential significant adverse impacts of the development on the environment. The proposed project

is within the scope of the adopted EIR for the Specific Plan and does not require further environmental analysis. Phase 2, 3a, and 4a development of the Specific Plan were analyzed for design and site location/orientation within the existing developed area. However, the proposed area and design were determined to be the most suitable based on the operational and functional characteristics of the components on an active combined high school and middle school campus. Additionally, the location would be within the already disturbed and developed larger site area and would be integrated into the site's topography so that all development is clustered within an already developed campus. This ensures that the extent of development needed is minimized and that any existing public views of the ocean from the vicinity would remain and not be impeded. As such, the project has been determined to be the least environmentally damaging alternative.

Finding 4. If the project is located in or adjacent to an environmentally sensitive habitat area pursuant to Chapter 4 of the Malibu LIP (ESHA Overlay), that the project conforms with the recommendations of the Environmental Review Board, or if it does not conform with the recommendations, findings explaining why it is not feasible to take the recommended action.

The project site includes limited natural vegetation consisting primarily of grasses, ivy, brush, shrubs, and scattered trees, with some patches of disturbed and isolated coastal sage scrub in and around the main sports field (outside of the Phase 2, 3a, and 4a areas, including the location for the on-grade solar installation). A blueline stream enters the MMHS campus in the northwest and flows under the property in a drainage pipe from Clover Heights Avenue to the west/southwest property line where it daylights into a natural streambed. Drainage from the MMHS campus flows overland and along parking lots and driveways in a southerly direction to Morning View Drive, where it collects into existing storm drains. The Phase 2, 3a, and 4a development areas are well outside of the natural vegetation area, stream, and stream setback. Development is proposed approximately 125 feet at its closest point to ESHA and existing MMHS campus buildings serving the high school exist between the stream ESHA and proposed development area. Furthermore, Phases 2, 3a, and 4a components would be located within a previously disturbed and developed area of the MMHS campus. Utilization of the sloped area to the east of the middle school for the proposed on-grade solar installation is devoid of any sensitive habitat and would not result in any impacts to vegetation ESHA on or adjacent to the project site. Accordingly, the City Biologist determined on November 25, 2025 that review by the Environmental Review Board (ERB) is not required for the project.

B. Site Plan Review – Construction in Excess of 18 Feet in Height [LIP Section 13.27]

LIP Section 3.4.7.B.1 requires an SPR for height of structures over 18 feet, not to exceed 36 feet from finished grade as allowed in the Specific Plan for Building D. Additional components such as chimneys, rooftop antennas, and light standards may extend to 40 feet. Per the Specific Plan, all heights are measured from finished grade. As proposed,

the components of Building D are split into three buildings with the maximum heights provided as follows: Building D Gym: 35 feet (rooftop solar <40 feet), Building D MS HUB: 17 feet, Building D Canopy: 21 feet, 7 inches, and Building D MDF: 13 feet, 4 inches. LIP Section 13.27.5(A) requires that the City make four findings in consideration and approval of an SPR. Four additional findings are required pursuant to MMC Section 17.62.040(D) when a project exceeds 18 feet. Based on the foregoing evidence contained in the record, the required findings for SPR No. 25-039 are made as follows:

Finding 1. The project is consistent with policies and provisions of the Malibu LCP.

The Planning Division, City Biologist, City Environmental Health Administrator, City Public Works Department, City geotechnical consultant reviewers, WD29, and the LACFD reviewed the project for conformance with the LCP and found it to be consistent with the LCP, inclusive of the SPR.

Finding 2. The project does not adversely affect neighborhood character.

In October SMMUSD submitted a memorandum to the Community Development Director requesting that the Story Poles required per the Specific Plan be waived. After consideration and direction from staff, the request was modified to the use of balloons in lieu of Story Poles. Consistent with previous modifications to use balloons and to depict the proposed massing and bulk due to site constraints with existing site development and the fact that the campus is active with students and staff creating a potential hazard, the Community Development Director approved the use of balloons on November 10, 2025. This alternative to story poles was installed on December 19, 2025. Staff visited the project site on December 22, 2025, photo-documented the story pole balloons, and evaluated the project for conformance with City codes. (Attachment 5 – Modified Story Pole – Balloon Photos) The proposed Phase 2 buildings to replace existing buildings on site is consistent with the existing MMHS campus and surrounding developed neighborhoods as the proposed replacement structures are consistent with the Specific Plan and neighborhood properties in the vicinity will not be affected by the institutional development on the neighborhood character. The proposed placement of the new structures central to the larger campus and utilizing the angulating topography will result in a seamless integration into the site and will contribute to a decrease in building profile when viewed from offsite.

The proposed FAR of Phase 2, 3a, and 4a of .007 along with Phase 1 improvements would total 0.108 which does not exceed the maximum allowable FAR of 0.15 and has a design consistent with and compatible to the MMHS campus in regard to bulk and massing, and is consistent with the campus character envisioned in the Specific Plan. Based on the existing development pattern of the campus, the proposed project is expected to blend with the surrounding built environment. Therefore, the project will not adversely affect neighborhood character.

Finding 3. The project provides maximum feasible protection to significant public views as required by Chapter 6 of the Malibu LIP.

Staff visited the subject parcel after story pole balloons were installed. Based on staff's site visit, it was determined that the proposed Phase 2 structures would not be visible from public viewing areas as defined in the LIP and are appropriately embedded into the existing campus. Accordingly, the project is not expected to have significant impacts to scenic vistas and provides the maximum feasible protection to significant public views as required by LIP Chapter 6.

Finding 4. The proposed project complies with all applicable requirements of State and local law.

The project complies with all applicable requirements of the LCP. The Planning Division, City Biologist, City geotechnical consultant reviewers, City Environmental Health Administrator, City Public Works Department, along with the LACFD and WD29 reviewed the project for conformance with the LCP and it was found to be in conformance. The proposed project is regulated by the Division of State Architect-Structural Safety provisions within the current California Building Code (CCR Title 24, Part 2). Building plan check review and building permit issuance are not within the City's purview. Construction of the proposed improvements will comply with all building code requirements and will incorporate all recommendations from the Division of State Architect-Structural Safety.

Finding 5. The project is compatible with other development in the adjacent area in relation to size, bulk, and height.

The proposed two-story 35 foot tall Middle School Gym building D1 along with the single-story 17 foot tall Middle School Hub building D designed with two freestanding buildings connected via a 21 foot 7 inch tall steel canopy over the common area, are sited in the middle of the campus and utilize the existing terraced area to blend the proposed development into the larger school site. In addition, the proposed lower profile modern designed buildings bulk and massing would be screened by existing buildings on site as seen from off-site. The visual analysis provided by SMMUSD (Attachment 3 - MMHS Visual Analysis) indicate that although the proposed building would increase bulk and massing to this part of the campus, the development would be compatible with the existing development pattern in the area and consistent with the specific plan.

Finding 6. The portion of the project that is in excess of 18 feet in height does not obstruct visually impressive scenes of the Pacific Ocean, offshore islands, Santa Monica Mountains, canyons, valleys or ravines from the main viewing area of any affected principal residence as defined in MMC Section 17.40.040(A)(17).

Based on the visual impact analysis (aerial photographs, site visits and story pole balloon placement), staff has determined that the portions of the project above 18 feet in height

are not expected to obstruct visually impressive scenes of the Pacific Ocean, off-shore islands, Santa Monica Mountains, canyons, valleys, or ravines from the main viewing area of any affected principal residence as defined in MMC Section 17.40.040(A)(17). No nearby property owners have requested a primary view determination in response to the notice of application or story pole balloon installation. In addition, primary view determinations within the area were reviewed and are not expected to be impacted by the proposed development.

Finding 7. The project is consistent with the City's general plan, local coastal program, municipal code, and city standards.

The proposed project is consistent with the LCP in that the property is located in an area that has been identified and zoned for institutional uses, and in a location with a Specific Plan that was recently certified in 2023 by the CCC for inclusion in the City's LCP. The proposed project is also consistent with the City's General Plan. The goals and policies of the General Plan intend to maintain rural residential character in this area, and all components of the project are consistent with these goals. The proposed project is consistent with the LCP in that it conforms to the institutional land use designation and all applicable development standards contained within the Specific Plan inclusive of the SPR. In addition, proposed exterior lighting for the Middle School Hub and Middle School Gym would consist of low-intensity, full cut-off shielded light fixtures that maintain safe light levels while avoiding off-site lighting and night sky pollution, as required by the Specific Plan and the City of Malibu Dark Sky Ordinance.

Finding 8: The project does not affect solar access, as defined by staff.

Based on the visual impact analysis (aerial photographs, site visits and alternative story pole balloon placement), staff has determined that the portions of the proposed project in excess of 18 feet in height, coupled with the location central to the larger 49.6 acre site would not impact solar access to any properties off-site.

Finding 9: The project will not have a significant adverse impact on natural resources and makes suitable provisions for the preservation of natural hydrology, native plant materials, wooded areas, visually significant rock outcroppings, rough terrain, coastal bluffs and similar natural features.

The proposed Phase 2, 3a, and 4a project is located within the central portion of the MMHS campus in an area previously developed with temporary and permanent structures and the and demolition of existing buildings and construction of a new Middle School Gym, HUB, and MDF buildings along with the fact that no new development is planned within 125 feet of the ESHA on site, the project will not have a significant adverse impact on natural resources.

C. Environmentally Sensitive Habitat Area Overlay (LIP Chapter 4)

A biological assessment was prepared for the MMHS SP Phase 1 project by Psomas dated October 2021, due to the proximity and location of Phase 1 within and adjacent to ESHA. The Phase 2 development components were determined at that time to be substantially setback from the designated ESHA on site and all activities to construct Phases 2, 3a, and 4a would be over 627 feet away from vegetated ESHA and 125 feet from stream ESHA. Development would not encroach into any ESHA or the required 100-foot buffer. Therefore, the findings of LIP Chapter 4 are not applicable.

D. Native Tree Protection (LIP Chapter 5)

The provisions of the Native Tree Protection Chapter apply to those areas containing one or more native Oak, California Walnut, Western Sycamore, Alder or Toyon trees that have at least one trunk measuring six inches or more in diameter, or a combination of any two trunks measuring a total of eight inches or more in diameter, measured at 54 inches from the ground.

According to the Native Tree Report prepared for the Specific Plan area (Psomas 2021), the MMHS campus contains several native trees that require protection by the LCP's Native Tree Protection Ordinance. However, no protected trees are present in the Phase 2, 3a, and 4a project area. Nonetheless, the project has been conditioned to require the submittal of a construction management plan to ensure construction activities and staging avoid encroachment into the protected zones of protected trees. Therefore, the findings of LIP Chapter 5 are not applicable.

E. Scenic, Visual and Hillside Resource Protection (LIP Chapter 6)

The Scenic, Visual and Hillside Resource Protection Chapter governs those CDP applications concerning any parcel of land that is located along, within, provides views to or is visible from any scenic area, scenic road or public viewing area. Pursuant to LIP Section 6.4(A), written findings of fact, analysis and conclusions addressing scenic or visual resources must be included in support of all approvals, denials or conditional approvals of development located on a site or in an area where it is determined that the proposed project causes the potential to create adverse impacts upon scenic areas from or along scenic roads and public viewing areas. Staff analyzed potential view impacts associated with Phases 2, 3a, and 4a of the Specific Plan area via submitted view analysis photo documentation overlain with proposed and existing development on the MMHS site along with site visits and made the following determination. Phases 2, 3a, and 4a project components are all within a previously developed area and coupled with the topographic characteristics of the site, the proposed new structures are not anticipated to create visual impacts to visual resources. In addition, an alternative to story pole implementation utilizing balloons to establish the massing and height of the proposed development were

installed and staff further determined that no impacts to visual resources would occur. Therefore, the findings of LIP Chapter 7 are not applicable.

F. Transfer of Development Credit (LIP Chapter 7)

The project does not include a land division or multi-family development. Therefore, the findings of LIP Chapter 7 are not applicable.

G. Hazards (LIP Chapter 9)

Pursuant to LIP Section 9.3, written findings of fact, analysis and conclusions addressing geologic, flood and fire hazards, structural integrity or other potential hazards listed in LIP Sections 9.2(A)(1-7) must be included in support of all approvals, denials or conditional approvals of development located on a site or in an area where it is determined that the project causes the potential to create adverse impacts upon site stability or structural integrity.

The proposed development has been analyzed for the hazards listed in LIP Chapter 9 by the City Planning Division, City Biologist, City Environmental Health Administrator, City geotechnical consultant reviewers, City Public Works Department, the LACFD, and WD29. The geotechnical review conducted by the City for Phases 2, 3a, and 4a was for the planning-stage only to determine LCP conformance. The proposed project is regulated by the Division of State Architect-Structural Safety provisions within the current California Building Code (CCR Title 24, Part 2). Building plan check review and building permit issuance are not within the City's purview. The required findings are made as follows:

Finding 1. The project, as proposed will neither be subject to nor increase instability of the site or structural integrity from geologic, flood, or fire hazards due to project design, location on the site or other reasons.

A geotechnical report, OWTS design report, and civil plans were reviewed by the City's consultants from a geotechnical perspective. These reports are on file at City Hall. The reports evaluate site-specific conditions and recommendations are provided to address any pertinent issues. Potential hazards analyzed include geologic, seismic and fault rupture, liquefaction, landslide, groundwater, tsunami, and flood and fire hazards. It has been determined that the project is not located in a hazard zone, except that the project site is located within an extreme fire hazard area. Based on review of the project plans and associated geotechnical reports by the City Environmental Health Administrator, City Public Works Department, City geotechnical consultant reviewers, and the LACFD, these specialists determined that adverse impacts to the project site related to the proposed development are not expected. The proposed project will neither be subject to nor increase the instability from geologic, flood, or fire hazards. In summary, the proposed development is suitable for the intended use provided that the certified engineering geologist and/or geotechnical engineer's recommendations and governing agency's building codes are

followed. As such, the proposed project will not increase instability of the site or structural integrity from geologic, flood, or any other hazards.

Fire Hazard

The entire City of Malibu is designated as a Very High Fire Hazard Severity Zone, a zone defined by a more destructive behavior of fire and a greater probability of flames and embers threatening buildings. The subject property is currently subject to wildfire hazards. The scope of work proposed as part of this application is not expected to have an adverse impact on wildfire hazards. The proposed development may actually decrease the site's susceptibility to wildfire through compliance with fuel modification requirements and the use of appropriate building materials will be utilized during construction.

The City is served by the LACFD, as well as the California Department of Forestry, if needed. In the event of major fires, the County has "mutual aid agreements" with cities and counties throughout the State so that additional personnel and firefighting equipment can augment the LACFD. Conditions of approval have been included in the resolution to require compliance with all LACFD development standards. As such, the proposed project, as designed, constructed, and conditioned, will not be subject to nor increase the instability of the site or structural integrity involving wildfire hazards.

Finding 2. The project, as conditioned, will not have significant adverse impacts on site stability or structural integrity from geologic, flood or fire hazards due to required project modifications, landscaping or other conditions.

As stated in Finding 1, the project, as designed, conditioned and approved by the applicable departments and agencies, will not have any significant adverse impacts on the site stability or structural integrity from geologic or flood hazards due to project modifications, landscaping or other conditions.

Finding 3. The project, as proposed or as conditioned, is the least environmentally damaging alternative.

As previously stated in Section A, Finding 3, the project, as designed and conditioned, is the least environmentally damaging alternative.

Finding 4. There are no alternatives to development that would avoid or substantially lessen impacts on site stability or structural integrity.

The proposed development has been analyzed for the hazards listed in LIP Chapter 9 by the Planning Division, City Biologist, City geotechnical consultant reviewers, and the City Environmental Health Administrator. It has been determined that the project does not impact site stability or structural integrity. As previously discussed in Section A, Finding 3,

there are no feasible alternatives to development that would avoid or substantially lessen impacts on site stability or structural integrity beyond the proposed project.

Finding 5. Development in a specific location on the site may have adverse impacts but will eliminate, minimize or otherwise contribute to conformance to sensitive resource protection policies contained in the certified Malibu LCP.

As discussed in Section A, Finding 3, the project, as designed and conditioned, is the least environmentally damaging alternative and no adverse impacts to sensitive resources are anticipated.

H. Shoreline and Bluff Development (LIP Chapter 10)

The project site is not located on or along the shoreline, a coastal bluff or bluff top fronting the shoreline. Therefore, the findings of LIP Chapter 10 are not applicable.

I. Public Access (LIP Chapter 12)

LIP Section 12.4 requires public access for lateral, bluff-top, and vertical access near the ocean, trails, and recreational access for the following cases:

A. New development on any parcel or location specifically identified in the LUP or in the LCP zoning districts as appropriate for or containing a historically used or suitable public access trail or pathway.
B. New development between the nearest public roadway and the sea.
C. New development on any site where there is substantial evidence of a public right of access to or along the sea or public tidelands, a blufftop trail or an inland trail acquired through use or a public right of access through legislative authorization.
D. New development on any site where a trail, bluff top access or other recreational access is necessary to mitigate impacts of the development on public access where there is no feasible, less environmentally damaging, project alternative that would avoid impacts to public access.

As described herein, the subject property and the project do not meet any of these criteria in that no trails are identified on the LCP Park Lands Map on or adjacent to the property, and the property is not located between the first public road and the sea, or on a bluff or near a recreational area. The requirement for public access in LIP Section 12.4 does not apply and further findings are not required.

J. Land Division (LIP Chapter 15)

This project does not include the division of land. Therefore, the findings of LIP Chapter 15 are not applicable.

K. Demolition Permit (MMC Section 17.70)

MMC Section 17.70 states that a demolition permit shall be required for the demolition of any building or structure, or for a substantial remodel, except for a demolition initiated by the City and ordered or authorized under the provisions of the building code. The proposed project includes the demolition of existing classroom Buildings K and I, seven portable classrooms, one portable restroom, and associated development. The findings for DP No. 25-027 are made as follows.

Finding 1. The demolition permit is conditioned to assure that it will be conducted in a manner that will not create significant adverse environmental impacts.

Conditions of approval included for this application ensure that the project will not create significant adverse environmental impacts.

Finding 2. A development plan has been approved or the requirement waived by the city.

A CDP application is being processed concurrently with DP No. 25-027. Therefore, approval of the demolition permit is subject to the approval of CDP No. 25-032.

ENVIRONMENTAL REVIEW: In accordance with CEQA and CEQA Guidelines Section 15051 (SCH No. 202008350), the Board adopted a Final EIR for the MMHS Campus Specific Plan on January 26, 2022, which included all phases of development including the scope of work proposed in CDP No. 25-032. The EIR identified potential significant environmental impacts from the MMHS Campus Specific Plan but found that mitigation measures would reduce most impacts to less-than-significant levels. An MMRP was adopted for the project. The EIR also identified significant and unavoidable impacts on aesthetics (light and glare) and noise (sensitive receptors). The Board weighed the benefits of the project against the unavoidable impacts and determined that the benefits outweigh them. An SOC was adopted as part of the Final EIR. The Board, acting as the lead agency for the proposed project, consulted with responsible agencies, including the City, during the preparation of the EIR. On July 11, 2022, the City Council adopted Resolution No. 22-32 certifying the adequacy of the Final EIR. The Final EIR, MMRP, SOC, and accompanying materials are available on the City's website at: https://www.malibucity.org/397/Malibu-Middle-High-School-Improvements. As the decision-making body for CDP No. 25-032, the Planning Commission must review and consider the Final EIR before acting upon or approving the proposed Project.

The proposed scope of development was vetted for compliance with the Final EIR by the District, as lead agency, as part of its ongoing implementation of phase MMHS development. The District provided an overview of the environmental consistency it conducted (Attachment 6) wherein it was found that the proposed scope is within the parameters of the Final EIR as adopted by the Board on January 26, 2022. Pursuant to CEQA Guidelines Section, the District determined that no subsequent EIR was required

because the circumstances under which the scope of development will be undertaken would not substantially change such that new or more severe impacts would occur with implementing the proposed scope of development. Additionally, the District determined that no new initial study would be required per CEQA Guidelines section 15168(c)(1) because the scope of development would not have effects that were not otherwise examined in the Final EIR.

Pursuant to CEQA Guidelines Section 15162 and 15163, and based on the review of the entire record, including without limitation, the Final EIR, the Community Development Director finds that the proposed Project does not require further environmental review as: 1) no substantial changes are proposed to the Project and no substantial changes have occurred that require major revisions to the Final EIR due to the involvement of new significant environmental effects or an increase in severity of previously identified significant effects; and 2) no new information of substantial important has come to light that (a) shows the Project will have one or more significant effects not discussed in the Final EIR, (b) identifies significant impacts would not be more severe than those analyzed in the Final EIR, (c) shows that mitigation measures or alternatives are now feasible that were identified as infeasible and those mitigation measures or alternatives would reduce significant impacts, and (d) no changes or mitigation measures or alternatives have been identified or required. Pursuant to CEQA Guidelines Sections 15050(c), 15162(b), and 15163, the Community Development Director finds and recommends that no further environmental analysis or environmental documentation is necessary. Accordingly, the proposed Project is merely a step in furtherance of the MMHS Campus Specific Plan for which environmental review was performed and adopted by the Board, as lead agency, and further found that no supplemental or subsequent CEQA has been triggered for the proposed Project requiring additional environmental review.

PUBLIC NOTICE: Staff published a Notice of Public Hearing in a newspaper of general circulation within the City of Malibu on December 25, 2025, and mailed the notice to all property owners and occupants within a 500-foot radius of both subject properties (Attachment 7 – Public Hearing Notice).

CORRESPONDENCE: To date, the Planning Division has not received public comments regarding this application.

SUMMARY: The required findings can be made that the proposed project complies with the LCP including the Specific Plan and MMC. Further, the Planning Division's findings of fact are supported by substantial evidence in the record. Based on the analysis contained in this report and the accompanying resolution, the Planning Division recommends approval of this project, subject to the conditions of approval contained in Section 5 (Conditions of Approval) of Planning Commission Resolution No. 26-04. The proposed project has been reviewed and conditionally approved for conformance with the LCP by the Planning Division and appropriate City and County departments.

ATTACHMENTS:

1. Planning Commission Resolution No. 26-04, including Exhibit A (MMRP)
2. Project Plans
3. Visual Analysis
4. Department Review Sheets
5. Modified Story Pole - Balloon Photos
6. District CEQA Determination
7. Public Hearing Notice

CITY OF MALIBU PLANNING COMMISSION
RESOLUTION NO. 26-04

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MALIBU CERTIFYING THAT THE PROJECT IS CONSISTENT WITH THE FINAL ENVIRONMENTAL IMPACT REPORT (STATE CLEARINGHOUSE NO. 202008350), THE MITIGATION MONITORING AND REPORTING PROGRAM, AND THE STATEMENT OF OVERRIDING CONSIDERATIONS ADOPTED BY THE SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT (SMMUSD) BOARD OF EDUCATION ON JANUARY 26, 2022 AND CERTIFIED BY THE MALIBU CITY COUNCIL ON JULY 11, 2022 IN RESOLUTION NO. 22-32, AND APPROVING COASTAL DEVELOPMENT PERMIT NO. 25-032, SITE PLAN REVIEW NO. 25-039, AND DEMOLITION PERMIT NO. 25-027 TO IMPLEMENT THE MALIBU MIDDLE AND HIGH SCHOOL (MMHS) CAMPUS SPECIFIC PLAN (PHASES 2, 3A, AND 4A) WITH THE CONSTRUCTION OF A NEW TWO-STORY 18,911 SQUARE-FOOT MIDDLE SCHOOL GYM (BUILDING D) AND OUTDOOR SPORTS COURTS, ONE-STORY 9,243 SQUARE-FOOT MIDDLE SCHOOL STUDENT ACTIVITY, FOOD SERVICE, AND SPECIAL EDUCATION BUILDING WITH CANOPY (BUILDING D/I), ONE-STORY 333 SQUARE FOOT BROADCASTING/MEDIA ARTS BUILDING (BUILDING D), MIDDLE SCHOOL QUAD AND WALKWAYS, SITE IMPROVEMENTS, LANDSCAPING, ON-GRADE SOLAR INSTALLATION, GRADING, AND UNDERGROUND UTILITY WORK, INCLUDING A SITE PLAN REVIEW FOR A HEIGHT INCREASE OVER 18 FEET, NOT TO EXCEED 36 FEET AS ALLOWED IN THE MMHS SPECIFIC PLAN AND A DEMOLITION PERMIT FOR THE DEMOLITION OF EXISTING CLASSROOM BUILDINGS K AND I, SEVEN PORTABLE CLASSROOM BUILDINGS, AND ONE PORTABLE RESTROOM BUILDING LOCATED IN THE INSTITUTIONAL ZONE AND MMHS CAMPUS SPECIFIC PLAN OVERLAY DISTRICT AT 30215 MORNING VIEW DRIVE (APN 4469-017-901) (SMMUSD)

The Planning Commission of the City of Malibu does hereby find, order and resolve as follows:

SECTION 1. Recitals.

A. On August 5, 2025, the Santa Monica-Malibu Unified School District (SMMUSD) submitted an application for a Coastal Development Permit (CDP) No. 25-032, Site Plan Review (SPR) No. 25-039, and Demolition Permit (DP) No. 25-027 to allow for the development of Phases 2, 3a, and 4a of the Malibu Middle and High School (MMHS) Campus Specific Plan (Specific Plan) which includes the following components: the construction of a new two-story 18,911 square-foot (sf) middle school gym (Building D) and outdoor sports courts, one-story 9,243 sf middle school student activity, food service, and special education building with canopy (Building D/I), one-story 333 sf broadcasting/media arts building (Building D), middle school quad and walkways, site improvements, landscaping, on-grade solar installation, grading, and underground utility work, including a site plan review for a height increase over 18 feet, not to exceed 36 feet as allowed in the Specific Plan and a demolition permit for the demolition of existing classroom Buildings K and I, seven portable classroom buildings, and one portable restroom building on the MMHS campus. The application was routed to the City Biologist, City Environmental Health Administrator, City geotechnical consultant reviewers, the City Public Works Department, Los Angeles County Fire Department (LACFD), and Los Angeles County Waterworks District No. 29 (WD29) for review.

B. On November 23, 2025, a Notice of Coastal Development Permit Application (CDP) was posted on the subject property.

C. On December 15, 2025 the application was deemed complete.

D. On December 22, 2025, Planning Division staff conducted a site visit to inspect the installed story poles as modified with balloons and representing the location, height, and bulk of the proposed buildings.

E. On December 25, 2025, a Notice of Planning Commission Public Hearing was published in a newspaper of general circulation within the City of Malibu and was mailed to all property owners and occupants within a 500-foot radius of the subject property.

F. On January 20, 2026, the Planning Commission held a duly noticed public hearing on the subject application, reviewed and considered the staff report, reviewed and considered written reports, public testimony, and other information in the record.

SECTION 2. Environmental Review.

In accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15051 (SCH No. 202008350), the SMMUSD Board of Education (Board), as Lead Agency, adopted a Final Environmental Impact Report (EIR) for the Specific Plan on January 26, 2022, which included all phases of development including the scope of work proposed in CDP No. 25-032. The Final EIR identified potential significant environmental impacts from the Specific Plan but found that mitigation measures would reduce most impacts to less-than-significant levels. A Mitigation Monitoring and Reporting Program (MMRP) was adopted for the project. The Final EIR also identified significant and unavoidable impacts on aesthetics (light and glare) and noise (sensitive receptors). The Board weighed the benefits of the project against the unavoidable impacts and determined that the benefits outweigh them. A Statement of Overriding Considerations (SOC) was adopted as part of the Final EIR. The Board, acting as the lead agency for the proposed project, consulted with responsible agencies, including the City, during the preparation of the EIR. On July 11, 2022, the City Council adopted Resolution No. 22-32 certifying the adequacy of the Final EIR. The Final EIR, MMRP, SOC, and accompanying materials are available on the City's website at: https://www.malibucity.org/397/Malibu-Middle-High-School-Improvements. As the decision-making body for CDP No. 25-032, the Planning Commission reviewed and considered the Final EIR before acting upon or approving the proposed Project.

The proposed scope of development was vetted for compliance with the Final EIR by the District, as lead agency, as part of its ongoing implementation of phase MMHS development. The District provided an overview of the environmental consistency it conducted (Attachment 6) wherein it was found that the proposed scope is within the parameters of the Final EIR as adopted by the Board on January 26, 2022. Pursuant to CEQA Guidelines Section, the District determined that no subsequent EIR was required because the circumstances under which the scope of development will be undertaken would not substantially change such that new or more severe impacts would occur with implementing the proposed scope of development. Additionally, the District determined that no new initial study would be required per CEQA Guidelines section 15168(c)(1) because the scope of development would not have effects that were not otherwise examined in the Final EIR.

Pursuant to CEQA Guidelines Section 15162 and 15163, and based on the review of the entire record, including without limitation, the Final EIR, the Planning Commission finds that the proposed Project does not require further environmental review as: 1) no substantial changes are proposed to the Project and no substantial changes have occurred that require major revisions to the Final EIR due to the involvement of new significant environmental effects or an increase in severity of previously identified significant effects; and 2) no new information of substantial important has come to light that (a) shows the Project will have one or more significant effects not discussed in the Final EIR, (b) identifies significant impacts would not be more severe than those analyzed in the Final EIR, (c) shows that mitigation measures or alternatives are now feasible that were identified as infeasible and those mitigation measures or alternatives would reduce significant impacts, and (d) no changes or mitigation measures or alternatives have been identified or required. Pursuant to CEQA Guidelines Sections 15050(c), 15162(b), and 15163, the Planning Commission finds and recommends that no further environmental analysis or environmental documentation is necessary. Accordingly, the proposed Project is merely a step in furtherance of the Specific Plan for which environmental review was performed and adopted by the Board, as lead agency, and further found that no supplemental or subsequent CEQA has been triggered for the proposed Project requiring additional environmental review.

SECTION 3. Coastal Development Permit Findings.

Based on evidence contained within the record, including the agenda report for the project and hearing on January 20, 2026, and pursuant to Local Coastal Program (LCP) Local Implementation Plan (LIP) including LIP Sections 13.7(B) and 13.9, and Malibu Municipal Code (MMC), the Planning Commission hereby adopts the findings in the agenda report and approves CDP No. 25-032, SPR No. 25-039, and DP No. 25-027 to allow the construction of a new two-story 18,911 sf middle school gym (Building D) and outdoor sports courts, one-story 9,243 sf middle school student activity, food service, and special education building with canopy (Building D/I), one-story 333 sf broadcasting/media arts building (Building D), middle school quad and walkways, site improvements, landscaping, on-grade solar installation, grading, and underground utility work, including an SPR for a height increase over 18 feet, not to exceed 36 feet as allowed in the Specific Plan and a DP for the demolition of existing classroom Buildings K and I, seven portable classroom buildings, and one portable restroom building on the MMHS campus.

The project is consistent with the LCP's zoning, grading, cultural resources, water quality, and wastewater treatment system standards requirements. With the inclusion of the SPR, the project, as conditioned, has been determined to be consistent with all applicable LCP and MMC codes, standards, goals, and policies. The required findings are made herein.

A. General Coastal Development Permit (LIP Chapter 13)

1. The project is located completely within the Specific Plan area. The Planning Division, City Biologist, City geotechnical consultant reviewers, City Environmental Health Administrator, City Public Works Department, along with the LACFD and WD29 reviewed the project for conformance with the LCP. As discussed herein, based on submitted reports, project plans, visual analysis and site investigation, the project, as conditioned, was found to conform to the LCP in that it meets all applicable MMHS Specific Plan development standards. The build-out of Phases 2, 3a, and 4a achieves LIP Sections 1.2(D) and (G) (guides future growth and development), LIP Section 1.2(F) (promotes public health, safety, and general welfare) and LIP Section 1.2(K) (assures adequate public uses, facilities, and improvements).

2. The project is not located between the first public road and the sea. There are no known or LCP-designated planned trails onsite. Therefore, no potential project-related or cumulative impact on public access is anticipated to result from the project. The project conforms to the public access and recreation policies of Chapter 3 of the Coastal Act of 1976 (commencing with Section 30200 of the Public Resources Code).

3. There is no evidence that an alternative project would substantially lessen any potential significant adverse impacts of the development on the environment. The proposed project is within the scope of the adopted EIR for the Specific Plan and does not require further environmental analysis. Phase 2, 3a, and 4a development of the Specific Plan were analyzed for design and site location/orientation within the existing developed area. However, the proposed area and design were determined to be the most suitable based on the operational and functional characteristics of the components on an active combined high school and middle school campus. Additionally, the location would be within the already disturbed and developed larger site area and would be integrated into the site's topography so that all development is clustered within an already development campus. This ensures that the extent of development needed is minimized and that any existing public views of the ocean from the vicinity would remain and not be impeded. As such, the project has been determined to be the least environmentally damaging alternative.

4. The project site includes limited natural vegetation consisting primarily of grasses, ivy, brush, shrubs, and scattered trees, with some patches of disturbed and isolated coastal sage scrub in and around the main sports field (outside of the Phases 2, 3a, and 4a areas, including the location for the on-grade solar installation). A blueline stream enters the MMHS campus in the northwest and flows under the property in a drainage pipe from Clover Heights Avenue to the west/southwest property line where it daylights into a natural streambed. Drainage from the MMHS campus flows overland and along parking lots and driveways in a southerly direction to Morning View Drive, where it collects into existing storm drains. The Phase 2, 3a, and 4a development area are well outside of the natural vegetation area, stream, and stream setback area. Development is proposed approximately 125 feet at its closest point to ESHA and existing MMHS campus buildings serving the high school exist between the stream ESHA and proposed development area. Furthermore, Phases 2, 3a, and 4a components would be located within a previously disturbed and developed area of the MMHS campus. Utilization of the sloped area to the east of the middle school for the proposed on-grade solar installation is devoid of any sensitive habitat and would not result in any impacts to vegetation ESHA on or adjacent to the project site. Accordingly, the City Biologist determined on November 25, 2025 that review by the Environmental Review Board (ERB) is not required for the project.

B. Site Plan Review – Construction in Excess of 18 Feet in Height [LIP Section 13.27]

1. The Planning Division, City Biologist, City Environmental Health Administrator, City Public Works Department, City geotechnical consultant reviewers, WD29, and the LACFD reviewed the project for conformance with the LCP and was found to be consistent with the LCP, inclusive of the SPR.

2. In October SMMUSD submitted a memorandum to the Community Development Director requesting that the Story Poles required per the Specific Plan be waived. After consideration and direction from staff, the request was modified to the use of balloons in lieu of Story Poles. Consistent with previous modifications to use balloons and to depict the proposed massing and bulk due to site constraints with existing site development and the fact that the campus is active with students and staff creating a potential hazard, the Community Development Director approved the use of balloons on November 10, 2025. This alternative to story poles was installed on December 19, 2025. Staff visited the project site on December 22, 2025, photo-documented the story pole balloons, and evaluated the project for conformance with City codes. The proposed Phase 2 buildings to replace existing buildings on site is consistent with the existing MMHS campus and surrounding developed neighborhoods as the proposed replacement structures are consistent with the Specific Plan and neighborhood properties in the vicinity will not be affected by the institutional development on the neighborhood character. The proposed placement of the new structures central to the larger campus and utilizing the angulating topography will result in a seamless integration into the site and will contribute to a decrease in building profile when viewed from offsite.

The proposed FAR of Phase 2, 3a, and 4a of .007 along with Phase 1 improvements would total 0.108 which does not exceed the maximum allowable FAR of 0.15 and has a design consistent with and compatible to the MMHS campus in regard to bulk and massing, and is consistent with the campus character envisioned in the Specific Plan. Based on the existing development pattern of the campus, the proposed project is expected to blend with the surrounding built environment. Therefore, the project will not adversely affect neighborhood character.

3. Staff visited the subject parcel after story pole balloons were installed. Based on staff's site visit, it was determined that the proposed Phase 2 structures would not be visible from public viewing areas as defined in the LIP and are appropriately embedded into the existing campus. Accordingly, the project is not expected to have significant impacts to scenic vistas and provides the maximum feasible protection to significant public views as required by LIP Chapter 6.

4. The project complies with all applicable requirements of the LCP. The Planning Division, City Biologist, City geotechnical consultant reviewers, City Environmental Health Administrator, City Public Works Department, along with the LACFD and WD29 reviewed the project for conformance with the LCP it was found to be in conformance. The proposed project is regulated by the Division of State Architect-Structural Safety provisions within the current California Building Code (CCR Title 24, Part 2). Building plan check review and building permit issuance are not within the City's purview. Construction of the proposed improvements will comply with all building code requirements and will incorporate all recommendations from the Division of State Architect-Structural Safety.

5. The proposed two-story 35 foot tall Middle School Gym building D1 along with the single-story 17 foot tall Middle School Hub building D designed with two freestanding buildings connected via a 21 foot 7 inch tall steel canopy over the common area are sited in the middle of the campus and utilize the existing terraced area to blend the proposed development into the larger school site. In addition, the proposed lower profile modern designed buildings bulk and massing would be screened by existing buildings on site as seen from off-site. The visual analysis provided by SMMUSD indicate that although the proposed building would increase bulk and massing to this part of the campus, the development would be compatible with the existing development pattern in the area and consistent with the specific plan.

6. Based on the visual impact analysis (aerial photographs, site visits and story pole balloon placement), staff has determined that the portions of the project above 18 feet in height are not expected to obstruct visually impressive scenes of the Pacific Ocean, off-shore islands, Santa Monica Mountains, canyons, valleys, or ravines from the main viewing area of any affected principal residence as defined in MMC Section 17.40.040(A)(17). No nearby property owners have requested a primary view determination in response to the notice of application or story pole balloon installation. In addition, primary view determinations within the area were reviewed and are not expected to be impacted by the proposed development.

7. The proposed project is consistent with the LCP in that the property is located in an area that has been identified and zoned for institutional uses, and in a location with a Specific Plan that was recently certified in 2023 by the CCC for inclusion in the City's LCP. The proposed project is also consistent with the City's General Plan. The goals and policies of the General Plan intend to maintain rural residential character in this area, and all components of the project are consistent with these goals. The proposed project is consistent with the LCP in that it conforms to the institutional land use designation and all applicable development standards contained within the Specific Plan inclusive of the SPR. In addition, proposed exterior lighting for the Middle School Hub and Middle School Gym would consist of low-intensity, full cut-off shielded light fixtures that maintain safe light levels while avoiding off-site lighting and night sky pollution, as required by the Specific Plan and the City of Malibu Dark Sky Ordinance.

8. Based on the visual impact analysis (aerial photographs, site visits and alternative story pole balloon placement), staff has determined that the portions of the proposed project in excess of 18 feet in height, coupled with the location central to the larger 49.6 acre site would not impact solar access to any properties off-site.

9. The proposed Phase 2, 3a, and 4a project is located within the central portion of the MMHS campus in an area previously developed with temporary and permanent structures and the and demolition of existing buildings and construction of a new Middle School Gym, HUB, and MDF buildings along with the fact that no new development is planned within 125 feet of the ESHA on site, the project will not have a significant adverse impact on natural resources.

C. Environmentally Sensitive Habitat Area Overlay (LIP Chapter 4)

1. The proposed project is consistent with all applicable provisions of the LCP in that the development is proposed outside of Environmentally Sensitive Habitat Areas. This project has been reviewed and approved by the City Biologist.

D. Hazards (LIP Chapter 9)

1. The record demonstrates that the project, as proposed and conditioned, the development will not adversely affect stability of the site or structural integrity from geologic, flood, or fire hazards in that the project complies with the recommended use of a pile foundation, is consistent with the recommended finish floor elevation, and requires that the certified engineering geologist and/or geotechnical engineer's recommendations and governing agency's building codes are followed.

2. The project as designed, conditioned, and approved by the City Geologist does not have any significant adverse impacts on the site stability or structural integrity from geologic, hazards due to the project design.

3. As previously discussed, the project, as proposed and conditioned, is the least environmentally damaging alternative as no significant impacts are expected.

4. There are no alternatives that would avoid or substantially lessen impacts on site stability or structural integrity.

5. No adverse impacts to sensitive resources are expected as the project complies with all development standards.

E. Demolition Permit Findings (MMC Chapter 17.70)

1. Conditions of approval, including the recycling of demolished materials, have been included to ensure that the proposed project will not create significant adverse environmental impacts.

2. Approval of the demolition permit is subject to the approval of CDP No. 25-032**.**

SECTION 4. Planning Commission Action.

Based on the foregoing findings and evidence contained within the record, the Planning Commission hereby approves CDP No. 25-032, SPR No. 25-039, and DP No. 25-027, subject to the following conditions.

SECTION 5. Conditions of Approval.

1. The property owners, and their successors in interest, shall indemnify and defend the City of Malibu and its officers, employees and agents from and against all liability and costs relating to the City's actions concerning this project, including (without limitation) any award of litigation expenses in favor of any person or entity who seeks to challenge the validity of any of the City's actions or decisions in connection with this project. The City shall have the sole right to choose its counsel and property owners shall reimburse the City's expenses incurred in its defense of any lawsuit challenging the City's actions concerning this project.

2. Approval of this application is to allow for the project described herein. The scope of work approved includes:

   Phase 2 scope:

   a. Two-story, 18,911 sf middle school gym (Building D) and outdoor sports courts (two full courts and two half courts);
   b. One-story 9,243 sf middle school student activity and food service building with a centralized steel canopy (Building D), referred to as the MS HUB. This building also integrates a special education component that was anticipated for Phase 4 as part of planned Building I;
   c. One-story 333 sf broadcasting/media arts building, referred to as the Main Distribution Framework (MDF) building (Building D);

d. Middle school quad, walkways, stairways, and related site improvements;
e. Fire lane for building access;
f. Landscaping and fencing;
g. On-grade solar installation with related components;
h. Grading in the amount of 5,175 cubic yards (cy) of cut (including additional cut/fill grading from the Phase 3a scope, total approximate grading for the proposed scope of work is 8,340 cy of cut, 4,303 cy of fill, and 3,837 cy designated for export).
i. Underground utility work and connections to the wastewater treatment system.

Phase 3a scope:

j. Demolition of a 4,561 sf classroom building (Building I);
k. Demolition of seven 960 sf portable classrooms (6,720 sf total);
l. Demolition of one 480 sf portable restroom; and
m. Grading in the amount of approximately 3,165 cy cut and 4,303 cy fill (total grading reflected above in the Phase 2 scope).

Phase 4a scope:

n. Demolition of a 12,698-sf classroom building (Building K);
o. Construction of the special education component (Building I) as part of Phase 2 Building D.

Discretionary Requests:

a. SPR No. 25-039 for construction over 18 feet up to a maximum height, not to exceed 36 feet from finished grade as allowed in the Specific Plan for Building D. Additional components such as chimneys, rooftop antennas, and light standards may extend to 40 feet. As proposed, the components of Building D is split into three buildings with the maximum heights provided below. Per the Specific Plan, all heights are measured from finished grade.
    i. Building D Gym: 35 feet (rooftop solar <40 feet)
    ii. Building D MS HUB: 17 feet
    iii. Building D Canopy: 21 feet, 7 inches
    iv. Building D MDF: 13 feet, 4 inches

b. DP No. 25-027 for the demolition of existing classroom Buildings I (4,561 sf) and K (12,698 sf), seven 960 sf portable classroom buildings (6,720 sf), one 480 sf portable restroom, and associated site development.

3. Except as specifically changed by conditions of approval, the proposed development shall be constructed in substantial conformance with the approved scope of work, as described in Condition No. 2 and depicted on the architectural and grading plans on file with the Planning Division date stamped **October 7, 2025**. The proposed development shall further comply with all conditions of approval stipulated in this resolution and Department Review Sheets attached hereto. In the event project plans conflict with any condition of approval, the condition shall take precedence.

4. Pursuant to LIP Section 13.18.2, this permit and rights conferred in this approval shall not be effective until the property owner signs, notarizes and returns the Acceptance of Conditions Affidavit accepting the conditions of approval set forth herein. The applicant

shall file this form with the Planning Division prior to the issuance of any development permits.

5. The applicant shall digitally submit a complete set of plans to the Planning Division for consistency review and approval prior to plan check and again prior to the issuance of any building or development permits.

6. The CDP shall expire if the project has not commenced within three (3) years after issuance of the permit, unless a time extension has been granted. Extension of the permit may be granted by the approving authority for due cause. Extensions shall be requested in writing by the applicant or authorized agent prior to expiration of the three-year period and shall set forth the reasons for the request. In the event of an appeal, the CDP shall expire if the project has not commenced within three years from the date the appeal is decided by the decision-making body or withdrawn by the appellant.

7. Any questions of intent or interpretation of any condition of approval will be resolved by the Community Development Director upon written request of such interpretation.

8. All development shall conform to requirements of the City Biologist, City Environmental Health Administrator, City geotechnical consultant reviewers, City Public Works Department, Los Angeles County Waterworks District No. 29 and LACFD, as applicable. Notwithstanding this review, all required permits shall be secured.

9. Minor changes to the approved plans or the conditions of approval may be approved by the Community Development Director, provided such changes achieve substantially the same results and the project is still in compliance with the Specific Plan, MMC, and the LCP. Revised plans reflecting the minor changes and additional fees shall be required.

10. Pursuant to LIP Section 13.20, development pursuant to an approved CDP shall not commence until the CDP is effective. The CDP is not effective until all appeals have been exhausted.

11. The property owner must submit payment for all outstanding fees payable to the City prior to issuance of any building permit, including grading or demolition.

Site Specific Conditions – MMRP Compliance

12. The project shall comply with all recommended mitigation measures listed in the Mitigation Monitoring and Reporting Program (MMRP) associated with the Final EIR, attached hereto as Exhibit A.

13. Prior to the commencement of work, a construction management plan, including a traffic control plan and construction parking plan, shall be submitted for review and approval by the Public Works Department and the Planning Division. The dedicated parking location for construction workers is prohibited within the public right of way.

Cultural Resources

14. In the event that potentially important cultural resources are found in the course of geologic testing or during construction, work shall immediately cease until a qualified archaeologist can provide an evaluation of the nature and significance of the resources and until the Community Development Director can review this information. Thereafter, the procedures contained in LIP Chapter 11 and those in MMC Section 17.54.040(D)(4)(b) shall be followed.

15. If human bone is discovered during geologic testing or during construction, work shall immediately cease and the procedures described in Section 7050.5 of the California Health and Safety Code shall be followed. Section 7050.5 requires notification of the coroner. If the coroner determines that the remains are those of a Native American, the applicant shall notify the Native American Heritage Commission by phone within 24 hours. Following notification of the Native American Heritage Commission, the procedures described in Section 5097.94 and Section 5097.98 of the California Public Resources Code shall be followed.

Lighting

16. Exterior lighting must comply with the Dark Sky Ordinance and shall be minimized, shielded, or concealed and restricted to low intensity features, so that no light source is directly visible from public view. Permitted lighting shall conform to the following standards:
    a. Lighting for walkways shall be limited to fixtures that do not exceed two feet in height and are directed downward, and limited to 850 lumens (equivalent to a 60-watt incandescent bulb);
    b. Security lighting controlled by motion detectors may be attached to the structure provided it is directed downward and is limited to 850 lumens;
    c. Driveway lighting shall be limited to the minimum lighting necessary for safe vehicular use. The lighting shall be limited to 850 lumens;
    d. Lights at entrances as required by the Building Code shall be permitted provided that such lighting does not exceed 850 lumens;
    e. Site perimeter lighting shall be prohibited; and
    f. Outdoor decorative lighting for aesthetic purposes is prohibited.

17. No permanently installed lighting shall blink, flash, or be of unusually high intensity or brightness. Lighting levels on any nearby property from artificial light sources on the subject property(ies) shall not produce an illumination level greater than one foot-candle.

18. Night lighting from exterior and interior sources shall be minimized. All exterior lighting shall be low intensity and shielded directed downward and inward so there is no offsite glare or lighting of natural habitat areas.

19. Motion sensor lights shall be programmed to extinguish ten minutes after activation.

20. Three violations of the conditions by the same property owner will result in a requirement to permanently remove the outdoor light fixture(s) from the site.

Demolition/Solid Waste

21. Prior to demolition activities, the applicant shall receive Planning Division approval for compliance with conditions of approval.

22. The applicant/property owner shall contract with a City approved hauler to facilitate the recycling of all recoverable/recyclable material. Recoverable material shall include but shall not be limited to: asphalt, dirt and earthen material, lumber, concrete, glass, metals, and drywall.

23. Prior to the issuance of a building/demolition permit, an Affidavit and Certification to implement waste reduction and recycling shall be signed by the Owner or Contractor and submitted to the Environmental Sustainability Division. The Affidavit shall indicate the agreement of the applicant to divert at least 65 percent (in accordance with CalGreen) of all construction waste from the landfill.

24. Dust control measures must be in place after the demolition is complete.

25. The project developer shall utilize licensed subcontractors and ensure that all asbestos-containing materials and lead-based paints encountered during demolition activities are removed, transported, and disposed of in full compliance with all applicable federal, state and local regulations.

26. Upon completion of demolition activities, the applicant shall request a final inspection by the Building Safety Division and the Planning Division.

Construction

27. Prior to the commencement of work, the applicant shall submit a copy of their Construction Management Plan to the Planning Division. The Construction Management Plan shall include a dedicated parking location for construction workers and storage of construction material, not within the public right of way. Prior to permit issuance, the Construction Management Plan must be acceptable to the Community Development Director and, if applicable, to the Building Official and Public Works Director.

28. A construction staging plan shall be reviewed and approved by the Community Development Director prior to plan check submittal.

29. Construction hours shall be limited to Monday through Friday from 7:00 a.m. to 7:00 p.m. and Saturdays from 8:00 a.m. to 5:00 p.m. No construction activities shall be permitted on Sundays or City-designated holidays.

30. For the transportation of heavy construction equipment and/or material, which requires the use of oversized-transport vehicles on State highways, the applicant / property owner is required to obtain a transportation permit from the California Department of Transportation.

Biology/Landscaping

31. Prior to installation of any landscaping, the applicant shall obtain a plumbing permit for the proposed irrigation system and provide a copy to the City Biologist.

32. Prior to or at the time of a Planning final inspection, the property owner/applicant shall submit to the case planner a copy of the plumbing permit for the irrigation system installation that has been signed off by the permitting agency.

33. Prior to final Planning inspection or other final project sign off (as applicable), the applicant shall submit to the Community Development Director for review and approval a certificate of completion in accordance with the Landscape Water Conservation Ordinance (MMC 17.53). The certificate shall include the property owner's signed acceptance of responsibility for maintaining the landscaping and irrigation in accordance with the approved plans and MMC 17.53. (form attached)

34. Prior to Final Plan Check Approval, if your property is serviced by the Los Angeles County Waterworks District No. 29, please provide a landscape water use approval from that department. For approval contact:

    LA County Waterworks District 29, 23533 Civic Center Way, Malibu, CA 90265, Phone: (310) 317-0209

    Note: submit plans through EPIC-LA using the "Waterworks Division Landscape Water Efficiency Approval" application. This action may require several weeks. As such, the applicant should submit their approved landscape plans as soon as feasible in order to avoid a delay at plan check.

35. Vegetation forming a view impermeable condition (hedge), serving the same function as a fence or wall, occurring within the side or rear yard setback shall be maintained at or below six feet in height. View impermeable hedges occurring within the front yard setback serving the same function as a fence or wall shall be maintained at or below 42 inches in height. Three sequential violations of this condition will result in a requirement to permanently remove the vegetation from the site.

36. Vegetation shall be situated on the property so as not to obstruct the primary view from private property at any given time (given consideration of its future growth).

37. Invasive plant species, as determined by the City of Malibu, are prohibited.

38. No vegetation is permitted within 5 feet of any structure.

39. No non-native plant species shall be approved greater than 50 feet from a structure.

40. The landscape plan shall prohibit the use of building materials treated with toxic compounds such as creosote and copper arsenate.

41. Grading/excavation/vegetation removal scheduled between February 1 - September 15 will require nesting bird surveys by a qualified biologist prior to initiation of such activities. Surveys shall be completed no more than five days from proposed initiation of site preparation activities. Should active nests be identified, a buffer area no less than 150 feet (300 feet for raptors) shall be fenced off until it is determined by a qualified biologist that the nest is no longer active. A report discussing the results of nesting bird surveys shall be submitted to the City within two business days of completing the surveys.

42. Night lighting from exterior and interior sources shall be minimized. All exterior lighting shall be low intensity and shielded so it is directed downward and inward so that there is no offsite glare or lighting of natural habitat areas. Up-lighting is prohibited.

43. Except as permitted pursuant to the provisions in LUP policies 3.18 and 3.20, throughout the City of Malibu, development that involves the use of pesticides, including insecticides, herbicides, rodenticides or any other similar toxic chemical substances, shall be prohibited in cases where the application of such substances would have the potential to significantly degrade Environmentally Sensitive Habitat Areas or coastal water quality or harm wildlife. Herbicides may be used for the eradication of invasive plant species or habitat restoration, but only if the use of non-chemical methods for prevention and management such as physical, mechanical, cultural, and biological controls are infeasible. Herbicides shall be restricted to the least toxic product and method, and to the maximum extent feasible, shall be biodegradable, derived from natural sources, and used for a limited time.

44. Demolition shall be scheduled only during the dry season from April 1 through October 31. If it becomes necessary to conduct earthmoving activities from November 1 through March 31, a comprehensive erosion control plan shall be submitted to the City Biologist for approval prior to the issuance of a grading permit and implemented prior to initiation of vegetation removal and/or earthmoving activities.

45. Prior to issuing a Certificate of Occupancy, the City Biologist shall inspect the project site and determine that all Planning conditions to protect natural resources are in compliance with the approved plans.

Grading/Drainage/Hydrology (Public Works)

46. Clearing and grading during the rainy season (extending from November 1 to March 31) shall be prohibited for development LIP Section 17.3.1 that:
    - Is located within or adjacent to ESHA, or
    - Includes grading on slopes greater than 4:1, or
    - Approved grading for development that is located within or adjacent to ESHA or on slopes greater than 4:1 shall not be undertaken unless there is sufficient time to complete grading operations before the rainy season. If grading operations are not completed before the rainy season begins, grading shall be halted and temporary erosion control measures shall be put into place to minimize erosion until grading resumes after March 31, unless the City determines that completion of grading would be more protective of resources.

47. Exported soil from a site shall be taken to the County Landfill or to a site with an active grading permit and the ability to accept the material in compliance with the City's LIP Section 8.3. A note shall be placed on the project that addresses this condition.

48. A grading and drainage plan shall be approved containing the following information prior to the issuance of grading permits for the project.
- Public Works Department general notes;
- The existing and proposed square footage of impervious coverage on the property shall be shown on the grading plan (including separate areas for buildings, driveways, walkways, parking, sports courts and pool decks);
- The limits of land to be disturbed during project development shall be delineated on the grading plan and a total area shall be shown on the plan. Areas disturbed by grading equipment beyond the limits of grading, areas disturbed for the installation of the septic system, and areas disturbed for the installation of the detention system shall be included within the area delineated;
- The grading limits shall include the temporary cuts made for retaining walls, buttresses, and over excavations for fill slopes and shall be shown on the grading plan;
- If the property contains trees that are to be protected they shall be highlighted on the grading plan.
- If the property contains rare and endangered species as identified in the resources study the grading plan shall contain a prominent note identifying the areas to be protected (to be left undisturbed). Fencing of these areas shall be delineated on the grading plan if required by the City Biologist.
- Private storm drain systems shall be shown on the grading plan. Systems greater than 12-inch diameter shall also have a plan and profile for the system included with the grading plan.
- Public storm drain modifications shown on the grading plan shall be approved by the Public Works Department prior to the issuance of the grading permit.

49. The ocean between Latigo Point and the west City limits has been established by the State Water Resources Control Board as an Area of Special Biological Significance (ASBS) as part of the California Ocean Plan. This designation prohibits the discharge of any waste, including stormwater runoff, directly into the ASBS. The applicant shall provide a drainage system that accomplishes the following:
- Installation of BMPs that are designed to treat the potential pollutants in the stormwater runoff so that it does not alter the natural ocean water quality. These pollutants include trash, oil and grease, metals, bacteria, nutrients, pesticides, herbicides and sediment.
- Prohibits the discharge of trash.
- Only discharges from existing storm drain outfalls are allowed. No new outfalls will be allowed. Any proposed or new storm water discharged shall be routed to existing storm drain outfalls and shall not result in any new contribution of waste to the ASBS (i.e., no additional pollutant loading).
- Elimination of non-storm water discharges.

50. A Local Storm Water Pollution Prevention Plan (LSWPPP) shall be provided prior to issuance of grading/building permits. This plan shall include and Erosion and Sediment Control Plan (ESCP) that includes, but not limited to:

Erosion Controls Scheduling	Hydraulic Mulch

	Hydroseeding
	Soil Binders
	Straw Mulch
	Geotextiles and Mats
	Wood Mulching
Sediment Controls	Fiber Rolls
	Gravel Bag Berm
	Street Sweeping and/or Vacuum
	Storm Drain Inlet Protection
	Scheduling
	Entrance/Exit Tire Wash
Non-Storm Water Management	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
Waste Management	Material Delivery and Storage
	Spill Prevention and Control
	Solid Waste Management

All Best Management Practices (BMP) shall be in accordance to the latest version of the California Stormwater Quality Association (CASQA) BMP Handbook. Designated areas for the storage of construction materials, solid waste management, and portable toilets must not disrupt drainage patterns or subject the material to erosion by site runoff.

51. Prior to the approval of any permits and prior to the submittal of the required construction general permit document to the State Water Quality Control Board, the property owner / applicant shall submit the Public Works Department an Erosion and Sediment Control Plan (ESCP) for review. The ESCP shall contain appropriate site-specific construction site BMPs prepared and certified by a qualified SWPPP developer (QWD). All structural BMPs must be designed by a licensed California civil engineer. The ESCP must address the following elements:
    a. Methods to minimize the footprint of the disturbed area and to prevent soil compaction outside the disturbed area
    b. Methods used to protect native vegetation and trees
    c. Sediment / erosion control
    d. Controls to prevent tracking on- and off-site
    e. Non-stormwater control
    f. Material management (delivery and storage)
    g. Spill prevention and control
    h. Waste management
    i. Identification of site risk level as identified per the requirements in Appendix 1 of the Construction General Permit
    j. Landowner must sign the following statement on the ESCP:

    "I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that quality personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information

submitted is true, accurate and complete. I am aware that submitting false and/or inaccurate information, failing to properly and/or adequately implement the ESCP may result in revocation of grading and/or other permits or other sanctions provided by law."

52. A State Construction activity permit is required for this project due to the disturbance of more than one acre of land for development. Provide a copy of the letter from the State Water Quality Control Board containing the WDID number prior to the issuance of grading or building permits.

53. Waste Discharge Requirements: Monitoring and reporting parameters required under MRP No. CI-10846 of the Waste Discharge Requirements by the Regional Water Quality Control Board (RWQCB) shall be submitted to the Los Angeles RWQCB on the effective date of coverage under the General WDRs.

54. A Storm Water Management Plan (SWMP) is required for this project. Storm drainage improvements are required to mitigate increased runoff generated by property development. The applicant shall have the choice of one method specified within the City's Local Implementation Plan Section 17.3.2.B.2. The SWMP shall be supported by a hydrology and hydraulic study that identifies all areas contributory to the property and an analysis of the predevelopment and post development drainage of the site. The SWMP shall identify the Site design and Source control Best Management Practices (BMP's) that have been implemented in the design of the project (See LIP Chapter 17 Appendix A). The SWMP shall be reviewed and approved by the Public Works Department prior to the issuance of the grading/building permits for this project.

55. A Water Quality Mitigation Plan (WQMP) is required for this project. The WQMP shall be supported by a hydrology and hydraulic study that identifies all areas contributory to the property and an analysis of the predevelopment and post development drainage of the site. The WQMP shall meet all the requirements of the City's current Municipal Separate Stormwater Sewer System (MS4) permit. The following elements shall be included within the WQMP:
    - Site Design Best Management Practices (BMP's)
    - Source Control BMP's
    - Treatment Control BMP's that retains on-site the Stormwater Quality Design Volume (SWQDv). Or where it is technical infeasible to retain on-site, the project must biofiltrate 1.5 times the SWQDv that is not retained on-site.
    - Drainage Improvements
    - A plan for the maintenance and monitoring of the proposed treatment BMPs for the expected life of the structure.
    - A copy of the WQMP shall be filed against the property to provide constructive notice to future property owners of their obligation to maintain the water quality measures installed during construction prior to the issuance of grading or building permits.
    - The WQMP shall be submitted to Public Works Department and the fee applicable at time of submittal for the review of the WQMP shall be paid prior to the start of the technical review. The WQMP shall be approved prior to the Public Works Department's approval of the grading and drainage plan and or building plans. The Public Works Department will tentatively approve the plan and will keep a copy until the completion of the project. Once the project is completed, the applicant shall verify the installation

of the BMP's, make any revisions to the WQMP, and resubmit to the Public Works Department for approval. The original signed and notarized document shall be recorded with the County Recorder. A copy of the WQMP shall be submitted to the Public Works Department prior to the certificate of occupancy.

56. The developer's consulting engineer shall sign the final plans prior to the issuance of permits.

57. The Division of State Architect may approve grading during the rainy season to remediate hazardous geologic conditions that endanger public health and safety.

Geology

58. All recommendations of the consulting certified engineering geologist or geotechnical engineer and/or the City geotechnical staff shall be incorporated into all final design and construction including foundations, grading, sewage disposal, and drainage. Final plans shall be reviewed and approved by the City geotechnical staff prior to the issuance of a grading permit.

59. Final plans approved by the City geotechnical staff shall be in substantial conformance with the approved CDP relative to construction, grading, sewage disposal and drainage. Any substantial changes may require a CDP amendment or a new CDP.

60. Plans should be revised to clarify whether the proposed grading is engineered grading, and appropriate grading specifications should be added to the plans.

61. If the proposed grading is engineered grading, then the updated grading plan shall be reviewed, signed and stamped by the Project Geotechnical Consultant as verification that the plan incorporates their grading and erosion control recommendations prepared for the overall project.

62. If engineered fills are placed during grading, an as-built compaction report documenting the limits of fill and test results should be prepared by the Project Geotechnical Consultant. Add the following note to the grading plans. "Prior to final approval of the project, an as-built compaction report prepared by the Project Geotechnical Consultant must be submitted to the City for review. The report must include the results of all density tests, a dry density and optimum moisture maximum curve(s), and a map depicting the limits of fill, locations of all density tests, locations and elevations of all removal bottoms. Geologic conditions exposed during grading must be depicted on an as-built geologic map."

Prior to Final Sign-Off

63. The applicant shall request a final Planning Division inspection prior to final inspection by the State Building Official. In addition, prior to the final inspection by the Planning Division, the applicant shall submit a copy of the final project plans demonstrating State approval. A final approval shall not be issued until the Planning Division has determined that the project complies with this CDP.

64. Any construction trailer, storage equipment or similar temporary equipment not permitted as part of the approved scope of work shall be removed prior to final inspection and approval by the Planning Division.

Deed Restriction

65. The property owner is required to execute and record a deed restriction which shall indemnify and hold harmless the City, its officers, agents, and employees against any and all claims, demands, damages, costs and expenses of liability arising out of the acquisition, design, construction, operation, maintenance, existence or failure of the permitted project in an area where an extraordinary potential for damage or destruction from wildfire exists as an inherent risk to life and property. The property owner shall provide a copy of the recorded document to the Planning Division prior to final planning approval. If this deed restriction was already recorded as part of a prior permit condition, evidence of the recorded document shall be provided to the Planning Division to satisfy this condition.

Fixed Conditions

66. This CDP shall run with the land and bind all future owners of the property.

67. Violation of any of the conditions of this approval may be cause for revocation of this permit and termination of all rights granted there under.

SECTION 6. The Planning Commission shall certify the adoption of this resolution.

PASSED, APPROVED AND ADOPTED this 20th day of January 2026.

_____
ELIZABETH RIDDICK, Planning Commission Chair

ATTEST:

_____
REBECCA EVANS, Recording Secretary

LOCAL APPEAL Pursuant to Local Coastal Program Local Implementation Plan (LIP) Section 13.20.1 (Local Appeals) a decision made by the Planning Commission may be appealed to the City Council by an aggrieved person by written statement setting forth the grounds for appeal. An appeal shall be filed with the City Clerk within 10 days and shall be accompanied by an appeal form and filing fee, as specified by the City Council. Appeal forms may be found online at www.malibucity.org, in person at City Hall, or by calling (310) 456-2489, ext. 246.

Any action challenging the final decision of the City made as a result of the public hearing on this application must be filed within the time limits set forth in Section 1.12.010 of the MMC and Code of Civil Procedure. Any person wishing to challenge the above action in Superior Court may be limited to raising only those issues they or someone else raised at the public hearing, or in written correspondence delivered to the City of Malibu at or prior to the public hearing.

I CERTIFY THAT THE FOREGOING RESOLUTION NO. 26-04 was passed and adopted by the Planning Commission of the City of Malibu at the Regular meeting held on the 20th day of January 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
REBECCA EVANS, Recording Secretary

Exhibit A: Mitigation Monitoring and Reporting Program

January 2022 | Mitigation Monitoring and Reporting Program

State Clearinghouse No. 2020080350

MALIBU MIDDLE AND HIGH SCHOOL CAMPUS SPECIFIC PLAN PROJECT

for Santa Monica-Malibu Unified School District

Prepared for:

Santa Monica-Malibu Unified School District
Contact: Carey Upton, Chief Operations Officer
1651 16th Street
Santa Monica, California 90404
310.450.8338

Prepared by:

PlaceWorks
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PLACEWORKS

EXHIBIT A

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1. Introduction

1.1 PURPOSE OF MITIGATION MONITORING PROGRAM

This Mitigation Monitoring Program has been developed to provide a vehicle by which to monitor mitigation measures and conditions of approval outlined in the Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020080350. The Mitigation Monitoring Program has been prepared in conformance with Section 21081.6 of the Public Resources Code and Santa Monica-Malibu Unified School District (SMMUSD or District) Monitoring Requirements. Section 21081.6 states:

> (a) When making findings required by paragraph (1) of subdivision (a) of Section 21081 or when adopting a mitigated negative declaration pursuant to paragraph (2) of subdivision (c) of Section 21080, the following requirements shall apply:
>
> (1) The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead or responsible agency, prepare and submit a proposed reporting or monitoring program.
>
> (b) The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based. A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other public project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
>
> (c) Prior to the close of the public review period for a draft environmental impact report or mitigated negative declaration, a responsible agency, or a public agency

2. Mitigation Monitoring Process

> having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit the authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

The Mitigation Monitoring and Reporting Program (MMRP) will serve to document compliance with adopted/certified mitigation measures that are formulated to minimize impacts associated with development under the Malibu Middle and High School Campus Specific Plan Project (Proposed Project).

1.2 PROJECT LOCATION

The Santa Monica–Malibu Unified School District (SMMUSD or District) property is located at 30215 Morning View Drive (Assessor's Parcel Map Numbers (APN) 4469-017-900, 4469-018-900, 4469-018-901, 4469-018- 902, 4469-018-903, 4469-018-904, 4469-019-900, 4469-019-901, 4469-019-902) in the city of Malibu, Los Angeles County, California. The SMMUSD property consists of approximately 87 acres over nine parcels that includes the existing Malibu Equestrian Park in the eastern part of the property, the existing Malibu Middle and High School (MMHS) campus in the center, and the former Juan Cabrillo Elementary School (JCES) campus in the west (Project Site). The Project Site is situated on three of nine parcels: APN 4469-017-900 (40.06 acres), 4469-018-900 (9.4 acres), and 4459-018-904 (2.57 acres). The total acreage of the Project Site is 52.03 acres. The majority of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) would be developed within the existing MMHS campus and the former JCES campus, with one component of the Proposed Project in the Malibu Equestrian Park. The Project Site is set amid rolling hills, and its buildings and athletic fields are terraced into the hillside setting. The Project Site is in the City of Malibu Institutional (I) Zoning District that authorizes public educational institutions with a conditional use permit.

The Project Site is approximately 0.25-mile northeast of the Pacific Coast Highway (PCH) and Zuma Beach, and is bounded by Merritt Drive to the east, Via Cabrillo Street to the west, and Morning View Drive to the south. Single-family homes border the Project Site to the north.

2. Mitigation Monitoring Process

1.3 PROJECT SUMMARY

The Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus to create generally three separate and distinct areas: Middle School Core, High School Core, and shared facilities. Implementation of the Proposed Project would result in demolition of all 7 buildings and 9 portables on the former JCES campus and 6 buildings and associated amenities on the MMHS campus, totaling 154,904 square feet of demolition. The existing 25-meter lighted, outdoor pool complex would be demolished, and new 50- meter lighted, outdoor pool complex would be developed. The existing Building E and Buildings A/B at the Project Site would remain, and all other structures would be removed. No changes to the existing main football/track sports field, baseball, or softball fields would be made with the exception of minor improvements, including the development of new field houses and additional parking adjacent to the softball field. The Proposed Project would relocate the existing on-campus Bus Barn to a disturbed location on the adjacent, District-owned Malibu Equestrian Park. It would also include restoration in the campus-adjacent Environmentally Sensitive Habitat Area (ESHA) and establishment of a new trail along the ESHA that would connect to the existing, larger trail network around the campus. The Proposed Project would result in 32 classrooms, 8 labs and maker spaces, and support spaces—a total of 173,595 square feet of building space, providing the middle/high school campus with a total of 51 classrooms and 12 labs and a total of 222,425 square feet of building space.

1.1 ENVIRONMENTAL IMPACTS

1.1.1 Impacts Considered Less Than Significant

During preparation of the Initial Study, SMMUSD determined that four environmental impact categories would not be significantly affected by the proposed Malibu Middle and High School Campus Specific Plan Project. These categories are not discussed in detail in this DEIR.

- Agriculture and Forestry Resources
- Mineral Resources
- Population and Housing
- Tribal Cultural Resources

The DEIR determined that eight environmental factors would have less than significant impacts if the Proposed Project is implemented.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials

2. Mitigation Monitoring Process

- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Recreation
- Transportation
- Utilities and Service System
- Wildfire

1.1.2 Potentially Significant Adverse Impacts That Can Be Mitigated

The DEIR determined that seven environmental factors would have potentially significant impacts without mitigation.

- Air Quality
  - Construction-related pollutants
- Biological Resources
  - Impact to sensitive species
  - Loss of sensitive habitat types
  - Impact approximately 0.033 acres of USACE, RWQCB and CDFW Jurisdiction
  - Require compliance with the local tree ordinance
- Cultural Resources
  - Impacts on archaeological resources
- Geology and Soils
  - Hazards arising from off-site landslide, lateral spreading, subsidence, collapsible soils, or expansive soils
  - Impact to paleontological resources or unique geologic feature
- Noise
  - Permanent operation-related noise
- Transportation

2. Mitigation Monitoring Process

- Potentially hazardous conditions and potential conflicting uses

- Wildfire
  - Exacerbate wildfire risks
  - Exposure to risks, including downslope or downstream flooding or landslides

1.1.3 Unavoidable Significant Adverse Impacts

This DEIR identifies one significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the Proposed Project. Unavoidable adverse impacts may be considered significant on a project-specific, cumulatively significant, and/or potentially significant basis. If a project is determined to have a significant impact, the District must prepare a "statement of overriding considerations" before it can approve the project, where in the decision-making body must find and determine whether the benefits of the Proposed Project were balanced against the project's unavoidable significant environmental effects outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impact that was found in the DEIR to be significant and unavoidable is:

- Noise
  - Construction-generated noise

2. Monitoring and Reporting Requirements

2.1 MITIGATION MONITORING PROGRAM ORGANIZATION

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Pub. Resources Code, § 21081.6). The mitigation monitoring and reporting program is designed to ensure compliance with adopted mitigation measures during project implementation. For each mitigation measure recommended in the DEIR, specifications are made herein that identify the action required and the monitoring and reporting that must occur. In addition, a responsible agency is identified for verifying compliance with individual conditions of approval contained in the Mitigation Monitoring and Reporting Program. To effectively track and document the status of mitigation measures, a mitigation matrix has been prepared (see Table 2-1, *Mitigation Monitoring Requirements*).

2. Mitigation Monitoring Process

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Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
5.1 AESTHETICS					
AES-1	To minimize spill lighting and glare impacts, all lighting from the Proposed Project, including from pool lighting, shall be LED, have full-cutoff shielding, be aimed specifically to direct areas.	Construction Contractor, Santa Monica-Malibu Unified School District	During design of each phase of the Project	Santa Monica-Malibu Unified School District City of Malibu	
AES-2	Atmospheric lighting pollution shall be reduced by using full cut-off shielded lighting fixtures that eliminate light directed to the sky. Marquee sign lighting shall be dimmable in the evenings when not required for student/community communication.	Construction Contractor, Santa Monica-Malibu Unified School District	During design of each phase of the Project	Santa Monica-Malibu Unified School District City of Malibu	
AES-3	Santa Monica-Malibu Unified School District (SMMUSD) shall minimize the effects of new sources of night lighting. Such measures, which may include the following and/or other measures, will be incorporated into each phase of the Proposed Project's design and operation: • All exterior lighting shall be delineated as either "night lighting" or "security lighting" and controlled by separate automatic timers. Lights delineated as security lighting shall be determined by the campus principal, security, and facility manager. • All lighting delineated as "night lighting" shall be shut off automatically at 10:00 p.m. on school nights. This includes pool lights. • When operation of "night lighting" is necessary after 10:00 p.m., SMMUSD as operator of the Project Site shall provide notice to the community by posting such notice on the campus website and the school message board and marquee. • When school is not in session (such as summer and winter break and weekends), "night lighting" shall not be permitted, and only required security lighting shall be illuminated.	Construction Contractor, Santa Monica-Malibu Unified School District	During design of each phase of the Project	Santa Monica-Malibu Unified School District City of Malibu	
AES-4	All structures shall incorporate nonreflective exterior building materials in their designs, and the use of reflective glass shall be prohibited.	Construction Contractor, Santa Monica-Malibu Unified School District	During design of each phase of the Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
AES-5	Pool and deck lighting shall comply with Malibu Dark Sky Ordinance. Pool lighting shall be turned off within ½ hour of aquatic use and the 2-foot candle safety perimeter lighting shall be turned off with all other automatic campus lighting.	Construction Contractor, Santa Monica-Malibu Unified School District	During design of the pool phase (before construction and operation)	Santa Monica-Malibu Unified School District City of Malibu	
5.2 AIR QUALITY					
AQ-1	Construction bids for Phase 1 through 4 activities at the Project Site shall specify use of offroad equipment that meets the United States Environmental Protection Agency (US EPA) Tier 4 interim emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated that such equipment is not available. In the event the equipment is not available, as demonstrated by the contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified Diesel Emissions Control Strategy (VDECS) shall be used. The following shall be specified in the construction bid: • Construction contractors shall use engines that meet US EPA Tier 4 Interim emission standards for equipment over 50 horsepower. • Construction contractors shall maintain a list of all operating equipment in use on the Project Site in use for more than 20 hours for verification by the District. The construction equipment list shall state the makes, models, and number of construction equipment on-site. • Construction contractors shall ensure that all equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations. • Construction contractors shall communicate with all sub-contractors in contracts and construction documents that all non-essential idling of construction equipment is restricted to five minutes or less in compliance with CARB Rule 2449. Construction contractors shall be responsible for	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	ensuring that this requirement is met.				
5.3 BIOLOGICAL RESOURCES					
BIO-1	**Pre-Construction Burrowing Owl Surveys and Avoidance:** In the year prior to initiation of Proposed Project activities in Phase 4, and/or before recommencing construction activities if suspended/delayed for six months or more, a qualified biologist shall conduct pre-construction burrowing owl surveys in accordance with the 2012 CDFW Burrowing Owl Consortium Survey Protocol and Mitigation Guidelines (CDFW 2012). If wintering or breeding burrowing owl are observed adjacent to the impact area, mitigation shall be conducted in accordance with the CDFW guidelines (CDFW 2012).	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of Phase 4 of the Project	Santa Monica-Malibu Unified School District City of Malibu	
BIO-2	**Pre-Construction Nesting Bird Surveys:** To the extent possible, vegetation removal shall be conducted during the non-breeding season (i.e., September 1 to January 31) in order to minimize direct impacts on nesting birds and raptors. If construction activities would be initiated during the breeding season for nesting birds/raptors (i.e., February 1–August 31), a pre-construction survey will be conducted by a qualified Biologist within three days prior to the initiation of construction (including demolition of structures). If construction activities are delayed or suspended for more than 7 days during the breeding season, nesting bird surveys shall be repeated before construction activities can begin or restart. In addition, nesting bird surveys shall be conducted prior to starting phased Project construction and activities. The absence of nesting birds and raptors shall be considered valid only until the following breeding season. The area will be surveyed for 2 hours between dawn and 10:00 AM on five occasions with at least one week between surveys. If there is appropriate habitat for owls on site, on at least three of the surveys, surveys will also be conducted during the period immediately before nightfall. The nesting bird/raptor	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	Survey Area will include a buffer of 300 feet around the work area for nesting birds and a buffer of 500 feet around the work area for nesting raptors (including burrowing owl). If the Biologist does not find any active nests in or immediately adjacent to the impact area, construction activities can proceed. If the Biologist detects an active nest within or immediately adjacent to the construction area and determines that the nest may be impacted or breeding activities substantially disrupted by increased activity around the nest, the Biologist shall determine an appropriate protective buffer around the nest depending on the sensitivity of the species and the nature of the construction activity. The protective buffer shall be between 25 to 300 feet for nesting birds; 300 to 500 feet for nesting raptors. The active nest will be protected within the designated buffer until nesting activity has ended. Any protective buffers will be mapped on construction plans and designated as "Environmentally Sensitive Areas". Construction can proceed within the protective buffer when the qualified Biologist has determined that the nest is no longer active (i.e., fledglings have left the nest or the nest has failed).				
BIO-3	**Vegetation Assessments:** Vegetation types shall be verified prior to work activities occurring in Phases 2 and 4 if seven years have elapsed from the latest point in time the vegetation mapping described in this Biological Assessment was conducted (April 15, 2021). Vegetation types in the BSA shall be assessed during a field visit and compared to the vegetation types mapped and described herein. Any changes shall be documented in a revised vegetation map and provided to the City of Malibu and the District. Special status vegetation types shall be identified, and if impacts are anticipated, the Proposed Project shall comply with Mitigation Measure, BIO-4.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of Phases 2 and 4 of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
BIO-4	**Special Status Vegetation Types:** The loss of special status vegetation types within the impact area is considered a significant impact. These vegetation types will be restored onsite or, if appropriate, offsite at a ratio of not less than 1:1, as agreed to by the City of Malibu and the District. A revegetation program shall be implemented in accordance with a City-approved landscape palette on all graded areas not utilized for improvements or structures. The revegetation program will be submitted to the City of Malibu for review and approval by a qualified biologist prior to issuance of grading permits. Restoration will consist of seeding and container planting of appropriate species. Impacts are considered less than significant after implementation of the following measures: A detailed restoration program will be developed prior to map recordation and implemented, and will contain the following items: • *Responsibilities and qualifications of the personnel to implement and supervise the plan.* The responsibilities of the landowner, specialists, and maintenance personnel that will supervise and implement the plan will be specified. • *Site selection.* The site(s) for mitigation will be determined in coordination with the District and the City of Malibu. The site will be located in a dedicated open space area and will be contiguous with other natural open space areas. • *Site preparation and planting implementation.* The site preparation will include the following: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e., duff), 4) soil treatments (i.e., imprinting, decompacting), 5) erosion control measures (i.e., rice or willow	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
wattles), and 6) native seed mix application. • *Schedule.* Establishment of restoration/revegetation sites will be conducted between October 1 and January 30. Seeding and planting of container plants will take place immediately after preparation of the restoration sites. • *Maintenance plan/guidelines*. The maintenance plan will include the following: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting. • *Monitoring Plan.* The monitoring plan will include the following: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the City, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which will be submitted to the City for three to five years. The monitoring will be conducted for three to five years, depending upon the performance of the mitigation site. • *Long-term preservation.* Long-term preservation of the site will be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development. • *Performance standards will be identified and will apply for the revegetation of special status vegetation types.* Revegetation will be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing, restored, and created habitat areas.				

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	In addition, earth-moving equipment will avoid maneuvering in areas outside the identified limits of grading in order to avoid disturbing open space areas that will remain undeveloped. Prior to grading, the construction boundary limits will be marked by the construction supervisor and the Project biologist. These limits will be identified on the grading plan. The District will submit a letter to the City of Malibu verifying that construction limits have been flagged in the field. No earth-moving equipment will be allowed outside of the construction boundary.				
BIO-5	**RWQCB and CDFW Jurisdiction Areas:** Upon completion of construction activities, impacts to approximately 0.033 acre of non-wetland RWQCB and CDFW jurisdictional waters will be mitigated within the Proposed Project boundaries at a minimum ratio (i.e., no less than) of 1:1 through the creation of 0.033 acre of non-wetland jurisdictional waters. Acquisition of a § 1602 "lake or streambed alteration" agreement from the CDFW and waste discharge requirements from the RWQCB would be required. Prior to the final submittal of a Report of Waste Discharge from the RWQCB, and/or CDFW notification of lake or streambed alteration, the District will develop a mitigation plan for the RWQCB, CDFW, and City of Malibu. The objective of the mitigation is to ensure no net loss of habitat values as a result of the Proposed Project. The detailed restoration program shall contain the following items: • *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists and maintenance personnel that would supervise and implement the plan will be specified and shall include the demonstration of having successfully completed at least 3 mitigation projects of similar size and scope within the last 5 years including the design and implementation of an irrigation	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
system to ensure that the plantings and seeds are irrigated during periods of below average rainfall. The specialists that would supervise and implement the plan would include habitat restoration specialists, wildlife biologists, arborists, botanists, landscape contractor, and irrigation specialists. • *Site selection.* The site(s) for the mitigation will be determined in coordination with the Project Applicant and resource agencies. The site will be located in a dedicated open space area and will be contiguous with other natural open space. • *Site preparation and planting implementation.* The site preparation will include the following: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e., duff), 4) soil treatments (i.e., imprinting, decompacting), 5) temporary irrigation installation, 6) erosion control measures (i.e., rice or willow wattles), 7) native seed mix application, and 8) native container species. • *Schedule. A* schedule will be developed which includes planting and seeding to occur in late fall and early winter, between October 1 and January 30 in order to optimize the successful establishment and germination of native plants and seeds. • *Maintenance plan/guidelines.* The maintenance plan will include the following: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting. • *Monitoring Plan.* The monitoring plan will include the following: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative				

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the resource agencies, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which will be submitted to the resource agencies for three to five years. Coordination will take place on a regular basis between the biological monitor, landscape contractor and irrigation specialist with regard to non-native species targeted for removal as well as irrigation schedule to ensure that the restoration in on track for achievement of performance criteria. In addition, remedial as well as contingency measures shall also be specified should the site not meet specified performance standards. The site will be monitored and maintained for five years to ensure successful establishment of riparian habitat within the restored and created areas; however, if there is successful coverage prior to five years, the District may request from RWQCB and CDFW to be released from monitoring requirements. • *Long-Term Preservation.* Long-term preservation of the site will be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development. • Performance standards will be identified and will apply for the restoration of riparian habitat. Revegetation will be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing and restored and/or created habitat areas. The qualifications of the personnel to implement and supervise the plan				

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	would include the demonstration of having successfully completed at least 3 mitigation projects of similar size and scope within the last 5 years including the design and implementation of an irrigation system to ensure that the plantings and seeds are irrigated during periods of below average rainfall. The specialists that would supervise and implement the plan would include habitat restoration specialists, wildlife biologists, arborists, botanists, landscape contractor, and irrigation specialists.				
BIO-6	**Adherence to City of Malibu Tree Protection Ordinance:** Prior to initiation of Proposed Project activities in each Phase of the Proposed Project, the tree survey map created for the Proposed Project (Appendix C) shall be consulted and if impacts to any protected trees are anticipated, the Proposed Project shall comply with mitigation included in the Malibu Local Coastal Program Native Tree Protection Ordinance.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	
5.4. CULTURAL RESOURCES					
CUL-1	Prior to issuance of any permits allowing ground-disturbing activities for the Proposed Project (for each individual phase of the Project), the District shall ensure that an archaeologist who meets the Secretary of the Interior's standards for professional archaeology and a Qualified Paleontologist (or someone cross-trained in both areas) has been retained for the Project and will be on-call during all grading and other significant ground-disturbing activities. The Qualified Archaeologist and Paleontologist shall ensure that the following measures are followed for the Project: • Prior to any ground disturbance, the Qualified Archaeologist/Paleontologist, or their designee, shall provide worker environmental awareness protection training to construction personnel regarding regulatory requirements for the protection of	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)

cultural (prehistoric and historic) and paleontological resources. As part of this training, construction personnel shall be briefed on proper procedures to follow should unanticipated cultural or paleontological resources be made during construction.
• In the event that unanticipated cultural or fossil-bearing material is encountered during any phase of project construction, all construction work within 100 feet of the find shall cease and the Qualified Archaeologist/Paleontologist shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be important by the Qualified Archaeologist/Paleontologist, work will be permitted to continue in the area.
  ◦ If a find is determined to be important by the Qualified Archaeologist/Paleontologist, he or she shall immediately notify the District. The District shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: (1) is not eligible for the CRHR; or (2) that the treatment measures have been completed to their satisfaction.
  ◦ If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery				

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Los Angeles County Medical Examiner-Coroner (as per § 7050.5 of the California Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code (PRC), and AB 2641 will be implemented. If the Medical Examiner-Coroner determines the remains are Native American and not the result of a crime scene, the Medical Examiner-Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until				

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.				
5.6 GEOLOGY AND SOILS					
GEO-1	Design recommendations listed in the Geotechnical Report prepared for the Proposed Project shall be followed. These include, but are not limited to, seismic design parameters, foundation design, retaining wall, grading, trenching, etc. Details of these recommendations are included in Appendix H.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	
GEO-2	Design recommendations regarding future irrigation systems identified in the Geotechnical Report shall be followed to ensure that irrigation shall not be allowed within at least 10-feet-horizontally around structures supported on shallow spread footings and/or with slabs-on-grade. Details of these recommendations are included in Appendix H.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	
5.11 NOISE					
N-1	Construction contractors shall implement the following measures for construction activities conducted at the Project Site during each phase of construction. Construction plans submitted to the District shall identify these measures on demolition, grading, and construction plans. The District shall verify that grading, demolition, and/or construction plans submitted include these notations prior to demolition, grading, and/or building construction. • During the active construction period, equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds) wherever feasible. • Impact tools (e.g., jack hammers and hoe rams) shall be hydraulic- or electric-powered wherever	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
feasible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools. • Stationary equipment such as generators and air compressors shall be located as far as feasible from noise-sensitive uses. • The District's construction contractors and subcontractors shall be required through contract specifications to locate construction staging areas, construction worker parking, and material stockpiling as far away from vibration- and noise-sensitive sites as possible. Additionally, these activities shall be located away from occupied buildings on campus, occupied residential dwellings adjacent to the campus, and other sensitive receptors, where feasible. Prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours as well as the contact information of the District's and contractor's representatives who are authorized to respond in the event of a noise or vibration complaint. If the contractor's authorized representative receives a complaint, they shall investigate, take appropriate corrective action, and report the action to the District. • Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All equipment shall be turned off if not in use for more than 5 minutes. • During the entire active construction period and to the extent feasible, the use of noise producing signals, including horns, whistles, alarms, and bells, shall				

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
be for safety warning purposes only. The construction manager shall be responsible for adjusting alarms based on the background noise level, or to utilize human spotters when feasible and in compliance with all safety requirements and laws. • Notification shall be mailed to owners and occupants of all developed land uses immediately bordering or directly across the street from the Proposed Project Site providing a schedule for major construction activities through the duration of the construction period. When construction activity would occur within 100 feet of nearby receptor property lines, contractors shall erect temporary noise barriers where feasible. The temporary noise barrier shall have a minimum height of 12 feet and be free of gaps and holes. The barrier can be (a) a ¾-inch-thick plywood wall OR (b) a hanging acoustical blanket/curtain with a surface density or at least 1.5 pounds per square foot. • Prior to construction, the contractor shall submit to the District a list of equipment and activities required during construction to ensure proper planning of the most intense construction activities during time periods that would least impact campus operations. When construction activity would occur within 150 feet of active classrooms, contractors shall ensure that interior classroom noise levels do not exceed 50 dBA Leq. Feasible methods to achieve this include those listed above, scheduling work during less sensitive time periods when the classroom is not in use, and classroom use rescheduling to move active classes away from high noise construction activities, as necessary. Construction activities within 50 feet of occupied classrooms would be prohibited				

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	during preparation and testing for National Standardized testing days of students at MMHS.				
N-2	The proposed bus barn shall be an enclosed structure constructed of wood, masonry, concrete, or other similar solid material (e.g., not corrugated metal). The structure will have no gaps and minimal window area. All bus testing shall be conducted inside the enclosed bus barn.	Construction Contractor, Santa Monica-Malibu Unified School District	During design of the relocated bus barn	Santa Monica-Malibu Unified School District City of Malibu	
5.14 TRANSPORTATION					
T-1	During each phase of construction activity, SMMUSD shall work with the City of Malibu Public Works Department to develop and implement a Construction Traffic Mitigation Plan that is specific to the needs of each phase and shall include the following: • Haul trucks and vendor truck traffic ingress and egress to/from the construction area shall not occur 30 minutes before or after student arrival and dismissal times—8:30 am Monday through Friday, 1 pm to 3 pm Monday through Thursday, and 12 pm to 1:30 pm on Friday. • The plan shall eliminate curbside parking on the south side of Morning View Drive south of the construction staging area to provide adequate turn radius and site distance to access for trucks entering and leaving work sites. This would apply to construction Phases 1, 2, and 3 only, which would have access via the segment of Morning View Drive adjacent to the school frontage. • The plan shall include a Traffic Education Program to assist in educating parents, students, and staff on drop-off/pick-up procedures specific to each phase of construction. Informational materials shall be disseminated regarding student drop-off and pick-up procedures via regular parent/school communication methods and shall be posted on the school website.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	• The use of portable message signs and information signs at construction sites shall be employed as needed. • Construction activities for each phase shall be coordinated with the responsible agency departments, including the City of Malibu Public Works and Planning Departments, and the Los Angeles County Sheriff and Fire Departments no less than 10 days prior to the start of the work for each phase. Notification shall specify whether any temporary vehicle, pedestrian, or bicycle construction detours are needed, if construction work would encroach into the public right-of-way, or if temporary use of public streets surrounding the Project Site is needed.				
T-2	To facilitate safe and efficient vehicular and pedestrian circulation during student drop-off and pickup, times during Phase 1, prior to initiation of construction activities, SMMUSD shall work with the City of Malibu Public Works Department to develop and implement a Traffic and Parking C Plan to include the following: • Designation of vehicular drop-off and pick-up areas outside Morning View Drive at off-street Parking Lots A, D, and E. Vehicular access to these lots shall allow vehicles to enter and return from the area from the intersection of Morning View Drive at PCH. • Student drop-off and pick-up shall be implemented in a counterclockwise circulation pattern. Figure 7 (see Appendix L) depicts vehicular circulation patterns that shall be used in Parking Lots A, D, and E during Phase 1 construction. • If needed, construction traffic can be restricted to ensure that most construction trips occur outside of the drop-off and pick-up periods.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	• The school shall educate students and parents on drop-off and pick-up routes and procedures. This may be achieved with a combination of information bulletins shared with students and parents.				
T-3	Construction scheduling during Phases 2 to 4 shall be scheduled such that any activities that would result in potential lane closures along Morning View Drive, including, but not limited to, reconstruction of the student drop-off/pick-up area and sidewalks along Morning View Drive, shall be limited to summer months when school is not in session to eliminate conflicts with local traffic and pedestrian activities.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of Phases 2 and 4 of Project	Santa Monica-Malibu Unified School District City of Malibu	
T-4	The SMMUSD shall coordinate with the City of Malibu Public Works Department to relocate crosswalks and school-area signage in relation to the proposed access driveways according to City of Malibu and applicable State criteria. Crossing guards shall be relocated as necessary, based on the ultimate location of crosswalks.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District	
T-5	Drop-off and pick-up during Phases 2 to 4 can take place in the newly constructed drop-off and pick-up areas in Parking Lots C and D. The school can continue to use Parking Lots B and the Parking Lots D and E that will be implemented in Phase 1. During Phases 2 to 4, the following mitigation measures would be required to ensure proper circulation is provided: o Haul trucks and vendor truck traffic ingress and egress to/from the construction area shall not occur during the drop-off/pick-up hours of 7:00 to 9:00 AM and 2:30 to 4:30 PM.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	
T-6	Each coastal development permit application required to implement Phases 2 – 4 must include traffic impact analyses to reflect the most recent student population projections. In the event the student population projection exceeds 1,000 students, at least one of the following mitigation measures must be implemented:	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
• **Intersection 1 - Morning View Drive and Pacific Coast Highway:** o Restripe the westbound approach to PCH to have two 12-foot lanes: a left turn lane and a shared left/right-turn lane. Given the curb-to-curb width of approximately 38 feet, the centerline would need to be moved to accommodate the two westbound lanes. Therefore, the eastbound lane would need to be modified with a width of 14 feet. The restriping and left turn pocket would have a minimum length of 200 feet to accommodate the anticipated queue. o Extend the northbound right turn pocket to a total length of 250 feet o Optimize the signal timing • **Intersection 2 – Morning View Drive and Merritt Drive:** o Repaint the pavement markings indicating vehicles to "KEEP CLEAR" and add "KEEP CLEAR" signage on the eastbound and westbound approaches at Morning View Drive per MUTCD standards. The KEEP CLEAR marking should also be shifted east and west prior to the respective approaches to be more visible for drivers so the intersection is not blocked. • **Intersection 4 – Guernsey Avenue and Pacific Coast Highway:** o Option 1: Install a traffic signal at Guernsey & PCH o Option 2: Modify the signal timing at the signalized intersection to the north at Trancas Canyon to increase traffic gaps to reduce the westbound approach traffic delays at Guernsey Avenue. The modifications at PCH & Morning View, PCH & Guernsey, and PCH & Trancas would require approval from				

Table 2-1 Mitigation Monitoring Requirements

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	Caltrans. If enrollment is projected to increase over 1,000 students based on the annual reporting the District will send to the City, the District would be required to coordinate with the City and Caltrans to implement these improvements. The District would be responsible for providing permits and engineering studies such as a signal warrants study at the intersection of PCH & Guernsey per the MUTCD, under consultation with Caltrans.				
5.16 WILDFIRE					
W-1	The District and its general contractor will prepare a Construction Fire Protection Plan (CFPP) that shall be implemented during all phases of construction activity. The CFPP will be approved by the County of Los Angeles Fire Department (LACoFD) prior to building construction and may also be reviewed and approved in phases based on the phased development of the Proposed Project. The CFPP shall include, but not be limited to, guidance for: • Prevention, control, and extinguishment of fires during construction activities. • Smoking- and fire-related rules, storage, and parking area. • Delineating work areas from natural/open space areas and establishing sufficient setbacks. • Vegetation management prior to and during construction activity, consistent with LACoFD protocols. • Requirement to use spark arrestors on construction equipment. • Limiting the type and duration of construction activities during red flag warning events issued by the National Weather Service covering the project area.	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	
GEO-1	Design recommendations listed in the Geotechnical Report prepared for the Proposed Project shall be followed. These include, but are not limited to, seismic design parameters, foundation design, retaining wall, grading, trenching, etc. Details of these	Construction Contractor, Santa Monica-Malibu Unified School District	Prior to construction of each phase of Project	Santa Monica-Malibu Unified School District City of Malibu	

Table 2-1 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
recommendations are included in Appendix H.				

MALIBU HIGH SCHOOL INCREMENT 02

30215 MORNING VIEW DR.,
MALIBU, CA 90265

APN: 4469-017-900

A# 03-125562
FILE #19-H24



PROJECT NUMBER
31722

Received
10/7/2025
Planning Dept.

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

ATTACHMENT 2

LPA
ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING
949-261-1001 Office
LPADesignStudios.com
5301 California Avenue, Suite 100
Irvine, California 92617

LICENSED ARCHITECT
RICHARD MUSTO
No. C16639
REN 12/31/2026
STATE OF CALIFORNIA

COVER SHEET

2-G0.00

CONSTRUCTION NOTES

1. ALL CONSTRUCTION & MATERIALS SHALL BE AS SPECIFIED & IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, LAWS, PERMITS & THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL NEW CONSTRUCTION ON THE SITE.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXG SURVEY MONUMENTS WHICH MAY BE DISTURBED THROUGH CONSTRUCTION ACTIVITIES DEEMED NECESSARY FOR PRESERVATION BY THE CIVIL ENGINEER. IF SUCH MONUMENTS WERE DISTURBED, THE APPLICANT SHALL HAVE A LICENSED LAND SURVEYOR QUALIFIED CIVIL ENGINEER REESTABLISH ANY SUCH MONUMENTATION DAMAGED OR DESTROYED DURING THE CONSTRUCTION OF THE PROJECT & SUBMIT "PRELIMINARY CORNER RECORDS" TO THE CIVIL ENGINEER AFTER REPLACEMENT. AFTER APPROVAL BY THE CIVIL ENGINEER, THE APPLICANT SHALL FILE THE CORNER RECORDS WITH THE COUNTY SURVEYOR. PRIOR TO THE EXONERATION OF ANY SECURITY, EVIDENCE OF SUCH FILING SHALL BE FURNISHED TO THE CIVIL ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT TRUCK ROUTES SHALL BE STEERED AWAY FROM RESIDENTIAL AREAS.
5. THE CONTRACTOR SHALL ENSURE THAT TRUCKS HAULING DIRT ON PUBLIC ROADS TO & FROM THE SITE SHALL BE COVERED OR WILL MAINTAIN A 6" DIFFERENTIAL BETWEEN THE MAX HGT OF ANY HAULED MATERIAL & THE TOP OF THE HAUL TRAILER. HAUL TRUCK DRIVERS SHALL WATER THE LOAD PRIOR TO LEAVING THE SITE TO PREVENT SOIL LOSS DURING TRANSPORT.
6. THE CONTRACTOR SHALL ENSURE THAT GRADED SURFACES USED FOR OFF ROAD PARKING, MATERIALS LAY-DOWN, OR AWAITING FUTURE CONSTRUCTION SHALL BE STABILIZED FOR DUST CONTROL AS NEEDED. FREQUENTLY ACCESSED UNPAVED AREAS SHALL BE PAVED AS EARLY AS POSSIBLE TO MINIMIZE DIRT TRACKOUT TO PUBLIC RIGHTS-OF-WAY.
7. THE CONTRACTOR SHALL COORDINATE ANY LANE CLOSURES OR DETOURS WITH THE CITY/COUNTY. FLAG PERSONS & APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE USED AS NEEDED TO MINIMIZE CONSTRUCTION ACTIVITY INTERFERENCE WITH OFF-SITE-TRAFFIC.
8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & SITE CONDITIONS BEFORE STARTING WORK. SHOULD A DISCREPANCY APPEAR IN THE CONTRACT DOCUMENTS OR BETWEEN THE CONTRACT DOCUMENTS & EXISTING CONDITIONS, NOTIFY THE ARCHITECT AT ONCE FOR INSTRUCTION ON HOW TO PROCEED.
9. SHOULD A CONFLICT OCCUR BETWEEN DWGS & SPECIFICATIONS, THE MORE COSTLY CONDITION SHALL TAKE PRECEDENCE; UNLESS A WRITTEN DECISION FROM THE ARCHITECT HAS BEEN OBTAINED WHICH DESCRIBES A CLARIFICATION OR ALTERNATE METHOD AND/OR MATERIALS.
10. THE CONTRACTOR SHALL CONFINE HIS OPERATION ON THE SITE TO AREAS PERMITTED BY OWNER.
11. THE JOBSITE SHALL BE MAINTAINED IN A CLEAN, ORDERLY CONDITION FREE OF DEBRIS & LITTER & SHALL NOT BE UNREASONABLY ENCUMBERED WITH ANY MATERIALS OR EQUIPMENT. EACH SUBCONTRACTOR IMMEDIATELY UPON COMPLETION OF EACH PHASE OF HIS WORK SHALL REMOVE ALL TRASH & DEBRIS AS A RESULT OF HIS OPERATION.
12. ALL MATERIAL STORED ON THE SITE SHALL BE PROPERLY STACKED & PROTECTED TO PREVENT DAMAGE & DETERIORATION. FAILURE TO PROTECT MATERIALS MAY BE CAUSE FOR REJECTION OF WORK.
13. THE CONTRACTOR SHALL DO ALL CUTTING, FITTING, AND/OR PATCHING OF HIS WORK THAT MAY BE REQ TO MAKE ELEVERYTHING FIT TOGETHER PROPERLY & SHALL NOT ENDANGER ANY OTHER WORK BY CUTTING, EXCAVATING, OR OTHERWISE ALTERING THE TOTAL WORK OR ANY PART OF IT. ALL PATCHING, REPAIRING AND REPLACING OF MATERIALS AND SURFACES, CUT OR DAMAGED IN EXECUTION OF WORK, SHALL BE DONE WITH APPLICABLE MATERIALS SO THAT SURFACES REPLACED WILL, UPON COMPLETION, MATCH SURROUNDING SIMILAR SURFACES.
14. STRUCTURAL OBSERVATION WILL BE PERFORMED BY THE STRUCTURAL ENGINEER, WHEN REQ, A STATEMENT IN WRITING SHALL BE GIVEN TO THE BUILDING OFFICIAL, STATING THAT THE SITE VISITS HAVE BEEN MADE & WHETHER OR NOT ANY OBSERVED DEFICIENCIES HAVE BEEN CORRECTED TO CONFORM TO THE APPROVED PLANS & SPECIFICATIONS.
15. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD, WHO SHALL REVIEW THEM & RETURN THEM TO THE CONTRACTOR (WITH A NOTIFICATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED & THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING) FOR PLAN CHECK APPROVAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN & SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE AUTHORITY HAVING JURISDICTION.
16. PROVIDE ALL ACCESS PANELS AS REQ BY GOVERNING CODES TO ALL CONCEALED SPACES, VOIDS, ATTICS, ETC. VERIFY TYPE REQ WITH ARCHITECT PRIOR TO INSTALLATION.
17. NO PORTION OF WORK REQ A SHOP DWG OR SAMPLE SUBMISSION SHALL BE COMMENCED UNTIL THE SUBMISSION HAS BEEN REVIEWED BY THE ARCHITECT. ALL SUCH PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH CORRECTED SHOP DWGS. AND SAMPLES.
18. DIMENSIONS:
    A. ALL DIMS SHALL TAKE PRECEDENCE OVER SCALE.
    B. ALL DIMS ARE TO FACE OF STUD / CONCRETE / MASONRY UNO
    C. CLG HGT DIMS ARE FROM FACE OF SLAB TO FACE OF FIN CLG MATERIAL UNO
19. DO NOT SCALE DRAWINGS
20. PROVIDE ALL NECESSARY BLOCKING, BACKING, & FRAMING FOR LIGHT FIXTURES, ELECTRIC UNITS, AC EQUIP, RECESSED ITEMS, AND ALL OTHER ITEMS AS REQ.
21. WHERE LARGER STUDS OR FURRING ARE REQ TO COVER PIPING AND CONDUITS, THE LARGER STUD SIZE OR FURRING SHALL EXTEND THE FULL SURFACE OF THE WALL WIDTH AND LENGTH WHERE THE FURRING OCCURS, UNO.
22. ALL DOORS SHALL BE OPERABLE FROM THE INSIDE W/O THE USE OF A KEY OR SPECIAL KNOWLEDGE OF EFFORT. EXIT SIGNS SHALL BE PROVIDED AT ALL EXITS AS REQ BY THE APPLICABLE CODES. ALL DOOR SWINGS SERVING AN OCCUPANT LOAD OF 50 OR GREATER SHALL SWING IN THE DIRECTION OF TRAVEL.
23. ALL GLASS AND GLAZING SHALL COMPLY WITH THE APPLICABLE CODES.
24. WALL AND CLG MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS IN THE APPLICABLE CODES.
25. SURVEYORS CERTIFICATE REQ PRIOR TO FINAL COMPLETION.
26. THE CONTRACTOR SHALL COMPLY WITH THE APPLICABLE CODES FOR FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.
27. A DSA CERTIFIED CLASS 1 PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT (DSA) SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, CALIFORNIA BUILDING STANDARDS ADMINISTRAIVE CODE (PART 1, TITLE 24, CCR)
28. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQ TESTS AND INSPECTIONS FOR THE PROJECT.
29. CHANGE TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQ BY SECTION 4-338, PART 1, TITLE 24, CCR.
30. THE INTENT OF THESE DWGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXG CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQ WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)
31. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PHASED CONSTRUCTION. THIS INCLUDES ALL PARTIAL DEMO, INSTALL AND COORDINATION OF SYSTEMS THAT MAY HAVE TO BE PARTIALLY BUILT WHILE RUNNING IN CONJUNCTION WITH EXISTING SYSTEMS. LIQUIDATED DAMAGES WILL APPLY FOR ANY DELAYS CAUSED BY THE CONTRACTOR. NO DEMOLITION SHALL BEGIN UNTIL THE PLANS HAVE BEEN APPROVED BY DSA.

DEFERRED APPROVALS

DEFERRED APPROVALS:

NOTE: THE CONTRACTOR TO PROVIDE ALL DEFERRED APPROVALS WITHIN 2 MONTHS OF THE NOTICE TO PROCEED IN ORDER NOT TO DELAY THE CONSTRUCTION SCHEDULE, INSTALLATION OF THE FOLLOWING LISTED ITEMS SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS ARE APPROVED BY THE DIVISION OF THE STATE ARCHITECT (DSA). THE PLANS AND SPECIFICATIONS SHALL BE STAMPED AND SIGNED BY THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO SUBMITTING TO DSA

1. ALUMINUM CURTAINWALL AND STOREFRONT SYSTEMS.
2. HORIZONTAL SOLAR SHADING DEVICES.
3. ELEVATOR GUIDE RAILS, SUPPORT BRACKETS AND ANCHORAGE.
4. MEP DISTIBUTION SYSTEM SUPPORT AND BRACING.

THE ITEMS LISTED ABOVE SHALL BE SIGNED AND CALCULATED BY THE CONTRACTOR AND BE SUBMITTED TO DSA FOR APPROVAL. ALL ITEMS LISTED SHALL NOT BE FABRICATED OR PLACED ON THE JOBSITE PRIOR TO DSA APPROVAL AND ARCHITECTS REVIEW

FIRE AND LIFE SAFETY NOTES

1. PLANS FOR THE FIRE SPRINKLER SYSTEMS MUST BE APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ) PRIOR TO INSTALLATION. SUBMIT PLANS IN A MANNER WHICH WILL NOT IMPEDE THE PROGRESS OF CONSTRUCTION.
2. FIRE SPRINKLER SYSTEMS & INSTALLATION SHALL CONFORM W/ THE APPLICABLE STANDARDS AND CODES.
3. FIRE SPRINKLER SYSTEMS TO BE TIED INTO THE ALARM SYSTEM PER THE APPLICABLE CODES.
4. AUTOMATIC SPRINKLER SYSTEM(S) SHALL BE SUPERVISED BY AN APPROVED CENTRAL OR REMOTE STATION SERVICE, AND/OR SHALL BE PROVIDED W/ A LOCAL ALARM WHICH WILL GIVE AN AUDIBLE SIGNAL.
5. FIRE SPRINKLER SYSTEM(S) & ALL CONTROL VALVES SHALL BE SUPERVISED BY A U.L. LISTED CENTRAL ALARM STATION OR PER THE APPLICABLE CODES.
6. FIRE HYDRANT & FIRE SPRINKLER SYSTEM(S) SHALL BE FLUSHED THOROUGHLY BEFORE CONNECTION IS MADE TO EXISTING SYSTEM STUBOUTS & WITNESSED BY THE PROJECT INSPECTOR.
7. A HYDROSTATIC TEST (200 PSI PRESSURE FOR 2 HRS. OR @ 50 PSI IN EXCESS OF THE MIN. STATIC PRESSURE WHEN IT IS IN EXCESS OF 150 PSI) SHALL BE WITNESSED BY THE PROJECT INSPECTOR PRIOR TO COVERING PIPING JOINTS.
8. A 3' CLR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQ OR APPROVED PER THE APPLICABLE CODES.
9. THRUST BLOCKS SHALL BE PROVIDED WHEREVER PIPE CHANGES DIRECTION.
10. ALL PIPE SHALL BE UL LISTED FOR FIRE SERVICE SYSTEMS, CLASS 200 MIN.
11. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED W/I 100' FROM A PUBLIC FIRE HYDRANT PER THE APPLICABLE STANDARDS AND CODES.
12. FIRE SPRINKLER RISER SHALL BE LOCATED WITHIN 5 FT OF THE EXT WALL (OR AS REQ BY THE AHJ) AND TERMINATE 6" ABV FF
13. AN ALL-WEATHER FIRE ACCESS ROAD SHALL BE IN PLACE BEFORE ANY COMBUSTIBLE MATERIALS ARE PLACED ON THE SITE OR AS REQ BY THE AHJ.
14. STORAGE, DISPENSING, OR USE OF ANY FLAMMABLE & COMBUSTIBLE LIQUIDS, FLAMMABLE & COMPRESSED GASES & OTHER HAZARDOUS MATERIALS SHALL COMPLY W/ THE APPLICABLE CODES.
15. EXIT SIGNS SHALL BE POSTED OVER EXIT DOORS & DIRECTIONAL EXIT SIGNS SHALL BE LOCATED TO DIRECT PERSONS TOWARD EXIT DOORS.
16. EXIT SIGNS SHALL BE SELF-LUMINOUS TYPE OR ELECTRONICALLY ILLUMINATED & ENERGIZED FROM SEPARATE CIRCUITS, ONE OF WHICH SHALL BE FROM STORAGE BATTERIES OR AN ON-SITE GENERATOR, FOR A DURATION OF 90 MINUTES PER THE APPLICABLE CODES.
17. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
18. ACCESS GATE(S) SHALL BE OPENABLE W/ FIRE DEPT MASTER KEY FROM THE EXTERIOR.
19. CURBS ALONG FIRE LANES SHALL BE PAINTED SAFETY RED & MARKED "FIRE LANE NO PARKING" W/ 3" WHITE LETTERS ON THE TOP OF CURBING EVERY 30' AS INDICATED ON THE APPROVED DRAWINGS.
20. APPROVED NUMBERS OR ADDRESSES SHALL BE PROVIDED FOR ALL NEW & EXG BLDGS IN SUCH A POSITION AS TO BE PLAINLY VISIBLE & LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY PER THE APPLICABLE CODES.
21. PROVIDE PERMANENT OR TEMPORARY STANDPIPES WHILE BUILDING IS UNDER CONSTRUCTION PER THE APPLICABLE CODES.
22. PROVIDE FIRE EXTINGUISHERS PER THE REQ THE APPLICABLE STANDARDS AND CODES.

ENERGY CODE NOTES

THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.

LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).

MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.

ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.

A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.

THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.

PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

RESPONSIBILITY FOR JOB SITE SAFETY

NOTICE TO PERSONS PERFORMING WORK ON JOB SITE, INCLUDING CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS AND ANY AGENTS OR EMPLOYEES THEREOF

THESE PLANS AND SPECIFICATIONS DO NOT PROVIDE ANY DIRECTION OR INSTRUCTIONS TO CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS OR THEIR EMPLOYEES OR AGENTS RELATED TO CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, SAFETY PRECAUTIONS, MANNERS OR METHODS OF EGRESS OR INGRESS, INCLUDING BUT NOT LIMITED TO JOB SITE SAFETY, THE PHYSICAL CONDITION OF THE JOB SITE, THE MANNER OR METHOD IN WHICH THE AREA WHERE WORK IS PERFORMED IS ACCESSED BY WORKERS, AND SAFETY PROGRAMS OR SAFETY PROTOCOLS OF ANY KIND IN CONNECTION WITH THE WORK. ALL OF THE FOREGOING ARE SOLELY AND EXCLUSIVELY THE RESPONSIBILITY OF THE CONTRACTOR, SUBCONTRACTOR, MATERIAL SUPPLIERS, OR ANY AGENTS OR EMPLOYEES THEREOF.

THE ARCHITECT EXPRESSLY DISCLAIMS ANY CONTROL OVER AND RESPONSIBILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, SAFETY PRECAUTIONS, MANNERS OR METHODS OF EGRESS OR INGRESS, INCLUDING BUT NOT LIMITED TO JOB SITE SAFETY, THE PHYSICAL CONDITION OF THE JOB SITE, THE MANNER OR METHOD IN WHICH THE AREA WHERE WORK IS PERFORMED IS ACCESSED BY WORKERS, AND SAFETY PROGRAMS OR SAFETY PROTOCOLS OF ANY KIND IN CONNECTION WITH THE WORK.

THE ARCHITECT HAS NOT CONDUCTED AN EVALUATION OR ANALYSIS OF SAFETY PROCEDURES OR APPLICABLE LAW REGARDING OR RELATING TO ACCESSING THE JOB SITE OR AREAS OF THE WORK DURING THE COURSE OF CONSTRUCTION.

THE ARCHITECT, THE ARCHITECT'S DESIGNS, AND ANY OTHER WORK PERFORMED BY THE ARCHITECT DO NOT ADDRESS, ANALYZE OR PROVIDE ANY DIRECTION OR ADVICE TO ANY PERSON OR ENTITY ON WHETHER OR NOT THE USE OF EXISTING LADDERS, DOORS, RAILINGS, INGRESS AND INGRESS ROUTES OR THE LIKE ARE IN COMPLIANCE OR NON-COMPLIANCE WITH OSHA, CAL-OSHA(CALIFORNIA ONLY), OR ANY OTHER APPLICABLE STATUTE, REGULATION, OR STANDARD RELATED TO JOB SITE SAFETY DURING THE COURSE OF CONSTRUCTION OF THE IMPROVEMENTS.

VICINITY MAP



PROPOSED SITE
MALIBU MIDDLE & HIGH SCHOOL

ADDRESS:
30215 MORNING VIEW DR.
MALIBU, CA 90265

N

PROJECT NORTH

PROJECT SCOPE

THIS PROJECT INCLUDES THE CONSTRUCTION OF A NEW SPECIAL EDUCATION AND CAMPUS WELLNESS CENTER BUILDING, NEW GYMNASIUM BUILDING - INCLUDING FITNESS, NEW FIRELANE FOR NEW BUILDING ACCESS, NEW WASTEWATER SYSTEM, ASSOCIATED GRADING AND UNDERGROUND UTILITY WORK, AND ASSOCIATED SITE IMPROVEMENTS.

LIMIT OF WORK

THE INTENT OF THE LIMIT OF WORK LINE IS TO DESCRIBE IN GENERAL THE AREAS AFFECTED BY PROJECT CONSTRUCTION. IT IS NOT INTENDED TO BE AN EXACT INDICATION OR EDGE OF THE CONSTRUCTION AREA. THE CONTRACTOR SHOULD VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND THEIR RELATIONSHIP TO THE WORK PROPOSED IN THE CONTRACT DOCUMENTS. ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK SHALL BE INCLUDED. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL TO THE EXTENT THAT IT IS REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

APPLICABLE CODES

LIST OF APPLICABLE CODES

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS

FOR A LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

ACCESSIBLE CONSTRUCTION SUPPORT FACILITIES

11B-201.4 CONSTRUCTION SUPPORT FACILITIES. These requirements shall apply to temporary or permanent construction support facilities for uses and activities not directly associated with the actual processes of construction, including but not limited to offices, meeting rooms, plan rooms, other administrative or support functions. When provided, toilet and bathing facilities serving construction support facilities shall comply with 11B-213. When toilet and bathing facilities serving construction support facilities are provided by portable units, at least one of each type shall be accessible and connected to the construction support facilities it serves by an accessible route.

EXCEPTION: During construction an accessible route shall not be required between site arrival points or the boundary of the area of construction and the entrance to the construction support facilities if the only means of access between them is a vehicular way not providing pedestrian access.

ZONING

ASSESSOR'S PARCEL NUMBER(S) (APN):
4469-017-900

MALIBU MUNICIPAL CODE (MMC) ZONING DESIGNATION: I (INSTITUTIONAL)

GENERAL PLAN LAND USE DESIGNATION: INSTITUTIONAL DISTRICT ZONE

SETBACKS:
FRONT:
REQUIRED: 10 FT
PROPOSED: 140 FT
SIDES:
REQUIRED: 100 FT WHEN ADJACENT TO ESHA
PROPOSED: 125 FT
SIDE YARD SETBACKS:
REQUIRED: 5 FT, 10% OF LOT WIDTH OR 10 FT (WHICHEVER IS GREATER) WHEN ADJACENT TO A RESDENTIALLY-ZONED PARCEL
PROPOSED: XX FT
REAR:
REQUIRED: 5 FT, 15 FT WHEN ADJACENT TO RESIDENTIAL
PROPOSED: 600+ FT

IMPERMEABLE LOT COVERAGE:

TOTAL LOT AREA: 49.46 ACRES

PROPOSED PERMEABLE AREA: 38.17 ACRES

PROPOSED IMPERMEABLE AREA: 11.28 ACRES

ALLOWABLE:25%
PROPOSED: 22.8%

PROJECT DIRECTORY

CLIENT INFORMATION

NAME: SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT
ADDRESS: 2828 4TH STREET
CITY,STATE, ZIP: SANTA MONICA, CA 90405
DIRECTOR OF FACILITY
TEL: 310-395-3204
CONTACT: CAREY UPTON E-MAIL: cupton@smmusd.org

ARCHITECT

NAME: LPA, INC.
ADDRESS: 5301 CALIFORNIA AVE, SUITE 100
CITY,STATE, ZIP: IRVINE, CA 92617
TEL: 949/769-6286
CONTACT: RICK MUSTO E-MAIL: rmusto@lpadesignstudios.com

LANDSCAPE ARCHITECT

NAME: LPA, INC.
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CIVIL ENGINEER

NAME: LPA, INC.
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TEL: 949/701-4033
CONTACT: ROBERT RICHARDSON E-MAIL: rrichardson@lpadesignstudios.com

STRUCTURAL ENGINEER

NAME: LPA, INC.
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CITY,STATE, ZIP: IRVINE, CA 92617
TEL: (949)769-6201
CONTACT: HARSHDA PRASAD E-MAIL: hprasad@lpadesignstudios.com

MECHANICAL ENGINEER

NAME: LPA, INC.
ADDRESS: 5301 CALIFORNIA AVE, SUITE 100
CITY,STATE, ZIP: IRVINE, CA 92617
TEL: (949)701-4092
CONTACT: DOUG SEAMARK E-MAIL: dseamark@lpadesignstudios.com

ELECTRICAL ENGINEER

NAME: P2S, INC.
ADDRESS: 5000 EAST SPRING ST., 8TH FL
CITY,STATE, ZIP: LONG BEACH, CA 90815
TEL: 562/497-2999
CONTACT: KATHY OLAIS E-MAIL: Kathy.Olais@p2sinc.com

PLUMBING ENGINEER

NAME: LPA, INC.
ADDRESS: 5301 CALIFORNIA AVE, SUITE 100
CITY,STATE, ZIP: IRVINE, CA 92617
TEL: 949/701-4172
CONTACT: GREG WEBB E-MAIL: gwebb@lpadesignstudios.com

FOOD SERVICE

NAME: RICCA DESIGN STUDIOS
ADDRESS: 5613 DTC PARKWAY, SUITE 100
CITY,STATE, ZIP: GREENWOOD VILLAGE, CO 80111
TEL: 213/915-8783
CONTACT: JEREMY CARVER E-MAIL: jcarver@ricca.com
LAURA MUELLER lmueller@ricca.com

SUPPORT OF EXCAVATION

NAME: CEFALI & ASSOCIATES, INC.
ADDRESS: 4344 LAUREL CANYON BLVD, SUITE 3
CITY,STATE, ZIP: STUDIO CITY, CA 91604
TEL: (818)752-1812
CONTACT: DAVID CEFALI E-MAIL: engineering@cefali.com

WASTEWATER DESIGN

NAME: ENSITU ENGINEERING, INC.
ADDRESS: 7475 CARMELITA AVE.
CITY,STATE, ZIP: ATASCADERO, CA 93422
TEL: (805)772-0150
CONTACT: JOHN YAROSLASKI E-MAIL: ensitu@ensitu.com

STATEMENT OF GENERAL CONFORMANCE

Application No.: 03-125562

File No.: 19-H24

The drawings identified as follows:

☒ All drawing sheets included in this set not bearing my stamp and signature.
☐ Drawing sheets denoted in the sheet index as follows: _____
☐ Drawing sheets included under the following PC approval(s): _____

have been prepared by other design professionals or consultants who are licensed and authorized to prepare such drawings (plans) in this state. They have been examined by me for:

1) Design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) Coordination with my drawings (plans) and specifications and are acceptable for incorporation into the construction of this project.

Per Title 24, Part 1, Section 4-316(b): This Statement of General Conformance shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344 of Title 24, Part 1.

Signature 09/15/25 Date

RICHARD MUSTO C19639 12/31/2025
Printed Name License Number Expiration Date

LPA
ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING
949-261-1001 Office
LPADesignStudios.com
5301 California Avenue, Suite 100
Irvine, California 92617

LICENSED ARCHITECT RICHARD MUSTO No. C19639 REN 12/31/2025 STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL INCREMENT 02

30215 MORNING VIEW DR.,
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	05/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	Checker
Scale	As indicated

GENERAL PROJECT INFORMATION

2-G0.21

SYMBOLS

COLUMN LINES

SURFACE DRAINAGE ARROW INDICATES DIRECTION OF FLOW

NORTH ARROW

TRUE NORTH PROJECT NORTH

BUILDING SECTION
SECTION ID
SHEET NUMBER

WALL SECTION
SECTION ID
SHEET NUMBER

DETAIL CALLOUTS
DETAIL ID
SHEET NUMBER

DETAIL SECTION
DETAIL ID
SHEET NUMBER

DETAIL REFERENCE
DETAIL ID
SHEET NUMBER

INTERIOR ELEVATIONS
DETAIL ID
SHEET NUMBER

ROOM DESIGNATION
ROOM NUMBER
ROOM AREA

REVISION CLOUD & TAG (OPTIONAL)

SHADED PORTION POINTS TO SIDE REFERENCED

MATCH LINE
SEE SHEET A101

DATUM POINT

KEYNOTE

WALL TYPE

DOOR DESIGNATION

OPENING DESIGNATION

EQUIPMENT TAG

FINISH TAG

LEVEL LINE, CONTROL POINT
EL: 12'-8" = ELEVATION/SECTION

STAIR DIRECTION

CENTER LINES, LEVEL LINES

HIDDEN CONSTRUCTION FEATURE

BREAK LINE

EXTERIOR ASSEMBLY
REFER TO A8.11

ABBREVIATIONS

&	AND	ID	INSIDE DIAMETER
∠	ANGLE	INSUL	INSULATION
@	AT	INT	INTERIOR
℄	CENTERLINE		
∅	DIAMETER OR ROUND	JAN	JANITOR
#	POUND OR NUMBER	JT	JOINT
(E)	EXISTING		
(P)	PAINT	KIT	KITCHEN
(R)	REMOVE		
+/-	DIM TOLERANCE	LAB	LABORATORY
		LAM	LAMINATE
AC	ASPHALTIC CONCRETE	LAND ARCH	LANDSCAPE ARCHITECT
ACC	ACCESSIBLE	LAV	LAVATORY
ACOUS	ACOUSTICAL	LKR	LOCKER
ACM	ALUM COMPOSITE MATERIAL	LT	LIGHT
ACT	ACOUS CLG TILE		
AD	AREA DRAIN	MATL	MATERIAL
AED	AUTO EXT DEFIBRILLATOR	MAX	MAXIMUM
ADJ	ADJUSTABLE	MC	MEDICINE CABINET
AFF	ABOVE FINISH FLOOR	MECH	MECHANICAL
AGGR	AGGREGATE	MEMB	MEMBRANE
AHJ	AUTHORITY HAVING JURISDICTION	MET	METAL
		MFR	MANUFACTURER
ALUM	ALUMINUM	MH	MANHOLE
APPROX	APPROXIMATE	MIN	MINIMUM
ARCH	ARCHITECTURAL	MIR	MIRROR
ASF	ASSIGNABLE SF	MISC	MISCELLANEOUS
ASPH	ASPHALT	MO	MASONRY OPENING
		MTD	MOUNTED
BD	BOARD	MUL	MULLION
BITUM	BITUMINOUS		
BLDG	BUILDING	N	NORTH
BLK	BLOCK	NIC	NOT IN CONTRACT
BLK'G	BLOCKING	NO/#	NUMBER
BM	BEAM	NOM	NOMINAL
BOC	BACK OF CURB	NTS	NOT TO SCALE
BOT	BOTTOM		
BO	BOTTOM OF	OA	OVERALL
BOC	BACK OF CURB	OA	OUTSIDE AIR
BOW	BOTTOM OF WALL	OBS	OBSCURE
BS	BOTTOM OF SLOPE	OC	ON CENTER
		OD	OUTSIDE DIAMETER
CAB	CABINET	OFF	OFFICE
CB	CATCH BASIN	OPNG	OPENING
CEM	CEMENT	OPP	OPPOSITE
CER	CERAMIC	OSA	OUTSIDE AIR
CI	CAST IRON	PA	PLANTING AREA
CIP	CAST IN PLACE	PRCST	PRECAST
CIV ENG	CIVIL ENGINEER	PH	PANIC HARDWARE
CG	CORNER GUARD	PL	PLATE
CJ	CONTROL JOINT	P LAM	PLASTIC LAMINATE
CLG	CEILING	PLAS	PLASTER
CLKG	CAULKING	PLYWD	PLYWOOD
CLO	CLOSET	POT	PATH OF TRAVEL
CLR	CLEAR	PR	PAIR
CNTR	COUNTER	PT	PAINT
CO	CASED OPENING	PTD	PAPER TOWEL DISPENSER
COL	COLUMN		
CONC	CONCRETE	PTD/R	COMBINATION PAPER TOWEL DISPENSER & RECEPTACLE
CONN	CONNECTION		
CONSTR	CONSTRUCTION		
CONT	CONTINUOUS	PTN	PARTITION
CORR	CORRIDOR	PTR	PAPER TOWEL RECEPTACLE
CT	CERAMIC TILE		
CTR	CENTER		
CTSK	COUNTERSUNK	QT	QUARRY TILE
DA	DISABLED ACCESS	R	RISER
DBL	DOUBLE	RAD	RADIUS
DEPT.	DEPARTMENT	RD	ROOF DRAIN
DESC	DESCRIPTION	REF	REFERENCE
DF	DRINKING FOUNTAIN	REFR	REFRIGERATOR
DET	DETAIL	RGTR	REGISTER
DIA	DIAMETER	REINF	REINFORCED
DIM	DIMENSION	REQD	REQUIRED
DISP	DISPENSER	RESIL	RESILIENT
DN	DOWN	RM	ROOM
DO	DOOR OPENING	RO	ROUGH OPENING
DR	DOOR	ROW	RIGHT OF WAY
DWR	DRAWER	RWD	REDWOOD
DS	DOWNSPOUT	RWL	RAIN WATER LEADER
DSP	DRY STANDPIPE		
DWG	DRAWING	S	SOUTH
		SC	SOLID CORE
E	EAST	SCD	SEAT COVER DISPENSER
EA	EACH		
EJ	EXPANSION JOINT	SCHED	SCHEDULE
EL	ELEVATION	SD	SOAP DISPENSER
ELEC	ELECTRICAL	SECT	SECTION
ELEV	ELEVATOR	SF	SQUARE FEET
EMER	EMERGENCY	SH	SHELF
ENCL	ENCLOSURE	SHR	SHOWER
EP	ELECTRICAL PANELBOARD	SHT	SHEET
EQ	EQUAL	SIM	SIMILAR
EQUIP	EQUIPMENT	SND	SANITARY NAPKIN DISPENSER
EWC	ELECTRIC WATER COOLER		
EXIST	EXISTING	SNR	SANITARY NAPKIN RECEPTACLE
EXPO	EXPOSED		
EXP	EXPANSION	SPEC	SPECIFICATION(S)
EXT	EXTERIOR	SQ	SQUARE
		SS	STAINLESS STEEL
FA	FIRE ALARM	S SK	SERVICE SINK
FB	FLAT BAR	STA	STATION
FD	FLOOR DRAIN	STD	STANDARD
FDN	FOUNDATION	STL	STEEL
FE	FIRE EXTINGUISHER	STOR	STORAGE
FEC	FIRE EXTINGUISHER CABINET	STR	STRUCTURAL
		SUSP	SUSPENDED
FHC	FIRE HOSE CABINET	SYM	SYMMETRICAL
FIN	FINISH		
FLR	FLOOR	T	TREAD
FLASH	FLASHING	TB	TOWEL BAR
FLUOR	FLUORESCENT	TC	TOP OF CURB
FOC	FACE OF CONCRETE	TEL	TELEPHONE
FOF	FACE OF FINISH	TER	TERRAZZO
FOM	FACE OF MASONRY	T&G	TONGUE & GROOVE
FOS	FACE OF STUD	THK	THICK
FOV	FACE OF VENEER (BRICK OR PRECAST)	TOB	TOP OF BEAM
		TOC	TOP OF CONCRETE
FOW	FACE OF WALL	TOW	TOP OF WALL
FR	FIRE RETARDANT	TOP	TOP OF PARAPET
FPRF	FIREPROOF	TPD	TOILET PAPER DISPENSER
FS	FINISH SURFACE		
FT	FOOT OR FEET	TS	TOP OF SLOPE
FTG	FOOTING	TV	TELEVISION
FURR	FURRING	TYP	TYPICAL
FUT	FUTURE		
		UNF	UNFINISHED
GA	GAUGE	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED		
GB	GRAB BAR	UR	URINAL
GC	GENERAL CONTRACTOR		
GI	GALVANIZED IRON	VCT	VINYL COMPOSITION TILE
GL	GLASS		
GND	GROUND	VERT	VERTICAL
GR	GRADE	VEST	VESTIBULE
GYP	GYPSUM		
		W	WEST
HB	HOSE BIB	W/	WITH
HC	HOLLOW CORE	WC	WATER CLOSET
HDWD	HARDWOOD	WD	WOOD
HDW	HARDWARE	W/O	WITHOUT
HM	HOLLOW METAL	WP	WATERPROOF
HORIZ	HORIZONTAL	WR	WATER RESISTANT
HR	HOUR	WSCT	WAINSCOT
HGT/HT	HEIGHT	WT	WEIGHT
		WWF	WELDED WIRE FABRIC

FAR TABLE 1 UPDATE

SITE	ACRES	(E) BUILDING(S) AREA	(E) FAR	(N) BLDG AREA	(N) TOTAL BLDG(S) AREA	(N) FAR
EXISTING MERGED SITE (W/ JCES)	49.46	203,734 SF	0.095	N/A	N/A	N/A
PHASE 0: DEMO JCES (36,544 SF)	49.46	167,190 SF	0.074	N/A	N/A	N/A
PHASE 1 + REMAINING EXISTING SITE	49.46	229,449 SF	0.101	N/A	N/A	N/A
PHASE 2 + REMAINING EXISTING SITE	49.46	204,765 SF*	N/A	28,487 SF	233,252 SF	0.108
MAXIMUM ALLOWABLE FAR			**0.150**			**0.150**

* INCLUDES PREVIOUS PHASE TOTAL SF MINUS DEMOLITION REQUIRED FOR THIS PHASE

229,449 SF - 24,684 SF** = 204,765 SF

** SEE "PH 2 DEMO" UNDER PROPOSED PH2 COMPONENTS HEADING

EXISTING + PHASE 1 PARKING

EXISTING PARKING LOT	EXISTING SPACES	PROPOSED CHANGES	PARKING PHASE 2
150-SPACE PARKING LOT (E)	150	REMAINS	150
LOWER PARKING LOT (D)	59	REMAINS	59
STUDENT PARKING LOT A	119	REMAINS	119
SERVICE LOTS	7	REMOVED	0
PARKING LOT D (PH1 HS)	61	REMAINS	61
		PARKING LOT D	61
TOTAL PROVIDED	**396**		**389**
TOTAL REQUIRED PER LIP			324
		SURPLUS:	65

PARKING REQUIRED (MALIBU LIP)

BUILDING	PROPOSED CHANGES	CLASSROOM / LAB / TEACHING STATION	PARKING PHASE 2
EXISTING HIGH SCHOOL			
BUILDING C (PH1 HS BUILDING)	REMAINS	31	217
BUILDING F (300 BLDG): MUSIC BUILDING	REMAINS	3	21
BUILDING H (600 BLDG): CAFETORIUM	REMAINS	2	14
BUILDING I (400 BLDG): GRAPHIC ARTS	REMOVED	0	0
BUILDING J (700 BLDG): GYMNASIUM	REMAINS	2	14
BUILDING J1 GYMNASIUM	REMAINS	0	0
BUILDING K: CLASSROOM BUILDING/VACANT	REMOVED	0	0
EXISTING CLASSROOM PORTABLES- (2) IN USE, REMAINGING VACANT	REMOVED	0	0
SUBTOTAL - HIGH SCHOOL		38	266
EXISTING MIDDLE SCHOOL			
BUILDING A/B: ADMIN/LIBRARY	REMAINS	11	22
BUILDING E: CLASSROOM BUILDING	REMAINS	15	30
MIDDLE SCHOOL (N) CONSTRUCTION			
BUILDING D (NEW MS HUB BUILDING)		1	2
BUILDING D1 (NEW MS GYM BUILDING)		0	0
SUBTOTAL - MIDDLE SCHOOL		27	54
TOTAL		**65**	**320**

PROPOSED PH 2 COMPONENTNS AND SPECIFIC PLAN QUANTITIES

PH 2 NEW CONSTRUCTION	PROPOSED AREA	SPECIFIC PLAN AREA (TABLE 10)	PROPOSED HEIGHT	SPECIFIC PLAN MAXIMUM HEIGHT
PH 2 NEW GYMNASIUM/FITNESS BUILDING (BUILDING D1)	18,911 SF	22,376 SF	36 FT	36 FT
PH 2 NEW MIDDLE SCHOOL HUB STUDENT ACTIVITIES AND FOOD SERVICES (BUILDING D)	9,243 SF		17 FT (BUILDING) 22 FT 8 IN (CANOPY)	28 FT
PH 2 NEW MDF BUILDING	333 SF			
PH2 BUILDING TOTAL	28,487 SF	22,376 SF		

PH 2 DEMO	AREA	SPECIFIC PLAN AREA (TABLE 3)	REMARKS
(E) 8 PORTABLE BUILDINGS	7,200 SF	7,200 SF	1 RR @ 480 SF, 7 CLASSROOMS @ 960 SF PORTABLES G1, G2, G3, G4, 511, 512, 513 AND RR BUILDING
(E) MDF BUILDING	225 SF		
(E) BUILDING K	12,698 SF	12,698 SF	
(E) BUILDING I	4,561 SF	4,561 SF	
PH 2 DEMO TOTAL	24,684 SF	24,459 SF	

EARTHWORK (FOR CDP USE ONLY)	PROPOSED	SPECIFIC PLAN (TABLE 11)	REMARKS
APPROXIMATE CUT	8,140 CY	5,175 CY	
APPROXIMATE FILL	4,303 CY	-	
NET (EXPORT) / PROJECT PHASE TOTAL	3,827 CY*	5,175 CY	

NOTE:
1. EARTHWORK QUANTITIES INDICATED ARE FOR REFERENCE ONLY (NOT FOR BID OR PAYMENT). THE CONTRACTOR IS RESPONSIBLE FOR ACTUAL QUANTITIES
* NET EXPORT = SOIL LEAVING THE SITE, AS DEFINED BY THE CITY OF MALIBU TOTAL GRADING YARDAGE VERIFICATION CERTIFICATE. PROPOSED QUANTITY NOTED ABOVE DOES NOT EXCEED THE PH.2 QUANTITY LISTED IN THE SPECIFIC PLAN.

OTHER PH2 COMPONENTS:

1. CONSTRUCTION OF FIRE LANE FOR NEW BUILDING ACCESS
   A. REFER TO SHEETS 2-G1.10 AND 2-G1.11.
1. WASTEWATER SYSTEM FOR PH. 2 BUILDINGS AND EXISTING CAMPUS BUILDING TIE-IN TO THE PH.1 SYSTEM
   A. REFER TO PW SHEETS
1. NEW SOLAR FARM
   A. REFER TO "SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT" DRAWINGS.
1. ACCESSIBLE STUDENT DROP-OFF IMPROVEMENTS
   A. REFER TO SHEETS G1.20 AND C2.01.
2. ASSOCIATED GRADING AND UNDERGROUND UTILITY WORK AND SITE IMPROVEMENTS.

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Irvine, California 92617

LICENSED ARCHITECT RICHARD MILVO No. C16639 REN 12/31/2025 STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL INCREMENT 02

30215 MORNING VIEW DR.,
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
CDP SUBMITTAL	06/27/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

GENERAL PROJECT INFORMATION

2-G0.22

GENERAL NOTES

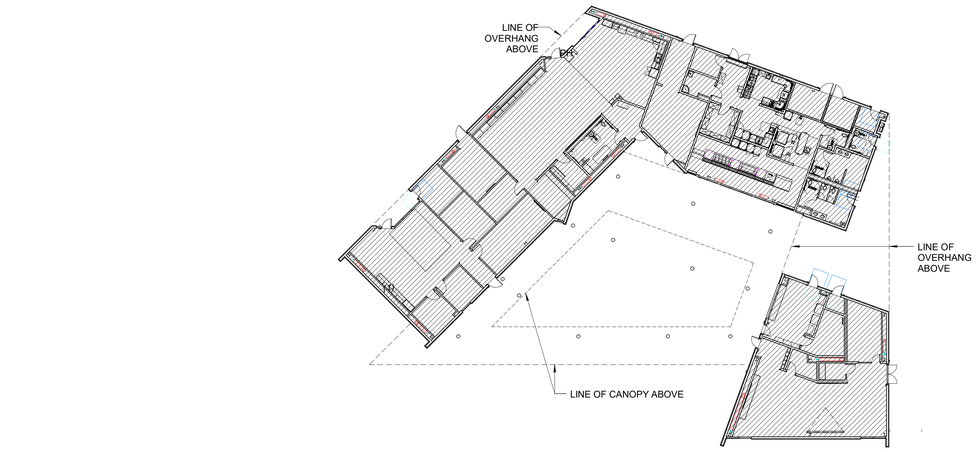
1. GROSS AREA MEASURED FROM THE INTERIOR FACE OF EXTERIOR WALLS, OR FROM THE CENTERLINE OF A WALL SEPARATING TWO BUILDINGS, BUT NOT INCLUDING INTERIOR PARKING SPACES, LOADING SPACE FOR MOTOR VEHICLES, VEHICULAR MANEUVERING AREAS, OR ANY SPACE WHERE THE FLOOR-TO-CEILING HEIGHT IS LESS THAN SIX FEET (PER CITY OF MALIBU LIP).

LEGEND

CALCULATED GROSS AREA

GROSS AREA TOTALS

PH 2 MIDDLE SCHOOL HUB STUDENT ACTIVITIES AND FOOD SERVICES (BUILDING D):	9,243 SF
PH 2 NEW GYMNASIUM / FITNESSS BUILDING (BUILDING D1):	
LOWER LEVEL:	17,665 SF
UPPER LEVEL:	1,246 SF
PH 2 NEW MDF BUILDING:	333 SF
TOTAL:	**28,487 SF**



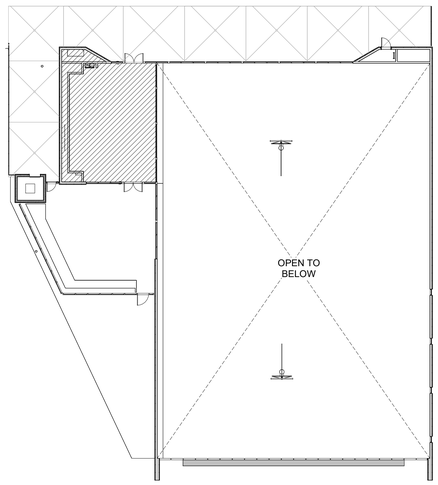


GSF: 333 SF

MDF GROSS FLOOR AREA 1" = 20'-0" 15

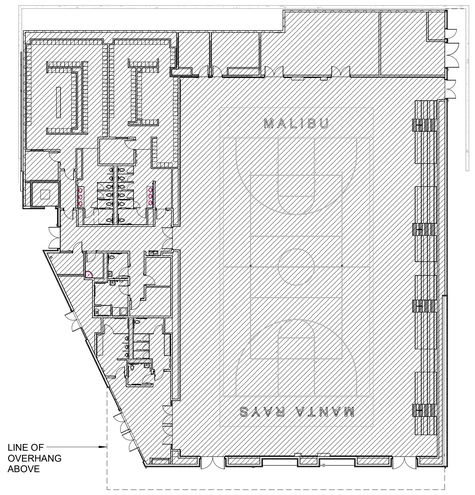
GSF: 9,243 SF

MS HUB GROSS FLOOR AREA 1" = 20'-0" 07



GSF: 1,246 SF

GYM UPPER LEVEL GROSS FLOOR AREA 1" = 20'-0" 13



GSF: 17,665 SF

GYM LOWER LEVEL GROSS FLOOR AREA 1" = 20'-0" 05

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MALIBU HIGH SCHOOL INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date
Submittal	Date
SCHEMATIC DESIGN	09/04/2024

Job Number	31722
Checked By	Checker
Scale	As indicated

PH 2
BUILDING
AREAS

2-G0.31

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING FIRE LANE
- (N) FIRE LANE
- FIRE HYDRANT
- X'-XX" HOSE PULL LENGTH



SITE FIRE ACCESS PLAN | 1" = 60'-0" | 2-G1.10 | 05

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LICENSED ARCHITECT
RICHARD MUSTO
No. C16639
REN 12/31/2025
STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL INCREMENT 02

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APN: 4469-017-900

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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
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Scale	As indicated

SITE FIRE ACCESS PLAN

2-G1.10

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the Local Fire Authority (LFA) is only required when an alternate design means is being requested.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy *PL 09-01: Fire Flow for Buildings.*

PROJECT INFORMATION	
School District/Owner:	SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT
Project Name/School:	Malibu MS/HS PH2: Hub and Gym
Project Address:	30215 Morning View Dr, Malibu, CA 90265

FIRE & LIFE SAFETY INFORMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☑		No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☑		No ☐
3.	Is the project located within a designated fire hazard severity zone (FHSZ) as established by Cal-Fire? *(If yes, indicate FHSZ classification below.)*	Yes ☑		No ☐
	Refer to the following website for FHSZ locations: Fire Hazard Severity Zones in State Responsibility Area	Moderate ☐	High ☐	Very High ☑
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☑

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.				
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.				
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.				
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.				
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.				

School District Acceptance of Acceptable Design Alternates

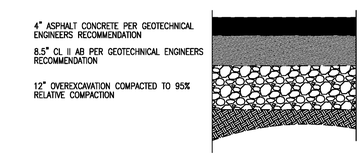
By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: CAREY UPTON Title: CHIEF OPERATIONS OFFICER

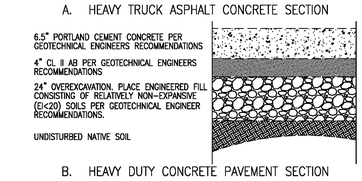
Signature: Date: 7/24/25

LOCAL FIRE AUTHORITY (LFA) INFORMATION	
LFA Agency Name:	
LFA Review Official:	
Title:	Work Phone:
Work Email:	

LFA Reviewer's Signature: Date:



A. HEAVY TRUCK ASPHALT CONCRETE SECTION

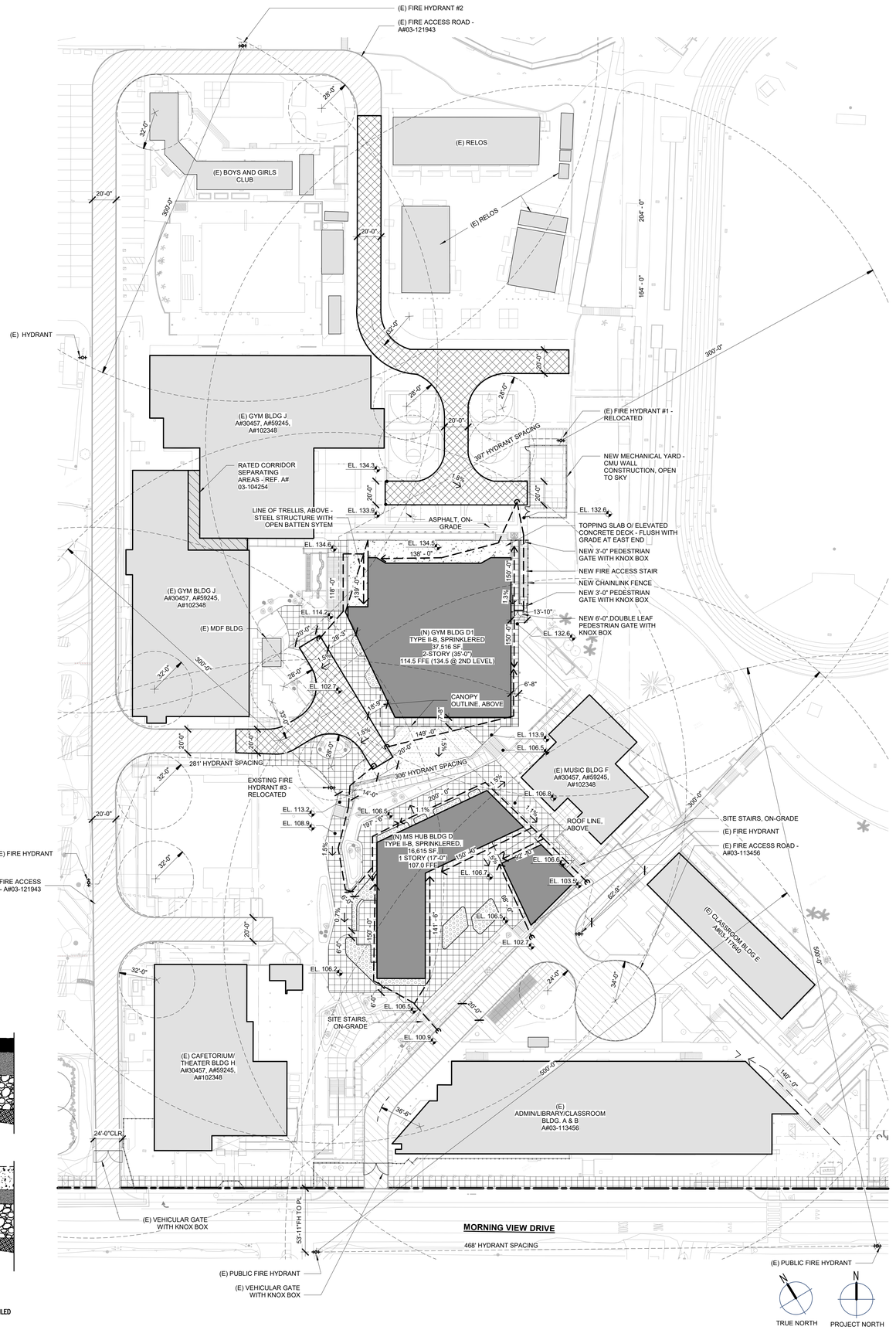


B. HEAVY DUTY CONCRETE PAVEMENT SECTION

NOTES:

1. REFER TO GEOTECHNICAL EXPLORATION REPORT BY LEIGHTON A VERANDAS COMPANY DATED OCTOBER 16, 2024 & REVISED MAY 23, 2025 FOR DETAILED DESIGN RECOMMENDATIONS
2. SEE LANDSCAPE CONSTRUCTION PLANS FOR CONCRETE TYPES AND JOINT LOCATIONS.

FIRE LANE PAVEMENT DETAILS | NTS | 17



SITE FIRE ACCESS PLAN - ENLARGED | 1" = 40'-0" 2-G1.11 | 05

LEGEND

- PROPERTY LINE
- EXISTING BUILDING
- (N) BUILDING
- EXISTING FIRE LANE
- (N) FIRE LANE PER 17/G1.11; REF: CIVIL DWGS FOR EXTENT OF AC AND CONCRETE
- CONCRETE PAVING
- PLANTING AREAS, ON-GRADE
- CONCRETE DECK TOPPING SLAB
- ARTIFICIAL TURF
- FIRE HYDRANT
- X'-XX" HOSE PULL LENGTH

FIRE FLOW & HYDRANT REQUIREMENTS

2022 CALIFORNIA FIRE CODE, APPENDIX BB105.1 (FIRE FLOW REQUIREMENTS FOR BUILDINGS) & APPENDIX CC, TABLE CC105.1 (NUMBER AND DISTRIBUTION OF FIRE HYDRANTS)

MS HUB (BUILDING D):
(TYPE II-B, 1 STORY, 16,615 SF, FULLY SPRINKLERED)
FIRE FLOW PER TABLE BB105.1: 2,000 GPM FOR 2 HR DURATION

REDUCTION IN REQUIRED FIRE-FLOW UP TO 75%, WITH A MINIMUM FIRE-FLOW RATE OF 1,500 GPM, FOR THE PRESCRIBED DURATION IN TABLE BB105.1 PER 2022 CFC SECTION BB105.1 & DSA POLICY PL 09-01

REDUCED BY 75% FOR APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM.
REQUIRED FIRE FLOW: 2,750 X 25% = 688 GPM < 1,500 GPM CODE REQUIRED MINIMUM

MIN REQUIRED FLOW = 1,500 GPM
1,500 GPM FOR 2 HR DURATION @ 20 PSI

REQUIRED HYDRANTS (CC105.1):
1 HYDRANTS REQUIRED AT 500 FT SPACING, 250 FT MAX. DISTANCE FROM ANY POINT ON THE STREET OR ROAD FRONTAGE TO A HYDRANT.

GYM (BUILDING D1):
(TYPE II-B, 2 STORY, 37,516 SF, FULLY SPRINKLERED)
FIRE FLOW PER TABLE BB105.1: 2,000 GPM FOR 2 HR DURATION

REDUCTION IN REQUIRED FIRE-FLOW UP TO 75%, WITH A MINIMUM FIRE-FLOW RATE OF 1,500 GPM, FOR THE PRESCRIBED DURATION IN TABLE BB105.1 PER 2022 CFC SECTION BB105.1 & DSA POLICY PL 09-01

REDUCED BY 75% FOR APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM.
REQUIRED FIRE FLOW: 4,000 X 25% = 1,000 GPM < 1,500 GPM CODE REQUIRED MINIMUM

MIN REQUIRED FLOW = 1,500 GPM
1,500 GPM FOR 2 HR DURATION @ 20 PSI

REQUIRED HYDRANTS (CC105.1):
1 HYDRANTS REQUIRED AT 500 FT SPACING, 250 FT MAX. DISTANCE FROM ANY POINT ON THE STREET OR ROAD FRONTAGE TO A HYDRANT

FIRE FLOW TEST RESULTS - ON-SITE HYDRANTS

(E) HYDRANT #1:
STATIC PRESSURE: 70 PSI
RESIDUAL PRESSURE: 47 PSI
OBSERVED FLOW: 1,110 GPM
FLOW CALCULATED AT 20 PSI (RES): 1,688 GPM

(E) HYDRANT #2:
STATIC PRESSURE: 73 PSI
RESIDUAL PRESSURE: 49 PSI
OBSERVED FLOW: 1,060 GPM
FLOW CALCULATED AT 20 PSI (RES): 1,626 GPM

(E) HYDRANT #3:
STATIC PRESSURE: 90 PSI
RESIDUAL PRESSURE: 75 PSI
OBSERVED FLOW: 1,320 GPM
FLOW CALCULATED AT 20 PSI (RES): 3,033 GPM

FIRE ACCESS NOTES

1. PROVIDE APPROVED SIGNS OR OTHER APPROVED NOTICES OR MARKINGS THAT INCLUDE THE WORDS "NO PARKING - FIRE LANE." SIGNS SHALL HAVE A MINIMUM DIMENSION OF 12 INCHES WIDE BY 18 INCHES HIGH AND HAVE RED LETTERS ON A WHITE REFLECTIVE BACKGROUND. SIGNS SHALL BE PROVIDED FOR FIRE APPARATUS ACCESS ROADS, TO CLEARLY INDICATE THE ENTRANCE TO SUCH ROAD, OR PROHIBIT THE OBSTRUCTION THEREOF AND AT INTERVALS, AS REQUIRED BY THE FIRE INSPECTOR. FIRE CODE 503.3.
2. WHEN SECURITY GATES ARE PROVIDED, MAINTAIN A MINIMUM ACCESS WIDTH OF 20 FEET. THE SECURITY GATE SHALL BE PROVIDED WITH AN APPROVED MEANS OF EMERGENCY OPERATION AND SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES AND REPLACED OR REPAIRED WHEN DEFECTIVE. ELECTRIC GATE OPERATORS, WHERE PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325. GATES INTENDED FOR AUTOMATIC OPERATION SHALL BE DESIGNED, CONSTRUCTED, AND INSTALLED TO COMPLY WITH THE REQUIREMENTS OF ASTM F2200. GATES SHALL BE OF THE SWINGING OR SLIDING TYPE. CONSTRUCTION OF GATES SHALL BE OF MATERIALS THAT ALLOW MANUAL OPERATION BT ONE PERSON. FIRE CODE 503.6.
3. APPROVED BUILDING ADDRESS NUMBERS, BUILDING NUMBERS, OR APPROVED BUILDING IDENTIFICATION SHALL BE PROVIDED AND MAINTAINED SO AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND, BE ARABIC NUMERALS OR ALPHABET LETTERS, AND BE A MINIMUM OF FOUR INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 0.5 INCH. FIRE CODE 505.1.
4. FIRE APPARATUS ACCESS ROADS SHALL BE IDENTIFIED WITH APPROVED SIGNS. TEMPORARY SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES. SIGNS SHALL BE OF AN APPROVED SIZE, WEATHER RESISTANT AND BE MAINTAINED UNTIL REPLACED BY PERMANENT SIGNS. FIRE CODE 505.2.
5. AN APPROVED KEY BOX, LISTED IN ACCORDANCE WITH UL 1037 SHALL BE PROVIDED AS REQUIRED BY FIRE CODE 506. THE LOCATION OF EACH KEY BOX SHALL BE DETERMINED BY THE FIRE INSPECTOR.
6. WHEN ANY PORTION OF A PROPOSED STRUCTURE EXCEEDS THE ALLOWABLE DISTANCE FROM A PUBLIC FIRE HYDRANT, VIA FIRE APPARATUS ACCESS, ON-SITE HYDRANTS SHALL BE PROVIDED. THE SPACING DISTANCE BETWEEN ON-SITE HYDRANTS SHALL BE 300 TO 400 FEET. ALL ON-SITE FIRE HYDRANTS SHALL HAVE A MINIMUM FIRE-FLOW OF 1,250 GALLONS PER MINUTE AT 20 PSI FOR A DURATION OF 2 HOURS. IF MORE THAN ONE ON-SITE FIRE HYDRANT IS REQUIRED, THE FIRE FLOW SHALL BE LESSER OF EITHER THE REQUIRED FIRE FLOW OF THE BUILDING, OR 2,500 GALLONS PER MINUTE AT 20 PSI FOR A DURATION OF 2 HOURS. ALL ON-SITE HYDRANTS SHALL BE INSTALLED A MINIMUM OF 25 FEET FROM A STRUCTURE OF PROTECTED BY A 2-HOUR FIRE WALL, IN ACCORDANCE WITH APPENDIX TABLE B105.1. FIRE CODE C106.1
7. ALL FIRE HYDRANTS SHALL MEASURE 6" X 4" X 2-2/2", BRASS OR BRONZE, CONFORMING TO AMERICAN WATER WORKS ASSOCIATION STANDARD C503, OR APPROVED EQUAL.
8. REFERENCE SHEET 2-2-A2-6.11 FOR ADDITIONAL INFORMATION REGARDING SITE PEDESTRIAN GATES.

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30215 MORNING VIEW DR., MALIBU, CA 90265
APN: 4469-017-900
Developed for SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

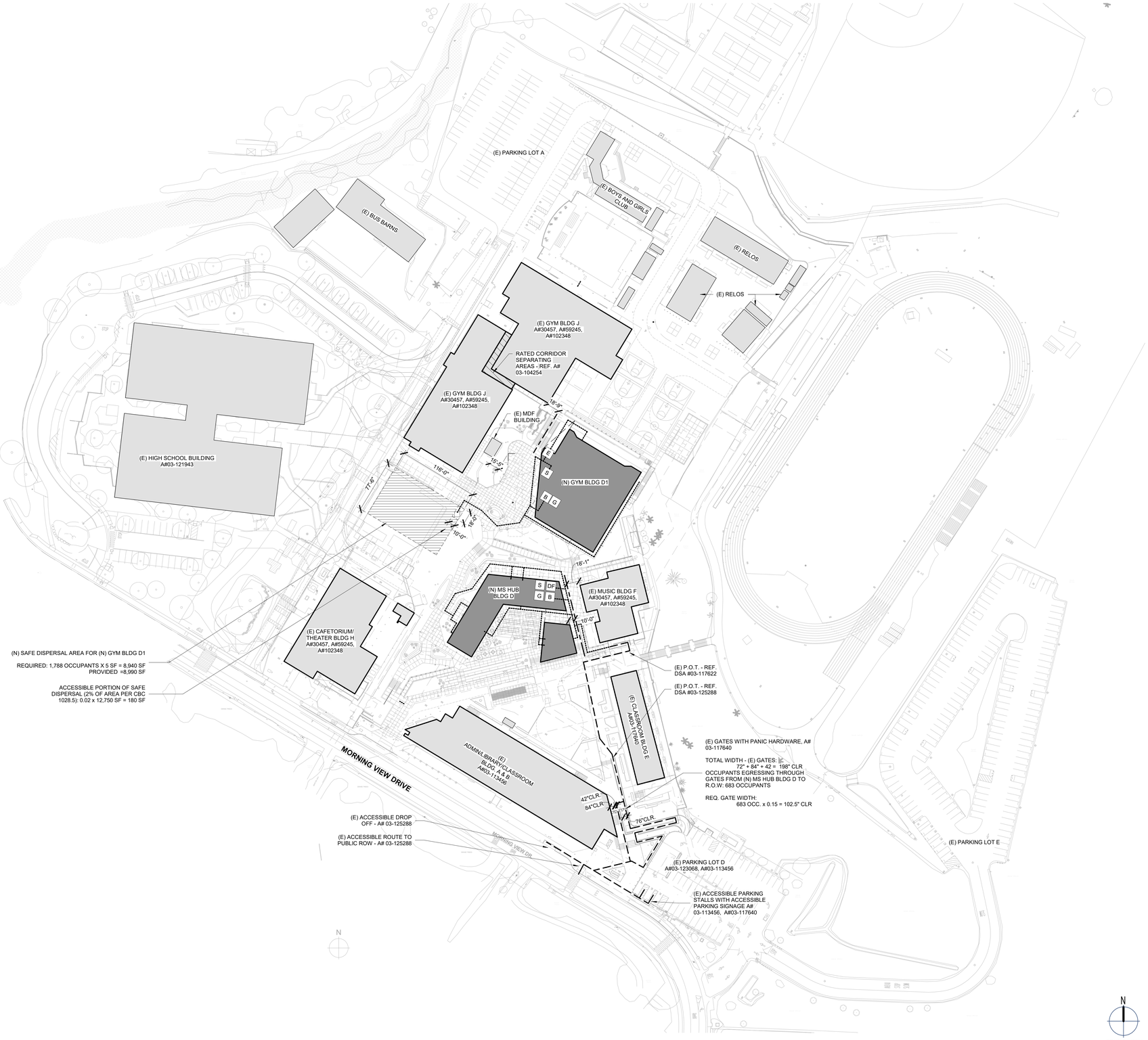
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	08/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
CDE SUBMITTAL	05/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	MP
Scale	As indicated

SITE FIRE ACCESS PLA - ENLARGED

2-G1.11



TRUE NORTH

SITE ACCESSIBILITY PLAN | 1" = 60'-0" (2-G1.20) | 05

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- (E) SAFE DISPERSAL AREA - REF. DSA A#117640
- (N) SAFE DISPERSAL AREA
- (N) ACCESSIBLE PORTION OF SAFE DISPERSAL AREA
- G B GN S — ACCESSIBLE RESTROOM
  - G - GIRLS
  - B - BOYS
  - GN - GENDER NEUTRAL
  - S - STAFF
- DF — ACCESSIBLE DRINKING FOUNTAIN
- E — ELEVATOR
- PROPERTY LINE
- ASSUMED PROPERTY LINE
- EXISTING PATH OF TRAVEL (P.O.T.) - REFERENCE DSA A# 03-117640
- PROPOSED PATH OF TRAVEL (P.O.T.)

PARKING CALCULATIONS

(E) PARKING LOT D
61 SPACES TOTAL
REQUIRED ACCESSIBLE SPACES: 3
PROVIDED ACCESSIBLE SPACES: 3 (INC. 1 VAN ACCESSIBLE)

GENERAL NOTES

P.O.T. AS INDICATED IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED @ 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL & IS AT LEAST 48" WIDE; SURFACE IS SLIP RESISTANT, STABLE, FIRM, & SMOOTH; CROSS-SLOPE DOES NOT EXCEED 2% & SLOPE IN THE DIRECTION OF TRAEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED; P.O.T. SHALL REMAIN FREE OF OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (11B-307.4); & PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" 7 LESS THAN 80" (11B-307.2). REFER TO CIVIL DWGS FOR COMPLIANCE DOCUMENTATION AND/OR AREAS REQUIRING REMEDIATION.

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LICENSED ARCHITECT
RICHARD MISYO
No. C-10639
REN 12/31/2025
STATE OF CALIFORNIA

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30215 MORNING VIEW DR.,
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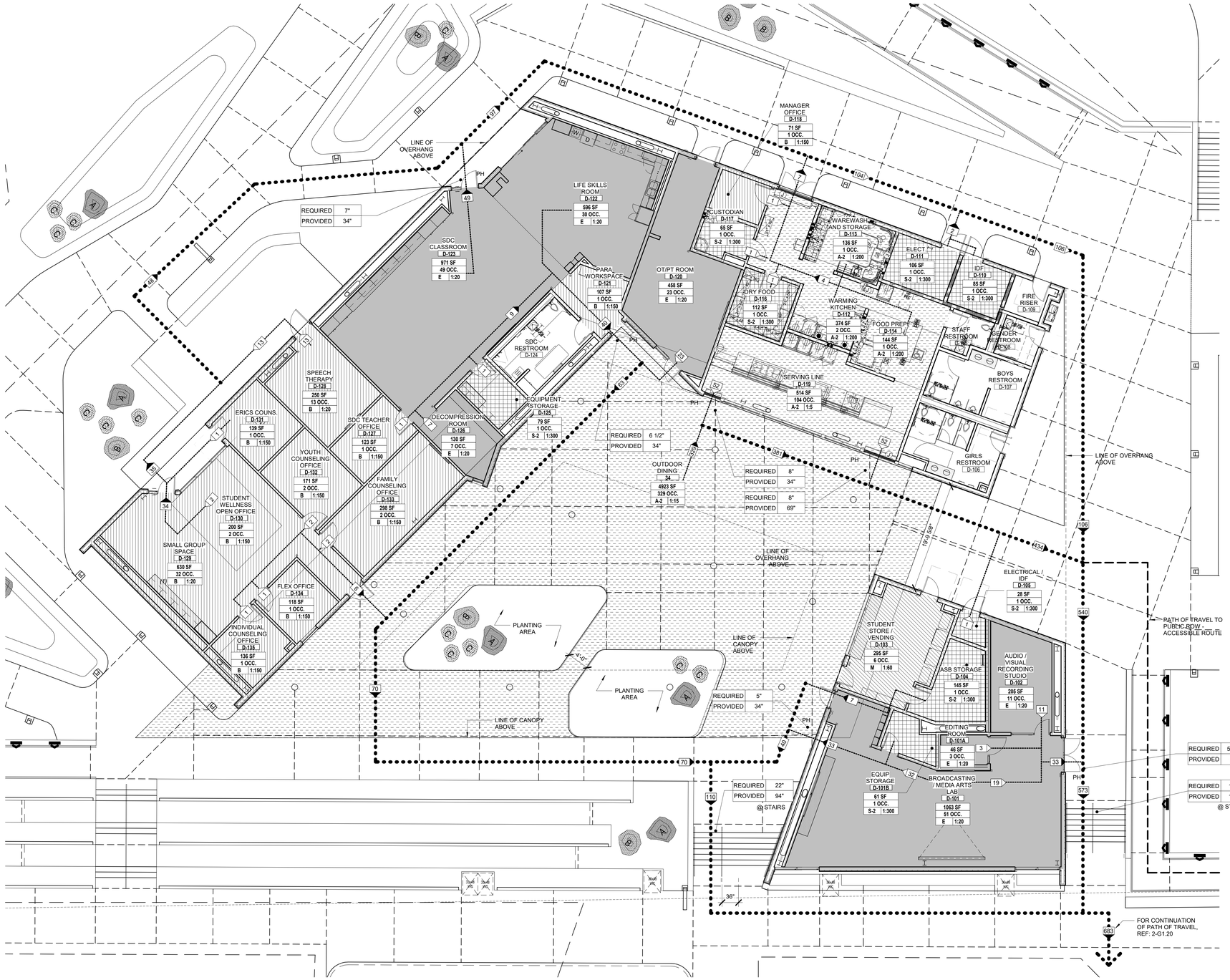
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
CDP SUBMITTAL	05/16/2025
50% CONSTRUCTION DOCS	09/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	As indicated

SITE ACCESSIBILITY PLAN

2-G1.20



MS HUB - FLOOR EGRESS | 1/8" = 1'-0" | 2-G2-1.11 | 05

LEGEND

Room Name ### — ROOM NUMBER
SF — SQUARE FOOTAGE
Occ-Load OCC. # 1:OLF — OCCUPANT LOAD / OCCUPANCY LOAD FACTOR
OCCUPANCY GROUP
1 HOUR FIRE BARRIER CONSTRUCTION IN ACCORDANCE WITH CBC SECTION 707
2 HOUR FIRE BARRIER CONSTRUCTION IN ACCORDANCE WITH CBC SECTION 707

REQUIRED 0" — EGRESS WIDTH REQUIRED
PROVIDED 0" — EGRESS WIDTH PROVIDED
* *OCCUPANT LOAD x 0.2" @ STAIRS*
OCCUPANT LOAD x 0.15" @ ALL OTHER EGRESS COMPONENTS

FE — FIRE EXTINGUISHER CABINET
PH — INDICATES PANIC HARDWARE REQUIRED
0 — INDIVIDUAL ROOM OCCUPANCY LOAD
0 — COMBINED ROOM OCCUPANCY LOAD
PATH OF TRAVEL/TRAVEL DISTANCE

A-2 OCCUPANCY
B OCCUPANCY
E OCCUPANCY
S-2 OCCUPANCY
UNOCCUPIED - AREA NOT INCLUDED IN EGRESS CALCULATION

CODE ANALYSIS

BUILDING CLASSIFICATION:

BUILDING NAME:	MS HUB
BUILDING USE:	CLASSROOMS, OFFICES, & ASSEMBLY
OCCUPANCY*:	A-2, B, E, & S-2 (NON-SEPARATED)
ACCESSORY OCCUPANCIES:	N/A

* *PER DSA IR 10-2, KITCHEN IS ACCESSORY TO A-2 OCCUPANCY*

CONSTRUCTION TYPE:	TYPE II-B
FIRE PROTECTION:	FULLY SPRINKLERED

BASIC ALLOWABLE AREA AND HEIGHT (CBC 504):

AREA PER STORY*:	38,000 SF
NUMBER OF STORIES*:	1
HEIGHT:	55 FT

PROPOSED BUILDING AREA AND HEIGHT:

OVERALL BUILDING AREA*:	16,615 SF < 38,000 - OK
ACTUAL BUILDING AREA:	9,952 SF
BUILDING OVERHANG AREA:	1,057 SF
CANOPY AREA:	5,606 SF
NUMBER OF STORIES:	1
HEIGHT:	22 FT < 55 FT - OK

* *OVERALL BUILDING AREA INCLUDES HORIZONTAL PROJECTIONS OF THE ROOF OR FLOOR ABOVE BUT EXCLUDE VENT SHAFTS AND COURTS (CBC 202).*

FIRE-RESISTANCE RATING REQ FOR BLDG ELEMENTS (CBC TABLE 601):

STRUCTURAL FRAME:	0 HOUR
EXTERIOR BEARING WALLS:	0 HOUR
INTERIOR BEARING WALLS:	0 HOUR
EXTERIOR NONBEARING WALLS:	REVER TO RATING REQ. BELOW
INTERIOR NONBEARING WALLS:	0 HOUR
FLOOR CONSTRUCTION:	0 HOUR
ROOF CONSTRUCTION:	0 HOUR**

** *FIRE PROTECTION OF MEMBERS OTHER THAN THE PRIMARY STRUCTURAL FRAME SHALL NOT BE REQ, INCLUDING PROTECTION OF THE ROOF FRAMING & DECKING WHERE EVERY PART OF CONSTRUCTION IS 20 FT OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW (CBC 601 EXCEPTION B)*

FIRE-RESISTANCE RATING REQ FOR EXTERIOR WALLS (CBC TABLE 705.5):

1-HOUR PROTECTION*:	X < 10
NO PROTECTION REQUIRED:	X ≥ 10

* *X REFERS TO FIRE SEPARATION DISTANCE*

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (CPC TABLE 4-1)

A-2 OCCUPANCY:	1,312 SF ** / 30	=	44 OCCUPANTS
B OCCUPANCY:	2,323 SF / 150	=	16 OCCUPANTS
E OCCUPANCY:	3,898 SF / 30	=	130 OCCUPANTS

TOTAL OCCUPANCY: 370 OCCUPANTS = 185 MALES, 185 FEMALES

REQUIRED FIXTURES

	WATER CLOSET	URINALS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
MEN	4	3	4	3	1
WOMEN	5	-	4		

**PER CPC 2022, TABLE 422.1, NOTE 3, THE TOTAL NUMBER OF REQUIRED WATER CLOSETS FOR FEMALES SHALL BE NOT LESS THAN THE TOTAL NUMBER OF REQUIRED WATER CLOSETS AND URINALS FOR MALES. THIS REQUIREMENT SHALL NOT APPLY WHEN SINGLE OCCUPANCY TOILET FACILITIES ARE PROVIDED FOR EACH SEX IN AN A OR E OCCUPANCY WITH AN OCCUPANT LOAD OF LESS THAN 50, EITHER THE REQUIRED URINAL SHALL BE PERMITTED TO BE OMITTED, OR IF INSTALLED, THE URINAL SHALL NOT REQUIRE A SECOND WATER CLOSET TO BE PROVIDED FOR THE FEMALE.*

PROVIDED FIXTURES

	WATER CLOSET	URINALS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
MEN	2	2	4	3	1
WOMEN	5	-	4		

NOTES:
(1) PER CBC 2022, 303.1.2.1. A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP B OCCUPANCY OR AS PART OF THAT OCCUPANCY.

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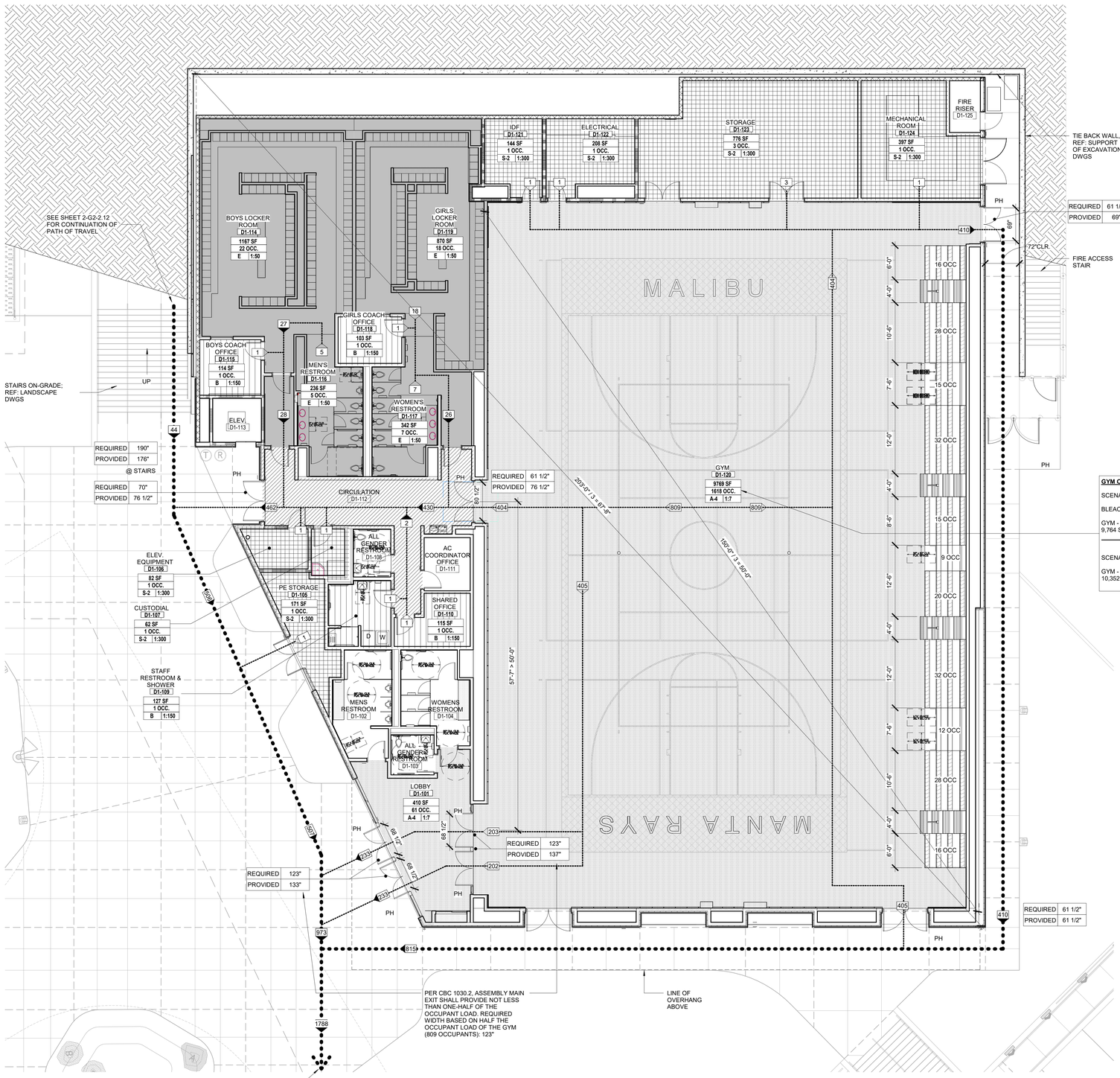
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100% DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	06/06/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

MS HUB - CODE ANALYSIS

2-G2-1.11



GYM BLEACHER SEATING ANALYSIS:

BLEACHER SEATING (MAX TOTAL): 223

WHEELCHAIR SPACES (CBC 2022, TABLE 11B-221.2.1.1):
WHEELCHAIR SPACES REQUIRED: 5
WHEELCHAIR SPACES PROVIDED: 6

COMPANION SEATING (CBC 2022, 221.3):
AT LEAST 1 SEAT IMMEDIATELY ADJACENT TO WHEELCHAIR SPACE

COMPANION SEATING REQUIRED: 5
COMPANION SEATING PROVIDED: 6

SEMI-AMBULANT SEATS (CBC 2022, 11B-221.6):
1% OF TOTAL SEATS, BUT NO FEWER THAN 2

SEMI-AMBULANT SEATING REQUIRED: 3
SEMI-AMBULANT SEATING PROVIDED: 3

DESIGNATED AISLE SEATS (CBC 2022 11B-221.4):
5% OF AISLE SEATS
TOTAL AISLE SEATS: 32

DESIGNATED AISLE SEATS REQUIRED: 2
DESIGNATED AISLE SEATS PROVIDED: 2

GYM OCCUPANCY (PER DSA IR 10-2):

SCENARIO 1 - OPEN BLEACHERS:

BLEACHERS - FIXED SEATING (CBC 1004.6) = 223 OCCUPANTS

GYM - ASSEMBLY (A-4):
9,764 SF (NOT INC. BLEACHERS) / 7 SF = 1,395 OCCUPANTS
TOTAL = 1,618 OCCUPANTS

SCENARIO 2 - CLOSED BLEACHERS:

GYM - ASSEMBLY (A-4):
10,352 SF (NOT INC. BLEACHERS) / 7 SF = **1,479 OCCUPANTS**

TRUE NORTH PROJECT NORTH

GYM - FIRST FLOOR EGRESS | 1/8" = 1'-0" | 2-G2-2.11 | 05

LEGEND

Room Name ### — ROOM NUMBER
SF — SQUARE FOOTAGE
Occ-Load OCC — OCCUPANT LOAD
1:0LF — OCCUPANCY LOAD FACTOR
OCCUPANCY GROUP
1 HOUR FIRE BARRIER CONSTRUCTION IN ACCORDANCE WITH CBC SECTION 707
2 HOUR FIRE BARRIER CONSTRUCTION IN ACCORDANCE WITH CBC SECTION 707

REQUIRED 0" — EGRESS WIDTH REQUIRED
PROVIDED 0" — EGRESS WIDTH PROVIDED
* *OCCUPANT LOAD x 0.2" @ STAIRS*
OCCUPANT LOAD x 0.15" @ ALL OTHER EGRESS COMPONENTS

FE — FIRE EXTINGUISHER CABINET
PH — INDICATES PANIC HARDWARE REQUIRED
0 — INDIVIDUAL ROOM OCCUPANCY LOAD
0 — COMBINED ROOM OCCUPANCY LOAD
PATH OF TRAVEL/TRAVEL DISTANCE
COMMON PATH OF TRAVEL/TRAVEL DISTANCE FROM ELEVATOR

A-4 OCCUPANCY
B OCCUPANCY
E OCCUPANCY
S-2 OCCUPANCY
UNOCCUPIED - AREA NOT INCLUDED IN EGRESS CALCULATION
CIRCULATION - AREA NOT INCLUDED IN EGRESS CALCULATION

CODE ANALYSIS

BUILDING CLASSIFICATION:

BUILDING NAME:	GYM
BUILDING USE:	GYMNASIUM, OFFICES, LOCKER & EXERCISE ROOMS & STORAGE
OCCUPANCY*:	A-4, B, E, & S-2 (NON-SEPARATED)
ACCESSORY OCCUPANCIES:	N/A

* *PER DSA IR 10-2, EXERCISE & LOCKER ROOMS ARE E OCCUPANCY WITH OCCUPANT LOAD OF 50 (GROSS)*

CONSTRUCTION TYPE:	TYPE II-B
FIRE PROTECTION:	FULLY SPRINKLERED

BASIC ALLOWABLE AREA AND HEIGHT (CBC 504):

AREA PER STORY*:	28,500 SF
NUMBER OF STORIES*:	3
HEIGHT:	55 FT

* *A-4 OCCUPANCY USED AS MOST RESTRICTIVE.*

PROPOSED BUILDING AREA AND HEIGHT:

FIRST FLOOR AREA*:	19,881 SF < 28,500 - OK
SECOND FLOOR AREA* :	17,635 SF < 28,500 - OK
OVERALL BUILDING AREA*:	37,516 SF < 57,000 - OK
ACTUAL BUILDING AREA:	17,902 SF + 13,944 SF = 31,846 SF
FIRST FLOOR OVERHANG AREA:	1,979 SF
SECOND FLOOR OVERHANG AREA:	793 SF
SECOND FLOOR TRELLIS AREA:	2,898 SF
NUMBER OF STORIES:	2
HEIGHT:	35 FT < 55 FT - OK

* *OVERALL BUILDING AREA INCLUDES HORIZONTAL PROJECTIONS OF THE ROOF OR FLOOR ABOVE BUT EXCLUDES VENT SHAFTS AND COURTS (CBC 202).*

FIRE-RESISTANCE RATING REQ FOR BLDG ELEMENTS (CBC TABLE 601):

STRUCTURAL FRAME:	0 HOUR
EXTERIOR BEARING WALLS:	0 HOUR
INTERIOR BEARING WALLS:	0 HOUR
EXTERIOR NONBEARING WALLS:	REVER TO RATING REQ. BELOW
INTERIOR NONBEARING WALLS:	0 HOUR
FLOOR CONSTRUCTION:	0 HOUR
ROOF CONSTRUCTION:	0 HOUR**

** *FIRE PROTECTION OF MEMBERS OTHER THAN THE PRIMARY STRUCTURAL FRAME SHALL NOT BE REQ. INCLUDING PROTECTION OF THE ROOF FRAMING & DECKING WHERE EVERY PART OF CONSTRUCTION IS 20 FT OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW (CBC 601 EXCEPTION B)*

FIRE-RESISTANCE RATING REQ FOR EXTERIOR WALLS (CBC TABLE 705.5):

1-HOUR PROTECTION*:	X < 10
NO PROTECTION REQUIRED:	X ≥ 10

* *X REFERS TO FIRE SEPARATION DISTANCE*

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (CPC TABLE 4-1)

A-4 OCCUPANCY: (AREA WITHOUT FIXED SEATS):	10,293 SF / 11	=	936 OCCUPANTS
A-4 OCCUPANCY: (FIXED SEATS)	245 / 2	=	123 OCCUPANTS
A-4 OCCUPANCY TOTAL:			1,060 OCCUPANTS
B OCCUPANCY:	451 SF / 150	=	4 OCCUPANTS
E OCCUPANCY: (FITNESS)	5,267 SF / 50	=	106 OCCUPANTS
TOTAL OCCUPANCY:			1,173 OCCUPANTS = 585 MALES, 585 FEMALES

REQUIRED FIXTURES

	WATER CLOSET	URINALS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
MEN	7	6	6	5	1
WOMEN	13	-	9		

**PER CPC 2022, TABLE 422.1, NOTE 3, THE TOTAL NUMBER OF REQUIRED WATER CLOSETS FOR FEMALES SHALL BE NOT LESS THAN THE TOTAL NUMBER OF REQUIRED WATER CLOSETS AND URINALS FOR MALES. THIS REQUIREMENT SHALL NOT APPLY WHEN SINGLE OCCUPANCY TOILET FACILITIES ARE PROVIDED FOR EACH SEX IN AN A OR E OCCUPANCY WITH AN OCCUPANT LOAD OF LESS THAN 50, EITHER THE REQUIRED URINAL SHALL BE PERMITTED TO BE OMITTED, OR IF INSTALLED, THE URINAL SHALL NOT REQUIRE A SECOND WATER CLOSET TO BE PROVIDED FOR THE FEMALE.*

PROVIDED FIXTURES

	WATER CLOSET	URINALS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
MEN	7	5	6	4	1
WOMEN	11	-	9		

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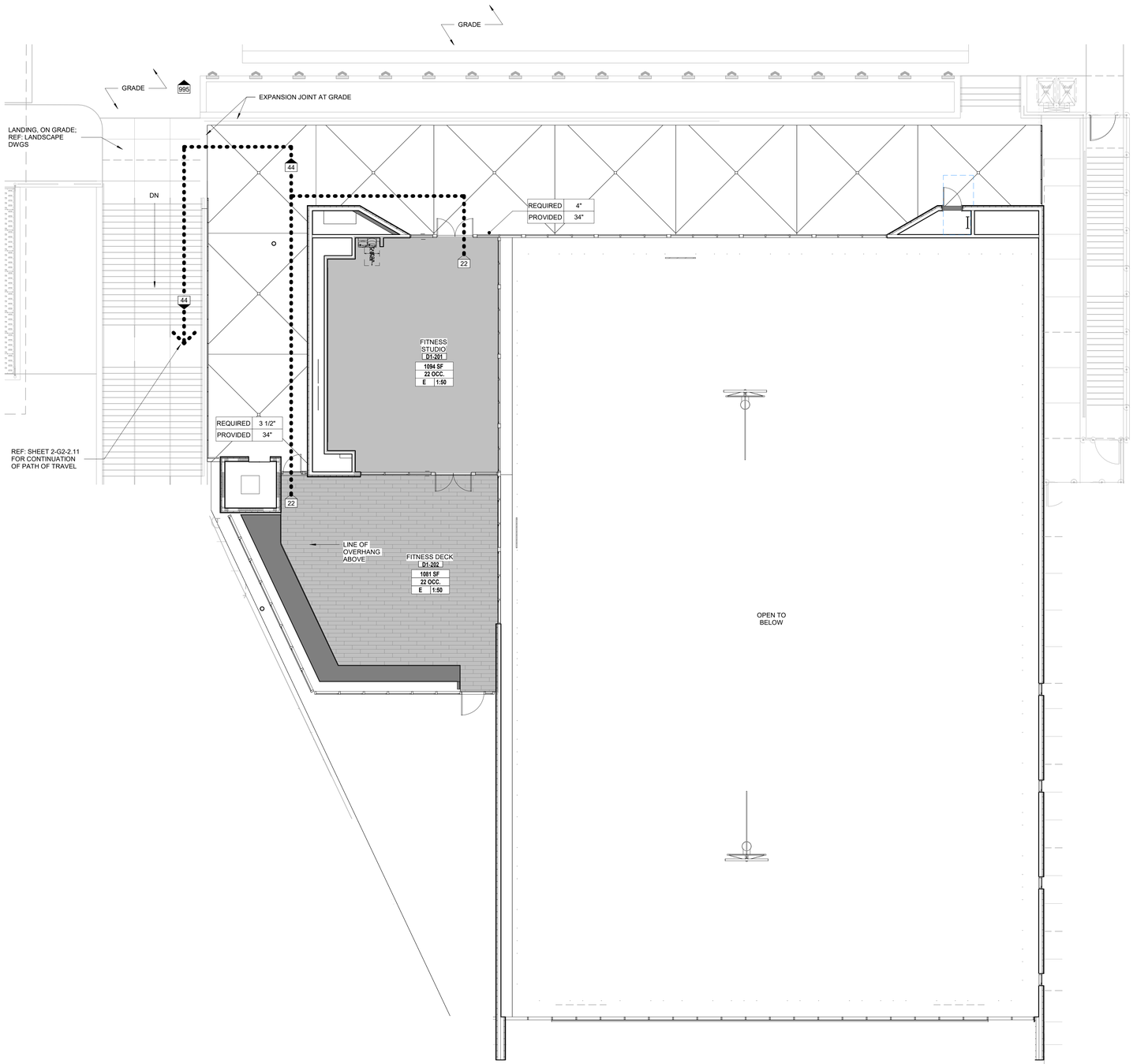
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
DSA SUBMITTAL	06/16/2025
90% DESIGN DEVELOPMENT	06/16/2025
90% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

GYM - LOWER LEVEL CODE ANALYSIS

2-G2-2.11



TRUE NORTH PROJECT NORTH

GYM - SECOND FLOOR EGRESS | 1/8" = 1'-0" | 2-G2-2.12 | 05

LEGEND

- Room Name / ### — ROOM NUMBER
- ### SF — SQUARE FOOTAGE
- Occ-Load OCC. — OCCUPANT LOAD
- # 1:OLF — OCCUPANCY LOAD FACTOR
- OCCUPANCY GROUP
- 1 HOUR FIRE BARRIER CONSTRUCTION IN ACCORDANCE WITH CBC SECTION 707
- 2 HOUR FIRE BARRIER CONSTRUCTION IN ACCORDANCE WITH CBC SECTION 707
- REQUIRED 0" — EGRESS WIDTH REQUIRED
- PROVIDED 0" — EGRESS WIDTH PROVIDED
- * *OCCUPANT LOAD x 0.2" @ STAIRS*
  OCCUPANT LOAD x 0.15" @ ALL OTHER EGRESS COMPONENTS
- FE — FIRE EXTINGUISHER CABINET
- PH — INDICATES PANIC HARDWARE REQUIRED
- 0 — INDIVIDUAL ROOM OCCUPANCY LOAD
- 0 — COMBINED ROOM OCCUPANCY LOAD
- PATH OF TRAVEL/TRAVEL DISTANCE
- COMMON PATH OF TRAVEL/TRAVEL DISTANCE FROM ELEVATOR

- A-4 OCCUPANCY
- B OCCUPANCY
- E OCCUPANCY
- S-2 OCCUPANCY
- UNOCCUPIED - AREA NOT INCLUDED IN EGRESS CALCULATION
- CIRCULATION - AREA NOT INCLUDED IN EGRESS CALCULATION

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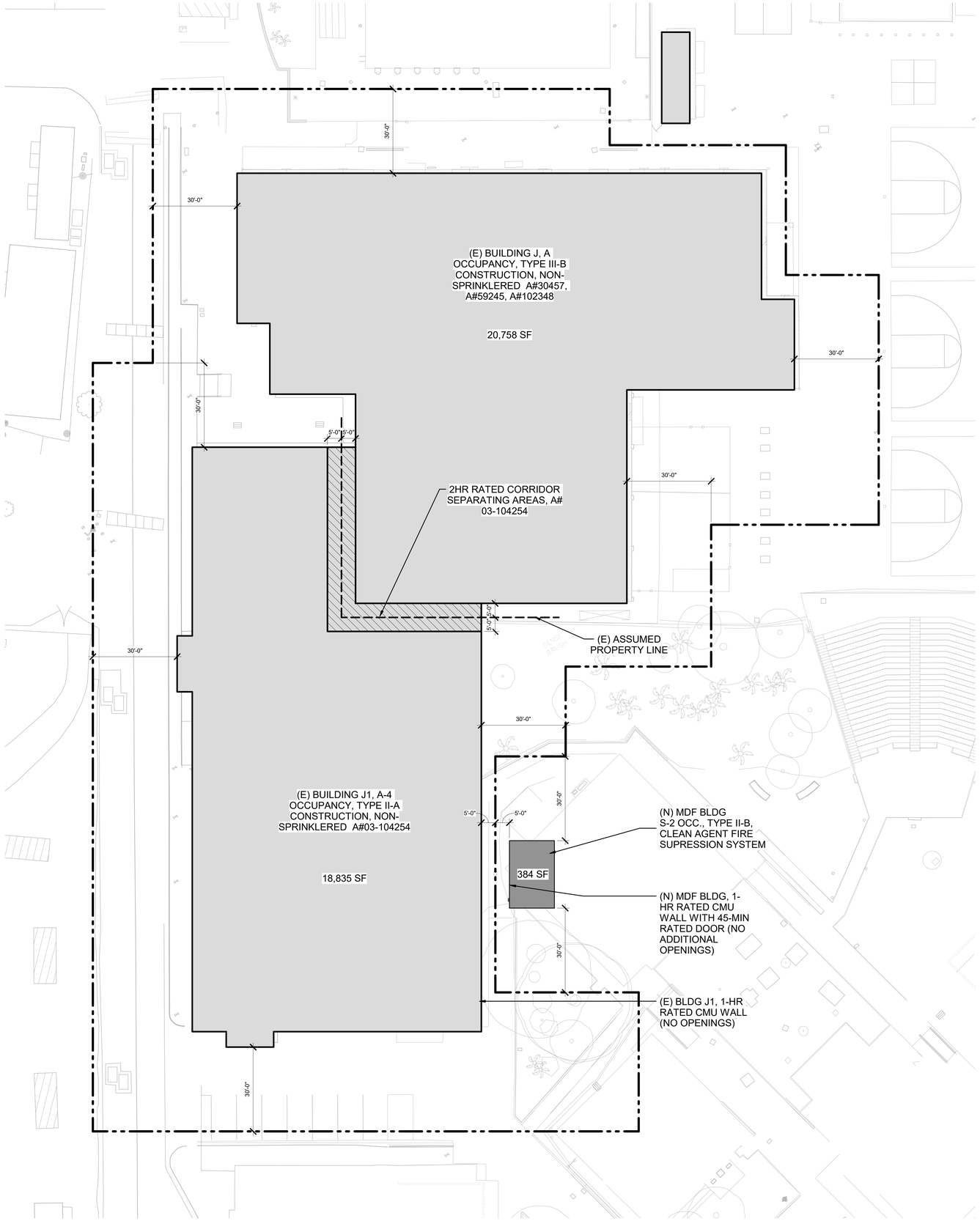
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Scale	1/8" = 1'-0"

GYM - UPPER LEVEL CODE ANALYSIS

2-G2-2.12



LEGEND

ASSUMED PROPERTY LINE

EXISTING BUILDING

(N) BUILDING

CODE ANALYSIS

BUILDING CLASSIFICATION:

BUILDING NAME:	MDF BUILDING
BUILDING USE:	CENTRAL CONNECTION FOR CAMPUS TELECOM AND NETWORKING
OCCUPANCY:	S-2
OCCUPANCY CLASSIFICATION:	N/A
CONSTRUCTION TYPE:	TYPE II-B
FIRE PROTECTION:	CLEAN AGENT SYSTEM

BASIC ALLOWABLE AREA AND HEIGHT (CBC 504):

AREA PER STORY*:	26,000 SF
NUMBER OF STORIES	3
HEIGHT:	55 FT

PROPOSED BUILDING AREA AND HEIGHT:

ACTUAL BUILDING AREA*:	384 SF < 26,000 SF
NUMBER OF STORIES	1
HEIGHT:	13'-4" < 55 FT

** OVERALL BUILDING AREAS INCLUDE HORIZONTAL PROJECTIONS OF THE ROOF OR FLOOR ABOVE BUT EXCLUDE VENT SHAFTS & COURTS. (CBC 202)*

FIRE-RESISTANCE RATING REQ FOR BLDG ELEMENTS (CBC TABLE 601):

STRUCTURAL FRAME:	0 HOUR
EXTERIOR BEARING WALLS:	0 HOUR
INTERIOR BEARING WALLS:	0 HOUR
EXTERIOR NONBEARING WALLS:	REFER TO RATING REQ BELOW
INTERIOR NONBEARING WALLS:	0 HOUR
FLOOR CONSTRUCTION:	0 HOUR
ROOF CONSTRUCTION:	0 HOUR **

***FIRE PROTECTION OF MEMBERS OTHER THAN THE PRIMARY STRUCTURAL FRAME SHALL NOT BE REQ, INCLUDING PROTECTION OF THE ROOF FRAMING & DECKING WHERE EVERY PART OF CONSTRUCTION IS 20 FT OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW (CBC 601 EXCEPTION B)*

MDF BLDG (II-B, S-2) - FIRE-RESISTANCE RATING REQ FOR EXTERIOR WALLS (CBC TABLE 705.5):

1-HR PROTECTION:	5 ≤ X < 10
NO PROTECTION REQ:	X ≥ 10

(E) BLDG J1, GYM (II-A, A-4) - FIRE-RESISTANCE RATING REQ FOR EXTERIOR WALLS (CBC TABLE 705.5):

1-HR PROTECTION:	5 ≤ X < 10
NO PROTECTION REQ:	X ≥ 10

**X REFERS TO FIRE SEPARATION DISTANCE*

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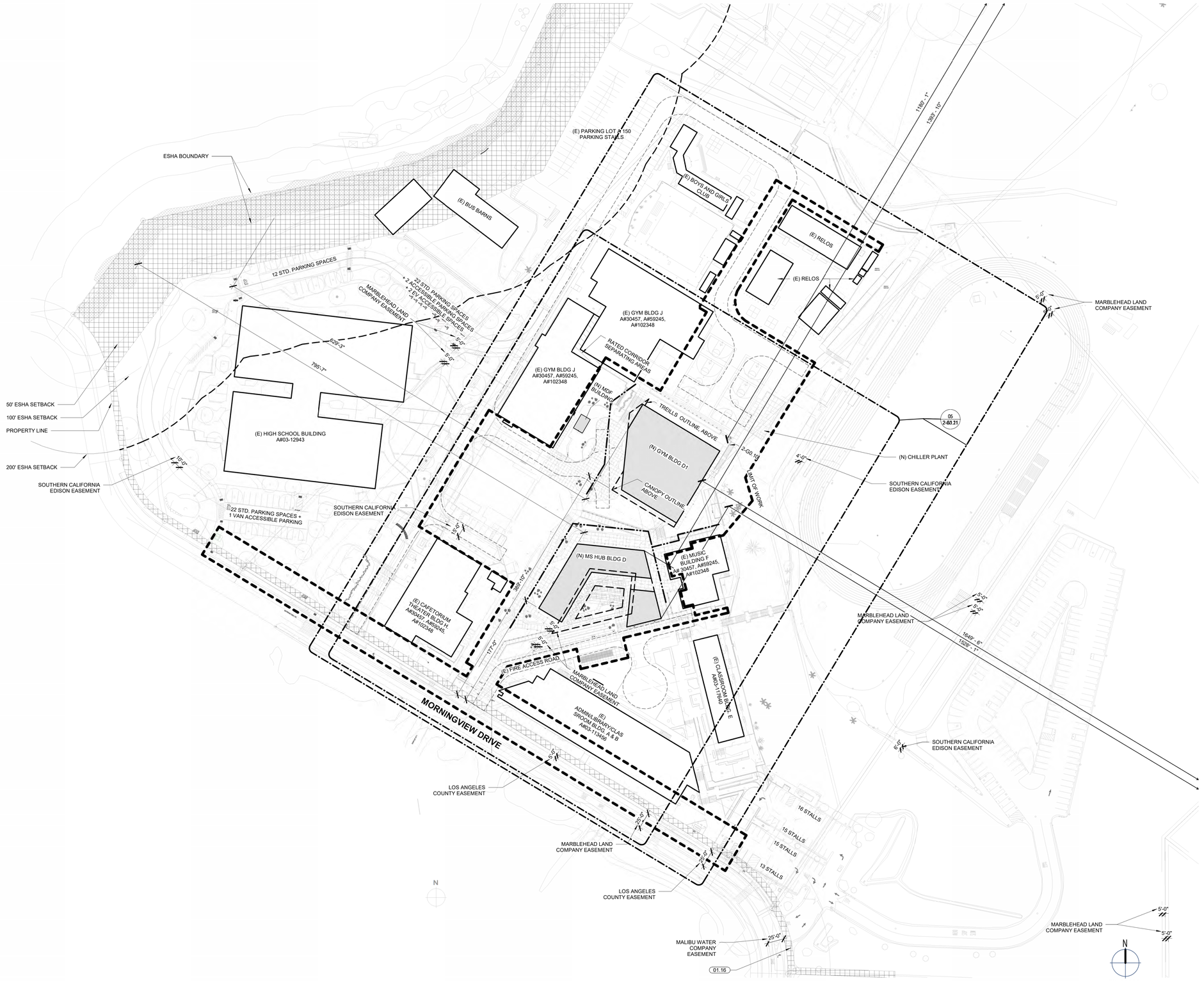
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100% DESIGN DEVELOPMENT	02/21/2025
CDP SUBMITTAL	05/16/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	Checker
Scale	

CODE ANALYSIS

1-G2.11



SITE PLAN | 1" = 60'-0" | 2-A0.01 | 05

KEYNOTES

01.16 (E) TOW-AWAY SIGNAGE PER A#03-125288

LEGEND

- LIMIT OF WORK (L.O.W.)
- PROPERTY LINE
- ASSUMED PROPERTY LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- BUILDING SETBACK

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LICENSED ARCHITECT RICHARD MUSTO No. C16639 REN 12/31/2025 STATE OF CALIFORNIA

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Developed for
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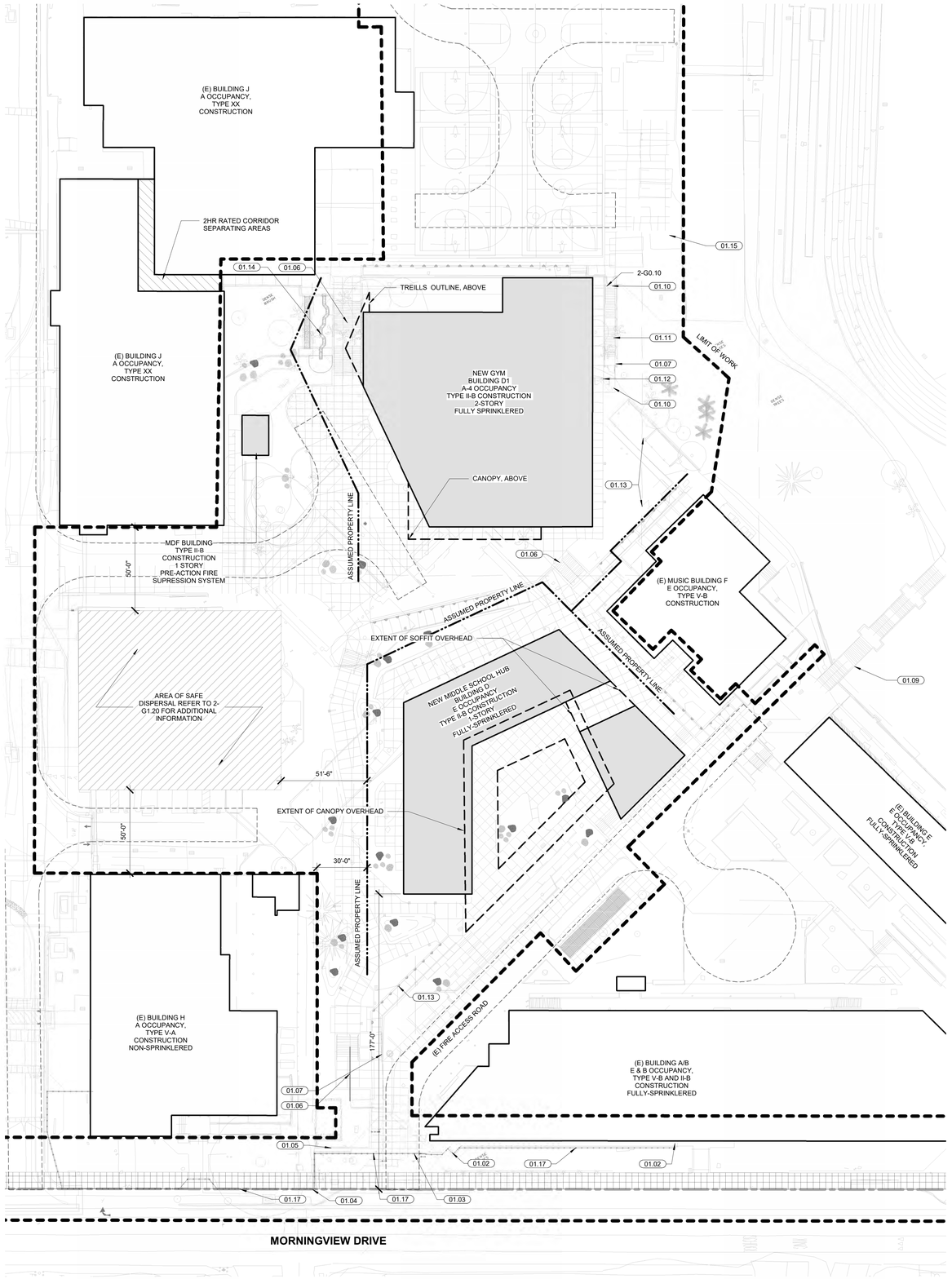
Revision	Date

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100% DESIGN DEVELOPMENT	02/21/2025
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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
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Scale	As indicated

CAMPUS PLAN

2-A0.01



TRUE NORTH

PROJECT NORTH

SITE PLAN | 1" = 30'-0" | 2-A0.21 | 05

KEYNOTES

01.02	(E) 3' WIDE PEDESTRIAN GATE WITH PANIC HARDWARE
01.03	(E) 20' WIDE VEHICULAR GATE
01.04	(E) 6' WIDE PEDESTRIAN GATE
01.05	(E) SITE RETAINING WALL
01.06	SITE STAIR
01.07	SITE RETAINING WALL
01.09	(E) SITE STAIR
01.10	WIDE FIRE ACCESS GATE
01.11	FIRE STAIR
01.12	FENCE
01.13	RAMP
01.14	SLIDE, RE: LANDSCAPE DRAWINGS
01.15	CHILLER YARD, RE: LANDSCAPE DRAWINGS
01.17	(E) FENCE

LEGEND

- LIMIT OF WORK (L.O.W.)
- PROPERTY LINE
- ASSUMED PROPERTY LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- FIRE ACCESS LANE

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LICENSED ARCHITECT
RICHARD MUSTO
No. C-10639
REN 12/31/2025
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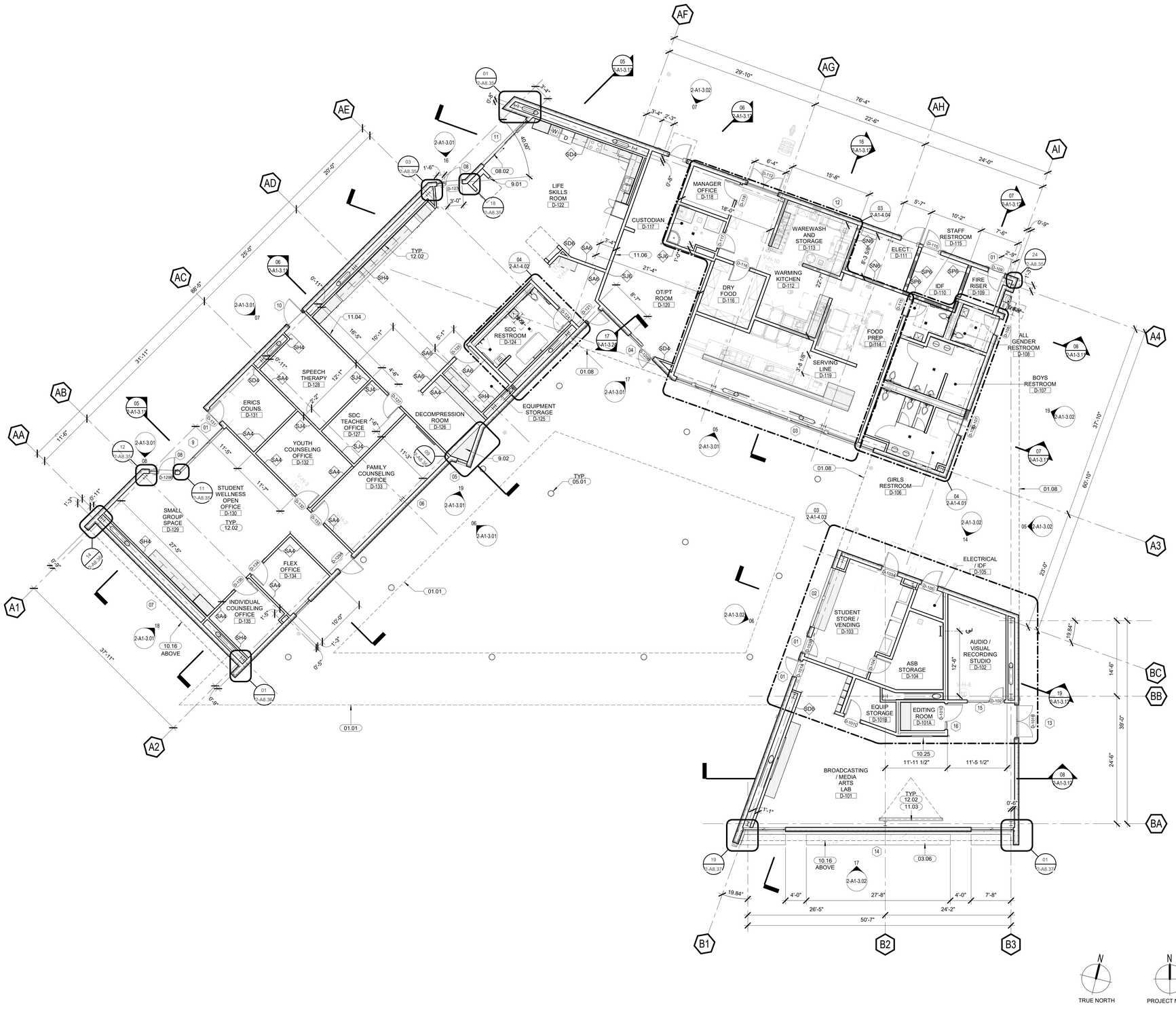
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100% DESIGN DEVELOPMENT	02/21/2025
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SITE PLAN

2-A0.21



KEYNOTES

01.01	CANOPY OVERHANG ABOVE, REF: SHEET 05/2-A1-2.03
01.08	LINE OF OVERHANG ABOVE
03.06	CAST IN PLACE CONCRETE SEAT WALL, COLOR TO MATCH DAVIS COLOR MOCHA, TOP CAST #3, ETCH RE: LANDSCAPE DRAWINGS
05.01	STRUCTURAL STEEL COLUMN, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____, TYP.
08.02	ALUMINUM SLIDING GLASS SYSTEM WITH VISION GLAZING AND LOW-E COATING
9.01	ANGLED BIRCH PLYWOOD DIVIDING WALL WITH NICHE AT EITHER END WITH CUSHIONED SEAT AND BACK. CORK FINISH WALLCOVERING TO BE FRAMED AND APPLIED OVER DRYWALL. REF SHEET 2-A9.31
9.02	WINDOW SEAT NICHE WITH BIRCH PLYWOOD SURROUND AND CUSHIONED SEAT AND BACK
10.16	ALUMINUM, FIXED HORIZONTAL SUN SCREEN, RE: 09/2-A8.13
10.25	FLAT SCREEN TV, PROVIDE MOUNTING BRACKET AND BACKING, RE: 07/2-A9.60
11.03	65"H X 104"W PROJECTION SCREEN ATTACHED TO UNISTRUT, RE: 12/2-A9.60
11.04	PROJECTABLE WHITE BOARD, REFER TO INTERIOR ELEVATIONS
11.06	MIRROR, RE: INTERIOR ELEVATIONS
12.02	CEILING-MOUNTED MOTORIZED WINDOW ROLLER SHADE, RE: 22/2-A9.20

LEGEND

- NEW MILLWORK / CASEWORK
- SA2U — **WALL TYPE.** LETTER INDICATES WALL TYPE. SEE 2-A9.0X SERIES.
- **STUD SIZE.** NUMBER INDICATES STUD SIZE. SEE 2-A9.0X SERIES. REFER TO S6.71 FOR INTERIOR STUD WALL SCHEDULE
- XX — OPENING TYPE, REFER TO SHEETS 2-A1-6.21 AND A2-6.22
- 101 — DENOTES DOOR NUMBER, REFER TO DOOR SCHEDULE ON SHEET 2-A1-6.11
- DOOR: SEE DOOR SCHEDULE ON SHEET 2-A1-6.11
- METAL STUD WALL CONSTRUCTION
- 1-HR INTERIOR FIRE RATED METAL STUD PARTITION
- 2-HR INTERIOR FIRE RATED METAL STUD PARTITION
- MASONRY WALL CONSTRUCTION
- EXTENT OF ELEMENT OVERHEAD
- FEC — SEMI-RECESSED FIRE EXTINGUISHER CABINET; REF: 02/2-A9.60
- ALIGN SURFACE

GENERAL NOTES

1. ALL INTERIOR PARTITIONS TO BE WALL TYPE "SA", U.N.O. FOR ALL PARTITION TYPES REFER TO SHEETS 2-A9.01 AND 2-A9.02.
2. PROVIDE 6" HIGH CONCRETE CURBS AT ALL RESTROOMS, CUSTODIAL CLOSETS, WATER HEATER CLOSETS, & SHOWER COMPARTMENTS, U.N.O. REFER TO EDGE OF SLAB PLAN
3. PROVIDE MOISTURE RESISTANT GYP. BD. IN ALL WET LOCATIONS, U.N.O.
4. PROVIDE CEMENTITIOUS BACKER BOARD AT ALL TILE WALL LOCATIONS, U.N.O.
5. PROVIDE HIGH IMPACT GYP BOARD AT CORRIDORS TO A HEIGHT OF 8'-0" A.F.F. U.N.O.
6. PROVIDE ACOUSTIC BATT INSULATION FULL HEIGHT AT ALL INTERIOR PARTITIONS.
7. REFER TO 2-G0.32 FOR TYPICAL CLEARANCES AT DOORS.
8. FOR TYPICAL SWITCH & DEVICE ALIGNMENTS, RE: 04/2-A9.60
9. REFER TO SHEET 2-A9.11 FOR PENETRATIONS THROUGH RATED WALL CONDITIONS. FOR ALL RATED WALLS, PROVIDE THE FOLLOWING MARKINGS & IDENTIFICATIONS PER THE APPLICABLE CODES:
   A. BE LOCATED WITHIN 15 FT OF THE END OF EA WALL & @ INTERVALS NOT EXCEEDING 30 FT MEASURED HORIZ ALONG THE WALL OR PARTITION.
   B. INCLUDE LETTERING NOT LESS THAN 3" IN HEIGHT WITH A MIN 3/8" STROKE IN A CONTRASTING COLOR INCORPORATING THE SUGGESTED WORDING, "FIRE &/OR SMOKE BARRIER - PROTECT ALL OPENINGS", OR OTHER WORDING.
10. PROVIDE FIRE EXTINGUISHERS PER TITLE 19, ARTICLE 3-29, FINAL LOCATIONS TO BE COORDINATED AND REVIEWED BY THE ARCHITECT AND FIRE INSPECTOR IN THE FIELD PRIOR TO INSTALLATION.
11. LOCATE DOORS MINIMUM 4 INCHES FROM ADJACENT WALL, TYP.
12. REFER TO REFLECTED CEILING PLAN FOR ILLUMINATED EXIT SIGN LOCATIONS.
13. REFER TO FINISH PLANS FOR INTERIOR ELEVATION REFERENCES.

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INCREMENT 02

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APN: 4469-017-900

Developed for
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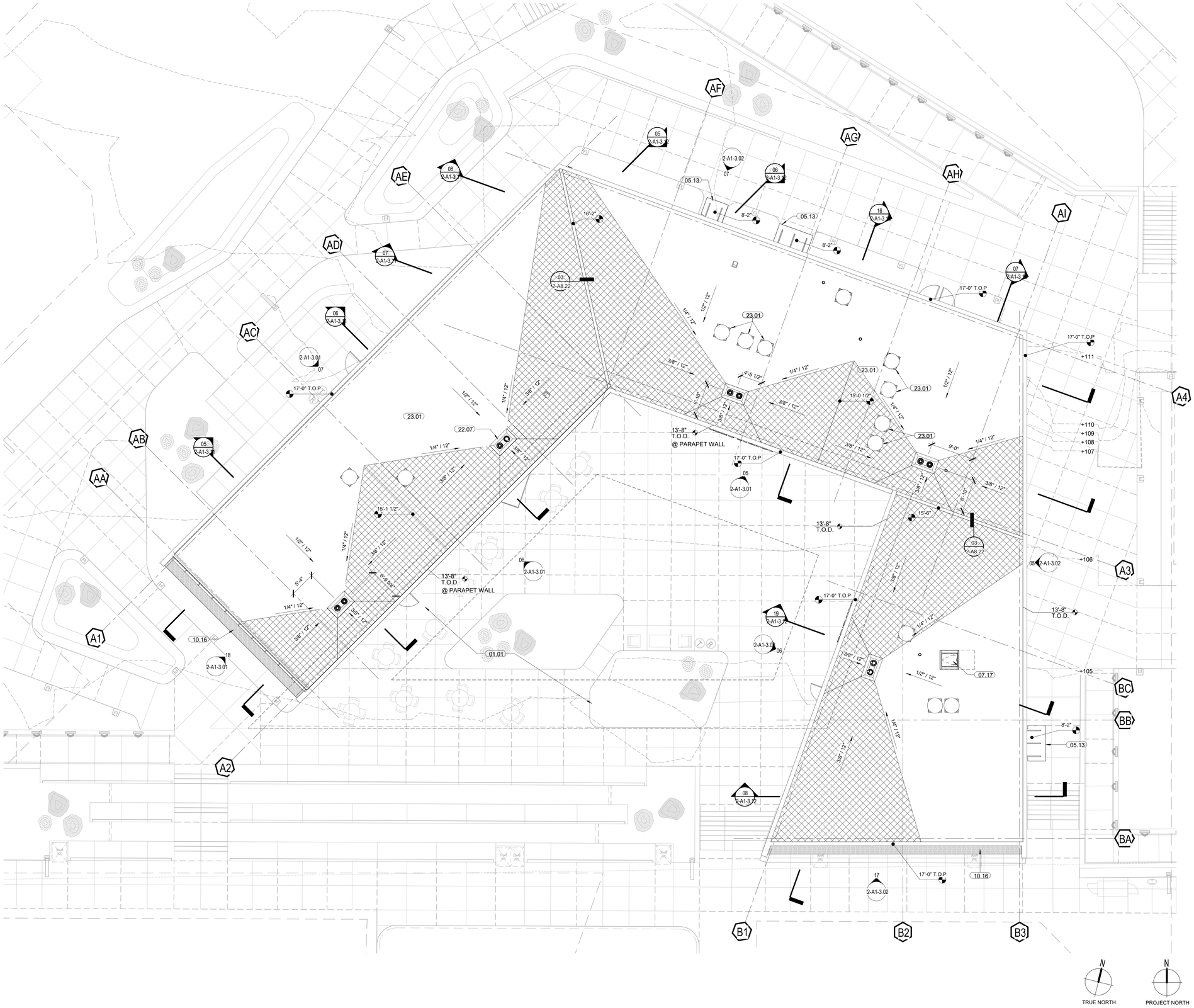
Revision	Date

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100% DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

MS HUB - FLOOR PLAN

2-A1-2.01



KEYNOTES

01.01	CANOPY OVERHANG ABOVE, REF: SHEET 05/2-A1-2.03
05.13	STEEL PLATE, EYEBROW CANOPY OVER DOOR, RE: 13/2-A8.53
07.17	ROOF ACCESS HATCH WITH INTEGRATED ALUMINUM GUARDRAIL SYSTEM AND RETRACTABLE SAFETY POST, RE: 18/2-A8.21
10.16	ALUMINUM, FIXED HORIZONTAL SUN SCREEN, RE: 09/2-A8.13
22.07	ROOF AND OVERFLOW DRAIN ASSEMBLY, RE: 01 AND 13 ON A8.21 AND PLUMBING DRAWINGS
23.01	GRAVITY VENT, RE: MECHANICAL DRAWINGS

LEGEND

	SINGLE-PLY PVC ROOFING SYSTEM
	WALKWAY PROTECTION PAD FOR ROOFING ASSEMBLY
	1/2" COVER BOARD OVER TAPERED RIGID INSULATION CRICKET, SLOPE TO DRAIN PER PLAN (1/4" PER FOOT MIN. AT VALLEY WHERE CRICKET MEETS ROOF)
XX"	INDICATES ELEVATION (0'-0" DEFINED AS F.F.E. PER CIVIL)
XX" / XX"	INDICATES ROOF SLOPE
T.O.P.	TOP OF PARAPET
T.O.SH.	TOP OF SHEATHING
T.O.S.	TOP OF STEEL
T.O.D.	TOP OF STEEL DECK
	ROOF AND OVERFLOW DRAIN
	ROOF ACCESS HATCH

GENERAL NOTES

1. ROOF SYSTEM TO BE CLASS A RATED.
2. ROOF SYSTEM SHALL BE SLOPED A MINIMUM OF 1/4" IN 12 INCHES AT VALLEYS FOR DRAINAGE. VERIFY PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCIES.
3. PRIOR TO THE ISSUANCE OF USE AND OCCUPANCY, WRITTEN CERTIFICATION BY A CALIFORNIA REGISTERED ENGINEER THAT THE ROOF IS IN CONFORMANCE WITH THE APPROVED PLANS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR.
4. INSTALLATION OF THE ROOFING SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND PROCEDURES.
5. FOR TYPICAL ROOF PENETRATION SPACING, RE: 09/2-A8.21.
6. FOR TYPICAL ROOF PENETRATION RE:2-A8.21.
7. ALL PENETRATIONS THROUGH THE ROOF SHALL BE BY THE USE OF ROUND CONDUIT FOR PIPES, VENTS, RISERS AND EQUIPMENT SUPPORTS. THE USE OF CHANNELS, ANGLES, OR UNISTRUT THROUGH THE ROOF WITH PITCH POCKETS SHALL NOT BE ALLOWED.
8. REFER TO WALL SECTIONS FOR PARAPET DETAILS.
9. FOR TYPICAL CRICKET LAYOUT RE: 08/2-A8.21

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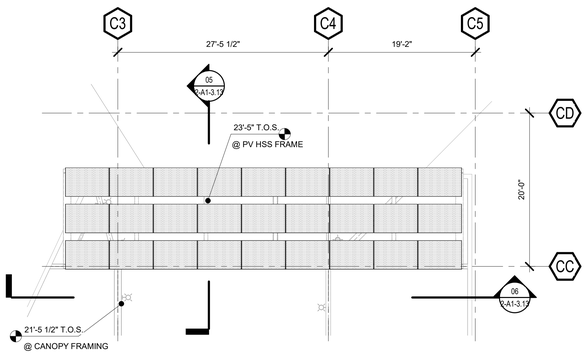
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DSA SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

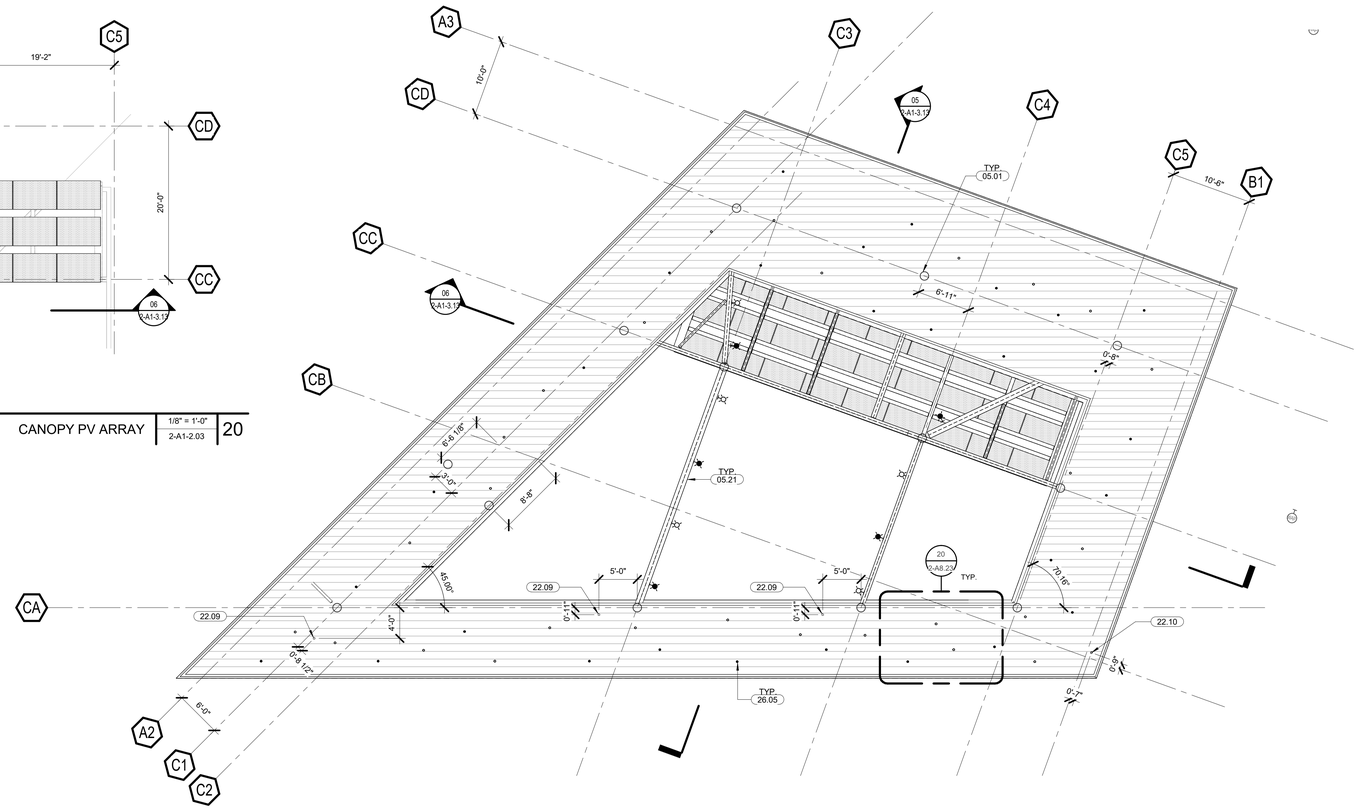
Job Number	31722
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Scale	1/8" = 1'-0"

MS HUB - ROOF PLAN

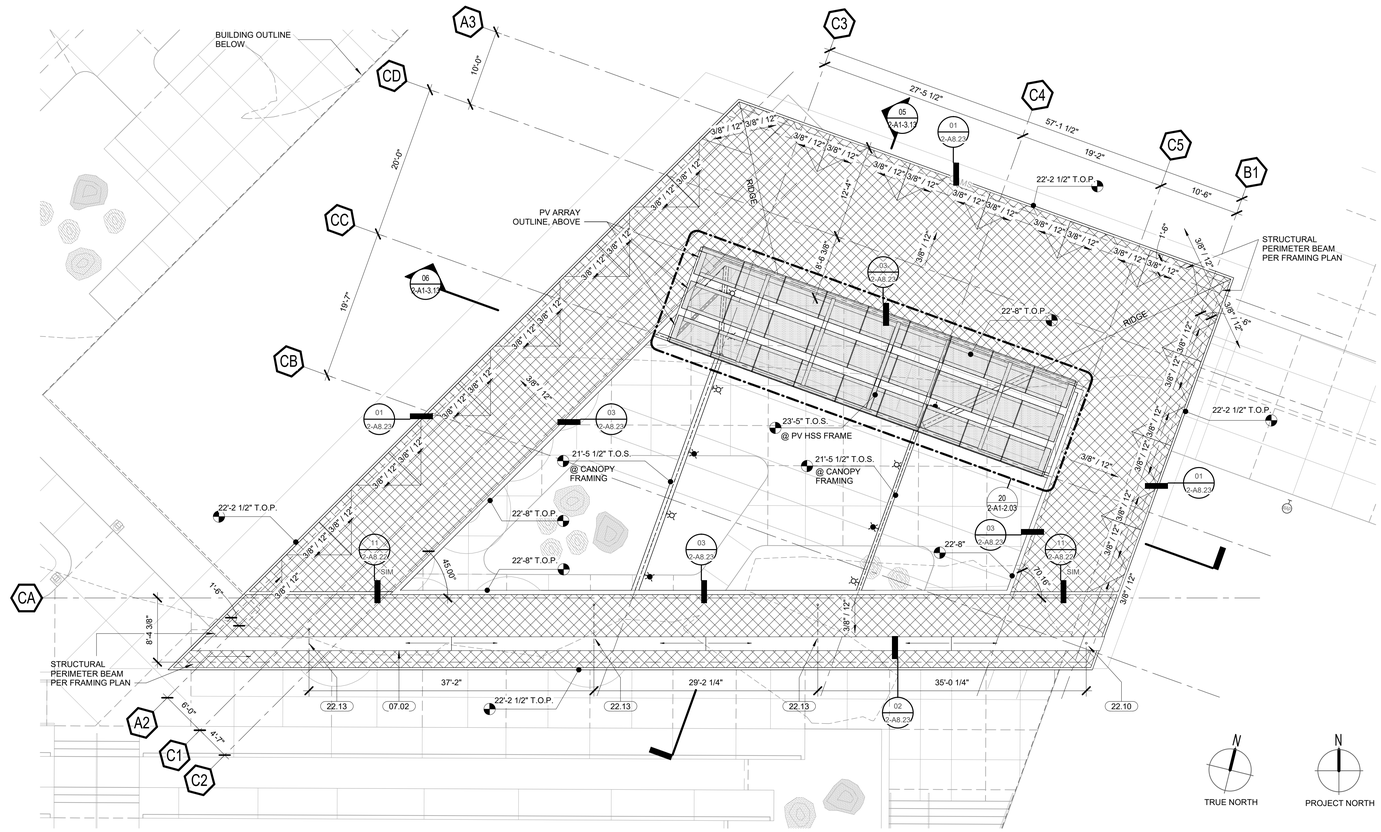
2-A1-2.02



CANOPY PV ARRAY | 1/8" = 1'-0" | 2-A1-2.03 | 20



MS HUB - REFLECTED CEILING PLAN - CANOPY | 1/8" = 1'-0" | 2-A1-2.03 | 07



MS HUB - ROOF PLAN - CANOPY | 1/8" = 1'-0" | 2-A1-2.03 | 05

KEYNOTES

05.01	STRUCTURAL STEEL COLUMN, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____. TYP.
05.21	STRUCTURAL HSS BEAM, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT, RE: STRUCTURAL DRAWINGS
07.02	CUSTOM PROFILE ALUMINUM GUTTER WITH INTEGRATED, INTERNAL SLOPE TO DRAIN, FACTORY FINISH TO MATCH ____.
22.09	INTEGRATED ROOF DRAIN OUTLET IN METAL PANEL SOFFIT. RE: 11/2-A8.23
22.10	INTEGRATED ROOF DRAIN GUTTER OUTLET IN METAL PANEL. RE: 14/2-A8.23
22.13	INTEGRATED ROOF DRAIN GUTTER LEADER TO DOWNSPOUT
26.05	LIGHT FIXTURE, RE: ELECTRICAL DRAWINGS

LEGEND

	SINGLE-PLY PVC ROOFING SYSTEM
	S2 - METAL PANEL SOFFIT, COLORS B & C, MIXED 50%. RE: 13/2-A8.23 FOR PATTERN LAYOUT.
	PHOTOVOLTAIC PANEL WITH HSS STRUCTURAL STEEL SUPPORT FRAME, RE: 21/2-A8.21 AND ELECTRICAL DRAWINGS
	1/2" COVER BOARD OVER TAPERED RIGID INSULATION CRICKET, SLOPE TO DRAIN PER PLAN (1/4" PER FOOT MIN. AT VALLEY WHERE CRICKET MEETS ROOF)
	INDICATES ELEVATION (0'-0" DEFINED AS F.F.E. PER CIVIL)
XX" / XX"	INDICATES ROOF SLOPE
T.O.P.	TOP OF PARAPET
T.O.SH.	TOP OF SHEATHING
T.O.S.	TOP OF STEEL
T.O.D.	TOP OF STEEL DECK
○	RECESSED LIGHTING FIXTURE. RE: 17/2-A8.33 & 18/2-A8.33

GENERAL NOTES

1. ROOFING SYSTEM TO BE CLASS A RATED.
2. ROOF SYSTEM SHALL BE SLOPED A MINUMUM OF 1/4" IN 12 INCHES AT VALLEYS FOR DRAINAGE. VERIFY PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCIES.
3. PRIOR TO THE ISSUANCE OF USE AND OCCUPANCY, WRITTEN CERTIFICATION BY A CALIFORNIA REGITERED ENGINEER THAT THE ROOF IS IN CONFORMANCE WITH THE APPROVED PLANS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR.
4. INSTALLATION OF THE ROOFING SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND PROCEDURES.
5. FOR TYPICAL ROOF PENETRATION SPACING, RE: 09/2-A8.21.
6. FOR TYPICAL ROOF PENETRATIONS RE: 2-A8.21.
7. ALL PENETRATIONS THROUGH THE ROOF SHALL BE BY THE USE OF ROUND CONDUIT FOR PIPES, VENTS, RISERS, AND EQUIPMENT SUPOORTS. THE USE OF CHANNELS, ANGLES, OR UNISTRUT THROUGH THE ROOF WITH PITCH POCKETS SHALL NOT BE ALLOWED.
8. REFER TO WALL SECTIONS FOR PARAPET DETAILS.
9. FOR TYPICAL CRICKET LAYOUT RE: 08/2-A8.21.

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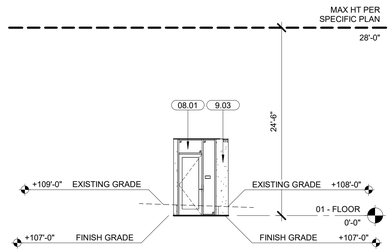
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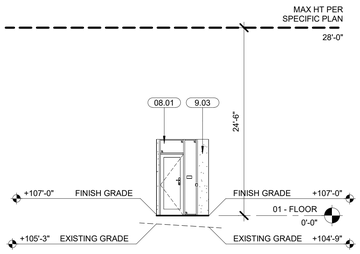
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MS HUB - CANOPY PLANS

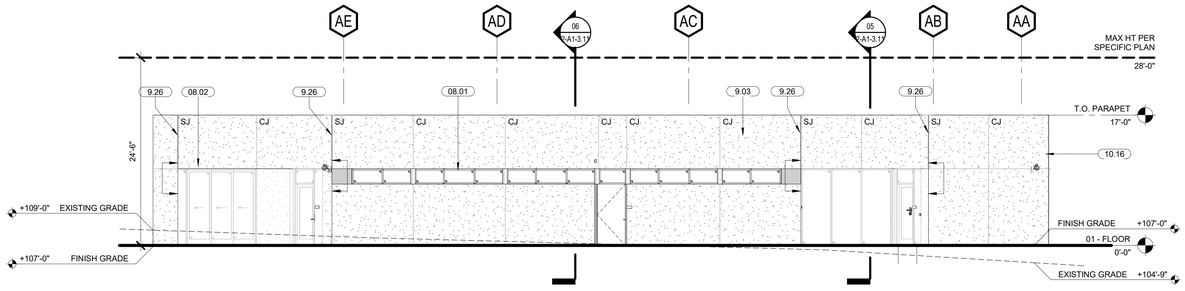
2-A1-2.03



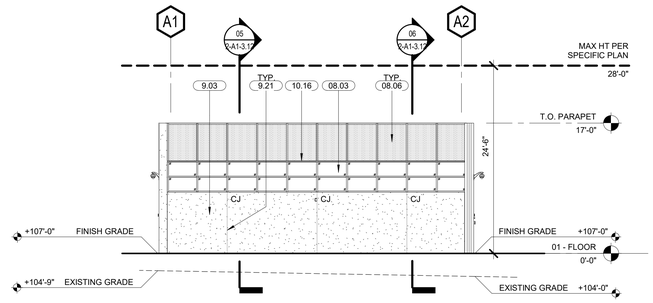
MS HUB - EXTERIOR ELEVATION -SDC CLASSROOM - WEST | 1/8" = 1'-0" | 2-A1-3.01 | 16



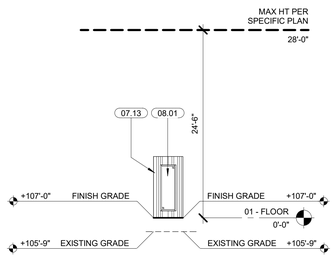
MS HUB - EXTERIOR ELEVATION - SMALL GROUP SPACE- WEST | 1/8" = 1'-0" | 2-A1-3.01 | 08



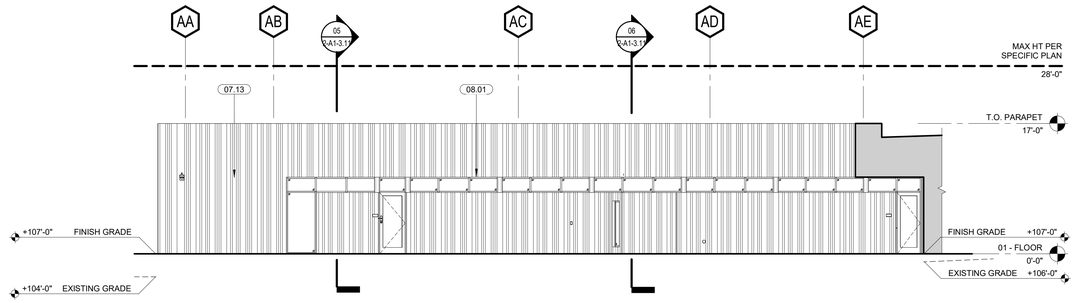
MS HUB - EXTERIOR ELEVATION - WEST 1 | 1/8" = 1'-0" | 2-A1-3.01 | 07



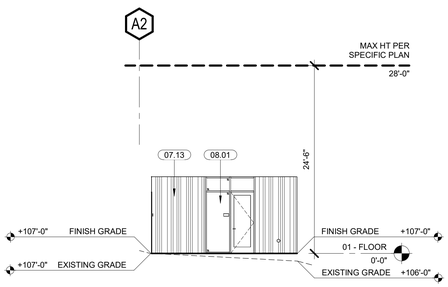
MS HUB - EXTERIOR ELEVATION - SOUTH 1 | 1/8" = 1'-0" | 2-A1-3.01 | 18



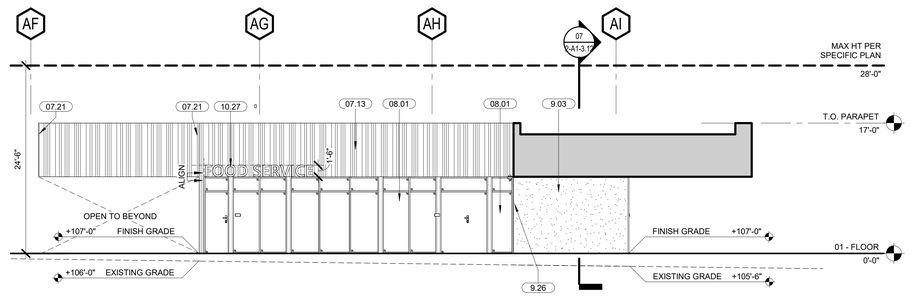
MS HUB - EXTERIOR ELEVATION - DECOMPRESSION ROOM - SOUTH | 1/8" = 1'-0" | 2-A1-3.01 | 19



MS HUB - EXTERIOR ELEVATION - EAST 1 | 1/8" = 1'-0" | 2-A1-3.01 | 06



MS HUB - EXTERIOR ELEVATION - SOUTH 2 | 1/8" = 1'-0" | 2-A1-3.01 | 17



MS HUB - EXTERIOR ELEVATION - SOUTH 3 | 1/8" = 1'-0" | 2-A1-3.01 | 05

KEYNOTES

07.13	RIBBED METAL WALL PANEL SYSTEM MP1, RE: 2-A8.11
07.21	MP1 SLIP JOINT, RE: 11/2-A8.34
08.01	1" INSULATED VISION GLAZING WITH LOW-E COATING, IN ALUMINUM STOREFRONT SYSTEM, SF1, RE: 2-A8.13
08.02	ALUMINUM SLIDING GLASS SYSTEM WITH VISION GLAZING AND LOW-E COATING
08.03	1" INSULATED VISION GLAZING WITH LOW-E COATING IN CURTAIN WALL SYSTEM, CW1, RE: 2-A8.13
08.06	ALUMINUM SHADOW BOX WITH 1-1/2" RIGID INSULATION BACKER, FINISH TO MATCH CURTAIN WALL SYSTEM
9.03	POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER ASSEMBLY, PAINTED, RE: 2-A8.11
9.21	PLASTER CONTROL JOINT, RE: 03/2-A8.34
9.26	PLASTER SLIP JOINT, RE: 07/2-A8.34
10.16	ALUMINUM, FIXED HORIZONTAL SUN SCREEN, RE: 09/2-A8.13
10.27	PIN MOUNTED BRUSHED STAINLESS STEEL 18" TALL BUILDING DESIGNATION NUMBERS, FOR ATTACHMENT, RE: 05/2-A10.42

LEGEND

- RIBBED METAL WALL PANEL SYSTEM MP1
- POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER; PAINTED
- IG-1 CLEAR GLAZING, FULLY TEMPERED
- IG-1 CLEAR GLAZING, FULLY TEMPERED WITH ALUMINUM SHADOW BOX BEYOND
- BRAKE METAL PANEL, FACTORY FINISH TO MATCH STOREFRONT SYSTEM
- HORIZONTAL ARCHITECTURAL LOUVER
- CJ — PLASTER CONTROL JOINT
- SJ — SLIP JOINT
- ALIGN

GENERAL NOTES

1. ALL STRUCTURAL STEEL VISIBLE TO VIEW SHALL BE SHOP PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____, U.N.O.
2. ALL DOWNSPOUTS TO BE FACTORY FINISHED TO MATCH METAL SOFFIT PANEL, U.N.O.
3. ALL STOREFRONT AND CURTAINWALL SYSTEMS TO BE FACTORY FINISHED, TO MATCH PPG DURANAR UC7009GF SUNSTORM SILVERSMITH.
4. ALL ARCHITECTURAL LOUVERS IN HOLLOW METAL FRAMES TO BE FACTORY FINISHED TO MATCH HOLLOW METAL FRAME FINISH.
5. ALL ARCHITECURAL LOUVERS IN STOREFRONT OR CURTAINWALL SYSTEMS TO BE FACTORY FINISHED TO MATCH STOREFRONT SYSTEM.
6. FOR OPENING TYPES, REFER TO SHEETS 2-A1-6.21 AND 2-A1-6.22.

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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265
APN: 4469-017-900

Developed for

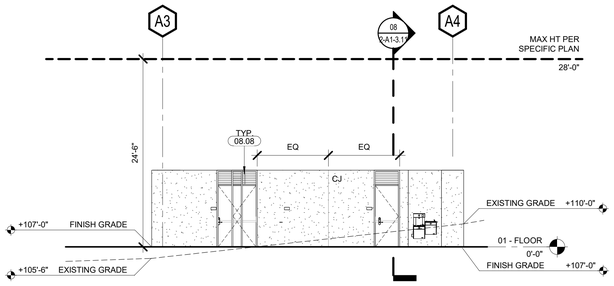
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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	08/08/2025

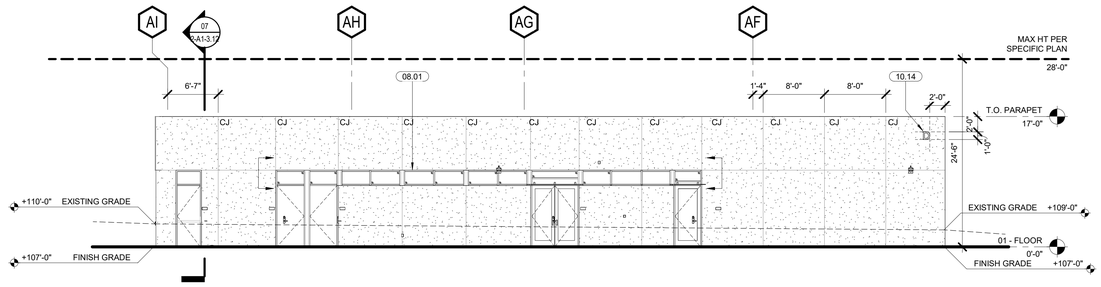
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MS HUB - EXTERIOR ELEVATIONS

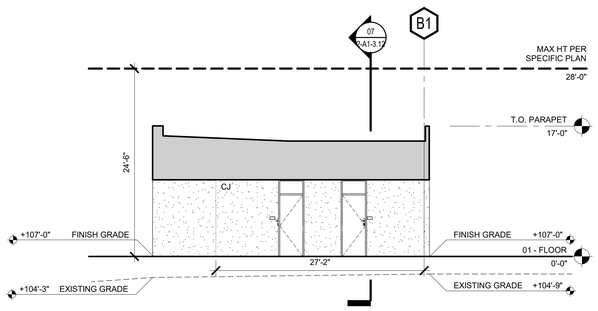
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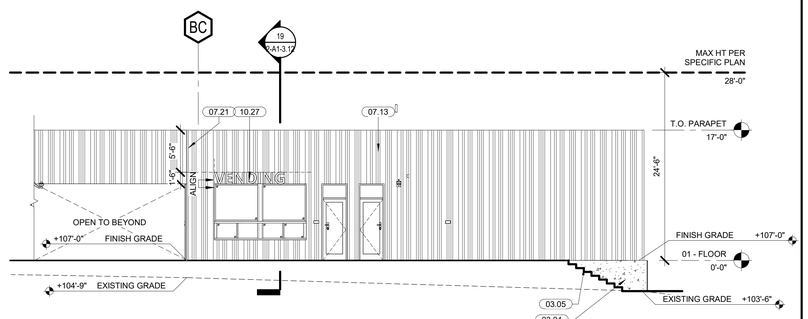
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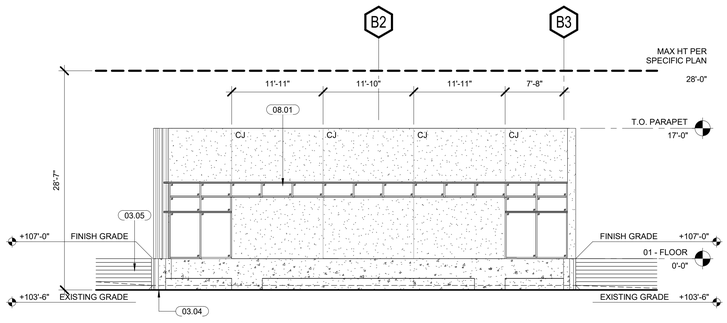
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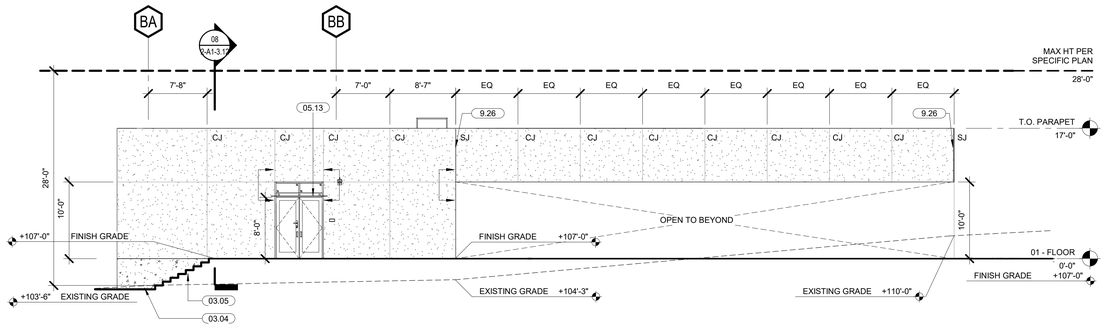
MS HUB - EXTERIOR ELEVATION - BROADCAST - NORTH 2 | 1/8" = 1'-0" | 2-A1-3.02 | 14



MS HUB - EXTERIOR ELEVATION - BROADCAST - WEST 2 | 1/8" = 1'-0" | 2-A1-3.02 | 06



MS HUB - EXTERIOR ELEVATION - BROADCAST - SOUTH 4 | 1/8" = 1'-0" | 2-A1-3.02 | 17



MS HUB - EXTERIOR ELEVATION - MS HUB - EAST 3 | 1/8" = 1'-0" | 2-A1-3.02 | 05

KEYNOTES

03.04	CAST IN PLACE STEM WALL, RE: STRUCTURAL DRAWINGS
03.05	CAST IN PLACE CONCRETE SEAT WALL, COLOR: NATURAL GRAY, TOP CAST #5, ETCH RE: LANDSCAPE DRAWINGS
05.13	STEEL PLATE, EYEBROW CANOPY OVER DOOR, RE: 13/2-A8.53
07.13	RIBBED METAL WALL PANEL SYSTEM MP1, RE: 2-A8.11
07.21	MP1 SLIP JOINT, RE: 11/2-A8.34
08.01	1" INSULATED VISION GLAZING WITH LOW-E COATING, IN ALUMINUM STOREFRONT SYSTEM, SF1, RE: 2-A8.13
08.08	HORIZONTAL ARCHITECTURAL LOUVER, FACTORY FINISH TO MATCH DOOR FRAME
9.26	PLASTER SLIP JOINT, RE: 07/2-A8.34
10.14	PIN MOUNTED BRUSHED STAINLESS STEEL 12" TALL BUILDING DESIGNATION NUMBERS, FOR ATTACHMENT, RE: 01/2-A10.42
10.27	PIN MOUNTED BRUSHED STAINLESS STEEL 18" TALL BUILDING DESIGNATION NUMBERS, FOR ATTACHMENT, RE: 05/2-A10.42

LEGEND

- RIBBED METAL WALL PANEL SYSTEM MP1
- POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER; PAINTED
- IG-1 CLEAR GLAZING, FULLY TEMPERED
- IG-1 CLEAR GLAZING, FULLY TEMPERED WITH ALUMINUM SHADOW BOX BEYOND
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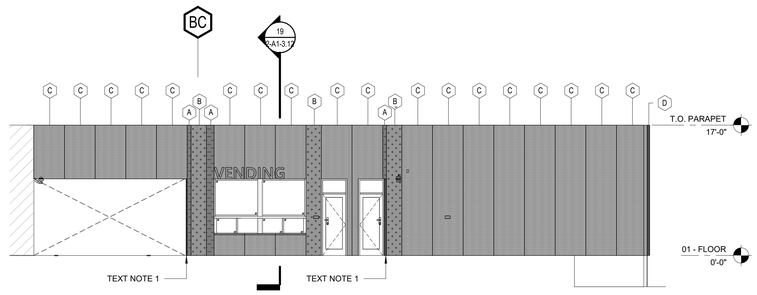
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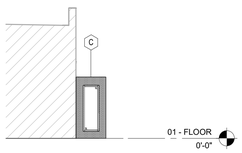
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MS HUB - EXTERIOR ELEVATIONS

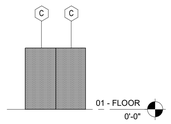
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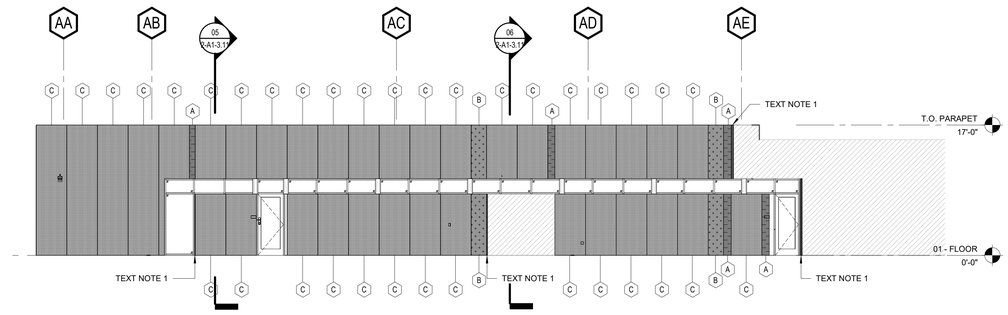
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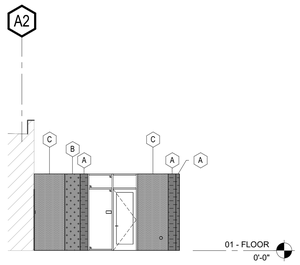
~~MS HUB - EXTERIOR ELEVATION - DECOMPRESSION ROOM - SOUTH - PANEL PATTERN~~ | 1/8" = 1'-0" | 2-A1-3.03 | 22



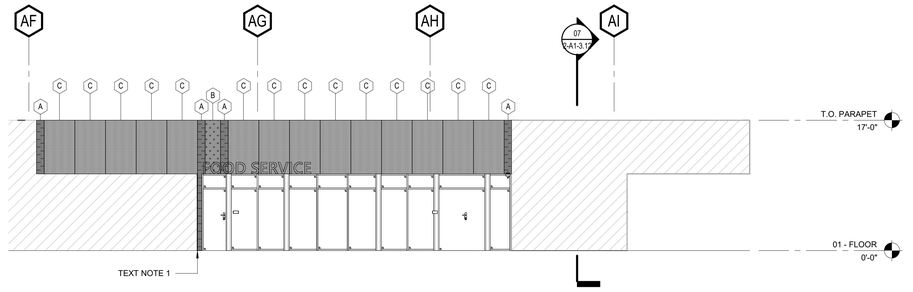
~~MS HUB - EXTERIOR ELEVATION - DECOMPRESSION ROOM - PANEL PATTERN~~ | 1/8" = 1'-0" | 2-A1-3.03 | 18



MS HUB - EXTERIOR ELEVATION - EAST 1 - PANEL PATTERN | 1/8" = 1'-0" | 2-A1-3.03 | 06



MS HUB - EXTERIOR ELEVATION - SOUTH 2 - PANEL PATTERN | 1/8" = 1'-0" | 2-A1-3.03 | 17



MS HUB - EXTERIOR ELEVATION - SOUTH 3 - PANEL PATTERN | 1/8" = 1'-0" | 2-A1-3.03 | 05

KEYNOTES

LEGEND

- MP MODULE TYPE A. RE: 05/2-A1-3.04
- MP MODULE TYPE B. RE: 09/2-A1-3.04
- MP MODULE TYPE C. RE: 13/2-A1-3.04
- MP MODULE TYPE D. RE: 17/-A1-3.04
- PORTION OF ELEVATION NOT APPLICABLE TO METAL PANEL PATTERN

TEXT NOTE 1: BRAKE METAL INFILL PANEL, FACTORY FINISH TO MATCH METAL PANEL SYSTEM

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REN 12/31/2026
STATE OF CALIFORNIA

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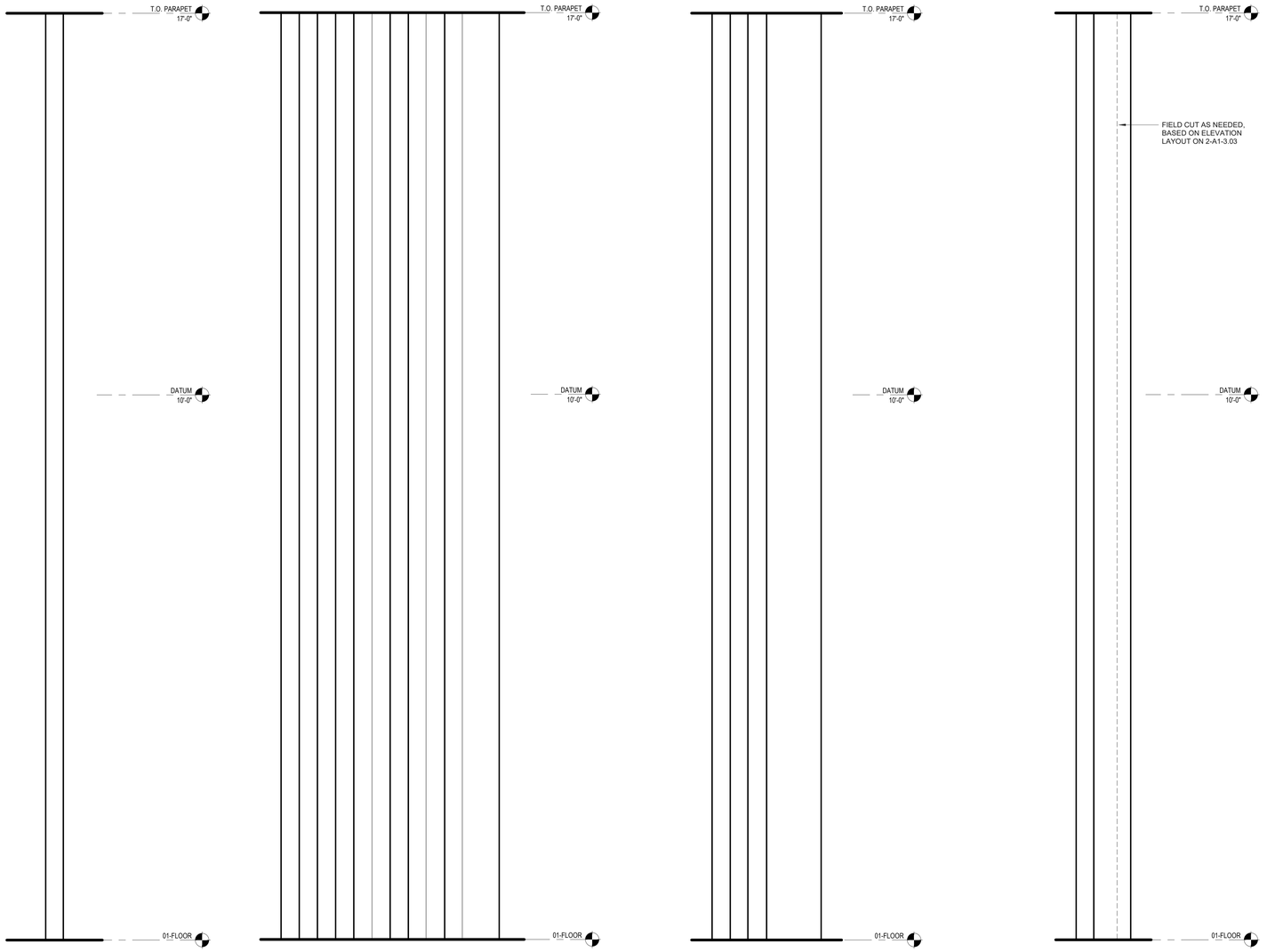
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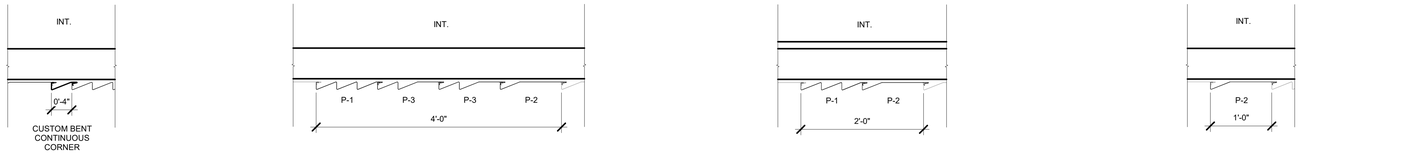
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100% DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	08/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

MS HUB - EXTERIOR ELEVATIONS - METAL CLADDING PATTERN

2-A1-3.03





TYPE D 1" = 1'-0" 2-A1-3.04 17

TYPE C 1" = 1'-0" 2-A1-3.04 13

TYPE B 1" = 1'-0" 2-A1-3.04 09

TYPE A 1" = 1'-0" 2-A1-3.04 05

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DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1" = 1'-0"

MS HUB - EXTERIOR ELEVATIONS - METAL CLADDING PATTERN

2-A1-3.04



BIRD'S EYE VIEW FROM HIGH ENTRY NEAR PARKING LOT D, LOOKING NORTHWEST



BIRD'S EYE VIEW FROM CAMPUS ENTRY NEAR PARKING LOT D, LOOKING NORTHWEST



VIEW FROM BUILDING A/B LOOKING NORTH



VIEW FROM BUILDING E LOOKING NORTHWEST

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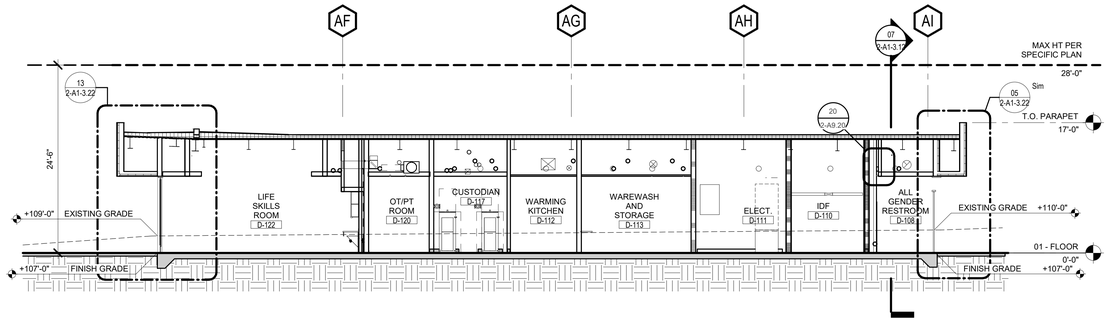
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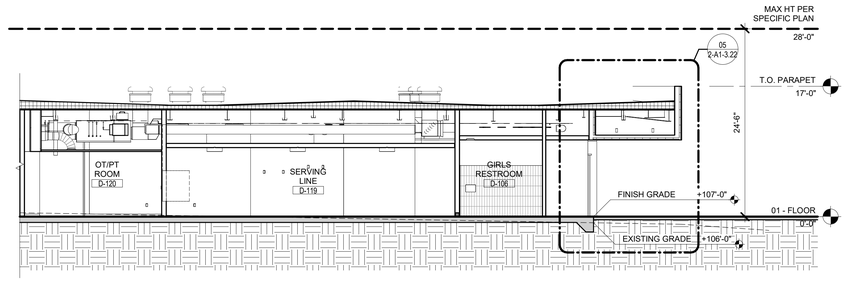
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MS HUB - EXTERIOR VIEWS

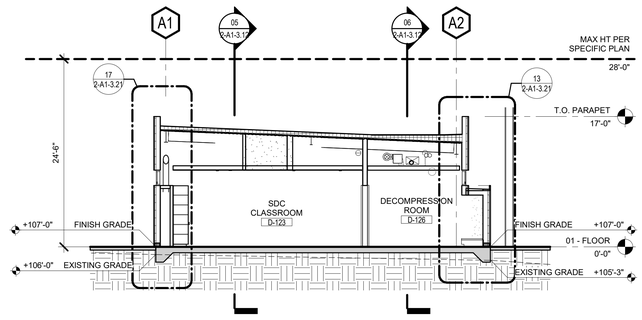
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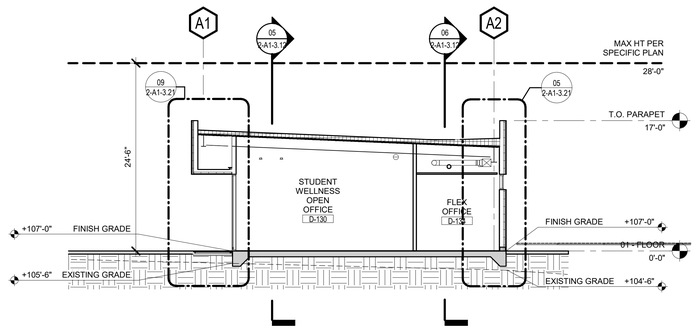
MS HUB - BUILDING SECTION - NORTH 4 | 1/8" = 1'-0" | 2-A1-3.11 | 08



MS HUB - BUILDING SECTION - NORTH 3 | 1/8" = 1'-0" | 2-A1-3.11 | 07



MS HUB - BUILDING SECTION - NORTH 2 | 1/8" = 1'-0" | 2-A1-3.11 | 06



MS HUB - BUILDING SECTION - NORTH 1 | 1/8" = 1'-0" | 2-A1-3.11 | 05

GENERAL NOTES

1. EXTERIOR WALL ASSEMBLY TO BE MIN R-12 CONTINUOUS & R-19 BATT.
2. ROOF ASSEMBLY TO BE MIN R-30.

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LICENSED ARCHITECT
RICHARD MISTO
No. C16639
REN 12/31/2026
STATE OF CALIFORNIA

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INCREMENT 02

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APN: 4469-017-900

Developed for
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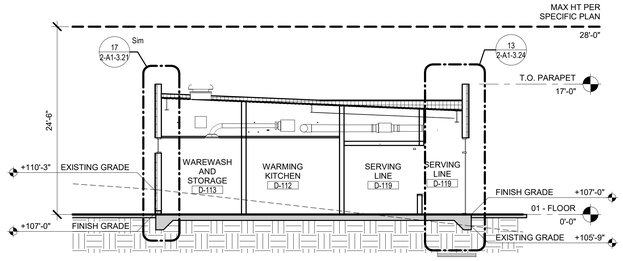
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
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DSA SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
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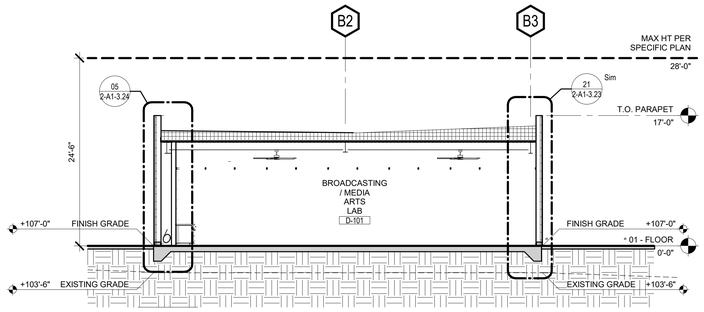
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Checked By	Checker
Scale	1/8" = 1'-0"

MS HUB - BUILDING SECTIONS

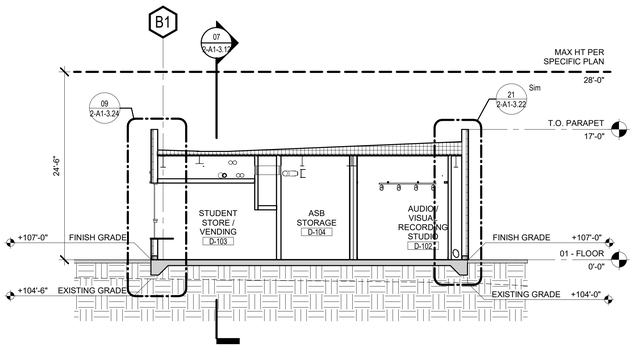
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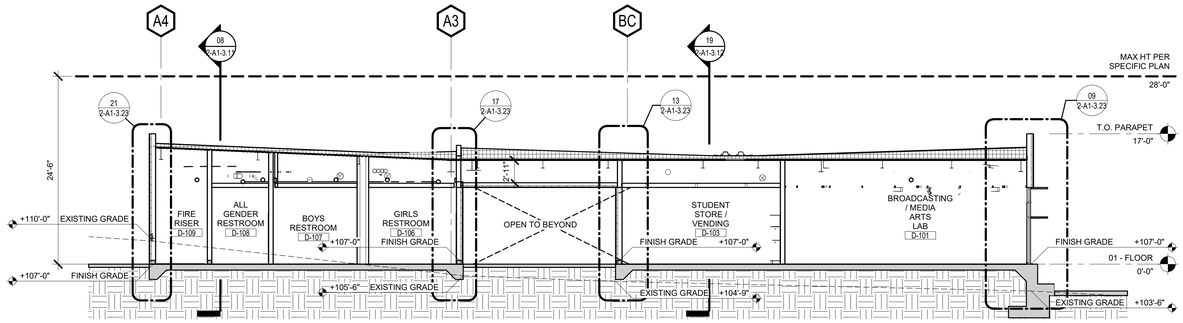
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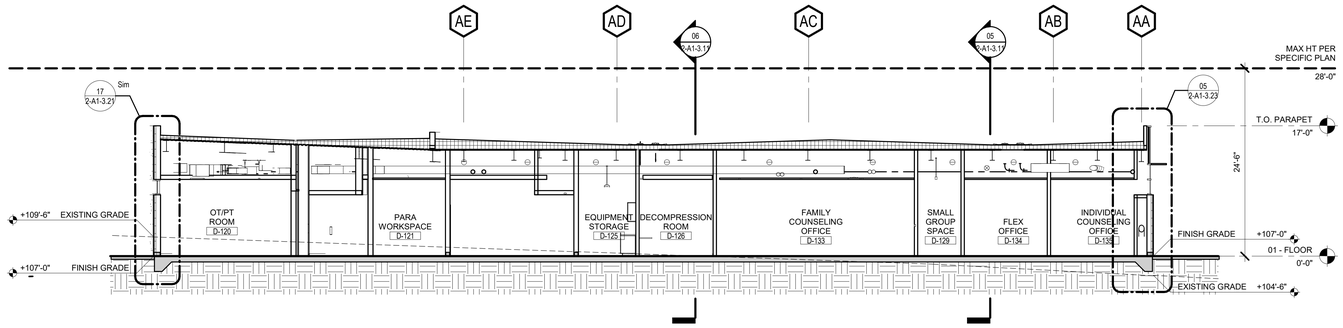
MS HUB - BUILDING SECTION - BROADCAST - NORTH 5 | 1/8" = 1'-0" | 2-A1-3.12 | 08



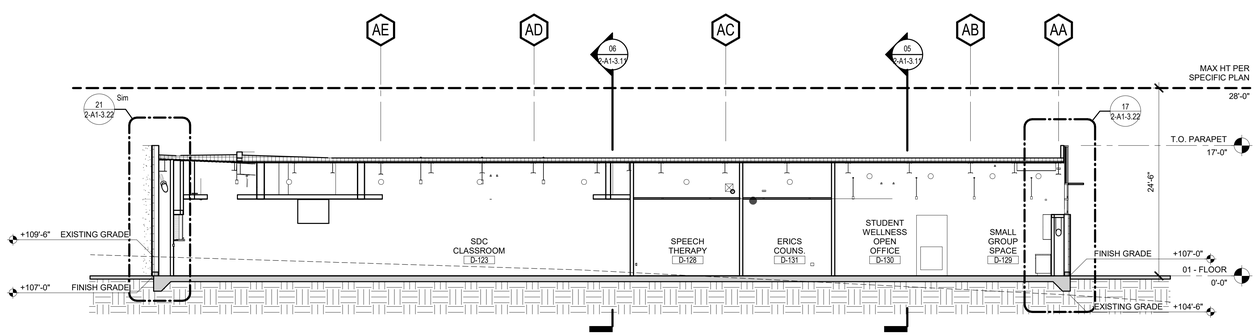
MS HUB - BUILDING SECTION - BROADCAST - NORTH 6 | 1/8" = 1'-0" | 2-A1-3.12 | 19



MS HUB - BUILDING SECTION - HUB - EAST 4 | 1/8" = 1'-0" | 2-A1-3.12 | 07



MS HUB - BUILDING SECTION - EAST 2 | 1/8" = 1'-0" | 2-A1-3.12 | 06



MS HUB - BUILDING SECTION - EAST 1 | 1/8" = 1'-0" | 2-A1-3.12 | 05

GENERAL NOTES

1. EXTERIOR WALL ASSEMBLY TO BE MIN R-12 CONTINUOUS & R-19 BATT.
2. ROOF ASSEMBLY TO BE MIN R-30.

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INCREMENT 02

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Developed for
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Revision	Date

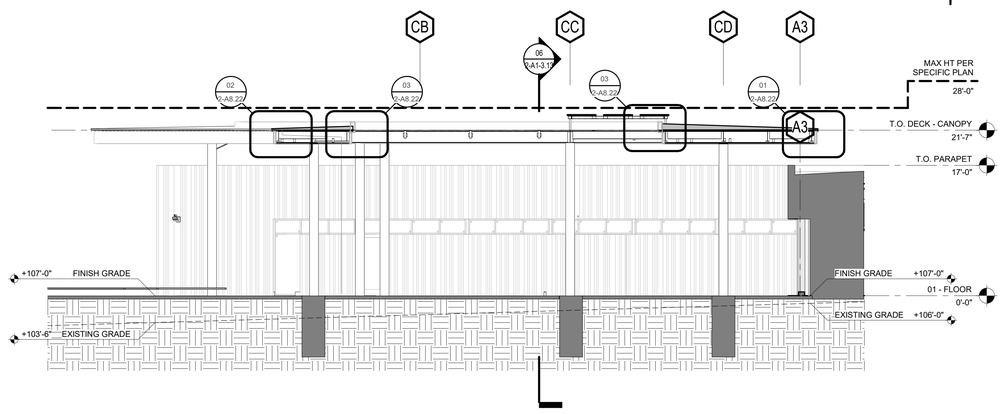
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Scale	1/8" = 1'-0"

MS HUB - BUILDING SECTIONS

2-A1-3.12

MS HUB - CANOPY - EAST/WEST | 1/8" = 1'-0" | 2-A1-3.13 | 06



MS HUB - CANOPY - NORTH/SOUTH | 1/8" = 1'-0" | 2-A1-3.13 | 05

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RICHARD MUSTO
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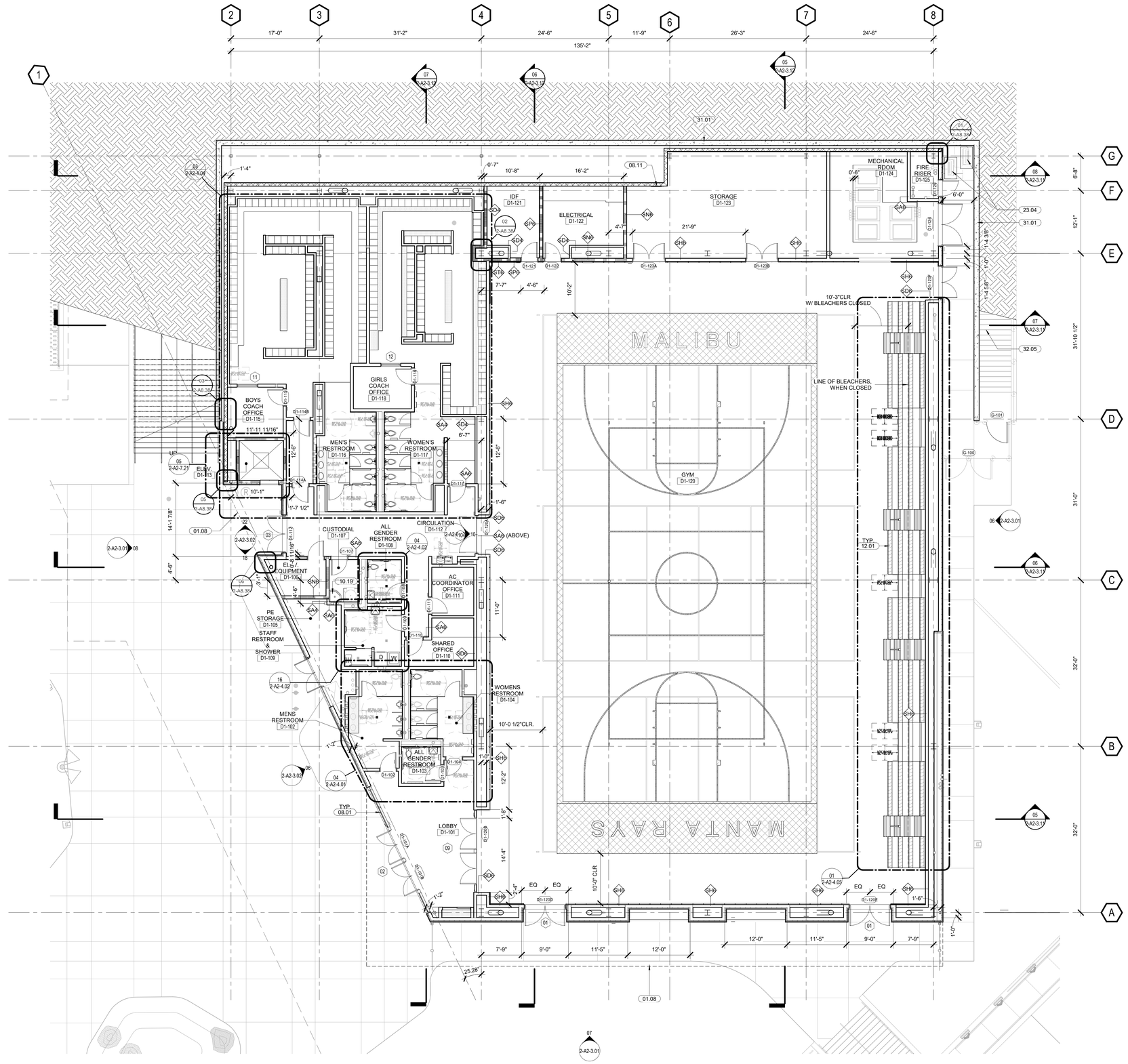
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Scale	1/8" = 1'-0"

MS HUB - CANOPY SECTIONS

2-A1-3.13



KEYNOTES

01.08	LINE OF OVERHANG ABOVE
08.01	1" INSULATED VISION GLAZING WITH LOW-E COATING, IN ALUMINUM STOREFRONT SYSTEM, SF1, RE: 2-A8.13
08.11	24" X 24: ACCESS PANEL
10.19	MOP AND BROOM RACK, RE: 10/2-A9.40
12.01	MOTORIZED WINDOW ROLLER SHADE WITH FASCIA, RE: FINISH SCHEDULE FOR SHADE FABRIC, RE: XX/2-AX.XX
23.04	CONDENSING UNIT, RE: MECHANICAL DRAWINGS
31.01	TIE BACK RETAINING WALL, RE: SUPPORT OF EXCAVATION DRAWINGS
32.05	CONCRETE STAIRS ON-GRADE, RE: LANDSCAPE DRAWINGS

LEGEND

- NEW MILLWORK / CASEWORK
- **WALL TYPE.** LETTER INDICATES WALL TYPE. SEE A9.0X SERIES.
  STUD SIZE. NUMBER INDICATES STUD SIZE. SEE A9.0X SERIES. REFER TO S6.71 FOR INTERIOR STUD WALL SCHEDULE
- OPENING TYPE, REFER TO SHEETS 2-A2-6.21 AND 2-A2-6.22
- DENOTES DOOR NUMBER, REFER TO DOOR SCHEDULE ON SHEET 2-A2-6.11
- DOOR: SEE DOOR SCHEDULE ON SHEET 2-A2-6.11
- METAL STUD WALL CONSTRUCTION
- 1-HR INTERIOR FIRE RATED METAL STUD PARTITION
- 2-HR INTERIOR FIRE RATED METAL STUD PARTITION
- MASONRY WALL CONSTRUCTION
- EXTERIOR CANOPY OVERHEAD
- FEC — SEMI-RECESSED FIRE EXTINGUISHER CABINET; REF: 02/A9.60
- ALIGN SURFACE

GENERAL NOTES

1. ALL INTERIOR PARTITIONS TO BE WALL TYPE "SA", U.N.O. FOR ALL PARTITION TYPES REFER TO SHEETS 2-A9.01 AND 2-A9.02.
2. PROVIDE 6" HIGH CONCRETE CURBS AT ALL RESTROOMS, CUSTODIAL CLOSETS, WATER HEATER CLOSETS, & SHOWER COMPARTMENTS, U.N.O.
3. PROVIDE MOISTURE RESISTANT GYP. BD. IN ALL WET LOCATIONS, U.N.O.
4. PROVIDE CEMENTITIOUS BACKER BOARD @ ALL TILE WALL LOCATIONS, U.N.O.
5. PROVIDE HIGH IMPACT GYP BOARD AT CORRIDORS TO A HEIGHT OF 8'-0" A.F.F. U.N.O.
6. PROVIDE ACOUSTIC BATT INSULATION FULL HEIGHT AT ALL INTERIOR PARTITIONS.
7. REFER TO G0.32 FOR TYPICAL CLEARANCES AT DOORS.
8. FOR TYPICAL SWITCH & DEVICE ALIGNMENTS, RE: 04/2-A9.60
9. REFER TO SHEET 2-A9.11 FOR PENETRATIONS THROUGH RATED WALL CONDITIONS. FOR ALL RATED WALLS, PROVIDE THE FOLLOWING MARKINGS & IDENTIFICATIONS PER THE APPLICABLE CODES:
   A. LOCATE WITHIN 15 FT OF THE END OF EACH WALL & AT INTERVALS NOT EXCEEDING 30 FT MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION.
   B. INCLUDE LETTERING NOT LESS THAN 3" IN HEIGHT WITH A MIN 3/8" STROKE IN A CONTRASTING COLOR INCORPORATING THE SUGGESTED WORDING, "FIRE &/OR SMOKE BARRIER - PROTECT ALL OPENINGS", OR OTHER WORDING.
10. PROVIDE FIRE EXTINGUISHERS PER TITLE 19, ARTICLE 3-29, FINAL LOCATIONS TO BE COORDINATED AND REVIEWED BY THE ARCHITECT AND FIRE INSPECTOR IN THE FIELD PRIOR TO INSTALLATION.
11. TO EDGE OF SLAB PLANS FOR FLOOR DRAIN LOCATIONS.
12. LOCATE DOORS MINIMUM 4 INCHES FROM ADJACENT WALL, TYP.
13. REFER TO REFLECTED CEILING PLAN FOR ILLUMINATED EXIT SIGN LOCATIONS.
14. REFER TO FINISH PLANS FOR INTERIOR ELEVATION REFERENCES.

TRUE NORTH PROJECT NORTH

GYM - FIRST FLOOR PLAN | 1/8" = 1'-0" | 2-A2-2.01 | 05

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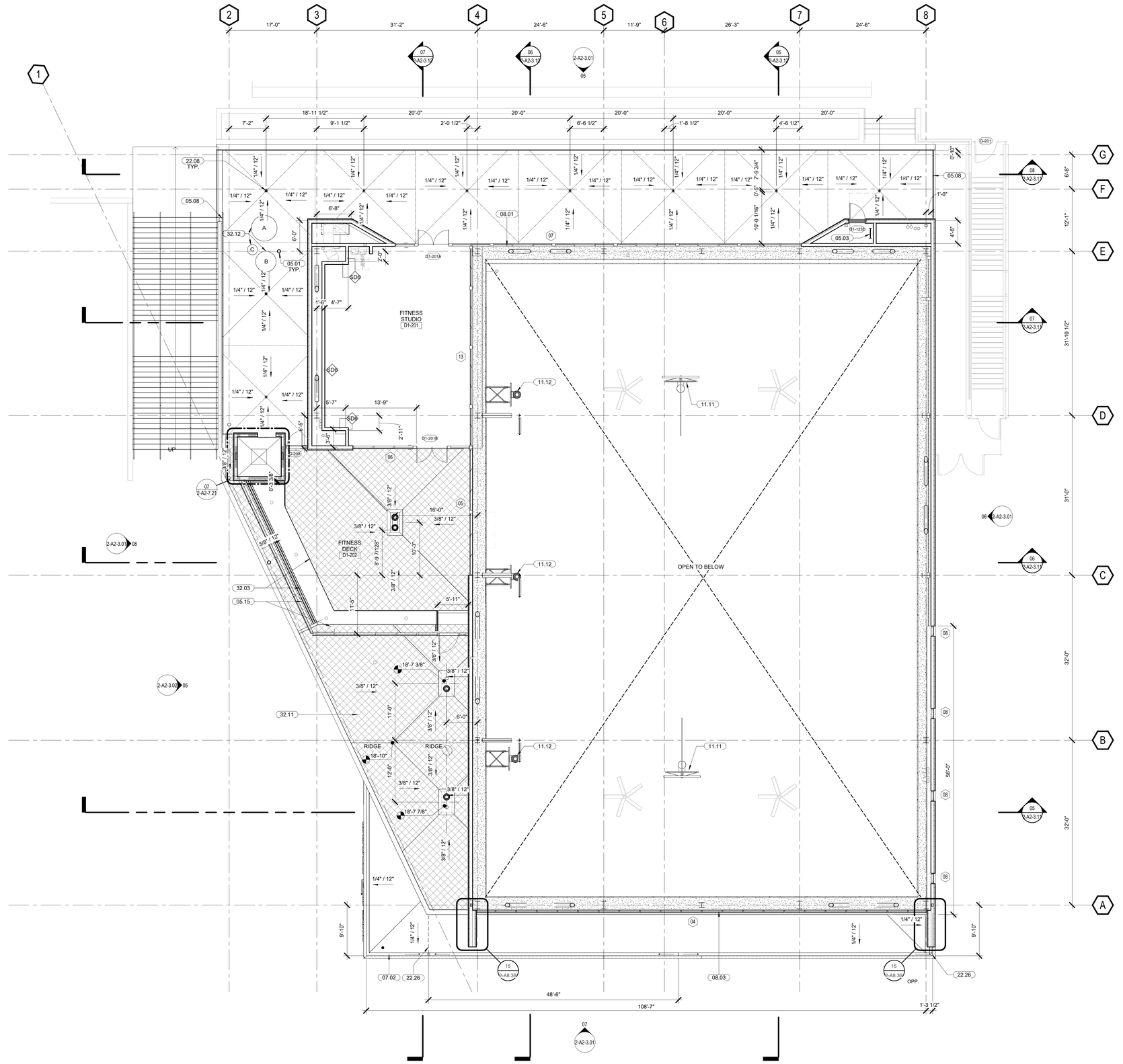
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Job Number	31722
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Scale	1/8" = 1'-0"

GYM - LOWER LEVEL FLOOR PLAN

2-A2-2.01



GYM - SECOND FLOOR PLAN | 1/8" = 1'-0" | 2-A2-2.02 | 05

KEYNOTES

05.01	STRUCTURAL STEEL COLUMN, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____, TYP.
05.03	ROOF ACCESS LADDER, RE: 18/2-A8.21
05.08	STEEL GUARDRAIL SYSTEM; 2" X 3/4" FLAT BAR FRAME WITH 13 GA. 3/4" X 2" HOLLOW TUBE INFILL, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT, RE: 02/2-A8.43
05.15	STEEL-FRAMED WINDSCREEN WITH HIGH PERFORMANCE COATING & GLASS PANELING; RE: 2-A2-7.31 AND 2-A8.42
07.02	CUSTOM PROFILE ALUMINUM GUTTER WITH INTEGRATED, INTERNAL SLOPE TO DRAIN. FACTORY FINISH TO MATCH _____.
08.01	1" INSULATED VISION GLAZING WITH LOW-E COATING, IN ALUMINUM STOREFRONT SYSTEM, SF1, RE: 2-A8.13
08.03	1" INSULATED VISION GLAZING WITH LOW-E COATING IN CURTAIN WALL SYSTEM, CW1. RE: 2-A8.13
11.11	FRONT FOLDING BACKSTOP, RE: 2-01/A9.61
11.12	FIXED BASKETBALL BACKBOARD, RE: 01/2-A9.62
22.08	AREA DRAIN, RE: 04/2-A8.01 AND PLUMBING DRAWINGS
22.26	INTEGRATED ROOF DRAIN GUTTER LEADER TO DOWNSPOUT, RE: 03/2-A8.24
32.03	MODULAR METAL PLANTER; RE: LANDSCAPE DWGS
32.11	REFER TO MATERIALS AND LAYOUT ENLARGEMENT PLAN, REF: LANDSCAPE DWGS
32.12	TOPANGA - BOULDER; RE LANDSCAPE DRAWINGS

LEGEND

	NEW MILLWORK / CASEWORK
	SINGLE-PLY ROOF MEMBRANE
SA2U	**WALL TYPE.** LETTER INDICATES WALL TYPE. SEE A9.0X SERIES.
	STUD SIZE. NUMBER INDICATES STUD SIZE. SEE A9.0X SERIES. REFER TO S6.71 FOR INTERIOR STUD WALL SCHEDULE
TYP. 7	KEYNOTE
101	DENOTES DOOR NUMBER - REFER TO DOOR SCHEDULE / DOOR TYPES, SHEET 2-A2-6.11
XX	FINISH TAG
	DOOR: SEE DOOR LEGEND SHEET 2-A2-6.11
	METAL STUD WALL CONSTRUCTION
	MASONRY WALL CONSTRUCTION
	EXTERIOR CANOPY OVERHEAD
FEC	SEMI-RECESSED FIRE EXTINGUISHER CABINET; REF: 02/A9.60
T.O.D.	TOP OF DRAIN

GENERAL NOTES

1. ALL INTERIOR PARTITIONS TO BE WALL TYPE "SA", U.N.O. FOR ALL PARTITION TYPES REFER TO SHEET A9.01
2. PROVIDE 6" HIGH CONCRETE CURBS @ ALL RESTROOMS, CUSTODIAL CLOSETS, WATER HEATER CLOSETS, & SHOWER COMPARTMENTS, U.N.O.
3. PROVIDE MOISTURE RESISTANT GYP. BD. IN ALL WET LOCATIONS, U.N.O.
4. PROVIDE CEMENTITIOUS BACKER BOARD @ ALL TILE WALL LOCATIONS, U.N.O.
5. REFER TO G0.32 FOR TYP CLEARANCE @ DOOR LOCATIONS.
6. FOR TYP SWITCH & DEVICE ALIGNMENTS, REF: 04/A9.60
7. REFER TO SHEET A9.06 FOR PENETRATIONS THROUGH RATED WALL CONDITIONS. FOR ALL RATED WALLS, PROVIDE THE FOLLOWING MARKINGS & IDENTIFICATIONS PER THE APPLICABLE CODES:
   A. BE LOCATED WITHIN 15 FT OF THE END OF EA WALL & @ INTERVALS NOT EXCEEDING 30 FT MEASURED HORIZ ALONG THE WALL OR PARTITION.
   B. INCLUDE LETTERING NOT LESS THAN 3" IN HEIGHT WITH A MIN 3/8" STROKE IN A CONTRASTING COLOR INCORPORATING THE SUGGESTED WORDING, "FIRE &/OR SMOKE BARRIER - PROTECT ALL OPENINGS", OR OTHER WORDING.
8. REFER TO EDGE OF SLAB PLANS FOR FLOOR DRAIN LOCATIONS.
9. PROVIDE FIRE EXTINGUISHERS PER TITLE 19, ARTICLE 3-29. FINAL LOCATIONS TO BE COORDINATED AND REVIEWED BY THE ARCHITECT AND FIRE INSPECTOR IN THE FIELD PRIOR TO INSTALLATION.
10. TO EDGE OF SLAB PLANS FOR FLOOR DRAIN LOCATIONS.
11. LOCATE DOORS MINIMUM 4 INCHES FROM ADJACENT WALL, TYP.
12. REFER TO REFLECTED CEILING PLAN FOR ILLUMINATED EXIT SIGN LOCATIONS.
13. REFER TO FINISH PLANS FOR INTERIOR ELEVATION REFERENCES.

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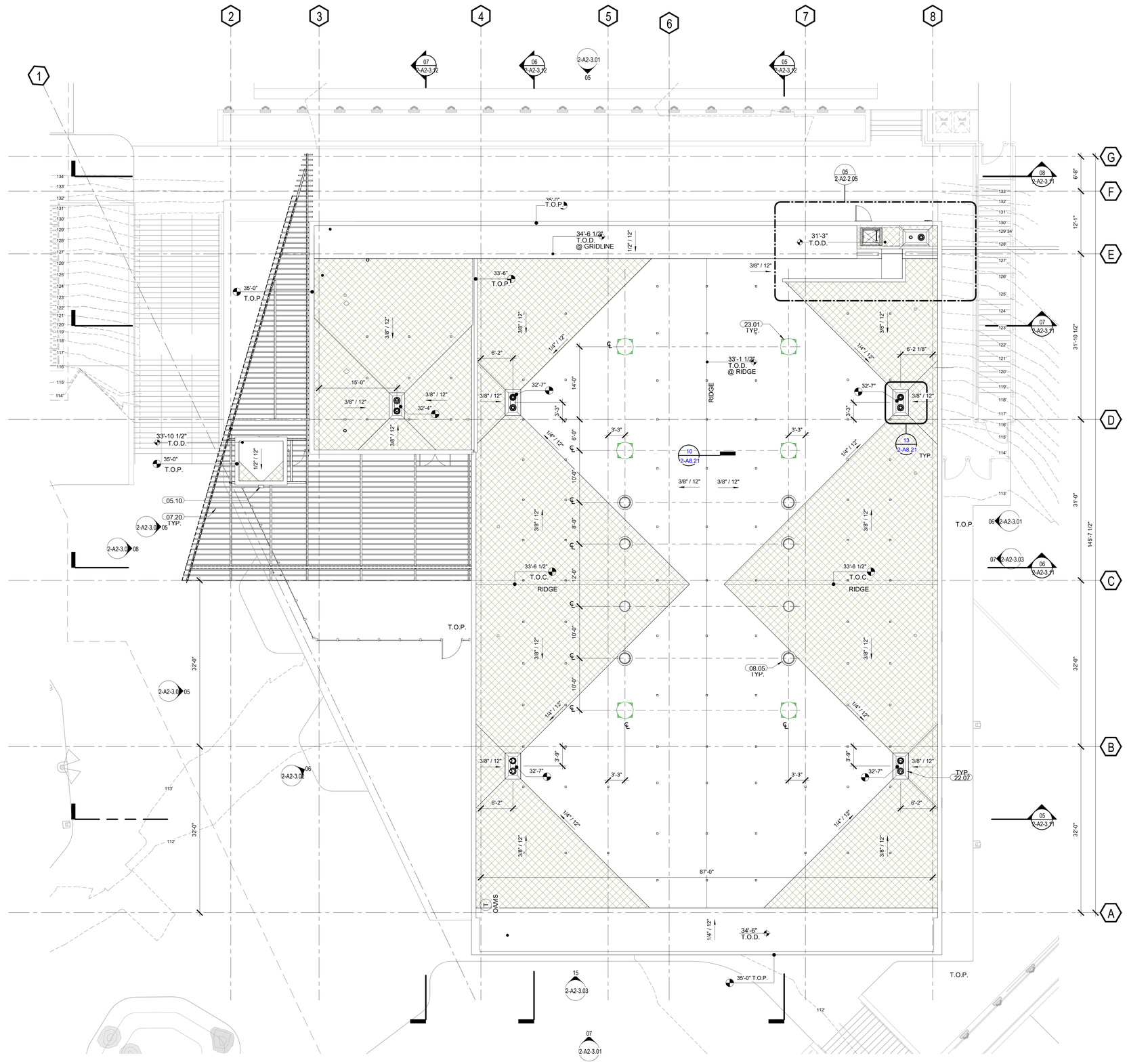
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DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

GYM - UPPER LEVEL FLOOR PLAN

2-A2-2.02



GYM - ROOF PLAN | 1/8" = 1'-0" | 2-A2-2.03 | 05

KEYNOTES

05.10	CUSTOM STEEL PLATE SCUPPER, PRIMED AND PAINTED TO MATCH PLASTER SYSTEM, RE: 19 AND 20 ON SHEET 2-A8.22
07.20	ALUMINUM BATTEN TRELLIS ASSEMBLY SYSTEM, RE: S4/2-A8.12
08.05	TUBULAR SKYLIGHT NATURAL DAYLIGHT SYSTEM, RE: 17/2-A8.21
22.07	ROOF AND OVERFLOW DRAIN ASSEMBLY, RE: 01 AND 13 ON A8.21 AND PLUMBING DRAWINGS
23.01	GRAVITY VENT, RE: MECHANICAL DRAWINGS

LEGEND

	SINGLE-PLY PVC ROOFING SYSTEM
	WALKWAY PROTECTION PAD FOR ROOFING ASSEMBLY
	1/2" COVER BOARD OVER TAPERED RIGID INSULATION CRICKET, SLOPE TO DRAIN PER PLAN (1/4" PER FOOT MIN. AT VALLEY WHERE CRICKET MEETS ROOF)
	PHOTOVOLTAIC PANEL, RE: ELECTRICAL DRAWINGS
	INDICATES ELEVATION (0'-0" DEFINED AS F.F.E. PER CIVIL)
XX" / XX"	INDICATES ROOF SLOPE
T.O.P.	TOP OF PARAPET
T.O.SH.	TOP OF SHEATHING
T.O.S.	TOP OF STEEL
T.O.D.	TOP OF STEEL DECK
T.O.C.	TOP OF CRICKET
	ROOF AND OVERFLOW DRAIN
	ROOF ACCESS HATCH

GENERAL NOTES

1. ROOFING SYSTEM TO BE CLASS A RATED.
2. ROOF SYSTEM SHALL BE SLOPED A MINIMUM OF 1/4" IN 12 INCHES AT VALLEYS FOR DRAINAGE. VERIFY PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCIES.
3. PRIOR TO THE ISSUANCE OF USE AND OCCUPANCY, WRITTEN CERTIFICATION BY A CALIFORNIA REGISTERED ENGINEER THAT THE ROOF IS IN CONFORMANCE WITH THE APPROVED PLANS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR.
4. INSTALLATION OF THE ROOFING SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND PROCEDURES.
5. FOR TYPICAL ROOF PENETRATION SPACING, RE: 09/A8.21.
6. FOR TYPICAL ROOF PENETRATIONS RE: A8.21.
7. ALL PENETRATIONS THROUGH THE ROOF SHALL BE BY THE USE OF ROUND CONDUIT FOR PIPES, VENTS, RISERS AND EQUIPMENT SUPPORTS. THE USE OF CHANNELS, ANGLES, OR UNISTRUT THROUGH THE ROOF WITH PITCH POCKETS SHALL NOT BE ALLOWED.
8. REFER TO WALL SECTIONS FOR PARAPET DETAILS.
9. FOR TYPICAL CRICKET LAYOUT RE: XX/XXXX.

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LICENSED ARCHITECT RICHARD MILVO No. C-16639 REN 12/31/2025 STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

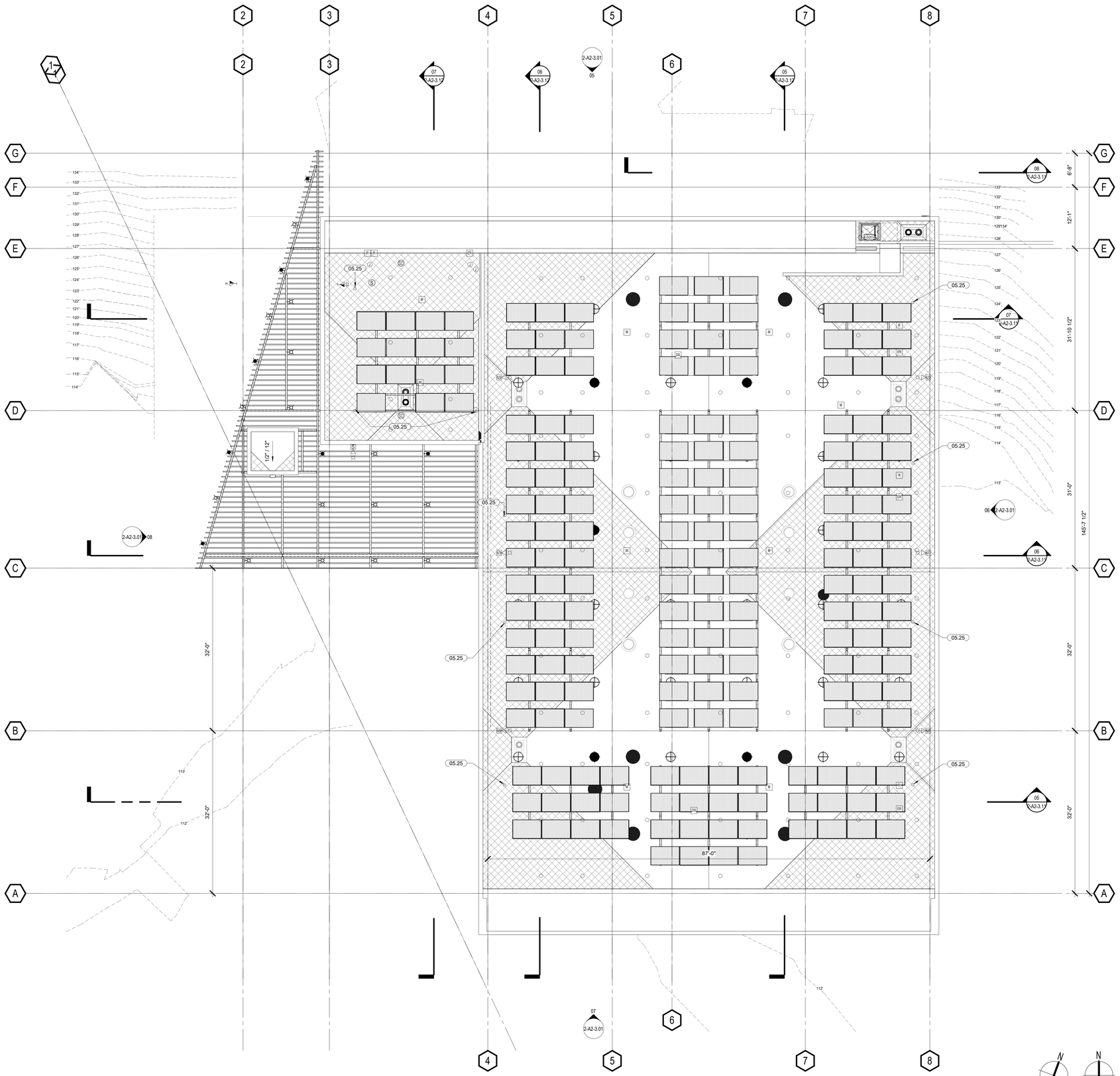
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	06/06/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

GYM - ROOF PLAN

2-A2-2.03



GYM - ROOF PLAN - PV LAYOUT | 1/8" = 1'-0" | 2-A2-2.04 | 05

KEYNOTES

05.25	SAFETY TIE OFF POST, RE: 23/2-A8.21

LEGEND

	SINGLE-PLY PVC ROOFING SYSTEM
	WALKWAY PROTECTION PAD FOR ROOFING ASSEMBLY
	1/2" COVER BOARD OVER TAPERED RIGID INSULATION CRICKET, SLOPE TO DRAIN PER PLAN (1/4" PER FOOT MIN. AT VALLEY WHERE CRICKET MEETS ROOF)
	PHOTOVOLTAIC PANEL. RE: ELECTRICAL DRAWINGS
	INDICATES ELEVATION (0'-0" DEFINED AS F.F.E. PER CIVIL)
XX" / XX"	INDICATES ROOF SLOPE
T.O.P.	TOP OF PARAPET
T.O.SH.	TOP OF SHEATHING
T.O.S.	TOP OF STEEL
T.O.D.	TOP OF STEEL DECK
T.O.C.	TOP OF CRICKET
	ROOF AND OVERFLOW DRAIN
	ROOF ACCESS HATCH

GENERAL NOTES

1. ROOFING SYSTEM TO BE CLASS A RATED.
2. ROOF SYSTEM SHALL BE SLOPED A MINIMUM OF 1/4" IN 12 INCHES AT VALLEYS FOR DRAINAGE. VERIFY PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCIES.
3. PRIOR TO THE ISSUANCE OF USE AND OCCUPANCY, WRITTEN CERTIFICATION BY A CALIFORNIA REGISTERED ENGINEER THAT THE ROOF IS IN CONFORMANCE WITH THE APPROVED PLANS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR.
4. INSTALLATION OF THE ROOFING SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND PROCEDURES.
5. FOR TYPICAL ROOF PENETRATION SPACING, RE: 09/A8.21.
6. FOR TYPICAL ROOF PENETRATIONS RE: A8.21.
7. ALL PENETRATIONS THROUGH THE ROOF SHALL BE BY THE USE OF ROUND CONDUIT FOR PIPES, VENTS, RISERS AND EQUIPMENT SUPPORTS. THE USE OF CHANNELS, ANGLES, OR UNISTRUT THROUGH THE ROOF WITH PITCH POCKETS SHALL NOT BE ALLOWED.
8. REFER TO WALL SECTIONS FOR PARAPET DETAILS.
9. FOR TYPICAL CRICKET LAYOUT RE: XX/XXXX.

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LICENSED ARCHITECT RICHARD MUSTO No. C19639 REN:12/31/2025 STATE OF CALIFORNIA

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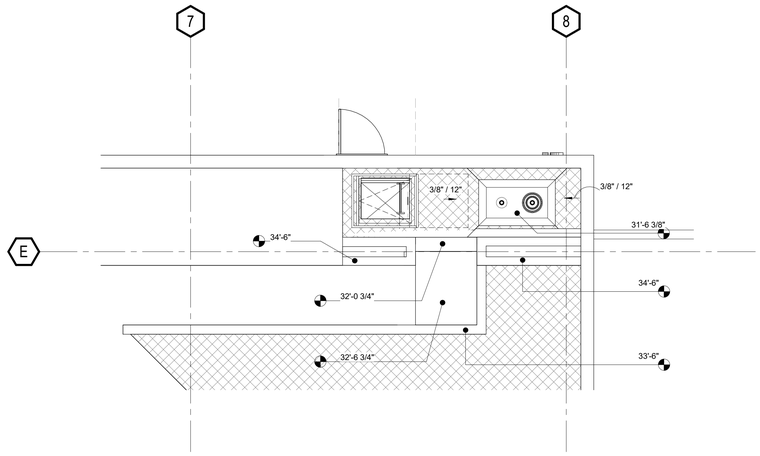
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DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

GYM - ROOF PLAN - PV LAYOUT

2-A2-2.04



TRUE NORTH PROJECT NORTH

ROOF PLAN - Callout 1 | 1/4" = 1'-0" | 2-A2-2.05 | 05

LEGEND

	SINGLE-PLY PVC ROOFING SYSTEM
	WALKWAY PROTECTION PAD FOR ROOFING ASSEMBLY
	1/2" COVER BOARD OVER TAPERED RIGID INSULATION CRICKET, SLOPE TO DRAIN PER PLAN (1/4" PER FOOT MIN. AT VALLEY WHERE CRICKET MEETS ROOF)
	PHOTOVOLTAIC PANEL, RE: ELECTRICAL DRAWINGS
	INDICATES ELEVATION (0'-0" DEFINED AS F.F.E. PER CIVIL)
XX" / XX"	INDICATES ROOF SLOPE
T.O.P.	TOP OF PARAPET
T.O.SH.	TOP OF SHEATHING
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	ROOF ACCESS HATCH

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6. FOR TYPICAL ROOF PENETRATIONS RE: A8.21.
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8. REFER TO WALL SECTIONS FOR PARAPET DETAILS.
9. FOR TYPICAL CRICKET LAYOUT RE: XX/XXXX.

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LICENSED ARCHITECT
RICHARD MUSTO
No. C-10639
REN 12/31/2026
STATE OF CALIFORNIA

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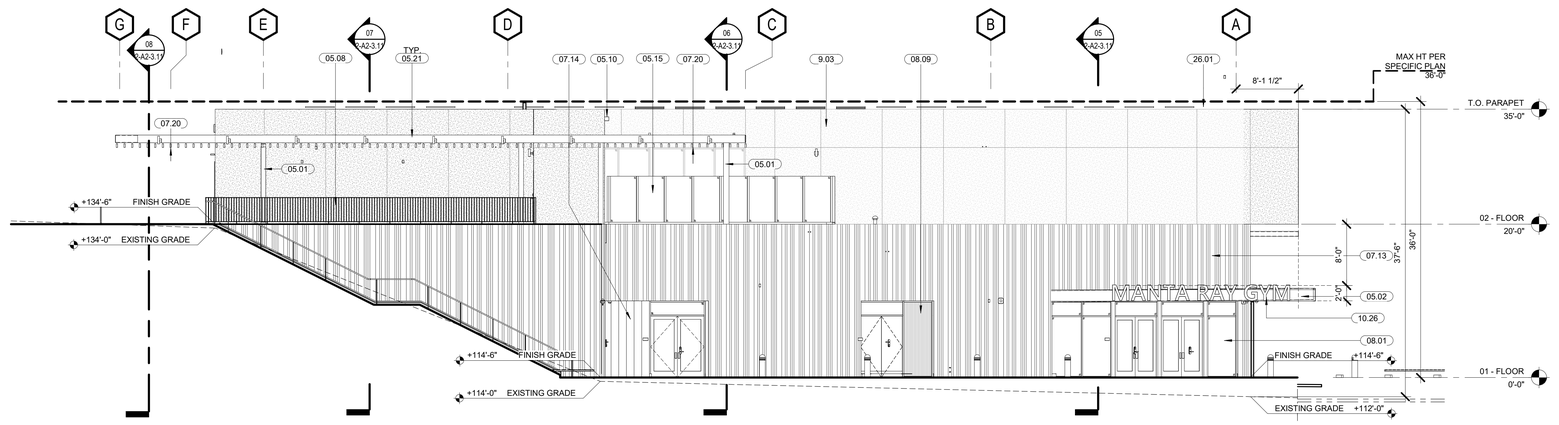
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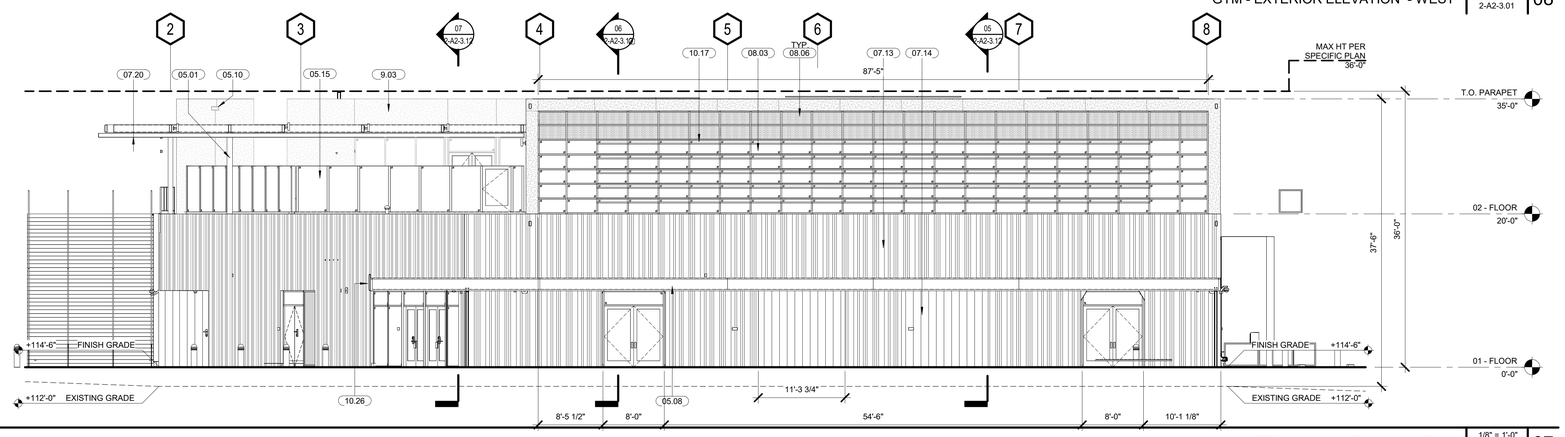
Job Number	31722
Checked By	Checker
Scale	As indicated

GYM - ROOF PLAN - ROOF ACCESS

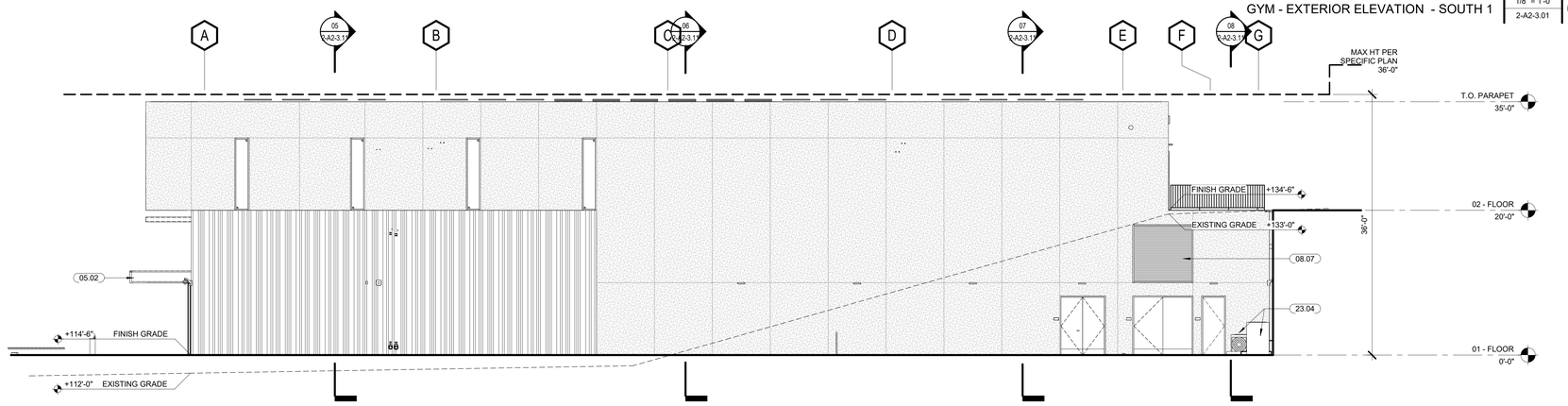
2-A2-2.05



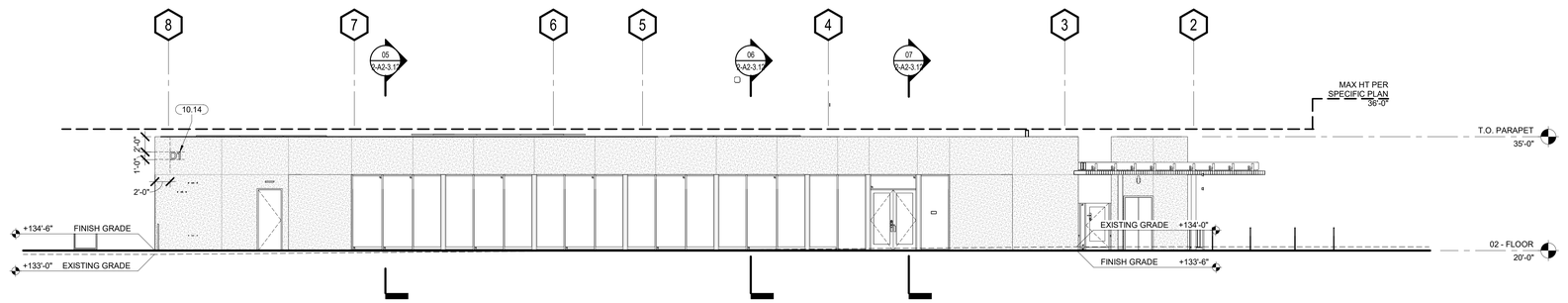
GYM - EXTERIOR ELEVATION - WEST | 1/8" = 1'-0" | 2-A2-3.01 | 08



GYM - EXTERIOR ELEVATION - SOUTH 1 | 1/8" = 1'-0" | 2-A2-3.01 | 07



GYM - EXTERIOR ELEVATION - EAST 1 | 1/8" = 1'-0" | 2-A2-3.01 | 06



GYM - EXTERIOR ELEVATION - NORTH 1 | 1/8" = 1'-0" | 2-A2-3.01 | 05

KEYNOTES

05.01	STRUCTURAL STEEL COLUMN, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____, TYP.
05.02	STRUCTURAL STEEL BEAM, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____ TYP.
05.08	STEEL GUARDRAIL SYSTEM, 2" X 3/4" FLAT BAR FRAME WITH 13 GA. 3/4" X 2" HOLLOW TUBE INFILL, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT, RE: 02/2-A8.43
05.10	CUSTOM STEEL PLATE SCUPPER, PRIMED AND PAINTED TO MATCH PLASTER SYSTEM, RE: 19 AND 20 ON SHEET 2-A8.22
05.15	STEEL-FRAMED WINDSCREEN WITH HIGH PERFORMANCE COATING & GLASS PANELING; RE: 2-A2-7.31 AND 2-A8.42
05.21	STRUCTURAL HSS BEAM, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT, RE: STRUCTURAL DRAWINGS
07.13	RIBBED METAL WALL PANEL SYSTEM MP1, RE: 2-A8.11
07.14	FLUSH METAL WALL PANEL SYSTEM, MP2, RE: 2-A8.11 AND 2-A8.12
07.20	ALUMINUM BATTEN TRELLIS ASSEMBLY SYSTEM, RE: S4/2-A8.12
08.01	1" INSULATED VISION GLAZING WITH LOW-E COATING, IN ALUMINUM STOREFRONT SYSTEM, SF1, RE: 2-A8.13
08.03	1" INSULATED VISION GLAZING WITH LOW-E COATING IN CURTAIN WALL SYSTEM, CW1, RE: 2-A8.13
08.06	ALUMINUM SHADOW BOX WITH 1-1/2" RIGID INSULATION BACKER, FINISH TO MATCH CURTAIN WALL SYSTEM
08.07	HORIZONTAL ARCHITECTURAL LOUVER, FACTORY FINISH TO MATCH ADJACENT PLASTER
08.09	VERTICAL ARCHITECTURAL LOUVER, FACTORY FINISH TO MATCH DOOR FRAME
9.03	POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER ASSEMBLY, PAINTED, RE: 2-A8.11
10.14	PIN MOUNTED BRUSHED STAINLESS STEEL 12" TALL BUILDING DESIGNATION NUMBERS, FOR ATTACHMENT, RE: 01/2-A10.42
10.17	ALUMINUM, FIXED HORIZONTAL SUN SCREEN WITH 15 DEGREE TILT RE: XX/2-AX.XX
10.26	BRUSHED STAINLESS STEEL, 24" TALL BUILDING SIGNAGE, PIN MOUNTED TO STRUCTURAL STEEL FASCIA. FOR ATTACHMENT REFER TO XX/2-AX.XX
23.04	CONDENSING UNIT, RE: MECHANICAL DRAWINGS
26.01	PHOTOVOLTAIC PANELS AND RAIL SYSTEM, RE: 21/2-A8.21 AND ELECTRICAL DRAWINGS

LEGEND

POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER; PAINTED

RIBBED METAL WALL PANEL - METALLIC PAINT FINISH; MORIN P SERIES, COLOR & PATTERN PER...

1" INSULATED GLAZING UNIT - CLEAR (VIRACON VNE 13-63)

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LICENSED ARCHITECT RICHARD MISYO No. C-10639 REN 12/31/2025 STATE OF CALIFORNIA

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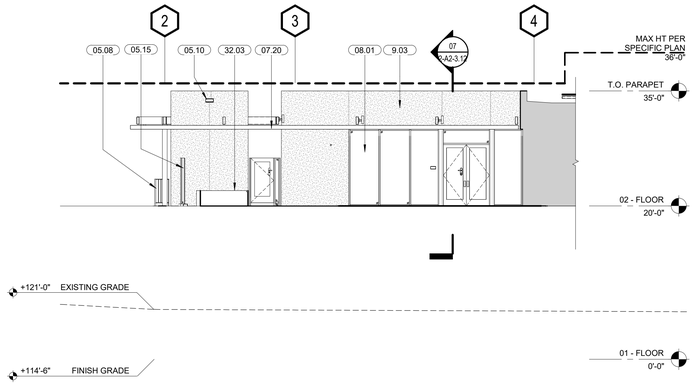
Revision	Date

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SCHEMATIC DESIGN	08/04/2024
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100% DESIGN DEVELOPMENT	02/21/2025
CDP SUBMITTAL	04/14/2025
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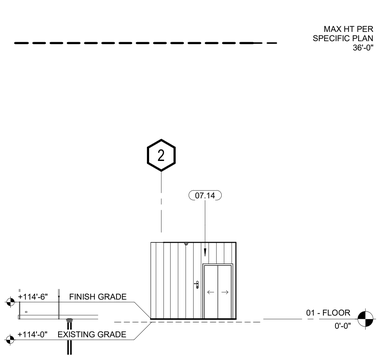
Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

GYM - EXTERIOR ELEVATIONS

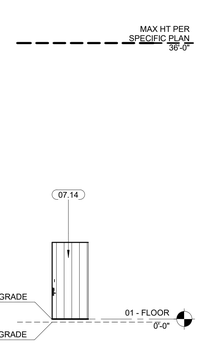
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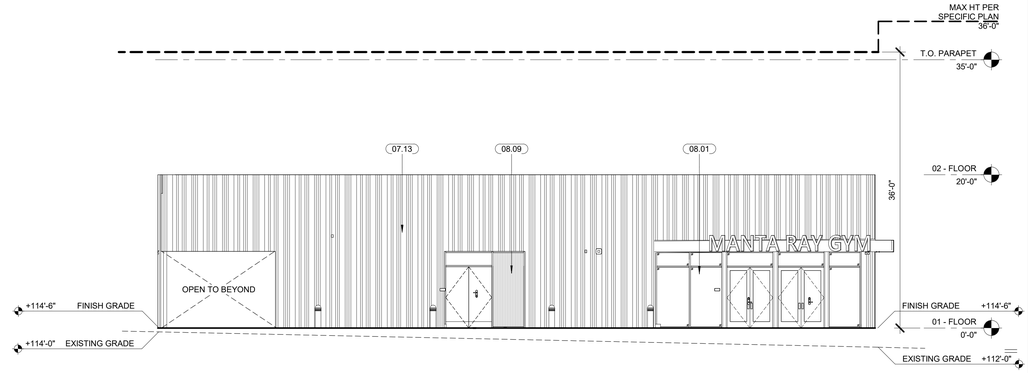
GYM - EXTERIOR ELEVATION - SOUTH 3 | 1/8" = 1'-0" | 2-A2-3.02 | 07



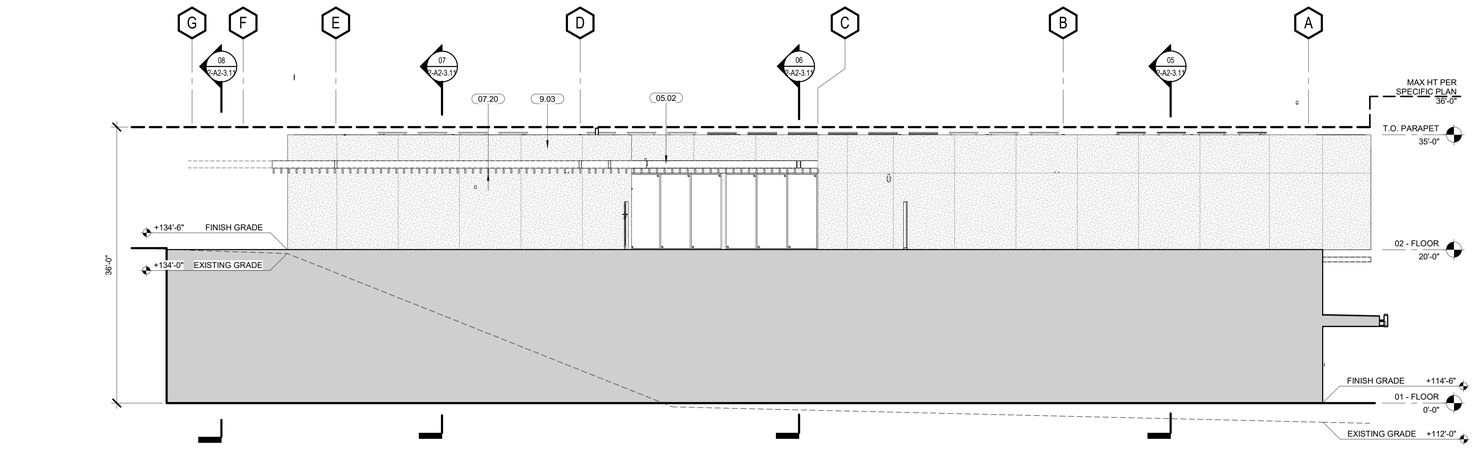
GYM - EXTERIOR ELEVATION - SOUTH 2 | 1/8" = 1'-0" | 2-A2-3.02 | 22



GYM - EXTERIOR ELEVATION - NORTH 2 | 1/8" = 1'-0" | 2-A2-3.02 | 18



GYM - EXTERIOR ELEVATION - WEST 2 | 1/8" = 1'-0" | 2-A2-3.02 | 06



GYM - EXTERIOR ELEVATION - WEST 3 | 1/8" = 1'-0" | 2-A2-3.02 | 05

KEYNOTES

05.02	STRUCTURAL STEEL BEAM, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT TO MATCH _____, TYP.
05.08	STEEL GUARDRAIL SYSTEM; 2" X 3/4" FLAT BAR FRAME WITH 13 GA. 3/4" X 2" HOLLOW TUBE INFILL, PRIMED AND PAINTED WITH HIGH PERFORMANCE PAINT, RE: 02/2-A8.43
05.10	CUSTOM STEEL PLATE SCUPPER, PRIMED AND PAINTED TO MATCH PLASTER SYSTEM, RE: 19 AND 20 ON SHEET 2-A8.22
05.15	STEEL-FRAMED WINDSCREEN WITH HIGH PERFORMANCE COATING & GLASS PANELING; RE: 2-A2-7.31 AND 2-A8.42
07.13	RIBBED METAL WALL PANEL SYSTEM MP1, RE: 2-A8.11
07.14	FLUSH METAL WALL PANEL SYSTEM, MP2, RE: 2-A8.11 AND 2-A8.12
07.20	ALUMINUM BATTEN TRELLIS ASSEMBLY SYSTEM, RE: S4/2-A8.12
08.01	1" INSULATED VISION GLAZING WITH LOW-E COATING, IN ALUMINUM STOREFRONT SYSTEM, SF1, RE: 2-A8.13
08.09	VERTICAL ARCHITECTURAL LOUVER, FACTORY FINISH TO MATCH DOOR FRAME
9.03	POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER ASSEMBLY, PAINTED, RE: 2-A8.11
32.03	MODULAR METAL PLANTER; RE: LANDSCAPE DWGS

LEGEND

POLYMER MODIFIED FIBERGLASS REINFORCED PLASTER; PAINTED

RIBBED METAL WALL PANEL - METALLIC PAINT FINISH; MORIN P SERIES, COLOR & PATTERN PER...

1" INSULATED GLAZING UNIT - CLEAR (VIRACON VNE 13-63)

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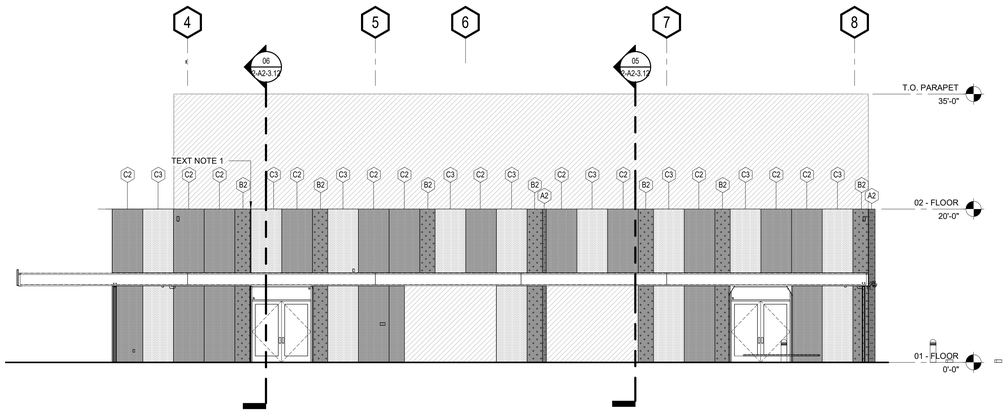
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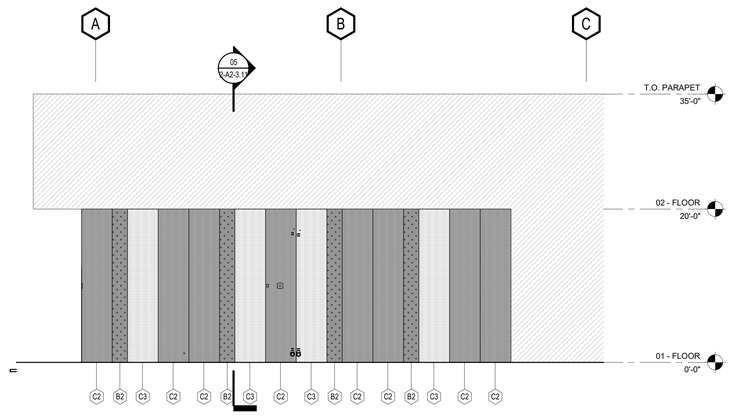
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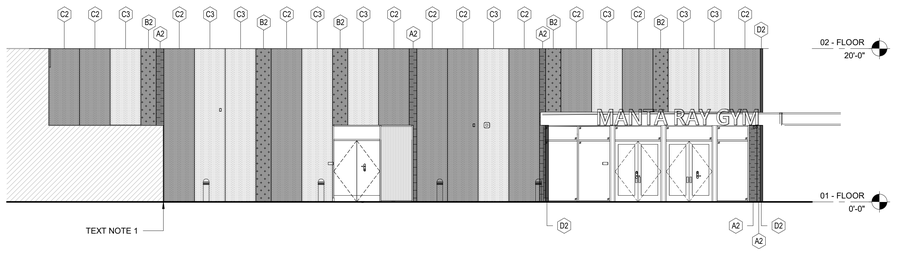
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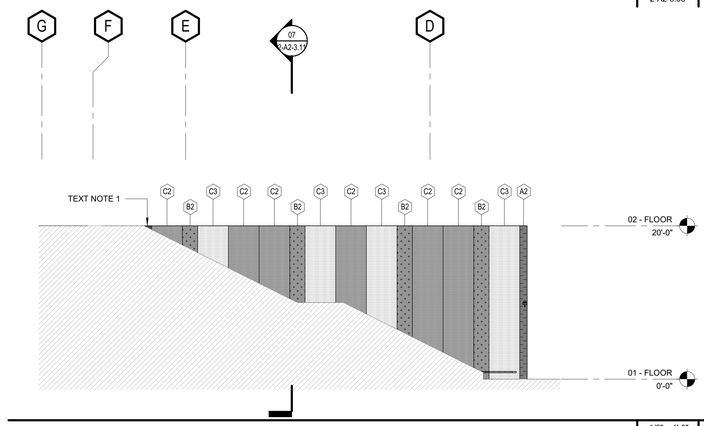
GYM - EXTERIOR ELEVATION - SOUTH 1 - METAL PANEL | 1/8" = 1'-0" | 2-A2-3.03 | 15



GYM - EXTERIOR ELEVATION - EAST 1 - METAL PANEL | 1/8" = 1'-0" | 2-A2-3.03 | 07



GYM - EXTERIOR ELEVATION - WEST 2 - METAL PANEL | 1/8" = 1'-0" | 2-A2-3.03 | 06



GYM - EXTERIOR ELEVATION - WEST - METAL PANEL | 1/8" = 1'-0" | 2-A2-3.03 | 05

LEGEND

- MP MODULE TYPE A2. RE: 05/2-A2-3.04
- MP MODULE TYPE B2. RE: 09/2-A2-3.04
- MP MODULE TYPE C2. RE: 13/2-A2-3.04
- MP MODULE TYPE C3. RE: 17/2-A2-3.04
- MP MODULE TYPE D2. RE: 21/-A2-3.04
- PORTION OF ELEVATION NOT APPLICABLE TO METAL PANEL PATTERN

TEXT NOTE 1: BRAKE METAL INFILL PANEL, FACTORY FINISH TO MATCH METAL PANEL SYSTEM

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LPADesignStudios.com

5301 California Avenue, Suite 100
Irvine, California 92617

LICENSED ARCHITECT
RICHARD MUSTO
No. C10639
REN 12/31/2025
STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

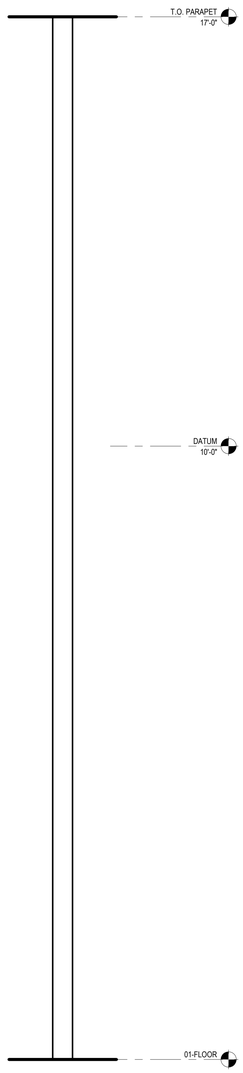
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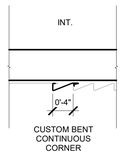
Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	08/08/2025

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

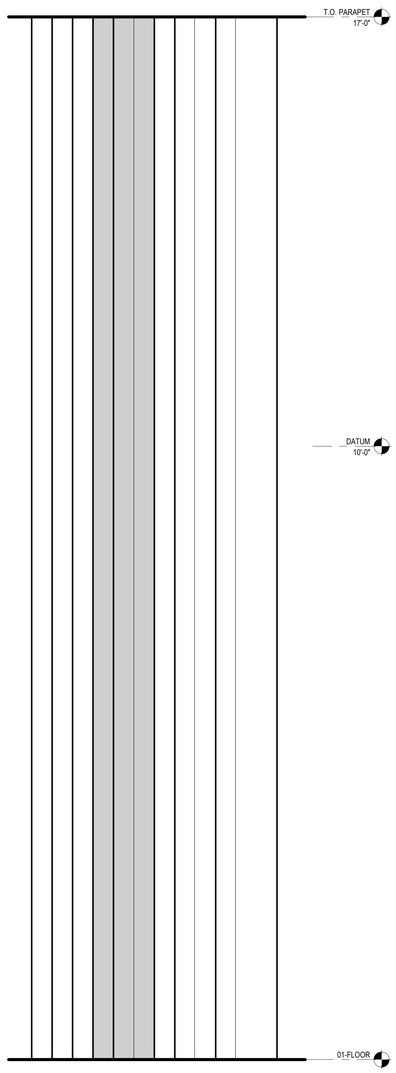
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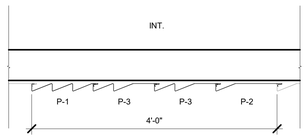
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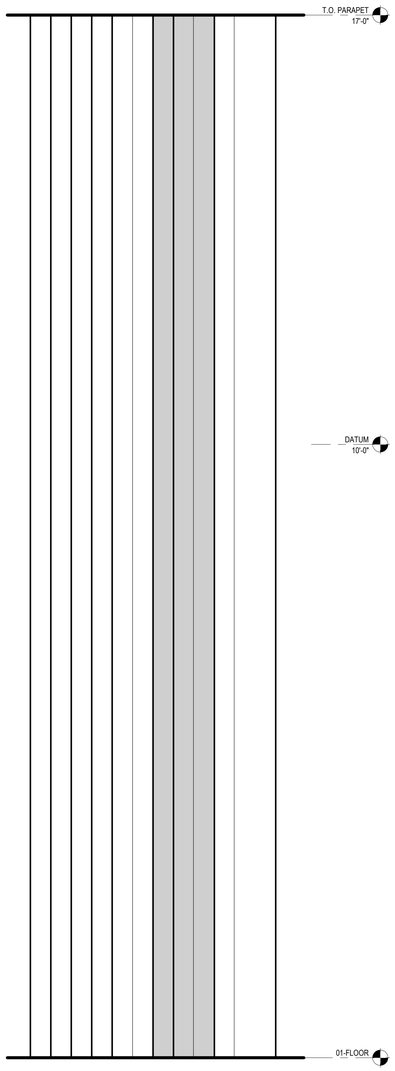


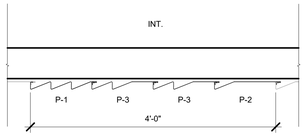
TYPE D2 | 1" = 1'-0" | 2-A2-3.04 | 21



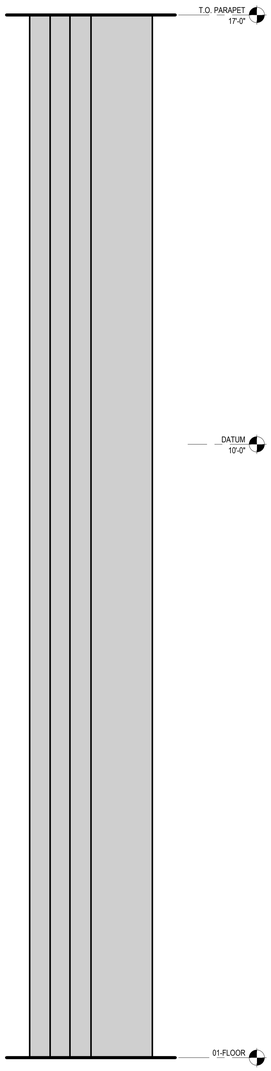


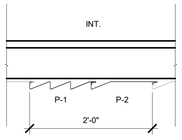
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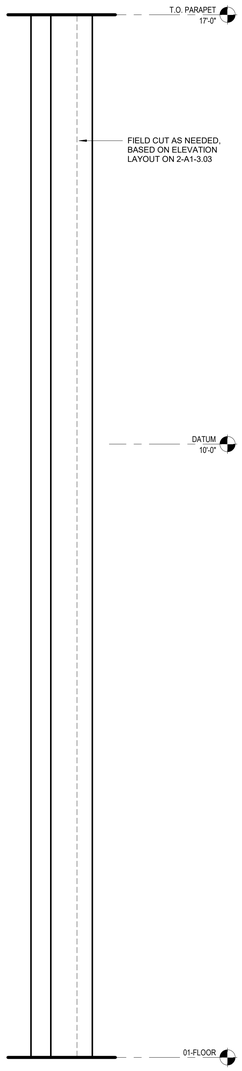


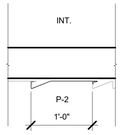
TYPE C2 | 1" = 1'-0" | 2-A2-3.04 | 13





TYPE B2 | 1" = 1'-0" | 2-A2-3.04 | 09





TYPE A2 | 1" = 1'-0" | 2-A2-3.04 | 05

LEGEND

MORIN STANDARD COLOR, PATIAN GREEN, 435R202

MORIN CUSTOM COLOR, XX, XX

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Checked By	Checker
Scale	As indicated

GYM - EXTERIOR ELEVATIONS - METAL PANEL PATTERN

2-A2-3.04



BIRD'S EYE VIEW FROM HIGH ENTRY NEAR PARKING LOT D, LOOKING NORTHWEST



BIRD'S EYE VIEW FROM CAMPUS ENTRY NEAR PARKING LOT D, LOOKING NORTHWEST



BIRD'S EYE VIEW FROM TRACK AND FIELD LOOKING WEST



VIEW FROM UPPER LEVEL LOOKING SOUTHWEST



VIEW FROM UPPER LEVEL LOOKING SOUTH



VIEW FROM LOWER LEVEL LOOKING NORTHEAST

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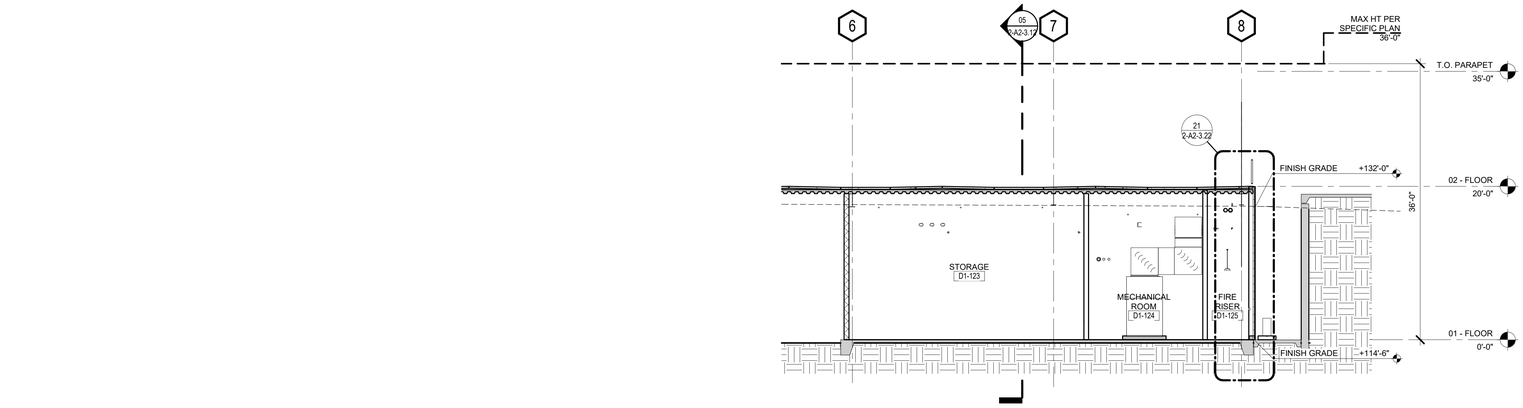
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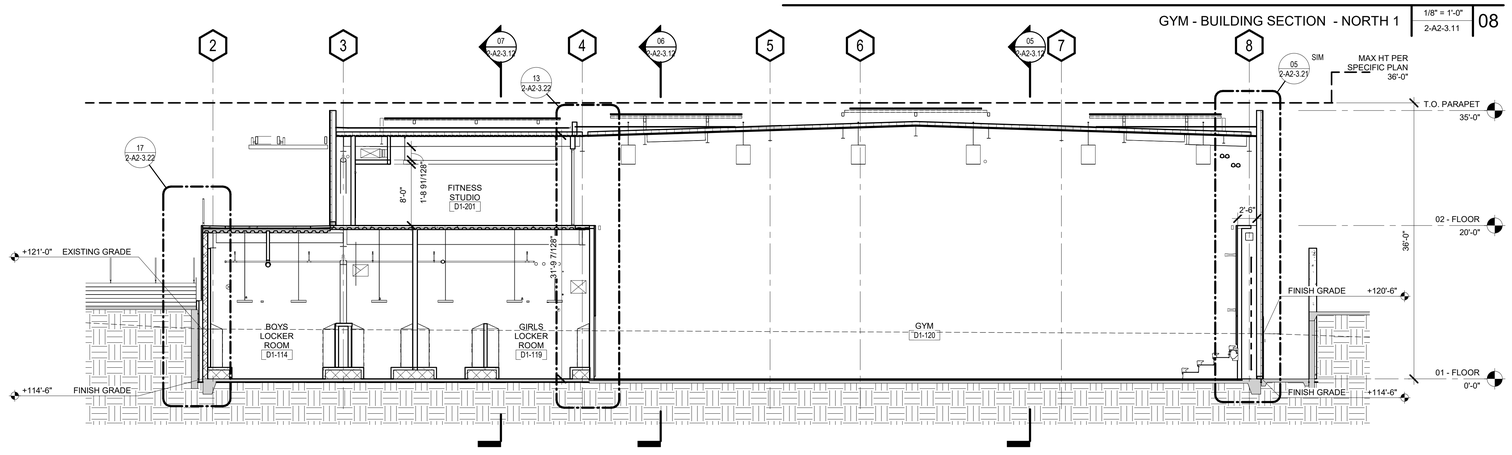
Job Number	31722
Checked By	Checker
Scale	

GYM - EXTERIOR VIEWS

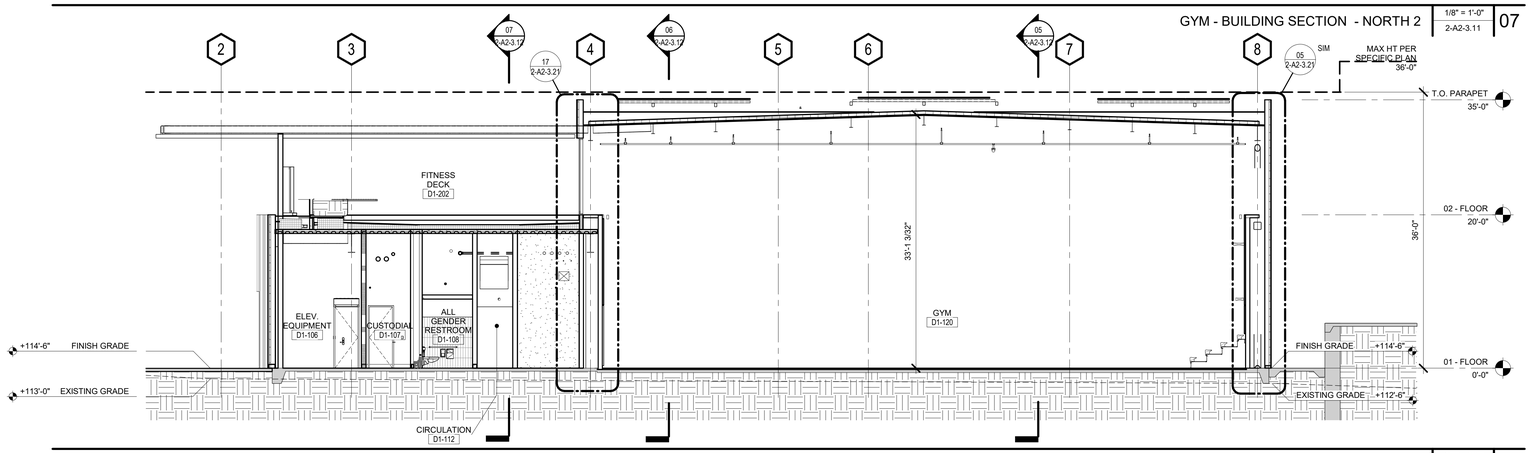
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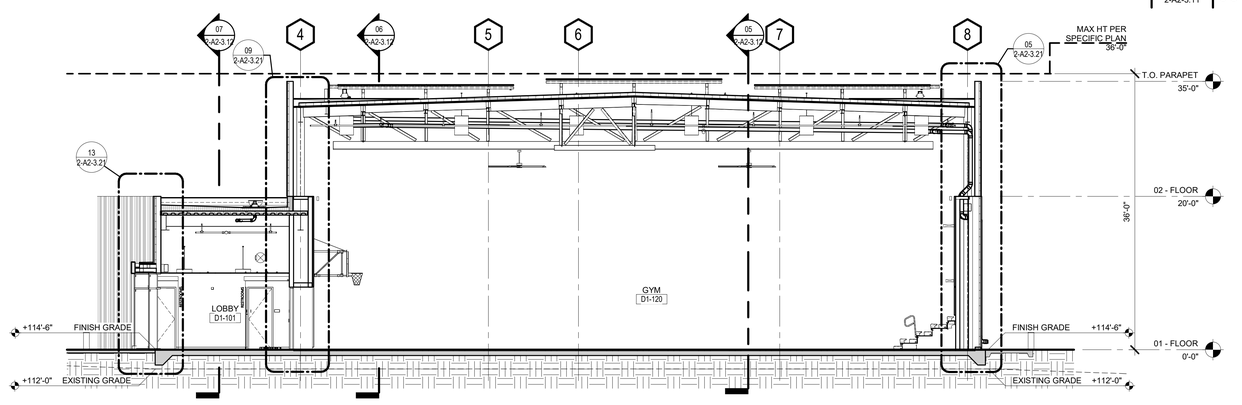
GYM - BUILDING SECTION - NORTH 1 | 1/8" = 1'-0" | 2-A2-3.11 | 08



GYM - BUILDING SECTION - NORTH 2 | 1/8" = 1'-0" | 2-A2-3.11 | 07



GYM - BUILDING SECTION - NORTH 3 | 1/8" = 1'-0" | 2-A2-3.11 | 06



GYM - BUILDING SECTION - NORTH 4 | 1/8" = 1'-0" | 2-A2-3.11 | 05

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DSA SUBMITTAL	09/08/2025

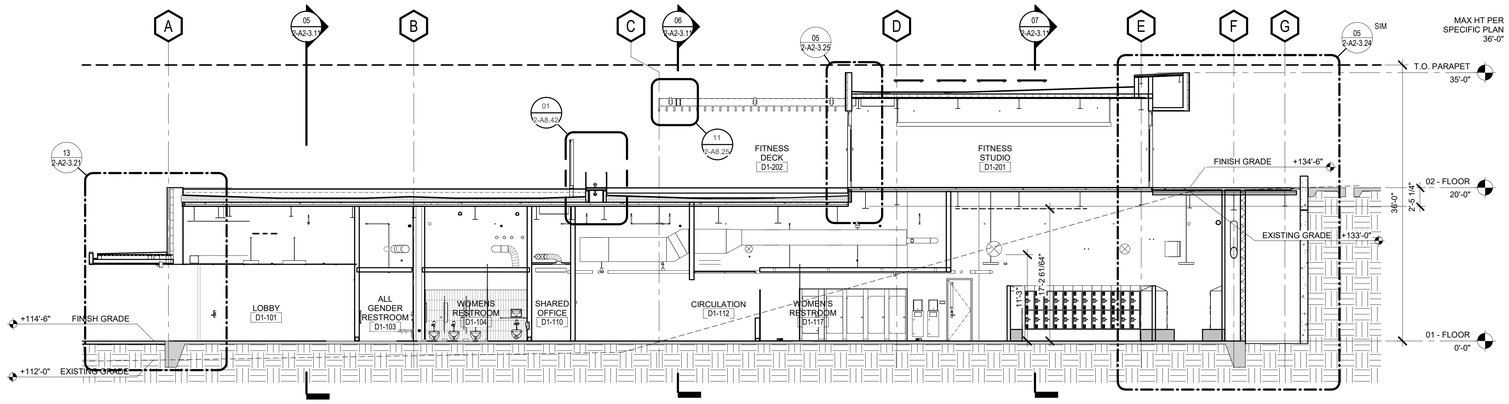
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GYM - BUILDING SECTIONS

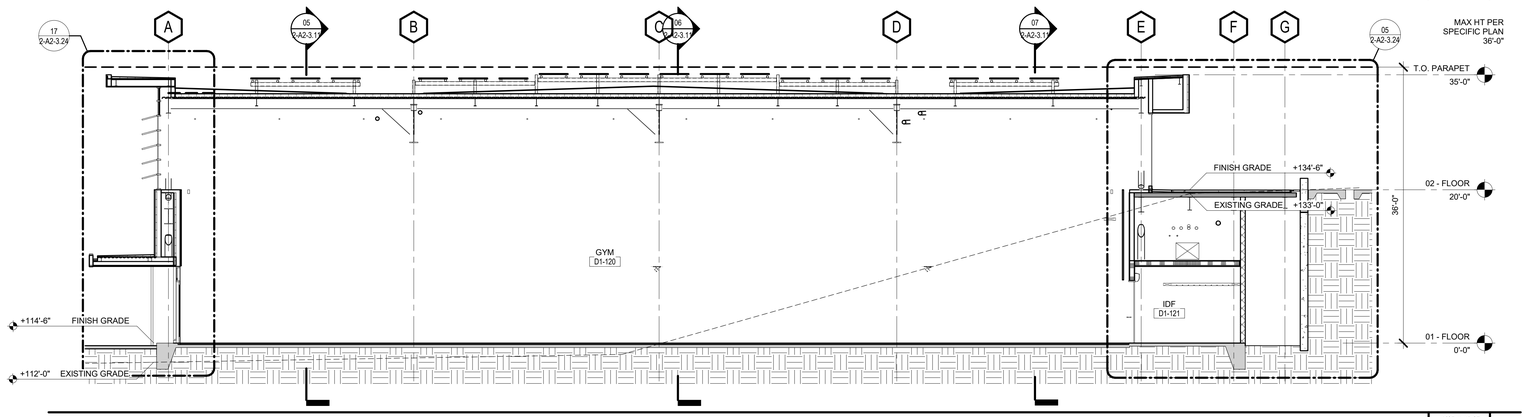
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KEYNOTES

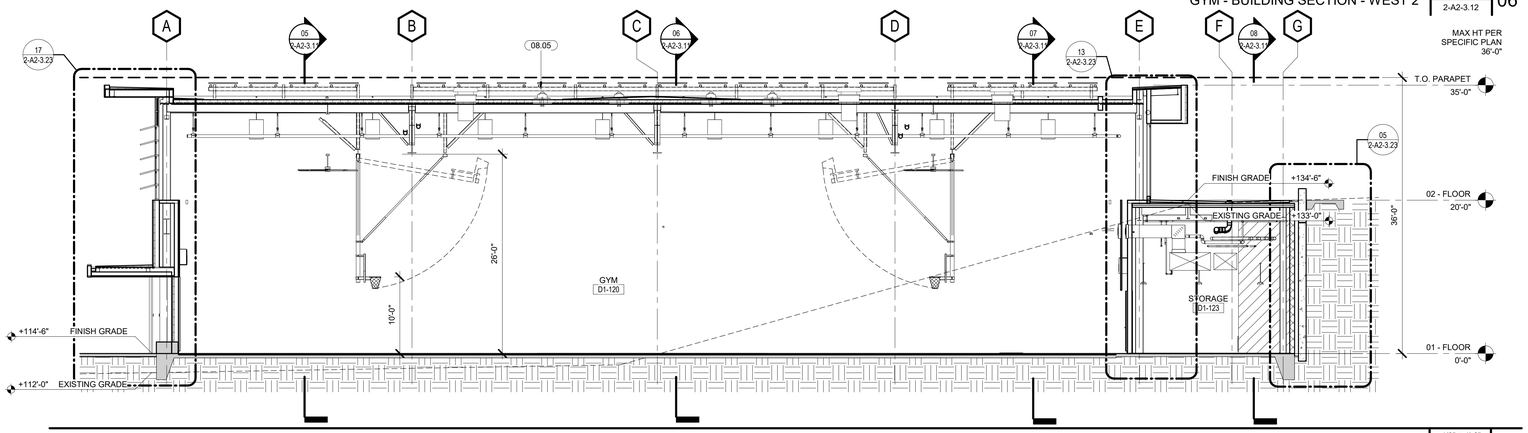
08.05	TUBULAR SKYLIGHT NATURAL DAYLIGHT SYSTEM, RE: 17/2-A8.21



GYM - BUILDING SECTION - WEST 1 | 1/8" = 1'-0" | 2-A2-3.12 | 07



GYM - BUILDING SECTION - WEST 2 | 1/8" = 1'-0" | 2-A2-3.12 | 06



GYM - BUILDING SECTION - WEST 3 | 1/8" = 1'-0" | 2-A2-3.12 | 05

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LICENSED ARCHITECT RICHARD MUSTO No. C-19639 REN 12/31/2025 STATE OF CALIFORNIA

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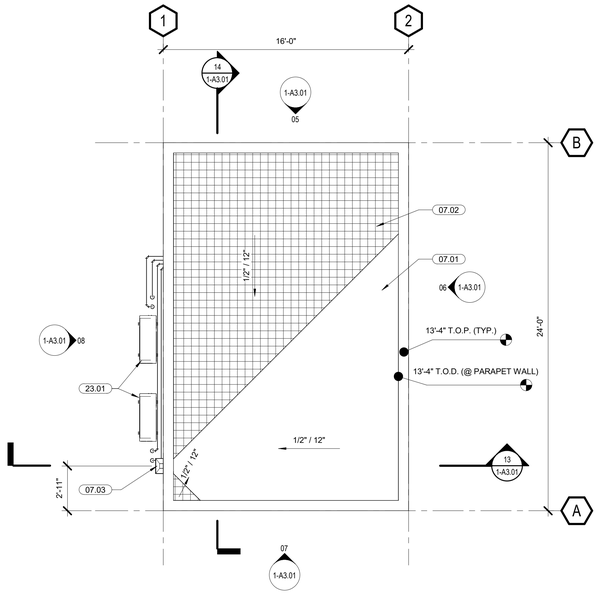
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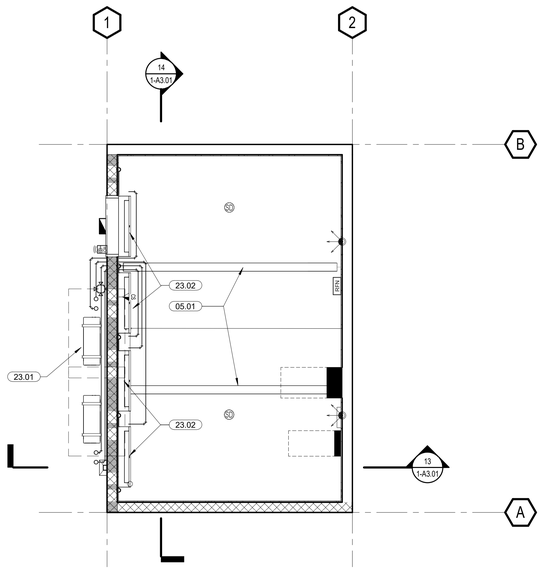
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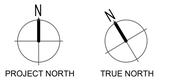
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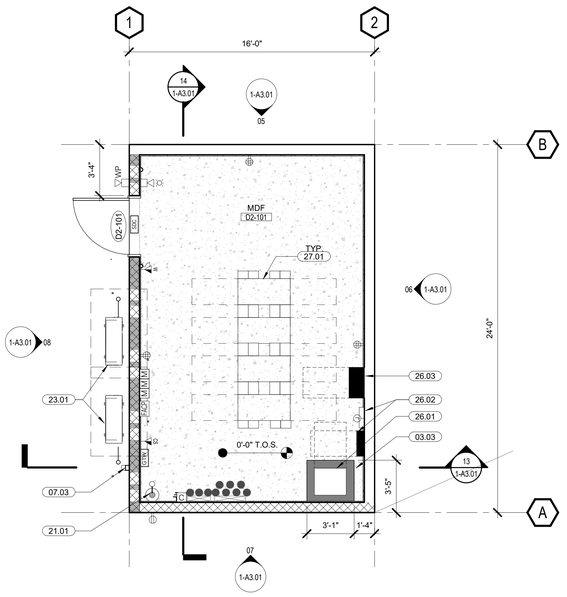


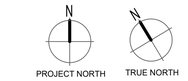
ROOF PLAN | 1/4" = 1'-0" | 1-A2.01 | 07





REFLECTED CEILING PLAN | 1/4" = 1'-0" | 1-A2.01 | 13





FLOOR PLAN | 1/4" = 1'-0" | 1-A2.01 | 05

KEYNOTES

03.03	CONCRETE HOUSEKEEPING PAD 6" HIGH FROM F.F., RE: 06D/1-S6.01
05.01	STRUCTURAL STEEL BEAM ABOVE, PRIMED AND PAINTED, RE: STRUCTURAL DWGS
07.01	R1 ROOFING ASSEMBLY
07.02	RIGID INSULATION ROOF CRICKET
07.03	SCUPPER WITH 3" DIA. DOWNSPOUT, FACTORY FINISH TO MATCH DOOR AND FRAME, RE: 13/1-A8.01
21.01	CLEAN AGENT CYLINDER, RE: FIRE PROTECTION DWGS
23.01	WALL MOUNTED CONDENSING UNIT, RE: MECHANICAL DWGS
23.02	WALL MOUNTED FAN COIL UNIT, RE: MECHANICAL DWGS
26.01	TRANSFORMER, RE: ELECTRICAL DWGS
26.02	ELECTRICAL PANEL, RE: ELECTRICAL DWGS
26.03	FIRE ALARM CONTROL PANEL, RE: ELECTRICAL SWGS
27.01	IT RACK, TYP. RE: TELECOM DWGS

LEGEND

- MASONRY WALL CONSTRUCTION
- 1-HR RATED MASONRY WALL CONSTRUCTION
- 0' - 0" — DENOTES ELEVATION (0'-0" DEFINED AS FINISH FLOOR ELEVATION PER CIVIL DWGS)
- T.O.P. — TOP OF PARAPET
- T.O.D. — TOP OF ROOF DECK, RE: STRUCTURAL DWGS
- T.O.S. — TOP OF CONCRETE SLAB, RE: STRUCTURAL DWGS
- DENOTES CONCRETE SLAB-ON-GRADE OR FLOOR SLAB, RE: STRUCTURAL DWGS
- DENOTES CONCRETE PAD 6" HIGH FROM F.F., RE: STRUCTURAL DWGS
- RIGID INSULATION ROOF CRICKET

GENERAL NOTES

1. ROOFING SYSTEM TO BE CLASS A RATED.

2. ROOF SYSTEM SHALL BE SLOPED A MINIMUM OF 1/4 INCH IN 12 INCHES AT VALLEYS FOR DRAINAGE. VERIFY PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IMEDIATELY IN CASE OD DISCREPANCIES.

3. PRIOR TO THE ISSUANCE OF USE AND OCCUAPNCY, WRITTEN CERTIFICATION BY A CALIFORNIA REGISTERED ENGINEER THAT THE ROOF IS IN CONFORMANCE WITH THE APPROVED PLANS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR.

4. INSTALLATION OF THE ROOFING SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS AND PROCEDURES.

5. ALL PENETRATIONS THROUGH THE ROOF SHALL BE BY THE USE OF ROUND CONDUIT FOR PIPES, VENTS, RISERS AND EQUIPMENT SUPPORTS. THE USE OF CHANNELS, ANGLES, OR UNI-STRUT THROUGH THE ROOF WITH PITCH POCKETS SHALL NOT BE ALLOWED.

6. ALL LIGHT FIXTURE DIMENSIONS ARE TO CENTER LINE OF FIXTURE OR GROUP OF FIXTURES, U.N.O.

7. SEE ELECTRICAL, MECHANICAL, LOW VOLTAGE AND FIRE ALARM DRAWINGS FOR EQUIPMENT SPECIFICATIONS AND LEGENDS.

8. FOR PENETRATIONS IN RATED EXTERIOR CMU WALLS, PROVIDE FIRESTOPPING ON BOTH SIDES OF WALL. ON THE EXTERIOR SIDE, RECESS THE FIRESTOPPING WITHIN THE CMU AND COVER WITH AN APPROVED UV RESISTANT & WATERPROOF SEALANT - COLOR TO MATCH FINISH OF CMU.

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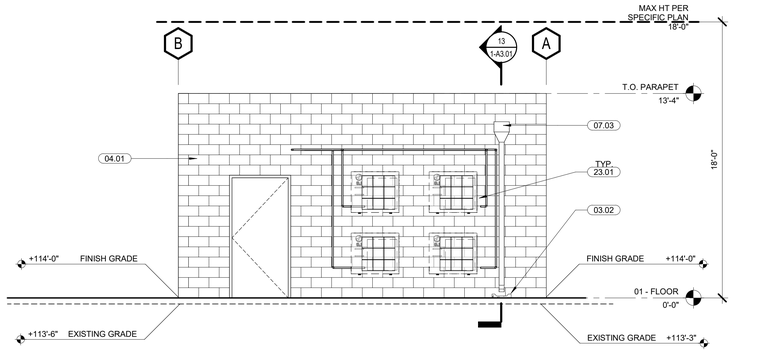
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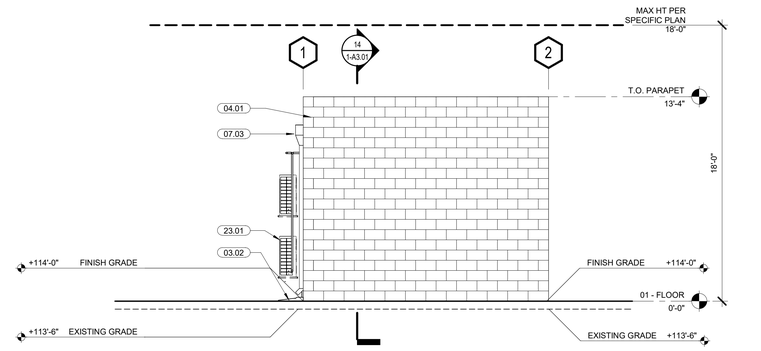
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Scale	As indicated

MDF - FLOOR, ROOF, AND CEILING PLANS

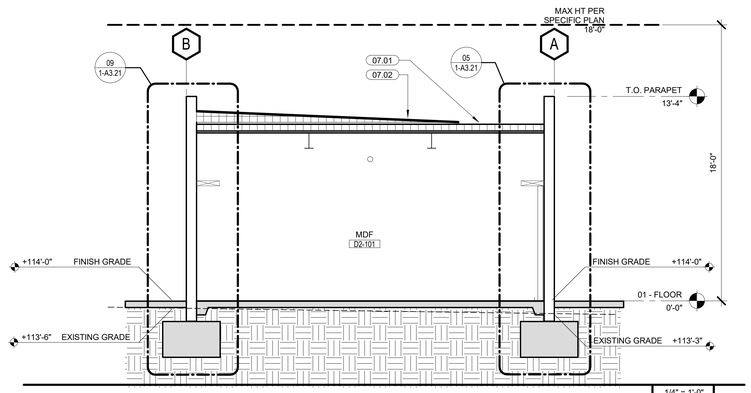
1-A2.01



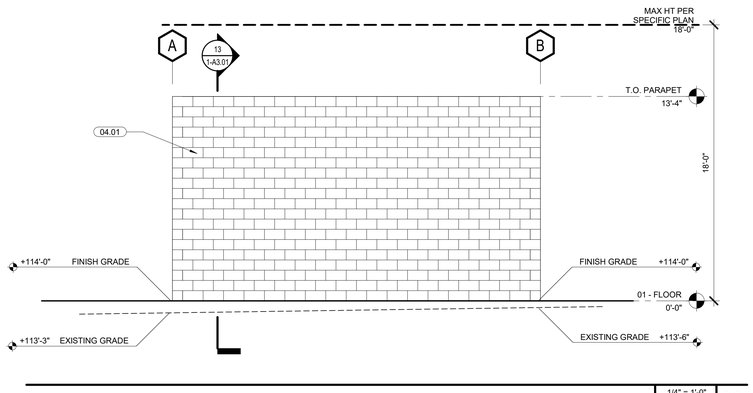
MDF - EXT ELEVATION - WEST | 1/4" = 1'-0" | 1-A3.01 | 08



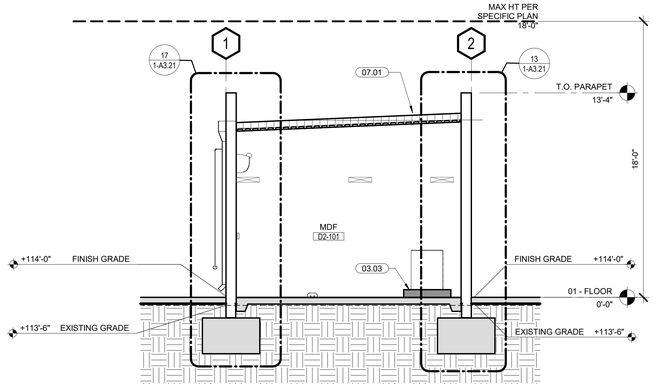
MDF - EXT ELEVATION - SOUTH | 1/4" = 1'-0" | 1-A3.01 | 07



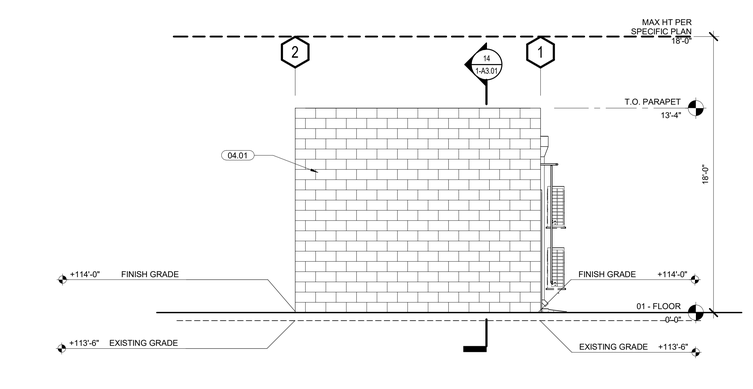
MDF - BUILDING SECTION | 1/4" = 1'-0" | 1-A3.01 | 14



MDF - EXT ELEVATION - EAST | 1/4" = 1'-0" | 1-A3.01 | 06



MDF - BUILDING SECTION | 1/4" = 1'-0" | 1-A3.01 | 13



MDF - EXT ELEVATION - NORTH | 1/4" = 1'-0" | 1-A3.01 | 05

KEYNOTES

03.02	CONCRETE SPLASH BLOCK
03.03	CONCRETE HOUSEKEEPING PAD 6" HIGH FROM F.F., RE: 06D/1-S6.01
04.01	CONCRETE MASONRY UNIT WALL ASSEMBLY; REFER TO EXTERIOR ASSEMBLIES ON A8.01 AND STRUCTURAL DRAWINGS.
07.01	R1 ROOFING ASSEMBLY
07.02	RIGID INSULATION ROOF CRICKET
07.03	SCUPPER WITH 3" DIA. DOWNSPOUT, FACTORY FINISH TO MATCH DOOR AND FRAME, RE: 13/1-A8.01
23.01	WALL MOUNTED CONDENSING UNIT, RE: MECHANICAL DWGS

LEGEND

8" CMU BLOCK, RE: STRUCTURAL DWGS

GENERAL NOTES

1. ROOF ASSEMBLY TO BE MIN R-30.
2. ALL SCUPPERS AND DOWNSPOUTS TO BE FACTORY FINISHED TO MATCH DOOR AND FRAME FINISH.
3. REFER TO SHEET 1-A8.01 FOR EXTERIOR ASSEMBLY TYPES.
4. CONTRACTOR TO PROVIDE COORDINATION DRAWING OF ALL EXTERIOR DEVICE LOCATIONS FOR REVIEW BY ARCHITECT PRIOR TO INSTALLATION.

LPA

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MALIBU HIGH SCHOOL
INCREMENT 01

30215 MORNING VIEW DR.
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	02/21/2025
CDE SUBMITTAL	06/16/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	Checker
Scale	As indicated

MDF - EXTERIOR ELEVATIONS & BUILDING SECTIONS

1-A3.01

CAST-IN-PLACE CONCRETE

1. Concrete mixing shall comply with ASTM C94.

2. Hydraulic Cement:
   A. ASTM C595 see table for types.
   B. Alternatively, ASTM C150 type II/V.

3. Aggregates:
   A. Normal Weight Concrete Aggregate (NW): ASTM C33 for aggregates of natural sand and rock. The maximum aggregate size is noted in the table below. The maximum dry density shall be 145 pcf.
      a. Where smaller aggregate is required for workability or areas of congestion, the contractor shall submit a request to the structural engineer prior to submitting the mix design. Pea gravel is not permitted.
   B. Light Weight Aggregate (LW) for Structural Concrete: ASTM C330, expanded shale lightweight aggregate. The maximum dry density shall be 115 pcf.
   C. Alkali Aggregates: Aggregate shall be non-reactive per ASTM C1778.

4. See the table below for the required concrete properties:

Class	Use/Location	Strength (psi) 28-Day	Agg Type	Max Agg Size (in)	Slump (in)	Max w/c	Target Air %	ASTM C595 Type	Exposure Category	GWP Limit kgCO$_2$e/m^3
A	UNLESS NOTED OTHERWISE	4,000	NW	1	3-5	0.5	--	IL	F0,S0	324
B	FOOTING AND GRADE BEAMS	4,000	NW	1	3-5	0.5	--	IL (HS)	F0,S0,C1*	324
C	SLAB ON GRADE	4,500	NW	1	3-5	0.45	--	IL	F0,S0	378
D	WALLS	4,000	NW	1	3-5	0.45	--	IL	F0,S0,C1*	324
E	COLUMNS	5,000	NW	1	3-5	0.5	--	IL	F0,S0	378
F	FILL ON DECK	4,000	LW	3/4	3-5	0.45	--	IL	F0,S0	594
G	PIERS / CAISSONS	3,000	NW	1 1/2	5-7	0.6	--	IL	F0,S0,C1*	280

* An exposure class of C1 is assumed for concrete in contact with soil exposed to moisture per ACI 318, but not due to external sources of chlorides.

5. Slump: Per ACI 301, CH. 4 and CBC section 1705.3. The specified slump above is measured before applying chemical add mixtures. The slump may be increased up to a maximum 8" at the contractor's option for workability and should be noted in the mix design submittal.

6. Global Warming Potential (GWP): as defined in the specifications.
   A. Concrete may be considered one product category to comply with the GWP Limit. A weighted average of the maximum GWP for all concrete mixes installed in the project shall be less than the weighted average maximum GWP as specified above. Calculations shall be submitted for approval.

7. N/A

8. All concrete above grade, including slab on grade, deck fill, wall, topping slab, stair landing and tread, shall have 1.5 pounds of 3/4" long fibrous reinforcing per cubic yard of concrete.

9. Lean Concrete: Where specifically indicated, containing 2 sacks of cement per cubic yard of concrete. Use only where specifically called for.

10. Non-shrink Grout: ASTM C1107, cementitious, non-metallic, attaining a compressive strength of 8000 psi.

11. Concrete Mix Design Submittal: Prior to ordering concrete, submit for each compressive strength and type of concrete required designed, mix designs signed, and sealed by a registered Civil or Structural Engineer in State of California to Architect (Structural Engineer), Special Inspector and to Governing Code Authority complying with California Building Code, Chapter 19.

12. Construction Joint: Roughen surface to 1/4-inch amplitude. Clean, remove laitance, thoroughly wet and remove standing water before placing new concrete. Submit to the Architect (Structural Engineer) at least 14 days prior to placing concrete indicating locations of construction joints and extent of pours. Place joints at locations to minimize the effects of shrinkage as well as being placed at points that least impair the strength of the structure. Provide dowels as directed.

13. Embedments and Penetrations in Concrete: No penetration through structural concrete is permitted unless shown in these drawings or specifically accepted in writing by the Architect (Structural Engineer). Do not cut any reinforcing.
   A. Pipes, Sleeves, Conduits, and Ducts: Not permitted embedded or penetrating concrete spread footings, columns, walls or concrete cast over metal decking, except as shown in these drawings.
   B. Conduits Embedded in Structural Concrete Slabs: Not permitted unless limited to two layers of 1 inch, and 1/6 slab thickness. outside diameter conduits and smaller spaced at least 3 inches center to center and within middle third of slab thickness. No conduit embedded in concrete cast over metal decking is permitted. No aluminum conduit is permitted.

14. Chamfered Corners: Provide 3/4-inch chamfer at exposed corners of columns, beams and walls except where structural walls are laid flush with column or beam faces, unless detailed otherwise.

15. Curing: Maintain concrete above 50 degrees Fahrenheit and in a moist condition for a minimum of 7 days after placement unless otherwise accepted by the Architect (Structural Engineer).

16. Non-Structural Topping slab shall be normal weight concrete reinforced with 6x6-W3.5xW3.5 W.W.F. at the center line of the slab. See plans & details for information on concrete fill over metal deck.

17. The maximum size for a single elevated concrete slab pour shall be 25,000 sq. ft. and shall have a maximum length to depth ratio of 2:1.

18. The maximum water-soluble chloride ION (CI) content in concrete by percentage of weight cement is 0.30.

19. Where "Styrofoam" or "EPS" is indicated on the drawings, provide expanded polystyrene conforming to ASTM D6817 Type EPS12 with the following physical properties.
   A. Density (min): 0.70 lb/ft^3
   B. Compressive Resistance (min): 2.2 psi @ 1% strain
   C. Flexural Strength (min): 10.0 psi

METAL DECKING

1. Metal Decking and Accessories: Verco Manufacturing Company, type and gauge as indicated on structural drawings, ASTM A653-SS grade 50 minimum conforming to IAPMO report ER-2018, G60 coating, unless heavier galvanized coating is indicated in specifications. Run deck units continuous over three or more spans where possible, deck is designed for unshored construction, UNO. Provide vented deck where vapor impervious material occurs over concrete fill, see Architectural for locations.

2. Deck Welding: AWS D1.3 using prequalified procedures.
   A. Qualification of Welders: Welders shall be experienced in welding light-gauge steel and using prequalified procedures. Erector shall establish welding procedure for arc spot welding of metal decking to structural steel, for each gauge of decking to be used. Prior to deck erection, each welder shall be qualified using this procedure and witnessed by Special Inspector. See California Building Code, Chapter 22A and 17A, for additional qualification requirements.

3. Shop Drawings: Submit to Architect (Structural Engineer) for review. Shop drawings shall include layout of deck, type of deck, methods of attachment, and all deck openings larger than 1'-0".

4. Limits to Non-Structural Items Suspended From Metal Decking:
   A. Hangers supported by metal decking with structural concrete fill shall be anchored using products with valid evaluation report under applicable code.
      a. Limit hangers to the following applications: Acoustical ceilings, ducts no greater than 6 sq. feet cross sectional area, pipes no greater than 3 inch diameter. See typical detailing for further clarification of design intent.
      b. At duct and pipe distributions systems, limit hanger loads to concrete filled metal deck as follows: 250# maximum per metal deck span per 24" width. Support larger duct work and piping from structural beams as shown in typical details.
   B. Hangers supported by metal decking without structural concrete fill shall be anchored using products with valid evaluation report under applicable code.
      a. Limit hangers to the following applications: Acoustical ceilings, ducts no greater than 1.5 sq. feet cross sectional area, pipes no greater than 1.5 inch diameter. See typical detailing for further clarification of design intent.
      b. At duct and pipe distributions systems, limit hanger loads to metal deck w/o concrete fill as follows: 100# maximum per metal deck span per 24" width. Support larger duct work and piping from structural beams as shown in typical details.

5. Pre-punched Holes in Metal Decking and Accessories: Metal deck welding and installation of welded shear studs are not permitted through single layer sheets greater than 16 gauge (G90 MAX), nor through double layer sheets greater than 20 gauge (G60 MAX), nor through sheets with total galvanized coating thickness greater than 1.25 ounces per square foot. Provide pre-punched holes as necessary. Provide closure angle at all openings per typical details.

6. Excess Structural Concrete: Concrete filled metal decking and steel framing will deflect during placement of concrete. These deflections will require placement of concrete in excess of amount based on nominal dimensions in order to bring slab within tolerances of a horizontal plane. Provide excess concrete at no cost to Owner.

7. Deck shall be layed out such that low flutes land on each parallel support wherever possible. Provide filler deck accessory where low flutes do not align with parallel framing. Provide 2" minimum bearing at each support and 2" lap at ends of decking panels.

8. Composite slabs:
   A. See "Proprietary Anchorage and Fasteners" notes for welded headed studs.
   B. Stud welding, inspection and testing shall conform to AWS D1.1, CH. 7.
   C. 18 gauge or thicker decking shall not be lapped where welded studs are attached through decking.

REINFORCING STEEL

1. Reinforcing Steel: All bars shall be deformed.Table Notes:

Use/Location	Type/Grade	GWP Limit (unfabricated) (MTCO$_2$e/MT)	Notes
Standard Bars (#3 thru #6)	ASTM A615, Grade 60	0.89	-
Standard Bars (#7 and larger)	ASTM A615, Grade 60	0.89	-
Bars to be welded (#3 thru #6)	ASTM A706, Grade 60	0.89	-
Bars to be welded (#7 and larger)	ASTM A706, Grade 60	0.89	-
Smooth WWF	ASTM A1064, Fy = 65 ksi	-	A
Deformed wire stirrups	ASTM A1064, Fy = 65 ksi	-	B
Spiral reinforcing	ASTM A1064, Fy = 65 ksi	-	-

   A. Provide WWF in flat sheets only - do not use rolled mesh. Lap 1-1/2 wire spaces (1 foot minimum).
   B. Only D4 and larger are allowed.
   C. MT = Metric ton

2. Reinforcing shall be placed in accordance with the American Concrete Institute Standard 318 (ACI 318) and Concrete Reinforcing Steel Institute's (CRSI) "Manual of Standard Practice". Reinforcing shall be kept clean and free of rust.

3. Provide all accessories needed to support reinforcing in the positions shown in the drawings. Chairs and spacers for reinforcing shall be non-ferrous or plastic-coated when resting on exposed concrete surfaces.

4. Shop Drawings: ACI 318. Show reinforcing steel placement, including sizes, quantities, spacing, clearances, splice locations, lap lengths, and concrete coverage and submit to the Architect (Structural Engineer). Promptly notify the Architect (Structural Engineer) prior to developing shop drawings if insufficient clear distances between reinforcing steel and other congestion are encountered. Notify Special Inspector of adjustments made from approved Contract Documents which are indicated on accepted shop drawings that facilitate field placement of reinforcing steel and concrete. All bars shall be marked so that they can easily be identified by the project inspector after installation.

5. Lap Splices: At concrete, Provide Class B splices per Typical Bar Development Schedules UNO. At masonry, provide 72db lap splice length UNO. Splice bars only at locations indicated. If additional splice locations are proposed, promptly notify the Architect (Structural Engineer) prior to developing shop drawings.
   A. Splices in Walls: Locate splices in horizontal bars at well-staggered locations. Do not splice vertical bars except at horizontal supports such as floor and roof diaphragms.

6. Mechanical and Welded Splice: Mechanical Splices and Welded Splices are to be used only at the indicated locations. Notify the Architect (Structural Engineer) of all instances prior to developing shop drawings.
   A. Mechanical Splice: Mechanical couplers shall have a current Evaluation Report and satisfy ACI requirements for type 2 couplers for the applicable bar size/grade designation.
   B. Welded Splice: Welded splice shall develop at least 125 percent of the yield strength of the spliced bar for the applicable bar size and grade designation.

7. Minimum Clearances Between Parallel Reinforcing Steel, Including Distance Between Sets of Spliced Bars: 1 inch, 1 bar diameter, or 4/3 times the maximum aggregate size, whichever is greater. 1-1/2 inches, 1-1/2 bar diameters, or 4/3 times the maximum aggregate size, whichever is greater, at columns, piers, and pilasters only. For bundled bars, minimum clear distances between units of bundled bars shall be the same as single bars, except bar diameter is derived from the equivalent total area of the bundle.

8. Specified Concrete Coverage: Place bars as near to the concrete surface as the following specified coverages and in accordance with ACI 117:

A.	Slabs on Grade	Locate at the center of slab.
B.	Slabs Supporting Earth Above	1-1/2 inches from top.
C.	Formed Concrete Exposed to Earth or Weather	1-1/2 inches (#5 and smaller) 2 inches (#6 and larger)
D.	Concrete Poured Against Earth (Unformed)	3 inches
E.	Walls Above Grade, Exposed to Weather	1-1/2 inches (#5 and smaller) 2 inches (#6 and larger)
F.	Walls Above Grade, Not Exposed to Weather	3/4 inch (#11 and smaller) 1-1/2 inches (#14 and larger)
G.	Columns (Clear to Face of Ties)	1-1/2 inches
H.	Beams (Clear to Face of Ties)	1-1/2 inches
I.	Structural Slabs, Not Exposed to Weather (Top and Bottom)	1 inch (#8 and smaller) 1db (#9 and larger)
J.	Structural Slabs, Exposed to Weather	1-1/2 inches (#5 and smaller) 2 inches (#6 and larger)
K.	Structural Slabs over Void Forms	1 inch (top #8 and smaller); 1 db (#9 and larger) 2 inches (bottom)

1. Dowels between foundations and vertical wall & column bars shall match the size, grade and spacing of the column or wall vertical reinforcing and be lapped with a class B lap splice, UNO.

2. Dowels at Construction Joints: Provide dowels matching size and quantity of reinforcing steel interrupted at construction joints, unless detailed otherwise.

3. Placement of Bars in Walls (unless detailed otherwise): Place vertical bars closest to wall surfaces at curtains containing vertical and horizontal bars of the same size. In curtains with vertical and horizontal bars of different sizes or spacing, place the layer with the most steel area closest to the near wall surface.

4. Bars Terminating at Walls, Columns, Beams, and Foundations: Extend bars to within 2 inches (3 inches at concrete poured against earth) of the far face of the wall, column, beam, or foundation and provide a standard hook unless detailed otherwise.

5. Bars Interrupted by Structural Steel: Extend bars within 2 inches of the steel face and provide a standard hook unless detailed otherwise.

6. Welding: AWS D1.4, edition adopted by applicable code.
   A. Acceptable Reinforcing Steel for Welding: ASTM A706. If welding of reinforcing steel other than A706 is desired, submit a proposed procedure, indicating conformance with the Applicable Code and requirements of the Governing Code Authority, to the Architect (Structural Engineer) for acceptance and to the Governing Code Authority for approval prior to execution.
   B. Rebar to rebar weld is not allowed except where specifically indicated on plans. Provide electrode E80XX (80 ksi) where permitted.
   C. Welder Certification: As required by the Governing Code Authority.

7. See welding notes in the Structural Steel Section of these notes for additional requirements.

8. Bending: Bend cold according to typical details unless otherwise accepted by the Architect (Structural Engineer). Do not field-bend reinforcing steel bars embedded in concrete unless otherwise accepted in writing by the Architect (Structural Engineer).

9. In-plant fusion welding of holding wires to ties, stirrups and hoops in beams, columns and grade beams to preassemble reinforcing steel cages is permitted under the following conditions per CBC 2022 1903.8:
   A. Fusion welding is not allowed to longitudinal reinforcing steel in any beam, column or grade beam. The holding wire area shall not exceed 5% of the beam, column or grade beam cross sectional longitudinal steel area.
   B. Fusion welding of holding wires to the ends of the reinforcing steel placed in mats (spread footings, slab reinforcement, etc.) provided the fusion weld occurs within 6 bar diameters of the free end of the bar (e.g. not allowed at the end of coupled, t-headed or weld spliced bars).
   C. Fusion welding of holding wires shall not occur on a bent portion of a reinforcing bar. After holding wire has been fusion welded to a reinforcing bar, that bar may not be bent where the fusion weld occurs.
   D. Contractor to submit complete shop drawings indicating which members will use fusion welding process for preassembly. Provide complete details indicating the size of stirrups, holding wires and welding requirements.
   E. Holding wires shall conform to ASTM A1064.
   F. All reinforcing steel to be welded shall comply with ASTM A706 Grade 60.
      a. Contractor to submit complete shop welding program outlining the following: Type of specific fusion welding machine (i.e. Schnell IDEA 12/25 Machine, etc.)
      b. Periodic inspection of the in-plant welding.
   G. Fusion welded reinforcing steel shall have one tensile test taken from one specimen sampled at a rate of 2.5 tons or fraction thereof of each size of reinforcing steel fusion welded. No bend test is necessary. The specimen shall have a holding wire attached to it that need not be removed. The elongation requirements shall comply with the ASTM of reinforcing steel specified on the construction documents (e.g. if A615 is specified, but A706 is used due to the welding requirement, then A615 elongation requirements shall be satisfied).
   H. The use of fusion welding shall conform to ACI 318-19 26.6.4.
   I. If field conditions result in conflicts with other structural members (ex. anchor bolts) the rebar must be relocated in the field to avoid said conflicts.

DESIGN LOADING

1. Loading and Design Parameters:
   A. Live Load
      a. Floor / Roof Live Load: See legends as provided on loading plan sheets.
      b. Live Load Reduction:
         - Floor Live Load of 100 psf and below: General (Applicable Code Section 1607A.12.1)
         - Floor Live Load over 100 psf: Unreduced
         - Roof Live Load: General (Applicable Code Section 1607A.14.2)

   B. Wind Design Parameters
      Wind Speed Strength level, V: 100 MPH (STRENGTH)
      a. Wind Speed Allowable Stress, V_{asd} 78 MPH (ASD)
      b. Risk Category: III
      c. Exposure: C
      d. Enclosure Classification: Enclosed, Hub Canopy: Open
         - Internal Pressure Coefficient, GC_{pi}: +/- 0.18, Hub Canopy: 0.0
      e. Components and Cladding Wind Pressure:

      Hub Building (Middle School Building and MDF Building):

	EFFECTIVE AREA		
ZONE	10 SF	100 SF	500 SF
1"	16.0 / -20.0 (psf)	16.0 / -20.0 (psf)	16.0 / -16.0 (psf)
1	16.0 / -34.8 (psf)	16.0 / -27.2 (psf)	16.0 / -21.8 (psf)
2	16.0 / -45.9 (psf)	16.0 / -36.1 (psf)	16.0 / -29.2 (psf)
3	16.0 / -62.5 (psf)	16.0 / -42.9 (psf)	16.0 / -29.2 (psf)
4	20.0 / -21.6 (psf)	17.0 / -18.7 (psf)	16.0 / -16.7 (psf)
5	20.0 / -26.6 (psf)	17.0 / -20.7 (psf)	16.0 / -16.7 (psf)

      Hub Canopy:

	EFFECTIVE AREA		
ZONE	10 SF	100 SF	500 SF
1	20.4 / -18.7 (psf)	20.4 / -18.7 (psf)	20.4 / -18.7 (psf)
2	30.6 / -28.9 (psf)	30.6 / -28.9 (psf)	20.4 / -18.7 (psf)
3	40.8 / -56.1 (psf)	30.6 / -28.9 (psf)	20.4 / -18.7 (psf)

      Gymnasium Building:

	EFFECTIVE AREA		
ZONE	10 SF	100 SF	500 SF
1"	16.0 / -23.5 (psf)	16.0 / -23.5 (psf)	16.0 / -16.0 (psf)
1	16.0 / -41.0 (psf)	16.0 / -32.0 (psf)	16.0 / -25.7 (psf)
2	16.0 / -54.1 (psf)	16.0 / -42.5 (psf)	16.0 / -34.4 (psf)
3	16.0 / -73.7 (psf)	16.0 / -50.6 (psf)	16.0 / -34.4 (psf)
4	23.5 / -25.5 (psf)	20.1 / -22.0 (psf)	17.7 / -19.6 (psf)
5	23.5 / -31.4 (psf)	20.1 / -24.4 (psf)	17.7 / -19.6 (psf)

      Loads indicated are strength-level loads (negative values indicate pressure away from the surface).

   C. Rain Loads
      a. Rain Intensity (15-minute), i: 2.84 (in/hr), 15-min duration/100-year return period

   D. Snow Loads Parameters:
      a. Ground snow load, p_g 0 PSF
      b. Flat-roof snow load, p_f 0 PSF
      c. Risk Category: III
      d. Snow importance factor, I_s 1.1
      e. Thermal factor, C_t 1.0
      f. Slope factor, C_s 1.0

   E. Project Seismic Design Parameters:
      a. Site Class: D
      b. Mapped Spectral Acceleration (S_s, S_1): 1.608g, 0.557 g (respectively)
      c. Site Specific Design Spectral Acceleration (S_{DS}, S_{D1}): 1.224g, 0.760 g (respectively)
      d. Site Coefficient (F_a, F_v): 1.142, 2.047 (respectively)
      e. Seismic Importance Factor I_e: 1.25
      f. Risk Category: III
      g. Seismic Design Category: D

      Gymnasium Building Seismic Design:

a. Basic Seismic Force Resisting System:	Steel Buckling-Restrained Braced Frames
b. Seismic Response Coefficient, C_s:	0.191 g
c. Analysis Procedure:	Modal Response Spectrum Analysis
d. Seismic Base Shear:	403 kips
e. Response Modification Factor R:	8
f. Overstrength Factor, Ω_o:	2.5
g. Deflection Amplification Factor, C_d:	5
h. Maximum Story Inelastic Drift:	Roof Floor: 1.0 in (North / South) 1.0 in (East / West) Second Floor: 1.5 in (North / South) 1.5 in (East / West) Vertical: No Irregularity
i. Irregularities:	Horizontal: Type 1a: Torsional Irregularity Type 2: Reentrant Corner Irregularity Type 3: Diaphragm Discontinuity Irregularity
j. Reducancy Factor, ρ:	ρ = 1.3 (North / South) 1.3 (East / West)
k. Building Mass:	2110 kips
m. Location of Seismic Base	At Top of Footing

      Hub Building (Middle School Building) Seismic Design:

a. Basic Seismic Force Resisting System:	Steel Buckling-Restrained Braced Frames
b. Seismic Response Coefficient, C_s:	0.191 g
c. Analysis Procedure:	Modal Response Spectrum Analysis
d. Seismic Base Shear:	103 kips
e. Response Modification Factor R:	8
f. Overstrength Factor, Ω_o:	2.5
g. Deflection Amplification Factor, C_d:	5
h. Maximum Story Inelastic Drift:	Roof Floor: 1.00 in (North / South) 0.75 in (East / West) Vertical: N/A
i. Irregularities:	Horizontal: Type 1a: Torsional Irregularity Type 2: Reentrant Corner Irregularity Type 5: Nonparallel System Irregularity
j. Reducancy Factor, ρ:	ρ = 1.3 (North / South) 1.3 (East / West)
k. Building Mass:	538 kips
m. Location of Seismic Base	At Top of Footing (- 1'-6")

      Hub Canopy Seismic Design:

a. Basic Seismic Force Resisting System:	Steel Special Cantilever Column System
b. Seismic Response Coefficient, C_s:	0.612 g
c. Analysis Procedure:	Modal Response Spectrum Analysis
d. Seismic Base Shear:	93.6 kips
e. Response Modification Factor R:	2.5
f. Overstrength Factor, Ω_o:	1.25
g. Deflection Amplification Factor, C_d:	2.5
h. Maximum Story Inelastic Drift:	Roof Floor: 4.5 in (North / South) 4.0 in (East / West)
i. Irregularities:	Vertical: N/A Horizontal: Type 5: Nonparallel System Irregularity
j. Reducancy Factor, ρ:	ρ = 1.0 (North / South) 1.0 (East / West)
k. Building Mass:	153 kips
m. Location of Seismic Base	At Top of Caisson (- 1'-0")

      Shade Pavillion Seismic Design:

a. Basic Seismic Force Resisting System:	Steel Special Cantilever Column System
b. Seismic Response Coefficient, Cs:	0.612 g
c. Analysis Procedure:	Equivalent Lateral Force Procedure
d. Seismic Base Shear:	6.2 kips
e. Response Modification Factor R:	2.5
f. Overstrength Factor, Oo:	1.25
g. Deflection Amplification Factor, Cd:	2.5
h. Maximum Story Inelastic Drift:	Roof Floor: 2.1 in (North / South) 2.1 in (East / West)
i. Irregularities:	Vertical: N/A Horizontal: N/A
j. Reducancy Factor, p:	p = 1.3 (North / South) 1.3 (East / West)
k. Building Mass:	10 kips
m. Location of Seismic Base	At Top of Caisson

DEFERRED SUBMITTAL ITEMS ANCHORED OR SUPPORTED BY STRUCTURE

1. Design Responsibility: Contractor to design and obtain separate Governing Code Authority approval for deferred approval items noted on Gx series sheets.

2. Shop Drawings and Structural Calculations: Submit design plans, details and calculations of deferred submittal items signed and sealed by a structural engineer registered in State of California to Architect (Structural Engineer) for acceptance and to Governing Code Authority for approval prior to fabrication.

3. Design: Design components for imposed forces including lateral restraint complying with Applicable Code, Contract Documents, and applicable portions of ASI Specifications. If building Seismic Force Resisting System (SFRS) is used for lateral restraint, indicate load paths to building lateral resisting system in calculations and show connection forces on shop drawings. Where building provides vertical support, indicate loads and load paths to building in calculations and show connection forces on shop drawings. Dead load elements at lowest level of connection uno Design loads are as follows:
   A. Dead load: Self weight of deferred system (including supported components of other systems).
   B. Live load: Per applicable code.
   C. Seismic and wind loads: Per applicable code. See Design Loading section of General Notes
   D. Design Movement: Lateral Movement: Design Loading (Section E) of General Notes
      Vertical Movement: Live Load Deflection of L/360

4. Stabilizing Elements at Connections to Structural Members: Design connections of deferred submittal items to supporting structure such that torsion in supporting elements is avoided wherever possible. Where torsion in supporting element is resulted, provide beam bottom flange brace per detail 17 or 18/2-S6.11 at each connection point.

QUALITY ASSURANCE (STRUCTURAL OBSERVATION, MATERIALS TESTING, and SPECIAL INSPECTION)

1. Structural Observation:
   A. The Architect (Structural Engineer) of record will perform visual observation of the construction as required CAC 4-333 and 4-341 in accordance with the governing code. These visual observations shall not be considered a substitute for special inspections.
   B. Coordination Responsibilities of Contractor: Notify Architect (Structural Engineer) 48 hours in advance of critical stages of construction indicated below so visits may be scheduled by Structural Observer. Failure by Contractor to meet observation schedule may require removal of subsequent Work for observation. Contractor to bear costs of removal and replacement of finished Work or framing damaged by removal process or as required for corrective action and for any associated scheduling delays.
      Critical stages of construction requiring structural observation:
      1. Prior to pouring first foundation at each of the structures.
      2. Prior to pouring first concrete filled metal deck.
      3. After structural steel erection, Prior to application of architectural furring.
      4. After roof deck welded off.
   C. Pre-construction Meeting: Owner may coordinate and call for meeting between Architect (Structural Engineer) responsible for structural design, Structural Observer, Contractor, affected subcontractors and Special Inspector. Structural observer will preside over this meeting. Purpose of meeting is to identify major structural elements and connections that affect vertical and lateral load resisting systems of structure and to review schedule of Structural Observation, Materials Testing, and Special Inspection of Project.

2. Mill Test Reports Certifying Materials: Contractor to submit mill test reports certifying reinforcing steel, and structural steel are of identifiable tested stock to Owner, Special Inspector, Architect (Structural Engineer) and, upon request, to Governing Code Authority. Ensure materials are properly tagged for identification. If mill test reports cannot be made available or if material cannot be identified, Testing Laboratory will perform tests as directed by Architect (Structural Engineer). Contractor shall pay Testing Laboratory for costs related to tests and inspections of unidentifiable materials or materials furnished without mill test reports, materials found deficient after initial tests and inspections, or materials replacing deficient materials.
   A. Ultrasonic Examination of Heavy Rolled Shapes and Thick Plates at Proposed Welded Moment Connections: Where complete penetration groove welds occur at Groups 4 and 5 structural steel shapes, as defined in ASTM A6, and plates exceeding 2 inches thick, submit mill test reports to Architect (Structural Engineer) and, upon request, to Governing Code Authority. Mill test reports shall certify that Charpy V-notch testing was conducted in compliance with ASTM A6, Supplementary Requirement S5, including impact test complying with ASTM A673 at frequency P with minimum average value of 20 ft.-lbs. absorbed energy at 70 degrees Fahrenheit.

3. Weld Testing and Inspection: Testing Laboratory will submit weld test results to Owner, Contractor, Architect (Structural Engineer) and to Governing Code Authority. See Specifications for testing requirements not indicated on structural drawings.
   A. Structural Steel Welding: Apart from visual inspection and review of fabrication and erection reports of fabricator/erector's own quality control testing and inspection, Owner's Testing Laboratory will perform indicated shop and field inspection and testing. Testing Laboratory will be AWS Q C.-1 certified and will provide inspectors for continuous inspection of steel fabrication and erection of structural welding. Shop and field testing of materials and welding will be as follows:
      a. Ultrasonic testing is required for all (100%) and complete penetration welds. Test groove welding on continuity plates by ultrasonic testing after beam flange weld connection. Testing shall occur after completed welds have cooled to ambient temperature. Weld backing removal areas and fillet welds shall be subjected to magnetic particle examination.
      b. Base metal thicker than 1-1/2 inches, subjected to through thickness weld shrinkage, will be ultrasonically tested directly behind such welds after welds have cooled to ambient temperature.
      c. Welds shall be visually inspected and periodically measured (15 percent minimum).
      d. Check 10 percent of fillet welds by magnetic particle (ASTM 109 method). Check 25 percent of continuity plate fillet welds by magnetic particle, UNO. At continuity plates in moment connections (where CJP is used on one or more plate ends), 100 percent of fillet welds shall be tested by magnetic particle.
      e. Ultrasonically test column flanges located at proposed welded moment connections, continuity plates, doubler plates and base plates where column flange or plate thickness exceeds 1-1/2 inches. Test for evidence of laminations, inclusions or other discontinuities in accordance with ASTM A435, straight beam ultrasonic examination of steel plates, or ASTM A898, straight beam ultrasonic examination of rolled steel structural shapes, as applicable. Test zone to include area 6 inches above and below each beam flange connection. For plates, any discontinuity causing a total loss of back reflection not contained within 3-inch diameter circle, or one-half thickness of plate, whichever is greater, will be rejected. For rolled shapes, ASTM A898, Level I criteria applies. Testing will be performed on material prior to fabrication, after fabrication, and after final welding of beam.
      f. f. k-Area welds shall be MT'd no sooner than 48 hours after completion of weld.
      g. Amperage, voltage, polarity and electrode stick out will be verified for compliance with electrode manufacturer's recommendations.

4. Special Inspection: Per DSA-103 and chapter 17A of CBC.

GENERAL

1. Authority Having Jurisdiction (AHJ): Division of the State Architect (DSA SS)
   Applicable Code: 2022 California Building Code (CBC) as modified by AHJ. References to industry standards herein shall be latest edition as adopted by Applicable Code.

2. Field Verification: Field verify existing conditions and dimensions prior to construction. Promptly notify Architect (Structural Engineer) in case of discrepancies.

3. Design Intent: Contract Documents indicate design intent for structure in its completed state. They do not indicate method of construction. Promptly notify Architect (Structural Engineer), prior to proceeding with Work, if design intent requires further clarification.

4. Deviations, Modifications and Substitutions to Approved Structural Drawings: Must be accepted in writing by Architect (Structural Engineer) and approved by Governing Code Authority. No deviation, modification or substitution will be accepted via shop drawing review.

5. Procedures of Construction: Contractor is responsible for procedures of construction complying with national, state and local safety ordinances. Site visits (including Structural Observation) by Architect (Structural Engineer) do not constitute supervision of methods of construction.
   A. Protection of Utilities: Locate existing utilities, including those not shown on Contract Documents, and protect them from damage. Contractor bears expense of repair or replacement of utilities in conjunction with excavation of Work.
   B. Excavations: Protect structure, adjacent structures, adjacent properties, streets, and utilities during excavation utilizing lagging, shoring, underpinning and related procedures as may be required. Provide necessary supports for soil at sides of excavations. Contractor and affected trades shall refer to Geotechnical Report for more information.
   C. Protection of Structure: Provide necessary measures to protect structure and adjacent buildings during execution of Work.
   D. Contractor Proposed Revisions: Where a revision of structural design or connection is proposed by Contractor to accommodate construction tolerances, construction sequence and/or dimension modifications, Contractor shall retain a structural engineer licensed in State of California to perform design. Submit stamped and signed design drawings and calculations to the Architect (Structural Engineer) for review and the Governing Code Authority for approval.
   E. Erection Plans: Determine phases of Work requiring erection plans according to applicable safety regulations. Maintain certified copies of erection plans at site during construction.
   F. Shoring, Bracing, and Other Temporary Supports: Design and erect shoring, bracing, and other temporary supports where structure has not attained design strength and as required for safe erection. Ensure floor, roof, and wall members are securely shored and braced during construction. Provide shoring at elevated beams and slabs supporting concrete or masonry walls during and after pour until wall attains design strength.
   G. Temporary Loading: Ensure construction loads do not exceed indicated design live load values. Notify affected sub-contractor trades of these design load limits.
   H. Fabrication, Shipment, and Erection of Structural Steel: Ensure stresses occurring during fabrication, shipment, and erection of structural steel are temporary and are less than design and allowable stress capacities of individual members. Do not impair full design and load carrying capacity of members due to fabrication, shipment or erection. Contractor is responsible for controlling erection sequence, erection procedure, temperature differentials and weld shrinkage to minimize residue stresses. Provide additional materials for the erection of structural steel such as temporary bracing and guy cables as may be necessary at no additional cost. Remove these materials unless approved in writing by Owner. Do not tighten bolts in typical beam to column connections for erection purposes.
   I. Securing Reinforcing Steel, Dowels, Anchor Bolts and Embeds: Firmly support and accurately place complying with ACI standards prior to casting concrete or grout in masonry walls. Use ties and support bars in addition to reinforcing steel shown where necessary. No welding of reinforcing steel, including tack welding, is permitted unless otherwise accepted in writing by Architect (Structural Engineer). Provide plastic or plastic coated chairs and spacers when resting on exposed surfaces.
   J. Coordination Responsibility: Contractor is responsible for coordination of Work including that of sub-contractor trades.
   K. Core drilling of hardened concrete shall only be done after specific review by Architect (Structural Engineer) Core drilling shall not cut any reinforcing. Concrete coverage for reinforcement as described in the Reinforcing Steel section of General Notes shall be maintained at locations of cores.

6. Submittals: Submit to Architect (Structural Engineer) as indicated on structural drawings and specifications. General Contractor shall review submittal for completeness and compliance with Contract Documents prior to submission.
   A. Request for Information (RFI) Submittals: Accompany RFI's with partial structural foundation or framing plans showing location in question and affected structural members. Copy partial plan from structural drawings and indicate grid line locations and floor level. Also provide properly drawn engineering sketches illustrating issues and Contractor's proposed solutions. Photographs are not acceptable substitutes to engineering sketches.
   B. Composite Slab Penetration Submittal: Submit to Architect (Structural Engineer) for each floor indicating size and location of each slab penetration and opening as necessary by all affected trades. Submit penetration plans together with corresponding metal decking or reinforcing steel shop drawings. Submit written statement from Special Inspector that no additional penetrations or openings were added to those shown in penetration submittal.
   C. Concrete and Masonry Wall Penetration Submittal: Submit to Architect (Structural Engineer) for each wall indicating size and location of each wall penetration and opening as necessary by all affected trades. Submit penetration elevations together with corresponding reinforcing steel shop drawings. Submit written statement from Special Inspector that no additional penetrations or openings were added to those shown in penetration submittal.

7. Contract Documents Use: Review Contract Documents in their entirety before performing structural related Work and before developing shop drawings. Bring discrepancies to immediate attention of Architect (Structural Engineer) before starting Work.
   A. Scaling of Drawings: Not permitted.
   B. Additional Structural Requirements: See specifications.
   C. Building Geometry: See architectural drawings for building geometry including, but not limited to, top of floor and roof elevations; depressions; slopes; curbs; drains; trenches; slab and deck edge locations; wall overall dimensions; and size and locations of openings in floors, roof, and walls.
   D. Non-structural Items Requiring Special Provisions: See architectural, mechanical, plumbing, and electrical drawings for non-structural items requiring special provisions during construction. They include, but are not limited to, non-structural walls; size and location of openings and sleeves penetrating structure; size and location of concrete curbs and pads; and size and location of piping, ductwork, and equipment anchorages mounted or suspended from structure. Verify exact size and location of equipment with equipment manufacturer.
   E. Work shown is new unless noted as existing. (E).

8. Materials: Furnish and install in compliance with legally constituted public authorities having jurisdiction including county and local ordinances and safety orders of State Industrial Accident Commission, OHSA. The Architect (Structural Engineer) and Owner accept no responsibility for the contractors failure to comply with these requirements.

9. Penetrations, Embedments, and Openings in Structural Members: No penet

ABBREVIATIONS

&	AND	MAX	MAXIMUM
@	AT	MECH	MECHANICAL
Ø	DIAMETER	MEP	MECH, ELECT, & PLUMB
>	GREATER THAN	MEZZ	MEZZANINE
≥	GREATER THAN OR EQUAL TO	MF	MOMENT FRAME
<	LESS THAN	MFR	MANUFACTURER
≤	LESS THAN OR EQUAL TO	MIN	MINIMUM
#	"POUNDS, NUMBER"	MISC	MISCELLANEOUS
		MTL	METAL
AB	ANCHOR BOLT(S)		
ABV	ABOVE	(N)	NEW
ADDL	ADDITIONAL	N/A	NOT APPLICABLE
ADJ	ADJACENT	NF	NEAR FACE
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NO.	NUMBER
AHJ	AUTHORITY HAVING JURISDICTION	NOM	NOMINAL
AHU	AIR HANDLING UNIT	NS	NEAR SIDE
ALT	ALTERNATE	NTS	NOT TO SCALE
ALUM	ALUMINUM	NWC	NORMALWEIGHT CONCRETE
AOR	ARCHITECT OF RECORD		
APPROX	APPROXIMATE	O/C	ON CENTER
ARCH	ARCHITECTURAL)	OD	OUTSIDE DIAMETER
ASD	ALLOWABLE STRESS DESIGN	OH	OPPOSITE HAND
		OPNG	OPENING
(B)	BOTTOM	OPP	OPPOSITE
BF	BRACED FRAME	OVS	OVERSIZED HOLE
BFF	BELOW FINISHED FLOOR		
BLDG	BUILDING	PAF	POWDER/POWER ACTUATED FASTENER
BLKG	BLOCKING		
BLW	BELOW	PAR	PARALLEL
BM	BEAM	PC	PRECAST CONCRETE
BN	BOUNDARY NAILING	PCF	POUNDS PER CUBIC FOOT
BO	BOTTOM OF	PCY	POUNDS PER CUBIC YARD
BOD	BOTTOM OF DECK	PERF	PERFORATED
BOF	BOTTOM OF FOOTING	PERP	PERPENDICULAR
BOPC	BOTTOM OF PILE CAP	PI	PROJECT INSPECTOR
BOS	BOTTOM OF STEEL	PJ	PANEL JOINT
BOSL	BOTTOM OF SLAB	PJP	PARTIAL JOINT PENETRATION
BOT	BOTTOM	PL	PLATE
BP	BASE PLATE	PLF	POUNDS PER LINEAR FOOT
BRB	BUCKLING RESTRAINED BRACE	PLF	POUNDS PER LINEAR FOOT
BRCG	BRACING	PLUMB	PLUMBING
BRDG	BRIDGING	PQR	PROCEDURE QUALIFICATION RECORD
BRG	BEARING	PRELIM	PRELIMINARY
BTWN	BETWEEN	PROP	PROPERTY
BU	BUILT-UP	PSF	POUNDS PER SQUARE FOOT
		PSI	POUNDS PER SQUARE INCH
C	CAMBER	PSL	PARALLEL STRAND LUMBER
CA	COLUMN ABOVE	PT	"PRESSURE TREATED, POST-TENSION(ED)"
CANT	CANTILEVER	PWD	PLYWOOD
CB	COLUMN BELOW		
CGS	CENTER OF GRAVITY OF PRESTRESSING STRAND	QTY	QUANTITY
CIP	CAST-IN-PLACE		
CIV	CIVIL	RAD	RADIUS
CJ	CONSTRUCTION/CONTROL JOINT	RBS	REDUCED BEAM SECTION
CJP	COMPLETE JOINT PENETRATION	REF	REFERENCE
CL	CENTERLINE	REINF	REINFORCEMENT
CLG	CEILING	REQ'D	REQUIRED
CLR	CLEAR	REV	REVISION
CLT	CROSS LAMINATED TIMBER	RO	ROUGH OPENING
CMU	CONCRETE MASONRY UNIT	RR	ROOF RAFTER
COL	COLUMN	RTU	ROOF TOP UNIT
CONC	CONCRETE		
CONN	CONNECTION/CONNECT	SC	"SLIP CRITICAL, SAW CUT"
CONST	CONSTRUCTION	SCBF	SPECIAL CONCENTRICALLY BRACED FRAME
CONT	CONTINUOUS	SCHED	SCHEDULE(D)
COORD	COORDINATE	SDS	SELF-DRILLING SCREW
COV	COVER	SECT	SECTION
CTR	CENTER	SEOR	STRUCTURAL ENGINEER OF RECORD
CVN	Charpy V-Notch		
		SEP	SEPARATION
d	Penny - Nail size	SFRS	SEISMIC FORCE RESISTING SYSTEM
db	"REBAR, WIRE, or PRESTRESSSING STRAND DIAMETER"	SHT	SHEET
DBA	DEFORMED BAR ANCHOR	SHTG	SHEATHING
DBL	DOUBLE	SIM	SIMILAR
DCW	DEMAND CRITICAL WELD	SLBB	SHORT LEG BACK TO BACK
DEMO	DEMOLITION/DEMOLISH	SMRF	SPECIAL MOMENT RESISTING FRAME
DET	DETAIL	SMS	SHEET METAL SCREW
DF	Douglas Fir	SOG	SLAB-ON-GRADE
DIA	DIAMETER	SPEC(S)	SPECIFICATION(S)
DIAG	DIAGONAL	SQ	SQUARE
DIM	DIMENSION	SS	STAINLESS STEEL
DN	Down	SSL	SHORT-SLOTTED HOLE
DO	DITTO	STAGG	STAGGERED
DWG	DRAWING	STD	STANDARD
DWL	DOWEL	STIFF	STIFFENER
		STL	STEEL
(E)	EXISTING	STRUCT	"STRUCTURE, STRUCTURAL"
EA	EACH	SUSP	SUSPENDED
EBF	ECCENTRICALLY BRACED FRAME	SW	SHEAR WALL
EDP	ENVIRONMENTAL PRODUCT DECLARATION	SYM	"SYMMETRIC, SYMMETRICAL"
EF	EACH FACE		
EFF	EFFECTIVE	(T)	TOP
EGRS	Elevator Guide Rail Support	(T&B)	TOP AND BOTTOM
EJ	EXPANSION JOINT	T.O.	TOP OF
EL	ELEVATION	THK	THICK
ELEC	ELECTRICAL	TOC	TOP OF CONCRETE
ELEV	ELEVATOR	TOF	TOP OF FOOTING / FOUNDATION
EMBED	"EMBEDMENT, EMBEDDED"	TOM	TOP OF MASONRY
EN	EDGE NAILING	TOPC	TOP OF PILE CAP
ENGR	ENGINEER	TOS	TOP OF STEEL
EOR	ENGINEER OF RECORD	TOSL	TOP OF SLAB
EQ	EQUAL	TOW	TOP OF WALL
EQUIP	EQUIPMENT	TRANS	TRANSVERSE
EQUIV	EQUIVALENT	TYP	TYPICAL
ER	EVALUATION REPORT		
ESR	EVALUATION SERVICE REPORT	UNO	UNLESS NOTED OTHERWISE
ETC	ET CETERA	UT	ULTRASONIC TESTING
EW	EACH WAY		
EXP	EXPANSION	VERT	VERTICAL
EXT	EXTERIOR	VIF	VERIFY IN FIELD
FAB	FABRICATE	W/	WITH
f'c	28-DAY (UNO) COMPRESSIVE STRENGTH OF CONCRETE	W/C	WATER-CEMENT RATIO
FDN	FOUNDATION	W/O	WITHOUT
FF	Finished Floor	"WF, W"	WIDE FLANGE
FG	FINISHED GRADE	WP	WORK POINT
FIN	FINISH(ED)	WPS	WELD PROCEDURE SPECIFICATIONS
FLR	FLOOR	WT	"WEIGHT, "T" SECTION CUT FROM WIDE FLANGED BEAM"
f'm	28-DAY (UNO) COMPRESSIVE STRENGTH OF MASONRY	WWF	WELDED WIRE FABRIC
FN	FIELD NAILING		
FRP	FIBER-REINFORCED POLYMER	XS	EXTRA STRONG
FS	FAR SIDE / FINISHED SURFACE	XXS	DOUBLE EXTRA STRONG
FT	"FOOT, FEET"		
FTG	FOOTING		
FUT	FUTURE		
Fy	YIELD STRENGTH		
GA	"GAGE, GAUGE"		
GALV	GALVANIZE(D)		
GC	GENERAL CONTRACTOR		
GEN	GENERAL		
GWP	GLOBAL WARMING POTENTIAL		
GLB	GLUED-LAMINATED BEAM		
GR	GRADE		
HD	HOLDDOWN		
HDR	HEADER		
HGR	HANGER		
HORIZ	HORIZONTAL		
HS	HIGH STRENGTH		
HSA	HEADED STUD ANCHOR		
HSB	HIGH STRENGTH BOLT		
HSS	HOLLOW STRUCTURAL SECTION		
HT	HEIGHT		
IAPMO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS		
ICC	INTERNATIONAL CODE COUNCIL		
ID	INSIDE DIAMETER		
IN	INCH		
INFO	INFORMATION		
INT	INTERIOR		
IOR	INSPECTOR OF RECORD		
JST	JOIST		
JT	JOINT		
K	KIPS (1000 LBS)		
KLF	KIPS PER LINEAR FOOT		
KSF	KIPS PER SQUARE FOOT		
KSI	KIPS PER SQUARE INCH		
L	ANGLE		
LAND	LANDSCAPE		
LBS	POUNDS		
LCA	LIFE CYCLE ASSESSMENT		
Ld	DEVELOPMENT LENGTH of straight rebar		
Ldh	DEVELOPMENT LENGTH for hooked rebar		
Ldt	DEVELOPMENT LENGTH for headed rebar		
LL	DOUBLE ANGLE		
LLBB	LONG LEG BACK TO BACK		
LLH	LONG LEG HORIZONTAL		
LLV	LONG LEG VERTICAL		
LONG	LONGITUDINAL		
LOR	LABORATORY OF RECORD		
LRFD	LOAD AND RESISTANCE FACTOR DESIGN		
Ls	SPLICE LENGTH of straight rebars		
LSH	LONG SIDE HORIZONTAL		
LSL	LONG-SLOTTED HOLE		
LSV	LONG SIDE VERTICAL		
LT GA	LIGHT GAUGE		
LVL	LAMINATED VENEER LUMBER		
LWC	LIGHTWEIGHT CONCRETE		

LIGHT GAUGE METAL FRAMING GENERAL NOTES

1. Minimum yield strength shall be as follows:
   A. 43 mils (18 gauge) and lighter (33 ksi):
      a. Carbon Sheet Steel to be Painted: ASTM A1003, Grade 33, TYPE H.
      b. Galvanized: ASTM A653, SS GRADE 33.
   B. 54 mils (16 gauge) and heavier (50 ksi):
      a. Carbon Sheet Steel to be Painted: ASTM A1003, Grade 50, TYPE H.
      b. Galvanized: ASTM A653, SS GRADE 50.

2. Manufacturer and Properties: Member of Steel Stud Manufacturer's Association (SSMA) complying with ICC-ESR 3064P or Camco applying with ICC-ESR 3016 or Clark-Dietrich complying with ICC ESR-1166P. Provide punched studs as scheduled in these drawings with minimum effective section properties as indicated in referenced evaluation report.

3. Design Gauge Thicknesses: Indicated properties are based on the following thicknesses:
   12 ga. - 0.1017 inch, 97 mils 14 ga. - 0.0713 inch, 68 mils 16 ga. - 0.0566 inch, 54 mils
   18 ga. - 0.0451 inch, 43 mils 20 ga. - 0.0346 inch, 33 mils

4. Track Material: Provide unpunched track of dimensions to ensure proper fit of studs with minimum effective section properties as indicated in referenced evaluation report.

5. Lateral Bridging for Studs: Required when rigid wall finish does not continue full height on either or both sides of studs. Install horizontal straps or cold-rolled channels as shown and in accordance with Section D3 of AISI specification. See typical details.|

6. Lateral Blocking for Joists: Joists shall be braced by full depth blocking at all points of support. See Typical details for additional locations of joist blocking.

7. Joist Web Punch-Out Locations: Web punch-outs shall not be located closer than twice the member depth from edge of bearing support or concentrated loads, 12" minimum. Do not provide punchouts at tracks.

8. Securing Studs and Braces: Plumb, align and tightly nest in both upper and lower tracks with secure attachment to both flanges of tracks. Splices in axial loaded studs and braces are not permitted.

9. Self-Drilling Screws: See General Notes.

10. Welding: ANSI/AWS D1.3 and CBC Section 2210A. Wire tying of framing components is not permitted.
    A. Welder Certification: Governing Code Authority.
    B. Electrodes: E60XX at 33 ksi members, E70XX at 50 ksi members.
    C. Touch-Up: Zinc-rich paint at galvanized members and regular paint at carbon sheet steel.

MASONRY

1. Specified Compressive Strength of Masonry (f'm): 2000 psi typical unless noted otherwise.

2. Verifying Specified Compressive Strength of Masonry (f'm): Use masonry prism testing method unless otherwise acceptable to Architect (Structural Engineer). Submit masonry prism data for each type and compressive strength of masonry required, with a professional engineer's signature and state of California seal, to Architect (Structural Engineer). Compliance with minimum required compressive strength shall be based on Applicable Code Section 2105A.2.

3. Concrete Block: ASTM C90, medium weight, attaining a minimum compressive strength as required to meet specified compressive strength of masonry (f'm). Completed (grouted and mortared) masonry assembly not to exceed 115 pcf max. dry density.

4. Face Brick: ASTM C216.

5. Portland Cement for Mortar and Grout: ASTM C150, type I or II. Use of masonry cement or plastic cement is not permitted.

6. Aggregates for Mortar and Grout:
   A. Aggregates for Mortar: ASTM C144.
   B. Aggregates for Grout: ASTM C404, coarse type.

7. Mortar: ASTM C270, Type S, attaining a minimum compressive strength as required to meet specified compressive strength of masonry (f'm)

8. Grout: ASTM C476, coarse type, attaining a minimum compressive strength as required to meet specified compressive strength of masonry (f'm). However, in no case shall grout compressive strength be less than the greater of f'm or 2000 psi at 28 days.

9. Reinforcing Steel: Reinforcing steel section of general notes unless indicated otherwise.

10. Masonry Wall Penetration Submittal: Submit for each wall indicating size and location of each wall penetration and opening as necessary for affected trades. Submit together with appropriate reinforcing steel shop drawings. Submit written statement from Special Inspector that no additional penetrations or openings were added to those shown in penetration submittal.

11. Reinforcing Steel Splices: Lap reinforcing steel at splices a minimum of 72 bar diameters, except dowels in footings at base of walls shall splice a minimum of 72 bar diameters, unless noted otherwise. Where minimum clear distance between bars at adjacent splices is 3 inches or less, increase lap length 30 percent unless splices are staggered at least 24 bar diameters.

12. Dowels for Walls, Columns, Pilasters, and Piers: Match size and spacing of vertical reinforcing steel, unless noted otherwise. Set dowels to align with cells containing reinforcing steel.

13. Minimum Reinforcing Steel Clearances:
    A. Minimum Clearances Between Reinforcing and Outside Face of Masonry: 2 inches except in no case shall clearance be less than 2-1/2 bar diameters.
    B. Minimum Clearance Between Reinforcing and Inside Face of Grout Cell: 1/2 inch or 1 bar diameter whichever is greater.
    C. Minimum Clearance Distances Between Parallel Reinforcing: 1 inch or nominal bar diameter, whichever is greater. Increase to 1-1/2 inches or 1-1/2 times nominal bar diameter, whichever is greater, at columns, pilasters, and piers only.

14. Placement: Set courses in running bond pattern unless indicated otherwise. Set cells in vertical alignment. Provide flush mortar joints at surfaces to receive waterproofing or damp-proofing.

15. Grouting: Grout solid all cells. Mechanically vibrate grout in cells.
    A. Grout Height Limits: CBC Section 2104A.1.3, TMS 602, Article 3.5 D
    B. Horizontal Construction Joints: Hold grout 1 1/2 inches below top of masonry unit if work is stopped one hour longer.
    C. Grout Cover Around Reinforcing Steel, Anchor Bolts and Inserts Penetrating Masonry Shell: 1 inch minimum.

16. Horizontal Bars Terminating at Wall Ends and Opening Jambs: Extend bars to within 2 inches of end of wall and provide standard ACI 90-degree hook unless detailed otherwise.

17. Control joints shall be provided as indicated on Arch and wall elevations per detail 01/2-S6.61. If not indicated on Arch, provide control joints at 25'-0" O/C maximum and coordinate w/ Arch.

PROPRIETARY ANCHORAGES and FASTENERS

1. Anchorages:
   A. Drill and Epoxy Anchors and Rebar:
      a. At Concrete: Hilti HIT-RE 500 V3 adhesive anchor system complying with ICC-ES Evaluation Report ESR-3814.
      b. At Masonry: Hilti HIT-HY 270 adhesive anchor system complying with ICC-ES Evaluation Report ESR-4143.
      c. Provide anchor type, size and embedment as indicated in details.
      d. Overhead applications must be installed using the Hilti HIT-SZ piston plug system.
   B. Mechanical (Expansion) Anchors:
      a. At Concrete: Hilti KB-TZ2 carbon steel expansion anchor complying with ICC-ES Evaluation Report ESR-4266.
      b. At Masonry: Hilti KB-TZ2 carbon steel expansion anchor complying with ICC-ES Evaluation Report ESR-4561.
      c. Where mechanical anchor is exposed to weather, provide stainless steel anchor conforming to the Evaluation Report in lieu of carbon steel.
   C. Welded Shear Studs: Nelson S3L flux filled, headed stud anchors, 65,000 psi minimum ultimate tensile strength conforming to ASTM A29, automatically end welded in field and complying with ICC-ES Evaluation Report ESR-2856.
   D. Welded Deformed Anchors: Nelson D2L, cold rolled, deformed steel reinforcing bars conforming to ASTM A1064 and complying with ICC-ES Evaluation Report ESR-2907.
2. Fasteners:
   A. Power/Powder Actuated Fasteners (Indicated "Shot Pins" or "PAF" on Drawings): Hilti Low-velocity Power Actuated Drive, 0.157" diameter (X-U), complying with ICC-ES Report ESR-2269. Provide appropriate washer between fastener head and light gauge metal or wood surface. Shot pins shall not be used @ PT slab or beams.
   B. Self-Drilling Metal Screws (Indicated "Screws" or "SMS" on Drawings): Hilti Self Drilling Screw complying with current ICC-ES Evaluation Report ESR-2196.
   C. Concrete Screws: Hilti KH-EZ carbon steel screw anchor complying with ICC ES Evaluation Report ESR-3027.
   D. Masonry Screws: Hilti KH-EZ carbon steel screw anchor complying with ICC ES Evaluation Report ESR-3056.
   E. Self-Drilling wood Screw: At steel to wood connections (Indicated "SDS" on drawings): Simpson SDS screw complying with ICC-ES ESR 2236. At wood to wood connections (Indicated "SDWS" on drawings): Simpson SDWS screw complying with IAPMO-UES ER 192.
   F. Lag Screw: Lag Screw complying with ANSI / ASME B18.2.1
   G. Where fasteners are exposed to weather, provide stainless steel fasteners conforming to the Evaluation Report in lieu of carbon steel.

3. Installation: See manufacturer's written instructions and referenced ICC-ES evaluation report. Contractor shall arrange an anchor manufacturer's representative to provide onsite installation training for all anchor products specified.
   A. Prior to drilling holes for post-installed anchors, contractor to locate existing rebar, prestressing tendons, post-tensioning tendons, and embedded utilities using non-hazardous, non-destructive methods with accurate location tolerances (plus or minus 1/4-inch). Do not cut, hit, or otherwise damage existing rebar or tendons during anchor installation.
   B. Drilling Holes in Existing Concrete or Masonry for Anchorages: Use non-pneumatic, rotary hammer tools with ANSI compliant non-rebar cutting drill bits to drill holes of proper tolerances. Locate existing rebar including prestressing and post-tensioning tendons using non-hazardous, non-destructive methods with accurate location tolerances (plus or minus 1/4-inch) prior to drilling holes to avoid cutting or damaging Holes shall be thoroughly cleaned per manufacturer's written recommendations prior to installation of anchorages.
   C. Deleterious Materials: Keep anchorages, including holes for drill and epoxy anchors and mechanical anchors, free of dust, grease, and other materials that impair bond.
   D. Use of diamond core bit with roughening tool for anchor holes requires approval from Engineer of Record prior to drilling. Unless otherwise shown in the drawings, all holes shall be drilled perpendicular to the concrete surface.
   E. Embedment Depths:
      a. Mechanical Anchors: Embedment depths noted in drawings are the effective minimum embedment UNO. Refer to applicable evaluation report for the corresponding minimum hole depth and nominal embedment.
      b. Screw Anchors: Embedment depths noted in drawings are the nominal minimum embedment UNO. Refer to the applicable evaluation report for the corresponding minimum hole depth.
   F. Anchor installer certification is required for all installers of drill and epoxy anchors in horizontal or upwardly inclined orientation. Installer qualification must be provided to the inspector prior to installation.
   G. Installation Torques for Expansion Anchors shall be as noted:

Nominal Anchor Diameter	Expansion Anchor Installation Torque (ft-lb)			
	Into Concrete		Into Masonry	
	KB-TZ2 Carbon Steel	KB-TZ2 Stainless Steel	KB-TZ2 Carbon Steel	KB-TZ2 Stainless Steel
1/4"	4	6	4	6
3/8"	30	30	15	15
1/2"	50	40	25	15
5/8"	40	60	30	35
3/4"	110	125	50	50

   H. Installation Torques for Screw Anchors shall be as noted:

Nominal Anchor Diameter	Screw Anchor Installation Torque (ft-lb)					
	Into Concrete			Into Masonry		
	Hilti KH-EZ Hex	Hilti KH-EZ C	Hilti KH-EZ CRC	Hilti KH-EZ E & KH-EZ I	Hilti KH-EZ (Hex, P, PM, PL & C)	Hilti KH-EZ CRC
1/4"	18		N/A	18	21	N/A
3/8"	40 (19 @ h_{nom} <2.5")		40	40	22	20
1/2"	45	N/A	45	N/A	34	25
5/8"	85	N/A	85	N/A	38	35
3/4"	95	N/A	85	N/A	70	45

   Note: 1/4" dia. Hilti KH-EZ P, PM & PL in concrete shall have installation torque of 18 ft-lb.

4. Testing
   A. See DSA 103 Testing and Inspections.
   B. Installation in Concrete:
      a. Provide testing of post-installed anchors in concrete per CBC 2022 1910A.5.
   C. Installation in Masonry:
      a. Provide testing of post-installed anchors in masonry per CBC 2022 1910A.5 as required by section 1705A.4.

STRUCTURAL STEEL

1. Provide readily identifiable structural steel in compliance with Applicable Code Section 2202A.1.

2. Structural Steel: Furnish structural steel complying with the following ASTM standard specifications, unless noted otherwise:

Use/Shape	Type/Grade	GWP Limit (unfabricated) (MT CO_2e/MT)	Notes
Wide Flanges and Channels	ASTM A992, Grade 50	1.01	
Angles	ASTM A572, Grade 50	1.01	
Plates	ASTM A572, Grade 50	1.49	
Hollow Structural Sections (rectangular and round)	ASTM A500, Grade C (50 ksi)	1.71	
Pipes:	ASTM A53, Grade B (35 ksi)		
Anchor Rods:	ASTM F1554, Grade 55		Weldable All Threaded
Headed Anchor Bolts	ASTM F1554, Grade 55		Weldable

3. Holes for Bolted Connections and Anchor Rods: AISC "standard" holes, unless noted otherwise. See Note 11, for oversized holes for anchor rods in non-frame base plates.

4. High Strength Bolts, Nuts and Washers: AISC "Specification for Structural Joints Using High-Strength Bolts."
   A. Hardened Washers: ASTM F436, under nuts except where plate washers are used. Provide beveled washers where joint face slope is greater than 1:20.
   B. Tightening: Snug tight for all high strength bolts except tighten A325-SC and A490-SC bolts to at least the minimum proper tension according to AISC Specification.
   C. Provide Class A Faying Surface or better at bolted connections indicated with "SC" type bolts.
   D. All bolts parts of "SFRS" shall be "SC" type bolts.

5. Welding:
   A. Applicable Welding Standard: Applicable Code and latest adopted edition of AWS D1.1 and D1.8.
   B. Pre-qualified and Non Pre-qualified Welds: Welds shall be pre-qualified in compliance with Applicable Welding Standard. Where non pre-qualified welds are to be used, qualify by test and procedure qualification test record complying with Applicable Welding Standard.
   C. Work performed by Welders and Inspectors: Adhere to approved Welding Procedure Specification (WPS). Each welder and inspector shall retain a copy of WPS.
   D. Pre-construction Meeting: Conduct to include Architect (Structural Engineer), fabricator, erector, Contractor and inspectors to discuss Welding Procedure Specification (WPS).
   E. Welding Procedure Specification (WPS): Fabricator/erector to develop WPS in compliance with Applicable Welding Standard. Submit to Architect (Structural Engineer) for acceptance and Governing Code Authority for approval prior to fabrication. WPS submittal to include the following:
      a. Welding manufacturers' specifications.
      b. Information required by Applicable Code, Contract Documents and any other information necessary to produce welds that are in compliance with Applicable Welding Standard.
      c. Detailed sequence of weld sketches addressing effects of welding heat for welds at joints and within seismic frame assemblies as a whole. Plan sequence of erection and welding to minimize locked in stresses and distortion considering effects of welding heat. Procedures submitted shall result in completed connections which comply with design intent of structural drawings. No deviation from structural drawings is permitted unless otherwise accepted by Architect (Structural Engineer) and approved by Governing Code Authority.
      d. Welding parameters recommended by electrode manufacturer.
      e. List of applicable base metal types and thicknesses.
      f. Welding joint sketches including joint type, weld type, joint geometry, and applicable dimensions. Individual weld passes shall be identified in sketches and numbered to identify the sequence of their deposition. Sketches shall identify the maximum layer thicknesses and bead widths. In no case shall layer thickness exceed 1/4-inch, nor shall maximum bead width exceed 5/8-inch.
      g. Applicable welding process.
      h. Position of welding.
      i. List of filler metal per Applicable Welding Standard and electrode specification and classification. Include details showing shielding material to be used.
      j. Minimum preheat requirements, interpass temperatures and post weld heat treatment. Minimum specified preheat shall meet requirements of AWS D1.1, table 3.2, and AISC 360-16 Section M2-2 requirements for jumbo sections.
      k. List of applicable electrical characteristics for process employed. Clearly indicate specific values required for each welding pass. These electrical characteristics shall include at a minimum the following:
         - Electrode diameter.
         - Type of current and acceptable ranges of current measured in amperage. For wire feed processes, indicate manufacturers' recommended melt-off rate, deposition rate, and wire feed speed.
         - Voltage (for all processes).
         - Actual field condition travel speed and manufacturer's data for travel speed.
         - Electrode extension (stick out) for wire feed processes.
         - Amperage, voltage and electrode extension (as applicable) shall be within filler metal manufacturer's recommendations (compare to AWS D1.1, Section 3.6 and 3.7).
         - Electrode manufacturer's technical information, with identification number listed, and welding parameter recommendations.
   F. Welding Electrode (Filler Metal): E70xx (70 ksi) uno, provide filler metal with Charpy V-notch toughness of 20 ft/lbs at -20 degrees Fahrenheit at complete penetration groove welds.
      a. Welds indicated as part of the "SFRS" shall comply with AISC 341 sections A3.4a and I2.3. These welded connections shall be made with a filler metal achieving a minimum Charpy V-notch toughness of 20ft/lbs at a temperature lower than 0°F.
      b. Welds indicated as "Demand Critical" (DC) shall comply with AISC 341 sections A3.4b and I2.3. These welded connections shall be made with a filler metal achieving a minimum Charpy V-notch toughness of 20ft/lbs at a temperature lower than 0°F, and a filler metal producing welds that have a minimum Charpy V-notch toughness of 40ft/lbs at temperature lower than +70°F.
   G. Welding Toughness Requirements: Certify conformance to Charpy V-notch toughness requirements with tests by an independent testing laboratory for each AWS classification, manufacturer and trade name. Testing procedures shall be in accordance to Applicable Welding Standard and AWS D1.8
   H. Fabricators: Perform shop welds by fabricators approved by LA City or AISC.
      a. Welder Qualification: Welders, regardless if Work is performed in shop or in field, shall be qualified for the Work they will be doing and shall have certifications current and acceptable to Governing Code Authority.
      b. Special inspection shall be required for all welding, as required by governing code authority.
   I. Welds Exposed to View:
      a. Faces of fillet welds exposed to view shall have as-welded surfaces that are reasonably smooth and uniform. No finishing or grinding shall be required, except where clearances or fit of other items may so necessitate.
      b. Partial and full penetration welds exposed to view shall be ground smooth and flush with finish surface of steel. Remove backup bars and weld tabs. Fill holes with weld metal or body solder and smooth by grinding or filing.
   J. Groove Preparation: Clean groove preparation thermal cuts by grinding.
   K. Termination of Welds: Terminate at joint ends in a manner that ensures sound welds. Use extension bars and run-off tabs whenever necessary.
   L. Hand-held Calibrated Amp and Volt Meters: To be used by fabricator, erector and inspectors to assure proper amperage and voltage of welding process. Measure amperage and voltage at arc. Verify travel speed and electrode stick-out in compliance with electrode manufacturer's recommendations and with approved WPS.
   M. Storage of Electrodes: Adhere to Section 5.3 of AWS D1.1.
   N. Weld each flange of moment frame beam to column connections in one continuous process without cooling below pre-heat temperature.
   O. Welding of ASTM A913 Materials: Perform according to requirements of latest edition of AWS standard, structural drawings and specifications, whichever is more stringent.
   P. Minimum Fillet Weld Size: Where minimum fillet weld size, as stipulated by AISC Section J2 and Table J2.4, exceeds fillet weld size indicated on structural drawings, use AISC stipulated size.
   Q. Minimum Groove or Butt Weld Size: Provide complete penetration unless indicated otherwise.
   R. Weld Length: Length of welds shown are net effective lengths. Where length of weld is not indicated, provide weld full length of joint.
   S. Welding at Galvanized Steel: Galvanization shall be ground off prior to welding. Repair galvanization after completion of welding.

6. Shop Drawings: Submit To Architect (Structural Engineer) for review and, upon request, to Governing Code Authority. Include sequence of erection procedures.

7. Sustainable Design Submittals: Submit type III factory-specific or product-specific environmental product declaration (EPD) for each of the following products:
   A. Hot Rolled Structural Steel
   B. Hollow Structural Steel
   C. Steel Plate

8. Fabrication: Perform in shop certified by AISC or City of Los Angeles.
   A. Moment Connections: Orient flange stiffener plates and cap plates used in moment connections so that rolling direction of plate is parallel with direction of principal stress.
   B. Horizontal Members: Place natural camber up.
   C. Filler Plates: Provide at splices of parts having more than 1/8-inch difference in thickness. Filler plates to match grade of material spliced.

9. Traceability:
   A. Material tracing is required for all steel including miscellaneous metals, connectors, and steel products manufactured by third parties. The contractor is advised that material tracing is required as directed by DSA and the project inspection team and may include any or all of the levels of traceability described below:
      a. Lot traceability: materials can be traced to the set of mill test reports (MTRs) for the project.
      b. Piece-mark traceability: heat number can be correlated to each piece mark.
      c. Piece traceability: heat number can be correlated for each piece, which requires separate piece marks for each piece, or marking of each individual piece with its heat number.
   B. Prior to placing the mill order, the contractor shall schedule a preconstruction meeting to include the AOR, SEOR, PI and inspectors responsible for inspection of the steel material fabrication and erection/installation for the purpose of reviewing material traceability requirements.
   C. The contractor shall include the cost of piece traceability in their basic services and provide deductive alternates for piece-mark and lot traceability to be provided as a credit to the Owner.

10. Cleaning: After fabrication, clean steel surfaces free of rust, loose mill scale, and oil.

11. Oversized Holes for Anchor Rods in Non-Frame Column Base Plates: Oversized holes in base plate may be provided at contractor's option in accordance with AISC Table 14-2 UNO. Where oversized holes are provided, provide plate washer with standard hole with minimum size per AISC Table 14-2 (3/8" thick min) UNO.

12. Exposure to Soil: Encase structural steel in lean concrete with 4-inches concrete cover where exposed to soil.

13. Exposure to Weather: UNO, structural steel (including connection elements) exposed to weather shall be hot dipped galvanized. At welding on galvanized members, galvanization shall be ground off prior to welding. Repair galvanization after completion of welding.

14. Structural Steel Allowance: In addition to the steel shown or implied in this document, allow for an additional 2 tons of structural steel to be constructed at the direction of the Structural Engineer during construction. The allowed steel may be of any shape or sizes, including plates, wide flanges, tubes, pipes, channels, angles, and/or any other structural shapes. The number of pieces may vary. The locations of applications may vary. Direction may be given in multiple occasions during construction. The allowance should include all fabrication and construction related services, such as shop drawings, shop preparation, field erection and coordination, bolted connections and field welding. Expenditure of any part of this allowance shall be approved in writing by the Structural Engineer prior to any fabrication and erection.

15. Heavy Sections
    A. Heavy sections shall comply with AISC 360-16 Section A3.1c.
    B. Heavy sections forming part of the "SFRS" shall also comply with AISC 341-16 Section A3.3.
    C. Welded Splices including welds to baseplates shall comply with AISC 360-16 Section J1.5.

16. See General Notes, Quality Assurance section, Notes 3 and 4 for non-destructive testing.

17. SFRS denotes items considered part of the "SEISMIC FORCE RESISTING SYSTEM" (Refer to AISC 341-16 and AWS D1.8).

18. DC denotes welds considered "DEMAND CRITICAL" per AISC 341-16 Section A3.4B and I2.3.

19. Field weld flag symbols indicate design intent but are not requirements. Whether a weld is to be made in shop or field is means and methods and to be coordinated by contractor.

20. Where bent plates specified cannot be bent due to thickness provide two plate pieces joined with a complete penetration weld.

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MALIBU HIGH SCHOOL
INCREMENT 02

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Malibu, CA 90265

Developed for
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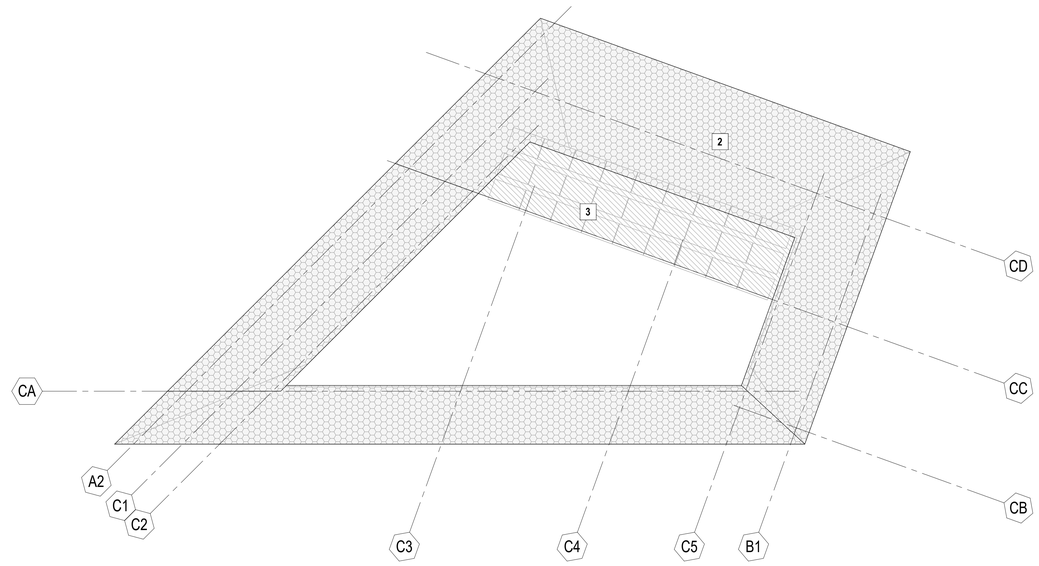
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50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/14/2025
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50% CONSTRUCTION DOCS	06/27/2025
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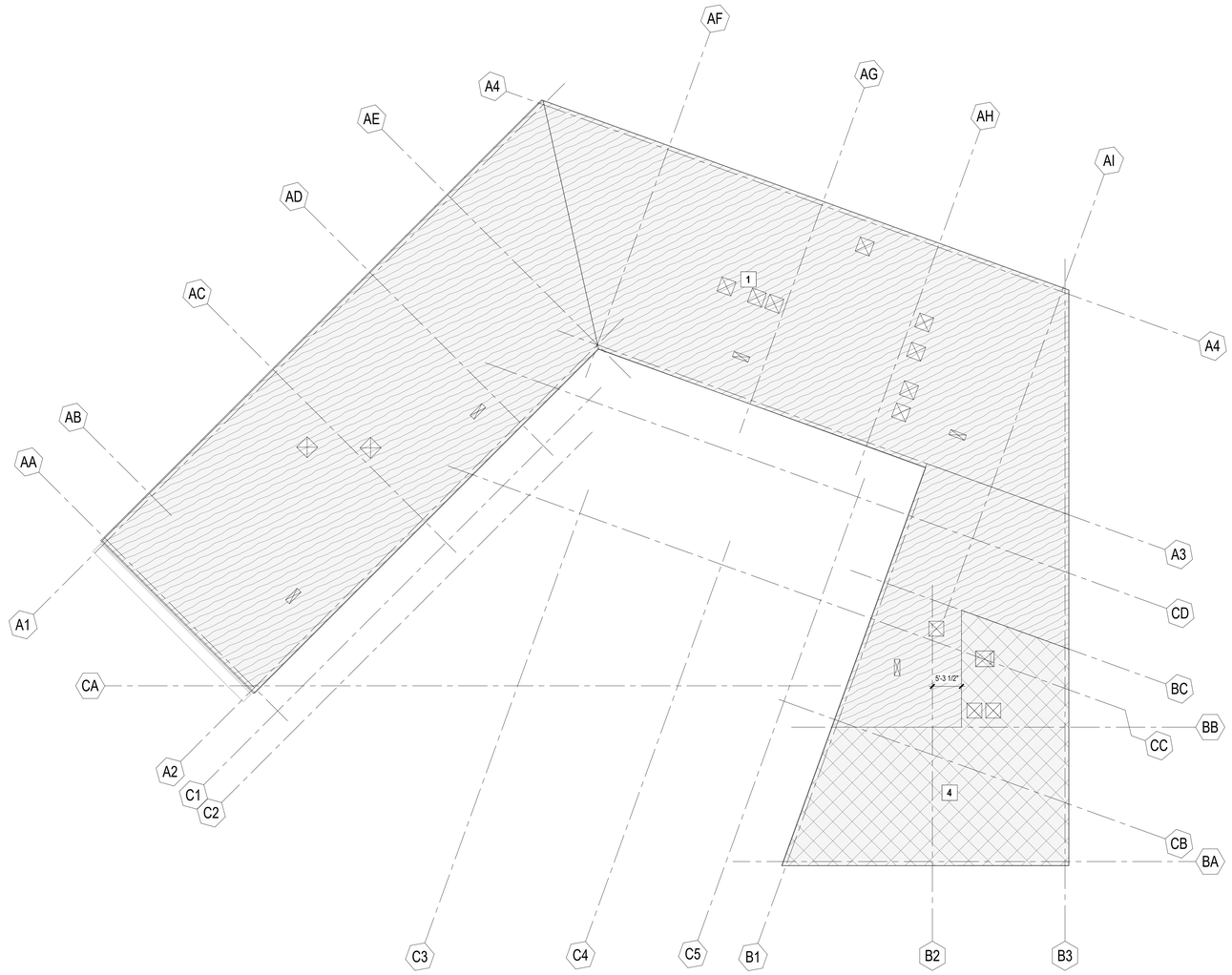
GENERAL NOTES

2-S0.02



TRUE NORTH PROJECT NORTH

HUB - CANOPY LOADING DIAGRAM 3/32" = 1'-0" 07



TRUE NORTH PROJECT NORTH

HUB - ROOF LOADING DIAGRAM 3/32" = 1'-0" 05

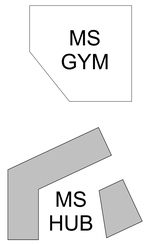
PLAN NOTES AND LEGEND

1. FOR PLAN NOTES AND LEGEND SEE 2-S1-2.0X SERIES.

LOADING DIAGRAM SCHEDULE

MARK	DESCRIPTION	SDL [a] [c]	LL [b]
1	HUB ROOF	23 psf	20 psf (ROOF LIVE LOAD)
2	HUB CANOPY	19 psf	20 psf (ROOF LIVE LOAD)
3	HUB CANOPY (PV AREA)	9 psf	20 psf (ROOF LIVE LOAD)
4	HUB ROOF (BROADCASTING AREA)	23 psf	20 psf (ROOF LIVE LOAD) + 20 psf (CEILING FRAMING OVER STAGE)

NOTES:
[a] SDL = SUPERIMPOSED DEAD LOAD, (SELF-WEIGHT OF STRUCTURAL DECK & FRAMING NOT INCLUDED.)
[b] LL = ROOF LIVE LOAD REDUCIBLE, UNO.
[c] SDL INCLUDES 5 PSF PV ALLOWANCE.



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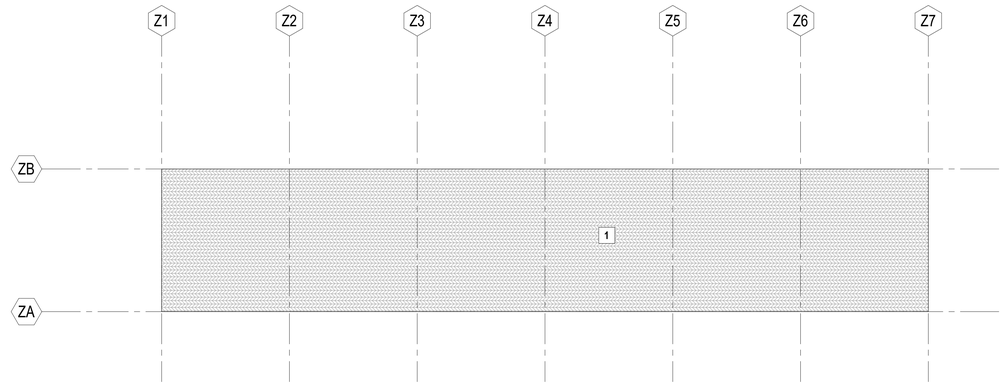
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Scale	As indicated

MS HUB - LOADING DIAGRAMS

2-S1-1.21

PLAN NOTES AND LEGEND

1. FOR PLAN NOTES AND LEGEND SEE 2-S1-2.0X SERIES.



LOADING DIAGRAM SCHEDULE			
MARK	DESCRIPTION	SDL [a]	LL [b]
1	SHADE PAVILION CANOPY	13 psf	20 psf (ROOF LIVE LOAD)

NOTES:
[a] SDL = SUPERIMPOSED DEAD LOAD, (SELF-WEIGHT OF FRAMING NOT INCLUDED.)
[b] LL = ROOF LIVE LOAD REDUCIBLE, UNO.

TRUE NORTH

PROJECT NORTH

SHADE PAVILLION - ROOF LOADING DIAGRAM | 1/4" = 1'-0" | 05

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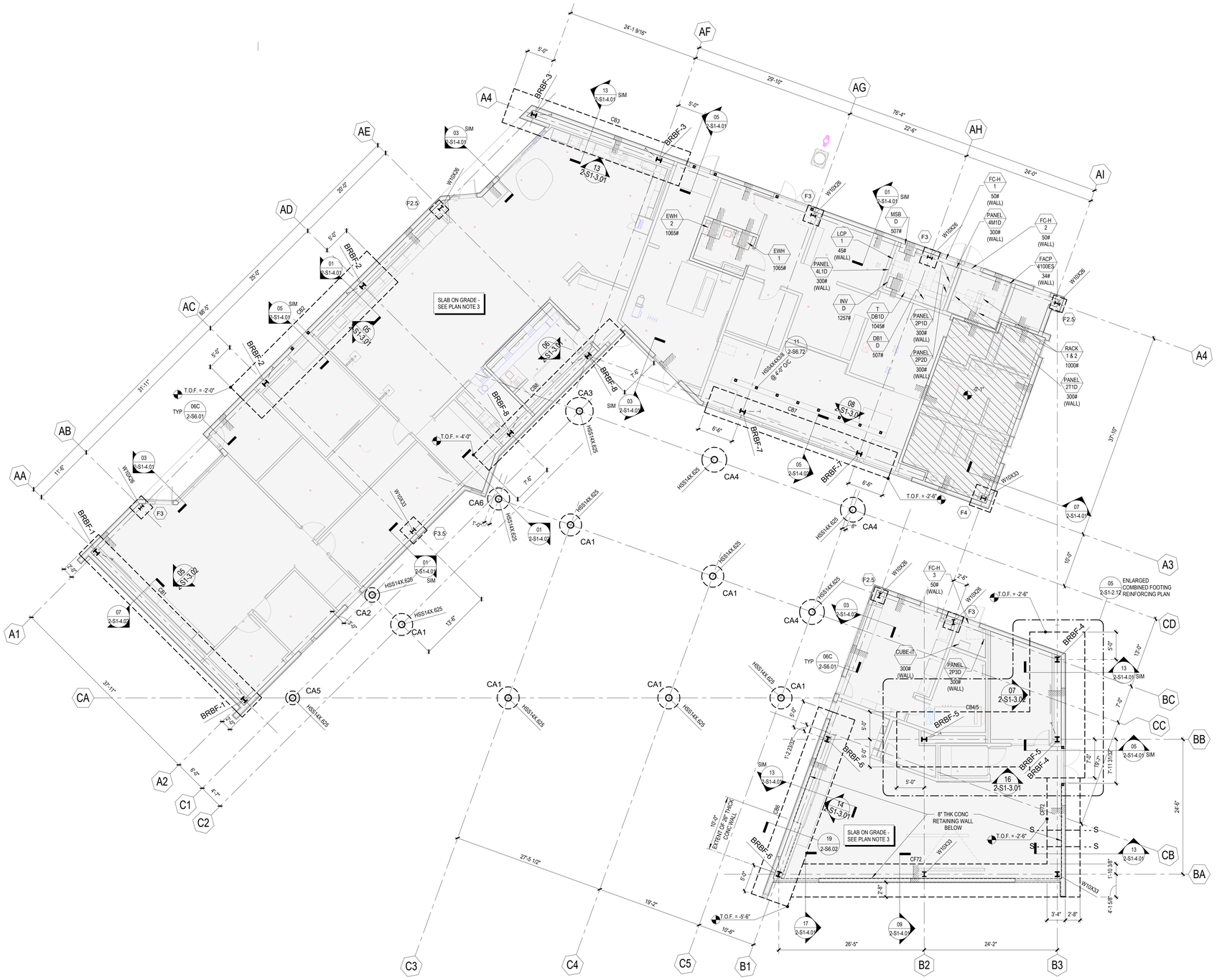
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Checked By	HP
Scale	As indicated

SHADE PAVILION - LOADING DIAGRAMS

2-S1-1.22



COMBINED BEAM SCHEDULE

Mark	FOOTING SIZE (WIDTH x DEPTH)	REINFORCING	
		CONTINUOUS LONGITUDINAL BARS	TRANSVERSE BARS
CB1	60"x24"	(4) #7 TOP & (4) #6 BOT	#5 @ 12"O/C T&B
CB2	96"x24"	(6) #5 TOP & (6) #6 BOT	#5 @ 12"O/C T&B
CB3	78"x24"	(6) #5 TOP & (6) #7 BOT	#5 @ 12"O/C T&B
CB4/5	120 X 30"	SEE 05/2-S1-2.12	SEE 05/2-S1-2.12
CB6	84"x30"	(6) #5 TOP & (6) #7 BOT	#6 @ 12"O/C T&B
CB7	60"x36"	(6) #7 TOP & (6) #8 BOT	#6 @ 12"O/C T&B
CB8	48"x42"	(6) #7 TOP & (6) #9 BOT	#7 @ 12"O/C T&B

CONTINUOUS FOOTING SCHEDULE

Mark	FOOTING SIZE (WIDTH x DEPTH)	REINFORCING	
		CONTINUOUS LONGITUDINAL BARS	TRANSVERSE BARS
CF72*	72"x18"	(5) #5 T&B	#5 @ 12"O/C T&B

* PROVIDE 8" WIDE x 12" DEEP SHEAR KEY CENTERED AT THE BOTTOM OF CF72 AS SHOWN IN DETAIL 17/2-S6.02.

SPREAD FOOTING SCHEDULE

FOOTING MARK	FOOTING SIZE		FOOTING REINFORCING (PROVIDE HOOKS AT ENDS)
	WIDTH x LENGTH	THICKNESS	
F2.5	2'-6" SQUARE	18"	(3) #7 BOT EA WAY
F3	3'-0" SQUARE	18"	(3) #7 BOT EA WAY
F3.5	3'-6" SQUARE	18"	(3) #7 BOT EA WAY
F4	4'-0" SQUARE	18"	(4) #7 BOT EA WAY

NOTES:
1. TERMINATE ALL FOOTINGS LONGITUDINAL REINF. BARS W/ STANDARD 90° BENDS AT ENDS, UNLESS NOTED OTHERWISE.
2. ALL COMBINED AND SPREAD FOOTINGS ARE TO BE FOUNDED ON APPROVED COMPACTED FILL AS PER THE GEOTECHNICAL REPORT.
3. REFER TO DETAIL 01/2-S6.02 FOR COMBINED FOOTING BAR LAYOUT, SPLICE LOCATION, AND DOWELS TO SLAB.

PLAN NOTES

1. FOR GENERAL NOTES SEE 2-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF CONCRETE SLAB ON GRADE ELEVATIONS, DEPRESSIONS, SLOPES, OPENINGS, DRAINS, TRENCHES, PADS, and CURBS; SLAB EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
3. BUILDING SLAB-ON-GRADE: 5" THICK W/ #4 @ 18" O/C EACH WAY at CENTER OF SLAB OVER 15 MIL STEGO WRAP VAPOR BARRIER OR APPROVED EQ (LAP 6" AT JOINTS and TAPE SEAL - OMIT VAPOR BARRIER AT EXTERIOR AREAS) OVER AT LEAST 2 FEET OF NON EXPANSIVE (EI<20) AND PROPERLY COMPACTED FILL AS INDICATED IN THE GEOTECHNICAL REPORT. PROVIDE CONSTRUCTION JOINTS OR WEAKENED PLANE JOINTS IN SLAB-ON-GRADE EACH DIRECTION PER DETAIL 06/2-S6.01 - AT AREAS TO RECEIVE TILE, COORDINATE LOCATION OF JOINTS IN SLAB TO ALIGN WITH TILE EXPANSION JOINTS PER ARCH.
4. CENTER COLUMNS ON NUMBERED GRID LINES UNLESS NOTED OTHERWISE. CENTER SPREAD FOOTINGS, and COMBINED FOOTINGS ON COLUMNS UNLESS NOTED OTHERWISE.
5. IN NO CASE SHALL PIPES, CONDUITS, OR SLEEVES BE EMBEDDED IN SPREAD OR CONTINUOUS FOOTINGS OR WITHIN TOP OR BOTTOM THIRD OF GRADE BEAMS UNLESS SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS. PIPES, CONDUITS OR SLEEVES MAY ONLY BE EMBEDDED WITHIN THE MIDDLE THIRD OF GRADE BEAMS WHERE NOTED ON STRUCTURAL PLANS AND DETAILED IN THE STRUCTURAL DRAWINGS.
6. WHERE CONTINUOUS FOOTINGS and SPREAD FOOTINGS INTERSECT, EXCAVATE TO BOTTOM OF DEEPER FOOTING and CONTINUE ALL BARS THRU INTERSECTION. PLACE BARS AT CONTINUOUS FOOTING CORNERS and INTERSECTIONS PER 05/2-S6.01. WHERE CONTINUOUS FOOTINGS TERMINATE AT SIDES OF GRADE BEAMS OR SPREAD FOOTINGS, EXTEND LONGITUDINAL BARS TO FAR SIDE OF GRADE BEAM OR SPREAD FOOTING and TERMINATE W/ STANDARD 90° HOOK.
7. LOCATE TOP OF SPREAD FOOTINGS, COMBINED FOOTINGS, and CONTINUOUS FOOTINGS 1'-6" BELOW LOWEST ADJACENT SLAB OR GRADE ELEVATION UNLESS NOTED OTHERWISE.
8. GEOTECHNICAL OBSERVATION / COMPACTION REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO FOOTING INSPECTION.
9. COORDINATE EXTENT OF CONCRETE PADS SUPPORTING EQUIPMENT WITH MANUFACTURER AND WITH EDGE DISTANCE REQUIREMENTS PER EQUIPMENT ANCHORAGE DETAILS IN 2-S6.9X SERIES.
10. CONSTRUCT LIGHT GUAGE METAL STUD WALLS PER 01/2-S6.71A AT EXTERIOR CONDITION AND 01/2-S6.71B AT INTERIOR CONDITION UNLESS NOTED OTHERWISE ON PLANS OR 2-S1-4.X SHEET SERIES.
11. SEE CIVIL DRAWINGS FOR APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES. PROTECT OR RELOCATE EXISTING UTILITIES AS REQUIRED DURING FOOTING EXCAVATION OR CONSTRUCTION. DO NOT SURCHARGE EXISTING UTILITIES, SEE 01/2-S6.01 FOR ADDITIONAL CLARIFICATION.

LEGEND

- W9XXX / HSSXXXXX — INDICATES NON-FRAME COLUMN ABOVE FOR BASE PLATE INFO SEE 09/2-S6.11 UNO
- BRBF — INDICATES BRACED FRAME COLUMN - BRACED FRAME ELEVATIONS AND SIZE ON SX-3.0X SERIES SHEETS
- INDICATES SPREAD FOOTING MARK - SEE SCHEDULE ON THIS SHEET and 13/2-S6.01
- FX / XX.XX' — INDICATES TOP OF SPREAD FOOTING ELEVATION - IF NO ELEVATION INDICATED, LOCATE TOP OF SPREAD FOOTING PER NOTE 7
- CFX — INDICATES CONTINUOUS FOOTING MARK - SEE SCHEDULE ON THIS SHEET and 01/2-S6.02
- CBX — INDICATES COMBINED BEAM MARK - SEE SCHEDULE ON THIS SHEET.
- T.O.F — INDICATES TOP OF FOOTING - IF NO ELEVATION INDICATED, LOCATE TOP OF FOOTING PER NOTE 7
- S-----S — INDICATES STEP IN CONTINUOUS FOOTING OR GRADE BEAM - SEE 09/2-S6.01. LOCATION OF FOOTING STEPS SHOWN ON PLAN IS APPROXIMATE, UNO. LOCATION OF STEPS IS TO BE COORDINATED BY CONTRACTOR WITH UTILITY LOCATIONS AND FINISH GRADES.
- INDICATES CHANGE IN ELEVATION AT SLAB ON GRADE - SEE DETAIL 12/2-S6.02 UNLESS DETAILED OTHERWISE
- OR — INDICATES CONCRETE CURB OR HOUSEKEEPING PAD - CONSTRUCT PER 06D/2-S6.01 UNO
- +X'-X" — INDICATES ELEVATION OF TOP OF STRUCTURAL CONCRETE SLAB ON GRADE (TOC) - SEE ARCHITECTURAL FOR TOC IF NO ELEVATION INDICATED
- INDICATES LIGHT GAUGE METAL STUD FRAMING - SEE SCHEDULE ON 01/2-S6.71A AND 01/2-S6.71B
- INDICATES DEPRESSED SLAB TO RECIEVE ARCHITECTURAL TOPPING. SEE ARCH FOR THICKNESS AND FINISH. SEE ALSO GENERAL NOTES SECTION CAST-IN-PLACE CONCRETE, NOTE 17 AS APPLICABLE.
- INDICATES MEP EQUIPMENT TAG.
  FOR FLOOR MOUNTED UNIT ANCHORAGE INF AND CONCRETE PAD REQUIREMENT SEE 01/2-S6.91 UNO
  FOR WALL MOUNTED UNIT CONNECTION INF REFER TO LANDSCAPE, MECHANICAL, ELECTRICAL, PLUMBING, ETC. FOR EXACT LOACTION OF EQUIPMENT. SEE 09/2-S6.94 UNO
- XX# (WALL) — INDICATES MAX. EQUIPMENT WEIGHT INCLUDING ALL ACCESSORIES
  INDICATES WALL MOUNTED UNIT
- CAX — INDICATES CAISSION MARK - SEE SCHEDULE ON 01/2-S1.11. LOCATE TOP OF CAISSON 1'-0" BELOW ADJACENT SLAB OR GRADE ELEVATION UNLESS NOTED OTHERWISE.

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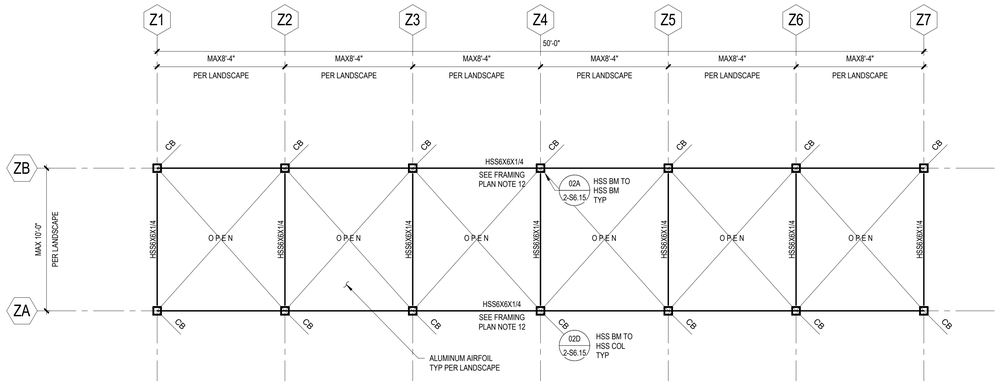
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Scale	1/8" = 1'-0"

MS HUB - FOUNDATION PLAN

2-S1-2.01



TRUE NORTH PROJECT NORTH

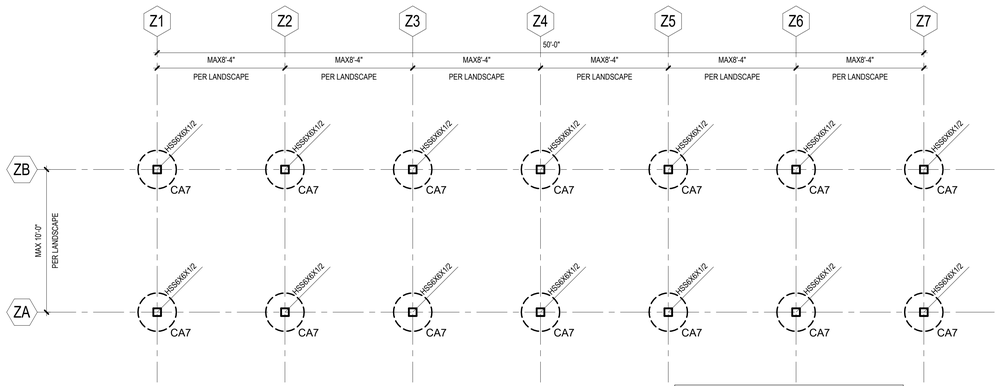
ROOF FRAMING PLAN - SHADE PAVILION CANOPY | 1/4" = 1'-0" | 07

SHADE PAVILION FRAMING PLAN NOTES

1. FOR GENERAL NOTES SEE 2-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. SEE ARCHITECTURAL, LANDSCAPE, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF STRUCTURAL CONCRETE SLAB OR METAL DECK ELEVATIONS, DEPRESSIONS, SLOPES, CURBS, DRAINS, PADS, DECK EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS IN WALLS and SLABS NOT INDICATED ON STRUCTURAL DRAWINGS.
3. CENTER COLUMNS AT GRID INTERSECTIONS UNLESS NOTED OTHERWISE.
4. BEAMS ARE SPACED EQUALLY BETWEEN COLUMNS AND GIRDERS UNLESS NOTED OTHERWISE.
5. NO PENETRATION IN STRUCTURAL STEEL IS PERMITTED UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
6. COORDINATE DETAILING AND SECONDARY MEMBERS FOR DEFERRED SUBMITTAL ITEMS PER GENERAL NOTE SECTION DEFERRED SUBMITTAL ITEMS ANCHORED OR SUPPORTED BY STRUCTURE.
7. AT CONTINOUS HSS SPLICE PROVIDE A FULL PENN WELD ALL AROUND AND GRIND SMOOTH. LOCATE SPLICE 1'-0" MAX FROM SUPPORT - SEE DETAIL 15/2-S6.15

LEGEND

CB — INDICATES FRAME OR NON-FRAME COLUMN - SEE FOUNDATION PLAN FOR COLUMN SIZE



TRUE NORTH PROJECT NORTH

FOUNDATION PLAN - SHADE PAVILION CANOPY | 1/4" = 1'-0" | 05

SHADE PAVILION FOUNDATION PLAN NOTES

1. FOR GENERAL NOTES SEE 2-S0 SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. SEE ARCHITECTURAL, LANDSCAPE, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF CONCRETE SLAB ON GRADE ELEVATIONS, DEPRESSIONS, SLOPES, OPENINGS, DRAINS, TRENCHES, PADS, and CURBS; SLAB EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
3. CENTER COLUMNS ON NUMBERED GRID LINES UNLESS NOTED OTHERWISE. CENTER CAISSONS ON COLUMNS UNLESS NOTED OTHERWISE.
4. IN NO CASE SHALL PIPES, CONDUITS, OR SLEEVES BE EMBEDDED IN CAISSONS.
5. GEOTECHNICAL OBSERVATION / COMPACTION REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO FOOTING INSPECTION.
6. SEE CIVIL DRAWINGS FOR APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES. PROTECT OR RELOCATE EXISTING UTILITIES AS REQUIRED DURING FOOTING EXCAVATION OR CONSTRUCTION. DO NOT SURCHARGE EXISTING UTILITIES, SEE 01/2-S6.01 FOR ADDITIONAL CLARIFICATION.

LEGEND

W-XX / HSSXXXXX — INDICATES COLUMN ABOVE

CAX — INDICATES CAISSION MARK - SEE SCHEDULE ON 01/2-S1.11. LOCATE TOP OF CAISSON 1'-0" BELOW ADJACENT SLAB OR GRADE ELEVATION UNLESS NOTED OTHERWISE.

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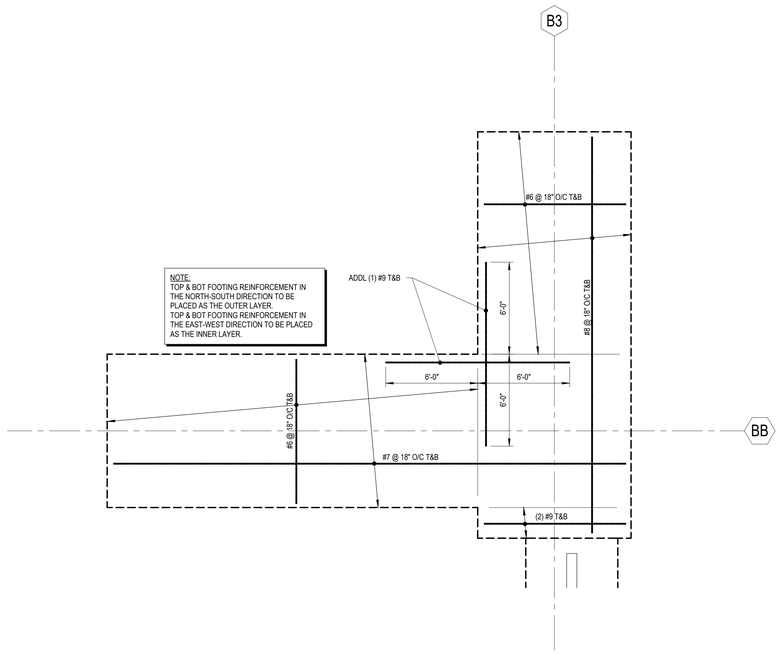
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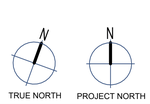
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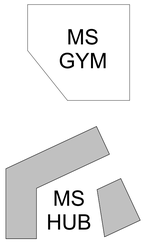
MS HUB - SHADE PAVILION CANOPY

2-S1-2.04





FOUNDATION PLAN - Callout 1 | 1/4" = 1'-0" | 05



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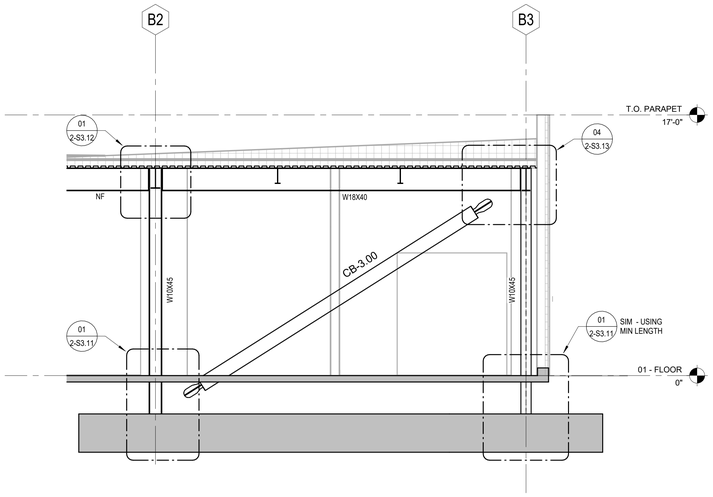
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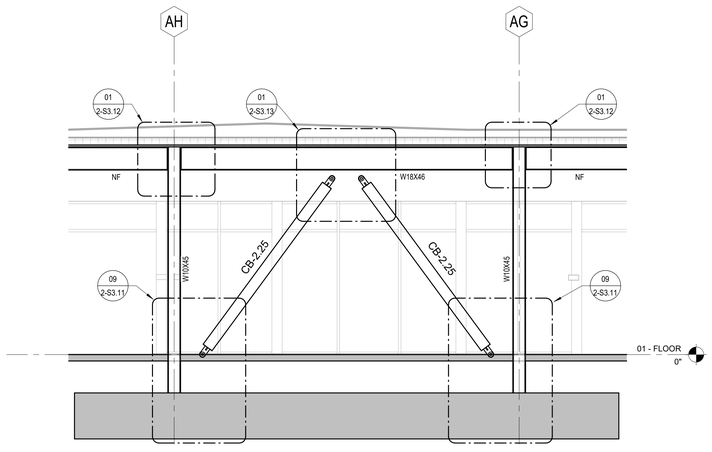
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MS HUB - ENLARGED FOUNDATION PLAN

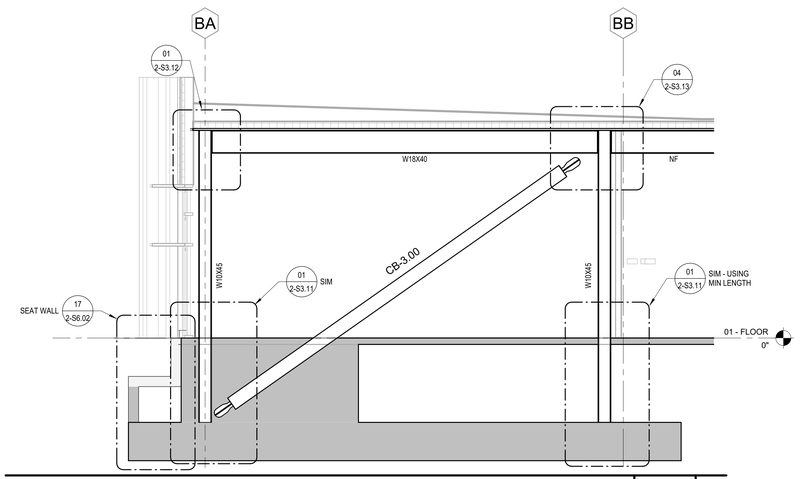
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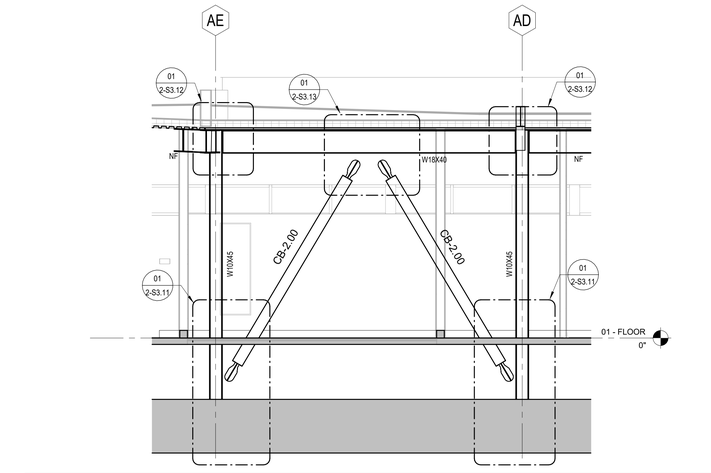
BRACE FRAME ELEVATION ALONG GRID BB (BRB-5) | 1/4" = 1'-0" | 2-S1-3.01 | 16



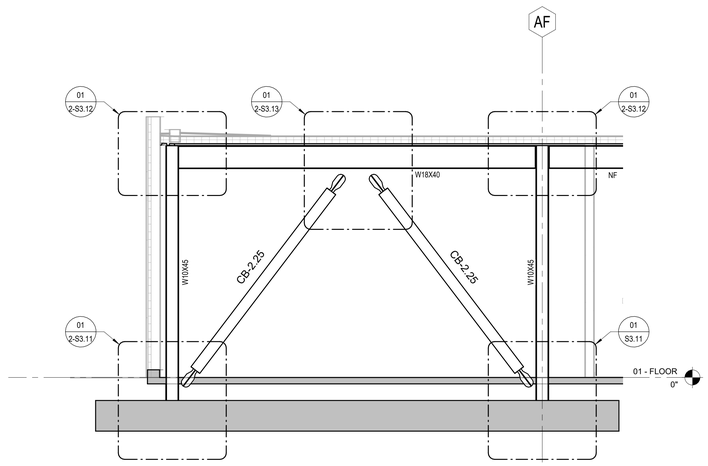
BRACE FRAME ELEVATION ALONG GRID A3 (BRBF-7) | 1/4" = 1'-0" | 2-S1-3.01 | 08



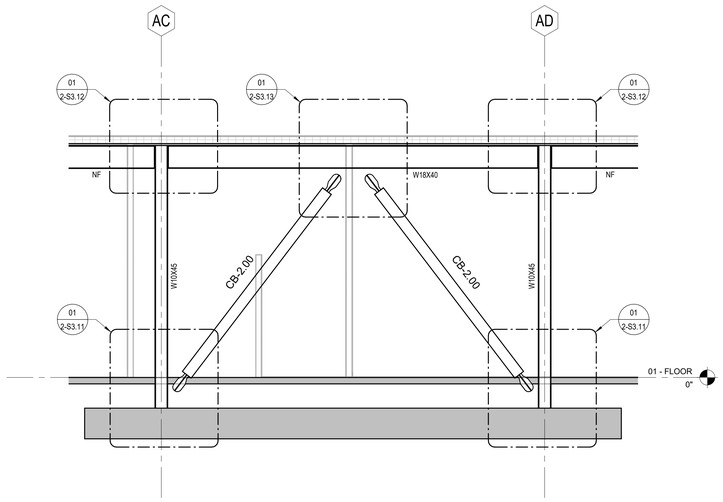
HUB - BRACE FRAME ELEVATION ALONG GRID B1 (BRB-6) | 1/4" = 1'-0" | 2-S1-3.01 | 14



HUB - BRACE FRAME ELEVATION ALONG GRID A2 (BRBF-8) | 1/4" = 1'-0" | 2-S1-3.01 | 06



HUB - BRACE FRAME ELEVATION ALONG GRID A4 (BRBF-3) | 1/4" = 1'-0" | 2-S1-3.01 | 13



HUB - BRACE FRAME ELEVATION ALONG GRID A1 (BRBF-2) | 1/4" = 1'-0" | 2-S1-3.01 | 05

BRACE FRAME ELEVATION NOTES

1. FOR GENERAL NOTES SEE 2-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. BRBF CONNECTIONS AND LENGTHS SHOWN IN ELEVATIONS ARE FOR REFERENCE ONLY. COORDINATE SPECIFICS OF BRACE AND CONNECTION DETAILING / GEOMETRY WITH INFORMATION SHOWN WITHIN COREBRACE SCHEDULE AND DETAILING IN 2-S3.1X, 2-S3.2X and 2-S6 SERIES DETAILS.
3. CB-X.XX INDICATES BUCKLING RESTRAINED BRACE FRAME. SEE 2-S3.2X SHEET SERIES FOR ALL REQUIREMENTS.
4. THE FOLLOWING WELDS ARE CLASSIFIED AS DEMAND CRITICAL (SEE WELDING REQUIREMENTS UNDER THE STRUCTURAL STEEL SECTION OF THE GENERAL NOTES)
   A. GROOVE WELDS AT COLUMN SPLICES.
   B. WELDS AT COLUMN to BASE PLATE CONNECTIONS.
   C. WELDS at BEAM TO COLUMN CONNECTIONS.
5. PROVIDE ROUND PIPE CASING TYPICAL WITH BOLTED CONNECTION EA END TYPICAL UNO.
   A. BRBF-1 and -7 ARE TO BE PROVIDED WITH PINNED CONNECTION EA END.
6. BRBF-1 and -7 ARE EXPOSED.
7. SEE 2-S3.11 FOR BRBF BASE PLATE DETAIL AND SCHEDULE.
8. FOR COLUMN ORIENTATION SEE PLANS.
9. ADD ANGLES AT COLUMN FOR SUPPORT OF METAL DECKING PER 15/2-S6.12 UNLESS NOTED OTHERWISE.
10. NO PENETRATION IN STRUCTURAL STEEL IS PERMITTED UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
11. SEE DETAIL 4/2-S3.23 FOR EXPANDED POLYSTYRENE REQUIREMENT AROUND BRB CASING BURIED IN CONCRETE.

BRACE FRAME ELEVATION LEGEND

CB-X.XX	INDICATES BUCKLING RESTRAINED BRACED FRAME. SEE 2-S3.2X FOR ALL REQUIREMENTS.
NF	INDICATES NON-FRAME FRAMING MEMBER - SEE PLANS FOR MEMBER SIZE AND CONNECTION DETAILS.

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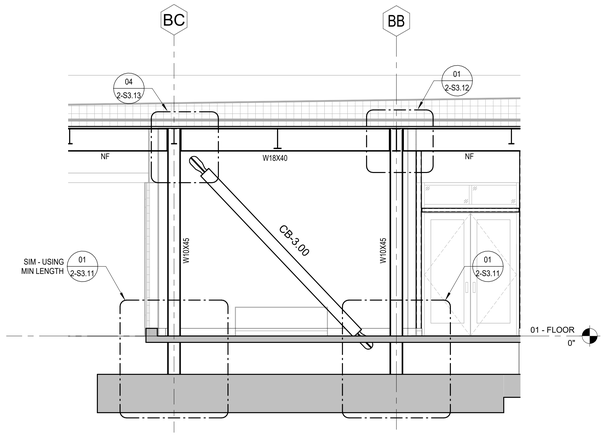
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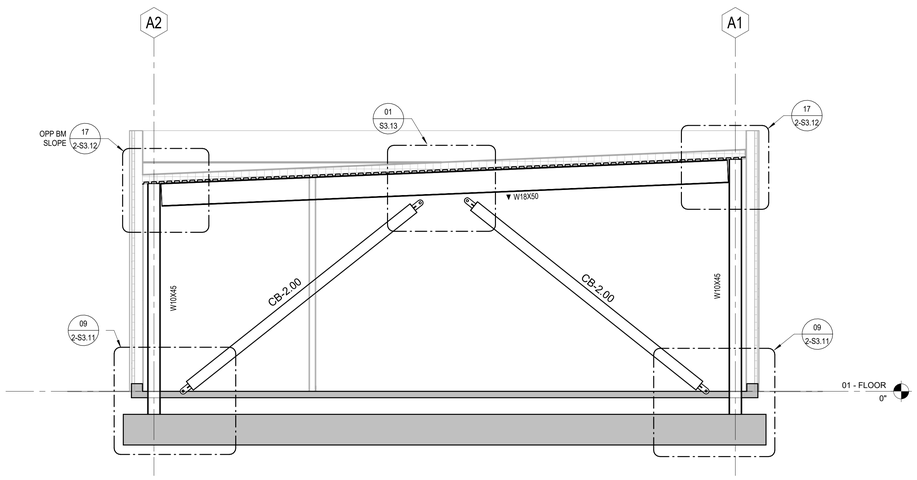
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Scale	As indicated

MS HUB - BRACE FRAME ELEVATIONS

2-S1-3.01



BRACE FRAME ELEVATION ALONG GRID B3 (BRB-4) N.T.S. 07



BRACE FRAME ELEVATION ALONG GRID AA (BRBF-1) N.T.S. 05

BRACE FRAME ELEVATION NOTES

1. FOR GENERAL NOTES SEE 2-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. BRBF CONNECTIONS AND LENGTHS SHOWN IN ELEVATIONS ARE FOR REFERENCE ONLY. COORDINATE SPECIFICS OF BRACE AND CONNECTION DETAILING / GEOMETRY WITH INFORMATION SHOWN WITHIN COREBRACE SCHEDULE AND DETAILING IN 2-S3.1X, 2-S3.2X and 2-S6 SERIES DETAILS.
3. CB-X.XX INDICATES BUCKLING RESTRAINED BRACE FRAME. SEE 2-S3.2X SHEET SERIES FOR ALL REQUIREMENTS.
4. THE FOLLOWING WELDS ARE CLASSIFIED AS DEMAND CRITICAL (SEE WELDING REQUIREMENTS UNDER THE STRUCTURAL STEEL SECTION OF THE GENERAL NOTES)
   A. GROOVE WELDS AT COLUMN SPLICES.
   B. WELDS AT COLUMN to BASE PLATE CONNECTIONS.
   C. WELDS at BEAM TO COLUMN CONNECTIONS.
5. PROVIDE ROUND PIPE CASING TYPICAL WITH BOLTED CONNECTION EA END TYPICAL UNO.
   A. BRBF-1 and -7 ARE TO BE PROVIDED WITH PINNED CONNECTION EA END.
6. BRBF-1 and -7 ARE EXPOSED.
7. SEE 2-S3.11 FOR BRBF BASE PLATE DETAIL AND SCHEDULE.
8. FOR COLUMN ORIENTATION SEE PLANS.
9. ADD ANGLES AT COLUMN FOR SUPPORT OF METAL DECKING PER 15/2-S6.12 UNLESS NOTED OTHERWISE.
10. NO PENETRATION IN STRUCTURAL STEEL IS PERMITTED UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
11. SEE DETAIL 4/2-S3.23 FOR EXPANDED POLYSTYRENE REQUIREMENT AROUND BRB CASING BURIED IN CONCRETE.

BRACE FRAME ELEVATION LEGEND

CB-X.XX	INDICATES BUCKLING RESTRAINED BRACED FRAME. SEE 2-S3.2X FOR ALL REQUIREMENTS.
NF	INDICATES NON-FRAME FRAMING MEMBER - SEE PLANS FOR MEMBER SIZE AND CONNECTION DETAILS.

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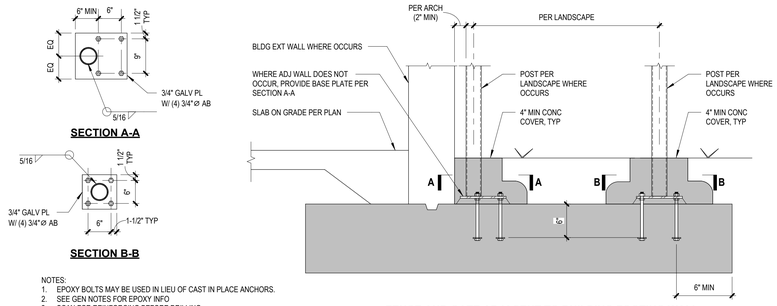
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
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100% DESIGN DEVELOPMENT	03/21/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	As indicated

MS HUB - BRACE FRAME ELEVATIONS

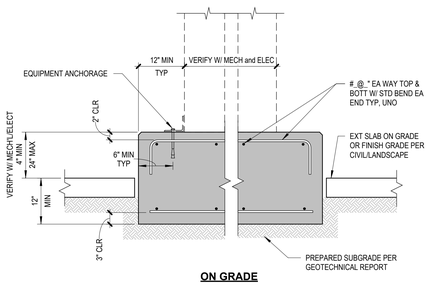
2-S1-3.02



NOTES:
1. EPOXY BOLTS MAY BE USED IN LIEU OF CAST IN PLACE ANCHORS.
2. SEE GEN NOTES FOR EPOXY INFO
3. SCAN FOR REINFORCING BEFORE DRILLING.
4. DRILLING INTO REINFORCING IS NOT ACCEPTABLE.

FENCE AND GATE ADJACENT TO BUILDING FOOTING WALL OR AT THE END OF A BUILDING FOOTING

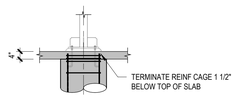
TYP FENCE POST NEXT TO BUILDING — N.T.S. — 16



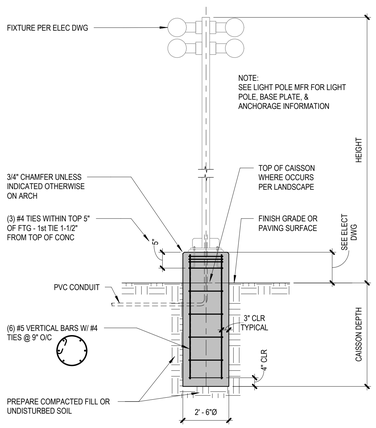
ON GRADE

NOTE:
SEE MECHANICAL and ELECTRICAL DRAWINGS FOR THE FOLLOWING:
1. LOCATION and DIMENSIONS OF BASES

TYPICAL CONCRETE BASE FOR EQUIPMENT — N.T.S. — 19



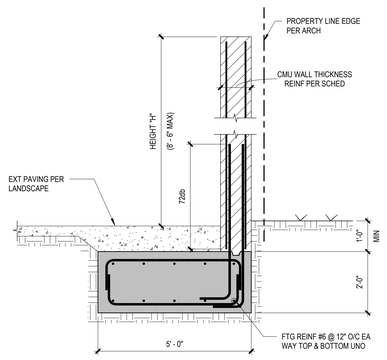
CONDITION AT LANDSCAPE SLAB



LIGHT POLE CAISSON SCHED	
HEIGHT	CAISSON DEPTH
18'-0" MAX	4'-0" MAX

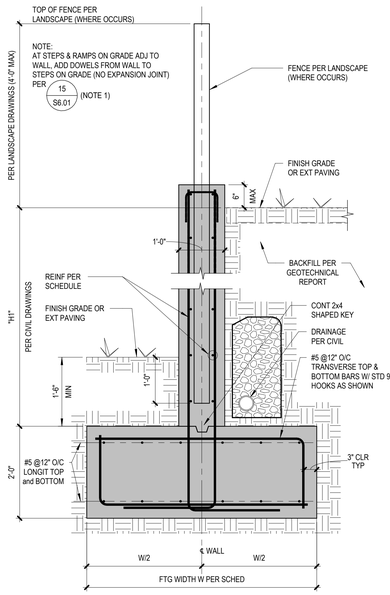
NOTES:
1. CONC f'c = 2500 AT 28 DAYS
2. USE NORMAL WEIGHT CONC AGGREGATES (1-1/2" MAX SIZE).
3. PROVIDE REINFORCING STL CONFORMING TO ASTM A615, GRADE 60.

TYP EVENT LIGHT POLE BASE SUPPORT CAISSON — N.T.S. — 17



TYPICAL MASONRY FREESTANDING WALL SECTION (OFFSET FOOTING) — N.T.S. — 13

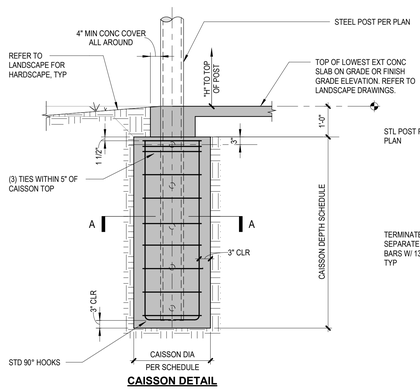
RETAINING WALL SCHED		
MAX "H1"	FTG WIDTH "W"	STEM REINF EA WAY, EA FACE
4'-0"	4'-0"	#5 @ 12" O/C
6'-0"	6'-0"	#5 @ 12" O/C
8'-0"	10'-0"	#5 @ 12" O/C



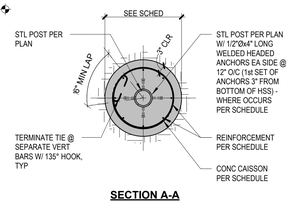
TYPICAL SECTION

NOTE:
PROVIDE OVER EXCAVATION /
SOIL PREP PER GEOTECH REQ'D

TYP CONC RETAINING WALL & SCHEDULE — N.T.S. — 10



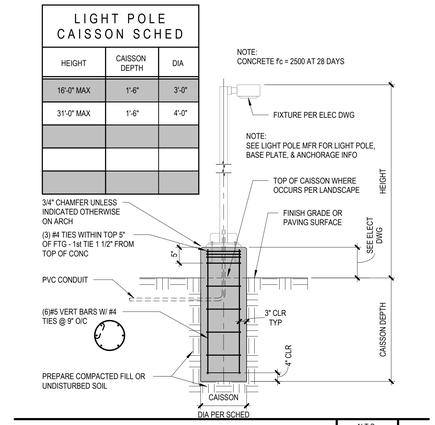
CAISSON DETAIL



SECTION A-A

CAISSON SCHEDULE								
DESIGNATION	DESCRIPTION	CAISSON					POST MAX HEIGHT "H"	REFERENCE
		DIA	DEPTH	VERTICAL BARS "Bv"	TIES	HEADED STUDS REQ'D		
CA1	AT HUB - CANOPY	4'-0"	9'-0"	(10) #9	#4 @ 12" O/C	AS PER SECTION A-A	20'-0"	-
CA2	AT HUB - CANOPY	2'-8"	12'-0"	(8) #8	#4 @ 12" O/C	AS PER SECTION A-A	20'-0"	-
CA3	AT HUB - CANOPY	5'-0"	7'-6"	(12) #10	#5 @ 12" O/C	AS PER SECTION A-A	20'-0"	-
CA4	AT HUB - CANOPY	4'-6"	8'-0"	(12) #9	#5 @ 12" O/C	AS PER SECTION A-A	20'-0"	-
CA5	AT HUB - CANOPY	5'-0"	10'-0"	(12) #10	#5 @ 12" O/C	AS PER SECTION A-A	20'-0"	-
CA6	AT HUB - CANOPY	4'-0"	8'-6"	(10) #9	#4 @ 12" O/C	AS PER SECTION A-A	20'-0"	-
CA7	AT SHADE PAVILION - CANOPY	2'-6"	4'-6"	(8) #6	#4 @ 9" O/C	AS PER SECTION A-A	12'-0"	-
1A	OUTDOOR BASKETBALL BACKSTOP	2'-0"	4'-0"	(4) #5	#3 @ 10" O/C	-	10'-0"	10/2-L5.04

TYP CAISSON SCHED. and DETAIL — N.T.S. — 01



TYP SITE LIGHT POLE DETAIL — N.T.S. — 04

FREE STANDING WALL SCHEDULE			
HEIGHT "H"	WIDTH "W"	CMU WALL THICKNESS	VERTICAL REINF
10'-0"	8'-0"	12"	#6 @ 16" O/C EA FACE

TYP MASONRY FREE STANDING WALL — N.T.S. — 02

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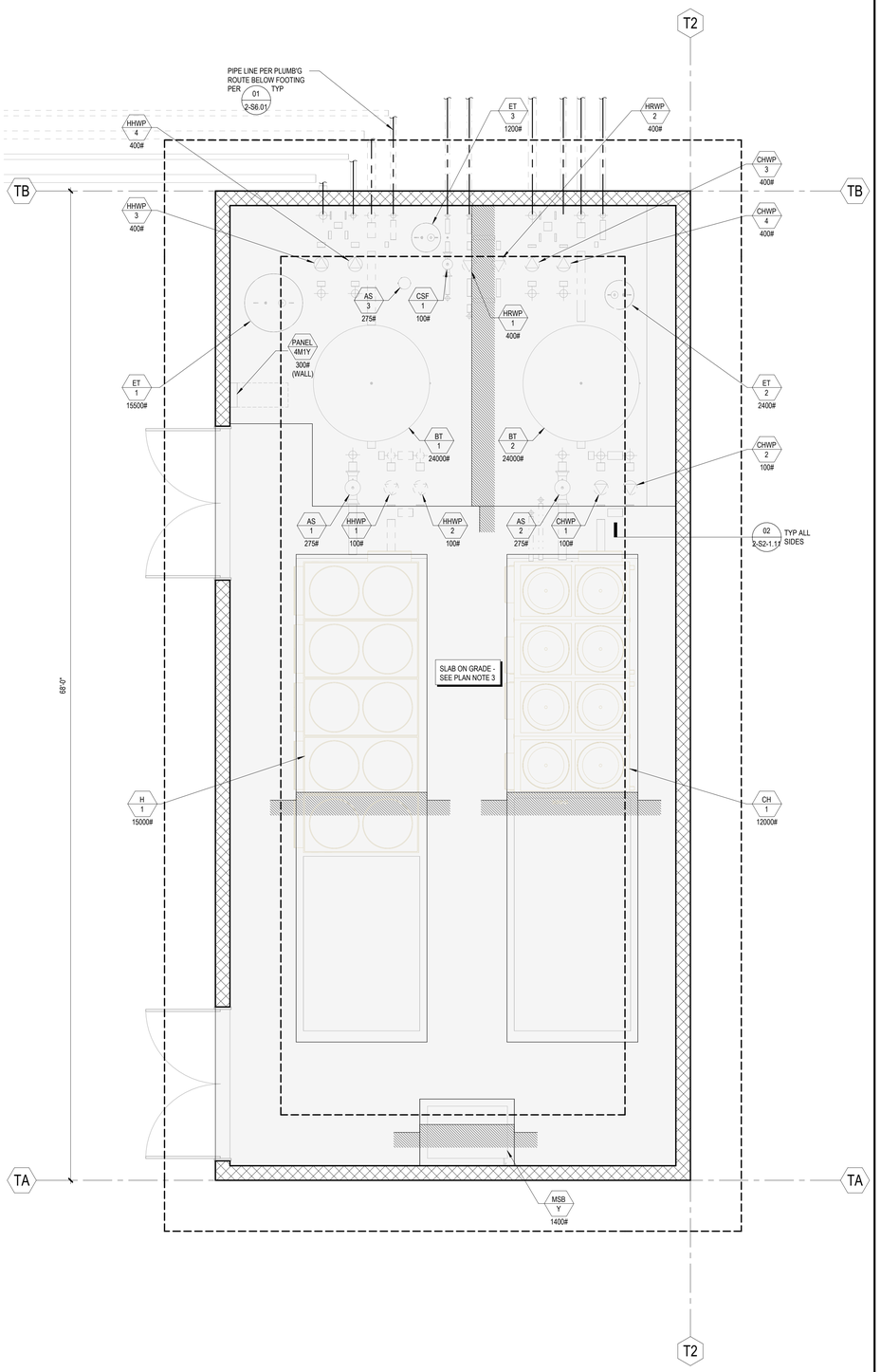
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90% DESIGN DEVELOPMENT	04/16/2025
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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	

SITE DETAILS

2-S1.11



TRUE NORTH PROJECT NORTH

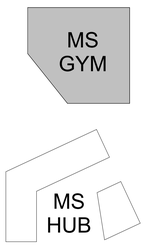
MECH ENCLOSURE - FOUNDATION PLAN | 1/4" = 1'-0" | 2-S2-1.01 | 05

PLAN NOTES

1. FOR GENERAL NOTES SEE 2-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. SEE LANDSCAPE, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF CONCRETE SLAB ON GRADE ELEVATIONS, DEPRESSIONS, SLOPES, OPENINGS, DRAINS, TRENCHES, PADS, and CURBS; SLAB EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
3. SITE SLAB-ON-GRADE: 6" THICK W/ #4 @ 18" O/C EACH WAY at CENTER OF SLAB OVER 15 MIL STEGO WRAP VAPOR BARRIER OR APPROVED EQ (LAP 6" AT JOINTS and TAPE SEAL - OMIT VAPOR BARRIER AT EXTERIOR AREAS) OVER AT LEAST 2 FEET OF NON EXPANSIVE (EI<20) AND PROPERLY COMPACTED FILL AS INDICATED IN THE GEOTECHNICAL REPORT. PROVIDE CONSTRUCTION JOINTS OR WEAKENED PLANE JOINTS IN SLAB-ON-GRADE EACH DIRECTION PER DETAIL 06/2-S6.01 - AT AREAS TO RECEIVE TILE, COORDINATE LOCATION OF JOINTS IN SLAB TO ALIGN WITH TILE EXPANSION JOINTS PER ARCH.
4. CENTER WALLS ON CONTINOUS FOOTING UNLESS NOTED OTHERWISE.
5. IN NO CASE SHALL PIPES, CONDUITS, OR SLEEVES BE EMBEDDED IN SPREAD OR CONTINUOUS FOOTINGS OR WITHIN TOP OR BOTTOM THIRD OF GRADE BEAMS UNLESS SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS. PIPES, CONDUITS OR SLEEVES MAY ONLY BE EMBEDDED WITHIN THE MIDDLE THIRD OF GRADE BEAMS WHERE NOTED ON STRUCTURAL PLANS AND DETAILED IN THE STRUCTURAL DRAWINGS.
6. WHERE CONTINUOUS FOOTINGS and SPREAD FOOTINGS INTERSECT, EXCAVATE TO BOTTOM OF DEEPER FOOTING and CONTINUE ALL BARS THRU INTERSECTION. PLACE BARS AT CONTINUOUS FOOTING CORNERS and INTERSECTIONS PER 05/S6.01. WHERE CONTINUOUS FOOTINGS TERMINATE AT SIDES OF GRADE BEAMS OR SPREAD FOOTINGS, EXTEND LONGITUDINAL BARS TO FAR SIDE OF GRADE BEAM OR SPREAD FOOTING and TERMINATE W/ STANDARD 90° HOOK.
7. LOCATE TOP OF SPREAD FOOTINGS, COMBINED FOOTINGS, and CONTINUOUS FOOTINGS 1'-4" BELOW LOWEST ADJACENT SLAB OR GRADE ELEVATION UNLESS NOTED OTHERWISE.
8. GEOTECHNICAL OBSERVATION / COMPACTION REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO FOOTING INSPECTION.
9. COORDINATE EXTENT OF CONCRETE PADS SUPPORTING EQUIPMENT WITH MANUFACTURER AND WITH EDGE DISTANCE REQUIREMENTS PER EQUIPMENT ANCHORAGE DETAILS IN 2-S6.9X SERIES.
10. CONSTRUCT LIGHT GUAGE METAL STUD WALLS PER 01/S6.71A AT EXTERIOR CONDITION AND 01/2-S6.71B AT INTERIOR CONDITION UNLESS NOTED OTHERWISE.
11. SEE CIVIL DRAWINGS FOR APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES. PROTECT OR RELOCATE EXISTING UTILITIES AS REQUIRED DURING FOOTING EXCAVATION OR CONSTRUCTION. DO NOT SURCHARGE EXISTING UTILITIES, SEE 01/2-S6.01 FOR ADDITIONAL CLARIFICATION.

LEGEND

- CFX — INDICATES CONTINUOUS FOOTING MARK - SEE SCHEDULE ON THIS SHEET
- T.O.F — INDICATES TOP OF FOOTING ELEVATION - IF NO ELEVATION INDICATED, LOCATE TOP OF CONT. OR MAT FOOTING PER NOTE 7
- S - - - - - S — INDICATES STEP IN CONTINUOUS FOOTING OR GRADE BEAM - SEE 09/2-S6.01. LOCATION OF FOOTING STEPS SHOWN ON PLAN IS APPROXIMATE, UNO. LOCATION OF STEPS IS TO BE COORDINATED BY CONTRACTOR WITH UTILITY LOCATIONS AND FINISH GRADES.
- INDICATES CHANGE IN ELEVATION AT SLAB ON GRADE - SEE DETAIL 12/2-S6.02 UNLESS DETAILED OTHERWISE
- OR — INDICATES CONCRETE CURB OR HOUSEKEEPING PAD - CONSTRUCT PER 06D/2-S6.01 UNO
- +X'-X" — INDICATES ELEVATION OF TOP OF STRUCTURAL CONCRETE SLAB ON GRADE (TOC) - SEE ARCHITECTURAL FOR TOC IF NO ELEVATION INDICATED
- INDICATES NON-BEARING CMU WALL
- INDICATES 12" THICK CONCRETE BLOCK SHEAR WALL SOLID GROUTED - FOR REINFORCING SEE 02/2-S1.01
- INDICATES MEP EQUIPMENT TAG.
  FOR FLOOR MOUNTED UNIT ANCHORAGE INF AND CONCRETE PAD REQUIREMENT SEE 01/2-S6.91 UNO
  FOR WALL MOUNTED UNIT CONNECTION INF REFER TO LANDSCAPE, MECHANICAL, ELECTRICAL, PLUMBING, ETC. FOR EXACT LOACTION OF EQUIPMENT. SEE 09/2-S6.94 UNO
  XX# (WALL) — INDICATES MAX. EQUIPMENT WEIGHT INCLUDING ALL ACCESSORIES
  INDICATES WALL MOUNTED UNIT



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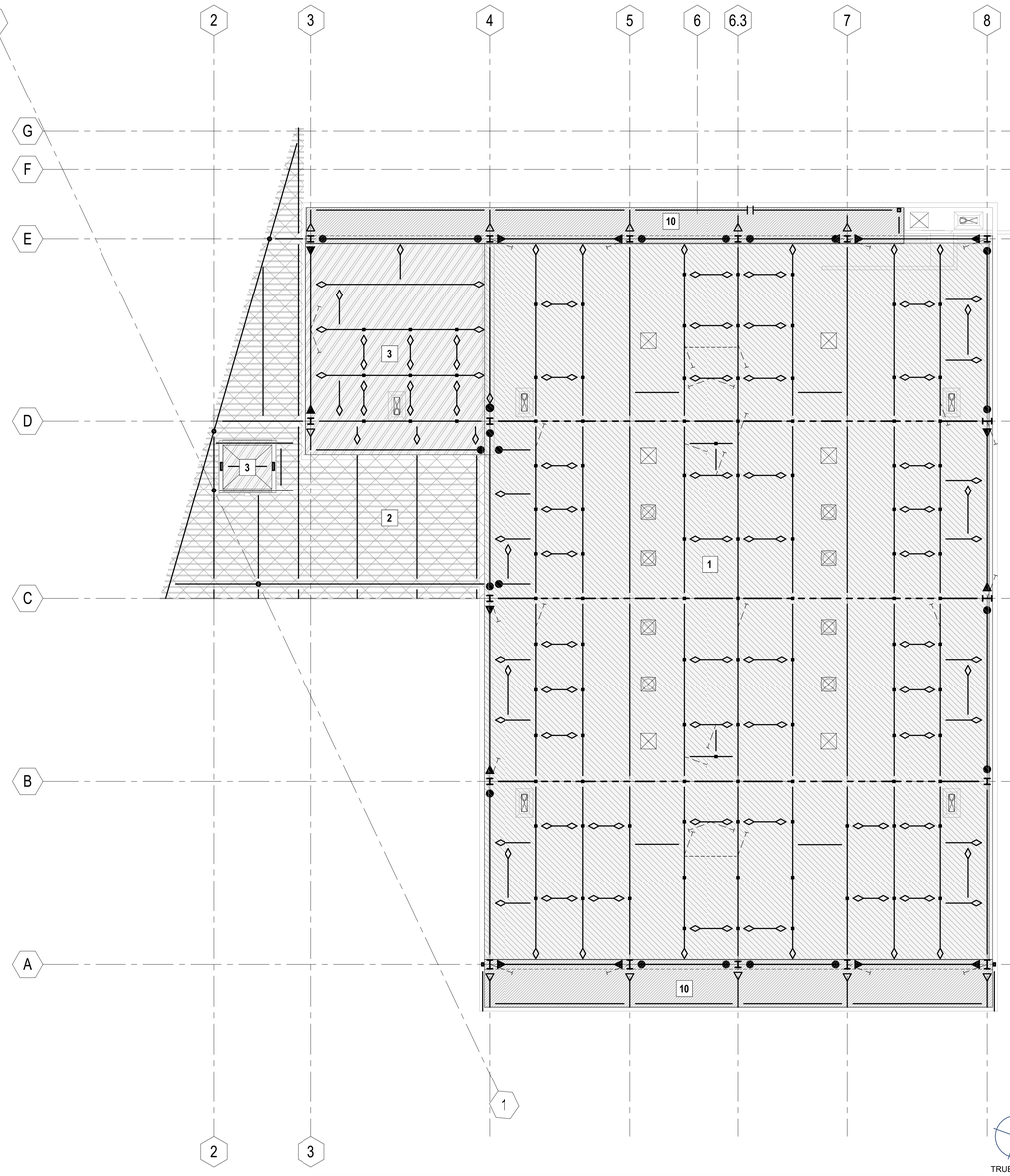
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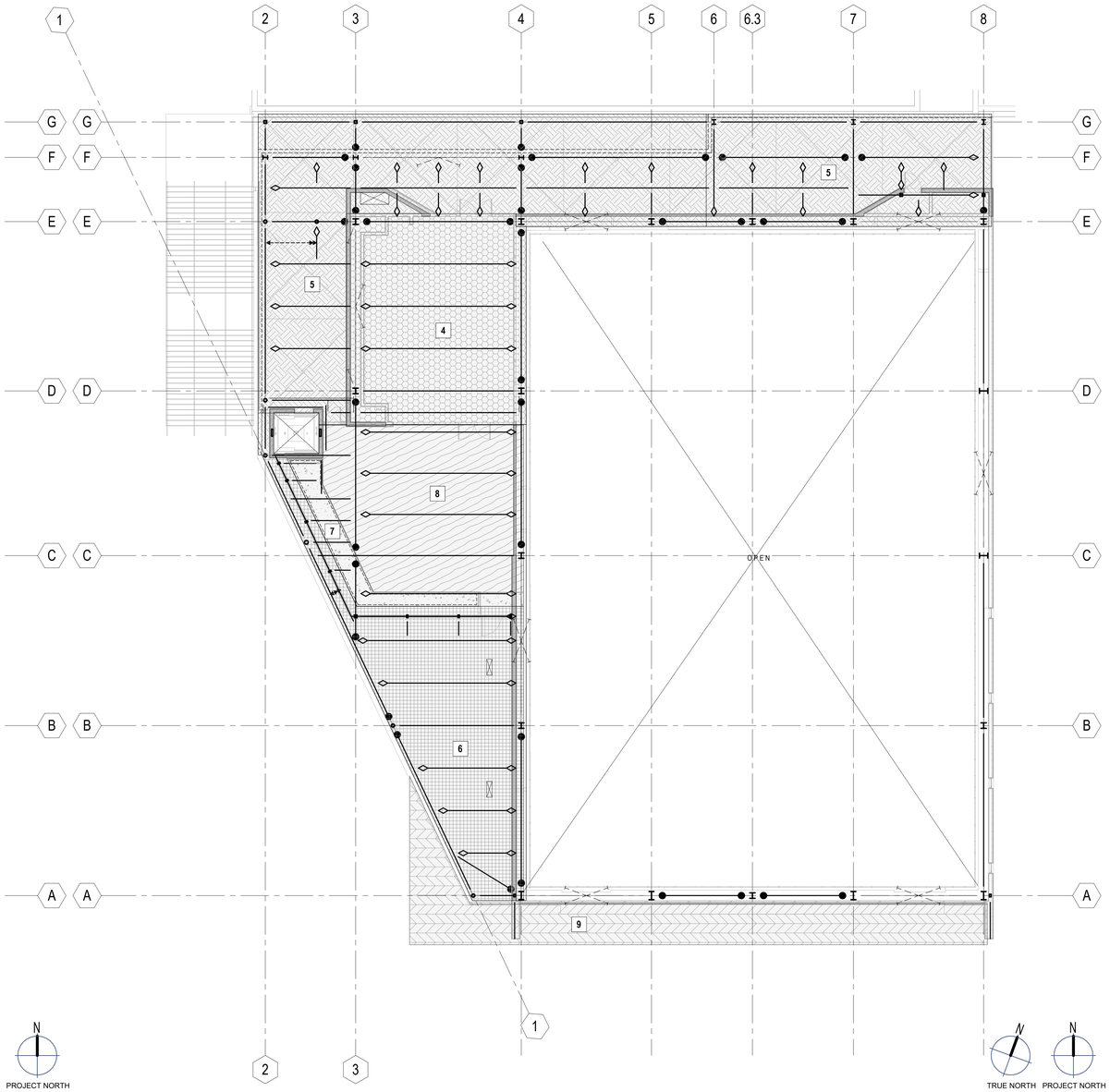
Job Number	31722
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MECH ENCLOSURE - FOUNDATION PLAN

2-S2-1.01



GYM - ROOF LOADING DIAGRAM | 3/32" = 1'-0" | 2-S2-1.21 | 14



GYM - LEVEL 2 LOADING DIAGRAM | 3/32" = 1'-0" | 2-S2-1.21 | 02

PLAN NOTES AND LEGEND

1. FOR PLAN NOTES AND LEGEND SEE 2-S2-2.0X SERIES.

LOADING DIAGRAM SCHEDULE

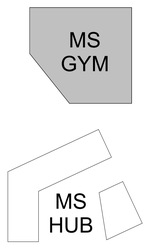
MARK	DESCRIPTION	SDL [a]	LL
6	GYM - GRAVEL ZONE	136.2 psf [b]	20 psf
7	GYM - PLANTER ZONE	410.2 psf [b]	20 psf
8	GYM - FITNESS DECK	33.2 psf [b]	100 psf
9	ENTRANCE CANOPY	12.1 psf	20 psf (ROOF LIVE LOAD)
10	GYM HIGH ROOF	13.7 psf	20 psf (ROOF LIVE LOAD)

LOADING DIAGRAM SCHEDULE

MARK	DESCRIPTION	SDL [a]	LL
1	TYP GYM ROOF	23.9 psf	20 psf (ROOF LIVE LOAD)
2	GYM ROOF - TRELLIS	9.0 psf	20 psf (ROOF LIVE LOAD)
3	GYM ROOF - FITNESS STUDIO	27.1 psf	20 psf (ROOF LIVE LOAD)
4	GYM - FITNESS STUDIO	15.7 psf [b]	100 psf
5	GYM - ARCH TOPPING	51.1 psf [b]	100 psf

NOTES:
[a] SDL = SUPERIMPOSED DEAD LOAD, (SELF-WEIGHT OF STRUCTURAL DECK & FRAMING NOT INCLUDED.)

[b] THE WEIGHT OF THE COMPOSITE METAL DECK, ALONG WITH AN ADDITIONAL 8 PSF TO ACCOUNT FOR THE OVERFLOW POUR, HAS BEEN INCLUDED IN THE DESIGN. THESE LOADS ARE EXCLUDED FROM THE SUPERIMPOSED DEAD LOAD (SDL) VALUES NOTED HEREIN.



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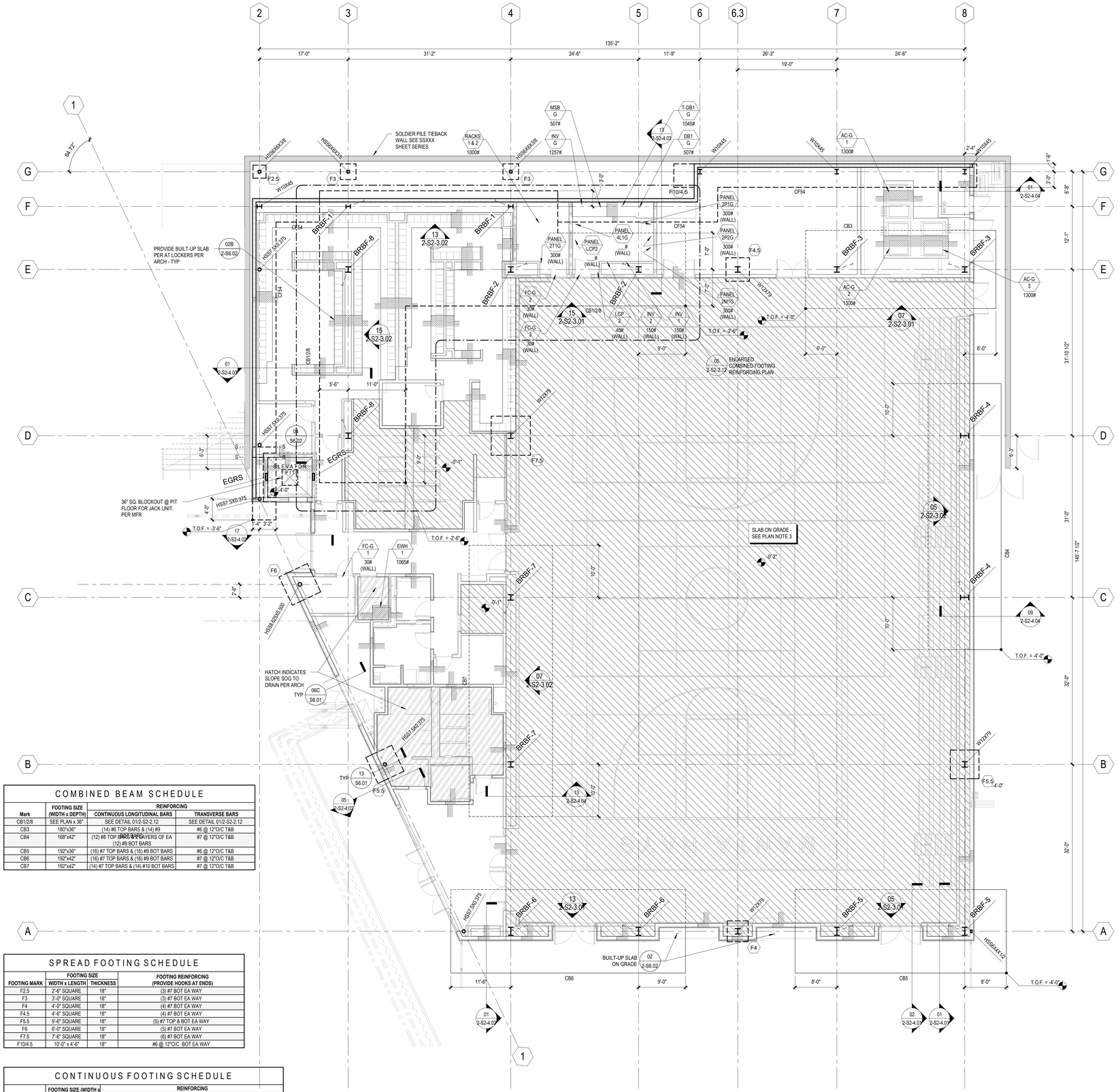
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GYM - LOADING DIAGRAMS

2-S2-1.21



COMBINED BEAM SCHEDULE

Mark	FOOTING SIZE (WIDTH x DEPTH)	REINFORCING	
		CONTINUOUS LONGITUDINAL BARS	TRANSVERSE BARS
CB1/2/8	SEE PLAN x 36"	SEE DETAIL 01/2-S3-2.12	SEE DETAIL 01/2-S2-2.12
CB3	180"x36"	(14) #6 TOP BARS & (14) #9 BOT BARS	#5 @ 12"O/C T&B
CB4	168"x42"	(12) #8 TOP BARS IN (3) LAYERS OF EA (12) #9 BOT BARS	#7 @ 12"O/C T&B
CB5	192"x36"	(16) #7 TOP BARS & (16) #9 BOT BARS	#6 @ 12"O/C T&B
CB6	192"x42"	(16) #7 TOP BARS & (16) #9 BOT BARS	#7 @ 12"O/C T&B
CB7	192"x42"	(14) #7 TOP BARS & (14) #10 BOT BARS	#7 @ 12"O/C T&B

SPREAD FOOTING SCHEDULE

FOOTING MARK	FOOTING SIZE		FOOTING REINFORCING (PROVIDE HOOKS AT ENDS)
	WIDTH x LENGTH	THICKNESS	
F2.5	2'-6" SQUARE	18"	(3) #7 BOT EA WAY
F3	3'-0" SQUARE	18"	(3) #7 BOT EA WAY
F4	4'-0" SQUARE	18"	(4) #7 BOT EA WAY
F4.5	4'-6" SQUARE	18"	(4) #7 BOT EA WAY
F5.5	5'-6" SQUARE	18"	(5) #7 TOP & BOT EA WAY
F6	6'-0" SQUARE	18"	(5) #7 BOT EA WAY
F7.5	7'-6" SQUARE	18"	(6) #7 BOT EA WAY
F10/4.5	10'-0" x 4'-6"	18"	#6 @ 12"O/C BOT EA WAY

CONTINUOUS FOOTING SCHEDULE

Mark	FOOTING SIZE (WIDTH x DEPTH)	REINFORCING	
		CONTINUOUS LONGITUDINAL BARS	TRANSVERSE BARS
CF54	54"x18"	(5) #6 BOT	#6 @ 12"O/C BOT

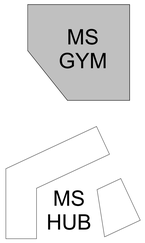
NOTES:
1. TERMINATE ALL FOOTINGS LONGITUDINAL REINF. BARS W/ STANDARD 90° BENDS AT ENDS, UNLESS NOTED OTHERWISE.
2. ALL COMBINED AND SPREAD FOOTINGS ARE TO BE FOUNDED ON APPROVED COMPACTED FILL AS PER THE GEOTECHNICAL REPORT.
3. REFER TO DETAIL 01/2-S6.02 FOR COMBINED FOOTING BAR LAYOUT, SPLICE LOCATION, AND DOWELS TO SLAB.

PLAN NOTES

1. FOR GENERAL NOTES SEE 2-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 2-S6 SERIES SHEETS.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF CONCRETE SLAB ON GRADE ELEVATIONS, DEPRESSIONS, SLOPES, OPENINGS, DRAINS, TRENCHES, PADS, and CURBS; SLAB EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
3. BUILDING SLAB-ON-GRADE- 5" THICK W/ #4 @ 18" O/C EACH WAY at CENTER OF SLAB OVER 15 MIL STEGO WRAP VAPOR BARRIER OR APPROVED EQ (LAP 6" AT JOINTS and TAPE SEAL - OMIT VAPOR BARRIER AT EXTERIOR AREAS) OVER AT LEAST 2 FEET OF NON EXPANSIVE (EI<20) AND PROPERLY COMPACTED FILL AS INDICATED IN THE GEOTECHNICAL REPORT. PROVIDE CONSTRUCTION JOINTS OR WEAKENED PLANE JOINTS IN SLAB-ON-GRADE EACH DIRECTION PER DETAIL 06/2-S6.01 - AT AREAS TO RECEIVE TILE, COORDINATE LOCATION OF JOINTS IN SLAB TO ALIGN WITH TILE EXPANSION JOINTS PER ARCH.
4. CENTER COLUMNS ON NUMBERED GRID LINES UNLESS NOTED OTHERWISE. CENTER SPREAD FOOTINGS, and COMBINED FOOTINGS ON COLUMNS UNLESS NOTED OTHERWISE.
5. IN NO CASE SHALL PIPES, CONDUITS, OR SLEEVES BE EMBEDDED IN SPREAD OR CONTINUOUS FOOTINGS OR WITHIN TOP OR BOTTOM THIRD OF GRADE BEAMS UNLESS SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS. PIPES, CONDUITS OR SLEEVES MAY ONLY BE EMBEDDED WITHIN THE MIDDLE THIRD OF GRADE BEAMS WHERE NOTED ON STRUCTURAL PLANS AND DETAILED IN THE STRUCTURAL DRAWINGS.
6. WHERE CONTINUOUS FOOTINGS and SPREAD FOOTINGS INTERSECT, EXCAVATE TO BOTTOM OF DEEPER FOOTING and CONTINUE ALL BARS THRU INTERSECTION. PLACE BARS AT CONTINUOUS FOOTING CORNERS and INTERSECTIONS PER 05/S6.01. WHERE CONTINUOUS FOOTINGS TERMINATE AT SIDES OF GRADE BEAMS OR SPREAD FOOTINGS, EXTEND LONGITUDINAL BARS TO FAR SIDE OF GRADE BEAM OR SPREAD FOOTING and TERMINATE W/ STANDARD 90° HOOK.
7. LOCATE TOP OF SPREAD FOOTINGS, COMBINED FOOTINGS, and CONTINUOUS FOOTINGS 1'-6" BELOW LOWEST ADJACENT SLAB OR GRADE ELEVATION UNLESS NOTED OTHERWISE.
8. GEOTECHNICAL OBSERVATION / COMPACTION REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO FOOTING INSPECTION.
9. COORDINATE EXTENT OF CONCRETE PADS SUPPORTING EQUIPMENT WITH MANUFACTURER AND WITH EDGE DISTANCE REQUIREMENTS PER EQUIPMENT ANCHORAGE DETAILS IN 2-S6.9X SERIES.
10. CONSTRUCT LIGHT GUAGE METAL STUD WALLS PER 01/2-S6.71A AT EXTERIOR CONDITION AND 01/2-S6.71B AT INTERIOR CONDITION UNLESS NOTED OTHERWISE.
11. SEE CIVIL DRAWINGS FOR APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES. PROTECT OR RELOCATE EXISTING UTILITIES AS REQUIRED DURING FOOTING EXCAVATION OR CONSTRUCTION. DO NOT SURCHARGE EXISTING UTILITIES, SEE 01/2-S6.01 FOR ADDITIONAL CLARIFICATION.

LEGEND

- WXXX / HSSXXXXXX — INDICATES NON-FRAME COLUMN ABOVE FOR BASE PLATE INFO SEE 09/2-S6.11 UNO
- BRBF — INDICATES BRACED FRAME COLUMN - BRACED FRAME ELEVATIONS and SIZE ON SX-3.0X SERIES SHEETS
- FX — INDICATES SPREAD FOOTING MARK - SEE SCHEDULE ON THIS SHEET and 13/2-S6.01
- XX.XX' — INDICATES TOP OF SPREAD FOOTING ELEVATION - IF NO ELEVATION INDICATED, LOCATE TOP OF SPREAD FOOTING PER NOTE 7
- CFX — INDICATES CONTINUOUS FOOTING MARK - SEE SCHEDULE ON THIS SHEET
- T.O.F — INDICATES TOP OF FOOTING ELEVATION - IF NO ELEVATION INDICATED, LOCATE TOP OF CONT. OR MAT FOOTING PER NOTE 7
- S - - - - - S — NDICATES STEP IN CONTINUOUS FOOTING OR GRADE BEAM - SEE 09/2-S6.01. LOCATION OF FOOTING STEPS SHOWN ON PLAN IS APPROXIMATE, UNO. LOCATION OF STEPS IS TO BE COORDINATED BY CONTRACTOR WITH UTILITY LOCATIONS AND FINISH GRADES.
- INDICATES CHANGE IN ELEVATION AT SLAB ON GRADE - SEE DETAIL 12/2-S6.02 UNLESS DETAILED OTHERWISE
- OR — INDICATES CONCRETE CURB OR HOUSEKEEPING PAD - CONSTRUCT PER 06D/2-S6.01 UNO
- +X'-X" — INDICATES ELEVATION OF TOP OF STRUCTURAL CONCRETE SLAB ON GRADE (TOC) - SEE ARCHITECTURAL FOR TOC IF NO ELEVATION INDICATED
- EGRS — INDICATES ELEVATOR GUIDE RAIL SUPPORT - PROVIDE HSS18X6X3/8 AT EACH GUIDE RAIL. COORDINATE LOCATION WITH ELEVATOR MANUFACTURER. SEE 01/2-S6.14
- INDICATES 8" THK NON-BEARING CMU WALL . . REINFORCE AS PER DETAIL 01/2-S6.61.
- INDICATES LIGHT GAUGE METAL STUD FRAMING - SEE SCHEDULE ON 01/2-S6.71A AND 01/2-S6.71B
- INDICATES DEPRESSED SLAB TO RECIEVE ARCHITECTURAL TOPPING. SEE ARCH FOR THICKNESS AND FINISH.
- XXX (WALL) — INDICATES MEP EQUIPMENT TAG. REFER TO ARCH, MECH, ELECT, PLUMB, ETC FOR EXACT LOCATION OF EQUIPMENT
  FOR FLOOR MOUNTED UNIT ANCHORAGE INF AND CONCRETE PAD REQUIREMENT SEE 01/2-S6.91 UNO
  FOR WALL MOUNTED UNIT CONNECTION INF REFER TO LANDSCAPE, MECHANICAL, ELECTRICAL, PLUMBING, ETC. FOR EXACT LOACTION OF EQUIPMENT. SEE 09/2-S6.94 UNO
  XXlb — INDICATES MAX. EQUIPMENT WEIGHT INCLUDING ALL ACCESSORIES
  INDICATES WALL MOUNTED UNIT



GYM - FOUNDATION PLAN | 1/8" = 1'-0" | 2-S2-2.01 | 05

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REGISTERED PROFESSIONAL ENGINEER — NO. S5493 — 09/27 — LAKSHMANA A. PRASAD — STRUCTURAL — STATE OF CALIFORNIA

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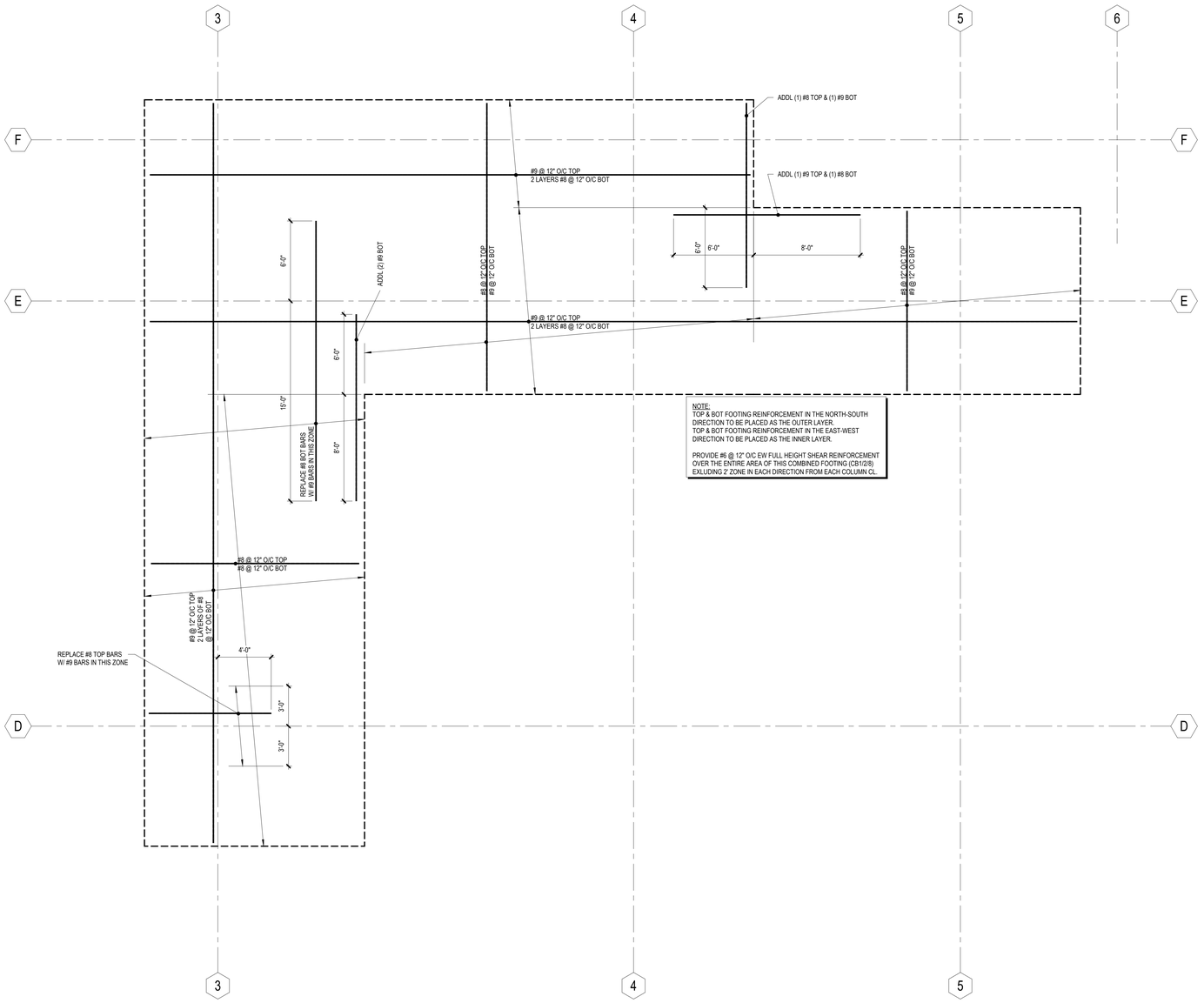
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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

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GYM - FOUNDATION PLAN

2-S2-2.01





TRUE NORTH PROJECT NORTH

GYM - FOUNDATION PLAN - Callout 1 | 1/4" = 1'-0" | 2-S2-2.12 | 05

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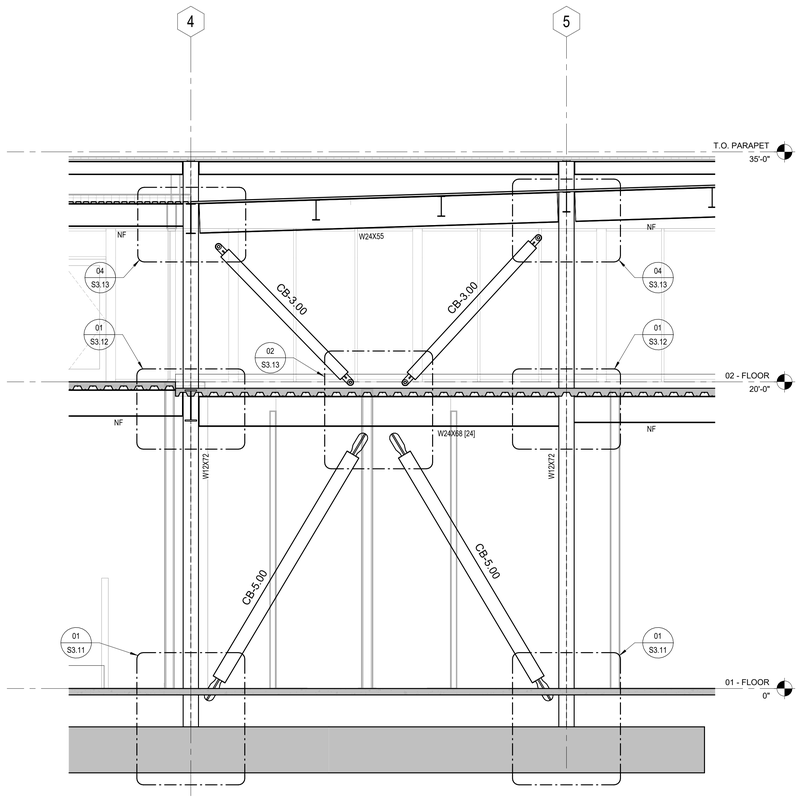
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50% CONSTRUCTION DOCS	06/27/2025
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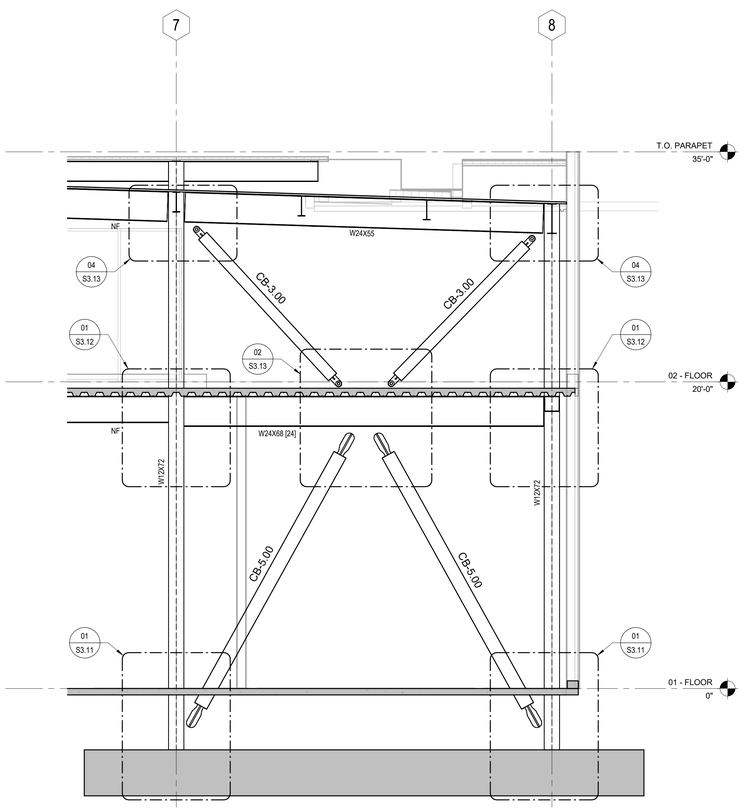
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GYM - ENLARGED
FOUNDATION PLAN

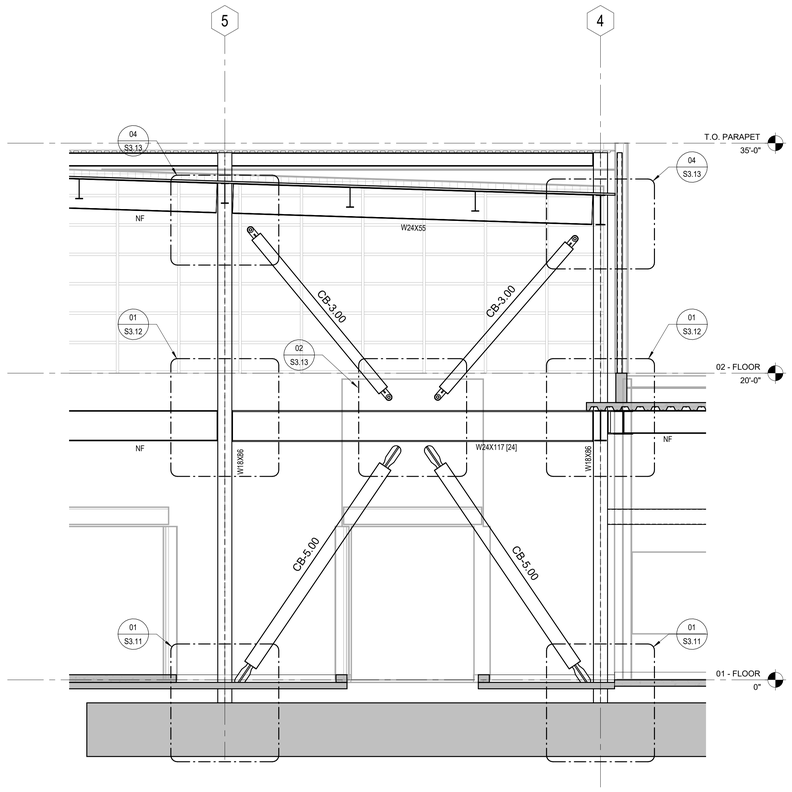
2-S2-2.12



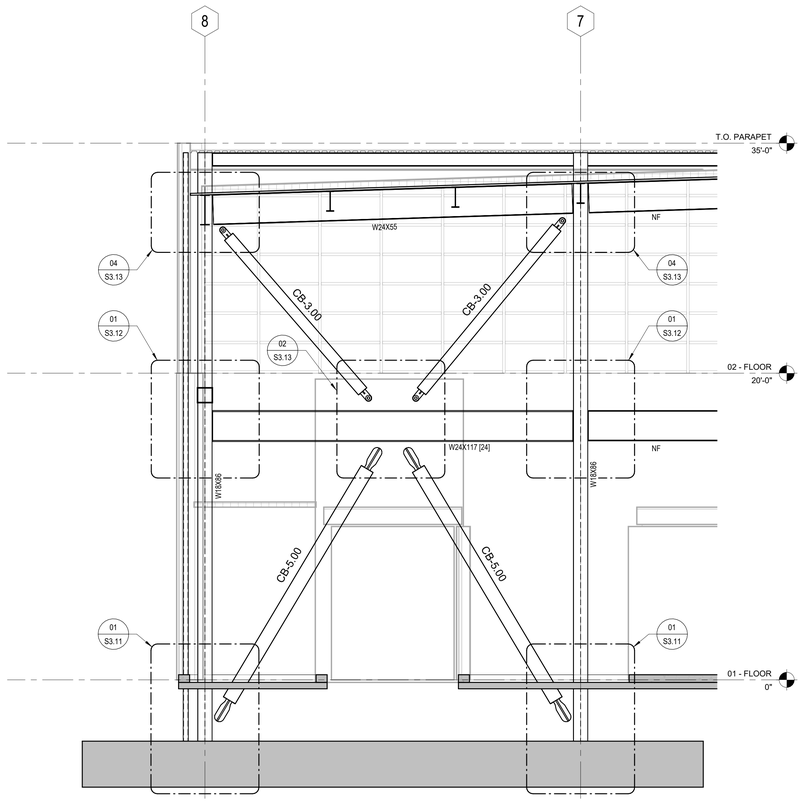
GYM - BRACE FRAME ELEVATION ALONG GRID E (BRBF-2) | 1/4" = 1'-0" | 2-S2-3.01 | 15



GYM - BRACE FRAME ELEVATION ALONG GRID E (BRBF-3) | 1/4" = 1'-0" | 2-S2-3.01 | 07



GYM - BRACE FRAME ELEVATION ALONG GRID A (BRBF-6) | 1/4" = 1'-0" | 2-S2-3.01 | 13



GYM - BRACE FRAME ELEVATION - ALONG GRID A (BRBF-5) | 1/4" = 1'-0" | 2-S2-3.01 | 05

BRACE FRAME ELEVATION NOTES

1. FOR GENERAL NOTES SEE S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE S6 SERIES SHEETS.
2. BRBF CONNECTIONS AND LENGTHS SHOWN IN ELEVATIONS ARE FOR REFERENCE ONLY. COORDINATE SPECIFICS OF BRACE AND CONNECTION DETAILING / GEOMETRY WITH INFORMATION SHOWN WITHIN COREBRACE SCHEDULE AND DETAILING IN S3.1X, S3.2X and S6 SERIES DETAILS.
3. CB-X.XX INDICATES BUCKLING RESTRAINED BRACE FRAME. SEE S3.2X SHEET SERIES FOR ALL REQUIREMENTS.
4. THE FOLLOWING WELDS ARE CLASSIFIED AS DEMAND CRITICAL (SEE WELDING REQUIREMENTS UNDER THE STRUCTURAL STEEL SECTION OF THE GENERAL NOTES)
   A. GROOVE WELDS AT COLUMN SPLICES.
   B. WELDS AT COLUMN to BASE PLATE CONNECTIONS.
   C. WELDS at BEAM TO COLUMN CONNECTIONS.
5. PROVIDE ROUND PIPE CASING TYPICAL WITH BOLTED CONNECTION EA END TYPICAL UNO:
   A. BRBF-2, -3, -4, -5, -6, and -7 ARE TO BE PROVIDED WITH PINNED CONNECTION EA END AT THE SECOND STORY ONLY.
   B. AT BRBF -7 and -8 PROVIDE 10IN SQUARE CASING FOR THE BRACE AT THE FIRST FLOOR ONLY.
6. BRBF-2, -3, -4, -5, -6, and -7 ARE EXPOSED AT THE SECOND STORY ONLY.
7. SEE S3.11 FOR BRBF BASE PLATE DETAIL AND SCHEDULE.
8. FOR COLUMN ORIENTATION SEE PLANS.
9. ADD ANGLES AT COLUMN FOR SUPPORT OF METAL DECKING PER 15/2-S6.12 UNLESS NOTED OTHERWISE.
10. NO PENETRATION IN STRUCTURAL STEEL IS PERMITTED UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
11. SEE DETAIL 4/2-S3.23 FOR EXPANDED POLYSTYRENE REQUIREMENT AROUND BRB CASING BURIED IN CONCRETE.

BRACE FRAME ELEVATION LEGEND

CB-X.XX	INDICATES BUCKLING RESTRAINED BRACED FRAME. SEE 2-S3.2X FOR ALL REQUIREMENTS.
NF	INDICATES NON-FRAME FRAMING MEMBER - SEE PLANS FOR MEMBER SIZE AND CONNECTION DETAILS.

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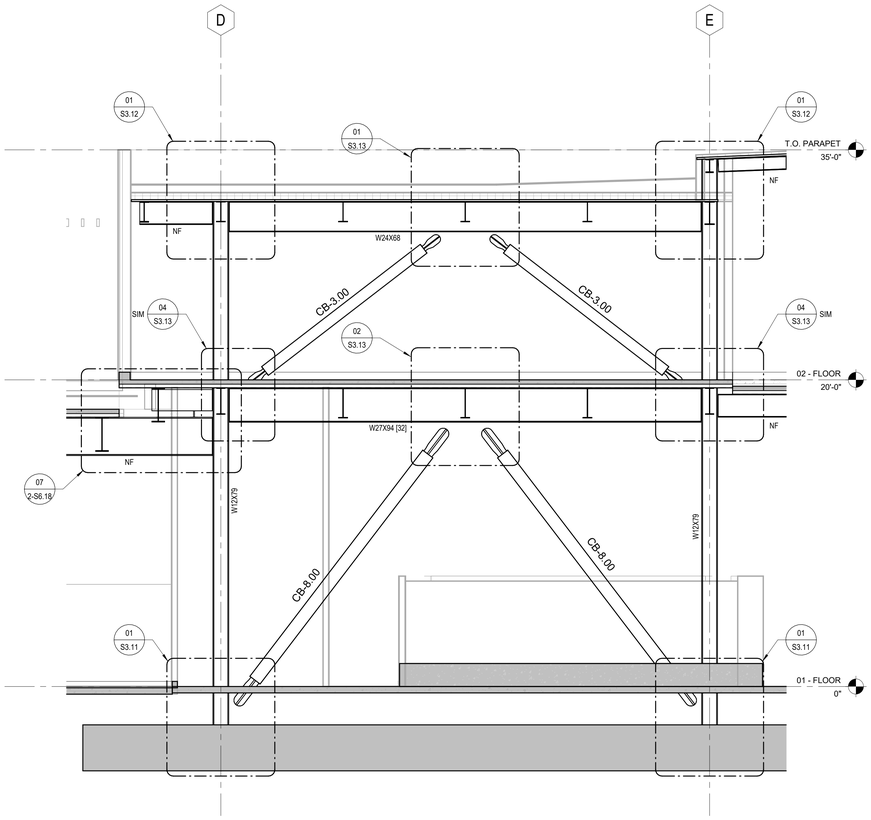
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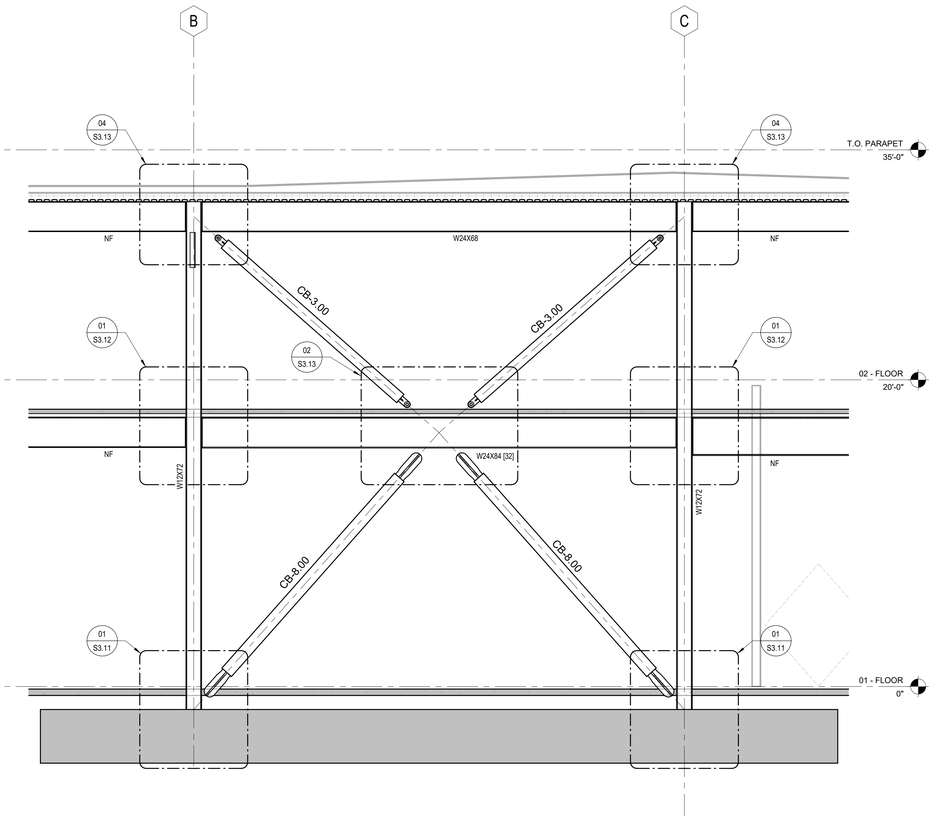
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GYM - BRACE FRAME ELEVATIONS

2-S2-3.01



GYM - BRACE FRAME ELEVATION ALONG GRID 3 (BRBF-8) | 1/4" = 1'-0" 2-S2-3.02 | 15



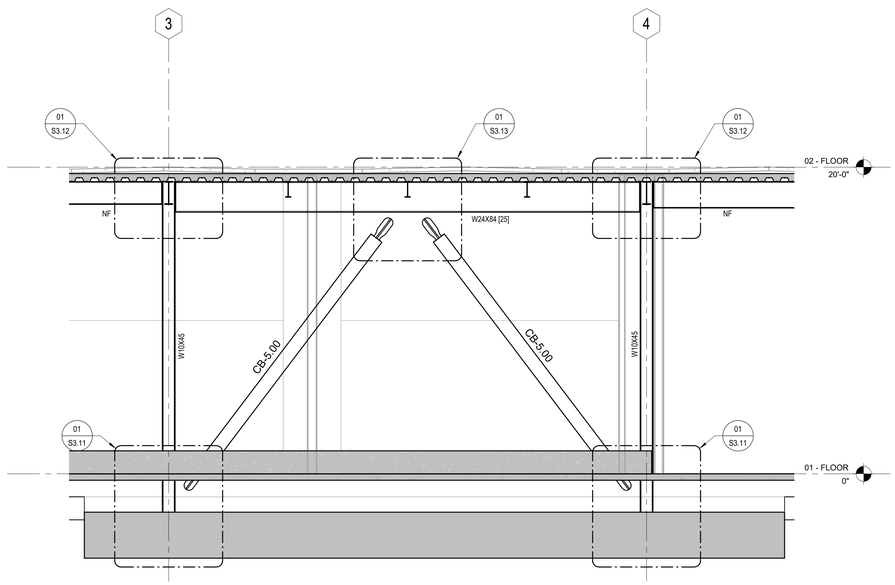
GYM - BRACE FRAME ELEVATION ALONG GRID 4 (BRBF-7) | 1/4" = 1'-0" 2-S2-3.02 | 07

BRACE FRAME ELEVATION NOTES

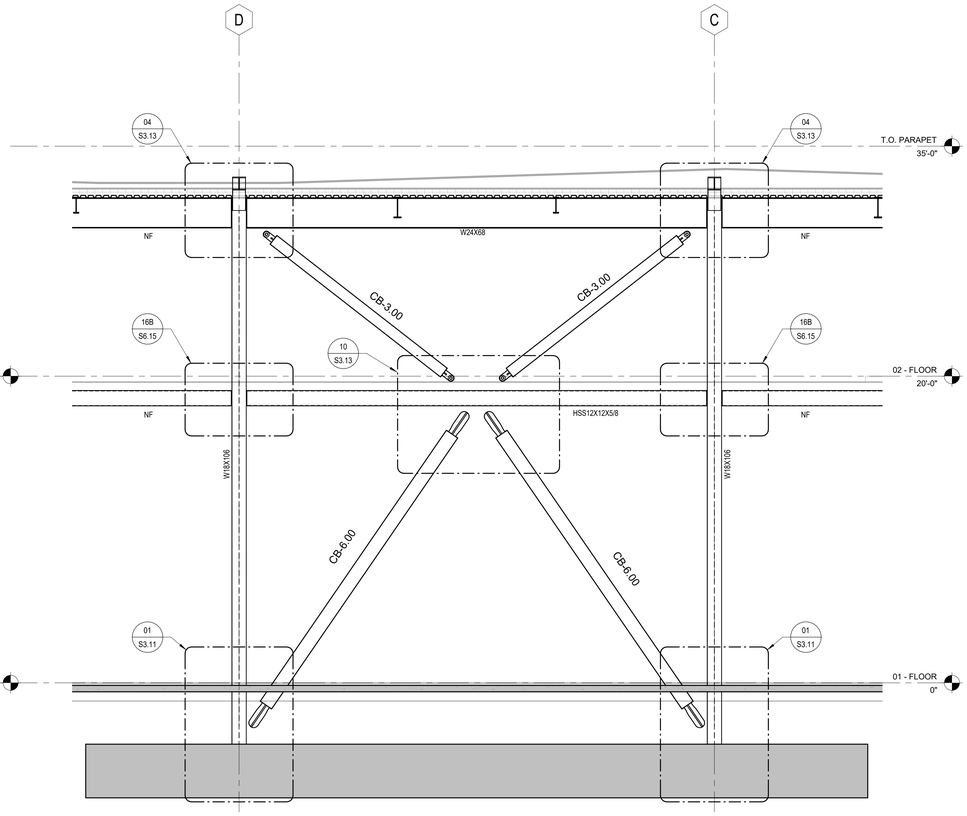
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3. CB-X.XX INDICATES BUCKLING RESTRAINED BRACE FRAME. SEE S3.2X SHEET SERIES FOR ALL REQUIREMENTS.
4. THE FOLLOWING WELDS ARE CLASSIFIED AS DEMAND CRITICAL (SEE WELDING REQUIREMENTS UNDER THE STRUCTURAL STEEL SECTION OF THE GENERAL NOTES)
   A. GROOVE WELDS AT COLUMN SPLICES.
   B. WELDS AT COLUMN to BASE PLATE CONNECTIONS.
   C. WELDS at BEAM TO COLUMN CONNECTIONS.
5. PROVIDE ROUND PIPE CASING TYPICAL WITH BOLTED CONNECTION EA END TYPICAL UNO:
   A. BRBF-2, -3, -4, -5, -6, and -7 ARE TO BE PROVIDED WITH PINNED CONNECTION EA END AT THE SECOND STORY ONLY.
   B. AT BRBF -7 and -8 PROVIDE 10IN SQUARE CASING FOR THE BRACE AT THE FIRST FLOOR ONLY.
6. BRBF-2, -3, -4, -5, -6, and -7 ARE EXPOSED AT THE SECOND STORY ONLY.
7. SEE S3.11 FOR BRBF BASE PLATE DETAIL AND SCHEDULE.
8. FOR COLUMN ORIENTATION SEE PLANS.
9. ADD ANGLES AT COLUMN FOR SUPPORT OF METAL DECKING PER 15/2-S6.12 UNLESS NOTED OTHERWISE.
10. NO PENETRATION IN STRUCTURAL STEEL IS PERMITTED UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
11. SEE DETAIL 4/2-S3.23 FOR EXPANDED POLYSTYRENE REQUIREMENT AROUND BRB CASING BURIED IN CONCRETE.

BRACE FRAME ELEVATION LEGEND

CB-X.XX	INDICATES BUCKLING RESTRAINED BRACED FRAME. SEE 2-S3.2X FOR ALL REQUIREMENTS.
NF	INDICATES NON-FRAME FRAMING MEMBER - SEE PLANS FOR MEMBER SIZE AND CONNECTION DETAILS.



GYM - BRACE FRAME ELEVATION ALONG GRID F (BRBF-1) | 1/4" = 1'-0" 2-S2-3.02 | 13



GYM - BRACE FRAME ELEVATION ALONG GRID 8 (BRBF-4) | 1/4" = 1'-0" 2-S2-3.02 | 05

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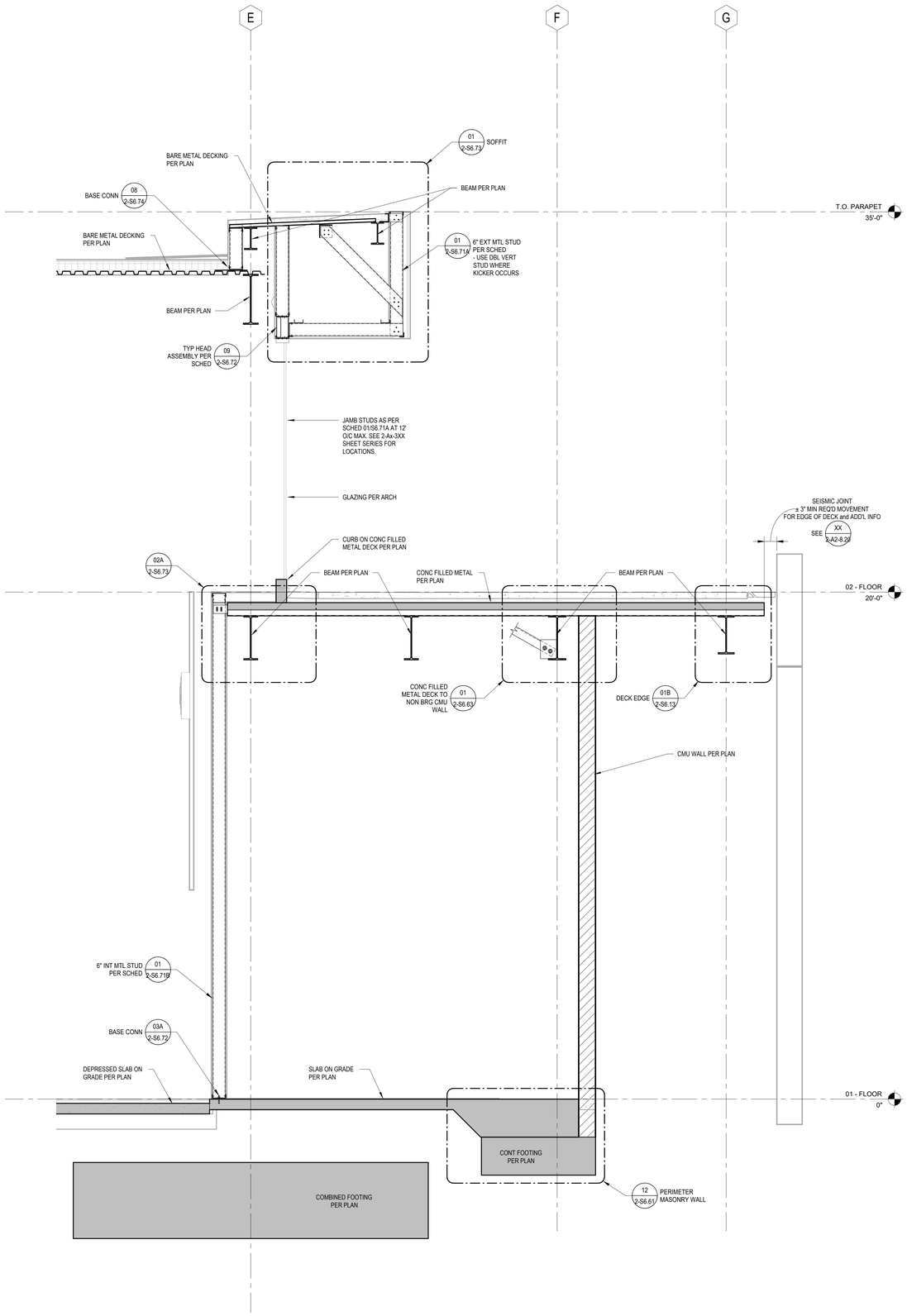
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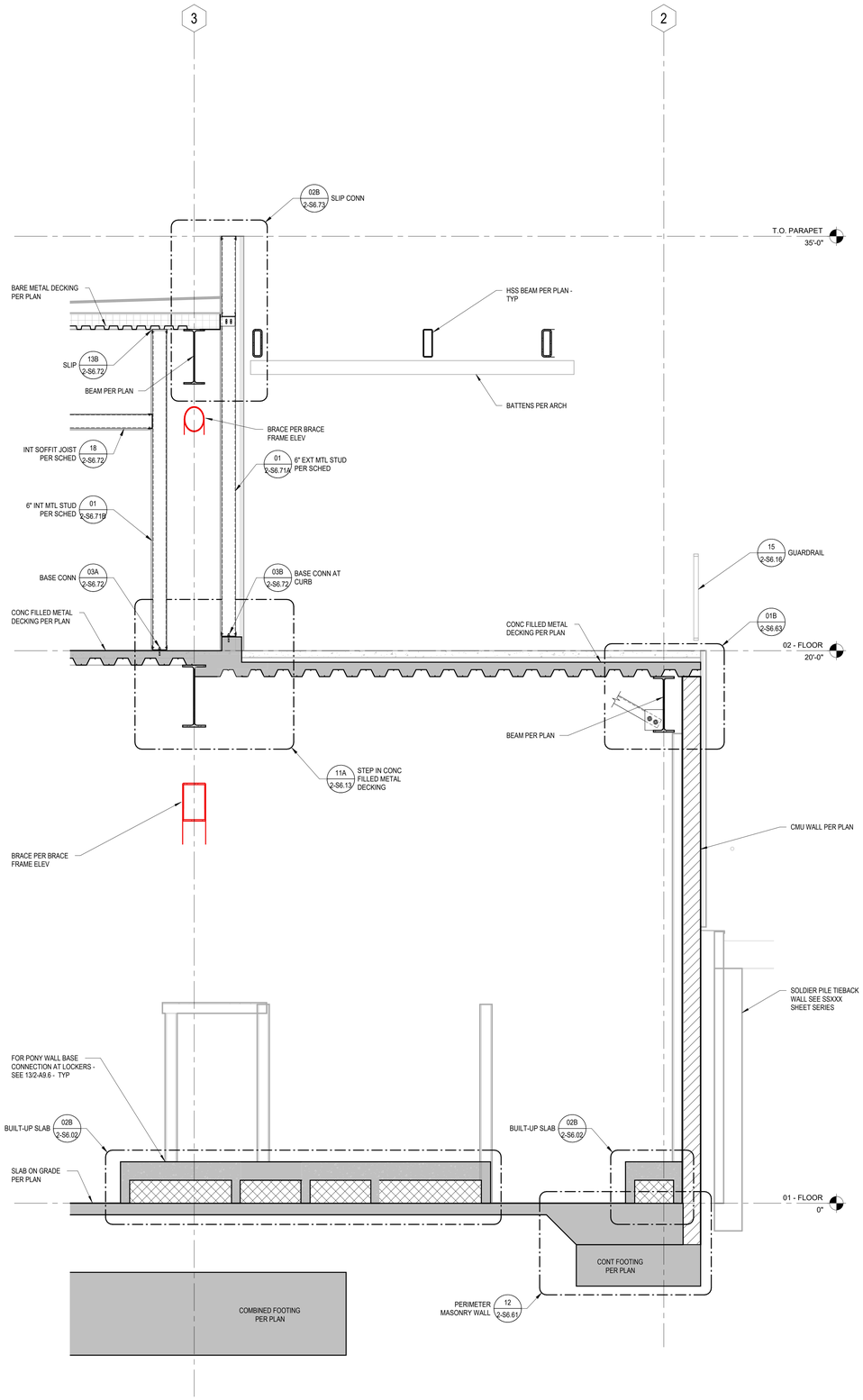
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GYM - BRACE FRAME ELEVATIONS

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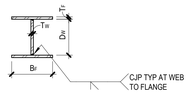
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GYM - WALL SECTIONS

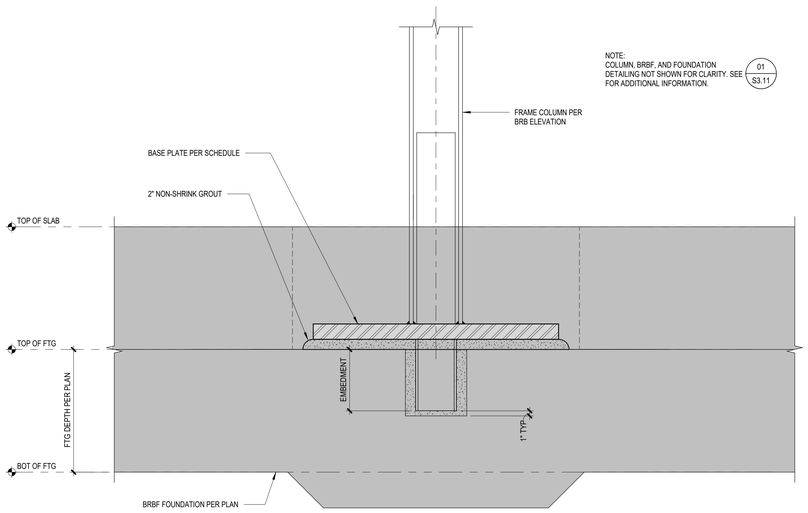
2-S2-4.03

BUILT UP SHEAR LUG SCHEDULE

BUILT-UP SHEAR LUG PROFILE	PROFILE SECTION	"Dw"	"Tw"	"Br"	"Tr"	EMBEDMENT
SL1	A	8"	1"	6"	3/4"	6"
SL2	A	12"	1 1/2"	8"	1"	10"

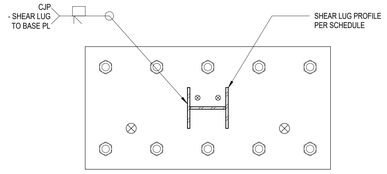


BUILT-UP SHEAR LUG PROFILE SECTION (A)



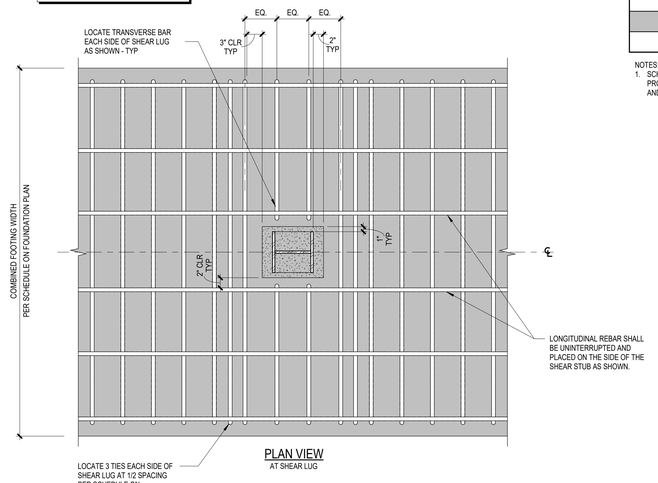
BUILT-UP SHEAR LUG ELEVATION

BUILT-UP SHEAR LUG | N.T.S. | 15



REFLECTED PLAN VIEW
AT BASE PLATE

NOTE:
FOR REMAINDER OF INFO SEE ELEVATION AT COLUMN BASE. FOR COMBINED FOOTING REINFORCING SEE 01 2-S6.02

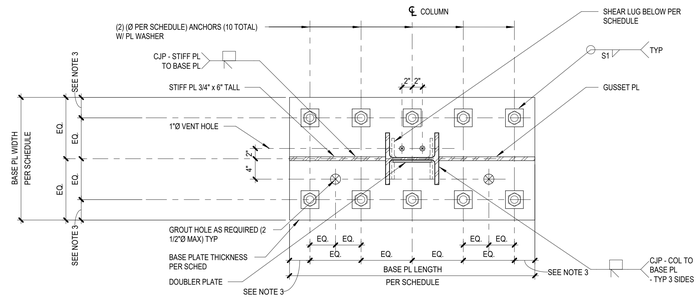


PLAN VIEW
AT SHEAR LUG

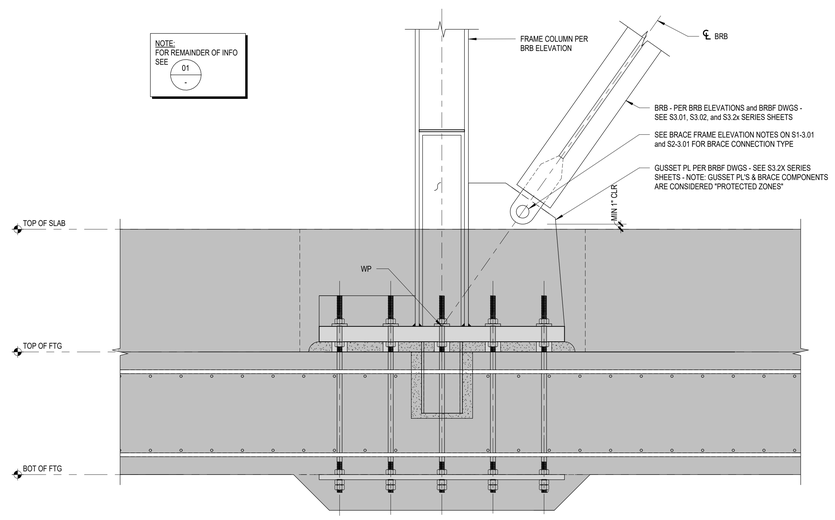
STEEL BRB FRAME BASE PLATE SCHEDULE

COLUMN SIZE	BASE PLATE				ANCHOR BOLT		
	THICKNESS	WIDTH	MIN LENGTH (SEE NOTE 1)	BUILT-UP SHEAR LUG PROFILE PER 15/-	F1554-55	WASHER SIZE	WASHER WELD (S1)
W10X45 AT HUB	1"	18"	20"	SL1	7/8"Ø	1/2"x3"x3"	3/8"
W12X79	1 3/4"	24"	24"	SL2	1 1/4"Ø	1/2"x3"x3"	3/8"
W18X86 & W18X106	1 1/4"	28"	20"	SL2	7/8"Ø	1/2"x3"x3"	3/8"
W10X45 AT GYM	1 3/8"	20"	20"	SL1	7/8"Ø	1/2"x3"x3"	3/8"
W12X72	1 3/8"	24"	24"	SL2	7/8"Ø	1/2"x3"x3"	3/8"

NOTES:
1. SCHEDULED LENGTH CORRESPONDS TO MINIMUM LENGTH OF BASEPLATE (CENTERED ABOUT COLUMN CENTERLINE). PROVIDE ADDITIONAL PLATE EXTENT EA SIDE OF COLUMN CL AS REQUIRED TO ACCOMMODATE GUSSET PLATE GEOMETRY AND WELD AT COLUMN BASEPLATE (SEE COREBRACE CONNECTION SCHEDULES FOR ADDITIONAL INFORMATION)

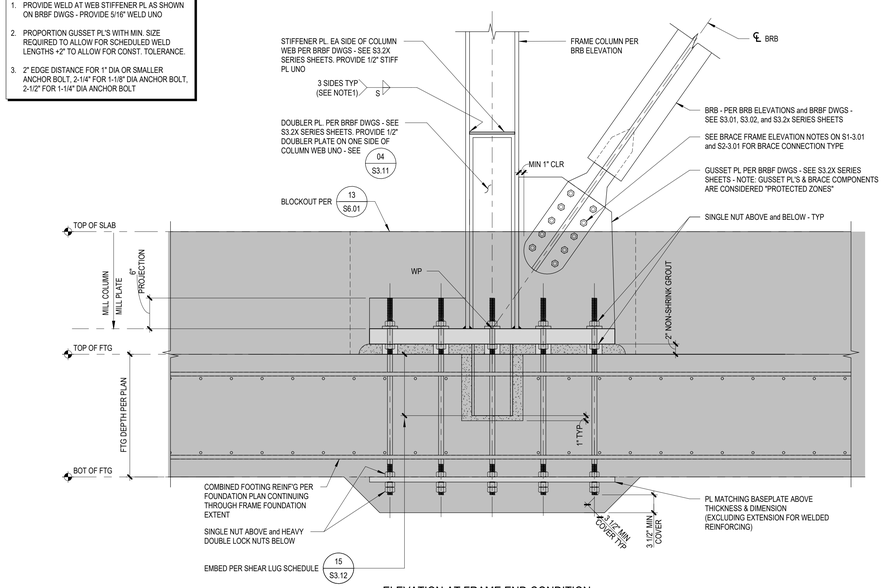


PLAN AT FRAME END CONDITION



TYPICAL EXPOSED STEEL BRB FRAME BASE PLATE DETAIL | N.T.S. | 09

NOTES:
1. PROVIDE WELD AT WEB STIFFENER PL AS SHOWN ON BRBF DWGS - PROVIDE 5/16" WELD UNO
2. PROPORTION GUSSET PL'S WITH MIN. SIZE REQUIRED TO ALLOW FOR SCHEDULED WELD LENGTHS +2" TO ALLOW FOR CONST. TOLERANCE.
3. 2" EDGE DISTANCE FOR 1" DIA OR SMALLER ANCHOR BOLT, 2-1/4" FOR 1-1/8" DIA ANCHOR BOLT, 2-1/2" FOR 1-1/4" DIA ANCHOR BOLT



ELEVATION AT FRAME END CONDITION

TYPICAL STEEL BRB FRAME BASE PLATE DETAIL | N.T.S. | 01

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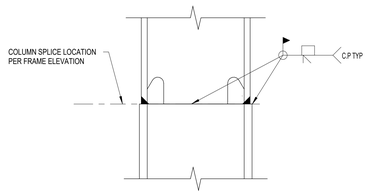
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CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

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Scale	1" = 1'-0"

TYPICAL BRB DETAILS

2-S3.11

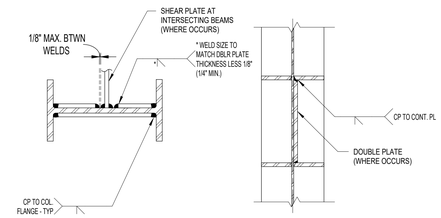
NOTE:
FOR GEOMETRY AT
WELD ACCESS HOLES SEE 20 / S6.11



NOTES:
1. STEEL FABRICATOR TO DESIGN AND PROVIDE ALL REQUIRED ERECTION PLATES. ERECTION PLATES ARE TO BE PROVIDED SUCH THAT NO HOLES OCCUR WITHIN COLUMN SECTION.
2. FOR FINISH SURFACES AT COLUMN ENDS - SEE AISC 'CODE OF STANDARD PRACTICE' 6.2.2

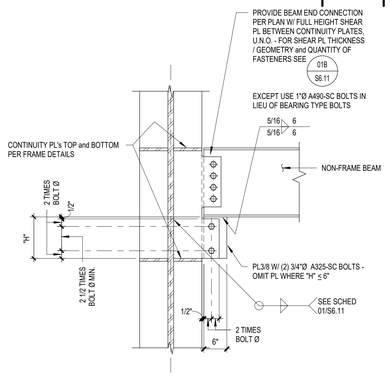
TYP. FRAME COLUMN SPLICE DETAIL — N.T.S. — 08

NOTE:
1. AT CONTRACTORS OPTION PROVIDE DOUBLE PLATE ON EITHER SIDE OF COLUMN WEB.

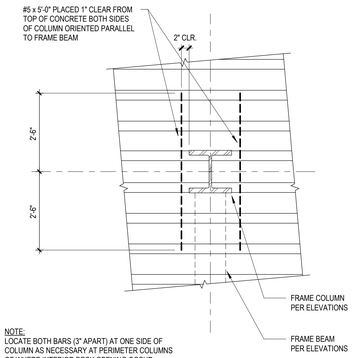


PLAN VIEW **SECTION**

STEEL PANEL ZONE DOUBLER PLATE — N.T.S. — 04



TYPICAL NON-FRAME BEAM TO FRAME COLUMN WEB CONNECTION — N.T.S. — 07



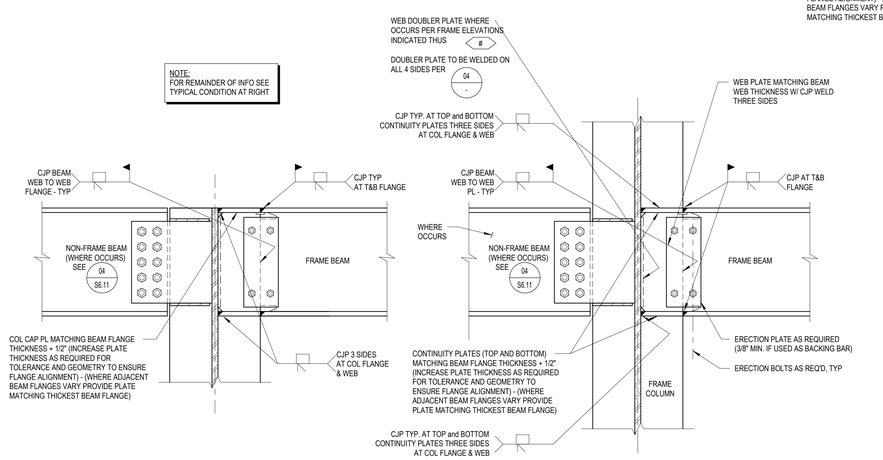
NOTE:
LOCATE BOTH BARS (3" APART) AT ONE SIDE OF COLUMN AS NECESSARY AT PERIMETER COLUMNS OF WHERE INTERIOR DECK OPENING OCCUR

TYP. ADDED BARS IN CONC. DECKS WHERE FRAME COLUMNS PENETRATE — N.T.S. — 03

NOTE:
FOR REMAINDER OF INFO SEE 01 / -

SLOPED BRB FRAME BEAM TO COLUMN CONNECTION — N.T.S. — 17

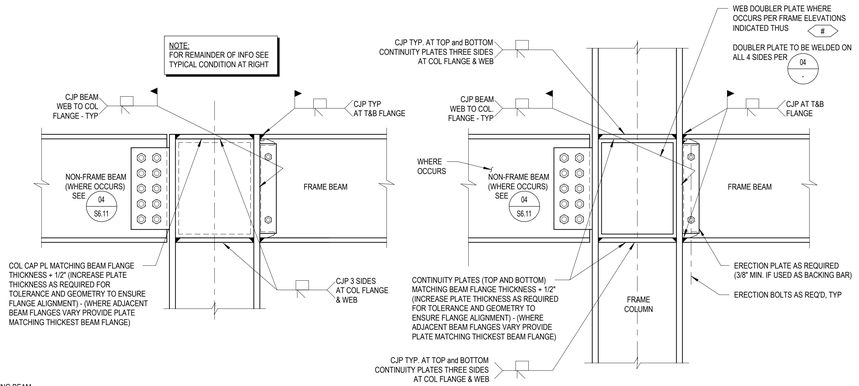
NOTE:
FOR REMAINDER OF INFO SEE
TYPICAL CONDITION AT RIGHT



ELEVATION AT TOP OF COLUMN **TYPICAL ELEVATION**

CONDITIONS AT FRAME BEAM TO COLUMN MINOR AXIS

NOTE:
FOR GEOMETRY AT
WELD ACCESS HOLES SEE 20 / S6.11



ELEVATION AT TOP OF COLUMN **TYPICAL ELEVATION**

NOTE:
FOR GEOMETRY AT
WELD ACCESS HOLES SEE 20 / S6.11

CONDITIONS AT FRAME BEAM TO COLUMN MAJOR AXIS

NOTES:
1. AT BOTTOM FLANGE CONNECTION: AFTER FULL PENETRATION WELDING, REMOVE BACKING BAR. WELD ROOT SHALL BE INSPECTED AND TESTED FOR IMPERFECTIONS, WHICH IF FOUND, ARE TO BE REMOVED BY BACKGOUGING TO SOUND MATERIAL and CLEANED BY GRINDING IF BACKGOUGED BY AIR ARC. BACKGOUGED AREA IS TO BE RE-WELDED TO FLUSH CONDITION. WHERE BEAM CONNECTION OCCURS AT COLUMN FLANGE APPLY FILLET WELD TO REINFORCE JOINT. SIZE OF REINFORCING FILLET WELD SHALL BE IN ACCORDANCE WITH AWS D1.8, BUT NOT LESS THAN 5/16".
2. AT TOP FLANGE CONNECTION: AFTER FULL PENETRATION WELDING, BACKING BAR CAN REMAIN IN PLACE. WHERE BEAM CONNECTION OCCURS AT COLUMN FLANGE APPLY FILLET WELD BETWEEN COLUMN FLANGE AND BACKUP BAR TO REINFORCE JOINT. SIZE OF FILLET WELD SHALL BE IN ACCORDANCE WITH AWS D1.8, BUT NOT LESS THAN 5/16". AT CONTRACTORS OPTION BACKING BAR CAN BE REMOVED AND PROCEDURE DESCRIBED FOR BOTTOM FLANGE CAN BE FOLLOWED AT TOP FLANGE.
3. PERFORM BEAM WEB WELDING AFTER ALL FLANGE WELDING IS COMPLETE.
4. ALL WELDING SHALL BE IN CONFORMANCE W/ AWS 1.1 and AWS 1.8.
5. FOR PREHEAT and POSTHEAT REQUIREMENTS SEE AWS D1.8
6. BRACES, BRACE CONNECTIONS, AND GUSSET PLATES OMITTED FOR CLARITY.
7. REMOVE ALL WELD TABS AT BOTH TOP FLANGE AND BOTTOM FLANGE CONNECTION.
8. PROVIDE CONTINUITY AND STIFFENER PLATES AS SHOWN (ON EACH SIDE OF COLUMN WEB) AT ONE SIDED / END CONDITIONS UNO

WHERE BEAM DEPTHS VARY <= 4", PROVIDE SLOPING CONTINUITY PLATE MATCHING THICKER BEAM FLANGE

TYP. BRB FRAME BEAM TO COLUMN CONNECTION — N.T.S. — 01

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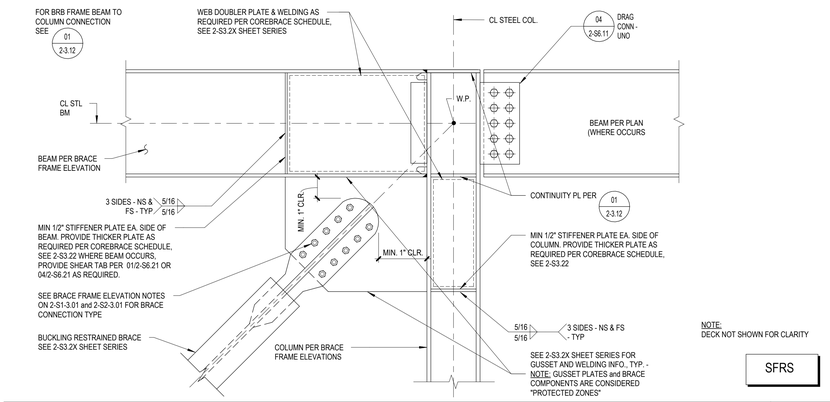
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100% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

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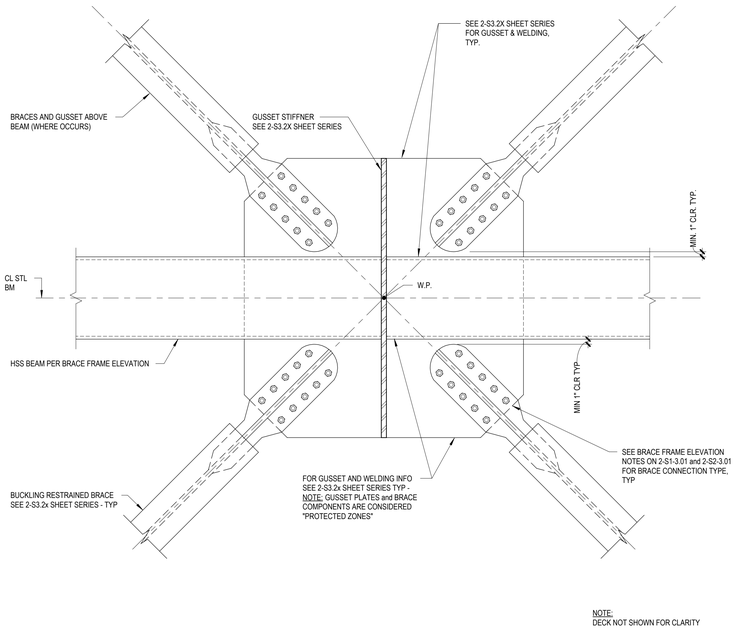
TYPICAL BRB DETAILS

2-S3.12



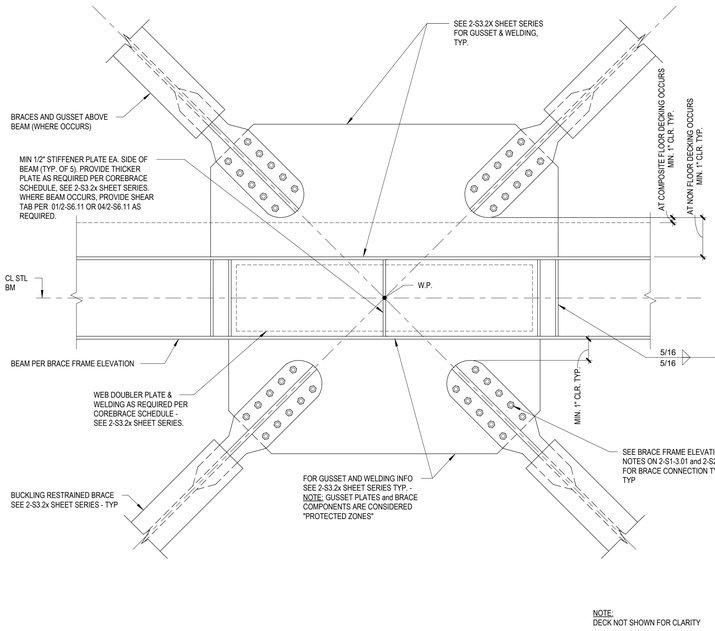
SFRS

BRBF BRACE CONNECTION TO BEAM-COLUMN (1 SIDE) N.T.S. 04



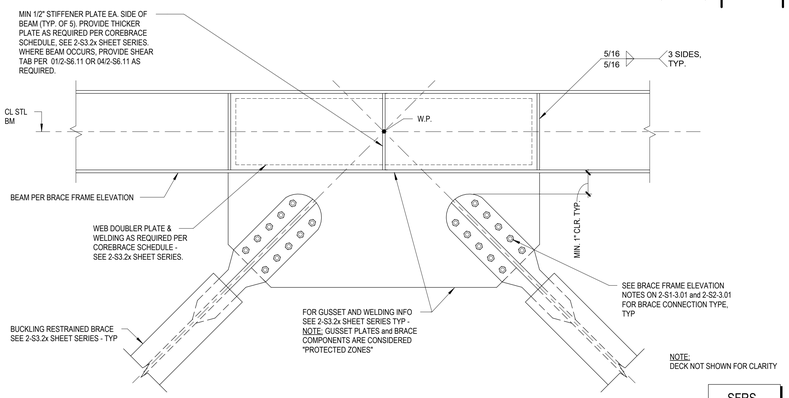
SFRS

BRBF BRACE TO HSS BEAM CONNECTION (2 SIDE) N.T.S. 10



SFRS

BRBF BRACE TO BEAM CONNECTION (2 SIDE) N.T.S. 02



SFRS

BRBF BRACE TO BEAM CONNECTION (1 SIDE) N.T.S. 01

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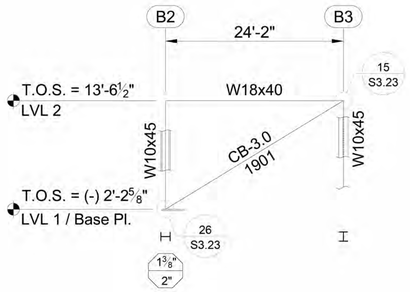
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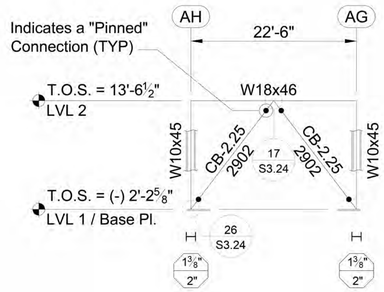
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TYPICAL BRB DETAILS

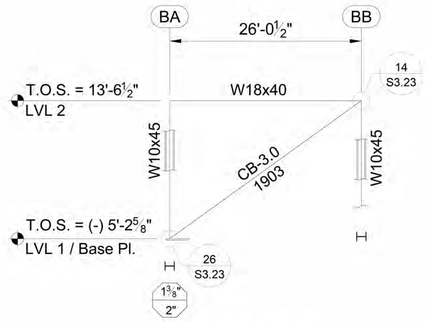
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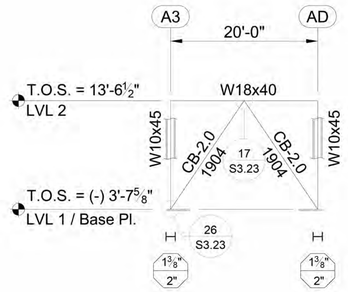
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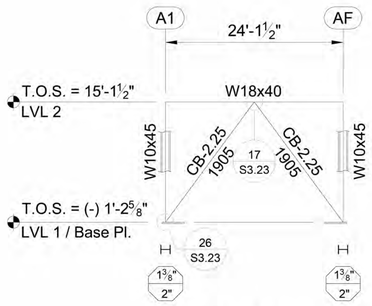
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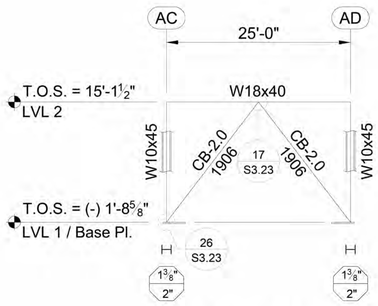
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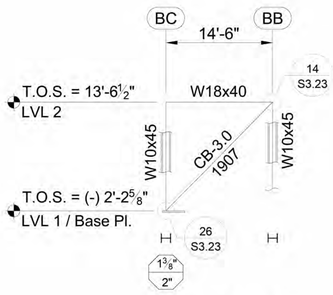
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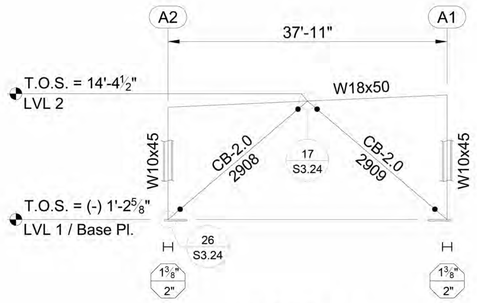
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GRID A1
(BRBF-2)



GRID B3
(BRBF-4)



GRID AA
(BRBF-1)

HUB BRB'S

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DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	

COREBRACE BRB
FRAME ELEVATIONS

2-S3.21

CoreBrace
20 ANNIVERSARY 2002 - 2022
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CoreBrace Engineering Design Responsibilities are limited to the following:
- Complete BRB design based on A_{sc} provided by E.O.R.
- Design connection of BRB to gusset.
- Design gusset connection to frame columns, beams and base plates.

General Notes:
1. See "Casing Buried in Concrete Detail" where concrete slab will interfere with required BRB stroke.
2. Structural steel detailer and erection team to consider erectability constraints when determining piece erection sequencing and field welding versus shop welding of stiffeners and gussets.
3. Detail callouts are typical at the given frame location, UNO. See "CB" sheets for typical details.
4. Single-line diagrams do not necessarily represent WP axis of members, see details.
5. Member sizes, dimensions, elevations, and work point locations on CB sheets are shown for coordination only. Project documents shall govern. Verify in field as necessary.
6. See project documents for additional information; more stringent requirements on project documents shall govern.

Abbreviations

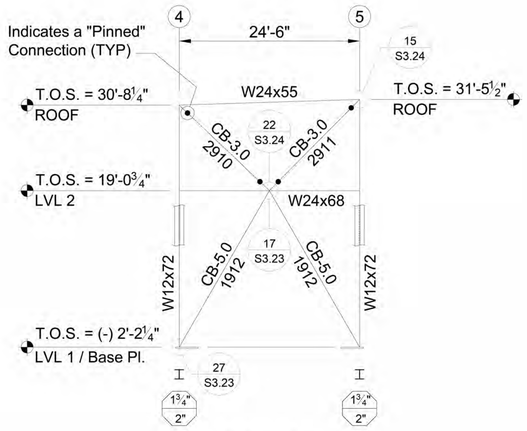
Abt	About	DIA	Diameter	NTS	Not to Scale
Approx	Approximate	DIM	Dimension	PL	Plate
Asc	Area of Steel Core	dc	Depth of column	Req'd	Required
bfb	Width of flange of beam	(E)	Existing	Sched	Schedule
bfc	Width of flange of column	EQ	Equal	SIM	Similar
Bldg	Building	FF	Finished Floor	SYM	Symetrical
Bm	Beam	FHG	Full-Height Gusset	Stiff	Stiffener
Bot	Bottom	Flng	Flange	tfb	Thickness of flange of beam
B.P.	Base Plate	Galv	Galvanized	tfc	Thickness of flange of column
BRB	Buckling-Restrained Brace	Gsst	Gusset	T&B	Top and Bottom
CB	CoreBrace	Info	Information	T.O.F.	Top of Footing
CJP	Complete Joint Penetration	LVL	Level	T.O.C	Top of Concrete
C_L	Centerline	MAX	Maximum	twb	Thickness of web of beam
Col	Column	MIN	Minimum	TYP	Typical
Conc	Concrete	N&FS	Near and Far Side	UNO	Unless Noted Otherwise
Conn	Connection	Nom	Nominal	WP	WORK POINT

Symbols Legend:

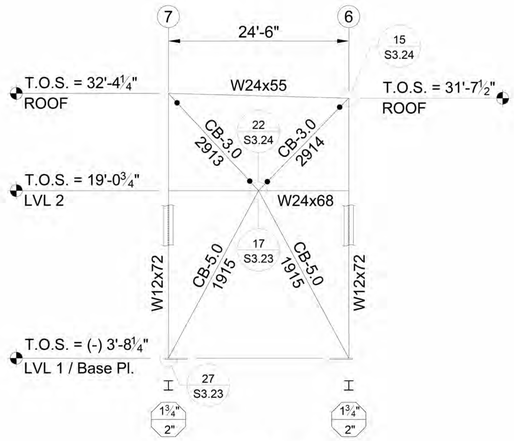
X / Y	X = BASE PL THICKNESS Y = GROUT THICKNESS
⌶	INDICATES FRAMING OF GUSSET PL TO COLUMN WEB (WEAK AXIS)
H	INDICATES FRAMING OF GUSSET PL TO COLUMN FLANGE (STRONG AXIS)
□	INDICATES FRAMING OF GUSSET PL TO HSS COLUMN (SLOT GUSSET THROUGH)

CB-XX	INDICATES BRB WITH CORE AREA SIZE OF XX in^2
T.O.S. = X'-X"	INDICATES TOP OF STEEL BEAM ELEVATION
19##	BRACE MARK IDENTIFICATION FOR BOLTED END BRACES
29##	BRACE MARK IDENTIFICATION FOR PINNED END BRACES

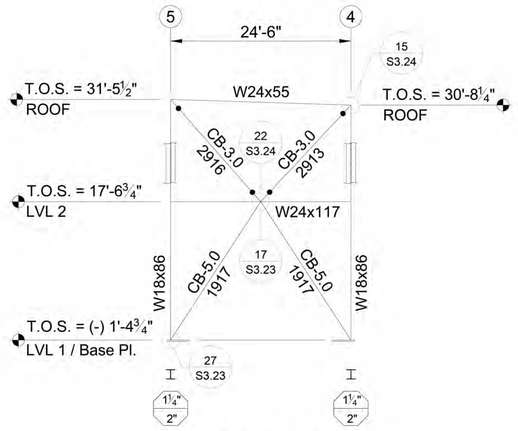
LICENSED PROFESSIONAL ENGINEER
HAMIDRA A. PRASAD
NO. 55493
STRUCTURAL
STATE OF CALIFORNIA
EXP 12/2026



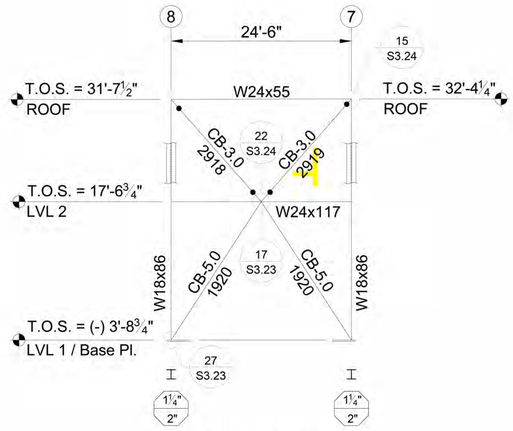
GRID E
(BRBF-2)



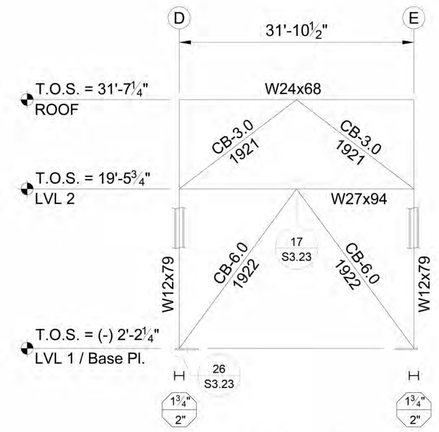
GRID E
(BRBF-3)



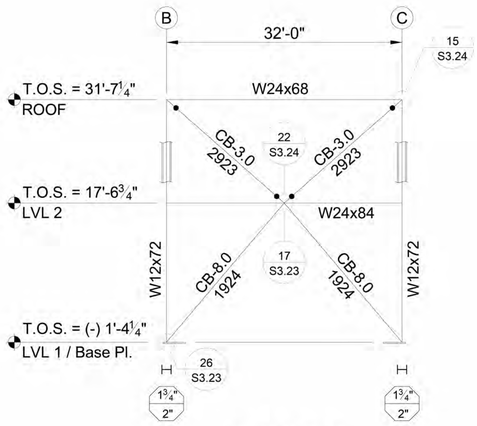
GRID A
(BRBF-6)



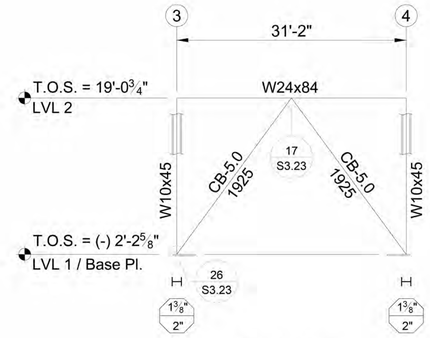
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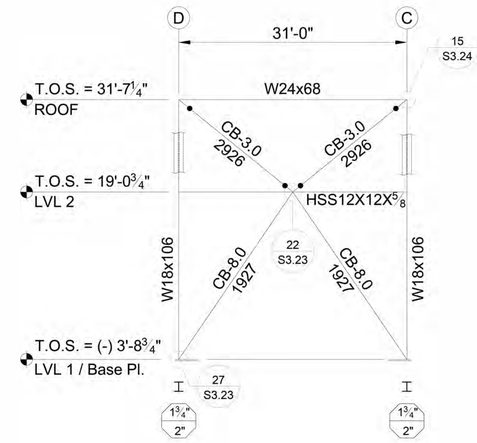
GRID 3
(BRBF-8)



GRID 4
(BRBF-7)



GRID F
(BRBF-1)



GRID 8
(BRBF-4)

LPA
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LANDSCAPE ARCHITECTURE PLANNING
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5301 California Avenue, Suite 100
Irvine, California 92617

REGISTERED PROFESSIONAL ENGINEER
HAMIDA A. PLASENCIA
No. S5493
12/31/2027
STRUCTURAL
STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/07/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	

COREBRACE BRB
FRAME ELEVATIONS

2-S3.22

EXP 12/2026

GYM BRB'S

20 ANNIVERSARY 2002 - 2022
COREBRACE
SUPERIOR SEISMIC PERFORMANCE

5789 W. Wells Park Rd.
West Jordan, Utah 84081
(801) 280-0701

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CoreBrace Engineering Design Responsibilities are limited to the following:
- Complete BRB design based on A_{sc} provided by E.O.R.
- Design connection of BRB to gusset.
- Design gusset connection to frame columns, beams and base plates.

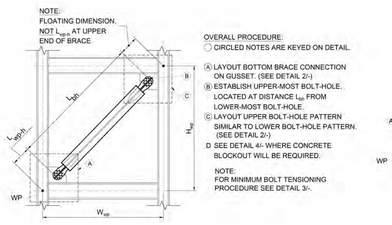
General Notes:
1. See "Casing Buried in Concrete Detail" where concrete slab will interfere with required BRB stroke.
2. Structural steel detailer and erection team to consider erectability constraints when determining piece erection sequencing and field welding versus shop welding of stiffeners and gussets.
3. Detail callouts are typical at the given frame location, UNO. See "CB" sheets for typical details.
4. Single-line diagrams do not necessarily represent WP axis of members, see details.
5. Member sizes, dimensions, elevations, and work point locations on CB sheets are shown for coordination only. Project documents shall govern. Verify in field as necessary.
6. See project documents for additional information; more stringent requirements on project documents shall govern.

Abbreviations

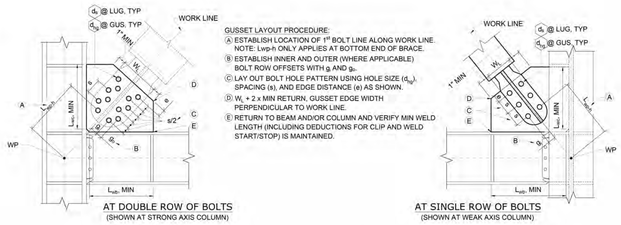
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BOLTED GUSSET OVERALL LAYOUT PROCEDURE 1
SCALE: NTS



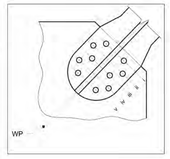
BOLTED GUSSET LAYOUT PROCEDURE 2
SCALE: NTS

BOLT TENSIONING PROCEDURE
Bolts shall be torqued to achieve the appropriate bolt tension as set forth in the erector's approved procedures. As a minimum, the following items shall be adhered to:

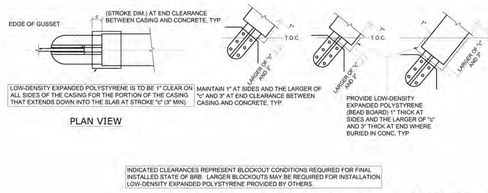
A. Starting with the most rigid part of the connection (Row 'I') and continuing to the least rigid part of the connection (Row 'A'), bring all bolts to snug-tight condition.
B. Recheck snug-tight condition of bolts in rows 'I' and 'H', re-tighten as necessary.
C. Torque bolts in Row 'I' to appropriate level of tension using approved procedure.
D. Re-check snug tight condition of bolt in row 'H'.
E. Torque bolts in Row 'H' to appropriate level using approved procedure.
F. Continue alternating check of snug tight condition of next-to-nearest row and torquing nearest row of untorged bolts as set forth in steps D & E until end of brace is reached and all bolts are at appropriate level of torque.
G. Repeat similar procedure at top end of brace.

GENERAL NOTES:
ALL BOLTED BRACE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE ERECTOR'S APPROVED QUALITY ASSURANCE PLAN. AS A MINIMUM, THE FOLLOWING MUST BE MET:

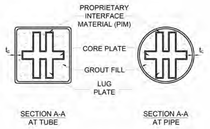
- Tighten all slip-critical bolts and bolts installed at oversized holes by a method approved by the engineer of record. Provide hardened washers under all turned elements.
- Where ASTM F3125 Gr A490-SC/F2280-TC or stronger bolts are specified in the drawings, provide hardened washer between nut & gusset. Where required by AISC Specifications, provide washer between bolt head & gusset.
- Bolts must be long enough for the threads to be flush with the outside face of the nut after tightening. Thread stickout shall not exceed that allowed by structural drawings.
- Do not reuse bolts, nuts, or washers.
- TC bolts must be in the as-delivered, clean and lubricated condition when torqued, per RCSC requirements. If left installed on the brace but in an untorqued and exposed condition for any period of time, a pre-installation verification must be performed or the bolts must be replaced.



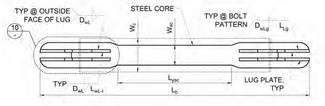
MINIMUM BOLT TENSIONING PROCEDURE 3
SCALE: NTS



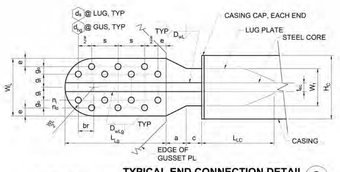
BRB CASING BURIED IN CONCRETE - TYPICAL DETAIL 4
SCALE: NTS



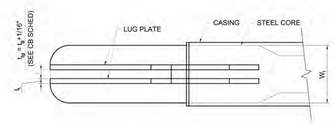
TYPICAL CORE AND CASING CONFIGURATION 5
SCALE: NTS



TYPICAL CORE PLATE DETAIL 6
SCALE: NTS

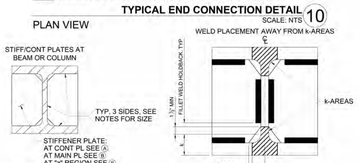


TYPICAL END CONNECTION DETAIL 8
SCALE: NTS



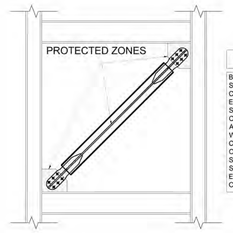
NOTE: BOLT HOLES IN CONNECTION LUGS ARE STANDARD HOLES.

TYPICAL END CONNECTION DETAIL 10
SCALE: NTS



STIFF/CONT PL TO MEMBER 11
SCALE: NTS

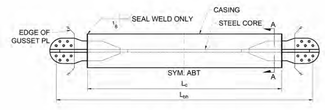
NOT USED 12
SCALE: NTS



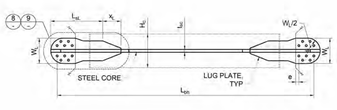
SHADED REGIONS INDICATE PROTECTED ZONES

BRB PROTECTED ZONES SHALL INCLUDE THE STEEL CORE AND CONNECTION ELEMENTS AND SHALL SATISFY THE REQUIREMENTS OF SECTION F4.5c OF AISC 341. ADDITIONALLY, ATTACHMENTS WHICH PENETRATE THE CASING (SCREWS, PAF, ETC) OR ANY ATTACHMENT SUPPORTING OVER 50 LBS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND COREBRACE.

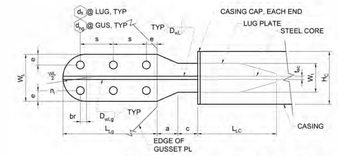
PROTECTED ZONES - AISC 341 13
SCALE: NTS



TYPICAL CORE AND CASING CONFIGURATION 5
SCALE: NTS



TYPICAL CORE PLATE DETAIL 7
SCALE: NTS



TYPICAL END CONNECTION DETAIL 9
SCALE: NTS

NOTE: BOLT HOLES IN CONNECTION LUGS ARE STANDARD HOLES.

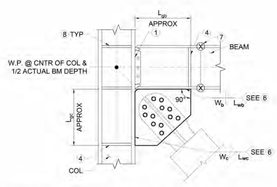
GENERAL NOTES:
G1. SEE PROJECT DRAWINGS FOR ADDITIONAL INFORMATION
G2. DIMENSIONS AND WP LOCATIONS FROM PROJECT DRAWINGS GOVERN. CONTACT COREBRACE PRIOR TO DETAILING IF ANY DISCREPANCIES ARE NOTED.
G3. CORE PL A36 SPECIAL (FY RANGE PROVIDED ON COREBRACE SCHEDULE)
G4. CASING A500 GR B FOR HSS AND A53 GR B FOR PIPE
G5. BRB LUG PLATE (TRANSVERSE STIFFENER) A572 GR 50
G6. GUSSET PL, GUSSET STIFFENER AND REPAD PL A572 GR 50 U.N.O.
G7. ALL STIFFENERS AND DOUBLER PL TO MATCH BEAM AND COLUMN GRADE.
G8. USE ASTM F3125 GR A490-SC/F2280-TC OR ASTM F3148 TNA BOLTS. BOLT HOLES IN GUSSET ARE OVERSIZED. BOLT HOLES IN BRB ARE STANDARD. ***(BOLTS AND WASHERS PROVIDED BY OTHERS)***
G9. CLASS A (TOOL CLEAN) ALL FAYING SURFACES.
G10. GALVANIZED FAYING SURFACES TO BE HAND WIRE BRUSHED PRIOR TO ERECTION OF BRB.
G11. THE GAP BETWEEN THE BOLTED CONNECTION PLATES AT THE END OF THE BRB SHALL NOT BE INCREASED EXCEPT IN INSTANCES WHERE SPECIFIC APPROVAL AND METHODOLOGY HAVE BEEN PROVIDED BY COREBRACE.

CONNECTION NOTES:
CIRCLED NOTES ARE KEYED ON CONNECTION DETAILS.

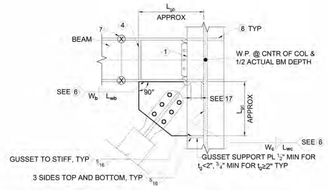
1. SEE STRUCTURAL DRAWINGS FOR BM-TO-COL & COL-TO-B.P. CONNECTION, TYP.
2. SEE CONNECTION SCHEDULE FOR CONNECTION DIMENSIONS.
3. SEE COREBRACE SCHEDULE FOR BRB GEOMETRY DIMENSIONS.
4. MAIN STIFF PL EA SIDE AS REQ'D BY STRUCTURAL DRAWINGS OR AS INDICATED ON CONNECTION SCHEDULE. SEE DETAIL 11.
5. FIELD INSTALL STIFF PL AS NECESSARY FOR INSTALLATION OF BRACE.
6. WELD BOTH SIDES. WHERE AVAILABLE WELD LENGTH IS LONGER THAN REQ'D WELD LENGTH, PROVIDE WELD ALONG ENTIRE LENGTH TO WITHIN ¾" OF EDGE OF PL.
7. TOP AND BOTTOM FLANGE LATERAL BRACING AS REQUIRED BY STRUCTURAL DRAWINGS.
8. CONTINUITY PLATE WHERE REQ'D BY STRUCTURAL DRAWINGS. AT WEAK-AXIS COLUMN, ALWAYS PROVIDE CONTINUITY PLATE T&B AND N&FS. SEE DETAIL 11.
9. PROVIDE W_{lw} WELD IN "Z" REGION. IT IS ACCEPTABLE TO EXTEND THIS WELD OVER THE ENTIRE LENGTH OF THE GUSSET PLATE. ALTERNATIVELY, PROVIDE CJP GUSSET-TO-BEAM WELD. WHERE W_{lw} IS NOT REQ'D, USE W_b.

9 THROUGH 16 NOT USED

17. IF EFFECTIVE WELD LENGTH IS LESS THAN 4*W_{lw}, WELD SHALL STILL BE APPLIED IN THIS REGION. HOWEVER, LENGTH BETWEEN RATHOLE & COLUMN WEB SHALL NOT BE COUNTED TOWARD REQUIRED WELD LENGTH (L_{wb}).

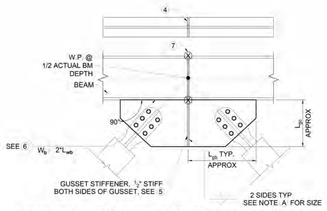


TYPICAL CONNECTION AT BRACE TOP 14
SCALE: NTS
SHOWN AT STRONG AXIS COLUMN
SHOWN WITH DOUBLE BOLT ROW (SIM AT SINGLE BOLT ROW)



TYPICAL CONNECTION AT BRACE TOP 15
SCALE: NTS
SHOWN AT WEAK AXIS COLUMN
SHOWN WITH SINGLE BOLT ROW (SIM AT DOUBLE BOLT ROW)

NOT USED 16
SCALE: NTS

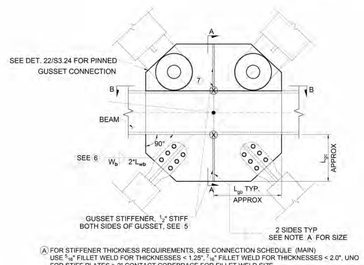


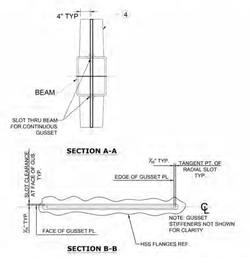
TYPICAL CONNECTION AT CHEVRON TOP 17
SCALE: NTS
SHOWN WITH SINGLE BOLT ROW (SIM AT DOUBLE BOLT ROW)

NOT USED 18
SCALE: NTS

NOT USED 19
SCALE: NTS

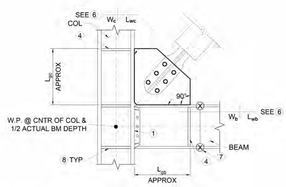
NOT USED 20
SCALE: NTS





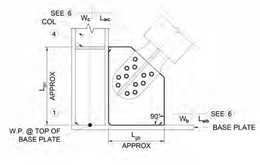
TYPICAL CONNECTION AT V BOT & CHEVRON TOP AT HSS BEAM 22
SCALE: NTS

NOT USED 23
SCALE: NTS

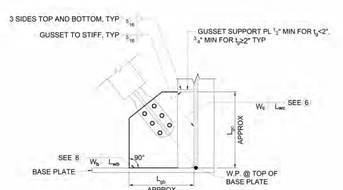


TYPICAL CONNECTION AT BRACE BOTTOM 24
SCALE: NTS
SHOWN AT STRONG AXIS COLUMN
SHOWN WITH SINGLE BOLT ROW (SIM AT DOUBLE BOLT ROW)

NOT USED 25
SCALE: NTS



TYPICAL CONNECTION AT BASEPLATE 26
SCALE: NTS
SHOWN AT STRONG AXIS COLUMN
WP AT TOP OF BASE PLATE
SHOWN WITH DOUBLE BOLT ROW (SIM AT SINGLE BOLT ROW)



TYPICAL CONNECTION AT BASEPLATE 27
SCALE: NTS
SHOWN AT WEAK AXIS COLUMN
WP AT TOP OF BASE PLATE
SHOWN WITH SINGLE BOLT ROW (SIM AT DOUBLE BOLT ROW)

REFERENCED CODES:
- AISC 360, 341, 358.
- AWS D1.8

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- COMPLETE BRB DESIGN BASED ON Asc PROVIDED IN STRUCTURAL DRAWINGS.
- DESIGN GUSSET PLATE AND CONNECTION OF BRB TO GUSSET PLATE.
- DESIGN CONNECTION OF GUSSET TO FRAME COLUMNS & BEAMS/BASE PLATES.

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REGISTERED PROFESSIONAL ENGINEER
HAMIDA A. PRASAD
NO. 55493
09/27
STRUCTURAL
STATE OF CALIFORNIA

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INCREMENT 02
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Malibu, CA 90265
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

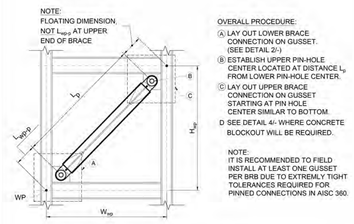
Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/09/2025

LICENSED PROFESSIONAL ENGINEER
HAMIDA A. PRASAD
No. 55493
PROFESSIONAL
STRUCTURAL
STATE OF CALIFORNIA
EXP 12/2026

Job Number	31722
Checked By	HP
Scale	

COREBRACE BOLTED BRACE and GUSSET CONNECTION DETAILS

2-S3.23



OVERALL PROCEDURE:

(A) LAY OUT LOWER BRACE CONNECTION ON GUSSET. (SEE DETAIL 2/-)

(B) ESTABLISH UPPER PIN-HOLE CENTER LOCATED AT DISTANCE L_p FROM LOWER PIN-HOLE CENTER.

(C) LAY OUT UPPER BRACE CONNECTION ON GUSSET STARTING AT PIN HOLE CENTER SIMILAR TO BOTTOM.

D SEE DETAIL 4/- WHERE CONCRETE BLOCKOUT WILL BE REQUIRED.

NOTE:
IT IS RECOMMENDED TO FIELD INSTALL AT LEAST ONE GUSSET PER BRB DUE TO EXTREMLY TIGHT TOLERANCES REQUIRED FOR PINNED CONNECTIONS IN AISC 360.

PINNED GUSSET OVERALL LAYOUT PROCEDURE 1
SCALE: NTS

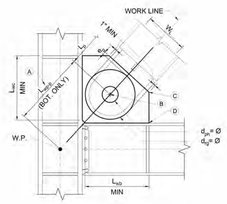
GUSSET LAYOUT PROCEDURE:

(A) ESTABLISH LOCATION OF PIN HOLE CENTERLINE ALONG WORK LINE.

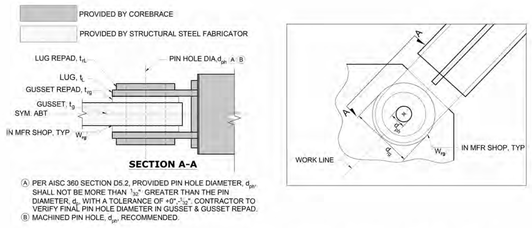
(B) LAY OUT PIN HOLE AND GUSSET REPAD AS SHOWN. (SEE DETAIL 3/-)

(C) LOCATE FREE EDGE OF GUSSET USING $\frac{1}{2}d_g + e_g$. GUSSET EDGE WIDTH IS d_g + 2 x MIN RETURN AND PERPENDICULAR TO WORK LINE.

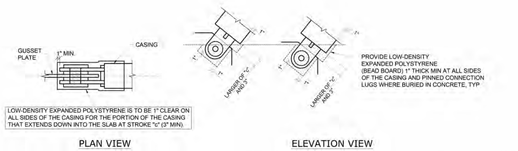
(D) RETURN TO BEAM AND/OR COLUMN AND VERIFY MIN WELD LENGTH (INCLUDING DEDUCTIONS FOR CLIP AND WELD START/STOP) IS MAINTAINED.



PINNED GUSSET LAYOUT PROCEDURE 2
SCALE: NTS



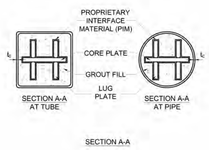
GUSSET PIN HOLE & REPAD - TYPICAL DETAIL 3
SCALE: NTS

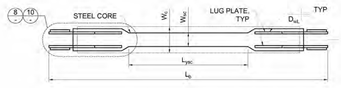


INDICATED CLEARANCES REPRESENT BLOCKOUT CONDITIONS REQUIRED FOR FINAL INSTALLED STATE OF BRB. LARGER BLOCKOUTS MAY BE REQUIRED FOR INSTALLATION. LOW DENSITY EXPANDED POLYSTYRENE PROVIDED BY OTHERS.

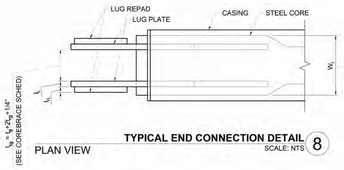
ALL BLOCK-OUTS AT PINNED CONNECTIONS MUST BE APPROVED BY COREBRACE AND STRUCTURAL ENGINEER OF RECORD.

PIN AND CASING BURIED IN CONCRETE - TYPICAL DETAIL 4
SCALE: NTS

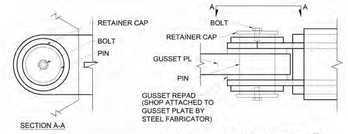




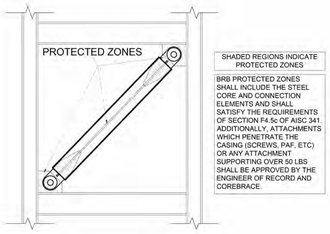
TYPICAL CORE PLATE DETAIL 6
SCALE: NTS



TYPICAL END CONNECTION DETAIL 8
SCALE: NTS



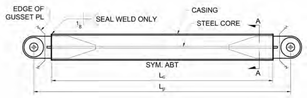
PIN RETAINER CAP DETAIL 10
SCALE: NTS



SHADED REGIONS INDICATE PROTECTED ZONES

BRB PROTECTED ZONES SHALL INCLUDE THE STEEL CORE AND CONNECTION ELEMENTS AND SHALL SATISFY THE REQUIREMENTS OF SECTION F4.5c OF AISC 341. ADDITIONALLY, ATTACHMENTS WHICH PENETRATE THE CASING (SCREWS, PAF, ETC) OR ANY ATTACHMENT SUPPORTING OVER 50 LBS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND COREBRACE.

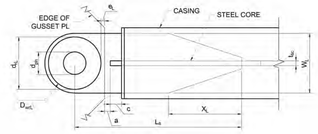
PROTECTED ZONES - AISC 341 13
SCALE: NTS



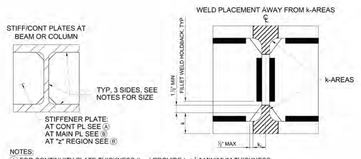
TYPICAL CORE AND CASING CONFIGURATION 5
SCALE: NTS



TYPICAL CORE PLATE DETAIL 7
SCALE: NTS



TYPICAL END CONNECTION DETAIL 9
SCALE: NTS



STIFF/CONT PL TO MEMBER 11
SCALE: NTS

NOT USED 12
SCALE: NTS

GENERAL NOTES:

G1 SEE PROJECT DRAWINGS FOR ADDITIONAL INFORMATION

G2 DIMENSIONS AND WP LOCATIONS FROM PROJECT DRAWINGS GOVERN. CONTACT COREBRACE PRIOR TO DETAILING IF ANY DISCREPANCIES ARE NOTED.

G3 CORE PL A36 SPECIAL (FY RANGE PROVIDED ON COREBRACE SCHEDULE)

G4 CASING A500 GR B FOR HSS AND A53 GR B FOR PIPE

G5 BRB LUG PLATE (TRANSVERSE STIFFENER) A572 GR 50

G6 GUSSET PL, GUSSET STIFFENER AND REPAD PL A572 GR 50 U.N.O.

G7 ALL STIFFENERS AND DOUBLER PL TO MATCH BEAM AND COLUMN GRADE.

G8 PIN HOLE TOLERANCE PER AISC 360 SECTION D5.2

CONNECTION NOTES:

○ CIRCLED NOTES ARE KEYED ON CONNECTION DETAILS.

1 SEE STRUCTURAL DRAWINGS FOR BM-TO-COL & COL-TO-B.P. CONNECTION, TYP.

2 SEE CONNECTION SCHEDULE FOR CONNECTION DIMENSIONS.

3 SEE COREBRACE SCHEDULE FOR BRB GEOMETRY DIMENSIONS.

4 MAIN STIFF PL EA SIDE AS REQ'D BY STRUCTURAL DRAWINGS OR AS INDICATED ON CONNECTION SCHEDULE. SEE DETAIL 11.

5 FIELD INSTALL STIFF PL AS NECESSARY FOR INSTALLATION OF BRACE.

6 WELD BOTH SIDES. WHERE AVAILABLE WELD LENGTH IS LONGER THAN REQ'D WELD LENGTH, PROVIDE WELD ALONG ENTIRE LENGTH TO WITHIN $\frac{3}{4}$" OF EDGE OF PL.

7 TOP AND BOTTOM FLANGE LATERAL BRACING AS REQUIRED BY STRUCTURAL DRAWINGS.

8 CONTINUITY PLATE WHERE REQ'D BY STRUCTURAL DRAWINGS. AT WEAK-AXIS COLUMN, ALWAYS PROVIDE CONTINUITY PLATE T&B AND N&FS. SEE DETAIL 11.

9 THROUGH 12 NOT USED

13 PER AISC 360 SECTION D5.2, THE DIAMETER OF THE PIN HOLE SHALL NOT BE MORE THAN $\frac{1}{32}$" GREATER THAN THE DIAMETER OF THE PIN. MACHINED HOLE RECOMMENDED.

14 FIELD INSTALL AT LEAST ONE GUSSET AS NECESSARY FOR BRACE INSTALLATION.

15 THROUGH 16 NOT USED

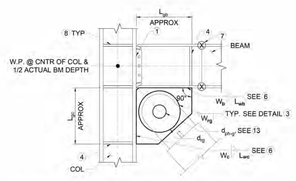
17 IF EFFECTIVE WELD LENGTH IS LESS THAN 4"W_{lp} WELD SHALL STILL BE APPLIED IN THIS REGION. HOWEVER, LENGTH BETWEEN RATHOLE & COLUMN WEB SHALL NOT BE COUNTED TOWARD REQUIRED WELD LENGTH (L_{wb}).

REFERENCED CODES:
- AISC 360, 341, 358.
- AWS D1.8

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- COMPLETE BRB DESIGN BASED ON Asc PROVIDED IN STRUCTURAL DRAWINGS.
- DESIGN GUSSET PLATE AND CONNECTION OF BRB TO GUSSET PLATE.
- DESIGN CONNECTION OF GUSSET TO FRAME COLUMNS & BEAMS/BASE PLATES.

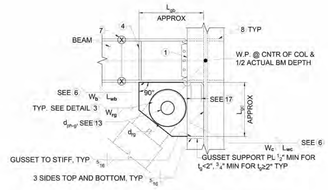
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West Jordan, Utah 84081
(801) 280-0701



A SEE DETAILS 1, 2, AND 3 FOR BRB & GUSSET LAYOUT PROCEDURE.

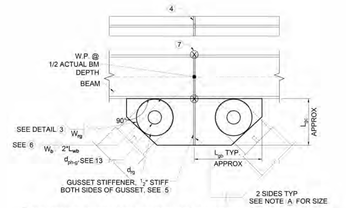
TYPICAL CONNECTION AT BRACE TOP 14
SHOWN AT STRONG AXIS COLUMN
SCALE: NTS



A SEE DETAILS 1, 2, AND 3 FOR BRB & GUSSET LAYOUT PROCEDURE.

TYPICAL CONNECTION AT BRACE TOP 15
SHOWN AT WEAK AXIS COLUMN
SCALE: NTS

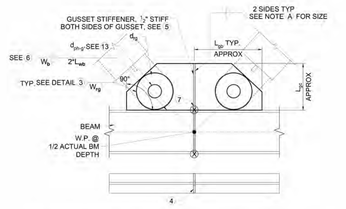
NOT USED 16
SCALE: NTS



(A) FOR STIFFENER THICKNESS REQUIREMENTS, SEE CONNECTION SCHEDULE (MAIN) USE $\frac{5}{16}$" FILLET WELD FOR THICKNESSES < 1.25", $\frac{7}{16}$" FILLET WELD FOR THICKNESSES < 2.0", UNO FOR STIFF PLATES > 2" CONTACT COREBRACE FOR FILLET WELD SIZE.

TYPICAL CONNECTION AT CHEVRON TOP 17
SCALE: NTS

NOT USED 18
SCALE: NTS



(A) FOR STIFFENER THICKNESS REQUIREMENTS, SEE CONNECTION SCHEDULE (MAIN) USE $\frac{5}{16}$" FILLET WELD FOR THICKNESSES < 1.25", $\frac{7}{16}$" FILLET WELD FOR THICKNESSES < 2.0", UNO FOR STIFF PLATES > 2" CONTACT COREBRACE FOR FILLET WELD SIZE.

TYPICAL CONNECTION AT CHEVRON BOT 22
SCALE: NTS

NOT USED 19
SCALE: NTS

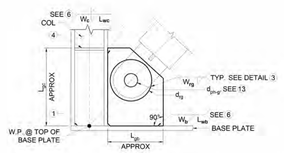
NOT USED 20
SCALE: NTS

NOT USED 21
SCALE: NTS

NOT USED 23
SCALE: NTS

NOT USED 24
SCALE: NTS

NOT USED 25
SCALE: NTS



A SEE DETAILS 1, 2, AND 3 FOR BRB & GUSSET LAYOUT PROCEDURE.

TYPICAL CONNECTION AT BASEPLATE 26
SHOWN AT STRONG AXIS COLUMN
WP AT TOP OF BASE PLATE
SCALE: NTS

EXP 12/2026

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REGISTERED PROFESSIONAL ENGINEER
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INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	HP
Scale	

COREBRACE PINNED BRACE and GUSSET CONNECTION DETAILS

2-S3.24

| | | | | | | | | Casing | | | | | | | |

COREBRACE SCHEDULE 1

												Casing																				F_{ysc}	CB
CB-ID	ETABS	Line	Grids	Lvls	Mark	Qty	L_b	L_p	d_{ph-g}	L_c	Type	Profile	W_c	H_c	t_c	W_L	L_S	X_L	t_L	d_{rL}	t_{rL}	D_{wrL}	D_{wL}	e_L	c	a	L_{ysc}	L''_{ysc}	W_{sc}	t_{sc}	A_{sc}	PL	K_{eff}	K_f	P_{ysc}	Min	Max	Wt
#	#		#	#	#	#	in	in	in	in	t,p		in	in	in	in	in	in	in	in	in	#	#	in	in	in	in	in	in	in	in^2		k/in	(K_{eff}/K_{Lwp})	kip	ksi	ksi	lb
CB-2.25	**151**	**A3**	**AI-CL**	**1**	**2902**	**1**	175 8/16	171	1.7188	157.00	p	**o**	8.63	-	0.2500	4.50	17.69	3.44	0.63	3.88	0.25	4.00	4.00	0.81	2.50	1.50	135.63	119.75	3.000	0.75	2.25	-	459	1.58	86	38	46	1176
CB-2.25	**152**	**A3**	**CL-AH**	**1**	**2902**	**1**	175 8/16	171	1.7188	157.00	p	**o**	8.63	-	0.2500	4.50	17.69	3.44	0.63	3.88	0.25	4.00	4.00	0.81	2.50	1.50	135.63	119.75	3.000	0.75	2.25	-	459	1.58	86	38	46	1176
CB-2.00	**143**	**AA**	**A2-CL**	**1**	**2908**	**1**	241 8/16	237	1.7188	223.00	p	**o**	8.63	-	0.2500	4.50	18.00	3.75	0.75	4.38	0.00	0.00	4.00	0.56	2.50	1.50	201.00	186.50	4.000	0.50	2.00	-	278	1.39	76	38	46	1599
CB-2.00	**144**	**AA**	**CL-A1**	**1**	**2909**	**1**	243 8/16	239	1.7188	225.00	p	**o**	8.63	-	0.2500	4.50	18.00	3.75	0.75	4.38	0.00	0.00	4.00	0.56	2.50	1.50	203.00	188.50	4.000	0.50	2.00	-	276	1.38	76	38	46	1613
CB-3.00	**184**	**E**	**4-CL**	**2**	**2910**	**1**	153	148	1.9688	133.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	110.88	96.38	4.000	0.75	3.00	-	718	1.67	114	38	46	1047
CB-3.00	**183**	**E**	**CL-5**	**2**	**2911**	**1**	159	154	1.9688	139.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	116.88	102.38	4.000	0.75	3.00	-	684	1.64	114	38	46	1089
CB-3.00	**179**	**E**	**7-CL**	**2**	**2913**	**1**	169	164	1.9688	149.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	126.88	112.38	4.000	0.75	3.00	-	635	1.58	114	38	46	1159
CB-3.00	**180**	**E**	**CL-8**	**2**	**2914**	**1**	163	158	1.9688	143.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	120.88	106.38	4.000	0.75	3.00	-	664	1.61	114	38	46	1117
CB-3.00	**167**	**A**	**5-CL**	**2**	**2916**	**1**	175	170	1.9688	155.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	132.88	118.38	4.000	0.75	3.00	-	608	1.56	114	38	46	1202
CB-3.00	**168**	**A**	**CL-4**	**2**	**2913**	**1**	169	164	1.9688	149.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	126.88	112.38	4.000	0.75	3.00	-	635	1.57	114	38	46	1159
CB-3.00	**163**	**A**	**8-CL**	**2**	**2918**	**1**	179	174	1.9688	159.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	136.88	122.38	4.000	0.75	3.00	-	593	1.53	114	38	46	1230
CB-3.00	**164**	**A**	**CL-7**	**2**	**2919**	**1**	185	180	1.9688	165.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	142.88	128.38	4.000	0.75	3.00	-	569	1.51	114	38	46	1272
CB-3.00	**172**	**4**	**B-CL**	**2**	**2923**	**1**	202	197	1.9688	182.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	159.88	145.38	4.000	0.75	3.00	-	510	1.50	114	38	46	1391
CB-3.00	**171**	**4**	**CL-D**	**2**	**2923**	**1**	202	197	1.9688	182.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	159.88	145.38	4.000	0.75	3.00	-	510	1.50	114	38	46	1391
CB-3.00	**175**	**8**	**F-CL**	**2**	**2926**	**1**	188	183	1.9688	168.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	145.88	131.38	4.000	0.75	3.00	-	558	1.51	114	38	46	1293
CB-3.00	**176**	**8**	**CL-D**	**2**	**2926**	**1**	188	183	1.9688	168.50	p	**o**	8.63	-	0.2500	5.00	18.56	4.06	0.75	4.38	0.25	4.00	4.00	0.81	2.50	1.50	145.88	131.38	4.000	0.75	3.00	-	558	1.51	114	38	46	1293
						16																														max -->		**1613**

Table of Symbols

- L_b = Length of CB tip to tip
- L_p = Distance center to center of pins
- $d_{ph-g,R,L}$ = Diameter of pin hole in Gusset, Left, and Right Lugs
- L_c = Length of casing
- **Casing** = Size & type of casing
- **Type** = t = tube (square/rect) and p = pipe (round)
- W_L = Width of lug
- X_L = Length from start of lug transition to end of lug transition
- t_L = Thickness of lug
- d_{rL} = Diameter of repad at lug
- t_{rL} = Thickness of repad at lug
- D_{wrL} = Size of weld at lug repad to lug # 1/16ths
- D_{wL} = Size of weld at lug to core # 1/16ths
- e_L = Distance from edge of lug repad to edge of gusset
- **c** = Core extension length out of casing
- **a** = Gap between core and gusset
- L_{ysc} = Length of yielding core w/out allowance for Cntr Stiffener
- L''_{ysc} = Yield length of core - Yielding Portion Only
- W_{sc} = Width of core at yield section
- t_{sc} = Thickness of core
- A_{sc} = Cross sectional area of core at yield section
- **PL** = Type of core, (-) = flat, (+) = cruciform
- K_{eff} = Effective Stiffness of BRB from WP to WP
- K_f = Axial Stiffness Adjustment Factor
- P_{ysc} = Yield force of CB
- F_{ysc} = Specified yield stress range of core plate

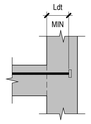
COREBRACE SCHEDULE 1

| | | | | | | | | | | | | Gusset & Gusset Repad | | | | | | | | BOTTOM OF BRACE CONNECTION | | | | | | | | | | | | | | | | | | TOP OF BRACE CONNECTION | | | | | | | | | | | | | | | | | | Required Stiff or Continuity Plate | | | | CB | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

HEADED BAR DEVELOPMENT LENGTH (Ldt)SCHEDULE

CASE TYPE / BAR SIZE	fc = 3000psi				fc = 4000psi				fc = 5000psi				fc = 6000psi			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
#3	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
#4	9"	6"	7"	6"	8"	6"	7"	6"	8"	6"	6"	6"	8"	6"	6"	6"
#5	12"	8"	10"	6"	11"	7"	9"	6"	11"	7"	9"	6"	11"	7"	8"	6"
#6	15"	10"	12"	8"	15"	9"	12"	7"	14"	9"	11"	7"	14"	9"	11"	7"
#7	19"	12"	16"	10"	18"	12"	15"	9"	18"	11"	14"	9"	17"	11"	14"	9"
#8	24"	15"	19"	12"	22"	14"	18"	11"	21"	13"	17"	11"	21"	13"	17"	11"
#9	28"	18"	23"	14"	27"	17"	21"	13"	26"	16"	21"	13"	25"	16"	20"	13"
#10	34"	21"	27"	17"	32"	20"	25"	16"	31"	19"	24"	15"	30"	19"	24"	15"
#11	39"	25"	32"	20"	37"	23"	30"	19"	36"	22"	29"	18"	35"	22"	28"	18"

NOTES:
1. THESE BAR DEVELOPMENT LENGTHS APPLY TO NORMAL WEIGHT CONC ONLY.
2. PROVIDE LENTON HEADED REINFORCING BARS PER IAPMO-UES ER-0188.
3. LENGTHS SHOWN IN SCHEDULE ABOVE APPLY TO UNCOATED GRADE 60 BARS. MULTIPLY THE SPECIFIED LENGTH BY 1.33 FOR GRADE 80 BARS
4. CASE I: TYPICAL
5. CASE II: HEADED BARS SPACED GREATER THAN 6db O/C
6. CASE III: HEADED BARS WITH SIDE COVER PARALLEL WITH HEADED BAR GREATER THAN OR EQUAL TO 6db or HEADED BARS TERMINATING WITHIN CONFINED COLUMN CORE WITH SIDE COVER PARALLEL WITH HEADED BAR GREATER THAN OR EQUAL TO 2 1/2"
7. CASE IV: HEADED BARS MEETING REQUIREMENTS OF BOTH CASE II AND CASE III

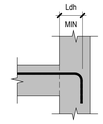


Ldt

HOOKED BAR DEVELOPMENT LENGTH (Ldh)SCHEDULE

CASE TYPE / BAR SIZE	fc = 3000psi				fc = 4000psi				fc = 5000psi				fc = 6000psi			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
#3	8"	6"	6"	6"	7"	6"	6"	6"	7"	6"	6"	6"	7"	6"	6"	6"
#4	12"	7"	9"	6"	11"	7"	9"	6"	10"	7"	8"	6"	10"	7"	8"	6"
#5	16"	10"	13"	8"	15"	10"	12"	8"	15"	9"	12"	7"	14"	9"	11"	7"
#6	21"	13"	17"	11"	20"	12"	16"	10"	19"	12"	15"	10"	19"	14"	15"	9"
#7	26"	17"	21"	13"	25"	16"	20"	13"	24"	15"	19"	12"	23"	15"	19"	12"
#8	32"	20"	26"	16"	30"	19"	24"	15"	29"	18"	23"	15"	28"	18"	23"	14"
#9	38"	24"	31"	19"	36"	23"	29"	18"	35"	22"	28"	18"	34"	21"	27"	17"
#10	46"	29"	37"	23"	43"	27"	35"	22"	42"	26"	33"	21"	41"	25"	33"	20"
#11	54"	34"	43"	27"	50"	32"	40"	25"	49"	30"	39"	24"	47"	30"	38"	24"

NOTES:
1. FOR TYP BAR HOOKS & BENDS, SEE DETAIL 03
2. HOOKED BAR LENGTHS SHOWN IN SCHEDULE ABOVE APPLY TO NORMAL WEIGHT CONC - MULTIPLY THE SPECIFIED DEVELOPMENT LENGTH BY 1.33 FOR LIGHTWEIGHT CONC
3. LENGTHS SHOWN IN SCHEDULE ABOVE APPLY TO UNCOATED GRADE 60 BARS. MULTIPLY THE SPECIFIED LENGTH BY 1.33 FOR GRADE 80 BARS
4. CASE I: TYPICAL
5. CASE II: HOOKED BARS SPACED GREATER THAN 6db O/C
6. CASE III: HOOKED BARS WITH SIDE COVER PARALLEL WITH HOOKED BAR GREATER THAN OR EQUAL TO 6db or HOOKED BARS TERMINATING WITHIN CONFINED COLUMN CORE WITH SIDE COVER PARALLEL WITH HOOKED BAR GREATER THAN OR EQUAL TO 2 1/2"
7. CASE IV: HOOKED BARS MEETING REQUIREMENTS OF BOTH CASE II AND CASE III
8. HOOKED BARS MAYBE SUBSTITUTED WITH HEADED BARS PER 'Ldt' SCHEDULE AT LEFT



Ldh

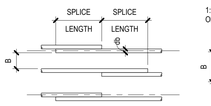


DIAGRAM AT STAGGERED SPLICES

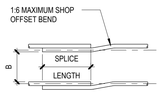
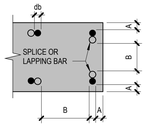


DIAGRAM AT NON-STAGGERED SPLICES



BAR SPACING DIAGRAM

LEGEND:
A. CLEAR EDGE DISTANCE
B. CLEAR SPACING OF SPLICED OR LAPPED BARS (SEE GEN NOTE 'E.8' FOR MIN CLEAR SPACING)
db = BAR ø

NOTES:
1. ALL SPLICES SHALL BE CLASS B SPLICES UNLESS INDICATED OTHERWISE. DEVELOPMENT Ld TO BE USED WHERE SPECIFICALLY INDICATED.
2. SCHEDULE APPLIES TO UNCOATED GRADE 60 BARS IN NORMAL WEIGHT CONC
3. TOP BARS (INDICATED "T" IN SCHEDULE) ARE HORIZ BARS WITH MORE THAN 12" OF CONC CAST BELOW THE BARS.
4. BOTTOM BARS (INDICATED "B" IN SCHEDULE) ARE ALL VERT BARS AND HORIZ BARS WITH LESS THAN 12" OF CONC CAST BELOW HORIZ BARS.
5. FOR LIGHTWEIGHT CONC MULTIPLY LengthS IN SCHEDULE BY 1.33.
6. AT SPLICE BETWEEN BARS OF VARYING SIZE, PROVIDE LAP SPLICE CORRESPONDING TO LARGER OF 'Ls' OF SMALLER BAR and 'Ld' OF LARGER BAR.
7. LengthS SHOWN IN SCHEDULE APPLY TO UNCOATED GRADE 60 BARS MULTIPLY THE SPECIFIED LENGTH BY 1.33 FOR GRADE 80 BARS.

SCHEDULE FOR DETERMINING CATEGORY

I	II
1. A>db and B>2db 2. A>db and B>db and TIES THROUGHOUT Ld	OTHER CASES

TENSION LAP SPLICE "Ls" SCHEDULE

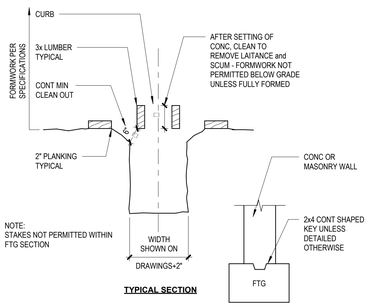
CATEGORY	NORMAL WEIGHT CONCRETE f'c PSI	SPLICE LENGTH (INCHES)													
		0.375		0.500		0.625		0.750		0.875		1.000		1.128		1.270		1.410	
		#3		#4		#5		#6		#7		#8		#9		#10		#11	
		T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B
I	3000	28	22	37	29	47	36	56	43	81	63	93	72	105	81	118	91	131	101
	4000	24	19	32	25	40	31	48	37	70	54	80	62	91	70	102	79	113	87
	5000	22	17	29	22	36	28	43	33	63	49	72	55	81	63	91	70	101	78
II	3000	42	32	56	43	70	54	84	64	122	94	139	107	157	121	177	136	196	151
	4000	36	28	48	37	60	47	72	56	106	81	121	93	136	105	153	118	170	131
	5000	33	25	43	33	54	42	65	50	94	73	108	83	122	94	137	105	152	117

DEVELOPMENT "Ld" SCHEDULE

CATEGORY	NORMAL WEIGHT CONCRETE f'c PSI	DEVELOPMENT LENGTH (INCHES)													
		0.375		0.500		0.625		0.750		0.875		1.000		1.128		1.270		1.410	
		#3		#4		#5		#6		#7		#8		#9		#10		#11	
		T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B
I	3000	22	17	29	22	36	28	43	33	63	48	72	55	81	62	91	70	101	78
	4000	19	15	25	19	31	24	37	29	54	42	62	48	70	54	79	61	87	67
	5000	17	13	22	17	28	22	33	26	49	37	55	43	63	48	70	54	78	60
II	3000	32	25	43	33	54	41	64	50	94	72	107	82	121	93	136	105	151	116
	4000	28	22	37	29	47	36	56	43	81	63	93	71	105	81	118	91	131	101
	5000	25	19	33	26	42	32	50	38	73	56	83	64	94	72	105	81	117	90

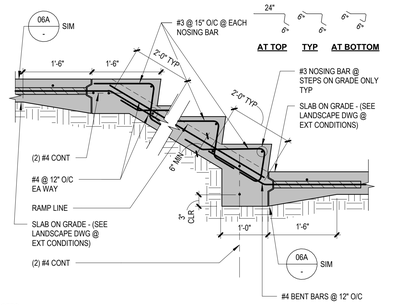
HOOKED (Ldh) AND HEADED (Ldt) BAR DEVELOPMENT LENGTH SCHEDULES

N.T.S. 16



TYPICAL SECTION

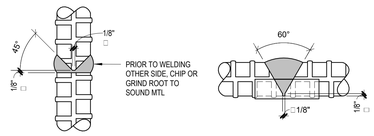
STARTER WALL DETAIL (A)



NOTES:
1. ADD #4 x 12" L 36" DOWELS @ 12" OC WHERE SIDE WALLS OCCUR AT STAIRS OR RAMP UNO
2. SEE ARCHITECTURAL OR LANDSCAPE FOR TREAD & RISER GEOMETRY AND FINISHING

TYP MANDATORY FOUNDATION FORMWORK (UNLESS FULLY FORMED)

N.T.S. 19



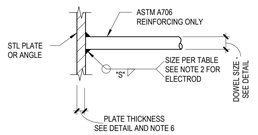
VERTICAL BAR **HORIZONTAL BAR**

NOTES:
1. AS AN ALT TO LAP SPLICE, BUTT WELD MAY BE USED AS INDICATED ABOVE, PROVIDED THEY ARE STAGGERED @ 24" MIN
2. AN APPROVED TESTING LABORATORY SHALL PROVIDE A PREQUALIFICATION TENSION TEST FOR SAMPLES ON EVERY SIZE OF BAR BEING WELDED.
3. MATERIALS, CONDITIONS AND WELDING PROCEDURES UTILIZED SHALL COMPLY WITH THE CURRENT APPLICABLE BUILDING CODE AND THE REQ'D OF THE GOVERNING INSPECTION AGENCY.
4. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED IN OBTAINING APPROVAL.

TYPICAL REINFORCING BUTT WELDS DETAIL (ALTERNATE TO SPLICES)

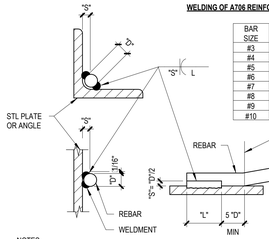
N.T.S. 18

NOTES FOR DOWEL WELDS TO PLATE:
1. WELDING OF A615 REINF NOT ALLOWED, MUST USE ASTM A706 REINFORCING.
2. USE E80 ELECTRODES FOR GRADE 60, E110 ELECTRODES FOR GRADE 80.
3. ALL WELDING TO BE PER AWS D1.4
4. PREHEAT PER AWS D1.4 TABLE 5.2
5. CUT OR GRIND END OF BAR TO FIT FLUSH WITH SURFACE OF PLATE AND NOT LEAVE GAPS.
6. MINIMUM PLATE THICKNESS TO BE 0.3 TIMES DOWEL DIAMETER. INCREASE PLATE SIZE WHERE NECESSARY.



BAR SIZE	SIZE WELD "S"
#3	3/16"
#4	1/4"
#5	5/16"
#6	3/8"
#7	7/16"
#8	1/2"
#9	1/2"
#10	9/16"
#11	5/8"

WELDING OF A706 REINFORCING



BAR SIZE	"L" WELD (MIN)	SIZE WELD "S"
#3	2"	3/16"
#4	3"	1/4"
#5	4"	5/16"
#6	4"	3/8"
#7	5"	7/16"
#8	6"	1/2"
#9	6"	9/16"
#10	7"	5/8"

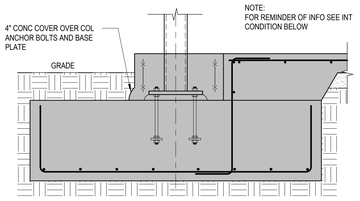
NOTES:
1. ALL REINFORCING WELDING SHALL BE IN ACCORDANCE WITH AWS CODE D1.4-05 CURRENT EDITION.
2. WELDED REINFORCING SHALL CONFORM TO ASTM A706.
3. ASTM A615 REINFORCING STL MAY BE WELDED PROVIDED A CHEMICAL ANALYSIS IS PERFORMED TO DETERMINE CARBON EQUIVALENCY. TO ESTABLISH MIN PREHEATING REQ'D. HEAT STICKS SHALL BE USED 6" FROM WELD TO VERIFY PREHEAT TEMPERATURES. CHEMICAL ANALYSIS REPORTS SHALL BE PROVIDED TO ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO WELDING.

TYPICAL REBAR WELDING

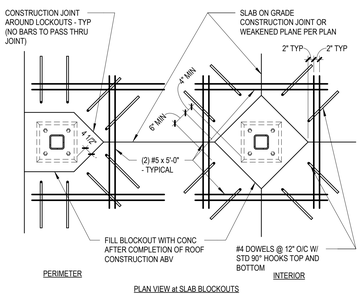
N.T.S. 17

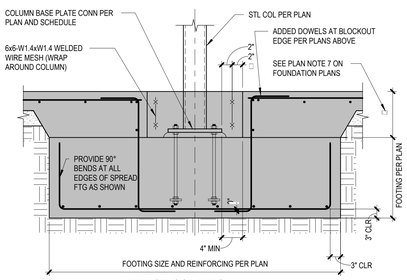
TYPICAL SECTION AT CONCRETE STEPS OR RAMP ON GRADE

N.T.S. 15



PERIMETER CONDITION

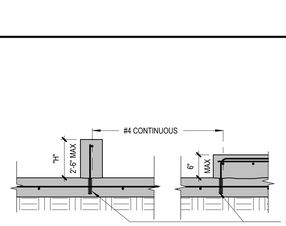




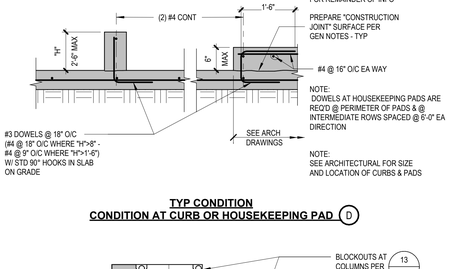
INTERIOR CONDITION

TYPICAL SPREAD FOOTING AT STEEL COLUMN

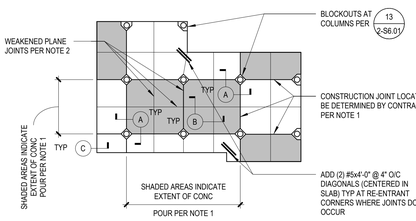
N.T.S. 13



DRILL & EPOXY ANCHOR OPTION



TYP CONDITION CONDITION AT CURB OR HOUSEKEEPING PAD (D)

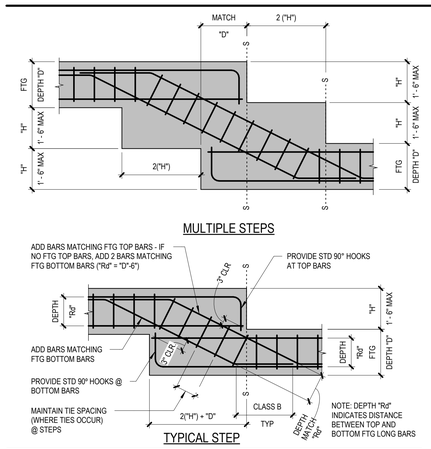


NOTES:
1. AREA OF CONC POURS TO BE DETERMINED BY CONTRACTOR. SUBMIT JOINT LAYOUT PRIOR TO POURING SLABS PER GENERAL NOTES. PROVIDE CONSTRUCTION JOINTS SURROUNDING AREA OF EA POUR UNLESS DETAILED OTHERWISE. ALLOW 24 HOURS MIN BEFORE CASTING SLABS AT ADJ AREAS.
2. SAWCUT WEAKENED PLANE JOINT AS SOON AS CONC CAN SUPPORT WEIGHT OF PERSONNEL AND SAW WITHOUT AFFECTING FINAL FINISH BUT NO LATER THAN 12 HOURS AFTER POUR. LOCATE WEAKENED PLANE JOINTS ALIGNED TO COLUMN GRID AS SHOWN AND NO GREATER THAN 15'-0" IN BOTH DIRECTIONS, UNLESS NOTED OTHERWISE.

SLAB ON GRADE JOINT DIAGRAM (PLAN VIEW)

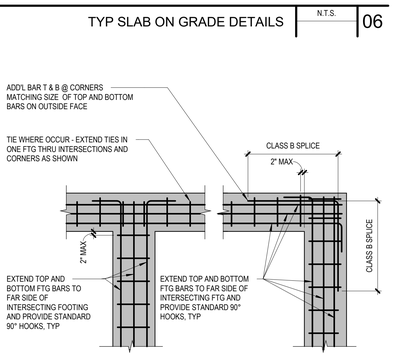
TYP STEPPED FOOTING/GRADE BEAM DETAIL

N.T.S. 09



TYP SLAB ON GRADE DETAILS

N.T.S. 06



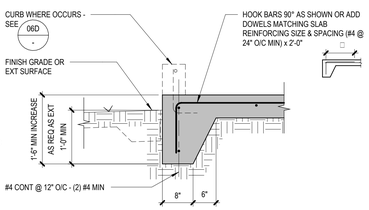
PLAN VIEW AT INTERSECTIONS **PLAN VIEW AT CORNERS**

TYP FTG REINFORCING @ CORNERS & INTERSECTIONS

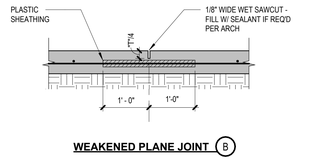
N.T.S. 05

TYPICAL REBAR TENSION SPLICE and BAR DEVELOPMENT SCHEDULE (IN CONCRETE)

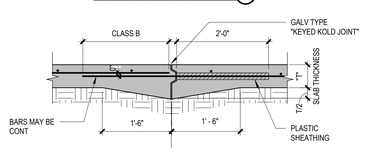
N.T.S. 04



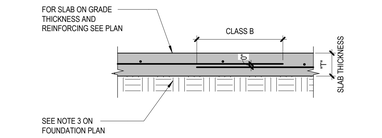
TURNED-DOWN SLAB EDGE (C)



WEAKENED PLANE JOINT (B)



CONSTRUCTION JOINT (A)

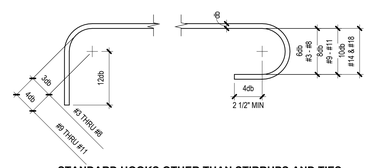


TYPICAL SECTION AT SLAB ON GRADE

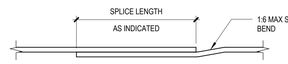
BAR DIAMETER DISTANCES

BAR DIA	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
3db	1 1/8"	1 1/2"	1 7/8"	2 1/4"	2 5/8"	3"	-	-	-
4db	1 1/2"*	2"*	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	5 1/2"
6db	2 1/4"*	3"	3 3/4"	4 1/2"	5 1/4"	6"	-	-	-
8db	-	-	-	-	-	-	9"	10"	11"
12db	4 1/2"	6"	7 1/2"	9"	10 1/2"	12"	13 1/2"	15"	16 1/2"

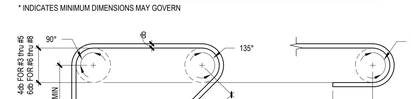
* INDICATES MINIMUM DIMENSIONS MAY GOVERN



STANDARD HOOKS OTHER THAN STIRRUPS AND TIES



MAXIMUM OFFSET AT SPLICES

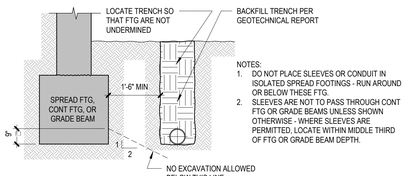


STANDARD HOOKS FOR STIRRUPS AND TIES

NOTE:
HOOKS OF TWO SUCCESSIVE STIRRUPS OR TIES ENGAGING SAME LONGITUDINAL BAR SHALL BE ALTERNATED END FOR END

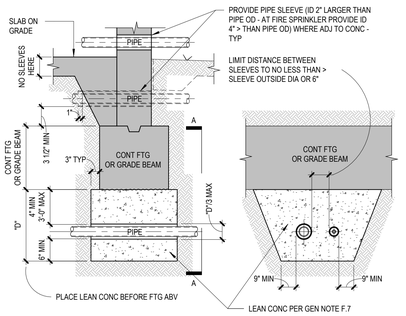
TYP REINFORCING STEEL HOOKS, BENDS and OFFSETS AT SPLICES

N.T.S. 03



NOTES:
1. DO NOT PLACE SLEEVES OR CONDUIT IN ISOLATED SPREAD FOOTINGS - RUN AROUND OR BELOW THESE FTG.
2. SLEEVES ARE NOT TO PASS THROUGH CONT FTG OR GRADE BEAMS UNLESS SHOWN. OTHERWISE - WHERE SLEEVES ARE PERMITTED, LOCATE WITHIN MIDDLE THIRD OF FTG OR GRADE BEAM DEPTH.

TRENCH ADJACENT TO FOUNDATION



PIPES ABOVE OR BELOW FOUNDATION **ELEVATION A-A**

TYP PIPES ABOVE/BELOW OR TRENCHES ADJACENT TO FOUNDATIONS

N.T.S. 01

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REGISTERED PROFESSIONAL ENGINEER HAMINDA A. PRASAD No. 55493 03/31/27 STRUCTURAL STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL INCREMENT 02

30215 Morning View Dr., Malibu, CA 90265

Developed for SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

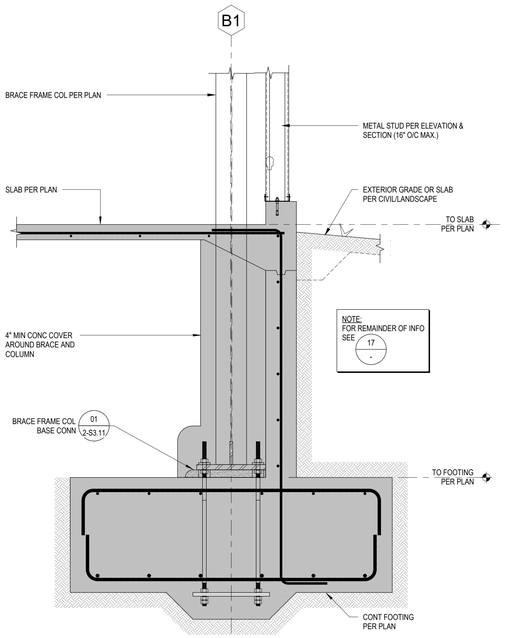
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Submittal	Date
SCHEMATIC DESIGN	08/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	04/16/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

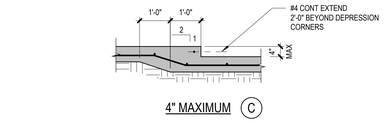
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Checked By	HP
Scale	As indicated

TYPICAL FOUNDATION AND SOG DETAILS

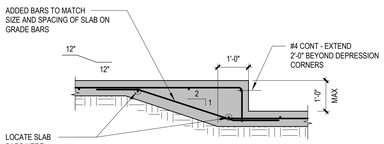
2-S6.01



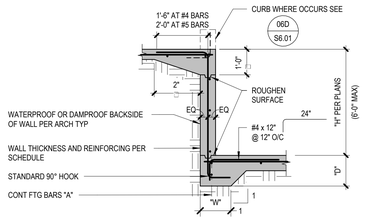
STEEL COLUMNS TO LOW FOOTING BASE CONNECTION | N.T.S. | 19



4" MAXIMUM (C)



1'-0" MAXIMUM (B)

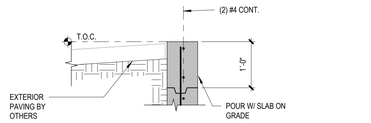


WALL SCHEDULE

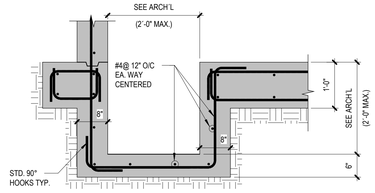
MAXIMUM HEIGHT "H"	FTG WIDTH "W" x DEPTH "D"	FTG BARS "A"	WALL THK	WALL REINFORCING EA WAY
2'-6"	10" x 1'-0"	(2) #4	6"	#4 @ 16" OC
4'-0"	1'-0" x 1'-0"	(2) #5	8"	#5 @ 16" OC
6'-0"	1'-0" x 1'-6"	(2) #6	10"	#6 @ 16" OC

6'-0" MAXIMUM (A)

TYPICAL SECTIONS AT CHANGE IN SLAB ON GRADE ELEVATION (6'-0" MAXIMUM) | N.T.S. | 12

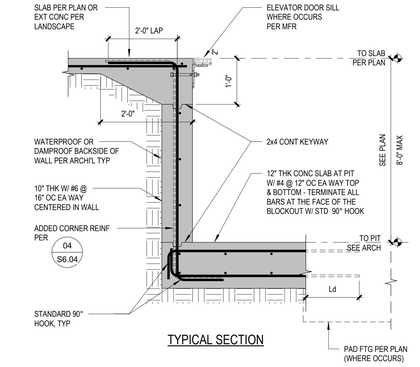


CONDITION (B)

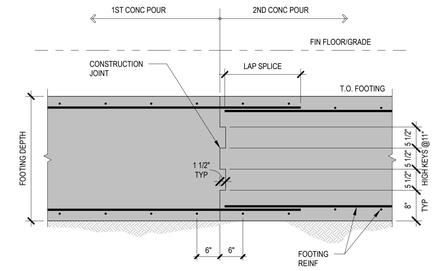


CONDITION AT SUMP PIT (A)

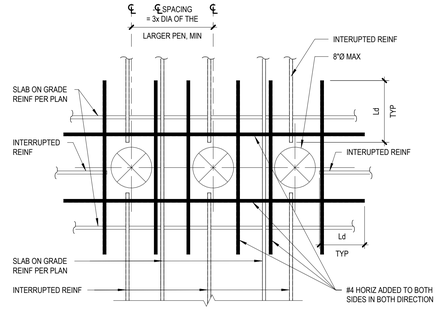
TYPICAL ELEVATOR PIT DETAIL | N.T.S. | 04



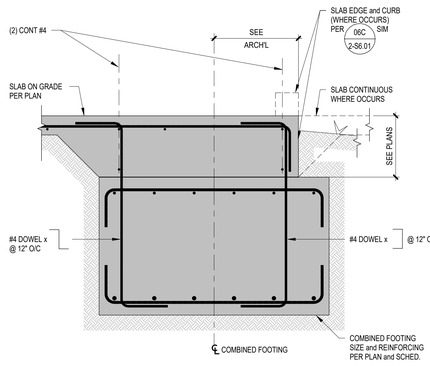
TYPICAL SECTION



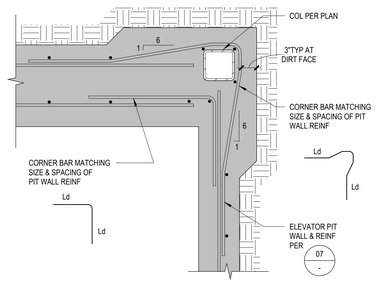
TYPICAL CONTINUOUS FOOTING CONSTRUCTION JOINT DETAIL | N.T.S. | 11



TYP SLAB ON GRADE REINF AT CONDUIT PENETRATIONS | N.T.S. | 03

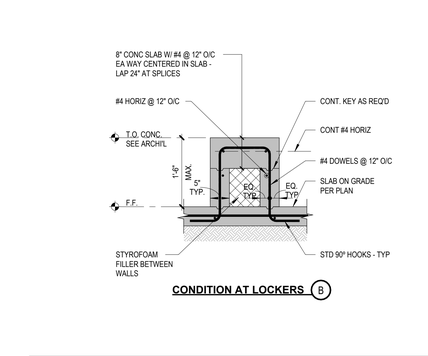


TYP. COMBINED FOOTING SECTION (PERIMETER CONDITION) | N.T.S. | 14

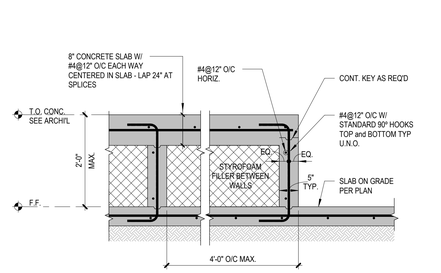


PLAN VIEW

HSS COLUMN AT ELEVATOR PIT CORNER | N.T.S. | 10

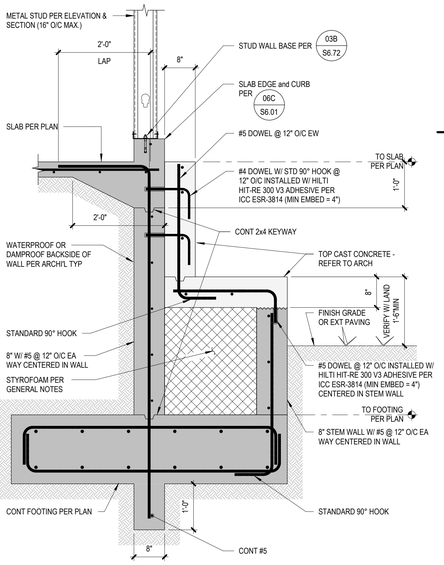


CONDITION AT LOCKERS (B)

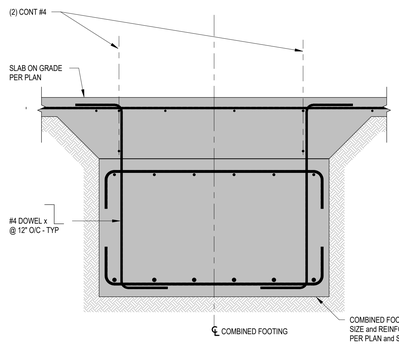


TYPICAL CONDITION (A)

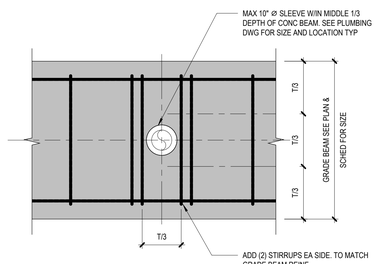
BUILT-UP SLAB ON GRADE | N.T.S. | 02



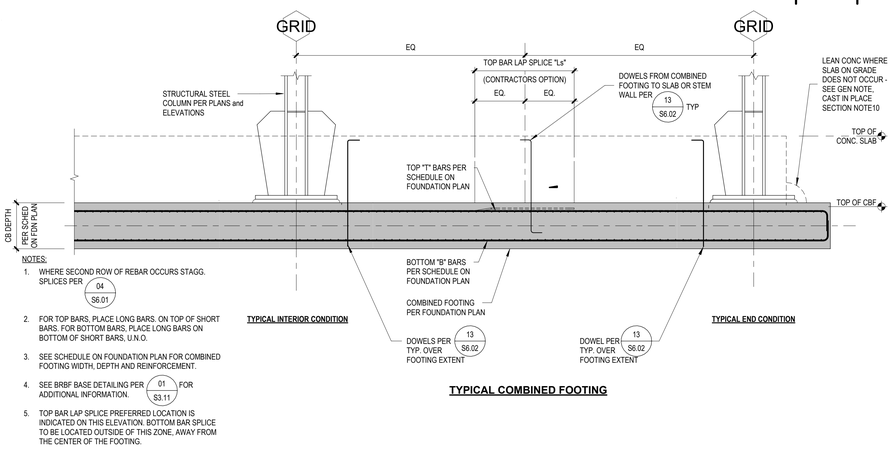
RETAINING WALL DETAIL | N.T.S. | 17



TYP. COMBINED FOOTING SECTION (INTERIOR CONDITION) | N.T.S. | 13



SLEEVE THRU FOOTING / GRADE BEAM | N.T.S. | 09



NOTES:
1. WHERE SECOND ROW OF REBAR OCCURS STAGG. SPLICES PER 04 S6.01
2. FOR TOP BARS, PLACE LONG BARS. ON TOP OF SHORT BARS. FOR BOTTOM BARS, PLACE LONG BARS ON BOTTOM OF SHORT BARS, U.N.O.
3. SEE SCHEDULE ON FOUNDATION PLAN FOR COMBINED FOOTING WIDTH, DEPTH AND REINFORCEMENT.
4. SEE BRBF BASE DETAILING PER 01 S3.11 FOR ADDITIONAL INFORMATION.
5. TOP BAR LAP SPLICE PREFERRED LOCATION IS INDICATED ON THIS ELEVATION. BOTTOM BAR SPLICE TO BE LOCATED OUTSIDE OF THIS ZONE, AWAY FROM THE CENTER OF THE FOOTING.

TYPICAL INTERIOR CONDITION

TYPICAL END CONDITION

TYPICAL COMBINED FOOTING

TYPICAL COMBINED FOOTING ELEVATION | N.T.S. | 01

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REGISTERED PROFESSIONAL ENGINEER HAMIDREZA A. PASSAD NO. S5493 09/27/25 STRUCTURAL STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

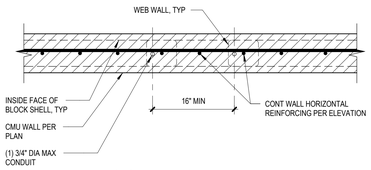
Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	04/16/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	

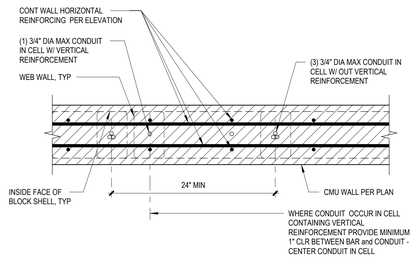
TYPICAL FOUNDATION AND SOG DETAILS

2-S6.02

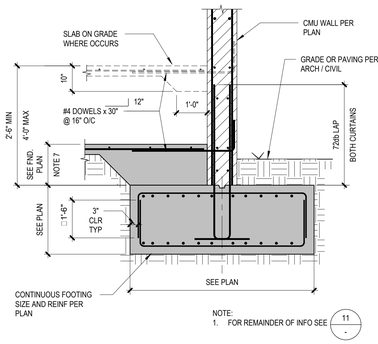
NOTES:
1. PLACE CONDUITS IN CELLS WITHOUT VERTICAL REINFORCEMENT WHENEVER POSSIBLE.
2. WIRE VERTICAL CONDUIT TO WALL HORIZONTAL BARS, MAINTAIN BARS IN PLACE DURING GROUT POUR.
3. HORIZONTAL CONDUIT ARE NOT PERMITTED.
4. NO ALUMINUM COMPONENTS SHALL BE EMBEDED IN MASONRY CONSTRUCTION.
5. CELLS SHOWN ARE REF ONLY ACTUAL CELL & BLOCK CONFIGURATION MAY VARY.



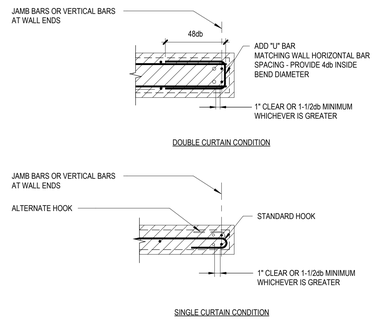
8" CMU WALL (PLAN VIEW)



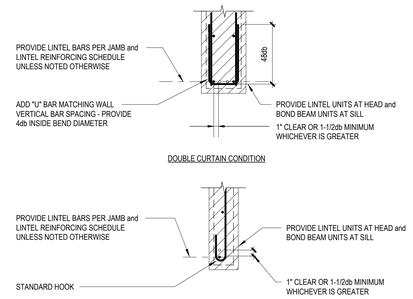
12" CMU WALL (PLAN VIEW)



NOTE:
1. FOR REMAINDER OF INFO SEE 11 -
2. DETAILING SHOWN FOR 12" CMU WALL, 8" CMU WALL SIMILAR

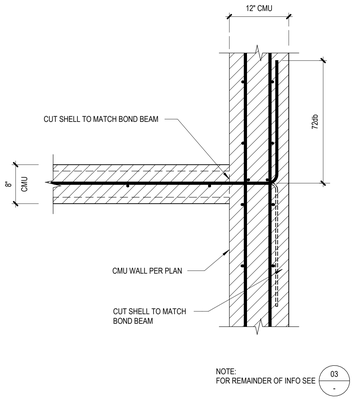


SECTION AT JAMB BARS OR BARS AT WALL ENDS (PLAN VIEWS) (B)



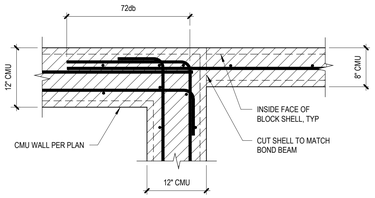
SINGLE CURTAIN CONDITION SECTION AT LINTEL BARS (A)
(SILL CONDITION SIMILAR)

VERTICAL CONDUITS IN CMU WALL — N.T.S. — 16



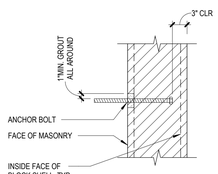
NOTE:
FOR REMAINDER OF INFO SEE 03 -

PLAN VIEW CONDITION (B)



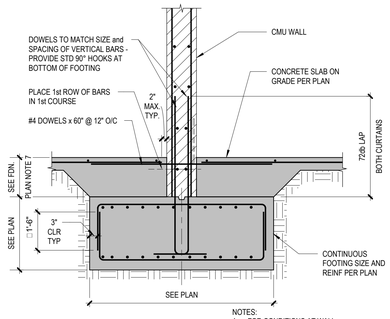
PLAN VIEW CONDITION (A)

TYP MASONRY ANCHOR BOLT DETAIL — N.T.S. — 15



NOTE:
1. ANCHOR BOLTS SHALL BE HEX HEADED WITH THE DIMENSIONS OF THE HEX CONFORMING TO ANSI/ASME B18.2.1 BENT BAR ANCHORS SHALL NOT BE USED.

TYPICAL PERIMETER MASONRY WALL AT CONTINUOUS FOOTING — N.T.S. — 12



NOTES:
1. FOR CONDITIONS AT WALL OPENINGS SEE 13 -
2. DETAILING SHOWN FOR 12" CMU WALL, 8" CMU WALL SIMILAR

TYPICAL INTERIOR MASONRY WALL AT CONTINUOUS FOOTING — N.T.S. — 11

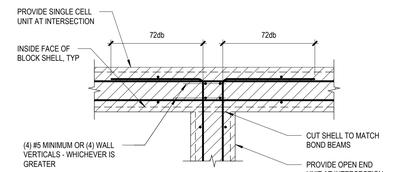
KEY NOTES:
1. PROVIDE DOWELS AT BOTTOM OF WALL MATCHING SIZE and QUANTITY OF VERTICAL OR JAMB BARS INTO FOUNDATION W/ STD 90° HOOKS AT BOTTOM OF FOOTING - LAP W/ VERTICAL OR JAMB BARS 72 BAR DIAMETERS (db)
2. TYPICAL HORIZONTAL WALL BARS PER WALL REINFORCING SCHEDULE UNLESS OTHERWISE INDICATED ON PLANS OR ELEVATIONS - PROVIDE STD 180° HOOKS IN 8" WALL AT WALL ENDS and OPENINGS ON VERTICAL BAR (PROVIDE "U" BARS PER 04B/- IN 12" WALLS) - LAP HORIZONTAL BARS 48db AT STAGGERED LOCATIONS - NO ATTEMPT IS MADE TO LOCATE HORIZONTAL BAR SPLICE LOCATIONS
3. TYPICAL VERTICAL WALL BARS PER WALL REINFORCING SCHEDULE UNLESS OTHERWISE INDICATED ON PLANS OR ELEVATIONS - LAP VERTICAL BARS AT ELEVATED LEVELS AS SHOWN 72db - ADD DOWELS AT CONCRETE SLAB ON GRADE and ELEVATED CONCRETE LEVELS PER DETAILS INDICATED
4. TYPICAL JAMB BARS - SEE JAMB and LINTEL REINFORCING SCHEDULE UNLESS NOTED OTHERWISE ON PLANS OR ELEVATIONS - EXTEND JAMB BARS 72db ABOVE and BELOW OPENINGS UNLESS SHOWN OTHERWISE (ADD BARS WITH STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS) AT TOP OF WALL WHERE WALLS TERMINATE ABOVE OPENING) - LAP JAMB BARS AT ELEVATED LEVELS WHERE SHOWN 72 BAR DIAMETERS - FOR TYPICAL SECTION AT JAMB BARS INCLUDING CONFINING TIES SEE 04B/- UNLESS NOTED OTHERWISE
5. TYPICAL LINTEL BARS - SEE JAMB and LINTEL REINFORCING SCHEDULE UNLESS OTHERWISE INDICATED ON PLANS OR ELEVATIONS - SPLICES NOT PERMITTED - EXTEND LINTEL BARS 72db BEYOND OPENINGS UNLESS SHOWN OTHERWISE (PROVIDE STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS) AT WALL ENDS IF EXTENSION LENGTH BEYOND OPENING CANNOT BE ATTAINED) - FOR TYPICAL SECTION AT LINTEL BARS INCLUDING CONFINING TIES SEE 04A/- UNLESS NOTED OTHERWISE
6. WHERE OPENING JAMBS ABOVE and BELOW MISALIGN BY LESS THAN 16" ACCEPTABLE TO PROVIDE SINGLE ALIGNING JAMB FOR ALL OPENINGS
7. DETERMINE LINTEL BARS BASED ON WIDTH OF LARGER OPENING ABOVE OR BELOW
8. PROVIDE (2) #5 VERTICAL BARS AT WALL ENDS UNLESS NOTED OTHERWISE - LAP VERTICAL BARS AT ELEVATED LEVELS AS SHOWN 72 BAR DIAMETERS
9. IF WALL HEIGHT IS NON-MODULAR OR TOP OF WALL SLOPES, EITHER SAW TOP COURSE OR (IF NOT EXPOSED) FORM TOP COURSE and GROUT SOLIDLY
10. EXTEND JAMB BARS DOWN TO TOP OF OPENING and PROVIDE STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS)
11. AT TOP OF WALL, PROVIDE (2) HORIZONTAL WALL BARS W/ STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS) AT WALL ENDS
12. SEE ARCH WALL ELEVATIONS FOR CONTROL JOINT LOCATIONS (MAX 25'-0" O/C UNO)
13. PIER WIDTH "PW" SHALL BE AT LEAST 3 TIMES WALL THICKNESS UNLESS PIER WIDTH and SECTION SHOWN ON WALL ELEVATIONS IN STRUCTURAL DRAWINGS
14. BEAM POCKET PER PLAN (WHERE OCCURS). AT INTERRUPTED CHORD REINFORCING PROVIDE BARS MATCHING SIZE AND QUANTITY OF INTERRUPTED CHORD REINFORCING DIRECTLY BENEATH POCKET CONTINUE 72db BEYOND POCKET EACH END - SEE 09/2-S6.62

JAMB and LINTEL REINFORCING SCHEDULE
(UNLESS NOTED OTHERWISE ON PLANS OR WALL ELEVATIONS)

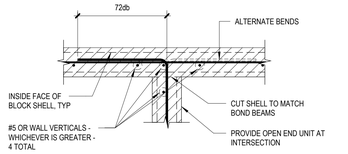
MAXIMUM OPENING WIDTH "W"	REINFORCING	
	JAMB REINFORCING (VERTICAL)	LINTEL REINFORCING (HORIZONTAL)
2'-0"	(2)#5	(2)#5
4'-6"	(2)#5	(2)#5
6'-0"	(2)#6	(2)#6
8'-0"	(2)#6	(2)#6
15'-0"	SEE ELEVATION	SEE ELEVATION

NOTES:
1. AT PIERS BETWEEN ADJACENT OPENINGS WHERE PIER WIDTH "PW" < 6'-0", DETERMINE JAMB BARS BASED ON LARGER OPENING WIDTH "W".
2. OPENING (JAMB) and CORNER BARS SHALL BE OF SIZE NO LESS THAN THE VERTICAL BARS SPECIFIED ON WALL ELEVATION.

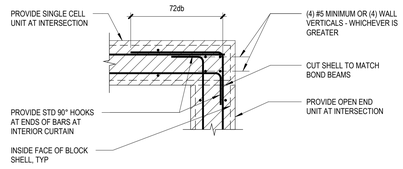
TYPICAL MASONRY CONSTRUCTION AT OPENINGS and WALL ENDS — N.T.S. — 04



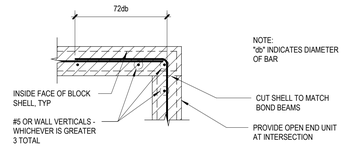
INTERSECTION (DOUBLE CURTAIN)



INTERSECTION (SINGLE CURTAIN)

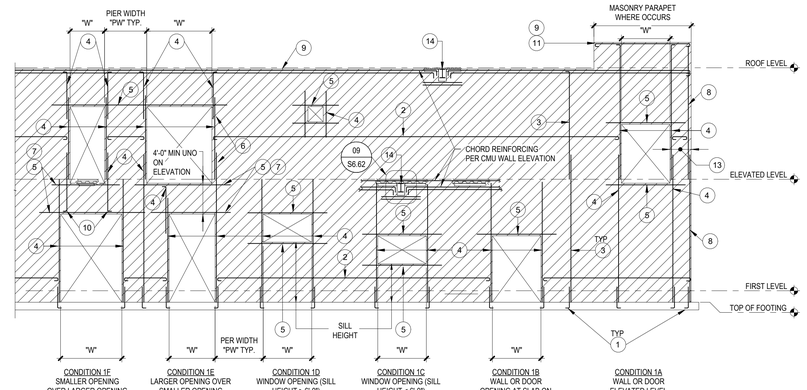


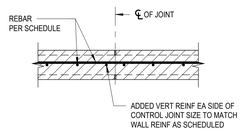
CORNER (DOUBLE CURTAIN)



CORNER (SINGLE CURTAIN)

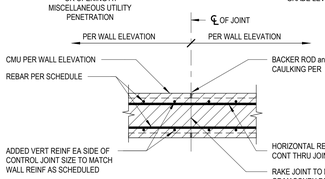
TYPICAL MASONRY CONSTRUCTION AT CORNERS and INTERSECTIONS (PLAN VIEWS) — N.T.S. — 03





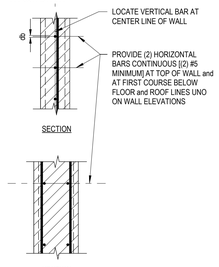
CMU CONTROL JOINT AT SINGLE CURTAIN CONDITION

NOTE:
FOR REMAINDER OF INFO SEE DOUBLE CURTAIN CONDITION



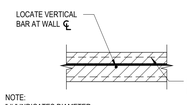
CMU CONTROL JOINT AT DOUBLE CURTAIN CONDITION

NOTE:
MORTAR JOINT SHALL BE CONTINUOUS ALONG CONTROL JOINT



WALL REINFORCING SCHEDULE
(UNLESS NOTED OTHERWISE - SEE PLANS OR WALL ELEVATIONS FOR WALL THICKNESS)

NOMINAL WALL THICKNESS	REINFORCING		REINFORCING PLACEMENT DETAIL
	VERTICAL REINFORCING	HORIZ REINFORCING	
8"	#6 @ 16" O/C - AT WALL CENTERLINE	#5 @ 16" O/C - ADJACENT TO VERTICAL REINFORCING	01Z -



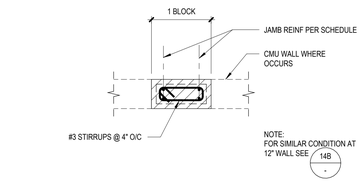
NOTE:
"db" INDICATES DIAMETER OF BAR

PLAN VIEW
BAR PLACEMENT AT SINGLE CURTAIN CONDITION (Z)

NOTE:
PROVIDE OPEN END UNIT AT EACH VERTICAL BAR

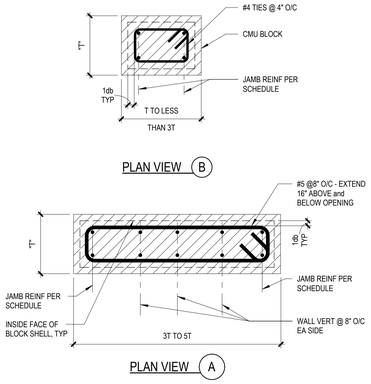
BAR PLACEMENT AT DOUBLE CURTAIN CONDITION (Y)

CMU INTERSECTION BETWEEN 8" CMU AND 12" CMU (PLAN VIEW) — N.T.S. — 18

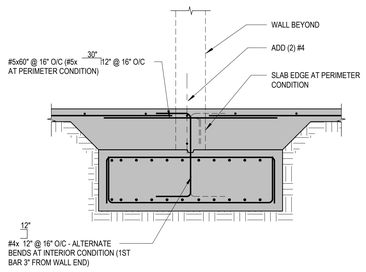


PIER REINFORCING AT 8" WALL (PLAN VIEW) — N.T.S. — 17

PIER REINFORCING AT 12" WALL (PLAN VIEW) — N.T.S. — 14



TYPICAL OPENING MASONRY WALL AT CONTINUOUS FOOTING — N.T.S. — 13



TYPICAL MASONRY WALL ELEVATION and REINFORCING SCHEDULES (APPLICABLE TO ALL MASONRY WALLS EXCEPT SITE RETAINING WALLS UNLESS NOTED OTHERWISE) — N.T.S. — 01

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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
90% DESIGN DEVELOPMENT	04/18/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	As indicated

TYP. CMU WALL ELEVATION and DETAILS

2-S6.61

CAST-IN-PLACE CONCRETE

1. Concrete mixing shall comply with ASTM C94.
2. Hydraulic Cement:
   A. ASTM C595 see table for types.
   B. Alternatively, ASTM C150 type II/V.
3. Aggregates:
   A. Normal Weight Concrete Aggregate (NW): ASTM C33 for aggregates of natural sand and rock. The maximum aggregate size is noted in the table below. The maximum dry density shall be 145 pcf.
      a. Where smaller aggregate is required for workability or areas of congestion, the contractor shall submit a request to the structural engineer prior to submitting the mix design. Pea gravel is not permitted.
   B. Light Weight Aggregate (LW) for Structural Concrete: ASTM C330, expanded shale lightweight aggregate. The maximum dry density shall be 115 pcf.
   C. Alkali Aggregates: Aggregate shall be non-reactive per ASTM C1778.
4. See the table below for the required concrete properties:

Class	Use/Location	Strength (psi) 28-Day	Agg Type	Max Agg Size (in)	Slump (in)	Max w/c	Target Air %	ASTM C595 Type	Exposure Category	GWP Limit kgCO$_2$e/m^3
A	UNLESS NOTED OTHERWISE	4,000	NW	1	3-5	0.5	--	IL	F0,S0	324
B	FOOTING AND GRADE BEAMS	4,000	NW	1	3-5	0.5	--	IL (HS)	F0,S0,C1*	324
C	SLAB ON GRADE	4,500	NW	1	3-5	0.45	--	IL	F0,S0	378
D	WALLS	4,000	NW	1	3-5	0.45	--	IL	F0,S0,C1*	324
E	COLUMNS	5,000	NW	1	3-5	0.5	--	IL	F0,S0	378
F	FILL ON DECK	4,000	LW	3/4	3-5	0.45	--	IL	F0,S0	594
G	PIERS / CAISSONS	3,000	NW	1 1/2	5-7	0.6	--	IL	F0,S0,C1*	280

* An exposure class of fC1 is assumed for concrete in contact with soil exposed to moisture per ACI 318, but not due to external sources of chlorides.

5. Slump: Per ACI 301, CH. 4 and CBC section 1705.3. The specified slump above is measured before applying chemical add mixtures. The slump may be increased up to a maximum 8" at the contractor's option for workability and should be noted in the mix design submittal.
6. Global Warming Potential (GWP): as defined in the specifications.
   A. Concrete may be considered one product category to comply with the GWP Limit. A weighted average of the maximum GWP for all concrete mixes installed in the project shall be less than the weighted average maximum GWP as specified above. Calculations shall be submitted for approval.
7. N/A
8. All concrete above grade, including slab on grade, deck fill, wall, topping slab, stair landing and tread, shall have 1.5 pounds of 3/4" long structural reinforcing per cubic yard per concrete.
9. Lean Concrete: Where specifically indicated, containing 2 sacks of cement per cubic yard of concrete. Use only where specifically called for.
10. Non-shrink Grout: ASTM C1107, cementitious, non-metallic, attaining a compressive strength of 8000 psi.
11. Concrete Mix Design Submittal: Prior to ordering concrete, submit for each compressive strength and type of concrete required designed, mix designs signed, and sealed by a registered Civil or Structural Engineer in State of California to Architect (Structural Engineer), Special Inspector, Owner and to Governing Code Authority complying with California Building Code, Chapter 19.
12. Construction Joint: Roughen surface to 1/4-inch amplitude. Clean, remove laitance, thoroughly wet and remove standing water before placing new concrete. Submit to the Architect (Structural Engineer) at least 14 days prior to placing concrete indicating locations of construction joints and extent of pours. Place joints at locations to minimize the effects of shrinkage as well as being placed at points that least impair the strength of the structure. Provide dowels as directed.
13. Embedments and Penetrations in Concrete: No penetration through structural concrete is permitted unless shown in these drawings or specifically accepted in writing by the Architect (Structural Engineer). Do not cut any reinforcing.
   A. Pipes, Sleeves, Conduits, and Ducts: Not permitted embedded or penetrating concrete spread footings, columns, walls or concrete cast over metal decking, except as shown in these drawings.
   B. Conduits Embedded in Structural Concrete Slabs: Not permitted unless limited to two layers of 1 inch, and 1/6 slab thickness. outside diameter conduits and smaller spaced at least 3 inches center to center and within middle third of slab thickness. No conduit embedded in concrete cast over metal decking is permitted. No aluminum conduit is permitted.
14. Chamfered Corners: Provide 3/4-inch charfer at exposed corners of columns, beams and walls except where structural walls are laid flush with column or beam faces, unless detailed otherwise.
15. Curing: Maintain concrete above 50 degrees Fahrenheit and in a moist condition for a minimum of 7 days after placement unless otherwise accepted by the Architect (Structural Engineer).
16. Non-Structural Topping slab shall be normal weight concrete reinforced with 6x6-W3.5xW3.5 W.W.F. at the center line of the slab. See plans & details for information on concrete fill over metal deck.
17. The maximum size for a single elevated concrete slab pour shall be 25,000 sq. ft. and shall have a maximum length to depth ratio of 2:1.
18. The maximum water-soluble chloride ION (CI) content in concrete by percentage of weight cement is 0.30.
19. Where "Styrofoam" or "EPS" is indicated on the drawings, provide expanded polystyrene conforming to ASTM D6817 Type EPS12 with the following physical properties.
   A. Density (min): 0.70 lb/ft^3
   B. Compressive Resistance (min): 2.2 psi @ 1% strain
   C. Flexural Strength (min): 10.0 psi

METAL DECKING

1. Metal Decking and Accessories: Verco Manufacturing Company, type and gauge as indicated on structural drawings, ASTM A653-SS grade 50 minimum conforming to IAPMO report ER-2018, G60 coating, unless heavier galvanized coating is indicated in specifications. Run deck units continuous over three or more spans where possible, deck is designed for unshored construction, UNO. Provide vented deck where vapor impervious material occurs over concrete fill, see Architectural for locations.
2. Deck Welding: AWS D1.3 using prequalified procedures.
   A. Qualification of Welders: Welders shall be experienced in welding light-gauge steel and using prequalified procedures. Erector shall establish welding procedure for arc spot welding of metal decking to structural steel, for each gauge of decking to be used. Prior to deck erection, each welder shall be qualified using this procedure and witnessed by Special Inspector. See California Building Code, Chapter 22A and 17A, for additional qualification requirements.
3. Shop Drawings: Submit to Architect (Structural Engineer) for review. Shop drawings shall include layout of deck, type of deck, methods of attachment, and all deck openings larger than 1'-0".
4. Limits to Non-Structural Items Suspended From Metal Decking:
   A. Hangers supported by metal decking with structural concrete fill shall be anchored using products with valid evaluation report under applicable code.
      a. Limit hangers to the following applications: Acoustical ceilings, ducts no greater than 6 sq. feet cross sectional area, pipes no greater than 3 inch diameter. See typical detailing for further clarification of design intent.
      b. At duct and pipe distributions systems, limit hanger loads to concrete filled metal deck as follows: 250# maximum per metal deck span per 24" width. Support larger duct work and piping from structural beams as shown in typical details.
   B. Hangers supported by metal decking without structural concrete fill shall be anchored using products with valid evaluation report under applicable code.
      a. Limit hangers to the following applications: Acoustical ceilings, ducts no greater than 1.5 sq. feet cross sectional area, pipes no greater than 1.5 inch diameter. See typical detailing for further clarification of design intent.
      b. At duct and pipe distributions systems, limit hanger loads to metal deck w/o concrete fill as follows: 100# maximum per metal deck span per 24" width. Support larger duct work and piping from structural beams as shown in typical details.
5. Pre-punched Holes in Metal Decking and Accessories: Metal deck welding and installation of welded shear studs are not permitted through single layer sheets greater than 16 gauge (G90 MAX), nor through double layer sheets greater than 20 gauge (G60 MAX), nor through sheets with total galvanized coating thickness greater than 1.25 ounces per square foot. Provide pre-punched holes as necessary. Provide closure angle at all openings per typical details.
6. Excess Structural Concrete: Concrete filled metal decking and steel framing will deflect during placement of concrete. These deflections will require placement of concrete in excess of amount based on nominal dimensions in order to bring slab within tolerances of a horizontal plane. Provide excess concrete at no cost to Owner.
7. Deck shall be layed out such that low flutes land on each parallel support wherever possible. Provide filler deck accessory where low flutes do not align with parallel framing. Provide 2" minimum bearing at each support and 2" lap at ends of decking panels.
8. Composite slabs:
   A. See "Proprietary Anchorage and Fasteners" notes for welded headed studs.
   B. Stud welding, inspection and testing shall conform to AWS D1.1, CH. 7.
   C. 18 gauge or thicker decking shall not be lapped where welded studs are attached through decking.

REINFORCING STEEL

1. Reinforcing Steel: All bars shall be deformed.Table Notes:

Use/Location	Type/Grade	GWP Limit (unfabricated) (MTCO$_2$e/MT)	Notes
Standard Bars (#3 thru #6)	ASTM A615, Grade 60	0.89	-
Standard Bars (#7 and larger)	ASTM A615, Grade 60	0.89	-
Bars to be welded (#3 thru #6)	ASTM A706, Grade 60	0.89	-
Bars to be welded (#7 and larger)	ASTM A706, Grade 60	0.89	-
Smooth WWF	ASTM A1064, Fy = 65 ksi	-	A
Deformed wire stirrups	ASTM A1064, Fy = 65 ksi	-	B
Spiral reinforcing	ASTM A1064, Fy = 65 ksi	-	-

   A. Provide WWF in flat sheets only - do not use rolled mesh. Lap 1-1/2 wire spaces (1 foot minimum).
   B. Only D4 and larger are allowed.
   C. MT = Metric ton.
2. Reinforcing shall be placed in accordance with the American Concrete Institute Standard 318 (ACI 318) and Concrete Reinforcing Steel Institute's (CRSI) "Manual of Standard Practice". Reinforcing shall be kept clean and free of rust.
3. Provide all accessories needed to support reinforcing in the positions shown in the drawings. Chairs and spacers for reinforcing shall be non-ferrous or plastic-coated when resting on exposed concrete surfaces.
4. Shop Drawings: ACI 318. Show reinforcing steel placement, including sizes, quantities, spacing, clearances, splice locations, lap lengths, and concrete coverage and submit to the Architect (Structural Engineer). Promptly notify the Architect (Structural Engineer) prior to developing shop drawings if insufficient clear distances between reinforcing steel and other congestion are encountered. Notify Special Inspector of adjustments made from approved Contract Documents which are indicated on accepted shop drawings that facilitate field placement of reinforcing steel and concrete. All bars shall be marked so that they can easily be identified by the project inspector after installation.
5. Lap Splices: At concrete, Provide Class B splices per Typical Bar Development Schedules UNO. At masonry, provide 72db lap splice length UNO. Splice bars only at locations indicated. If additional splice locations are proposed, promptly notify the Architect (Structural Engineer) prior to developing shop drawings.
   A. Splices in Walls: Locate splices in horizontal bars at well-staggered locations. Do not splice vertical bars except at horizontal supports such as floor and roof diaphragms.
6. Mechanical and Welded Splice: Mechanical Splices and Welded Splices are to be used only at the indicated locations. Notify the Architect (Structural Engineer) of all instances prior to developing shop drawings.
   A. Mechanical Splice: Mechanical couplers shall have a current Evaluation Report and satisfy ACI requirements for type 2 couplers for the applicable bar size/grade designation.
   B. Welded Splice: Welded splice shall develop at least 125 percent of the yield strength of the spliced bar for the applicable bar size and grade designation.
7. Minimum Clearances Between Parallel Reinforcing Steel, Including Distance Between Sets of Spliced Bars: 1 inch, 1 bar diameter, or 4/3 times the maximum aggregate size, whichever is greater, 1-1/2 inches, 1-1/2 bar diameters, or 4/3 times the maximum aggregate size, whichever is greater, at columns, piers, and pilasters only. For bundled bars, minimum clear distances between units of bundled bars shall be the same as single bars, except bar diameter is derived from the equivalent total area of the bundle.
8. Specified Concrete Coverage: Place bars as near to the concrete surface as the following specified coverages and in accordance with ACI 117:

A. Slabs on Grade	Locate at the center of slab.
B. Slabs Supporting Earth Above	1-1/2 inches from top.
C. Formed Concrete Exposed to Earth or Weather	1-1/2 inches (#5 and smaller) 2 inches (#6 and larger)
D. Concrete Poured Against Earth (Unformed)	3 inches
E. Walls Above Grade, Exposed to Weather	1-1/2 inches (#5 and smaller) 2 inches (#6 and larger)
F. Walls Above Grade, Not Exposed to Weather	3/4 inch (#11 and smaller) 1-1/2 inches (#14 and larger)
G. Columns (Clear to Face of Ties)	1-1/2 inches
H. Beams (Clear to Face of Ties)	1-1/2 inches
I. Structural Slabs, Not Exposed to Weather (Top and Bottom)	1 inch (#8 and smaller) 1db (#9 and larger)
J. Structural Slabs, Exposed to Weather	1-1/2 inches (#6 and smaller) 2 inches (#6 and larger)
K. Structural Slabs over Void Forms	1 inch (top #8 and smaller); 1 db (#9 and larger) 2 inches (bottom)

9. Dowels between foundations and vertical wall & column bars shall match the size, grade and spacing of the column or wall vertical reinforcing and be lapped with a class B lap splice, UNO.
10. Dowels at Construction Joints: Provide dowels matching size and quantity of reinforcing steel interrupted at construction joints, unless detailed otherwise.
11. Placement of Bars in Walls (unless detailed otherwise): Place vertical bars closest to wall surfaces at curtains containing vertical and horizontal bars of the same size. In curtains with vertical and horizontal bars of different sizes or spacing, place the layer with the most steel area closest to the near wall surface.
12. Bars Terminating at Walls, Columns, Beams, and Foundations: Extend bars to within 2 inches (3 inches at concrete poured against earth) of the far face of the wall, column, beam, or foundation and provide a standard hook unless detailed otherwise.
13. Bars Interrupted by Structural Steel: Extend bars within 2 inches of the steel face and provide a standard hook unless detailed otherwise.
14. Welding: AWS D1.4, edition adopted by applicable code.
   A. Acceptable Reinforcing Steel for Welding: ASTM A706. If welding of reinforcing steel other than A706 is desired, submit a proposed procedure, indicating conformance with the Applicable Code and requirements of the Governing Code Authority, to the Architect (Structural Engineer) for acceptance and to the Governing Code Authority for approval prior to execution.
   B. Rebar to rebar weld is not allowed except where specifically indicated on plans. Provide electrode E80XX (80 ksi) where permitted.
   C. Welder Certification: As required by the Governing Code Authority.
15. See welding notes in the Structural Steel Section of these notes for additional requirements.
16. Bending: Bend cold according to typical details unless otherwise accepted by the Architect (Structural Engineer). Do not field-bend reinforcing steel bars embedded in concrete unless otherwise accepted in writing by the Architect (Structural Engineer).
17. In-plant fusion welding of holding wires to ties, stirrups and hoops in beams, columns and grade beams to preassemble reinforcing steel cages is permitted under the following conditions per CBC 2022 1903.8:
   A. Fusion welding is not allowed to longitudinal reinforcing steel in any beam, column or grade beam. The holding wire area shall not exceed 5% of the beam, column or grade beam cross sectional longitudinal steel area.
   B. Fusion welding of holding wires to the ends of the reinforcing steel placed in mats (spread footings, slab reinforcement, etc.) provided the fusion weld occurs within 6 bar diameters of the free end of the bar (e.g. not allowed at the end of coupled, t-headed or weld spliced bars).
   C. Fusion welding of holding wires shall not occur on a bent portion of a reinforcing bar. After holding wire has been fusion welded to a reinforcing bar, that bar may not be bent where the fusion weld occurs.
   D. Contractor to submit complete shop drawings indicating which members will use fusion welding process for preassembly. Provide complete details indicating the size of stirrups, holding wires and welding requirements.
   E. Holding wires shall conform to ASTM A1064.
   F. All reinforcing steel to be welded shall comply with ASTM A706 Grade 60.
      a. Contractor to submit complete shop welding program outlining the following: Type of specific fusion welding machine (i.e. Schnell IDEA 12/25 Machine, etc.)
      b. Periodic inspection of the in-plant welding.
   G. Fusion welded reinforcing steel shall have one tensile test taken from one specimen sampled at a rate of 2.5 tons or fraction thereof of each size of reinforcing steel fusion welded. No bend test is necessary. The specimen shall have a holding wire attached to it that need not be removed. The elongation requirements shall comply with the ASTM of reinforcing steel specified on the construction documents (e.g. if A615 is specified, but A706 is used due to the welding requirement, then A615 elongation requirements shall be satisfied).
   H. The use of fusion welding shall conform to ACI 318-19:26.6.4.
   I. If field conditions result in conflicts with other structural members (ex. anchor bolts) the rebar must be relocated in the field to avoid said conflicts.

DESIGN LOADING

1. Loading and Design Parameters:
   A. Live Load
      a. Floor / Roof Live Load: See legends as provided on loading plan sheets.
      b. Live Load Reduction:
         - Floor Live Load of 100 psf and below: General (Applicable Code Section 1607A.12.1)
         - Floor Live Load over 100 psf: Unreduced
         - Roof Live Load: General (Applicable Code Section 1607A.14.2)

   B. Wind Design Parameters

Wind Speed Strength level, V:	100 MPH (STRENGTH)
a. Wind Speed Allowable Stress, V_{asd}	78 MPH (ASD)
b. Risk Category:	III
c. Exposure:	C
d. Enclosure Classification:	Enclosed, Hub Canopy: Open
• Internal Pressure Coefficient, GC_{pi}:	+/- 0.18, Hub Canopy: 0.0
e. Components and Cladding Wind Pressure:	

Hub Building (Middle School Building and MDF Building):

	EFFECTIVE AREA		
ZONE	10 SF	100 SF	500 SF
1'	16.0 / -20.0 (psf)	16.0 / -20.0 (psf)	16.0 / -16.0 (psf)
1	16.0 / -34.8 (psf)	16.0 / -27.2 (psf)	16.0 / -21.8 (psf)
2	16.0 / -45.9 (psf)	16.0 / -36.1 (psf)	16.0 / -29.2 (psf)
3	16.0 / -52.5 (psf)	16.0 / -42.9 (psf)	16.0 / -29.2 (psf)
4	20.0 / -21.6 (psf)	17.0 / -18.7 (psf)	16.0 / -16.7 (psf)
5	20.0 / -26.6 (psf)	17.0 / -20.7 (psf)	16.0 / -16.7 (psf)

Hub Canopy:

	EFFECTIVE AREA		
ZONE	10 SF	100 SF	500 SF
1	20.4 / -18.7 (psf)	20.4 / -18.7 (psf)	20.4 / -18.7 (psf)
2	30.6 / -28.9 (psf)	30.6 / -28.9 (psf)	20.4 / -18.7 (psf)
3	40.8 / -56.1 (psf)	30.6 / -28.9 (psf)	20.4 / -18.7 (psf)

Gymnasium Building:

	EFFECTIVE AREA		
ZONE	10 SF	100 SF	500 SF
1'	16.0 / -23.5 (psf)	16.0 / -23.5 (psf)	16.0 / -16.0 (psf)
1	16.0 / -41.0 (psf)	16.0 / -32.0 (psf)	16.0 / -25.7 (psf)
2	16.0 / -54.1 (psf)	16.0 / -42.5 (psf)	16.0 / -34.4 (psf)
3	16.0 / -73.7 (psf)	16.0 / -50.6 (psf)	16.0 / -34.4 (psf)
4	23.5 / -25.5 (psf)	20.1 / -22.0 (psf)	17.7 / -19.6 (psf)
5	23.5 / -31.4 (psf)	20.1 / -24.4 (psf)	17.7 / -19.6 (psf)

Loads indicated are strength-level loads (negative values indicate pressure away from the surface).

   C. Rain Loads
      a. Rain Intensity (15-minute), i: 2.84 (in/hr), 15-min duration/100-year return period

   D. Snow Loads Parameters:

a. Ground snow load, p_g	0 PSF
b. Flat-roof snow load, p_f	0 PSF
c. Risk Category:	III
d. Snow load importance factor, I_s	1.1
e. Thermal factor, C_t	1.0
f. Slope factor, C_s	1.0

   E. Project Seismic Design Parameters:

a. Site Class:	D
b. Mapped Spectral Acceleration (S_s, S_1):	1.608g, 0.557 g (respectively)
c. Site Specific Design Spectral Acceleration (S_{DS}, S_{D1}):	1.224g, 0.760 g (respectively)
d. Site Coefficient (F_a, F_v):	1.142, 2.047 (respectively)
e. Seismic Importance Factor I_e:	1.25
f. Risk Category:	III
g. Seismic Design Catagory:	D

MDF Building Seismic Design:

a. Basic Seismic Force Resisting System:	Special Reinforced Masonry Shear Walls
b. Seismic Response Coefficient, C_s:	0.245 g
c. Analysis Procedure:	Equivalent Lateral Force Procedure
d. Seismic Base Shear:	15.8 kips
e. Response Modification Factor R:	5.0
f. Overstrength Factor, Ω_0:	2.5
g. Deflection Amplification Factor, C_d:	3.5
h. Maximum Story Inelastic Drift:	Roof Floor: 0.1 in (North / South) 0.1 in (East / West)
i. Irregularities:	Vertical: N/A Horizontal: N/A
j. Redundancy Factor, p:	p = 1.3 (North / South) 1.3 (East / West)
k. Building Mass:	64.4 kips
m. Location of Seismic Base	At Top of Footing

DEFERRED SUBMITTAL ITEMS ANCHORED OR SUPPORTED BY STRUCTURE

1. Design Responsibility: Contractor to design and obtain separate Governing Code Authority approval for deferred approval items noted on Gx series sheets.
2. Shop Drawings and Structural Calculations: Submit design plans, details and calculations of deferred submittal items signed and sealed by a structural engineer registered in State of California to Architect (Structural Engineer) for acceptance and to Governing Code Authority for approval prior to fabrication.
3. Design: Design components for imposed forces including lateral restraint complying with Applicable Code, Contract Documents, and applicable portions of AISI Specifications. If building Seismic Force Resisting System (SFRS) is used for lateral restraint, indicate load paths to building lateral resisting system in calculations and show connection forces on shop drawings. Where building provides vertical support, indicate loads and load paths to building in calculations and show connection forces on shop drawings. Dead load elements at lowest level of connection uno Design loads are as follows:
   A. Dead load: Self weight of deferred system (including supported components of other systems).
   B. Live load: Per applicable code.
   C. Seismic and wind loads: Per applicable code. See Design Loading section of General Notes
   D. Design Movement: Lateral Movement: Design Loading (Section E) of General Notes
      Vertical Movement: Live Load Deflection of L/360
4. Stabilizing Elements at Connections to Structural Members: Design connections of deferred submittal items to supporting structure such that torsion to supporting elements is avoided whenever possible. Where torsion in supporting element is resulted, provide beam bottom flange brace per detail 17 or 18/2-SE.11 at each connection point.

QUALITY ASSURANCE (STRUCTURAL OBSERVATION, MATERIALS TESTING, and SPECIAL INSPECTION)

1. Structural Observation:
   A. The Architect (Structural Engineer) of record will perform visual observation of the construction as required CAC 4-333 and 4-341 in accordance with the governing code. These visual observations shall not be considered a substitute for special inspections.
   B. Coordination Responsibilities of Contractor: Notify Architect (Structural Engineer) 48 hours in advance of critical stages of construction indicated below so visits may be scheduled by Structural Observer. Failure by Contractor to meet observation schedule may require removal of subsequent Work for observation. Contractor to bear costs of removal and replacement of finished Work or framing damaged by removal process or as required for corrective action and for any associated scheduling delays.
      Critical stages of construction requiring structural observation:
      1. Prior to pouring first foundation at each of the structures.
      2. Prior to pouring first concrete filled metal deck.
      3. After structural steel erection, Prior to application of architectural furring.
      4. After roof deck welded off.
   C. Pre-construction Meeting: Owner may coordinate and call for meeting between Architect (Structural Engineer) responsible for structural design, Structural Observer, Contractor, affected subcontractors and Special Inspector. Structural observer will preside over this meeting. Purpose of meeting is to identify major structural elements and connections that affect vertical and lateral load resisting systems of structure and to review schedule of Structural Observation, Materials Testing, and Special Inspection of Project.
2. Mill Test Reports Certifying Materials: Contractor to submit mill test reports certifying reinforcing steel, and structural steel are of identifiable tested stock to Owner, Special Inspector, Architect (Structural Engineer) and, upon request, to Governing Code Authority. Ensure materials are properly tagged for identification. If mill test reports cannot be made available or if material cannot be identified, Testing Laboratory will perform tests as directed by Architect (Structural Engineer). Contractor shall pay Testing Laboratory for costs related to tests and inspections of unidentifiable materials or materials furnished without mill test reports, materials found deficient after initial tests and inspections, or materials replacing deficient materials.
   A. Ultrasonic Examination of Heavy Rolled Shapes and Thick Plates at Proposed Welded Moment Connections: Where complete penetration groove welds occur at Groups 4 and 5 structural steel shapes, as defined in ASTM A6, and plates exceeding 2 inches thick, submit mill test reports to Architect (Structural Engineer) and, upon request, to Governing Code Authority. Mill test reports shall certify that Charpy V-notch testing was conducted in compliance with ASTM A6. Supplementary Requirement S5, including impact test complying with ASTM A673 at frequency P with minimum average value of 20 ft.-lbs. absorbed energy at 70 degrees Fahrenheit.
3. Weld Testing and Inspection: Testing Laboratory will submit weld test results to Owner, Contractor, Architect (Structural Engineer) and to Governing Code Authority. See Specifications for testing requirements not indicated on structural drawings.
   A. Structural Steel Welding: Apart from visual inspection and review of fabrication and erection reports of fabricator/erector's own quality control testing and inspection, Owner's Testing Laboratory will perform indicated shop and field inspection and testing. Testing Laboratory will be AWS Q.C.-1 certified and will provide inspectors for continuous inspection of steel fabrication and erection and structural steel shop and field testing of materials and welding will be as follows:
      a. Ultrasonic testing is required for all (100%) and complete penetration welds. Test groove welding on continuity plates by ultrasonic testing after beam flange weld connection. Testing shall occur after completed welds have cooled to ambient temperature. Weld backing removal areas and fillet welds shall be subjected to magnetic particle examination.
      b. Base metal thicker than 1-1/2 inches, subjected to through thickness weld shrinkage, will be ultrasonically tested directly behind such welds after welds have cooled to ambient temperature.
      c. Welds shall be visually inspected and periodically measured (15 percent minimum).
      d. Check 10 percent of fillet welds by magnetic particle (ASTM 109 method). Check 25 percent of continuity plate fillet welds by magnetic particle, UNO. At continuity plates in moment connections (where CJP is used on one or more plate ends), 100 percent of fillet welds shall be tested by magnetic particle.
      e. Ultrasonically test column flanges located at proposed welded moment connections, continuity plates, doubler plates and base plates where column flange or plate thickness exceeds 1-1/2 inches. Test for evidence of laminations, inclusions or other discontinuities in accordance with ASTM A435, straight beam ultrasonic examination of steel plates, or ASTM A898, straight beam ultrasonic examination of rolled steel structural shapes, as applicable. Test zone to include area 6 inches above and below each beam flange connection. For plates, any discontinuity causing a total loss of back reflection not contained within 3-inch diameter circle, or one-half thickness of plate, whichever is greater, will be rejected. For rolled shapes, ASTM A898, Level I criteria applies. Testing will be performed on material prior to fabrication, after fabrication, and after final welding of beam.
      f. f. k-Area welds shall be MT'd no sooner than 48 hours after completion of weld.
      g. Amperage, voltage, polarity and electrode stick out will be verified for compliance with electrode manufacturer's recommendations.
4. Special Inspection: Per DSA-103 and chapter 17A of CBC.

GENERAL

1. Authority Having Jurisdiction (AHJ): Division of the State Architect (DSA SS)
   Applicable Code: 2022 California Building Code (CBC) as modified by AHJ. References to industry standards herein shall be latest edition as adopted by Applicable Code.
2. Field Verification: Field verify existing conditions and dimensions prior to construction. Promptly notify Architect (Structural Engineer) in case of discrepancies.
3. Design Intent: Contract Documents indicate design intent for structure in its completed state. They do not indicate method of construction. Promptly notify Architect (Structural Engineer), prior to proceeding with Work, if design intent requires further clarification.
4. Deviations, Modifications and Substitutions to Approved Structural Drawings: Must be accepted in writing by Architect (Structural Engineer) and approved by Governing Code Authority. No deviation, modification or substitution will be accepted via shop drawing review.
5. Procedures of Construction: Contractor is responsible for procedures of construction complying with national, state and local safety ordinances. Site visits (including Structural Observation) by Architect (Structural Engineer) do not constitute supervision of methods of construction.
   A. Protection of Utilities: Locate existing utilities, including those not shown on Contract Documents, and protect them from damage. Contractor bears expense of repair or replacement of utilities in conjunction with execution of Work.
   B. Excavations: Protect structure, adjacent structures, adjacent properties, streets, and utilities during excavation utilizing lagging, shoring, underpinning and related procedures as may be required. Provide necessary supports for soil at sides of excavations. Contractor and affected trades shall refer to Geotechnical Report for more information.
   C. Protection of Structure: Provide necessary measures to protect structure and adjacent buildings during execution of Work.
   D. Contractor Proposed Revisions: Where a revision of structural design or connection is proposed by Contractor to accommodate construction tolerances, construction sequence and/or dimension modifications, Contractor shall retain a structural engineer licensed in State of California to perform design. Submit stamped and signed design drawings and calculations to the Architect (Structural Engineer) for review and the Governing Code Authority for approval.
   E. Erection Plans: Determine phases of Work requiring erection plans according to applicable safety regulations. Maintain certified copies of erection plans at site during construction.
   F. Shoring, Bracing, and Other Temporary Supports: Design and erect shoring, bracing, and other temporary supports where structure has not attained design strength and as required for safe erection. Ensure floor, roof, and wall members are securely shored and braced during construction. Provide shoring at elevated beams and slabs supporting concrete or masonry walls during and after wall pour until wall attains design strength.
   G. Temporary Loading: Ensure construction loads do not exceed indicated design live load values. Notify affected sub-contractor trades of these design load limits.
   H. Fabrication, Shipment, and Erection of Structural Steel: Ensure stresses occurring during fabrication, shipment, and erection of structural steel are temporary and are less than design and allowable stress capacities of individual members. Do not impair full design and load carrying capacity of members due to fabrication, shipment, or erection. Contractor is responsible for controlling erection sequence, erection procedure, temperature differentials and weld shrinkage to minimize residue stresses. Provide additional materials for the erection of structural steel such as temporary bracing and guy cables as may be necessary at no additional cost. Remove these materials unless approved in writing by Owner. Do not tighten bolts in typical beam to column connections for erection purposes.
   I. Securing Reinforcing Steel, Dowels, Anchor Bolts and Embeds: Firmly support and accurately place complying with ACI standards prior to casting concrete or grout in masonry walls. Use ties and support bars in addition to reinforcing steel shown where necessary. No welding of reinforcing steel, including tack welding, is permitted unless otherwise accepted in writing by Architect (Structural Engineer). Provide plastic or plastic coated chairs and spacers when resting on exposed surfaces.
   J. Coordination Responsibility: Contractor is responsible for coordination of Work including that of sub-contractor trades.
   K. Core drilling of hardened concrete shall only be done after specific review by Architect (Structural Engineer) Core drilling shall not out any reinforcing. Concrete coverage for reinforcement as described in the Reinforcing Steel section of General Notes shall be maintained at locations of cores.
6. Submittals: Submit to Architect (Structural Engineer) as indicated on structural drawings and specifications. General Contractor shall review submittal for completeness and compliance with Contract Documents prior to submission.
   A. Request for Information (RFI) Submittals: Accompany RFI's with partial structural foundation or framing plans showing location in question and affected structural members. Copy partial plan from structural drawings and include grid line locations and floor level. Also provide properly drawn engineering sketches illustrating issues and Contractor's proposed solutions. Photographs are not acceptable substitutes to engineering sketches.
   B. Composite Slab Penetration Submittal: Submit to Architect (Structural Engineer) for each floor indicating size and location of each slab penetration and opening as necessary by all affected trades. Submit penetration plans together with corresponding metal decking or reinforcing steel shop drawings. Submit written statement from Special Inspector that no additional penetrations or openings were added to those shown in penetration submittal.
   C. Concrete and Masonry Wall Penetration Submittal: Submit to Architect (Structural Engineer) for each wall indicating size and location of each wall penetration and opening as necessary by all affected trades. Submit penetration elevations together with corresponding reinforcing steel shop drawings. Submit written statement from Special Inspector that no additional penetrations or openings were added to those shown in penetration submittal.
7. Contract Documents Use: Review Contract Documents in their entirety before performing structural related Work and before developing shop drawings. Bring discrepancies to immediate attention of Architect (Structural Engineer) before starting Work.
   A. Scaling of Drawings: Not permitted.
   B. Additional Structural Requirements: See specifications.
   C. Building Geometry: See architectural drawings for building geometry including, but not limited to, top of floor and roof elevations; depressions; slopes; curbs; drains; trenches; slab and deck edge locations; wall elevations; and size and locations of openings in floors, roof, and walls.
   D. Non-structural Items Requiring Special Provisions: See architectural, mechanical, plumbing, and electrical drawings for non-structural items requiring special provisions during construction. They include, but are not limited to, non-structural walls; size and locations of openings and sleeves penetrating structural walls; size and location of concrete curbs and pads; and size and location of piping, ductwork, and equipment anchorages mounted or suspended from structure. Verify exact size and location of equipment with equipment manufacturer.
   E. Work shown is new unless noted as existing. (E).
8. Materials: Furnish and install in compliance with legally constituted public authorities having jurisdiction including county and local ordinances and safety orders of State Industrial Accident Commission, OHSA. The Architect (Structural Engineer) and Owner accept no responsibility for the contractors failure to comply with these requirements.
9. Penetrations, Embedments, and Openings in Structural Members: No penetration, embedment, opening, sleeve, pipe, or conduit shall occur in structural members including footings, slabs, walls, columns, and beams unless specifically shown or indicated on structural drawings.
10. Typical Details: Details on sheets indicated as typical are applicable throughout Project wherever the described condition occurs and may or may not be specifically referenced on structural drawings. Contractor is responsible for identifying these details and understanding extent of their application prior to performing Work. Details not shown or noted shall be similar to those shown for similar construction. Contractor shall submit RFI's for details such as this to Architect (Structural Engineer) prior to proceeding with work.
11. Evaluation Report:
   A. References to Evaluation Reports for proprietary materials herein shall be latest edition as adopted by Authority Having Jurisdiction (AHJ).
   B. For proprietary structural elements and products, product to hold Evaluation Report in compliance with applicable code for products intended use.
   C. Approved Evaluation Report Agencies:
      a. ICC (ICC-ES)
      b. IAPMO (IAPMO-ES)
      c. OSHPD (OPA / OPM / OSP / OPD)
      d. City Of Los Angeles (COLA/RR)
      e. Miami-Dade (NOA)
      f. Other Agencies as noted in DSA IR A-5.

EARTHWORK and FOUNDATIONS

1. Geotechnical Report: Perform soils work complying with foundation design based on recommendations in report; prepared by LEIGHTON CONSULTING, INC. , dated OCT 16, 2024 Revised May 23, 2025 and subsequent addenda letters as applicable. Maintain at site a copy of report and addenda.
2. Allowable Foundation Design Values per Geotechnical Report.
   A. Bearing Capacity: 3,000 psf. Footings for proposed structures should have a minimum embedment of 2 feet and have a minimum width of 2 feet. The allowable bearing pressure may be increased by 500 psf for every foot increase in width and by 500 psf for every foot increase in embedment until a maximum of 4,000 psf. Values may be increased by one-third for transient loading.
   B. Passive Lateral Bearing Pressure: 250 psf/ft. Values may be increased by one-third for transient loading.
   C. Coefficient of Friction: 0.3.
   D. Combined Lateral Resistance: The allowable lateral resistance can be taken as the combined effect of friction resistance and passive resistance.
   E. Unit of Subgrade Modulus: 100 pci for 1-ft square footing reduced by [(B+1)/2B]^2 for larger square footing sizes. B is the square footing width. 75 pci for slab-on-grade.
3. Grading, Excavations, Backfill and Compaction of Backfill: Comply with Geotechnical Report and requirements of Governing Code Authority and performed only under Continuous Special Inspection of geotechnical engineer. Building pads shall be over excavated as recommended in Geotechnical Report. If soft pockets are discovered during over excavation, additional over excavation will be required as directed by the Geotechnical Engineer.
4. Foundation Excavations: Foundations are to bear on approved compacted fill as indicated in Geotechnical Report. Excavations are to be inspected by geotechnical engineer prior to placement of reinforcing steel and formwork. Ensure excavations are clean, dry and free of debris or loose soil. Slope sides of excavation not less than minimum slope indicated in Geotechnical Report. Cast concrete directly against excavated surfaces.
5. Backfilling of Retaining Walls: Place after completion and inspection of waterproofing. Adequately shore retaining walls during backfill operation. Unless adequately shored, do not place backf

ABBREVIATIONS

&	AND
@	AT
Ø	DIAMETER
>	GREATER THAN
≥	GREATER THAN OR EQUAL TO
<	LESS THAN
≤	LESS THAN OR EQUAL TO
#	"POUNDS, NUMBER"
AB	ANCHOR BOLT(S)
ABV	ABOVE
ADDL	ADDITIONAL
ADJ	ADJACENT
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
AOR	ARCHITECT OF RECORD
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ASD	ALLOWABLE STRESS DESIGN
(B)	BOTTOM
BF	BRACED FRAME
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BN	BOUNDARY NAILING
BO	BOTTOM OF
BOD	BOTTOM OF DECK
BOF	BOTTOM OF FOOTING
BOPC	BOTTOM OF PILE CAP
BOS	BOTTOM OF STEEL
BOSL	BOTTOM OF SLAB
BOT	BOTTOM
BP	BASE PLATE
BRB	BUCKLING RESTRAINED BRACE
BRCG	BRACING
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN
BU	BUILT-UP
C	CAMBER
CA	COLUMN ABOVE
CANT	CANTILEVER
CB	COLUMN BELOW
CGS	CENTER OF GRAVITY OF PRESTRESSING STRAND
CIP	CAST-IN-PLACE
CIV	CIVIL
CJ	CONSTRUCTION/CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CLT	CROSS LAMINATED TIMBER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION/CONNECT
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
COV	COVER
CTR	CENTER
CVN	Charpy V-Notch
d	Penny - Nail size
db	"REBAR, WIRE, or PRESTRESSING STRAND DIAMETER"
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DCW	DEMAND CRITICAL WELD
DEMO	DEMOLITION/DEMOLISH
DET	DETAIL
DF	Douglas Fir
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	Down
DO	DITTO
DWG	DRAWING
DWL	DOWEL
(E)	EXISTING
EA	EACH
EBF	ECCENTRICALLY BRACED FRAME
EDP	ENVIRONMENTAL PRODUCT DECLARATION
EF	EACH FACE
EFF	EFFECTIVE
EGRS	Elevator Guide Rail Support
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	"EMBEDMENT, EMBEDDED"
EN	EDGE NAILING
ENGR	ENGINEER
EOR	ENGINEER OF RECORD
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ER	EVALUATION REPORT
ESR	EVALUATION SERVICE REPORT
ETC	ET CETERA
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
FAB	FABRICATE
f'c	28-DAY (UNO) COMPRESSIVE STRENGTH OF CONCRETE
FDN	FOUNDATION
FF	Finished Floor
FG	FINISHED GRADE
FIN	FINISH(ED)
FLR	FLOOR
f'm	28-DAY (UNO) COMPRESSIVE STRENGTH OF MASONRY
FN	FIELD NAILING
FRP	FIBER-REINFORCED POLYMER
FS	FAR SIDE / FINISHED SURFACE
FT	"FOOT, FEET"
FTG	FOOTING
FUT	FUTURE
Fy	YIELD STRENGTH
GA	"GAGE, GAUGE"
GALV	GALVANIZE(D)
GC	GENERAL CONTRACTOR
GEN	GENERAL
GWP	GLOBAL WARMING POTENTIAL
GLB	GLUED-LAMINATED BEAM
GR	GRADE
HD	HOLDDOWN
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HS	HIGH STRENGTH
HSA	HEADED STUD ANCHOR
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
IAPMO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
IN	INCH
INFO	INFORMATION
INT	INTERIOR
IOR	INSPECTOR OF RECORD
JST	JOIST
JT	JOINT
K	KIPS (1000 LBS)
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
LAND	LANDSCAPE
LBS	POUNDS
LCA	LIFE CYCLE ASSESSMENT
Ld	DEVELOPMENT LENGTH of straight rebar
Ldh	DEVELOPMENT LENGTH for hooked rebar
Ldt	DEVELOPMENT LENGTH for headed rebar
LL	DOUBLE ANGLE
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LOR	LABORATORY OF RECORD
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
Ls	SPLICE LENGTH of straight rebars
LSH	LONG SIDE HORIZONTAL
LSL	LONG-SLOTTED HOLE
LSV	LONG SIDE VERTICAL
LT GA	LIGHT GAUGE
LVL	LAMINATED VENEER LUMBER
LWC	LIGHTWEIGHT CONCRETE
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECH, ELECT, & PLUMB
MEZZ	MEZZANINE
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
(N)	NEW
N/A	NOT APPLICABLE
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMALWEIGHT CONCRETE
O/C	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OVS	OVERSIZED HOLE
PAF	POWDER/POWER ACTUATED FASTENER
PAR	PARALLEL
PC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCY	POUNDS PER CUBIC YARD
PERF	PERFORATED
PERP	PERPENDICULAR
PI	PROJECT INSPECTOR
PJ	PANEL JOINT
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLF	POUNDS PER LINEAR FOOT
PLUMB	PLUMBING
POR	PROCEDURE QUALIFICATION RECORD
PRELIM	PRELIMINARY
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	"PRESSURE TREATED, POST-TENSION(ED)"
PWD	PLYWOOD
QTY	QUANTITY
RAD	RADIUS
RBS	REDUCED BEAM SECTION
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
REV	REVISION
RO	ROUGH OPENING
RR	ROOF RAFTER
RTU	ROOF TOP UNIT
SC	"SLIP CRITICAL, SAW CUT"
SCBF	SPECIAL CONCENTRICALLY BRACED FRAME
SCHED	SCHEDULE(D)
SDS	SELF-DRILLING SCREW
SECT	SECTION
SEOR	STRUCTURAL ENGINEER OF RECORD
SEP	SEPARATION
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SLBB	SHORT LEG BACK TO BACK
SMRF	SPECIAL MOMENT RESISTING FRAME
SMS	SHEET METAL SCREW
SOG	SLAB-ON-GRADE
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
SSL	SHORT-SLOTTED HOLE
STAGG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	"STRUCTURE, STRUCTURAL"
SUSP	SUSPENDED
SW	SHEAR WALL
SYM	"SYMMETRIC, SYMMETRICAL"
(T)	TOP
(T&B)	TOP AND BOTTOM
T.O.	TOP OF
THK	THICK
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING / FOUNDATION
TOM	TOP OF MASONRY
TOPC	TOP OF PILE CAP
TOS	TOP OF STEEL
TOSL	TOP OF SLAB
TOW	TOP OF WALL
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UT	ULTRASONIC TESTING
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/C	WATER-CEMENT RATIO
W/O	WITHOUT
"WF, W"	WIDE FLANGE
WP	WORK POINT
WPS	WELD PROCEDURE SPECIFICATIONS
WT	"WEIGHT, "T" SECTION CUT FROM WIDE FLANGED BEAM"
WWF	WELDED WIRE FABRIC
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

LIGHT GAUGE METAL FRAMING GENERAL NOTES

1. Minimum yield strength shall be as follows:
   A. 43 mils (18 gauge) and lighter (33 ksi):
      a. Carbon Sheet Steel to be Painted: ASTM A1003, Grade 33, Type H.
      b. Galvanized: ASTM A653, SS Grade 33.
   B. 54 mils (16 gauge) and heavier (50 ksi):
      a. Carbon Sheet Steel to be Painted: ASTM A1003, Grade 50, Type H.
      b. Galvanized: ASTM A653, SS Grade 50.
2. Manufacturer and Properties: Member of Steel Stud Manufacturer's Association (SSMA) complying with ICC-ESR 3064P or Cemco complying with ICC-ESR 3016. Provide punched studs as scheduled in these drawings with minimum effective section properties as indicated in the referenced evaluation report.
3. Design Gauge Thicknesses: Indicated properties are based on the following thicknesses:
   12 ga. - 0.1017 inch, 97 mils
   14 ga. - 0.0713 inch, 68 mils
   16 ga. - 0.0566 inch, 54 mils
   18 ga. - 0.0451 inch, 43 mils
   20 ga. - 0.0346 inch, 33 mils
4. Track Material: Provide unpunched track of dimensions to ensure proper fit of studs with minimum effective section properties as indicated in the referenced evaluation report.
5. Lateral Bridging for Studs: Required when rigid wall finish does not continue full height on either or both sides of studs. Install horizontal straps or cold-rolled channels as shown and in accordance with Section D3 of AISI specification. See typical details.
6. Lateral Blocking for Joists: Joists shall be braced by full-depth blocking at all points of support. Joist blocking shall also be provided at the following locations: See typical details.
7. Joist Web Punch-Out Locations: Web punch-outs shall not be located closer than twice the member depth from edge of bearing support or concentrated loads, 12" minimum. Do not provide punchouts at tracks.
8. Securing Studs and Braces: Plumb, align and tightly nest in both upper and lower tracks with secure attachment to both flanges of tracks. Splices in axial loaded studs and braces are not permitted.
9. Self-Drilling Screws: See General Notes.
10. Welding: ANSI/AWS D1.3 and CBC Section 2210. Wire tying of framing components is not permitted.
    A. Welder Certification: Governing Code Authority.
    B. Electrodes: E60XX at 33 ksi members, E70XX at 50 ksi members.
    C. Touch-Up: Zinc-rich paint at galvanized members and regular paint at carbon steel sheet.

MASONRY

1. Specified Compressive Strength of Masonry (f'm): 2000 psi typical unless noted otherwise.
2. Verifying Specified Compressive Strength of Masonry (f'm): Use masonry prism testing method unless otherwise acceptable to Architect (Structural Engineer). Submit masonry prism data for each type and compressive strength of masonry required, with a professional engineer's signature and state of California seal, to Architect (Structural Engineer). Compliance with minimum required compressive strength shall be based on Application Code Section 2105A.2.
3. Concrete Block: ASTM C90, medium weight, attaining a minimum compressive strength as required to meet specified compressive strength of masonry (f'm). Completed (grouted and mortared) masonry assembly not to exceed 115 pcf max. dry density.
4. Face Brick: ASTM C216.
5. Portland Cement for Mortar and Grout: ASTM C150, type I or II. Use of masonry cement or plastic cement is not permitted.
6. Aggregates for Mortar and Grout:
   A. Aggregates for Mortar: ASTM C144.
   B. Aggregates for Grout: ASTM C404, coarse type.
7. Mortar: ASTM C270, Type S, attaining a minimum compressive strength as required to meet specified compressive strength of masonry (f'm)
8. Grout: ASTM C476, coarse type, attaining a minimum compressive strength as required to meet specified compressive strength of masonry (f'm). However, in no case shall grout compressive strength be less than the greater of f'm or 2000 psi at 28 days.
9. Reinforcing Steel: Reinforcing steel section of general notes unless indicated otherwise.
10. Masonry Wall Penetration Submittal: Submit for each wall indicating size and location of each wall penetration and opening as necessary by affected trades. Submit together with appropriate reinforcing steel shop drawings. Submit written statement from Special Inspector that no additional penetrations or openings were added to those shown in penetration submittal.
11. Reinforcing Steel Splices: Lap reinforcing steel at splices a minimum of 72 bar diameters, except dowels in footings at base of walls shall splice a minimum of 72 bar diameters, unless noted otherwise. Where minimum clear distance between bars at adjacent splices is less than one bar diameter, increase lap length 30 percent unless splices are staggered at least 24 bar diameters.
12. Dowels for Walls, Columns, Pilasters, and Piers: Match size and spacing of vertical reinforcing steel, unless noted otherwise. Set dowels to align with cells containing reinforcing steel.
13. Minimum Reinforcing Steel Clearances:
    A. Minimum Clearances Between Reinforcing and Outside Face of Masonry: 2 inches except in no case shall clearance be less than 2-1/2 bar diameters.
    B. Minimum Clearance Between Reinforcing and Inside Face of Grout Cell: 1/2 inch or 1 bar diameter whichever is greater.
    C. Minimum Clearance Distances Between Parallel Reinforcing: 1 inch or nominal bar diameter, whichever is greater. Increase to 1-1/2 inches or 1-1/2 times nominal bar diameter, whichever is greater, at columns, pilasters, and piers only.
14. Placement: Set courses in running bond pattern unless indicated otherwise. Set cells in vertical alignment. Provide flush mortar joints at surfaces to receive waterproofing or damp-proofing.
15. Grouting: Grout solid all cells. Mechanically vibrate grout in cells.
    A. Grout Height Limits: CBC Section 2104A.1.3, TMS 602, Article 3.5 D
    B. Horizontal Construction Joints: Hold grout 1 1/2 inches below top of masonry unit if work is stopped one hour longer.
    C. Grout Cover Around Reinforcing Steel, Anchor Bolts and Inserts Penetrating Masonry Shell: 1 inch minimum.
16. Horizontal Bars Terminating at Wall Ends and Opening Jambs: Extend bars to within 2 inches of end of wall and provide standard ACI 90-degree hook unless detailed otherwise.
17. Control joints shall be provided as indicated on Arch and wall elevations per detail 01/2-S6.61. If not indicated on Arch, provide control joints at 25'-0" O/C maximum and coordinate w/ Arch.

PROPRIETARY ANCHORAGES and FASTENERS

1. Anchorages:
   A. Drill and Epoxy Anchors and Rebar:
      a. At Concrete: Hilti HIT-RE 500 V3 adhesive anchor system complying with ICC-ES Evaluation Report ESR-3814.
      b. At Masonry: Hilti HIT-HY 270 adhesive anchor system complying with ICC-ES Evaluation Report ESR-4143.
      c. Provide anchor type, size and embedment as indicated in details.
      d. Overhead applications must be installed using the Hilti HIT-SZ piston plug system.
   B. Mechanical (Expansion) Anchors:
      a. At Concrete: Hilti KB-TZ2 carbon steel expansion anchor complying with ICC-ES Evaluation Report ESR-4266.
      b. At Masonry: Hilti KB-TZ2 carbon steel expansion anchor complying with ICC-ES Evaluation Report ESR-4561.
      c. Where mechanical anchor is exposed to weather, provide stainless steel anchor conforming to the Evaluation Report in lieu of carbon steel.
   C. Welded Shear Studs: Nelson S3L flux filled, headed stud anchors, 65,000 psi minimum ultimate tensile strength conforming to ASTM A29, automatically end welded in field and complying with ICC-ES Evaluation Report ESR-2856.
   D. Welded Deformed Anchors: Nelson DZL, cold rolled, deformed steel reinforcing bars conforming to ASTM A1064 and complying with ICC-ES Evaluation Report ESR-2907.
2. Fasteners:
   A. Power/Powder Actuated Fasteners (Indicated "Shot Pins" or "PAF" on Drawings): Hilti Low-velocity Power Actuated Drive, 0.157" diameter (X-U), complying with ICC-ES Report ESR-2269. Provide appropriate washer between fastener head and light gauge metal or wood surface. Shot pins shall not be used @ PT slab or beams.
   B. Self-Drilling Metal Screws (Indicated "Screws" or "SMS" on Drawings): Hilti Self Drilling Screw complying with current ICC-ES Evaluation Report ESR-2196.
   C. Concrete Screws: Hilti KH-EZ carbon steel screw anchor complying with ICC ES Evaluation Report ESR-3027.
   D. Masonry Screws: Hilti KH-EZ carbon steel screw anchor complying with ICC ES Evaluation Report ESR-3056.
   E. Self-Drilling wood Screw: At steel to wood connections (Indicated "SDS" on drawings): Simpson SDS screw complying with ICC-ES ESR 2236. At wood to wood connections (Indicated "SDWS" on drawings): Simpson SDWS screw complying with IAPMO-UES ER 192.
   F. Lag Screw: Lag Screw complying with ANSI / ASME B18.2.1
   G. Where fasteners are exposed to weather, provide stainless steel fasteners conforming to the Evaluation Report in lieu of carbon steel.
3. Installation: See manufacturer's written instructions and referenced ICC-ES evaluation report. Contractor shall arrange an anchor manfacturer's representative to provide onsite installation training for all anchor products specified.
   A. Prior to drilling holes for post-installed anchors, contractor shall locate existing rebar, prestressing tendons, post-tensioning tendons, and embedded utilities using non-hazardous, non-destructive methods with accurate location tolerances (plus or minus 1/4-inch). Do not cut, hit, or otherwise damage existing rebar or tendons during anchor installation.
   B. Drilling Holes in Existing Concrete or Masonry for Anchorages: Use non-pneumatic, rotary hammer tools with ANSI compliant non-rebar cutting drill bits to drill holes of proper tolerances. Locate existing rebar including prestressing and post-tensioning tendons using non-hazardous, non-destructive methods with accurate location tolerances (plus or minus 1/4-inch) prior to drilling holes to avoid cutting or damaging Holes shall be thoroughly cleaned per manufacturer's written recommendations prior to installation of anchorages.
   C. Deleterious Materials: Keep anchorages, including holes for drill and epoxy anchors and mechanical anchors, free of dust, grease, and other materials that impair bond.
   D. Use of diamond core bit with roughening tool for anchor holes requires approval from Engineer of Record prior to drilling. Unless otherwise shown in the drawings, all holes shall be drilled perpendicular to the concrete surface.
   E. Embedment Depths:
      a. Mechanical Anchors: Embedment depths noted in drawings are the effective minimum embedment UNO. Refer to applicable evaluation report for the corresponding minimum hole depth and nominal embedment.
      b. Screw Anchors: Embedment depths noted in drawings are the nominal minimum embedment UNO. Refer to the applicable evaluation report for the corresponding minimum hole depth.
   F. Anchor installer certification is required for all installers of drill and epoxy anchors in horizontal or upwardly inclined orientation. Installer qualification must be provided to the inspector prior to installation.
   G. Installation Torques for Expansion Anchors shall be as noted:

Nominal Anchor Diameter	Expansion Anchor Installation Torque (ft-lb)			
	Into Concrete		Into Masonry	
	KB-TZ2 Carbon Steel	KB-TZ2 Stainless Steel	KB-TZ2 Carbon Steel	KB-TZ2 Stainless Steel
1/4"	4	6	4	6
3/8"	30	30	15	15
1/2"	50	40	25	15
5/8"	40	60	30	35
3/4"	110	125	50	50

   H. Installation Torques for Screw Anchors shall be as noted:

Nominal Anchor Diameter	Screw Anchor Installation Torque (ft-lb)					
	Into Concrete				Into Masonry	
	Hilti KH-EZ Hex	Hilti KH-EZ C	Hilti KH-EZ CRC	Hilti KH-EZ E & KH-EZ I	Hilti KH-EZ (Hex, P, PM, PL & C)	Hilti KH-EZ CRC
1/4"	18		N/A	18	21	N/A
3/8"	40 (19 @ h_{nom} <2.5")		40	40	22	20
1/2"	45	N/A	45	N/A	34	25
5/8"	85	N/A	85	N/A	38	35
3/4"	95	N/A	85	N/A	70	45

   Note: 1/4" dia. Hilti KH-EZ P, PM & PL in concrete shall have installation torque of 18 ft-lb.
4. Testing
   A. See DSA 103 Testing and Inspections.
   B. Installation in Concrete:
      a. Provide testing of post-installed anchors in concrete per CBC 2022 1910A.5.
   C. Installation in Masonry:
      a. Provide testing of post-installed anchors in masonry per CBC 2022 1910A.5 as required by section 1705A.4.

STRUCTURAL STEEL

1. Provide readily identifiable structural steel in compliance with Applicable Code Section 2202A.1.
2. Structural Steel: Furnish structural steel complying with the following ASTM standard specifications, unless noted otherwise:

Use/Shape	Type/Grade	GWP Limit (unfabricated) (MT CO_2e/MT)	Notes
Wide Flanges and Channels	ASTM A992, Grade 50	1.01	
Angles	ASTM A572, Grade 50	1.01	
Plates	ASTM A572, Grade 50	1.49	
Hollow Structural Sections (rectangular and round)	ASTM A500, Grade C (50 ksi)	1.71	
Pipes:	ASTM A53, Grade B (35 ksi)		
Anchor Rods:	ASTM F1554, Grade 55		Weldable All Threaded
Headed Anchor Bolts	ASTM F1554, Grade 55		Weldable

3. Holes for Bolted Connections and Anchor Rods: AISC "standard" holes, unless noted otherwise. See Note 11, for oversized holes for anchor rods in non-frame base plates.
4. High Strength Bolts, Nuts and Washers: AISC "Specification for Structural Joints Using High-Strength Bolts."
   A. Hardened Washers: ASTM F436, under nuts except where plate washers are used. Provide beveled washers where joint face slope is greater than 1:20.
   B. Tightening: Snug tight for all high strength bolts except tighten A325-SC and A490-SC bolts to at least the minimum proper tension according to AISC Specification.
   C. Provide Class A Faying Surface or better at bolted connections indicated with "SC" type bolts.
   D. All bolts parts of "SFRS" shall be "SC" type bolts.
5. Welding:
   A. Applicable Welding Standard: Applicable Code and latest adopted edition of AWS D1.1 and D1.8.
   B. Pre-qualified and Non Pre-qualified Welds: Welds shall be pre-qualified in compliance with Applicable Welding Standard. Where non pre-qualified welds are to be used, qualify by test and procedure qualification test record complying with Applicable Welding Standard.
   C. Work performed by Welders and Inspectors: Adhere to approved Welding Procedure Specification (WPS). Each welder and inspector shall retain a copy of WPS.
   D. Pre-construction Meeting: Conduct to include Architect (Structural Engineer), fabricator, erector, Contractor and inspectors to discuss Welding Procedure Specification (WPS).
   E. Welding Procedure Specification (WPS): Fabricator/erector to develop WPS in compliance with Applicable Welding Standard. Submit to Architect (Structural Engineer) for acceptance and Governing Code Authority for approval prior to fabrication. WPS submittal to include the following:
      a. Welding manufacturers' specifications.
      b. Information required by Applicable Code, Contract Documents and any other information necessary to produce welds that are in compliance with Applicable Welding Standard.
      c. Detailed sequence of weld sketches addressing effects of welding heat for welds at joints and within seismic frame assemblies as a whole. Plan sequence of erection and welding to minimize locked in stresses and distortion considering effects of welding heat. Procedures submitted shall result in completed connections which comply with design intent of structural drawings. No deviation from structural drawings is permitted unless otherwise accepted by Architect (Structural Engineer) and approved by Governing Code Authority.
      d. Welding parameters recommended by electrode manufacturer.
      e. List of applicable base metal types and thicknesses.
      f. Welding joint sketches including joint type, weld type, joint geometry, and applicable dimensions. Individual weld passes shall be identified in sketches and numbered to identify the sequence of their deposition. Sketches shall identify the maximum layer thicknesses and bead widths. In no case shall layer thickness exceed 1/4-inch, nor shall maximum bead width exceed 5/8-inch.
      g. Applicable welding process.
      h. Position of welding.
      i. List of filler metal per Applicable Welding Standard and electrode specification and classification. Include details showing shielding material to be used.
      j. Minimum preheat requirements, interpass temperatures and post weld heat treatment. Minimum specified preheat shall meet requirements of AWS D1.1, table 3.2, and AISC 360-16 Section M2-2 requirements for jumbo sections.
      k. List of applicable electrical characteristics for process employed. Clearly indicate specific values required for each welding pass. These electrical characteristics shall include at a minimum the following:
         - Electrode diameter.
         - Type of current and acceptable ranges of current measured in amperage. For wire feed processes, indicate manufacturers' recommended melt-off rate, deposition rate, and wire feed speed.
         - Voltage (for all processes).
         - Actual field condition travel speed and manufacturer's data for travel speed.
         - Electrode extension (stick out) for wire feed processes.
         - Amperage, voltage and electrode extension (as applicable) shall be within filler metal manufacturer's recommendations (compare to AWS D1.1, Section 3.6 and 3.7).
         - Electrode manufacturer's technical information, with identification number listed, and welding parameters recommended.
   F. Welding Electrode (Filler Metal): E70xx (70 ksi) uno, provide filler metal with Charpy V-notch toughness of 20 ft/lbs at -20 degrees Fahrenheit at complete penetration groove welds.
      a. Welds indicated as part of the "SFRS" shall comply with AISC 341 sections A3.4a and I2.3. These welded connections shall be made with a filler metal achieving a minimum Charpy V-notch toughness of 20ft/lbs at a temperature lower than 0°F.
      b. Welds indicated as "Demand Critical" (DC) shall comply with AISC 341 sections A3.4b and I2.3. These welded connections shall be made with a filler metal achieving a minimum Charpy V-notch toughness of 20ft/lbs at a temperature lower than 0°F, and a filler metal producing welds that have a minimum Charpy V-notch toughness of 40ft/lbs at temperature lower than +70°F.
   G. Welding Toughness Requirements: Certify conformance to Charpy V-notch toughness requirements with tests by an independent testing laboratory for each AWS classification, manufacturer and trade name. Testing procedures shall be in accordance to Applicable Welding Standard and AWS D1.8
   H. Fabricators: Perform shop welds by fabricators approved by LA City or AISC.
      a. Welder Qualification: Welders, regardless if Work is performed in shop or in field, shall be qualified for the Work they will be doing and shall have certifications current and acceptable to Governing Code Authority.
      b. Special inspection shall be required for all welding, as required by governing code authority.
   I. Welds Exposed to View:
      a. Faces of fillet welds exposed to view shall have as-welded surfaces that are reasonably smooth and uniform. No finishing or grinding shall be required, except where clearances or fit of other items may so necessitate.
      b. Partial and full penetration welds exposed to view shall be ground smooth and flush with finish surface of steel. Remove backup bars and weld tabs. Fill holes with weld metal or body solder and smooth by grinding or filing.
   J. Groove Preparation: Clean groove preparation thermal cuts by grinding.
   K. Termination of Welds: Terminate at joint ends in a manner that ensures sound welds. Use extension bars and run-off tabs whenever necessary.
   L. Hand-held Calibrated Amp and Volt Meters: To be used by fabricator, erector and inspectors to assure proper amperage and voltage of welding process. Measure amperage and voltage at arc. Verify travel speed and electrode stick-out in compliance with electrode manufacturer's recommendations and with approved WPS.
   M. Storage of Electrodes: Adhere to Section 5.3 of AWS D1.1.
   N. Weld each flange of moment frame beam to column connections in one continuous process without cooling below pre-heat temperature.
   O. Welding of ASTM A913 Materials: Perform according to requirements of latest edition of AWS standard, structural drawings and specifications, whichever is more stringent.
   P. Minimum Fillet Weld Size: Where minimum fillet weld size, as stipulated by AISC Section J2 and Table J2.4, exceeds fillet weld size indicated on structural drawings, use AISC stipulated size.
   Q. Minimum Groove or Butt Weld Size: Provide complete penetration unless indicated otherwise.
   R. Weld Length: Length of welds shown are net effective lengths. Where length of weld is not indicated, provide weld full length of joint.
   S. Welding at Galvanized Steel: Galvanization shall be ground off prior to welding. Repair galvanization after completion of welding.
6. Shop Drawings: Submit To Architect (Structural Engineer) for review and, upon request, to Governing Code Authority. Include sequence of erection procedures.
7. Sustainable Design Submittals: Submit type III factory-specific or product-specific environmental product declaration (EPD) for each of the following products:
   A. Hot Rolled Structural Steel
   B. Hollow Structural Steel
   C. Steel Plate
8. Fabrication: Perform in shop certified by AISC or City of Los Angeles.
   A. Moment Connections: Orient flange stiffener plates and cap plates used in moment connections so that rolling direction of plate is parallel with direction of principal stress.
   B. Horizontal Members: Place natural camber up.
   C. Filler Plates: Provide at splices of parts having more than 1/8-inch difference in thickness. Filler plates to match grade of material spliced.
9. Traceability:
   A. Material tracing is required for all steel including miscellaneous metals, connectors, and steel products manufactured by third parties. The contractor is advised that material tracing is required as directed by DSA and the project inspection team and may include any or all of the levels of traceability described below:
      a. Lot traceability: materials can be traced to the set of mill test reports (MTRs) for the project.
      b. Piece-mark traceability: heat number can be correlated to each piece mark.
      c. Piece traceability: heat number can be correlated for each piece, which requires separate piece marks for each piece, or marking of each individual piece with its heat number.
   B. Prior to placing the mill order, the contractor shall schedule a preconstruction meeting to include the AOR, SEOR, PI and inspectors responsible for inspection of the steel material fabrication and erection/installation for the purpose of reviewing material traceability requirements.
   C. The contractor shall include the cost of piece traceability in their basic services and provide deductive alternates for piece-mark and lot traceability to be provided as a credit to the Owner.
10. Cleaning: After fabrication, clean steel surfaces free of rust, loose mill scale, and oil.
11. Oversized Holes for Anchor Rods in Non-Frame Column Base Plates: Oversized holes in base plate may be provided at contractor's option in accordance with AISC Table 14-2 UNO. Where oversized holes are provided, provide plate washer with standard hole with minimum size per AISC Table 14-2 (3/8" thick min) UNO.
12. Exposure to Soil: Encase structural steel in lean concrete with 4-inches concrete cover where exposed to soil.
13. Exposure to Weather: UNO, structural steel (including connection elements) exposed to weather shall be hot dipped galvanized. At welding on galvanized members, galvanization shall be ground off prior to welding. Repair galvanization after completion of welding.
14. Structural Steel Allowance: In addition to the steel shown or implied in this document, allow for an additional 2 tons of structural steel to be constructed at the direction of the Structural Engineer during construction. The allowed steel may be of any shape or sizes, including plates, wide flanges, tubes, pipes, channels, angles, and/or any other structural shapes. The number of pieces may vary. The locations of applications may vary. Direction may be given in multiple occasions during construction. The allowance should include all fabrication and construction related services, such as shop drawings, shop preparation, field erection and coordination, bolted connections and field welding. Expenditure of any part of this allowance shall be approved in writing by the Structural Engineer prior to any fabrication and erection.
15. Heavy Sections
   A. Heavy sections shall comply with AISC 360-16 Section A3.1c.
   B. Heavy sections forming part of the "SFRS" shall also comply with AISC 341-16 Section A3.3.
   C. Welded Splices including welds to baseplates shall comply with AISC 360-16 Section J1.5.
16. See General Notes, Quality Assurance section, Notes 3 and 4 for non-destructive testing.
17. SFRS denotes items considered part of the "SEISMIC FORCE RESISTING SYSTEM" (Refer to AISC 341-16 and AWS D1.8).
18. DC denotes welds considered "DEMAND CRITICAL" per AISC 341-16 Section A3.4B and I2.3.
19. Field weld flag symbols indicate design intent but are not requirements. Whether a weld is to be made in shop or field is means and methods and to be coordinated by contractor.
20. Where bent plates specified cannot be bent due to thickness provide two plate pieces joined with a complete penetration weld.

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REGISTERED PROFESSIONAL ENGINEER HAMIDA A. PRASAD NO. 55493 5/31/2027 STRUCTURAL STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL
INCREMENT 01

30215 MORNING VIEW DR.
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
DSA SUBMITTAL	09/08/2025

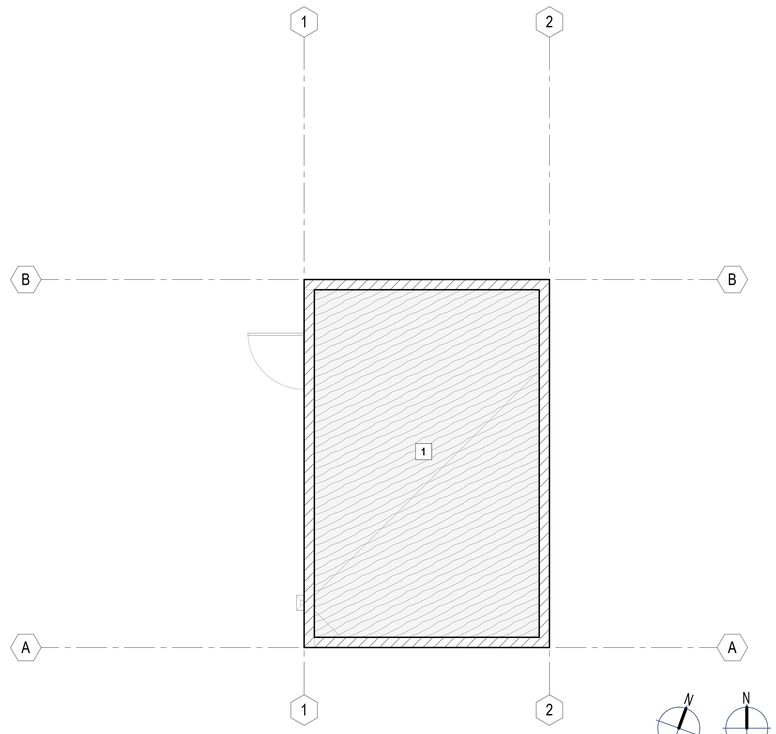
Job Number	31722
Checked By	HP
Scale	12" = 1'-0"

GENERAL NOTES

1-S0.02

PLAN NOTES AND LEGEND

FOR PLAN NOTES SEE 1-S2.11.



MDF - ROOF LOADING DIAGRAM 1/4" = 1'-0" 05

LOADING DIAGRAM SCHEDULE			
MARK	DESCRIPTION	SDL [a] [c]	LL [b]
1	MDF ROOF	16.6 psf	20 psf (ROOF LIVE LOAD)

NOTES:
[a] SDL = SUPERIMPOSED DEAD LOAD, (SELF-WEIGHT OF STRUCTURAL DECK & FRAMING NOT INCLUDED.) ROCK CLIMBING PANELS ARE ATTACHED TO THE NORTH, EAST, AND SOUTH EXTERIOR FACES OF THE MDF CMU WALL. ADDITIONAL 3.2psf IS CONSIDERED TO THE BE APPLIED FULL HEIGHT TO THESE WALL FACES.

[b] LL = ROOF LIVE LOAD REDUCIBLE, UNO.

[c] SDL INCLUDES 5 PSF PV ALLOWANCE.

LPA

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MALIBU HIGH SCHOOL INCREMENT 01

30215 MORNING VIEW DR.
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

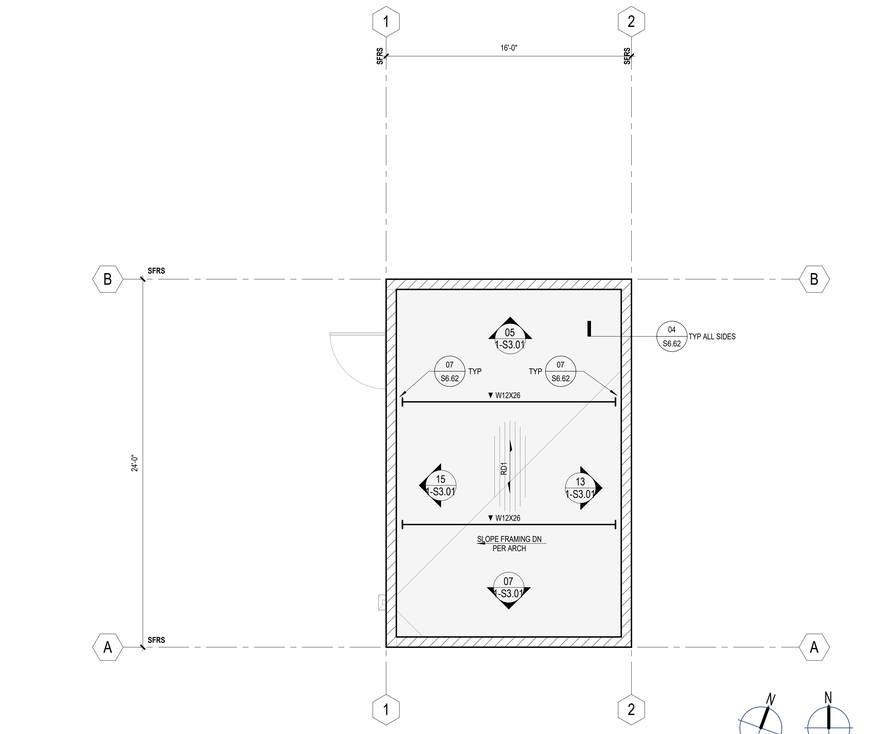
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
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MDF - LOADING DIAGRAM

1-S1.21



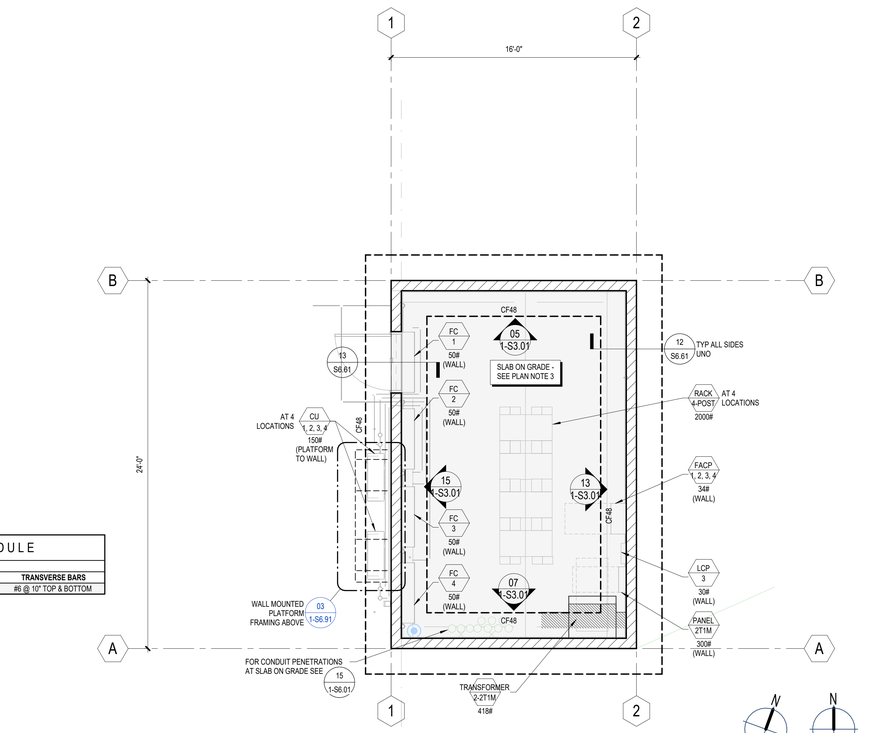
MDF - ROOF FRAMING PLAN | 1/4" = 1'-0" | 07

PLAN NOTES

1. FOR GENERAL NOTES SEE 1-S0 SERIES SHEETS. FOR TYPICAL DETAILS SEE 1-S6 SERIES SHEETS.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF STRUCTURAL CONCRETE SLAB OR METAL DECK ELEVATIONS, DEPRESSIONS, SLOPES, CURBS, DRAINS, PADS, DECK EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS IN WALLS and SLABS NOT INDICATED ON STRUCTURAL DRAWINGS. CMU WALLS EXTERIOR FACE TO ALIGN WITH GRID LINES.
3. CENTER COLUMNS AT GRID INTERSECTIONS UNLESS NOTED OTHERWISE.
4. BEAMS ARE SPACED EQUALLY BETWEEN WALLS UNLESS NOTED OTHERWISE.
5. N/A
6. N/A
7. N/A
8. NO PENETRATION IN STRUCTURAL STEEL IS PERMITTED UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
9. SEE 1-S6.9X SERIES FOR EQUIPMENT ANCHORAGE UNLESS NOTED OTHERWISE. WHERE EQUIPMENT IS ANCHORED DIRECTLY TO BEAM, LOCATE BEAMS CENTERED UNDER EQUIPMENT CURB. WHERE EQUIPMENT IS ANCHORED ON A CONCRETE PAD, LOCATE BEAM CENTERLINE 6" INWARD FROM EDGE OF PAD. WHERE EQUIPMENT IS ANCHORED TO A BUILT-UP CONCRETE PAD, CENTER BEAM ON CONCRETE WALL OF BUILT-UP CONCRETE PAD. COORDINATE EXTENT OF CONCRETE PADS SUPPORTING EQUIPMENT WITH MANUFACTURER AND WITH EDGE DISTANCE REQUIREMENTS PER EQUIPMENT ANCHORAGE DETAILS.
10. COORDINATE DETAILING AND SECONDARY MEMBERS FOR DEFERRED SUBMITTAL ITEMS PER GENERAL NOTE SECTION B. COORDINATE DETAILING AND SECONDARY MEMBERS FOR DEFERRED SUBMITTAL ITEMS PER GENERAL NOTE SECTION DEFERRED SUBMITTAL ITEMS ANCHORED OR SUPPORTED BY STRUCTURE.
11. N/A
12. ROOF FRAMING HAS BEEN DESIGNED FOR AN ADDITIONAL 5 PSF UNIFORM DEAD FOR FUTURE PV. DECK HAS NOT BEEN DESIGNED FOR CONCENTRATED LOADING IMPOSED BY PV SYSTEM.

LEGEND

- +X'-X" — INDICATES ELEVATION OF TOP OF STRUCTURAL DECK - SEE ARCHITECTURAL FOR TOP OF STRUCTURAL DECK IF NO ELEVATION INDICATED
- INDICATES BEAM BENEATH DEPRESSED OR SLOPED STRUCTURAL SLAB (SEE ARCH PLANS FOR FURTHER CLARIFICATION - COORDINATE TOP OF STEEL ELEVATION AS REQUIRED)
- WXxXX — INDICATES NON-FRAME STEEL BEAM
- INDICATES 8" THICK CONCRETE BLOCK SHEAR WALL SOLID GROUTED - FOR REINFORCING and OTHER INFORMATION SEE CMU WALL ELEVATIONS and 1-S6.61
- RDX — INDICATES ROOF CONSTRUCTION MARK - SEE DETAIL 01/1-S6.12
- SFRS — INDICATES SEISMIC FORCE RESISTING SYSTEM (SFRS) - SEE GENERAL NOTE SECTION "STRUCTURAL STEEL" NOTE 4.D - WHEN (SFRS) IS INDICATED, ALL MEMBERS IN THAT FRAMING LINE ARE (SFRS) MEMBERS



MDF - FOUNDATION PLAN | 1/4" = 1'-0" | 05

CONTINUOUS FOOTING SCHEDULE

Mark	FOOTING SIZE (WIDTH x DEPTH)	REINFORCING	
		CONTINUOUS LONGITUDINAL BARS	TRANSVERSE BARS
CF36	48"x24"	(5) #7 @ TOP & BOTTOM	#6 @ 10" TOP & BOTTOM

PLAN NOTES

1. FOR GENERAL NOTES SEE 1-S0 SHEETS. FOR TYPICAL DETAILS SEE 1-S6 SERIES SHEETS.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, and PLUMBING DRAWINGS FOR TOP OF CONCRETE SLAB ON GRADE ELEVATIONS, DEPRESSIONS, SLOPES, OPENINGS, DRAINS, TRENCHES, PADS, and CURBS; SLAB EDGE LOCATIONS; WALL OVERALL DIMENSIONS; and LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
3. BUILDING SLAB-ON-GRADE: 5" THICK W/ #4 @ 18" O/C EACH WAY at CENTER OF SLAB OVER 15 MIL STEGO WRAP VAPOR BARRIER OR APPROVED EQ (LAP 6" AT JOINTS and TAPE SEAL - OMIT VAPOR BARRIER AT EXTERIOR AREAS) OVER AT LEAST 2 FEET OF NON EXPANSIVE (EI<20) AND PROPERLY COMPACTED FILL AS INDICATED IN THE GEOTECHNICAL REPORT. PROVIDE CONSTRUCTION JOINTS OR WEAKENED PLANE JOINTS IN SLAB-ON-GRADE EACH DIRECTION PER DETAIL 06/1-S6.01 - AT AREAS TO RECEIVE TILE, COORDINATE LOCATION OF JOINTS IN SLAB TO ALIGN WITH TILE EXPANSION JOINTS PER ARCH.
4. CENTER CONTINUOUS FOOTINGS ON CMU WALLS UNLESS NOTED OTHERWISE.
5. IN NO CASE SHALL PIPES, CONDUITS, OR SLEEVES BE EMBEDDED IN SPREAD OR CONTINUOUS FOOTINGS OR WITHIN TOP OR BOTTOM THIRD OF GRADE BEAMS UNLESS SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS. PIPES, CONDUITS OR SLEEVES MAY ONLY BE EMBEDDED WITHIN THE MIDDLE THIRD OF GRADE BEAMS WHERE NOTED ON STRUCTURAL PLANS AND DETAILED IN THE STRUCTURAL DRAWINGS.
6. WHERE CONTINUOUS FOOTINGS and SPREAD FOOTINGS INTERSECT, EXCAVATE TO BOTTOM OF DEEPER FOOTING and CONTINUE ALL BARS THRU INTERSECTION. PLACE BARS AT CONTINUOUS FOOTING CORNERS and INTERSECTIONS PER 05/1-S6.01. WHERE CONTINUOUS FOOTINGS TERMINATE AT SIDES OF GRADE BEAMS OR SPREAD FOOTINGS, EXTEND LONGITUDINAL BARS TO FAR SIDE OF GRADE BEAM OR SPREAD FOOTING and TERMINATE W/ STANDARD 90° HOOK.
7. LOCATE TOP OF SPREAD FOOTINGS and CONTINUOUS FOOTINGS 1'-4" BELOW LOWEST ADJACENT SLAB OR GRADE ELEVATION UNLESS NOTED OTHERWISE.
8. GEOTECHNICAL OBSERVATION / COMPACTION REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO FOOTING INSPECTION.
9. COORDINATE EXTENT OF CONCRETE PADS SUPPORTING EQUIPMENT WITH MANUFACTURER AND WITH EDGE DISTANCE REQUIREMENTS PER EQUIPMENT ANCHORAGE DETAILS IN 1-S6.9X SERIES.
10. N/A
11. SEE CIVIL DRAWINGS FOR APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES. PROTECT OR RELOCATE EXISTING UTILITIES AS REQUIRED DURING FOOTING EXCAVATION OR CONSTRUCTION. DO NOT SURCHARGE EXISTING UTILITIES, SEE 01/1-S6.01 FOR ADDITIONAL CLARIFICATION.

LEGEND

- CFX — INDICATES CONT. FOOTING - SEE SCHEDULE ON 1-S2.11
- T.O.F — INDICATES TOP OF FOOTING ELEVATION - IF NO ELEVATION INDICATED, LOCATE TOP OF CONT. OR MAT FOOTING PER NOTE 7
- INDICATES 8" THICK CONCRETE BLOCK SHEAR WALL SOLID GROUTED - FOR REINFORCING and OTHER INFORMATION SEE CMU WALL ELEVATIONS and 1-S6.61
- S------S — INDICATES STEP IN CONTINUOUS FOOTING OR GRADE BEAM - SEE 09/S6.01. LOCATION OF FOOTING STEPS SHOWN ON PLAN IS APPROXIMATE, UNO. LOCATION OF STEPS IS TO BE COORDINATED BY CONTRACTOR WITH UTILITY LOCATIONS and FINISH GRADES.
- INDICATES CHANGE IN ELEVATION AT SLAB ON GRADE - SEE DETAIL 12/1-S6.02 UNLESS DETAILED OTHERWISE
- OR — INDICATES CONCRETE CURB OR HOUSEKEEPING PAD - CONSTRUCT PER 06D/1-S6.01 UNO
- +X'-X" — INDICATES ELEVATION OF TOP OF STRUCTURAL CONCRETE SLAB ON GRADE - SEE ARCHITECTURAL FOR TOC IF NO ELEVATION INDICATED
- INDICATES MEP EQUIPMENT TAG. REFER TO ARCH, MECH, ELECT, PLUMB, ETC FOR EXACT LOCATION OF EQUIPMENT
- FOR FLOOR MOUNTED UNIT ANCHORAGE INF AND CONCRETE PAD REQUIREMENT SEE 01/2-S6.91 UNO
- FOR WALL MOUNTED UNIT CONNECTION INF REFER TO LANDSCAPE, MECHANICAL, ELECTRICAL, PLUMBING, ETC. FOR EXACT LOACTION OF EQUIPMENT. SEE 09/2-S6.94 UNO
- XX# (WALL) — INDICATES MAX EQUIPMENT WEIGHT INCLUDING ALL ACCESSORIES (IN LBS)
- INDICATES WALL MOUNTED UNIT

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MDF - FOUNDATION AND FRAMING PLANS

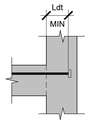
1-S2.11

HEADED BAR DEVELOPMENT LENGTH (Ldt) SCHEDULE

HEADED Bar Ldt Calc
Based on ACI 318-19

CASE TYPE	fc = 3000psi				fc = 4000psi				fc = 5000psi				fc = 6000psi			
BAR SIZE	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
#3	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
#4	9"	6"	7"	6"	8"	6"	7"	6"	8"	6"	6"	6"	8"	6"	6"	6"
#5	12"	8"	10"	6"	11"	7"	9"	6"	11"	7"	9"	6"	11"	7"	8"	6"
#6	15"	10"	12"	8"	15"	9"	12"	7"	14"	9"	11"	7"	14"	9"	11"	7"
#7	19"	12"	16"	10"	18"	12"	15"	9"	18"	11"	14"	9"	17"	11"	14"	9"
#8	24"	15"	19"	12"	22"	14"	18"	11"	21"	13"	17"	11"	21"	13"	17"	11"
#9	28"	18"	23"	14"	27"	17"	21"	13"	26"	16"	21"	13"	25"	16"	20"	13"
#10	34"	21"	27"	17"	32"	20"	25"	16"	31"	19"	24"	15"	30"	19"	24"	15"
#11	39"	25"	32"	20"	37"	23"	30"	19"	36"	22"	29"	18"	35"	22"	28"	18"

NOTES:
1. THESE BAR DEVELOPMENT LENGTHS APPLY TO NORMAL WEIGHT CONC ONLY.
2. PROVIDE LENTON HEADED REINFORCING BARS PER IAPMO-UES ER-0188.
3. LENGTHS SHOWN IN SCHEDULE ABOVE APPLY TO UNCOATED GRADE 60 BARS. MULTIPLY THE SPECIFIED LENGTH BY 1.33 FOR GRADE 80 BARS
4. CASE I: TYPICAL
5. CASE II: HEADED BARS SPACED GREATER THAN 6db O/C
6. CASE III: HEADED BARS WITH SIDE COVER PARALLEL WITH HEADED BAR GREATER THAN OR EQUAL TO 6db or HEADED BARS TERMINATING WITHIN CONFINED COLUMN CORE WITH SIDE COVER PARALLEL WITH HEADED BAR BAR GREATER THAN OR EQUAL TO 2 1/2"
7. CASE IV: HEADED BARS MEETING REQUIREMENTS OF BOTH CASE II AND CASE III

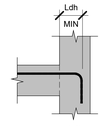


HOOKED BAR DEVELOPMENT LENGTH (Ldh) SCHEDULE

HOOKED Bar Ldh Calc
Based on ACI 318-19

CASE TYPE	fc = 3000psi				fc = 4000psi				fc = 5000psi				fc = 6000psi			
BAR SIZE	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
#3	8"	6"	6"	6"	7"	6"	6"	6"	7"	6"	6"	6"	7"	6"	6"	6"
#4	12"	7"	9"	6"	11"	7"	9"	6"	10"	7"	8"	6"	10"	7"	8"	6"
#5	16"	10"	13"	8"	15"	10"	12"	8"	15"	9"	12"	7"	14"	9"	11"	7"
#6	21"	13"	17"	11"	20"	12"	16"	10"	19"	12"	15"	10"	19"	14"	15"	9"
#7	26"	17"	21"	13"	25"	16"	20"	13"	24"	15"	19"	12"	23"	15"	19"	12"
#8	32"	20"	26"	16"	30"	19"	24"	15"	29"	18"	23"	15"	28"	18"	23"	14"
#9	38"	24"	31"	19"	36"	23"	29"	18"	35"	22"	28"	18"	34"	21"	27"	17"
#10	46"	29"	37"	23"	43"	27"	35"	22"	42"	26"	33"	21"	41"	25"	33"	20"
#11	54"	34"	43"	27"	50"	32"	40"	25"	49"	30"	39"	24"	47"	30"	38"	24"

NOTES:
1. FOR TYP BAR HOOKS & BENDS, SEE DETAIL 03
2. HOOKED BAR LENGTHS SHOWN IN SCHEDULE ABOVE APPLY TO NORMAL WEIGHT CONC - MULTIPLY THE SPECIFIED DEVELOPMENT LENGTH BY 1.33 FOR LIGHTWEIGHT CONC
3. LENGTHS SHOWN IN SCHEDULE ABOVE APPLY TO UNCOATED GRADE 60 BARS. MULTIPLY THE SPECIFIED LENGTH BY 1.33 FOR GRADE 80 BARS
4. CASE I: TYPICAL
5. CASE II: HOOKED BARS SPACED GREATER THAN 6db O/C
6. CASE III: HOOKED BARS WITH SIDE COVER PARALLEL WITH HOOKED BAR GREATER THAN OR EQUAL TO 6db or HOOKED BARS TERMINATING WITHIN CONFINED COLUMN CORE WITH SIDE COVER PARALLEL WITH HOOKED BAR BAR GREATER THAN OR EQUAL TO 2 1/2"
7. CASE IV: HOOKED BARS MEETING REQUIREMENTS OF BOTH CASE II AND CASE III
8. HOOKED BARS MAYBE SUBSTITUTED WITH HEADED BARS PER 'Ldt' SCHEDULE AT LEFT



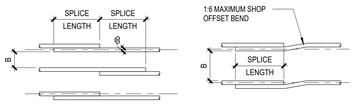
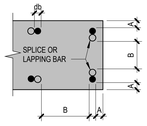


DIAGRAM AT STAGGERED SPLICES

DIAGRAM AT NON-STAGGERED SPLICES



BAR SPACING DIAGRAM

LEGEND:
A. CLEAR EDGE DISTANCE
B. CLEAR SPACING OF SPLICED OR LAPPED BARS (SEE GEN NOTE 'E.8' FOR MIN CLEAR SPACING)
db = BAR ⌀

NOTES:
1. ALL SPLICES SHALL BE CLASS B SPLICES UNLESS INDICATED OTHERWISE. DEVELOPMENT Ld TO BE USED WHERE SPECIFICALLY INDICATED.
2. SCHEDULE APPLIES TO UNCOATED GRADE 60 BARS IN NORMAL WEIGHT CONC
3. TOP BARS (INDICATED "T" IN SCHEDULE) ARE HORIZ BARS WITH MORE THAN 12" OF CONC CAST BELOW THE BARS.
4. BOTTOM BARS (INDICATED "B" IN SCHEDULE) ARE ALL VERT BARS AND HORIZ BARS WITH LESS THAN 12" OF CONC CAST BELOW HORIZ BARS.
5. FOR LIGHTWEIGHT CONC MULTIPLY LENGTHS IN SCHEDULE BY 1.33.
6. AT SPLICE BETWEEN BARS OF VARYING SIZE, PROVIDE LAP SPLICE CORRESPONDING TO LARGER OF 'Ls' OF SMALLER BAR and 'Ld' OF LARGER BAR.
7. LENGTHS SHOWN IN SCHEDULE APPLY TO UNCOATED GRADE 60 BARS MULTIPLY THE SPECIFIED LENGTH BY 1.33 FOR GRADE 80 BARS.

SCHEDULE FOR DETERMINING CATEGORY

I	II
1. A>db and B>2db 2. A>db and B<db and TIES THROUGHOUT Ld	OTHER CASES

TENSION LAP SPLICE "Ls" SCHEDULE

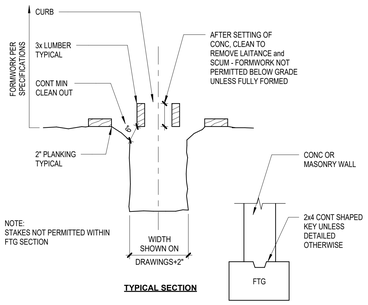
CATEGORY	NORMAL WEIGHT CONCRETE f'c PSI	SPLICE LENGTH (INCHES)															
		0.375		0.500		0.625		0.750		0.875		1.000		1.128		1.270		1.410	
		#3		#4		#5		#6		#7		#8		#9		#10		#11	
		T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B
I	3000	28	22	37	29	47	36	56	43	81	63	93	72	105	81	118	91	131	101
	4000	24	19	32	25	40	31	48	37	70	54	80	62	91	70	102	79	113	87
	5000	22	17	29	22	36	28	43	33	63	49	72	55	81	63	91	70	101	78
II	3000	42	32	56	43	70	54	84	64	122	94	139	107	157	121	177	136	196	151
	4000	36	28	48	37	60	47	72	56	106	81	121	93	136	105	153	118	170	131
	5000	33	25	43	33	54	42	65	50	94	73	108	83	122	94	137	105	152	117

DEVELOPMENT "Ld" SCHEDULE

CATEGORY	NORMAL WEIGHT CONCRETE f'c PSI	DEVELOPMENT LENGTH (INCHES)															
		0.375		0.500		0.625		0.750		0.875		1.000		1.128		1.270		1.410	
		#3		#4		#5		#6		#7		#8		#9		#10		#11	
		T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B
I	3000	22	17	29	22	36	28	43	33	63	48	72	55	81	62	91	70	101	78
	4000	19	15	25	19	31	24	37	29	54	42	62	48	70	54	79	61	87	67
	5000	17	13	22	17	28	22	33	26	49	37	55	43	63	48	70	54	78	60
II	3000	32	25	43	33	54	41	64	50	94	72	107	82	121	93	136	105	151	116
	4000	28	22	37	29	47	36	56	43	81	63	93	71	105	81	118	91	131	101
	5000	25	19	33	26	42	32	50	38	73	56	83	64	94	72	105	81	117	90

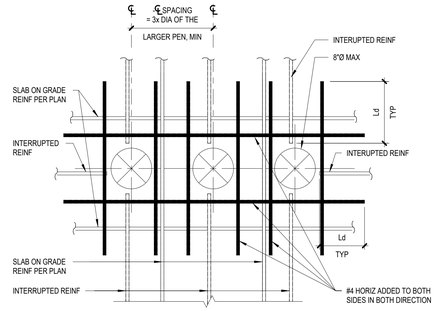
HOOKED (Ldh) AND HEADED (Ldt) BAR DEVELOPMENT LENGTH SCHEDULES

N.T.S. 16



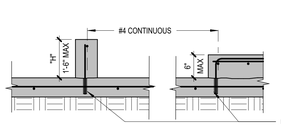
TYPICAL SECTION

STARTER WALL DETAIL (A)



TYPICAL REBAR TENSION SPLICE and BAR DEVELOPMENT SCHEDULE (IN CONCRETE)

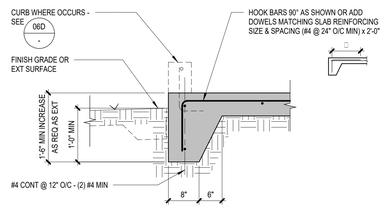
N.T.S. 04



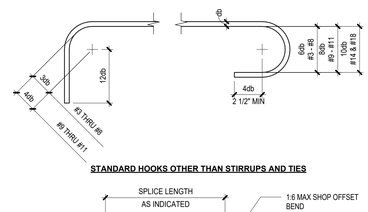
DRILL & EPOXY ANCHOR OPTION

DRILL and EPOXY ANCHORS PER GENERAL NOTES. WHERE "H" <=8", # 3 DOWELS @ 18" O/C W/ 3" EMBED (PULL TEST = 4100#) WHERE "H"> 8", #4 DOWELS @ 18" O/C W/ 3" EMBED (PULL TEST = 4500#)

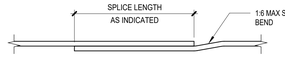
NOTE:
SEE TYP CONDITION BELOW FOR REMAINDER OF INFO



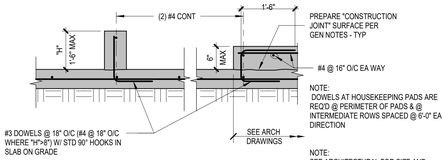
TURNED-DOWN SLAB EDGE (C)



STANDARD HOOKS OTHER THAN STIRRUPS AND TIES



MAXIMUM OFFSET AT SPLICES



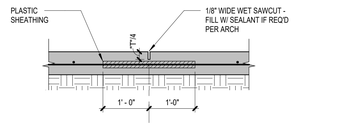
TYP CONDITION

PREPARE "CONSTRUCTION JOINT" SURFACE PER GEN NOTES - TYP

#4 @ 16" O/C EA WAY

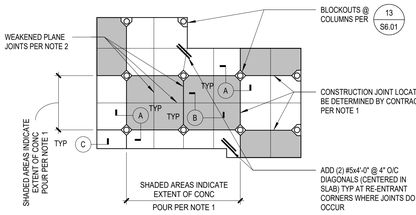
NOTE:
DOWELS AT HOUSEKEEPING PADS ARE REQ'D @ PERIMETER OF PADS & @ INTERMEDIATE ROWS SPACED @ 6'-0" EA DIRECTION

NOTE:
SEE ARCHITECTURAL FOR SIZE AND LOCATION OF CURBS & PADS



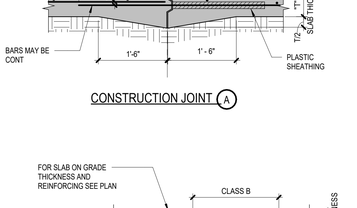
WEAKENED PLANE JOINT (B)

CONDITION AT CURB OR HOUSEKEEPING PAD (D)

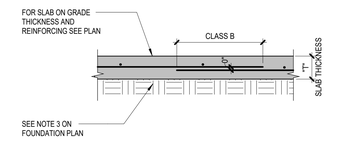


NOTES:
1. AREA OF CONC POURS TO BE DETERMINED BY CONTRACTOR. SUBMIT JOINT LAYOUT PRIOR TO POURING SLABS PER GENERAL NOTES. PROVIDE CONSTRUCTION JOINTS SURROUNDING AREA OF EA POUR UNLESS DETAILED OTHERWISE. ALLOW 24 HOURS MIN BEFORE CASTING SLABS AT ADJ AREAS.
2. SAWCUT WEAKENED PLANE JOINT AS SOON AS CONC CAN SUPPORT WEIGHT OF PERSONNEL AND SAW WITHOUT AFFECTING FINAL FINISH BUT NO LATER THAN 12 HOURS AFTER POUR. LOCATE WEAKENED PLANE JOINTS ALIGNED TO COLUMN GRID AS SHOWN AND NO GREATER THAN 15'-0" IN BOTH DIRECTIONS, UNLESS NOTED OTHERWISE.

SLAB ON GRADE JOINT DIAGRAM (PLAN VIEW)



CONSTRUCTION JOINT (A)

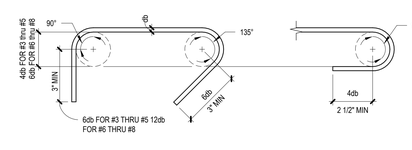


TYPICAL SECTION AT SLAB ON GRADE

BAR DIAMETER DISTANCES

BAR DIA	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
3db	1 1/8"	1 1/2"	1 7/8"	2 1/4"	2 5/8"	3"	-	-	-
4db	1 1/2"*	2"*	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	5 1/2"
6db	2 1/4"*	3"*	3 3/4"	4 1/2"	5 1/4"	6"	-	-	-
8db	-	-	-	-	-	-	9"	10"	11"
12db	4 1/2"	6"	7 1/2"	9"	10 1/2"	12"	13 1/2"	15"	16 1/2"

* INDICATES MINIMUM DIMENSIONS MAY GOVERN

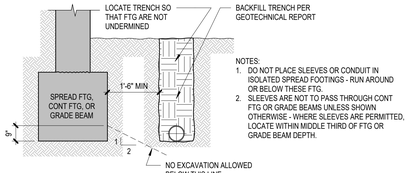


STANDARD HOOKS FOR STIRRUPS AND TIES

NOTE:
HOOKS OF TWO SUCCESSIVE STIRRUPS OR TIES ENGAGING SAME LONGITUDINAL BAR SHALL BE ALTERNATED END FOR END

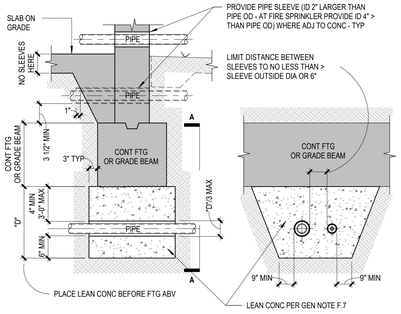
TYP REINFORCING STEEL HOOKS, BENDS and OFFSETS AT SPLICES

N.T.S. 03



NOTES:
1. DO NOT PLACE SLEEVES OR CONDUIT IN ISOLATED SPREAD FOOTINGS - RUN AROUND OR BELOW THESE FTG.
2. SLEEVES ARE NOT TO PASS THROUGH CONT FTG OR GRADE BEAMS UNLESS SHOWN OTHERWISE - WHERE SLEEVES ARE PERMITTED, LOCATE WITHIN MIDDLE THIRD OF FTG OR GRADE BEAM DEPTH.

TRENCH ADJACENT TO FOUNDATION

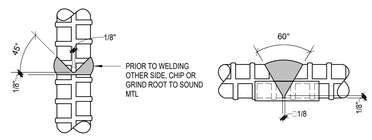


PIPES THRU OR BELOW FOUNDATION

ELEVATION A-A

TYP MANDATORY FOUNDATION FORMWORK (UNLESS FULLY FORMED)

N.T.S. 19



VERTICAL BAR

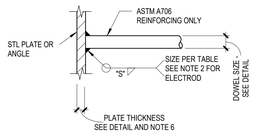
HORIZONTAL BAR

NOTES:
1. AS AN ALT TO LAP SPLICE, BUTT WELD MAY BE USED AS INDICATED ABOVE, PROVIDED THEY ARE STAGGERED @ 24" MIN
2. AN APPROVED TESTING LABORATORY SHALL PROVIDE A PREQUALIFICATION TENSION TEST FOR SAMPLES ON EVERY SIZE OF BAR BEING WELDED.
3. MATERIALS, CONDITIONS AND WELDING PROCEDURES UTILIZED SHALL COMPLY WITH THE CURRENT APPLICABLE BUILDING CODE AND THE REQ'D OF THE GOVERNING INSPECTION AGENCY.
4. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED IN OBTAINING APPROVAL.

TYPICAL REINFORCING BUTT WELDS DETAIL (ALTERNATE TO SPLICES)

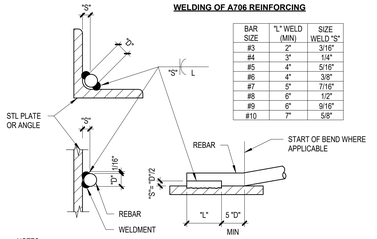
N.T.S. 18

NOTES FOR DOWEL WELDS TO PLATE:
1. WELDING OF A615 REINF NOT ALLOWED, MUST USE ASTM A706 REINFORCING.
2. USE E80 ELECTRODES FOR GRADE 60, E110 ELECTRODES FOR GRADE 80.
3. ALL WELDING TO BE PER AWS D1.4
4. PREHEAT PER AWS D1.4 TABLE 5.2
5. CUT OR GRIND END OF BAR TO FIT FLUSH WITH SURFACE OF PLATE AND NOT LEAVE GAPS.
6. MINIMUM PLATE THICKNESS TO BE 0.3 TIMES DOWEL DIAMETER. INCREASE PLATE SIZE WHERE NECESSARY.



BAR SIZE	SIZE WELD "S"
#3	3/16"
#4	1/4"
#5	5/16"
#6	3/8"
#7	7/16"
#8	1/2"
#9	1/2"
#10	9/16"
#11	5/8"

WELDING OF A706 REINFORCING

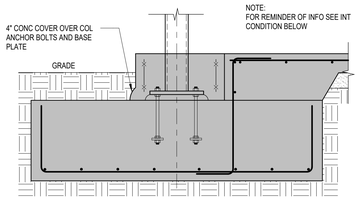


BAR SIZE	"L" WELD (MIN)	SIZE WELD "S"
#3	2"	3/16"
#4	3"	1/4"
#5	4"	5/16"
#6	4"	3/8"
#7	5"	7/16"
#8	6"	1/2"
#9	6"	9/16"
#10	7"	5/8"

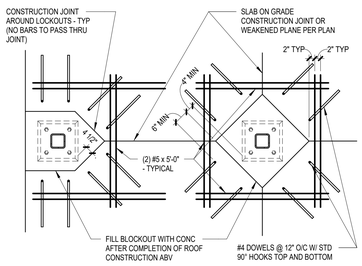
NOTES:
1. ALL REINFORCING WELDING SHALL BE IN ACCORDANCE WITH AWS CODE D1.4-05 CURRENT EDITION.
2. WELDED REINFORCING SHALL CONFORM TO ASTM A706.
3. ASTM A615 REINFORCING STL MAY BE WELDED PROVIDED A CHEMICAL ANALYSIS IS PERFORMED TO DETERMINE CARBON EQUIVALENCY, TO ESTABLISH MIN PREHEATING REQ'D. HEAT STICKS SHALL BE USED 6" FROM WELD TO VERIFY PREHEAT TEMPERATURES. CHEMICAL ANALYSIS REPORTS SHALL BE PROVIDED TO ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO WELDING.

TYP SLAB ON GRADE REINF AT CONDUIT PENETRATIONS

N.T.S. 15



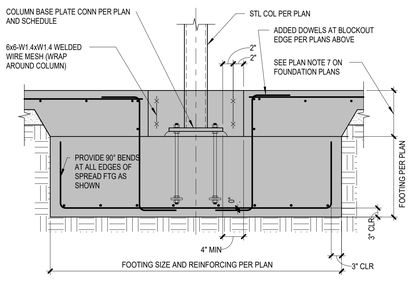
PERIMETER CONDITION



PERIMETER

INTERIOR

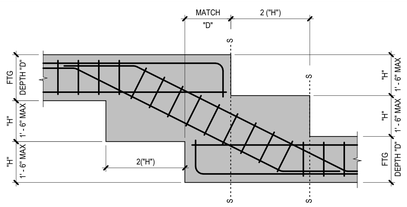
PLAN VIEW at SLAB BLOCKOUTS



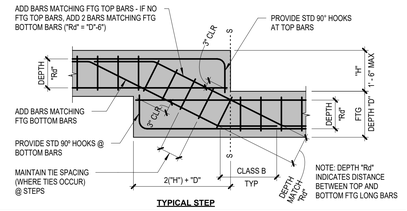
INTERIOR CONDITION

TYP SLAB ON GRADE DETAILS

N.T.S. 06

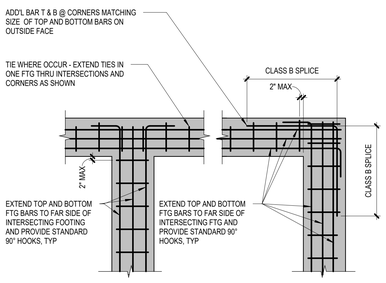


MULTIPLE STEPS



NOTE: DEPTH "Rd" INDICATES DISTANCE BETWEEN TOP AND BOTTOM FTG LONG BARS

TYPICAL STEP



PLAN VIEW AT INTERSECTIONS

PLAN VIEW AT CORNERS

TYPICAL REBAR WELDING

N.T.S. 17

TYP STEPPED FOOTING/GRADE BEAM DETAIL

N.T.S. 09

TYP FTG REINFORCING @ CORNERS & INTERSECTIONS

N.T.S. 05

TYP PIPES THRU OR TRENCHES ADJACENT TO FOUNDATIONS

N.T.S. 01

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ARCHITECTURE ENGINEERING INTERIOR DESIGN LANDSCAPE ARCHITECTURE PLANNING
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REGISTERED PROFESSIONAL ENGINEER HAMIDHA A. PRASAD NO. 55493 12/31/2027 STATE OF CALIFORNIA

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MALIBU HIGH SCHOOL
INCREMENT 01

30215 MORNING VIEW DR.
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

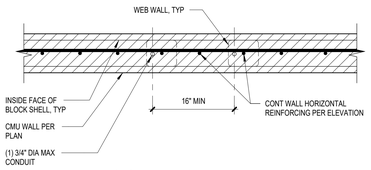
Submittal	Date
SCHEMATIC DESIGN	08/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	04/15/2025
CDP SUBMITTAL	06/16/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	HP
Scale	As indicated

TYPICAL FOUNDATION AND SOG DETAILS

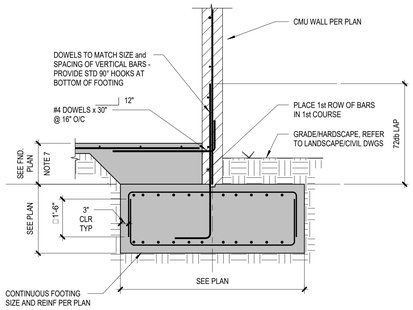
1-S6.01

NOTES:
1. PLACE CONDUITS IN CELLS WITHOUT VERTICAL REINFORCEMENT WHENEVER POSSIBLE.
2. WIRE VERTICAL CONDUIT TO WALL HORIZONTAL BARS, MAINTAIN BARS IN PLACE DURING GROUT POUR.
3. HORIZONTAL CONDUIT ARE NOT PERMITTED.
4. NO ALUMINUM COMPONENTS SHALL BE EMBEDED IN MASONRY CONSTRUCTION.
5. CELLS SHOWN ARE REF ONLY ACTUAL CELL & BLOCK CONFIGURATION MAY VARY.

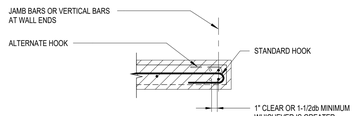


8" CMU WALL (PLAN VIEW)

VERTICAL CONDUITS IN CMU WALL — N.T.S. — 16

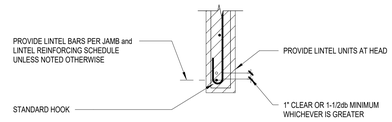


TYPICAL PERIMETER MASONRY WALL AT CONTINUOUS FOOTING — N.T.S. — 12



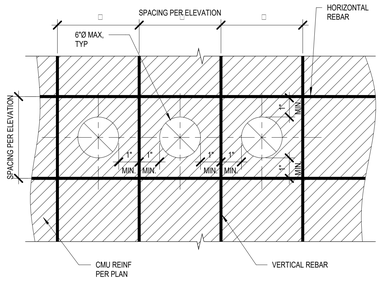
SINGLE CURTAIN CONDITION

SECTION AT JAMB BARS OR BARS AT WALL ENDS (PLAN VIEWS) (B)



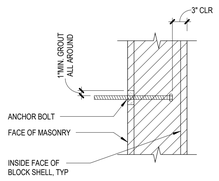
SINGLE CURTAIN CONDITION SECTION AT LINTEL BARS (A)
(SILL CONDITION SIMILAR)

TYPICAL MASONRY CONSTRUCTION AT OPENINGS and WALL ENDS — N.T.S. — 04



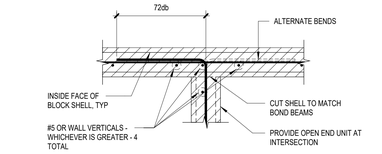
NOTE:
PENETRATIONS ALLOWED ONLY WHERE INDICATED ON STRUCTURAL WALL ELEVATIONS, UNOSEE NOTE 5 ON CMU WALL ELEVATIONS

HORIZONTAL CONDUIT PENETRATIONS IN CMU WALL — N.T.S. — 19

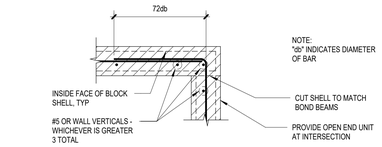


NOTE:
1. ANCHOR BOLTS SHALL BE HEX HEADED WITH THE DIMENSIONS OF THE HEX CONFORMING TO ANSI/ASME B18.2.1 BENT BAR ANCHORS SHALL NOT BE USED.

TYP MASONRY ANCHOR BOLT DETAIL — N.T.S. — 15



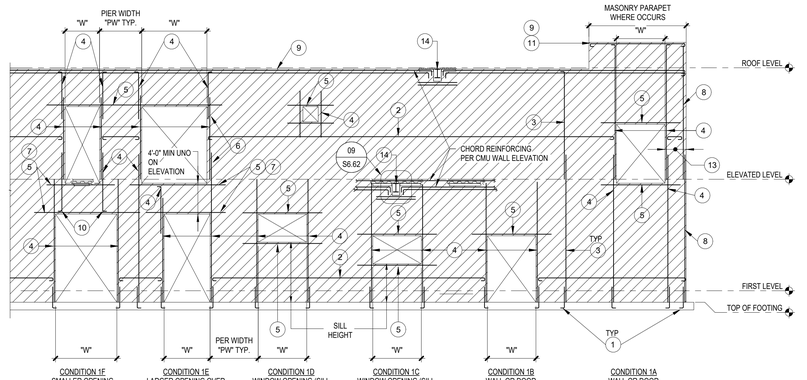
PLAN VIEW AT INTERSECTION (SINGLE CURTAIN)

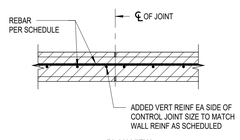


PLAN VIEW AT CORNER (SINGLE CURTAIN)

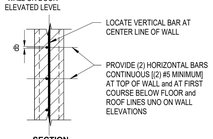
TYP MASONRY CONSTRUCTION AT CORNERS and INTERSECTIONS — N.T.S. — 03

KEY NOTES:
1. PROVIDE DOWELS AT BOTTOM OF WALL MATCHING SIZE and QUANTITY OF VERTICAL OR JAMB BARS INTO FOUNDATION W/ STD 90° HOOKS AT BOTTOM OF FOOTING - LAP W/ VERTICAL OR JAMB BARS 72 BAR DIAMETERS (db)
2. TYPICAL HORIZONTAL WALL BARS PER WALL REINFORCING SCHEDULE UNLESS OTHERWISE INDICATED ON PLANS OR ELEVATIONS - PROVIDE STD 180° HOOKS IN 8" WALL AT WALL ENDS and OPENINGS ON VERTICAL BAR (PROVIDE "U" BARS PER 04B/- IN 12" WALLS) - LAP HORIZONTAL BARS 48db AT STAGGERED LOCATIONS - NO ATTEMPT IS MADE TO LOCATE HORIZONTAL BAR SPLICE LOCATIONS
3. TYPICAL VERTICAL WALL BARS PER WALL REINFORCING SCHEDULE UNLESS OTHERWISE INDICATED ON PLANS OR ELEVATIONS - LAP VERTICAL BARS AT ELEVATED LEVELS AS SHOWN 72db - ADD DOWELS AT CONCRETE SLAB ON GRADE and ELEVATED CONCRETE LEVELS PER DETAILS INDICATED
4. TYPICAL JAMB BARS - SEE JAMB and LINTEL REINFORCING SCHEDULE UNLESS NOTED OTHERWISE ON PLANS OR ELEVATIONS - EXTEND JAMB BARS 72db ABOVE and BELOW OPENINGS UNLESS SHOWN OTHERWISE (ADD BARS WITH STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS) AT TOP OF WALL WHERE WALLS TERMINATE ABOVE OPENING) - LAP JAMB BARS AT ELEVATED LEVELS WHERE SHOWN 72 BAR DIAMETERS - FOR TYPICAL SECTION AT JAMB BARS INCLUDING CONFINING TIES SEE 04B/- UNLESS NOTED OTHERWISE
5. TYPICAL LINTEL BARS - SEE JAMB and LINTEL REINFORCING SCHEDULE UNLESS OTHERWISE INDICATED ON PLANS OR ELEVATIONS - SPLICES NOT PERMITTED - EXTEND LINTEL BARS 72db BEYOND OPENINGS UNLESS SHOWN OTHERWISE (PROVIDE STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS) AT WALL ENDS IF EXTENSION LENGTH BEYOND OPENING CANNOT BE ATTAINED) - FOR TYPICAL SECTION AT LINTEL BARS INCLUDING CONFINING TIES SEE 04A/- UNLESS NOTED OTHERWISE
6. WHERE OPENING JAMBS ABOVE and BELOW MISALIGN BY LESS THAN 16" ACCEPTABLE TO PROVIDE SINGLE ALIGNING JAMB FOR ALL OPENINGS
7. DETERMINE LINTEL BARS BASED ON WIDTH OF LARGER OPENING ABOVE OR BELOW
8. PROVIDE (2) #5 VERTICAL BARS AT WALL ENDS UNLESS NOTED OTHERWISE - LAP VERTICAL BARS AT ELEVATED LEVELS AS SHOWN 72 BAR DIAMETERS
9. IF WALL HEIGHT IS NON-MODULAR OR TOP OF WALL SLOPES, EITHER SAW TOP COURSE OR (IF NOT EXPOSED) FORM TOP COURSE and GROUT SOLIDLY
10. EXTEND JAMB BARS DOWN TO TOP OF OPENING and PROVIDE STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS)
11. AT TOP OF WALL, PROVIDE (2) HORIZONTAL WALL BARS W/ STD 180° HOOK IN 8" WALLS (90° HOOK IN 12" WALLS) AT WALL ENDS
12. SEE ARCH WALL ELEVATIONS FOR CONTROL JOINT LOCATIONS (MAX 25'-0" O/C UNO)
13. PIER WIDTH "PW" SHALL BE AT LEAST 3 TIMES WALL THICKNESS UNLESS PIER WIDTH and SECTION SHOWN ON WALL ELEVATIONS IN STRUCTURAL DRAWINGS
14. BEAM POCKET PER PLAN (WHERE OCCURS). AT INTERRUPTED CHORD REINFORCING PROVIDE BARS MATCHING SIZE AND QUANTITY OF INTERRUPTED CHORD REINFORCING DIRECTLY BENEATH POCKET CONTINUE 72db BEYOND POCKET EACH END - SEE 09/S1-6.62





PLAN VIEW



SECTION

JAMB and LINTEL REINFORCING SCHEDULE
(UNLESS NOTED OTHERWISE ON PLANS OR WALL ELEVATIONS)

MAXIMUM OPENING WIDTH "W"	REINFORCING	
	JAMB REINFORCING (VERTICAL)	LINTEL REINFORCING (HORIZONTAL)
2'-0"	(2)#5	(2)#5
4'-6"	(2)#5	(2)#5
6'-0"	(2)#6	(2)#6
8'-0"	(2)#6	(2)#6
> 8'-0"	SEE ELEVATION	SEE ELEVATION

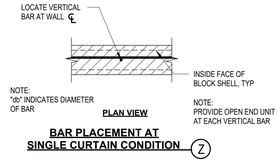
NOTES:
1. AT PIERS BETWEEN ADJACENT OPENINGS WHERE PIER WIDTH "PW" < 6'-0", DETERMINE JAMB BARS BASED ON LARGER OPENING WIDTH "W".
2. OPENING (JAMB) and CORNER BARS SHALL BE OF SIZE NO LESS THAN THE VERTICAL BARS SPECIFIED ON WALL ELEVATION.

CMU CONTROL JOINT AT SINGLE CURTAIN CONDITION

NOTE:
FOR REMAINDER OF INFO SEE DOUBLE CURTAIN CONDITION

WALL REINFORCING SCHEDULE
(UNLESS NOTED OTHERWISE - SEE PLANS OR WALL ELEVATIONS FOR WALL THICKNESS)

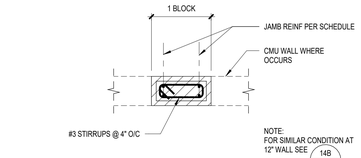
NOMINAL WALL THICKNESS	REINFORCING (UNO ON WALL ELEVATIONS)		REINFORCING PLACEMENT DETAIL
	VERTICAL REINFORCING	HORIZ REINFORCING	
8"	#5 @ 16" O/C - AT WALL CENTERLINE	#5 @ 16" O/C - ADJACENT TO VERTICAL REINFORCING	01Z -



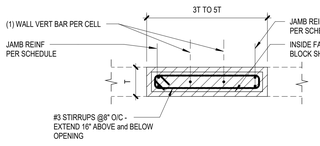
PLAN VIEW

BAR PLACEMENT AT SINGLE CURTAIN CONDITION (Z)

TYPICAL MASONRY WALL ELEVATION and REINFORCING SCHEDULES (APPLICABLE TO ALL MASONRY WALLS EXCEPT SITE RETAINING WALLS UNLESS NOTED OTHERWISE) — N.T.S. — 01

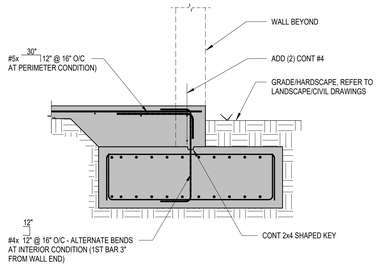


PIER (COLUMN) REINFORCING (ONE BLOCK CONDITION SHOWN)



PIER REINFORCING (TWO BLOCK CONDITION SHOWN)

PIER REINFORCING AT 8" WALL (PLAN VIEW) — N.T.S. — 17



TYPICAL OPENING MASONRY WALL AT CONTINUOUS FOOTING — N.T.S. — 13

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MALIBU HIGH SCHOOL
INCREMENT 01

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MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
90% DESIGN DEVELOPMENT	04/14/2025
CDP SUBMITTAL	06/16/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	HP
Scale	As indicated

TYP. CMU WALL ELEVATION AND DETAILS

1-S6.61

GENERAL

1. THESE TEMPORARY/PERMANENT SHORING PLANS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO BEGINNING WORK. TEMPORARY SHORING NOT SUBJECT TO THE DIVISION OF THE STATE ARCHITECT (DSA) REVIEW. SEE "NOT FOR DSA REVIEW" NOTE ON APPLICABLE DETAILS, AS MAY OCCUR.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.
3. ALL CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE.
4. CONTRACTOR SHALL COORDINATE SHORING WITH DRAWINGS OF RECORD TO ENSURE PROVISIONS FOR POCKETS, BLOCKOUTS, OFFSETS, STEPPED FOOTINGS AND ANY OTHER ITEMS AFFECTED BY THE SHORING.
5. ENGINEER HAS NOT BEEN HIRED TO PERFORM ANY SERVICES RELATING TO, OR IN CONNECTION WITH, WATERPROOFING AND DRAINAGE. ENGINEER ASSUMES NO RESPONSIBILITY FOR PROJECT WATERPROOFING AND DRAINAGE DESIGN. IF WATERPROOFING IS TO BE USED ON THE PROJECT, PROPER COORDINATION OF SAID WATERPROOFING IS TO BE DONE BY OTHERS.
6. ENGINEER ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION MEANS AND METHODS.
7. CLIENT AGREES NOT TO USE OR PERMIT ANY OTHER PERSON TO USE PLANS, DRAWINGS, OR OTHER WORK PRODUCT PREPARED BY CEFALI & ASSOCIATES WHICH ARE NOT FINAL AND DO NOT BEAR A SIGNED CEFALI & ASSOCIATES ENGINEER'S STAMP OR SEAL. CLIENT AGREES TO BE LIABLE AND RESPONSIBLE FOR ANY SUCH USE OF NON-FINAL PLANS, DRAWINGS, OR OTHER WORK PRODUCT NOT SIGNED AND STAMPED OR SEALED BY CEFALI & ASSOCIATES AND WAIVES LIABILITY AGAINST CEFALI & ASSOCIATES FOR THEIR USE.
8. HEAVY EQUIPMENT OR CRANES ARE NOT BE LOCATED ADJACENT TO THE SHORING BULKHEAD. NO PROVISIONS FOR EQUIPMENT SURCHARGING HAS BEEN PERMITTED IN THE DESIGN.
9. TEMPORARY BUILDING SHORING IF REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR.
10. NO EXCAVATION OR GRADING SHALL COMMENCE UNTIL 10 DAYS AFTER ADJOINING PROPERTY OWNERS HAVE BEEN NOTIFIED IN WRITING AS REQUIRED BY SECTION 3301.2 OF THE CALIFORNIA BUILDING CODE.
11. ALL MEMBER SIZES SHALL BE AS SHOWN OR EQUAL. AS APPROVED BY CEFALI & ASSOCIATES, EQUIVALENT OR STRONGER MEMBERS MAY BE SUBSTITUTED TO SUIT THE AVAILABILITY OF MATERIALS.

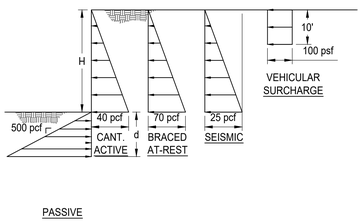
UNDERGROUND STRUCTURES

1. ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT IN THESE DRAWINGS. THE CLIENT BY ACCEPTING THESE PLANS OR PROCEEDING WITH CONSTRUCTION IN ACCORDANCE WITH THESE DRAWINGS AGREES TO ASSUME LIABILITY AND TO HOLD CEFALI & ASSOCIATES HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO CEFALI & ASSOCIATES.
2. THE OWNER SHALL LOCATE ALL UTILITIES AND STRUCTURES WITHIN THE PROPOSED EXCAVATION AND MAKE APPROPRIATE ARRANGEMENTS FOR THEIR RELOCATION OR PROTECTION, PRIOR TO THE START OF CONSTRUCTION.
3. THE OWNER IN LOCATING ALL EXISTING UTILITIES AND STRUCTURES SHALL INSURE THAT NO CONFLICT EXISTS BETWEEN SHORING PILES AND TIEBACKS AND EXISTING UTILITIES. IF ANY CONFLICT IS FOUND TO EXIST, IT SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF CEFALI & ASSOCIATES AND CONSTRUCTION SHOULD NOT START UNTIL A RESOLUTION OF THE CONFLICT IS ACCOMPLISHED.
4. THE OWNER SHALL LOCATE AND CAP OFF ALL SEWER LATERALS BEHIND THE PROPOSED LOCATION OF SOLDIER BEAMS PRIOR TO THE INSTALLATION OF SOLDIER BEAMS.
5. AN UNDERGROUND SERVICE ALERT INQUIRY IDENTIFICATION NUMBER (USA II NO.) MUST BE OBTAINED AT LEAST TWO WORKING DAYS BEFORE STARTING WORK WITH THIS PERMIT. TELEPHONE NUMBER 811.

DIGALERT

GEOTECHNICAL DESIGN CRITERIA

1. THESE SHORING WALL PLANS WERE PREPARED WITH CONFORMANCE TO THE GEOTECHNICAL DESIGN RECOMMENDATIONS AS PRESENTED WITHIN THE SOILS REPORT BY VERDANTAS PROJECT NO. 036.25785, DATED MAY 23, 2025.
2. THE GEOTECHNICAL DESIGN VALUES USED ARE AS FOLLOWS:
   - A. EARTH PRESSURES:
     - A.A. ACTIVE: 40 PCF (TRIANGULAR)
     - A.B. AT-REST: 70 PCF (TRIANGULAR)
     - A.C. PASSIVE (PILES): 500 PCF
     - A.D. SEISMIC: 25 PCF (TRIANGULAR)
   - B. PILE FRICTION: 500 PSF
   - C. COEFFICIENT OF FRICTION: 0.3
   - D. LAGGING PRESSURE: DESIGN OR 400 PSF MAX. PRESSURE
   - E. POST-GROUT TIEBACK BOND: 2,000 PSF
   - F. SLIP-PLANE: 30°
   - G. MINIMUM TIEBACK BOND LENGTH: 15 FT
   - H. CUT SLOPES: CALOSH TYPE C SOILS
     1.5: SLOPES



SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
   - 1.1. CONCRETE MIX DESIGN
   - 1.2. CONCRETE CONSTRUCTION JOINT LOCATIONS NOT NOTED ON PLANS
   - 1.3. WALL FACING REINFORCING STEEL PLACING DRAWINGS
   - 1.4. STEEL MILL CERTIFICATION AND COUPON TEST RESULTS
   - 1.5. SHOTCRETE SUBCONTRACTOR QUALIFICATIONS AS OUTLINED IN THE SHOTCRETE PORTION OF THESE NOTES
   - 1.6. WELDING PROCEDURES
   - 1.7. TIEBACK SHOP DRAWINGS
2. THE CONTRACTOR SHALL ALLOW 14 CALENDAR DAYS FOR REVIEW AFTER RECEIVED BY ENGINEER.

CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19A OF THE CBC AND TO THE PROVISIONS OF ACI 318, LATEST ADDITION.
2. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY CEFALI & ASSOCIATES.
3. SLURRY SHALL BE A MIX OF WATER, CEMENT AND SAND; 1-1/2 SACK CEMENT PER YARD OF MIX.
4. DRYPACK SHALL BE A MIX OF WATER, CEMENT AND SAND; 1 PART CEMENT TO 3 PARTS SAND WITH JUST ENOUGH WATER FOR WORKABILITY.
5. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE V.
6. AGGREGATE FOR HARD ROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS.
7. ADMIXTURES SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C845, C260, C494, C 1017 OR C618 CLASSES N OR F AND PROJECT SPECIFICATIONS.
8. CONCRETE MIXING OPERATION, ETC. SHALL CONFORM TO ASTM C94.
9. A SPECIAL CONCRETE MIX SHALL BE USED FOR CONCRETE TO BE PLACED BELOW WATER. THE CONCRETE STRENGTH SHALL BE INCREASED BY 1,000 PSI OVER THE INITIAL SPECIFICATION PROVIDED IN THE TABLE BELOW. AN ADMIXTURE THAT REDUCE SEGREGATION OF PASTE/AGGREGATES AND DILUTION OF PASTE SHALL BE INCLUDED. THE ADMIXTURE SHALL BE SUBMITTED TO AND APPROVED BY CEFALI & ASSOCIATES.
10. SCHEDULE OF STRUCTURAL CONCRETE 28-DAY STRENGTH AND TYPES:

LOCATION IN STRUCTURE	STRENGTH (PSI)	DENSITY (PCF)	SLUMP (IN)
SLURRY	N/A	N/A	N/A
SOLDIER PILE TOES	3,000	150	1-4
WALL FACING/SHOTCRETE	5,000	(SEE "SHOTCRETE")	

GROUT - HIGH PRESSURE TIEBACK ANCHORS

1. GROUT IN THE TIEBACK SHAFT SHALL BE A GROUT MIX OF CEMENT AND WATER.
2. CALCIUM CHLORIDE SHALL NOT BE ALLOWED IN THE GROUT.
3. HIGH-PRESSURE GROUT SHALL CONSIST OF: 1-SACK (94 LB.) CEMENT TYPE I, II, III, V CONFORMING TO ASTM C 150 MIXED WITH 4.5-5 GALLONS POTABLE WATER IN ACCORDANCE WITH THE POST TENSION INSTITUTE MANUAL 4TH EDITION.
4. ADMIXTURES SHALL NOT NORMALLY BE USED. ADMIXTURES WHICH CONTROL BLEED, IMPROVE FLOWABILITY REDUCE WATER CONTENT, AND RETARD SET MAY BE USED IN THE GROUT SUBJECT TO THE APPROVAL OF CEFALI & ASSOCIATES AND TESTS THAT VERIFY GROUT AND BOND PROPERTIES ARE NOT ADVERSELY AFFECTED. ADMIXTURES, IF USED, SHALL BE COMPATIBLE WITH THE PRESTRESSING STEEL AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. THE GROUT MIX WILL BE BATCHED ON-SITE, USING A MIXING UNIT, DISCHARGING INTO A HOLDING TANK/AGITATOR UNIT OR DIRECTLY INTO THE PUMP PER THE FOLLOWING PROCEDURE:
   - A. FILL THE MIXING UNIT WITH THE SPECIFIED WATER USING A CALIBRATED MEASURING UNIT AND ADD CEMENT.
   - B. AGITATE THOROUGHLY UNTIL COLLOIDAL MIX IS ACHIEVED.
   - C. DISCHARGE GROUT INTO HOLDING TANK. AGITATE SLOWLY TO PREVENT SEGREGATION.
   - D. PUMP GROUT INTO BOREHOLE IN ACCORDANCE WITH THE TIE-BACK INSTALLATION PROCEDURE.
6. THE GROUTING EQUIPMENT SHALL PRODUCE GROUT FREE OF LUMPS AND INDISPENSED CEMENT. THE GROUTING EQUIPMENT SHALL BE SIZED TO ENABLE THE GROUT TO BE PUMPED IN CONTINUOUS OPERATION. THE MIXER SHALL BE CAPABLE OF CONTINUOUSLY AGITATING THE GROUT

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL (EXCLUDING PIPES AND PLATES) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A572 GR. 50 OR ASTM A992 SPECIFICATIONS.
2. ALL STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53 GR. B SPECIFICATIONS.
3. ALL STRUCTURAL STEEL PLATE SHALL CONFORM TO ASTM A572 GR 50 SPECIFICATIONS UNLESS OTHERWISE NOTED.
4. ELECTRIC ARC WELDING SHALL UTILIZE ELECTRODES APPROVED BY BUILDING DEPARTMENT (E 70-XX) AND PLACED BY WELDERS PROPERLY CERTIFIED BY THE BUILDING OFFICIAL.

PRESTRESSING STEEL

1. ANCHOR ROD TENDON SYSTEMS SHALL BE DYWIDAG SYSTEMS INTERNATIONAL (DSI) THREADBARS, WILLIAMS THREADBARS, STRESSTEEL (SAS) THREADBARS, OR SKYLINE STEEL THREADED BAR SYSTEMS CONFORMING TO ASTM A722 TYPE 2 SPECIFICATION WITH AN ULTIMATE TENSILE STRENGTH OF 150 KSI. RODS SHALL BE ANCHORED USING PROPRIETARY HEXAGONAL NUTS OR ANCHOR NUTS AND MAY BE SPLICED WITH THE USE OF PROPRIETARY COUPLERS.
2. TENDONS SHALL BE INSTALLED STRAIGHT AND TRUE. KINKING OR SHARP CURVATURE IN ANCHORS UNDER TENSION SHALL BE CAUSE FOR REJECTION.
3. TENDONS SHALL NOT BE WELDED NOR USED FOR GROUNDING WELDING EQUIPMENT.
4. A MINIMUM OF CLASS II CORROSION PROTECTION IS REQUIRED FOR TEMPORARY ANCHORS IN SERVICE LESS THAN OR EQUAL TO 2 YEARS (CBC 1812A.4.1, NOTE 6).

BURIED STEEL MEMBERS CORROSION PROTECTION

1. WHERE MARKED "CORROSION PROTECTED" BURIED STEEL MEMBERS (WF SOLDIER BEAMS AND OTHER ATTACHED STEEL MEMBERS, ANCHOR RODS EXCLUDED, U.N.O.) SURFACES SHALL BE CORROSION PROTECTED WITH TNEMEC INC. PRODUCTS OR EQUAL AS FOLLOWS:
   - A. SHOP APPLIES:
     - A.A. SYSTEM TYPE: ZINC/COAL TAR EPOXY.
     - A.B. MANUFACTURER: TNEMEC COMPANY INC.
     - A.C. SURFACE PREPARATION: ALL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP10 NEAR WHITE BLAST CLEANING.
     - A.D. PRIME COAT 90-97 TNEME-ZINC AT 2.5 TO 3.5 MILS DFT.
     - A.E. FINISH COAT: 46H-413 TNEME-TAR AT 16.0 TO 20.0 MILS DFT. (APPLIED IN ONE OR TWO COATS).
     - A.F. TOTAL SYSTEM: THE TOTAL DRY FILM THICKNESS SHALL BE 19.0 MILS MINIMUM.
   - B. FIELD TOUCH UP:
     - B.A. SYSTEM TYPE: ZINC/EPOXY.
     - B.B. MANUFACTURER: TNEMEC COMPANY INC.
     - B.C. SURFACE PREPARATION: ALL DAMAGED SURFACES AND WELDS ETC. SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP10 NEAR WHITE BLAST CLEANING. IF THE AREAS ARE SMALL AND IT IS NOT PRACTICAL OR FEASIBLE TO BE PREPARED IN ACCORDANCE WITH SSPC-SP10, THEN SSPC-SP-11 POWER TOOL CLEAN TO BARE METAL WILL BE ACCEPTABLE.
     - B.D. SPOT PRIME: 94-H20 HYDRO-ZINC AT 2.5 TO 3.5 MILS DFT.
     - B.E. FINISH COAT(S): L69 EXPOXOLINE AT 6.0 TO 8.0 MILS DTF PER COAT (APPLIED IN TWO OR MORE COATS).

CONSTRUCTION JOINTS

1. ALL SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED TO REMOVE DUST, CHIPS, OR OTHER FOREIGN MATTER AND ROUGHENED TO 1/4" AMPLITUDE PRIOR TO PLACING THE ADJACENT CONCRETE.
2. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINT SHALL BE WETTED AND STANDING WATER REMOVED.
3. THE CONTRACTOR SHALL SUBMIT THE PROPOSED LOCATIONS OF CONSTRUCTION JOINTS FOR APPROVAL BY THE STRUCTURAL ENGINEER BEFORE STARTING CONSTRUCTION.

SHORING PROCEDURE

1. IN AREAS WHERE THE FINISHED GRADE OR FINISHED SURFACE IS HIGHER THAN THE EXISTING GRADE, RAISE THE GRADE TO WITHIN FINISHED GRADE. IN AREAS WHERE THE FINISHED GRADE OR FINISHED SURFACE IS LOWER THAN THE EXISTING GRADE, LOWER THE GRADE TO WITHIN FINISHED GRADE.
2. DRILL VERTICAL SOLDIER PILE SHAFTS.
3. PLACE EPOXY-COATED SOLDIER BEAMS IN SHAFT.
4. FILL THE TOE OF THE SOLDIER PILE SHAFT WITH 3000 PSI CONCRETE.
5. FILL BALANCE OF SHAFT WITH A SAND/CEMENT SLURRY.
6. PERFORM ABOVE STEPS FOR BALANCE OF SOLDIER PILES.
7. BEGIN EXCAVATION IN LIFTS AS MAY BE DETERMINED BY THE GRADING INSPECTOR. CLEAN SOLDIER PILES AS REQUIRED. PLACE WOOD LAGGING AS GRADE DESCENDS. PROVIDE SLURRY BEHIND LAGGING FOR FULL BEARING FILLING ALL VOIDS.
8. CONTINUE EXCAVATION TO THE STAGE 1 ELEVATION IN THE CASE OF A TIE-BACK. IN THE CASE OF CANTILEVER PILE, OMIT STAGE 1 AND CONTINUE TO THE BOTTOM OF EXCAVATION.
9. IN THE CASE OF TIED-BACK SOLDIER PILES, DRILL SHAFT FOR TIE-BACK AND INSTALL TENDONS PER THE "TIE-BACK INSTALLATION PROCEDURE" SHOWN.
10. REPEAT STEPS 7 AND 8 FOR THE REST OF THE TIE-BACK LOCATIONS.
11. PROCEED TO THE LEVEL OF THE BOTTOM OF EXCAVATION.
12. TOUCH-UP CORROSION PROTECTION.
13. INSTALL DRAINAGE AND WATERPROOFING.
14. FABRICATE REBAR CURTAIN FOR PERMANENT SHOTCRETE WALL PER THE REINFORCING DETAILS. SHOOT SHOTCRETE WALLS.
15. INSTALL GUARDRAIL SYSTEM ATOP WALLS, WHERE REQUIRED.
16. BRING OVER-EXCAVATED REGIONS TO WITHIN FINISHED GRADE.

SHAFTS

1. VERTICAL AND DIAGONAL SHAFTS ARE TO BE MACHINE DRILLED AND ACCURATELY LOCATED SO THAT SOLDIER PILES AND TIEBACKS ARE IN PROPER RELATION TO THE NEW WALL ALIGNMENT.
2. TOLERANCE FOR INSTALLATION OF SOLDIER PILES IS ±1 INCH FOR VARIATION OF PLAN LOCATION AND 0.5 PERCENT OF PILE LENGTH FOR OUT OF PLUMB.
3. LOCATE SOLDIER PILES AS REQUIRED OUTSIDE OF BUILDING WALLS TO INSURE PILE DOES NOT INTRUDE INTO FINISHED WALL DUE TO OUT OF PLUMB OR VARIATION IN PLAN LOCATION.
4. TIE BACK ANCHORS SHALL BE INSTALLED AT THE ANGLE OF DECLINATION INDICATED IN THE SECTION OR SCHEDULE WITH A TOLERANCE OF ±3 DEGREES.
5. TOLERANCE FOR INSTALLATION OF TIEBACK IN ELEVATION IS ±3 INCH.
6. TIEBACK SHAFTS SHALL BE FREE OF LOOSE MATERIAL AND CONCRETE SHALL BE PLACED IMMEDIATELY AFTER PLACING TENDON IN THE SHAFT.
7. IT WILL NOT BE NECESSARY TO DEWATER THE HOLES FOR SOLDIER PILES OR TIEBACKS SHOULD GROUNDWATER BE ENCOUNTERED PROVIDED THE CONCRETE IS TREMIED INTO POSITION WITH APPROVED DEVICES.
8. SHAFTS CLOSER THAN TWO SHAFT DIAMETERS ON CENTER SHALL BE DRILLED AND POURED IN AN ALTERNATING SEQUENCE SUCH THAT THE ALTERNATE SHAFT IS NOT DRILLED UNTIL THE ADJACENT PILE HAS CURED FOR AT LEAST 24 HOURS.
9. HOLES DRILLED FOR PILES/TIE-BACK ANCHORS SHALL BE DONE WITHOUT DETRIMENTAL LOSS OF GROUND, SLOUGHING OR CAVING OF MATERIALS AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED SHORING MEMBERS OR EXISTING FOUNDATIONS. PROVIDE PROTECTION OF SHAFT AGAINST SLOUGHING OR CAVING, AS REQUIRED.
10. CASING OR OTHER METHODS SHALL BE USED WHERE NECESSARY TO PREVENT LOSS OF GROUND AND COLLAPSE OF THE HOLE.
11. WHERE CAVING OCCURS, DRILLED HOLES SHALL BE CASED AND ALL BACKFILL SHALL BE PRESSURE PUMPED SO THAT ALL VOIDS ARE FILLED.
12. ALL SHAFTS LEFT OPEN MORE THAN TWELVE (12) HOURS SHALL BE CASED.
13. WHEN WATER OVER 3 INCHES IN DEPTH IS PRESENT IN DRILLED PILE HOLES, A CONCRETE MIX WITH A STRENGTH OF 1000 PSI OVER THE DESIGN PSI SHALL BE TREMIED FROM THE BOTTOM UP.
14. DRILLING OF EARTH ANCHOR SHAFTS FOR TIE-BACKS SHALL OCCUR WHEN THE DRILL BENCH REACHES TWO TO THREE FEET BELOW THE LEVEL OF THE TIE-BACK POCKETS.
15. THE DRILL CUTTINGS FROM EARTH ANCHOR SHAFT SHALL BE REMOVED PRIOR TO ANCHOR INSTALLATION.

REINFORCING STEEL

1. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, U.N.O. THE DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A305.
2. AT THE TIME CONCRETE IS PLACED, REINFORCEMENT SHALL BE FREE FROM MUD, OIL, OR OTHER NONMETALLIC COATINGS THAT DECREASE BOND. EPOXY-COATING OF REINFORCEMENT SHALL BE PERMITTED. STEEL REINFORCEMENT WITH RUST, MILL SCALE, OR A COMBINATION OF BOTH SHALL BE CONSIDERED SATISFACTORY, PROVIDED THE MINIMUM DIMENSIONS (INCLUDING HEIGHT OF DEFORMATIONS) AND WEIGHT OF A HAND-WIRE-BRUSHED TEST SPECIMEN COMPLY WITH APPLICABLE ASTM SPECIFICATION.
3. REINFORCEMENT SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED, AND SHALL BE SECURED AGAINST DISPLACEMENT WITHIN TOLERANCES.
4. WELDING OF CROSSING BARS SHALL NOT BE PERMITTED FOR ASSEMBLY OF REINFORCEMENT.
5. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.
6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. ALL DOWEL BENDS SHALL BE MADE PRIOR TO PLACING DOWELS; BARS SHALL NOT BE BENT AFTER ANY PORTION OF THE BAR IS ENCASED IN CONCRETE. MINIMUM BEND DIAMETERS AND STANDARD HOOKS SHALL BE PER ACI 318.
7. REINFORCING BAR SPLICES SHALL BE MADE ONLY AS INDICATED ON THE DRAWINGS. MINIMUM SPLICE LENGTH FOR REINFORCING STEEL BARS IN CONCRETE SHALL BE PER ACI 318. #5 AND LARGER REINFORCING BARS SHALL NOT BE SPLICED EXCEPT AS LOCATED AND DETAILED ON THE DRAWINGS. #4 BARS AND SMALLER WITH LENGTHS NOT SHOWN SHALL BE CONTINUOUS. ALL SPLICE LOCATIONS ARE SUBJECT TO APPROVAL BY STRUCTURAL ENGINEER. PROVIDE CLASS B SPLICE UNLESS NOTED OTHERWISE.
8. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION AND OBSERVATION IS MADE.
9. BARS IN WALL FACING SHALL BE SECURELY SUPPORTED ON WELL CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, PRIOR TO PLACING CONCRETE.
10. DRAWINGS SHOW TYPICAL REINFORCING CONDITIONS. COMPLETE AND DETAILED REINFORCING PLACEMENT DRAWINGS SHALL BE PREPARED AND SUBMITTED TO THE FOR APPROVAL BY CEFALI & ASSOCIATES PRIOR TO FABRICATION IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE CODES. THESE DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO PLACING OF CONCRETE.
11. REBAR SPACING GIVEN ARE MAXIMUM ON CENTER WHERE STATED AS "O.C.". REBAR IS CONTINUOUS UNLESS NOTED OTHERWISE.
12. CONCRETE PROTECTION FOR CAST-IN-PLACE REINFORCEMENT SHALL BE PROVIDED. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER	
NO. 6 THROUGH NO. 18 BARS	2"
NO. 5 BARS AND SMALLER	1½"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	1½"

SHOTCRETE

1. SHOTCRETE SHALL COMPLY WITH THE REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE SECTION 1908A.
2. COARSE AGGREGATE, IF USED, SHALL NOT EXCEED 3/4" INCH.
3. THE MINIMUM SLUMP SHALL BE 1-1/2 INCHES AND THE MAXIMUM SLUMP SHALL BE 2-1/2" INCHES. SLUMP SHALL BE MEASURED AT THE POINT OF DISCHARGE FROM THE MIXER, EXCEPT WHEN THE BUILDING INSPECTOR MAY REQUIRE SLUMP TESTS AT THE DISCHARGE POINT WHERE WATER MAY HAVE BEEN ADDED.
4. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE IN A MANNER THAT PREVENTS ANY MOVEMENT DURING THE WET MIX SHOTCRETING.
5. THE MAXIMUM SIZE OF REINFORCEMENT SHALL BE NO. 5 BARS UNLESS IT IS DEMONSTRATED BY PRECONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF LARGER BARS WILL BE ACHIEVED.
6. WHEN NO. 5 OR SMALLER BARS ARE USED, THERE SHALL BE A MINIMUM CLEARANCE BETWEEN PARALLEL REINFORCEMENT BARS OF 2-1/2 INCHES. WHEN BARS LARGER THAN NO. 5 ARE PERMITTED, THERE SHALL BE A MINIMUM CLEARANCE BETWEEN PARALLEL BARS EQUAL TO SIX DIAMETERS OF THE BARS USED. WHEN TWO CURTAINS OF STEEL ARE PROVIDED, THE CURTAIN NEARER THE NOZZLE SHALL HAVE A MINIMUM SPACING EQUAL TO 12 BAR DIAMETERS AND THE REMAINING CURTAIN SHALL HAVE A MINIMUM SPACING OF SIX BAR DIAMETERS. EXCEPTION: SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL, REQUIRED CLEARANCES SHALL BE REDUCED WHERE IT IS DEMONSTRATED BY PRECONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF THE BARS USED IN THE DESIGN WILL BE ACHIEVED.
7. LAP SPLICES OF REINFORCING BARS SHALL UTILIZE THE NONCONTACT LAP SPLICE METHOD WITH A MINIMUM CLEARANCE OF 2 INCHES BETWEEN BARS. THE USE OF CONTACT LAP SPLICES NECESSARY FOR SUPPORT OF THE REINFORCING IS PERMITTED WHEN APPROVED BY THE BUILDING OFFICIAL, BASED ON SATISFACTORY PRECONSTRUCTION TESTS THAT SHOW THAT ADEQUATE ENCASEMENT OF THE BARS WILL BE ACHIEVED, AND PROVIDED THAT THE SPLICE IS ORIENTED SO THAT A PLANE THROUGH THE CENTER OF THE SPLICED BARS IS PERPENDICULAR TO THE SURFACE OF THE SHOTCRETE.
8. A CAPABLE NOZZLEMAN'S HELPER WITH AN AIR BLOW PIPE SHALL BE PROVIDED TO ASSIST THE NOZZLEMAN IN KEEPING ALL REBOUND BUILD-UP OUT OF THE WORK.
9. ADDITIONAL WORKERS MAY BE REQUIRED TO TAKE THE REBOUND FROM THE WORK IF THE REBOUND CANNOT BE REMOVED BY THE AIR BLOW PIPE.
10. ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE SHALL BE REMOVED FROM THE SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY SUCCEEDING LAYERS OF SHOTCRETE. REBOUND SHALL NOT BE USED AS AGGREGATE.
11. EXCEPT WHERE PERMITTED HEREIN, UNFINISHED WORK SHALL NOT BE ALLOWED TO STAND FOR MORE THAN 30 MINUTES UNLESS EDGES ARE SLOPED TO A THIN EDGE. FOR STRUCTURAL ELEMENTS THAT WILL BE UNDER COMPRESSION AND FOR CONSTRUCTION JOINTS SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS, SQUARE JOINTS ARE PERMITTED. BEFORE PLACING ADDITIONAL MATERIAL ADJACENT TO PREVIOUSLY APPLIED WORK, SLOPING AND SQUARE EDGES SHALL BE CLEANED AND WETTED.
12. IN-PLACE SHOTCRETE THAT EXHIBITS SAGS, SLOUGHS, SEGREGATION, HONEYCOMBING, SAND POCKETS OR OTHER OBVIOUS DEFECTS SHALL BE REMOVED AND REPLACED. SHOTCRETE ABOVE SAGS AND SLOUGHS SHALL BE REMOVED AND REPLACED WHILE STILL PLASTIC.
13. NO KEYWAYS OR EMBEDMENTS SHALL BE PLACED ON THE FRONT FACE THAT WILL INTERFERE WITH THE STREAM FROM THE NOZZLE. GUARDRAIL SLEEVES ARE PERMITTED AS DETAILED AND THEY SHALL BE VISUALLY INSPECTED TO ENSURE THAT NO VOIDS ARE CREATED AROUND THEM WHEN APPLYING SHOTCRETE.
14. RIGID OR OTHER APPROVED BACKING SHALL BE PLACED AGAINST THE EARTH WHERE THERE IS ANY LIKELIHOOD OF SOIL BEING DISLODGED IN SUFFICIENT QUANTITY TO DAMAGE THE CONCRETE DURING THE APPLICATION OF WET MIX SHOTCRETE. RIGID OR OTHER APPROVED BACKING SHALL BE USED WHERE A VOID IN THE EMBANKMENT IS TO BE BRIDGED.
15. ALL OTHER APPLICABLE REQUIREMENTS OF THE CODE (INCLUDING ALL REQUIREMENTS FOR PNEUMATICALLY PLACED WET MIX MORTAR AND MAXIMUM TIME IN MIXERS) SHALL APPLY.
16. STRENGTH TESTS FOR SHOTCRETE SHALL BE MADE BY AN APPROVED AGENCY IN ACCORDANCE WITH ASTM STANDARDS. STRUCTURAL WET MIX SHOTCRETE SHALL NOT BE PLACED WHERE THE STREAM FROM THE NOZZLE CANNOT DIRECTLY IMPINGE ONTO THE SURFACE WHERE THE CONCRETE IS TO BE PLACED. TWO 16"x16"x12" UNREINFORCED TEST BOXES SHALL BE SHOT FOR EACH SHIFT FOR COMPRESSION STRENGTH TESTING.
17. WHEN REQUIRED BY THE DSA PROJECT INSPECTOR, A TEST PANEL SHALL BE SHOT, CURED, CORED OR SAWN, EXAMINED AND TESTED PRIOR TO COMMENCEMENT OF THE PROJECT. THE SAMPLE PANEL SHALL BE REPRESENTATIVE OF THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE. THE PANEL THICKNESS AND REINFORCING SHALL REPRODUCE THE THICKEST AND MOST CONGESTED AREA SPECIFIED IN THE STRUCTURAL DESIGN. IT SHALL BE SHOT AT THE SAME ANGLE, USING THE SAME NOZZLEMAN AND WITH THE SAME CONCRETE MIX DESIGN THAT WILL BE USED ON THE PROJECT. THE EQUIPMENT USED IN PRECONSTRUCTION TESTING SHALL BE THE SAME TYPE/MANUFACTURER OF EQUIPMENT USED IN THE WORK REQUIRING SUCH TESTING, UNLESS SUBSTITUTE EQUIPMENT IS APPROVED BY THE BUILDING OFFICIAL.

ANCHOR TESTING PROCEDURE

1. EXCEPT FOR THE MODIFICATIONS AS SET FORTH IN SECTIONS 1812A.4.1 THOUGH 1812A.4.3, ALL PRESTRESSED ROCK AND SOIL TIEBACK ANCHORS COMPLY WITH PTI.
2. TESTING OF ANCHORS MAY BE PERFORMED AFTER POST-GROUTING OPERATIONS PROVIDED GROUT HAS REACHED STRENGTH OF 3,000 PSI AS REQUIRED BY PTI SECTION 6.11.
3. EACH ANCHOR SHALL BE SATISFACTORILY TESTED TO THE REQUIREMENTS OF A 150% OR 200% PULL TEST.
4. ALL ANCHORS, WITH THE EXCEPTION OF THE 200% TESTS, SHALL BE TESTED TO 150%. THIS TEST REQUIRES THE ANCHOR TO BE LOADED TO A MINIMUM OF 150% OF THE DESIGN LOAD. THE MOVEMENT OF THE PULLING HEAD INCLUDING THE FREE-STRESSING LENGTH ELONGATION SHALL NOT EXCEED 12 INCHES TOTAL DURING APPLICATION OF THE TEST LOAD FROM 0% TO 150%. AT THE 150% TEST LOAD, THE PULLING HEAD MOVEMENT SHALL NOT EXCEED 0.1 INCH DURING A 15-MINUTE TEST PERIOD.
5. UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICAL ON THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER, TEN PERCENT OF THE ANCHORS WHERE DIRECTED, SHALL BE TESTED IN ACCORDANCE WITH A 200% TEST. A 200% TEST REQUIRES THE ANCHOR TO BE LOADED TO 200% OF THE DESIGN LOAD. IN ADDITION, A REPRESENTATIVE SAMPLE OF THESE TESTS SHALL BE TESTED FOR A TIME PERIOD OF 24 HOURS. THE GEOTECHNICAL ENGINEER SHALL PREDETERMINE THE LOCATION OF THESE TEST ANCHORS AND EXTRA TENDONS, AS MAY BE REQUIRED, SHALL BE ADDED. THE MOVEMENT OF THE PULLING HEAD INCLUDING THE FREE-STRESSING LENGTH ELONGATION SHALL NOT EXCEED 12 INCHES TOTAL D

MONITORING

1. SHORING PILES SHALL BE SURVEY MONITORED FOR LINE AND GRADE AT THE TOP OF THE SOLDIER PILE.
2. CONTROL POINTS SHALL BE ESTABLISHED OUTSIDE THE AREA OF INFLUENCE OF THE SHORING SYSTEM TO ENSURE THE ACCURACY OF THE MONITORING READINGS.
3. THE PERIODIC BASIS OF SHORING MONITORING, AS A MINIMUM, SHALL BE AS FOLLOWS:
   - 3.1. INITIAL MONITORING SHALL BE PERFORMED PRIOR TO ANY EXCAVATION.
   - 3.2. ONCE EXCAVATION HAS BEGUN, THE PERIODIC READINGS SHALL BE TAKEN WEEKLY UNTIL THE BOTTOM OF EXCAVATION HAS BEEN REACHED.
   - 3.3. IF PERFORMANCE OF THE SHORING IS WITHIN THE LIMITS SET FORTH BELOW AND THERE OCCURS A 3-WEEK PERIOD WHERE THE MOVEMENT IS LESS THAN 0.3 INCHES, THE MONITORING INTERVAL MAY BE INCREASED TO MONTHLY INTERVALS.
   - 3.4. THE PERIODIC MONITORING OF THE SOLDIER PILES CAN BE DISCONTINUED ONCE THE PERMANENT STRUCTURE IS CAPABLE OF RESISTING THE EARTH LOAD AND THIS HAS BEEN CONFIRMED IN WRITING BY THE STRUCTURAL ENGINEER.
   - 3.5. ADDITIONAL READINGS SHALL BE TAKEN WHEN REQUESTED BY CEFALI & ASSOCIATES OR THE GEOTECHNICAL ENGINEER.
   - 3.6. IF THE TOTAL CUMULATIVE HORIZONTAL OR VERTICAL MOVEMENT (FROM START OF CONSTRUCTION) OF EXISTING BUILDINGS REACHES 1/2 INCH OR SOLDIER PILE HORIZONTAL MOVEMENT REACHES 1 INCH ALL EXCAVATION ACTIVITIES IN THE AREA SHALL BE SUSPENDED. THE GEOTECHNICAL AND CEFALI & ASSOCIATES SHALL EXAMINE THE CAUSE OF MOVEMENT, AND RECOMMEND CORRECTIVE MEASURES, IF NECESSARY, BEFORE EXCAVATION CONTINUES. IF THE TOTAL CUMULATIVE HORIZONTAL OR VERTICAL MOVEMENT (FROM START OF CONSTRUCTION) OF THE EXISTING BUILDINGS REACHES 3/4 INCH OR SOLDIER PILE HORIZONTAL MOVEMENT REACHES 1-1/2 INCHES ALL EXCAVATION ACTIVITIES SHALL BE SUSPENDED UNTIL THE CAUSES, IF ANY, CAN BE DETERMINED. SUPPLEMENTAL SHORING SHALL BE DEVISED TO ELIMINATE FURTHER MOVEMENT SHORING BEFORE EXCAVATION CONTINUES.
4. IF IN THE OPINION OF CEFALI & ASSOCIATES, MONITORING DATA INDICATE EXCESSIVE MOVEMENT OR OTHER DISTRESS, ALL EXCAVATION SHALL CEASE UNTIL THE GEOTECHNICAL ENGINEER AND CEFALI & ASSOCIATES INVESTIGATE THE SITUATION AND MAKES RECOMMENDATIONS FOR REMEDIATION OR CONTINUING.
5. MONITORING READING SHALL BE SUBMITTED TO CEFALI & ASSOCIATES AND THE GEOTECHNICAL ENGINEER WITHIN 3 WORKING DAYS AFTER THEY ARE CONDUCTED. MONITORING READINGS SHALL BE ACCURATE TO WITHIN 0.01 FEET. RESULTS ARE TO BE SUBMITTED IN TABULAR FORM SHOWING AT LEAST THE INITIAL DATE OF MONITORING AND READING, CURRENT MONITORING DATE AND READING AND DIFFERENCE BETWEEN THE 2 READINGS. THE READING SHALL INDICATE INWARDS MOVEMENT AS NEGATIVE VALUES AND OUTWARDS MOVEMENT AS POSITIVE. NORTHINGS AND EASTINGS ARE NOT ACCEPTABLE. DOWNWARDS MOVEMENTS SHALL BE NEGATIVE AND UPWARDS MOVEMENT POSITIVE.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COMPLETE A PHOTOGRAPHIC LOG OF ALL ADJACENT PROPERTIES AND STRUCTURES WITHIN A 1:1 OF THE BOTTOM OF EXCAVATION.
   - 6.1. THE CONTRACTOR SHALL DOCUMENT THE EXISTING CONDITIONS OF WALL CRACKS ADJACENT TO SHORING BULKHEADS PRIOR TO START OF CONSTRUCTION.

APPENDIX (OSHPD & DSA) MONITORING

1. SHORING PILES SHALL BE SURVEY MONITORED FOR LINE AND GRADE AT THE TOP OF THE SOLDIER PILE. ADDITIONAL MONITORING POINTS SHALL BE ESTABLISHED AT THE ANCHOR HEADS OF SELECTED SOLDIER PILES AND AT INTERMEDIATE INTERVALS AS CONSIDERED APPROPRIATE BY THE GEOTECHNICAL ENGINEER.
2. CONTROL POINTS SHALL BE ESTABLISHED OUTSIDE THE AREA OF INFLUENCE OF THE SHORING SYSTEM TO ENSURE THE ACCURACY OF THE MONITORING READINGS.
3. THE PERIODIC BASIS OF SHORING MONITORING, AS A MINIMUM, SHALL BE AS FOLLOWS:
   - 3.1. INITIAL MONITORING SHALL BE PERFORMED PRIOR TO ANY EXCAVATION.
   - 3.2. ONCE EXCAVATION HAS BEGUN, THE PERIODIC READINGS SHALL BE TAKEN WEEKLY UNTIL EXCAVATION REACHES THE ESTIMATED SUBGRADE ELEVATION AND THE PERMANENT FOUNDATION IS COMPLETE.
   - 3.3. IF PERFORMANCE OF THE SHORING IS WITHIN ESTABLISHED GUIDELINES, SHORING DESIGN ENGINEER MAY PERMIT THE PERIODIC READINGS TO BE BI-WEEKLY. ONCE INITIATED, BI-WEEKLY READINGS SHALL CONTINUE UNTIL THE BUILDING SLAB AT GROUND FLOOR LEVEL IS COMPLETED AND CAPABLE OF TRANSMITTING LATERAL LOADS TO THE PERMANENT STRUCTURE. THEREAFTER, READINGS CAN BE MONTHLY.
   - 3.4. WHERE THE BUILDING HAS BEEN DESIGNED TO ,RESIST LATERAL EARTH PRESSURES, THE PERIODIC MONITORING OF THE SOLDIER PILES AND ADJACENT STRUCTURE CAN BE DISCONTINUED ONCE THE GROUND FLOOR DIAPHRAGM AND SUBTERRANEAN PORTION OF THE STRUCTURE IS CAPABLE OF RESISTING LATERAL SOIL LOADS AND APPROVED BY THE SHORING DESIGN ENGINEER, GEOTECHNICAL ENGINEER AND BUILDING OFFICIAL.
   - 3.5. ADDITIONAL READINGS SHALL BE TAKEN WHEN REQUESTED BY THE SPECIAL INSPECTOR, CEFALI & ASSOCIATES, GEOTECHNICAL ENGINEER, OR BUILDING OFFICIAL.
4. MONITORING READING SHALL BE SUBMITTED TO CEFALI & ASSOCIATES AND THE BUILDING OFFICIAL WITHIN 3 WORKING DAYS AFTER THEY ARE CONDUCTED. MONITORING READINGS SHALL BE ACCURATE TO WITHIN 0.01 FEET. RESULTS ARE TO BE SUBMITTED IN TABULAR FORM SHOWING AT LEAST THE INITIAL DATE OF MONITORING AND READING, CURRENT MONITORING DATE AND READING AND DIFFERENCE BETWEEN THE 2 READINGS.
5. IF THE TOTAL CUMULATIVE HORIZONTAL OR VERTICAL MOVEMENT (FROM START OF CONSTRUCTION) OF THE EXISTING BUILDINGS REACHES 1/2 INCH OR SOLDIER PILES REACHES 1 INCH ALL EXCAVATION ACTIVITIES SHALL BE SUSPENDED. THE GEOTECHNICAL AND SHORING DESIGN ENGINEER SHALL DETERMINE THE CAUSE OF MOVEMENT, IF ANY, AND RECOMMEND CORRECTIVE MEASURES, IF NECESSARY, BEFORE EXCAVATION CONTINUES. IF THE TOTAL CUMULATIVE HORIZONTAL OR VERTICAL MOVEMENT (FROM START OF CONSTRUCTION) OF THE EXISTING BUILDINGS REACHES 3/4 INCH OR SOLDIER PILES REACHES 1-1/2 INCHES ALL EXCAVATION ACTIVITIES SHALL BE SUSPENDED UNTIL THE CAUSES, IF ANY, CAN BE DETERMINED. SUPPLEMENTAL SHORING SHALL BE DEVISED TO ELIMINATE FURTHER MOVEMENT AND THE BUILDING OFFICIAL SHALL REVIEW AND APPROVE THE SUPPLEMENTAL SHORING BEFORE EXCAVATION CONTINUES.
6. IF IN THE OPINION OF THE BUILDING OFFICIAL CEFALI & ASSOCIATES, MONITORING DATA INDICATE EXCESSIVE MOVEMENT OR OTHER DISTRESS, ALL EXCAVATION SHALL CEASE UNTIL THE GEOTECHNICAL ENGINEER AND SHORING DESIGN ENGINEER INVESTIGATES THE SITUATION AND MAKES RECOMMENDATIONS FOR REMEDIATION OR CONTINUING.
7. THE CONTRACTOR SHALL COMPLETE A WRITTEN AND PHOTOGRAPHIC LOG OF ALL EXISTING STRUCTURES WITHIN 100 FEET OR THREE TIMES DEPTH OF SHORING, PRIOR TO CONSTRUCTION. A LICENSED SURVEYOR SHALL DOCUMENT ALL EXISTING SUBSTANTIAL CRACKS IN ADJACENT EXISTING STRUCTURES.
8. THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITION OF WALL CRACKS ADJACENT TO SHORING WALL PRIOR TO START OF CONSTRUCTION.
9. THE CONTRACTOR SHALL MONITOR EXISTING WALLS FOR MOVEMENT OR CRACKING THAT MAY RESULT FROM ADJACENT SHORING.
10. MONITORING SHALL BE PERFORMED BY A LICENSED SURVEYOR AND SHALL CONSIST OF VERTICAL AND LATERAL MOVEMENT OF THE EXISTING STRUCTURES. PRIOR TO STARTING SHORING INSTALLATION A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE BETWEEN THE CONTRACTOR, CEFALI & ASSOCIATES, SURVEYOR, GEOTECHNICAL ENGINEER, AND THE BUILDING OFFICIAL TO IDENTIFY MONITORING LOCATIONS ON EXISTING BUILDINGS.
11. READING AND MEASUREMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND CEFALI & ASSOCIATES.
12. IF EXCESSIVE MOVEMENT OR VISIBLE CRACKING OCCURS, THE CONTRACTOR SHALL STOP WORK AND SHORE/REINFORCE EXCAVATION AND CONTACT CEFALI & ASSOCIATES AND THE BUILDING OFFICIAL.

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MARK	DATE	DESCRIPTION
	09/08/2025	DSA SUBMITTAL

PROJECT NAME:

MALIBU HIGH SCHOOL GYM BUILDING

30215 MORNING VIEW DR.
MALIBU, CA 90265

SHEET NAME:

GENERAL NOTES

DATE: 06-13-2025

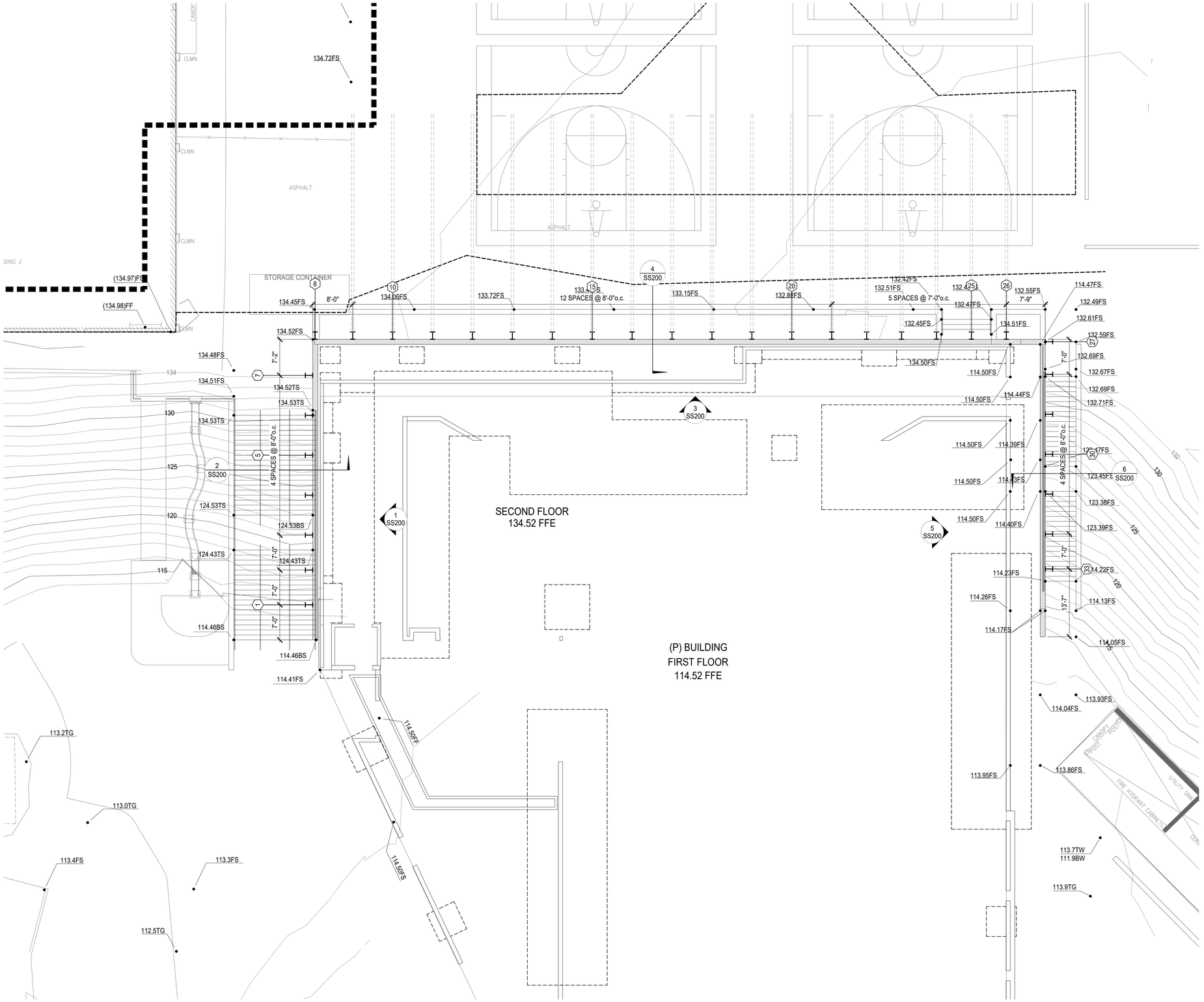
SCALE: N/A

DRAFTER: L.S.

PROJECT NO.: 25-029

DRAWING NO.:

SS001



SUPPORT OF EXCAVATION PLAN

1/8" = 1'-0"

0 4' 8' 16'

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GYM BUILDING

30215 MORNING VIEW DR.
MALIBU, CA 90265

SHEET NAME:

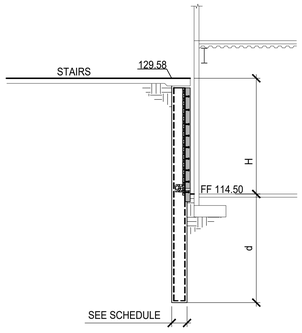
SUPPORT OF
EXCAVATION PLAN

DATE:	06-13-2025
SCALE:	1/8" = 1'-0"
DRAFTER:	L.S.
PROJECT NO.:	25-029

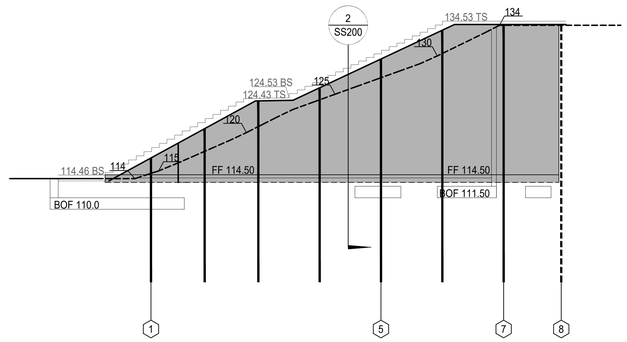
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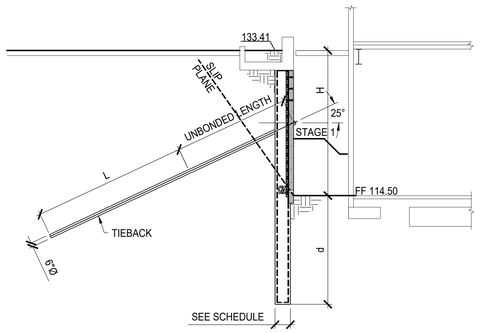
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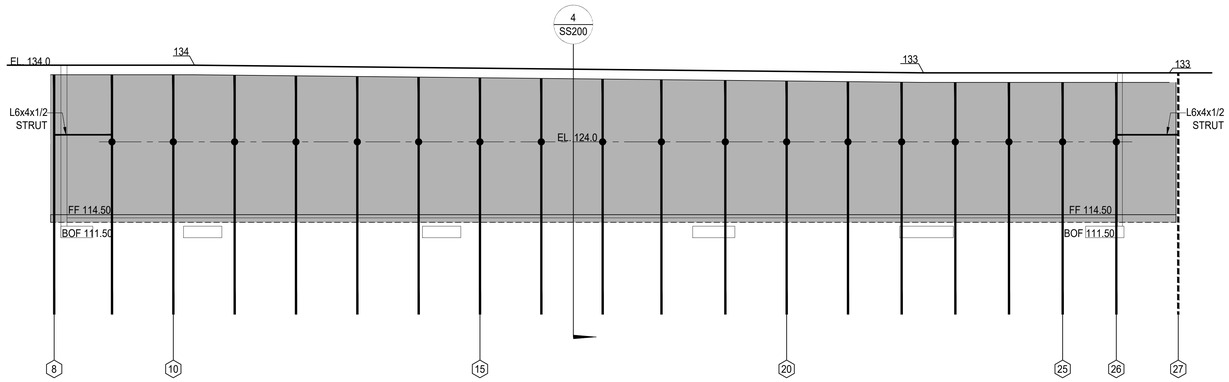
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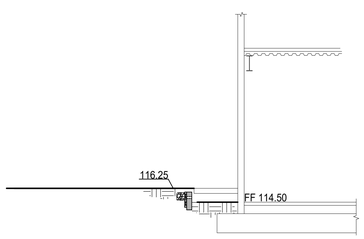
WEST BULKHEAD ELEVATION LOOKING WEST 1



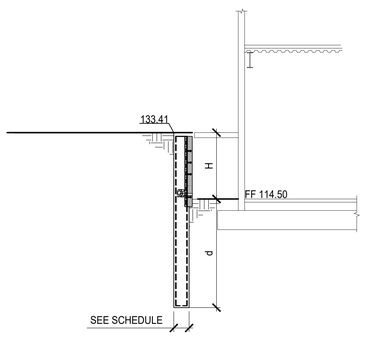
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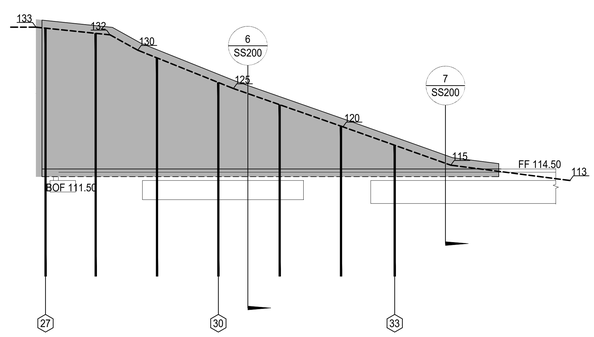
NORTH BULKHEAD ELEVATION LOOKING NORTH 3



EAST SECTION 7



EAST SECTION 6



EAST BULKHEAD ELEVATION LOOKING EAST 5

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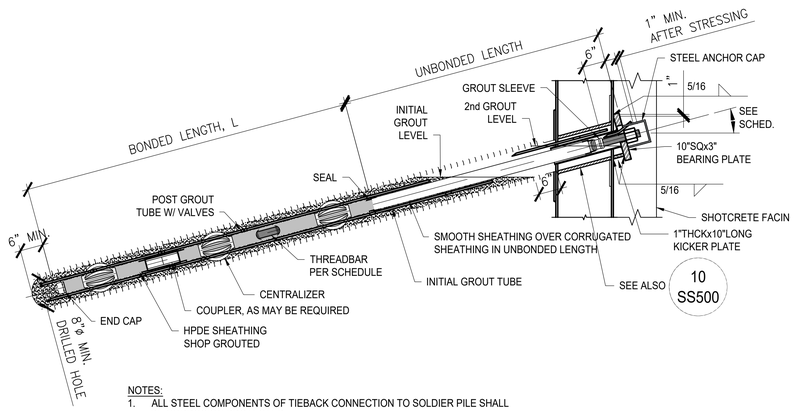
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GYM BUILDING

30215 MORNING VIEW DR.
MALIBU, CA 90265

SHEET NAME:
ELEVATIONS &
SECTIONS

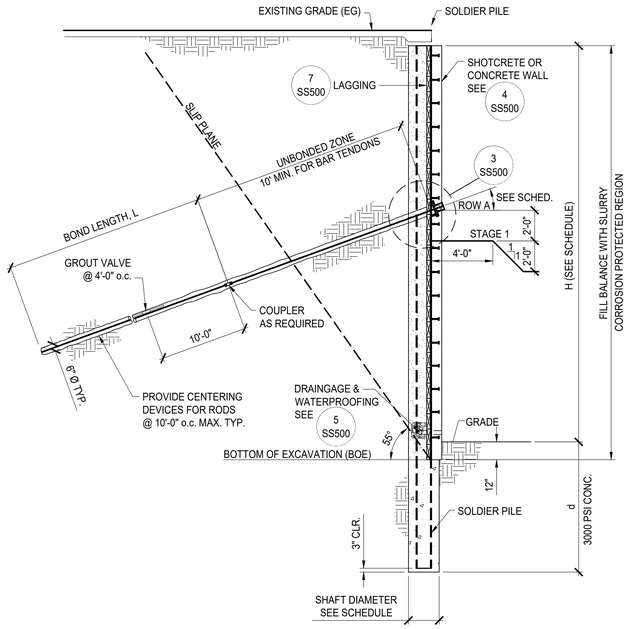
DATE: 06-13-2025
SCALE: 1/8" = 1'-0"
DRAFTER: L.S.
PROJECT NO.: 25-029
DRAWING NO.:
SS200
SHEET 4 OF 6



NOTES:
1. ALL STEEL COMPONENTS OF TIEBACK CONNECTION TO SOLDIER PILE SHALL BE CORROSION PROTECTED.
2. REFER TO MANUFACTURER TYPICAL DETAILS.

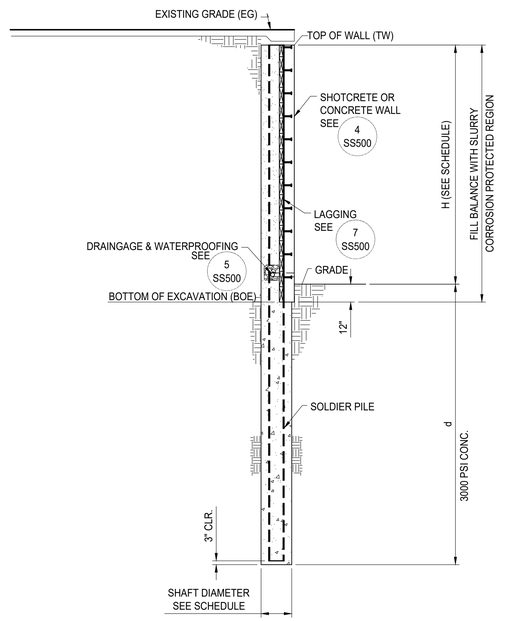
TYPICAL PERMANENT TIEBACK PROTECTION DETAIL 3

N.T.S.



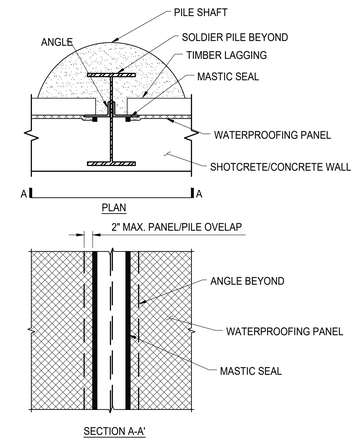
TYP. TIEBACK BULKHEAD SECTION 2

1/4" = 1'-0"



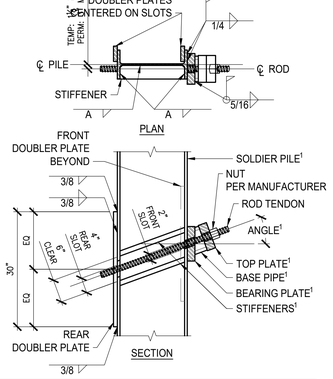
PERMANENT CANTILEVER PILE 1

1/4" = 1'-0"



WATERPROOFING PANEL @ PILE 12

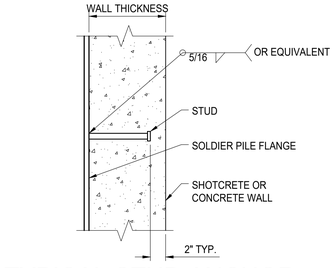
1" = 1'-0"



ROD TENDON CONNECTION COMPONENTS						
ROD SIZE	MAX. TEST LOAD	BASE PIPE SIZE	BEARING PLATE	TOP PLATE SIZE	STIFFENER PLATE	WELD A
1 3/8"	141k	4" SCH. 160	8"x9"x5/8"	6"x6"x1 3/8"	5/8"	5/16"
1 3/8"	178.2k	4" SCH. 160	8"x9"x1 1/4"	6"x6"x1 3/4"	5/8"	5/16"
1 3/8"	300.8k	6" XXS	8"x9"x2"	7"x7"x2 1/4"	1 1/4"	1/2"

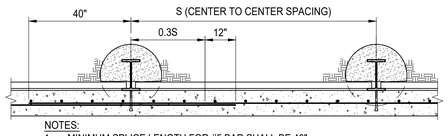
TYPICAL TIEBACK ANCHOR CONNECTION 10

3/4" = 1'-0"



TYPICAL STUD ANCHOR 13

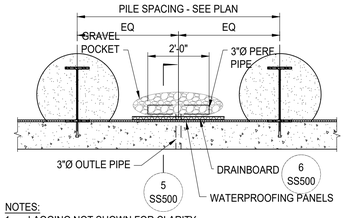
1-1/2" = 1'-0"



NOTES:
1. MINIMUM SPLICE LENGTH FOR #5 BAR SHALL BE 40".
2. LAP SPLICES SHALL BE BY THE NON-CONTACT LAP SPLICE METHOD WITH A MIN. OF 2" AND A MAX. OF 6" CLEAR BETWEEN BARS.
3. VERTICAL SPACING BETWEEN LAPS SHOULD OCCUR NO CLOSER THAN 18" O.C.
4. WATERPROOFING AND DRAINAGE ARE NOT SHOWN FOR CLARITY.
5. STEEL SOLDIER PILES SHOWN, APPLICABLE TO PIERS.

TYPICAL REBAR SPLICE DETAIL 14

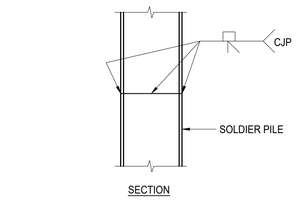
1/2"=1'-0"



NOTES:
1. LAGGING NOT SHOWN FOR CLARITY.
2. REFER TO WATERPROOFING DETAILS.
3. PIER SOLDIER PILES SHOWN, APPLICABLE TO STEEL PILES.
4. OUTLET SHALL OCCUR AT EVERY BAY.

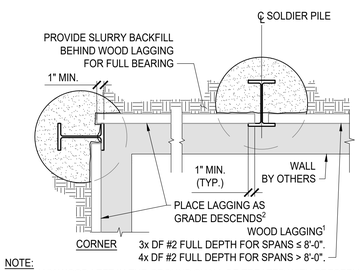
DRAINAGE @ BASE OF WALL 11

1/2"=1'-0"



SOLDIER PILE SPLICE DETAIL 7

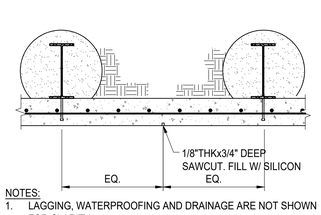
3/4" = 1'-0"



NOTE:
1. ANY WOOD LEFT IN THE GROUND SHALL BE TREATED WITH PRESERVATIVE.
2. WOOD LAGGING EXTENTS OF AND HEIGHT OF LIFTS AS DETERMINED BY GEOTECHNICAL ENGINEER'S REPRESENTATIVE.

TYPICAL WOOD LAGGING DETAIL 8

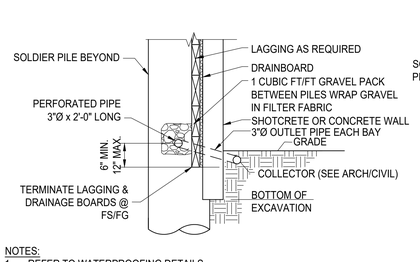
3/4" = 1'-0"



NOTES:
1. LAGGING, WATERPROOFING AND DRAINAGE ARE NOT SHOWN FOR CLARITY.
2. STEEL SOLDIER PILES SHOWN, APPLICABLE TO PIERS.
3. SINGLE CURTAIN SHOWN, DOUBLE CURTAIN SIM.
4. JOINT SHALL OCCUR AT EVERY THRID BAY MAX.

CONTROL JOINT DETAIL 9

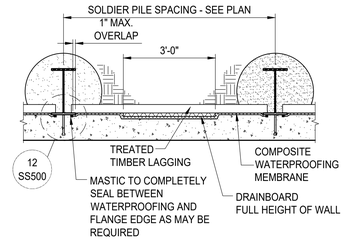
1/2"=1'-0"



NOTES:
1. REFER TO WATERPROOFING DETAILS.
2. PIER SOLDIER PILES SHOWN, APPLICABLE TO STEEL PILES.
3. OUTLET SHALL OCCUR AT CENTER OF BAY.
4. CIVIL ENGINEER MAY ALTER OUTLET LOCATION TO COMPLY WITH DRAINAGE PLANS.

TYPICAL DRAINAGE DETAIL 5

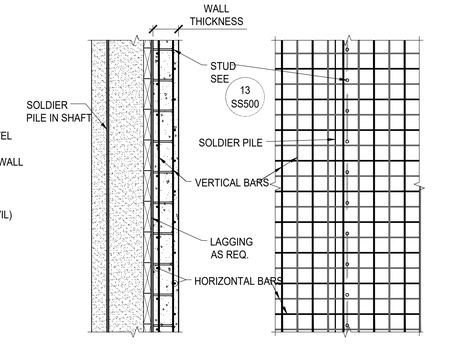
1/2"=1'-0"

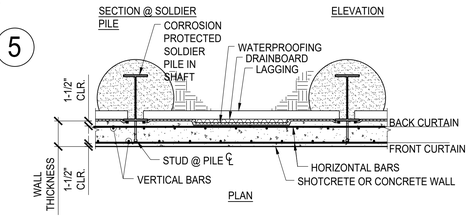


NOTES:
1. COMPLY WITH DRAINBOARD AND WATERPROOFING MANUFACTURE'S INSTALLATION REQUIREMENTS

DRAINAGE AND WATERPROOFING 6

1/2" = 1'-0"





DISTANCE FROM TOP OF WALL	WALL THICKNESS	FRONT REINFORCING		BACK REINFORCING		STUD ANCHOR	
		VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	SIZE	SPACING
0-10'	10"	#4 @ 12"	#5 @ 18"	#4 @ 12"	#5 @ 12"	3/4"	16"
10'-20'	10'	#4 @ 12"	#5 @ 12"	#4 @ 12"	#5 @ 8"	3/4"	12"

NOTES:
1. DOUBLE CURTAIN REINFORCING, SEE SEPARATE DETAIL FOR SINGLE CURTAIN.
2. NOT ALL COMPONENTS OF DRAINAGE AND WATERPROOFING SYSTEM ARE SHOWN.

REINFORCING SCHEDULE 4

1/2" = 1'-0"

CEFALI

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REGISTERED PROFESSIONAL ENGINEER DAVID A. CEFALI S 3038 EXP. 6-30-26 STRUCTURAL STATE OF CALIFORNIA

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LPA, INC.
949.769.6201

MARK	DATE	DESCRIPTION
	09/08/2025	DSA SUBMITTAL

PROJECT NAME:
MALIBU HIGH SCHOOL GYM BUILDING

30215 MORNING VIEW DR.
MALIBU, CA 90265

SHEET NAME:
DETAILS

DATE: 06-13-2025
SCALE: AS NOTED
DRAFTER: L.S.
PROJECT NO.: 25-029

DRAWING NO.:
SS500

SHEET 5 OF 6

	PILE	SOLDIER PILE				TIEBACKS ROW A											SURCHARGE CONSIDERATION	SUPPORT CONDITIONS	COMMENTS
		H	SECTION	SHAFT DIA.	d DRILLED	ANGLE	TIE DIA.	TIE BOND	T_{DESIGN}	150% TEST			200% TEST			2000 PSF TIE BONDED LENGTH "L"	TOTAL TIE LENGTH			
										T_{TEST}	ROD DIA.	0.6" Ø STRAND	T_{TEST}	ROD DIA.	0.6" Ø STRAND					
	(#)	(FT)		(IN)	(FT)	(DEG)	(IN)	(PSF)	(k)	(k)	(IN)	(#)	(k)	(IN)	(#)	(FT)	(FT)			
WEST	1	4	W10x15	24	9														CANTILEVER	
	2	6	W12x19	24	10														CANTILEVER	
	3	10	W16x54	24	17														CANTILEVER	
	4	11	W18x65	24	19														CANTILEVER	
	5	15	W24x104	30	23														CANTILEVER	
	6	18	W24x146	30	26														CANTILEVER	
	7	20	W27x178	30	29														CANTILEVER	
NORTH	8 TO 11	20	W16x45	30	7	25	6	2000	96	144	1 1/4	4	192	1 3/4	5	31	46		TIEBACK	
	12 TO 26	19	W16x45	30	7	25	6	2000	96	144	1 1/4	4	192	1 3/4	5	31	46		TIEBACK	
EAST	27	19	W16x45	30	7														CANTILEVER	
	29	15	W24x104	30	23														CANTILEVER	
	30	12	W18x76	24	20														CANTILEVER	
	31	9	W16x45	24	15														CANTILEVER	
	32	6	W12x19	24	10														CANTILEVER	
	33	5	W10x15	24	9														CANTILEVER	

PILE & TIEBACK SCHEDULE 1

CEFALI

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3-31-27
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LPA, INC.
949.769.6201

MARK	DATE	DESCRIPTION
	09/08/2025	DSA SUBMITTAL

PROJECT NAME:

MALIBU HIGH SCHOOL
GYM BUILDING

30215 MORNING VIEW DR.
MALIBU, CA 90265

SHEET NAME:

SCHEDULES

DATE: 06-13-2025

SCALE: N/A

DRAFTER: L.S.

PROJECT NO.: 25-029

DRAWING NO.:

SS600

SHEET 6 OF 6

SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT FOR

SANTA MONICA MALIBU

MIDDLE/HIGH SCHOOL

30215 MORNING VIEW DR

MALIBU, CA 90265

PROJECT NUMBER: PC25P0085

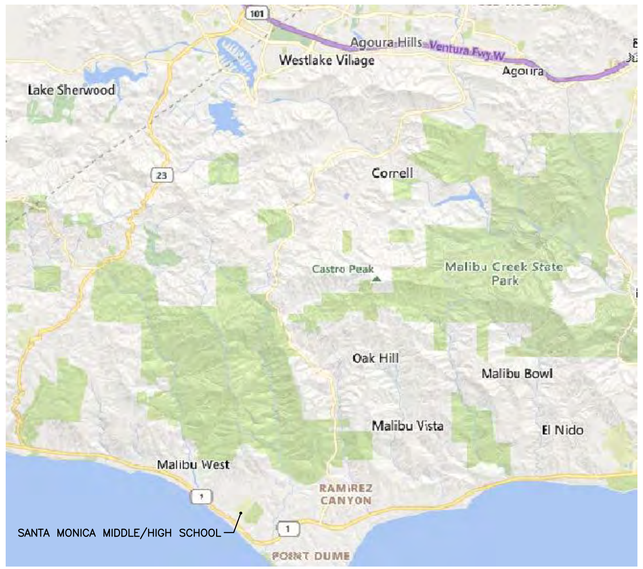
APPLICABLE CODES

- 2021 INTERNATIONAL EXISTING BUILDING CODE
- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL PLUMBING CODE
- 2021 INTERNATIONAL FUEL GAS CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2020 NATIONAL ELECTRICAL CODE
- 2021 INTERNATIONAL FIRE CODE
- 2009 INTERNATIONAL ENERGY CONSERVATION CODE

SYSTEM DETAILS

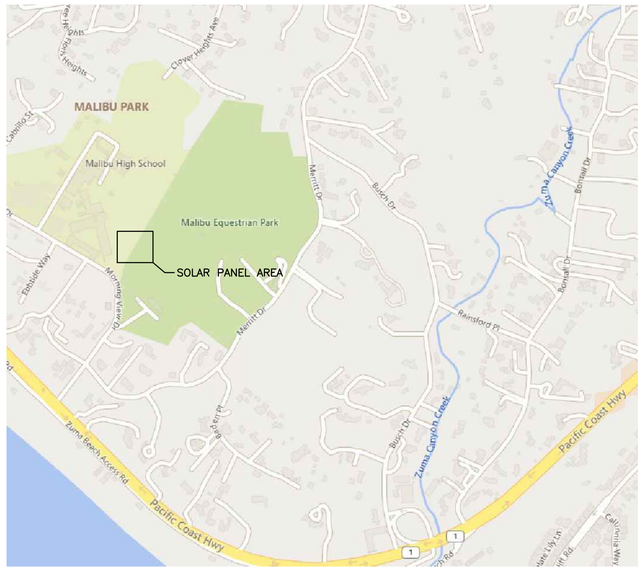
SYSTEM AC:	400KW
SYSTEM DC:	534.6KW
DC/AC RATIO:	1.24
RACKING TYPE:	FIXED TILT
TILT ANGLE:	20° FOR 2P SYSTEM,
INTER-ROW SPACING:	6'-4"
FRONT LIP HEIGHT:	36"
MODULE MANUFACTURER /PART NUMBER:	MISSION SOLAR/ MSI10-550HT4T
MODULE W:	550W
MODULE QUANTITY:	972
INVERTER MANUFACTURER /PART NUMBER:	CPS/ SCH100KTL-DO/US-480
INVERTER KW:	100KW
INVERTER QUANTITY:	4

AREA LOCATION MAPS



PLAN NORTH

A2 VICINITY MAP
NOT TO SCALE



PLAN NORTH

A3 SITE MAP
NOT TO SCALE

DRAWING INDEX

Sheet Number	Sheet Title
GENERAL	
G-001	COVERSHEET
ELECTRICAL	
E-001	ELECTRICAL SYMBOLS & ABBREVIATIONS
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E-102	ENLARGED ELECTRICAL PLAN
E-103	ENLARGED SOLAR PV AREA 1
E-104	ENLARGED SOLAR PV AREA 2
E-105	ENLARGED SOLAR PV AREA 3
E-501	ELECTRICAL DETAILS
E-502	ELECTRICAL DETAILS
E-503	ELECTRICAL DETAILS
E-504	ELECTRICAL DETAILS
E-505	LABELING DETAILS
E-601	ELECTRICAL SINGLE-LINE DIAGRAM
E-602	COMMUNICATIONS SINGLE-LINE DIAGRAM
E-603	ELECTRICAL SCHEDULES
E-604	ELECTRICAL SCHEDULES
E-701	EQUIPMENT DATA SHEETS
E-702	EQUIPMENT DATA SHEETS

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT FOR SANTA MONICA MALIBU
MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	DESCRIPTION
		SUBMISSION / REVISION

DRAWN BY: EWR, MP	CHECKED BY: RES
DESIGNED BY: PH	APPROVED BY: PH
DATE: 08-18-2025	PROJECT: PC25P0085

COVERSHEET

G-001

SHT. - OF 18

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File: C:\OneDrive\onedrive - schneider electric\sb ps west region group - cad-pc25p0085\santa monica malibu\Sheets\PC25P0085-G-001.dwg Date: 8/18/2025 User: SESA818054

ELECTRICAL LEGEND

GENERAL DRAWING SYMBOLS

- CONNECT NEW TO EXISTING
- POINT OF DISCONNECTION
- KEYNOTE INDICATOR (1)
- AC CONDUIT
- DC CONDUIT
- ARCHITECTURAL BACKGROUND (THIN LINE)
- NEW ELECTRICAL WORK (HEAVY LINE)
- EXISTING WORK OR EQUIPMENT (THIN LINE)
- EXISTING WIRING TO BE REMOVED
- EXISTING EQUIPMENT TO BE REMOVED
- (E) EXISTING TO REMAIN
- 1 REVISION INDICATOR
- BLR 1 NEW EQUIPMENT DESIGNATION
- A3 M-501 DETAIL REFERENCE: DETAIL DESIGNATION / DWG WHERE SHOWN
- C M-501 SECTION REFERENCE: SECTION LETTER / DWG WHERE SHOWN

POWER

- NEW ELECTRICAL PANELEBOARD
- EXISTING ELECTRICAL PANELBOARD
- WP NON-FUSED DISCONNECT SWITCH (WP = NEMA 3R WHERE APPROPRIATE)
- FUSED DISCONNECT SWITCH
- MAGNETIC MOTOR STARTER
- COMBINATION MAGNETIC MOTOR STARTER
- VFD VARIABLE FREQUENCY DRIVE
- EF-1,5HP,208,1 MOTOR CONNECTION (EQUIPMENT NAME, HORSEPOWER, VOLTAGE, AND PHASE INDICATED)
- MAU-1,12KVA,480,3 EQUIPMENT CONNECTION (EQUIPMENT NAME, LOAD, VOLTAGE, AND PHASE INDICATED)
- CONTROL STATION
- T TRANSFORMER, DRY TYPE

SWITCHES

- $a SWITCH, SINGLE POLE; WITH SWITCHING SUBSCRIPT
- $2 SWITCH, TWO POLE
- $3 SWITCH, THREE-WAY
- $4 SWITCH, FOUR-WAY
- $P SWITCH WITH PILOT LIGHT
- $K SWITCH, KEY OPERATED
- $T TIMER SWITCH
- $D DIMMER SWITCH
- $LV SWITCH, LOW VOLTAGE
- $M THERMAL OVERLOAD MOTOR STARTER SWITCH
- SB SWITCHBANK
- SB LV LOW VOLTAGE SWITCHBANK
- PC SWITCH, PHOTOCELL
- $a a SWITCH & CONTROLLED OUTLET OR FIXTURE
- R RELAY
- OS OCCUPANCY SENSOR

RECEPTACLES

- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- 6-30R SPECIAL PURPOSE RECEPTACLE, NEMA CONFIGURATION NOTED
- SPECIAL PURPOSE RECEPTACLE
- DUPLEX RECEPTACLE, ABOVE COUNTER
- GFCI DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTING
- IG DUPLEX RECEPTACLE, ISOLATED GROUND
- DOUBLE DUPLEX RECEPTACLE
- WP RECEPTACLE WITH WEATHER-PROOF COVER, (TYPE AS INDICATED ABOVE)
- CLOCK HANGER OUTLET
- SURFACE METAL RACEWAY WITH INTEGRAL SINGLE WIRING DEVICES (SPACING AS SHOWN OR SPECIFIED)
- MULTI OUTLET ASSEMBLY WITH INTERNAL WIRING DEVICES AND SIGNAL DEVICES (SPACING AS SHOWN OR SPECIFIED)
- P POWER POLE

MISCELLANEOUS

- JUNCTION BOX
- B EXISTING DEVICE BOX BLANK OFF
- T THERMOSTAT
- BASEBOARD HEATER, SIZE AS INDICATED, LENGTH TO SCALE
- CABINET ELECTRIC HEATER, WALL MOUNTED, SHOWN TO SCALE
- ELECTRIC UNIT HEATER, FORCED AIR
- G GROUND CONDUCTOR
- GROUND ROD
- CLOCK
- FLOOR BOX, NUMBER INDICATES TYPE (IE "TYPE 1")
- POKE THROUGH FITTING
- FACP FIRE ALARM CONTROL PANEL
- DUCT SMOKE DETECTOR

RACEWAYS

- HOME RUN TO PANELBOARD
- ELECTRICAL CIRCUIT
- ELECTRICAL CIRCUIT
- RACEWAY STUBBED OUT WITH BUSHING
- BREAK LINE FOR DRAWING CLARITY
- CABLE TRAY – SIZE AND TYPE AS INDICATED
- CABLE TRAY – LADDER TYPE
- UNDERFLOOR DUCT SYSTEM (NO. OF DUCTS INDICATED BY NO. OF LINES, 3 DUCT SHOWN)

THE FOLLOWING ARE NOT USED WHERE PLAN OR RISER IS DEDICATED TO A SINGLE SYSTEM

—XX—

FIRE ALARM (FA), DATA OR COMPUTER SYSTEM (D), TELEPHONE DATA COMBINED USE (TD), SECURITY (S), PRIMARY (P)

RISER DIAGRAM

- CIRCUIT BREAKER
- 300 300 FUSED SWITCH, AMPACITY INDICATED
- FUSED CUT-OUT
- TIMED SWITCH
- BUS CONNECTION
- CABLE TO BUS CONNECTION
- TRANSFORMER, INSULATING
- PANELBOARD (BRANCH CIRCUIT) OR MOTOR CONTROL CENTER
- 300 FUSE, AMPERAGE INDICATED
- SURGE ARRESTOR, VOLTAGE RATING INDICATED, ONE PER PHASE
- GF CIRCUIT BREAKER WITH GROUND FAULT TRIP (EQUIPMENT)
- DRAWOUT FUSED CIRCUIT BREAKER
- V VOLTMETER
- A AMMETER
- 2.5N FEEDER TAG, REF FEEDER SCHEDULE
- VS SELECTOR SWITCH, VOLTS
- AS SELECTOR SWITCH, AMPS
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- M WATT HOUR METER
- K INTERLOCK, KEYED
- E INTERLOCK, ELECTRICAL
- MOMENTARY SWITCH: NC, NO
- CONTACT: NC, NO
- 15,400 AVAILABLE SHORT CIRCUIT CURRENT, 3 PHASE, SYMMETRICAL (15,400 AMPS SHOWN)

ELECTRICAL ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AMPERE HOURS
AIC	AMPS INTERRUPTING CAPACITY
AL	ALUMINUM

ELECTRICAL ABBREVIATIONS

AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
COM	COMBINER PANEL
CT	CURRENT TRANSFORMER
Cu	COPPER
CW	COOL WHITE
DAS	DATA ACQUISITION SYSTEM
DC	DIRECT CURRENT
DCB	DC COMBINER
DN	DOWN
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
(E)	EXISTING
EB	EMERGENCY BALLAST
EF	EXHAUST FAN
EGC	EQUIPMENT GROUND CONDUCTOR
ELEC	ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING EQUIP
EWC	EQUIPMENT ELECTRIC WATER COOLER
F	FUSE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLUOR	FLUORESCENT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
Hz	HERTZ (CYCLES/SECOND)
ICEA	INSULATED CABLE ENGINEERS ASSOCIATION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IES	ILLUMINATING ENGINEERING SOCIETY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
KCMIL	THOUSAND CIRCULAR MILLS
KVA	KILOVOLT AMPERES
KVAR	KILO VOLT AMPERES REACTIVE
KW	KILOWATT
MATV	MASTER ANTENNA (SYSTEM FOR) TELEVISION
MCC	MOTOR CONTROL CENTER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
MV	MERCURY VAPOR
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE (NFPA-70)
NECA	NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ACT
O.L.	OVERLOAD RELAY
PC	PHOTO-ELECTRIC CELL
PF	POWER FACTOR
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RECEPT	RECEPTACLE
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
V	VOLTS
W	WATTS
WW	WARM WHITE
WP	WEATHERPROOF
XFMR	TRANSFORMER
Z	IMPEDANCE

GENERAL ELECTRICAL NOTES

1. PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE, LOCAL CODES, AND ORDINANCES. COORDINATE WITH UTILITY COMPANIES FURNISHING SERVICES TO INSTALLATION. FULLY COORDINATE THE INSTALLATION OF ALL ELECTRICAL DEVICES WITH THE WORK OF OTHER TRADES.
2. PROVIDE ITEMS NECESSARY TO COMPLETE ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.
3. NO CHANGES TO THE INSTALLATION FROM THESE DRAWINGS MAY BE MADE WITHOUT EXPRESS WRITTEN CONSENT OF THE ENGINEER OF RECORD. ANY CHANGES OR MODIFICATIONS MADE WITHOUT CONSENT MAY RESULT IN WORK REMOVED AND INSTALLED ACCORDING TO THE PLANS WITH NO COST TO THE OWNER OR ENGINEER.
4. WHEREVER THE WORD "PROVIDE" IS USED, IT MEANS, "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
5. PROVIDE OVERCURRENT PROTECTION DEVICES PER EQUIPMENT NAMEPLATE UNLESS OTHERWISE INDICATED.
6. PROVIDE CIRCUIT BREAKERS WITH UL LISTED INTERRUPTING RATINGS (RMS SYMMETRICAL AMPERES) GREATER THAN THE AVAILABLE FAULT CURRENT SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM. WHERE BREAKERS ARE INDICATED TO BE INSTALLED IN EXISTING PANELBOARDS, BREAKER INTERRUPTING RATINGS MUST BE EQUAL TO OR GREATER THAN THE EXISTING PANELBOARD RATING.
7. VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT N.E.C. REQUIRED CLEARANCES CAN BE MET.
8. PROVIDE A PULLWIRE IN ALL CONDUIT.
9. PROVIDE A PLASTIC BUSHING ON END(S) OF ALL CONDUIT STUBS.
10. MOUNT DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT WITHIN SIGHT OF THE EQUIPMENT (NOT TO EXCEED 50').
11. CONDUITS PASSING THROUGH BUILDING CONSTRUCTION EXPANSION JOINTS SHALL HAVE APPROVED EXPANSION FITTINGS, PROPERLY BONDED. SEE ARCHITECTURAL FOR LOCATIONS OF EXPANSION JOINTS. SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH WALLS, CEILINGS, AND FLOORS TO MAINTAIN CODE REQUIRED RATINGS.
12. COORDINATE CONNECTIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL AND CONTROLS CONTRACTORS PRIOR TO ROUGH-IN.
13. WHEN CONNECTING NEW OR REPLACEMENT EQUIPMENT TO EXISTING ELECTRICAL FEEDERS, THE CONTRACTOR SHALL CONFIRM THE NUMBER, SIZE, AND INSULATION TYPE OF CONDUCTORS, PANELBOARD, CIRCUIT NUMBER AND TYPE, POLES, AND AMPACITY RATING OF OVERCURRENT PROTECTION DEVICE TO MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE AND THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER BEFORE CONNECTING TO THE EQUIPMENT.
14. BRANCH CIRCUIT CONNECTIONS ARE SHOWN FOR THE SOLE PURPOSE OF INDICATING ALL OF THE DEVICES THAT ARE TO BE CONNECTED TO A PARTICULAR BRANCH CIRCUIT. CONDUCTOR SIZES AND/OR QUANTITIES ARE NOT INDICATED FOR 20 AND 15 AMP, BRANCH CIRCUITS. CONDUCTOR SIZES AND/OR QUANTITIES ARE ONLY INDICATED WHERE OVERSIZED CONDUCTORS ARE REQUIRED TO MINIMIZE VOLTAGE DROP OR ON BRANCH CIRCUIT CONNECTIONS WHICH ARE NOT FED BY 20 AMP & 15 AMP CIRCUIT BREAKERS. THE ELECTRICAL CONTRACTOR SHALL DETERMINE RACEWAY ROUTING, GROUPING OF BRANCH CIRCUITS FOR HOMERUNS, NUMBERS OF CONDUCTORS REQUIRED AND PLACEMENT OF JUNCTION BOXES. SHOW ACTUAL RACEWAY ROUTING AND CIRCUITING ON RECORD DRAWINGS.
15. GROUND ALL ELECTRICAL DEVICES, MOTORS, METALLIC PIPING, DUCTWORK, METAL FRAMING, REINFORCING STEEL, ETC., IN ACCORDANCE WITH NEC ARTICLE 250. INSTALL A DEDICATED GROUNDING CONDUCTOR FOR ALL SYSTEMS AND DEVICES UNLESS OTHERWISE NOTED. PROVIDE SEPARATE GREEN GROUNDING CONDUCTOR FOR ALL FLEXIBLE EQUIPMENT CONNECTIONS AND ALL EXTERIOR ELECTRICAL DEVICES, SUCH AS POLE MOUNTED LIGHTING, RECEPTACLES, BUILDING MOUNTED LIGHTING, ETC.
16. VERIFY ALL FINAL ROOM NAMES AND NUMBERS WITH OWNER PRIOR TO PREPARING PERMANENT PANEL SCHEDULES.
17. EXPOSED RACEWAYS IN FINISHED SPACES: PAINT ALL CONDUIT AND BOXES INSTALLED TIGHT TO EXPOSED ROOF STRUCTURES TO MATCH ADJACENT FINISHES.
18. ALL DEMOLISHED ELECTRICAL EQUIPMENT, DEVICES, LIGHT FIXTURES, CONDUIT, CABLE, ETC. SHALL BE TURNED OVER TO THE OWNER (AT OWNER'S REQUEST). ALL DEMOLISHED ELECTRICAL EQUIPMENT, DEVICES, LIGHT FIXTURES, CONDUIT, CABLE, ETC NOT REQUESTED TO BE RETAINED BY THE OWNER SHALL BE PROPERLY DISPOSED OF OFF THE SITE.
19. ARC FLASH WARNING LABELS SHALL BE PROVIDED ON NEW ELECTRICAL EQUIPMENT OR ANY EXISTING ELECTRICAL EQUIPMENT THAT IS MODIFIED PER NEC ARTICLE 110.16.

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT FOR SANTA MONICA MALIBU

MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	DESCRIPTION
		SUBMISSION / REVISION

DRAWN BY: EWR	CHECKED BY: RES
DESIGNED BY: PH	APPROVED BY: PH
DATE: 08-18-2025	PROJECT: PC25P0085

ELECTRICAL SYMBOLS & ABBREVIATIONS

E-001

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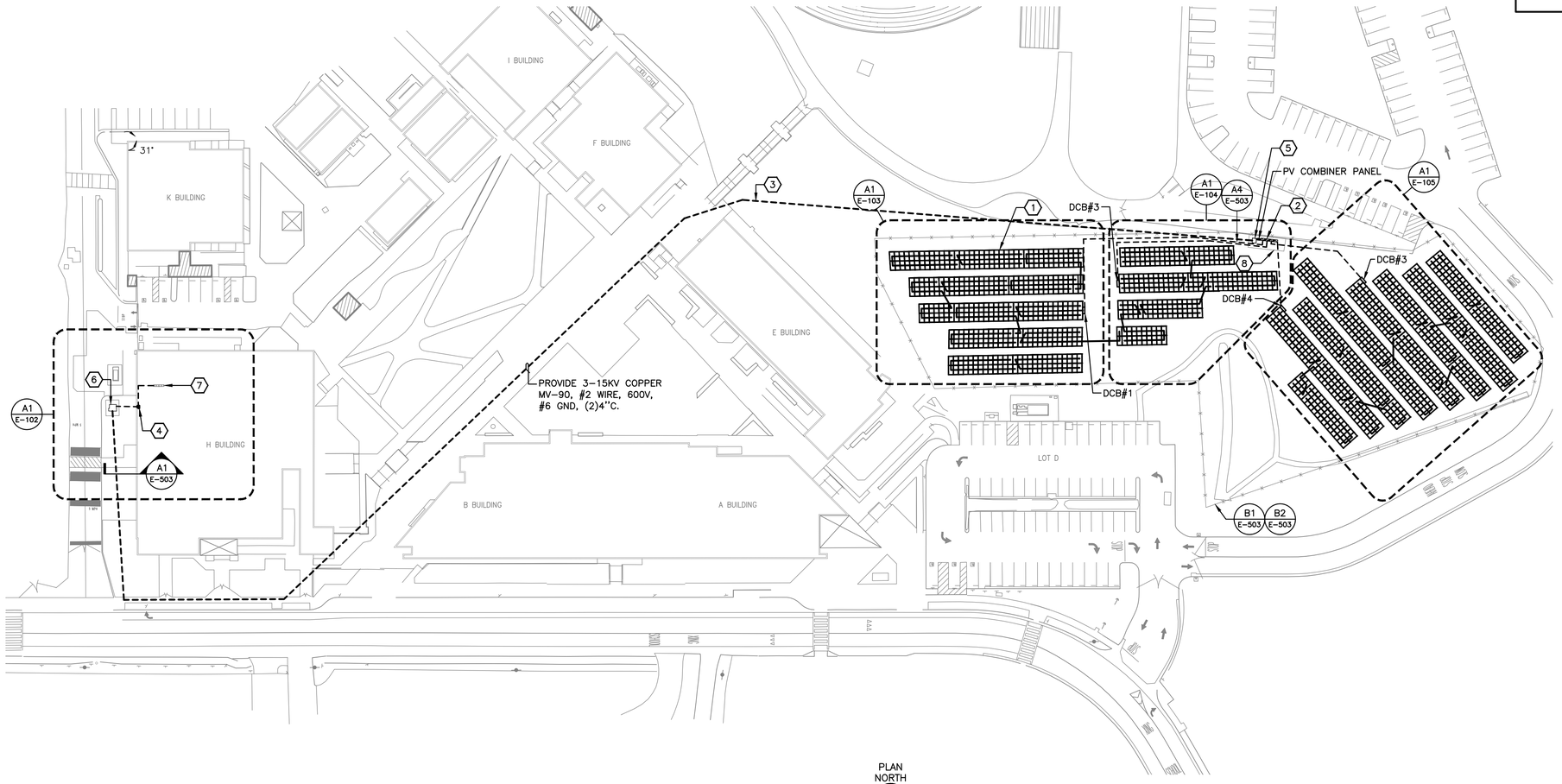
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SHEET GENERAL NOTES

1. DC WIRE SHALL BE ATTACHED TO PV RACKS WITH STAINLESS STEEL MOUNTING CLIPS.

SHEET KEYNOTES

1. INSTALL MISSION SOLAR MODULES (MS10-550HT49-550W) FURNISHED BY SCHNEIDER ELECTRIC. REFER TO DETAIL A1/E-501 AND DETAIL C5/E-502 FOR STRING WIRING. REFER TO SCHEDULE ON SHEET E-605.
2. INSTALL 100KW CPS STRING INVERTERS (CPS SCA100KTL-DO/US-480) FURNISHED BY SCHNEIDER ELECTRIC. INVERTER PROVIDED WITH INTEGRAL AC AND DC DISCONNECTING MEANS. REFER TO DETAIL ELEVATION VIEW A3/E-501. REFER TO ONE-LINE DIAGRAM ON SHEET E-601.
3. ANY REQUIRED COMMUNICATIONS RACEWAYS BETWEEN PV ARRAY AND POINT OF INTERCONNECTION SHALL BE INCLUDED ALONGSIDE RACEWAYS FOR POWER.
4. LOCATE PV DISCONNECT OUTDOOR RATED NEMA 3R OUTSIDE ON THE WALL UP LOGAN ELECTRICAL BUILDING,
5. INSTALL (N)STEP UP TRANSFORMER 500KW 480V/12470.
6. INSTALL (N)STEP DOWN TRANSFORMER 500KW 12470V/480.
7. EXISTING MAIN SWITCHBOARD 480V, 2000A INSIDE THE ELECTRICAL ROOM.
8. STRUCTURAL WILL PROVIDE DETAILS TO ADD ON THE DRAWING.



PLAN NORTH

A1 SANTA MONICA MALIBU SOLAR PV SITE PLAN
SCALE: 1" = 50'-0"
0 20' 40' 80'

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ELECTRICAL SOLAR PV SITE PLAN

E-101

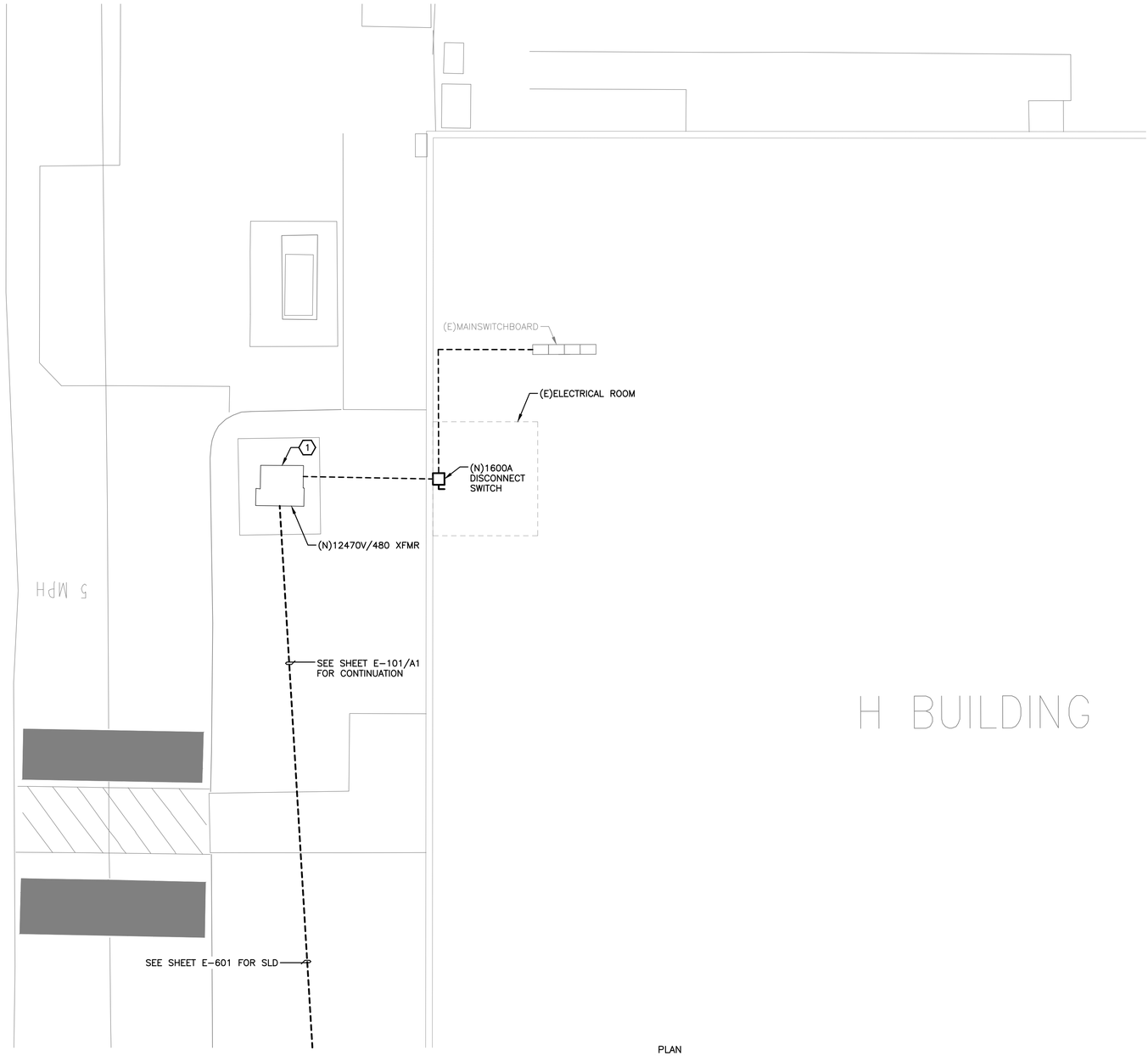
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SHEET KEYNOTES

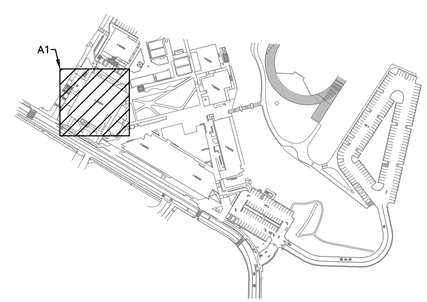
1. STRUCTURAL WILL PROVIDE DETAILS TO ADD ON THE DRAWING.



PLAN NORTH

A1 ENLARGED ELECTRICAL BLDG H PLAN
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

KEY PLAN



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ENLARGED ELECTRICAL PLAN

E-102

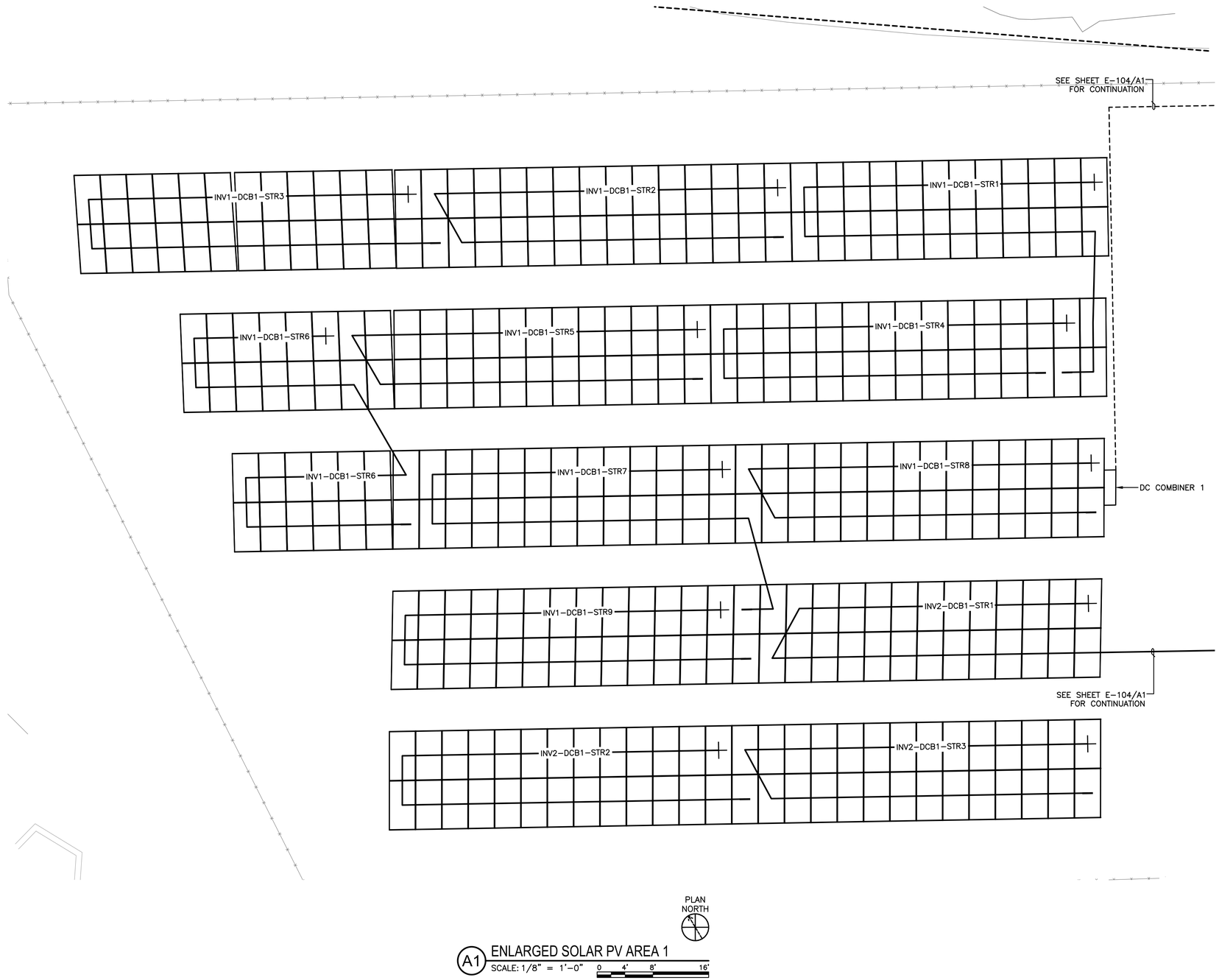
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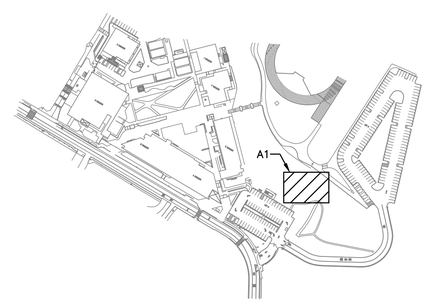
GENERAL NOTES

1. THE MOUNTING OF PV MODULES MUST BE GROUNDED PER NEC ARTICLE 690.43, EITHER VIA A UL 2703 LISTED RACKING SYSTEM OR WITH SOME OTHER DEVICE.



A1 ENLARGED SOLAR PV AREA 1
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

KEY PLAN



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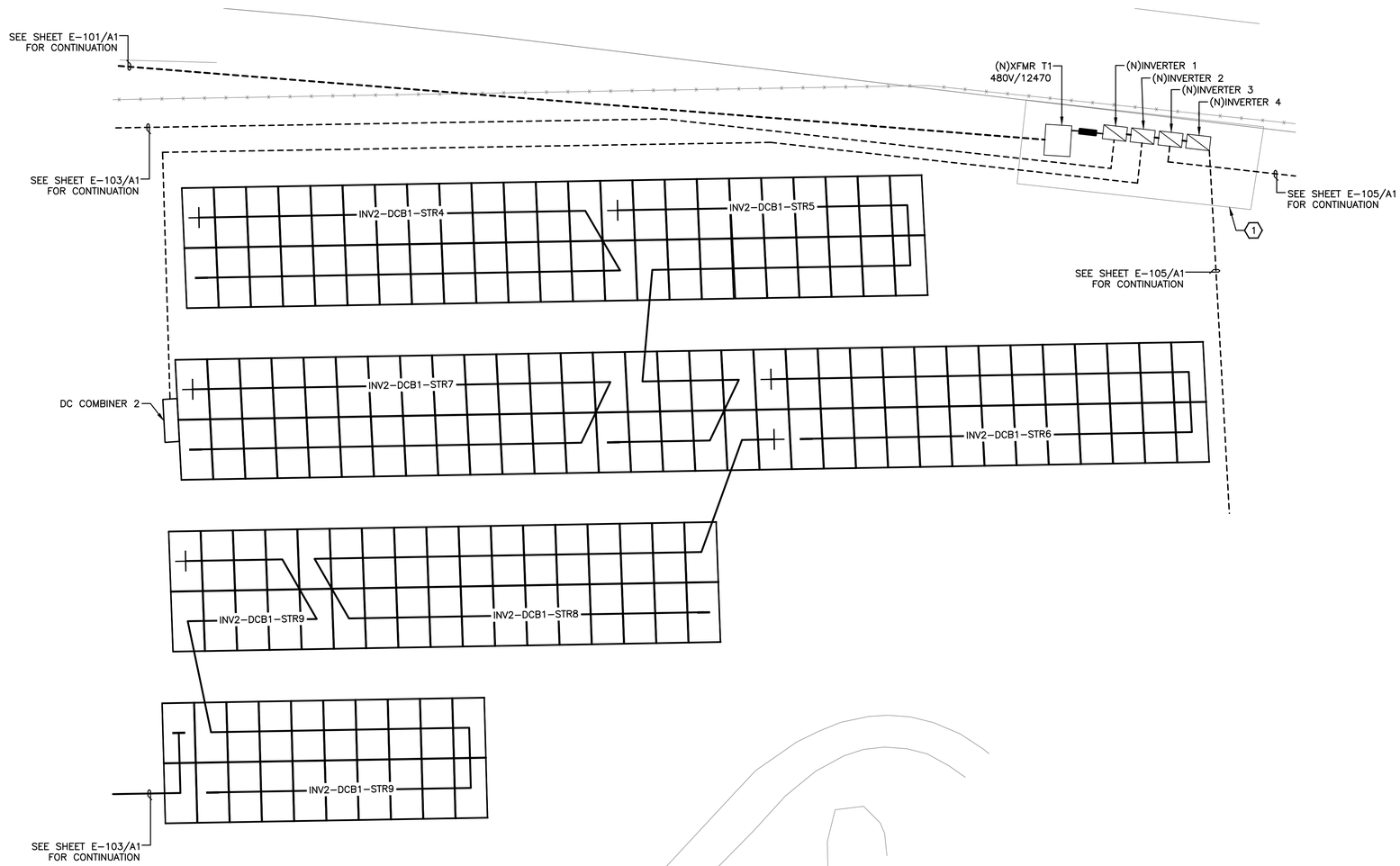
ENLARGED SOLAR PV AREA 1

E-103

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A1 ENLARGED SOLAR PV AREA 2
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

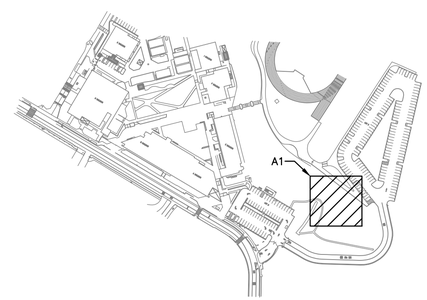
GENERAL NOTES

1. THE MOUNTING OF PV MODULES MUST BE GROUNDED PER NEC ARTICLE 690.43, EITHER VIA A UL 2703 LISTED RACKING SYSTEM OR WITH SOME OTHER DEVICE.

SHEET KEYNOTES

1. STRUCTURAL WILL PROVIDE DETAILS TO ADD ON THE DRAWING.

KEY PLAN



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FOR
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ENLARGED SOLAR PV AREA 2

E-104

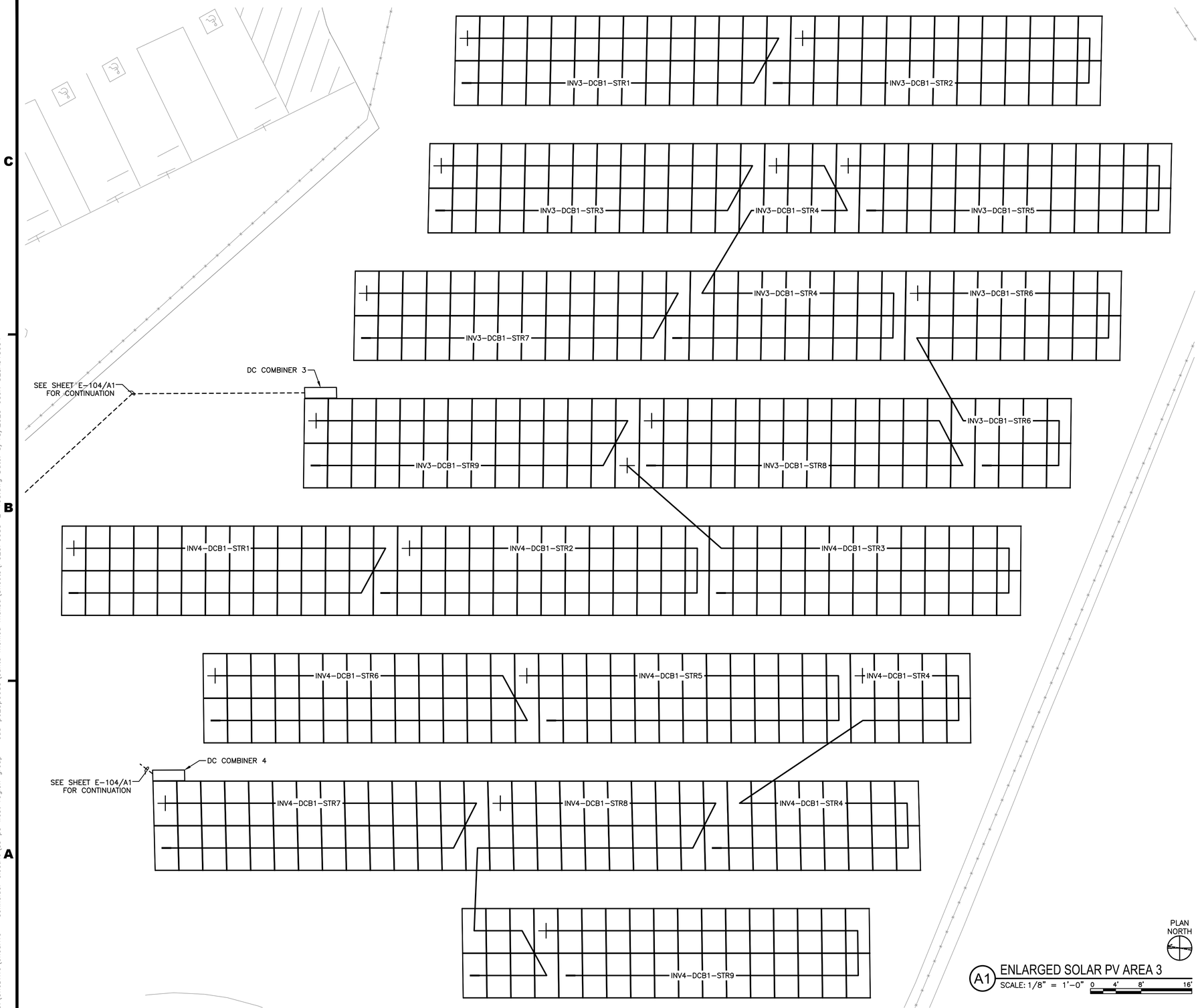
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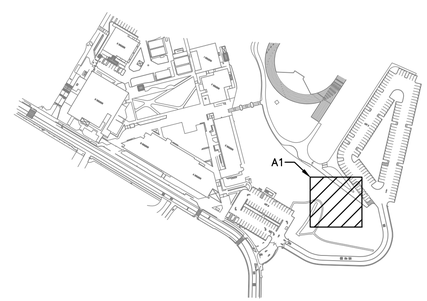
GENERAL NOTES

1. THE MOUNTING OF PV MODULES MUST BE GROUNDED PER NEC ARTICLE 690.43, EITHER VIA A UL 2703 LISTED RACKING SYSTEM OR WITH SOME OTHER DEVICE.



A1 ENLARGED SOLAR PV AREA 3
SCALE: 1/8" = 1'–0"
0 4' 8' 16'

KEY PLAN



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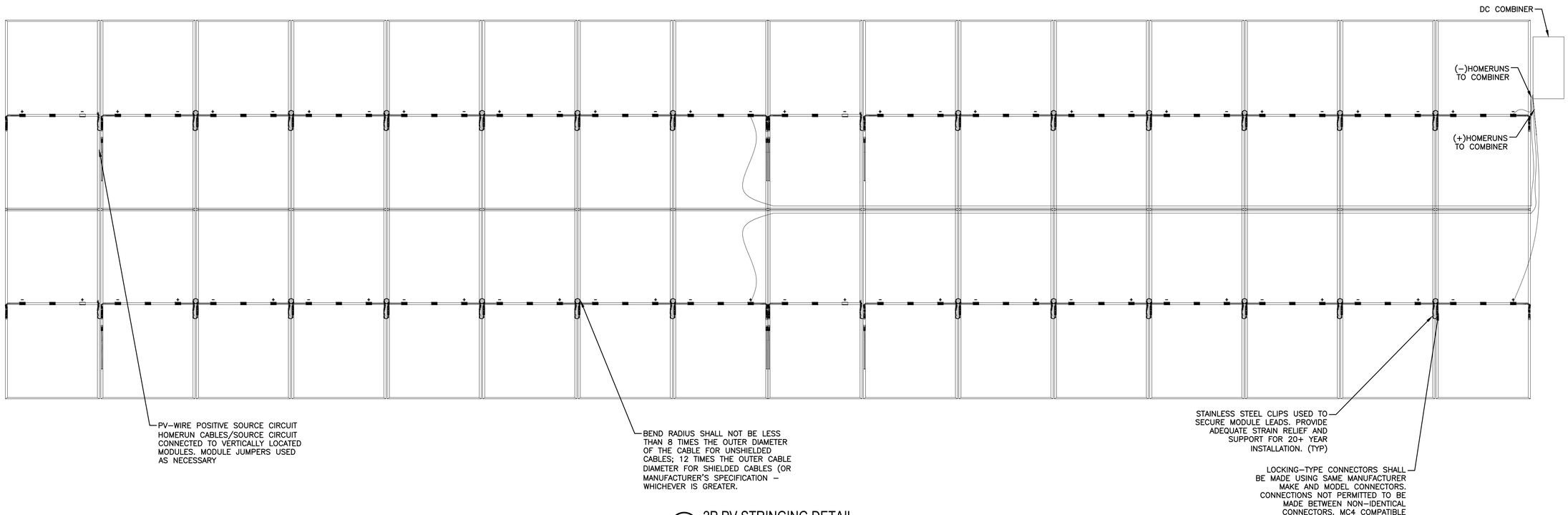
ENLARGED SOLAR PV AREA 3

E-105

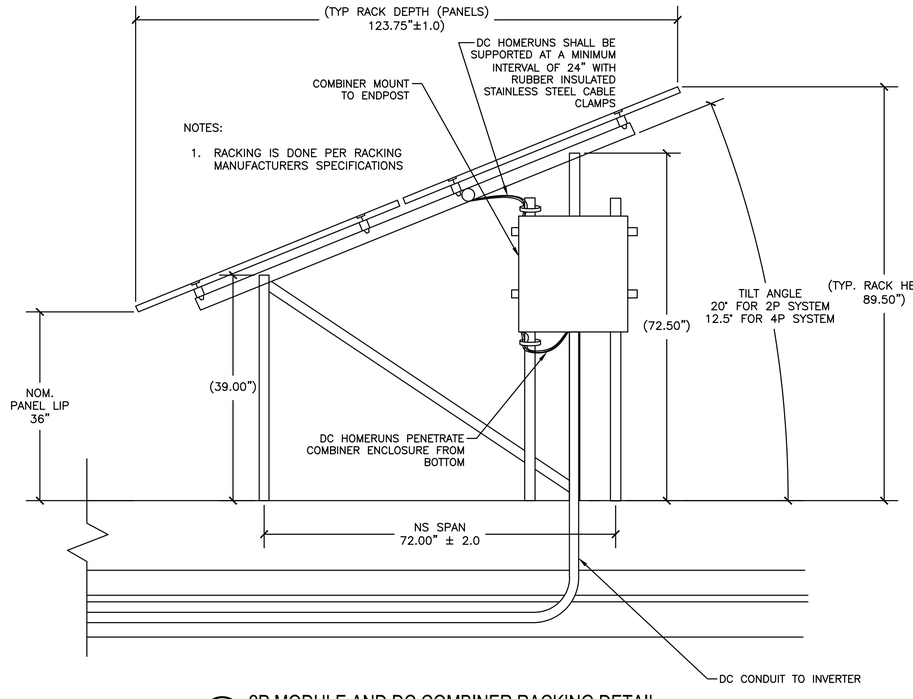
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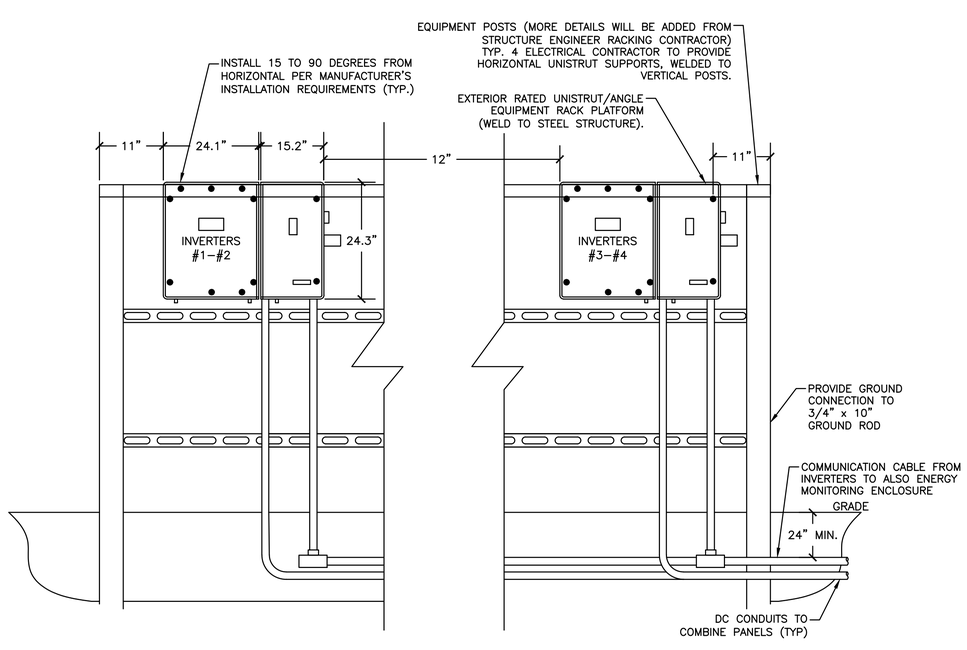
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A1 2P PV STRINGING DETAIL
NOT TO SCALE



A2 2P MODULE AND DC COMBINER RACKING DETAIL
NOT TO SCALE



A3 EQUIPMENT ELEVATION - GRADE MOUNT (TYP.) DETAIL
NOT TO SCALE

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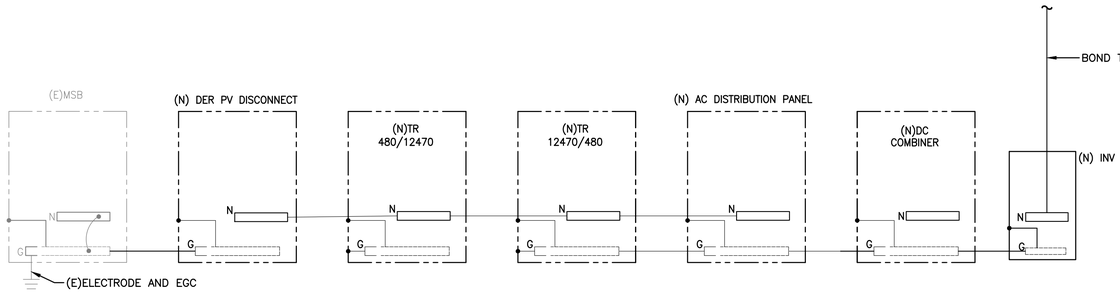
ELECTRICAL DETAILS

E-501

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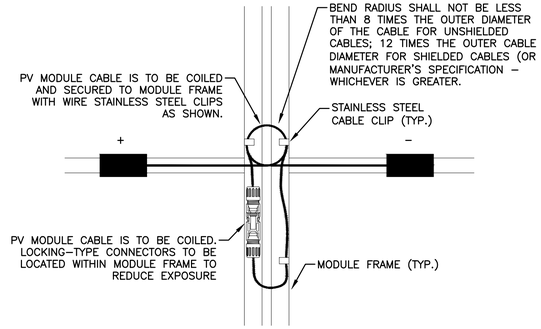
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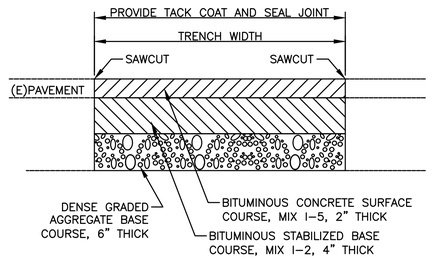
NOTES:
1. ALL GROUNDING CONNECTIONS SHALL COMPLY WITH NEC ARTICLE 250.8(A).
2. GROUNDING ELECTRODE SYSTEM SHALL COMPLY WITH NEC ARTICLE 250.53.

A4 GROUNDING DIAGRAM
NOT TO SCALE

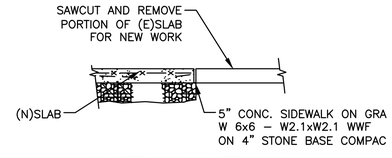


C5 PV WIRE MANAGEMENT DETAIL
NOT TO SCALE

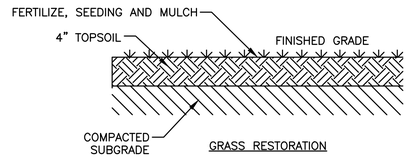
NOTES:
1. ALL DISTURBED AREAS SHALL BE RESTORED TO AN EQUAL OR BETTER CONDITION UNLESS DIRECTED OTHERWISE BY THE OWNER.
2. MATERIAL FOR CLASS "B"BEDDING SHALL CONSIST OF SAND OR SANDY SOIL, ALL OF WHICH SHALL PASS A 3/8" SIEVE AND NOT MORE THAN 10% SHALL PASS A NO. 200 SIEVE.
3. SHORE AS REQUIRED TO PREVENT A COLLAPSE OF EXCAVATION OR ADJACENT CONSTRUCTION.



PAVING RESTORATION

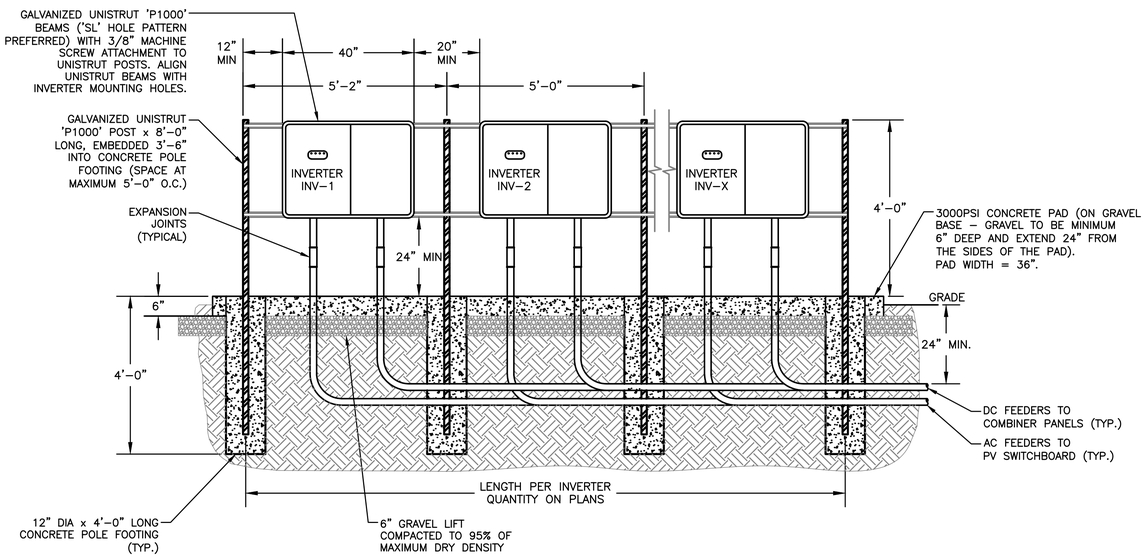


CONCRETE SIDEWALK RESTORATION



GRASS RESTORATION

B4 RESTORATION DETAILS
NOT TO SCALE



A2 INVERTER ELEVATION - GRADE MOUNT (TYP.)
NOT TO SCALE

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DESIGNED BY: PH	APPROVED BY: PH
DATE: 08–18–2025	PROJECT: PC25P0085

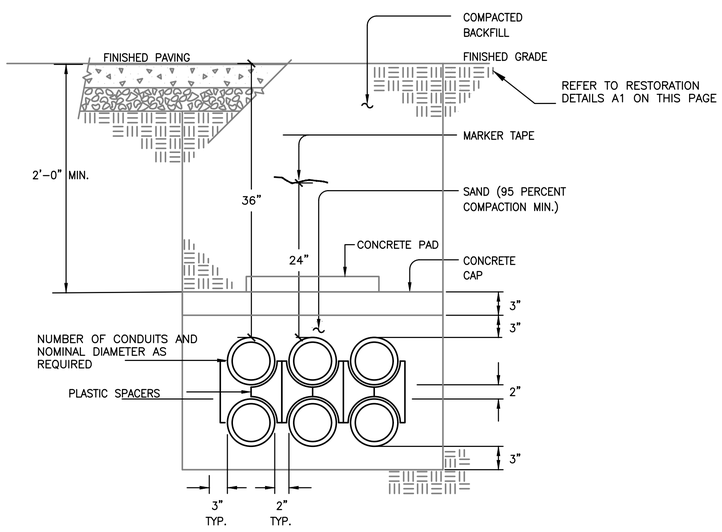
ELECTRICAL DETAILS

E-502

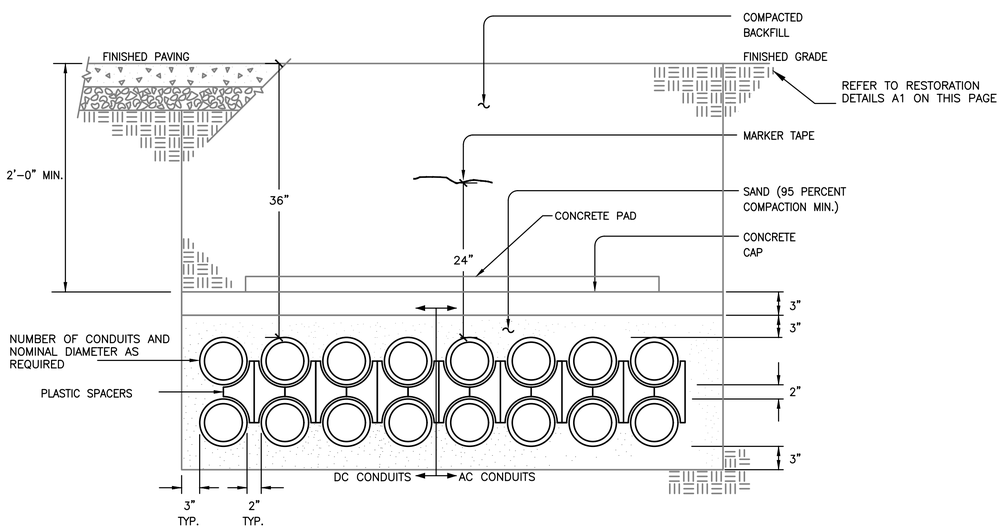
SHT. – OF 18

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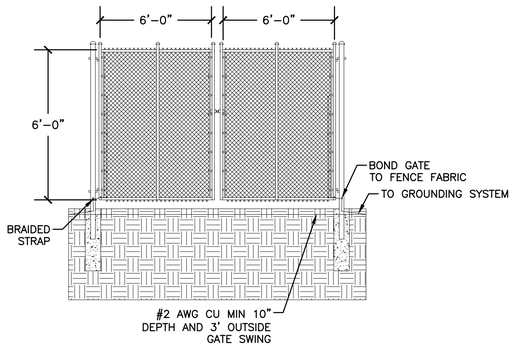
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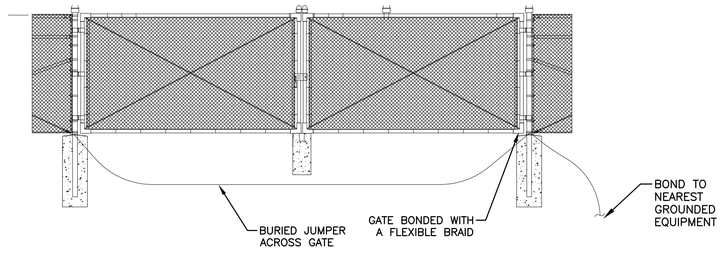
A1 PIPE TRENCH MEDIUM VOLTAGE TRANSFORMER DETAIL
NOT TO SCALE



A4 PIPE TRENCH DC COMBINER AND INVERTERS DETAIL
NOT TO SCALE



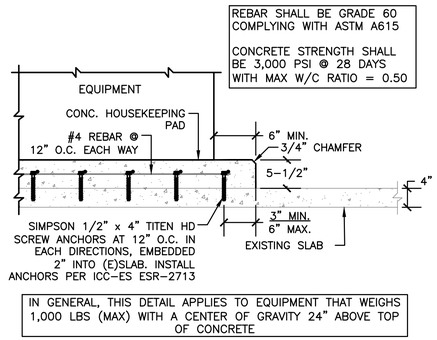
B1 DUAL SWING FENCE GATE DETAIL
NOT TO SCALE



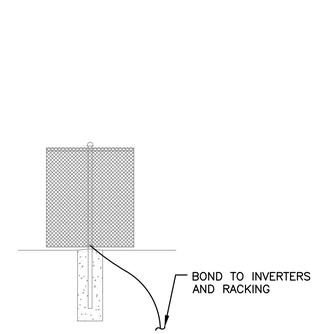
NOTES:

1. IF METAL FENCES ARE LOCATED WITHIN 5M(16FT) OF THE EXPOSED ELECTRICAL CONDUCTORS OR EQUIPMENT THE FENCE SHALL BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.
2. ALL FENCE GROUNDING CONNECTIONS SHALL COMPLY WITH NEC ARTICLE 250.194.
3. FENCE SHALL BE CHAIN LINK AND HAVE A HEIGHT OF 6'. REFER TO SPECIFICATIONS.

B2 FENCE DETAIL
NOT TO SCALE



B4 TRANSFORMERS PAD DETAIL 24" COG
NOT TO SCALE



B5 FENCE GROUNDING DETAIL
NOT TO SCALE

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT
FOR
SANTA MONICA MALIBU
MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	DESCRIPTION
		SUBMISSION / REVISION

DRAWN BY: EWR	CHECKED BY: RES
DESIGNED BY: PH	APPROVED BY: PH
DATE: 08–18–2025	PROJECT: PC25P0085

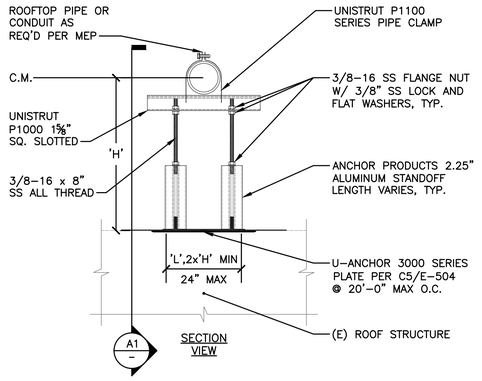
ELECTRICAL DETAILS

E-503

SHT. – OF 18

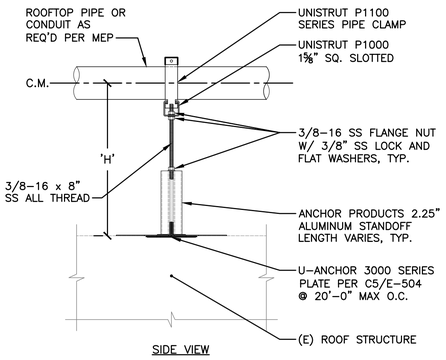
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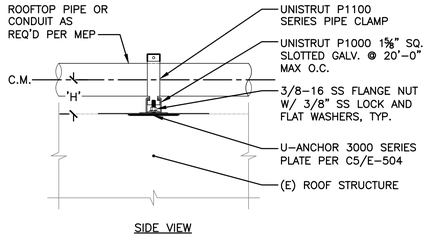
C.M. = CENTER OF MASS OF LARGER DIAMETER PIPE SUPPORT, INCLUDING WEIGHT OF PIPES	H = SHALL NOT EXCEED THE SMALLER OF 12" OR L/2 ROOF SLOPE SHALL NOT EXCEED 1" IN 12"

A1 ROOF PIPE SYSTEM SECUREMENT 0310
NOT TO SCALE



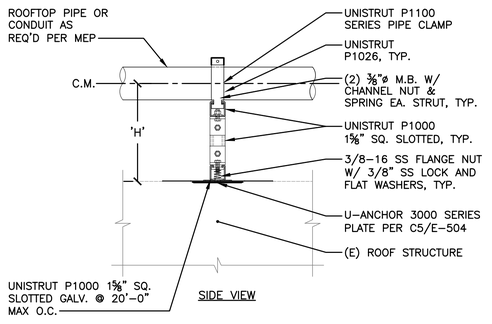
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A1 ROOF PIPE SYSTEM SECUREMENT 0310
NOT TO SCALE



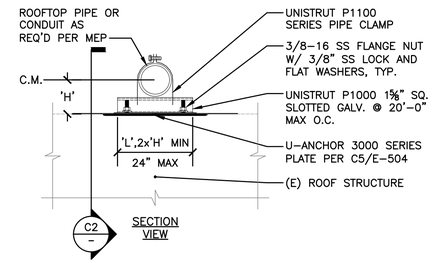
C.M. = CENTER OF MASS OF LARGER DIAMETER PIPE SUPPORT, INCLUDING WEIGHT OF PIPES	H = SHALL NOT EXCEED THE SMALLER OF 12" OR L/2 ROOF SLOPE SHALL NOT EXCEED 1" IN 12"

B2 ROOF PIPE SYSTEM SECUREMENT 0325
NOT TO SCALE



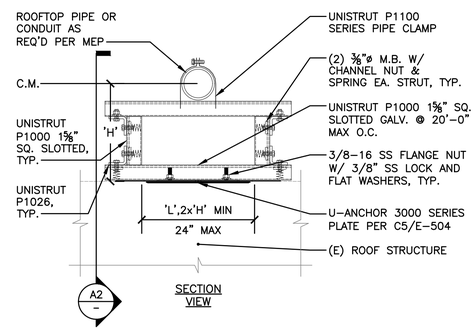
C.M. = CENTER OF MASS OF LARGER DIAMETER PIPE SUPPORT, INCLUDING WEIGHT OF PIPES	H = SHALL NOT EXCEED THE SMALLER OF 12" OR L/2 ROOF SLOPE SHALL NOT EXCEED 1" IN 12"

A2 UNISTRUT PIPE SYSTEM SECUREMENT
NOT TO SCALE



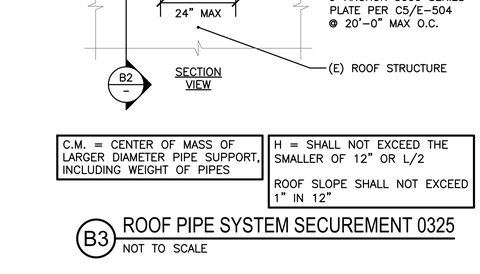
C.M. = CENTER OF MASS OF LARGER DIAMETER PIPE SUPPORT, INCLUDING WEIGHT OF PIPES	H = SHALL NOT EXCEED THE SMALLER OF 12" OR L/2 ROOF SLOPE SHALL NOT EXCEED 1" IN 12"

C3 ROOF PIPE SYSTEM SECUREMENT 0300
NOT TO SCALE



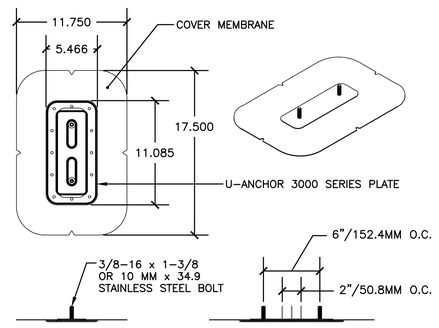
C.M. = CENTER OF MASS OF LARGER DIAMETER PIPE SUPPORT, INCLUDING WEIGHT OF PIPES	H = SHALL NOT EXCEED THE SMALLER OF 12" OR L/2 ROOF SLOPE SHALL NOT EXCEED 1" IN 12"

B3 ROOF PIPE SYSTEM SECUREMENT 0325
NOT TO SCALE

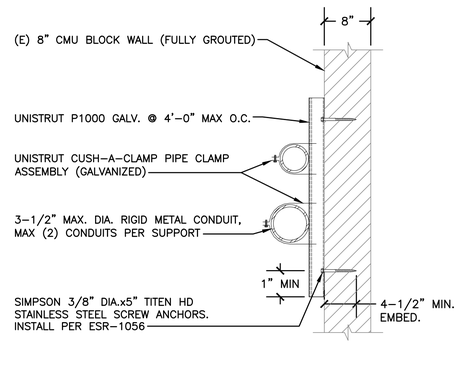


C.M. = CENTER OF MASS OF LARGER DIAMETER PIPE SUPPORT, INCLUDING WEIGHT OF PIPES	H = SHALL NOT EXCEED THE SMALLER OF 12" OR L/2 ROOF SLOPE SHALL NOT EXCEED 1" IN 12"

C3 ROOF PIPE SYSTEM SECUREMENT 0300
NOT TO SCALE

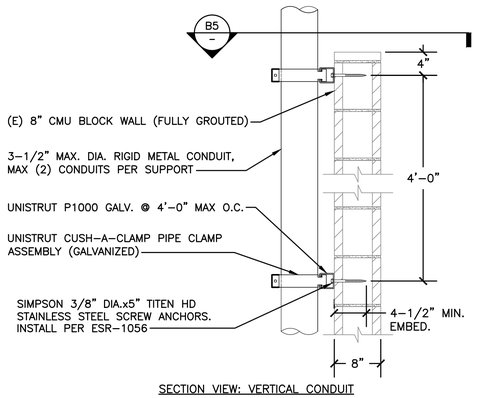


C5 U-ANCHOR U3000 SERIES PLATE
NOT TO SCALE



PLAN VIEW: VERTICAL CONDUIT

B5 WALL-MOUNTED PIPE/CONDUIT DETAIL
NOT TO SCALE



SECTION VIEW: VERTICAL CONDUIT

A5 WALL-MOUNTED PIPE/CONDUIT DETAIL
NOT TO SCALE

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT
FOR
SANTA MONICA MALIBU
MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	DESCRIPTION / REVISION

DRAWN BY:	CHECKED BY:
MP	RES
DESIGNED BY:	APPROVED BY:
PH	PH
DATE:	PROJECT:
08–18–2025	PC25P0085

ELECTRICAL DETAILS

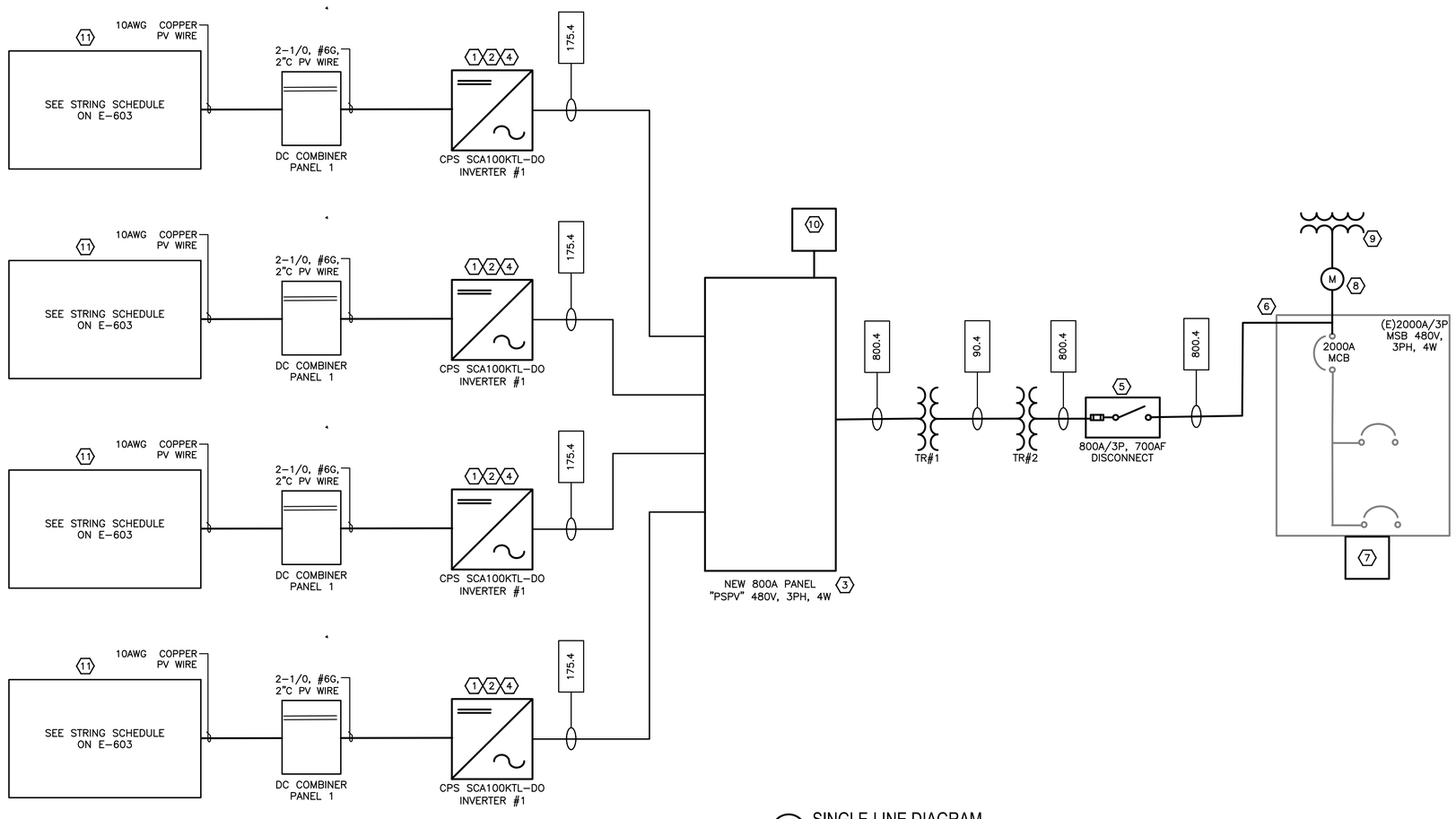
E-504

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FEEDER SCHEDULE - 600V MAX.			
TAG	DESCRIPTION	TAG	DESCRIPTION
20.4	3#12,#12N,#12G-3/4"C	250.4	3-250KCMIL, #4N,4G- 2 1/2"C
30.4	3#10,#10N,#10G -3/4"C	300.4	3-350KCMIL, #4N,4G- 3"C
40.4	3#8,#10N,#10G-1"C	400.4	3-500KCMIL, #3N,3G- 4"C
50.4	3#6,#10N,#10G-1"C	500.4	2 SETS OF 3-250KCMIL, 2N, #2G-2 1/2" C
60.4	3#4,10N,#10G-1 1/4"C	600.4	2 SETS OF 3-350KCMIL, 1N, #1G-3" C
70.4	3#4,#8N,#8G -1 1/4" C	800.4	2 SETS OF 3-500KCMIL, 1/0N, #1/0G-4" C
80.4	3#3,#8N,#8G -1 1/4" C	900.4	3 SETS OF 3-350KCMIL, 2/0N, #2/0G-3" C
90.4	3#2,#8N,#8G -1 1/2" C	1000.4	3 SETS OF 3-400KCMIL, 2/0N, #2/0G-4" C
100.4	3#2,#8N,#8G -1 1/2" C	1200.4	4 SETS OF 3-350KCMIL, 3/0N, #3/0G-3" C
125.4	3#1,#6N,#6G -1 1/2" C	1600.4	5 SETS OF 3-500KCMIL, 4/0N, #4/0G-4" C
150.4	3#1/0#6N,#6G -2" C	2000.4	6 SETS OF 3-500KCMIL, 1-250LCMILN, # 1-250KCMILG-4" C
175.4	3#2/0,#6N,#6G -2" C	2500.4	7 SETS OF 3-500KCMIL, 1-350LCMILN, # 1-350KCMILG-4" C
200.4	3#3/0,#6N,#6G -2" C	3000.4	8 SETS OF 3-500KCMIL, 1-400KCMILN, # 1-400KCMILG-4" C
225.4	3#4/0,#4N,#4G -2-1/2" C	4000.4	11 SETS OF 3-500KCMIL, 1-500KCMILN, # 1-500KCMILG-4" C



A1 SINGLE-LINE DIAGRAM
NOT TO SCALE

GENERAL NOTES

1. ALL EQUIPMENT AND CONDUIT CONNECTIONS SHALL BE RAIN TIGHT.
2. REFER TO TABLE ON SHEET E-602 FOR LIST OF SCHNEIDER ELECTRIC-FURNISHED, CONTRACTOR-INSTALLED, EQUIPMENT.
3. SEE INVERTER SCHEDULE ON SHEET E-602 FOR LENGTHS OF INVERTER FEEDERS.

SHEET KEYNOTES

1. SCHNEIDER ELECTRIC TO FURNISH, CONTRACTOR TO INSTALL INVERTERS.
2. INSTALL NEW INVERTER FURNISHED BY SCHNEIDER ELECTRIC. UL1741, UL 1699B, UL 1998 LISTED WITH OVERVOLTAGE PROTECTION. UNIT COMPLIES WITH NEC 690.11 (ARC FAULT PROTECTION).
3. PROVIDE DISTRIBUTION PANEL. REFER TO PANEL SCHEDULE ON E-603 FOR MORE INFORMATION.
4. INSTALL ALSO ENERGY GENERATION MONITORING ENCLOSURE FURNISHED BY SCHNEIDER ELECTRIC WITH THE EQUIPMENT LISTED: PRODUCTION METER, WEATHER STATION AND CPS DATA MANAGER. PROVIDE 480V-240V , 5KVA MINI POWER ZONE FOR ALSO ENERGY MONITORING SYSTEM AND OUTDOOR RATED DUPLEX OUTLET.
5. PROVIDE FUSED DISCONNECT. DISCONNECT TO BE LOCATED WITHIN 15FT OF POINT OF INTERCONNECTION.
6. POINT OF INTERCONNECTION MADE ON LINE SIDE OF SERVICE ENTRANCE CONDUCTORS IN EXISTING MSB. THIS CONNECTION SHALL BE MADE IN CONFORMANCE WITH NEC.THE CONTRACTOR IS RESPONSIBLE FOR UPDATING THE EXISTING SWITCHBOARD (SWBD-MSB-3) AS NEEDED TO ACCOMMODATE THE NEW PV INCOMING POWER CABLE AT THE LINE SIDE OF THE MAIN 2000A BREAKER , AS INDICATED IN SINGLE LINE DIGRAM (SLD).
7. DAS ALSO ENERGY ENCLOSURE WITH CONSUMPTION METER AND DATA LOGGER.
8. UTILITY TO REPLACE EXISTING UTILITY METER WITH NEW BIDIRECTIONAL PRODUCTION METER.
9. EXISTING UTILITY PAD MOUNT TRANSFORMER. EXISTING PRIMARY AND SECONDARY TO REMAIN. 10.120V CONNECTIONS TO METER AND RECEPTACLE AT THE EQUIPMENT RACK 11.MODULES SHALL BE MOUNTED AND SECURED TO RACKING WITH HARDWARE THAT COMPLIES WITH ARTICLE 690.43(A) OF THE 2023 NEC. INCLUDE ALL APPURTENANCES AND/OR FIELD-TESTING REQUIRED TO COMPLY WITH THIS CODE

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Fax +1 972 323 5498
www.schneider-electric.com

SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT FOR SANTA MONICA MALIBU

MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	SUBMISSION / REVISION DESCRIPTION

DRAWN BY: EWR	CHECKED BY: XXX
DESIGNED BY: XXX	APPROVED BY: XXX
DATE: 06-16-2025	PROJECT: PC25P0029

ELECTRICAL SINGLE-LINE DIAGRAM

E-601

SHT. - OF -

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AC DISCONNECT 1200A

PHOTOVOLTAIC AC DISCONNECT

RATED AC OUTPUT CURRENT:	1200A
NOMINAL OPERATING AC VOLTAGE:	480V

D1 AC DISCONNECT
NOT TO SCALE

FED FROM INVERTER 100KW

LABEL FOR EACH BREAKER, NEC 408.4

RATED AC OUTPUT CURRENT:	1200A
NOMINAL OPERATING AC VOLTAGE:	480V

D2 DISTRIBUTION PANEL
NOT TO SCALE

TRANSFORMER XXX

DANGER

HIGH VOLTAGE
ELECTRICAL SHOCK HAZARD

D3 TRANSFORMER
NOT TO SCALE

AC DISCONNECT 1200A

RATED AC OUTPUT CURRENT:	1200A
NOMINAL OPERATING AC VOLTAGE:	480V

MAIN PHOTOVOLTAIC SYSTEM DISCONNECT

NEC 690.13(B)

WARNING

POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE

LOAD SIDE CONNECTION, NEC 705.12(B)(2)

CAUTION
MULTIPLE SOURCES OF POWER

NEC 705.10 & NEC 690.59

C3 PRODUCTION / NET METER (BI-DIRECTIONAL)
NOT TO SCALE

I.S

INVERTER NUMBER.STRING NUMBER

B4 STRING
NOT TO SCALE

WARNING

ELECTRIC SHOCK HAZARD

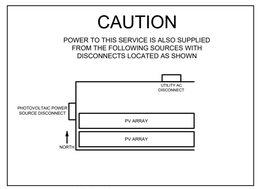
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

NEC 690.13(B)

WARNING

EQUIPMENT FED BY MULTIPLE SOURCES. TOTAL RATING OF ALL OVERCURRENT DEVICES EXCLUDING THE MAIN SUPPLY OVERCURRENT DEVICE SHALL NOT EXCEED AMPACITY OF BUSBAR

LOAD SIDE CONNECTION, NEC 705.12(B)(3)



NEC 705.10

B1 MAIN SERVICE DISCONNECT
NOT TO SCALE

B3 BUILDING / STRUCTURE
NOT TO SCALE

WARNING

THE DISCONNECTION OF THE GROUNDED CONDUCTOR(S) MAY RESULT IN OVERVOLTAGE ON THE EQUIPMENT

NEC 690.31(E)

DANGER

Arc Flash and Shock Hazard Present
Appropriate PPE Required

Arc Flash Boundary	0.9ft
Incident Energy in cal/cm²	0.5
Working Distance	18in
Shock Hazard Exposure	480 VAC
Insulating Gloves Class	00
Shock Hazard when covers removed	
Limited Approach Boundary	3.5ft
Restricted Approach Boundary	1.0ft

Level A
Minimum PPE Requirements

Non-melting or untreated natural fiber long-sleeve shirt and long pants

08-16-2024

A1 ARC FLASH & SHOCK HAZARD
NOT TO SCALE

DANGER

HIGH VOLTAGE - KEEP OUT

AUTHORIZED PERSONNEL ONLY
NO TRESPASSING

LOCATE ON EVERY GATE AND AT A MAXIMUM INTERVAL OF 100' ALONG FENCE SIDES

A3 FENCE
NOT TO SCALE

INVERTER 100KW

RATED AC OUTPUT CURRENT:	126.7A
NOMINAL OPERATING AC VOLTAGE:	480V

A4 INVERTER
NOT TO SCALE

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT FOR SANTA MONICA MALIBU

MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	DESCRIPTION
		SUBMISSION / REVISION

DRAWN BY: EWR	CHECKED BY: RES
DESIGNED BY: PH	APPROVED BY: PH
DATE: 08-18-2025	PROJECT: PC25P0085

LABELING DETAIL

E-505

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DC COMBINER SCHEDULE

To	Cable Length	Buffer	Total	Cable Cross Section, AWG	Ohms/kft	Cable 90C racting	Ambient Temp Derate Factor	Cable Derate Rating	IMP	ISC	OCPD Rating	Voltage	Voltage Drop	Voltage Drop %
DC Combiner TX1-INV1-DCB1	190.764	40	230.764	1/0	0.122	170	0.91	154.7	117.99	125.91	150	1431.73	6.64	0.464%
DC Combiner TX1-INV1-DCB2	146.336	40	186.336	1/1	0.122	170	0.91	154.7	117.99	125.91	150	1431.73	5.36	0.375%
DC Combiner TX1-INV1-DCB3	81.936	40	121.936	1/2	0.122	170	0.91	154.7	117.99	125.91	150	1431.73	3.51	0.245%
DC Combiner TX1-INV1-DCB4	74.46	40	114.46	1/3	0.122	170	0.91	154.7	117.99	125.91	150	1431.73	3.3	0.230%

ALL INVERTERS AND STRINGS

From	To	Cable Length +, FT	Cable Length -, FT	Extension, FT	Buffer, FT	Total Length	Cable Cross Section, AWG	Corrected Voltage Drop	Corrected Voltage Drop %
DC Combiner TX1-INV1-DCB1	String TX1-INV1-DCB1-STR1	57.005	47.883	39.631	40	184.518	10	3.64	0.255%
	String TX1-INV1-DCB1-STR2	102.437	109.49	0	40	251.928	10	4.1	0.286%
	String TX1-INV1-DCB1-STR3	155.442	158.709	0	40	354.151	10	5.76	0.402%
	String TX1-INV1-DCB1-STR4	40.758	51.668	0	40	132.426	10	2.15	0.150%
	String TX1-INV1-DCB1-STR5	93.748	100.873	8.001	40	242.621	10	4.07	0.285%
	String TX1-INV1-DCB1-STR6	147.05	102.494	42	40	331.545	10	6.07	0.424%
	String TX1-INV1-DCB1-STR7	59.905	67.173	42	40	209.078	10	4.08	0.285%
	String TX1-INV1-DCB1-STR8	6.983	4.212	0	40	51.195	10	0.83	0.058%
	String TX1-INV1-DCB1-STR9	70.942	74.482	0	40	185.424	10	3.01	0.211%
DC Combiner TX1-INV1-DCB2	String TX1-INV2-DCB1-STR1	84.386	36.566	30.658	40	191.61	10	3.61	0.252%
	String TX1-INV2-DCB1-STR2	137.22	140.848	0	40	318.069	10	5.17	0.361%
	String TX1-INV2-DCB1-STR3	84.436	91.785	0	40	216.221	10	3.51	0.246%
	String TX1-INV2-DCB1-STR4	34.608	41.844	0	40	116.452	10	1.89	0.132%
	String TX1-INV2-DCB1-STR5	83.715	53.126	42	40	218.841	10	4.24	0.296%
	String TX1-INV2-DCB1-STR6	74.839	75.741	0	40	190.581	10	3.1	0.216%
	String TX1-INV2-DCB1-STR7	6.994	4.126	0	40	51.12	10	0.083	0.058%
	String TX1-INV2-DCB1-STR8	71.972	84.111	42	40	238.083	10	4.55	0.316%
	String TX1-INV2-DCB1-STR9	16.419	47.482	41.513	40	145.414	10	3.04	0.212%
DC Combiner TX1-INV1-DCB3	String TX1-INV3-DCB1-STR1	71.602	78.508	0	40	190.11	10	3.09	0.216%
	String TX1-INV3-DCB1-STR2	124.509	127.637	0	40	292.146	10	4.75	0.332%
	String TX1-INV3-DCB1-STR3	50.793	57.702	0	40	148.495	10	2.41	0.169%
	String TX1-INV3-DCB1-STR4	103.704	83.897	42	40	269.601	10	5.07	0.354%
	String TX1-INV3-DCB1-STR5	115.042	125.731	0	40	280.773	10	4.56	0.319%
	String TX1-INV3-DCB1-STR6	114.776	117.358	42	40	314.134	10	5.79	0.404%
	String TX1-INV3-DCB1-STR7	27.802	34.737	0	40	102.539	10	1.67	0.116%
	String TX1-INV3-DCB1-STR8	57.403	64.381	0	40	161.785	10	2.63	0.184%
	String TX1-INV3-DCB1-STR9	4.427	11.405	0	40	55.831	10	0.91	0.063%
DC Combiner TX1-INV1-DCB4	String TX1-INV4-DCB1-STR1	52.316	59.423	0	40	151.739	10	2.47	0.172%
	String TX1-INV4-DCB1-STR2	100.666	103.898	0	40	244.564	10	3.98	0.278%
	String TX1-INV4-DCB1-STR3	152.105	156.895	42	40	391	10	7.04	0.492%
	String TX1-INV4-DCB1-STR4	148.131	98.912	42	40	329.043	10	6.03	0.421%
	String TX1-INV4-DCB1-STR5	95.145	106.061	0	40	241.206	10	3.92	0.274%
	String TX1-INV4-DCB1-STR6	45.944	53.076	0	40	139.02	10	2.26	0.158%
	String TX1-INV4-DCB1-STR7	4.795	12.031	0	40	56.827	10	0.92	0.065%
	String TX1-INV4-DCB1-STR8	57680	70.988	42	40	210.667	10	4.11	0.287%
	String TX1-INV4-DCB1-STR9	75.19	86.123	0	40	201.313	10	3.27	0.229%

EQUIPMENTS SCHEDULE

EQUIPMENT				Parameters				FED TO	MOCP	MINIMUM CONDUIT AND CABLE SIZE	APPROXIMATE LENGTH OF RUN	VOLTAGE DROP INVERTER TO POI
TAG	#	DESCRIPTION	MANUFACTURER AND MODEL	PHASE	VOLTS	FLA	kW					
INV	1	INVERTER	CPS - 100kW 480V - Central	3	480	126.7	100	Distribution Panel 1	175	3-#2/0, 2-#6 2 "C, PVC	30	0.14%
INV	2	INVERTER	CPS - 100kW 480V - Central	3	480	126.7	100	Distribution Panel 1	175	3-#2/0, 2-#6 2 "C, PVC	50	0.23%
INV	3	INVERTER	CPS - 100kW 480V - Central	3	480	126.7	100	Distribution Panel 1	175	3-#2/0, 2-#6 2 "C, PVC	70	0.32%
INV	4	INVERTER	CPS - 100kW 480V - Central	3	480	126.7	100	Distribution Panel 1	175	3-#2/0, 2-#6 2 "C, PVC	90	0.41%
DIS-PAN	1	DISTRIBUTION PANEL	SQUARE D	3	480	506.8	422	TRANSFORMER 1	700	2 Sets Of 3-#500, 2-#1/0 3 1/2"C, PVC	30'	0.09%
TRANSFORMER	1	STEP UP TRANSFORMER	SQUARE D	3	12470	19.51	500	TRANSFORMER 2	25	1 sets of 3-#2 , 2#6 , 3 1/2"C , PVC	1120	0.20%
TRANSFORMER	2	STEP UP TRANSFORMER	SQUARE D	3	480	506.8	500	LV Disconnect 1	700	2 Sets of 3-#500 , 2#1/0 , 3 1/2"C , PVC	30	0.10%
LV Disconnect	1	disconnect switch	SQUARE D	3	480	506.8	500	point of interconnec	700	2 Sets of 3-#500 , 2#1/0 , 3 1/2"C , PVC	70	0.10%

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT FOR
SANTA MONICA MALIBU
MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	SUBMISSION / REVISION DESCRIPTION

DRAWN BY: EWR	CHECKED BY: RES
DESIGNED BY: PH	APPROVED BY: PH
DATE: 08–18–2025	PROJECT: PC25P0085

ELECTRICAL SCHEDULES

E-603

SHT. – OF 18

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PANEL SCHEDULE

PANEL: PSPV **LOCATION:** SOLAR ARRAY **VOLTS:** 480 Y/ 277 **PH:** 3-PHASE **W:** 4

AMP MAIN BRKR: 700 **AMP MLO:** **AIC RATING:** 42,000 **MOUNT:** SURFACE **FED FROM:** MSB

CIRCUIT DESCRIPTION	LOAD VA	CKT BKR	P	CIR #	PH	CIR #	P	CKT BKR	LOAD VA	CIRCUIT DESCRIPTION
INV-1	35096	175	3	1	A	2	3	175	35096	INV-3
	35096	-	-	3	B	4	-	-	35096	
	35096	-	-	5	C	6	-	-	35096	
INV-2	35096	175	3	7	A	8	3	175	35096	INV-4
	35096	-	-	9	B	10	-	-	35096	
	35096	-	-	11	C	12	-	-	35096	
METER VOLTAGE REFERENCE	-	15	3	13	A	14	2	15	5000	MINI POWER ZONE
	-	-	-	15	B	16	-	-	5000	
	-	-	-	17	C	18				
				19	A	20				
				21	B	22				
				23	C	24				
				25	A	26				
				27	B	28				
				29	C	30				
				31	A	32				
				33	B	34				
				35	C	36				
				37	A	38				
				39	B	40				
				41	C	42				

LOAD SUMMARY:	CONNECTED		FEEDER / SERVICE CALCULATION		
LIGHTING	0.00	KVA	0.00	KVA (125%)	
LARGEST MOTOR	0.00	KVA	0.00	KVA (125%)	
REMAINING MOTORS	0.00	KVA	0.00	KVA (100%)	
RECEPTACLES	0.00	KVA	0.00	KVA (*)	*1st 10KVA at 100%
KITCHEN EQUIPMENT	0.00	KVA	0.00	KVA (100%)	plus remainder at 50%
COOLING	0.00	KVA	0.00	KVA (100%)	
HEATING	0.00	KVA	0.00	KVA (100%)	
MISC.	842.30	KVA	842.30	KVA (100%)	
TOTALS	842.30	KVA	842.30	KVA	
	1013	AMPS	1013	AMPS	

NOTES:

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FOR
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MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	SUBMISSION / REVISION DESCRIPTION

DRAWN BY: EWR	CHECKED BY: RES
DESIGNED BY: PH	APPROVED BY: PH
DATE: 08-18-2025	PROJECT: PC25P0085

ELECTRICAL SCHEDULES

E-604

SHT. - OF 18

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100 kW, 1500 Vdc/480 Vac String Inverters for North America



CPS SCH100KTL-DO/US-480

The 100 kW high power CPS three-phase string inverters are designed for ground-mount applications with 480 Vac service voltage. The units are high performance, advanced, and reliable inverters designed specifically for the North American environment and grid. High efficiencies, wide operating voltages, broad temperature ranges, and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100 kW products ship with the Distributed or Centralized Wire Box, each fully integrated and separable with AC and DC disconnect switches. The Enhanced DC Wire Box includes touch-safe fusing for up to 20 strings. The CPS FlexOM solution enables communication, controls and remote product upgrades.

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC and DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper- and aluminum-compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA headroom yields 100 kW @ 0.95 PF
- Generous DC/AC inverter load ratios
- Separable wire box design for fast service
- Enhanced DC wire boxes available



Distributed

Centralized

Standard Wire Boxes



Distributed

Centralized

Enhanced DC Wire Boxes

c CHINT POWER SYSTEMS AMERICA 2024/3-MKT NA

Chint Power Systems America
1380 Presidential Drive, Suite 100, Richardson, TX 75081
Tel: 855-584-7168 Mail: AmericaSales@chintpower.com Web: www.chintpowersystems.com

Model Name	CPS SCH100KTL-DO/US-480
DC Input	
Max. DC input voltage	1500 Vdc
Operating DC input voltage range	750-1450 Vdc
Startup DC input voltage / power	900 Vdc / 200 W
Number of MPP trackers	1
MPPT voltage range @ PF > 0.99[1]	760-1300 Vdc
Max. PV input current (Isc × 1.25)	275 A
Number of DC inputs	Distributed Wire Box: 20 PV source circuits, positive and negative fused Centralized Wire Box: 1 input circuit, 1-2 terminations per pole, non-fused
DC disconnection type	Load-rated DC switch
DC surge protection	Type II MOV (with indicator/remote signaling)
AC Output	
Rated AC output power	100 kW
Max. AC output power[2]	100 kVA (105.3 kVA @ PF > 0.95)
Rated output voltage	480 Vac
Output voltage range[3]	423-528 Vac
Grid connection type[4]	3-Phase / PE / N (neutral optional)
Max. AC output current @ 480 Vac	120.3 A / 126.7 A
Rated output frequency	60 Hz
Output frequency range[3]	57-63 Hz
Power factor	> 0.99 (±0.8 adjustable)
Current THD @ rated load	< 3%
Max. fault current contribution (1 cycle RMS)	41.47 A
Max. OCPD rating	200 A
AC disconnection type	Load-rated AC switch
AC surge protection	Type II MOV (with indicator/remote signaling)
System and Performance	
Topology	Transformerless
Max. efficiency	98.9%
CEC efficiency	98.0%
Standby / night consumption	< 4 W
Environment	
Enclosure protection degree	NEMA Type 4X
Cooling method	Variable speed cooling fans
Operating temperature range	-22°F to 140°F / -30°C to 60°C
Non-operating temperature range[5]	-40°F to 158°F (-40°C to 70°C)
Operating humidity	0-100%
Operating altitude	8202 ft / 2500 m (no derating)
Audible noise	< 65 dBA @ 1 m and 77°F (25°C)
Display and Communication	
User interface and display	LED indicators, Wi-Fi and app
Inverter monitoring	Modbus RS485
Site-level monitoring	CPS FlexOM Gateway (1 per 32 inverters)
Modbus data mapping	SunSpec / CPS
Remote diagnostics / firmware upgrade functions	Standard / (with FlexOM Gateway)
Mechanical	
Dimensions (W × H × D)	Distributed Wire Box: 45.28 × 24.25 × 9.84 in (1150 × 616 × 250 mm) Centralized Wire Box: 39.37 × 24.25 × 9.84 in (1000 × 616 × 250 mm)
Weight	Inverter: 121 lbs (55 kg) Distributed Wire Box: 55 lbs (25 kg) Centralized Wire Box: 33 lbs (15 kg)
Mounting / installation angle	15-90 degrees from horizontal (vertical or angled)
AC termination	M10 stud type terminal [3Ø] (wire range: 1/0 AWG-500 kcmil CU/AL; lugs not supplied) Screw clamp terminal block [N] (#12-1/0 AWG CU/AL)
DC termination	Distributed Wire Box: Screw clamp fuse holder (wire range: #12-#6 AWG CU) Centralized Wire Box: Busbar, M10 bolts (wire range: #1 AWG-500 kcmil CU/AL [1 termination per pole], #1 AWG-300 kcmil CU/AL [2 terminations per pole]; lugs not supplied)
Fused string inputs	Standard/Distributed Wire Boxes: 25 A fuses provided (fuse values up to 30 A acceptable) Enhanced DC Wire Boxes: 20 A fuses provided (fuse values up to 30 A acceptable)
Safety	
Certifications and standards	UL 1741-SA/SB Ed. 3, CSA-C22.2 NO.107.1-01, IEEE 1547-2018, FCC PART15
Selectable grid standard	IEEE 1547a-2014, IEEE 1547-2018, CA Rule 21, ISO-NE
Smart-grid features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Vol-Watt
Warranty	
Standard[7]	5 years
Extended terms	10, 15, and 20 years

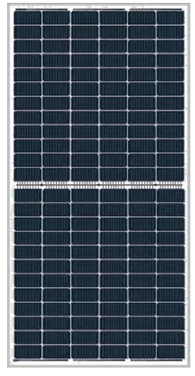
1) See user manual for information regarding MPPT voltage range when operating at non-unity PF.
2) 100 kW-480 V active power derating begins at 107.6°F (42°C) when PF = ±0.9 and MPPT ≥ Vmin; at 113°F (45°C) when PF=1 and MPPT ≥ Vmin.
3) The "output voltage range" and "output frequency range" may differ according to the specific grid standard.
4) Delta configurations must not be corner-grounded.
5) See user manual for further requirements regarding non-operating conditions.
6) Firmware version 12.0 or later required.

MSI 144HC

MISSION SOLAR ENERGY

550W Positive Power Tolerance

Class leading power output -0 to +3%



FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 2% in year one and 0.55% annually from years two to 25 with 84.8%.

PERC Cells
Transparent Backsheet

Mission Solar Energy is headquartered in San Antonio, Texas. Our product line is tailored for residential, commercial and utility applications. Every Mission Solar Energy solar module is certified and surpasses industry standard regulations, proving excellent performance over the long term.

Demand the best. Demand Mission Solar Energy.

Certified Reliability
- Tested to UL 61730 & IEC Standards
- PID resistant
- Resistance to salt mist corrosion

Advanced Technology
- Half-cut cell with 10 Busbar
- Passivated Emitter Rear Contact
- Ideal for utility applications

Extreme Weather Resilience
- Up to 5,400 Pa front load & 2,400 Pa back load
- Tested load to UL 61730
- Dia. 25mm Hailstone tests at the speed of 24m/s

CERTIFICATIONS

CEC TÜV NORD IEC UL LISTED

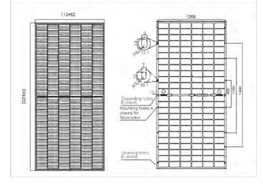
UL 61730 / IEC 61215 / IEC 61730

If you have questions or concerns about certification of our products in your area, please contact Mission Solar Energy.

Class Leading
550W

MSI PERC 144HC Bifacial

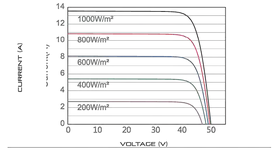
BASIC DIMENSIONS
[UNITS: MM/(IN)]



FRONT VIEW REAR VIEW

CURRENT-VOLTAGE CURVE
MSI10-xxxHT4T, 144 HALF-CUT CELL SOLAR MODULE

Current-voltage characteristics with dependence on irradiance and module temperature



ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSI10-xxxHT4T (xxx = P_{MAX})			
Power Output	P_{MAX}	W_P	345	350	355
Module Efficiency		%	21.01	21.21	21.39
Tolerance		%	0/+3%	0/+3%	0/+3%
Short Circuit Current		I_{SC}	A	13.92	13.99	14.02
Open Circuit Voltage		V_{OC}	V	49.65	49.80	49.95
Rated Current		I_{MP}	A	13.04	13.11	13.18
Rated Voltage		V_{MP}	V	41.80	41.95	42.09
Fuse Rating			A	30A	30A	30A
System Voltage			V	1,500	1,500	1,500

TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	45°C (±2%)
Temperature Coefficient of Pmax	-0.350%/°C
Temperature Coefficient of Voc	-0.270%/°C
Temperature Coefficient of Isc	0.048%/°C

OPERATING CONDITIONS

Maximum System Voltage	1,500Vdc
Operating Temperature Range	-40°F to 185°F (-40°C to +85°C)
Maximum Series Fuse Rating	30A
Fire Safety Classification	UL Type 1
Front & Back Load (UL Standard)	Up to 5,400 Pa snow and 2,400 Pa wind load, Tested to UL 61730
Hail Safety Impact Velocity	25mm at 24 m/s

**Mission Solar Energy uses quality sourced materials that result in a Type 1 fire rating. Please note, the Fire Class Rating is designated for the fully installed PV system, which includes, but is not limited to, the module, the type of mounting used, pitch and roof composition.*

MECHANICAL DATA

Solar Cells	PERC, 182mm x 91mm, 144 (6x24)
Cell Orientation	144 half-cut cells
Module Dimension	2278(±2mm) x 1135(±2mm) x 35(±1mm)
Weight	60.0 lbs. (27.2kg)
Glass	Single glass, 3.2mm AR coated tempered glass
Frame	35mm Anodized
Junction Box	Protection class IP68 with 3 bypass-diodes
Cable	1.2m, wire 4mm2 (12AMG)
Connector	MC4 EVO2

CERTIFICATIONS AND TESTS

IEC	61215, 61730, 61701
UL	61730

TÜV NORD CEC UL LISTED

SHIPPING INFORMATION

Container Feet	Ship To	Pallet	Panels	550W Bin
40'	Most States	22	682	375.10 kW

PALLET [31 PANELS]

Weight	Height	Width	Length
1,926 lbs. (705 kg)	50.71 in (117.0 cm)	46 in (111.0 cm)	91.3 in (211.5 cm)

Mission Solar Energy
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www.missionsolar.com | info@missionsolar.com

Mission Solar Energy reserves the right to make specification changes without notice.

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SCHNEIDER ELECTRIC ENERGY SERVICES PROJECT
FOR
SANTA MONICA MALIBU

MIDDLE/HIGH SCHOOL
30215 MORNING VIEW DR
MALIBU, CA 90265

MARK	DATE	DESCRIPTION / REVISION

DRAWN BY:	CHECKED BY:
EWR	XXX
DESIGNED BY:	APPROVED BY:
XXX	XXX
DATE:	PROJECT:
06–16–2025	PC25P0085

EQUIPMENT DATA SHEETS

E-701

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Terrasmart Combiners are used for DC aggregation before the input of an inverter or charge controller. They provide a convenient location for O&M and disconnecting means. Combiners are highly configurable to fit any application.

Product features

- Listed to UL-1741
- Up to 36 input circuits
- Rated for 1000 or 1500 VDC
- 275, 320, 400, and 600 Amp load break disconnects
- 75/90C Al/Cu output terminals
- NEMA-3R, 4 & 4X enclosures
- Rated for continuous duty

Available options

- Mechanical lugs
- Provisions for compression lugs
- Isolating / grounded / floating configurations
- Touch safe protective cover
- Custom layouts
- Pre-terminated input conductors
- 10kA SCCR and greater
- Battery and energy storage
- Transient surge suppression
- Breather and drain vents
- Pad-lockable enclosures
- Lockout / tagout provision



Floating Disconnect Combiner, 1500VDC, 275A disconnect, 15 input circuits, transient surge protection, NEMA-4X fiberglass enclosure

Specifications

Voltage (Vdc)	1000 / 1500
Disconnect Ampacity	None / 275 / 320 / 400 / 600
Number of Input Circuits	1 to 36
Input Conductor Size (AWG)	#14 - 8 / #12-4
Fuse Size (Amps)	4 to 32 / 35 to 65
Number of Output Conductors Per Polarity	1 or 2
Output Conductor Size Range (MCM)	#6-350 / #2-600 / 300-800
Enclosure Dimensions (Inches)*	24×24×8 / 30×24×8 / 30×30×8
Enclosure NEMA Ratings	3R / 4 / 4X

*Other options available upon request. Please note dimensions and weight may vary for any custom solutions. Contact us for details.



GLIDE Fuse is a fixed-tilt ground mount system specially designed to increase the ground coverage ratio (GCR) of a potential solar project. The system is the ideal intersection of efficiency and affordability when aiming to maximize the amount of PV deployed on a given project site.

Efficient Design

- The low tilt and low module clearance height allow for reduced row spacing, increasing the amount of PV modules inside a given boundary.
- Streamlined design utilizes a lower part count and simplified connectors, reducing production and installation time.
- Long-table hybrid design is specifically designed to accommodate the specific string size of a project, reducing eBOS costs.
- Low module clearance allows for easier access behind each row, simplifying eBOS installation.

Seamless Installation

- Tabled design makes staging and installing materials more efficient.
- More robust purlin allows for wider foundation spacing than a standard fixed-tilt ground mount system.
- Brackets are designed for specific tilt angles, allowing for the system to square up more efficiently during installation.
- Simplified connectors make for little to no cost to maintain the system after installation.



Specifications

Wind Loads	Up to 150 mph
Snow Loads	Up to 20 psf
Tilt Angles	7.5, 10, and 12.5 degree options
Module Clearance	Maximum clearance height of 24"
Pre-Assembled Parts	Reduced installation time
Warranty	20 years
Module Configuration	4-high portrait or 8-high landscape
Raised Purlin	Integrated bonding and grounding
Listing	UL 2703



When EPCs and developers need a dependable, low-maintenance fixed-tilt ground mount system, they turn to GLIDE Wave. With over 5 GW of projects deployed across the U.S., our flexible design can be adapted to meet the project specific needs on any site, no matter the challenges.

Value Engineered

- Multiple foundation types are available to meet any unique underground soil conditions.
- Arrays are designed using continuous rows to follow the existing terrain and minimize the number of foundations required.
- Raised purlin are utilized as an integrated bonding and grounding method, which is UL 2703 listed, eliminating the need for additional grounding clips or washers.
- Parts and components are domestically sourced and manufactured for faster turnaround times.

Efficient Installation

- Pre-assembled parts and components reduce the number of connections needed at each table/bay by up to 50%.
- Components are designed with adjustable tolerances to make field installation a smoother process.
- Dedicated project management and in-house installation teams capable of completing full structural installation of an array.
- Integrated wire management and equipment posts available to simplify eBOS installation.



Specifications

Wind Loads	170 mph+
Snow Loads	90 psf+
Pre-Assembled Parts	Reduced installation time
Slope	Accomodates up to 30%
Warranty	20 years
Post Type	Cee posts or I-beam options available
Module Configuration	Portrait or landscape (all module frame types)
Raised Purlin	Integrated bonding and grounding
Listing	UL 2703

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MARK	DATE	DESCRIPTION
		SUBMISSION / REVISION

DRAWN BY: EWR	CHECKED BY: XXX
DESIGNED BY: XXX	APPROVED BY: XXX
DATE: 06-16-2025	PROJECT: PC25P0085

EQUIPMENT DATA SHEETS

E-702

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ABBREVIATIONS

AB	AGGREGATE BASE	MIN	MINIMUM
AC	ASPHALT CONCRETE PAVEMENT	MOC	MIDDLE OF CURVATURE
AE	ACCESS EASEMENT	N	NORTH
ASPH	ASPHALT PAVING	NG	NATURAL GRADE
BC	BEGIN CURVATURE	NTS	NOT TO SCALE
BCR	BEGIN CURB RETURN	OC	ON CENTER
BFP	BACK FLOW PREVENTER	(P)	PROPOSED, NEW
BI	BOX INLET	PA	PLANTING AREA
BM	BENCHMARK	PBC	PULL BOX CABLE
BOP	BOTTOM OF PIPE	PBE	PULL BOX ELECTRIC
BOR	BOTTOM OF RAMP	PBT	PULL BOX TELEPHONE
BS	BOTTOM OF STAIRS	PBW	PULL BOX WATER
BVC	BEGIN VERTICAL CURVATURE	PCC	POINT OF COMPOUND CURVATURE
BW	BOTTOM OF WALL	PE	PEDESTRIAN EASEMENT
C&G	CURB AND GUTTER	PI	POINT OF INTERSECTION
CL,CL	CENTER LINE	PIVC	POINT OF INTERSECTION VERTICAL CURVATURE
CB	CATCH BASIN	PL	PROPERTY LINE
CONST	CONSTRUCT	POC	POINT OF CONNECTION
CR	CURB RETURN	PP	POWER POLE
CT	COURT	PRC	POINT OF REVERSE CURVATURE
CUL	CULVERT	PVC	POLYVINYL CHLORIDE
DI	DROP INLET	PVMT	PAVEMENT
DIP	DUCTILE IRON PIPE	R	RADIUS
DW	DOMESTIC WATER	RCP	REINFORCED CONCRETE PIPE
D/W	DRIVEWAY	RIM	TOP RIM OF STRUCTURE
DE	DRAINAGE EASEMENT	ROW	HIGHWAY EASEMENT
DR	DRIVE	RT	RIGHT
(E)	EXISTING	RW	RECLAIMED WATER
E	EAST	R/W	RIGHT OF WAY
EC	END CURVATURE	S	SOUTH OR SLOPE
ECR	END CURB RETURN	SBE	SETBACK EASEMENT
EG	EXISTING GRADE	SCO	SANITARY SEWER CLEANOUT
ELEV	ELEVATION	SD	STORM DRAIN
EOC	EDGE OF CONCRETE	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
EQ	EQUAL	SHT	SHEET
ESMT	EASEMENT	STA	STATION
EVC	END OF VERTICAL CURVATURE	SMH	SANITARY SEWER MANHOLE
FF	FINISHED FLOOR	SS	SANITARY SEWER
FFE	FINISHED FLOOR ELEVATION	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FG	FINISHED GRADE	S/W	SIDEWALK
FH	FIRE HYDRANT	T	TANGENT
FL	FLOWLINE	TB	TOP OF BERM
FS	FINISHED SURFACE	TBC	TOP BACK OF CURB
FW	FIRE PROTECTION SERVICE WATER	TBW	TOP BACK OF WALK
GB	GRADE BREAK	TC	TOP OF CURB
GFL	GUTTER FLOWLINE	TF	TOP OF FOOTING
GSL	LIMITS OF GRAVITY SEWER	TG	TOP OF GRATE
GR	GRATE	TOE	TOE OF SLOPE
GV	GAS VALVE	TOP	TOP OF PIPE
HB	HOSE BIB	TOR	TOP OF RAMP
HP	HIGH POINT	TOS	TOP OF SLOPE
ICV	IRRIGATION CONTROL VALVE	TP	TOP OF PLANTER
INTX	POINT OF INTERSECTION	TS	TOP OF STAIRS
INV	INVERT	TW	TOP OF WALL
JP	JOINT POLE	TYP	TYPICAL
LE	LANDSCAPE EASEMENT	TP	TELEPHONE POLE
LF	LINEAR FEET	VC	VERTICAL CURVATURE
LIP	LIP OF GUTTER	W	WEST
LP	LOW POINT	WM	WATER MAIN
LT	LEFT	WV	WATER VALVE
MAX	MAXIMUM		
MH	MANHOLE		

LEGEND

SYMBOL	DESCRIPTION
(RD)	ROOF DRAIN POC 5' FROM BUILDING
(G)	GAS POC 5' FROM BUILDING
(F)	FIRE WATER POC 5' FROM BUILDING
(W)	DOMESTIC WATER POC 5' FROM BUILDING
(SS)	SANITARY SEWER POC 5' FROM BUILDING
(D)	STORM DRAIN MANHOLE
(S)	SANITARY SEWER MANHOLE
	DRAIN INLET
AD ∘	AREA DRAIN
	TRENCH DRAIN
	CLEANOUT
	BLOW OFF
	FIRE HYDRANT
	VALVE
	POST INDICATOR VALVE (PIV)/CHECK VALVE (CHK VLV)/FIRE DEPARTMENT CONNECTION (FDC)
	CHECK VALVE (CHK VLV)
	FIRE DEPARTMENT CONNECTION (FDC)
	DOUBLE DETECTOR CHECK (DBL CHK)
	REDUCED PRESSURE (BFP)
	POST INDICATOR VALVE (PIV)
	THRUST BLOCK
	BENDS, TEE AND CROSS
	WATER METER

LINE TYPE	DESCRIPTION
	APPROXIMATE PROJECT LIMITS
	RIGHT OF WAY/ PROPERTY LINE
	FENCE
	REMOVE EXISTING UTILITY
SS	EXISTING SEWER LINE
W	EXISTING WATER LINE
SD	EXISTING STORM DRAIN LINE
FW	EXISTING DEDICATED PRIVATE FIRE SERVICE
G	EXISTING NATURAL GAS SERVICE
E	EXISTING ELECTRICAL LINE / CONDUIT
T	EXISTING TELECOMMUNICATIONS LINE / CONDUIT
XXLF 8"SS S=X.XXX	SANITARY SEWER LINE
XXLF 6"DW PVC	DOMESTIC WATER LINE
XXLF 8"SD S=X.XXX	STORM DRAIN LINE (<8" DIAMETER)
XXLF 12"SD S=X.XXX	STORM DRAIN LINE (>8" DIAMETER)
	PERFORATED STORM DRAIN LINE
XXLF 6"FW PVC	DEDICATED PRIVATE FIRE SERVICE
XXLF GAS PVC	NATURAL GAS LINE
GB	GRADE BREAK LINE
>	FLOW LINE
	DAYLIGHT LINE

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN PLACE AT ALL TIMES DURING CONSTRUCTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
3. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
5. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
6. IN AREAS WHERE SOIL IS EXPOSED, PROMPT REPLANTING WITH NATIVE COMPATIBLE, DROUGHT-RESISTANT VEGETATION SHALL BE PERFORMED. NO AREAS WILL BE LEFT EXPOSED OVER THE WINTER SEASON.
7. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE.
8. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR MORE OFTEN AS NECESSARY.
9. CONTRACTOR SHALL PLACE GRAVEL/SAND BAGS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL/SAND BAGS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
10. CONTRACTOR SHALL IMPLEMENT HOUSEKEEPING PRACTICES AS FOLLOWS:
    A. SOLID WASTE MANAGEMENT: PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS. ARRANGE FOR REGULAR REMOVAL AND DISPOSAL. CLEAR SITE OF TRASH INCLUDING ORGANIC DEBRIS, PACKAGING MATERIALS, SCRAP OR SURPLUS BUILDING MATERIALS AND DOMESTIC WASTE DAILY.
    B. MATERIAL DELIVERY AND STORAGE: PROVIDE A DESIGNATED MATERIAL STORAGE AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. STORE MATERIAL ON PALLETS AND PROVIDE COVERING FOR SOLUBLE MATERIALS. RELOCATE STORAGE AREA INTO BUILDING SHELL WHEN POSSIBLE. INSPECT AREA WEEKLY.
    C. CONCRETE WASTE: PROVIDE A DESIGNATED AREA FOR A TEMPORARY PIT TO BE USED FOR CONCRETE TRUCK WASH-OUT. CONCRETE WASHOUT CANNOT BE WITHIN 50' MINIMUM OF DRAIN INLETS. DISPOSE OF HARDENED CONCRETE OFFSITE. AT NO TIME SHALL A CONCRETE TRUCK DUMP ITS WASTE AND CLEAN ITS TRUCK INTO THE STORM DRAINS VIA CURB AND GUTTER. INSPECT DAILY TO CONTROL RUNOFF, AND WEEKLY FOR REMOVAL OF HARDENED CONCRETE.
    D. PAINT AND PAINTING SUPPLIES: PROVIDE INSTRUCTION TO EMPLOYEES AND SUBCONTRACTORS REGARDING REDUCTION OF POLLUTANTS INCLUDING MATERIAL STORAGE, USE, AND CLEAN UP. INSPECT SITE WEEKLY FOR EVIDENCE OF IMPROPER DISPOSAL.
    E. VEHICLE FUELING, MAINTENANCE AND CLEANING: PROVIDE A DESIGNATED FUELING AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. DO NOT ALLOW MOBILE FUELING OF EQUIPMENT. PROVIDE EQUIPMENT WITH DRIP PANS. RESTRICT ONSITE MAINTENANCE AND CLEANING OF EQUIPMENT TO A MINIMUM. INSPECT AREA WEEKLY.
    F. HAZARDOUS WASTE MANAGEMENT: PREVENT THE DISCHARGE OF POLLUTANTS FROM HAZARDOUS WASTES TO THE DRAINAGE SYSTEM THROUGH PROPER MATERIAL USE, WASTE DISPOSAL AND TRAINING OF EMPLOYEES. HAZARDOUS WASTE PRODUCTS COMMONLY FOUND ON-SITE INCLUDE BUT ARE NOT LIMITED TO PAINTS & SOLVENTS, PETROLEUM PRODUCTS, FERTILIZERS, HERBICIDES & PESTICIDES, SOIL STABILIZERS, STABILIZATION PRODUCTS, ASPHALT PRODUCTS AND CONCRETE CURING PRODUCTS.
11. CONTRACTOR SHALL HYDROSEED ALL GRADED SLOPES. NATIVE SEED MIX SHALL BE 20% LANA PUBESCENT WHEAT GRASS, 40% BLANDO BROME, AND 40% ANNUAL RYE GRASS AND SHALL BE APPLIED AT A RATE OF 200 POUNDS PER ACRE. SOIL BINDING AGENT SHALL BE VERDYOL, SENTINEL, OR EQUAL, APPLIED AT A RATE OF 110 POUNDS PER ACRE. MULCH SHALL BE SILVER-FIBER, CONWED, OR EQUAL, APPLIED AT A RATE OF 1,000 POUNDS PER ACRE. FERTILIZER SHALL BE AGRI-FORM 16-7-12, BEST 16-6-8, OR EQUAL, APPLIED AT A RATE OF 500 POUNDS PER ACRE. THE CONTRACTOR SHALL WATER SEEDED AREAS OR RESEED AS NECESSARY TO ENSURE SUFFICIENT PLANT DEVELOPMENT FOR EROSION CONTROL.
12. NO GRADING SHALL BE DONE UNTIL SITE- AND SEASON-SPECIFIC SOIL LOSS AND HOUSEKEEPING STORMWATER BMPs HAVE BEEN APPROVED BY THE INSPECTOR. THE CONTRACTOR SHOULD EMPLOY THE DESIGN BMPs AND ANY OTHERS NEEDED AS SITUATIONS ARISE. CONTRACTOR SHOULD CONDUCT SITE INSPECTIONS BEFORE, DURING AND AFTER EACH EXTENDED STORM EVENT TO IDENTIFY CONDITIONS THAT MAY CONTRIBUTE TO EROSION AND SEDIMENT PROBLEMS OR ANY OTHER POLLUTANT DISCHARGES. IF ADDITIONAL CONTROL MEASURES ARE NEEDED, CONTRACTOR SHOULD IMPLEMENT THEM IMMEDIATELY.

POLLUTION PREVENTION NOTES

IN ORDER TO MEET THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM FOR CONSTRUCTION, CONSTRUCTION CONTRACTORS SHALL INSTALL AND MAINTAIN APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS), AS SHOWN IN THE EROSION CONTROL PLAN AND IN ACCORDANCE WITH THE SWPPP (STORM WATER POLLUTION PREVENTION PLAN), ON ALL CONSTRUCTION PROJECTS. BMPS SHALL BE INSTALLED IN ACCORDANCE WITH INDUSTRY RECOMMENDED STANDARDS, AND/OR IN ACCORDANCE WITH ANY GENERAL CONSTRUCTION PERMIT ISSUED BY THE STATE FOR THE PROJECT TO PREVENT ANY DISCHARGES FROM THE PROJECT SITE OR INTO ANY STORM DRAIN FACILITIES. ALL SEDIMENTS, CONSTRUCTION MATERIALS, DEBRIS AND WASTES, AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, WIND, OR VEHICLE TRACKING. UNDER DIRECTION OF THE ENGINEER OF RECORD, EROSION AND/OR SEDIMENT CONTROL DEVICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES TO ENSURE EFFECTIVENESS.

BMP MAINTENANCE NOTES

1. FOLLOWING OWNER ACCEPTANCE OF CONSTRUCTION WORK, POST CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, INCLUDING BUT NOT LIMITED TO:
    1.1. ANNUAL INSPECTION, REPLACEMENT, AND/OR SEDIMENTATION REMOVAL OF VEGETATED SWALES, TREATMENT PONDS, AND OTHER SURFACE STORMWATER TREATMENT MEASURES AS REQUIRED WITH AN INCREASED FREQUENCY BASED ON SITE CONDITIONS.
    1.2. MAINTENANCE SERVICE AGREEMENT(S) OF STORMWATER TREATMENT VAULTS, INLETS, MANHOLES, AND OTHER DEVICES BASED ON MANUFACTURES' RECOMMENDATIONS AND FREQUENCY.
    1.3. ANNUAL INSPECTION OF PERMEABLE PAVEMENT AND REMOVAL OF SEDIMENT AS NEEDED.
    1.4. ANNUAL INSPECTION OF STORMWATER INLETS AND MAINTENANCE AS REQUIRED TO CLEAR GRATES AND INLETS OF DEBRIS.
    1.5. THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND WATER QUALITY MANAGEMENT PLAN (WQMP) MAY CONTAIN ADDITIONAL OR MORE STRINGENT MAINTENANCE REQUIREMENTS.
2. BMP DETAILS MAY BE FOUND IN APPENDIX H OF THE PROJECT SWPPP DOCUMENT. BMP DETAILS PER CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) AND ARE AVAILABLE AT www.casqa.org.
3. FOR PROJECTS GREATER THAN 1 ACRE: THE CONTRACTOR SHALL VERIFY THE STATUS OF THE SWPPP/NOI/WDID PRIOR TO EARTHMOVING ACTIVITIES. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED AND A NOTICE OF INTENT (NOI) SHALL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CAS000002) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE CONTRACTOR SHALL KEEP A COPY OF THE SWPPP ON SITE AND AVAILABLE FOR REVIEW.

AREA SUMMARY

TOTAL DISTURBED AREA = 0.03± ACRES

DEMOLITION NOTES

1. THE INTENT OF THE DEMOLITION PLAN IS TO DESCRIBE IN GENERAL THE DEMOLITION AREAS AFFECTED BY THE PROJECT CONSTRUCTION. IT IS NOT INTENDED AS A DETAILED DESCRIPTION OF EXISTING ITEMS OR ELEMENTS TO BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW ANY AVAILABLE RECORD DOCUMENTS TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND SHOULD INCLUDE THE REMOVAL OF ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL TO THE EXTENT THAT IT IS REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
2. REMOVE EXISTING BUILDINGS, FOUNDATIONS AND SERVICE UTILITIES AS INDICATED ON PLANS. CAP ALL UTILITIES AT APPROPRIATE POINTS. ALL EXISTING ELECTRICAL / TELEPHONE / CATV UTILITIES SHALL BE REMOVED AS INDICATED OR BACK TO THE POINT WHERE THE SPECIFIC UTILITY SYSTEM ENTERS THE WORK AREA. COORDINATE DEMOLITION OF ALL UTILITIES WITH THE OWNER. ALL UTILITIES CONNECTED TO EXISTING BUILDINGS TO REMAIN SHALL CONTINUE TO BE OPERATIONAL DURING THE DEMOLITION PROCESS. DOMESTIC AND FIRE SERVICE WATER AND NATURAL GAS SHALL BE REMOVED TO A POINT OUTSIDE THE PERIMETER OF PROPOSED NEW CONSTRUCTION TO EXISTING VALVES OR SIMILAR SHUT-OFF DEVICES. IF A SHUT-OFF DEVICE IS NOT REASONABLY ADJACENT TO THE PERIMETER OF THE PROPOSED NEW CONSTRUCTION, PROVIDE A SHUT-OFF DEVICE IN BELOW-GRADE YARD BOX. CONFIRM LOCATION OF NEW DEVICES WITH OWNER PRIOR TO INSTALLATION. SANITARY SEWER AND STORM DRAINAGE SHALL BE CAPPED TO A POINT OUTSIDE THE PERIMETER OF THE PROPOSED NEW CONSTRUCTION. OTHER UTILITIES NOT SPECIFICALLY IDENTIFIED IN THESE DOCUMENTS AND NOT ANTICIPATED FOR REUSE SHALL BE REMOVED IN ENTIRETY.
3. FOR ALL EXISTING MATERIALS THAT CAN BE SALVAGED, OWNER HAS FIRST RIGHT OF REFUSAL FOR REMOVED ITEMS THAT MAY HAVE RESIDUAL COMMERCIAL OR HISTORIC VALUE INCLUDING HARDWARE, GLASS, CORNER STONES, TIME CAPSULES, LIGHT STANDARDS, SIGNS, FENCING, BENCHES, WATER FOUNTAINS, TRASH CONTAINERS, ETC. SHALL REMAIN AS PROPERTY OF THE OWNER. ALL ITEMS TO BE SALVAGED FOR REUSE/REINSTALLATION MUST MEET CURRENT CODE REQUIREMENTS. COORDINATE ITEMS TO BE RETAINED WITH OWNER AND REMOVE FROM CONSTRUCTION SITE TO A LOCATION APPROVED BY OWNER. REMOVED MATERIALS, NOT INDICATED OR DIRECTED TO BE SALVAGED FOR THE OWNER'S BENEFIT ARE DEBRIS AND BECOME THE CONTRACTOR'S PROPERTY UPON REMOVAL.
4. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY SEARCH OF THE AVAILABLE RECORDS AND FIELD SURVEYS. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT, UTILITY COMPANIES, AND/OR FIELD VERIFY AND LOCATE ALL UTILITIES BEFORE PROCEEDING WITH WORK. THE CONTRACTOR IS ALSO REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. NOTIFY THE ENGINEER IF ADDITIONAL UTILITIES ARE LOCATED OR IF CONFLICTS ARE FOUND WITH EXISTING CONDITIONS.
5. ALL TREES TO BE REMOVED SHALL BE MARKED BY CONTRACTOR AND APPROVED FOR REMOVAL BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO REMOVING OR CUTTING TREE(S). EXISTING ROOTS SHALL BE GRINDED TO A DEPTH OF APPROXIMATELY 3-FEET. USE CAUTION WHILE GRINDING WHEN EXISTING UTILITIES ARE IN CLOSE PROXIMITY TO TREES. ALL TREES TO REMAIN WITHIN THE LIMIT OF WORK SHALL BE PROTECTED AND MAINTAINED PER SPECIFICATIONS AND DETAILS.
6. SAWCUT EXISTING CONCRETE AND ASPHALT TO AN EXISTING CONTROL JOINT WHERE POSSIBLE, AT MINIMUM TO A NEAT-STRAIGHT LINE. ALL DEBRIS SHALL BE HAULED OFFSITE TO A LEGAL DUMPING SITE OR SALVAGED FOR REUSE ON PROJECT AS NOTED.
7. WORK WITHIN CITY, COUNTY, OR STATE RIGHT-OF-WAY REQUIRES A SEPARATE ENCROACHMENT PERMIT WHICH THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING PRIOR TO STARTING WORK WITHIN RIGHT-OF-WAY.
8. CONTRACTOR TO COORDINATE UTILITY DEMOLITION WITH DRAINAGE AND UTILITY WORK SHOWN IN THIS PLAN SET. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED PER PROJECT SPECIFICATIONS.
9. EXISTING DRY UTILITIES SHOWN FOR DEMOLITION ARE SHOWN FOR COORDINATION ONLY. REFER TO OTHER DISCIPLINES FOR LIMITS AND DETAILS OF DEMOLITION.
10. THE CONTRACTOR SHALL RECYCLE CONSTRUCTION DEBRIS, ASPHALT, AND CONCRETE GENERATED FROM REMOVALS REQUIRED TO CONSTRUCT THE PROJECT. THE CONTRACTOR IS OBLIGATED, UNDER THIS CONTRACT, TO RECYCLE THE WASTE MATERIAL THROUGH AN APPROVED RECYCLING PLANT.
11. A LIST OF FACILITIES THAT ACCEPT CONSTRUCTION & DEMOLITION DEBRIS CAN BE FOUND ON THE CALRECYCLE WEBSITE AT: HTTPS://WWW.CALRECYCLE.CA.GOV/CONDEMO
12. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING BUILDING FINISHES DURING DEMOLITION. ANY FINISH THAT IS DAMAGED DURING DEMOLITION SHALL BE REPAIRED OR REPLACED IN-KIND OR BETTER.

GENERAL NOTES TO CONTRACTOR

1. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY OWNERS FOR LOCATION, REMOVAL, AND/OR RELOCATION OF ANY UTILITY SERVICES AFFECTED BY CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT UNDERGROUND OR OVERHEAD STRUCTURES WHETHER OR NOT THEY ARE SHOWN ON THESE DRAWINGS.
2. THE CONTRACTOR SHALL NOTIFY THE PROJECT INSPECTOR AND THE RESPECTIVE UTILITY OWNERS AND OTHER AGENCIES AT LEAST TWO WORKING DAYS PRIOR TO START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING, VERIFYING LOCATIONS (BOTH HORIZONTAL AND VERTICAL), AND MAINTAINING ALL EXISTING UNDERGROUND UTILITIES, BOTH SHOWN ON THE PLANS AND/OR NOT SHOWN ON THE PLANS DURING CONSTRUCTION. REPAIR DAMAGED UTILITIES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS BECAUSE OF LOCATIONS OF EXISTING FACILITIES AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE, OR NON-EXISTENCE OF ANY UTILITY AND/OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OF RECORD AND/OR NOT OF RECORD SHOWN OR NOT SHOWN AND ANY OTHER LINE(S) OR STRUCTURE(S) NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF, AND/OR DAMAGE TO THESE LINE(S) AND/OR STRUCTURE(S).
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SHORING AT PROPOSED BUILDING FOUNDATIONS, FOOTINGS, AND WALLS TO PROTECT EXISTING UTILITIES IN PLACE.
6. UNAUTHORIZED CHANGES AND USES - CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
7. THE CONTRACTOR SHALL MAINTAIN THE EXISTING ACCESSIBLE ROUTE CLEAR OR PROVIDE AN ALTERNATE ACCESSIBLE ROUTE OF TRAVEL DURING DEMOLITION AND/OR CONSTRUCTION.
8. THE CONTRACTOR SHALL MAINTAIN THE EXISTING FIRE EXITS AND STAIRS CLEAR AND USABLE OR PROVIDE ALTERNATE FIRE EXITS DURING DEMOLITION AND/OR CONSTRUCTION.

EARTHWORK NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE GRADING PLANS AND SOILS REPORT THOROUGHLY PRIOR TO SITE MOBILIZATION. IT IS ALSO THE GRADING CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CIVIL AND SOILS ENGINEERS IF ONSITE DISCREPANCIES ARE OBSERVED THAT WOULD AFFECT THE EARTHWORK QUANTITIES.
2. THE EXISTING TOPOGRAPHY AS DELINEATED ON THESE DRAWINGS SHALL BE UTILIZED AS THE BASIS FOR ALL EARTHWORK COMPUTATIONS. SAID TOPOGRAPHY SHALL BE PRESUMED TO BE ACCEPTABLE TO ALL INTERESTED PARTIES UNLESS A DEVIATION IS FOUND PRIOR TO THE START OF GRADING IN ANY SPECIFIC AREAS. ANY DEVIATION SO DETERMINED SHALL BE PROMPTLY TRANSMITTED TO ALL INTERESTED PARTIES.
3. THE CONTRACTOR IS REQUIRED TO ESTIMATE THE QUANTITIES OF GRADING WORK TO BE DONE AND INCLUDE ALL COSTS THEREFROM WITH HIS BID, AS NO ADDITIONAL ALLOWANCE WILL BE MADE WITHOUT PRIOR CONSENT FROM THE OWNER.
4. OVER-EXCAVATION AND/OR EXCESS BACKFILLING OR DUPLICATION OF GRADING ACTIVITIES IS NOT A BASIS FOR ADDITIONAL COMPENSATION. THIS ALSO APPLIES WHERE MATERIAL IS TO BE REMOVED AND REPLACED TO REDUCE MOISTURE CONTENT.
5. OFF-SITE DISPOSAL OF EXCAVATION MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID. THE CONTRACTOR SHALL HOLD THE OWNER AND ENGINEER HARMLESS AS A RESULT OF ANY CLAIMS ARISING FROM THE ACTIONS ENROUTE OR AWAY FROM THE SITE.
6. EARTH VOLUMES SHOWN HEREON ARE ESTIMATES BASED UPON THE GEOTECHNICAL ANALYSIS PERFORMED BY THE NAMED SOILS ENGINEER AND TOPOGRAPHIC SURVEY OF THE EXISTING GROUND SURFACE AT THE TIME OF PLAN PREPARATION. EARTHWORK VOLUMES ARE COMPUTED BY METHODS COMMONLY USED IN STANDARD ENGINEERING PRACTICE, AND ARE INTENDED FOR USE IN ESTABLISHING GOVERNING AGENCY FEES. ACTUAL FIELD CONDITIONS MAY VARY FROM OBSERVED OR MEASURED CONDITIONS AT THE TIME OF PLAN PREPARATION. EARTHWORK QUANTITIES MAY VARY AS A RESULT.
7. ANY EXPORT OR IMPORT REQUIRED TO BALANCE THE SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. PAVEMENT AND SUBGRADE RECOMMENDATIONS RELATED TO OVER-EXCAVATION, PAVEMENT SUBGRADE, ETC., PER GEOTECHNICAL REPORT.

GEOTECHNICAL INFORMATION

FOR SITE PREPARATION, OVEREXCAVATION, FOUNDATION RECOMMENDATIONS, PAVEMENT, SUBGRADE, AND GRADATION REQUIREMENTS SEE GEOTECHNICAL INVESTIGATION REPORT ENTITLED:

"GEOTECHNICAL EXPLORATION REPORT
MALIBU MIDDLE AND HIGH SCHOOL CAMPUS
PHASE II IMPROVEMENTS
PROPOSED AQUATIC CENTER, MIDDLE SCHOOL BUILDING, AND GYMNASIUM
30215 MORNING VIEW DRIVE
MALIBU, LOS ANGELES COUNTY, CALIFORNIA "

PREPARED BY: LEIGHTON CONSULTING, INC.
2600 MICHELSON DRIVE, SUITE 400
IRVINE, CALIFORNIA 92612

PROJECT NO: 036.0000025785

DATED: MAY 23, 2025

BENCHMARK

US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM

DATUM STATEMENT

STATE PLANE COORDINATES, CALIFORNIA SYSTEM ZONE 5 BASED ON NAD83 (CORS96) (EPOCH: 2002.0000) REFERENCE FRAME. THE HORIZONTAL COORDINATE VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS THAT WERE POST-PROCESSED USING ON-LINE POSITIONING USER SERVICE (OPUS) PROVIDED BY THE US NATIONAL GEODETIC SURVEY.

VERTICAL VALUES ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 USING THE FOLLOWING US NATIONAL GEODETIC SURVEY BENCHMARKS: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722. SEE SHEET 1 OF SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT" JOB NO. 1SAN880102 TASK 100 FOR THE BENCHMARK DESCRIPTION.

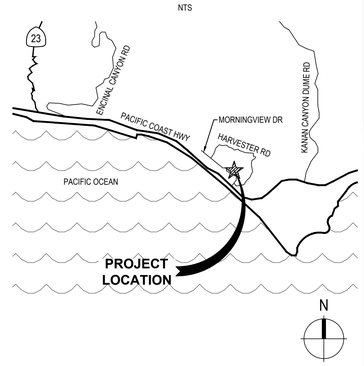
BASIS OF BEARINGS

THE BOUNDARY LINES SHOWN HEREON ARE BASED UPON RECOVERED CITY, COUNTY AND/OR PRIVATE SURVEY MONUMENTS. SEE PSOMAS MAP "BOUNDARY SURVEY"

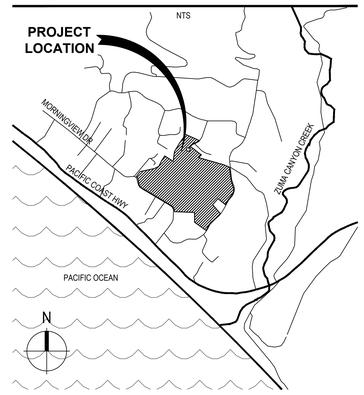
LEGAL DESCRIPTION

PARCELS 10, 11 AND 12 IN BLOCK 5 AS SHOWN ON THE RECORD OF SURVEY FILE DIN BOOK 56 PAGES 14 TO 17 INCLUSIVE OF RECORDS OF SURVEY, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

VICINITY MAP



LOCATION MAP



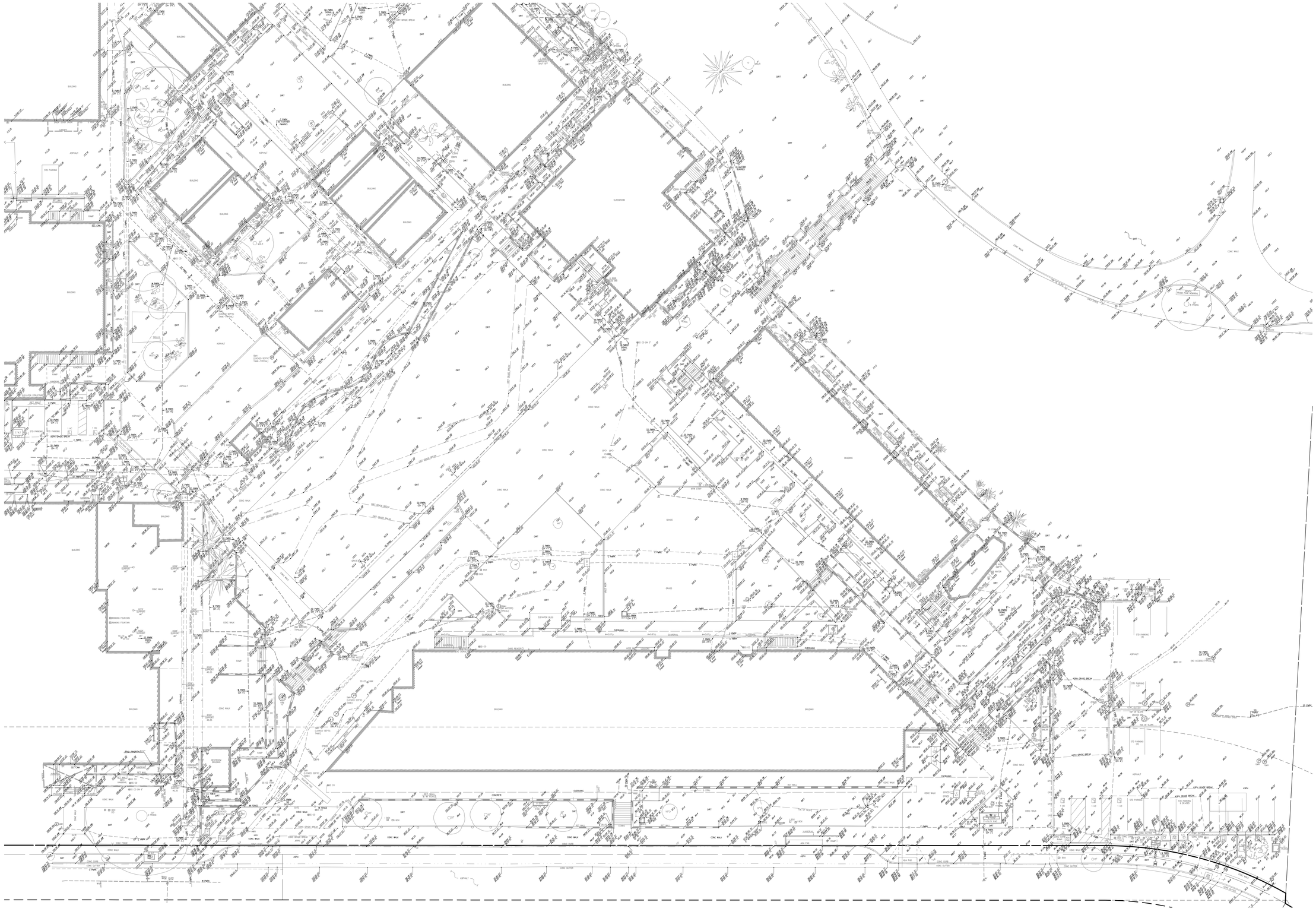
CIVIL SHEET INDEX

C0.01	CIVIL NOTES
C0.02	EXISTING CONDITIONS
C1.01	DEMOLITION PLAN
C2.01	GRADING PLAN
C5.01	HORIZONTAL CONTROL, PAVING, STRIPING AND SIGNAGE PLAN
C7.01	DETAILS

Received
10/7/2025
Planning Dept.

DIG ALERT NOTICE

PURSUANT TO THE CALIFORNIA GOVERNMENT CODE S



N

0 10 20 40

EXISTING CONDITIONS 1" = 20' 05

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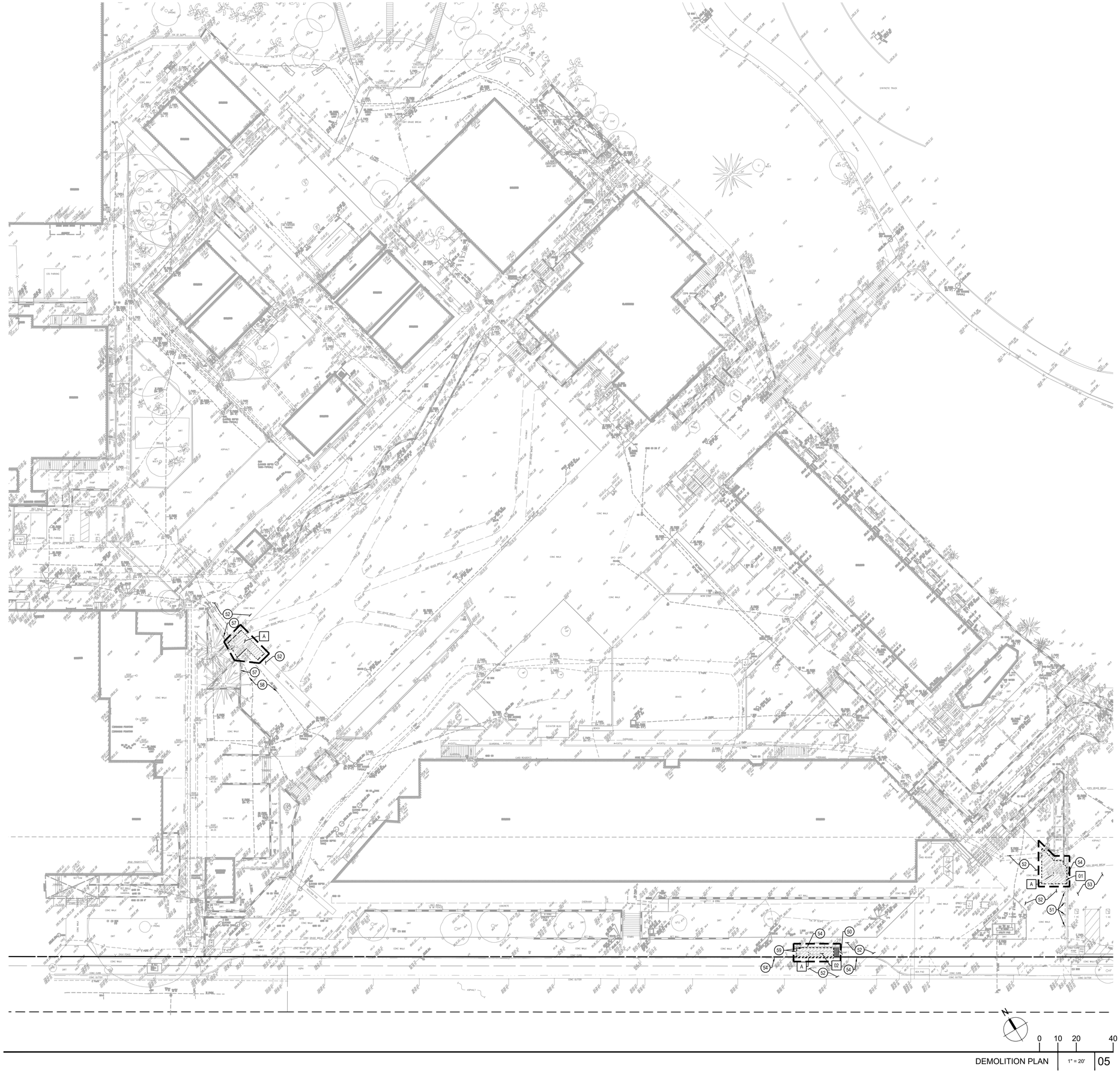
Submittal	Date
DSA SUBMITTAL	06/20/2025
DSA SUBMITTAL V2	09/22/2025

Revision	Date

Job Number	31722
Checked By	RR
Scale	AS NOTED

EXISTING CONDITIONS

C0.02



DEMOLITION PLAN 1" = 20' 05

DEMOLITION LEGEND

LABEL	DESCRIPTION
A	REMOVE (E) CONCRETE PAVEMENT/SIDEWALK, SEE DEMOLITION NOTE 10 SHEET C0.01.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION NOTE 6 AND 10 SHEET C0.01.
	APPROXIMATE LIMIT OF WORK LINE.

DEMOLITION KEYNOTES

KEY NOTE	DESCRIPTION
01	SALVAGE (E) LIGHT STANDARD AND REMOVE FOOTING. SEE ELECTRICAL PLANS FOR IMPROVEMENTS.
02	REMOVE (E) TRUNCATED DOMES.

PROTECTION KEYNOTES

KEY NOTE	DESCRIPTION
50	PROTECT (E) CURB RAMP PER A#03-113456.
51	PROTECT (E) BOLLARD AND FOOTING PER A#03-113456.
52	PROTECT (E) CONCRETE PAVEMENT/SIDEWALK.
53	PROTECT (E) AC PAVEMENT.
54	PROTECT (E) CURB.
57	PROTECT (E) RETAINING WALL PER A#30457.
58	PROTECT (E) STORM DRAIN LINES AND FACILITIES.
59	PROTECT (E) HANDRAILS PER A#03-113456.

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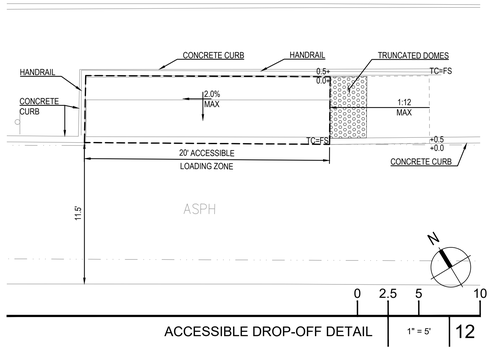
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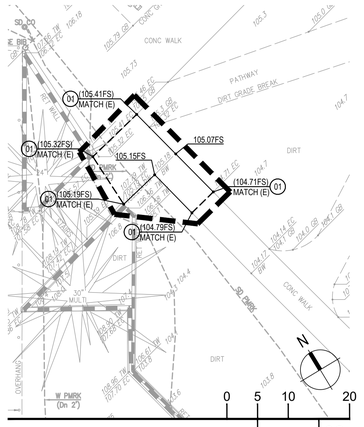
Job Number	31722
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Scale	AS NOTED

DEMOLITION PLAN

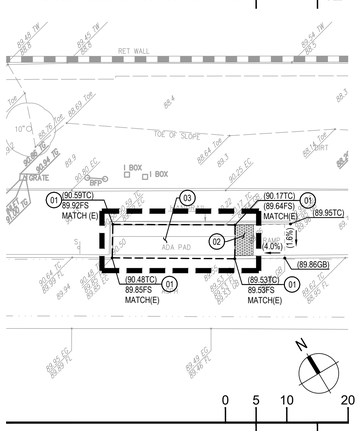
C1.01



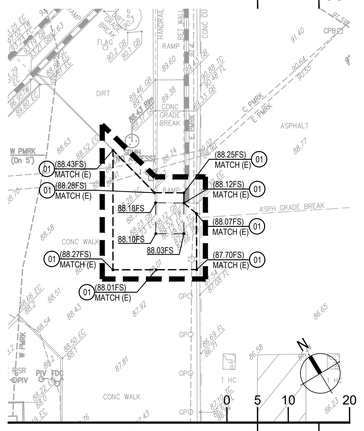
ACCESSIBLE DROP-OFF DETAIL | 1" = 5' | 12



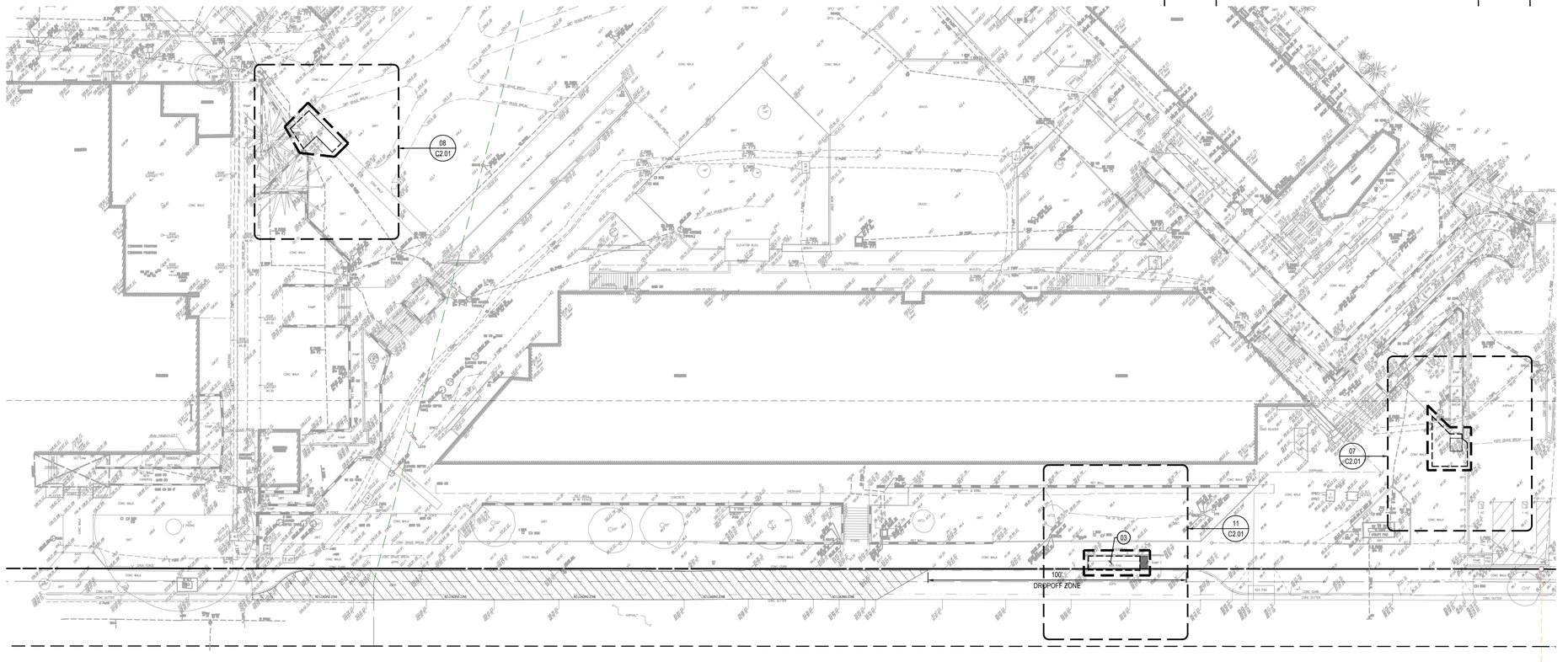
GRADING ENLARGEMENT | 1" = 10' | 08



GRADING ENLARGEMENT | 1" = 10' | 11



GRADING ENLARGEMENT | 1" = 10' | 07



GRADING PLAN | 1" = 20' | 05

LEGEND

SYMBOL	DESCRIPTION
PA	PLANTING AREA SEE LANDSCAPE PLAN DETAILS FOR GRADES ADJACENT TO HARDSCAPE
	APPROXIMATE LIMIT OF WORK
GB	GRADE BREAK
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION PLAN
	FLOWLINE
TOS	TOP OF SLOPE
TOE	TOE OF SLOPE
	OVERLAND RELEASE

GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
01	JOIN EXISTING CONCRETE PAVEMENT AND MATCH EXISTING GRADE.
02	INSTALL TRUNCATED DOMES PER DETAIL 02 ON SHEET C7.01.
03	INSTALL ACCESSIBLE PASSENGER DROP-OFF PER DETAIL 12 ON SHEET C2.01.

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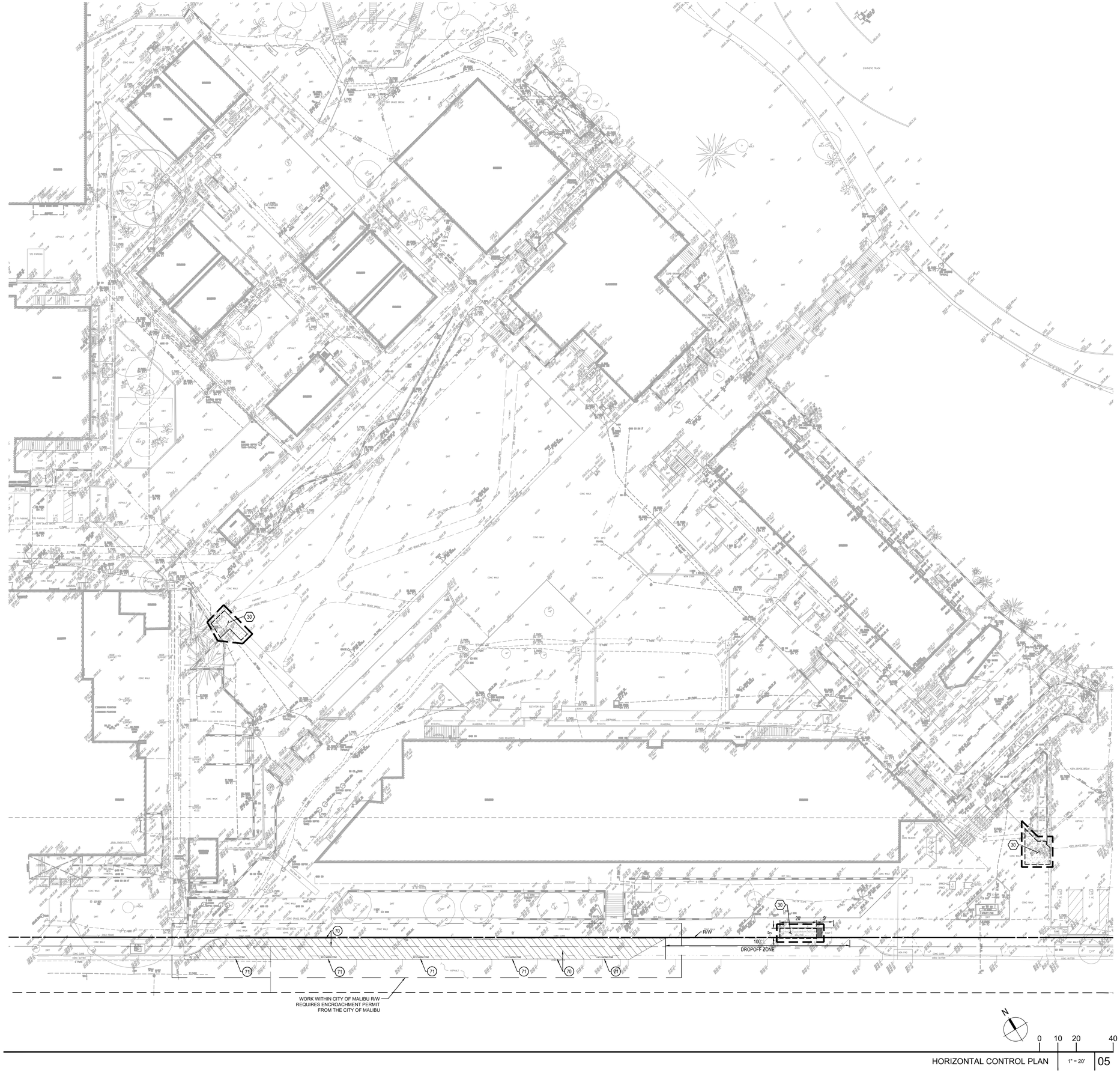
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Scale	AS NOTED

GRADING PLAN

C2.01



HORIZONTAL CONTROL PLAN | 1" = 20' | 05

PAVING NOTES:

1. LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS TO MATCH EXISTING CONDITIONS.

PAVING LEGEND

SYMBOL	DESCRIPTION
30	PEDESTRIAN CONCRETE PAVEMENT 5 1/2" PCC OVER 4" CL II AB PER DETAIL 01 SHEET C7.01.

CONSTRUCTION NOTES:

KEY NOTE	DESCRIPTION
70	DROP-OFF ZONE STRIPING. 4" WIDE YELLOW STRIPE AT 45° ANGLE AT 3' SPACING OC. PAINT WORDS "NO PARKING" IN 12" HIGH LETTERS, WHERE INDICATED.
71	4" WIDE YELLOW STRIPING PAINT WORDS "NO LOADING ZONE" IN 12" HIGH LETTERS, WHERE INDICATED.

STRIPING NOTES

1. ALL EXISTING STRIPING AND MARKINGS TO REMAIN UNLESS OTHERWISE NOTED. CONFLICTS BETWEEN EXISTING AND PROPOSED SHALL BE RESOLVED BY THE ENGINEER.
2. REMOVAL OF EXISTING STRIPING AND PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY WET SANDBLASTING OR OTHER APPROVED GRINDING METHOD PRIOR TO INSTALLATION OF NEW STRIPING. ALL CONFLICTING STRIPING, PAVEMENT MARKINGS, AND RAISED PAVEMENT MARKERS SHALL BE REMOVED.
3. PAVEMENT THAT IS DAMAGED DUE TO THE REMOVAL OF MARKERS OR STRIPING SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER.

HORIZONTAL CONTROL NOTES:

THIS HORIZONTAL CONTROL PLAN ESTABLISHES THE FOLLOWING TO BE USED AS BASE CONTROL FOR CONSTRUCTION STAKING.

1. PRIOR TO STAKING ANY BUILDING STRUCTURE, SURVEYOR SHALL VERIFY THAT THE GRIDS SHOWN ON THIS PLAN MATCHES THE ARCHITECTURAL & STRUCTURAL PLANS.
2. TWO COORDINATES ARE PROVIDED TO ESTABLISH THE BUILDING GRID. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR FINAL BUILDING DIMENSIONS.
3. IF ANY DISCREPANCIES ARE FOUND DURING CONSTRUCTION STAKING NOTIFY CIVIL ENGINEER IMMEDIATELY.
4. SEE LANDSCAPE PLANS FOR DETAILED HARDSCAPE DIMENSIONS.
5. SEE LANDSCAPE PLANS FOR LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
6. SEE PAVING AND STRIPING PLANS FOR LOCATION AND TYPE OF PAVING AND STRIPING.

BENCHMARK

-SEE SHEET C0.01 FOR BENCHMARK.

BASIS OF BEARINGS

-SEE SHEET C0.01 FOR BASIS OF BEARINGS.

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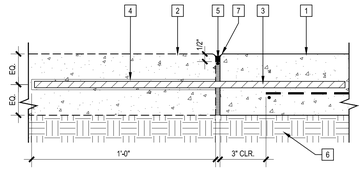
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HORIZONTAL CONTROL & PAVING PLAN

C5.01



1 NEW CONCRETE PAVING AND REINFORCEMENT; REFER TO DTL. 01/-

2 EXISTING CONCRETE PAVING

3 1/2" X 24" SMOOTH STEEL DOWEL AT 18" O.C.

4 5/8" SLIP SLEEVE DRILLED INTO EXISTING CONCRETE PAVING; DOWEL TO HAVE FREE MOVEMENT ON THIS SIDE

5 JOINT SEALANT WITH BACKER ROD

6 BASE MATERIAL AND COMPACTED SUBGRADE; REFER TO DTL. 01/-

7 1/8" RADIUS; AT NEW CONCRETE PAVING

NOTES:

A. PROVIDE AT ALL LOCATIONS WHERE NEW CONCRETE JOINS EXISTING CONCRETE.

B. PROVIDE CLEAN SAWCUT AT EXISTING PAVING. EXTEND PROPOSED PAVING AS REQUIRED TO CLOSEST ADJACENT JOINT.

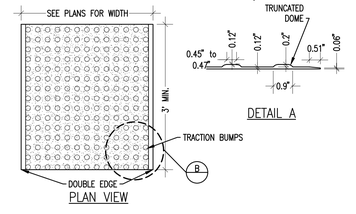
C. SEE PLANS FOR LIMIT OF DEMOLITION.

D. NATIVE OR FILL SOIL SUPPORTING EXTERIOR NON-STRUCTURAL FLATWORK AND UNPAVED LANDSCAPING AREAS ARE EXEMPT FROM SPECIAL INSPECTION AND TESTING.

E. CONCRETE BATCH PLANT INSPECTION IS NOT REQUIRED.

CONCRETE PAVING TIE-IN

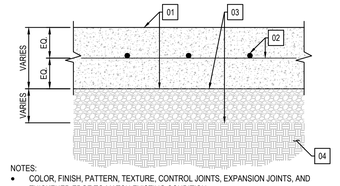
3"=1'-0" - 03



NOTE:
THE DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH AND DEPTH OF THE CURB RAMP AND SHALL BE YELLOW COLOR AND MEET THE CONFIGURATION AND DIMENSION SHOWN. MANUFACTURER SHALL BE VANGUARD OR EQUAL. MAT SHALL BE FLUSH WITH ADJACENT CONCRETE WALK. RECESS CONCRETE WALK AS REQUIRED.

DETECTABLE WARNING MAT

NTS 02



NOTES:
- COLOR, FINISH, PATTERN, TEXTURE, CONTROL JOINTS, EXPANSION JOINTS, AND THICKENED EDGE TO MATCH EXISTING CONDITION.
- CONCRETE DOWELING PER DETAIL 03 SHEET C7.01.
- DO NOT ALLOW CONCRETE OVER-POUR INTO ADJACENT PLANTERS.
- MINIMUM CONCRETE STRENGTH PER SPECIFICATION SECTION 321313.

*SUBGRADE NOTES:
- PLACE AT LEAST 2 FEET OF RELATIVELY NON-EXPANSION FILL (EI < 20) UNDER ALL SLABS-ON-GRADE AND NEARBY FLATWORK. SLAB-ON-SLAB SUBGRADE SOIL SHALL BE MOISTURE CONDITIONED TO 3%–5% ABOVE OPTIMUM MOISTURE CONTENT, DOWN TO 18 INCHES DEEP, AND COMPACTED TO 90% OF THE MODIFIED PROCTOR (ASTM D1557) LAB MAX DENSITY BEFORE INSTALLING VAPOR BARRIERS, STEEL, OR CONCRETE.

*THE PROJECT GEOTECHNICAL REPORT INCLUDING ALL AMENDMENTS ARE TO SUPERSEDE THE PROVIDED SUBGRADE NOTES WHERE ANY DISCREPANCY OCCURS.

01 CONCRETE PAVING 6" THICK

02 #4 @ 12" OC EACH WAY

03 COMPACTED BASE COURSE 4" THICK

04 SUBGRADE PREPARATION PER NOTES ABOVE

CONCRETE PAVEMENT

NTS 01

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DETAILS

C7.01

ABBREVIATIONS

AB	AGGREGATE BASE	MIN	MINIMUM
AC	ASPHALT CONCRETE PAVEMENT	MOC	MIDDLE OF CURVATURE
AE	ACCESS EASEMENT	N	NORTH
ASPH	ASPHALT PAVING	NG	NATURAL GRADE
BC	BEGIN CURVATURE	NTS	NOT TO SCALE
BCR	BEGIN CURB RETURN	OC	ON CENTER
BFP	BACK FLOW PREVENTER	(P)	PROPOSED, NEW
BI	BOX INLET	PA	PLANTING AREA
BM	BENCHMARK	PBC	PULL BOX CABLE
BOP	BOTTOM OF PIPE	PBE	PULL BOX ELECTRIC
BOR	BOTTOM OF RAMP	PBT	PULL BOX TELEPHONE
BS	BOTTOM OF STAIRS	PBW	PULL BOX WATER
BVC	BEGIN VERTICAL CURVATURE	PCC	POINT OF COMPOUND CURVATURE
BW	BOTTOM OF WALL	PE	PEDESTRIAN EASEMENT
C&G	CURB AND GUTTER	PI	POINT OF INTERSECTION
CL,CL	CENTER LINE	PIVC	POINT OF INTERSECTION VERTICAL CURVATURE
CB	CATCH BASIN	PL	PROPERTY LINE
CONST	CONSTRUCT	POC	POINT OF CONNECTION
CR	CURB RETURN	PP	POWER POLE
CT	COURT	PRC	POINT OF REVERSE CURVATURE
CUL	CULVERT	PVC	POLYVINYL CHLORIDE
DI	DROP INLET	PVMT	PAVEMENT
DIP	DUCTILE IRON PIPE	R	RADIUS
DW	DOMESTIC WATER	RCP	REINFORCED CONCRETE PIPE
DWY	DRIVEWAY	RIM	TOP RIM OF STRUCTURE
DE	DRAINAGE EASEMENT	ROW	HIGHWAY EASEMENT
DR	DRIVE	RT	RIGHT
(E)	EXISTING	RW	RECLAIMED WATER
E	EAST	R/W	RIGHT OF WAY
EC	END CURVATURE	S	SOUTH OR SLOPE
ECR	END CURB RETURN	SBE	SETBACK EASEMENT
EG	EXISTING GRADE	SCO	SANITARY SEWER CLEANOUT
ELEV	ELEVATION	SD	STORM DRAIN
EOC	EDGE OF CONCRETE	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
EQ	EQUAL	SHT	SHEET
ESMT	EASEMENT	STA	STATION
EVC	END OF VERTICAL CURVATURE	SMH	SANITARY SEWER MANHOLE
FF	FINISHED FLOOR	SS	SANITARY SEWER
FFE	FINISHED FLOOR ELEVATION	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FG	FINISHED GRADE	SW	SIDEWALK
FH	FIRE HYDRANT	T	TANGENT
FL	FLOWLINE	TB	TOP OF BERM
FS	FINISHED SURFACE	TBC	TOP BACK OF CURB
FW	FIRE PROTECTION SERVICE WATER	TBW	TOP BACK OF WALK
GB	GRADE BREAK	TC	TOP OF CURB
GFL	GUTTER FLOWLINE	TF	TOP OF FOOTING
GSL	LIMITS OF GRAVITY SEWER	TG	TOP OF GRATE
GR	GRATE	TOE	TOE OF SLOPE
GV	GAS VALVE	TOP	TOP OF PIPE
HB	HOSE BIB	TOR	TOP OF RAMP
HP	HIGH POINT	TOS	TOP OF SLOPE
ICV	IRRIGATION CONTROL VALVE	TP	TOP OF PLANTER
INTX	POINT OF INTERSECTION	TS	TOP OF STAIRS
INV	INVERT	TW	TOP OF WALL
JP	JOINT POLE	TYP	TYPICAL
LE	LANDSCAPE EASEMENT	TP	TELEPHONE POLE
LF	LINEAR FEET	VC	VERTICAL CURVATURE
LIP	LIP OF GUTTER	W	WEST
LP	LOW POINT	WM	WATER MAIN
LT	LEFT	WV	WATER VALVE
MAX	MAXIMUM		
MH	MANHOLE		

LEGEND

SYMBOL	DESCRIPTION
RD	ROOF DRAIN POC 5' FROM BUILDING
G	GAS POC 5' FROM BUILDING
F	FIRE WATER POC 5' FROM BUILDING
W	DOMESTIC WATER POC 5' FROM BUILDING
SS	SANITARY SEWER POC 5' FROM BUILDING
D	STORM DRAIN MANHOLE
S	SANITARY SEWER MANHOLE
	DRAIN INLET
AD	AREA DRAIN
	TRENCH DRAIN
	CLEANOUT
	BLOW OFF
	FIRE HYDRANT
	VALVE
	POST INDICATOR VALVE (PIV)/CHECK VALVE (CHK VLV)/FIRE DEPARTMENT CONNECTION (FDC)
	CHECK VALVE (CHK VLV)
	FIRE DEPARTMENT CONNECTION (FDC)
	DOUBLE DETECTOR CHECK (DBL CHK)
	REDUCED PRESSURE (BFP)
	POST INDICATOR VALVE (PIV)
	THRUST BLOCK
	BENDS, TEE AND CROSS
	WATER METER

LINE TYPE	DESCRIPTION
	APPROXIMATE PROJECT LIMITS
	RIGHT OF WAY/ PROPERTY LINE
	FENCE
	REMOVE EXISTING UTILITY
SS	EXISTING SEWER LINE
W	EXISTING WATER LINE
SD	EXISTING STORM DRAIN LINE
FW	EXISTING DEDICATED PRIVATE FIRE SERVICE
G	EXISTING NATURAL GAS SERVICE
E	EXISTING ELECTRICAL LINE / CONDUIT
T	EXISTING TELECOMMUNICATIONS LINE / CONDUIT
XXLF 6"SS S=X.XXX	SANITARY SEWER LINE
XXLF 6"DW PVC	DOMESTIC WATER LINE
XXLF 6"SD S=X.XXX	STORM DRAIN LINE (<8" DIAMETER)
XXLF 12"SD S=X.XXX	STORM DRAIN LINE (>8" DIAMETER)
	PERFORATED STORM DRAIN LINE
XXLF 6"FW PVC	DEDICATED PRIVATE FIRE SERVICE
XXLF GAS PVC	NATURAL GAS LINE
GB	GRADE BREAK LINE
	FLOW LINE
	DAYLIGHT LINE

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN PLACE AT ALL TIMES DURING CONSTRUCTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
3. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
5. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
6. IN AREAS WHERE SOIL IS EXPOSED, PROMPT REPLANTING WITH NATIVE COMPATIBLE, DROUGHT-RESISTANT VEGETATION SHALL BE PERFORMED. NO AREAS WILL BE LEFT EXPOSED OVER THE WINTER SEASON.
7. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE.
8. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR MORE OFTEN AS NECESSARY.
9. CONTRACTOR SHALL PLACE GRAVEL/SAND BAGS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL/SAND BAGS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
10. CONTRACTOR SHALL IMPLEMENT HOUSEKEEPING PRACTICES AS FOLLOWS:
    A. SOLID WASTE MANAGEMENT:
    PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS. ARRANGE FOR REGULAR REMOVAL AND DISPOSAL. CLEAR SITE OF TRASH INCLUDING ORGANIC DEBRIS. PACKAGING MATERIALS, SCRAP OR SURPLUS BUILDING MATERIALS AND DOMESTIC WASTE DAILY.
    B. MATERIAL DELIVERY AND STORAGE:
    PROVIDE A DESIGNATED MATERIAL STORAGE AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. STORE MATERIAL ON PALLETS AND PROVIDE COVERING FOR SOLUBLE MATERIALS. RELOCATE STORAGE AREA INTO BUILDING SHELL WHEN POSSIBLE. INSPECT AREA WEEKLY.
    C. CONCRETE WASTE:
    PROVIDE A DESIGNATED AREA FOR A TEMPORARY PIT TO BE USED FOR CONCRETE TRUCK WASH-OUT. CONCRETE WASHOUT CANNOT BE WITHIN 50' MINIMUM OF DRAIN INLETS. DISPOSE OF HARDENED CONCRETE OFFSITE. AT NO TIME SHALL A CONCRETE TRUCK DUMP ITS WASTE AND CLEAN ITS TRUCK INTO THE STORM DRAINS VIA CURB AND GUTTER. INSPECT DAILY TO CONTROL RUNOFF, AND WEEKLY FOR REMOVAL OF HARDENED CONCRETE.
    D. PAINT AND PAINTING SUPPLIES:
    PROVIDE INSTRUCTION TO EMPLOYEES AND SUBCONTRACTORS REGARDING REDUCTION OF POLLUTANTS INCLUDING MATERIAL STORAGE, USE, AND CLEAN UP. INSPECT SITE WEEKLY FOR EVIDENCE OF IMPROPER DISPOSAL.
    E. VEHICLE FUELING, MAINTENANCE AND CLEANING:
    PROVIDE A DESIGNATED FUELING AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. DO NOT ALLOW MOBILE FUELING OF EQUIPMENT. PROVIDE EQUIPMENT WITH DRIP PANS. RESTRICT ONSITE MAINTENANCE AND CLEANING OF EQUIPMENT TO A MINIMUM. INSPECT AREA WEEKLY.
    F. HAZARDOUS WASTE MANAGEMENT:
    PREVENT THE DISCHARGE OF POLLUTANTS FROM HAZARDOUS WASTES TO THE DRAINAGE SYSTEM THROUGH PROPER MATERIAL USE. WASTE DISPOSAL AND TRAINING OF EMPLOYEES. HAZARDOUS WASTE PRODUCTS COMMONLY FOUND ON-SITE INCLUDE BUT ARE NOT LIMITED TO PAINTS & SOLVENTS, PETROLEUM PRODUCTS, FERTILIZERS, HERBICIDES & PESTICIDES, SOIL STABILIZERS, STABILIZATION PRODUCTS, ASPHALT PRODUCTS AND CONCRETE CURING PRODUCTS.
11. CONTRACTOR SHALL HYDROSEED ALL GRADED SLOPES. NATIVE SEED MIX SHALL BE 20% LANA PUBESCENT WHEAT GRASS, 40% BLANDO BROME, AND 40% ANNUAL RYE GRASS AND SHALL BE APPLIED AT A RATE OF 200 POUNDS PER ACRE. SOIL BINDING AGENT SHALL BE VERDYOL, SENTINEL, OR EQUAL, APPLIED AT A RATE OF 110 POUNDS PER ACRE. MULCH SHALL BE SILVER-FIBER, CONWED, OR EQUAL, APPLIED AT A RATE OF 1,000 POUNDS PER ACRE. FERTILIZER SHALL BE AGRI-FORM 16-7-12, BEST 16-6-8, OR EQUAL, APPLIED AT A RATE OF 500 POUNDS PER ACRE. THE CONTRACTOR SHALL WATER SEEDED AREAS OR RESEED AS NECESSARY TO ENSURE SUFFICIENT PLANT DEVELOPMENT FOR EROSION CONTROL.
12. NO GRADING SHALL BE DONE UNTIL SITE- AND SEASON-SPECIFIC SOIL LOSS AND HOUSEKEEPING STORMWATER BMPs HAVE BEEN APPROVED BY THE INSPECTOR. THE CONTRACTOR SHOULD EMPLOY THE DESIGN BMPs AND ANY OTHERS NEEDED AS SITUATIONS ARISE. CONTRACTOR SHOULD CONDUCT SITE INSPECTIONS BEFORE, DURING AND AFTER EACH EXTENDED STORM EVENT TO IDENTIFY CONDITIONS THAT MAY CONTRIBUTE TO EROSION AND SEDIMENT PROBLEMS OR ANY OTHER POLLUTANT DISCHARGES. IF ADDITIONAL CONTROL MEASURES ARE NEEDED, CONTRACTOR SHOULD IMPLEMENT THEM IMMEDIATELY.

POLLUTION PREVENTION NOTES

IN ORDER TO MEET THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM FOR CONSTRUCTION, CONSTRUCTION CONTRACTORS SHALL INSTALL AND MAINTAIN APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS), AS SHOWN IN THE EROSION CONTROL PLAN AND IN ACCORDANCE WITH THE SWPPP (STORM WATER POLLUTION PREVENTION PLAN), ON ALL CONSTRUCTION PROJECTS. BMPS SHALL BE INSTALLED IN ACCORDANCE WITH INDUSTRY RECOMMENDED STANDARDS, AND/OR IN ACCORDANCE WITH ANY GENERAL CONSTRUCTION PERMIT ISSUED BY THE STATE FOR THE PROJECT TO PREVENT ANY DISCHARGES FROM THE PROJECT SITE OR INTO ANY STORM DRAIN FACILITIES. ALL SEDIMENTS, CONSTRUCTION MATERIALS, DEBRIS AND WASTES, AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, WIND, OR VEHICLE TRACKING. UNDER DIRECTION OF THE ENGINEER OF RECORD, EROSION AND/OR SEDIMENT CONTROL DEVICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES TO ENSURE EFFECTIVENESS.

BMP MAINTENANCE NOTES

1. FOLLOWING OWNER ACCEPTANCE OF CONSTRUCTION WORK, POST CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, INCLUDING BUT NOT LIMITED TO:
    1.1. ANNUAL INSPECTION, REPLACEMENT, AND/OR SEDIMENTATION REMOVAL OF VEGETATED SWALES, TREATMENT PONDS, AND OTHER SURFACE STORMWATER TREATMENT MEASURES AS REQUIRED WITH AN INCREASED FREQUENCY BASED ON SITE CONDITIONS.
    1.2. MAINTENANCE SERVICE AGREEMENT(S) OF STORMWATER TREATMENT VAULTS, INLETS, MANHOLES, AND OTHER DEVICES BASED ON MANUFACTURES' RECOMMENDATIONS AND FREQUENCY.
    1.3. ANNUAL INSPECTION OF PERMEABLE PAVEMENT AND REMOVAL OF SEDIMENT AS NEEDED.
    1.4. ANNUAL INSPECTION OF STORMWATER INLETS AND MAINTENANCE AS REQUIRED TO CLEAR GRATES AND INLETS OF DEBRIS.
    1.5. THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND WATER QUALITY MANAGEMENT PLAN (WQMP) MAY CONTAIN ADDITIONAL OR MORE STRINGENT MAINTENANCE REQUIREMENTS.
2. BMP DETAILS MAY BE FOUND IN APPENDIX H OF THE PROJECT SWPPP DOCUMENT. BMP DETAILS PER CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) AND ARE AVAILABLE AT www.casqa.org.
3. FOR PROJECTS GREATER THAN 1 ACRE: THE CONTRACTOR SHALL VERIFY THE STATUS OF THE SWPPP/NOI/WDID PRIOR TO EARTHMOVING ACTIVITIES. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED AND A NOTICE OF INTENT (NOI) SHALL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CAS000002) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE CONTRACTOR SHALL KEEP A COPY OF THE SWPPP ON SITE AND AVAILABLE FOR REVIEW.

AREA SUMMARY

TOTAL DISTURBED AREA = X.XXx ACRES

DEMOLITION NOTES

1. THE INTENT OF THE DEMOLITION PLAN IS TO DESCRIBE IN GENERAL THE DEMOLITION AREAS AFFECTED BY THE PROJECT CONSTRUCTION. IT IS NOT INTENDED AS A DETAILED DESCRIPTION OF EXISTING ITEMS OR ELEMENTS TO BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW ANY AVAILABLE RECORD DOCUMENTS TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND SHOULD INCLUDE THE REMOVAL OF ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL TO THE EXTENT THAT IT IS REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
2. REMOVE EXISTING BUILDINGS, FOUNDATIONS AND SERVICE UTILITIES AS INDICATED ON PLANS. CAP ALL UTILITIES AT APPROPRIATE POINTS. ALL EXISTING ELECTRICAL / TELEPHONE / CATV UTILITIES SHALL BE REMOVED AS INDICATED OR BACK TO THE POINT WHERE THE SPECIFIC UTILITY SYSTEM ENTERS THE WORK AREA. COORDINATE DEMOLITION OF ALL UTILITIES WITH THE OWNER. ALL UTILITIES CONNECTED TO EXISTING BUILDINGS TO REMAIN SHALL CONTINUE TO BE OPERATIONAL DURING THE DEMOLITION PROCESS. DOMESTIC AND FIRE SERVICE WATER AND NATURAL GAS SHALL BE REMOVED TO A POINT OUTSIDE THE PERIMETER OF PROPOSED NEW CONSTRUCTION TO EXISTING VALVES OR SIMILAR SHUT-OFF DEVICES. IF A SHUT-OFF DEVICE IS NOT REASONABLY ADJACENT TO THE PERIMETER OF THE PROPOSED NEW CONSTRUCTION, PROVIDE A SHUT-OFF DEVICE IN BELOW-GRADE YARD BOX. CONFIRM LOCATION OF NEW DEVICES WITH OWNER PRIOR TO INSTALLATION. SANITARY SEWER AND STORM DRAINAGE SHALL BE CAPPED TO A POINT OUTSIDE THE PERIMETER OF THE PROPOSED NEW CONSTRUCTION. OTHER UTILITIES NOT SPECIFICALLY IDENTIFIED IN THESE DOCUMENTS AND NOT ANTICIPATED FOR REUSE SHALL BE REMOVED IN ENTIRETY.
3. FOR ALL EXISTING MATERIALS THAT CAN BE SALVAGED, OWNER HAS FIRST RIGHT OF REFUSAL FOR REMOVED ITEMS THAT MAY HAVE RESIDUAL COMMERCIAL OR HISTORIC VALUE INCLUDING HARDWARE, GLASS, CORNER STONES, TIME CAPSULES, LIGHT STANDARDS, SIGNS, FENCING, BENCHES, WATER FOUNTAINS, TRASH CONTAINERS, ETC. SHALL REMAIN AS PROPERTY OF THE OWNER. ALL ITEMS TO BE SALVAGED FOR REUSE/REINSTALLATION MUST MEET CURRENT CODE REQUIREMENTS. COORDINATE ITEMS TO BE RETAINED WITH OWNER AND REMOVE FROM CONSTRUCTION SITE TO A LOCATION APPROVED BY OWNER. REMOVED MATERIALS, NOT INDICATED OR DIRECTED TO BE SALVAGED FOR THE OWNER'S BENEFIT ARE DEBRIS AND BECOME THE CONTRACTOR'S PROPERTY UPON REMOVAL.
4. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY SEARCH OF THE AVAILABLE RECORDS AND FIELD SURVEYS. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT, UTILITY COMPANIES, AND/OR FIELD VERIFY AND LOCATE ALL UTILITIES BEFORE PROCEEDING WITH WORK. THE CONTRACTOR IS ALSO REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. NOTIFY THE ENGINEER IF ADDITIONAL UTILITIES ARE LOCATED OR IF CONFLICTS ARE FOUND WITH EXISTING CONDITIONS.
5. ALL TREES TO BE REMOVED SHALL BE MARKED BY CONTRACTOR AND APPROVED FOR REMOVAL BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO REMOVING OR CUTTING TREE(S). EXISTING ROOTS SHALL BE GRINDED TO A DEPTH OF APPROXIMATELY 3-FEET. USE CAUTION WHILE GRINDING WHEN EXISTING UTILITIES ARE IN CLOSE PROXIMITY TO TREES. ALL TREES TO REMAIN WITHIN THE LIMIT OF WORK SHALL BE PROTECTED AND MAINTAINED PER SPECIFICATIONS AND DETAILS.
6. SAWCUT EXISTING CONCRETE AND ASPHALT TO AN EXISTING CONTROL JOINT WHERE POSSIBLE, AT MINIMUM TO A NEAT-STRAIGHT LINE. ALL DEBRIS SHALL BE HAULED OFFSITE TO A LEGAL DUMPING SITE OR SALVAGED FOR REUSE ON PROJECT AS NOTED.
7. WORK WITHIN CITY, COUNTY, OR STATE RIGHT-OF-WAY REQUIRES A SEPARATE ENCROACHMENT PERMIT WHICH THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING PRIOR TO STARTING WORK WITHIN RIGHT-OF-WAY.
8. CONTRACTOR TO COORDINATE UTILITY DEMOLITION WITH DRAINAGE AND UTILITY WORK SHOWN IN THIS PLAN SET. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED PER PROJECT SPECIFICATIONS.
9. EXISTING DRY UTILITIES SHOWN FOR DEMOLITION ARE SHOWN FOR COORDINATION ONLY. REFER TO OTHER DISCIPLINES FOR LIMITS AND DETAILS OF DEMOLITION.
10. THE CONTRACTOR SHALL RECYCLE CONSTRUCTION DEBRIS, ASPHALT, AND CONCRETE GENERATED FROM REMOVALS REQUIRED TO CONSTRUCT THE PROJECT. THE CONTRACTOR IS OBLIGATED, UNDER THIS CONTRACT, TO RECYCLE THE WASTE MATERIAL THROUGH AN APPROVED RECYCLING PLANT.
11. A LIST OF FACILITIES THAT ACCEPT CONSTRUCTION & DEMOLITION DEBRIS CAN BE FOUND ON THE CALRECYCLE WEBSITE AT: HTTPS://WWW.CALRECYCLE.CA.GOV/CONDEMO
12. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING BUILDING FINISHES DURING DEMOLITION. ANY FINISH THAT IS DAMAGED DURING DEMOLITION SHALL BE REPAIRED OR REPLACED IN-KIND OR BETTER.

GENERAL NOTES TO CONTRACTOR

1. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY OWNERS FOR LOCATION, REMOVAL, AND/OR RELOCATION OF ANY UTILITY SERVICES AFFECTED BY CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT UNDERGROUND OR OVERHEAD STRUCTURES WHETHER OR NOT THEY ARE SHOWN ON THESE DRAWINGS.
2. THE CONTRACTOR SHALL NOTIFY THE PROJECT INSPECTOR AND THE RESPECTIVE UTILITY OWNERS AND OTHER AGENCIES AT LEAST TWO WORKING DAYS PRIOR TO START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING, VERIFYING LOCATIONS (BOTH HORIZONTAL AND VERTICAL), AND MAINTAINING ALL EXISTING UNDERGROUND UTILITIES, BOTH SHOWN ON THE PLANS AND/OR NOT SHOWN ON THE PLANS DURING CONSTRUCTION. REPAIR DAMAGED UTILITIES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS BECAUSE OF LOCATIONS OF EXISTING FACILITIES AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE, OR NON-EXISTENCE OF ANY UTILITY AND/OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OF RECORD AND/OR NOT OF RECORD SHOWN OR NOT SHOWN AND ANY OTHER LINE(S) OR STRUCTURE(S) NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF, AND/OR DAMAGE TO THESE LINE(S) AND/OR STRUCTURE(S).
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SHORING AT PROPOSED BUILDING FOUNDATIONS, FOOTINGS, AND WALLS TO PROTECT EXISTING UTILITIES IN PLACE.
6. UNAUTHORIZED CHANGES AND USES - CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
7. THE CONTRACTOR SHALL MAINTAIN THE EXISTING ACCESSIBLE ROUTE CLEAR OR PROVIDE AN ALTERNATE ACCESSIBLE ROUTE OF TRAVEL DURING DEMOLITION AND/OR CONSTRUCTION.
8. THE CONTRACTOR SHALL MAINTAIN THE EXISTING FIRE EXITS AND STAIRS CLEAR AND USABLE OR PROVIDE ALTERNATE FIRE EXITS DURING DEMOLITION AND/OR CONSTRUCTION.

EARTHWORK NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE GRADING PLANS AND SOILS REPORT THOROUGHLY PRIOR TO SITE MOBILIZATION. IT IS ALSO THE GRADING CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CIVIL AND SOILS ENGINEERS IF ONSITE DISCREPANCIES ARE OBSERVED THAT WOULD AFFECT THE EARTHWORK QUANTITIES.
2. THE EXISTING TOPOGRAPHY AS DELINEATED ON THESE DRAWINGS SHALL BE UTILIZED AS THE BASIS FOR ALL EARTHWORK COMPUTATIONS. SAID TOPOGRAPHY SHALL BE PRESUMED TO BE ACCEPTABLE TO ALL INTERESTED PARTIES UNLESS A DEVIATION IS FOUND PRIOR TO THE START OF GRADING IN ANY SPECIFIC AREAS. ANY DEVIATION SO DETERMINED SHALL BE PROMPTLY TRANSMITTED TO ALL INTERESTED PARTIES.
3. THE CONTRACTOR IS REQUIRED TO ESTIMATE THE QUANTITIES OF GRADING WORK TO BE DONE AND INCLUDE ALL COSTS THEREFROM WITH HIS BID, AS NO ADDITIONAL ALLOWANCE WILL BE MADE WITHOUT PRIOR CONSENT FROM THE OWNER.
4. OVER-EXCAVATION AND/OR EXCESS BACKFILLING OR DUPLICATION OF GRADING ACTIVITIES IS NOT A BASIS FOR ADDITIONAL COMPENSATION. THIS ALSO APPLIES WHERE MATERIAL IS TO BE REMOVED AND REPLACED TO REDUCE MOISTURE CONTENT.
5. OFF-SITE DISPOSAL OF EXCAVATION MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID. THE CONTRACTOR SHALL HOLD THE OWNER AND ENGINEER HARMLESS AS A RESULT OF ANY CLAIMS ARISING FROM THE ACTIONS ENROUTE OR AWAY FROM THE SITE.
6. EARTH VOLUMES SHOWN HEREON ARE ESTIMATES BASED UPON THE GEOTECHNICAL ANALYSIS PERFORMED BY THE NAMED SOILS ENGINEER AND TOPOGRAPHIC SURVEY OF THE EXISTING GROUND SURFACE AT THE TIME OF PLAN PREPARATION. EARTHWORK VOLUMES ARE COMPUTED BY METHODS COMMONLY USED IN STANDARD ENGINEERING PRACTICE, AND ARE INTENDED FOR USE IN ESTABLISHING GOVERNING AGENCY FEES. ACTUAL FIELD CONDITIONS MAY VARY FROM OBSERVED OR MEASURED CONDITIONS AT THE TIME OF PLAN PREPARATION. EARTHWORK QUANTITIES MAY VARY AS A RESULT.
7. ANY EXPORT OR IMPORT REQUIRED TO BALANCE THE SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. PAVEMENT AND SUBGRADE RECOMMENDATIONS RELATED TO OVER-EXCAVATION, PAVEMENT SUBGRADE, ETC., PER GEOTECHNICAL REPORT.

GEOTECHNICAL INFORMATION

FOR SITE PREPARATION, OVEREXCAVATION, FOUNDATION RECOMMENDATIONS, PAVEMENT, SUBGRADE, AND GRADATION REQUIREMENTS SEE GEOTECHNICAL INVESTIGATION REPORT ENTITLED:

"GEOTECHNICAL EXPLORATION REPORT
MALIBU MIDDLE AND HIGH SCHOOL CAMPUS
PHASE II IMPROVEMENTS
PROPOSED AQUATIC CENTER, MIDDLE SCHOOL BUILDING, AND GYMNASIUM
30215 MORNING VIEW DRIVE
MALIBU, LOS ANGELES COUNTY, CALIFORNIA "

PREPARED BY:	LEIGHTON CONSULTING, INC. 2600 MICHELSON DRIVE, SUITE 400 IRVINE, CALIFORNIA 92612
PROJECT NO:	036.0000025785
DATED:	OCT 16, 2024
REVISED:	MAY 23, 2025

EARTHWORK QUANTITIES

APPROXIMATE CUT:	0 CY
APPROXIMATE FILL:	9 CY
NET:	9 CY (IMPORT)

NOTE:
EARTHWORK QUANTITIES INDICATED ARE FOR REFERENCE ONLY (NOT FOR BID OR PAYMENT). THE CONTRACTOR IS RESPONSIBLE FOR ACTUAL QUANTITIES.

HAUL ROUTE TO BE DETERMINED AT PRE-GRADE MEETING AND ALL NECESSARY PERMITS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR

BENCHMARK

US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM

DATUM STATEMENT

STATE PLANE COORDINATES, CALIFORNIA SYSTEM ZONE 5 BASED ON NAD83 (CORS96) (EPOCH: 2002.0000) REFERENCE FRAME. THE HORIZONTAL COORDINATE VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS THAT WERE POST-PROCESSED USING ON-LINE POSITIONING USER SERVICE (OPUS) PROVIDED BY THE US NATIONAL GEODETIC SURVEY.

VERTICAL VALUES ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 USING THE FOLLOWING US NATIONAL GEODETIC SURVEY BENCHMARKS: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722. SEE SHEET 1 OF SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT" JOB NO. 1SAN080102 TASK 100 FOR THE BENCHMARK DESCRIPTION.

BASIS OF BEARINGS

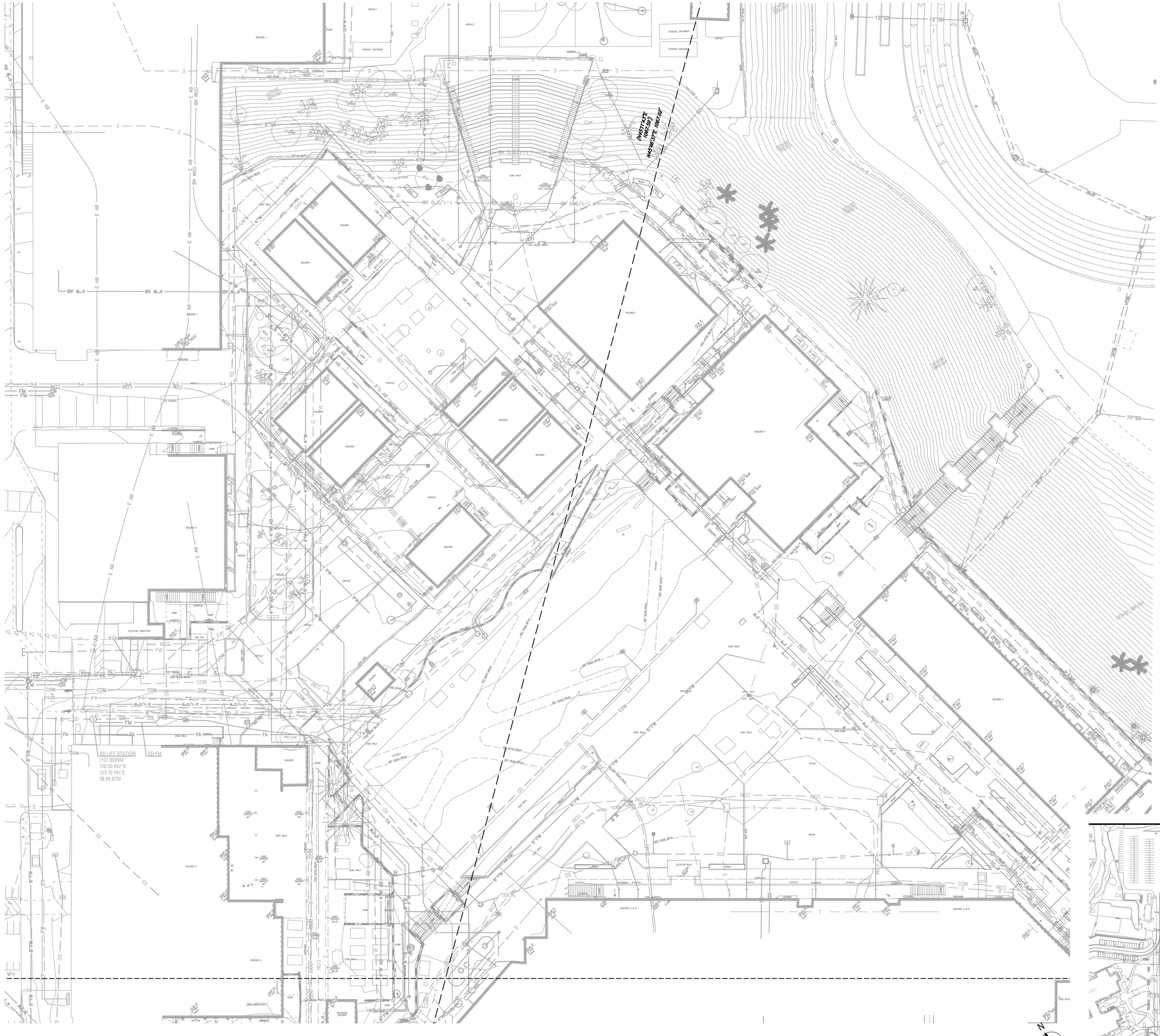
THE BOUNDARY LINES SHOWN HEREON ARE BASED UPON RECOVERED CITY, COUNTY AND/OR PRIVATE SURVEY MONUMENTS. SEE PSOMAS MAP "BOUNDARY SURVEY"

LEGAL DESCRIPTION

PARCELS 10, 11 AND 12 IN BLOCK 5 AS SHOWN ON THE RECORD OF SURVEY FILE DIN BOOK 56 PAGES 14 TO 17 INCLUSIVE OF RECORDS OF SURVEY, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

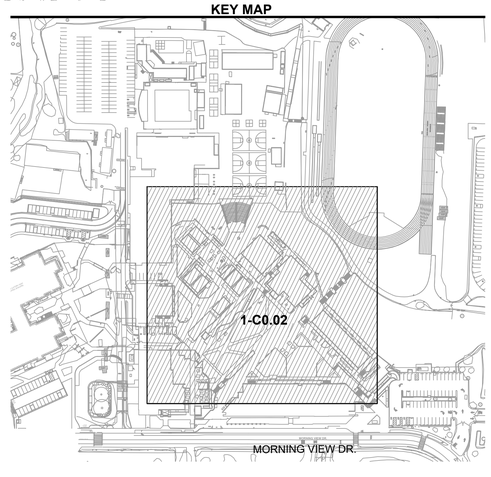
FIRE PROTECTION SYSTEM NOTES

1. PRIOR TO INSTALLATION, ALL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY GOVERNING AGENCY.
2. INSPECTIONS ARE REQUIRED:
    1) PRIOR TO POURING THRUST BLOCKS
    2) FOR HYDROSTATIC TESTING
    3) FOR FLUSH
3. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2022 NFPA 13 AND 2019 NFPA 24.
4. PRIVATE FIRE



EXISTING CONDITIONS

KEY MAP



LPA

ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING

949-261-1001 Office

LPADesignStudios.com

5301 California Avenue, Suite 100
Irvine, California 92617

REGISTERED PROFESSIONAL ENGINEER
KATHLEEN M. SKINNER
R.C.E. 68369
EXP. 9-30-27
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MALIBU MIDDLE & HIGH SCHOOL
PHASE0.3 MDF

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SMMUSD

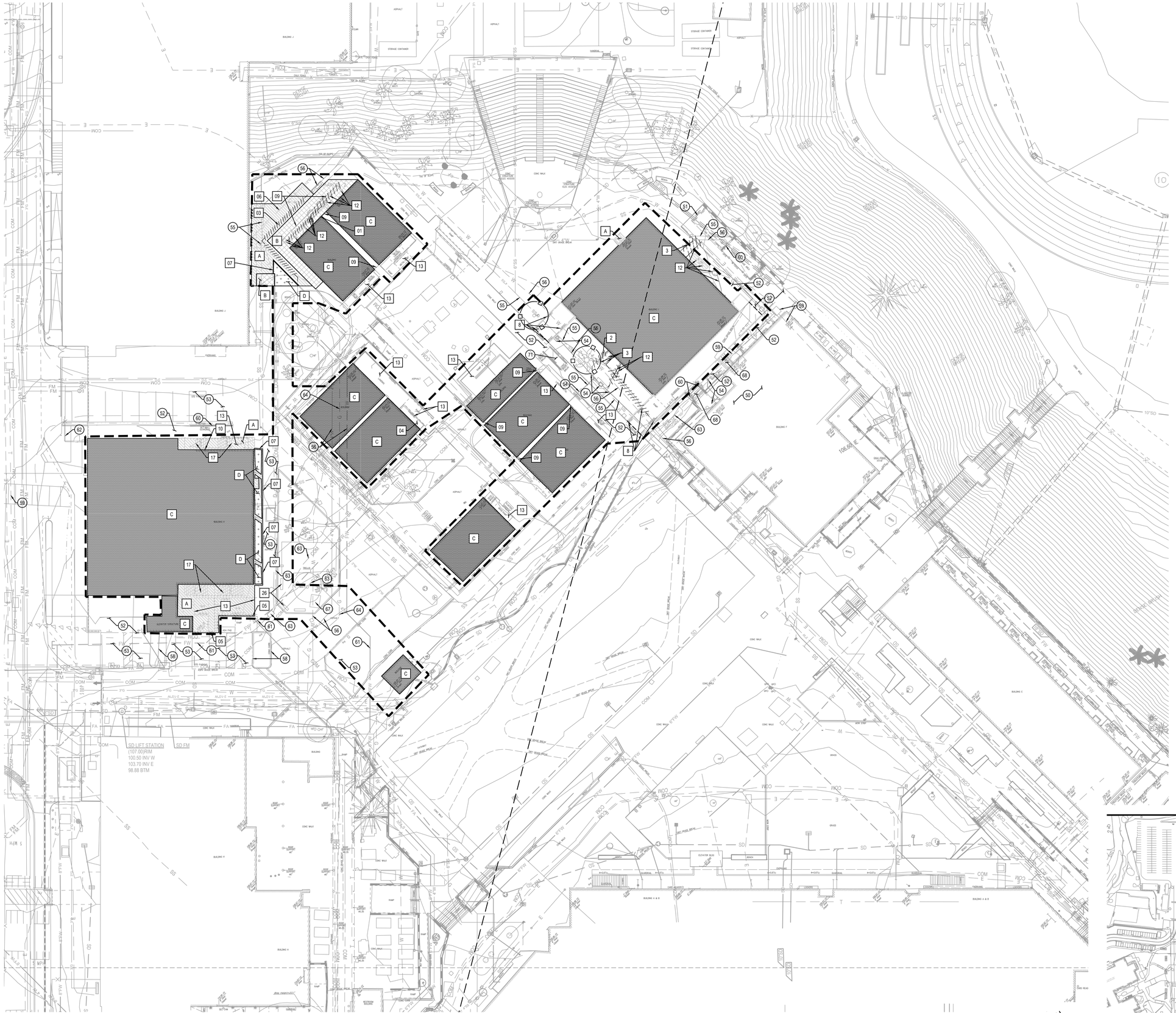
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/12/2025
CDP SUBMITTAL	06/16/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

EXISTING CONDITIONS

1-C0.02



DEMOLITION NOTES

-SEE DEMOLITION NOTES, SHEET C0.01.

DEMOLITION LEGEND

LABEL	DESCRIPTION
A	REMOVE (E) CONCRETE PAVEMENT/SIDEWALK. SEE DEMOLITION NOTE 10 SHEET C0.01.
B	REMOVE (E) AC PAVEMENT. SEE DEMOLITION NOTE 10 SHEET C0.01.
C	REMOVE (E) BUILDING STRUCTURE. SEE DEMOLITION NOTE 2 SHEET C0.01.
D	REMOVE (E) LANDSCAPING. SEE LANDSCAPE AND IRRIGATION PLANS FOR IMPROVEMENTS.
	REMOVE (E) TREE. SEE DEMOLITION NOTE 5 SHEET C0.01.
	(E) TREE TO REMAIN AND BE PROTECTED. SEE DEMOLITION NOTE 5 SHEET C0.01.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION NOTE 6 AND 10 SHEET C0.01.
	APPROXIMATE LIMIT OF WORK.
	REMOVE (E) UTILITY. SEE DEMOLITION NOTES 2, 4, 8, AND 9 SHEET C0.01.

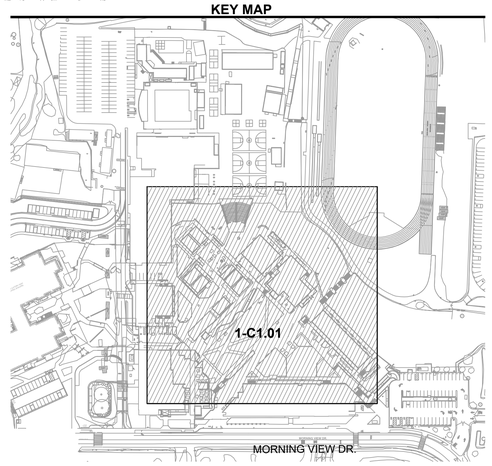
DEMOLITION KEYNOTES

KEY NOTE	DESCRIPTION
01	REMOVE (E) STORM DRAIN PIPE AND APPURTENANCES. SEE 2-C3.01 - 2-C3.02 PLAN FOR IMPROVEMENTS.
02	REMOVE (E) SANITARY SEWER PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
03	REMOVE (E) WATER PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
04	LEVEL (E) DIRT TO MATCH SURROUNDING ELEVATIONS AFTER DEMOLITION.
05	REMOVE (E) RETAINING WALL AND FOOTING.
06	RELOCATE (E) GAS FACILITIES. SEE PLUMBING PLAN FOR DEMO LIMITS.
07	REMOVE (E) CURB AND/OR CURB AND GUTTER.
08	REMOVE (E) CONCRETE POSTS.
09	REMOVE (E) FENCE AND FOOTINGS AND/OR GATE. SEE LANDSCAPE PLANS FOR IMPROVEMENTS.
10	REMOVE (E) LIGHT STANDARD AND FOOTING. SEE ELECTRICAL PLANS FOR IMPROVEMENTS.
12	SEE ELECTRICAL, TELECOM AND FIRE ALARM PLANS FOR DETAILS.
13	REMOVE (E) RAMP, LANDING AND HANDRAIL.
16	REMOVE (E) HANDRAIL.
17	REMOVE (E) STAIRS AND HANDRAILS IF PRESENT.
26	REMOVE (E) CONCRETE BENCH.

PROTECTION KEYNOTES

KEY NOTE	DESCRIPTION
50	PROTECT (E) BUILDING, FOUNDATION AND OTHER STRUCTURAL FEATURES AND BUILDING UTILITIES.
51	PROTECT (E) CANOPY AND COLUMNS, AND OTHER STRUCTURAL FEATURES AND CANOPY UTILITIES.
52	PROTECT (E) CONCRETE PAVEMENT/SIDEWALK.
53	PROTECT (E) AC PAVEMENT.
54	PROTECT (E) STORM DRAIN FACILITIES.
55	PROTECT (E) SANITARY SEWER FACILITIES.
56	PROTECT (E) WATER SERVICE FACILITIES.
58	PROTECT (E) CURB.
59	PROTECT (E) TELECOM FACILITIES.
60	PROTECT (E) RETAINING WALL.
61	PROTECT (E) FIRE WATER SERVICE FACILITIES.
62	PROTECT (E) FENCE.
63	PROTECT (E) ELECTRICAL FACILITIES.
64	PROTECT (E) GAS FACILITIES.
67	RELOCATE (E) BENCHES.
68	PROTECT (E) STAIRS AND FOUNDATIONS.
71	PROTECT (E) RAMP, LANDING AND HANDRAIL.

KEY MAP



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SCHEMATIC DESIGN	09/04/2024
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Job Number	31722
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Scale	AS NOTED

DEMOLITION PLAN

1-C1.01

GRADING LEGEND

SYMBOL	DESCRIPTION
PA	PLANTING AREA SEE LANDSCAPE PLAN DETAILS FOR GRADES ADJACENT TO HARDSCAPE.
- - -	APPROXIMATE LIMIT OF WORK.

GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
11	INSTALL A TEMPORARY COVER TO BRING THE MANHOLE OR UTILITY BOX TO GRADE IF NEEDED.

(E) BUILDING J

(P) MDF BUILDING 114.5 FFE

(E) BUILDING F (107.2±) FFE

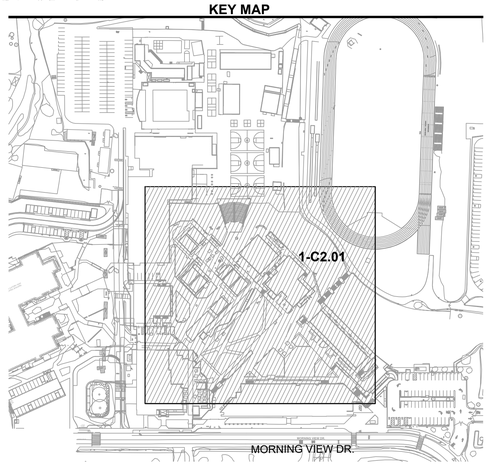
(E) CAFETORIUM 109.0 FFE

(E) BUILDING (100.9±) FFE

0 10 20 40

GRADING PLAN 1" = 20'

KEY MAP



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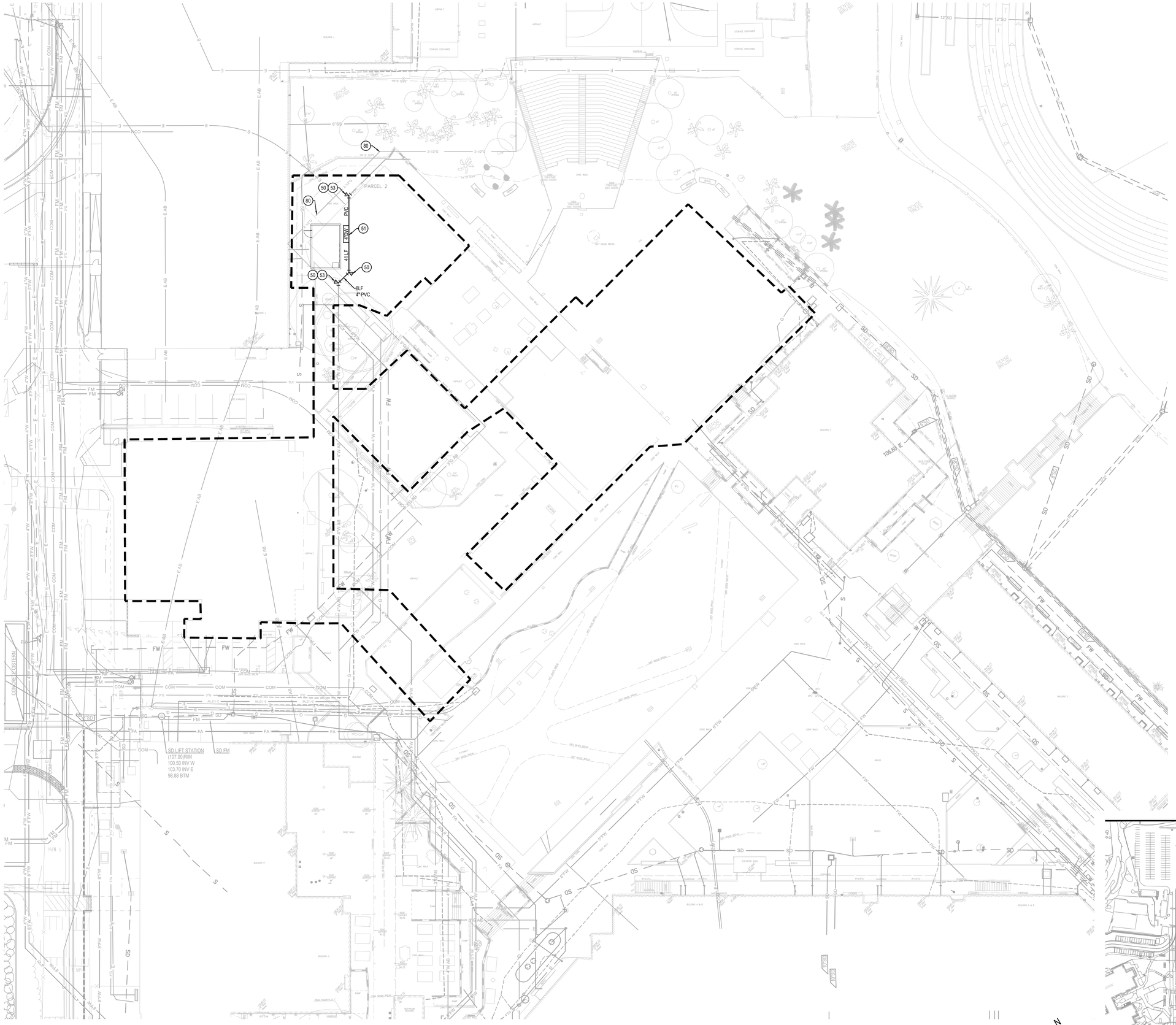
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GRADING PLAN

1-C2.01



WATER CONSTRUCTION NOTES:

- (W) DOMESTIC WATER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL WATER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. SIZE AS SHOWN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
- (50) SUPPLY AND INSTALL THRUST BLOCK PER DETAIL 2 SHEET C7.01. TYPICAL FOR ALL BENDS, TEES AND CROSSES ON PIPE SIZES GREATER THAN 3".
- (51) SUPPLY AND INSTALL PVC C900 DR-18 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED. TRENCHING PER DETAIL 08 SHEET C7.02.
- (53) CONNECT TO EXISTING DOMESTIC WATER SERVICE LINE. CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER LINE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

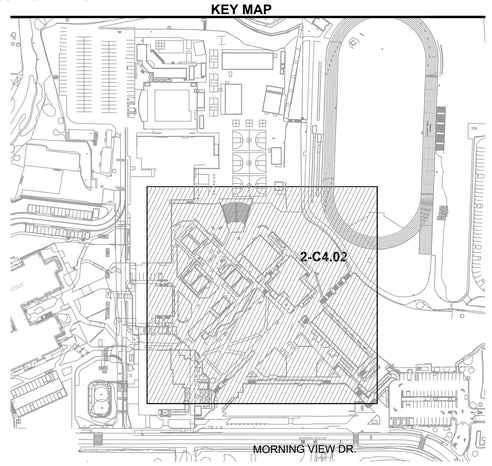
GAS CONSTRUCTION NOTES:

- (80) RE-ROUTE EXISTING INTERRUPTED GAS SERVICE. MATCH EXISTING SIZE AND MATERIAL SEE PLUMBING PLANS FOR DETAILS.

CONSTRUCTION NOTES:

1. UTILITIES TO CROSS OVER OR UNDER OTHER UTILITIES TO MAINTAIN 12" MINIMUM CLEARANCE AT UTILITY CROSSINGS, UNLESS NOTED OTHERWISE. SANITARY SEWER TO CROSS UNDER POTABLE WATER.
2. CONTRACTOR SHALL VERIFY SIZE AND LOCATION (HORIZONTAL AND VERTICAL) OF EXISTING CROSSING AND JOINING UTILITIES PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
3. CONTRACTOR SHALL CONSTRUCT GRAVITY UTILITIES (SEWER AND STORM DRAIN) BEFORE OTHER UTILITIES. CONSTRUCTION OF THESE GRAVITY UTILITIES TO START FROM THE DOWNSTREAM ENDS.
4. EXISTING UTILITIES ARE COMPILED BASED ON PREVIOUS BASE FILES, FIELD SURVEY AND FIELD VERIFICATION. POTHOLING IS RECOMMENDED TO VERIFY ANY AND ALL UTILITIES KNOWN OR UNKNOWN WHICH MAY BE IN CONFLICT WITH PROPOSED CONSTRUCTION.
5. PRIOR TO THE REMOVAL OF ANY WET OR DRY UTILITY LINES, THE CONTRACTOR SHALL CONFIRM WITH OWNER REPRESENTATIVE WHETHER THESE UTILITY LINES ARE STILL ACTIVE OR NOT. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
6. CONTRACTOR TO ADJUST TO FINISH GRADE ALL EXISTING UTILITY BOXES, SEWER CLEANOUT COVERS, PULL BOXES AND VALVE COVERS NOT SPECIFICALLY SHOWN WITHIN THE LIMITS OF WORK.
7. SEE DETAIL 04 SHEET 2-C7.02 FOR SEWER UTILITY TRENCHING AND BACKFILL.
8. SEE DETAIL 08 SHEET 2-C7.02 FOR WATER UTILITY TRENCHING AND BACKFILL.
9. SAWCUT, REMOVE AND REPLACE EXISTING CURB AS REQUIRED FOR TRENCHING. MATCH EXISTING CURB.

KEY MAP



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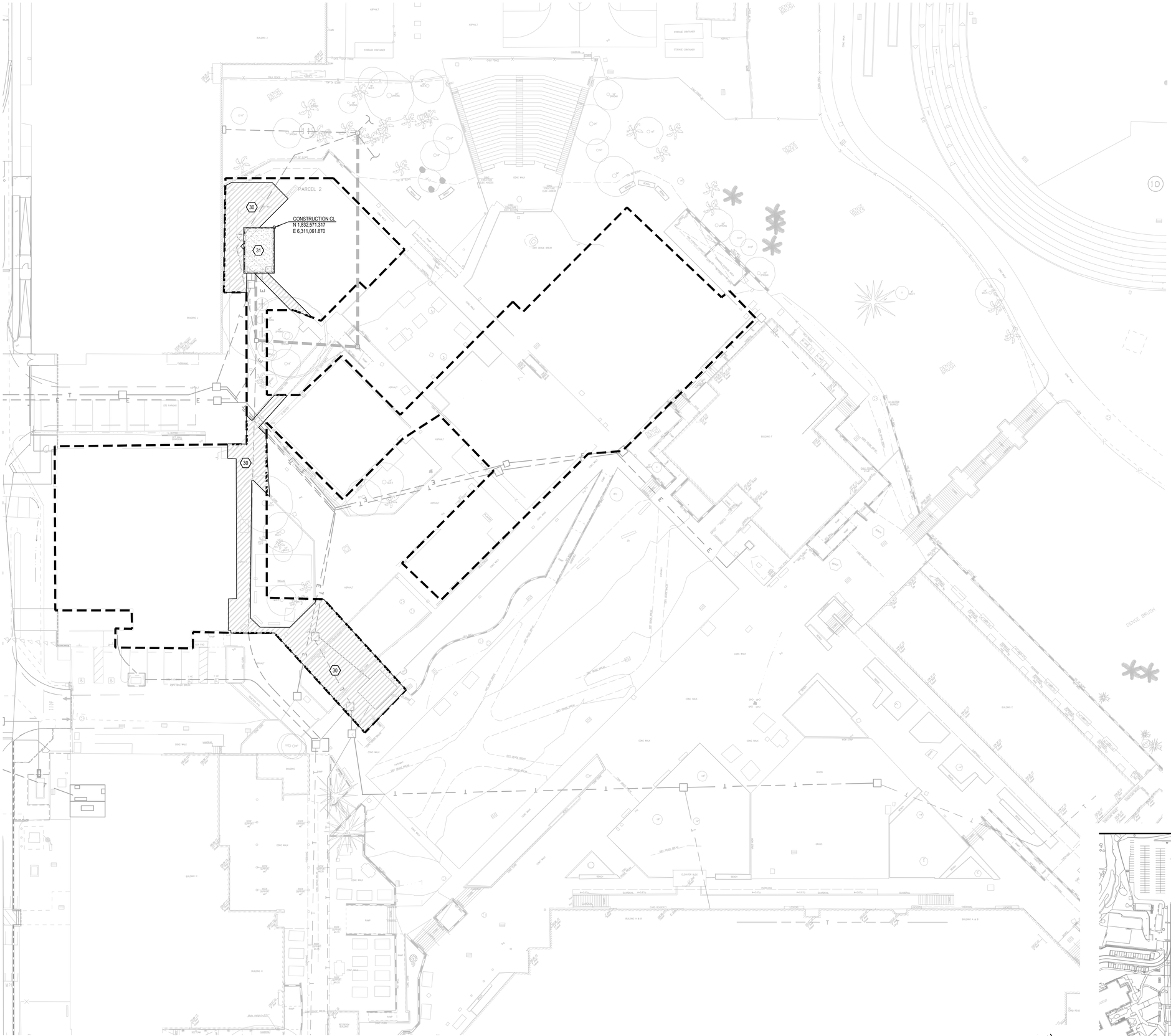
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UTILITY PLAN

1-C4.01



HORIZONTAL CONTROL, PAVING, AND STRIPING PLAN

0 10 20 40

1" = 20'

PAVING NOTES:

1. SEE LANDSCAPE PLANS FOR PAVERS, LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
2. VERIFY ALL VEHICULAR AND NON-VEHICULAR LIMITS WITH LANDSCAPE PLANS.

PAVING LEGEND

SYMBOL	DESCRIPTION
30	TEMPORARY COVER INSTALL A TEMPORARY PAVEMENT COVER WHEN AND WHERE NECESSARY TO ACCESS THE SITE IN THE INTERIM CONDITION.
31	CONCRETE PAVEMENT PER STRUCTURAL PLANS.

HORIZONTAL CONTROL NOTES:

THIS HORIZONTAL CONTROL PLAN ESTABLISHES THE FOLLOWING TO BE USED AS BASE CONTROL FOR CONSTRUCTION STAKING.

1. PRIOR TO STAKING ANY BUILDING STRUCTURE, SURVEYOR SHALL VERIFY THAT THE GRIDS SHOWN ON THIS PLAN MATCHES THE ARCHITECTURAL & STRUCTURAL PLANS.
2. TWO COORDINATES ARE PROVIDED TO ESTABLISH THE BUILDING GRID. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR FINAL BUILDING DIMENSIONS.
3. IF ANY DISCREPANCIES ARE FOUND DURING CONSTRUCTION STAKING NOTIFY CIVIL ENGINEER IMMEDIATELY.
4. SEE LANDSCAPE PLANS FOR DETAILED HARDSCAPE DIMENSIONS.
5. SEE LANDSCAPE PLANS FOR LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
6. SEE PAVING AND STRIPING PLANS FOR LOCATION AND TYPE OF PAVING AND STRIPING.

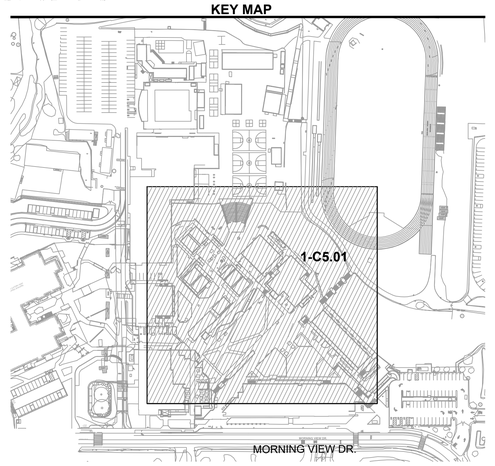
BENCHMARK

-SEE SHEET C0.01 FOR BENCHMARK.

BASIS OF BEARINGS

-SEE SHEET C0.01 FOR BASIS OF BEARINGS.

KEY MAP



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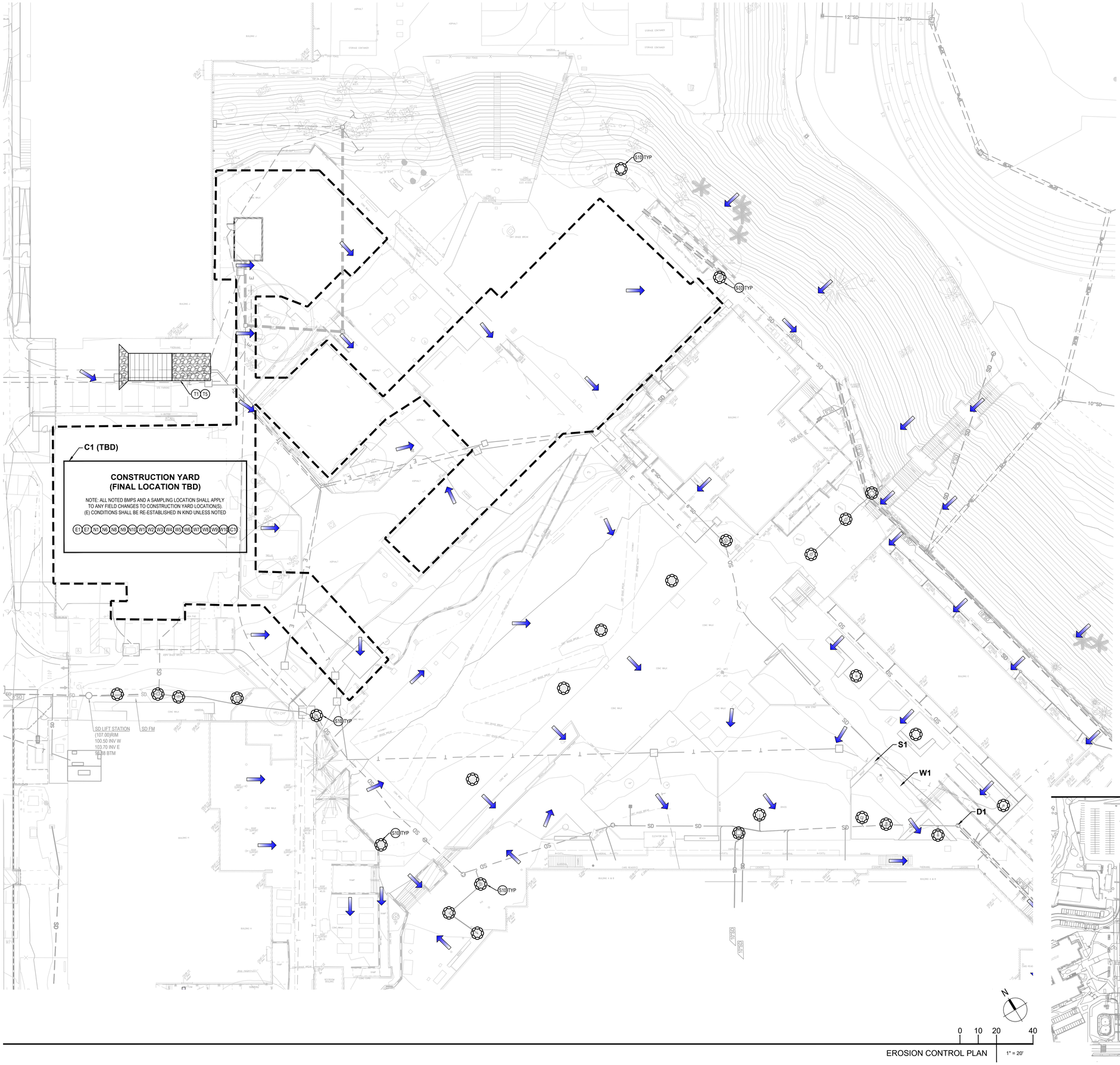
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HORIZONTAL CONTROL, PAVING, AND STRIPING PLAN

1-C5.01



EROSION CONTROL NOTES

-SEE SHEET C0.01 FOR EROSION / SEDIMENT CONTROL NOTES AND BMP MAINTENANCE NOTES

-ALL BMPS PER CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA)(UNLESS NOTED OTHERWISE) AND ARE AVAILABLE AT www.casqa.org.

-FOR BMP'S NOT SPECIFICALLY CALLED OUT PER PLAN, COORDINATE WITH THE QSP REGARDING APPLICATION AND LOCATIONS FOR USE.

-AT THE COMPLETION OF PROJECT, CONTRACTOR SHALL REMOVE ALL CONSTRUCTION BMPS FROM SITE AND DISPOSE IN A LEGAL MANNER.

LEGEND

SYMBOL	DESCRIPTION
	GRAVEL BAGS AND/OR SANDBAGS PER BMP KEYNOTES
	FIBER ROLL
	SILT FENCE
	APPROXIMATE LIMITS OF WORK
	FLOW DIRECTION

EROSION CONTROL BMPs:

KEY NOTE	DESCRIPTION
E1	EC-1, SCHEDULING
E2	EC-2, PRESERVATION OF EXISTING VEGETATION
E3	EC-3, HYDRAULIC MULCH
E4	EC-4, HYDROSEEDING
E5	EC-5, SOIL BINDERS
E6	EC-6, STRAW MULCH
E7	EC-7, GEOTEXTILES AND MATS
E15	EC-15, SOIL PREPARATION/ROUGHENING

SEDIMENT CONTROL BMPs:

S1	SE-1, SILT FENCE
S5	SE-5, FIBER ROLLS
S6	SE-6, GRAVEL BAG BERM
S7	SE-7, STREET SWEEPING AND VACUUMING
S8	SE-8, SANDBAG BARRIER
S10	SE-10, STORM DRAIN INLET PROTECTION

TRACKING CONTROL BMPs:

T1	TC-1, STABILIZED CONSTRUCTION ENTRANCE/EXIT
T3	TC-3, ENTRANCE/OUTLET TIRE WASH

NON-STORMWATER MANAGEMENT CONTROL BMP

N1	NS-1, WATER CONSERVATION PRACTICES
N3	NS-3, PAVING AND GRINDING OPERATIONS
N6	NS-6, ILLICIT CONNECTION/DISCHARGE
N7	NS-7, POTABLE WATER/IRRIGATION
N8	NS-8, VEHICLE AND EQUIPMENT CLEANING
N9	NS-9, VEHICLE AND EQUIPMENT FUELING
N12	NS-12, CONCRETE CURING
N13	NS-13, CONCRETE FINISHING
EC11	SC-10, NON-STORMWATER DISCHARGES

WIND EROSION CONTROL BMPs:

WE	WE-1, WIND EROSION CONTROL

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs:

W1	WM-1, MATERIAL DELIVERY AND STORAGE
W2	WM-2, MATERIAL USE
W3	WM-3, STOCKPILE MANAGEMENT
W4	WM-4, SPILL PREVENTION AND CONTROL
W5	WM-5, SOLID WASTE MANAGEMENT
W6	WM-6, HAZARDOUS WASTE MANAGEMENT
W7	WM-7, CONTAMINATED SOIL MANAGEMENT
W8	WM-8, CONCRETE WASTE MANAGEMENT
W9	WM-9, SANITARY/SEPTIC WASTE MANAGEMENT
W10	WM-10, LIQUID WASTE MANAGEMENT

STORM WATER STORAGE OR CONTAINMENT

W#	STORMWATER STORAGE (E.G. BIORETENTION) OR CONTAINMENT (E.G. CISTERN)

DISCHARGE LOCATIONS

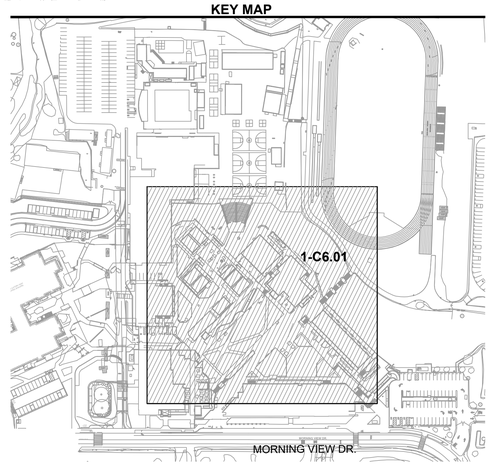
D#	DISCHARGE LOCATION

SAMPLING LOCATIONS

B#	POLLUTANT SAMPLE LOCATION - BACKGROUND SAMPLE
C#	POLLUTANT SAMPLE LOCATION - CONTRACTORS YARD
S#	POLLUTANT SAMPLE LOCATION - SITE
R#	POLLUTANT SAMPLE LOCATION - RUN-ON

NOTE:
THE SAMPLE LOCATIONS SHOWN ARE THE MINIMUM REQUIREMENT FOR THE PROJECT SITE AT RISK LEVEL 3. SAMPLE LOCATIONS MAY BE RELOCATED IF FIELD CONDITIONS WILL NOT ALLOW FOR SATISFACTORY SAMPLING. ANY ADJUSTMENTS TO SAMPLING LOCATIONS MUST MEET THE INTENDED PURPOSE ORIGINALLY DESIGNATED FOR THAT LOCATION AND MUST BE DOCUMENTED WITH A SWPPP AMENDMENT FORM.

KEY MAP



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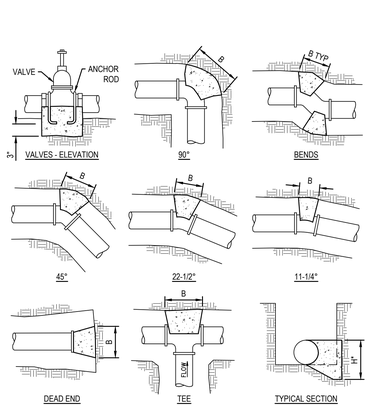
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EROSION CONTROL PLAN

1-C6.01



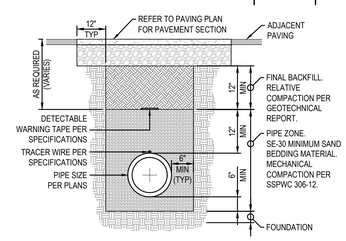
NOTES:

1. THRUST BLOCKS SHALL BE USED FOR PLASTIC PIPE 4" DIAMETER OR LARGER.
2. THRUST BLOCK INSTALLATION PER SSPWC SECTION 306 (LATEST EDITION).
3. THRUST BLOCKS SHALL BE PCC, 450-C-2000 PER SSPWC SECTION 201 (LATEST EDITION).
4. ANCHOR RODS SHALL BE GALVANIZED STEEL, 1/2" DIAMETER, WRAPPED AROUND PIPE.
5. ALL VIEWS ARE PLAN VIEWS UNLESS OTHERWISE NOTED.
6. THRUST BLOCK AREAS ARE BASED ON 200 PSI PRESSURE AND 1,500 PSF ALLOWABLE SOIL BEARING PRESSURE. THRUST BLOCK SIZING PER 2019 NFPA 24, ANNEX A, SECTION A.10.6.1.
7. THRUST BLOCKS SHALL BE INSTALLED AT EVERY CHANGE OF DIRECTION.

HORIZONTAL BEND THRUST BLOCK REQUIRED TOTAL BEARING AREA						
PIPE SIZE (IN)	11¼° BEND	22½° BEND	45° BEND	90° BEND	DEAD END	TEE
	AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)
4	0.7	1.4	2.8	5.1	3.6	3.6
6	1.5	2.9	5.7	10.6	7.5	7.5
8	2.5	5.0	9.8	18.2	12.9	12.9
10	3.8	7.6	14.8	27.4	19.4	19.4
12	5.4	10.7	20.9	38.7	27.4	27.4

* BLOCK HEIGHT (H) SHOULD BE CHOSEN SO THAT THE CALCULATED BLOCK WIDTH (B) VARIES BETWEEN ONE AND TWO TIMES THE HEIGHT, NFPA A.10.6.1.

THRUST BLOCKS FOR PLASTIC PIPE - 1500 PSF SOIL BEARING CAPACITY | NTS | 02



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2774, "UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING", LATEST EDITION.
2. 36" MINIMUM COVER REQUIRED FOR INSTALLATIONS UNDER HARDSCAPE. 30" MINIMUM COVER FOR INSTALLATIONS UNDER PLANTED AREAS.
3. IF UNSTABLE FOUNDATION SOIL IS ENCOUNTERED, THE GEOTECHNICAL FIELD INSPECTOR SHALL DETERMINE OVEREXCAVATION DEPTH AND FOUNDATION RE-FILL MATERIAL.
4. CONTRACTOR SHALL PROVIDE HAND EXCAVATED "BELL HOLE" FOR EACH PIPE JOINT SO THAT THE WEIGHT OF PIPE DOES NOT BEAR ON THE BELL. CONTRACTOR SHALL RE-FILL AND HAND-TAMP EACH "BELL HOLE" PRIOR TO COMPLETING THE PLACEMENT OF PIPE BEDDING.

PIPE TRENCH - WATER | NTS | 03

LPA

ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING

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MALIBU MIDDLE & HIGH SCHOOL
PHASE0.3 MDF

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SMMUSD

Revision	Date

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Scale	AS NOTED

CONSTRUCTION DETAILS

1-C7.01

ABBREVIATIONS

AB	AGGREGATE BASE	MIN	MINIMUM
AC	ASPHALT CONCRETE PAVEMENT	MOC	MIDDLE OF CURVATURE
AE	ACCESS EASEMENT	N	NORTH
ASPH	ASPHALT PAVING	NG	NATURAL GRADE
BC	BEGIN CURVATURE	NTS	NOT TO SCALE
BCR	BEGIN CURB RETURN	OC	ON CENTER
BFP	BACK FLOW PREVENTER	(P)	PROPOSED, NEW
BI	BOX INLET	PA	PLANTING AREA
BM	BENCHMARK	PBC	PULL BOX CABLE
BOP	BOTTOM OF PIPE	PBE	PULL BOX ELECTRIC
BOR	BOTTOM OF RAMP	PBT	PULL BOX TELEPHONE
BS	BOTTOM OF STAIRS	PBW	PULL BOX WATER
BVC	BEGIN VERTICAL CURVATURE	PCC	POINT OF COMPOUND CURVATURE
BW	BOTTOM OF WALL	PE	PEDESTRIAN EASEMENT
C&G	CURB AND GUTTER	PI	POINT OF INTERSECTION
CL,CL	CENTER LINE	PIVC	POINT OF INTERSECTION VERTICAL CURVATURE
CB	CATCH BASIN	PL	PROPERTY LINE
CONST	CONSTRUCT	POC	POINT OF CONNECTION
CR	CURB RETURN	PP	POWER POLE
CT	COURT	PRC	POINT OF REVERSE CURVATURE
CUL	CULVERT	PVC	POLYVINYL CHLORIDE
DI	DROP INLET	PVMT	PAVEMENT
DIP	DUCTILE IRON PIPE	R	RADIUS
DW	DOMESTIC WATER	RCP	REINFORCED CONCRETE PIPE
D/W	DRIVEWAY	RIM	TOP RIM OF STRUCTURE
DE	DRAINAGE EASEMENT	ROW	HIGHWAY EASEMENT
DR	DRIVE	RT	RIGHT
(E)	EXISTING	RW	RECLAIMED WATER
E	EAST	R/W	RIGHT OF WAY
EC	END CURVATURE	S	SOUTH OR SLOPE
ECR	END CURB RETURN	SBE	SETBACK EASEMENT
EG	EXISTING GRADE	SCO	SANITARY SEWER CLEANOUT
ELEV	ELEVATION	SD	STORM DRAIN
EOC	EDGE OF CONCRETE	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
EQ	EQUAL	SHT	SHEET
ESMT	EASEMENT	STA	STATION
EVC	END OF VERTICAL CURVATURE	SMH	SANITARY SEWER MANHOLE
FF	FINISHED FLOOR	SS	SANITARY SEWER
FFE	FINISHED FLOOR ELEVATION	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FG	FINISHED GRADE		
FH	FIRE HYDRANT		
FL	FLOWLINE	S/W	SIDEWALK
FS	FINISHED SURFACE	T	TANGENT
FW	FIRE PROTECTION SERVICE WATER	TB	TOP OF BERM
GB	GRADE BREAK	TBC	TOP BACK OF CURB
GFL	GUTTER FLOWLINE	TBW	TOP BACK OF WALK
GSL	LIMITS OF GRAVITY SEWER	TC	TOP OF CURB
GR	GRATE	TF	TOP OF FOOTING
GV	GAS VALVE	TG	TOP OF GRATE
HB	HOSE BIB	TOE	TOE OF SLOPE
HP	HIGH POINT	TOP	TOP OF PIPE
ICV	IRRIGATION CONTROL VALVE	TOR	TOP OF RAMP
INTX	POINT OF INTERSECTION	TOS	TOP OF SLOPE
INV	INVERT	TP	TOP OF PLANTER
JP	JOINT POLE	TS	TOP OF STAIRS
LE	LANDSCAPE EASEMENT	TW	TOP OF WALL
LF	LINEAR FEET	TYP	TYPICAL
LIP	LIP OF GUTTER	TP	TELEPHONE POLE
LP	LOW POINT	VC	VERTICAL CURVATURE
LT	LEFT	W	WEST
MAX	MAXIMUM	WM	WATER MAIN
MH	MANHOLE	WV	WATER VALVE

LEGEND

SYMBOL	DESCRIPTION
(RD)	ROOF DRAIN POC 5' FROM BUILDING
(G)	GAS POC 5' FROM BUILDING
(F)	FIRE WATER POC 5' FROM BUILDING
(W)	DOMESTIC WATER POC 5' FROM BUILDING
(SS)	SANITARY SEWER POC 5' FROM BUILDING
(D)	STORM DRAIN MANHOLE
(S)	SANITARY SEWER MANHOLE
	DRAIN INLET
AD	AREA DRAIN
	TRENCH DRAIN
	CLEANOUT
	BLOW OFF
	FIRE HYDRANT
	VALVE
	POST INDICATOR VALVE (PIV)/CHECK VALVE (CHK VLV)/FIRE DEPARTMENT CONNECTION (FDC)
	CHECK VALVE (CHK VLV)
	FIRE DEPARTMENT CONNECTION (FDC)
	DOUBLE DETECTOR CHECK (DBL CHK)
	REDUCED PRESSURE (BFP)
	POST INDICATOR VALVE (PIV)
	THRUST BLOCK
	BENDS, TEE AND CROSS
	WATER METER

LINE TYPE	DESCRIPTION
	APPROXIMATE PROJECT LIMITS
	RIGHT OF WAY/ PROPERTY LINE
-x-x-x-x-x-x-x-x-x-x-x-x-	FENCE
	REMOVE EXISTING UTILITY
SS SS	EXISTING SEWER LINE
W W	EXISTING WATER LINE
SD SD	EXISTING STORM DRAIN LINE
FW FW	EXISTING DEDICATED PRIVATE FIRE SERVICE
G G	EXISTING NATURAL GAS SERVICE
E E	EXISTING ELECTRICAL LINE / CONDUIT
T T	EXISTING TELECOMMUNICATIONS LINE / CONDUIT
XXLF 6"SS S=X.XXX	SANITARY SEWER LINE
XXLF 6"DW PVC	DOMESTIC WATER LINE
XXLF 6"SD S=X.XXX	STORM DRAIN LINE (≤8" DIAMETER)
XXLF 12"SD S=X.XXX	STORM DRAIN LINE (>8" DIAMETER)
	PERFORATED STORM DRAIN LINE
XXLF 8"FW PVC	DEDICATED PRIVATE FIRE SERVICE
XXLF GAS PVC	NATURAL GAS LINE
GB	GRADE BREAK LINE
> >	FLOW LINE
	DAYLIGHT LINE

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN PLACE AT ALL TIMES DURING CONSTRUCTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
3. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
5. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
6. IN AREAS WHERE SOIL IS EXPOSED, PROMPT REPLANTING WITH NATIVE COMPATIBLE, DROUGHT-RESISTANT VEGETATION SHALL BE PERFORMED. NO AREAS WILL BE LEFT EXPOSED OVER THE WINTER SEASON.
7. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE.
8. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR MORE OFTEN AS NECESSARY.
9. CONTRACTOR SHALL PLACE GRAVEL/SAND BAGS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL/SAND BAGS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
10. CONTRACTOR SHALL IMPLEMENT HOUSEKEEPING PRACTICES AS FOLLOWS:
    A. SOLID WASTE MANAGEMENT:
    PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS. ARRANGE FOR REGULAR REMOVAL AND DISPOSAL. CLEAR SITE OF TRASH INCLUDING ORGANIC DEBRIS, PACKAGING MATERIALS, SCRAP OR SURPLUS BUILDING MATERIALS AND DOMESTIC WASTE DAILY.
    B. MATERIAL DELIVERY AND STORAGE:
    PROVIDE A DESIGNATED MATERIAL STORAGE AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. STORE MATERIAL ON PALLETS AND PROVIDE COVERING FOR SOLUBLE MATERIALS. RELOCATE STORAGE AREA INTO BUILDING SHELL WHEN POSSIBLE. INSPECT AREA WEEKLY.
    C. CONCRETE WASTE:
    PROVIDE A DESIGNATED AREA FOR A TEMPORARY PIT TO BE USED FOR CONCRETE TRUCK WASH-OUT. CONCRETE WASHOUT CANNOT BE WITHIN 50' MINIMUM OF DRAIN INLETS. DISPOSE OF HARDENED CONCRETE OFFSITE. AT NO TIME SHALL A CONCRETE TRUCK DUMP ITS WASTE AND CLEAN ITS TRUCK INTO THE STORM DRAINS VIA CURB AND GUTTER. INSPECT DAILY TO CONTROL RUNOFF, AND WEEKLY FOR REMOVAL OF HARDENED CONCRETE.
    D. PAINT AND PAINTING SUPPLIES:
    PROVIDE INSTRUCTION TO EMPLOYEES AND SUBCONTRACTORS REGARDING REDUCTION OF POLLUTANTS INCLUDING MATERIAL STORAGE, USE, AND CLEAN UP. INSPECT SITE WEEKLY FOR EVIDENCE OF IMPROPER DISPOSAL.
    E. VEHICLE FUELING, MAINTENANCE AND CLEANING:
    PROVIDE A DESIGNATED FUELING AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. DO NOT ALLOW MOBILE FUELING OF EQUIPMENT. PROVIDE EQUIPMENT WITH DRIP PANS. RESTRICT ONSITE MAINTENANCE AND CLEANING OF EQUIPMENT TO A MINIMUM. INSPECT AREA WEEKLY.
    F. HAZARDOUS WASTE MANAGEMENT:
    PREVENT THE DISCHARGE OF POLLUTANTS FROM HAZARDOUS WASTES TO THE DRAINAGE SYSTEM THROUGH PROPER MATERIAL USE, WASTE DISPOSAL AND TRAINING OF EMPLOYEES. HAZARDOUS WASTE PRODUCTS COMMONLY FOUND ON-SITE INCLUDE BUT ARE NOT LIMITED TO PAINTS & SOLVENTS, PETROLEUM PRODUCTS, FERTILIZERS, HERBICIDES & PESTICIDES, SOIL STABILIZERS, STABILIZATION PRODUCTS, ASPHALT PRODUCTS AND CONCRETE CURING PRODUCTS.
11. CONTRACTOR SHALL HYDROSEED ALL GRADED SLOPES. NATIVE SEED MIX SHALL BE 20% LANA PUBESCENT WHEAT GRASS, 40% BLANDO BROME, AND 40% ANNUAL RYE GRASS AND SHALL BE APPLIED AT A RATE OF 200 POUNDS PER ACRE. SOIL BINDING AGENT SHALL BE VERDYOL, SENTINEL, OR EQUAL, APPLIED AT A RATE OF 110 POUNDS PER ACRE. MULCH SHALL BE SILVER-FIBER, CONWED, OR EQUAL, APPLIED AT A RATE OF 1,000 POUNDS PER ACRE. FERTILIZER SHALL BE AGRI-FORM 16-7-12, BEST 16-6-8, OR EQUAL, APPLIED AT A RATE OF 500 POUNDS PER ACRE. THE CONTRACTOR SHALL WATER SEEDED AREAS OR RESEED AS NECESSARY TO ENSURE SUFFICIENT PLANT DEVELOPMENT FOR EROSION CONTROL.
12. NO GRADING SHALL BE DONE UNTIL SITE- AND SEASON-SPECIFIC SOIL LOSS AND HOUSEKEEPING STORMWATER BMPs HAVE BEEN APPROVED BY THE INSPECTOR. THE CONTRACTOR SHOULD EMPLOY THE DESIGN BMPs AND ANY OTHERS NEEDED AS SITUATIONS ARISE. CONTRACTOR SHOULD CONDUCT SITE INSPECTIONS BEFORE, DURING AND AFTER EACH EXTENDED STORM EVENT TO IDENTIFY CONDITIONS THAT MAY CONTRIBUTE TO EROSION AND SEDIMENT PROBLEMS OR ANY OTHER POLLUTANT DISCHARGES. IF ADDITIONAL CONTROL MEASURES ARE NEEDED, CONTRACTOR SHOULD IMPLEMENT THEM IMMEDIATELY.

POLLUTION PREVENTION NOTES

IN ORDER TO MEET THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM FOR CONSTRUCTION, CONSTRUCTION CONTRACTORS SHALL INSTALL AND MAINTAIN APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS), AS SHOWN IN THE EROSION CONTROL PLAN AND IN ACCORDANCE WITH THE SWPPP (STORM WATER POLLUTION PREVENTION PLAN), ON ALL CONSTRUCTION PROJECTS. BMPS SHALL BE INSTALLED IN ACCORDANCE WITH INDUSTRY RECOMMENDED STANDARDS, AND/OR IN ACCORDANCE WITH ANY GENERAL CONSTRUCTION PERMIT ISSUED BY THE STATE FOR THE PROJECT TO PREVENT ANY DISCHARGES FROM THE PROJECT SITE OR INTO ANY STORM DRAIN FACILITIES. ALL SEDIMENTS, CONSTRUCTION MATERIALS, DEBRIS AND WASTES, AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, WIND, OR VEHICLE TRACKING. UNDER DIRECTION OF THE ENGINEER OF RECORD, EROSION AND/OR SEDIMENT CONTROL DEVICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES TO ENSURE EFFECTIVENESS.

BMP MAINTENANCE NOTES

1. FOLLOWING OWNER ACCEPTANCE OF CONSTRUCTION WORK, POST CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, INCLUDING BUT NOT LIMITED TO:
    1.1. ANNUAL INSPECTION, REPLACEMENT, AND/OR SEDIMENTATION REMOVAL OF VEGETATED SWALES, TREATMENT PONDS, AND OTHER SURFACE STORMWATER TREATMENT MEASURES AS REQUIRED WITH AN INCREASED FREQUENCY BASED ON SITE CONDITIONS.
    1.2. MAINTENANCE SERVICE AGREEMENT(S) OF STORMWATER TREATMENT VAULTS, INLETS, MANHOLES, AND OTHER DEVICES BASED ON MANUFACTURES' RECOMMENDATIONS AND FREQUENCY.
    1.3. ANNUAL INSPECTION OF PERMEABLE PAVEMENT AND REMOVAL OF SEDIMENT AS NEEDED.
    1.4. ANNUAL INSPECTION OF STORMWATER INLETS AND MAINTENANCE AS REQUIRED TO CLEAR GRATES AND INLETS OF DEBRIS.
    1.5. THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND WATER QUALITY MANAGEMENT PLAN (WQMP) MAY CONTAIN ADDITIONAL OR MORE STRINGENT MAINTENANCE REQUIREMENTS.
2. BMP DETAILS MAY BE FOUND IN APPENDIX H OF THE PROJECT SWPPP DOCUMENT. BMP DETAILS PER CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) AND ARE AVAILABLE AT www.casqa.org.
3. FOR PROJECTS GREATER THAN 1 ACRE: THE CONTRACTOR SHALL VERIFY THE STATUS OF THE SWPPP/NOI/WDID PRIOR TO EARTHMOVING ACTIVITIES. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED AND A NOTICE OF INTENT (NOI) SHALL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CAS000002) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE CONTRACTOR SHALL KEEP A COPY OF THE SWPPP ON SITE AND AVAILABLE FOR REVIEW.

AREA SUMMARY

TOTAL DISTURBED AREA = 3.35± ACRES

DEMOLITION NOTES

1. THE INTENT OF THE DEMOLITION PLAN IS TO DESCRIBE IN GENERAL THE DEMOLITION AREAS AFFECTED BY THE PROJECT CONSTRUCTION. IT IS NOT INTENDED AS A DETAILED DESCRIPTION OF EXISTING ITEMS OR ELEMENTS TO BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW ANY AVAILABLE RECORD DOCUMENTS TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND SHOULD INCLUDE THE REMOVAL OF ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL TO THE EXTENT THAT IT IS REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
2. REMOVE EXISTING BUILDINGS, FOUNDATIONS AND SERVICE UTILITIES AS INDICATED ON PLANS. CAP ALL UTILITIES AT APPROPRIATE POINTS. ALL EXISTING ELECTRICAL / TELEPHONE / CATV UTILITIES SHALL BE REMOVED AS INDICATED OR BACK TO THE POINT WHERE THE SPECIFIC UTILITY SYSTEM ENTERS THE WORK AREA. COORDINATE DEMOLITION OF ALL UTILITIES WITH THE OWNER. ALL UTILITIES CONNECTED TO EXISTING BUILDINGS TO REMAIN SHALL CONTINUE TO BE OPERATIONAL DURING THE DEMOLITION PROCESS. DOMESTIC AND FIRE SERVICE WATER AND NATURAL GAS SHALL BE REMOVED TO A POINT OUTSIDE THE PERIMETER OF PROPOSED NEW CONSTRUCTION TO EXISTING VALVES OR SIMILAR SHUT-OFF DEVICES. IF A SHUT-OFF DEVICE IS NOT REASONABLY ADJACENT TO THE PERIMETER OF THE PROPOSED NEW CONSTRUCTION, PROVIDE A SHUT-OFF DEVICE IN BELOW-GRADE YARD BOX. CONFIRM LOCATION OF NEW DEVICES WITH OWNER PRIOR TO INSTALLATION. SANITARY SEWER AND STORM DRAINAGE SHALL BE CAPPED TO A POINT OUTSIDE THE PERIMETER OF THE PROPOSED NEW CONSTRUCTION. OTHER UTILITIES NOT SPECIFICALLY IDENTIFIED IN THESE DOCUMENTS AND NOT ANTICIPATED FOR REUSE SHALL BE REMOVED IN ENTIRETY.
3. FOR ALL EXISTING MATERIALS THAT CAN BE SALVAGED, OWNER HAS FIRST RIGHT OF REFUSAL FOR REMOVED ITEMS THAT MAY HAVE RESIDUAL COMMERCIAL OR HISTORIC VALUE INCLUDING, BUT NOT LIMITED TO, GLASS, CORNER STONES, TIME CAPSULES, LIGHT STANDARDS, SIGNS, FENCING, BENCHES, WATER FOUNTAINS, TRASH CONTAINERS, ETC. SHALL REMAIN AS PROPERTY OF THE OWNER. ALL ITEMS TO BE SALVAGED FOR REUSE/REINSTALLATION MUST MEET CURRENT CODE REQUIREMENTS. COORDINATE ITEMS TO BE RETAINED WITH OWNER AND REMOVE FROM CONSTRUCTION SITE TO A LOCATION APPROVED BY OWNER. REMOVED MATERIALS, NOT INDICATED OR DIRECTED TO BE SALVAGED FOR THE OWNER'S BENEFIT ARE DEBRIS AND BECOME THE CONTRACTOR'S PROPERTY UPON REMOVAL.
4. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY SEARCH OF THE AVAILABLE RECORDS AND FIELD SURVEYS. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT, UTILITY COMPANIES, AND/OR FIELD VERIFY AND LOCATE ALL UTILITIES BEFORE PROCEEDING WITH WORK. THE CONTRACTOR IS ALSO REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. NOTIFY THE ENGINEER IF ADDITIONAL UTILITIES ARE LOCATED OR IF CONFLICTS ARE FOUND WITH EXISTING CONDITIONS.
5. ALL TREES TO BE REMOVED SHALL BE MARKED BY CONTRACTOR AND APPROVED FOR REMOVAL BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO REMOVING OR CUTTING TREE(S). EXISTING ROOTS SHALL BE GRINDED TO A DEPTH OF APPROXIMATELY 3-FEET. USE CAUTION WHILE GRINDING WHEN EXISTING UTILITIES ARE IN CLOSE PROXIMITY TO TREES. ALL TREES TO REMAIN WITHIN THE LIMIT OF WORK SHALL BE PROTECTED AND MAINTAINED PER SPECIFICATIONS AND DETAILS.
6. SAWCUT EXISTING CONCRETE AND ASPHALT TO AN EXISTING CONTROL JOINT WHERE POSSIBLE, AT MINIMUM TO A NEAT-STRAIGHT LINE. ALL DEBRIS SHALL BE HAULED OFFSITE TO A LEGAL DUMPING SITE OR SALVAGED FOR REUSE ON PROJECT AS NOTED.
7. WORK WITHIN CITY, COUNTY, OR STATE RIGHT-OF-WAY REQUIRES A SEPARATE ENCROACHMENT PERMIT WHICH THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING PRIOR TO STARTING WORK WITHIN RIGHT-OF-WAY.
8. CONTRACTOR TO COORDINATE UTILITY DEMOLITION WITH DRAINAGE AND UTILITY WORK SHOWN IN THIS PLAN SET. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED PER PROJECT SPECIFICATIONS.
9. EXISTING DRY UTILITIES SHOWN FOR DEMOLITION ARE SHOWN FOR COORDINATION ONLY. REFER TO OTHER DISCIPLINES FOR LIMITS AND DETAILS OF DEMOLITION.
10. THE CONTRACTOR SHALL RECYCLE CONSTRUCTION DEBRIS, ASPHALT, AND CONCRETE GENERATED FROM REMOVALS REQUIRED TO CONSTRUCT THE PROJECT. THE CONTRACTOR IS OBLIGATED, UNDER THIS CONTRACT, TO RECYCLE THE WASTE MATERIAL THROUGH AN APPROVED RECYCLING PLANT.
11. A LIST OF FACILITIES THAT ACCEPT CONSTRUCTION & DEMOLITION DEBRIS CAN BE FOUND ON THE CALRECYCLE WEBSITE AT: HTTPS://WWW.CALRECYCLE.CA.GOV/CONDEMO
12. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING BUILDING FINISHES DURING DEMOLITION. ANY FINISH THAT IS DAMAGED DURING DEMOLITION SHALL BE REPAIRED OR REPLACED IN-KIND OR BETTER.

GENERAL NOTES TO CONTRACTOR

1. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY OWNERS FOR LOCATION, REMOVAL, AND/OR RELOCATION OF ANY UTILITY SERVICES AFFECTED BY CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT UNDERGROUND OR OVERHEAD STRUCTURES WHETHER OR NOT THEY ARE SHOWN ON THESE DRAWINGS.
2. THE CONTRACTOR SHALL NOTIFY THE PROJECT INSPECTOR AND THE RESPECTIVE UTILITY OWNERS AND OTHER AGENCIES AT LEAST TWO WORKING DAYS PRIOR TO START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING, VERIFYING LOCATIONS (BOTH HORIZONTAL AND VERTICAL), AND MAINTAINING ALL EXISTING UNDERGROUND UTILITIES, BOTH SHOWN ON THE PLANS AND/OR NOT SHOWN ON THE PLANS DURING CONSTRUCTION. REPAIR DAMAGED UTILITIES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS BECAUSE OF LOCATIONS OF EXISTING FACILITIES AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE, OR NON-EXISTENCE OF ANY UTILITY AND/OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OF RECORD AND/OR NOT OF RECORD SHOWN OR NOT SHOWN AND ANY OTHER LINE(S) OR STRUCTURE(S) NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF, AND/OR DAMAGE TO THESE LINE(S) AND/OR STRUCTURE(S).
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SHORING AT PROPOSED BUILDING FOUNDATIONS, FOOTINGS, AND WALLS TO PROTECT EXISTING UTILITIES IN PLACE.
6. UNAUTHORIZED CHANGES AND USES - CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
7. THE CONTRACTOR SHALL MAINTAIN THE EXISTING ACCESSIBLE ROUTE CLEAR OR PROVIDE AN ALTERNATE ACCESSIBLE ROUTE OF TRAVEL DURING DEMOLITION AND/OR CONSTRUCTION.
8. THE CONTRACTOR SHALL MAINTAIN THE EXISTING FIRE EXITS AND STAIRS CLEAR AND USABLE OR PROVIDE ALTERNATE FIRE EXITS DURING DEMOLITION AND/OR CONSTRUCTION.

EARTHWORK NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE GRADING PLANS AND SOILS REPORT THOROUGHLY PRIOR TO SITE MOBILIZATION. IT IS ALSO THE GRADING CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CIVIL AND SOILS ENGINEERS IF ONSITE DISCREPANCIES ARE OBSERVED THAT WOULD AFFECT THE EARTHWORK QUANTITIES.
2. THE EXISTING TOPOGRAPHY AS DELINEATED ON THESE DRAWINGS SHALL BE UTILIZED AS THE BASIS FOR ALL EARTHWORK COMPUTATIONS. SAID TOPOGRAPHY SHALL BE PRESUMED TO BE ACCEPTABLE TO ALL INTERESTED PARTIES UNLESS A DEVIATION IS FOUND PRIOR TO THE START OF GRADING IN ANY SPECIFIC AREAS. ANY DEVIATION SO DETERMINED SHALL BE PROMPTLY TRANSMITTED TO ALL INTERESTED PARTIES.
3. THE CONTRACTOR IS REQUIRED TO ESTIMATE THE QUANTITIES OF GRADING WORK TO BE DONE AND INCLUDE ALL COSTS THEREFROM WITH HIS BID, AS NO ADDITIONAL ALLOWANCE WILL BE MADE WITHOUT PRIOR CONSENT FROM THE OWNER.
4. OVER-EXCAVATION AND/OR EXCESS BACKFILLING OR DUPLICATION OF GRADING ACTIVITIES IS NOT A BASIS FOR ADDITIONAL COMPENSATION. THIS ALSO APPLIES WHERE MATERIAL IS TO BE REMOVED AND REPLACED TO REDUCE MOISTURE CONTENT.
5. OFF-SITE DISPOSAL OF EXCAVATION MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID. THE CONTRACTOR SHALL HOLD THE OWNER AND ENGINEER HARMLESS AS A RESULT OF ANY CLAIMS ARISING FROM THE ACTIONS ENROUTE OR AWAY FROM THE SITE.
6. EARTH VOLUMES SHOWN HEREON ARE ESTIMATES BASED UPON THE GEOTECHNICAL ANALYSIS PERFORMED BY THE NAMED SOILS ENGINEER AND TOPOGRAPHIC SURVEY OF THE EXISTING GROUND SURFACE AT THE TIME OF PLAN PREPARATION. EARTHWORK VOLUMES ARE COMPUTED BY METHODS COMMONLY USED IN STANDARD ENGINEERING PRACTICE, AND ARE INTENDED FOR USE IN ESTABLISHING GOVERNING AGENCY FEES. ACTUAL FIELD CONDITIONS MAY VARY FROM OBSERVED OR MEASURED CONDITIONS AT THE TIME OF PLAN PREPARATION. EARTHWORK QUANTITIES MAY VARY AS A RESULT.
7. ANY EXPORT OR IMPORT REQUIRED TO BALANCE THE SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. PAVEMENT AND SUBGRADE RECOMMENDATIONS RELATED TO OVER-EXCAVATION, PAVEMENT SUBGRADE, ETC., PER GEOTECHNICAL REPORT.

GEOTECHNICAL INFORMATION

FOR SITE PREPARATION, OVEREXCAVATION, FOUNDATION RECOMMENDATIONS, PAVEMENT, SUBGRADE, AND GRADATION REQUIREMENTS SEE GEOTECHNICAL INVESTIGATION REPORT ENTITLED:

"GEOTECHNICAL EXPLORATION REPORT
MALIBU MIDDLE AND HIGH SCHOOL CAMPUS
PHASE II IMPROVEMENTS
PROPOSED AQUATIC CENTER, MIDDLE SCHOOL BUILDING, AND GYMNASIUM
30215 MORNING VIEW DRIVE
MALIBU, LOS ANGELES COUNTY, CALIFORNIA "

PREPARED BY:	LEIGHTON CONSULTING, INC. 2600 MICHELSON DRIVE, SUITE 400 IRVINE, CALIFORNIA 92612
PROJECT NO:	036.0000025785
DATED:	OCT 16, 2024
REVISED:	MAY 23, 2025

EARTHWORK QUANTITIES

APPROXIMATE CUT:	8,140 CY
APPROXIMATE FILL:	4,303 CY
NET:	3,837 CY (EXPORT)

NOTE:
EARTHWORK QUANTITIES INDICATED ARE FOR REFERENCE ONLY (NOT FOR BID OR PAYMENT). THE CONTRACTOR IS RESPONSIBLE FOR ACTUAL QUANTITIES.

HAUL ROUTE TO BE DETERMINED AT PRE-GRADE MEETING AND ALL NECESSARY PERMITS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR

NOTE: PROJECT GEOTECHNICAL CONSULTANT HAS RECOMMENDED THAT ADDITIONAL EXPANSION INDEX TESTING BE PERFORMED AFTER THE COMPLETION OF GRADING TO QUANTIFY THE EI VALUES PRESENTED IN THE REPORT.

BENCHMARK

US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM

DATUM STATEMENT

STATE PLANE COORDINATES, CALIFORNIA SYSTEM ZONE 5 BASED ON NAD83 (CORS96) (EPOCH: 2002.0000) REFERENCE FRAME. THE HORIZONTAL COORDINATE VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS THAT WERE POST-PROCESSED USING ON-LINE POSITIONING USER SERVICE (OPUS) PROVIDED BY THE US NATIONAL GEODETIC SURVEY.

VERTICAL VALUES ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 USING THE FOLLOWING US NATIONAL GEODETIC SURVEY BENCHMARKS: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722. SEE SHEET 1 OF SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT" JOB NO. 1SAN080102 TASK 100 FOR THE BENCHMARK DESCRIPTION.

BASIS OF BEARINGS

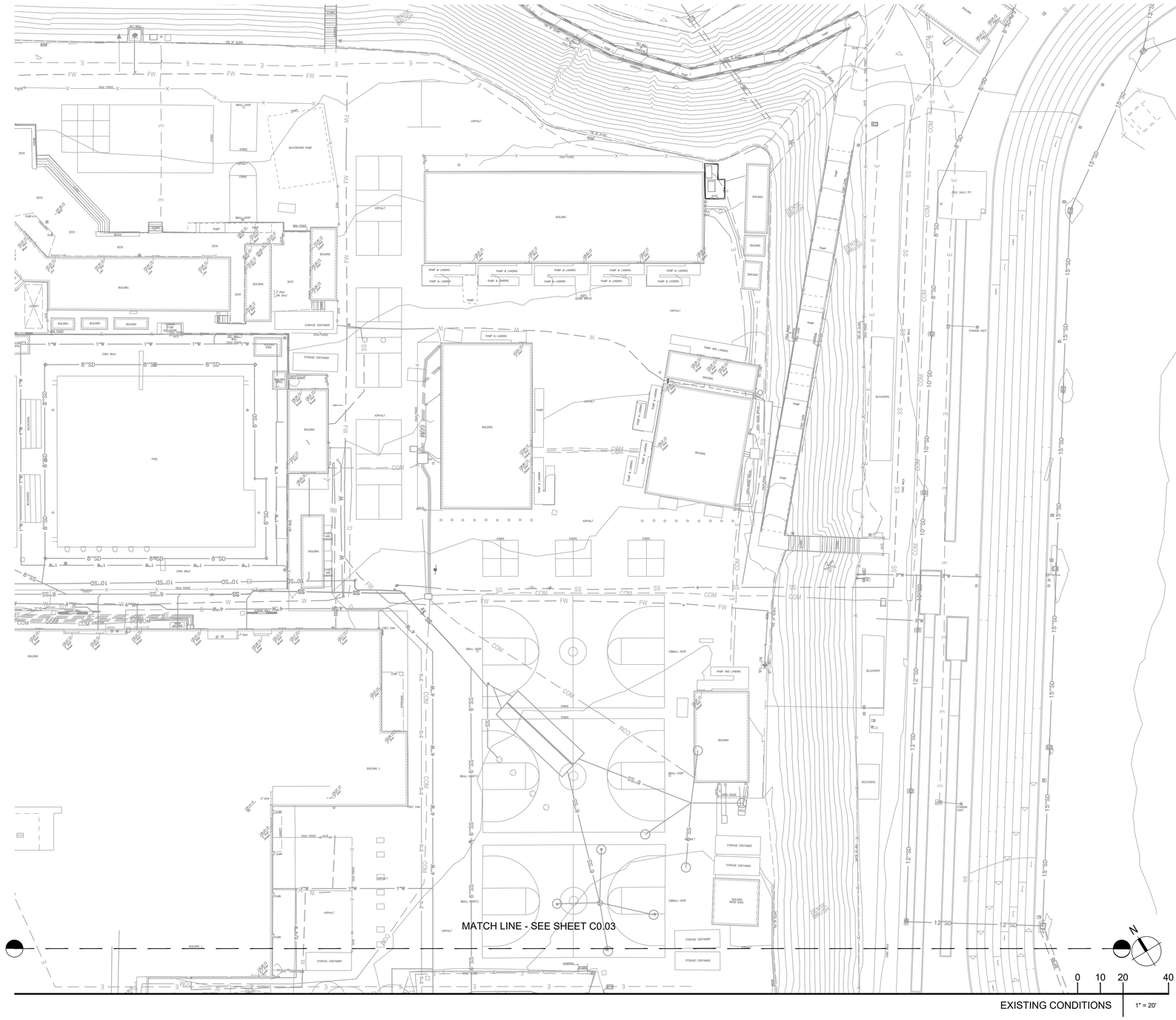
THE BOUNDARY LINES SHOWN HEREON ARE BASED UPON RECOVERED CITY, COUNTY AND/OR PRIVATE SURVEY MONUMENTS. SEE PSOMAS MAP "BOUNDARY SURVEY"

LEGAL DESCRIPTION

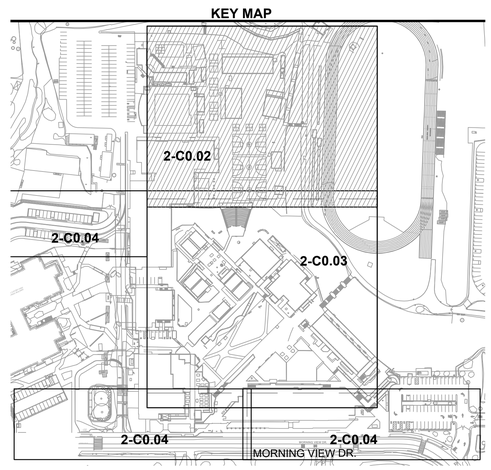
PARCELS 10, 11 AND 12 IN BLOCK 5 AS SHOWN ON THE RECORD OF SURVEY FILE DIN BOOK 56 PAGES 14 TO 17 INCLUSIVE OF RECORDS OF SURVEY, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

FIRE PROTECTION SYSTEM NOTES

1. PRIOR TO INSTALLATION, ALL P



KEY MAP



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ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING

949-261-1001 Office

LPADesignStudios.com

5301 California Avenue, Suite 100
Irvine, California 92617

REGISTERED PROFESSIONAL ENGINEER
KATHLEEN M. SUTHAR
R.C.E. 68369
EXP. 9-30-27
STATE OF CALIFORNIA

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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	08/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	08/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

EXISTING CONDITIONS

2-C0.02

MATCH LINE - SEE SHEET C0.02

MATCH LINE - SEE SHEET C0.03

MATCH LINE - SEE SHEET C0.04

SD LIFT STATION
(107.00)RIM
100.50 INV W
103.70 INV E
98.88 BTM

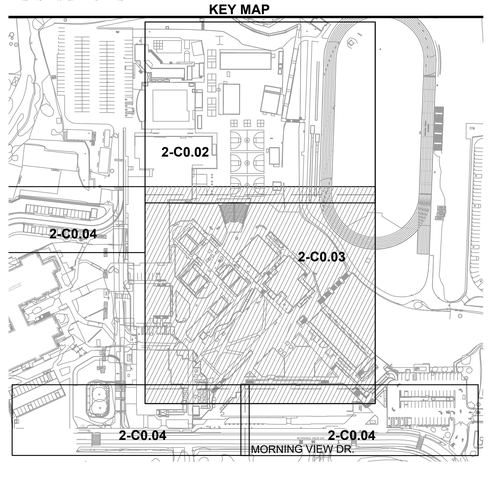
SD FM

EXISTING CONDITIONS

0 10 20 40

1" = 20'

KEY MAP



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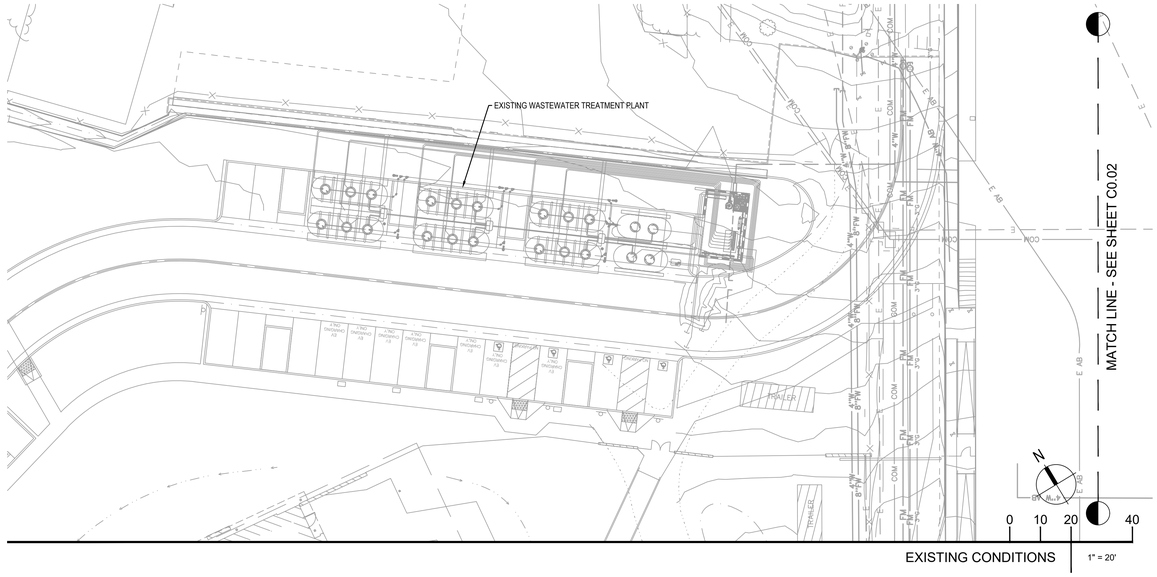
Revision	Date

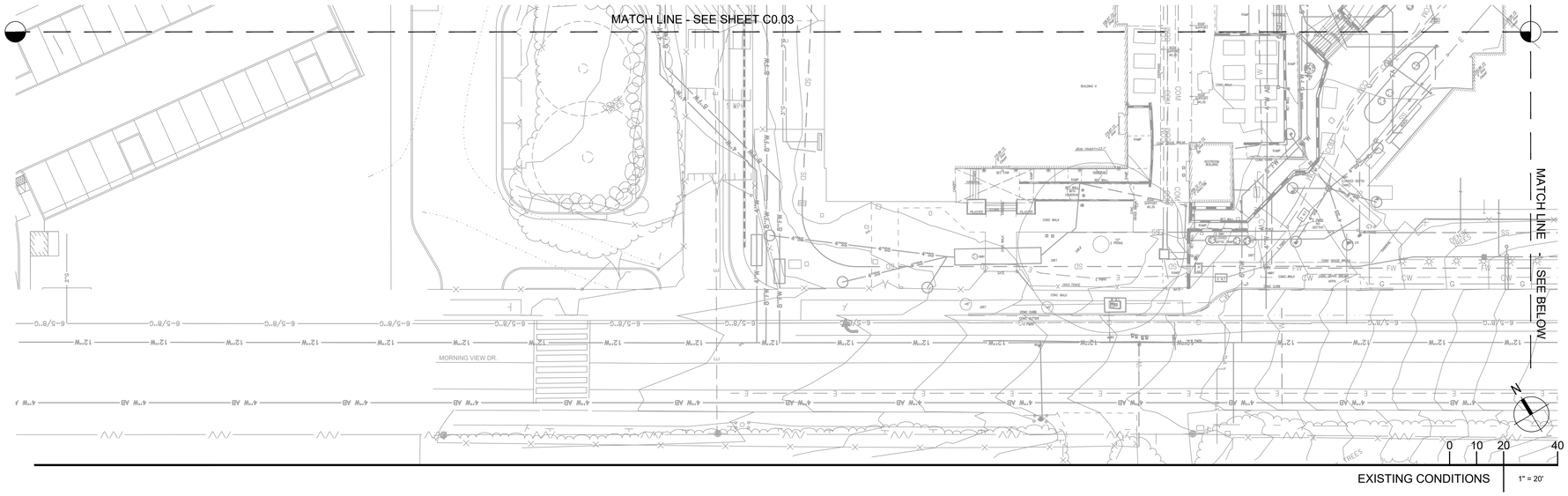
Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

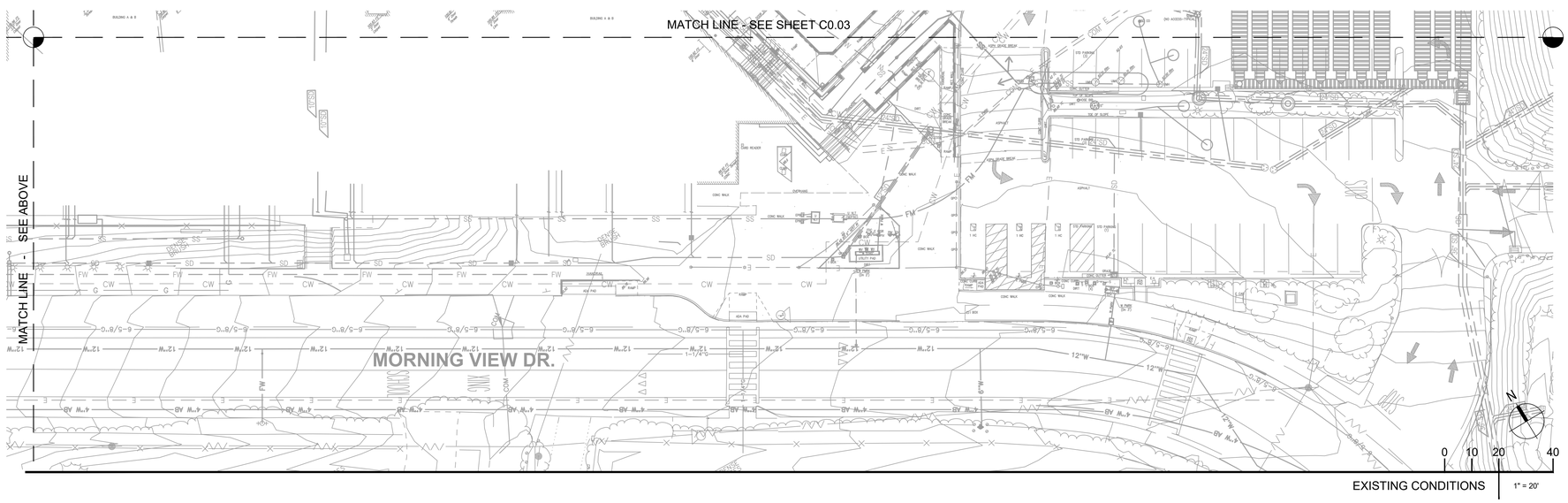
Job Number	31722
Checked By	RR
Scale	AS NOTED

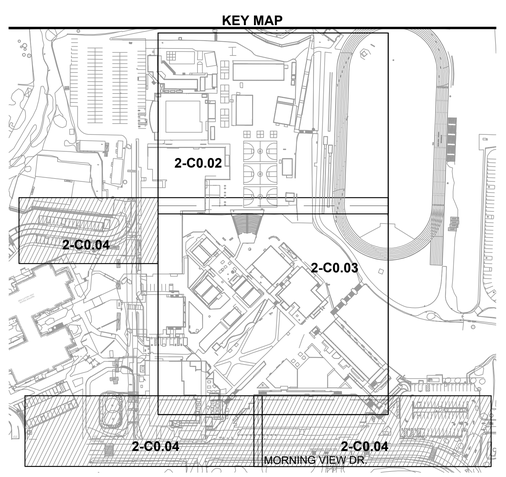
EXISTING CONDITIONS

2-C0.03









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INCREMENT 02

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Malibu, CA 90265

Developed for
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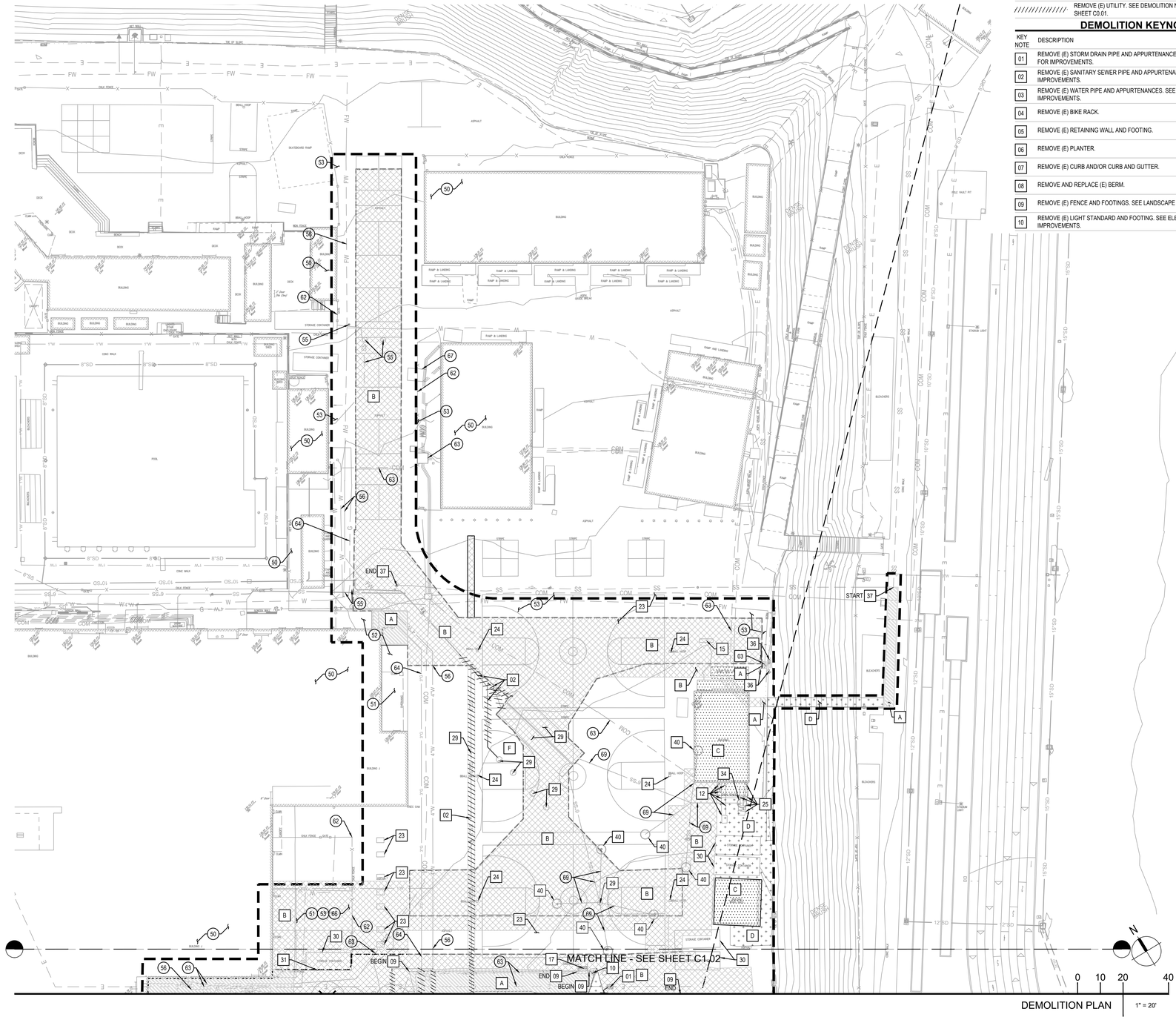
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/12/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

EXISTING CONDITIONS

2-C0.04



DEMOLITION PLAN

DEMOLITION NOTES

-SEE DEMOLITION NOTES, SHEET C0.01.

DEMOLITION LEGEND

LABEL	DESCRIPTION
A	REMOVE (E) CONCRETE PAVEMENT/SIDEWALK. SEE DEMOLITION NOTE 10 SHEET C0.01.
B	REMOVE (E) AC PAVEMENT. SEE DEMOLITION NOTE 10 SHEET C0.01.
C	REMOVE (E) BUILDING STRUCTURE. SEE DEMOLITION NOTE 2 SHEET C0.01.
D	REMOVE (E) LANDSCAPING/DIRT. SEE LANDSCAPE AND IRRIGATION PLANS FOR IMPROVEMENTS.
E	REMOVE (E) ARTIFICIAL TURF.
	REMOVE (E) TREE. SEE DEMOLITION NOTE 5 SHEET C0.01.
	(E) TREE TO REMAIN AND BE PROTECTED. SEE DEMOLITION NOTE 5 SHEET C0.01.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION NOTE 6 AND 10 SHEET C0.01.
	APPROXIMATE LIMIT OF WORK.
//////////	REMOVE (E) UTILITY. SEE DEMOLITION NOTES 2, 4, 8, AND 9 SHEET C0.01.

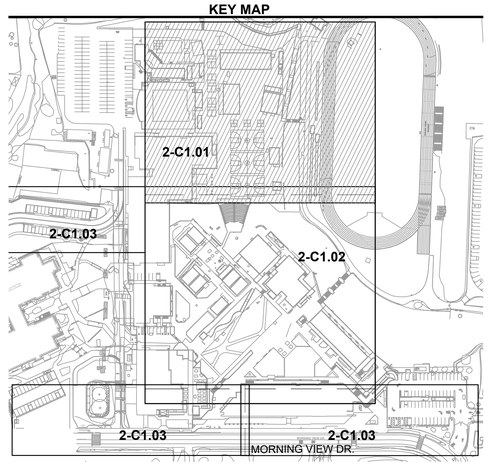
DEMOLITION KEYNOTES

KEY NOTE	DESCRIPTION
01	REMOVE (E) STORM DRAIN PIPE AND APPURTENANCES. SEE 2-C3.01 - 2-C3.02 PLAN FOR IMPROVEMENTS.
02	REMOVE (E) SANITARY SEWER PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
03	REMOVE (E) WATER PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
04	REMOVE (E) BIKE RACK.
05	REMOVE (E) RETAINING WALL AND FOOTING.
06	REMOVE (E) PLANTER.
07	REMOVE (E) CURB AND/OR CURB AND GUTTER.
08	REMOVE AND REPLACE (E) BERM.
09	REMOVE (E) FENCE AND FOOTINGS. SEE LANDSCAPE PLANS FOR IMPROVEMENTS.
10	REMOVE (E) LIGHT STANDARD AND FOOTING. SEE ELECTRICAL PLANS FOR IMPROVEMENTS.
11	REMOVE (E) GAS FACILITIES.
12	REMOVE (E) ELECTRICAL CONDUITS OR FACILITIES. SEE ELECTRICAL PLANS FOR DETAIL AND IMPROVEMENTS.
13	REMOVE (E) RAMP, LANDING AND HANDRAIL.
14	REMOVE (E) AMPHITHEATER AND ASSOCIATED FEATURES.
15	REMOVE (E) BENCH.
16	REMOVE (E) HANDRAIL.
17	REMOVE (E) STAIRS AND HANDRAILS IF PRESENT.
18	REMOVE (E) VALLEY GUTTER.
19	SALVAGE (E) MEMORIAL PLAQUE AND RETURN TO DISTRICT.
20	SALVAGE (E) BENCH WITH MEMORIAL PLAQUE AND RETURN TO DISTRICT.
21	SALVAGE (E) BOULDER WITH MEMORIAL PLAQUE AND RETURN TO DISTRICT.
22	REMOVE (E) GRAVEL.
23	REMOVE (E) STRIPING.
24	SALVAGE (E) BASKETBALL POLE AND ALL ASSOCIATED COMPONENTS BUT NOT LIMITED TO IE BACKSTOP/EXTENSION, RIM/GOAL/NETTING, POLE PADDING, AND RETURN TO DISTRICT FOR REUSE. SEE LANDDSCAPE PLANS FOR INSTALLATION IMPROVEMENT AND LOCATION.
25	REMOVE (E) TELECOMMUNICATION FACILITIES. SEE ELECTRICAL PLANS FOR IMPROVEMENTS.
26	REMOVE (E) CONCRETE BENCH.
27	REMOVE (E) CANOPY OVERHANG, COLUMNS, AND FOOTINGS.
28	REMOVE (E) IRRIGATION FACILITIES.
29	REMOVE (E) SEPTIC SEWER TANK AND ASSOCIATED FACILITIES IN ACCORDANCE WITH LOCAL AND STATE GUIDELINES. REMEDIATE (E) SOIL AS REQUIRED.
30	SALVAGE AND RELOCATE (E) STORAGE CONTAINER. FINAL LOCATION PER DISTRICT.
31	REMOVE AND REPLACE (E) CHAIN LINK FENCE.
32	REMOVE (E) ELECTRIC PULL BOX.
33	REMOVE (E) SEPTIC PUMP AND VAULT.
34	REMOVE (E) SEEPAGE PITS IN ACCORDANCE WITH LOCAL AND STATE GUIDELINES. REMEDIATE (E) SOIL AS REQUIRED.
35	REMOVE (E) TRACTION PAD.
36	REMOVE (E) GUARD POST.
37	(E) SEWER MAIN TO BE ABANDONED IN PLACE. PRIOR TO ABANDONMENT, ALL ACTIVE SERVICE CONNECTIONS SHALL BE PERMANENTLY REROUTED AS SHOWN ON THE UTILITY PLANS OR AS DIRECTED BY THE ENGINEER. SEWER MAIN SHALL BE THOROUGHLY CLEANED, FLUSHED, AND SLURRY FILLED.
38	(E) STORM DRAIN TO BE ABANDONED IN PLACE.
39	SLURRY FILL (E) SANITARY SEWER SEPTIC TANK AND SEEPAGE PITS. ABANDON (E) SEWER LATERALS. SEPTIC TANK AND SEEPAGE PITS IN PLACE PER SEPARATE WASTEWATER PLAN.
40	SLURRY FILL (E) SEEPAGE PITS AND ABANDON IN PLACE PER SEPARATE WASTEWATER PLAN.

PROTECTION KEYNOTES

KEY NOTE	DESCRIPTION
50	PROTECT (E) BUILDING, FOUNDATION AND OTHER STRUCTURAL FEATURES AND BUILDING UTILITIES.
51	PROTECT (E) CANOPY AND COLUMNS, AND OTHER STRUCTURAL FEATURES AND CANOPY UTILITIES.
52	PROTECT (E) CONCRETE PAVEMENT/SIDEWALK.
53	PROTECT (E) AC PAVEMENT.
54	PROTECT (E) STORM DRAIN FACILITIES.
55	PROTECT (E) SANITARY SEWER FACILITIES.
56	PROTECT (E) WATER SERVICE FACILITIES.
57	PROTECT (E) STORAGE CONTAINER.
58	PROTECT (E) CURB.
59	PROTECT (E) CURB AND GUTTER.
60	PROTECT (E) RETAINING WALL.
61	PROTECT (E) FIRE WATER SERVICE FACILITIES.
62	PROTECT (E) FENCE.
63	PROTECT (E) ELECTRICAL OR COMMUNICATION FACILITIES.
64	PROTECT (E) GAS FACILITIES.
65	PROTECT (E) IRRIGATION FACILITIES.
66	PROTECT AND RELOCATE (E) GYM EQUIPMENT.
67	RELOCATE (E) BENCHES.
68	PROTECT (E) STAIRS AND FOUNDATIONS.

KEY MAP



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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

DEMOLITION PLAN

2-C1.01

MATCH LINE - SEE SHEET C1.01

MATCH LINE - SEE SHEET C1.03

DEMOLITION NOTES

-SEE DEMOLITION NOTES, SHEET C0.01.

DEMOLITION LEGEND

LABEL	DESCRIPTION
A	REMOVE (E) CONCRETE PAVEMENT/SIDEWALK. SEE DEMOLITION NOTE 10 SHEET C0.01.
B	REMOVE (E) AC PAVEMENT. SEE DEMOLITION NOTE 10 SHEET C0.01.
C	REMOVE (E) BUILDING STRUCTURE. SEE DEMOLITION NOTE 2 SHEET C0.01.
D	REMOVE (E) LANDSCAPING/DIRT. SEE LANDSCAPE AND IRRIGATION PLANS FOR IMPROVEMENTS.
E	REMOVE (E) ARTIFICIAL TURF.
	REMOVE (E) TREE. SEE DEMOLITION NOTE 5 SHEET C0.01.
	(E) TREE TO REMAIN AND BE PROTECTED. SEE DEMOLITION NOTE 5 SHEET C0.01.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION NOTE 6 AND 10 SHEET C0.01.
	APPROXIMATE LIMIT OF WORK.
	REMOVE (E) UTILITY. SEE DEMOLITION NOTES 2, 4, 8, AND 9 SHEET C0.01.

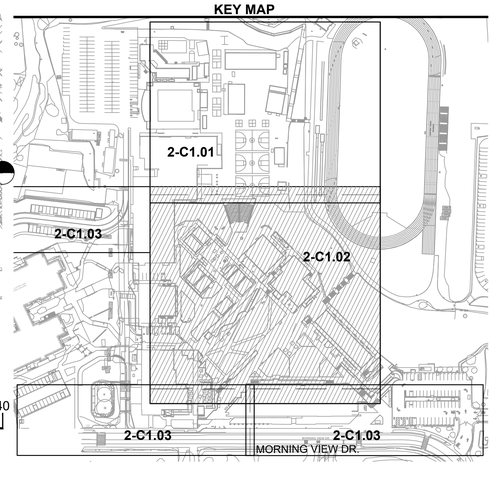
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PROTECTION KEYNOTES

KEY NOTE	DESCRIPTION
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52	PROTECT (E) CONCRETE PAVEMENT/SIDEWALK.
53	PROTECT (E) AC PAVEMENT.
54	PROTECT (E) STORM DRAIN FACILITIES.
55	PROTECT (E) SANITARY SEWER FACILITIES.
56	PROTECT (E) WATER SERVICE FACILITIES.
57	PROTECT (E) STORAGE CONTAINER.
58	PROTECT (E) CURB.
59	PROTECT (E) CURB AND GUTTER.
60	PROTECT (E) RETAINING WALL.
61	PROTECT (E) FIRE WATER SERVICE FACILITIES.
62	PROTECT (E) FENCE.
63	PROTECT (E) ELECTRICAL OR COMMUNICATION FACILITIES.
64	PROTECT (E) GAS FACILITIES.
65	PROTECT (E) IRRIGATION FACILITIES.
66	PROTECT AND RELOCATE (E) GYM EQUIPMENT.
67	RELOCATE (E) BENCHES.
68	PROTECT (E) STAIRS AND FOUNDATIONS.

KEY MAP



0 10 20 40

DEMOLITION PLAN 1" = 20'

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LPADesignStudios.com
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Irvine, California 92617

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EXP. 9-30-27
STATE OF CALIFORNIA

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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

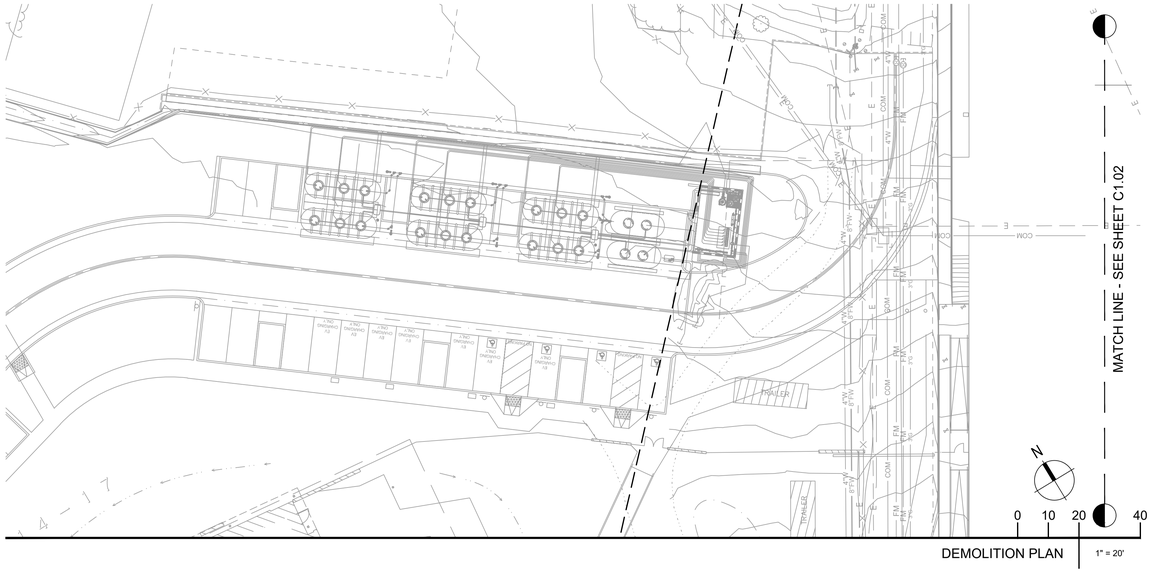
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

DEMOLITION PLAN

2-C1.02



DEMOLITION NOTES

-SEE DEMOLITION NOTES, SHEET C0.01.

DEMOLITION LEGEND

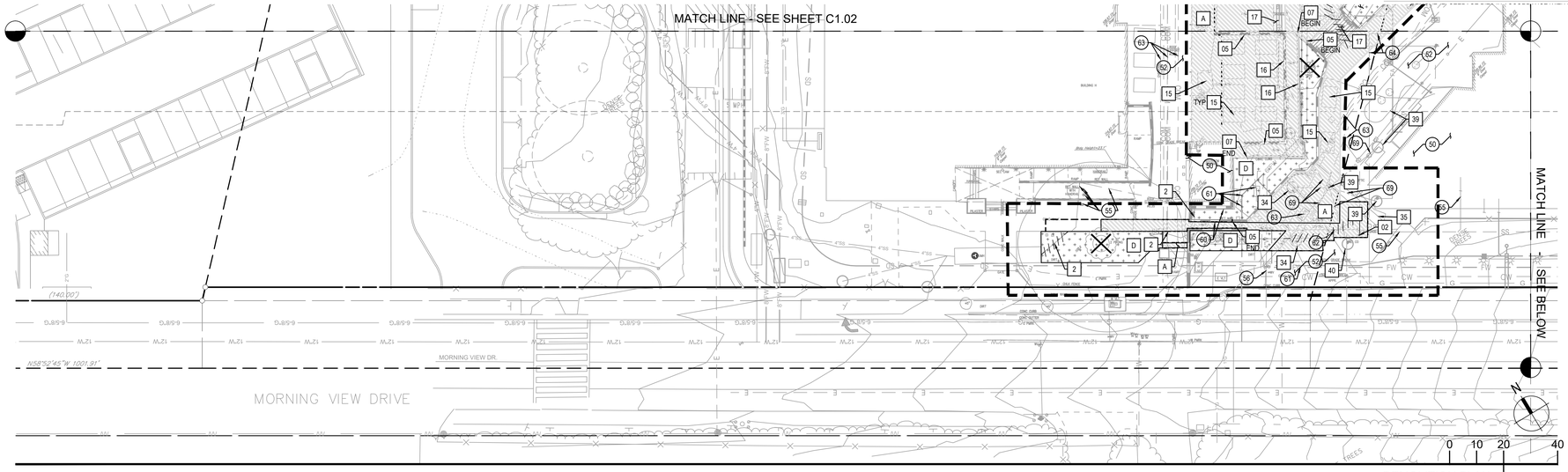
LABEL	DESCRIPTION
A	REMOVE (E) CONCRETE PAVEMENT/SIDEWALK. SEE DEMOLITION NOTE 10 SHEET C0.01.
B	REMOVE (E) AC PAVEMENT. SEE DEMOLITION NOTE 10 SHEET C0.01.
C	REMOVE (E) BUILDING STRUCTURE. SEE DEMOLITION NOTE 2 SHEET C0.01.
D	REMOVE (E) LANDSCAPING/DIRT. SEE LANDSCAPE AND IRRIGATION PLANS FOR IMPROVEMENTS.
E	REMOVE (E) ARTIFICIAL TURF.
	REMOVE (E) TREE. SEE DEMOLITION NOTE 5 SHEET C0.01.
	(E) TREE TO REMAIN AND BE PROTECTED. SEE DEMOLITION NOTE 5 SHEET C0.01.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION NOTE 6 AND 10 SHEET C0.01.
	APPROXIMATE LIMIT OF WORK.
	REMOVE (E) UTILITY. SEE DEMOLITION NOTES 2, 4, 8, AND 9 SHEET C0.01.

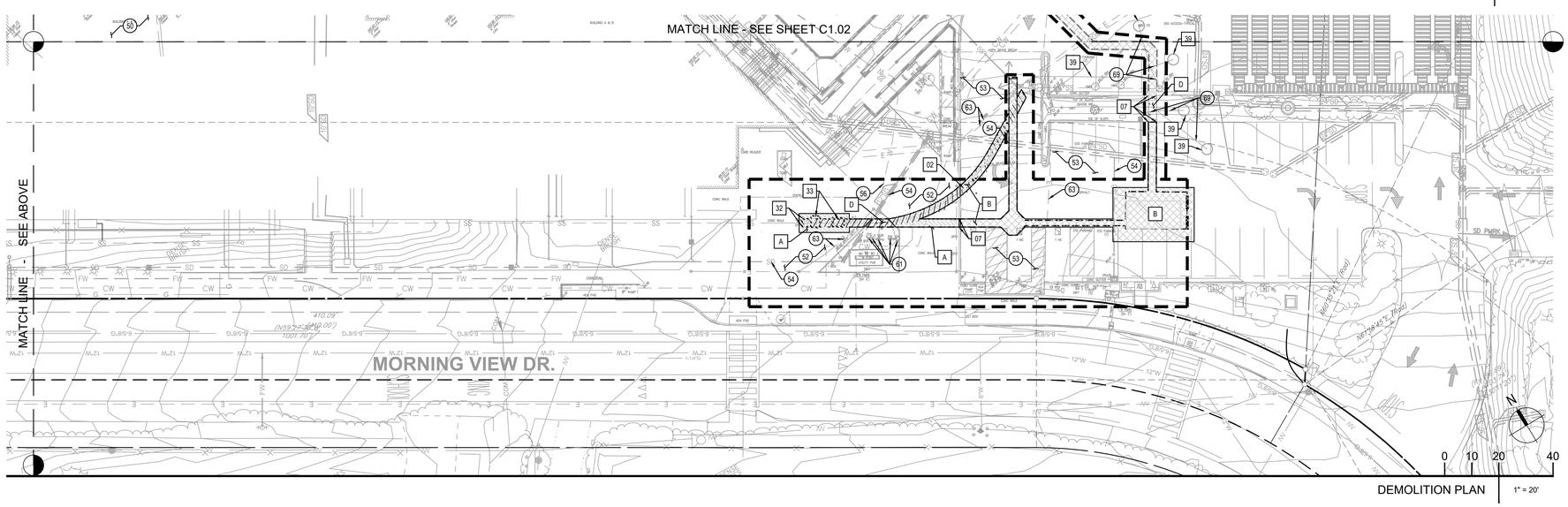
DEMOLITION KEYNOTES

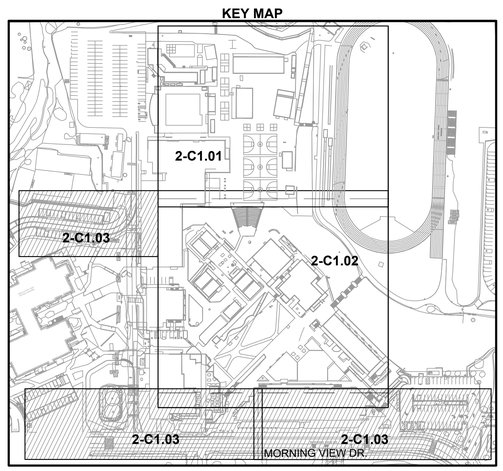
KEY NOTE	DESCRIPTION
01	REMOVE (E) STORM DRAIN PIPE AND APPURTENANCES. SEE 2-C3.01 - 2-C3.02 PLAN FOR IMPROVEMENTS.
02	REMOVE (E) SANITARY SEWER PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
03	REMOVE (E) WATER PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
04	REMOVE (E) BIKE RACK.
05	REMOVE (E) RETAINING WALL AND FOOTING.
06	REMOVE (E) PLANTER.
07	REMOVE (E) CURB AND/OR CURB AND GUTTER.
08	REMOVE AND REPLACE (E) BERM.
09	REMOVE (E) FENCE AND FOOTINGS. SEE LANDSCAPE PLANS FOR IMPROVEMENTS.
10	REMOVE (E) LIGHT STANDARD AND FOOTING. SEE ELECTRICAL PLANS FOR IMPROVEMENTS.
11	REMOVE (E) GAS FACILITIES.
12	REMOVE (E) ELECTRICAL CONDUITS OR FACILITIES. SEE ELECTRICAL PLANS FOR DETAIL AND IMPROVEMENTS.
13	REMOVE (E) RAMP, LANDING AND HANDRAIL.
14	REMOVE (E) AMPHITHEATER AND ASSOCIATED FEATURES.
15	REMOVE (E) BENCH.
16	REMOVE (E) HANDRAIL.
17	REMOVE (E) STAIRS AND HANDRAILS IF PRESENT.
18	REMOVE (E) VALLEY GUTTER.
19	SALVAGE (E) MEMORIAL PLAQUE AND RETURN TO DISTRICT.
20	SALVAGE (E) BENCH WITH MEMORIAL PLAQUE AND RETURN TO DISTRICT.
21	SALVAGE (E) BOULDER WITH MEMORIAL PLAQUE AND RETURN TO DISTRICT.
22	REMOVE (E) GRAVEL.
23	REMOVE (E) STRIPING.
24	SALVAGE (E) BASKETBALL POLE AND ALL ASSOCIATED COMPONENTS BUT NOT LIMITED TO IE BACKSTOP/EXTENSION, RIM/GOAL/NETTING, POLE PADDING, AND RETURN TO DISTRICT FOR REUSE. SEE LANDDSCAPE PLANS FOR INSTALLATION IMPROVEMENT AND LOCATION.
25	REMOVE (E) TELECOMMUNICATION FACILITIES. SEE ELECTRICAL PLANS FOR IMPROVEMENTS.
26	REMOVE (E) CONCRETE BENCH.
27	REMOVE (E) CANOPY OVERHANG, COLUMNS, AND FOOTINGS.
28	REMOVE (E) IRRIGATION FACILITIES.
29	REMOVE (E) SEPTIC SEWER TANK AND ASSOCIATED FACILITIES IN ACCORDANCE WITH LOCAL AND STATE GUIDELINES. REMEDIATE (E) SOIL AS REQUIRED.
30	SALVAGE AND RELOCATE (E) STORAGE CONTAINER. FINAL LOCATION PER DISTRICT.
31	REMOVE AND REPLACE (E) CHAIN LINK FENCE.
32	REMOVE (E) ELECTRIC PULL BOX.
33	REMOVE (E) SEPTIC PUMP AND VAULT.
34	REMOVE (E) SEEPAGE PITS IN ACCORDANCE WITH LOCAL AND STATE GUIDELINES. REMEDIATE (E) SOIL AS REQUIRED.
35	REMOVE (E) TRACTION PAD.
36	REMOVE (E) GUARD POST.
37	(E) SEWER MAIN TO BE ABANDONED IN PLACE. PRIOR TO ABANDONMENT, ALL ACTIVE SERVICE CONNECTIONS SHALL BE PERMANENTLY REROUTED AS SHOWN ON THE UTILITY PLANS OR AS DIRECTED BY THE ENGINEER. SEWER MAIN SHALL BE THOROUGHLY CLEANED, FLUSHED, AND SLURRY FILLED.
38	(E) STORM DRAIN TO BE ABANDONED IN PLACE.
39	SLURRY FILL (E) SANITARY SEWER SEPTIC TANK AND SEEPAGE PITS. ABANDON (E) SEWER LATERALS, SEPTIC TANK AND SEEPAGE PITS IN PLACE PER SEPARATE WASTEWATER PLAN.
40	SLURRY FILL (E) SEEPAGE PITS AND ABANDON IN PLACE PER SEPARATE WASTEWATER PLAN.

PROTECTION KEYNOTES

KEY NOTE	DESCRIPTION
50	PROTECT (E) BUILDING, FOUNDATION AND OTHER STRUCTURAL FEATURES AND BUILDING UTILITIES.
51	PROTECT (E) CANOPY AND COLUMNS, AND OTHER STRUCTURAL FEATURES AND CANOPY UTILITIES.
52	PROTECT (E) CONCRETE PAVEMENT/SIDEWALK.
53	PROTECT (E) AC PAVEMENT.
54	PROTECT (E) STORM DRAIN FACILITIES.
55	PROTECT (E) SANITARY SEWER FACILITIES.
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67	RELOCATE (E) BENCHES.
68	PROTECT (E) STAIRS AND FOUNDATIONS.
69	ABANDON (E) UTILITY AND ITS APPURTENANCES IN PLACE.







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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

DEMOLITION PLAN

2-C1.03

GRADING LEGEND

SYMBOL	DESCRIPTION
PA	PLANTING AREA SEE LANDSCAPE PLAN DETAILS FOR GRADES ADJACENT TO HARDSCAPE.
	APPROXIMATE LIMIT OF WORK.
GB	GRADE BREAK.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION PLAN.
	FLOWLINE.
TOS	TOP OF SLOPE.
TOE	TOE OF SLOPE.

GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
09	JOIN EXISTING CURB AND/OR GUTTER AND MATCH GRADE.
10	JOIN EXISTING SIDEWALK AND MATCH EXISTING GRADE.
11	ADJUST EXISTING UTILITY RIM AND RISER TO FINISHED GRADE.
12	ADJUST EXISTING MANHOLE RIM TO FINISHED GRADE. MANHOLE CONE TO BE RAISED IF GRADE RINGS EXCEED ALLOWABLE HEIGHT FOR LADDER ACCESS.
14	COLD MILL EDGES TO JOIN EXISTING ASPHALT PAVEMENT AND MATCH GRADE.
15	ADJUST EXISTING STORM DRAIN INLET TO FINISHED GRADE.
16	ADJUST EXISTING DRY UTILITY VAULTS TO GRADE.
17	VALLEY GUTTER PER DETAIL 09 SHEET 2-C7.01.
18	CONSTRUCT CONCRETE MOW CURB PER DETAIL 11 SHEET L5.01.
19	V-DITCH PER DETAIL 05 SHEET 2-C7.01.

(E) BUILDING J

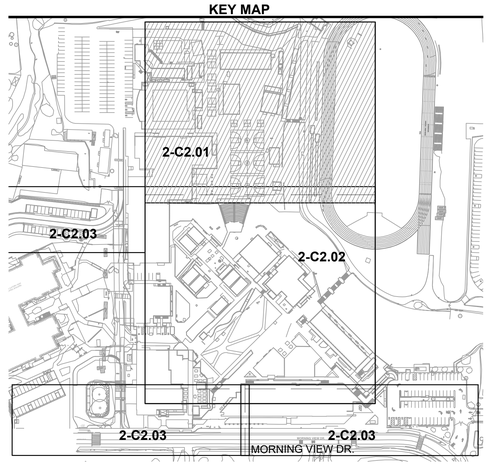
MATCH LINE - SEE SHEET 2-C2.02

START 19

0 10 20 40

GRADING PLAN 1" = 20'

KEY MAP



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LANDSCAPE ARCHITECTURE PLANNING

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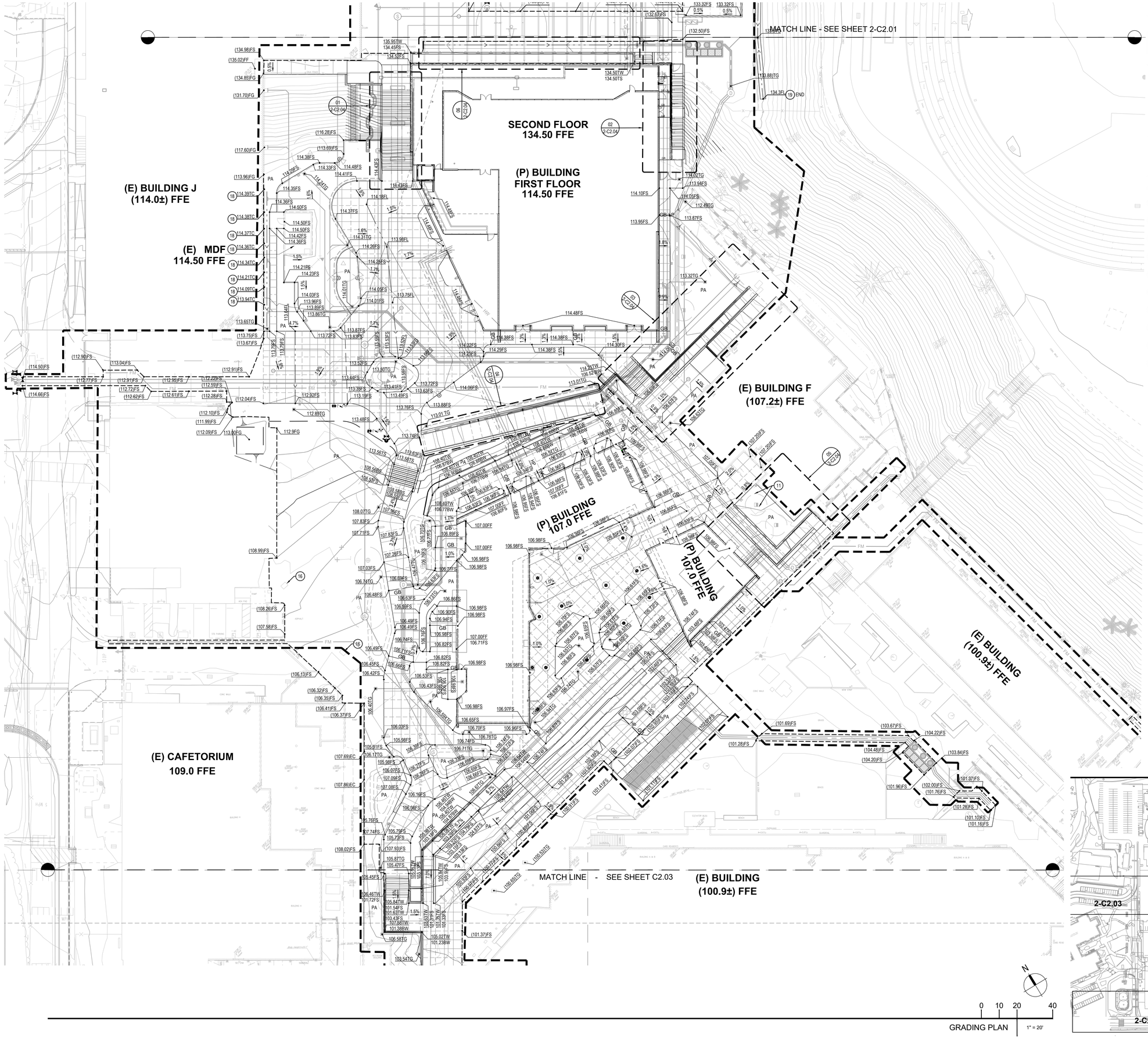
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GRADING PLAN

2-C2.01



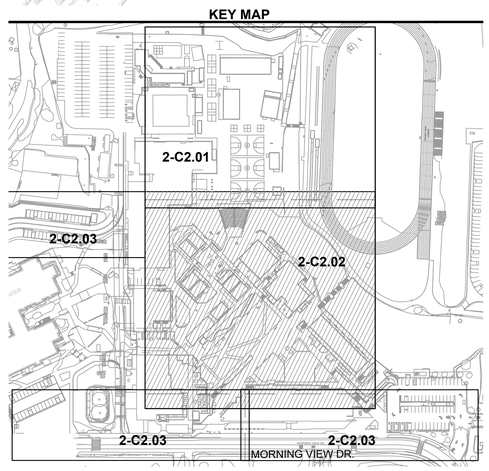
GRADING LEGEND

SYMBOL	DESCRIPTION
PA	PLANTING AREA SEE LANDSCAPE PLAN DETAILS FOR GRADES ADJACENT TO HARDSCAPE.
	APPROXIMATE LIMIT OF WORK.
GB	GRADE BREAK.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION PLAN.
	FLOWLINE.
TOS	TOP OF SLOPE.
TOE	TOE OF SLOPE.

GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
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18	CONSTRUCT CONCRETE MOW CURB PER DETAIL 11 SHEET L5.01.
19	V-DITCH PER DETAIL 05 SHEET 2-C7.01.

KEY MAP



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REGISTERED PROFESSIONAL ENGINEER KATHLEEN M. SUTHAR R.C.E. 68369 EXP. 9-30-27 CIVIL STATE OF CALIFORNIA

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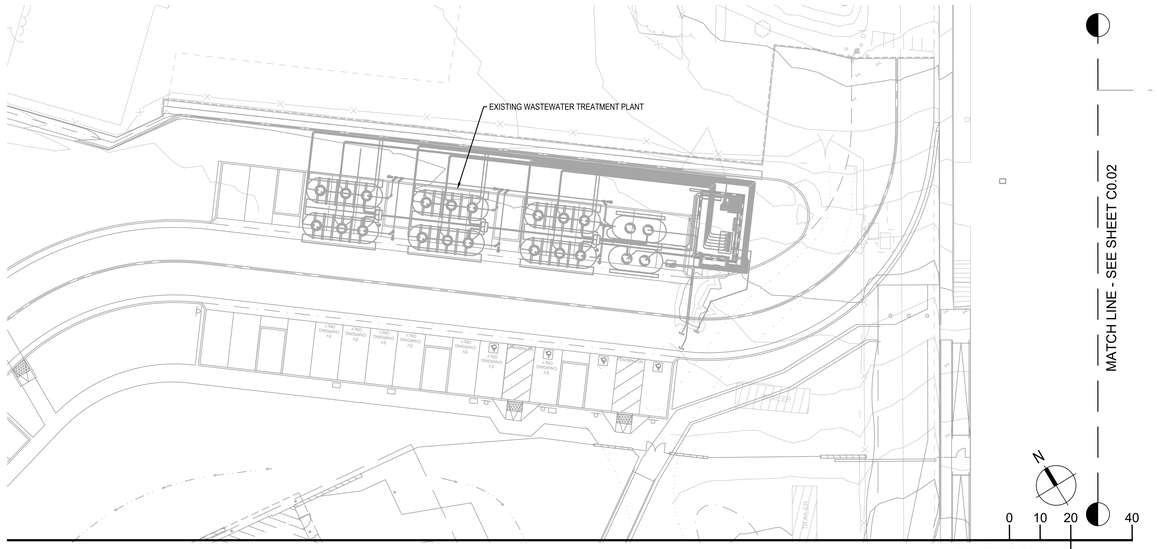
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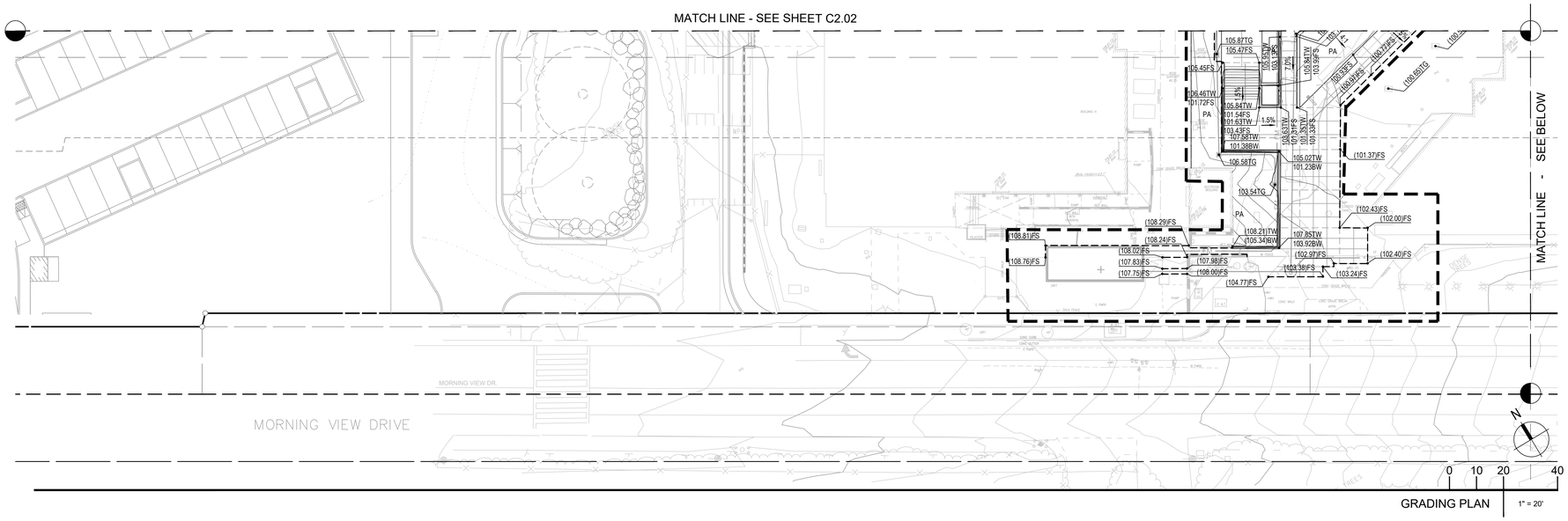
Job Number	31722
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Scale	AS NOTED

GRADING PLAN

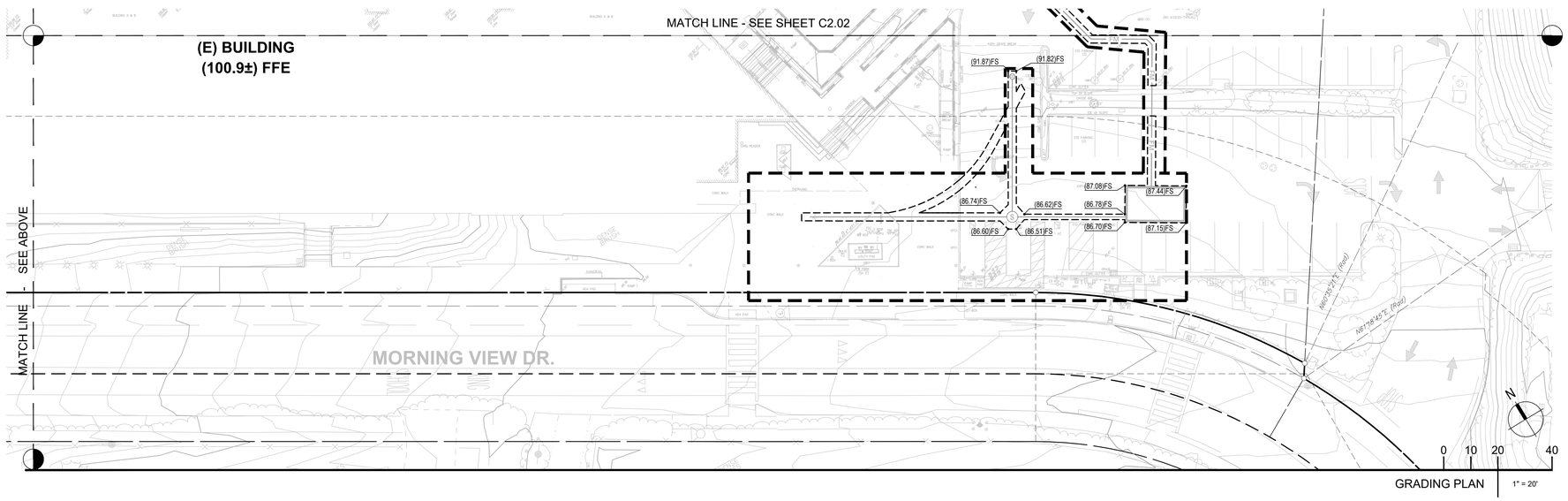
2-C2.02



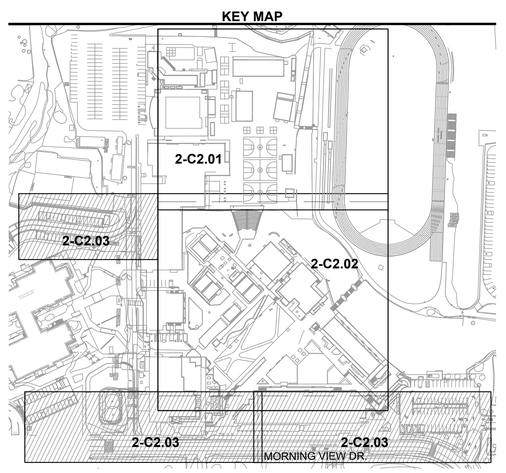
GRADING PLAN 1" = 20'



GRADING PLAN 1" = 20'



GRADING PLAN 1" = 20'



GRADING LEGEND

SYMBOL	DESCRIPTION
PA	PLANTING AREA SEE LANDSCAPE PLAN DETAILS FOR GRADES ADJACENT TO HARDSCAPE.
	APPROXIMATE LIMIT OF WORK.
GB	GRADE BREAK.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION PLAN.
	FLOWLINE.
TOS	TOP OF SLOPE.
TOE	TOE OF SLOPE.

GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
09	JOIN EXISTING CURB AND/OR GUTTER AND MATCH GRADE.
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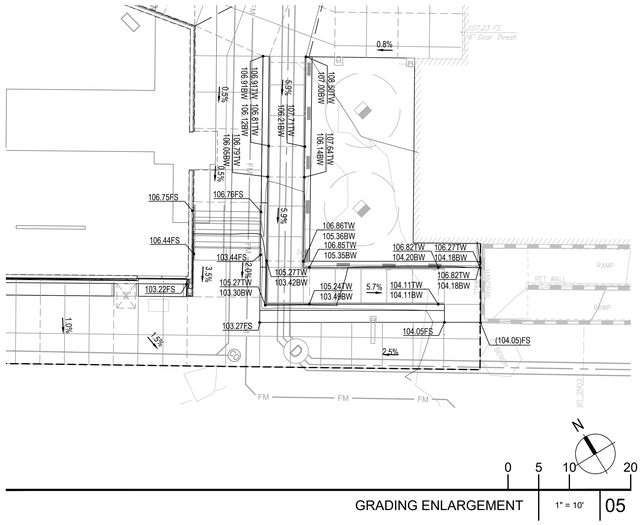
Revision	Date

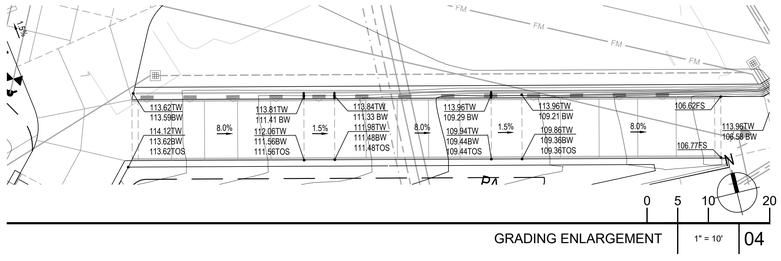
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Scale	AS NOTED

GRADING PLAN

2-C2.03



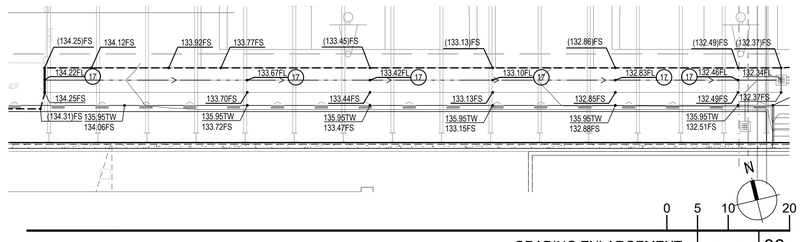


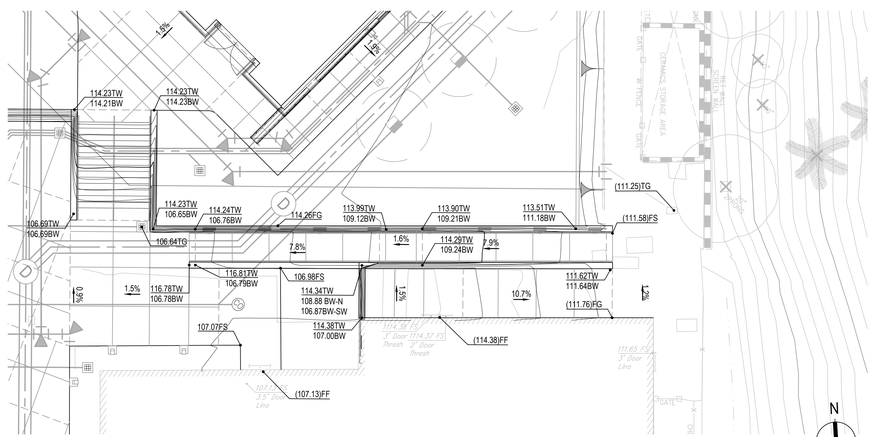
GRADING LEGEND

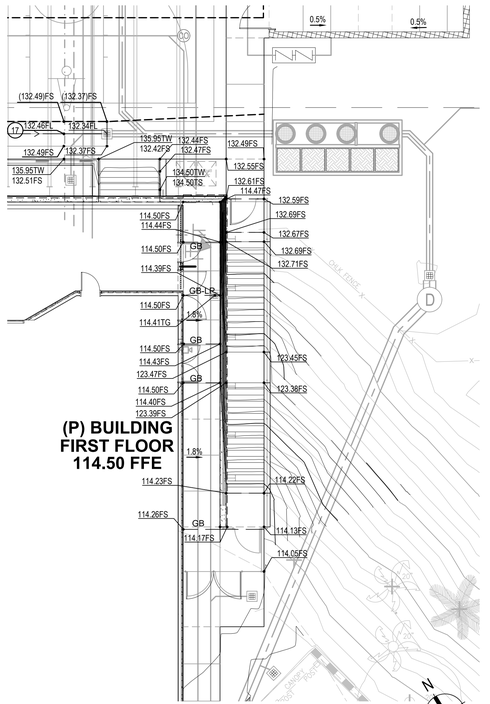
SYMBOL	DESCRIPTION
PA	PLANTING AREA SEE LANDSCAPE PLAN DETAILS FOR GRADES ADJACENT TO HARDSCAPE.
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GB	GRADE BREAK.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION PLAN.
	FLOWLINE.
TOS	TOP OF SLOPE.
TOE	TOE OF SLOPE.

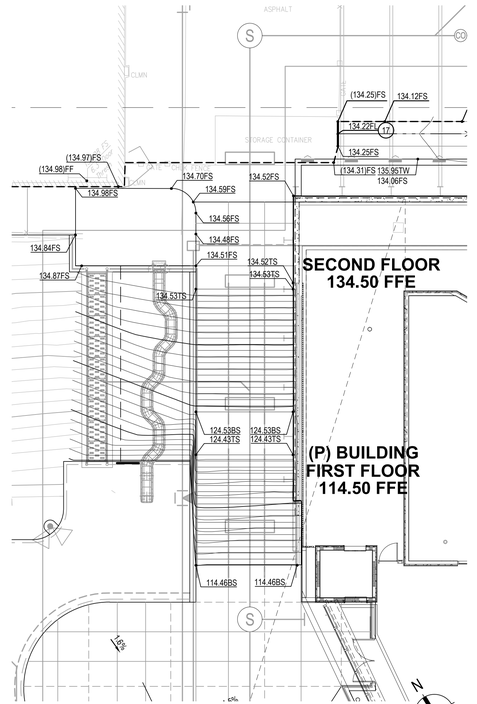
GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
09	JOIN EXISTING CURB AND/OR GUTTER AND MATCH GRADE.
10	JOIN EXISTING SIDEWALK AND MATCH EXISTING GRADE.
11	ADJUST EXISTING UTILITY RIM AND RISER TO FINISHED GRADE.
12	ADJUST EXISTING MANHOLE RIM TO FINISHED GRADE. MANHOLE CONE TO BE RAISED IF GRADE RINGS EXCEED ALLOWABLE HEIGHT FOR LADDER ACCESS.
14	COLD MILL EDGES TO JOIN EXISTING ASPHALT PAVEMENT AND MATCH GRADE.
15	ADJUST EXISTING STORM DRAIN INLET TO FINISHED GRADE.
16	ADJUST EXISTING DRY UTILITY VAULTS TO GRADE.
17	VALLEY GUTTER PER DETAIL 09 SHEET 2-C7.01.
18	CONSTRUCT CONCRETE MOW CURB PER DETAIL 11 SHEET L5.01.
19	V-DITCH PER DETAIL 05 SHEET 2-C7.01.









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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	08/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

GRADING PLAN DETAILS

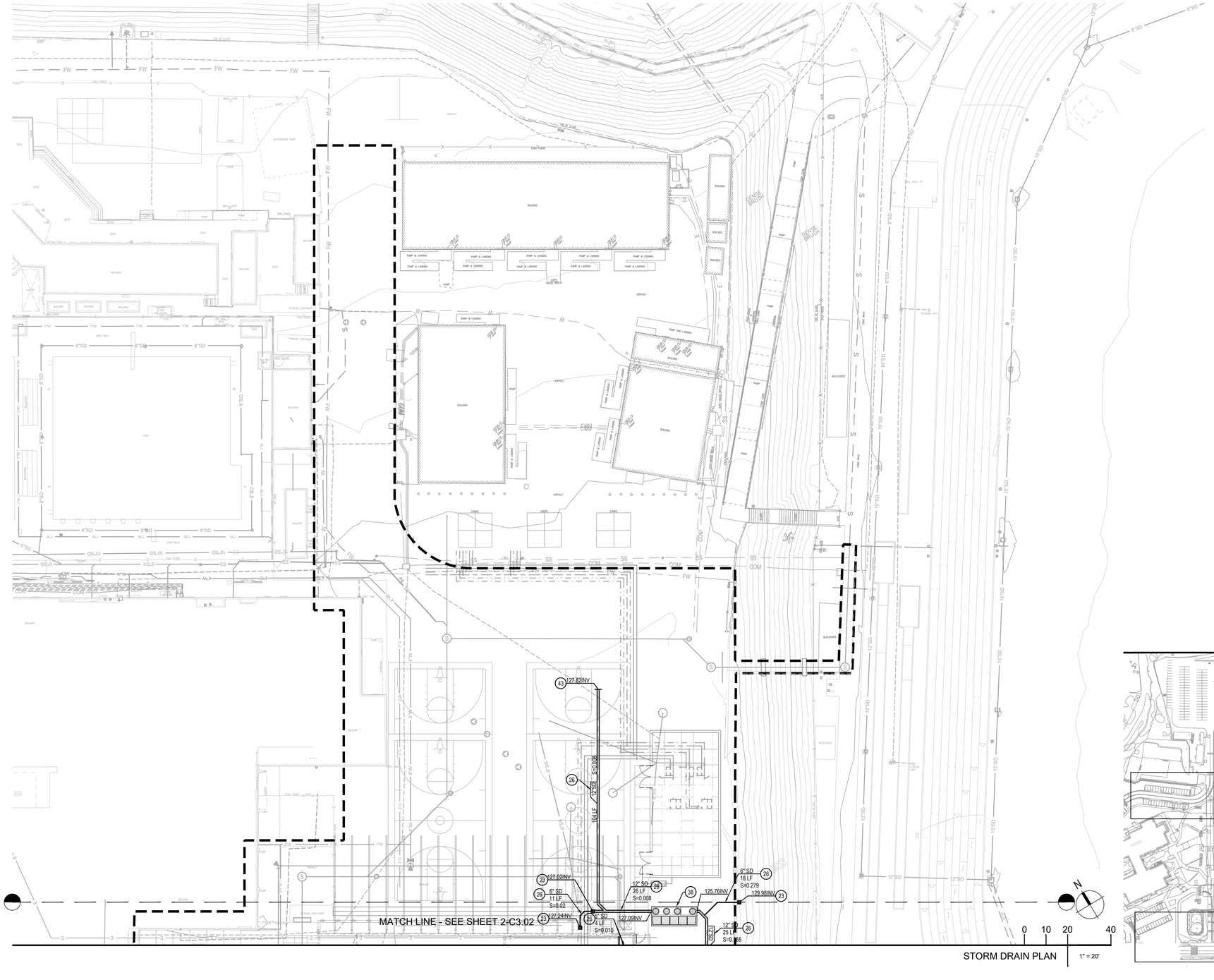
2-C2.04

STORM DRAIN CONSTRUCTION NOTES

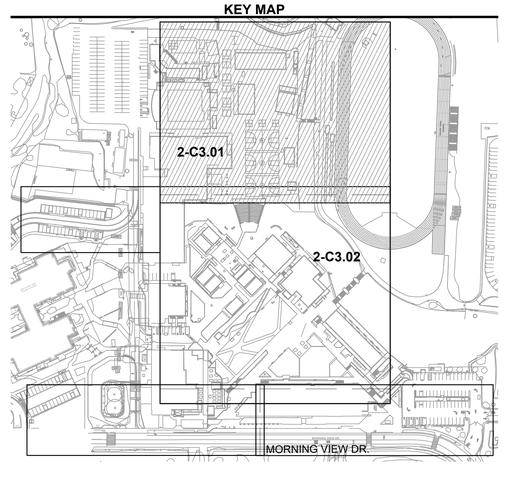
KEY NOTE	DESCRIPTION
RD	ROOF DRAIN POINT OF CONNECTION. SUPPLY AND INSTALL ROOF DRAIN LATERAL STUBBED 5 FT. FROM FACE OF BUILDING, S=0.020 MIN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
20	SUPPLY AND INSTALL 4" RISER WITH NDS 12"X12" LOW PROFILE HOUSING ADAPTER AND A 12"X12" ATRIUM GRATE (BLACK) OR EQUIVALENT PER DETAIL 02 SHEET 2-C7.02.
23	SUPPLY AND INSTALL 18"X18" CONCRETE DRAIN INLET PER DETAIL 01 SHEET 2-C7.02.
24	SUPPLY AND INSTALL STORM DRAIN CLEAN OUT PER DETAIL 07 SHEET 2-C7.02.
25	SUPPLY AND INSTALL PRECAST CONCRETE STORM DRAIN MANHOLE PER DETAIL 17 2-C7.02.
26	SUPPLY AND INSTALL PVC STORM DRAIN FOR PIPES OF DIAMETER SMALLER THAN 12" AND HDPE STORM DRAIN FOR PIPES OF DIAMETER 12" OR LARGER, SIZE PER PLAN. TRENCH DETAIL PER DETAIL 03 SHEET 2-C7.02.
28	SUPPLY AND INSTALL 4" WIDE TRENCH DRAIN PER DETAIL 16 SHEET 2-C7.02.
30	CONNECT TO EXISTING STORM DRAIN CONTRACTOR TO VERIFY ELEVATION OF EXISTING PIPE AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO CONSTRUCTION.
37	SUPPLY AND INSTALL CONTECH MODULAR WETLANDS UNIT (MWS-L-8-16-V). SEE DETAIL 13 SHEET 2-C7.01.
38	SUPPLY AND INSTALL CONTECH MODULAR WETLANDS UNIT (MWS-L-8-20-V). SEE DETAIL 13 SHEET 2-C7.01.
41	INSTALL SYNTHETIC TURF SUBDRAIN PER DETAIL 14 SHEET 2-C7.02.
42	SUPPLY AND INSTALL NDS 12"X12" LOW PROFILE HOUSING ADAPTER AND A 12"X12" SQUARE CATCH BASIN GRATE (BLACK) PER OR EQUIVALENT IN WALK OFF MAT PIT. SEE DETAIL 13 SHEET L5.01.
43	PROVIDE STORM DRAIN STUB-OUT CAP END OF STUB WITH WATERTIGHT CAP. CLEARLY MARK FOR FUTURE USE.
45	INSTALL DROP-IN STORM DRAIN MANHOLE PER DETAIL __ SHEET __.
46	INSTALL SYNTHETIC TURF DRAIN PER DETAIL 15 SHEET 2-C7.02.

CONSTRUCTION NOTES:

1. UTILITIES TO CROSS OVER OR UNDER OTHER UTILITIES TO MAINTAIN 12" MINIMUM CLEARANCE AT UTILITY CROSSINGS, UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL VERIFY SIZE AND LOCATION (HORIZONTAL AND VERTICAL) OF EXISTING CROSSING AND JOINING UTILITIES PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
3. CONTRACTOR SHALL CONSTRUCT GRAVITY UTILITIES (SEWER AND STORM DRAIN) BEFORE OTHER UTILITIES. CONSTRUCTION OF THESE GRAVITY UTILITIES TO START FROM THE DOWNSTREAM ENDS.
4. EXISTING UTILITIES ARE COMPILED BASED ON PREVIOUS BASE FILES, FIELD SURVEY AND FIELD VERIFICATION. POTHOLING IS RECOMMENDED TO VERIFY ANY AND ALL UTILITIES KNOWN OR UNKNOWN WHICH MAY BE IN CONFLICT WITH PROPOSED CONSTRUCTION.
5. PRIOR TO THE REMOVAL OF ANY WET OR DRY UTILITY LINES, THE CONTRACTOR SHALL CONFIRM WITH OWNER REPRESENTATIVE WHETHER THESE UTILITY LINES ARE STILL ACTIVE OR NOT. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
6. CONTRACTOR TO ADJUST TO FINISHED GRADE ALL EXISTING UTILITY BOXES, STORM DRAIN CLEANOUT COVERS, PULL BOXES AND VALVE COVERS NOT SPECIFICALLY SHOWN WITHIN THE LIMITS OF WORK.
7. SEE DETAIL 03 SHEET 2-C7.02 FOR STORM DRAIN UTILITY TRENCHING AND BACKFILL.
8. SAWCUT, REMOVE AND REPLACE EXISTING CURB AS REQUIRED FOR TRENCHING. MATCH EXISTING CURB.
9. ALL PRECAST DRAIN INLETS TO HAVE AN APPROVED "NO DUMPING DRAINS TO OCEAN" 3" X 5¾" ROUNDED CORNERED RECTANGLES STYLE #NDO OR 4" DIAMETER ROUND STYLE #SDO ABRASION AND UV RESISTANT DURACAST STYLE MARKER BY DAS MANUFACTURING OR EQUIVALENT APPLIED TO THE CONCRETE COLLAR AROUND DRAIN INLET USING RAPID SET URETHANE ADHESIVE OR QUICKSTIK EPOXY PUTTY ADHESIVE PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
   http://www.dasmanufacturing.com/product_guide.html



KEY MAP



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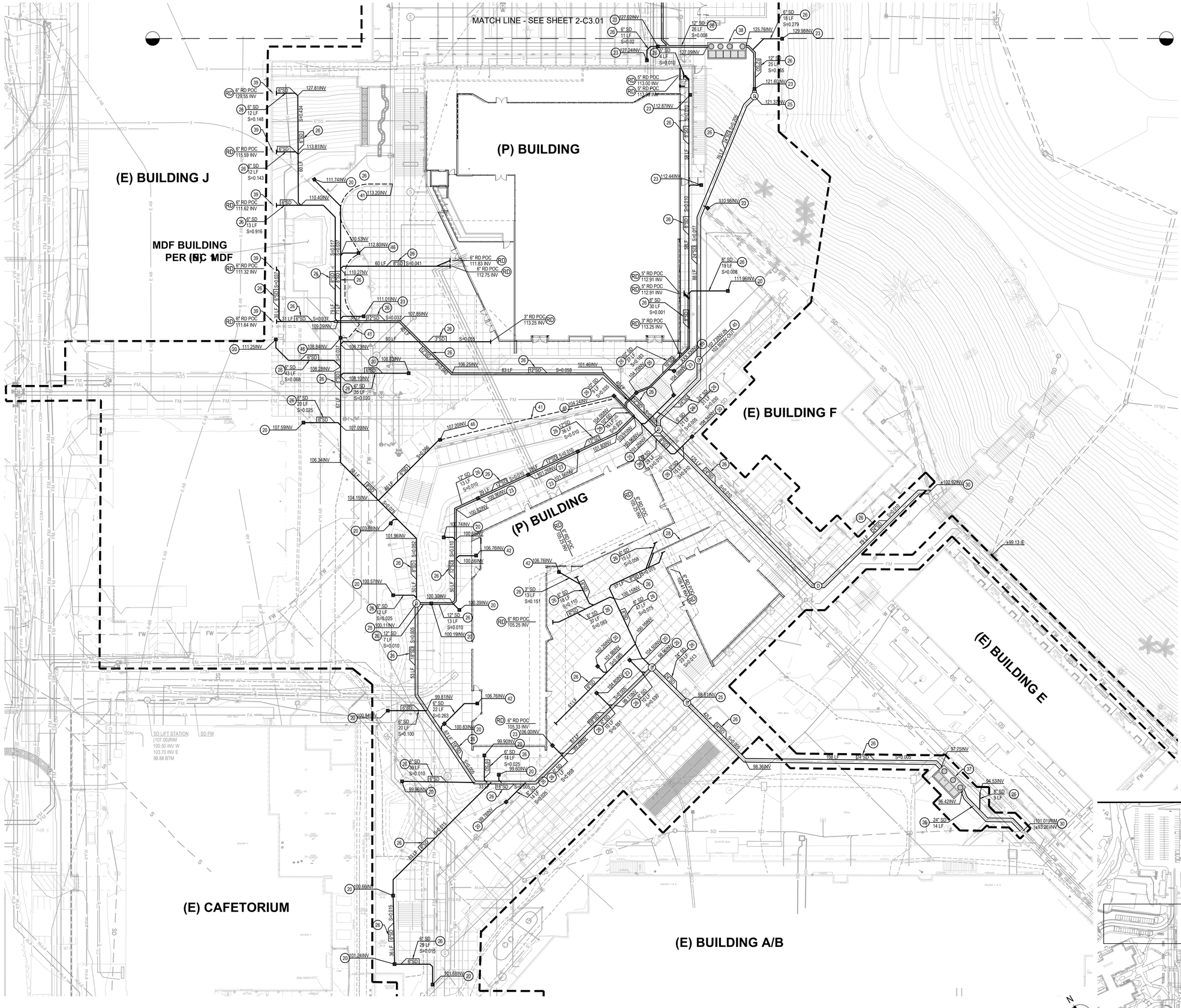
Revision	Date

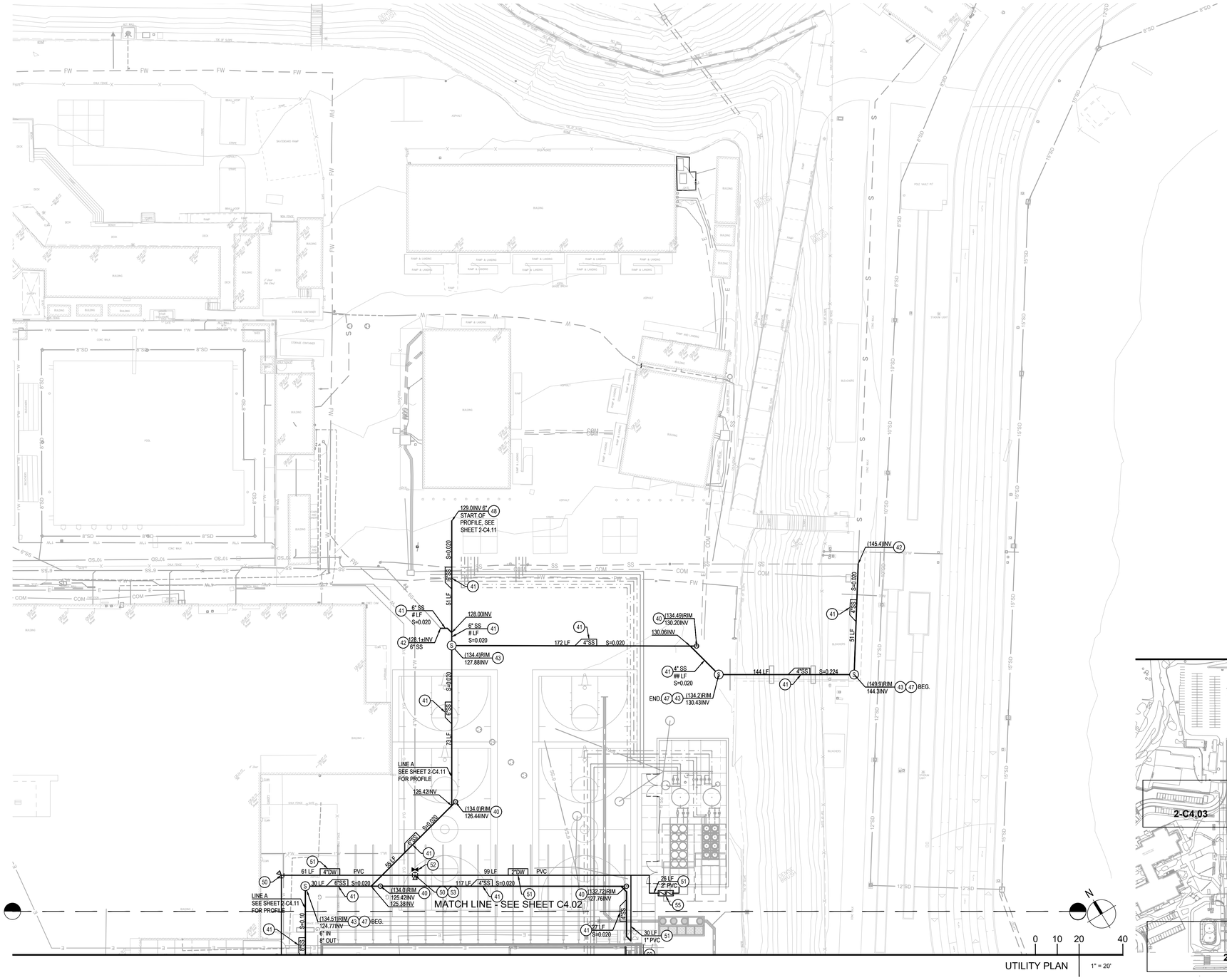
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DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

STORM DRAIN PLAN

2-C3.01


MATCH LINE - SEE SHEET 2-C3.01
(E) BUILDING J
MDF BUILDING PER (E) MDF
(P) BUILDING
(E) BUILDING F
(P) BUILDING
(E) BUILDING E
(E) CAFETORIUM
(E) BUILDING A/B
SD LIFT STATION (107.00)RIM 100.50 INV W 103.70 INV E 98.88 BTM
6" RD POC 129.55 INV
6" SD 12 LF S=0.148
6" RD POC 115.59 INV
6" SD 12 LF S=0.143
6" RD POC 111.62 INV
6" SD 13 LF S=0.916
6" RD POC 111.32 INV
6" RD POC 111.64 INV
127.81INV
113.81INV
111.74INV
113.20INV
110.40INV
112.80INV
110.27INV
111.01INV
107.85INV
109.09INV
111.25INV
108.84INV
106.73INV
108.83INV
108.28INV
108.10INV
107.59INV
107.09INV
106.34INV
104.15INV
103.88INV
101.96INV
100.57INV
100.11INV
99.81INV
100.84INV
99.96INV
101.24INV
101.68INV
127.02INV
127.24INV
127.09INV
125.76INV
129.98INV
121.60INV
121.37INV
112.87INV
112.44INV
110.98INV
111.96INV
112.91 INV
112.91 INV
113.25 INV
113.25 INV
112.75 INV
111.83 INV
107.30INV
103.51INV
106.25INV
101.46INV
104.24INV
104.09INV
103.93INV
101.60INV
101.56INV
100.76INV
100.66INV
100.57INV
100.30INV
100.39INV
100.19INV
105.25 INV
105.76INV
102.26INV
101.86INV
104.50INV
104.60INV
98.98INV
98.61INV
98.36INV
97.75INV
94.53INV
95.42INV
101.01 RIM ±93.26 INV
±102.52INV
±99.13 IE
105.33 INV
106.00INV
99.90INV
99.60INV
99.78INV
100.66INV
101.24INV
101.68INV
6" SD 16 LF S=0.279
12" SD 26 LF S=0.008
6" SD 11 LF S=0.02
6" SD 4 LF S=0.010
12" SD 25 LF S=0.005
6" SD 19 LF S=0.008
8" SD 30 LF S=0.001
3" SD 80 LF S=0.055
12" SD 83 LF S=0.058
6" SD 43 LF S=0.068
6" SD 35 LF S=0.020
6" SD 20 LF S=0.025
12" SD 30 LF S=0.010
12" SD 13 LF S=0.010
12" SD 7 LF S=0.010
6" SD 12 LF S=0.025
12" SD 13 LF S=0.010
3" SD 13 LF S=0.151
6" SD 19 LF S=0.110
6" SD 37 LF S=0.069
6" SD 47 LF S=0.075
24" SD 26 LF S=0.013
6" SD 14 LF S=0.025
6" SD 61 LF S=0.551
6" SD 22 LF S=0.263
6" SD 20 LF S=0.100
6" SD 61 LF S=0.010
6" SD 14 LF S=0.025
6" SD 29 LF S=0.015
8" SD 9 LF
24" SD 14 LF
6" SD 61 LF S=0.037
8" SD 60 LF S=0.041
12" SD 107 LF S=0.037
3" SD 80 LF S=0.055
12" SD 83 LF S=0.058
12" SD 30 LF S=0.010
12" SD 107 LF S=0.010
12" SD 61 LF S=0.010
12" SD 61 LF S=0.005
12" SD 61 LF S=0.005
12" SD 61 LF S=0.005
12" SD 61 LF S=0.005
12" SD 61 LF S=0.005
12" SD 61 LF S=0.005
18" SD 33 LF S=0.005
24" SD 61 LF S=0.005
24" SD 61 LF S=0.005
24" SD 61



SEWER CONSTRUCTION NOTES:

KEY NOTE	DESCRIPTION
◯	SEWER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL SEWER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING, S=0.020 MIN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
40	SUPPLY AND INSTALL SEWER CLEANOUT PER DETAIL 07 SHEET 2-C7.02.
41	SUPPLY AND INSTALL PVC SDR 35 (ASTM D 3034) SIZE AS SHOWN.
42	ASSUMED LOCATION AND INVERT OF EXISTING SEWER LINE. VERIFY PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
43	SUPPLY AND INSTALL SEWER MANHOLE PER SPPWC 200-4, SHEET 2-C7.03.
44	HYDROMECHANICAL GREASE INTERCEPTOR PER PLUMBING PLANS.
45	SUPPLY AND INSTALL SEWER FORCE MAIN SIZE PER SEPARATE WASTEWATER PLANS.
46	SEWER EQUALIZATION TANK AND LIFT STATION BY OTHERS.
47	SUPPLY AND INSTALL SLOPE ANCHORS PER SPPWC 221-2, SHEET 2-C7.03.
48	SUPPLY AND INSTALL TEMPORARY CAP FOR FUTURE CONNECTION.

WATER CONSTRUCTION NOTES:

W	DOMESTIC WATER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL WATER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. SIZE AS SHOWN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
50	SUPPLY AND INSTALL THRUST BLOCK PER DETAIL 11 SHEET C7.02. TYPICAL FOR ALL BENDS, TEES AND CROSSES ON PIPE SIZES GREATER THAN 3".
51	SUPPLY AND INSTALL PVC C900 DR-14 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
52	SUPPLY AND INSTALL GATE VALVE PER DETAIL 05 SHEET C7.02.
53	CONNECT TO EXISTING DOMESTIC WATER SERVICE LINE. CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER LINE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
54	SUPPLY AND INSTALL PVC SCH 80 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
55	SUPPLY AND INSTALL 2" WATTS RPZA SERIES 009 DOMESTIC WATER SERVICE BACKFLOW ASSEMBLY WITH LOCKABLE, ROUNDED CORNER BACKFLOW PREVENTER ENCLOSURE WITH CONCRETE PAD PER BACKFLOW PREVENTER ENCLOSURE MANUFACTURER'S RECOMMENDATIONS.

FIRE WATER CONSTRUCTION NOTES:

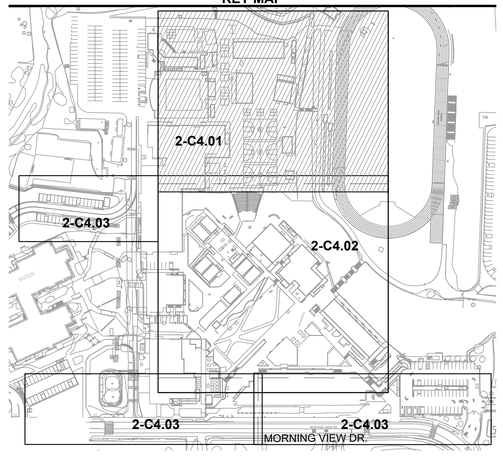
F	FIRE WATER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL WATER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. SIZE AS SHOWN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
60	SUPPLY AND INSTALL THRUST BLOCK PER DETAIL 11 SHEET C7.02. TYPICAL FOR ALL BENDS, TEES AND CROSSES ON PIPE SIZES GREATER THAN 3".
61	SUPPLY AND INSTALL PVC C900 DR-14 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
64	SUPPLY AND INSTALL FIRE HYDRANT PER DETAIL 10 SHEET 2-C7.02.
65	SUPPLY AND INSTALL BUILDING SERVICE POST INDICATOR VALVE/ CHECK VALVE/ FIRE DEPARTMENT CONNECTION PER DETAIL 06/ 12/ 16 SHEET2-C7.02.
66	CONNECT TO EXISTING 8" WATER LINE . CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER LINE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
67	SUPPLY AND INSTALL GATE VALVE PER DETAIL 05 SHEET 2-C7.02.

CONSTRUCTION NOTES:

1. UTILITIES TO CROSS OVER OR UNDER OTHER UTILITIES TO MAINTAIN 12" MINIMUM CLEARANCE AT UTILITY CROSSINGS, UNLESS NOTED OTHERWISE. SANITARY SEWER TO CROSS UNDER POTABLE WATER.
2. CONTRACTOR SHALL VERIFY SIZE AND LOCATION (HORIZONTAL AND VERTICAL) OF EXISTING CROSSING AND JOINING UTILITIES PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
3. CONTRACTOR SHALL CONSTRUCT GRAVITY UTILITIES (SEWER AND STORM DRAIN) BEFORE OTHER UTILITIES. CONSTRUCTION OF THESE GRAVITY UTILITIES TO START FROM THE DOWNSTREAM ENDS.
4. EXISTING UTILITIES ARE COMPILED BASED ON PREVIOUS BASE FILES, FIELD SURVEY AND FIELD VERIFICATION. POTHOLING IS RECOMMENDED TO VERIFY ANY AND ALL UTILITIES KNOWN OR UNKNOWN WHICH MAY BE IN CONFLICT WITH PROPOSED CONSTRUCTION.
5. PRIOR TO THE REMOVAL OF ANY WET OR DRY UTILITY LINES, THE CONTRACTOR SHALL CONFIRM WITH OWNER REPRESENTATIVE WHETHER THESE UTILITY LINES ARE STILL ACTIVE OR NOT. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
6. CONTRACTOR TO ADJUST TO FINISH GRADE ALL EXISTING UTILITY BOXES, SEWER CLEANOUT COVERS, PULL BOXES AND VALVE COVERS NOT SPECIFICALLY SHOWN WITHIN THE LIMITS OF WORK.
7. SEE DETAIL 04 SHEET 2-C7.02 FOR SEWER UTILITY TRENCHING AND BACKFILL.
8. SEE DETAIL 08 SHEET 2-C7.02 FOR WATER UTILITY TRENCHING AND BACKFILL.
9. SAWCUT, REMOVE AND REPLACE EXISTING CURB AS REQUIRED FOR TRENCHING. MATCH EXISTING CURB.

NOTE: PROPOSED FIRE WATER CONNECTIONS REQUIRE A FIRE DEPARTMENT CONNECTION (FDC) AND A POST INDICATOR VALVE (PIV).

KEY MAP



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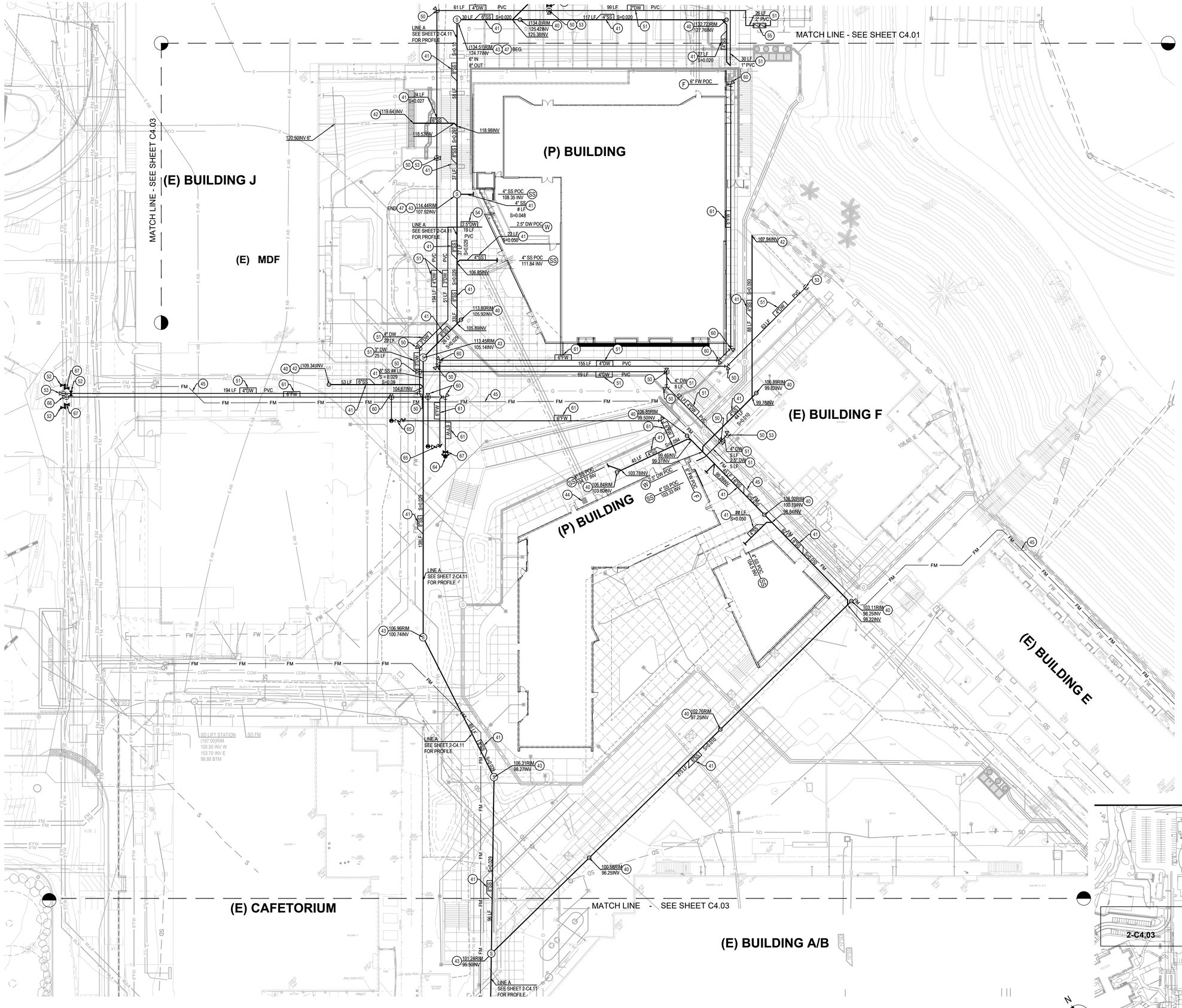
Revision	Date

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DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

UTILITY PLAN

2-C4.01



SEWER CONSTRUCTION NOTES:

KEY NOTE	DESCRIPTION
	SEWER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL SEWER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. S=0.020 MIN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
40	SUPPLY AND INSTALL SEWER CLEANOUT PER DETAIL 07 SHEET 2-C7.02.
41	SUPPLY AND INSTALL PVC SDR 35 (ASTM D 3034) SIZE AS SHOWN.
42	ASSUMED LOCATION AND INVERT OF EXISTING SEWER LINE. VERIFY PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
43	SUPPLY AND INSTALL SEWER MANHOLE PER SPPWC 200-4, SHEET 2-C7.03.
44	HYDROMECHANICAL GREASE INTERCEPTOR PER PLUMBING PLANS.
45	SUPPLY AND INSTALL SEWER FORCE MAIN SIZE PER SEPARATE WASTEWATER PLANS.
46	SEWER EQUALIZATION TANK AND LIFT STATION BY OTHERS.
47	SUPPLY AND INSTALL SLOPE ANCHORS PER SPPWC 221-2, SHEET 2-C7.03.
48	SUPPLY AND INSTALL TEMPORARY CAP FOR FUTURE CONNECTION.

WATER CONSTRUCTION NOTES:

W	DOMESTIC WATER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL WATER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. SIZE AS SHOWN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
50	SUPPLY AND INSTALL THRUST BLOCK PER DETAIL 11 SHEET C7.02. TYPICAL FOR ALL BENDS, TEES AND CROSSES ON PIPE SIZES GREATER THAN 3".
51	SUPPLY AND INSTALL PVC C900 DR-14 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
52	SUPPLY AND INSTALL GATE VALVE PER DETAIL 05 SHEET C7.02.
53	CONNECT TO EXISTING DOMESTIC WATER SERVICE LINE. CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER LINE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
54	SUPPLY AND INSTALL PVC SCH 80 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
55	SUPPLY AND INSTALL 2" WATTS RPZA SERIES 009 DOMESTIC WATER SERVICE BACKFLOW ASSEMBLY WITH LOCKABLE, ROUNDED CORNER BACKFLOW PREVENTER ENCLOSURE WITH CONCRETE PAD PER BACKFLOW PREVENTER ENCLOSURE MANUFACTURER'S RECOMMENDATIONS.

FIRE WATER CONSTRUCTION NOTES:

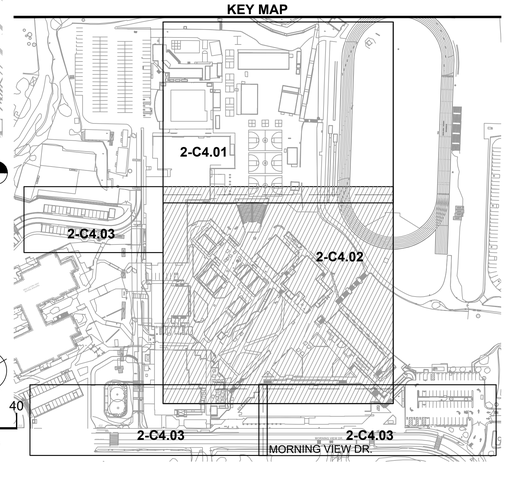
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61	SUPPLY AND INSTALL PVC C900 DR-14 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
64	SUPPLY AND INSTALL FIRE HYDRANT PER DETAIL 10 SHEET 2-C7.02.
65	SUPPLY AND INSTALL BUILDING SERVICE POST INDICATOR VALVE/ CHECK VALVE/ FIRE DEPARTMENT CONNECTION PER DETAIL 06/ 12/ 16 SHEET2-C7.02.
66	CONNECT TO EXISTING 8" WATER LINE . CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER LINE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
67	SUPPLY AND INSTALL GATE VALVE PER DETAIL 05 SHEET 2-C7.02.

CONSTRUCTION NOTES:

1. UTILITIES TO CROSS OVER OR UNDER OTHER UTILITIES TO MAINTAIN 12" MINIMUM CLEARANCE AT UTILITY CROSSINGS, UNLESS NOTED OTHERWISE. SANITARY SEWER TO CROSS UNDER POTABLE WATER.
2. CONTRACTOR SHALL VERIFY SIZE AND LOCATION (HORIZONTAL AND VERTICAL) OF EXISTING CROSSING AND JOINING UTILITIES PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
3. CONTRACTOR SHALL CONSTRUCT GRAVITY UTILITIES (SEWER AND STORM DRAIN) BEFORE OTHER UTILITIES. CONSTRUCTION OF THESE GRAVITY UTILITIES TO START FROM THE DOWNSTREAM ENDS.
4. EXISTING UTILITIES ARE COMPILED BASED ON PREVIOUS BASE FILES, FIELD SURVEY AND FIELD VERIFICATION. POTHOLING IS RECOMMENDED TO VERIFY ANY AND ALL UTILITIES KNOWN OR UNKNOWN WHICH MAY BE IN CONFLICT WITH PROPOSED CONSTRUCTION.
5. PRIOR TO THE REMOVAL OF ANY WET OR DRY UTILITY LINES, THE CONTRACTOR SHALL CONFIRM WITH OWNER REPRESENTATIVE WHETHER THESE UTILITY LINES ARE STILL ACTIVE OR NOT. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
6. CONTRACTOR TO ADJUST TO FINISH GRADE ALL EXISTING UTILITY BOXES, SEWER CLEANOUT COVERS, PULL BOXES AND VALVE COVERS NOT SPECIFICALLY SHOWN WITHIN THE LIMITS OF WORK.
7. SEE DETAIL 04 SHEET 2-C7.02 FOR SEWER UTILITY TRENCHING AND BACKFILL.
8. SEE DETAIL 08 SHEET 2-C7.02 FOR WATER UTILITY TRENCHING AND BACKFILL.
9. SAWCUT, REMOVE AND REPLACE EXISTING CURB AS REQUIRED FOR TRENCHING. MATCH EXISTING CURB.

NOTE: PROPOSED FIRE WATER CONNECTIONS REQUIRE A FIRE DEPARTMENT CONNECTION (FDC) AND A POST INDICATOR VALVE (PIV).

KEY MAP



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REGISTERED PROFESSIONAL ENGINEER KATHLEEN M. SUTHAR R.C.E. 68369 EXP. 9-30-27 CIVIL STATE OF CALIFORNIA

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Developed for
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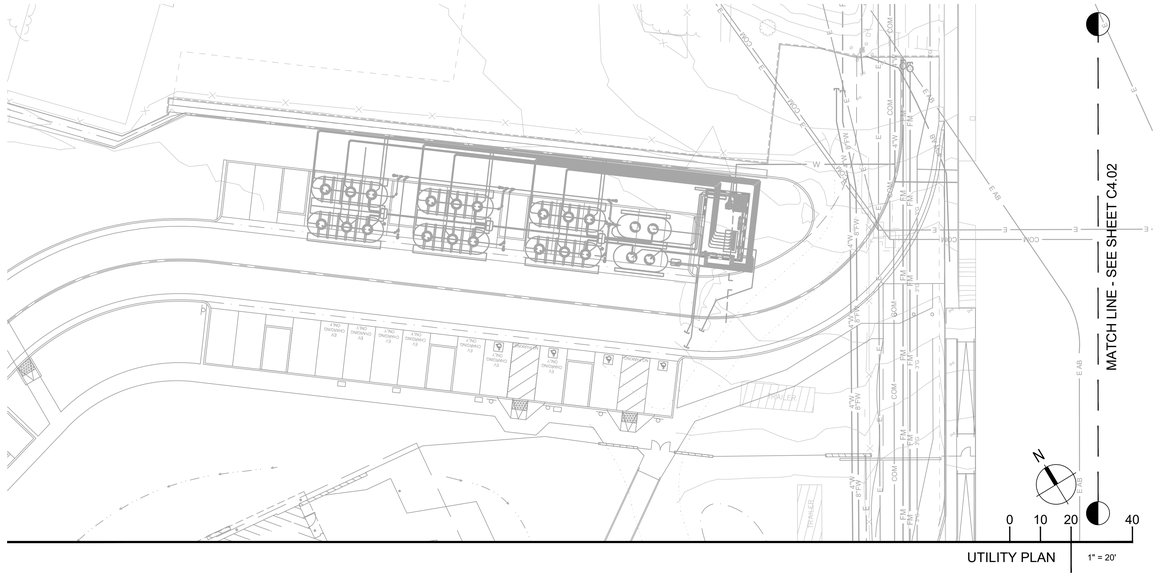
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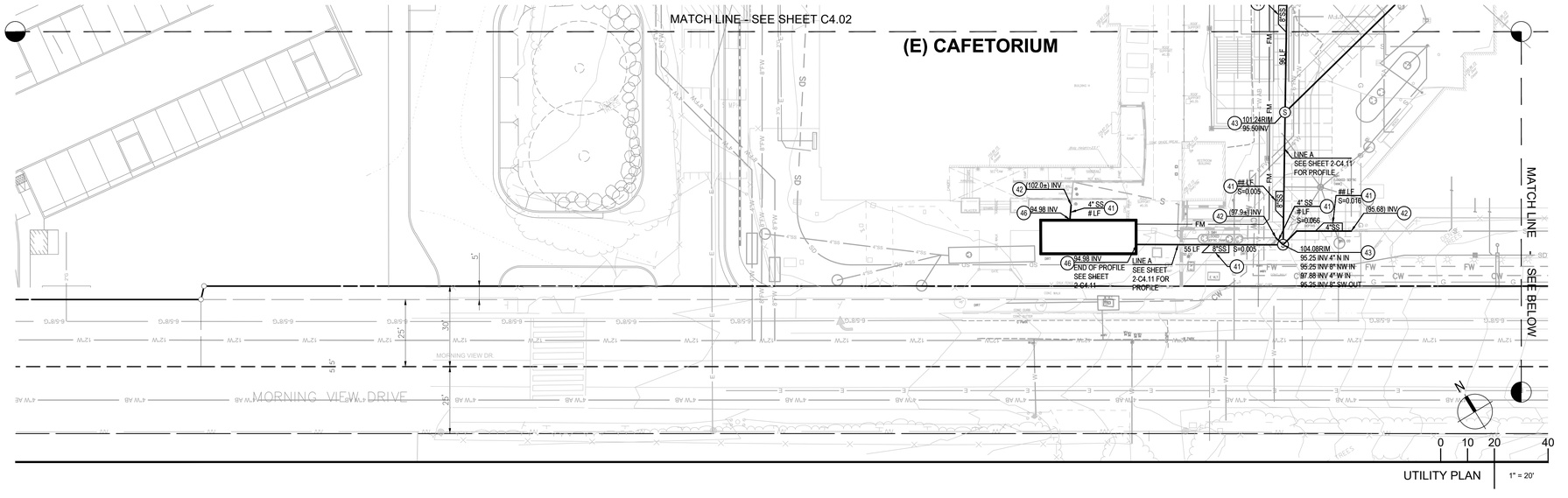
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SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

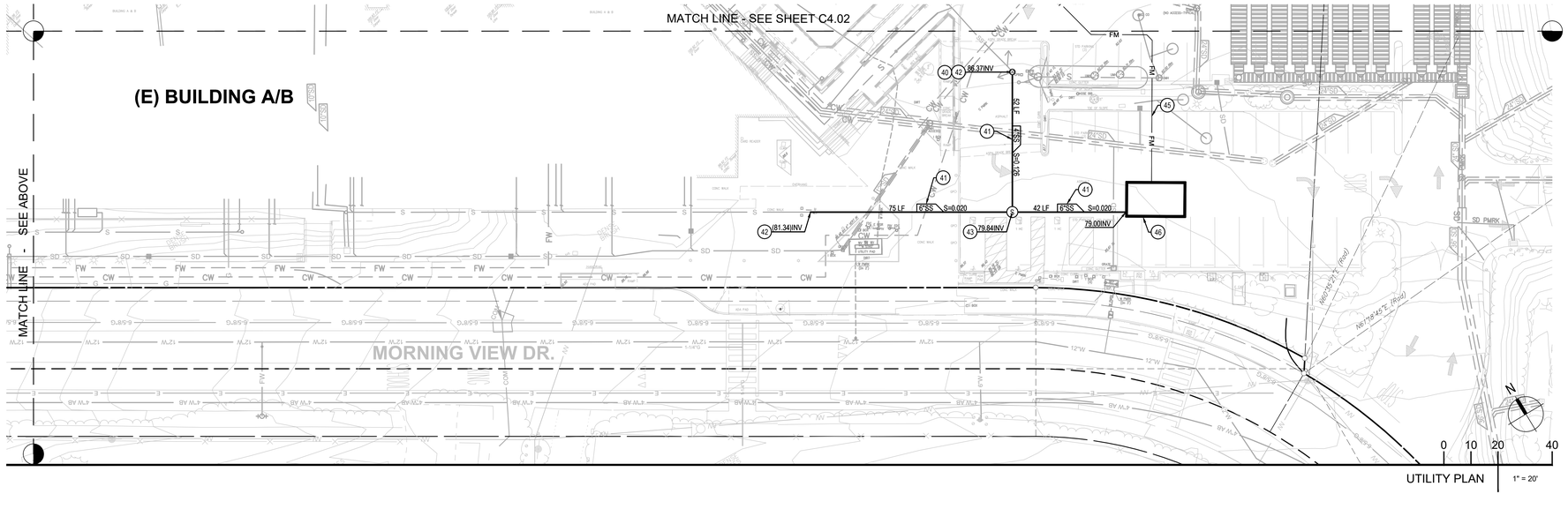
Job Number	31722
Checked By	RR
Scale	AS NOTED

UTILITY PLAN

2-C4.02







SEWER CONSTRUCTION NOTES:

KEY NOTE	DESCRIPTION
	SEWER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL SEWER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING, S=0.020 MIN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
40	SUPPLY AND INSTALL SEWER CLEANOUT PER DETAIL 07 SHEET 2-C7.02.
41	SUPPLY AND INSTALL PVC SDR 35 (ASTM D 3034) SIZE AS SHOWN.
42	ASSUMED LOCATION AND INVERT OF EXISTING SEWER LINE. VERIFY PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
43	SUPPLY AND INSTALL SEWER MANHOLE PER SPPWC 200-4, SHEET 2-C7.03.
44	HYDROMECHANICAL GREASE INTERCEPTOR PER PLUMBING PLANS.
45	SUPPLY AND INSTALL SEWER FORCE MAIN SIZE PER SEPARATE WASTEWATER PLANS.
46	SEWER EQUALIZATION TANK AND LIFT STATION BY OTHERS.
47	SUPPLY AND INSTALL SLOPE ANCHORS PER SPPWC 221-2, SHEET 2-C7.03.
48	SUPPLY AND INSTALL TEMPORARY CAP FOR FUTURE CONNECTION.

WATER CONSTRUCTION NOTES:

W	DOMESTIC WATER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL WATER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. SIZE AS SHOWN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
50	SUPPLY AND INSTALL THRUST BLOCK PER DETAIL 11 SHEET C7.02. TYPICAL FOR ALL BENDS, TEES AND CROSSES ON PIPE SIZES GREATER THAN 3".
51	SUPPLY AND INSTALL PVC C900 DR-14 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
52	SUPPLY AND INSTALL GATE VALVE PER DETAIL 05 SHEET C7.02.
53	CONNECT TO EXISTING DOMESTIC WATER SERVICE LINE. CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER LINE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
54	SUPPLY AND INSTALL PVC SCH 80 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
55	SUPPLY AND INSTALL 2" WATTS RPZA SERIES 009 DOMESTIC WATER SERVICE BACKFLOW ASSEMBLY WITH LOCKABLE, ROUNDED CORNER BACKFLOW PREVENTER ENCLOSURE WITH CONCRETE PAD PER BACKFLOW PREVENTER ENCLOSURE MANUFACTURER'S RECOMMENDATIONS.

FIRE WATER CONSTRUCTION NOTES:

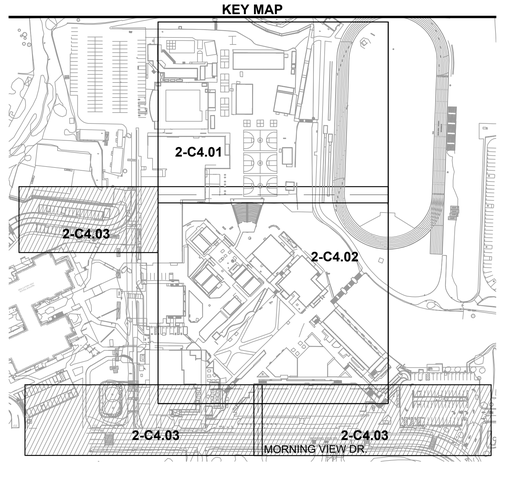
F	FIRE WATER SERVICE POINT OF CONNECTION. SUPPLY AND INSTALL WATER SERVICE LATERAL STUBBED 5 FT. FROM FACE OF BUILDING. SIZE AS SHOWN. PLUG AND MARK END. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.
60	SUPPLY AND INSTALL THRUST BLOCK PER DETAIL 11 SHEET C7.02. TYPICAL FOR ALL BENDS, TEES AND CROSSES ON PIPE SIZES GREATER THAN 3".
61	SUPPLY AND INSTALL PVC C900 DR-14 WITH 30" MIN COVER AND 36" MIN COVER WHERE SURFACE LOADS ARE EXPECTED.
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CONSTRUCTION NOTES:

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NOTE: PROPOSED FIRE WATER CONNECTIONS REQUIRE A FIRE DEPARTMENT CONNECTION (FDC) AND A POST INDICATOR VALVE (PIV).

KEY MAP



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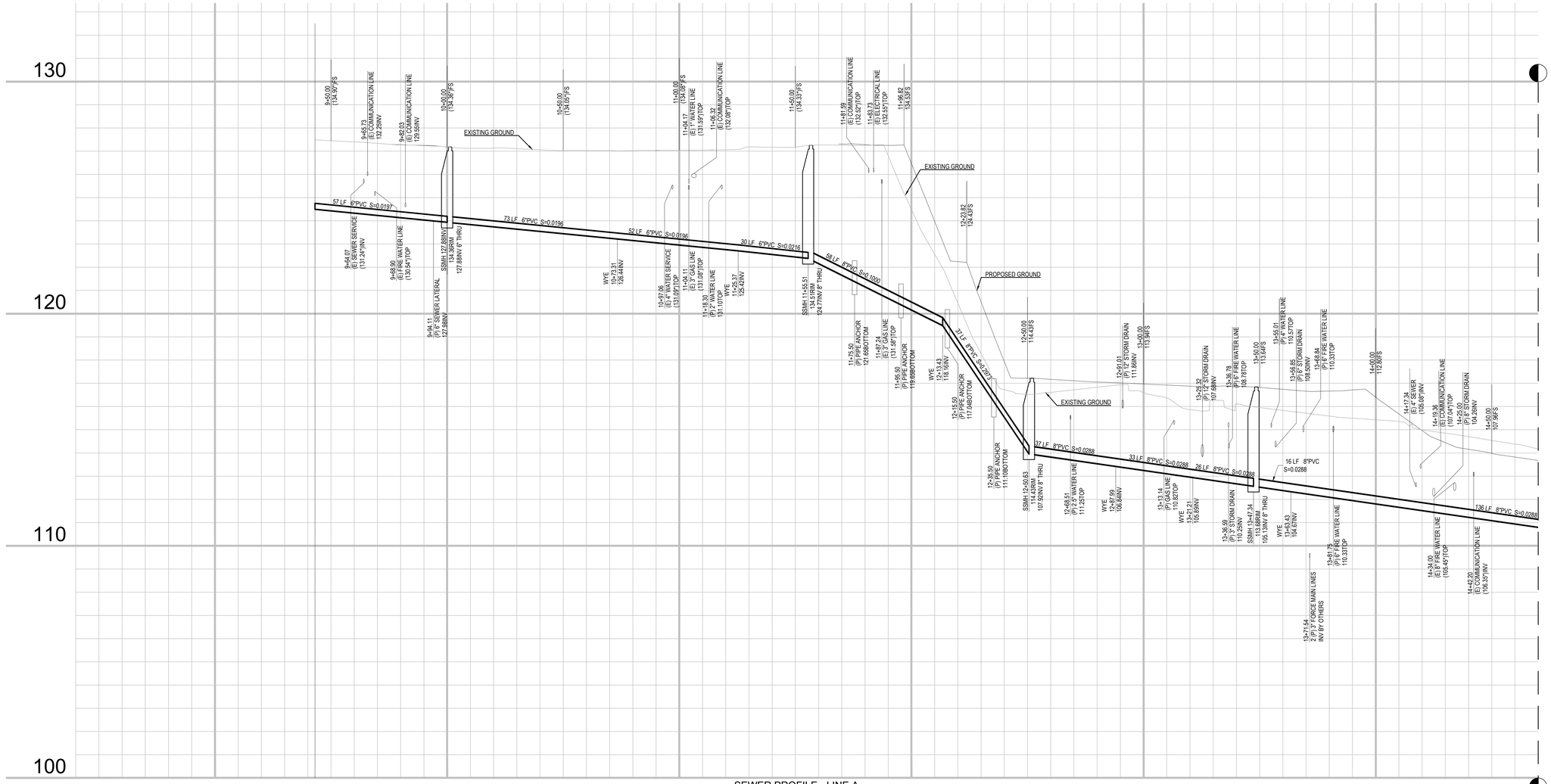
Revision	Date

Submittal	Date
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DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/09/2025

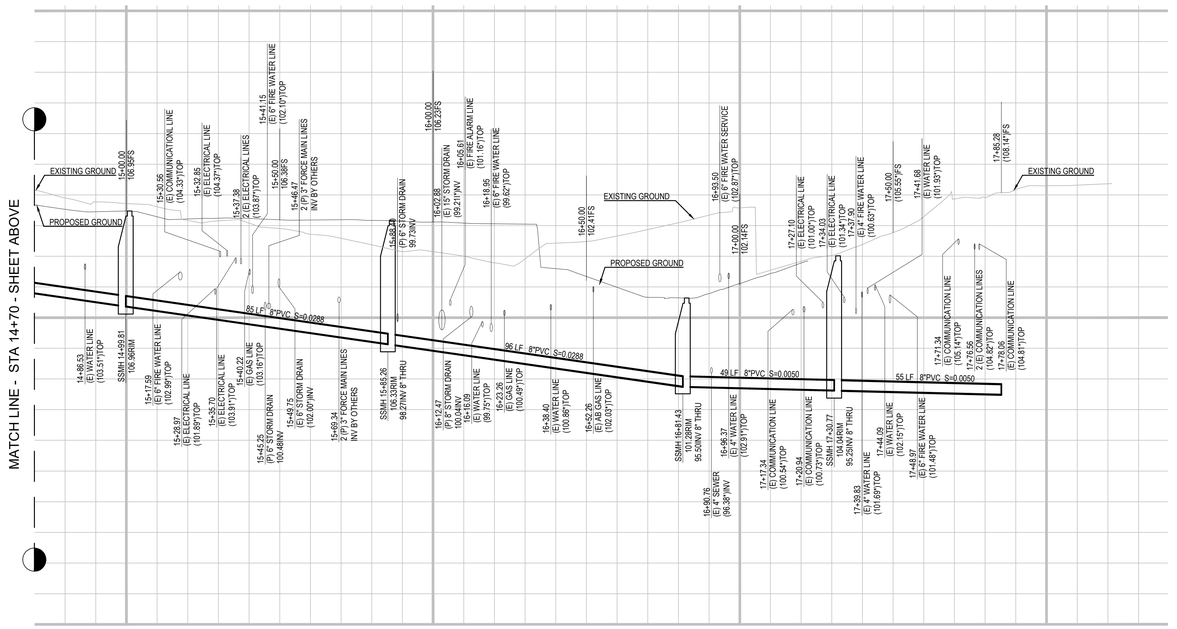
Job Number	31722
Checked By	RR
Scale	AS NOTED

UTILITY PLAN

2-C4.03



SEWER PROFILE - LINE A
SCALE: HORZ:1"=20'
VERT:1"=5'



SEWER PROFILE - LINE A
SCALE: HORZ:1"=20'
VERT:1"=5'

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INCREMENT 02

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Developed for
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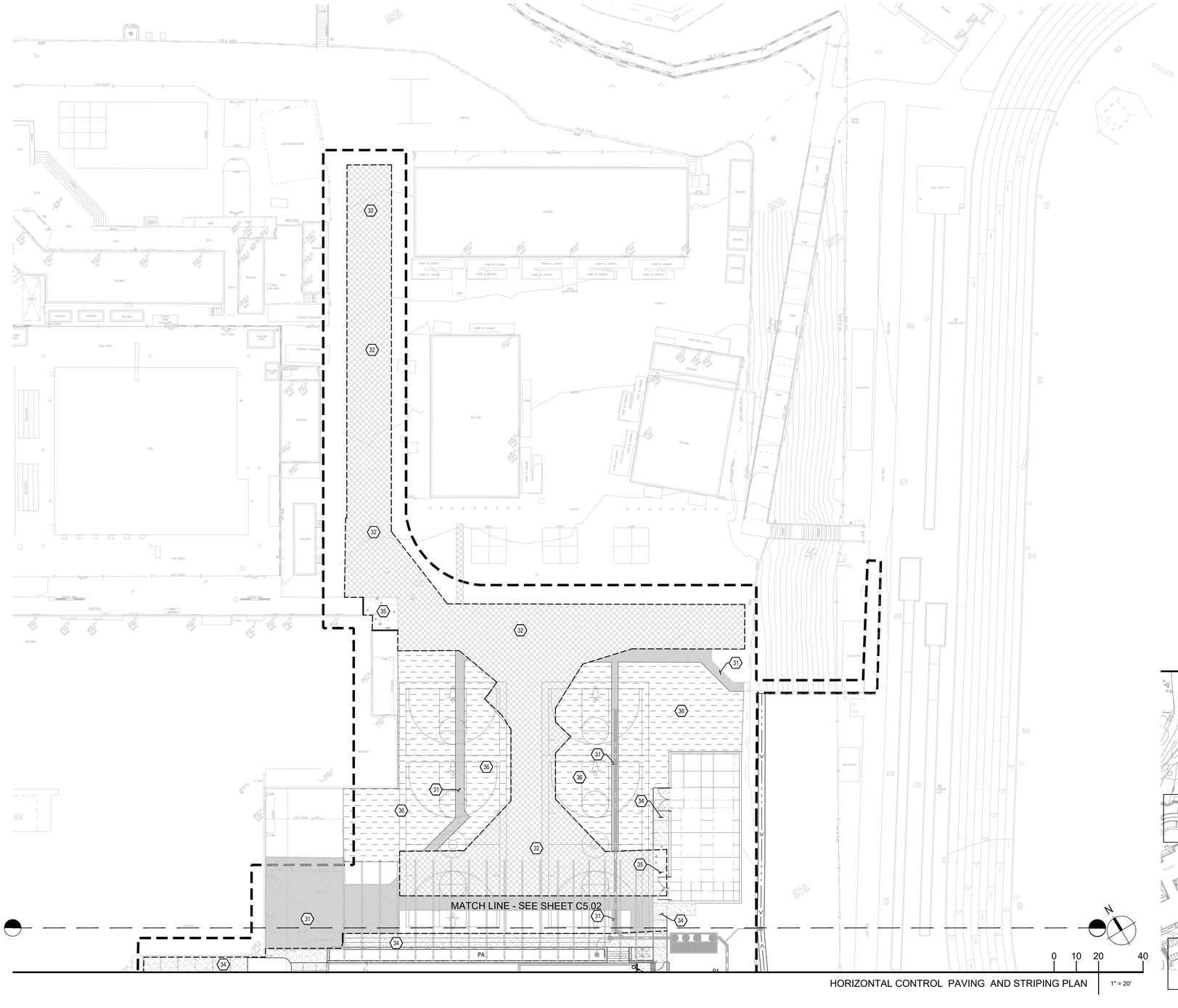
Revision	Date

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SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

SEWER PROFILE

2-C4.11



HORIZONTAL CONTROL PAVING AND STRIPING PLAN

PAVING NOTES:

1. SEE LANDSCAPE PLANS FOR PAVERS, LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
2. VERIFY ALL VEHICULAR AND NON-VEHICULAR LIMITS WITH LANDSCAPE PLANS.

PAVING LEGEND

SYMBOL	DESCRIPTION
30	PARKING STALL AC PAVEMENT 3" AC OVER 7.5" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
31	DRIVE AISLE AC PAVEMENT 4" AC OVER 8.5" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
32	HEAVY DUTY AC PAVEMENT 4" AC OVER 12" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
33	ARTIFICIAL TURF SECTION SEE LANDSCAPE PLANS.
34	PEDESTRIAN CONCRETE PAVEMENT 5.5" PCC OVER 4" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 01 SHEET 2C-7.01.
35	VEHICULAR CONCRETE PAVEMENT 6.5" PCC OVER 12" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 01 SHEET 2C-7.01.
36	GRIND AND OVERLAY EXISTING ASPHALT CONCRETE 1.5" MIN
FA	FIRE ACCESS. PAINT CURB RED PER DETAIL __, SHEET C._..
	REMOVE EXISTING PAVEMENT MARKING.

HORIZONTAL CONTROL NOTES:

THIS HORIZONTAL CONTROL PLAN ESTABLISHES THE FOLLOWING TO BE USED AS BASE CONTROL FOR CONSTRUCTION STAKING.

1. PRIOR TO STAKING ANY BUILDING STRUCTURE, SURVEYOR SHALL VERIFY THAT THE GRIDS SHOWN ON THIS PLAN MATCHES THE ARCHITECTURAL & STRUCTURAL PLANS.
2. TWO COORDINATES ARE PROVIDED TO ESTABLISH THE BUILDING GRID. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR FINAL BUILDING DIMENSIONS.
3. IF ANY DISCREPANCIES ARE FOUND DURING CONSTRUCTION STAKING NOTIFY CIVIL ENGINEER IMMEDIATELY.
4. SEE LANDSCAPE PLANS FOR DETAILED HARDSCAPE DIMENSIONS.
5. SEE LANDSCAPE PLANS FOR LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
6. SEE PAVING AND STRIPING PLANS FOR LOCATION AND TYPE OF PAVING AND STRIPING.

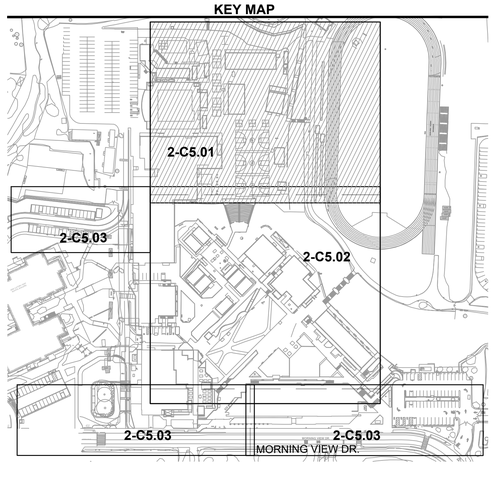
BENCHMARK

-SEE SHEET C0.01 FOR BENCHMARK.

BASIS OF BEARINGS

-SEE SHEET C0.01 FOR BASIS OF BEARINGS.

KEY MAP



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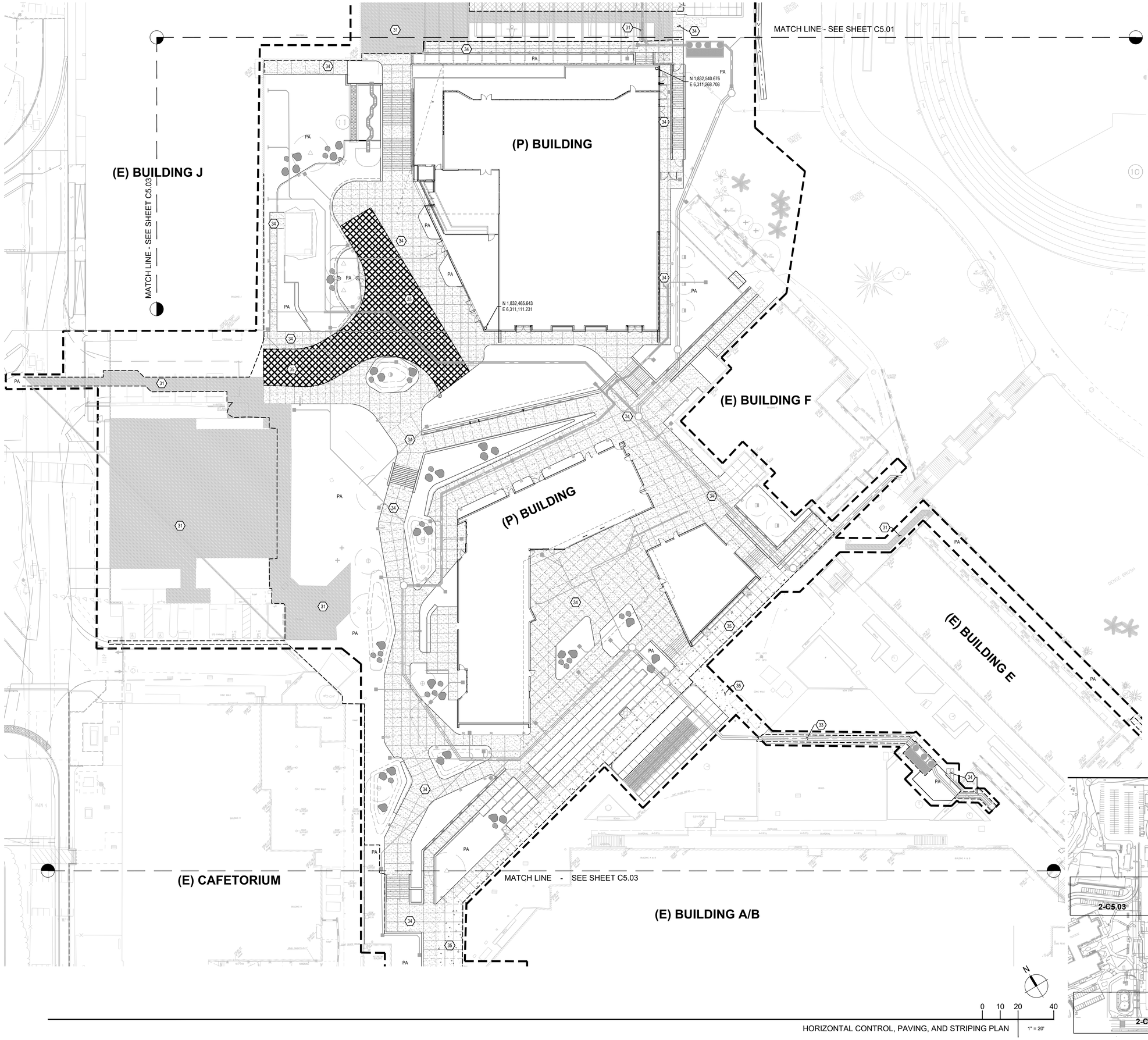
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DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

HORIZONTAL CONTROL PAVING AND STRIPING PLAN

2-C5.01



PAVING NOTES:

1. SEE LANDSCAPE PLANS FOR PAVERS, LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
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PAVING LEGEND

SYMBOL	DESCRIPTION
30	PARKING STALL AC PAVEMENT 3" AC OVER 7.5" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
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5. SEE LANDSCAPE PLANS FOR LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
6. SEE PAVING AND STRIPING PLANS FOR LOCATION AND TYPE OF PAVING AND STRIPING.

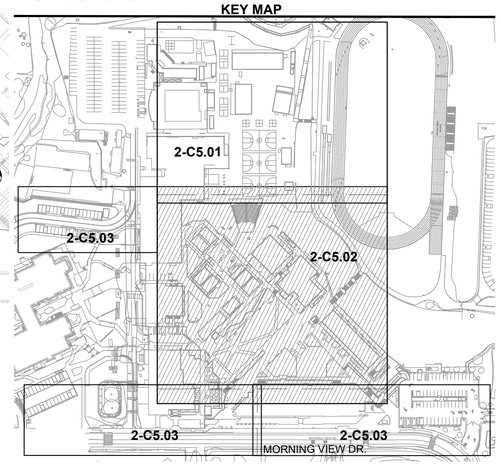
BENCHMARK

-SEE SHEET C0.01 FOR BENCHMARK.

BASIS OF BEARINGS

-SEE SHEET C0.01 FOR BASIS OF BEARINGS.

KEY MAP



0 10 20 40

HORIZONTAL CONTROL, PAVING, AND STRIPING PLAN 1" = 20'

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/05/2025

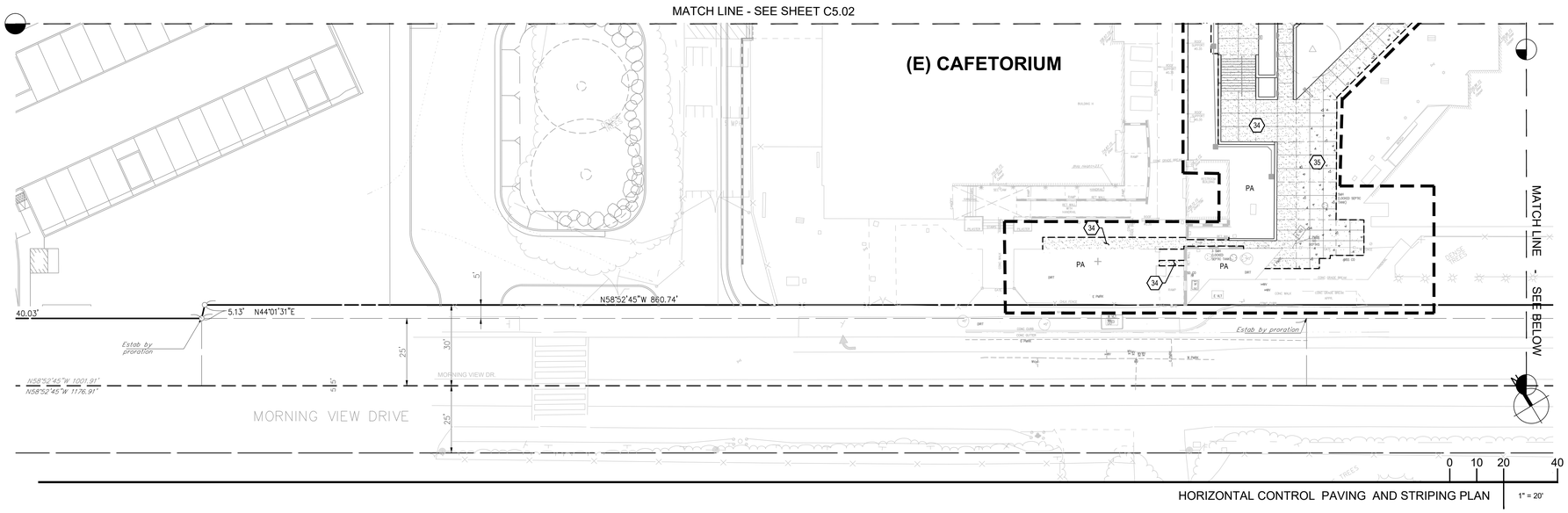
Job Number	31722
Checked By	RR
Scale	AS NOTED

HORIZONTAL CONTROL, PAVING, AND STRIPING PLAN

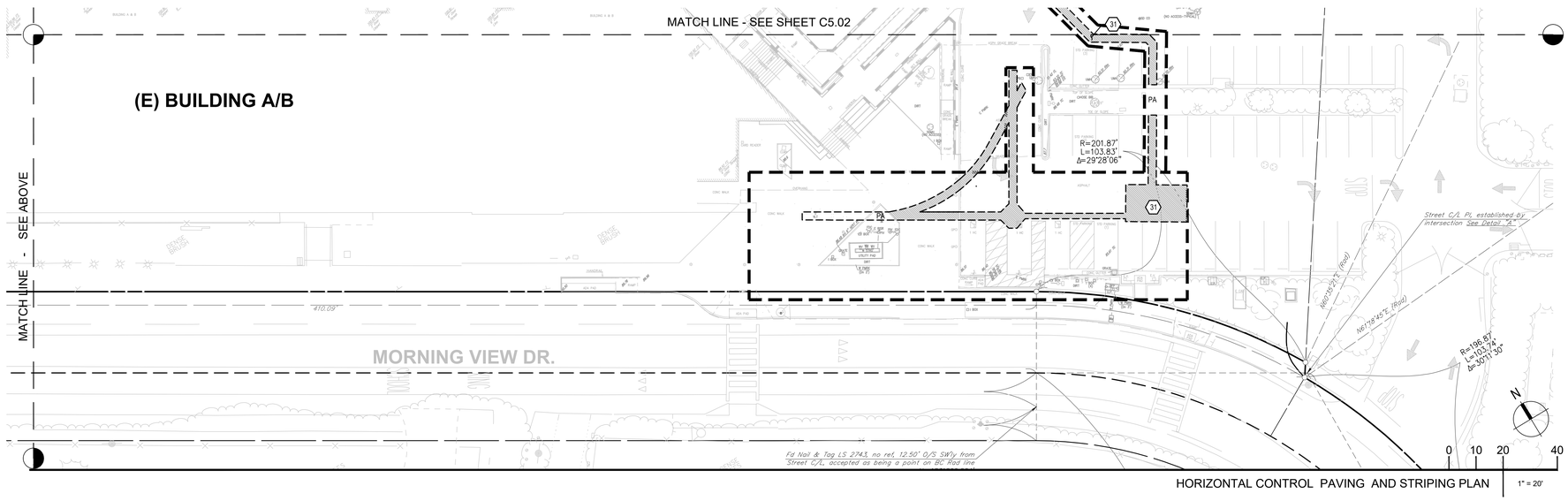
2-C5.02



HORIZONTAL CONTROL PAVING AND STRIPING PLAN 1" = 20'



HORIZONTAL CONTROL PAVING AND STRIPING PLAN 1" = 20'



HORIZONTAL CONTROL PAVING AND STRIPING PLAN 1" = 20'

PAVING NOTES:

1. SEE LANDSCAPE PLANS FOR PAVERS, LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
2. VERIFY ALL VEHICULAR AND NON-VEHICULAR LIMITS WITH LANDSCAPE PLANS.

PAVING LEGEND

SYMBOL	DESCRIPTION
30	PARKING STALL AC PAVEMENT 3" AC OVER 7.5" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
31	DRIVE AISLE AC PAVEMENT 4" AC OVER 8.5" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
32	HEAVY DUTY AC PAVEMENT 4" AC OVER 12" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 22 SHEET 2C-7.02.
33	ARTIFICIAL TURF SECTION SEE LANDSCAPE PLANS.
34	PEDESTRIAN CONCRETE PAVEMENT 5.5" PCC OVER 4" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 01 SHEET 2C-7.01.
35	VEHICULAR CONCRETE PAVEMENT 6.5" PCC OVER 12" CL II AB PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. SEE DETAIL 01 SHEET 2C-7.01.
36	GRIND AND OVERLAY EXISTING ASPHALT CONCRETE 1.5" MIN

FA FIRE ACCESS. PAINT CURB RED PER DETAIL __, SHEET C_.__.

REMOVE EXISTING PAVEMENT MARKING.

HORIZONTAL CONTROL NOTES:

THIS HORIZONTAL CONTROL PLAN ESTABLISHES THE FOLLOWING TO BE USED AS BASE CONTROL FOR CONSTRUCTION STAKING.

1. PRIOR TO STAKING ANY BUILDING STRUCTURE, SURVEYOR SHALL VERIFY THAT THE GRIDS SHOWN ON THIS PLAN MATCHES THE ARCHITECTURAL & STRUCTURAL PLANS.
2. TWO COORDINATES ARE PROVIDED TO ESTABLISH THE BUILDING GRID. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR FINAL BUILDING DIMENSIONS.
3. IF ANY DISCREPANCIES ARE FOUND DURING CONSTRUCTION STAKING NOTIFY CIVIL ENGINEER IMMEDIATELY.
4. SEE LANDSCAPE PLANS FOR DETAILED HARDSCAPE DIMENSIONS.
5. SEE LANDSCAPE PLANS FOR LOCATION AND TYPE OF CONCRETE WALKS AND HARDSCAPE INCLUDING DETAILS FOR CONCRETE FINISHES, CONTROL JOINTS AND EXPANSION JOINTS.
6. SEE PAVING AND STRIPING PLANS FOR LOCATION AND TYPE OF PAVING AND STRIPING.

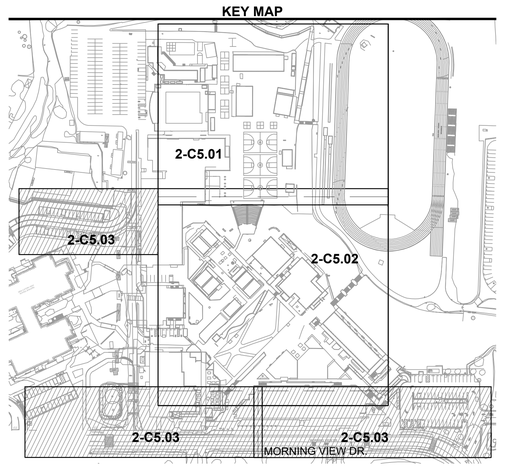
BENCHMARK

-SEE SHEET C0.01 FOR BENCHMARK.

BASIS OF BEARINGS

-SEE SHEET C0.01 FOR BASIS OF BEARINGS.

KEY MAP



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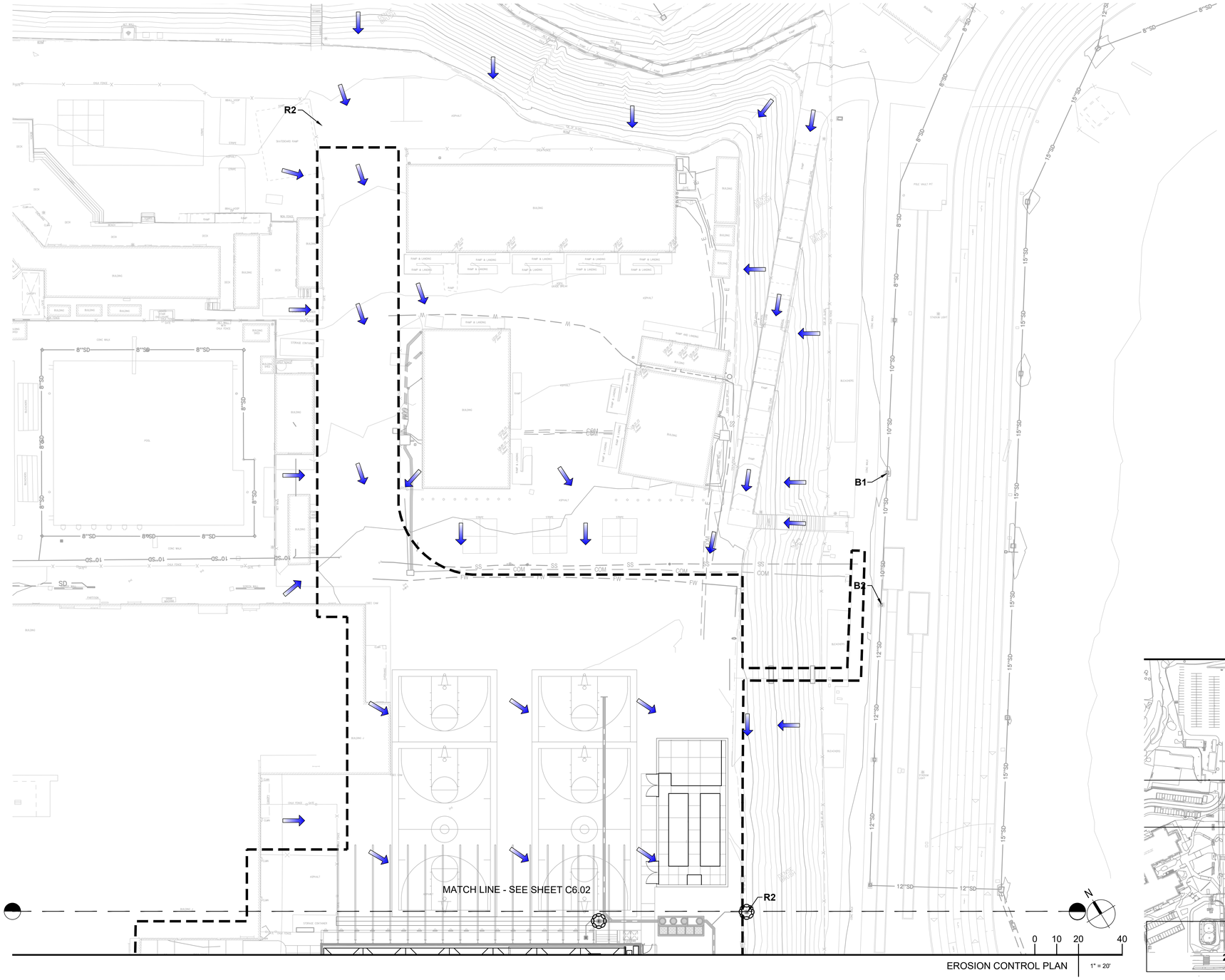
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Scale	AS NOTED

HORIZONTAL CONTROL PAVING AND STRIPING PLAN

2-C5.03



EROSION CONTROL PLAN

EROSION CONTROL NOTES

-SEE SHEET C0.01 FOR EROSION / SEDIMENT CONTROL NOTES AND BMP MAINTENANCE NOTES

-ALL BMPS PER CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA)(UNLESS NOTED OTHERWISE) AND ARE AVAILABLE AT www.casqa.org.

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-AT THE COMPLETION OF PROJECT, CONTRACTOR SHALL REMOVE ALL CONSTRUCTION BMPS FROM SITE AND DISPOSE IN A LEGAL MANNER.

LEGEND

SYMBOL	DESCRIPTION
	GRAVEL BAGS AND/OR SANDBAGS PER BMP KEYNOTES
	FIBER ROLL
	SILT FENCE
	APPROXIMATE LIMITS OF WORK
	FLOW DIRECTION

EROSION CONTROL BMPs:

KEY NOTE	DESCRIPTION
E1	EC-1, SCHEDULING
E2	EC-2, PRESERVATION OF EXISTING VEGETATION
E3	EC-3, HYDRAULIC MULCH
E4	EC-4, HYDROSEEDING
E5	EC-5, SOIL BINDERS
E6	EC-6, STRAW MULCH
E7	EC-7, GEOTEXTILES AND MATS
E15	EC-15, SOIL PREPARATION/ROUGHENING

SEDIMENT CONTROL BMPs:

S1	SE-1, SILT FENCE
S5	SE-5, FIBER ROLLS
S6	SE-6, GRAVEL BAG BERM
S7	SE-7, STREET SWEEPING AND VACUUMING
S8	SE-8, SANDBAG BARRIER
S10	SE-10, STORM DRAIN INLET PROTECTION

TRACKING CONTROL BMPs:

T1	TC-1, STABILIZED CONSTRUCTION ENTRANCE/EXIT
T3	TC-3, ENTRANCE/OUTLET TIRE WASH

NON-STORMWATER MANAGEMENT CONTROL BMP

N1	NS-1, WATER CONSERVATION PRACTICES
N3	NS-3, PAVING AND GRINDING OPERATIONS
N6	NS-6, ILLICIT CONNECTION/DISCHARGE
N7	NS-7, POTABLE WATER/IRRIGATION
N8	NS-8, VEHICLE AND EQUIPMENT CLEANING
N9	NS-9, VEHICLE AND EQUIPMENT FUELING
N12	NS-12, CONCRETE CURING
N13	NS-13, CONCRETE FINISHING
EC1	SC-10, NON-STORMWATER DISCHARGES

WIND EROSION CONTROL BMPs:

WE	WE-1, WIND EROSION CONTROL

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs:

W1	WM-1, MATERIAL DELIVERY AND STORAGE
W2	WM-2, MATERIAL USE
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W8	WM-8, CONCRETE WASTE MANAGEMENT
W9	WM-9, SANITARY/SEPTIC WASTE MANAGEMENT
W10	WM-10, LIQUID WASTE MANAGEMENT

STORM WATER STORAGE OR CONTAINMENT

W#	STORMWATER STORAGE (E.G. BIORETENTION) OR CONTAINMENT (E.G. CISTERN)

DISCHARGE LOCATIONS

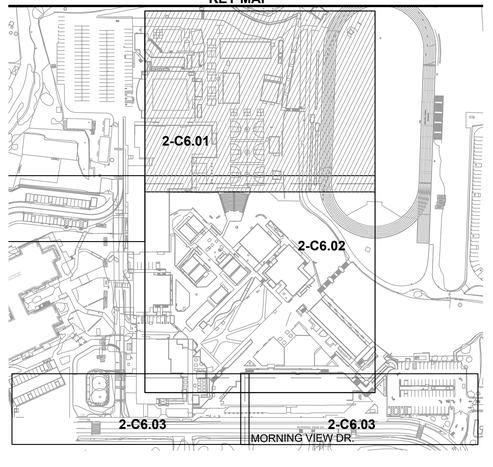
D#	DISCHARGE LOCATION

SAMPLING LOCATIONS

B#	POLLUTANT SAMPLE LOCATION - BACKGROUND SAMPLE
C#	POLLUTANT SAMPLE LOCATION - CONTRACTORS YARD
S#	POLLUTANT SAMPLE LOCATION - SITE
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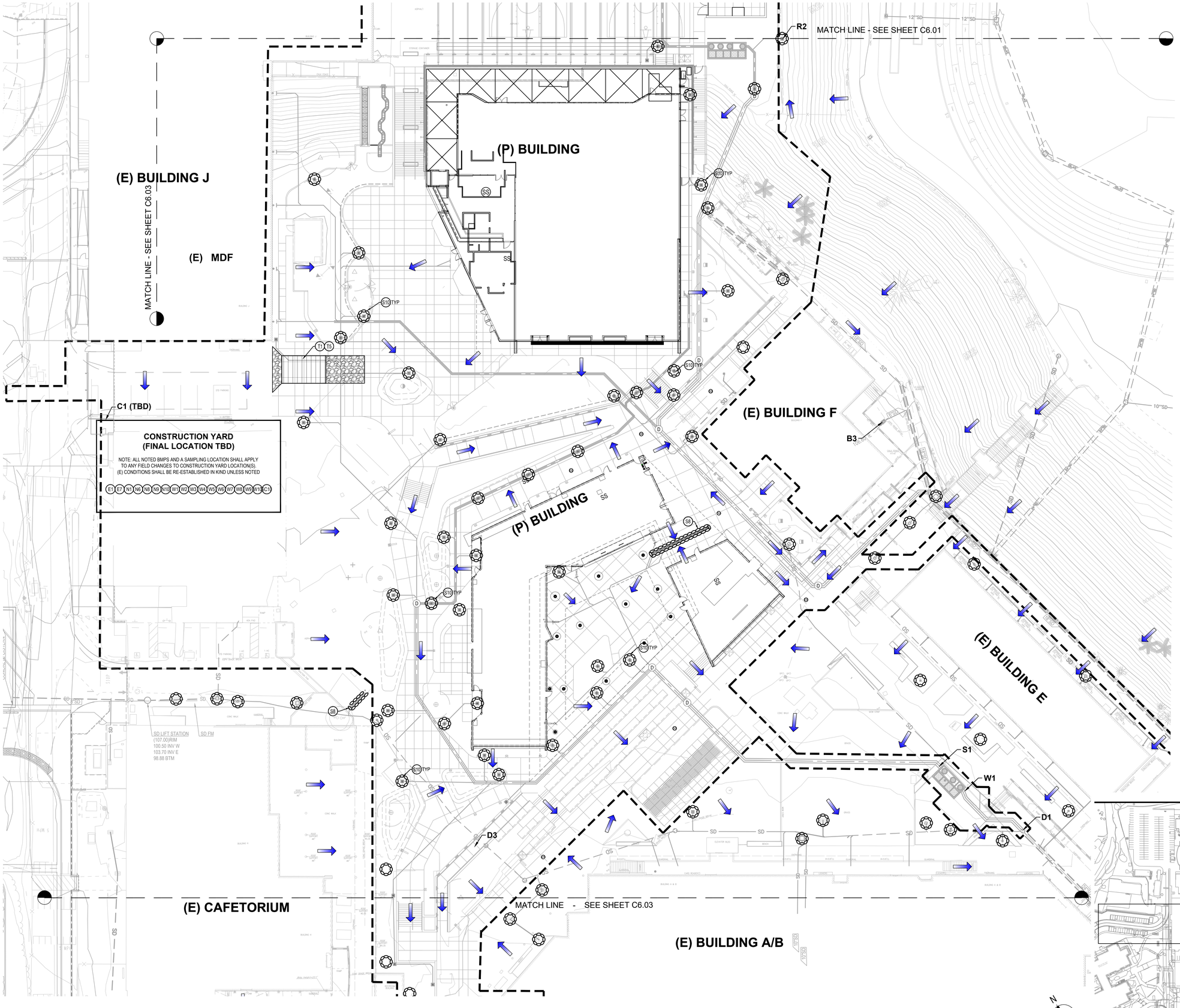
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DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
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Scale	AS NOTED

EROSION CONTROL PLAN

2-C6.01



EROSION CONTROL NOTES

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N9	NS-9, VEHICLE AND EQUIPMENT FUELING
N12	NS-12, CONCRETE CURING
N13	NS-13, CONCRETE FINISHING
EC-1	SC-10, NON-STORMWATER DISCHARGES

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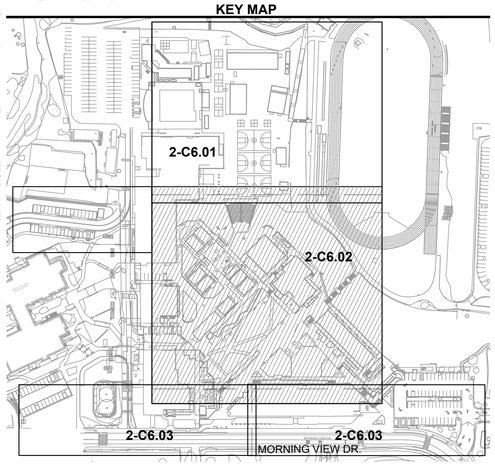
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KEY MAP



0 10 20 40

EROSION CONTROL PLAN 1" = 20'

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REGISTERED PROFESSIONAL ENGINEER KATHLEEN M. SUTHAR R.C.E. 68369 EXP. 9-30-27 CIVIL STATE OF CALIFORNIA

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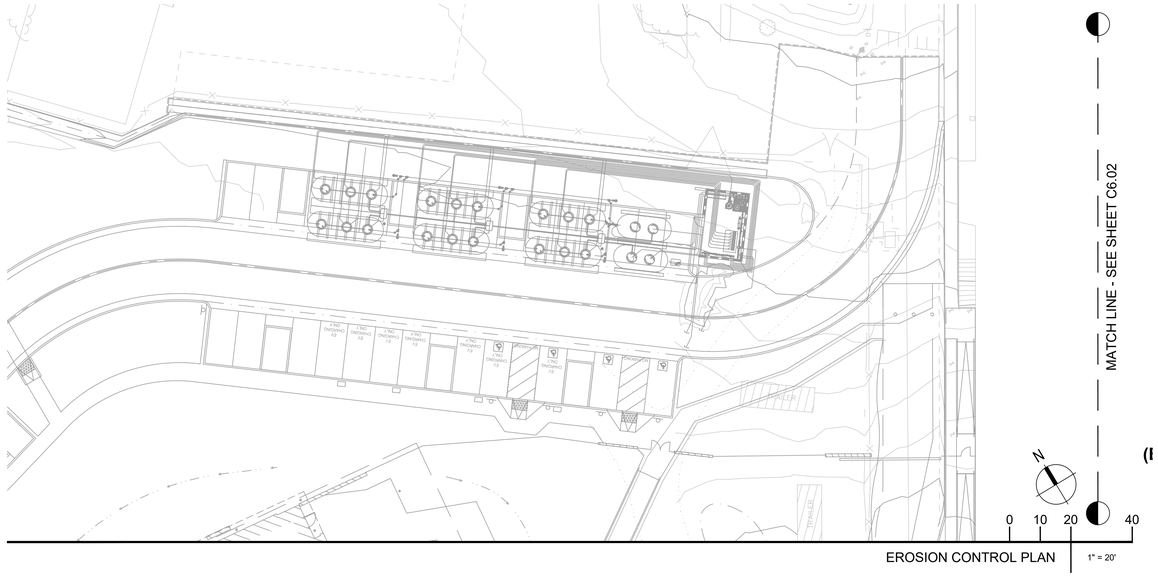
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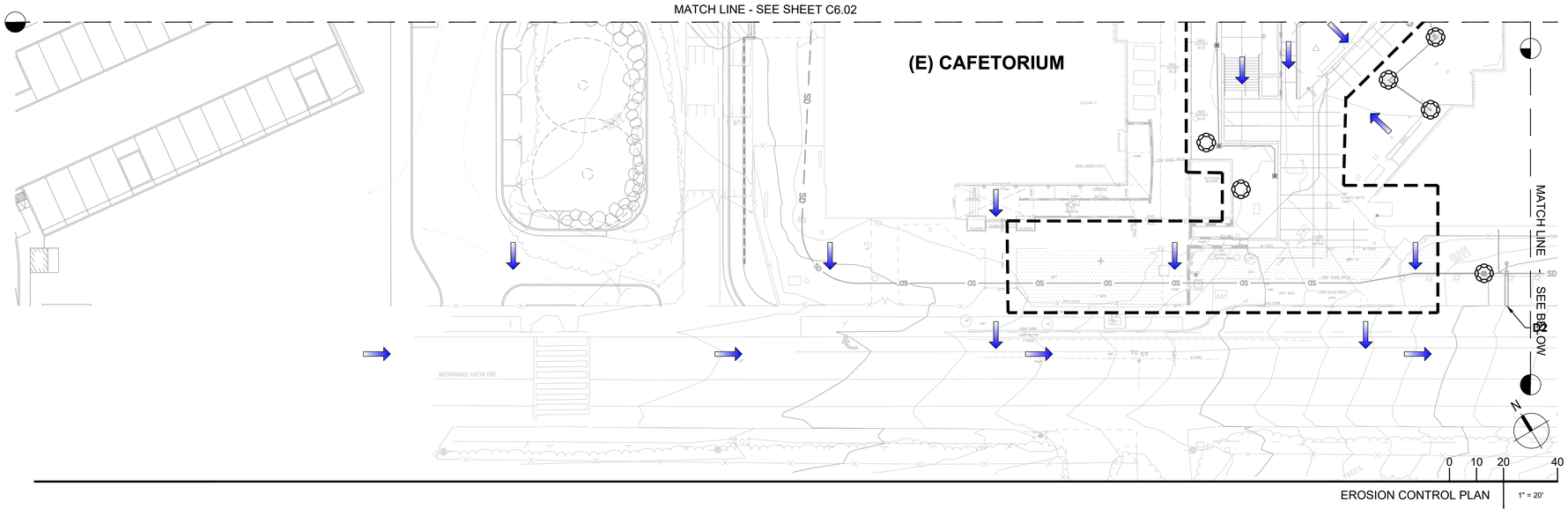
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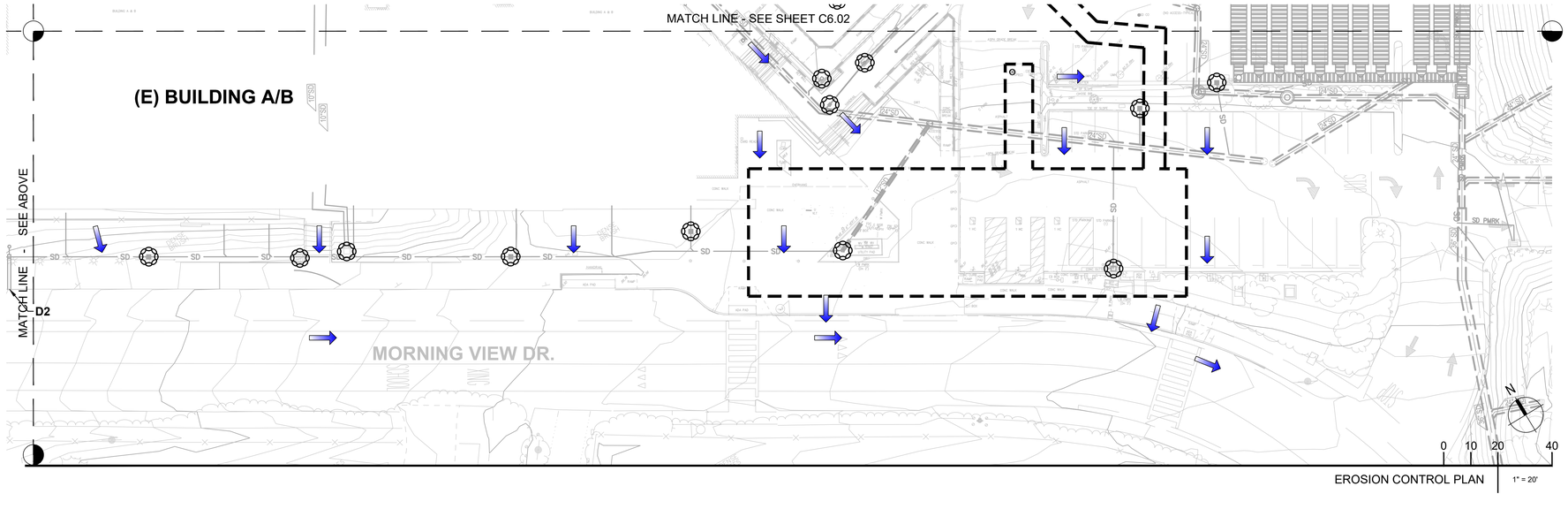
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EROSION CONTROL PLAN

2-C6.02







EROSION CONTROL NOTES

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N9	NS-9, VEHICLE AND EQUIPMENT FUELING
N12	NS-12, CONCRETE CURING
N13	NS-13, CONCRETE FINISHING
SC10	SC-10, NON-STORMWATER DISCHARGES

WIND EROSION CONTROL BMPs:

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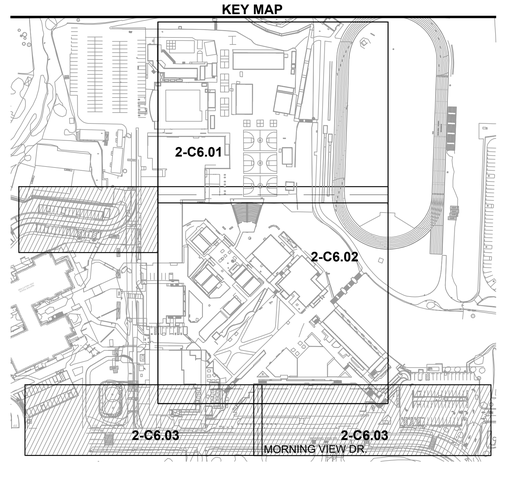
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MALIBU MIDDLESCHOOL INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	08/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/09/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

EROSION CONTROL PLAN

2-C6.03

Engineering Specification

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Series 009

Reduced Pressure Zone Assemblies

¼" – 2"

⚠ WARNING

It is illegal to use this product in any plumbing system providing water for human consumption, such as drinking or dishwashing, in the United States. Before installing standard material product, consult your local water authority, building and plumbing codes.

Series 009 Reduced Pressure Zone assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. Specifically, the series protects drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing.

The series features two in-line, independent check valves, captured springs, and replaceable check seats with an intermediate relief valve. Its compact modular design facilitates maintenance and assembly access. Sizes 1/4" to 1" shutoffs have tee handles.

Series 009 assemblies of sizes ½" to 2" include a flood sensor to detect excessive water discharges from the relief valve. The sensor is installed on the assembly exterior and does not alter assembly functions or certifications. The sensor relays a signal that triggers notification to facility who can take corrective action, thus avoiding the possibility of ruinous flooding and costly damage.

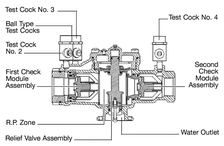
NOTICE

An add-on connection kit is required to activate the flood sensor. Without the connection kit, the sensor is a passive component that has no communication with any other device. (For more information, download RP/IS-009.)

Features

- Single access cover and modular check construction for ease of maintenance
- Top entry to all internals for immediate accessibility
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- Bronze body construction for durability (1/4" – 2")
- Ball valve test cocks — screwdriver slotted (1/4" – 2")
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing
- Sensor on the relief valve for flood detection (1/2" – 2")





NOTICE

Use of the flood sensor does not replace the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide proper drainage in the event of a discharge.

Watts® is not responsible for the failure of alerts due to connectivity or power issues.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

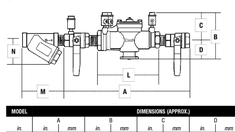
Inquire with governing authorities for local installation requirements.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

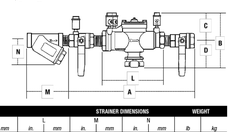
Dimensions — Weight

Call customer service if you need assistance with technical details.

¼" – ⅜"



½" – 2"



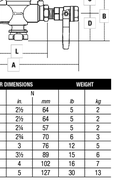
MODEL	DIMENSIONS (APPROX.)										STRAINER DIMENSIONS				WEIGHT	
	A		B		C		D		L		M		N			
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg
¼	10	250	4⅛	117	3⅜	86	1¼	32	5½	140	2⅜	60	2½	64	5	2
⅜	10	250	4⅛	117	3⅜	86	1¼	32	5½	140	2⅜	60	2½	64	5	2
½	10	250	5⅛	149	3⅜	86	2½	64	5½	140	2¾	70	2¼	57	5	2
¾	10⅝	273	6⅛	159	3½	89	2⅝	70	6¾	171	3⅛	81	2⅝	70	6	3
1	14½	368	6⅛	159	3	76	3¼	83	9½	241	3¾	95	3	76	12	5
1¼	17⅜	441	6⅛	169	3⅛	89	3¼	83	11⅜	289	4⅛	113	3½	89	15	6
1½	17⅜	454	6⅝	169	3½	89	3¼	83	11⅛	283	4⅛	124	4	102	16	7
2	21⅛	543	8⅜	222	4½	114	4¼	108	13½	343	5⅞	151	5	127	30	13

Suffix HC – Fire Hydrant Fittings dimension 'A' = 25"

Air Gaps and Elbows

MODEL	SIZE	DRAIN OUTLET		DIMENSIONS				WEIGHT	
	For 909, 009, and 993			A		B			
		in.	mm	in.	mm	in.	mm	lb	kg
909AGA	½"–⅞" 009, 1" 009M2	½	13	2⅜	60	3⅛	79	0.625	0.28
909AGC	1" 009M2/M3								
909AGC	½"–1" 009/909, 1" 009M2	1	25	3⅜	83	4⅛	124	1.5	0.68
909AGF	1"–1½" 009M1, 1½"–3" 009/909, 2" 009M2, 4"–6" 993	2	51	4⅜	111	6⅛	171	3.25	1.47
909AGK	4"–6" 909, 8"–10" 909M1	3	76	6⅛	162	9⅝	244	6.25	2.83
909AGM	8"–10" 909	4	102	7⅛	187	11⅛	286	15.5	7.03
909ELA	½"–¾" 009, ½" 009M2/M3	–	–	–	–	–	–	–	–
909ELC	½"–1" 009/909	–	–	2⅛	60	2⅛	60	0.38	0.17
909ELF*	1½"-2" 009M1, 1½"–2" 009/909, 2" 009M2, 4"–6" 993	–	–	3⅜	92	3⅜	92	2	0.91
909ELH* Vertical	2½"–3" 009/909	–	–	–	–	–	–	–	–

* Epoxy coated



Specification

A Reduced Pressure Zone assembly shall be installed at each potential health hazard location to prevent backflow due to backsiphonage and/or backpressure. The assembly shall consist of an internal pressure differential relief valve located in a zone between two positive seating check modules with captured springs and silicone seat discs. Seats and seat discs shall be replaceable in both check modules and the relief valve. There shall be no threads or screws in the waterway exposed to line fluids. Service of all internal components shall be through a single access bronze cover secured with stainless steel bolts. The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks, and an air gap drain fitting. The assembly shall meet the requirements of USC; ASSE Std. 1013; AWWA Std. C511-92; CSA B64.4. Shall be a Watts® Series 009, and shall include a sensor on the relief valve for flood detection.

Model/Option

Prefix:

U – Union connections (For more information download ES-U009 at watts.com.)

Suffix:

AQT – Elbow fittings for 360° rotation (3/4" – 2")
FS – Flood detection sensor (½" – 2")
HC – 2½" Inlet/outlet fire hydrant fitting (2")
LF – Without shutoff valves
PC – Internal polymer coating
QT – Quarter-turn ball valves
S – Bronze strainer
SH – Stainless steel ball valve handles

Materials

Bronze body construction, silicone rubber disc material in the first and second check plus the relief valve. Replaceable polymer check seats for first and second checks. Removable relief valve seats. Stainless steel cover bolts.

Standardly furnished with NPT body connections. For optional bronze union inlet and outlet connections, specify prefix U (½" – 2"). Series 009QT furnished with quarter turn, full port, resilient seated, bronze ball valve shutoffs.

Pressure / Temperature

Suitable for supply pressure up to 175 psi (12.1 bar)
Water temperature: 33°F – 180°F (0.5°C – 75°C)

Standards

USC
ASSE No. 1013
AWWA C511-92
CSA B64.4
IAPMO File No. 1563

Approvals

USC-FCCCHR

ASSE, AWWA, CSA, IAPMO

Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California

UL Classified ¾" – 2"
(LF models only except 009M3LF)

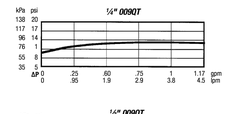
Insulated Enclosure

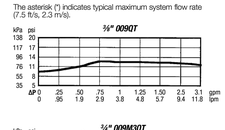
The WattsBox insulated enclosure is available for Series 009. For more information download ES-WB at watts.com.

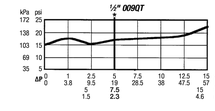
Capacity

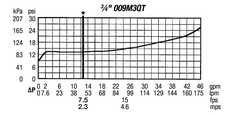
Performance as established by an independent testing laboratory.

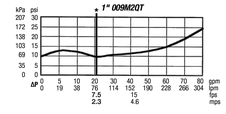
The asterisk (*) indicates typical maximum system flow rate (7.5 ft/s, 2.3 m/s).

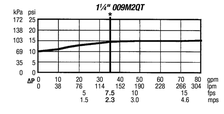


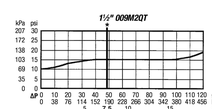


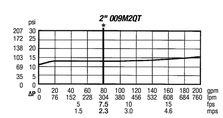












WATTS®

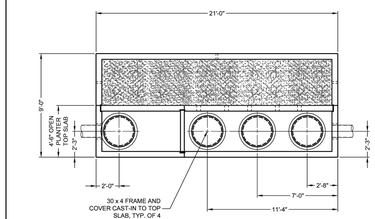
USA: T: (978) 689-6066 • Watts.com
Canada: T: (888) 208-8927 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com

ES-009 2318

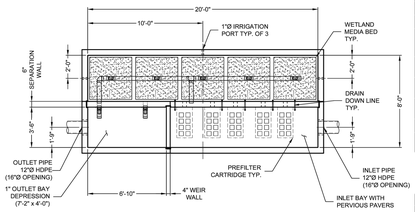
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REDUCED PRESSURE ZONE ASSEMBLY | NTS | 02

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PLAN VIEW



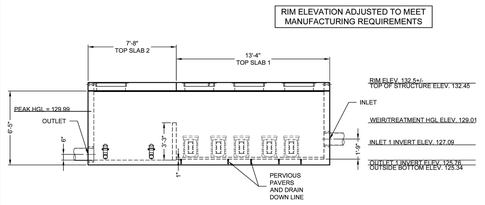
SITE DESIGN DATA	
WATER QUALITY FLOW (CFS)	0.51
PEAK FLOW RATE (CFS)	11.38
RETURN PERIOD (YRS)	100
MAXIMUM POLLUTANT DENSITY (PREFILTER) (GPM/SF)	3.0
PREFILTER LOADING RATE (GPM/SF)	1.79
WETLAND MEDIA LOADING RATE (GPM/SF)	1.00
MEDIA OPERATING HEAD (FT)	3.00
SURFACE LOADING	PEDESTRIAN
GROUNDWATER ELEVATION*	125.76

*GROUNDWATER ELEVATION IS ASSUMED. EOR TO PROVIDE IF KNOWN

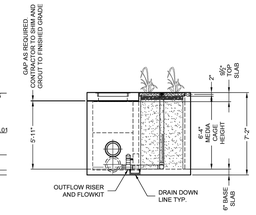
STRUCTURE DETAILS	
NUMBER OF DELIVERED PIECES (RISERS TO GRADE NOT NEEDED)	3
MAXIMUM FOOTPRINT	9.00' x 21.00'
DELIVERED HEAVIEST PICK*	53650 LB.
TOP SLAB 1 WITH CASTING FRAMES CAST-IN	6650 LB.
TOP SLAB 2 WITH CASTING FRAMES CAST-IN	4000 LB.
BASE SECTION	42325 LB.
SEPARATION WALL	8900 LB.
WEIR WALL	575 LB.
INTERNAL COMPONENTS	1850 LB.

* HEAVY PICK WEIGHT IS COMPRISED OF BASE SECTION WITH WALLS AND INTERIOR COMPONENTS INSTALLED

RIM ELEVATION ADJUSTED TO MEET MANUFACTURING REQUIREMENTS



ELEVATION VIEW*



RIGHT END VIEW

*MEDIA CASTINGS, IF REQUIRED, NOT SHOWN

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12901 SE 97th Avenue, Clackamas, OR 97015
800-548-4667 503-240-3393 800-561-1271 FAX

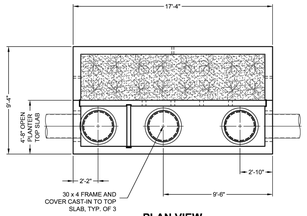
WETLANDS FOR STORMWATER TREATMENT AND FLOW CONTROL
CONTECH PROPOSAL DRAWING

MODULAR WETLANDS MWSL0820OP - 844916-020
MALIBU MIDDLE SCHOOL INCREMENT 2 ***DSA PROJECT***
MALIBU, CA
SITE DESIGNATION: MWS 1

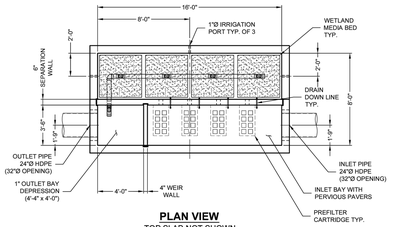
PROJECT No.	SEQ No.	DATE
844916	020	09/12/25
DESIGNED: RLH	DRAWN: RLH	
CHECKED: RLH	APPROVED: RLH	
SHEET NO.: 1 OF 1		

RVRSD
6505 / 000000
LAYOUT 6
MWS-L-8-20-R
24.92 TS
4.58 TW

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PLAN VIEW



PLAN VIEW
TOP SLAB NOT SHOWN

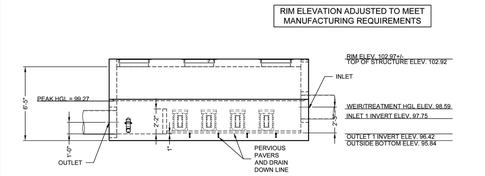
SITE DESIGN DATA	
WATER QUALITY FLOW (CFS)	0.26
PEAK FLOW RATE (CFS)	6.60
RETURN PERIOD (YRS)	100
MAXIMUM POLLUTANT DENSITY (PREFILTER) (GPM/SF)	3.0
PREFILTER LOADING RATE (GPM/SF)	1.14
WETLAND MEDIA LOADING RATE (GPM/SF)	1.00
MEDIA OPERATING HEAD (FT)	1.91
SURFACE LOADING	PEDESTRIAN
GROUNDWATER ELEVATION*	96.42

*GROUNDWATER ELEVATION IS ASSUMED. EOR TO PROVIDE IF KNOWN

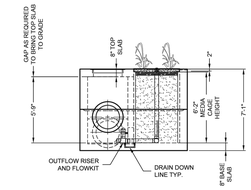
STRUCTURE DETAILS	
NUMBER OF DELIVERED PIECES (RISERS TO GRADE NOT NEEDED)	2
MAXIMUM FOOTPRINT	9.33' x 17.33'
DELIVERED HEAVIEST PICK*	39650 LB.
TOP SECTION WITH CASTING FRAMES CAST-IN	24525 LB.
BASE SECTION	30625 LB.
SEPARATION WALL	7025 LB.
WEIR WALL	400 LB.
INTERNAL COMPONENTS	1600 LB.

* HEAVY PICK WEIGHT IS COMPRISED OF BASE SECTION WITH WALLS AND INTERIOR COMPONENTS INSTALLED

RIM ELEVATION ADJUSTED TO MEET MANUFACTURING REQUIREMENTS



ELEVATION VIEW*



RIGHT END VIEW

*MEDIA CASTINGS, IF REQUIRED, NOT SHOWN

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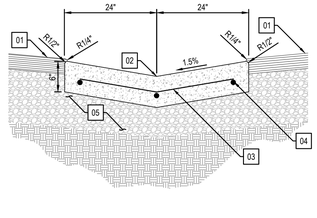
WETLANDS FOR STORMWATER TREATMENT AND FLOW CONTROL
CONTECH PROPOSAL DRAWING

MODULAR WETLANDS MWSL0816OP - 844916-025
MALIBU MIDDLE SCHOOL INCREMENT 2 ***DSA PROJECT***
MALIBU, CA
SITE DESIGNATION: MWS 2

PROJECT No.	SEQ No.	DATE
844916	025	09/12/25
DESIGNED: RLH	DRAWN: RLH	
CHECKED: RLH	APPROVED: RLH	
SHEET NO.: 1 OF 1		

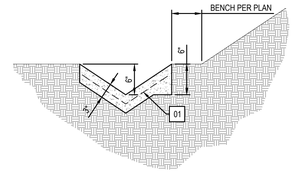
RVRSD
6505 / 000000
LAYOUT 4
MWS-L-8-16-R
25.41 TS
3.57 TW

MODULAR WETLAND UNITS | NTS | 13



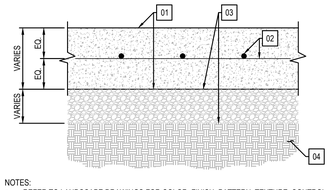
01 FINISHED SURFACE
02 FLOW LINE PER PLAN
03 #3 REBAR @ 18" OC
04 (3) #3 REBAR CONTINUOUS TYP
05 SUBGRADE PREPARATION PER GEOTECHNICAL ENGINEER RECOMMENDATIONS

VALLEY GUTTER | NTS | 09



01 6" x 6" - W1.4 x W1.4 WWM

V-DITCH | NTS | 05



NOTES:
- REFER TO LANDSCAPE DRAWINGS FOR COLOR, FINISH, PATTERN, TEXTURE, CONTROL JOINTS, EXPANSION JOINTS, AND THICKENED EDGE.
- CONCRETE DOWELING PER LANDSCAPE DRAWINGS AND PROJECT GEOTECHNICAL REPORT RECOMMENDATIONS.
- DO NOT ALLOW CONCRETE OVER-POUR INTO ADJACENT PLANTERS.
- MINIMUM CONCRETE STRENGTH PER SPECIFICATION SECTION 321313.

01 CONCRETE PAVING
PEDESTRIAN: 5.5" THICK
VEHICULAR: 6.5" THICK
02 PEDESTRIAN: #4 @ 18" OC EACH WAY
VEHICULAR: #4 @ 18" OC EACH WAY
03 COMPACTED BASE COURSE
PEDESTRIAN: 4" THICK
VEHICULAR: 12" THICK
04 SUBGRADE PREPARATION PER PROJECT GEOTECHNICAL REPORT

CONCRETE PAVEMENT | NTS | 01

LPA
ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING
949-261-1001 Office
LPADesignStudios.com
5301 California Avenue, Suite 100
Irvine, California 92617

REGISTERED PROFESSIONAL ENGINEER
KATHLEEN M. SITNAY
R.C.E. 68369
EXP. 9-30-27
CIVIL
STATE OF CALIFORNIA

MALIBU MIDDLE SCHOOL INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	08/08/2025

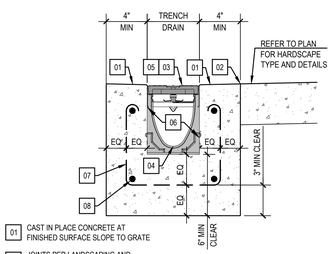
Job Number	31722
Checked By	RR
Scale	AS NOTED

CONSTRUCTION DETAILS

2-C7.01

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01 CAST IN PLACE CONCRETE AT FINISHED SURFACE SLOPE TO GRATE

02 JOINTS PER LANDSCAPING AND ARCHITECTURAL PLANS.

03 TOP OF GRATE (TG) ELEVATION

04 INVERT (INV) ELEVATION. SLOPE OF INVERT AS SHOWN ON PLANS

05 ACO TYPE 496D, TAN LONGITUDINAL (ADA) PLASTIC GRATE WITH 'DRAINLOK' LOCKING AS MANUFACTURED BY ACO, INC. OR SIMILAR APPROVED. GRATE AND TRENCH SLOPE PER PLAN.

06 TRENCH DRAIN CHANNEL: ACO KS100 KLASSIK DRAIN SYSTEM

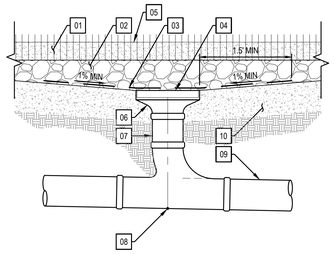
07 #3 REBAR @ 36" OC

08 (4) #3 REBAR CONTINUOUS TYP

TRENCH DRAIN

NTS

16



01 SYNTHETIC SURFACE SEE LANDSCAPE MATERIALS PLANS

02 PERMEABLE STONE PER SPECIFICATIONS

03 MIRAFI 140N FILTER FABRIC, COVER AND EXTEND A MINIMUM OF 3' BEYOND ALL SIDES OF DRAIN INLET

04 NDS 12" SQUARE GRATE, TOP OF GRATE (TG) TO BE SET FLUSH WITH SUBGRADE AND HOUSING ADAPTER

05 FINISH GRADE

06 NDS 12"X12" LOW PROFILE HOUSING ADAPTER

07 6" PVC RISER

08 WYE FITTING, INVERT ELEVATION PER PLAN

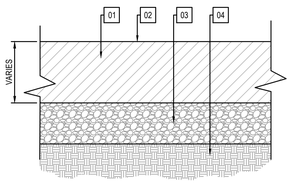
09 STORM PIPE AS SHOWN ON PLAN

10 CONCRETE SUBGRADE PER LANDSCAPE MATERIALS PLAN. SLOPE TO DRAIN.

SYNTHETIC TURF DRAIN

NTS

15



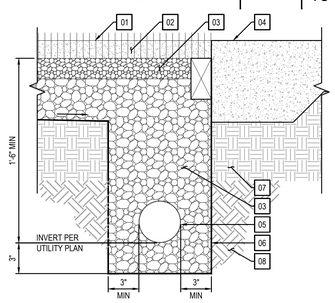
01 AC PAVING, SEE SCHEDULE BELOW

02 2 COATS OF SURFACE SEAL

03 BASE COURSE, SEE SCHEDULE BELOW

04 COMPACTED SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATIONS

ASPHALT CONCRETE		BASE COURSE	
LOCATION	THICKNESS	THICKNESS	TYPE
TI 5 (PARKING, LIGHT TRAFFIC)	3"	7.5"	CII-AB
TI 6 (HEAVY TRAFFIC)	4"	8.5"	CII-AB
TI 7 (MAIN DRIVES, FIRE TRUCK)	4"	12"	CII-AB



01 FINISH GRADE

02 SYNTHETIC SURFACE SEE LANDSCAPE MATERIALS PLANS

03 PERMEABLE STONE PER SPECIFICATIONS

04 ADJACENT PAVING PER PLAN

05 6" PERFORATED DRAIN PIPE WITH SOCK (PERFORATIONS DOWN).

06 IMPERMEABLE LINER PER SPECIFICATIONS

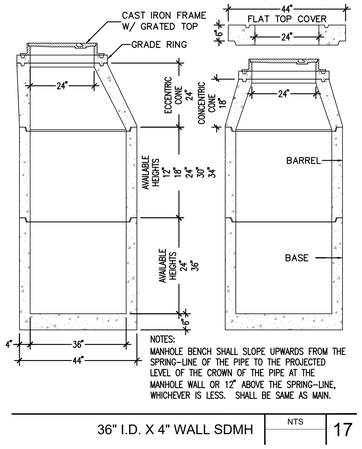
07 SUBGRADE PREPERATION PER GEOTECHNICAL REPORT

08 UNDISTURBED NATIVE SUBGRADE

AC PAVING

NTS

22

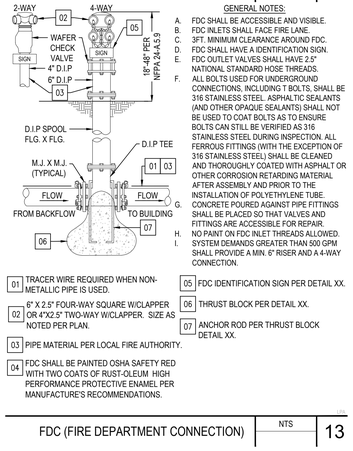


NOTES:
MANHOLE BENCH SHALL SLOPE UPWARDS FROM THE SPRING–LINE OF THE PIPE TO THE PROJECTED LEVEL OF THE CROWN OF THE PIPE AT THE MANHOLE WALL OR 12" ABOVE THE SPRING–LINE, WHICHEVER IS LESS. SHALL BE SAME AS MAIN.

36" I.D. X 4" WALL SDMH

NTS

17



01 TRACER WIRE REQUIRED WHEN NON-METALLIC PIPE IS USED.

02 6" X 2.5" FOUR-WAY SQUARE W/CLAPPER OR 4"X2.5" TWO-WAY W/CLAPPER. SIZE AS NOTED PER PLAN.

03 PIPE MATERIAL PER LOCAL FIRE AUTHORITY.

04 FDC SHALL BE PAINTED OSHA SAFETY RED WITH TWO COATS OF RUST-OLEUM HIGH PERFORMANCE PROTECTIVE ENAMEL PER MANUFACTURE'S RECOMMENDATIONS.

05 FDC IDENTIFICATION SIGN PER DETAIL XX.

06 THRUST BLOCK PER DETAIL XX.

07 ANCHOR ROD PER THRUST BLOCK DETAIL XX.

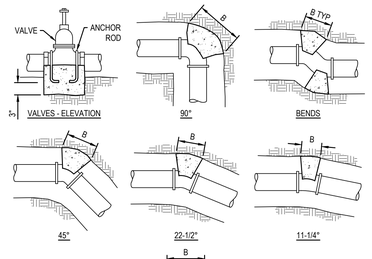
GENERAL NOTES:

A. FDC SHALL BE ACCESSIBLE AND VISIBLE.
B. FDC INLETS SHALL FACE FIRE LANE.
C. 3FT. MINIMUM CLEARANCE AROUND FDC.
D. FDC SHALL HAVE A IDENTIFICATION SIGN.
E. FDC OUTLET VALVES SHALL HAVE 2.5" NATIONAL STANDARD HOSE THREADS.
F. ALL BOLTS USED FOR UNDERGROUND CONNECTIONS, INCLUDING T BOLTS, SHALL BE 316 STAINLESS STEEL. ASPHALTIC SEALANTS (AND OTHER OPAQUE SEALANTS) SHALL NOT BE USED TO COAT BOLTS AS TO ENSURE BOLTS CAN STILL BE VERIFIED AS 316 STAINLESS STEEL DURING INSPECTION. ALL FERROUS FITTINGS (WITH THE EXCEPTION OF 316 STAINLESS STEEL) SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER ASSEMBLY AND PRIOR TO THE INSTALLATION OF POLYETHYLENE TUBE.
G. CONCRETE POURED AGAINST PIPE FITTINGS SHALL BE PLACED SO THAT VALVES AND FITTINGS ARE ACCESSIBLE FOR REPAIR.
H. NO PAINT ON FDC INLET THREADS ALLOWED.
I. SYSTEM DEMANDS GREATER THAN 500 GPM SHALL PROVIDE A MIN. 6" RISER AND A 4-WAY CONNECTION.

FDC (FIRE DEPARTMENT CONNECTION)

NTS

13



NOTES:

1. THRUST BLOCKS SHALL BE USED FOR PLASTIC PIPE 4" DIAMETER OR LARGER.
2. THRUST BLOCK INSTALLATION PER SSPWC SECTION 306 (LATEST EDITION).
3. THRUST BLOCKS SHALL BE PCC, 450-C-2000 PER SSPWC SECTION 201 (LATEST EDITION).
4. ANCHOR RODS SHALL BE GALVANIZED STEEL, 1/2" DIAMETER, WRAPPED AROUND PIPE.
5. ALL VIEWS ARE PLAN VIEWS UNLESS OTHERWISE NOTED.
6. THRUST BLOCK AREAS ARE BASED ON 200 PSI PRESSURE AND 1,500 PSF ALLOWABLE SOIL BEARING PRESSURE. THRUST BLOCK SIZING PER 2019 NFPA 24, ANNEX A, SECTION A.10.6.1.
7. THRUST BLOCKS SHALL BE INSTALLED AT EVERY CHANGE OF DIRECTION.

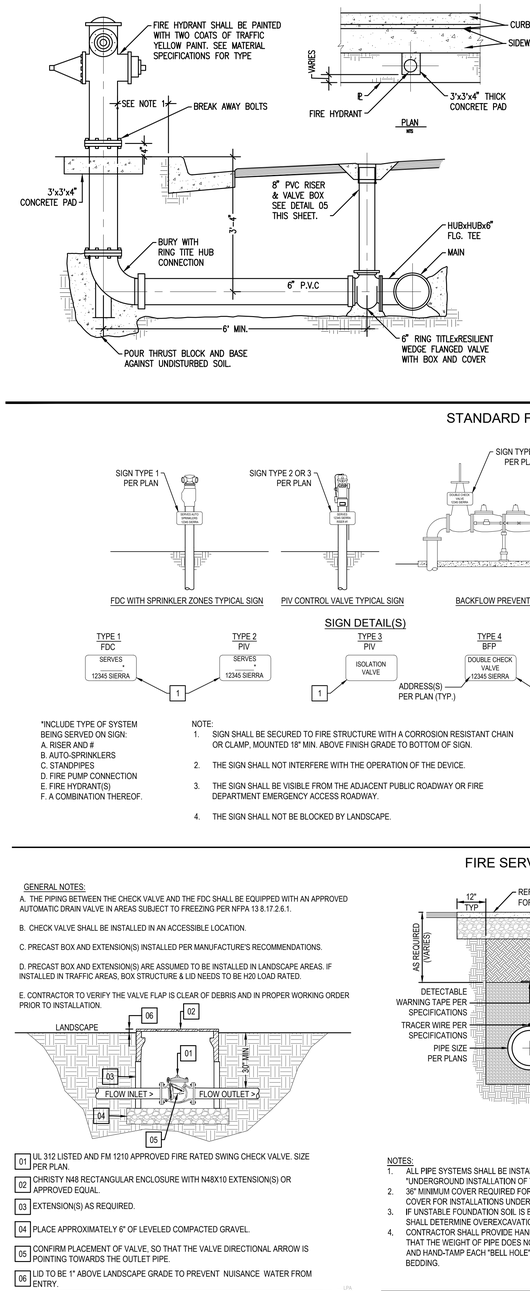
HORIZONTAL BEND THRUST BLOCK REQUIRED TOTAL BEARING AREA						
PIPE SIZE (IN)	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND	DEAD END	TEE
	AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)
4	0.7	1.4	2.8	5.1	3.6	3.6
6	1.5	2.9	5.7	10.6	7.5	7.5
8	2.5	5.0	9.8	18.2	12.9	12.9
10	3.8	7.6	14.8	27.4	19.4	19.4
12	5.4	10.7	20.9	38.7	27.4	27.4

* BLOCK HEIGHT (H) SHOULD BE CHOSEN SO THAT THE CALCULATED BLOCK WIDTH (B) VARIES BETWEEN ONE AND TWO TIMES THE HEIGHT, NFPA A.10.6.1.

THRUST BLOCKS FOR PLASTIC PIPE - 1500 PSF SOIL BEARING CAPACITY

NTS

11



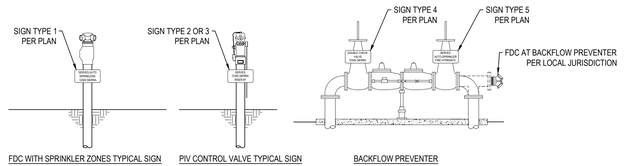
NOTE:

1. FIRE HYDRANTS SHALL BE INSTALLED 24" FROM FACE OF CURBS WHERE SIDEWALKS ARE NOT ADJACENT TO CURBS. WHERE SIDEWALKS ARE ADJACENT TO CURBS, HYDRANTS SHALL BE CENTERED IN A 3'-0" SQUARE CONCRETE PAD (4" THICK) AS SHOWN. SET EDGE OF PAD AT B.C.R. WHERE HYDRANTS ARE REQUIRED AT STREET INTERSECTIONS.
2. AT 8' SIDEWALKS HYDRANT SHALL BE INSTALLED 24" FROM FACE OF CURB.

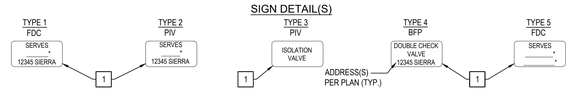
STANDARD FIRE HYDRANT

NTS

10



SIGN DETAIL(S)



*INCLUDE TYPE OF SYSTEM BEING SERVED ON SIGN:
A. RISER AND #
B. AUTO-SPRINKLERS
C. STAMDPIPES
D. FIRE PUMP CONNECTION
E. FIRE HYDRANT(S)
F. A COMBINATION THEREOF.

NOTE:

1. SIGN SHALL BE SECURED TO FIRE STRUCTURE WITH A CORROSION RESISTANT CHAIN OR CLAMP, MOUNTED 18" MIN. ABOVE FINISH GRADE TO BOTTOM OF SIGN.
2. THE SIGN SHALL NOT INTERFERE WITH THE OPERATION OF THE DEVICE.
3. THE SIGN SHALL BE VISIBLE FROM THE ADJACENT PUBLIC ROADWAY OR FIRE DEPARTMENT EMERGENCY ACCESS ROADWAY.
4. THE SIGN SHALL NOT BE BLOCKED BY LANDSCAPE.

CONSTRUCTION NOTE:

1 1" MIN. WHITE REFLECTIVE LETTERING ON RED BACKGROUND. SIGN MATERIAL TO BE 1/8" ENGINEERING GRADE REFLECTIVE ALUMINUM, FACE-PAINTED RED. CONTRACTOR TO SUBMIT CUT-SHEET FOR REVIEW.

SWING CHECK VALVE

NTS

12

01 UL 312 LISTED AND FM 1210 APPROVED FIRE RATED SWING CHECK VALVE. SIZE PER PLAN.

02 CHRISTY N48 RECTANGULAR ENCLOSURE WITH N48X10 EXTENSION(S) OR APPROVED EQUAL.

03 EXTENSION(S) AS REQUIRED.

04 PLACE APPROXIMATELY 6" OF LEVELED COMPACTED GRAVEL.

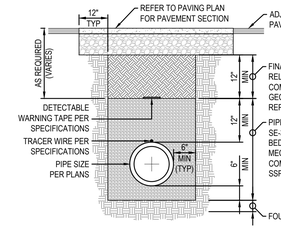
05 CONFIRM PLACEMENT OF VALVE, SO THAT THE VALVE DIRECTIONAL ARROW IS POINTING TOWARDS THE OUTLET PIPE.

06 LID TO BE 1" ABOVE LANDSCAPE GRADE TO PREVENT NUISANCE WATER FROM ENTRY.

FIRE SERVICE SIGNAGE

NTS

09



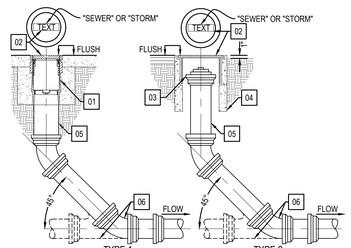
NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2774, "UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING", LATEST EDITION.
2. 36" MINIMUM COVER REQUIRED FOR INSTALLATIONS UNDER HARDSCAPE. 30" MINIMUM COVER FOR INSTALLATIONS UNDER PLANTED AREAS.
3. IF UNSTABLE FOUNDATION SOIL IS ENCOUNTERED, THE GEOTECHNICAL FIELD INSPECTOR SHALL DETERMINE OVEREXCAVATION DEPTH AND FOUNDATION RE-FILL MATERIAL.
4. CONTRACTOR SHALL PROVIDE HAND EXCAVATED "BELL HOLE" FOR EACH PIPE JOINT SO THAT THE WEIGHT OF PIPE DOES NOT BEAR ON THE BELL. CONTRACTOR SHALL RE-FILL AND HAND-TAMP EACH "BELL HOLE" PRIOR TO COMPLETING THE PLACEMENT OF PIPE BEDDING.

PIPE TRENCH - WATER

NTS

08



NOTES:

- CLEANOUT TYPE 1 TO BE INSTALLED IN ALL CONCRETE PAVEMENT AND PEDESTRIAN HARDSCAPE AREAS. LID SHALL BE INSTALLED FLUSH WITH FINISHED SURFACE. PROVIDE PCC COLLAR BELOW HARDSCAPE PER MANUFACTURES REQUIREMENTS.
- CLEANOUT TYPE 2 TO BE INSTALLED IN ASPHALT PAVEMENT AND PLANTED AREAS. CLEANOUT RIM TO BE INSTALLED FLUSH WITH FINISHED SURFACE OF AC PAVING OR 1" ABOVE FINISHED GRADE IN PLANTER AREAS AS APPLIES.

01 ZURN ZN-1400-HD-SM OR APPROVED EQUAL

02 CLEANOUT LID WITH "SEWER" OR "STORM"

03 SOLVENT WELD X F.I.P.T. COUPLING WITH M.I.P.T. PLUG WITH MALE SQUARE NUT.

04 BROOKS 1-RT CLEANOUT OR APPROVED EQUAL

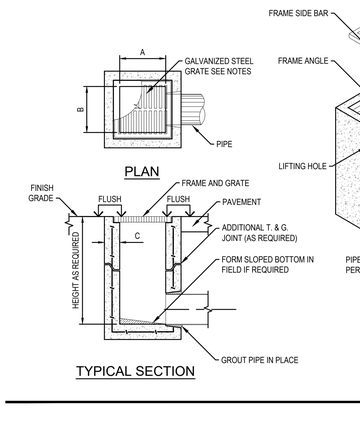
05 PIPE SIZE PER PLAN

06 WYE FITTING AT LINE CLEANOUT, 45° ELBOW AT TERMINAL CLEANOUT

GATE VALVE

NTS

05



01 TRACER WIRE REQUIRED WHEN NON-METALLIC PIPE IS USED.

02 TAMPER SWITCH (EXTEND ELECTRICAL TO FIRE CONTROL PANEL).

03 FLANGE POST INDICATOR VALVE & POST (PM-UL APPR.) LOCKED AND SECURED IN OPEN POSITION.

04 PIV SHALL BE PAINTED OSHA SAFETY RED WITH TWO COATS OF RUST-OLEUM HIGH PERFORMANCE PROTECTIVE ENAMEL PER MANUFACTURE'S RECOMMENDATIONS.

05 TAMPER SWITCH ELECTRICAL CONDUIT. SEE FIRE ALARM DRAWINGS FOR CONTINUATION.

GENERAL NOTES:

A. ALL FERROUS PIPE AND FITTINGS BURIED UNDERGROUND SHALL BE PROTECTED WITH A LOOSE 8-MIL THICK PLASTIC POLYETHYLENE TUBE IN ACCORDANCE WITH AWWA C105 (WRAPPING THE PIPE IN POLYETHYLENE SHEETING IS NOT ACCEPTABLE). THE ENDS OF THE TUBE AND ANY SPLICES MADE FOR TEES OR OTHER PIPE COMPONENTS SHALL BE TIGHTLY SEALED WITH 2-INCH-WIDE POLYETHYLENE ADHESIVE TYPE, POLYKEN 900, SCOTCH WRAP 50, OR APPROVED EQUAL.

B. ALL BOLTS USED FOR UNDERGROUND CONNECTIONS, INCLUDING T BOLTS, SHALL BE 316 STAINLESS STEEL. ASPHALTIC SEALANTS (AND OTHER OPAQUE SEALANTS) SHALL NOT BE USED TO COAT BOLTS AS TO ENSURE BOLTS CAN STILL BE VERIFIED AS 316 STAINLESS STEEL DURING INSPECTION. ALL FERROUS FITTINGS (WITH THE EXCEPTION OF 316 STAINLESS STEEL) SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER ASSEMBLY AND PRIOR TO THE INSTALLATION OF POLYETHYLENE TUBE.

C. CONCRETE POURED AGAINST PIPE FITTINGS SHALL BE PLACED SO THAT VALVES AND FITTINGS ARE ACCESSIBLE FOR REPAIR.

06 FRANGIBLE PAD LOCK

07 PIV IDENTIFICATION SIGN PER DETAIL 09 THIS SHEET.

08 THRUST BLOCK PER DETAIL 11 THIS SHEET.

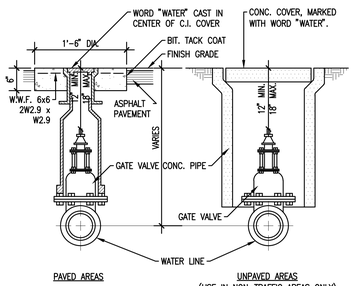
09 IRON BODY GATE VALE (RESILIENT WEDGE, NON-RISING STEM, INDICATOR POST, FLG. X FLG.).

10 ANCHOR ROD PER THRUST BLOCK DETAIL 11 THIS SHEET.

PIV (POST INDICATOR VALVE)

NTS

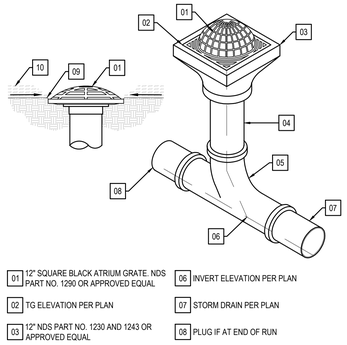
06



DRAIN INLET

NTS

01



01 12" SQUARE BLACK ATRIUM GRATE. NDS PART NO. 1290 OR APPROVED EQUAL

02 TG ELEVATION PER PLAN

03 12" NDS PART NO. 1230 AND 1243 OR APPROVED EQUAL

04 4" PVC SDR 35 RISER

05 WYE FITTING

06 INVERT ELEVATION PER PLAN

07 STORM DRAIN PER PLAN

08 PLUG IF AT END OF RUN

09 GRATE RIM FLUSH WITH FINISHED GRADE UNLESS NOTED OTHERWISE

10 MATERIAL PER LANDSCAPE PLANS

12 INCH SQUARE ATRIUM PLANTER DRAIN

NTS

02

OLDCASTLE PRECAST DROP INLET TABLE OR EQUIVALENT						
MODEL NUMBER	A		B		C	
	IN	MM	IN	MM	IN	MM
CB-1212	12	300	12	300	4	100
CB-1818	18	450	18	450	4	100
CB-1824	18	450	24	600	5	125
CB-2424	24	600	24	600	5	125
CB-2430	24	600	30	750	6	150
CB-3030	30	750	30	750	6	150
CB-2436	24	600	36	900	6	150
CB-3636	36	900	36	900	6	150
CB-2448	24	600	48	1200	6	150
CB-3648	36	900	48	1200	6	150
CB-4848	48	1200	48	1200	6	150

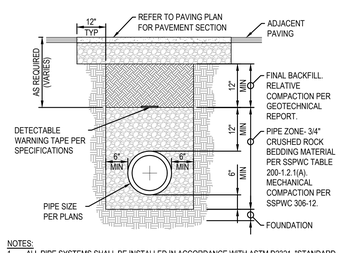
NOTES:

1. FRAMES AND GRATES MAY BE SPECIFIED FOR PEDESTRIAN OR H20 TRAFFIC LOADING. ALL GRATES ARE BICYCLE PROOF.
2. 1/2" MAX GRATE OPENINGS IN ALL DIRECTIONS FOR GRATES LOCATED IN PEDESTRIAN AREAS.

PIPE TRENCH - SEWER

NTS

04



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. IF UNSTABLE FOUNDATION SOIL IS ENCOUNTERED, THE GEOTECHNICAL FIELD INSPECTOR SHALL DETERMINE OVEREXCAVATION DEPTH AND FOUNDATION RE-FILL MATERIAL.
3. CONTRACTOR SHALL PROVIDE HAND EXCAVATED "BELL HOLE" FOR EACH PIPE JOINT SO THAT THE WEIGHT OF PIPE DOES NOT BEAR ON THE BELL. CONTRACTOR SHALL RE-FILL AND HAND-TAMP EACH "BELL HOLE" PRIOR TO COMPLETING THE PLACEMENT OF PIPE BEDDING.
4. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL WHEN REQUIRED BY GEOTECHNICAL REPORT. FILTER FABRIC IF USED SHALL SATISFY THE REQUIREMENTS FOR A TYPE 180N, NONWOVEN GEOTEXTILE PER SSPWC 213-2 (LATEST EDITION).

PIPE TRENCH - STORM DRAIN

NTS

03

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
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LPA

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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

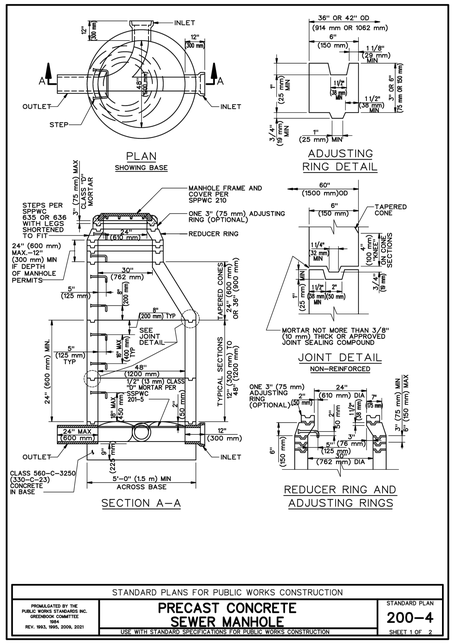
Revision	Date

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DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

CONSTRUCTION DETAILS

2-C7.02



NOTES:

1. EXCEPT AS NOTED HEREON, THE PRECAST UNITS SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM C478 (C478M). AS AN ALTERNATE CURING METHOD, THE UNITS MAY BE CURED USING SATURATED STEAM FOR A MINIMUM OF 12 HOURS FOLLOWED BY 6 DAYS OF WATER CURING OR MEMBRANE CURING. IF THE UNITS ARE CURED BY THE ALTERNATE METHOD, THEY SHALL NOT BE SHIPPED PRIOR TO 8 DAYS AFTER CASTING NOR UNTIL THE CONCRETE HAS ATTAINED A STRENGTH OF 3500 PSI (25 MPa)
2. MANHOLE STEPS SHALL CONFORM TO SPPWC 635 TYPE 1 OR 3 OR SPPWC 636. THE MANHOLE STEPS SHALL BE UNIFORMLY SPACED AT A MAXIMUM OF 16" (400 mm). THE LOWEST STEP SHALL BE PLACED NOT LESS THAN 8" (200 mm) NOR MORE THAN 18" (450 mm) ABOVE THE SHELF. THE STEPS SHALL PROJECT 5" (125 mm) INSIDE THE MANHOLE.
3. RISER SECTIONS MAY BE REINFORCED OR UNREINFORCED. REINFORCED SECTIONS SHALL BE REINFORCED IN ACCORDANCE WITH ASTM C478 (C478M) AND SHALL HAVE A MINIMUM WALL THICKNESS OF 5" (125 mm). UNREINFORCED RISER SECTIONS SHALL HAVE A MINIMUM WALL THICKNESS OF 6" (150 mm).
4. THE 24" x 48" (600 mm x 1200 mm) ECCENTRIC CONES MAY BE REINFORCED OR UNREINFORCED. IF REINFORCED, THE WALL THICKNESS SHALL BE NOT LESS THAN 5" (125 mm). IF UNREINFORCED, THE WALL THICKNESS SHALL NOT BE LESS THAN 6" (150 mm).
5. JOINTS SHALL BE TONGUE AND GROOVE. JOINTS FOR REINFORCED STRUCTURES SHALL CONFORM WITH ASTM C478 (C478M) SECTION 14.
6. PRECAST UNITS SHALL BE ASSEMBLED USING CLASS "B" MORTAR.
7. IF 30" (762 mm) DIAMETER MANHOLE FRAME AND COVER IS REQUIRED, IT SHALL BE INSTALLED WHERE THE REDUCER RING IS SHOWN IN THE SECTION.
8. FOR REINFORCED PRECAST STRUCTURES, ALL REINFORCEMENT SHALL HAVE A MINIMUM OF 2" (50 mm) OF COVER OVER THE STEEL ON THE INSIDE FACE.
9. THE TOP OPENING OF THE MANHOLE AND THE STEPS SHALL BE PLACED DIRECTLY OVER THE OUTLET OF THE STRUCTURE EXCEPT AS OTHERWISE NOTED ON PLANS.
10. CONCRETE BASE AND STUB WALLS SHALL BE POURED IN ONE OPERATION TO A POINT 2" (50 mm) ABOVE THE INLET AND OUTLET PIPES. ALL PIPES SHALL BE RIGIDLY SUPPORTED BY TEMPORARY PIERS OR OTHER METHODS DURING THE OPERATION. CONCRETE SHALL SET FOR 24 HOURS BEFORE PLACING PRECAST UNITS.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1964 REV. 1993, 1995, 2009, 2021	**PRECAST CONCRETE SEWER MANHOLE** USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN **200–4** SHEET 1 OF 2

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION	
PRECAST CONCRETE SEWER MANHOLE	STANDARD PLAN **200–4** SHEET 2 OF 2

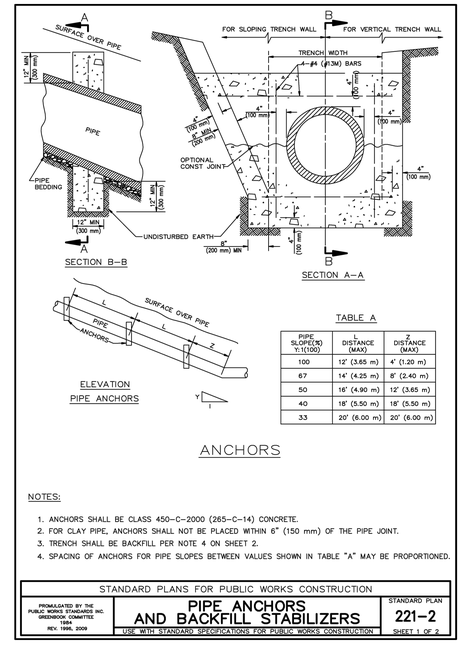


TABLE A

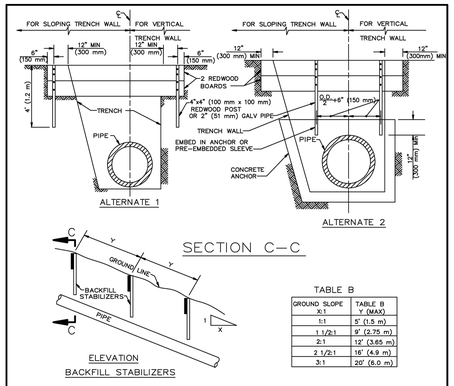
PIPE SLOPE(%) Y:1(100)	L DISTANCE (MAX)	Z DISTANCE (MAX)
100	12' (3.65 m)	4' (1.20 m)
67	14' (4.25 m)	8' (2.40 m)
50	16' (4.90 m)	12' (3.65 m)
40	18' (5.50 m)	18' (5.50 m)
33	20' (6.00 m)	20' (6.00 m)

ANCHORS

NOTES:

1. ANCHORS SHALL BE CLASS 450–C–2000 (265–C–14) CONCRETE.
2. FOR CLAY PIPE, ANCHORS SHALL NOT BE PLACED WITHIN 6" (150 mm) OF THE PIPE JOINT.
3. TRENCH SHALL BE BACKFILL PER NOTE 4 ON SHEET 2.
4. SPACING OF ANCHORS FOR PIPE SLOPES BETWEEN VALUES SHOWN IN TABLE "A" MAY BE PROPORTIONED.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1964 REV. 1996, 2009	**PIPE ANCHORS AND BACKFILL STABILIZERS** USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN **221–2** SHEET 1 OF 2



SECTION C–C

TABLE B

GROUND SLOPE X:1	TABLE B Y (MAX)
1:1	5' (1.5 m)
1 1/2:1	9' (2.75 m)
2:1	12' (3.65 m)
2 1/2:1	16' (4.9 m)
3:1	20' (6.0 m)

STABILIZERS

NOTES:

1. REDWOOD BOARDS SHALL BE 2" x 12" (50 x 300 mm) WHERE DEPTH OF COVER OVER PIPE PERMITS, OTHERWISE USE 2" x 10" (50 x 250 mm).
2. REDWOOD BOARDS SHALL BE PLACED ON THE HIGH GROUND SIDE OF THE POSTS.
3. EACH REDWOOD BOARD SHALL BE FASTENED BY USING 2–16d NAILS TO EACH REDWOOD POST OR A 3/8" (10 mm) BOLT AND NUT WITH WASHERS TO EACH GALVANIZED PIPE. ALL HARDWARE SHALL BE GALVANIZED.
4. TRENCH BACKFILL SHALL BE CONSOLIDATED BY MECHANICAL COMPACTION. IN LIEU OF MECHANICALLY COMPACTION, SOIL CEMENT MAY BE USED; HOWEVER, THE TOP 12" (300 mm) OF BACKFILL SHALL BE NATIVE SOIL, MECHANICALLY COMPACTED.
5. SPACING OF STABILIZERS FOR GROUND SLOPES BETWEEN VALUES SHOWN IN TABLE "B" MAY BE PROPORTIONED.
6. THE CONTRACTOR MAY, AT ITS OPTION, SUBSTITUTE DOUGLAS FIR FOR THE REDWOOD PROVIDED IT HAS BEEN TREATED WITH PRESERVATIVES.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION	
PIPE ANCHORS AND BACKFILL STABILIZERS	STANDARD PLAN **221–2** SHEET 2 OF 2

LPA

ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING

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Irvine, California 92617

REGISTERED PROFESSIONAL ENGINEER
KATHLEEN M. SUTHAM
R.C.E. 68369
EXP. 9-30-27
CIVIL
STATE OF CALIFORNIA

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MALIBU MIDDLESCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

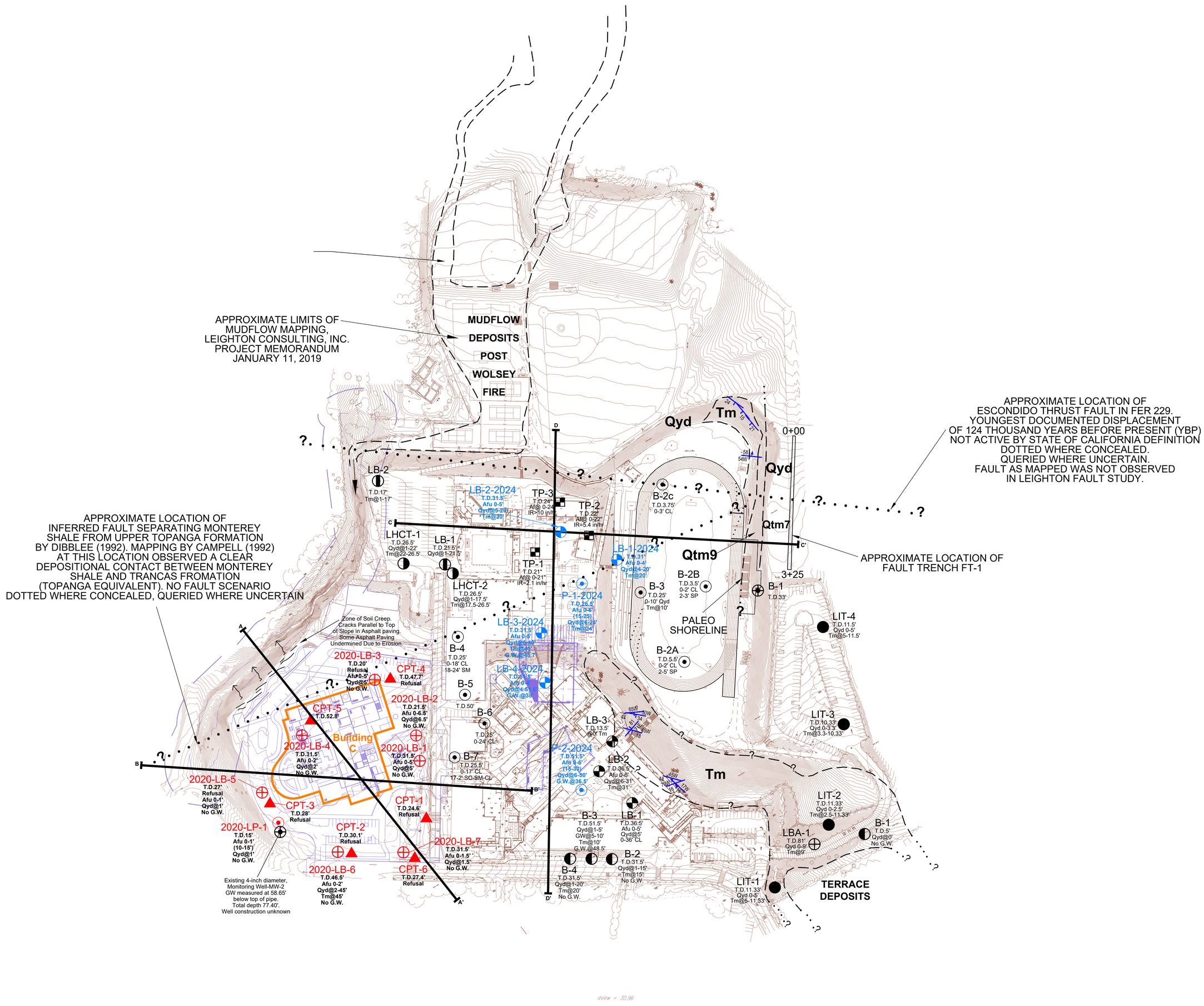
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
DESIGN DEVELOPMENT	02/21/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	RR
Scale	AS NOTED

CONSTRUCTION DETAILS

2-C7.03



0view = 30.96

LEGEND

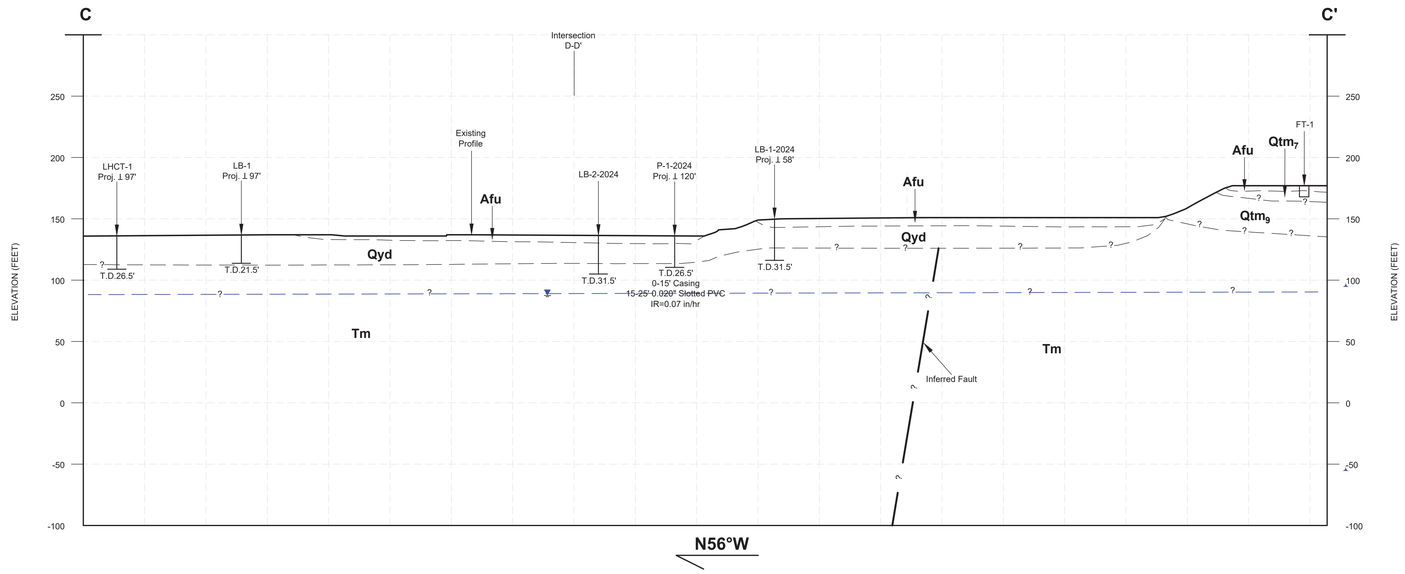
Afu	ARTIFICIAL FILL, UNDOCUMENTED
Qyd	MARINE TERRACE DEPOSITS
Tm	TERTIARY MONTEREY SHALE: SILTSTONE/CLAYSTONE
Qtm7	MARINE ISOTOPE STAGE 7-200,000 YEARS AGO
Qtm9	MARINE ISOTOPE STAGE 9 300-325,000 YEARS AGO
65W 42	STRIKE AND DIP OF BEDDING (LEIGHTON, 2009)
	APPROXIMATE LOCATION OF HOLLOW STEM AUGER BORINGS SHOWING TOAL DEPTH (T.D.) AND THICKNESS OF UNDOCUMENTED ARTIFICIAL FILL (Afu) OVER NATIVE MARINE TERRACE (Qyd) OVERLYING BEDROCK OF THE MONTEREY FORMATION (Tm) (11382.016)
LB-4-2024	APPROXIMATE LOCATION OF HOLLOW STEM AUGER BORINGS SHOWING TOAL DEPTH (T.D.) AND THICKNESS OF UNDOCUMENTED ARTIFICIAL FILL (Afu) OVER NATIVE MARINE TERRACE (Qyd) OVERLYING BEDROCK OF THE MONTEREY FORMATION (Tm) WHER ENCOUNTERED.
P-2-2024	APPROXIMATE LOCATION OF INFILTRATION TEST WELL SHOWING TOTAL DEPTH (T.D.) IN FEET BELOW GROUND SURFACE TEST DEPTH NOTED IN PARANTHESES. G.W.-GROUNDWATER DEPTH MEASURED DURING DRILLING.
CPT-6	APPROXIMATE LOCATION OF CONE PENETROMETER TEST (CPT) LOCATIONS SHOWING TOTAL DEPTH (T.D.) IN FEET BELOW GROUND SURFACE. REFUSAL NOTED WHERE APPLICABLE.
LP-1	APPROXIMATE LOCATION OF INFILTRATION TEST WELL SHOWING TOTAL DEPTH (T.D.) IN FEET BELOW GROUND SURFACE TEST DEPTH NOTED IN PARANTHESES

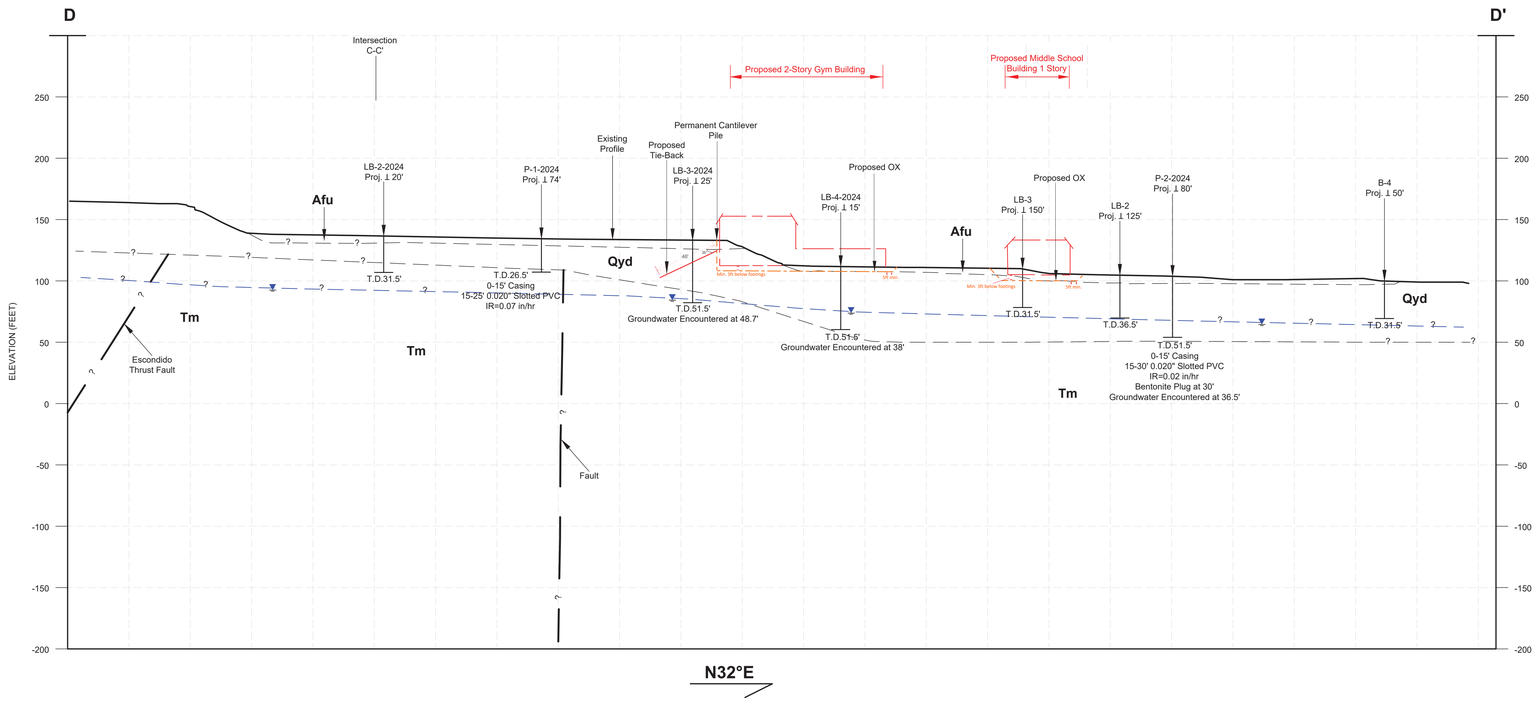
B-7 T.D.25.5'	HOLLOW STEM AUGER BORING (ASSOCIATED SOILS ENGINEERS, INC., 1999) SHOWING TOTAL DEPTH (T.D.) IN FEET (602311-001-006)
B-1 T.D.33'	BUCKET AUGER BORING (ASSOCIATED SOILS ENGINEERS, INC., 1999) SHOWING TOTAL DEPTH (T.D.) IN FEET
LB-2 T.D.17' Tm@1-17'	HOLLOW STEM AUGER BORING (LEIGHTON, 2009b), [ADDENDUM 1] SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE (602311.001)
LIT-4 T.D.11.5' Qdy@0-5' Tm@5-11.5'	HOLLOW STEM AUGER BORING (LEIGHTON, 2009c), [ADDENDUM 2] SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE (602311.001)
LHCT-2 T.D.26.5' Qdy@1-17.5' Tm@17.5-26.5'	HOLLOW STEM AUGER BORING (LEIGHTON, 2009d), [ADDENDUM 3] SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE (602311.002)
TP-3 T.D.24" Af@0-24" IR>10 in/hr	TEST PIT LOCATION (LEIGHTON, 2010) SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE, AND INFILLTRATION RATE (IR) IN INCHES PER HOUR (in./hr.) (602311.003)

LB-3 T.D.13.5' @5' Tm	HOLLOW STEM AUGER BORING (LEIGHTON, 2016b) SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE (11382.004)
LBA-1 T.D.81' Qyd 0-9' Tm@9'	BUCKET AUGER CORE BORING (LEIGHTON, 2016a) SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE (11382.002)
B-4 T.D.31.5' Qyd@1-20' Tm@20' No G.W.	HOLLOW STEM AUGER BORING (LEIGHTON, 2009a) SHOWING TOTAL DEPTH (T.D.) AND DEPTH TO EARTH UNITS IN FEET BELOW GROUND SURFACE (602311.001)
G.W.	GROUNDWATER AT TIME OF DRILLING
	GEOLOGIC CONTACT, DASHED WHERE APPROXIMATE, QUERIED WHERE UNCERTAIN
	INDICATES DIRECTION OF SOIL CREEP DOWN SLOPE
D D'	GEOLOGIC CROSS SECTION. SEE PLATE 2
0+00 FT-1 3+25	APPROXIMATE LOCATION OF LEIGHTON FAULT TRENCH FT-1 (LEIGHTON, 2021b) (11382.020)

PLATE 1	**GEOTECHNICAL MAP**
Scale: 1"=100'	Malibu Middle/High School Proposed Phase 2 Middle School Building and Gymnasium 30215 Morning View Drive, Malibu, California
Date: October 2025	Leighton
Proj: 25785	
Eng/Geol: CCK/JAR	

SCALE 0 50 100 FEET





GEOTECHNICAL CROSS SECTIONS C-C' AND D-D'
Malibu Middle/High School
Proposed Phase 2 Middle School Building and Gymnasium
30215 Morning View Drive, Malibu, California

Leighton

PLATE 2
Scale: 1"=50'
Date: October 2025
Proj: 25785
Eng/Geol: CCK/JAR

Z:\PROJECT FILES\SA-TZ\SMMUSD\25785 - MALIBU HS PHASE 2\VERDANTA\CAD\SHEETS AND PLANS\25785_P02_CS_2024-09-06.DWG (09-06-24 9:26:30AM) Plotted by: bran



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REGISTERED PROFESSIONAL ENGINEER JOHN YAROSZ JOHNSON EXP 06-2026 CIVIL STATE OF CALIFORNIA

ENSITU

"Dedicated to achieving higher standards in onsite and decentralized wastewater systems."

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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

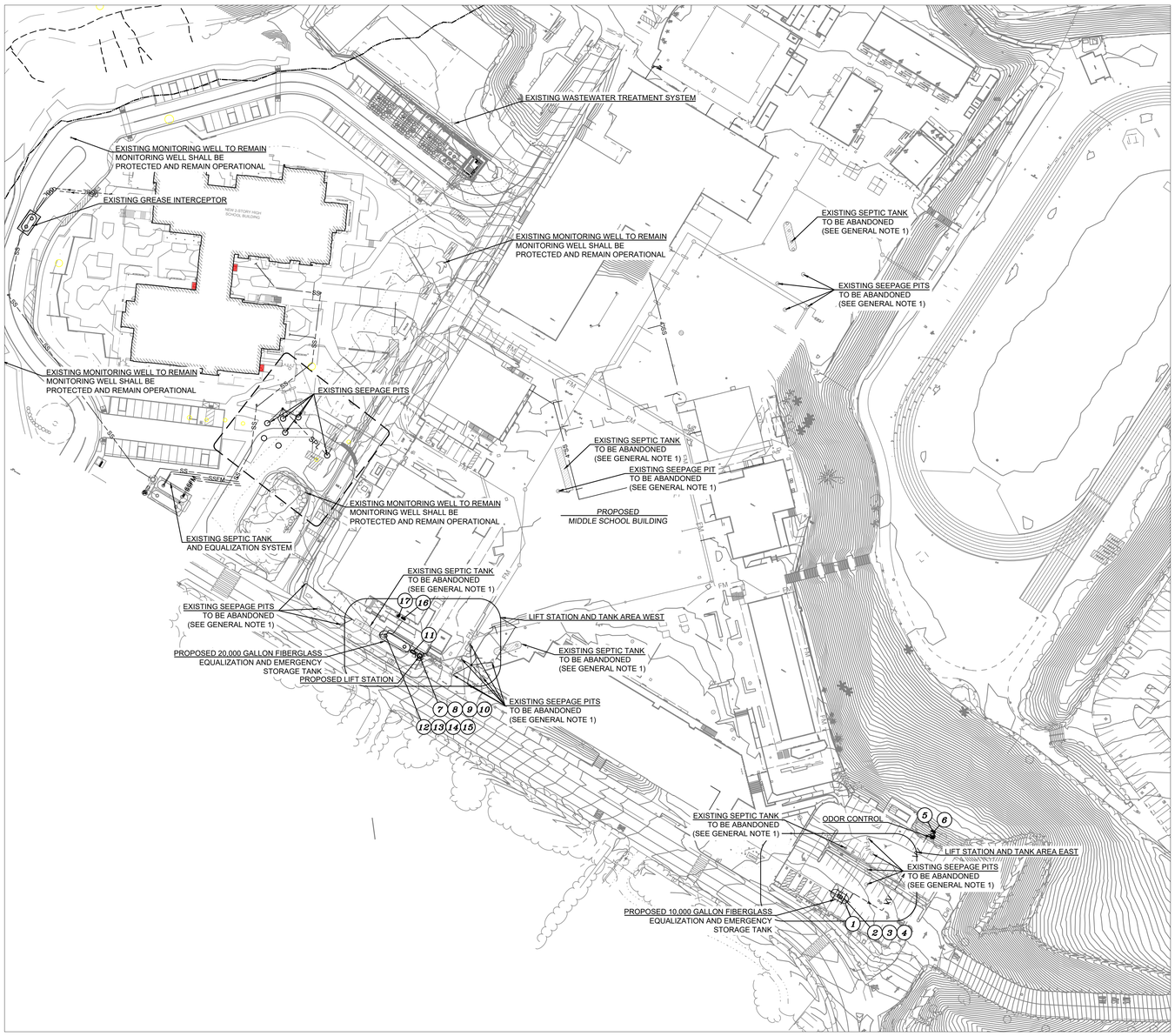
Developed for SMMUSD

Revision	Date

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SCHEMATIC DESIGN	09/04/2024
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100% DESIGN DEVELOPMENT	01/21/2025
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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	817-01
Checked By	JNY
Scale	

OVERALL SITE PLAN



PW–OVERALL SITE PLAN EXISTING AND PROPOSED

SCALE: 1"=0060'

PW-02

GENERAL NOTES:

1. EXISTING OWTS COMPONENTS LOCATION AND ABANDONMENT:
   - 1.1. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) COMPONENTS. THE LOCATIONS ON THE ENGINEERING PLANS ARE INFORMATIONAL AND MAY NOT INCLUDE ALL COMPONENTS OF THE OWTS. MANY ITEMS, SUCH AS TANKS, PIPING, DISTRIBUTION DEVICES, SEEPAGE PITS, DISPERSAL FIELDS, AND OTHER APPURTENANCES ARE BURIED AND NOT LOCATABLE BY THE SURVEYOR OR UTILITIES LOCATOR .
   - 1.2. PRIOR TO COMMENCING WORK TO ABANDON, REMOVE, OR REPLACE EXISTING ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) COMPONENTS AN "OWTS ABANDONMENT PERMIT" SHALL BE OBTAINED FROM THE CITY OF MALIBU. ALL WORK PERFORMED IN THE OWTS ABANDONMENT, REMOVAL, OR REPLACEMENT AREA SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL AND OCCUPATIONAL SAFETY AND HEALTH REGULATORY REQUIREMENTS. THE OBTAINMENT OF ANY SUCH REQUIRED PERMITS OR APPROVALS FOR THIS SCOPE OF WORK SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND THEIR AGENTS.
   - 1.3. THE EXISTING OWTS COMPONENTS INCLUDING; SEPTIC TANK(S), PIPING, CLEANOUT(S) SEEPAGE PIT(S), DISPERSAL FIELD(S), AND ALL OTHER APPURTENANCES SHALL BE PROPERLY ABANDONED PURSUANT TO CITY OF MALIBU ORDINANCE 435, SECTION 15.40.170 C, AND SECTION 15.40.170 D, TITLE 28 OF THE LOS ANGELES COUNTY CODE, INCORPORATING THE MOST CURRENT CALIFORNIA PLUMBING CODE, LOCAL PLUMBING CODE, AND POLICIES. METHOD OF ABANDONMENT SHALL BE DETERMINED BY THE ENGINEER AND/OR THE OWNER'S REPRESENTATIVE
2. SEWER PIPE SHALL BE BEDDED IN ACCORDANCE WITH SPECIFICATIONS AND TITLE 28 OF THE LOS ANGELES COUNTY CODE, INCORPORATING THE MOST CURRENT CALIFORNIA PLUMBING CODE, LOCAL PLUMBING CODE, AND ORDINANCES.
3. SYSTEM COMPONENTS AND APPURTENANCES (INCLUDING CLEAN-OUTS, VENTS, BACKWATER VALVES, ETC.) SHALL BE INSTALLED IN ACCORDANCE WITH TITLE 28 OF THE LOS ANGELES COUNTY CODE, INCORPORATING THE MOST CURRENT CALIFORNIA PLUMBING CODE, LOCAL PLUMBING CODE, AND POLICIES.
4. ELECTRICAL COMPONENTS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH TITLE 27 OF THE LOS ANGELES COUNTY CODE, INCORPORATING THE MOST CURRENT CALIFORNIA ELECTRICAL CODE, LOCAL ELECTRICAL CODE, AND ORDINANCES.
5. A REGISTERED GEOTECHNICAL ENGINEER, UNDER THE DIRECTION OF THE OWNER, SHALL DETERMINE IF THE WASTEWATER LOADING RATE WILL CAUSE THE EXISTING SLOPE TO BECOME UNSTABLE. ENSITU ENGINEERING INC., IS NOT A GEOTECHNICAL ENGINEERING FIRM, THEREFORE, WE CAN NOT PREDICT AND/OR DETERMINE THE STABILITY OF THE EXISTING SLOPE.
6. THE PROJECT ENGINEERING GEOLOGIST SHALL OBSERVE THE INSTALLATION OF THE TANK AND DISPERSAL SYSTEM COMPONENTS OF THE AOWTS (INCLUDING BUT NOT LIMITED TO; (A) TANK EXCAVATION, BEDDING, AND BACKFILL (B) SEEPAGE PITS EXCAVATION, CONSTRUCTION, AND BACKFILL (C) SUBSURFACE DISPERSAL SYSTEM BEDDING, FILL MATERIAL, CONSTRUCTION, AND BACKFILL) AND PROVIDE THE CITY INSPECTOR WITH A FIELD MEMORANDUM(S) DOCUMENTING AND VERIFYING THAT THE TANK AND DISPERSAL SYSTEM COMPONENTS WERE INSTALLED PER APPROVED AOWTS PLANS.
7. LEACH FIELDS AND DISPERSAL SYSTEMS DESIGNATED AS SAND CATEGORY: ANY REMAINING FILL MATERIAL AND ANY BEACH SAND SEDIMENT THAT MIGHT HAVE REDUCED PERMEABILITY FROM EXISTING LEACH FIELD OPERATIONS ENCOUNTERED BELOW THE BOTTOM OF THE PROPOSED LEACH FIELD OR ANY MATERIAL ENCOUNTERED IN THE CONSTRUCTION OF THE LEACH FIELD THAT IS NOT CATEGORIZED AS BEACH SAND DEPOSITS SHALL BE EXCAVATED TO THE LEVEL OF THE NATIVE BEACH SAND DEPOSITS AND REPLACED WITH DOUBLE- WASHED SAND. THE PROJECT ENGINEERING GEOLOGIST SHALL OBSERVE THE EXCAVATION OF THE LEACH FIELD AND CONFIRM IN WRITING THAT ALL THE DELETERIOUS FILL AND NON-BEACH SAND MATERIALS BELOW THE LEACH FIELD HAVE BEEN REMOVED AND REPLACED WITH CLEAN SAND AND THE LEACH FIELD WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED OWTS PLANS.
8. SUBSURFACE DRIP LINE SHALL BE PLACED IN UNCOMPACTED NATIVE SOILS RIPPED AND TILLED A MINIMUM OF 18 INCHES. SOIL SHALL BE AMENDED TO BE 30% SAND, 30% MULCH, 40% NATIVE OR LANDSCAPE DESIGNER SHALL BE CONTACTED TO ADVISE CONTRACTOR ON TYPE OF TOPSOIL TO IMPORT FOR MINIMUM BURIAL DEPTH. DISPERSAL FIELD SHALL BE PLANTED AND ESTABLISHED PRIOR TO OCCUPANCY (ENGINEER TO VERIFY)
9. ALL DIMENSIONS AND GRADES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO SYSTEM INSTALLATION, BUILDING SEWER DEPTH OR CONNECTION POINT WAS NOT PROVIDED AND SHALL BE DETERMINED BY CONTRACTOR PRIOR TO CONSTRUCTION
10. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF BUILDING SEWER CONNECTION, MINIMUM 2% SLOPE FROM STRUCTURE TO CONNECTION POINT.
11. ONSITE WASTEWATER TREATMENT SYSTEM SHALL BE VENTED IN ACCORDANCE WITH TITLE 28 OF THE LOS ANGELES COUNTY CODE, INCORPORATING THE MOST CURRENT CALIFORNIA PLUMBING CODE, LOCAL PLUMBING CODE, AND POLICIES.
12. THE OWTS IS SITED AS FAR LANDWARD AS FEASIBLE.

SITE PLAN TAG AND MAJOR EQUIPMENT LIST

SITE PLAN TAG	TAG	DESCRIPTION	SITE LOCATION	PHYSICAL LOCATION	MANUFACTURER	MODEL NUMBER	SUPPLIER
0001	TK-0100	EQUALIZATION TANK	LIFT STATION AND TANK AREA EAST	LIFT STATION AND TANK AREA EAST	XERXES	10' DIA 10,000 GAL SINGLE WALL	CONTRACTOR SUPPLIED EQUALIZATION TANK TK-0100
0002	FV-0100	BIOTUBE PUMP VAULT	LIFT STATION AND TANK AREA EAST	INTEGRAL TO EQUALIZATION TANK TK-0100	ORENCO SYSTEMS		CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0003	P-0100	EQUALIZATION PUMP	LIFT STATION AND TANK AREA EAST	INTEGRAL TO EQUALIZATION TANK TK-0100	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0004	P-0110	EQUALIZATION PUMP	LIFT STATION AND TANK AREA EAST	INTEGRAL TO EQUALIZATION TANK TK-0100	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0005	PLC-0100	PROGRAMMABLE LOGIC CONTROLLER	LIFT STATION AND TANK AREA EAST	LIFT STATION AND TANK AREA EAST			CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0006	OCU-0100	DRUM ODOR SCRUBBER	LIFT STATION AND TANK AREA EAST	LIFT STATION AND TANK AREA EAST	PURAFIL	DS-100	CONTRACTOR SUPPLIED DRUM SCRUBBER OCU-0100
0007	LS-0300	LIFT STATION	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST	XERXES		CONTRACTOR SUPPLIED LIFT STATION LS-0300
0008	P-0300	SUBMERSIBLE GRINDER PUMP AND GUIDERAILS	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	TSURUMI	TOS50MG22.2	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0009	P-0310	SUBMERSIBLE GRINDER PUMP AND GUIDERAILS	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	TSURUMI	TOS50MG22.2	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0010	P-0350	SUBMERSIBLE CHOPPER PUMP AND GUIDERAILS	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	TSURUMI	TOS50C2.75	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0011	V-0300	VALVE VAULT 17"X30"X24"	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	ARMORCAST	A6001640TAX24 H20 LOADING	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0012	TK-0200	EQUALIZATION TANK	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST	XERXES	10' DIA 20,000 GAL SINGLE WALL	CONTRACTOR SUPPLIED EQUALIZATION TANK TK-0200
0013	FV-0200	BIOTUBE PUMP VAULT	LIFT STATION AND TANK AREA WEST	INTEGRAL TO EQUALIZATION TANK TK-0200	ORENCO SYSTEMS		CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0200
0014	P-0200	EQUALIZATION PUMP	LIFT STATION AND TANK AREA WEST	INTEGRAL TO EQUALIZATION TANK TK-0200	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0200
0015	P-0210	EQUALIZATION PUMP	LIFT STATION AND TANK AREA WEST	INTEGRAL TO EQUALIZATION TANK TK-0200	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0200
0016	PLC-0200	PROGRAMMABLE LOGIC CONTROLLER	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST			CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300 AND EQUALIZATION TANK TK-0200
0017	OCU-0200	DRUM ODOR SCRUBBER	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST	PURAFIL	DS-100	CONTRACTOR SUPPLIED DRUM SCRUBBER OCU-0200

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ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING

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EXP 06-2026
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ENSITU

"Dedicated to achieving higher standards in onsite and decentralized wastewater systems."

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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

Developed for SMMUSD

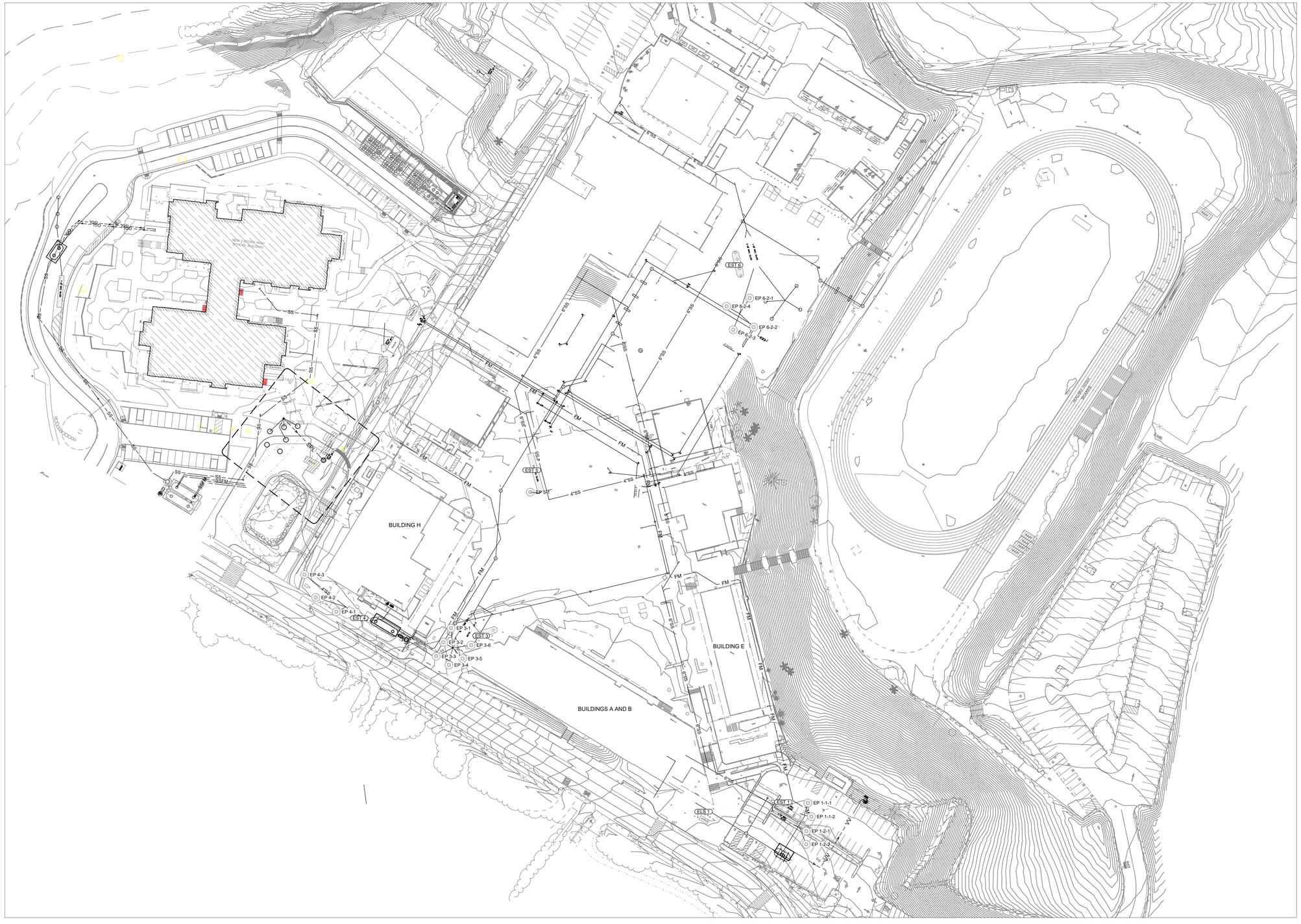
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
90% DESIGN DEVELOPMENT	12/13/2024
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CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	817-01
Checked By	JNY
Scale	

SITE PLAN AND TABLES

PW-02



03
PW–03

PW–EXISTING OWTS ABANDONMENT PLAN
SCALE: 1"=50'

TAG	SITE PLAN NUMBER	LOCATION	DESCRIPTION	COMMENT
ELS 1	A01	MAIN ENTRANCE TO SCHOOL	EXISTING LIFT STAATION TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EST 1	A02	TOPANGA REPORT SYSTEM 1	EXISTING SEPTIC TANK TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 1-1-1	A03	TOPANGA REPORT SYSTEM 1	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 1-1-2	A04	TOPANGA REPORT SYSTEM 1	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 1-2-1	A05	TOPANGA REPORT SYSTEM 1	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 1-2-2	A06	TOPANGA REPORT SYSTEM 1	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EST 3	A07	TOPANGA REPORT SYSTEM 3	EXISTING SEPTIC TANK TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 3-1	A08	TOPANGA REPORT SYSTEM 3	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 3-2	A09	TOPANGA REPORT SYSTEM 3	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 3-3	A10	TOPANGA REPORT SYSTEM 3	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 3-4	A11	TOPANGA REPORT SYSTEM 3	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 3-5	A12	TOPANGA REPORT SYSTEM 3	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 3-6	A13	TOPANGA REPORT SYSTEM 3	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EST 4	A14	TOPANGA REPORT SYSTEM 4	EXISTING SEPTIC TANK TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 4-1	A15	TOPANGA REPORT SYSTEM 4	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 4-2	A16	TOPANGA REPORT SYSTEM 4	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 4-3	A17	TOPANGA REPORT SYSTEM 4	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EST 5	A18	TOPANGA REPORT SYSTEM 5	EXISTING SEPTIC TANK TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 5-1	A19	TOPANGA REPORT SYSTEM 5	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EST 6	A20	TOPANGA REPORT SYSTEM 6	EXISTING SEPTIC TANK TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 6-2-1	A21	TOPANGA REPORT SYSTEM 6	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 6-2-2	A22	TOPANGA REPORT SYSTEM 6	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 6-2-3	A23	TOPANGA REPORT SYSTEM 6	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)
EP 6-2-4	A24	TOPANGA REPORT SYSTEM 6	EXISTING SEEPAGE PIT TO BE ABANDONED	CONTRACTOR TO VERIFY LOCATION AND METHOD OF ABANDONMENT (SEE GENERAL NOTES 1)

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EXISTING OWTS TO BE ABANDONED

PW–XX

STANDARD ABBREVIATIONS FOR PW SHEETS

(F)	FURNISHED	EPRF	EXPLOSION PROOF	MBR	MEMBER	RH	RELATIVE HUMIDITY
(R)	RELOCATED	EPY	EPOXY COATING	MBR	MEMBRANE BIOREACTOR	RH	RIGHT HAND
1/4 RND	QUARTER ROUND	EQ	EQUALIZATION	MS	MOTOR STARTER	RLG	RAILING
A	MIXER	EQUIP	EQUIPMENT	ME	METHANOL	RM	ROOM
A/C	AIR CONDITIONING	ER	ETHYLENE REFRICERANT	MECH	MECHANICAL	RND	ROUND
A/C UNIT	AIR CONDITIONING UNIT	ERP	EPOXY RESIN PIPE	MECH RM	MECHANICAL ROOM	RO	ROUGH OPENING
AB	ANCHOR BOLT	ESD	EMERGENCY SHUTDOWN	MED	MEDIUM	ROW	RIGHT OF WAY
ABS	ACRYLONTRILE BUTADIENE STYRENE TRUSS PIPE	EST	ESTIMATE(D)	MEMB	MEMBRANE	RPM	REVOLUTIONS PER MINUTE
ABV	ABOVE	EX	EXISTING	MFG	MANUFACTURING	RS	RECOVERED SLOPS
AC	ALTERNATING CURRENT	EXC	EXCAVATE	MFR	MANUFACTURER	RTD	RESISTANCE TEMPERATURE DETECTOR
ACC	ACCESSIBLE	EXH	EXHAUST	MG	MOTOR GENERATOR	RV	RELIEF VENT
ACI	AMERICAN CONCRETE INSTITUTE	EXP	EXPANSION	MH	MANHOLE	RW	RAW WATER
ACS DR	ACCESS DOOR	EXP	EXPOSED	MI	CARBON STEEL PIPE W/MALLEABLE IRON FITTINGS	RWC	RAINWATER CONDUCTOR
ACS PNL	ACCESS PANEL	EXST (E)	EXISTING	MI	MALLEABLE IRON	S	SOUTH
ACSR	ALUMINUM CABLE STEEL REINFORCED	F	PROCESS FLOW DIAGRAM FLOW	MIN	MINIMUM	S.B.	SECURITY BARS
ADDM	ADDENDUM	F	FAHRENHEIT	MISC	MISCELLANEOUS	S/S	START/STOP
ADH	ADHESIVE	FA	FIRE ALARM	mm	MILLIMETER(S)	SA	SUPPLY AIR
ADJ	ADJACENT, ADJOINING, ADJUSTABLE	FA	FRESH AIR	MNIC	MATERIAL NOT IN CONTRACT (INSTALLATION BY CONTRACTOR)	SAR	SARAN TUBING
AFF	ABOVE FINISHED FLOOR	FC	FAIL CLOSED			SBF	SODIUM BICARBONATE FEED LINE
AFL	ECTATE FEED LINE	FCU	FAN COIL UNIT	MOD	MODULAR	SC	STEAM CONDENSATE
AGGR	AGGREGATE	FDTN	FOUNDATION	MOD.	MODIFIED	SC	SAMPLE CONNECTION
AHR	ANCHOR	FE	FIRE EXTINGUISHER	MOS	MEMBRANE OPERATING SYSTEM	SCH	SCHEDULE
AHU	AIR HANDLING UNIT	FF	FLUSHING FLUID	MOSA	MOS AIR	SCHED	SCHEDULE
AI	AREA INLET	FG	FUEL GAS	MOSB	MOS BACKPULSE	SCRN	SCREEN
ALM	ALUMINUM PIPE OR TUBING	FH	FIRE HYDRANT	MOSE	MOS EFFLUENT	SCT	STRUCTURAL CLAY TILE
ALT	ALTERNATE	FH	FLAT HEAD	MOSI	MOS INFLUENT	SD	SHUTDOWN
ALUM	ALUMINUM	FI	FAIL INDETERMINATE	MOSO	MOS OVERFLOW	SD	STORM DRAIN
AMB	AMBIENT	FIG	FIGURE	MOSP	MOS PERMEATE	SDI	STEEL DOOR INSTITUTE
AMP	AMPERE	FIN FLR	FINISH FLOOR	MOSRL	MOS RECIRCULATION LOOP	SECT	SECTION
ANOD	ANODIZE	FIXT	FIXTURE	MOT	MOTOR	SEQ	SEQUENCE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	FL	FAIL LOCKED (LAST POSITION)	MOV	MOTOR OPERATED VALVE	SFGL	SAFETY GLASS
APPD	APPROVED	FLEX	FLEXIBLE	MR	MIXED REFRIGERANT	SG	SYNTHESIS GAS
APPROX	APPROXIMATE	FLG	FLANGE	MRD	METAL ROOF DECKING	SG	SPECIFIC GRAVITY
ARCH	ARCHITECT	FLR	FLOOR	MS	MEDIUM PRESSURE STEAM	SHLDR	SHOULDER
ARI	AMERICAN REFRIGERATION INSTITUTE	FN	FENCE	MS	MOTOR STARTER	SHT	SHEET
ARP	ALUMINUM REINFORCED PLASTIC PIPE	FO	FUEL OIL	MS	MACHINE SCREWS	SHTHG	SHEATHING
ASB	ASBESTOS	FO	FAIL OPEN	MT	MOUNT	SHV	SHELVING
ASPH	ASPHALT	FOF	FACE OF FLANGE	MTD	MOUNTED	SIS	SAFETY INSTRUMENTED SYSTEMS
AUTO	AUTOMATIC	FP	FULL PORT	MTFR	METAL FURRING	SJI	STEEL JOIST INSTITUTE
AV	ATMOSPHERIC VENT	FPM	FEET PER MINUTE	MTL	MATERIAL	SLH	SLUDGE HOSE
AVG	AVERAGE	FR	FIRE RESISTANT	MTL	METAL	SLNT	SEALANT
AWG	AMERICAN WIRE GAUGE	FR	FRAME	MW	MANWAY	SLS	SARAN LINED STEEL PIPE
AWT	ACOUSTICAL WALL TREATMENT	FRG	FORGED	N	NITROGEN	SLV	SLEEVE
B	BLOWER	FRMG	FRAMING	N	NORTH	SM	SHEET METAL
BA	BREATHING AIR	FRP	FIBERGLASS REINFORCED PLASTIC PIPE	N.L.	NEOPRENE LATEX	SMS	SHEET METAL SCREWS
BD	BLOWDOWN	FT	FEET	N"REQD	NOT REQUIRED	SO	SEAL OIL
BDRY	BOUNDARY	FTG	FOOTING	NA	CAUSTIC	SO	STEAM OUT
BFW	BOILED FEED WATER	FV	FULL VACUME	NAS	CAUSTIC SEWER	SOV	SHUT OFF VALVE
BL	BLACK IRON PIPE	FW	FIRE WATER	NC	NORMALLY CLOSED	SP	SET POINT
BLDG	BUILDING	FW	FIRE WATER	NEC	NATIONAL ELECTRICAL CODE	SP FIN	SPECIAL FINISH
BLW	BELOW	G	GROUND	NED	NEOPRENE HOSE	SPC	SPACER
BM	BENCHMARK	G	NATURAL GAS	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	SPEC	SPECIFICATION
BO	BOTTOM OF	GA	GAGE			SPF	SOUNDPROOF
BOT	BOTTOM	GAL	GALLON(S)	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	SPH	SEEPAGE PIT HEADER
BPT	BRAIDED PLASTIC TUBING-PVC	GALV	GALVANIZED	NG	NATURAL GAS	SPH	SPACE HEATER
BRK	BRICK	GALV STL	GALVANIZED STEEL	NH	AMMONIA	SPKR	SPEAKER
BRKT	BRACKET	GC	GENERAL CONTRACTOR	NI	NICKEL ALLOY PIPE	SQ	SQUARE
BRR BRS	BRINE RETURN BRINE SUPPLY	GEN	GENERAL	Ni	NICKEL	SQHD	SQUARE HEAD
BS	BOTH SIDES	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NIC	NOT IN CONTRACT	SS	SANITARY SEWER
BSMT	BASEMENT	GI	GALVANIZED IRON	NIS	NEOPRENE STEEL PIPE	SS	STAINLESS STEEL
Btu	BRITISH THERMAL UNIT	GIP	GALVANIZED IRON PIPE	NM	NONMETALLIC	SS	STAINLESS STEEL PIPE OR TUBING
BTWN	BETWEEN	GKT	GASKET(ED)	NNF	NORMALLY NO FLOW	SS	SERVICE SINK
BW	BOTH WAYS	GL	GLASS	NO	NORMALLY OPEN	SS	STANDING SEAM (ROOF)
C TO C	CENTER TO CENTER	GLR	GLYCOL RETURN	NO	NUMBER	ST PR	STATIC PRESSURE
CAB	CABINET	GLS	GLYCOL SUPPLY	NOM	NOMINAL	STA	STATION
CAP	CAPACITY	GO	GEAR OPERATED	NOZ	NOZZLE	STD	STANDARD
CB	CATCH BASIN	GOVT	GOVERNMENT	NP	NYLON PIPE OR TUBE	STL	STEEL
CC	CONTAMINABLE CONDENSATE	GPM	GALLONS PER MINUTE	NR	NOISE REDUCTION	STOR	STORAGE
CEM	CEMENT	GR	GRADE	NRC	NOISE REDUCTION COEFFICIENT	STRUCT	STRUCTURAL
CEM PLAS	CEMENT PLASTER	GR LN	GRADE LINE	NTS	NOT TO SCALE	STS	STORM SEWER
CER	CERAMIC	GRAN	GRANITE	O/C	OPEN/CLOSE	STWY	STAIRWAY
CF	COLD FLARE	GRL	GRAVITY RECIRCULATION LOOP	O/O	ON/OFF	SUB FL	SUBFLOOR
CFM	CUBIC FEET PER MINUTE	GRTG	GRATING	OA	OUTSIDE AIR	SUSP	SUSPENDED
CHFR	CHAMFER	GS	GALVANIZED STEEL PIPE	OBSC	OBSCURE	SV	SHEET VINYL
CHS	CHEMICAL SEWER	GSL	GRAVITY SEWER LINE	OC	ON CENTER	SW	SERVICE WATER
CI	CAST IRON PIPE	GSL	GRAVITY SEWER LINE (PIPE)	OCEW	ON CENTER EACH WAY	SW	SWITCH
CI	CAST IRON	GSLA	GRAVITY SEWER LINE ABANDONED	OD	OUTSIDE DIAMETER	SWBD	SWITCHBOARD
CI	CURB INLET	GSLX	GRAVITY SEWER LINE EXISTING	OHMS	OVALHEAD MACHINE SCREW	SWL	SKIMMER WASTE LINE
CIP	CAST-IN-PLACE	GYP	GYPSUM	OHWS	OVALHEAD WOOD SCREW	SWL	SKIMMER WASTE LINE
CIRC	CIRCULAR	H	HYDROGEN	OP	OUTPUT	SWR	SEA WATER RETURN
CISP	CAST IRON SOIL PIPE	HB	HOSE BIBB	OPH	OPPOSITE HAND	SWS	SEA WATER SUPPLY
CJ	CONSTRUCTION JOINT	HC	HOSE CONNECTION	OPNG	OPENING	SYMM	SYMMETRICAL
CJ	CONTROL JOINT	HD	HEAD	OSBL	OUTSIDE BATTERY LIMITS	SYNTH	SYNTHETIC
CKT	CIRCUIT	HD	HEAVY DUTY	OVHD	OVERHEAD	SYS	SYSTEM
CKT BRKR	CIRCUIT BREAKER	HDR	HEADER	OWS	OILY WATER SEWER	T&G	TONGUE AND GROOVE
CL	CENTERLINE	HDW	HARDWARE	OX	OXYGEN	T/C	THERMOCOUPLE
CLG	CEILING	HEX	HEXAGON	P	GENERAL PROCESS	T/T	TANGENT TO TANGENT
CLOS	CLOSURE	HH	HAND HOLE	P	PUMP	TAN	TANGENT
CLR	CLEAR(ANCE)	HH	HANDHOLE	P	POLE	TDH	TOTAL DIFFERENTIAL HEAD
cm	CENTIMETER(S)	HM	HOLLOW METAL	P.S.	PRESSED STEEL	TEF	TEFLON TUBING
CMCP	CORRUGATED METAL CULVERT PIPE	HNDRL	HANDRAIL	PA	PLANT AIR	TEL	TELEPHONE
CMH	CHEMICAL HOSE	HOA	HAND/OFF/AUTOMATIC	PAL	PROCESS AIR LINE	TEMP	TEMPERATURE
CMP	CORRUGATED METAL PIPE	HORIZ	HORIZONTAL	PAR	PARALLEL	TEMP	TEMPORARY
CMPST	COMPOSITE	HOSE	FLEXIBLE HOSE	PBS	PUSH BUTTON STATION	TERM	TERMINAL
CMU	CONCRETE MASONRY UNIT	HP	HIGH PRESSURE	PC	PROCESS CONDENSATE	TGL	TOGGLE
CND	CONDUIT	HP	HIGH PRESSURE	PCC	PRECAST CONCRETE	THK	THICK(NESS)
CO	CLEANOUT	HP	HORSEPOWER	PCF	POUNDS PER CUBIC FOOT	THRD	THREADED
CO2	CARBON DIOXIDE	HPT	HIGH POINT	PCP	CEMENT PLASTER (PORTLAND)	TI	TITANIUM ALLOY PIPE
COL	COLUMN	HR	HOUR	PD	PAVEMENT DRAIN	TL	TANGENT LINE
CONC	CONCRETE	HS	HIGH PRESSURE STEAM	PED	PEDESTAL	TLS	TEFLON LINED STEEL PIPE
CONN	CONNECTION	HS	HIGH STRENGTH	PEL	PUMPED EFFLUENT LINE	TO	TOP OF
CONN	CONNECT	HSI	HIGH SILICON IRON PIPE	PEP	POLYETHYLENE PIPE	TOPO	TOPOGRAPHY
CONSTR	CONSTRUCTION	HSKPG	HOUSEKEEPING	PERF	PERFORATE(D)	TOS	TOP OF SLAB
CONT	CONTINUE	HT	HEIGHT	PERIM	PERIMETER	TOS	TOP OF STEEL
CONTR	CONTRACTOR	HTG	HEATING	PETB	POLYETHYLENE TUBING	TOW	TOP OF WALL
COP	COPPER PIPE	HTR	HEATER	PH	PHASE	TRANS	TRANSOM
CORR	CORRIDOR	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	PI	POINT OF INTERSECTION	TRANS	TRANSVERSE
COV	COVER	HYDR	HYDRAULIC	PL	PLATE	TSO	TIGHT SHUT-OFF
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE	Hz	HERTZ	PL	PROPERTY LINE	TSTAT	THERMOSTAT
CRCMF	CIRCUMFERENCE	I.P.S.	INSIDE PIPE SIZE	PL GL	PLATE GLASS	TV	TELEVISION
CR	CONTACT RELAY	IA	INSTRUMENT AIR	PLAM	PLASTIC LAMINATE	TWR	TEMPERED WATER RETURN
CRES	CORROSIVE RESISTANT STEEL	IAS	INSTRUMENT AIR SUPPLY	PLBG	PLUMBING	TWS	TEMPERED WATER SUPPLY
CS	CARBON STEEL PIPE	IC	INTERCOM	PLC	PROGRAMMABLE LOGIC CONTROLLER	TYB	TYGON® TUBING BRAIDED
CSC	CAR SEAL CLOSED	ID	INSIDE DIAMETER	PLF	POUNDS PER LINEAR FOOT	TYG	TYGON® TUBING UNBRAIDED
CSO	CAR SEAL OPEN	ILK	INTERLOCK	PLG	PILING	TYP	TYPICAL
CTR	CENTER	IN	INCH	PLS	POLYETHYLENE LINED STEEL PIPE	TYP	TYPICAL
Cu	COPPER	INCL	INCLUDED	PLYWD	PLYWOOD	UC	UNIT COOLER
CU FT	CUBIC FEET	IND	INDETERMINATE	PNL	PANEL	UG	UNDERGROUND
CU YD	CUBIC YARDS	INSUL	INSULATION	POL	POLISHED	UGND	UNDERGROUND
CV	COLD VENT	INT	INTERIOR	POP	POLYPROPYLENE PIPE	UH	UNIT HEATER
CV	CEILING VENT	INTM	INTERMEDIATE	PORT	PORTABLE	UL	UNDERWRITERS LABORATORIES
CW	COLD WATER	IP	IRON PIPE	PPM	PARTS PER MILLION	UNEX	UNEXCAVATED
CWR	COOLING WATER RETURN	IPS	IRON PIPE SIZE	PR	PROPYLENE REFRIGERANT	UNFIN	UNFINISHED
CWS	COOLING WATER SUPPLY	IRL	INTERNAL RECIRCULATION LOOP	PREFAB	PREFABRICATE(D)		
CYL	CYLINDER	IS	INTERMEDIATE PRESSURE STEAM	PREFIN	PREFINISHED		
d	PENNY (AS IN NAIL - 10D)	ISBL	INSIDE BATTERY LIMITS	PREFMD	PREFORMED		
D/P	DIFFERENTIAL PRESSURE	J-BOX	JUNCTION BOX	PRESS	PRESSURE		
DAT	DATUM	JCT	JUNCTION	PRKG	PARKING		
DBL	DOUBLE	JT	JOINT	PROJ	PROJECT		
DCS	DISTRIBUTED CONTROL SYSTEM	KIP	KILOPOUND (1000 POUNDS)	PRP	PHENOLIC RESIN PIPE		
DEG	DEGREE	KLS	PVDF LINED STEEL PIPE (KYNAR® LINED TYPICAL)	PRV	PRESSURE-REGULATING VALVE		
DEMO	DEMOLITION	km	KILOMETER	PS	PIPE SPACE		
DEPR	DEPRESSION	KOP	KNOCKOUT PANEL	PS CONC	PRESTRESSED CONCRETE		
DEPT	DEPARTMENT	kV	KILOVOLTS	PSF	POUNDS PER SQUARE FOOT		
DES	DESIGN	kVA	KILOVOLT AMPERES	PSI	POUNDS PER SQUARE INCH		
DET	DETAIL	kVAR	KILOVOLT AMPERES REACTIVE	PT	PAINT(ED)		
DF	DRINKING FOUNTAIN	kW	KILOWATT	PT	PNEUMATIC TUBE		
DH	DUCT HEATER	KWL	KITCHEN WASTE LINE	PT CONC	POST-TENSIONED CONCRETE		
DI	DUCTILE CAST IRON PIPE	KWY	KEYWAY	PT.	POINT		
DIA	DIAMETER	KYN	PVDF (KYNAR® TYPICAL)	PV	PROCESS VARIABLE		
DIAG	DIAGONAL	LAB	LABORATORY	PVC	POLYVINYL CHLORIDE PIPE		
DIM	DIMENSION	LAD	LADDER	PVDF	POLYVINYL CHLORIDE HOSE		
DISTR	DISTRIBUTION PANEL	LAU	LAUNDRY	PVG	PAVING		
PNL		LAV	LAVATORY	PW	PROCESS WATER		
DIV	DIVISION	LB	LAG BOLT	PW	PASS WINDOW		
DL	DEAD LOAD	LB	POUND	QO	QUENCH OIL		
DMPF	DAMPPROOFING	LBL	LABEL	QT.	QUART		
DMPR	DAMPER	LC	LOCKED CLOSED	QTR	QUARTER		
DMW	DEMINERALIZED WATER	LD	LOAD	QTY	QUANTITY		
DN	DOWN	LDG	LOADING	R	RADIUS		
DP	DESIGN PRESSURE	LFL	LEACHFIELD LATERAL	R	RANGE		
DR	DRAIN	LG	LENGTH	R	RISER		
DR	DOOR	LH	LEFT HAND(ED)	RA	RETURN AIR		
DR	DRAIN	LIN	LINEAR	RA GR	RETURN AIR GRILLE		
DRN	DRAIN	LL	LIVE LOAD	RAR	RETURN AIR REGISTER		
DS	DILUTION STEAM	LNG	LIQUIFIED NATURAL GAS	RAS	RETURN ACTIVATED SLUDGE		
DS	DOWNSPOUT	LO	LUBE OIL	RBR	POLYVINYLIDENE FLUORIDE PIPE		
DT	DESIGN TEMPERATURE	LO	LOCKED OPEN	RC	REMOTE CONTROL		
DW	DRINKING WATER	LP	LOW PRESSURE	RCCP	REINFORCED CONCRETE CULVERT PIPE		
DWG	DRAWING	LPG	LIQUIFIED PETROLEUM GAS	RCP	REINFORCED CONCRETE PIPE		
DWLS	DOWELS	LPT	LOW POINT	RD	ROOF DRAIN		
E	EAST	LS	LOW PRESSURE STEAM	RECPT	RECEPTACLE		
EA	EACH	LT	LIGHT	RECT	RECTIFIER		
EF	EFFLUENT FILTER	LT WT	LIGHTWEIGHT	REF	REFERENCE		
EJ	EXPANSION JOINT	LTG	LIGHTING	REFL	REFLECT		
EL	ELEVATION	LTNG	LIGHTNING	REFR	REFRIGERATION		
EL	ELEVATION - GRADE OR BUILDING	LWC	LIGHTWEIGHT CONCRETE	REG	REGISTER		
ELEC	ELECTRIC	LWT	LEAVING WATER TEMPERATURE	REG	REGLET		
EM	EXPANDED METAL	m	METER(S)	REINF	REINFORCE		
EMER	EMERGENCY	MAS	MASONRY	REM	REMOVE(ABLE)		
ENCL	ENCLOSE(URE)	MATL	MATERIAL(S)	REQD	REQUIRED		
ENTR	ENTRANCE, ENTERING	MAX	MAXIMUM	RET	RETURN		
EP	ELECTRICAL PANELBOARD	MB	MACHINE BOLTS	REV	REVISION		

LINE NUMBER IDENTIFICATION

3"-Sch 80 PVC-SWL-1300

- FLOW STREAM IDENTIFICATION
- MATERIAL CLASS
- LINE SIZE

EQUIPMENT IDENTIFICATION

TK-0100 — EQUIPMENT TAG AND NUMBER

PRIMARY TANK (TRASH TRAP) — DESCRIPTION

25,000 gal (US) — VOLUME

FIBERGLASS — MATERIALS OF CONSTRUCTION

STANDARD SYMBOLS

	WATER LEVEL
Maximum Vol: Working Vol: Minimum Vol:	WATER LEVEL WITH VOLUME
HighHigh (HH): High (H): Working: Low (L): LowLow (LL):	WATER LEVEL WITH VOLUME
Service: From: To: Connector No: Sheet XX PGS Comment	OFF PAGE CONNECTOR
Sht Fr/To From To # Connector Number Z Pipe Group Service Comment	OFF PAGE CONNECTOR TWO-WAY
Service: To From: Connector Number To: Pipe Group Service Connector No: From Comment	TERMINAL CONNECTOR
Instrument Control ie. HOA Instrument ID Instrument Loop Number Instrument Control Panel	INSTRUMENT TAG
Function Instrument ID Number	VALVE TAG
DI	Discrete Input
DO	Discrete Output
AI	Analog Input
AO	Analog Output

VALVE SYMBOLS

NORMALLY CLOSED	NORMALLY OPEN	
		BALL
		GATE
		GLOBE
		BUTTERFLY
		PLUG
		PINCH
		NEEDLE
		DIAPHRAGM
		KNIFE GATE
		SLIDING GATE
		FLOAT
		ROTARY 3-OUT
		ANGLE VALVE
		CHECK VALVE W/ STOP
		CHECK VALVE
		3-WAY VALVE
		4-WAY VALVE
		PRESSURE RELIEF - SAFETY VALVE (PSV)

STANDARD EQUIPMENT SYMBOLS

PUMPS

	CENTRIFUGAL PUMP		VERTICAL INLINE PUMP
	SUBMERSIBLE CENTRIFUGAL SUMP PUMP		METERING PUMP
	SUBMERSIBLE TURBINE PUMP		SUMP PUMP
	PROGRESSIVE CAVITY PUMP		DOUBLE SUCTION CENTRIFUGAL PUMP
	DIAPHRAGM PUMP		VERTICAL TURBINE PUMP
	AIR OPERATED SINGLE DIAPHRAGM		SCREW PUMP
	AIR OPERATED DOUBLE DIAPHRAGM PUMP		

BLOWERS

	POSITIVE DISPLACEMENT BLOWER		Rotary Lobe Blower

FILTRATION

	FILTER WITH CONVEYANCE		EFFLUENT FILTER
	MEMBRANE FILTER		PUMP FILTER VAULT

TREATMENT AND DISPERSAL

	Attached Growth Treatment Pod		SEEPAGE PIT
	MIXER		

TANKS

	Horizontal Fiberglass Tank		Open Top or Process Tank
	CONICAL BOTTOM TANK		

PIPING SPECIALTY ITEMS

	Y-TYPE STRAINER		EJECTOR
	CONE STRAINER	RS	REMOVABLE SPOOL
	T-TYPE STRAINER	DS	DESUPERHEATER
	BASKET STRAINER		FLEXIBLE HOSE
	TEMPORARY STRAINER		EXPANSION JOINT
CEO	CLEAN-OUT END OF LINE		WALL SEAL
CIO	CLEAN-OUT IN-LINE		SPRAY HEAD
	FILTER		DIFFUSER
D	DETONATION ARRESTOR		DRAIN
F	FLAME ARRESTOR		DAMPER
T	STEAM TRAP		BREATHER
	EXHAUST HEAD		VENT COVER
S	IN-LINE SILENCER		IN-LINE MIXER
S	VENT SILENCER		DIVERTER VALVE
	EXCESS FLOW VALVE		ROTARY VALVE
	PULSATION DAMPENER		

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Scale	

P&ID ABBREVIATIONS AND SYMBOLS—01

INSTRUMENT OR CONNECTION TO PROCESS

- INSTRUMENT OR CONNECTION TO PROCESS
- PNEUMATIC SYMBOL
- ELECTRIC SIGNAL
- HYDRAULIC SIGNAL
- CAPILLARY TUBE
- ELECTROMAGNETIC, SONIC, OPTICAL OR NUCLEAR SIGNAL
- SOFTWARE OR DATA LINK
- MECHANICAL LINK

CONTROL VALVE ACTUATOR SYMBOLS

	INSTRUMENT WITH LONG TAG NUMBER
	DUAL FUNCTION OR INSTRUMENTS SHARING COMMON HOUSING
	PILOT LIGHT OR GAUGE GLASS ILLUMINATOR
I	UNDEFINED INTERLOCK
	CHEMICAL SEAL–DIAPHRAM

General Instrument Symbols

LOCATION/ACCESSBILITY	DISCRETE INSTRUMENTS	SHARED DISPLAY AND CONTROL (DCS)	PLC	DISCRETE HARDWARE INTERLOCK
FIELD MOUNTED 1. FIELD OR LOCALLY MOUNTED 2. ACCESSIBLE TO AN OPERATOR AT DEVICE				
PRIMARY LOCATION NORMALLY ACCESSIBLE TO AN OPERATOR 1. CENTRAL OR MAIN CONTROL ROOM 2. FRONT OF MAIN PANEL OR CONSOLE MOUNTED. 3. VISIBLE ON VIDEO DISPLAY 4. ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE.				
PRIMARY LOCATION NORMALLY INACCESSIBLE TO AN OPERATOR 1. CENTRAL OR MAIN CONTROL ROOM 2. REAR OF MAIN PANEL OR CONSOLE MOUNTED. 3. NOT VISIBLE ON VIDEO DISPLAY 4. NOT NORMALLY ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE.				
AUXILIARY LOCATION NORMALLY ACCESSIBLE TO AN OPERATOR 1. SECONDARY OR LOCAL CONTROL ROOM 2. FIELD OR LOCAL CONTROL ROOM 3. FRONT OF SECONDARY OR LOCAL PANEL OR CABINET MOUNTED. 4. VISIBLE ON VIDEO DISPLAY 5. ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE				
AUXILIARY LOCATION NORMALLY INACCESSIBLE TO AN OPERATOR 1. SECONDARY OR LOCAL CONTROL ROOM 2. FIELD OR LOCAL CONTROL ROOM 3. REAR OF SECONDARY OR LOCAL PANEL OR CABINET MOUNTED. 4. NOT VISIBLE ON VIDEO DISPLAY 5. NOT NORMALLY ACCESSIBLE TO AN OPERATOR AT DEVICE OR CONSOLE				

INSTRUMENT IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS	
	PROCESS VARIABLE	MODIFIER	READOUT OR COMPUTER FUNCTION	MODIFIER (IF NEEDED)
A	ANALYSIS		ALARM	
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE		CONTROL	
D	USER'S CHOICE	DIFFERENTIAL		
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)	
F	FLOWRATE	RATIO (FRACTION)		
G	USER'S CHOICE		GLASS, VIEWING DEVICE	
H	HAND			HIGH
I	CURRENT (ELECTRICAL)		INDICATE	
J	POWER	SCAN		
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE	CONTROL STATION	
L	LEVEL		LIGHT	LOW
M	USER'S CHOICE	MOMENTARY		MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)	
P	PRESSURE, VACUUM		POINT (TEST CONNECTION)	
Q	QUANTITY	INITIGRATE, TOTALIZE		
R	RADIATION		RECORD	
S	SPEED, FREQUENCY	SAFETY	SWITCH	
T	TEMPERATURE		TRANSMIT	
U	MULTIVARIABLE		MALFUNCTION	MULTIFUNCTION
V	VIBRATION, MECH. ANALYSIS		VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL	
X	UNCLASSIFIED	X–AXIS	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y–AXIS	RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z–AXIS	DIMMER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

CONTROL VALVE ACTUATOR SYMBOLS

T	Manual Actuator	E/H	Electro Hydraulic
H	Diaphragm Actuator		Electro Pneumatic
	Balanced Diaphragm	S	Solenoid
H	Hand and	S M	Solenoid Manual Reset
	Cylinder	S R	Solenoid Remote Reset
M	Motor		

PRIMARY ELEMENTS

	SUBMERSIBLE PRESSURE TRANSDUCER
	LEVEL (FLOAT)
	LEVEL (ULTRASONIC)
	BUBBLER

PRIMARY ELEMENT SYMBOLS (FLOW)

- XX — GENERAL SYMBOL IN–LINE ELEMENT XX = FS, FG, FE, FT
- FT / XXXX — IN–LINE FLOW ELEMENT WITH INTEGRAL TRANSMITTER XXXX = MASS, CORIOLIS, THERMAL, INT. ORIFICE ...
- FT / FE / XXXX — IN–LINE FLOW ELEMENT WITH SEPARATE TRANSMITTER XXXX = MASS, CORIOLIS, THERMAL...
- ORIFICE
- MAGNETIC
- TURBINE OR PROPELLER
- ULTRASONIC
- VORTEX
- PITOT TUBE
- AVERAGING PITOT TUBE
- FLOW NOZZLE
- VENTURI
- WEDGE METER
- FLUME
- WEIR
- POSITIVE DISPLACEMENT
- ORIFICE IN QUICK CHANGE FITTING
- h_1 — TARGET
- ROTAMETER WITH INTEGRAL VALVE (SHOWN WITH OPTIONAL INTEGRAL VALVE)
- FS* — FLOW SWITCH * = H/L
- FG — FLOW GLASS
- FLOW CONDITIONING DEVICES (e.g., STRAIGHTENING VANES)
- FO — RESTRICTION ORIFICE
- ROTAMETER

INSTRUMENT FUNCTION SYMBOLS

Σ	SUMMING	>	HIGH SELECT
AVG	AVERAGING	<	LOW SELECT
Δ	DIFFERENCE	>|	HIGH LIMIT
X	MULTIPLYING	|<	LOW LIMIT
÷	DIVIDING	+	BIAS
√	SQUARE ROOT	f(x)	UNSPECIFIED FUNCTION
X^n	EXPONENTIAL		USER DEFINED
/	CONVERSION INPUT/OUTPUT		

/ A ANALOG; B BINARY; D DIGITAL; E VOLTAGE; H HYDRAULIC; I CURRENT; O ELECTROMAGNETIC, SONIC; P PNEUMATIC; R RESISTANCE (ELECTRICAL)

Typical ISA Instrument Letter Identification (ISA 5.1)

First Letter	Initial or Measured Variable	Controller: Recording	Controller: Indicating	Controller: Blind	Controller: Self Actuated Control Valve	Readout Device: Recording	Readout Device: Indicating	Switches and Alarm Devices*: General	Switches and Alarm Devices*: High**	Switches and Alarm Devices*: Above High	Switches and Alarm Devices*: Low	Switches and Alarm Devices*: Below Low	Switches and Alarm Devices*: Combo	Transmitter: Recording	Transmitter: Indicating	Transmitter: Blind	Solenoids, Relays, Computing Devices	Primary Element	Test Point	Well or Probe	Viewing Device, Glass	Safety Device	Final Element
A	Analysis	ARC	AIC	AC		AR	AI		ASH		ASL		ASHL	ART	AIT	AT	AY	AE	AP	AW			AV
B	Burner/ Combustion	BRC	BIC	BC		BR	BI		BSH		BSL		BSHL	BRT	BIT	BT	BY	BE		BW	BG		BZ
C	User's Choice																						
D	User's Choice																						
E	Voltage	ERC	EIC	EC		ER	EI		ESH		ESL		ESHL	ERT	EIT	ET	EY	EE					EZ
F	Flow Rate	FRC	FIC	FC	FCV	FR	FI		FSH		FSL		FSHL	FRT	FIT	FT	FY	FE	FP		FG		FV
					FICV																		
FQ	Flow Quality	FQRC	FQIC			FQR	FQI		FQSH		FQSL				FQIT	FQT	FQY	FQE					FQV
FF	Flow Ratio	FFRC	FFIC	FFC		FFR	FFI		FFSH		FFSL							FE					FFV
G	User's Choice																						
H	Hand		HIC	HC									HS										HV
I	Current	IRC	IIC			IR	II		ISH		ISL		ISHL	IRT	IIT	IT	IY	IE					IZ
J	Power	JRC	JIC			JR	JI	JS	JSH		JSL		JSHL	JRT	JIT	JT	JY	JE					JV
K	Time	KRC	KIC	KC	KCV	KR	KI		KSH		KSL		KSHL	KRT	KIT	KT	KY	KE					KV
L	Level	LRC	LIC	LC	LCV	LR	LI	LS	LSH	LSHH	LSL	LSLL	LSHL	LRT	LIT	LT	LY	LE		LW	LG		LV
M	User's Choice (Moisture)							MS	MSH														
N	User's Choice																						
O	User's Choice																						
P	Pressure/ Vacuum	PRC	PIC	PC	PCV	PR	PI		PSH		PSL		PSHL	PRT	PIT	PT	PY	PE	PP			PSV	PV
																						PSE	
PD	Pressure, Differential	PDRC	PDIC	PDC	PDCV	PDR	PDI		PDSH		PDSL			PDRT	PDIT	PDT	PDY	PE	PP				PDV
Q	Quality	QRC	QIC			QR	QI		QSH		QSL		QSHL	QRT	QIT	QT	QY	QE					QZ
R	Radiation	RRC	RIC	RC		RR	RI		RSH		RSL		RSHL	RRT	RIT	RT	RY	RE		RW			RZ
S	Speed/ Frequency	SRC	SIC	SC	SCV	SR	SI		SSH		SSL		SSHL	SRT	SIT	ST	SY	SE					SV
T	Temperature	TRC	TIC	TC	TCV	TR	TI		TSH		TSL		TSHL	TRT	TIT	TT	TY	TE	TP	TW		TSE	TV
TD	Temperature, Differential	TDRC	TDIC	TDC	TDCV	TDR	TDI		TDSH		TDSL			TDRT	TDIT	TDT	TDY	TE	TP	TW			TDV
U	Multivariable					UR	UI										UY						UV
V	Vibration/Machinery Analysis					VR	VI		VSH		VSL		VSHL	VRT	VIT	VT	VY	VE					VZ
W	Weight/ Force	WRC	WIC	WC	WCV	WR	WI		WSH		WSL		WSHL	WRT	WIT	WT	WY	WE					WZ
WD	Weight/ Force Differential	WDRC	WDIC	WDC	WDCV	WDR	WDI		WDSH		WDSL			WDRT	WDIT	WDT	WDY	WE					WDZ
X	Unclassified																						
Y	Event/ State/ Presence		YIC	YC		YR	YI	YS	YSH		YSL					YT	YY	YE					YZ
Z	Position/ Dimension	ZRC	ZIC	ZC	ZCV	ZR	ZI		ZSH		ZSL		ZSHL	ZRT	ZIT	ZT	ZY	ZE					ZV
ZD	Gauging/ Deviation	ZDRC	ZDIC	ZDC	ZDCV	ZDR	ZDI		ZDSH		ZDSL			ZDRT	ZDIT	ZDT	ZDY	ZDE					ZDV

Note: This table is not all-inclusive. Other Possible Combinations:

*A, alarm, the annunciating device, may be used in the same fashion as S, switch, the actuating device.

**The letters H and L may be omitted in the undefined case. TJR (Scanning Recorder) WKIC (Rate-of-Weight-Loss Controller)

Other Possible Combinations:			
FO	(Restriction Orifice)	PFR	(Ratio)
FRK, HIK	(Control Stations)	KQI	(Running Time Indicator)
FX	(Accessories)	QQI	(Indicating Counter)
TJR	(Scanning Recorder)	WKIC	(Rate-of-Weight-Loss Controller)
LLH	(Pilot Light)	HMS	(Hand Momentary Switch)

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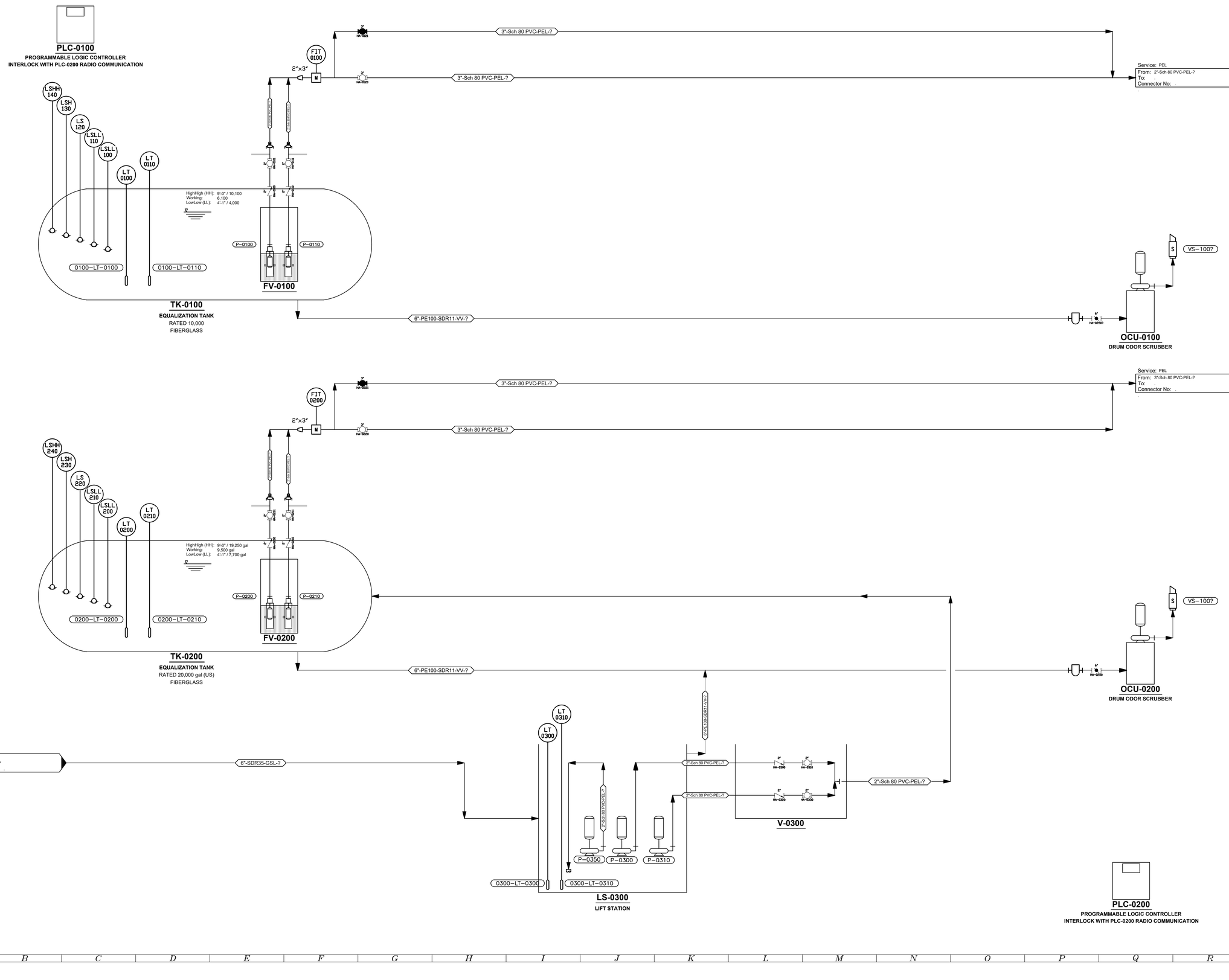
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Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
90% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/21/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
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P&ID ABBREVIATIONS AND SYMBOLS–02



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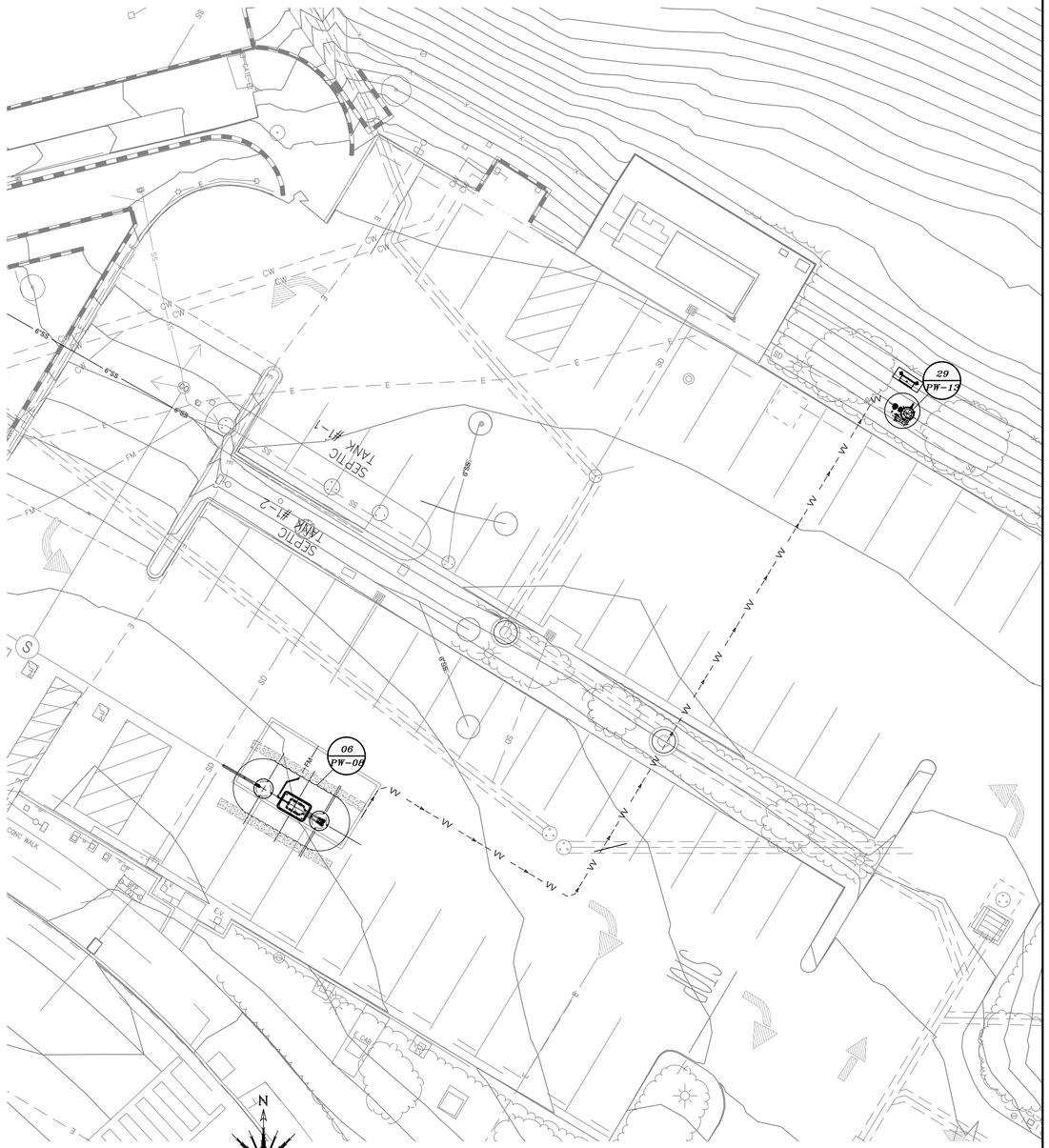
PROCESS AND INSTRUMENTATION DIAGRAM – P&ID

PW-06



04 PW-07 *WEST EQUALIZATION TANK PIPING PLAN*

SCALE: 1" = 10'_XREF



05 PW-07 *EAST EQUALIZATION TANK PIPING PLAN*

SCALE: 1" = 10'_XREF

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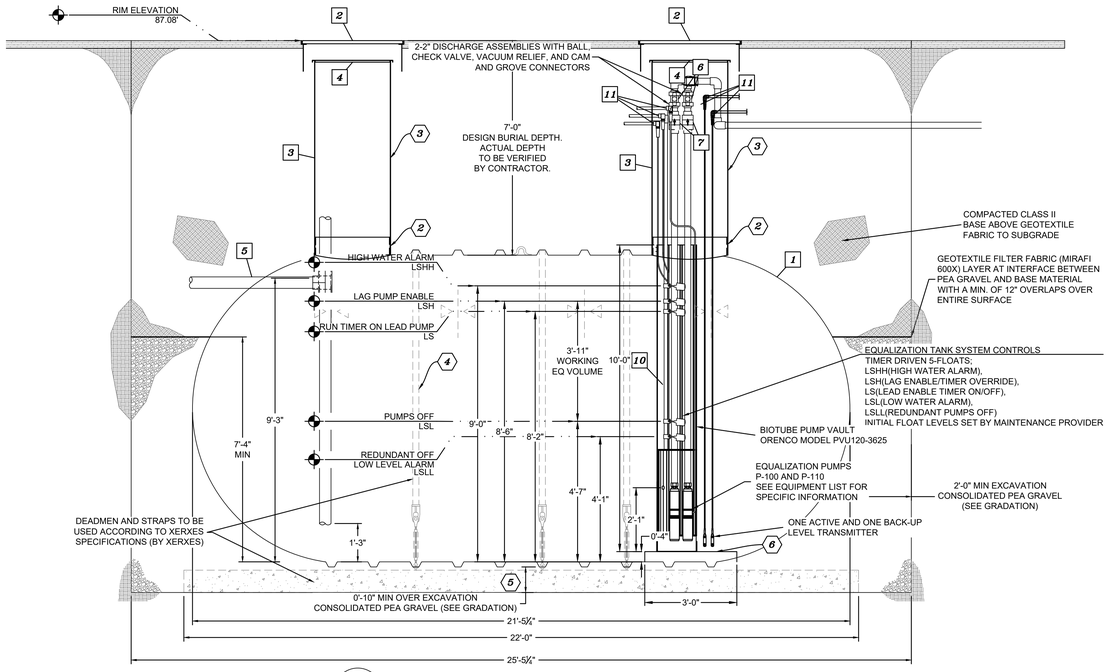
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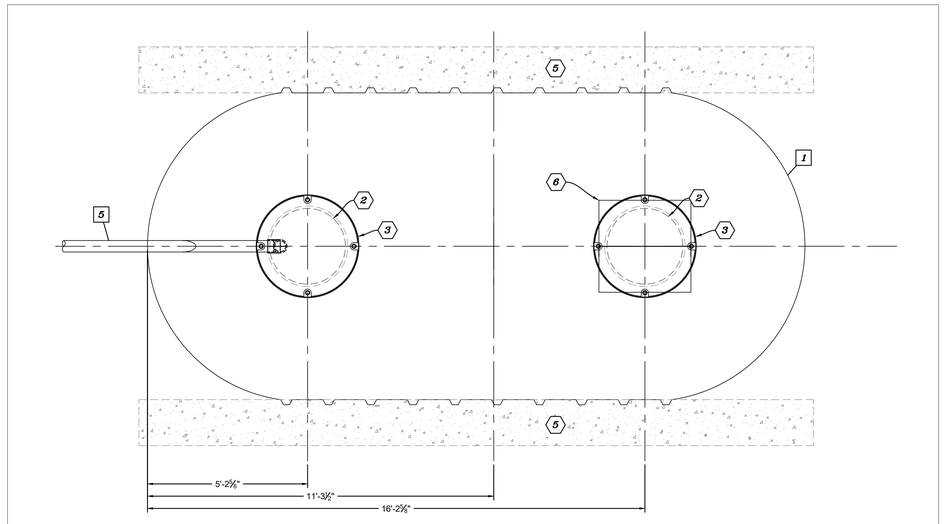
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Scale	

PIPING PLAN

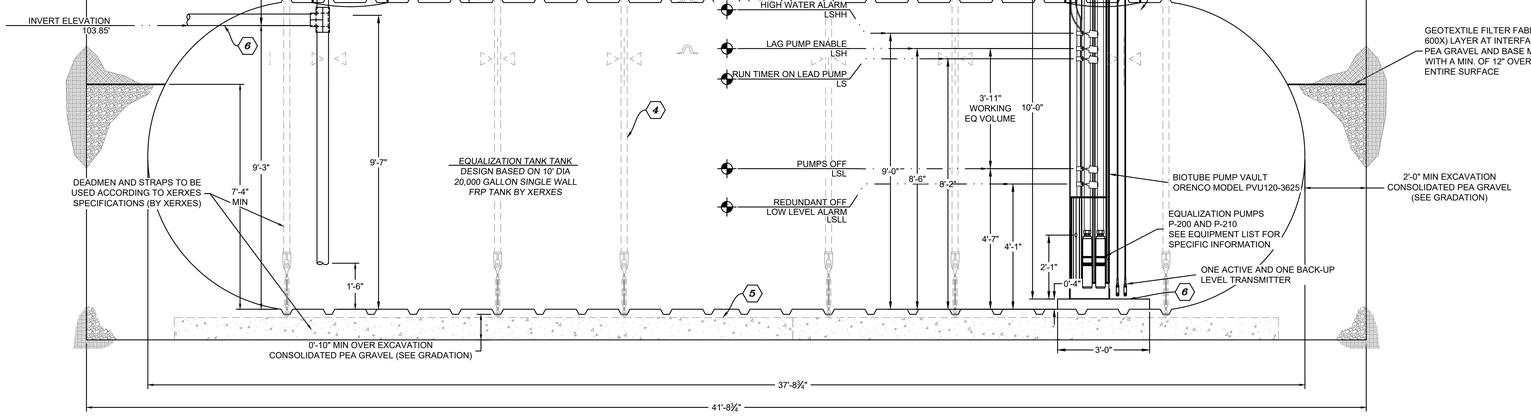
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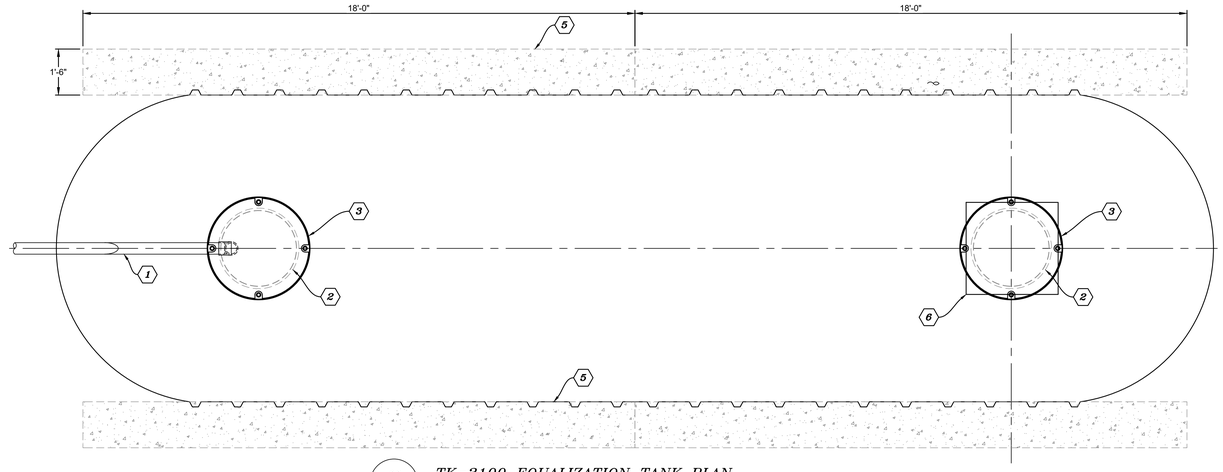
07 PW-08 *TK-3000 EQUALIZATION TANK SECTION*
SCALE: 1/2" = 1'



06 PW-08 *TK-3000 EQUALIZATION TANK PLAN*
SCALE: 1/2" = 1'



09 PW-08 *TK-3100 EQUALIZATION TANK SECTION*
SCALE: 1/2" = 1'



08 PW-08 *TK-3100 EQUALIZATION TANK PLAN*
SCALE: 1/2" = 1'

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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

Developed for SMMUSD

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
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Job Number	817-01
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Scale	

EQUALIZATION TANK SECTIONS

PW-08

MANHOLE (ACCESS) COVERS, UNDERGROUND FIBERGLASS REINFORCED PLASTIC TANKAGE, AND UNDERGROUND FIBERGLASS REINFORCED PLASTIC WET WELL EQUIPMENT SECTION AND NOTES:

1. RELATED DOCUMENTS
 1.1. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION AND THE FOLLOWING NOTES.

2. SUBSTITUTIONS AND "OR EQUAL" SUBMITTAL
 2.1. THE CONTRACTOR MAY SUPPLY ANY OF THE MATERIALS SPECIFIED OR OFFER AN EQUIVALENT. THE ENGINEER SHALL DETERMINE WHETHER THE MATERIAL OFFERED IS EQUIVALENT TO THAT SPECIFIED. THE CONTRACTOR SHALL MAKE ALL "OR EQUAL" SUBMITTALS WITHIN THIRTY (30) CALENDAR DAYS AFTER ISSUANCE OF NOTICE TO PROCEED. ANY REQUEST OR SUBMITTAL RECEIVED AFTER THE SPECIFIED PERIOD WILL BE CONSIDERED AS NOT EQUAL TO THAT SO SPECIFIED AND WILL BE PROCESSED AS A SUBSTITUTION DESCRIBED HEREINAFTER.
 2.2. WHENEVER ANY PARTICULAR MATERIAL, PROCESS, OR EQUIPMENT IS INDICATED BY PATENT, PROPRIETARY OR BRAND NAME, OR BY NAME OF MANUFACTURER, SUCH WORDING IS USED FOR THE PURPOSE OF FACILITATING ITS DESCRIPTION AND SHALL BE DEEMED TO BE FOLLOWED BY THE WORDS 'OR EQUAL.' A LISTING OF MATERIALS IS NOT INTENDED TO BE COMPREHENSIVE, OR IN ORDER OF PREFERENCE. THE CONTRACTOR MAY OFFER ANY MATERIAL, PROCESS, OR EQUIPMENT CONSIDERED TO BE EQUIVALENT TO THAT INDICATED. THE SUBSTANTIATION OF OFFERS SHALL BE SUBMITTED AS PROVIDED IN THE CONTRACT DOCUMENTS.
 2.3. THE CONTRACTOR SHALL, AT ITS EXPENSE, FURNISH DATA CONCERNING ITEMS OFFERED BY IT AS EQUIVALENT TO THOSE SPECIFIED. THE CONTRACTOR SHALL HAVE THE MATERIAL TESTED AS REQUIRED BY THE ENGINEER TO DETERMINE THAT THE QUALITY, STRENGTH, PHYSICAL, CHEMICAL, OR OTHER CHARACTERISTICS, INCLUDING DURABILITY, FINISH, EFFICIENCY, DIMENSIONS, SERVICE, AND SUITABILITY ARE SUCH THAT THE ITEMS WILL FULFILL ITS INTENDED FUNCTION.
 2.4. TEST METHODS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. TEST RESULTS SHALL BE REPORTED PROMPTLY TO THE ENGINEER, WHO WILL EVALUATE THE RESULTS AND DETERMINE IF THE SUBSTITUTES ITEMS IS EQUIVALENT. THE ENGINEER'S FINDINGS SHALL BE FINAL. INSTALLATION AND USE OF A SUBSTITUTE ITEMS SHALL NOT BE MADE UNTIL APPROVED BY THE ENGINEER.
 2.5. ALL MANUFACTURER'S DATA SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE SHALL CLEARLY IDENTIFY EACH PROPOSED SUBSTITUTE WITH THE CORRESPONDING CONTRACT DRAWING DETAIL AND SPECIFICATION SECTION. IF THE ENGINEER DECIDES TO ACCEPT FOR USE IN THE PROJECT A MATERIAL, PROCESS OR ARTICLE WHICH IS NOT THE EQUAL OF THAT SPECIFIED, SUBSTITUTION SHALL BE MADE IN THE MANNER DESCRIBED IN CHANGES AND EXTRA WORK OF THE GENERAL CONDITIONS, WITH A CREDIT TO THE COUNTY OR THE DIFFERENCE IN VALUE.
 2.6. THE ENGINEER SHALL DETERMINE WHETHER THE MATERIAL OFFERED IS EQUIVALENT TO THAT SPECIFIED. ANY REVISION TO STRUCTURES, PIPING, MECHANICAL, ELECTRICAL, INSTRUMENTATION, OR ANY OTHER WORK MADE NECESSARY BY SUCH SUBSTITUTION MUST BE APPROVED BY THE ENGINEER, AND THE ENTIRE COST BOTH DIRECT AND INDIRECT OF THESE REVISIONS SHALL BE BORNE BY THE CONTRACTOR.
 2.7. ANY MATERIALS, PROCESS, OR ARTICLE MAY BE REQUESTED AS A SUBSTITUTION BY THE CONTRACTOR, IN LIEU OF THAT SPECIFIED, UNDER THE FOLLOWING CONDITIONS:
  2.7.1. REQUESTS MUST BE SUBMITTED IN WRITING AND IN THE MANNER DESCRIBED IN SHOP DRAWINGS / SUBMITTALS OF THESE GENERAL REQUIREMENTS.
  2.7.2. REQUESTS MUST BE SUBMITTED THIRTY (30) CALENDAR DAYS PRIOR TO STARTING THE WORK, AS ESTABLISHED BY THE ENGINEER, SO AS NOT TO CAUSE ANY DELAY IN COMPLETION OF THE PROJECT. NO OTHER REQUEST WILL BE CONSIDERED AFTER EXPIRATION OF THE PERIOD SPECIFIED, EXCEPT THAT IN EXCEPTIONAL CASES WHERE IT IS DETERMINED TO BE IN THE BEST INTEREST OF THE COUNTY, AS APPROVED BY THE ENGINEER.
  2.7.3. THE CONTRACTOR AGREES TO PAY FOR ALL ENGINEERING AND DESIGN SERVICES, IF REQUIRED, TO MAKE ALL CHANGES AND ADJUSTMENTS IN MATERIAL AND WORK OF ALL TRADES DIRECTLY OR INDIRECTLY AFFECTED BY THE SUBSTITUTE, TO THE SATISFACTION OF THE ENGINEER, AT NO COST TO THE COUNTY.
  2.7.4. ALL REQUESTS FOR SUBSTITUTION SHALL BE MADE THROUGH THE CONTRACTOR. SUBMISSIONS BY THE MANUFACTURER SHALL BE ONLY THE CONTRACTOR'S APPROVAL OF SUCH SUBSTITUTION.
  2.7.5. NO REQUESTS FOR SUBSTITUTIONS WILL BE CONSIDERED DURING THE BIDDING PERIOD.
  2.7.6. THE CONTRACTOR SHALL FURNISH ADEQUATE DATA WITH EACH REQUEST FOR APPROVAL OF A SUBSTITUTE TO ENABLE THE ENGINEER TO EVALUATE THE PROPOSED SUBSTITUTION.
  2.7.7. IF A SUBSTITUTE OFFERED BY THE CONTRACTOR IS NOT FOUND TO BE EQUAL TO THE SPECIFIED MATERIAL, THEN CONTRACTOR SHALL FURNISH AND INSTALL THE SPECIFIED MATERIAL.
  2.7.8. THE SPECIFIED CONTRACT COMPLETION TIME SHALL NOT BE AFFECTED BY ANY CIRCUMSTANCE DEVELOPING FROM THE PROVISIONS OF THIS SECTION

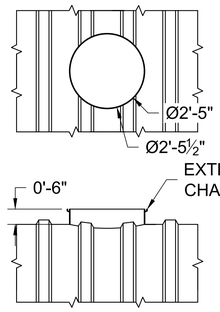
3. 36" ROUND MANHOLE WITH COMPOSITE COVER, BOLT-DOWN 12" SKIRT,
 3.1. SHIRT SHALL BE 316 STAINLESS STEEL OR COATED AS FOLLOWS:
  3.1.1. SURFACE PREP:
   3.1.1.1. WHITE METAL BLAST CLEANING (SSPC-SP5/NACE1): REMOVAL OF ALL VISIBLE RUST, MILL SCALE, PAINT, AND FOREIGN MATTER BY BLAST CLEANING BY WHEEL OR NOZZLE (DRY OR WET) USING SAND, GRIT, OR SHOT.
  3.1.2. COATING
   3.1.1.1. EPOXY MORTAR: HIGH-BUILD, 3-COMPONET AMINE CURED EPOXY MORTAR, SHALL HAVE A SOLIDS CONTENT OF 100 PERCENT BY VOLUME, SUITABLE FOR LONG-TERM IMMERSION AND ATMOSPHERIC EXPOSURE TO WASTEWATER. FILLER-RESURFACER COMPOUND SHALL BE A 3-COMPONENT EPOXY CEMENTITIOUS THIN OVERLAY MATERIAL USED TO FILL VOIDS AND ROUGH AREAS AND MUST FEATHER-EDGE CAPABLE. EPOXY GLAZE (FINISH) COAT SHALL BE 100 PERCENT SOLIDS EPOXY SUITABLE FOR LONG-TERM IMMERSION AND ATMOSPHERIC EXPOSURE TO WASTEWATER.
   3.1.1.2. FILLER/RESURFACER THIN OVERLAY (THICKNESS = MINIMUM 1/16"), TNEMEC 218 MORTARCLAD, OR EQUAL.
   3.1.1.3. EPOXY MORTAR (DFT = 125 MILS) TNEMEC 434 PERMA-SHIELD, OR EQUAL.
   3.1.1.4. FINISH COAT (DFT = 15-20 MILS), TNEMEC 435 PERMA-GLAZE, OR EQUAL

4. UNDER GROUND FIBERGLASS REINFORCED PLASTIC TANKAGE
 4.1. GENERAL
  4.1.1. FIBERGLASS TANK MANUFACTURER AND FIBERGLASS TANK INSTALLER SHALL COORDINATE TO DETERMINE TANK PENETRATIONS, BRACKETS,AND OTHER APPURTENANCES PRIOR TO FINAL TANK CONSTRUCTION AND IN ACCORDANCE WITH SPECIFICATIONS.
  4.1.2. TANKS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  4.1.3. TANK SHALL BE SUBJECTED TO TRAFFIC LOADS (H-20 LOADS) TANK MUST HAVE A COVER DEPTH OF AT LEAST 36 INCHES OF BACKFILL (COMPACTED CLASS II BASE).
  4.1.4. THE MAXIMUM BURIAL DEPTH IS 7 FEET OF COVER OVER THE TOP OF THE TANK. DEVIATION FROM THIS MAY BE PERMISSIBLE WITH PRIOR WRITTEN AUTHORIZATION FROM XERXES.
  4.1.5. CONCRETE PAD MUST EXTEND A MINIMUM OF 24 INCHES BEYOND THE TANK IN ALL DIRECTIONS.
  4.1.6. IF THERE IS AN UNATTACHED RISER OVER AN ACCESS OPENING, IT MUST NOT TRANSMIT LOAD FROM THE ASPHALT OR CONCRETE SLAB TO THE TANK. A MINIMUM SPACE OF 6 INCHES MUST EXIST BETWEEN THE BOTTOM OF THE RISER AND THE TOP OF THE TANK.
  4.1.7. IF THERE IS AN ATTACHED RISER ON AN ACCESS OPENING, IT MUST NOT TRANSMIT LOAD FROM THE ASPHALT OR CONCRETE SLAB TO THE TANK. A MINIMUM SPACE OF 3 INCHES MUST EXIST BETWEEN THE RISER OR SUMP AND THE SLAB.
  4.1.8. TANKS SHALL BE ANCHORED AS SHOWN ON PLANS
 4.2. SCOPE OF WORK
  4.2.1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND PERFORM ALL WORK AND SERVICES NECESSARY FOR THE INSTALLATION OF THE FIBERGLASS TANKAGE AS SHOWN ON THE CONTRACT DRAWINGS AND AS SPECIFIED, IN ACCORDANCE WITH PROVISIONS OF THE CONTRACT DOCUMENTS, AND COMPLETELY COORDINATED WITH WORK OF ALL OTHER TRADES.
  4.2.2. ALTHOUGH SUCH WORK IS NOT SPECIFICALLY INDICATED, FURNISH AND INSTALL ALL SUPPLEMENTARY OR MISCELLANEOUS ITEMS, APPURTENANCES AND DEVICES INCIDENTAL TO OR NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION.
 4.1. SUBMITTALS.
  4.1.1. MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION.
 4.2. QUALITY ASSURANCE
  4.2.1. ACCEPTABLE MANUFACTURERS: THE MANUFACTURER XERXES CORPORATION, OR EQUAL
   4.2.1.1. MANUFACTURING STANDARDS.
    4.2.1.1.1. MANUFACTURER SHALL BE ABLE TO PROVIDE DOCUMENTATION THAT THE TANK SHELL HAS BEEN BUILT TO THE APPLICABLE REQUIREMENTS OF UNDERWRITERS LABORATORIES STANDARD UL 1316.
    4.2.1.1.2. TANK MANUFACTURER SHALL BE IN THE BUSINESS OF MANUFACTURING TANKS TO UL 1316 STANDARDS.
   4.2.1.2. MATERIALS:
   4.2.1.3. TANK SHALL BE MANUFACTURED OF 100% RESIN AND GLASS-FIBER REINFORCEMENT, WITH NO SAND FILLERS AND NO EXPOSED GLASS FIBERS.
   4.2.1.4. TANK OPENINGS FOR INSPECTION AND FOR INSTALLATION OF EFFLUENT-FILTER CHAMBER SHALL BE CONSTRUCTED OF FIBERGLASS-REINFORCED PLASTIC ("FRP").
 4.3. INSTALLATION AND START-UP
  4.3.1. A REPRESENTATIVE FROM THE MANUFACTURER, SHALL BE ON-SITE TO ASSIST IN CONCRETE TANK INSTALLATION. A REPRESENTATIVE FROM ALL MANUFACTURERS SHALL PROVIDE ON-SITE INSTALLATION ASSISTANCE AND PROVIDE START-UP ASSISTANCE AND CERTIFY CORRECT OPERATION.
 4.4. SINGLE-WALL FIBERGLASS UNDERGROUND TANKS
  4.4.1. PRODUCT STORAGE:
   4.4.1.1. TANK SHALL BE VENTED TO ATMOSPHERIC PRESSURE AS THE TANK IS NOT DESIGNED AS A PRESSURE VESSEL.
  4.4.2. LOADING CONDITION: TANK SHALL MEET THE FOLLOWING DESIGN CRITERIA:
   4.4.2.1. INTERNAL LOAD: TANK SHALL BE DESIGNED TO WITHSTAND A 5-PSIG AIR-PRESSURE TEST (3 PSIG FOR A 12-FOOT TANK) WITH A 5:1 SAFETY FACTOR.
   4.4.2.2. SURFACE LOADS: TANK SHALL WITHSTAND SURFACE H-20 AXLE LOADS WHEN PROPERLY INSTALLED ACCORDING TO MANUFACTURER'S CURRENT INSTALLATION INSTRUCTIONS.
   4.4.2.3. EXTERNAL HYDROSTATIC PRESSURE AND BURIAL DEPTH: TANK SHALL BE CAPABLE OF BEING BURIED IN GROUND WITH 7 FEET OF OVERBURDEN, THE HOLE FULLY FLOODED AND A SAFETY FACTOR OF 5:1 AGAINST GENERAL BUCKLING.
   4.4.2.4. TANK SHALL SUPPORT ACCESSORY EQUIPMENT-SUCH AS INLET AND OUTLET PIPING, EFFLUENT-FILTER CHAMBER, LADDERS AND BAFFLES-AS SHOWN ON TANK DRAWINGS AND WHEN INSTALLED ACCORDING TO TANK MANUFACTURER'S RECOMMENDATIONS.
 4.5. ACCESSORIES
  4.5.1. PIPING
   4.5.1.1. SCHEDULE 40 POLYVINYL CHLORIDE ("PVC") PIPE SHALL BE USED FOR INLET AND OUTLET PIPING.
  4.5.2. OPENINGS
   4.5.2.1. ALL 22-INCH OR 30-INCH OPENINGS SHALL BE MANUFACTURED OF FRP.
   4.5.2.2. LOCATION(S) SHALL BE SHOWN ON TANK DRAWINGS.
   4.5.2.3. OPTIONAL EXTENSIONS SHALL BE FRP OR PVC.
  4.5.3. ANCHOR STRAPS
   4.5.3.1. STRAPS SHALL BE FRP ANCHOR STRAPS AS SUPPLIED BY TANK MANUFACTURER.
   4.5.3.2. NUMBER AND LOCATION OF STRAPS SHALL BE SHOWN ON TANK DRAWINGS.
 4.6. EXAMINATION
  4.6.1. VERIFY THAT BUILDING SANITARY SEWER CONNECTION, SIZE, LOCATION AND INVERT ARE AS INDICATED
 4.7. INSTALLATION
  4.7.1. TANK SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S CURRENT UNDERGROUND STORAGE TANK INSTALLATION INSTRUCTIONS
 4.8. WARRANTY
  4.8.1. WARRANTY SHALL BE MANUFACTURER'S CURRENT STANDARD.
   4.8.1.1. WILL NOT FAIL FOR A PERIOD OF THIRTY (30) YEARS FROM DATE OF ORIGINAL DELIVERY BY THE MANUFACTURER DUE TO NATURAL EXTERNAL CORROSION.
   4.8.1.2. WILL NOT FAIL FOR A PERIOD OF THIRTY (30) YEARS FROM DATE OF ORIGINAL DELIVERY BY THE MANUFACTURER DUE TO INTERNAL CORROSION, PROVIDED THE TANK IS USED SOLELY, WITH OR WITHOUT TANK WATER BOTTOMS.
   4.8.1.3. WILL MEET THE MANUFACTURER' PUBLISHED SPECIFICATIONS AND WILL BE FREE FROM MATERIAL DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FOLLOWING DATE OF ORIGINAL DELIVERY BY THE MANUFACTURER.
 4.9. SUPPLIER/MANUFACTURER'S SERVICES
  4.9.1. A SUPPLIER'S AND/OR MANUFACTURER'S REPRESENTATIVE FOR THE EQUIPMENT SPECIFIED SHALL BE AT THE JOB SITE FOR INSTALLATION ASSISTANCE, INSPECTION AND CERTIFICATION OF THE INSTALLATION, TESTING, START-UP ASSISTANCE, AND TRAINING OF OWNER'S PERSONNEL.

5. UNDERGROUND FIBERGLASS REINFORCED PLASTIC WET WELL
 5.1. GENERAL
  5.1.1. FIBERGLASS TANK MANUFACTURER AND FIBERGLASS TANK INSTALLER SHALL COORDINATE TO DETERMINE TANK PENETRATIONS, BRACKETS,AND OTHER APPURTENANCES PRIOR TO FINAL TANK CONSTRUCTION AND IN ACCORDANCE WITH SPECIFICATIONS.
 5.2. SCOPE OF WORK
  5.2.1. THE PRODUCT LISTED UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO FURNISH A FRP WET WELL. UNLESS OTHERWISE INDICATED THE TERMINOLOGY USED IN THIS SPECIFICATION SHALL BE IN ACCORDANCE WITH THE DEFINITIONS IN THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) DESIGNATION D883 - STANDARD TERMINOLOGY RELATED TO PLASTICS. WET WELLS SHALL BE ONE PIECE UNITS MANUFACTURED TO MEET OR EXCEED ALL APPLICABLE SPECIFICATIONS OF ASTM D3753
 5.3. SUBMITTALS
  5.3.1. SHOP DRAWINGS
   5.3.1.1. THE MANUFACTURER SHALL SUPPLY TO ENGINEER, CONTRACTOR, AND / OR OWNER, A COMPLETE SET OF SCALE DRAWINGS DETAILING DIMENSIONS OF HEIGHTS, DIAMETER, ELEVATIONS TO INVERT, PIPE SIZES AND ANY OTHER NECESSARY DETAILS.
  5.3.2. CALCULATIONS
   5.3.2.1. THE MANUFACTURER SHALL SUPPLY THE ENGINEER, CONTRACTOR, AND / OR OWNER BUOYANCY CALCULATIONS ASSUMING A FLOODED CONDITION AT FINISH GRADE FOR AN EMPTY WET WELL.
   5.3.2.2. STRUCTURAL DESIGN AND ANALYSIS SUBMITTALS WILL INCLUDE ANALYSIS SHOWING A MINIMUM SAFETY FACTOR OR 3:1 FOR LONGITUDINAL / AXIAL BUCKLING OF THE WET WELL SIDE WALL.
 5.4. PRODUCTS FIBERGLASS REINFORCED PLASTIC (FRP) WET WELL
  5.4.1. LOADING CONDITIONS
   5.4.1.1. THE WET WELL SHALL BE DESIGNED AND CONSTRUCTED TO WITHSTAND OR EXCEED WALL COLLAPSE AND BUCKLING WITH A 3:1 SAFETY FACTOR, BASED ON THE FIELD GEOTECHNICAL REPORT OF THE SITE SPECIFIC SOIL CONDITIONS. IF THOSE SITE SPECIFIC CONDITIONS ARE NOT AVAILABLE AT TIME OF DESIGN, LOADING CONDITIONS LISTED UNDER (1) (A.), (1)(B.), AND (1)(C.), SHALL BE ASSUMED.
    5.4.1.1.1. UNIT WEIGHT OF WATER IS 62.4 LBS. PER CUBIC FOOT.
    5.4.1.1.2. SATURATED SOIL UNIT WEIGHT OF 120 LBS. PER CUBIC FOOT.
    5.4.1.1.3. MODULUS OF SOIL REACTION OF 700 LBS. PER SQUARE FOOT.
   5.4.1.2. WET WELL BOTTOM SHALL NOT HAVE MORE THAN 1/8 INCHES OF CENTER DEFLECTION WITH VESSEL EMPTY AND WATER TABLE LOCATED ESTIMATED EQUAL TO FINISHED GRADE.
   5.4.1.3. WET WELL, WHEN INSTALLED ACCORDING TO WET WELL MANUFACTURERS CURRENT WET WELL INSTALLATION INSTRUCTIONS AND OPERATING GUIDELINES, SHALL SUPPORT ACCESSORY EQUIPMENT - SUCH AS SUBMERSIBLE PUMPS, RAILS, VALVES, AND LADDERS AS SHOWN ON DRAWINGS.
  5.4.2. PRODUCT STORAGE
   5.4.2.1. WET WELL SHALL BE VENTED TO ATMOSPHERIC PRESSURE.
   5.4.2.2. WET WELL SHALL BE CAPABLE OF STORING PRODUCTS IDENTIFIED IN THE MANUFACTURER'S LIMITED WARRANTY FOR UNDERGROUND WET WELLS IN EFFECT AT THE TIME OF PURCHASE.
  5.4.3. MATERIALS
   5.4.3.1. WET WELL SHALL BE MANUFACTURED WITH 100% PREMIUM RESIN (HIGHLY CROSS-LINKED ISOPHTHALIC POLYESTER OR TEREPHTHALIC POLYESTER RESINS ONLY), AND CHOPPED GLASS. NO FILLERS OR EXTENDERS WILL BE USED.
   5.4.3.2. THE RESIN SHALL BE SUITABLE FOR CONTINUOUS IMMERSION IN SEWAGE IN THE PH RANGE OF 3 TO 11 AND CONCENTRATIONS OF H'S FOUND IN MUNICIPAL SEWER SYSTEMS. RESINS SHALL BE SUITABLE FOR SULFURIC ACID CONCENTRATIONS TO 20% OF SOLUTION IN WASTE STREAM.
   5.4.3.3. WET WELL SHALL BE TESTED BY THE MANUFACTURER TO A BAROCOL HARDNESS OF AT LEAST 80% OF THE RESIN MANUFACTURER'S SPECIFIC HARDNESS FOR FULLY CURED RESIN.
   5.4.3.4. THE FOLLOWING PERTINENT AVERAGE MATERIAL PROPERTIES SHALL BE USED IN ANALYSIS FOR FIBERGLASS COMPOSITE IN THE WET WELL.

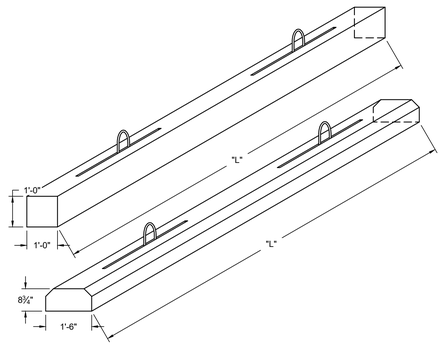
5.4.3.4.1.	TENSILE MODULUS	900,000 PSI
5.4.3.4.2.	FLEXURAL MODULUS	900,000 PSI
5.4.3.4.3.	TENSILE STRENGTH	10,000 PSI
5.4.3.4.4.	COMPRESSIVE STRENGTH	20,000 PSI
5.4.3.4.5.	POISSON'S RATIO	0.33

  5.4.4. WET WELL DIMENSIONS (REFER CONSTRUCTION DRAWINGS)
 5.5. ACCESSORIES AND FEATURES
  5.5.1. WET WELL TOP FLANGE
   5.5.1.1. THE WET WELL TOP FLANGE SHALL BE DESIGNED AND BUILT TO SUPPORT A 300 LB. VERTICAL FOOT TRAFFIC LOAD. FLANGE DIMENSIONS SHALL BE A MINIMUM OF 3.0INCHES WIDE OR GREATER.
  5.5.2. ANTI - FLOTATION FLANGE
   5.5.2.1. THE WET WELL ANTI-FLOTATION FLANGE SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 4. INCHES GREATER THAN THE WALL DIAMETER OF THE WET WELL.
  5.5.3. PIPING STUB - OUTS AND CONNECTIONS
   5.5.3.1. PIPING STUB-OUTS WILL BE INSTALLED BY THE MANUFACTURER. INSTALLATION OF FRP PIPE WILL BE PERFORMED USING FIBERGLASS LAY UP PROCEDURES. ALL RESIN AND FIBERGLASS SHALL BE THE SAME TYPE AND GRADE AS USED IN THE MANUFACTURER OF THE BASIN.
   5.5.3.2. THE LOCATION OF FIELD STUB-OUTS IS SUBJECT TO THE MANUFACTURER'S APPROVAL.
  5.5.4. WET WELL WALL REINFORCEMENT RIB
   5.5.4.1. ALL 6' DIAMETER AND LARGER WET WELLS SHALL BE CONSTRUCTED USING INTEGRAL CONSTRUCTED TRAPEZOIDAL RIBS.
  5.5.5. PUMP MOUNTING BASE AND STUDS
   5.5.5.1. THE PUMP BASE MOUNTING STUDS SHALL BE 300 SERIES STAINLESS STEEL THREADED STUDS.
   5.5.5.2. THE PUMP MOUNTING BASE DETAIL SHALL BE PROVIDED BY THE OWNER.
 5.6. DOCUMENTATION
  5.6.1. CERTIFICATION AND DESIGN
   5.6.1.1. THE MANUFACTURER SHALL VERIFY THAT THE WET WELL HAS BEEN SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THIS SPECIFICATION AND MEETS ALL REQUIREMENTS.
   5.6.1.2. THE MANUFACTURER SHALL PROVIDE ANTI - FLOTATION CALCULATIONS FOR THE DESIGNED WET WELL BASED ON SPECIFIC SITE PARAMETERS.
  5.6.1.3. MARKING AND IDENTIFICATION
   5.6.1.3.1. THE WET WELL SHALL BE MARKED ON THE INSIDE AND OUTSIDE WITH THE FOLLOWING INFORMATION:
    5.6.1.3.1.1. MANUFACTURER'S TRADE NAME OR TRADEMARK
    5.6.1.3.1.2. MANUFACTURER'S LOCATION
    5.6.1.3.1.3. TOTAL HEIGHT AND DIAMETER OF WET WELL
    5.6.1.3.1.4. DATE OF MANUFACTURE
 5.6. WATER TESTING - SURCHARGED HYDROSTATIC TEST ("SHT") FOR TANKS UNDERGROUND FIBERGLASS REINFORCED PLASTIC TANKAGE, AND UNDERGROUND FIBERGLASS REINFORCED PLASTIC WET WELL
  6.1.1. STANDARD TEST
   6.1.1.1. THE STANDARD SURCHARGED HYDROSTATIC TEST SHALL HAVE THE PREFIX SHT FOLLOWED BY THE TEST CRITERION EXPRESSED AS THE MAXIMUM ALLOWABLE PERCENT LOSS PER DAY OF THE TEST WATER VOLUME. STANDARD CRITERIA FOR THE SHT TEST ARE:
    DESIGNATION TIGHTNESS CRITERION
    SHT-NMLNO MEASURABLE LOSS
    SHT-050 0.050% PER DAY
    SHT-VIO VISUAL INSPECTION ONLY
   6.1.1.1.1. SURCHARGED HYDROSTATIC TESTING SHALL BE CONFINED TO TANKS THAT HAVE BEEN DESIGNED AND CONSTRUCTED TO BE FILLED WITH LIQUID TO THE UNDERSIDE OF THE ROOF AND SURCHARGED. THE SURCHARGE TEST PRESSURE, AT THE UNDERSIDE OF THE ROOF HIGH POINT, SHALL BE WITHIN THE LOW PRESSURE RANGE.
   6.1.1.2. TANKS SHALL BE TESTED FOR TIGHTNESS BY CONTRACTOR AND SUBMITTED TO INSPECTOR. THE TEST SHALL BE SHT-050.
  6.1.2. TANK INSPECTION
   6.1.2.1. CLEAN THE EXPOSED SURFACES OF THE TANK, INCLUDING THE FLOOR, OF ALL FOREIGN MATERIAL AND DEBRIS. STANDING WATER IN OR OUTSIDE OF THE TANK THAT WOULD INTERFERE WITH THE OBSERVATION OF THE EXPOSED SURFACES OF THE TANK SHALL BE REMOVED. THE SURFACES AND JOINTS SHALL BE THOROUGHLY INSPECTED FOR POTENTIAL LEAKAGE POINTS. AREAS OF POTENTIAL LEAKAGE SHALL BE REPAIRED PRIOR TO FILLING THE TANK WITH WATER. LINERS THAT ARE MECHANICALLY LOCKED TO THE SURFACE DURING THE PLACEMENT OF THE CONCRETE SHALL BE INSTALLED PRIOR TO THE TANK INSPECTION. THE INSPECTION AND CORRECTIVE ACTION SHALL ALSO BE PERFORMED ON IN-PLACE INTERIOR LINERS.
   6.1.2.2. ALL OPENINGS, FITTINGS, AND PIPE PENETRATIONS IN THE TANK SHELL SHALL BE INSPECTED AT BOTH FACES OF THE TANK. ALL DEFECTS AND/OR CRACKS SHALL BE REPAIRED.
   6.1.2.3. INTERIOR LINERS SHALL BE INSPECTED FOR PINHOLES, TEARS AND PARTIALLY FUSED SPLICES. ALL DEFICIENCIES SHALL BE REPAIRED.
   6.1.2.4. JOINTS AND CRACKS SHALL BE TESTED WITH A VACUUM BOX.
  6.1.3. TEST PREPARATION AND SHT-VIO
   6.1.3.1. ALL TANK PENETRATIONS AND OUTLETS SHALL BE SECURELY SEALED TO PREVENT THE LOSS OF WATER FROM THE TANK DURING THE TEST. IF THE TANK IS TO BE FILLED USING THE TANK INLET PIPE, POSITIVE MEANS SHALL BE PROVIDED TO CHECK THAT WATER IS NOT ENTERING OR LEAVING THE TANK THROUGH THIS PIPE ONCE THE TANK IS FILLED TO TEST LEVEL.
   6.1.3.2. TANK PENETRATIONS AND PIPE, CHANNEL, AND CONDUIT OUTLETS SHALL BE MONITORED BEFORE AND DURING THE TEST TO DETERMINE THE WATERTIGHTNESS OF THESE APPURTENANCES. LEAKAGE AT THESE OUTLETS SHALL BE REPAIRED PRIOR TO TEST MEASUREMENTS. NO ALLOWANCE SHALL BE MADE IN TEST MEASUREMENTS FOR UNCORRECTED KNOWN POINTS OF LEAKAGE. THE FLOW FROM THE UNDERDRAIN SYSTEM SHALL BE MONITORED DURING THIS SAME PERIOD AND ANY INCREASE IN FLOW SHALL BE RECORDED.
   6.1.3.3. THE GROUND WATER LEVEL SHALL BE BROUGHT TO A LEVEL BELOW THE TOP OF THE BASE SLAB AND KEPT AT THAT ELEVATION OR AT A LOWER ELEVATION DURING THE TEST.
   6.1.3.4. AFTER THE TANK INSPECTION HAS BEEN COMPLETED, THE PRESSURE-RELIEF VALVE OR VALVES SHALL BE PLUGGED AND THE TOP OF THE TANK VENTED TO THE ATMOSPHERE. THE TANK SHALL BE FILLED WITH WATER, AT A RATE NOT EXCEEDING 4 FT/H (1.2 M/H), TO THE UNDERSIDE OF THE ROOF WHILE ALLOWING ALL AIR TO FREELY ESCAPE. THE WATER LEVEL SHALL BE KEPT NEAR OR AT THE TOP OF UNLINED OR UNCOATED TANKS FOR A PERIOD OF AT LEAST THREE (3) DAYS PRIOR TO THE TEST.
   6.1.3.5. THE TANK VENT AT THE ROOF HIGH POINT SHALL BE REPLACED WITH AN OPEN ENDED PIPE TO FORM A STANDPIPE. THE DIAMETER OF THE STANDPIPE SHALL NOT BE LESS THAN THE DIAMETER OF THE VENT IT REPLACES NOR MORE THAN SIX TIMES THE VENT DIAMETER. THE TOP OF THE STANDPIPE SHALL BE LOCATED TO LIMIT THE HYDRAULIC SURCHARGE TO 1.25 TIMES THE DESIGN SURCHARGE AT THE HIGH POINT OF THE UNDERSIDE OF THE ROOF. THE STANDPIPE SHALL BE SLOWLY FILLED TO THE POINT OF OVERFLOW.
  6.1.4. TEST MEASUREMENTS
   6.1.4.1. THE DURATION OF THE TEST SHALL BE 1 HOUR. THE WATER TEMPERATURE 18 IN. BELOW THE WATER SURFACE SHALL BE TAKEN AT THE START AND END OF EACH TEST.
   6.1.4.2. THE WATER LEVEL IN THE STANDPIPE SHALL BE MEASURED AFTER 1 HOUR. IF THE WATER LEVEL HAS DROPPED BELOW THE TOP MOST POINT OF THE UNDERSIDE OF THE ROOF OR TO A LEVEL, WITHIN THE STANDPIPE, BELOW THE CALCULATED ALLOWABLE LOSS OF WATER VOLUME FROM THE TANK, THE STANDPIPE SHALL BE REFILLED AND THE TEST REPEATED. HOWEVER, IF THE DROP OF THE WATER SURFACE BELOW THE ALLOWABLE LEVEL CAN BE SHOWN TO BE DUE TO WATER TEMPERATURE CHANGE, THE TANK SHALL BE CONSIDERED TO HAVE MET THE TEST REQUIREMENT. IF THE WATER LEVEL FAILS TO REMAIN WITHIN THE ALLOWABLE RANGE IN THE INITIAL TEST OR UP TO TWO RETESTS, THE TANK SHALL BE REINSPECTED FOR LEAKS IN THE EXTERIOR SURFACE AND THEN DRAINED AND INSPECTED FOR DEFECTS THAT ARE SUSPECTED LEAK LOCATIONS IN THE INTERIOR SURFACES. ALL LEAKS OR POINTS OF SUSPECTED LEAKS SHALL BE REPAIRED AND THE TEST REPEATED.
   6.1.4.3. ONCE THE WATER LEVEL HAS REMAINED WITHIN THE ALLOWABLE RANGE IN THE STANDPIPE FOR THE TEST PERIOD OF 1 HOUR, THE WATER LEVEL SHALL BE KEPT IN THE STANDPIPE WITH A CLOSE VISUAL INSPECTION OF ALL VISIBLE TANK JOINTS AND AROUND HATCHES, MANWAYS, NOZZLES, PIPE CONNECTIONS, AND OTHER OPENINGS AND PENETRATIONS HAS BEEN PERFORMED.
   6.1.4.4. THE WATER LEVEL SHALL THEN BE LOWERED BELOW THE INLETS TO THE PRESSURE-RELIEF VALVES, AND THE PLUGS SHALL BE REMOVED FROM THE RELIEF VALVES. THE OPERATION OF THE RELIEF VALVES SHALL THEN BE CHECKED BY REMOVING THE STANDPIPE, PLUGGING THE AIR VENT, AND INJECTING AIR INTO THE TOP OF THE TANK UNTIL THE PRESSURE IN THE VAPOR SPACE EQUALS THE DESIGN GAUGE PRESSURE. IF THE RELIEF VALVES DO NOT START TO RELEASE AIR AT THE DESIGN PRESSURE, THEY SHALL BE ADJUSTED OR REPAIRED.
   6.1.4.5. UPON COMPLETION OF THE TEST, THE PRESSURE IN THE TANK SHALL BE RELEASED AND THE TANK EMPTIED. A THOROUGH VISUAL INSPECTION SHALL BE MADE OF BOTH THE INSIDE AND OUTSIDE OF THE TANK, GIVING PARTICULAR ATTENTION TO ANY INTERNAL METAL TIES, BRACES, TRUSSES, AND THEIR ATTACHMENTS TO THE WALLS OF THE TANK.
  6.1.5. QUANTITATIVE CRITERIA
   6.1.5.1. THERE SHALL BE NO MEASURABLE LOSS OF WATER FOR TANKS SUBJECTED TO SHT-NML TIGHTNESS TEST. NO MEASURABLE LOSS OF WATER SHALL MEAN A DROP IN WATER SURFACE IN THE STANDPIPE INDICATING LESS THAN 0.01% VOLUME IN 24 HOURS.
   6.1.5.2. THE ALLOWABLE LOSS OF WATER FOR THE SHT-050 TIGHTNESS TEST SHALL NOT CAUSE THE W



14 PW-10 — TK-GENERAL DETAILS – FIBERGLASS TANK DETAILS PUMP PLATFORM
NO SCALE

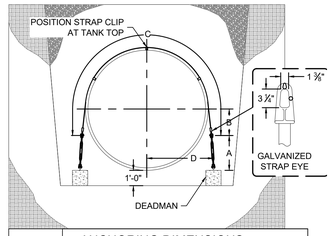
XERXES DEADMAN			
TANK SIZE GALLONS	QTY	"L"	APPROX. WEIGHT EACH
4'-600	2	12'	1,800 LBS
4'-1,000	2	12'	1,800 LBS
4'-1,500	2	16'	2,400 LBS
6'-1,500	2	12'	1,800 LBS
6'-2,000	2	12'	1,800 LBS
6'-3,000	2	16'	2,400 LBS
6'-4,000	2	18'	2,700 LBS
6'-5,000	4	12'	1,800 LBS
6'-6,000	4	16'	2,400 LBS
6'-8,000	4	18'	2,700 LBS
8'-2,000	2	12'	1,800 LBS
8'-3,000	2	12'	1,800 LBS
8'-4,000	2	12'	1,800 LBS
8'-5,000	2	16'	2,400 LBS
8'-6,000	2	18'	2,700 LBS
8'-7,000	4	12'	1,800 LBS
8'-8,000	4	12'	1,800 LBS
8'-9,000	2	12'	1,800 LBS
	2	16'	2,400 LBS
8'-10,000	4	16'	2,400 LBS
8'-11,000	4	16'	2,700 LBS
8'-12,000	4	18'	2,700 LBS
8'-13,000	4	12'	1,800 LBS
	2	16'	2,400 LBS
8'-14,000	2	12'	1,800 LBS
	4	16'	2,400 LBS
8'-15,000	6	16'	2,400 LBS
10'-10,000	2	22'	3,000 LBS
10'-11,000	2	22'	3,000 LBS
10'-12,000	2	22'	3,000 LBS
10'-13,000	4	14'	1,900 LBS
10'-14,000	4	14'	1,900 LBS
10'-15,000	4	14'	1,900 LBS
10'-20,000	4	18'	2,400 LBS
10'-22,000	4	22'	3,000 LBS
10'-25,000	4	14'	1,900 LBS
	2	18'	2,400 LBS
10'-30,000	6	18'	2,400 LBS
10'-35,000	2	18'	2,400 LBS
	4	22'	3,000 LBS
10'-40,000	8	18'	2,400 LBS



XERXES PRECAST DEADMEN

- XERXES DEADMEN ARE ENGINEERED AND DESIGNED TO BE USED WITH XERXES TANKS.
- IN MULTIPLE TANK INSTALLATIONS, EACH TANK REQUIRES ITS OWN SET OF DEADMEN.
- FOR CAST IN PLACE OR DEADMAN CONSTRUCTED OFF SITE, REFER TO XERXES INSTALLATION MANUAL AND OPERATING GUIDELINES FOR PROPER SIZING AND ANCHOR POINT SPECIFICATIONS.

15 PW-10 — TK-GENERAL DETAILS – FIBERGLASS TANK DETAILS PUMP PLATFORM
NO SCALE

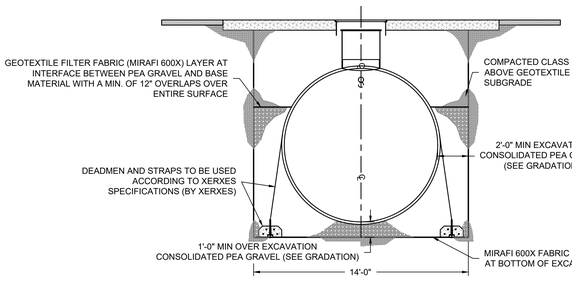


ANCHORING DIMENSIONS					
TANK DIA.	"A"	"B"	"C"	"D" MIN.	"D" MAX.
4'	18"	12"	8'-4-1/4"	27"	30"
6'	23"	13"	12'-1"	42"	48"
8'	31"	15"	15'-1"	52"	58"
10'	45"	15"	18'-8-3/4"	69"	75"
12'	50"	23"	22'-6-3/4"	87"	93"

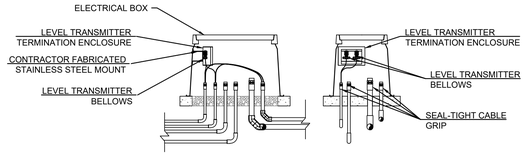
16 PW-10 — TK-GENERAL DETAILS – FIBERGLASS TANK DETAILS PUMP PLATFORM
NO SCALE

NOTE
1. PUMP PLATFORMS ARE USED FOR PUMPS UP TO 300 LBS.
2. STANDARD PLATFORM SIZES AVAILABLE: 24"X24", 24"X36", 36"X36"

17 PW-10 — TK-GENERAL DETAILS – FIBERGLASS TANK DETAILS PUMP PLATFORM
NO SCALE

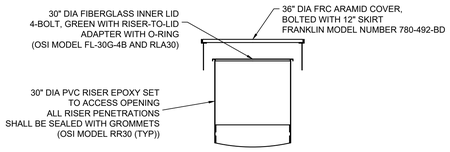


18 PW-10 — TK-GENERAL DETAILS – TANK FIBERGLASS LID DETAIL TRAFFIC RATED
NO SCALE

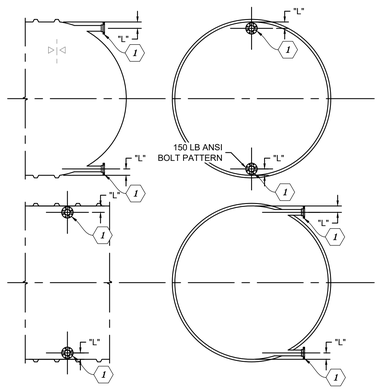


19 PW-10 — TK-GENERAL DETAILS – TANK FIBERGLASS LID DETAIL TRAFFIC RATED
NO SCALE

NOTES:
36" Round Manhole with Kevlar Composite Cover, Bolt-down 12" Skirt,
1. Shirt Shall be coated as follows:
 1.1. Surface Prep:
  1.1.1. White Metal Blast Cleaning (SSPC-SP5/NACE1): Removal of all visible rust, mill scale, paint, and foreign matter by blast cleaning by wheel or nozzle (dry or wet) using sand, grit, or shot.
 1.2. Coating
  1.2.1. Epoxy Mortar: High-build, 3-componet amine cured epoxy mortar, shall have a solids content of 100 percent by volume, suitable for long-term immersion and atmospheric exposure to wastewater. Filler-resurfacer compound shall be a 3-component epoxy cementitious thin overlay material used to fill voids and rough areas and must feather-edge capable. Epoxy Glaze (finish) coat shall bea 100 percent solids epoxy suitable for long-term immersion and atmospheric exposure to wastewater.
  1.2.2. Filler/Resurface thin Overlay (Thickness = minimum 1/16"), Tnemec 218 MortarClad, or equal.
  1.2.3. Epoxy Mortar (DFT = 125 mils) Tnemec 434 Perma-Shield, or equal.
  1.2.4. Finish coat (DFT = 15-20 mils), Tnemec 435 Perma-Glaze, or equal.



20 PW-10 — TK-GENERAL DETAILS – TANK FIBERGLASS LID DETAIL TRAFFIC RATED
NO SCALE



NOZZLE PLACEMENT	
NOZZLE DIAMETER (IN)	NOZZLE HEIGHT "L" (IN)
2	3
4	5
6	6
8	7
10	8
12	10
14	11
16	12
18	13
1 FLANGE 150LB ANSI BOLT PATTERN	

21 PW-10 — TK-GENERAL DETAILS – TANK FIBERGLASS LID DETAIL TRAFFIC RATED
NO SCALE

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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

Developed for SMMUSD

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
90% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/21/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	817-01
Checked By	JNY
Scale	

EQUALIZATION TANK STANDARD DETAILS

GENERAL NOTES, EQUALIZATION TANK AND APPURTENANCES :

1. RELATED DOCUMENTS

2. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION AND THE FOLLOWING NOTES.

3. MANUFACTURER'S FIELD SERVICES

3.1. THE REQUIREMENT

3.1.1. PRIOR TO THE STARTUP OF THE FACILITY, AN EXPERIENCED, COMPETENT, AND AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER OF EACH ITEM OF EQUIPMENT INCORPORATED INTO THE WORK, FOR WHICH FIELD SERVICES ARE INDICATED IN SPECIFIED EQUIPMENT SECTIONS, SHALL VISIT THE SITE OF THE WORK AND INSPECT, CHECK, ADJUST IF NECESSARY, AND APPROVE THE EQUIPMENT INSTALLATION. IN EACH CASE, THE REPRESENTATIVE SHALL REVISIT THE JOBSITE AS OFTEN AS NECESSARY UNTIL ALL TROUBLE IS CORRECTED AND THE EQUIPMENT INSTALLATION AND OPERATION ARE SATISFACTORY IN THE OPINION OF THE ENGINEER. EACH MANUFACTURER'S REPRESENTATIVE SHALLFURNISH TO THE ENGINEER AND THE INSPECTOR A WRITTEN REPORT CERTIFYING THAT THE EQUIPMENT HAS BEEN PROPERLY INSTALLED, AND LUBRICATED; IS IN ACCURATE ALIGNMENT; IS FREE FROM ANY UNDUE STRESS IMPOSED BY CONNECTING PIPING OR ANCHOR BOLTS; AND HAS BEEN OPERATED UNDER FULL LOAD CONDITIONS AND THAT IT OPERATED SATISFACTORILY. ALL COSTS FOR THESE SERVICES SHALL BE INCLUDED IN THE CONTRACTOR'S

4. CONTRACTORS'/MANUFACTURERS' SPECIAL SERVICES

4.1.GENERAL

4.1.1. INSTALLATION ASSISTANCE

4.1.1.1. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST TO THE OWNER, THE SERVICES OF COMPETENT AND EXPERIENCED TECHNICAL PERSONNEL WHO SHALL REPRESENT THE MANUFACTURERS OF ALL EQUIPMENT AND SYSTEMS AS MAY BE NECESSARY TO RESOLVE ASSEMBLY OR INSTALLATION PROBLEMS AT THE WORK SITE WHICH ARE ATTRIBUTABLE TO, OR ASSOCIATED WITH, THE EQUIPMENT FURNISHED.

4.1.2. FUNCTIONAL TESTING

4.1.2.1. FUNCTIONAL (OR RUN) TESTING, IN THE PRESENCE OF THE MANUFACTURER'S REPRESENTATIVE AND ENGINEER, WILL BE REQUIRED FOR EACH ITEM OF EQUIPMENT FOLLOWING INSTALLATION AND WILL BE PERFORMED BY THE CONTRACTOR WITHOUT CHARGE. FUNCTIONAL TESTING IS DEFINED AS THAT TESTING NECESSARY TO DETERMINE IF INSTALLED EQUIPMENT AND SYSTEM WILL OPERATE AS INTENDED.

4.1.2.2. IN ADDITION TO THE FUNCTIONAL TESTS, SPECIFIC PERFORMANCE TESTING OF INSTALLED EQUIPMENT AND SYSTEMS SHALL BE CONDUCTED BY THE CONTRACTOR AS REQUIRED IN THE SPECIFICATION SECTION FOR THE EQUIPMENT OR SYSTEM.

4.1.2.3. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, INSTRUCTIONS, AND SERVICES NECESSARY TO PERFORM THE FUNCTIONAL AND PERFORMANCE TESTING.

4.1.2.4. WHEN TECHNICAL ASSISTANCE IS NECESSARY TO RESOLVE PROBLEMS THAT MAY BECOME APPARENT DURING THE FUNCTIONAL OR PERFORMANCE TESTS, THE CONTRACTOR SHALL PROVIDE THE SERVICES OF A MANUFACTURER'S REPRESENTATIVE WHO SHALL PROVIDE SUCH ASSISTANCE AS NECESSARY TO DEMONSTRATE THE SPECIFIED PERFORMANCE.

4.1.3. START_UP

4.1.3.1. WHERE START_UP SERVICES ARE CALLED FOR IN THE SPECIFICATIONS, OR WHEN TECHNICAL ASSISTANCE IS NECESSARY DUE TO ANY MALFUNCTION OF THE EQUIPMENT OR SYSTEM FURNISHED, THE CONTRACTOR SHALL PROVIDE THE SERVICES OF A MANUFACTURER'S REPRESENTATIVE WHO SHALL PROVIDE SUCH SERVICES AS NECESSARY TO PROVIDE THE OWNER WITH AN ACCEPTABLE OPERATING FACILITY.

4.1.4. TRAINING OF OWNER'S PERSONNEL

4.1.4.1. WHERE TRAINING IS CALLED FOR IN THE SPECIFICATIONS, THE CONTRACT SHALL PROVIDE THE SERVICES OF MANUFACTURER'S REPRESENTATIVES WHO SHALL PROVIDE CLASSROOM AND ON_THE_JOB TRAINING FOR THE OWNER'S PERSONNEL IN THE OPERATION AND MAINTENANCE OF THE SPECIFIED EQUIPMENT, AT A SPECIFIED PERIOD OF TIME AND, IF REQUIRED, FOR A RETURN TRAINING CHECK.

4.1.5. SCHEDULING AND COORDINATION OF SERVICES

4.1.5.1. THE CONTRACTOR SHALL DESIGNATE AND PROVIDE ONE PERSON TO BE RESPONSIBLE FOR SCHEDULING, COORDINATION, AND EXPEDITING THE SPECIFIED SERVICES. SCHEDULING SERVICES SHALL BE DONE IN COOPERATION WITH, AND WITH THE ACCEPTANCE OF THE ENGINEER AND OWNER'S OPERATING PERSONNEL. SUCH SCHEDULE SHALL BE ARRANGED WITH THE APPROPRIATE SUBCONTRACTORS, MANUFACTURERS, AND SUPPLIERS IN SUFFICIENT TIME TO ASSURE THEIR COMPLIANCE WITH THE SERVICE REQUIREMENTS.

4.1.6. COST FOR SERVICES

4.1.6.1. COSTS FOR PROVIDING SERVICES DURING INSTALLATION, TESTING, AND FOR THE TRAINING OF OWNER'S PERSONNEL SHALL BE INCLUDED IN THE COSTS FOR PROVIDING THE APPLICABLE SPECIFIED EQUIPMENT.

4.1.6.2. WHERE THE NUMBER OF DAYS FOR SERVICES IS STATED IN THE SPECIFICATIONS, THIS SHALL BE CONSIDERED AS THE MINIMUM NUMBER OF DAYS. SHOULD ADDITIONAL TIME BE REQUIRED FOR SERVICES, SUCH TIME SHALL BE AT THE EXPENSE OF THE MANUFACTURER, SUPPLIER, OR CONTRACTOR AS APPLICABLE, AND AT NO ADDITIONAL COST TO THE OWNER.

4.1.6.3. WHERE THE NUMBER OF DAYS FOR SERVICES IS NOT STATED IN THE SPECIFICATIONS, SERVICES SHALL BE FURNISHED FOR INSTALLATION, TESTING, AND START_UP AS REQUIRED TO PROVIDE THE OWNER WITH A SATISFACTORY OPERATING FACILITY.

4.2.START_UP AND DEMONSTRATION

4.2.1. SYSTEM DESCRIPTION FOR PROJECT

4.2.1.1. IN ORDER TO ESTABLISH A BASIS OF UNDERSTANDING FOR SYSTEM DESCRIPTION FOR THIS PROJECT, A SYSTEM SHALL BE DEFINED AS FOLLOWS: A SYSTEM IS AN ARRANGEMENT OF ITEMS OF EQUIPMENT, COMPONENTS, PIPING, WIRING, MATERIALS, OR INCIDENTALS SO RELATED OR CONNECTED TO FORM A FUNCTIONAL AND OPERATIONAL UNITY.

4.2.2. PRE_START-UP PERIOD

4.2.2.1. PRIOR TO STARTUP, CONTRACTOR SHALL OBSERVE THE FOLLOWING PROCEDURES BY SEQUENCE:

4.2.2.2. INSURE BY CHECKLIST SUBMITTED TO OWNER THAT ALL REQUIRED WRITTEN STATEMENTS FROM MANUFACTURERS BY INDIVIDUAL SECTIONS OF SPECIFICATIONS ARE RECEIVED AND COMPLY TO CONTRACT DOCUMENTS.

4.2.2.3. INSURE WORK IS COMPLETE BEFORE STARTUP OF ANY UNIT OR SYSTEM. CERTIFY TO OWNER THAT SPECIFICALLY REQUIRED SERVICES OF RESPECTIVE EQUIPMENT MANUFACTURER'S REPRESENTATIVE BY INDIVIDUAL SECTIONS OF SPECIFICATIONS HAVE BEEN PERFORMED IN ACCORDANCE WITH CONTRACT DOCUMENTS.

4.2.2.4. INSURE SYSTEMS ARE TESTED HYDRAULICALLY, MECHANICALLY, AND ELECTRICALLY. INSURE SYSTEMS WHICH REQUIRE CALIBRATION, COMMISSIONING, AND BALANCING ARE FULLY CERTIFIED AS COMPLETE IN PERFORMANCE IN ACCORDANCE WITH CONTRACT DOCUMENTS.

4.2.2.5. INSURE SYSTEM IS PROPERLY SEEDED AND BIOLOGICALLY PREPARED AND PRODUCING TREATED WATER IN ACCORDANCE WITH THE APPLICABLE CONTROL AGENCIES

4.2.2.6. SCHEDULE STARTUP A MINIMUM OF 15 DAYS PRIOR TO STARTUP DATE BY WRITTEN NOTICE ISSUED TO BUT NOT NECESSARILY LIMITED TO: OWNER, ENGINEER, SUBCONTRACTORS, AND APPLICABLE CONTROL AGENCIES.

4.2.2.7. PROVIDE ALL LABOR, SUPERVISION, EQUIPMENT, VEHICLES OR ANY OTHER ITEM NECESSARY TO STARTUP, OPERATE, AND DEMONSTRATE THE SYSTEM.

4.2.3. START-UP AND DEMONSTRATION PERIOD

4.2.3.1. THE CONTRACTOR SHALL STARTUP, OPERATE AND DEMONSTRATE THE SPECIFIED PERFORMANCE OF EACH ITEM OF EQUIPMENT AND EACH SYSTEM ON BASIS OF 30 DAYS OF FULL OPERATION WITHOUT INTERRUPTION OF EQUIPMENT OR SYSTEM OR NEED OF ADJUSTMENT OR REPAIR.

4.2.3.2. DURING STARTUP WITH EQUIPMENT IN OPERATION, THE CONTRACTOR SHALL PROVIDE KNOWLEDGEABLE PERSONNEL TO INSTRUCT OWNERS DESIGNATED PERSONNEL ON OPERATION AND MAINTENANCE OF EACH SYSTEM. THIS SERVICE SHALL BE IN ADDITION TO SERVICES PROVIDED BY INDIVIDUAL MANUFACTURER'S AUTHORIZED REPRESENTATIVE(S) PRESCRIBED BY INDIVIDUAL SECTIONS OF THE SPECIFICATIONS. INSTRUCTIONS DURING THIS STARTUP PERIOD SHALL BE OVERVIEW IN NATURE AND NOT A REPEAT OF PREVIOUS OPERATION AND MAINTENANCE INSTRUCTIONS.

4.2.3.3. CONTRACTOR SHALL DEMONSTRATE THE TREATMENT SYSTEM WILL MEET LOCAL, STATE, AND FEDERAL DISCHARGE REQUIREMENTS FOR A DURATION OF 180 CONSECUTIVE DAYS OF FULL OPERATION WITHOUT INTERRUPTION OF EQUIPMENT OR SYSTEM OR NEED OF ADJUSTMENT OR REPAIR OTHER THAN "NORMAL" OPERATIONAL ADJUSTMENTS.

4.2.4. POST_START-UP AND DEMONSTRATION PERIOD

4.2.4.1. AFTER SUCCESSFUL COMPLETION OF THE STARTUP AND DEMONSTRATION PERIOD, THE OWNER WILL FURNISH ALL OPERATIONAL LABOR, UTILITIES, CHEMICALS, EXPENDABLES AND COST OF NORMAL WEAR FOR THE EQUIPMENT OR SYSTEM OF DIRECT SHUT DOWN AND PROTECTION OF THE SYSTEM UNTIL TOTAL PROJECT ACCEPTANCE. ALL SYSTEMS AND EQUIPMENT SHALL BE CLEAN AT THE COMPLETION OF THEIR STARTUP AND DEMONSTRATION PERIOD.

4.3.SUBMITTALS

4.3.1. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:

4.3.1.1. GENERAL ARRANGEMENTS

4.3.1.2. PROCESS AND INSTRUMENTATION DIAGRAMS (P&IDS)

4.3.1.3. ELECTRICAL SCHEMATICS

4.3.1.4. LIFTING DIAGRAM

4.3.1.5. ANCHOR DIAGRAM

4.3.1.6. EQUIPMENT LIST AND CUT SHEETS

4.3.2. THE O&M MANUAL SHALL INCLUDE THE FOLLOWING:

4.3.2.1. WARRANTIES

4.3.2.2. FACTORY TEST REPORTS

4.3.2.3. OPERATING INSTRUCTIONS

4.3.2.4. FUNCTIONAL DESCRIPTION

4.3.2.5. CALCULATIONS

4.3.2.6. MAINTENANCE SCHEDULE

4.3.2.7. TROUBLESHOOTING GUIDE

4.3.2.8. MEMBRANE MODULE REPAIR INSTRUCTIONS

4.3.2.9. STORAGE REQUIREMENTS

4.3.2.10. TRAINING MATERIAL

4.3.2.11. INSTALLATION AND COMMISSIONING PROCEDURES

4.3.2.12. DRAWINGS

4.3.2.13. LIST OF MATERIALS

4.4.SPARE PARTS

4.4.1. GENERAL

4.4.1.1. THE SPARE PARTS SUPPLIER MUST BE THE MANUFACTURER OR A FACTORY AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER. THE MANUFACTURER WILL BE RESPONSIBLE FOR ANY DEFAULT OF THE REPRESENTATIVE THAT IS NOT CORRECTED BY THE REPRESENTATIVE IN A TIMELY AND EFFICIENT MANNER. THIS RESPONSIBILITY INCLUDES REPLACING INCORRECT OR DEFECTIVE PARTS, TROUBLE SHOOTING, AND CORRECTING PROBLEMS THAT ARE TRACEABLE TO THE MANUFACTURER'S PARTS. THE SUPPLIER SHALL PROVIDE, ALONG WITH THE SPARE PARTS LIST, A FORMAL LETTER OF CERTIFICATION FROM THE MANUFACTURER THAT THE SUPPLIER IS AN AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER.

4.4.1.2. THE SUPPLIER SHALL BE A STOCKING FACILITY OF THE MANUFACTURER OF THE PROPOSED PARTS, OR THE MANUFACTURER MUST MAINTAIN A STOCKING FACILITY OF THESE PARTS ON THE WEST COAST, OR THE SUPPLIER CAN GUARANTEE DELIVERY OF SPARE PARTS WITHIN SEVENTY-TWO (72) HOURS.

4.4.1.3. SPARE PARTS SHOULD BE SUPPLIED IN THE MANUFACTURER'S ORIGINAL PACKAGING AND SHALL BE NEW AND UNUSED. A STATEMENT SHALL BE INCLUDED TO CLEARLY INDICATE THAT THE SPARE PARTS ARE NEW AND UNUSED.

4.4.1.4. THE SPARE PARTS LIST SHALL BE IN ADDITION TO ANY OTHER LISTS REQUIRED UNDER ANY OTHER SECTIONS OF THESE SPECIFICATIONS. THIS LIST SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:

4.4.1.4.1. CURRENT PRICES INCLUDING DELIVERY TO THE JOBSITE.

4.4.1.4.2. ORIGINAL EQUIPMENT MANUFACTURER (OEM) PART NUMBERS, WHICH IDENTIFY INTERCHANGEABILITY.

4.4.1.4.3. MAKE AND TYPE OF EQUIPMENT AS WELL AS MODEL NUMBER.

4.4.1.4.4. SIZE.

4.4.1.4.5. SUPPLIER'S ADDRESS AND TELEPHONE NUMBER.

4.4.1.4.6. LETTER OF CERTIFICATION FROM THE MANUFACTURER.

4.4.1.4.7. MATERIALS.

4.4.1.4.8. SPECIAL TOOLS.

4.4.1.4.9. ESTIMATED DELIVERY LEAD TIMES.

4.4.1.4.10. WARRANTY: STATE TERMS OF WARRANTY OF SPARE PARTS OFFERED.

4.4.1.4.11. CROSS-SECTIONAL, EXPLODED VIEW OR ASSEMBLY-TYPE DRAWING WITH PART NUMBERS.

4.4.1.4.12. MANUFACTURER'S PRICE LIST CATALOG.

4.4.1.4.13. APPLICABLE TRADE DISCOUNT (FOR BUDGET PURPOSES)

4.4.1.5. DELIVERY OF ALL REQUIRED SPARE PARTS SHALL BE A CONDITION PRECEDENT TO RECEIPT OF PARTIAL COMPLETION OR A STATEMENT OF COMPLETION.

4.4.1.6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER STORAGE AND PROTECTION OF THE SPARE PARTS UNTIL DELIVERED TO THE OWNER.

4.4.1.7. TO ENSURE PROPER TRACKING OF THE SPARE PARTS THE CONTRACTOR SHALL FILL OUT AND SUBMIT REQUIRED INFORMATION, ON THE FORMS PROVIDED BY THE ENGINEER, TO THE INSPECTOR WITH THE DELIVERY OF SPARE PARTS. THE CONTRACTOR'S COST OF PREPARING AND SUBMITTING THE SPARE PARTS LIST(S), PROCURING, AND INSPECTION OF THE SPARE PARTS SHALL BE INCLUDED IN THE CONTRACTOR'S LUMP SUM BID, AND THEREFORE, NO OVERHEAD OR PROFIT SHALL BE ADDED TO THE COST OF THE SPARE PARTS.

4.4.2. REQUIRED SPARE PARTS

4.4.2.1. THE REQUIRED SPARE PARTS LISTS SHALL BE INCLUDED WITH THE EQUIPMENT SUBMITTAL TO THE ENGINEER.

4.4.2.2. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF PROVIDING THE REQUIRED SPARE PARTS DESCRIBED UNDER INDIVIDUAL EQUIPMENT SPECIFICATIONS.

4.4.3. RECOMMENDED SPARE PARTS

4.4.3.1. THE CONTRACTOR SHALL SUBMIT WITH EACH EQUIPMENT SUBMITTAL A LIST FROM THE MANUFACTURER OF THE RECOMMENDED SPARE PARTS ADEQUATE TO ENSURE TWO (2) CONTINUOUS YEARS OF NORMAL OPERATION AFTER EXPIRATION OF THE EQUIPMENT WARRANTY. THE COST OF PREPARING AND SUBMITTING THE SPARE PARTS LIST(S) SHALL BE INCLUDED IN THE CONTRACTOR'S LUMP SUM BID.

4.4.3.2. THE RECOMMENDED SPARE PARTS LIST(S) SHALL INCLUDE ITEMS REQUIRING REPLACEMENT UNDER THE FOLLOWING CONDITIONS:

4.4.3.2.1.WEAR, CORROSION, OR EROSION DURING NORMAL OPERATION.

4.4.3.2.2.FAILURE WHICH CAUSES A SHUTDOWN OF EQUIPMENT OR SYSTEMS.

4.4.3.2.3.DAMAGE OR BREAKAGE DURING ROUTINE MAINTENANCE OR INSPECTIONS OF EQUIPMENT.

4.4.3.2.4.CUSTOM OR SPECIALLY FABRICATED PARTS, AND

4.4.3.2.5.LONG LEAD ITEMS.

4.4.3.3. IF AN ALLOWANCE FOR RECOMMENDED SPARE PARTS HAS BEEN INCLUDED AS A BID ITEM IN THE SCHEDULE OF WORK AND PRICES IN VOL. 1 OF THE PROPOSAL, THE CONTRACTOR SHALL PROCURE SUCH RECOMMENDED SPARE PARTS AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL COMPILE, FROM THE CONTRACTOR'S SUBMITTAL, A LIST IDENTIFYING WHICH RECOMMENDED SPARE PARTS ARE APPROVED FOR PURCHASE. THE OWNER WILL PAY, FROM THE RECOMMENDED SPARE PARTS ALLOWANCE, THE VENDOR-INVOICED PRICES PLUS DELIVERY COST ONLY, WITHOUT MARKUP FOR OVERHEAD OR PROFIT. IF THE TOTAL COST DIFFERS FROM THE AMOUNT SET FORTH IN THE SCHEDULE OF WORK AND PRICES, THE CONTRACT PRICE SHALL BE ADJUSTED BY A CHANGE ORDER FOR THE DIFFERENCE AS AN ADDITIONAL AMOUNT DUE THE CONTRACTOR, OR A CREDIT TO THE OWNER, AS APPROPRIATE.

4.4.3.4. APPROVAL OF THE INDIVIDUAL EQUIPMENT SUBMITTAL DOES NOT CONSTITUTE AUTHORIZATION TO PROCURE THE RECOMMENDED SPARE PARTS.

4.4.4. PRICES CHARGED TO THE OWNER ARE BASED ON A PERCENTAGE DISCOUNT FROM THE MANUFACTURER'S PUBLISHED PRICE LIST(S) SHALL NOT BE SUBJECT TO CHANGE FOR A PERIOD OF SIXTY (60) CALENDAR DAYS AFTER BID OPENING. IF PRICES ON THE PRICE LIST(S) ARE RAISED, THE OWNER RESERVES THE RIGHT TO ACCEPT THE RAISE OR TO CANCEL SUCH ITEMS FROM THE CONTRACT. THE OWNER IS TO BE GIVEN BENEFIT OF ANY DECLINE IN PRICES IMMEDIATELY UPON THE MANUFACTURER'S EFFECTIVE DATE OF SUCH DECLINE. CHANGES IN PRICE LIST(S) SHALL BE EFFECTIVE ON THE DATE OF THE MANUFACTURER'S EFFECTIVE DATE OF CHANGE. INCREASE IN PRICES SHALL NOT BE RETROACTIVE.

5. TREATMENT PLANT PIPING IDENTIFICATION SYSTEMS

5.1.GENERAL

5.1.1. THE REQUIREMENT

5.1.1.1. THE CONTRACTOR SHALL FURNISH, MARK, AND INSTALL IDENTIFICATION DEVICES FOR ALL EXPOSED PIPING AND PIPING IN ACCESSIBLE CHASES AND AREAS ABOVE CEILINGS WITH PANELS, AND VALVES USING COLOR BANDS, LETTERING, FLOW DIRECTION ARROWS, AND RELATED PERMANENT IDENTIFICATION DEVICES, AND ALL APPURTENANT WORKS, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

5.1.2. REFERENCE SPECIFICATIONS, CODES AND STANDARDS

5.1.2.1. COMPLY WITH THE REFERENCE SPECIFICATIONS OF THE GENERAL REQUIREMENTS.

5.1.3. CONTRACTOR SUBMITTALS

5.1.3.1. SUBMITTALS SHALL BE MADE IN ACCORDANCE WITH GENERAL REQUIREMENTS.

5.1.3.2. THE FOLLOWING SUBMITTALS AND SPECIFIC INFORMATION SHALL BE PROVIDED:

5.1.3.2.1.THE CONTRACTOR SHALL SUBMIT SAMPLES OF ALL TYPES OF IDENTIFICATION DEVICES TO BE USED IN THE WORK.

5.1.3.2.2.THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, FOR APPROVAL, A LIST OF SUGGESTED WORDING FOR ALL VALVE TAGS PRIOR TO FABRICATION.

5.2.PRODUCTS

5.2.1. IDENTIFICATION OF PIPING

5.2.1.1. ALL EXPOSED PIPING AND PIPING IN ACCESSIBLE CHASES AND AREAS ABOVE CEILINGS WITH PANELS, INCLUDING STAINLESS STEEL, GALVANIZED STEEL, COPPER, PVC, AND FIBERGLASS RTR PIPING, SHALL BE COMPLETELY AND TOTALLY PAINTED FOR IDENTIFICATION PURPOSES. PIPING SHALL BE IDENTIFIED WITH LETTERING OR TAGS DESIGNATING THE SERVICE FOR EACH PIPING SYSTEM. SHALL HAVE FLOW DIRECTIONAL ARROWS, AND SHALL BE COMPLETELY PAINTED AND COLOR CODED AS SCHEDULED BELOW. ALL PIPING SCHEDULED TO BE COLOR CODED SHALL BE COMPLETELY PAINTED OR COATED WITH THE INDICATED COLORS.

5.2.1.2. EACH PIPE IDENTIFICATION SHALL CONSIST OF COLOR CODING IN ACCORDANCE WITH PARAGRAPH 3.4 IDENTIFICATION SCHEDULE. A PAINTED LABEL AND A DIRECTIONAL FLOW ARROW. THE PAINTED LABEL AND DIRECTIONAL ARROW SHALL BE PLACED BETWEEN COLOR BANDS. WHEN MORE THAN ONE COLOR BAND IS USED THE DIFFERENT COLOR BANDS SHALL BE PAINTED ADJACENT. PIPING IDENTIFICATION SHALL BE LOCATED IN ACCORDANCE WITH PARAGRAPH 3.3 PIPE IDENTIFICATION LOCATION.

5.2.1.3. COLOR BANDS AND ARROWS: PIPE COLOR BANDS SHALL BE PAINTED ON THE PIPE. PAPER OR PLASTIC BANDING OF PIPE SHALL NOT BE ACCEPTABLE. ARROWS SHALL BE OF THE SAME COLOR AS THE LETTERING AND SHALL POINT AWAY FROM THE LETTERED LABELS IN THE DIRECTION OF THE FLOW. CHLORINATED SERVICE SHALL BE IDENTIFIED BY A YELLOW SECOND BAND. COLOR BAND SIZE SHALL BE AS FOLLOWS:

PIPE SIZE	COLOR BAND SIZE
LESS THAN 1" DIAMETER	1" WIDE
1" TO 12" DIAMETER	PIPE DIAMETER WIDE
GREATER THAN 12" DIAMETER	12" WIDE
YELLOW SECOND BAND:	
LESS THAN 1" DIAMETER	½" WIDE
1" TO 12" DIAMETER	½ PIPE DIAMETER
GREATER THAN 12" DIAMETER	6" WIDE

5.2.1.4. FOR CASES WHERE THERE ARE INSULATED LINES WRAPPED WITH ALUMINUM SHEATHING, STAINLESS STEEL SHEATHING, OR GRAY FABRIC, THE BACKGROUND COLOR SHALL BE APPLIED TO A 24 INCH LENGTH OF PIPE SECTION AND COLOR BAND CENTERED WITHIN THE 24 INCH FIELD OF BACKGROUND COLOR.

5.2.1.5. PAINT COLORS: PAINT COLORS SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:

COLOR	FEDERAL NUMBER
LIGHT BLUE	15200
DARK BLUE	15102
RED	11105
YELLOW	13655
ORANGE	12246
WHITE	17875
LIGHT BROWN	10219
DARK BROWN	10080
LIGHT GREEN	34540
GREEN	14187
BLACK	17038
SILVER	17178
GREY	16314
PURPLE	27144
PURPLE*	PANTONE 512C

*FOR RECLAIMED WATER

5.2.1.6. LETTERING: CONTENTS IDENTIFICATION LABELS SHALL BE STENCILED DIRECTLY ON PIPES. BLACK IDENTIFICATION LETTERS SHALL BE USED WHERE THE BACKGROUND PIPE COLOR IS LIGHT, AND WHITE IDENTIFICATION LETTERS WHERE THE BACKGROUND COLOR IS DARK. THE SIZE OF THE LETTERS FOR IDENTIFICATION LABELS SHALL BE AS FOLLOWS:

PIPE OUTSIDE DIAMETER	LETTER SIZE
5/8" TO 1"	5/16" HIGH
1" TO 3"	3/4" HIGH
OVER 3"	2" HIGH

5.2.2. IDENTIFICATION OF VALVES AND SHORT PIPE LENGTHS

5.2.2.1. IDENTIFYING DEVICES FOR VALVES AND THE SECTIONS OF PIPE THAT ARE TOO SHORT TO BE IDENTIFIED WITH COLOR BANDS, LETTERED LABELS, AND ARROWS SHALL BE IDENTIFIED WITH METAL TAGS AS SPECIFIED HEREIN.

5.2.2.2. METAL TAGS SHALL BE OF STAINLESS STEEL WITH EMBOSSED LETTERING. ALL TAGS SHALL BE DESIGNED TO BE FIRMLY ATTACHED TO THE VALVES OR SHORT PIPES OR TO THE STRUCTURE IMMEDIATELY ADJACENT TO SUCH VALVES OR SHORT PIPES.

5.2.3. IDENTIFICATION OF PIPE 5/8 INCH OR SMALLER

5.2.3.1. WHERE THE OUTSIDE DIAMETER OF PIPE OR PIPE COVERING IS 5/8 INCH OR SMALLER, METAL TAGS SHALL BE PROVIDED INSTEAD OF LETTERING. TAGS SHALL HAVE THE SPECIFIED IDENTIFYING LETTERING STAMPED IN THE TAG AND SHALL BE FASTENED TO THE PIPE WITH SUITABLE CHAINS. METAL TAGS AND CHAINS SHALL BE ALUMINUM OR STAINLESS STEEL. WHERE TAGS ARE USED, PIPE SHALL BE COLOR CODED AS SPECIFIED IN PARAGRAPH 3.04.

5.2.4. MISCELLANEOUS

5.2.4.1. ELECTRICAL CONDUIT SHALL BE PAINTED TO MATCH CEILING OR WALL SURFACES AS DIRECTED BY THE ENGINEER.

5.2.4.2. VENT LINES SHALL BE PAINTED TO MATCH THE SURFACES THAT THEY ADJOIN.

5.2.4.3. VALVE HANDWHEELS AND LEVERS SHALL BE PAINTED RED.

5.3.EXECUTION

5.3.1. GENERAL

5.3.1.1. ALL LABELS AND IDENTIFICATION TAGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS, AND SHALL BE NEAT AND UNIFORM IN APPEARANCE. ALL SUCH TAGS OR LABELS SHALL BE READILY VISIBLE FROM ALL NORMAL WORKING LOCATIONS.

5.3.2. VALVE TAGS

5.3.2.1. VALVE TAGS SHALL BE PERMANENTLY ATTACHED TO THE VALVE OR STRUCTURE BY MEANS OF 2 STAINLESS STEEL BOLTS OR SCREWS.

5.3.3. THE WORDING ON THE VALVE TAGS SHALL DESCRIBE THE EXACT FUNCTION OF EACH VALVE, E.G., "HWR-BALANCING," "CLS THROTTLING", "RAS-PUMP SHUT-OFF," ETC.

5.3.4. PIPE IDENTIFICATION LOCATION

5.3.4.1. STRAIGHT LINES OF PIPE SHALL BE IDENTIFIED AT INTERVALS OF 30 FEET MAXIMUM, AND AT LEAST ONCE IN EACH ROOM UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

5.3.4.2. PIPING SHALL ALSO BE IDENTIFIED AT A POINT APPROXIMATELY WITHIN 2 FEET OF ALL TURNS, ELLS, VALVES, AND ON THE UPSTREAM SIDE OF ALL DISTRIBUTION FITTINGS OR BRANCHES AND ON BOTH SIDES OF EACH FLOOR, WALL OR BARRIER THROUGH WHICH THE LINE PASSES.

5.3.4.3. FOR PIPE RUNS OF 50 FEET OR LESS THE DISTANCE BETWEEN BANDS SHALL BE 30 INCHES. FOR PIPE RUNS OF 50 FEET OR MORE, SPACING BETWEEN BANDS SHALL BE 72 INCHES.

5.3.4.4. SECTIONS OF PIPE THAT ARE TOO SHORT TO BE IDENTIFIED WITH COLOR BANDS, LETTERED LABELS, AND DIRECTIONAL ARROWS SHALL BE TAGGED AND IDENTIFIED SIMILAR TO VALVES.

5.3.5. IDENTIFICATION SCHEDULE

5.3.5.1. APPLICATION OF IDENTIFYING DEVICES SHALL CONFORM TO THE FOLLOWING COLOR CODES, OR MATCH EXISTING COLOR CODE AS DIRECTED BY THE ENGINEER.

MATERIAL IN PIPE	BACKGROUND COLOR	BAND COLOR(S)
POTABLE WATER	RP DEVICE	LIGHT BLUE
FRESH WATER (AIR GAP)	LIGHT BLUE	
INDUSTRIAL AND/OR COOLING WATER		
RECLAIMED WATER	PURPLE* (PANTONE 512 C)	
FINAL EFFLUENT	DARK BLUE	RED
SODIUM BICARBONATE	YELLOW	
MICRO-C	WHITE	YELLOW
VENT	GREEN	GREY
RAW SLUDGE	DARK BROWN	
WASTE ACTIVATED SLUDGE	LIGHT BROWN	
THICKENED WASTE ACTIVATED SLUDGE	LIGHT BROWN	
RETURN ACTIVATED SLUDGE	LIGHT BROWN	
GRIT	DARK BROWN	
MIXED LIQUOR	LIGHT BROWN	
PROCESS EFFLUENT	DARK BLUE	RED
FINAL CLARIFIER INFLUENT	LIGHT BROWN	
PROCESS AIR	GREEN	
PLANT DRAIN	BLACK	
STORM DRAIN	BLACK	
SUMP PUMP DISCHARGE	BLACK	
SANITARY SEWER	BLACK	
SANITARY VENT	BLACK	
INFLUENT RAW SEWAGE (UP TO PRIMARY TANKS)	GREY	

6. ONSITE WASTEWATER TREATMENT SYSTEM COMPONENTS

6.1.RISERS & LIDS:

6.1.1. RISERS

6.1.1.1. RISERS SHALL BE RIBBED PVC AS MANUFACTURED BY ORENCO SYSTEMS . INC. THE MATERIAL SHALL BE PVC AS PER ASTM D_1784 AND TESTED IN ACCORDANCE WITH AASHTO M304M_86 RISERS SHALL EXTEND TO TWO INCHES ABOVE THE GROUND SURFACE TO ALLOW FOR SETTLEMENT AND SHALL HAVE A MINIMUM NOMINAL DIAMETER OF 21 INCHES.

6.1.1.2. WHEN BONDING TO CONCRETE OR FIBERGLASS GROOVES, A TWO_PART EPOXY, ONE PINT REQUIRED PER 21 INCH OR 24 INCH DIAMETER RISER AND ONE QUART REQUIRED FOR 30 INCH DIAMETER RISER, MODEL ADHP10 OR ADHQ10, OR EQUAL SHALL BE USED. WHEN BONDING TO A FLANGED RISER TANK ADAPTER, EITHER A TWO_PART EPOXY, MODEL MA 320 OR EQUAL, OR A SINGLE COMPONENT ADHESIVE MODEL ADH100 OR EQUAL SHALL BE USED.

6.1.2. LIDS:

6.1.2.1. ONE SHALL BE FURNISHED WITH EACH ACCESS RISER. LIDS SHALL BE ORENCO SYSTEMS . INC. MODEL FL21G, FL24G, OR FL30G, AS APPROPRIATE. FIBERGLASS WITH GREEN NON_SKID FINISH, AND PROVIDED WITH URETHANE GASKET, STAINLESS STEEL BOLTS, AND WRENCH. THE RISER AND LID COMBINATION SHALL BE ABLE TO SUPPORT A 2500 LB. WHEEL LOAD. MODEL AND DIAMETER AS SHOWN IN CONTRACT DRAWINGS .

7. POLYVINYL CHLORIDE (PVC) PRESSURE PIPE

7.1.GENERAL

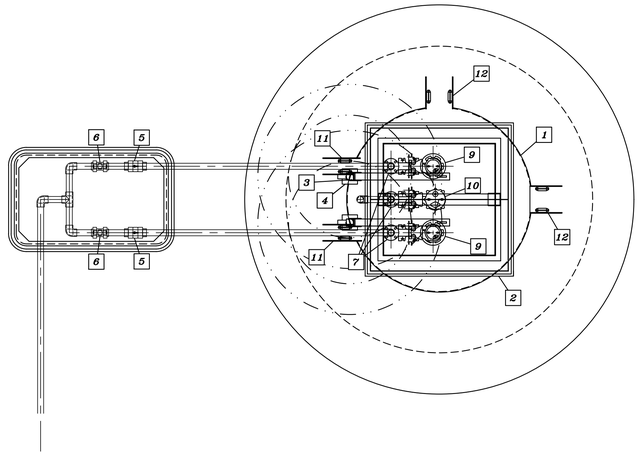
7.1.1. WORK INCLUDED:

7.1.1.1. THIS SECTION COVERS THE FURNISHING AND INSTALLATION OF DUCTILE IRON PIPE AND FITTINGS, STEEL PIPE AND FITTINGS, PVC PRESSURE PIPE AND FITTINGS, PVC NON-PRESSURE PIPE AND FITTINGS, REINFORCED CONCRETE PIPE AND FITTINGS, CORRUGATED POLYETHYLENE PIPE AND FITTINGS AND STEEL CASING PIPE.

7.1.1.2. ALL PIPING SHALL BE PVC SCHEDULE 80 UNLESS SPECIFIED AS OTHER MATERIAL ON PROCESS DIAGRAM. ALL AIR PIPING SHALL BE

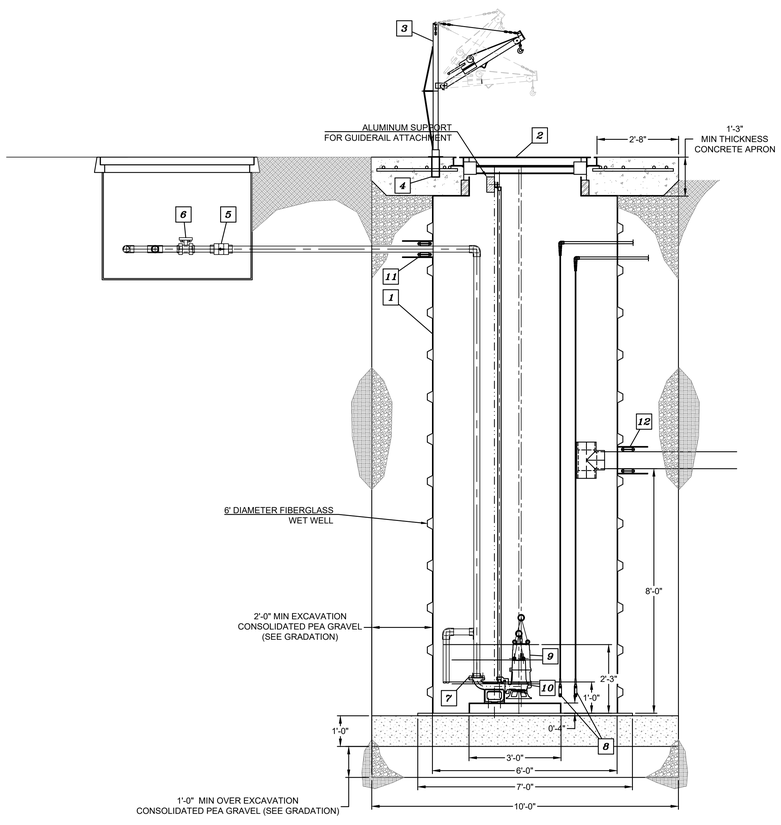
7.2.SPECIFICATIONS

7.2.1. ALL PVC SCHEDULE 40 AND SCHEDULE 80 PI



23
PW-12

LIFT STATION PLAN
SCALE: 1/2" = 1'



24
PW-12

LIFT STATION SECTION
SCALE: 1/2" = 1'

LIFT STATION EQUIPMENT

NUMBER	QTY	DESCRIPTION
1	1	6' DIAMETER FIBERGLASS MANHOLE
2	1	ACCESS HATCH HALLIDAY PRODUCTS MODEL NO H2W4848 WITH PROTECTIVE GRATE MODEL OPT-H20-GRATE-N
3	1	HALLIDAY D2B36D PORTABLE HOIST TYPE-304 STAINLESS STEEL CONSTRUCTION INCLUDING WENCH AND HOOK
4	2	HALLIDAY SERIES D HOIST SOCKET EMBED STYLE D2R LINED TYPE-304 STAINLESS STEEL WITH POLYMER LINING
5	2	2" SCH80 PVC TRUE UNION UTILITY SWING CHECK VALVE CLEAR, SPEARS MODEL F1720-C20
6	2	2" SCH80 PVC TRUE UNION (TU2000 INDUSTRIAL) BALL VALVE SOCKET SPEARS MODEL 1829-020
7	3	2" SCH80 PVC FLANGE, 2-PIECE SPEARS MODEL 855-020
8	2	LEVEL TRANSMITTER
9	2	TSURUMI TOS50MG22.2 LIFT STATION TRANSFER GRINDER PUMP AND SLIDE RAIL SYSTEM 1. MATERIALS OF CONSTRUCTION CONSTRUCTION OF MAJOR PARTS OF THE PUMPING UNIT(S) INCLUDING PUMP CASING, IMPELLER, AND DISCHARGE ELBOW SHALL BE MANUFACTURED FROM GRAY CAST IRON, ASTM A48 CLASS 35. INTERNAL AND EXTERNAL SURFACES COMING INTO CONTACT WITH THE PUMPAGE SHALL BE PROTECTED BY A FUSED POLYMER COATING. ALL EXPOSED FASTENERS SHALL BE STAINLESS STEEL. ALL UNITS SHALL BE FURNISHED WITH A DISCHARGE ELBOW WITH 150 LB. (10 KG/CM2) FLAT FACE FLANGE AND NPT COMPANION FLANGE. IMPELLERS SHALL BE OF THE SEMI-VORTEX, SOLIDS HANDLING DESIGN EQUIPPED WITH BACK PUMP OUT VANES AND SHALL BE SLIP FIT TO THE SHAFT AND KEY DRIVEN. THE GRINDING UNITS SHALL PROVIDE HORIZONTAL AND VERTICAL GRINDING ACTION. BOTH ROTATING AND STATIONARY GRINDING UNITS SHALL BE HARDENED HIGH CHROME CAST IRON RATED AT 60 HRC. THE PUMP CASING SHALL INCORPORATE AN AIR RELIEF PORT. 2 MECHANICAL SEAL . ALL UNITS SHALL BE FURNISHED WITH A DUAL INSIDE MECHANICAL SHAFT SEAL LOCATED COMPLETELY OUT OF THE PUMPAGE, RUNNING IN A SEPARATE OIL FILLED CHAMBER AND FURTHER PROTECTED BY AN EXCLUSIONARY OIL SEAL LOCATED BETWEEN THE BOTTOM SEAL FACES AND THE FLUID BEING PUMPED. THE OIL CHAMBER SHALL BE FITTED WITH A DEVICE THAT SHALL PROVIDE POSITIVE LUBRICATION OF TOP MECHANICAL SEAL, (DOWN TO ONE THIRD OF THE STANDARD OIL LEVEL). THE DEVICE SHALL NOT CONSUME ANY ADDITIONAL ELECTRICAL POWER. MECHANICAL SEALS SHALL RATED TO PRECLUDE THE INCURSION OF WATER UP TO 42.6 PSI. (98.4 FT.). UNITS SHALL HAVE SILICON CARBIDE MECHANICAL SEAL FACES. MECHANICAL SEAL HARDWARE SHALL BE STAINLESS STEEL. 3 MOTOR THE PUMP MOTORS SHALL BE 3 HP., 460 V., 60 HZ., 3 PHASE AND SHALL BE NEMA MG-1, DESIGN TYPE B EQUIVALENT. MOTOR(S) SHALL HAVE A 1.15 SERVICE FACTOR AND SHALL BE RATED FOR 20 STARTS PER HOUR. MOTOR(S) SHALL BE AIR FILLED, COPPER WOUND, CLASS E INSULATED WITH BUILT IN THERMAL AND OVER CAMPERAGE PROTECTION FOR EACH WINDING. MOTOR SHAFT SHALL BE 403 OR 420 STAINLESS STEEL AND SHALL BE SUPPORTED BY TWO PERMANENTLY LUBRICATED, HIGH TEMPERATURE BALL BEARINGS, WITH A B-10 LIFE RATING AT BEST EFFICIENCY POINT OF 60,000 HOURS. THE BOTTOM BEARING SHALL BE TWO ROW, DOUBLE SHIELDED, C3, DEEP GROOVE TYPE BALL BEARING. THE TOP BEARING SHALL BE SINGLE ROW, DOUBLE SHIELDED, C3, DEEP GROOVE TYPE BALL BEARING. MOTOR HOUSING AND BEARING HOUSING SHALL BE GRAY CAST IRON, ASTM A48 CLASS 30. MOTORS SHALL BE SUITABLE VARIABLE SPEED APPLICATIONS, UTILIZING A PROPERLY SIZED VARIABLE FREQUENCY DRIVE. 4 POWER CABLE AND CABLE ENTRANCE THE PUMP POWER CABLE SHALL BE SUITABLE FOR SUBMERSIBLE PUMP APPLICATIONS. THE CABLE ENTRANCE SHALL INCORPORATE BUILT IN STRAIN RELIEF, A ONE PIECE, THREE WAY MECHANICAL COMPRESSION SEAL WITH A FATIGUE REDUCING CABLE BOOT. THE CABLE ENTRANCE ASSEMBLY SHALL CONTAIN AN ANTI-WICKING BLOCK TO ELIMINATE WATER INCURSION INTO THE MOTOR DUE TO CAPILLARY WICKING SHOULD THE POWER CABLE BE ACCIDENTALLY DAMAGED.
10	2	TSURUMI TOS50C2.75 LIFT STATION TRANSFER CHOPPER PUMP AND SLIDE RAIL SYSTEM 1. MATERIALS OF CONSTRUCTION CONSTRUCTION OF MAJOR PARTS OF THE PUMPING UNIT(S) INCLUDING PUMP CASING, IMPELLER, AND DISCHARGE ELBOW SHALL BE MANUFACTURED FROM GRAY CAST IRON, ASTM A48 CLASS 30B. UNIT(S) SHALL HAVE A FIELD ADJUSTABLE AND OR REPLACEABLE, HIGH CHROME CAST IRON CUTTER PLATE. INTERNAL AND EXTERNAL SURFACES COMING INTO CONTACT WITH THE PUMPAGE SHALL BE PROTECTED BY A FUSED POLYMER COATING. ALL EXPOSED FASTENERS SHALL BE STAINLESS STEEL. ALL UNITS SHALL BE FURNISHED WITH A DISCHARGE ELBOW WITH 150 LB. (10 KG/CM2) FLAT FACE FLANGE AND NPT COMPANION FLANGE. IMPELLERS SHALL BE OF THE SINGLE OR TWO-VANE, SEMI-OPEN, SOLIDS HANDLING DESIGN EQUIPPED WITH TUNGSTEN CARBIDE VANE TIP AND SHALL BE SLIP FIT TO THE SHAFT AND KEY DRIVEN. THE PUMP CASING SHALL INCORPORATE AN AIR RELIEF VALVE. 2 MECHANICAL SEAL . ALL UNITS SHALL BE FURNISHED WITH A DUAL INSIDE MECHANICAL SHAFT SEAL LOCATED COMPLETELY OUT OF THE PUMPAGE, RUNNING IN A SEPARATE OIL FILLED CHAMBER AND FURTHER PROTECTED BY AN EXCLUSIONARY OIL SEAL LOCATED BETWEEN THE BOTTOM SEAL FACES AND THE FLUID BEING PUMPED. UNIT 2 HP. AND ABOVE SHALL BE FITTED WITH A DEVICE THAT SHALL PROVIDE POSITIVE LUBRICATION OF TOP MECHANICAL SEAL, (DOWN TO ONE THIRD OF THE STANDARD OIL LEVEL). THE DEVICE SHALL NOT CONSUME ANY ADDITIONAL ELECTRICAL POWER. MECHANICAL SEALS SHALL RATED TO PRECLUDE THE INCURSION OF WATER UP TO 42.6 PSI. (98.4 FT.). UNITS SHALL HAVE SILICON CARBIDE MECHANICAL SEAL FACES. MECHANICAL SEAL HARDWARE SHALL BE STAINLESS STEEL. UNITS DESIGNED TO EXCEED 42.6 PSI. AT SHUT OFF HEAD SHALL INCORPORATE SEAL PRESSURE RELIEF PORTS. 3 MOTOR THE PUMP MOTOR(S) SHALL BE 1 HP, 460 V., 60 HZ., 3 PHASE AND SHALL BE NEMA MG-1, DESIGN TYPE B EQUIVALENT. MOTOR(S) SHALL HAVE A 1.15 SERVICE FACTOR AND SHALL BE RATED FOR 20 STARTS PER HOUR. MOTOR(S) SHALL BE AIR FILLED, COPPER WOUND, CLASS E, B, OR F INSULATED WITH BUILT IN THERMAL PROTECTION FOR EACH WINDING. MOTOR SHAFT SHALL BE 420 OR 403 STAINLESS STEEL AND SHALL BE SUPPORTED BY TWO PERMANENTLY LUBRICATED, HIGH TEMPERATURE BALL BEARINGS, WITH A B-10 LIFE RATING AT BEST EFFICIENCY POINT OF 60,000 HOURS. ON UNITS UP TO 10 HP. (7.5 KW), THE BOTTOM BEARING SHALL BE SINGLE ROW, DOUBLE SHIELDED, C3, DEEP GROOVE TYPE BALL BEARINGS. ON UNITS 15 HP. (11 KW) AND ABOVE, THE BOTTOM BEARING SHALL BE TWO ROW, DOUBLE SHIELDED, C3, DEEP GROOVE TYPE BALL BEARINGS. THE TOP BEARING ON ALL UNITS SHALL BE SINGLE ROW, DOUBLE SHIELDED, C3, DEEP GROOVE TYPE BALL BEARINGS. MOTOR HOUSING AND BEARING HOUSING SHALL BE GRAY CAST IRON, ASTM A48 CLASS 25B OR 30B(7.5 HP. AND ABOVE). MOTORS SHALL BE D.O.L. OR STAR-DELTA START (15 HP. AND ABOVE), AND SHALL BE SUITABLE FOR ACROSS THE LINE START OR VARIABLE SPEED APPLICATIONS, UTILIZING A PROPERLY SIZED VARIABLE FREQUENCY DRIVE. 4 POWER CABLE AND CABLE ENTRANCE ALL UNITS SHALL BE FURNISHED WITH A DUAL INSIDE MECHANICAL SHAFT SEAL LOCATED COMPLETELY OUT OF THE PUMPAGE, RUNNING IN A SEPARATE OIL FILLED CHAMBER AND FURTHER PROTECTED BY AN EXCLUSIONARY OIL SEAL LOCATED BETWEEN THE BOTTOM SEAL FACES AND THE FLUID BEING PUMPED. UNIT 2 HP. AND ABOVE SHALL BE FITTED WITH A DEVICE THAT SHALL PROVIDE POSITIVE LUBRICATION OF TOP MECHANICAL SEAL, (DOWN TO ONE THIRD OF THE STANDARD OIL LEVEL). THE DEVICE SHALL NOT CONSUME ANY ADDITIONAL ELECTRICAL POWER. MECHANICAL SEALS SHALL RATED TO PRECLUDE THE INCURSION OF WATER UP TO 42.6 PSI. (98.4 FT.). UNITS SHALL HAVE SILICON CARBIDE MECHANICAL SEAL FACES. MECHANICAL SEAL HARDWARE SHALL BE STAINLESS STEEL. UNITS DESIGNED TO EXCEED 42.6 PSI. AT SHUT OFF HEAD SHALL INCORPORATE SEAL PRESSURE RELIEF PORTS.
11	2	LINK SEAL LS-410-S-316 WITH STAINLESS STEEL HARDWARE. 6" PIPE SLEEVE, 2" PVC PIPE
12	2	LINKSEAL LS-475-S-316 WITH STAINLESS STEEL HARDWARE. 10" PIPE SLEEVE, 6" PVC PIPE

25
PW-12

LIFT STATION EQUIPMENT TABLE
NO SCALE

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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

Developed for SMMUSD

Revision	Date

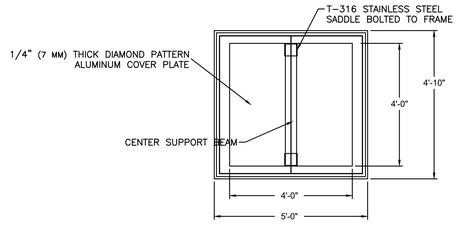
Submittal	Date
SCHEMATIC DESIGN	09/04/2024
90% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/21/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

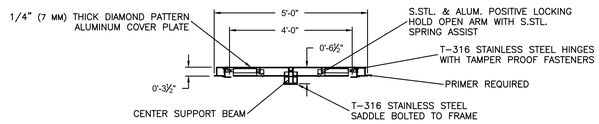
Job Number	817-01
Checked By	JNY
Scale	

LIFT STATION

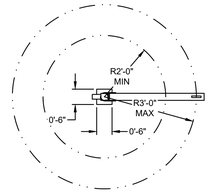
PW-12

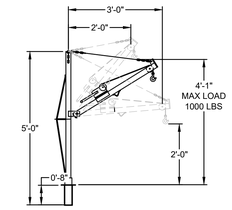
NOTES:
1. AUTO-LOCK T-316 STAINLESS STEEL HOLD OPEN ARM WITH RELEASE HANDLE
2. T-316 STAINLESS STEEL HINGES AND ATTACHING HARDWARE
3. T-316 STAINLESS STEEL SLAM LOCK W/REMOVABLE KEY
4. STAINLESS STEEL COMPRESSION SPRING ASSIST
5. DOUBLE LEAF CONSTRUCTION
6. H20 LOAD RATING SUITABLE FOR USE IN OFF STREET LOCATION WHERE NOT SUBJECTED TO HIGH DENSITY TRAFFIC.
7. EXTRUDED ALUMINUM CHANNEL FRAME
8. RECESSED LIFTING HANDLE
9. LIFETIME GUARANTEE





26 PW-13 *LS-GENERAL DETAILS ACCESS HATCH*
SCALE: 1/2" = 1'



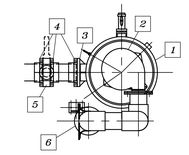


27 PW-13 *LS-GENERAL DETAILS PORTABLE HOIST*
SCALE: 1/2" = 1'

SERIES DB ADJUSTABLE REACH PORTABLE HOIST

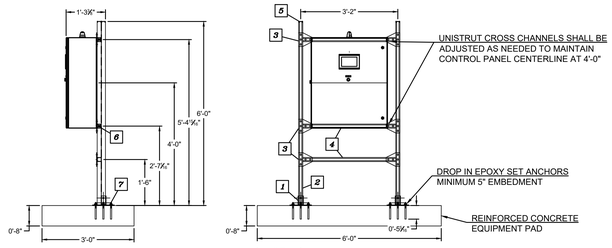
HALLIDAY D2B36D PORTABLE HOIST TYPE-304 STAINLESS STEEL CONSTRUCTION INCLUDING WENCH AND HOOK	THE PORTABLE HOIST SHALL BE SERIES DB AS MANUFACTURED BY HALLIDAY PRODUCTS INC. OF ORLANDO, FLORIDA. THE UNIT SHALL BE SIZED TO FACILITATE EQUIPMENT PLACEMENT AND REMOVAL. THE PORTABLE HOIST SHALL BE ALL T-304 STAINLESS STEEL CONSTRUCTION WITH STAINLESS STEEL MARINE GRADE BRAKE WINCH AND 30 FEET OF ¼ INCH T-304 STAINLESS STEEL CABLE WITH STAINLESS STEEL SAFETY HOOK. THE DAVIT ARM SHALL ADJUST IN 1INCH INCREMENTS FROM 24 TO 36 INCHES AND THE OVERALL UNIT HEIGHT SHALL BE 60". THE PORTABLE HOIST SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIAL AND OR WORKMANSHIP FOR A PERIOD OF 3 YEARS
HALLIDAY SERIES D HOIST SOCKET EMBED STYLE D0R LINED TYPE-304 STAINLESS STEEL WITH POLYMER LINING	THE HOIST SOCKET SHALL BE SERIES D EMBED STYLE AS MANUFACTURED BY HALLIDAY PRODUCTS INC. OF ORLANDO, FLORIDA. THE UNIT SHALL BE SIZED TO FACILITATE DB SERIES PORTABLE HOIST INSERTION AND REMOVAL. THE HOIST SOCKET SHALL BE ALL T-304 STAINLESS STEEL CONSTRUCTION AND POLYMER LINED FOR SMOOTH ROTATION. THE HOIST SOCKET SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIAL AND OR WORKMANSHIP FOR A PERIOD OF 3 YEARS

28 PW-13 *LS-PORTABLE HOIST EQUIPMENT TABLE*
NO SCALE



EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	MFG/PART NUMBER
1	ACTIVATED CARBON ODOR CONTROL UNIT	PURAFIL DS-100
2	ODOR CONTROL BLOWER	1/2 HP, 460 V 1ph 60 hz, TEFC
3	6" FLANGED INLET	PURAFIL ASSEMBLY
4	6" SCH80 PVC TWO PIECE FLANGE	SPEARS MODEL 854-060
5	6" BUTTERFLY VALVE LUG INSERT STYLE	SPEARS MODEL 252311-060
6	SILENCER	CINCINNATI FAN MOODEL PB-10A CSA-5



CONTROL PANEL SUPPORT SYSTEM

NUMBER	QTY	DESCRIPTION	MANUFACTURER AND PART NUMBER
1	2	CHANNEL BASE	UNISTRUT P2072ASS
2	2	STRUT CHANNEL STAINLESS STEEL 1-5/8"	UNISTRUT P1001SS
3	6	SUPPORT/ATTACHMENT BRACKET	UNISTRUT P1726SS
4	3	STRUT CHANNEL STAINLESS STEEL 1-5/8"	UNISTRUT P1000SS
5	4	CHANNEL CAP STAINLESS STEEL	UNISTRUT P1280SS
6		CHANNEL NUT WITH SPRING 3/8" -16, TYPE 316 STAINLESS STEEL WITH STAINLESS STEEL HARDWARE	P1008U (STAINLESS STEEL)
7	8	DROP IN ANCHOR ROD HAS-R 1/2" x 6-1/2" SS316	ANCHOR ROD HILTI 2045003, HEXAGON NUT HILTI 411776 316SS, WASHER 411781 316SS

30 PW-13 *G-PANEL SUPPORT DETAIL*
SCALE: 1/2" = 1'

29 PW-13 *OCU-2100 AIR SCRUBBER DETAIL*
SCALE: 1/2" = 1'

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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

Developed for SMMUSD

Revision	Date

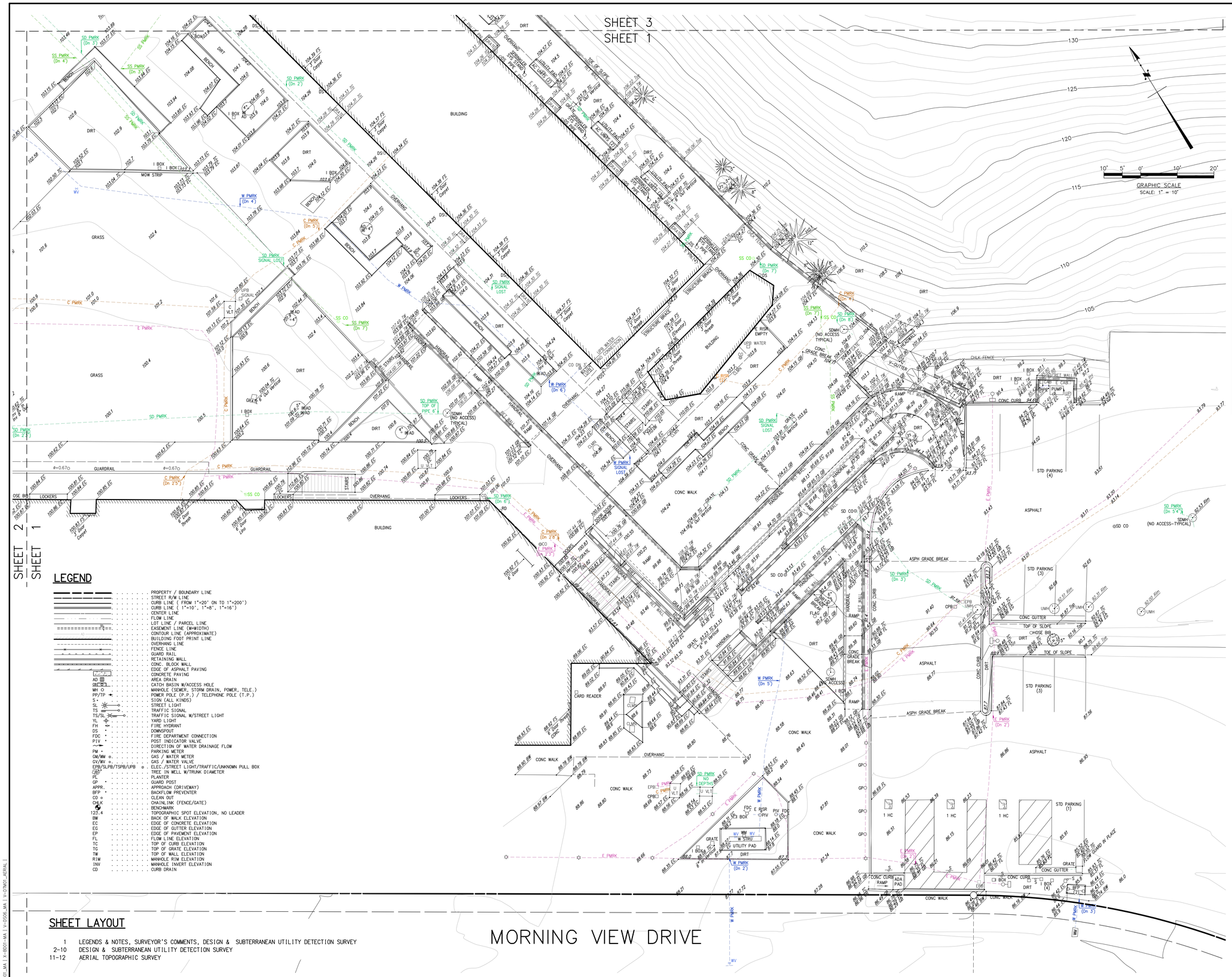
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50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	817-01
Checked By	JNY
Scale	

LIFT STATION DETAILS

SHEET 3
SHEET 1

SHEET 2
SHEET 1

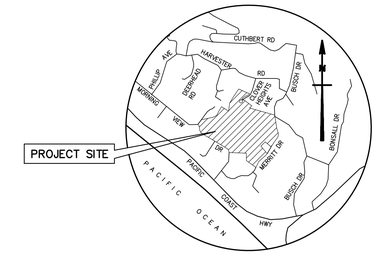


LEGEND

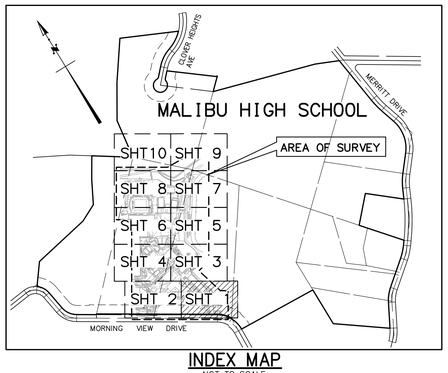
- PROPERTY / BOUNDARY LINE
- STREET R/W LINE
- CURB LINE (FROM 1"=20' ON TO 1"=200')
- CURB LINE (1"=10', 1"=8', 1"=16')
- CENTER LINE
- FLOW LINE
- LOT LINE / PARCEL LINE
- EASEMENT LINE (W=WIDTH)
- CONTOUR LINE (APPROXIMATE)
- BUILDING FOOT PRINT LINE
- OVERHANG LINE
- FENCE LINE
- GUARD RAIL
- RETAINING WALL
- CONC. BLOCK WALL
- EDGE OF ASPHALT PAVING
- CONCRETE PAVING
- AREA DRAIN
- CATCH BASIN W/ACCESS HOLE
- MH ○ MANHOLE (SEWER, STORM DRAIN, POWER, TELE.)
- PP/TP POWER POLE (P.P.) / TELEPHONE POLE (T.P.)
- S SIGN (ALL KINDS)
- SL STREET LIGHT
- TS TRAFFIC SIGNAL
- TS/SL TRAFFIC SIGNAL W/STREET LIGHT
- YL YARD LIGHT
- FH FIRE HYDRANT
- DS DOWNSPOUT
- FDC FIRE DEPARTMENT CONNECTION
- PIV POST INDICATOR VALVE
- DIRECTION OF WATER DRAINAGE FLOW
- PM PARKING METER
- GM/WM GAS / WATER METER
- GV/WV GAS / WATER VALVE
- EPB/SLPB/TSPB/UPB ELEC./STREET LIGHT/TRAFFIC/UNKNOWN PULL BOX
- TREE IN WELL W/TRUNK DIAMETER
- PL PLANTER
- GP GUARD POST
- APPROACH (DRIVEWAY)
- BFP BACKFLOW PREVENTER
- CO CLEAN OUT
- CHLK CHAINLINK (FENCE/GATE)
- BENCHMARK
- 123.4 TOPOGRAPHIC SPOT ELEVATION, NO LEADER
- BW BACK OF WALK ELEVATION
- EC EDGE OF CONCRETE ELEVATION
- EG EDGE OF GUTTER ELEVATION
- EP EDGE OF PAVEMENT ELEVATION
- FL FLOW LINE ELEVATION
- TC TOP OF CURB ELEVATION
- TG TOP OF GRATE ELEVATION
- TW TOP OF WALL ELEVATION
- RIM MANHOLE RIM ELEVATION
- INV MANHOLE INVERT ELEVATION
- CD CURB DRAIN

SHEET LAYOUT

1 LEGENDS & NOTES, SURVEYOR'S COMMENTS, DESIGN & SUBTERRANEAN UTILITY DETECTION SURVEY
2-10 DESIGN & SUBTERRANEAN UTILITY DETECTION SURVEY
11-12 AERIAL TOPOGRAPHIC SURVEY



VICINITY MAP
NOT TO SCALE



INDEX MAP
NOT TO SCALE

COMMENTS:

BOUNDARY LINES. . . . . WERE ESTABLISHED FROM RECOVERED CITY, COUNTY AND/OR PRIVATE SURVEY MONUMENTS. SEE PSOMAS MAP "BOUNDARY SURVEY" JOB NO. 1SAN080102 TASK 100, 116 FOR BOUNDARY ESTABLISHMENT.

LEGAL DESCRIPTION . . . . . SEE PSOMAS MAP "BOUNDARY SURVEY" JOB NO. 1SAN080102 TASK 100, 116 FOR LEGAL DESCRIPTION.

TITLE REPORT . . . . . FIRST AMERICAN TITLE COMPANY PRELIMINARY TITLE REPORT NO. 3029743 (60), DATED SEPTEMBER 18, 2009.

EASEMENTS . . . . . NOT SHOWN ON THIS SURVEY. SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT", JOB NO. 1SAN080102 TASK 100 FOR EASEMENTS.

HORIZONTAL CONTROL . . . . . STATE PLANE COORDINATES, CALIFORNIA COORDINATE SYSTEM ZONE 5 BASED ON NAD83 (CORS96) (EPOCH: 2002.0000) REFERENCE FRAME. THE HORIZONTAL COORDINATE VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS THAT WERE POST-PROCESSED USING ON-LINE POSITIONING USER SERVICE (OPUS) PROVIDED BY THE US NATIONAL GEODETIC SURVEY.

VERTICAL CONTROL . . . . . VERTICAL VALUES ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 USING THE FOLLOWING US NATIONAL GEODETIC SURVEY BENCHMARKS: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722. SEE SHEET 1 OF SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT", JOB NO. 1SAN080102 TASK 100 FOR THE BENCHMARK DESCRIPTION.

TOPOGRAPHY . . . . . BY GROUND SURVEY METHODS AND COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

UTILITIES . . . . . VISIBLE SIGNS OF UNDERGROUND UTILITIES ARE BASED ON DATA COLLECTED BY THE FIELD CREW.

SURVEYOR'S NOTES

THIS SURVEY HAS BEEN PREPARED FOR DESIGN PURPOSES OVER LIMITED AREAS OF THE SCHOOL CAMPUS

1. BEFORE USING THIS MAP FOR DESIGN OR CONSTRUCTION PURPOSES, ALL EASEMENTS OF RECORD AND SETBACK LINES DEFINED IN COVENANTS, CONDITIONS AND RESTRICTIONS OF RECORD AFFECTING THIS PROPERTY SHOULD BE PLOTTED ON THIS MAP FROM A CURRENT TITLE REPORT. IF NO TITLE REPORT WAS FURNISHED, OUR CLIENT IS URGED TO FURNISH A CURRENT TITLE REPORT SO THAT THESE EASEMENT AND SETBACK LINES OF RECORD CAN BE PLOTTED ON THIS MAP.
2. THIS MAP SHOULD BE EXPANDED TO MEET ALTA REQUIREMENTS IF FINANCING IS TO BE OBTAINED FOR THE PROJECT, REQUIRING AN EXTENDED COVERAGE POLICY OF TITLE INSURANCE.
3. THIS SURVEY DOES NOT INCLUDE EASEMENTS EXCEPT THOSE SPECIFICALLY DELINEATED HEREON.
4. IF UNDERGROUND PUBLIC UTILITIES AND OTHER SUBSTRUCTURES, ZONES, SET BACK AND STREET WIDENING DATA ARE SHOWN HEREON, IT IS FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM A GENERAL REQUEST AT THE LOCAL AGENCY'S PUBLIC COUNTER AND/OR OTHER SOURCES NOT CONNECTED WITH THIS COMPANY. NO REPRESENTATION IS MADE AS TO THE ACCURACY, CURRENCY OR COMPLETENESS OF SAID INFORMATION AND ANY USERS OF SAID INFORMATION IS URGED TO CONTACT THE UTILITY OR LOCAL AGENCY DIRECTLY.

PAINT MARKS: (DEPTHS)

- SS PMRK (Dn =XX.XX' VARIES) . . . . . SANITARY SEWER
- SD PMRK (Dn =XX.XX' VARIES) . . . . . STORM DRAIN
- W PMRK (Dn =XX.XX' VARIES) . . . . . WATER LINE
- G PMRK (Dn =XX.XX' VARIES) . . . . . GAS LINE
- E PMRK (Dn =XX.XX' VARIES) . . . . . ELECTRICAL LINE
- C PMRK (Dn =XX.XX' VARIES) . . . . . COMMUNICATION LINE
- U PMRK (Dn =XX.XX' VARIES) . . . . . UNKNOWN UTILITY LINE
- Dn . . . . . DEPTH (PER GROUND PENETRATION RADAR)
- XXX.X . . . . . SURFACE GRADE

* DEPTHS ARE MEASURED FROM SURFACE GRADE TO TOP OF UNDERGROUND UTILITY PIPE.

MORNING VIEW DRIVE

SEAL: PROFESSIONAL LAND SURVEYOR — DANIEL L. RAHE — No. 9425 — STATE OF CALIFORNIA — 6/12/2024

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATHPLOT DATE:
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Plotted ~ 6/12/2024 8:56:03 AM :: Saved ~ 6/12/2024 8:47:00 AM

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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	1
OF	12

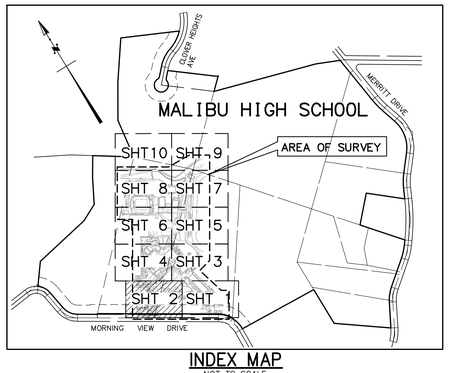
| V-DTBOL_MA | X-BOD1-MA | V-DSGN_MA | V-DTMOL_AERIAL |

SHEET 4
SHEET 2

END

MORNING VIEW DRIVE

SHEET 2
SHEET 1



INDEX MAP
NOT TO SCALE



GRAPHIC SCALE
SCALE: 1" = 10'

| V-DTBOL_MA | X-BASE-MA | V-DSOIL_MA | V-DSOIL_AERIAL |

SEAL

PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATHPLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	2
OF	12

SHEET 5
SHEET 3

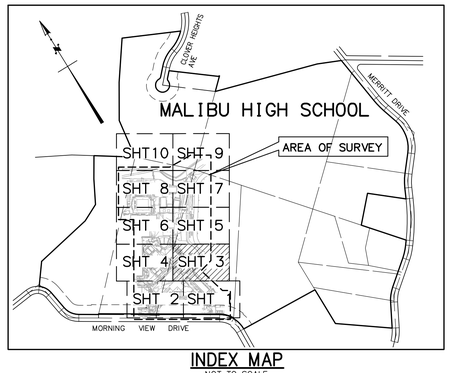
SHEET 4
SHEET 3

SHEET 3
SHEET 1

END

GRAPHIC SCALE
SCALE: 1" = 10'

INDEX MAP
NOT TO SCALE



| V-DTM01_MA | X-BD01-MA | V-DS06_MA | V-DTM01_AERIAL |

SEAL
DANIEL L. RAHE
No. 9425
PROFESSIONAL LAND SURVEYOR
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK
US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106,
EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

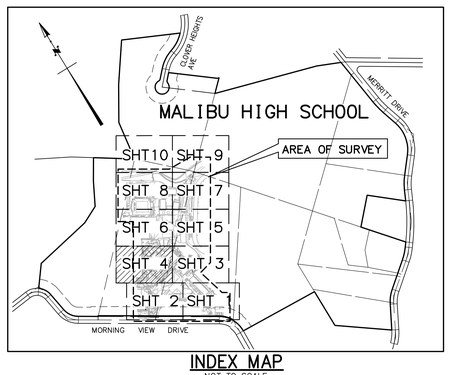
DATE	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	3
OF	12

SHEET 6
SHEET 4

END

SHEET 4
SHEET 3

SHEET 4
SHEET 2



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'

GRAPHIC SCALE
SCALE: 1" = 10'

| V-01801_MA | X-8001-MA | V-0506_MA | V-01901_AERIAL |

SEAL

PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK:
US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106,
EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATHPLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

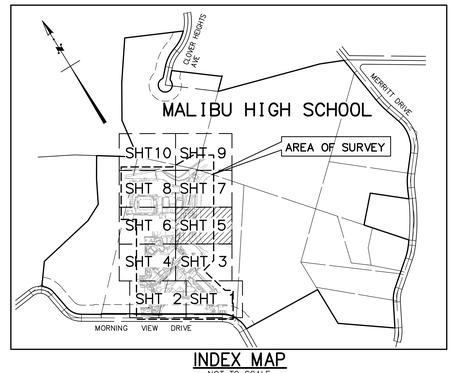
DATE:	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	4
OF	12

SHEET 7
SHEET 5

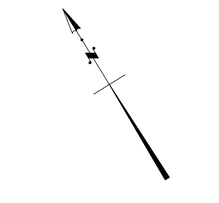
SHEET 6
SHEET 5

END

SHEET 5
SHEET 3



INDEX MAP
NOT TO SCALE



GRAPHIC SCALE
SCALE: 1" = 10'

SEAL

PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APPD

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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Plotted – 6/12/2024 9:00:54 AM :: Saved – 6/12/2024 8:43:00 AM

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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	5
OF	12

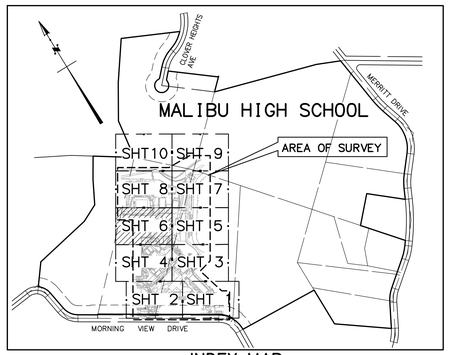
V-0T801-MA | X-B001-MA | V-0506_MA | V-0TN01_AERIAL |

SHEET 8
SHEET 6

END

SHEET 6
SHEET 5

SHEET 6
SHEET 4



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'
GRAPHIC SCALE
SCALE: 1" = 10'

| V-DTB01_MA | X-BD01-MA | V-DS06_MA | V-DTM01_AERIAL |

SEAL
DANIEL L. RAHE
No. 9425
PROFESSIONAL LAND SURVEYOR
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT

PATH/PLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	6
OF	12

SHEET 9
SHEET 7

SHEET 8
SHEET 7

SHEET 7
SHEET 5

END

PARCEL 9
PARCEL 2



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'
GRAPHIC SCALE
SCALE: 1" = 10'

V-DTM01_MA | V-8001-MA | V-0506_MA | V-DTM01_AERIAL |

SEAL
PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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Plotted: 6/12/2024 9:02:01 AM :: Saved: 6/12/2024 8:43:00 AM

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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

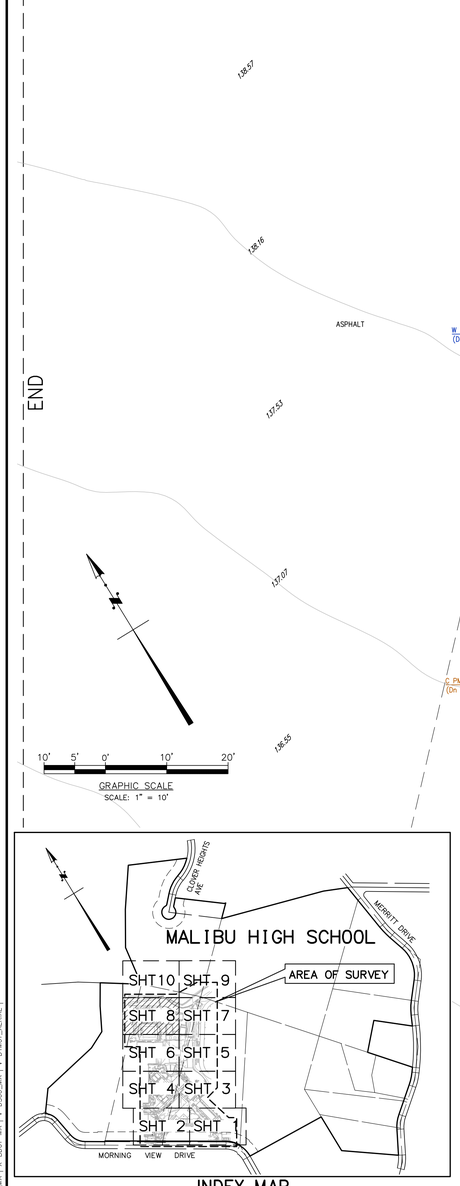
DATE:	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	7
OF	12

SHEET 10
SHEET 8

END

SHEET 8
SHEET 7

SHEET 8
SHEET 6



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'
GRAPHIC SCALE
SCALE: 1" = 10'

| V-DT601-MA | X-BD01-MA | X-DS06-MA | V-DTM01_AERIAL |

SEAL
PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK
US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106,
EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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Plotted: 6/12/2024 9:02:34 AM :: Saved: 6/12/2024 8:47:00 AM

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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	8
OF	12

END

SHEET 10
SHEET 9

PARCEL 1
PARCEL 9

PARCEL 1
PARCEL 2

SHEET 9
SHEET 7

END

DIRT

DIRT

CLIFF OR SLOPE

E PARK

X-GUTTER

OAK FENCE

165.7

164.8

164.1

164.1

164.5

165.4

165.8

166.4

166.6

167.0

167.4

168.0

168.6

156.1

150.3

150.4

150

165

175

170

165

160

155

162.5

164.42 EG
164.94 FL
164.46 EG

165.05 EG
164.58 FL
165.12 EG

165.52 TOP

165.89 EG
165.58 FL
165.98 EG

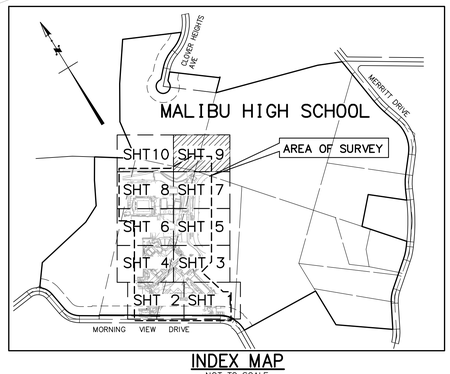
166.52 TOP

166.63 EG
166.27 FL
167.13 EG

167.13 TOP

167.51 EG
167.09 FL
167.91 EG

167.81 TOP
167.61 EG



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'

GRAPHIC SCALE
SCALE: 1" = 10'

SEAL	DANIEL L. RAHE, No. 9425, PROFESSIONAL LAND SURVEYOR, STATE OF CALIFORNIA
DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

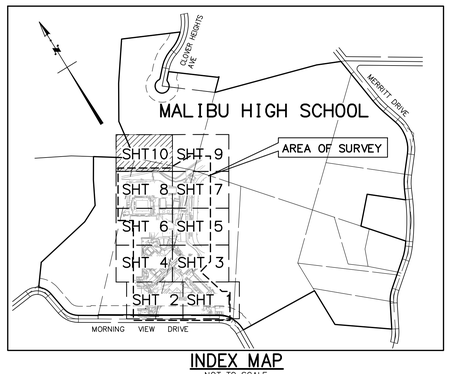
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

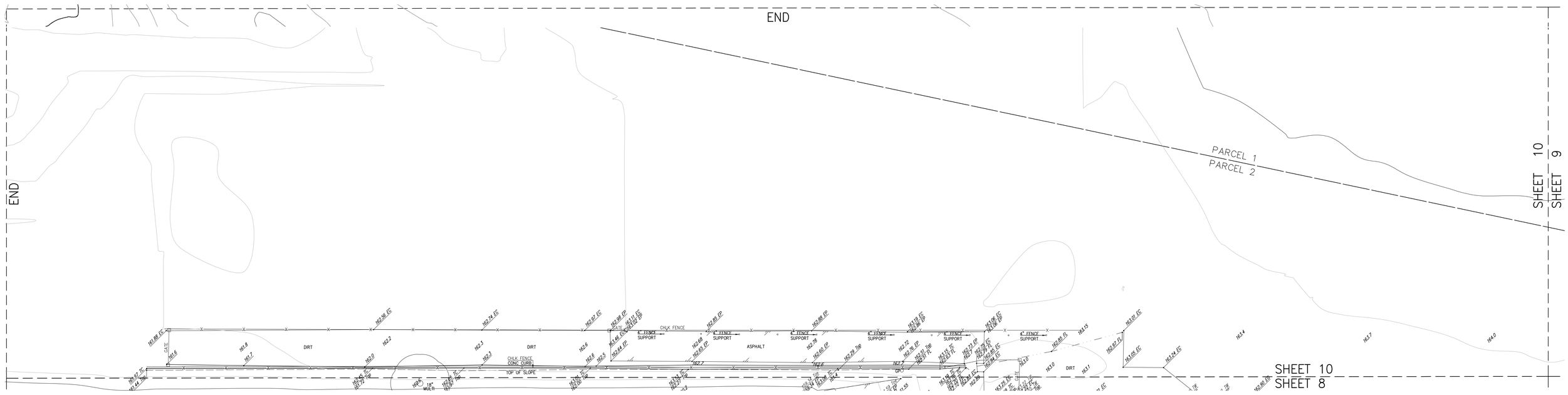
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

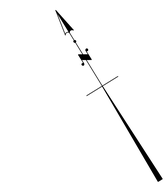
DATE	MAY 25, 2024
SCALE	1" = 10'
PROJECT NUMBER	1SAN080143
SHEET	9
OF	12

V-01801_MA | X-B001-MA | V-0506_MA | V-DTM01_AERIAL |



INDEX MAP
NOT TO SCALE





10' 5' 0' 10' 20'

GRAPHIC SCALE
SCALE: 1" = 10'

| V-DTB01_MA | X-B001-MA | V-DSG6_MA | V-DTM01_AERIAL |

SEAL

PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED CJG
DRAFTED CJG
CHECKED DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

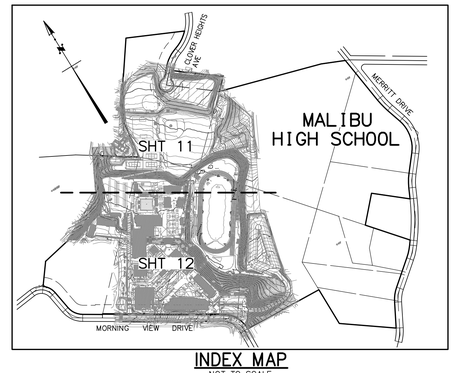
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE: MAY 25, 2024
SCALE: 1" = 10'
PROJECT NUMBER: 1SAN080143
SHEET 10 OF 12



AERIAL TOPOGRAPHIC SURVEY





INDEX MAP
NOT TO SCALE

PSOMAS
Geospatial Services
PHOTOGRAMMETRY LEGEND

ROADWAY
Asphalt | Line & Outline
Concrete | Line & Outline
Centerline
Curb
Curb Drain
Gutter
Speed Bump & Label
Sidewalk

ROADWAY - Markings & Labels
Crosswalk Paint Stripe
Solid Paint Stripe
Dashed Paint Stripe
Auxiliary Paint Marking
PSOMAS BOULEVARD
Roadway Name | Label
Left Turn Arrow
Right Turn Arrow
Straight Arrow
High-Occupancy Vehicle Lane

SITE
Fence
Hand Rail
Stairway Not Attached to Building | Outline
Double Gate
Single Gate
Single Post Sign
Double Post Sign
Billboard Sign | Line & Outline

VEGETATION
Vegetation - Brushline | Outline
Vegetation - Ground Not Visible | Outline
Vegetation - Treeline | Outline
Vegetation - Grassline | Outline
Vegetation - Planter
GNV or GROUND NOT VISIBLE
Ground Not Visible | Label
SCATTERED BRUSH
Scattered Brush | Label
SCATTERED TREES
Scattered Trees | Label
CULTIVATED AREA
Cultivated Area | Label
DENSE BRUSH
Dense Brush | Label
DENSE TREES
Dense Trees | Label
Single Tree
Ornamental Tree
Palm Tree

TOPOGRAPHY
Index (Major) Contour
Index (Major) Contour - Depression - By Request Only
Ground Control Point (GCP) | Symbol & Labels
Spot Elevation | Symbol & Label
Spot Elevation on Bridge | Symbol & Label

WATER
Pool or Spa with Label

UTILITIES
Pipe
Call Box
Two Directional Light
Miscellaneous Light
Utility Pole with Wires
Manhole
Above Ground Vent
Riser
Cell Tower
Directional Light
Parking Light
Guy Wire
Circular Storm Drain
Utility Pole
Sprinkler
Fire Hydrant
Traffic Crosswalk Light
Light Pole
Transmission Tower
Square Storm Drain
Crosswalk Post
Windmill
Streetlight Arm
Traffic Light
Traffic Signal With Arm
Electrolier
Valve
Well
Tank with Label
Utility Vault
Utility Box

MISCELLANEOUS
Miscellaneous Object
Miscellaneous Tower
Miscellaneous Post
Crash Cushion
Cattle Guard
Mail Box
Flag Pole

PARKING
Parking Area Curb
Parking Space Bumper/Curb
Speed Bump & Label
Solid Paint Stripe
Dashed Paint Stripe
Parking Space Paint Stripe
Auxiliary Paint Marking
Straight Arrow | Paint Marker
Right Turn Arrow | Paint Marker
Left Turn Arrow | Paint Marker
ADA Parking | Paint Marker

STRUCTURES
Building | Outline & Hatch
Canopy or Covered Area | Outline with Cross H
Trailer | Outline & Hatch with Label
Deck | Outline & Hatch
Stair Attached to Building | Outline

SEAL
PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
W:\1SAN080100\02_MHS\1SAN080143\SURVEY\DESIGN\SHEETS\PL-AE01-MA.dwg SHT 11 :: cinthya.garcia
Plotted: 6/11/2024 12:53:40 PM :: Saved: 6/11/2024 12:52:09 PM

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AERIAL TOPOGRAPHIC SURVEY FOR:
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT
MALIBU HIGH SCHOOL
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	MAY 25, 2024
SCALE	1" = 40'
PROJECT NUMBER	1SAN080143
SHEET	11
OF	12

| V-0TB01_AERIAL | V-BD01-MA | V-AE01_MA |

MATCHLINE SEE SHEET "11" BELOW

MATCHLINE SEE INSERT BELOW

LOT A

POOL

PORTABLES

MAIN SPORTS FIELD

MALIBU HIGH SHARKS

BUS BARN

J BUILDING (GYM)

J-1 BUILDING (GYM)

SERVICE LOT

I BUILDING

F BUILDING

K BUILDING

H BUILDING

E BUILDING

B BUILDING

A BUILDING

LOT E

LOT D

MORNING VIEW DRIVE

AT-804
135.24

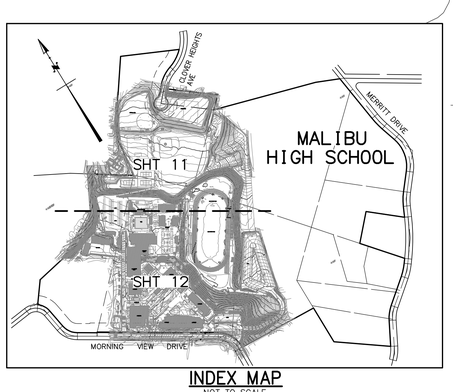
AT-551
144.42

AT-555
83.42

AT-561
88.35

GRAPHIC SCALE
SCALE: 1" = 40'

40' 20' 0' 40' 80'



INDEX MAP
NOT TO SCALE

AERIAL TOPOGRAPHIC SURVEY

V-DTBO1_AERIAL | V-BD01-MA | V-AE01_MA |

SEAL
PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D

BENCHMARK: US NATIONAL GEODETIC SURVEY
PID NO: EW4180, EW1593, EW6821, EW4188, EW4106, EW 4113, EW4205, EW4212, AE1725, AE1722
NAVD 88 DATUM
SEE DESCRIPTION ON SHEET 1

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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AERIAL TOPOGRAPHIC SURVEY FOR:
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT
MALIBU HIGH SCHOOL
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	MAY 25, 2024
SCALE	1" = 40'
PROJECT NUMBER	1SAN080143
SHEET	12
OF	12

COMMENTS:

BOUNDARY LINES . . . . . WERE ESTABLISHED FROM RECOVERED CITY, COUNTY AND/OR PRIVATE SURVEY MONUMENTS. SEE PSOMAS MAP "BOUNDARY SURVEY" JOB NO. 1SAN080102 TASK 100, 116 FOR BOUNDARY ESTABLISHMENT.

LEGAL DESCRIPTION . . . . . SEE PSOMAS MAP "BOUNDARY SURVEY" JOB NO. 1SAN080102 TASK 100, 116 FOR LEGAL DESCRIPTION.

TITLE REPORT . . . . . FIRST AMERICAN TITLE COMPANY PRELIMINARY TITLE REPORT NO. 3029743 (60), DATED SEPTEMBER 18, 2009.

EASEMENTS . . . . . NOT SHOWN ON THIS SURVEY. SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT", JOB NO. 1SAN080102 TASK 100 FOR EASEMENTS.

HORIZONTAL CONTROL . . . . STATE PLANE COORDINATES, CALIFORNIA COORDINATE SYSTEM ZONE 5 BASED ON NAD83 (CORS96) (EPOCH: 2002.0000) REFERENCE FRAME. THE HORIZONTAL COORDINATE VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS THAT WERE POST-PROCESSED USING ON-LINE POSITIONING USER SERVICE (OPUS) PROVIDED BY THE US NATIONAL GEODETIC SURVEY.

VERTICAL CONTROL . . . . . VERTICAL VALUES ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 USING THE FOLLOWING US NATIONAL GEODETIC SURVEY BENCHMARKS: EW4180, EW1593, EW6821, EW4188, EW4106, EW4113, EW4205, EW4212, AE1725, AE1722. SEE SHEET 1 OF SEE PSOMAS MAP "AERIAL TOPOGRAPHIC SURVEY, UTILITY LOCATIONS AND EASEMENT EXHIBIT". JOB NO. 1SAN080102 TASK 100 FOR THE BENCHMARK DESCRIPTION.

TOPOGRAPHY . . . . . BY GROUND SURVEY METHODS AND COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

CONTOUR INTERVAL . . . . . 1 FOOT

UTILITIES . . . . . VISIBLE SIGNS OF UNDERGROUND UTILITIES ARE BASED ON DATA COLLECTED BY THE FIELD CREW.

CONTROL NOTES:

HORIZONTAL CONTROL :

STATE PLANE COORDINATES, CALIFORNIA COORDINATE SYSTEM ZONE 5 BASED ON NAD83(CORS96) EPOCH 2002.00. POSITIONAL VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS UTILIZING DATA FROM SOUTHERN CALIFORNIA INTEGRATED GPS NETWORK (SCIGN) CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).

CSN1	34-15-12.762904	118-31-25.669137
WRHS	33-57-29.329617	118-25-39.330869
FMTP	34-24-35.494318	118-53-38.861402

VERTICAL CONTROL :

VERTICAL VALUES SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) UTILIZING COUNTY OF LOS ANGELES BENCHMARKS LISTED BELOW.

BENCHMARK NO: DY 11712, MALIBU QUAD

DESCRIPTION: LACO BM TAG IN NW COR C B SM W/O C/L DRWY TO HSE #30065 PACIFIC COAST HWY & 12.5M N/O CL
ELEVATION: 18.812 FEET (ADJUSTED IN 2003)

BENCHMARK NO: DY 11390, MALIBU QUAD

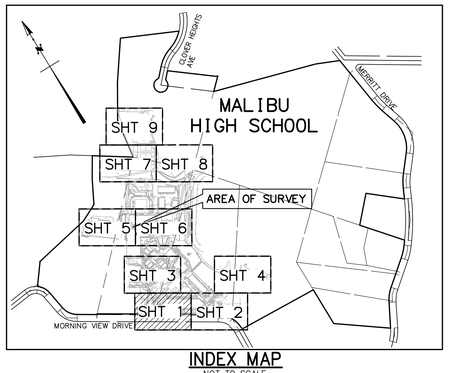
DESCRIPTION: DPW BM TAG NE COR CONC F HYD PAD 13.5M S/O C/L PACIFIC COAST HWY & 320M E/O MORNING VIEW DR 20M E/O E SIDE LIFEGUARD BLDG #30050

ELEVATION: 20.440 FEET (ADJUSTED IN 2003)

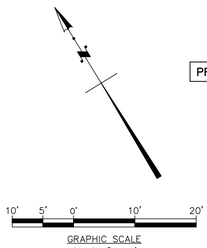
SURVEYOR'S NOTES

THIS SURVEY HAS BEEN PREPARED FOR DESIGN PURPOSES OVER LIMITED AREAS OF THE SCHOOL CAMPUS

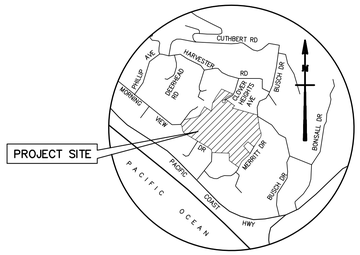
1. BEFORE USING THIS MAP FOR DESIGN OR CONSTRUCTION PURPOSES, ALL EASEMENTS OF RECORD AND SETBACK LINES DEFINED IN COVENANTS, CONDITIONS AND RESTRICTIONS OF RECORD AFFECTING THIS PROPERTY SHOULD BE PLOTTED ON THIS MAP FROM A CURRENT TITLE REPORT. IF NO TITLE REPORT WAS FURNISHED, OUR CLIENT IS URGED TO FURNISH A CURRENT TITLE REPORT SO THAT THESE EASEMENT AND SETBACK LINES OF RECORD CAN BE PLOTTED ON THIS MAP.
2. THIS MAP SHOULD BE EXPANDED TO MEET ALTA REQUIREMENTS IF FINANCING IS TO BE OBTAINED FOR THE PROJECT, REQUIRING AN EXTENDED COVERAGE POLICY OF TITLE INSURANCE.
3. THIS SURVEY DOES NOT INCLUDE EASEMENTS EXCEPT THOSE SPECIFICALLY DELINEATED HEREON.
4. IF UNDERGROUND PUBLIC UTILITIES AND OTHER SUBSTRUCTURES, ZONES, SET BACK AND STREET WIDENING DATA ARE SHOWN HEREON, IT IS FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM A GENERAL REQUEST AT THE LOCAL AGENCY'S PUBLIC COUNTER AND/OR OTHER SOURCES NOT CONNECTED WITH THIS COMPANY. NO REPRESENTATION IS MADE AS TO THE ACCURACY, CURRENCY OR COMPLETENESS OF SAID INFORMATION AND ANY USERS OF SAID INFORMATION IS URGED TO CONTACT THE UTILITY OR LOCAL AGENCY DIRECTLY.



INDEX MAP
NOT TO SCALE



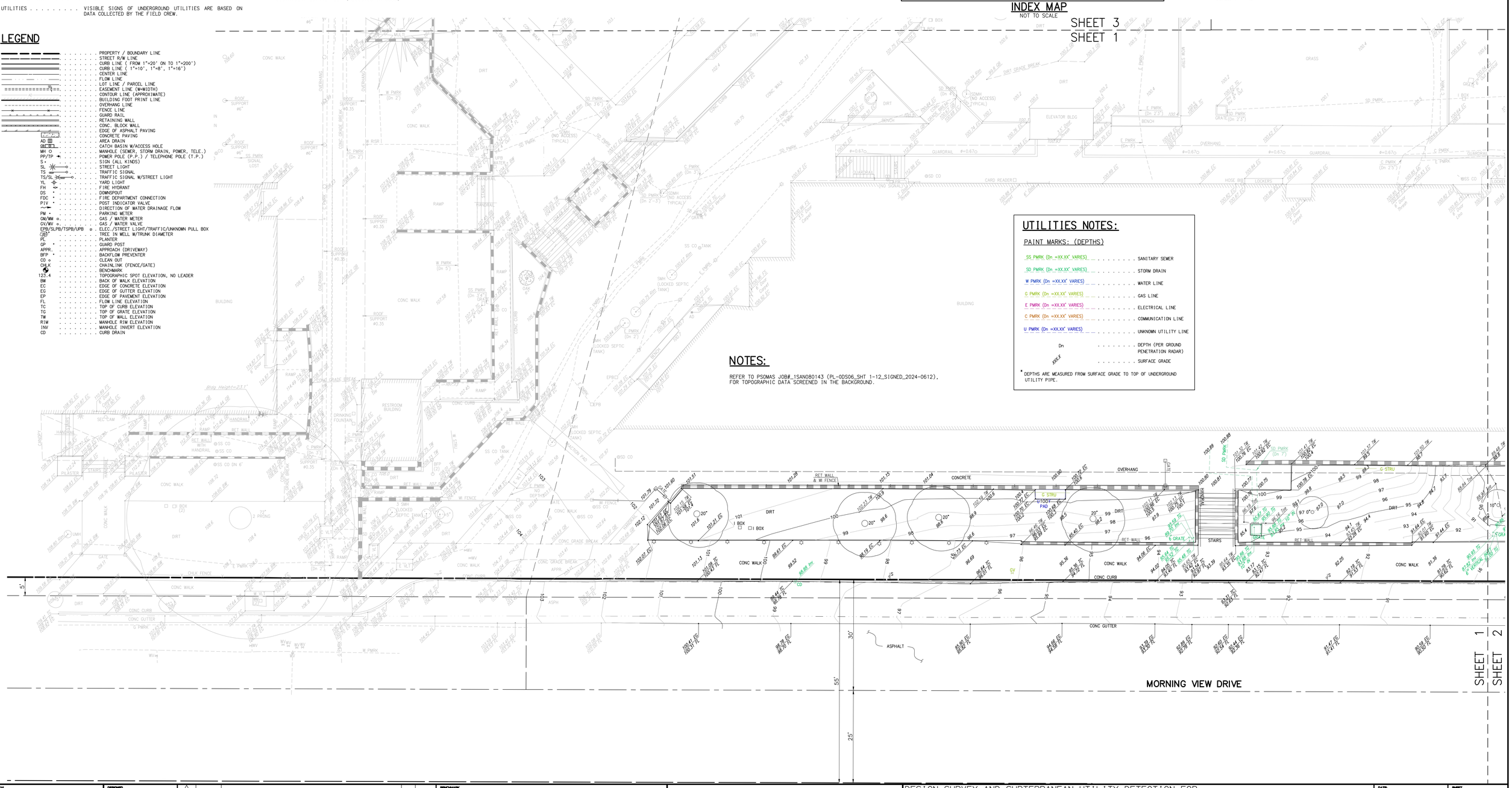
GRAPHIC SCALE
SCALE: 1" = 10'



VICINITY MAP
NOT TO SCALE

LEGEND

- PROPERTY / BOUNDARY LINE
- STREET R/W LINE
- CURB LINE (FROM 1"=20' ON TO 1"=200')
- CURB LINE (1"=10', 1"=8', 1"=16')
- CENTER LINE
- FLOW LINE
- LOT LINE / PARCEL LINE
- EASEMENT LINE (W=WIDTH)
- CONTOUR LINE (APPROXIMATE)
- BUILDING FOOT PRINT LINE
- OVERHANG LINE
- FENCE LINE
- GUARD RAIL
- RETAINING WALL
- CONC. BLOCK WALL
- EDGE OF ASPHALT PAVING
- CONCRETE PAVING
- AD — AREA DRAIN
- CATCH BASIN W/ACCESS HOLE
- MH — MANHOLE (SEWER, STORM DRAIN, POWER, TELE.)
- PP/TP — POWER POLE (P.P.) / TELEPHONE POLE (T.P.)
- S — SIGN (ALL KINDS)
- SL — STREET LIGHT
- TS — TRAFFIC SIGNAL
- TS/SL — TRAFFIC SIGNAL W/STREET LIGHT
- YL — YARD LIGHT
- FH — FIRE HYDRANT
- DS — DOWNSPOUT
- FDC — FIRE DEPARTMENT CONNECTION
- PIV — POST INDICATOR VALVE
- DIRECTION OF WATER DRAINAGE FLOW
- PM — PARKING METER
- GM/WM — GAS / WATER METER
- GV/WV — GAS / WATER VALVE
- EPB/SLPB/TSPB/UPB — ELEC./STREET LIGHT/TRAFFIC/UNKNOWN PULL BOX
- TREE — TREE IN WELL W/TRUNK DIAMETER
- PC — PLANTER
- GP — GUARD POST
- APPR. — APPROACH (DRIVEWAY)
- BFP — BACKFLOW PREVENTER
- CO — CLEAN OUT
- CH/LK — CHAINLINK (FENCE/GATE)
- BENCHMARK
- 123.4 — TOPOGRAPHIC SPOT ELEVATION, NO LEADER
- BW — BACK OF WALK ELEVATION
- EC — EDGE OF CONCRETE ELEVATION
- EG — EDGE OF GUTTER ELEVATION
- EP — EDGE OF PAVEMENT ELEVATION
- FL — FLOW LINE ELEVATION
- TC — TOP OF CURB ELEVATION
- TG — TOP OF GRATE ELEVATION
- TW — TOP OF WALL ELEVATION
- RIM — MANHOLE RIM ELEVATION
- INV — MANHOLE INVERT ELEVATION
- CD — CURB DRAIN



NOTES:

REFER TO PSOMAS JOB#_1SAN080143 (PL-0DS06_SHT 1-12_SIGNED_2024-0612), FOR TOPOGRAPHIC DATA SCREENED IN THE BACKGROUND.

UTILITIES NOTES:

PAINT MARKS: (DEPTHS)

- SS PMRK (Dn =XX.XX' VARIES) . . . . . SANITARY SEWER
- SD PMRK (Dn =XX.XX' VARIES) . . . . . STORM DRAIN
- W PMRK (Dn =XX.XX' VARIES) . . . . . WATER LINE
- G PMRK (Dn =XX.XX' VARIES) . . . . . GAS LINE
- E PMRK (Dn =XX.XX' VARIES) . . . . . ELECTRICAL LINE
- C PMRK (Dn =XX.XX' VARIES) . . . . . COMMUNICATION LINE
- U PMRK (Dn =XX.XX' VARIES) . . . . . UNKNOWN UTILITY LINE
- Dn . . . . . DEPTH (PER GROUND PENETRATION RADAR)
- XXX.X . . . . . SURFACE GRADE

* DEPTHS ARE MEASURED FROM SURFACE GRADE TO TOP OF UNDERGROUND UTILITY PIPE.

SEAL: DANIEL L. RAHE, No. 9425, PROFESSIONAL LAND SURVEYOR, STATE OF CALIFORNIA — 5/8/2025

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D
1	4/28/25	ADDITIONAL TOPO	CJP	TPM

BENCHMARK: (SEE VERTICAL CONTROL NOTES ABOVE)
ELEVATION _____ ADJUSTMENT _____
PATH/PLOT DATE:
J:\LA\1SAN080107\D2_MYS\1SAN080143\SURVEY\DESIGN\PL\PL-0S06.dwg SHT1 :: thomas.mcdermott
Plotted – 5/7/2025 2:37:19 PM :: Saved – 5/7/2025 12:56:51 PM

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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	APRIL 28, 2025
SCALE	1" = 10'
PROJECT NUMBER	1SAN080149
SHEET	1
OF	9

V:\07801_MA\1SAN080107\D2_MYS\1SAN080143\SURVEY\DESIGN\PL\PL-0S06_MA_TOPO.dwg | V-0S06_MA_TOPO | V-0S06_MA | V-07801_AERIAL | X-B001-MA | X-B006-MA_1DSCALE |

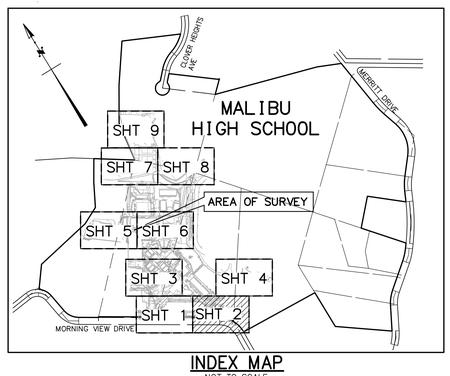
SHEET 4
SHEET 2

SHEET 1
SHEET 2

NOTES:

REFER TO PSOMAS JOB#_1SAN080143 (PL-0DS06_SHT 1-12_SIGNED_2024-0612), FOR TOPOGRAPHIC DATA SCREENED IN THE BACKGROUND.

MORNING VIEW DRIVE



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'
GRAPHIC SCALE
SCALE: 1" = 10'

V:\DTR01_MA | V:\DS06_MA_EDIT | V:\DS08_MA | V:\DTM01 | V:\DTM01_AERIAL | X:\BD06-MA_1SCALE |

SEAL
PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

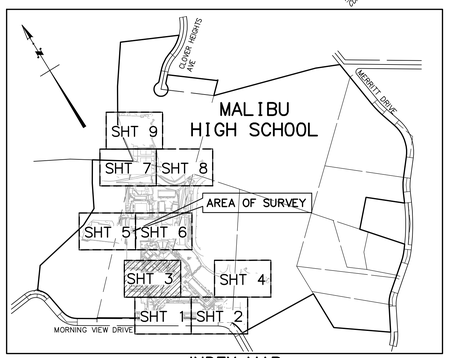
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1	4/28/25	ADDITIONAL TOPO	CJP	TPM

BENCHMARK
(SEE VERTICAL CONTROL NOTES ON SHEET 1)
ELEVATION _____ ADJUSTMENT _____
PATHPLOT DATE:
J:\LA\1SAN080120\02_MYS\1SAN080149\SURVEY\DESIGN\PL\PL-0SS08.dwg SHT2 :: thomas.mcdermott
Plotted: 5/7/2025 2:38:32 PM :: Saved: 5/7/2025 12:56:51 PM

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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT
MALIBU HIGH SCHOOL
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	APRIL 28, 2025
SCALE	1" = 10'
PROJECT NUMBER	1SAN080149
SHEET	2
OF	9



INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
10' 5' 0' 10' 20'
SCALE: 1" = 10'

NOTES:

REFER TO PSOMAS JOB#_1SAN080143 (PL-0DS06_SHT 1-12_SIGNED_2024-0612).
FOR TOPOGRAPHIC DATA SCREENED IN THE BACKGROUND.

SHEET 3
SHEET 1

SHEET 3
SHEET 1

V:\0TB01_MA | V:\0S06_MA_FDT | V:\0TM01 | V:\0TM01 AERIAL | X:\BOD-MA | X:\BOD-MA_10SCALE |

SEAL
DANIEL L. RAHE
No. 9425
PROFESSIONAL LAND SURVEYOR
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

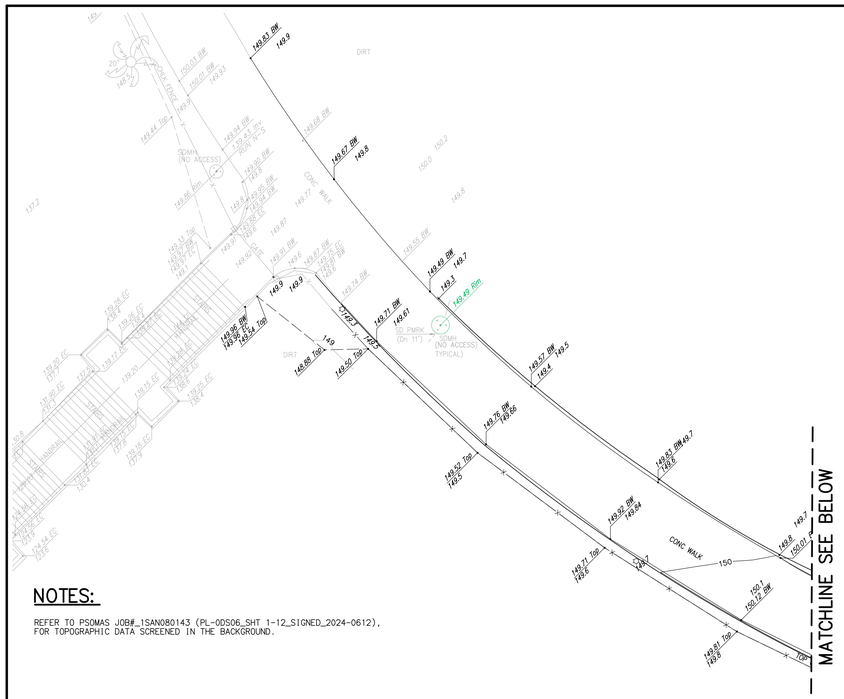
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1	4/28/25	ADDITIONAL TOPO	CJP	TPM

BENCHMARK
(SEE VERTICAL CONTROL NOTES ON SHEET 1)
ELEVATION ADJUSTMENT
PATH/PLOT DATE:
J:\LA\1SAN080100\02_MYS\1SAN080149\SURVEY\DESIGN\PL\PL-0S06.dwg SHT3 :: thomas.mcdermott
Plotted: 5/7/2025 2:39:20 PM :: Saved: 5/7/2025 12:56:51 PM

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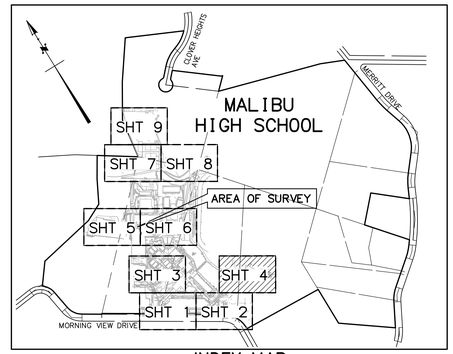
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MALIBU HIGH SCHOOL
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE	APRIL 28, 2025
SCALE	1" = 10'
PROJECT NUMBER	1SAN080149
SHEET	3
OF	9

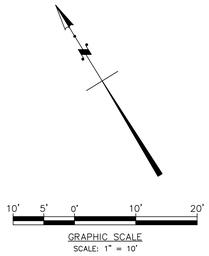


NOTES:

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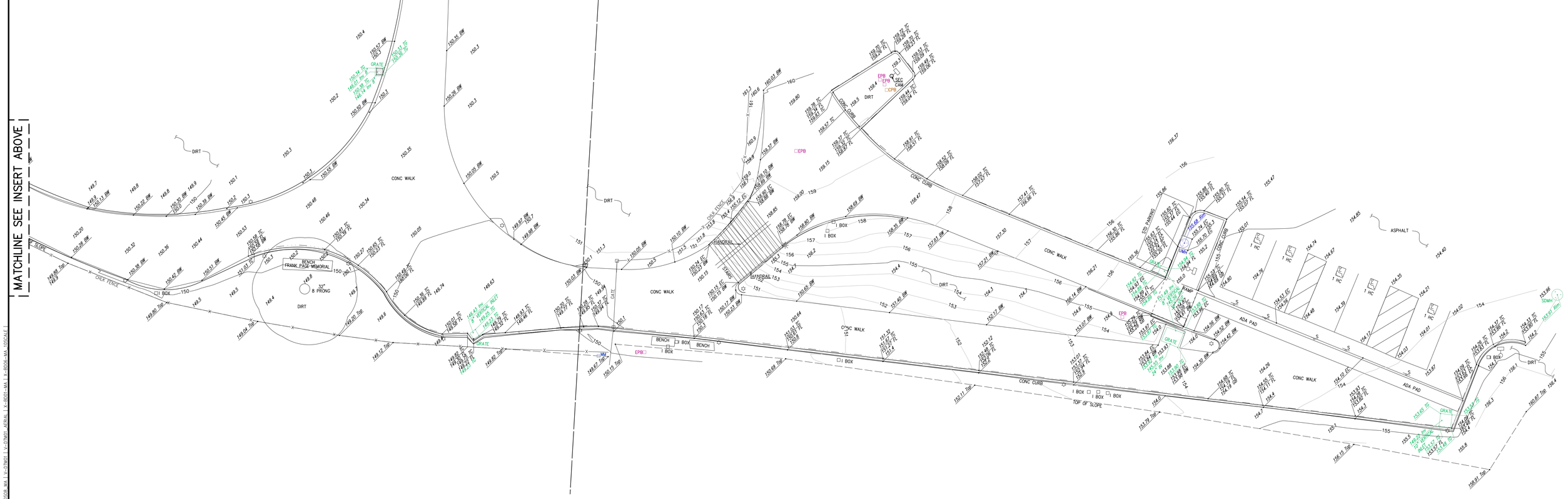


INDEX MAP
NOT TO SCALE



GRAPHIC SCALE
SCALE: 1" = 10'

MATCHLINE SEE INSERT ABOVE



SEAL	DESIGNED	CJG	BENCHMARK
DANIEL L. RAHE, No. 9425, PROFESSIONAL LAND SURVEYOR, STATE OF CALIFORNIA	DRAFTED	CJG	(SEE VERTICAL CONTROL NOTES ON SHEET 1)
	CHECKED	DLR	ELEVATION _____ ADJUSTMENT _____

REV	DATE	DESCRIPTION	BY	APP'D
1	4/28/25	ADDITIONAL TOPO	CJP	TPM

PATH/PLOT DATE:
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:

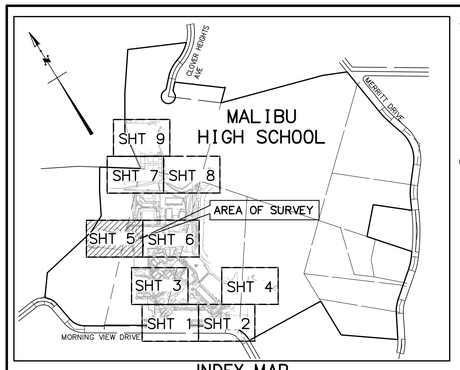
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

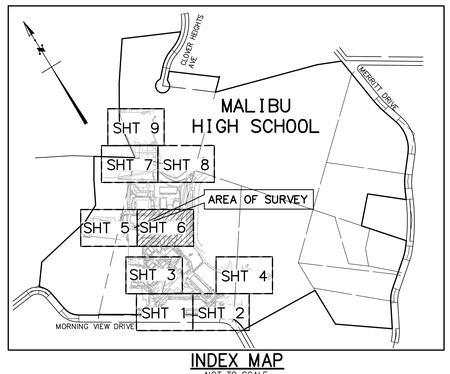
MALIBU HIGH SCHOOL

IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	APRIL 28, 2025
SCALE	1" = 10'
PROJECT NUMBER	1SAN080149
SHEET	4
OF	9

V:\01801_MA\1_V\0506_MA_FIN1\1_V\0506_MA_PLT\1_V\0506_MA_PLT\1_V-DTM01_MA\1_V-DTM01_AERIAL\1_X-B001-MA\1_X-B006-MA, 1:5(SCALE 1


FLOWER HEIGHTS AVE
MALIBU HIGH SCHOOL
LATIGO CANYON RD
LATIGO CANYON RD
LATIGO CANYON RD



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'
GRAPHIC SCALE
SCALE: 1" = 10'

NOTES:

REFER TO PSOMAS JOB#_1SAN080143 (PL-0DS06_SHT 1-12_SIGNED_2024-0612), FOR TOPOGRAPHIC DATA SCREENED IN THE BACKGROUND.

SHEET 5
SHEET 6

SEAL

PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D
1	4/28/25	ADDITIONAL TOPO	CJP	TPM

BENCHMARK:
(SEE VERTICAL CONTROL NOTES ON SHEET 1)
ELEVATION _____ ADJUSTMENT _____
PATH/PLOT DATE:
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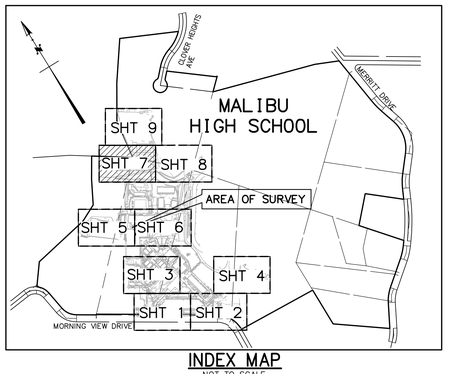
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DESIGN SURVEY AND SUBTERRANEAN UTILITY DETECTION FOR:
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT
MALIBU HIGH SCHOOL
IN THE CITY OF MALIBU COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	APRIL 28, 2025
SCALE	1" = 10'
PROJECT NUMBER	1SAN080149
SHEET	6
OF	9

V-0TB01 MA	V-0S06_MA_EXT	V-0S08_MA	V-01MO1	V-01MO1_AERIAL	X-BR01-MA	X-BR06-MA_USCSALE

SHEET 9
SHEET 7



INDEX MAP
NOT TO SCALE

10' 5' 0' 10' 20'
GRAPHIC SCALE
SCALE: 1" = 10'

SHEET 7
SHEET 8

NOTES:

REFER TO PSOMAS JOB#_1SAN080143 (PL-ODS06_SHT 1-12_SIGNED_2024-0612), FOR TOPOGRAPHIC DATA SCREENED IN THE BACKGROUND.

V:\DTR01 MA | V:\DS06 MA_EDIT | V:\DTM01 | V:\DTM01 AERIAL | X:\BD01-MA | X:\BD06-MA 1INSCALE |

SEAL
PROFESSIONAL LAND SURVEYOR
DANIEL L. RAHE
No. 9425
STATE OF CALIFORNIA

DESIGNED	CJG
DRAFTED	CJG
CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D
1	4/28/25	ADDITIONAL TOPO	CJP	TPM

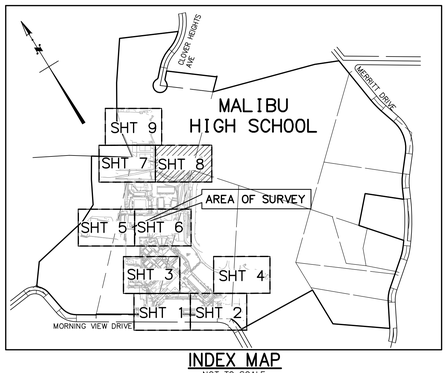
BENCHMARK
(SEE VERTICAL CONTROL NOTES ON SHEET 1)
ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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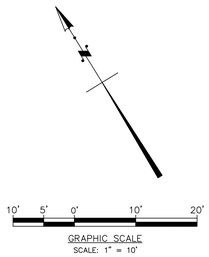
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SCALE: 1" = 10'
PROJECT NUMBER: 1SAN080149
SHEET 7 OF 9



INDEX MAP
NOT TO SCALE



GRAPHIC SCALE
SCALE: 1" = 10'

SHEET 7
SHEET 8

NOTES:

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DESIGNED	CJG
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CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APPD
1	4/28/25	ADDITIONAL TOPO	CJP	TPM

BENCHMARK
(SEE VERTICAL CONTROL NOTES ON SHEET 1)
ELEVATION _____ ADJUSTMENT _____
PATHPLOT DATE:
J:\LA\1SAN080120\02_MHS\1SAN080149\SURVEY\DESIGN\PL\PL-0SS06.dwg SHT8 :: thomas.mcdermott
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SHEET	8
OF	9



INDEX MAP
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10' 5' 0' 10' 20'
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SHEET 9
SHEET 7

SEAL

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CHECKED	DLR

REV	DATE	DESCRIPTION	BY	APP'D
1	4/28/25	ADDITIONAL TOPO	CJP	TPM

BENCHMARK

(SEE VERTICAL CONTROL NOTES ON SHEET 1)

ELEVATION _____ ADJUSTMENT _____

PATH/PLOT DATE:
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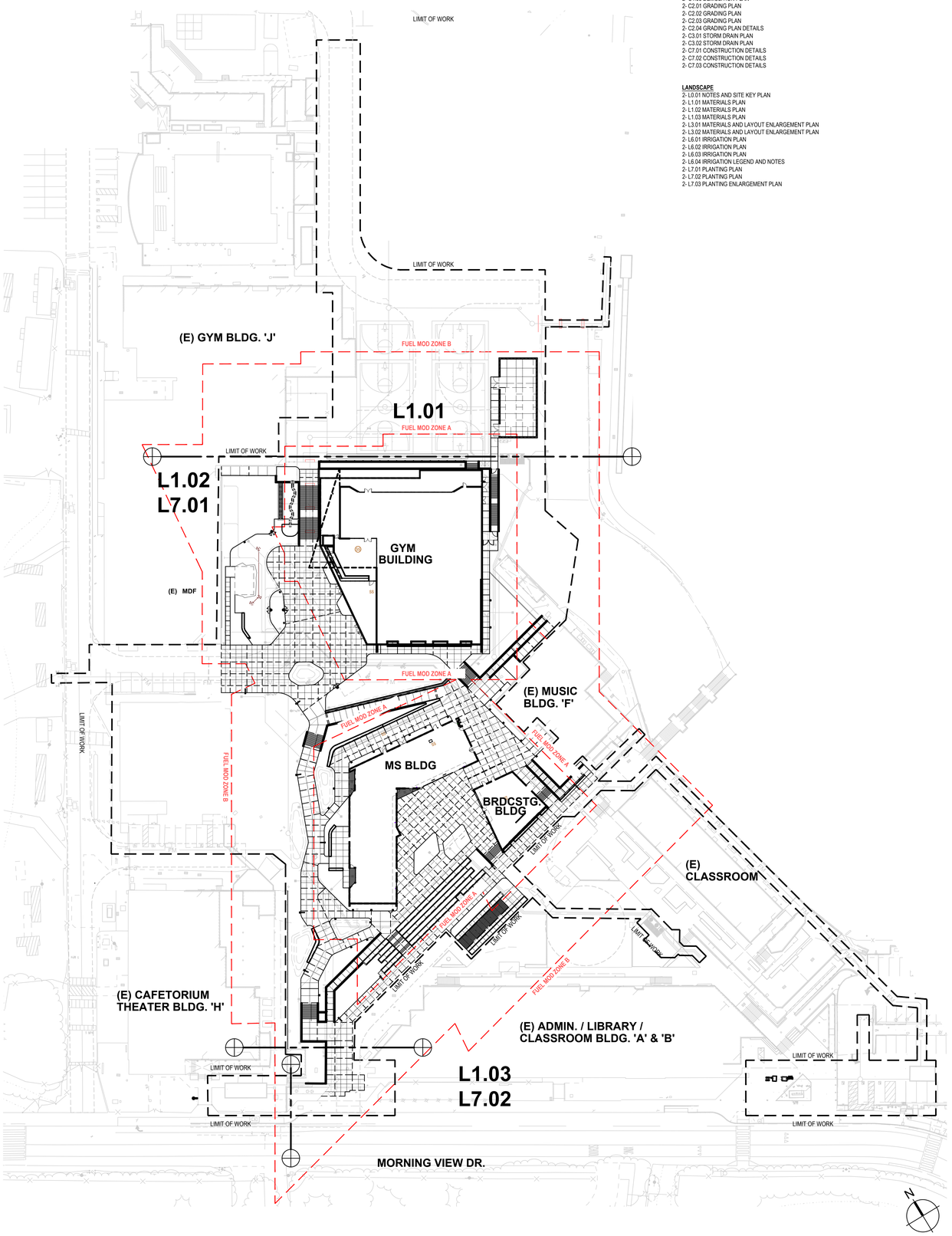
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ABBREVIATIONS

&	AND	GA.	GAUGE
∠	ANGLE	GALV.	GALVANIZED
@	AT	GND.	GROUND
℄	CENTERLINE	GR.	GRADE
Ø	DIAMETER OR ROUND		
#	POUND OR NUMBER	HDR	HEADER
		HT.	HEIGHT
ADJ.	ADJACENT		
AGGR.	AGGREGATE	LT.	LIGHT
AL.	ALUMINUM		
APPROX.	APPROXIMATE	MAX.	MAXIMUM
ARCH.	ARCHITECTURAL	MET.	METAL
AC.	ASPHALT	MFR.	MANUFACTURER
ACC.	ACCESSIBLE	MIN.	MINIMUM
		MTD.	MOUNTED
B.C.R.	BEGINNING OF CURVE RADIUS	MTL.	MATERIAL
B.O.C.	BACK OF CURB		
B.O.W.	BOTTOM OF WALL	N.I.C.	NOT IN CONTRACT
B.O.S.	BOTTOM OF SLOPE	N.T.S.	NOT TO SCALE
BLDG.	BUILDING		
BLK.	BLOCK	O.C.	ON CENTER
		O.D.	OUTSIDE DIAMETER
C.E.	CIVIL ENGINEER	(DIM.)	
C.I.P.	CAST IN PLACE		
CLKG.	CAULKING	PA.	PLANTING AREA
CMU.	CONCRETE MASONRY UNIT	PED.	PEDESTRIAN
CONC.	CONCRETE	PRCST.	PRECAST
CONSTR.	CONSTRUCTION	P.I.P.	POURED IN PLACE
CONT.	CONTINUOUS	P.O.T.	POINT OF TANGENCY
CTR.	CENTER	P.T.S.	POST TENSION SLAB
D.A.	DISABLED ACCESS	QTY	QUANTITY
DET.	DETAIL		
DIA.	DIAMETER	R.	RISER
DIM.	DIMENSION	RAD.	RADIUS
DN.	DOWN	REINF.	REINFORCED
DWGS.	DRAWINGS	REQ.	REQUIRED
E.J.	EXPANSION JOINT	SCHED.	SCHEDULE
EL.	ELEVATION	SHT.	SHEET
ELEC.	ELECTRICAL	SPEC.	SPECIFICATION
EQ.	EQUAL	S.S.	STAINLESS STEEL
EXP.	EXPANSION	STD.	STANDARD
EXT.	EXTERIOR	STRL.	STRUCTURAL
F.G.	FINISH GRADE	T.	TREAD
F.S.	FINISH SURFACE	T.C.	TOP OF CURB
F.O.B.	FACE OF BUILDING	T.O.S.	TOP OF SLOPE
F.O.C.	FACE OF CURB	T.O.W.	TOP OF WALL
F.O.W.	FACE OF WALL	TYP.	TYPICAL
		TBD.	TO BE DETERMINED
		VEH.	VEHICULAR
		VERT.	VERTICAL
		W/	WITH
		W/O	WITHOUT

PLANTING NOTES

1. REFER TO CIVIL ENGINEER'S DRAWINGS FOR UTILITY LOCATIONS, TREE SUBDRAINAGE STUBOUTS, (IF REQUIRED), AND FINAL GRADING. IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE LANDSCAPE ARCHITECT'S DRAWINGS, THE CONTRACTOR SHALL CONTACT THE OWNER'S AUTHORIZED REPRESENTATIVE AND LANDSCAPE ARCHITECT FOR DIRECTION AS TO HOW TO PROCEED.
2. VERIFY LOCATIONS OF ALL PERTINENT EXISTING AND PROPOSED SITE IMPROVEMENTS. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTION PRIOR TO COMMENCING WORK.
3. EXACT LOCATIONS OF PLANT MATERIALS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO INSTALLATION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANTS TO EXACT LOCATION IN FIELD.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PLANT COUNTS AND SQUARE FOOTAGES. QUANTITIES SHOWN ON PLANS TAKE PRECEDENCE OVER WRITTEN QUANTITIES IN "PLANTING LEGEND."
5. PROVIDE MATCHING FORMS AND SIZES FOR ALL PLANT MATERIALS WITHIN EACH SPECIES AND SIZE DESIGNATED ON THE DRAWINGS.
6. PRUNE NEWLY PLANTED TREES ONLY AS DIRECTED BY LANDSCAPE ARCHITECT.
7. ALIGNED AND EQUALLY SPACED, IN ALL DIRECTIONS, ALL SHRUBS TO BE AS DESIGNATED PER THESE NOTES AND DRAWINGS.
8. ALL TREES IN ROWS TO BE ALIGNED. (UNLESS NOTED OTHERWISE ON PLANS)
9. TREES SHALL BEAR SAME RELATION TO FINISH GRADE AS AT PLACE OF GROWTH.
10. FINISH GRADES OF ALL TURF AREAS SHALL BE (1") BELOW ADJACENT CURB OR PAVEMENT. FINISH GRADES OF ALL SHRUB AREAS SHALL BE (2-1/2") BELOW ADJACENT CURB, PAVEMENT OR HEADER.
11. CONTRACTOR SHALL SUBMIT FOR APPROVAL COLOR PHOTOS OF ALL TREES, SHRUBS, AND GROUNDCOVER. PHOTOS SHOULD INCLUDE A PERSON FOR SCALE PURPOSES, PHOTOS SHALL BE OF THE ACTUAL PLANT MATERIAL TO BE USED ON THE PROJECT. ALL PLANT MATERIAL SHALL BE OF A QUALITY AS DETERMINED BY THE LANDSCAPE ARCHITECT. MATERIAL FOUND UNSUITABLE FOR THE DESIGN OR SPECIFICATION INTENT WILL BE REJECTED.
12. PROVIDE A (3") LAYER OF MULCH AT PROPOSED TREE, SHRUB, AND GROUNDCOVER PLANTING AREAS, EXCEPT AREAS WITH JUTE MESHING.
13. CONTRACTOR SHALL CONDUCT AGRICULTURAL SUITABILITY AND FERTILITY SOILS TESTING PER SOIL PREPARATION SPECIFICATION. ANALYSIS SHALL INCLUDE RECOMMENDATIONS FOR SOIL PREPARATION AND BACKFILL MIX AS WELL AS RECOMMENDATIONS FOR POST MAINTENANCE FERTILIZATION. SUBMIT SOILS ANALYSES AND SAMPLES OF AMENDMENTS TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO SOIL PREPARATION.
14. QUANTITIES LISTED ON PLANT LEGEND ARE PER SHEET. CONTRACTOR MUST VERIFY QUANTITIES GIVEN ON THE PLANS WITH ACTUAL QUANTITIES SHOWN.
15. PROVIDE ROOT BARRIERS IN ADDITION TO THOSE INDICATED ON THE PLANS FOR ALL TREES WITHIN 5' OF ANY HARDSCAPE.
16. NOT INSTALL WATERING BASINS AROUND TREES WHEN PLANTED IN TURF. PROVIDE A CIRCULAR TURF-FREE ZONE TO OUTSIDE EDGE OF ROOTBALL. PLACE ONLY 2-INCHES OF WOOD MULCH IN THIS AREA AND NO CLOSER THAN 4-INCHES FROM TRUNK.
17. PLANT ALL TREES A MIN. OF 5' FROM ANY UTILITIES. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK.
18. TREES ARE TO BE A MINIMUM OF 5' AWAY FROM ANY HARDSCAPE SUCH AS CURBS, WALKS, ETC.
19. LANDSCAPE MAINTENANCE PERIOD IS 90 DAYS.
20. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.



SITE KEY PLAN | 1" = 40'-0" | 05

SHEET INDEX

ARCHITECTURE (FOR REFERENCE ONLY)
2- A0.01 CAMPUS PLAN
2- A0.21 SITE PLAN

CIVIL (FOR REFERENCE ONLY)
2- C1.01 DEMOLITION PLAN
2- C1.02 DEMOLITION PLAN
2- C1.03 DEMOLITION PLAN
2- C2.01 GRADING PLAN
2- C2.02 GRADING PLAN
2- C2.03 GRADING PLAN
2- C2.04 GRADING PLAN DETAILS
2- C3.01 STORM DRAIN PLAN
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2- C7.02 CONSTRUCTION DETAILS
2- C7.03 CONSTRUCTION DETAILS

LANDSCAPE
2- L0.01 NOTES AND SITE KEY PLAN
2- L1.01 MATERIALS PLAN
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2- L3.01 MATERIALS AND LAYOUT ENLARGEMENT PLAN
2- L3.02 MATERIALS AND LAYOUT ENLARGEMENT PLAN
2- L6.01 IRRIGATION PLAN
2- L6.02 IRRIGATION PLAN
2- L6.03 IRRIGATION PLAN
2- L6.04 IRRIGATION LEGEND AND NOTES
2- L7.01 PLANTING PLAN
2- L7.02 PLANTING PLAN
2- L7.03 PLANTING ENLARGEMENT PLAN

FUEL MODIFICATION PLAN NOTES

ZONE A - SETBACK ZONE

- EXTENDS 30 FEET BEYOND THE EDGE OF ANY COMBUSTIBLE STRUCTURE, ACCESSORY STRUCTURE, APPENDAGE, OR PROJECTION.
- OVERHANGS OR PARTS OF STRUCTURES NOT ACCURATELY REFLECTED IN THE PLANS MAY DENY THE APPROVAL OF THE PLANT LOCATION ON THE APPROVED PLAN.
- IRRIGATION BY AUTOMATIC OR MANUAL SYSTEMS SHALL BE PROVIDED TO MAINTAIN HEALTHY VEGETATION AND FIRE RESISTANCE.
- VEGETATION IN THIS ZONE SHALL CONSIST PRIMARILY OF GREEN LAWNS, GROUND COVERS NOT EXCEEDING 6 INCHES IN HEIGHT, AND ADEQUATELY SPACED SHRUBS. THE OVERALL LANDSCAPE CHARACTERISTICS SHALL PROVIDE ADEQUATE DEFENSIBLE SPACE IN A FIRE ENVIRONMENT
- PLANTS IN ZONE A SHOULD BE INHERENTLY HIGHLY FIRE-RESISTANT AND APPROPRIATELY SPACED. SPECIES SELECTION SHOULD REFERENCE THE FUEL MODIFICATION PLANT LIST. OTHER SPECIES MAY BE USED AND SUBJECT TO APPROVAL. PLANS RESUBMITTED 6 MONTHS AFTER THE INITIAL REVIEW WILL BE EVALUATED BASED ON THE CURRENT FUEL MODIFICATION PLANT LIST, AVAILABLE FROM THE FUEL MODIFICATION UNIT.
- TREES ARE GENERALLY NOT RECOMMENDED, EXCEPT FOR DWARF VARIETIES OR MATURE TREES OF SMALL STATURE.
- TARGET SPECIES WILL TYPICALLY NOT BE ALLOWED WITHIN 30 FEET OF FUEL STRUCTURES AND MAY REQUIRE REMOVAL IF EXISTING
- VINES AND CLIMBING PLANTS SHOULD NOT BE ALLOWED ON ANY COMBUSTIBLE STRUCTURE REQUIRING REVIEW.

ZONE B - IRRIGATED ZONE

- EXTENDS FROM THE OUTER EDGE OF ZONE A TO 100 FEET FROM STRUCTURES.
- IRRIGATION BY AUTOMATIC OR MANUAL SYSTEMS SHOULD BE PROVIDED TO MAINTAIN HEALTHY VEGETATION AND FIRE RESISTANCE.
- VEGETATION IN THIS ZONE SHOULD PRIMARILY CONSIST OF GREEN LAWNS, GROUND COVERS, AND ADEQUATELY SPACED SHRUBS AND TREES
- UNLESS OTHERWISE APPROVED, GROUND COVERS SHOULD BE MAINTAINED AT A HEIGHT NOT TO EXCEED 6 INCHES. ON SLOPES, 12 INCHES IS ACCEPTABLE WITHIN 50 FEET OF A STRUCTURE, AND 18 INCHES BEYOND 50 FEET. THE OVERALL LANDSCAPE CHARACTERISTICS SHOULD PROVIDE ADEQUATE DEFENSIBLE SPACE IN A FIRE ENVIRONMENT. SPECIMEN NATIVE PLANTS MAY BE APPROVED TO REMAIN IF PROPERLY MAINTAINED FOR ADEQUATE DEFENSIBLE SPACE. ANNUAL GRASSES OR WEEDS SHOULD BE MAINTAINED AT A HEIGHT NOT TO EXCEED 3 INCHES
- PLANTS SHOULD BE FIRE-RESISTANT AND APPROPRIATELY SPACED. PLANT SELECTION SHOULD REFERENCE THE FUEL MODIFICATION PLANT LIST. OTHER PLANTS MAY BE USED SUBJECT TO APPROVAL.
- REPLACEMENT PLANTING TO MEET MINIMUM CITY OR COUNTY SLOPE COVERAGE REQUIREMENTS OR ORDINANCES WILL BE CONSIDERED. IN ALL CASES, THE OVERALL LANDSCAPE CHARACTERISTICS SHOULD PROVIDE ADEQUATE DEFENSIBLE SPACE IN A FIRE ENVIRONMENT.
- TARGET SPECIES MAY REQUIRE REMOVAL WITHIN 50 FEET OF STRUCTURES, DEPENDING ON SITE CONDITIONS
- ALL TREES, UNLESS OTHERWISE APPROVED, SHOULD BE PLANTED FAR ENOUGH FROM STRUCTURES AND FIRE ACCESS ROADS, SO AS NOT TO OVERHANG ANY STRUCTURE OR ACCESS AT MATURITY

ZONE B - EXTENDED IRRIGATED ZONE

- EXTENDS FROM THE OUTER EDGE OF ZONE B UP TO 200 FEET FROM STRUCTURES OR TO THE PROPERTY LINE.
- REQUIRED THINNING AND CLEARANCE WILL BE DETERMINED UPON INSPECTION.
- IRRIGATION SYSTEMS ARE NOT REQUIRED.
- VEGETATION MAY CONSIST OF MODIFIED EXISTING NATIVE PLANTS, ADEQUATELY SPACED ORNAMENTAL SHRUBS AND TREES, OR BOTH. REPLACEMENT PLANTING TO MEET MINIMUM CITY OR COUNTY SLOPE COVER REQUIREMENTS OR ORDINANCES WILL BE CONSIDERED. IN ALL CASES, THE OVERALL LANDSCAPE CHARACTERISTICS SHALL PROVIDE ADEQUATE DEFENSIBLE SPACE IN A FIRE ENVIRONMENT
- PLANTS SHOULD BE SPACED APPROPRIATELY. EXISTING NATIVE VEGETATION SHOULD BE MODIFIED BY THINNING AND REMOVING PLANTS CONSTITUTING A FIRE RISK, THESE INCLUDE, BUT ARE NOT LIMITED TO: CHAMFER, SAGE, SAGE BRUSH, AND BUCKWHEAT.
- ANNUAL GRASSES AND WEEDS SHOULD BE MAINTAINED AT A HEIGHT NOT TO EXCEED 3 INCHES.
- GENERAL SPACING FOR EXISTING NATIVE SHRUBS OR GROUPS OF SHRUBS IS 15 FEET BETWEEN CANOPIES. NATIVE PLANTS MAY BE THINNED BY REDUCED LEVELS AS THE DISTANCE FROM DEVELOPMENT INCREASES
- GENERAL SPACING FOR EXISTING NATIVE TREES OR GROUPS OF TREES IS 30 FEET BETWEEN CANOPIES. THIS DISTANCE MAY VARY DEPENDING ON THE SLOPE, THE ARRANGEMENT OF TREES IN RELATION TO THE SLOPE, AND THE TREE SPECIES.

FIRE ACCESS ROAD ZONE

- EXTENDS A MINIMUM OF 10 FEET FROM THE EDGE OF ANY PUBLIC OR PRIVATE ROAD USED BY FIREFIGHTING RESOURCES.
- CLEAR AND REMOVE FLAMMABLE GROWTH FOR A MINIMUM OF 10 FEET ON EACH SIDE OF FIRE ACCESS ROADS. (FIRE CODE 325.10)
- ADDITIONAL CLEARANCE BEYOND 10 FEET MAY BE REQUIRED UPON INSPECTION
- FIRE ACCESS ROADS, DRIVEWAYS, AND TURNAROUNDS MUST BE MAINTAINED IN ACCORDANCE WITH THE FIRE CODE. FIRE ACCESS ROADS MUST HAVE UNOBSTRUCTED VERTICAL CLEARANCE CLEAR TO THE SKY FOR A WIDTH OF 20 FEET. (FIRE CODE 503.2.1)
- REMAINING PLANTS MUST BE APPROPRIATELY SPACED AND MAINTAINED TO PROVIDE SAFE EGRESS IN WILDLIFE FIRE ENVIRONMENTS.
- ALL TREES, UNLESS OTHERWISE APPROVED, MUST BE PLANTED FAR ENOUGH FROM STRUCTURES AND FIRE ACCESS ROADS, SO AS NOT TO OVERHANG ANY STRUCTURE OR ACCESS AT MATURITY.

MAINTENANCE

- ROUTINE MAINTENANCE SHOULD BE REGULARLY PERFORMED IN ALL AREAS. REQUIREMENTS INCLUDE ITEMS IN THE FUEL MODIFICATION GUIDELINES AND THOSE OUTLINED BELOW:
- REMOVAL OR THINNING OF UNDESIRABLE FUEL VEGETATION AND REMOVAL OF DEAD OR DYING PLANTS TO MEET MINIMUM BRUSH CLEARANCE REQUIREMENTS.
- PRUNING AND THINNING TO REDUCE THE OVERALL FUEL LOAD AND CONTINUITY OF FUELS
- FUEL LOADS SHOULD BE REDUCED BY PRUNING LOWER BRANCHES OF TREES AND TREE-FORM SHRUBS TO 1/3 OF THEIR HEIGHT, OR 6 FEET FROM THE LOWEST HANGING BRANCHES TO THE GROUND, TO HELP PREVENT FIRE FROM SPREADING AND MAKE MAINTENANCE EASIER. TREES WITH UNDERGROUND PLANTS SHOULD BE PRUNED AT LEAST THREE TIMES THE HEIGHT OF THE UNDERGROUND VEGETATION OR UP TO ONE THIRD THE HEIGHT OF THE TREE, WHICHEVER IS LESS, TO HELP PREVENT FIRE FROM SPREADING UPWARD INTO THE CROWN
- ACCUMULATED PLANT LITTER AND DEAD WOOD SHOULD BE REMOVED. DEBRIS AND TRIMMINGS PRODUCED BY MAINTENANCE SHOULD BE REMOVED FROM THE SITE OR CHIPPED AND EVENLY DISPERSED IN THE SAME AREA TO A MAXIMUM DEPTH OF 6 INCHES.
- ALL INVASIVE SPECIES AND THEIR PARTS SHOULD BE REMOVED FROM THE SITE.
- MANUAL AND AUTOMATIC IRRIGATION SYSTEMS SHOULD BE MAINTAINED FOR OPERATIONAL INTEGRITY AND PROGRAMMING.
- EFFECTIVENESS SHOULD BE REGULARLY EVALUATED TO AVOID OVER- OR UNDERWATERING
- COMPLIANCE WITH THE FIRE CODE IS A YEAR-ROUND RESPONSIBILITY. ENFORCEMENT WILL OCCUR FOLLOWING INSPECTION BY THE FIRE DEPARTMENT. ANNUAL INSPECTIONS FOR BRUSH CLEARANCE CODE REQUIREMENTS ARE CONDUCTED FOLLOWING THE NATURAL DRYING OF GRASSES AND FINE FUELS, BETWEEN THE MONTHS OF APRIL AND JUNE, DEPENDING ON THE GEOGRAPHIC REGION. INSPECTION FOR COMPLIANCE WITH AN APPROVED FUEL MODIFICATION PLAN MAY OCCUR AT ANY TIME OF YEAR.
- BRUSH CLEARANCE ENFORCEMENT ISSUES ON ADJACENT PROPERTIES SHOULD BE DIRECTED TO THE COUNTY OF LOS ANGELES FIRE DEPARTMENT'S BRUSH CLEARANCE UNIT AT (626) 969-2375
- ALL FUTURE PLANTINGS MUST BE IN ACCORDANCE WITH THE COUNTY OF LOS ANGELES FIRE DEPARTMENT'S FUEL MODIFICATION GUIDELINES AND APPROVED PRIOR TO INSTALLATION. CHANGES TO THE APPROVED PLAN, WHICH REQUIRE AN ADDITIONAL PLAN REVIEW, WILL INCUR A PLAN REVIEW FEE.
- QUESTIONS REGARDING LANDSCAPING, PLANTING, AND MAINTENANCE WITH REGARD TO FIRE SAFETY SHOULD BE DIRECTED TO THE FIRE DEPARTMENT'S FUEL MODIFICATION UNIT AT (626) 969-5205

Received
10/7/2025
Planning Dept.

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MALIBU MIDDLE SCHOOL INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	01/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025

Job Number	31722
Checked By	
Scale	1" = 40'-0"

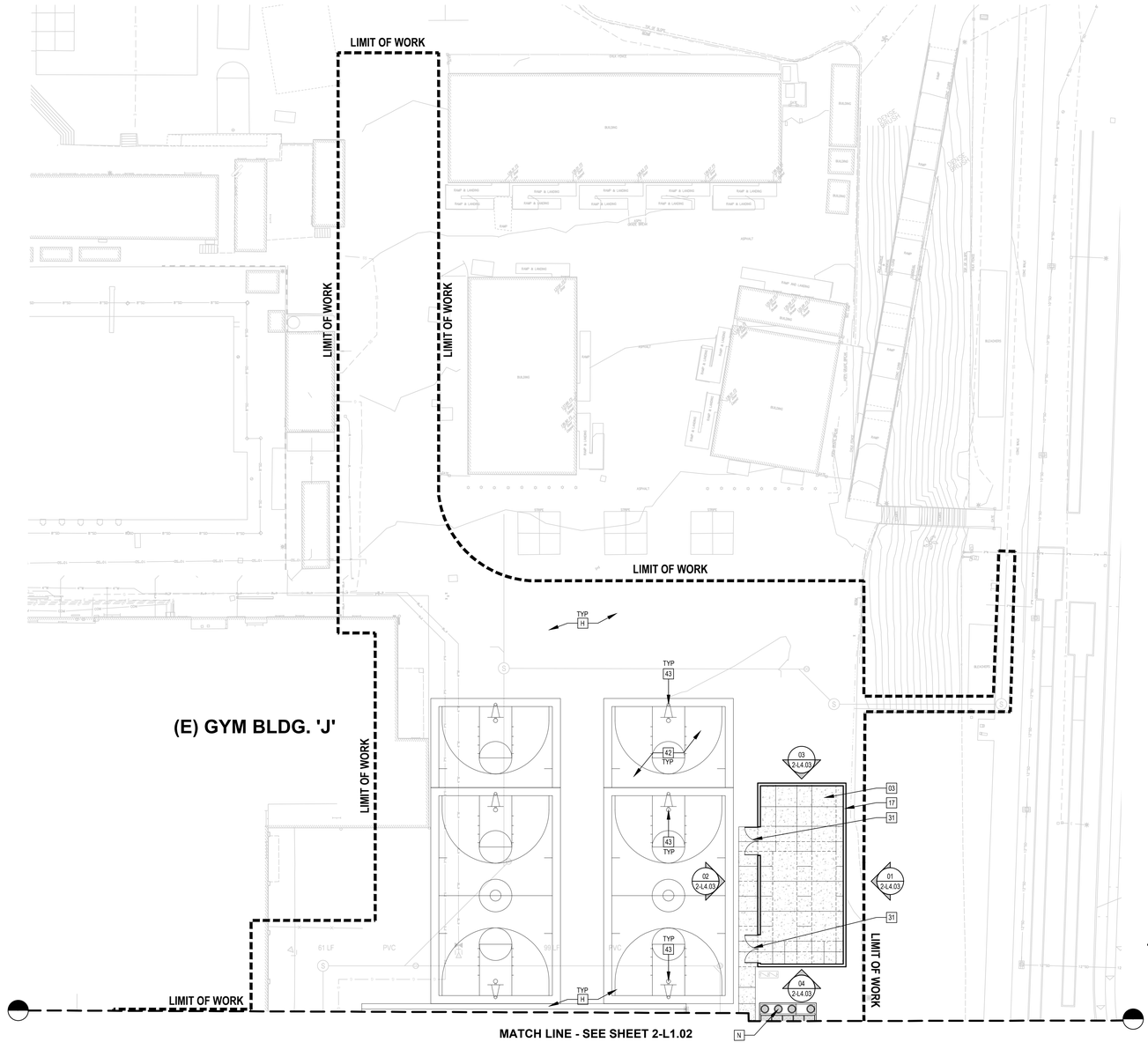
NOTES AND SITE KEY PLAN

2-L0.01

SITE SYMBOLS LEGEND

SYM.	DESCRIPTION	SYM.	DESCRIPTION	DET.
	FIRE HYDRANT - PER CIVIL		SAWCUT JOINT	02/ L5.01
	CATCH BASIN - PER CIVIL		EXPANSION JOINT	02/ L5.01
CO	CLEAN OUT - PER CIVIL		MATCHLINE	
MH	MAN HOLE - PER CIVIL		PROPERTY LINE/ RIGHT OF WAY	
	DRAIN INLETS - PER CIVIL		DIRECTION OF RAMP; DOWN SLOPE	
	EXISTING TREE PROTECT IN PLACE		ALIGN	
PA	PLANTING AREA	(E)PA	EXISTING PLANTING AREA	

NOTE: UTILITIES SHOWN ARE FOR REFERENCE ONLY. SEE CIVIL AND ELEC DWGS FOR DETAILS AND EXACT LOCATIONS. FINAL LOCATIONS TO BE REVIEWED BY LANDSCAPE ARCHITECT.



MATERIALS KEYNOTE LEGEND

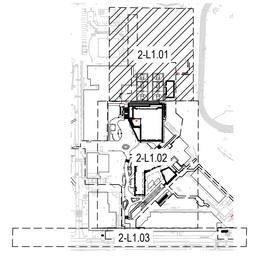
NOTE	DESCRIPTION	DET/ SHT	COLOR / FINISH
01	CONCRETE PAVING - TYPE 1	01/ 2-L5.01	NATURAL GREY / TOPCAST 05
02	CONCRETE RAMP		NATURAL GREY / TOPCAST 05
03	CONCRETE PAVING - TYPE 3	01/ 2-L5.01	NATURAL GREY MEDIUM BROOM
04	ROCK MULCH (ON GRADE)	16/ 2-L5.01	'TOPANGA' BY DECORATIVE STONE SOLUTIONS
05	CONCRETE PAVING - TYPE 5	01/ 2-L5.01	DAVIS COLOR 'MOCHA' / TOP CAST 25
06	CONCRETE FLUSH CURB UNDER SYNTHETIC TURF	09/ 2-L5.01	NATURAL GREY / SMOOTH TROWEL
07	DECORATIVE BOULDERS	24/ 2-L5.01	'TOPANGA' TYPE A,B,C PER DETAIL AVAIL. BY DECORATIVE STONE SOLUTIONS
08	SYNTHETIC TURF SURFACING	08/ 2-L5.01	PER DETAIL
09	CONCRETE STAIRS - TYPE 1	17/ 2-L5.01	NATURAL GREY / TOP CAST 05
10	CONCRETE STAIRS - TYPE 2	17/ 2-L5.01	DAVIS COLOR 'MOCHA' / TOP CAST 05
11	HANDRAIL AT STAIRS	01/ 2-L5.03	STAINLESS STEEL
12	CONCRETE RAMP	01/ 2-L5.01	DAVIS COLOR 'MOCHA' / TOP CAST 25
13	HANDRAIL AT RAMP	07/ 2-L5.03	STAINLESS STEEL
14	CONCRETE RETAINING WALL - TYPE 1	02/ 2-L5.02	NATURAL GREY AS CAST SMOOTH TROWEL
15	CONCRETE FREESTANDING WALL - TYPE 2	20/ 2-L5.02	DAVIS COLOR 'MOCHA' / TOP CAST 03, ETCH
16	CONCRETE RETAINING WALL W/ TOE KICK - TYPE 3	10/ 2-L5.02	DAVIS COLOR 'MOCHA' / TOP CAST 03, ETCH
17	CMU WALL	03/ 2-L5.02	PER DETAIL
18	NOT USED		
19	CONCRETE CHEEK WALL AT STAIRS - TYPE 6	09/ 2-L5.02	NATURAL GREY AS CAST SMOOTH TROWEL
20	CONCRETE CHEEK WALL AT STAIRS - TYPE 7	09/ 2-L5.02	DAVIS COLOR 'MOCHA' / TOP CAST 03, ETCH
21	CONCRETE WALL - TYPE 8	09/ SIM. 2-L5.02	NATURAL GREY / AS CAST SMOOTH TROWEL
22	GUARDRAIL AT WALL	13/ 2-L5.03	STAINLESS STEEL
23	6' HT. CHAIN LINK SERVICE GATE	03/ 2-L5.05	GALVANIZED STEEL
24	6' HT. CHAIN LINK FENCE	04/ 2-L5.05	GALVANIZED STEEL
25	DRINKING FOUNTAIN	17/ 2-L5.06	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF.
26	BIKE RACK	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF. RECOM.
27	TABLES / BENCHES	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF.
28	SKATEBOARD STORAGE RACK	PER PLAN	POWDER COATED 8 STORAGE CAP
29	CONVENIENCE POWER PEDESTALS	PER ELEC	CHRG. W/ (1) GFCI AND AND (1) USB
30	SITE LIGHTING	15, 23/ 2-L5.06	CUSTOM COLOR/ CUSTOM FINISH
31	METAL PANEL DOUBLE GATE - CMU ENCLOSURE	01/ 2-L5.06	CORRUGATED METAL
32	CLIMBING WALL (OVER (N) MDF)	11/ 2-A8.44	CUSTOM COLOR/FINISH BY 'EL DORADO CLIMBING'
33	SLIDE	01, 03/ 2-L5.04	CUSTOM COLOR/FINISH BY COLUMBIA CASCADE
34	BLOCK CLIMBER	19/ 2-L5.04	CUSTOM COLOR/FINISH BY COLUMBIA CASCADE
35	SHADE PAVILION CANOPY	01/ 2-L5.05	CUSTOM COLOR/ CUSTOM FINISH
36	CIP CONCRETE WALLS W/ TOE KICK LIGHTING	-	CUSTOM COLOR/ CUSTOM FINISH
37	FREESTANDING LIGHTWEIGHT PLANTERS	PER PLAN	MONTARA BY 'TOURNESOL' MA-363630 (QTY. 4) MA-483024 (QTY. 3) MA-723024 (QTY. 5)
38	RAISED METAL PLANTERS WITH WOOD SEATING	01, 02/ 2-A8.42	KITSAP MDLR. PLNTR. WALLS W/ RETURN LIP / 30" HT WITH 'WALLY A' STYLE BENCH BY 'TOURNESOL'
39	COMPOSITE TREX SYSTEM	D1/ 2-A8.12	'TREX TRANSCEND' DECKING CUSTOM CLR./FNSH.
40	DECORATIVE ROCK MULCH (ON STRUCTURE)	20/ 2-L5.01 SIM	'TOPANGA' 2"-4" IN SIZE AVAIL. BY DECORATIVE STONE SOLUTIONS
41	LIGHTWEIGHT BOULDER ON STRUCTURE	24/ 2-L5.01 SIM	TYPE A,B,C PER DETAIL AVAIL. BY DECORATIVE STONE SOLUTIONS
42	BASKETBALL COURT	13/ 2-L5.04	PER DETAIL
43	BASKETBALL POLE AND ASSEMBLY (REUSED)	10/ 2-L5.04	PER DETAIL
44	WALK OFF MAT	13/ 2-L5.01	GRIDLINE G6 STAINLESS STEEL BY 'CS CONST. SPECIALTIES'
45	6' HT. CHAIN LINK DBL. SWING PEDESTRIAN GATE	04/ 2-L5.06	GALVANIZED STEEL
46	BIKE LOCKER	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF. RECOM.

REFERENCE KEYNOTE LEGEND

NOTE	DESCRIPTION	DET/ SHT	COMMENTS
A	EXISTING PAVING		PROTECT IN PLACE
B	EXISTING STAIR		PROTECT IN PLACE
C	EXISTING FENCE		PROTECT IN PLACE
D	EXISTING GATE		PROTECT IN PLACE
E	EXISTING SITE WALL		PROTECT IN PLACE
F	EXISTING KILN		PROTECT IN PLACE
G	RELOCATED TRANSFORMER	PER ELEC	
H	A.C. PAVING	PER CIVIL	
J	BUILDING CANOPY	PER ARCH	
K	BUILDING COLUMN	PER ARCH	
L	BUILDING STAIRS	PER ARCH	
M	BUILDING ELEVATOR	PER ARCH	
N	MODULAR WETLAND	PER CIVIL	

KEYMAP

SCALE=1"=250'-0"



LPA
ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING
949-261-1001 Office
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Irvine, California 92617

LICENSED LANDSCAPE ARCHITECT — TIMOTHY TOBIN — No. 6191 — SIGNATURE — RENEWAL 08/31/2025 — STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

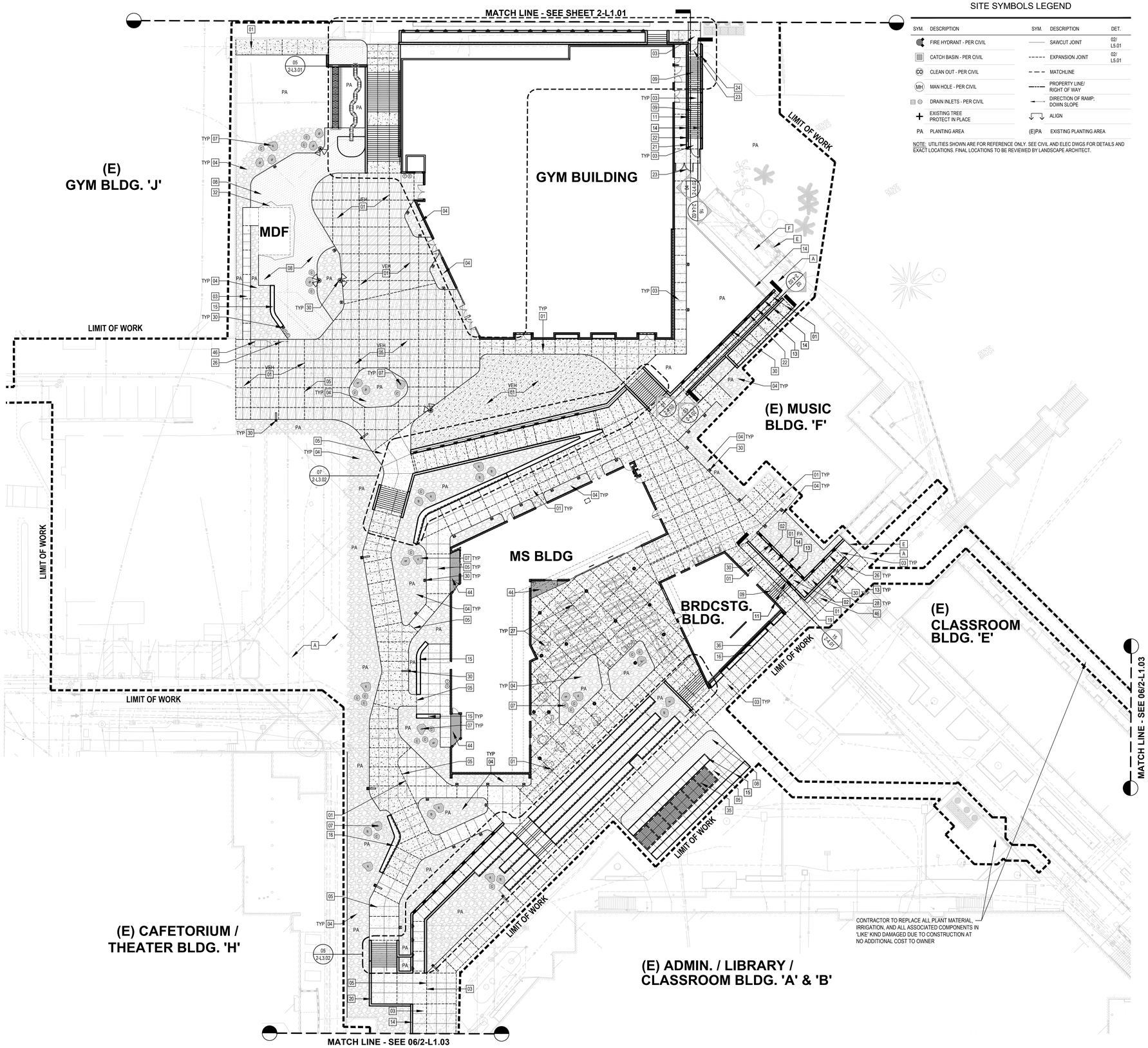
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	04/18/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025

Job Number	31722
Checked By	
Scale	1"=20'

MATERIALS PLAN

2-L1.01



SITE SYMBOLS LEGEND

SYM.	DESCRIPTION	SYM.	DESCRIPTION	DET.
	FIRE HYDRANT - PER CIVIL		SAWCUT JOINT	02/ L5.01
	CATCH BASIN - PER CIVIL		EXPANSION JOINT	02/ L5.01
CO	CLEAN OUT - PER CIVIL		MATCHLINE	
MH	MAN HOLE - PER CIVIL		PROPERTY LINE/ RIGHT OF WAY	
	DRAIN INLETS - PER CIVIL		DIRECTION OF RAMP; DOWN SLOPE	
	EXISTING TREE PROTECT IN PLACE		ALIGN	
PA	PLANTING AREA	(E)PA	EXISTING PLANTING AREA	

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MATERIALS KEYNOTE LEGEND

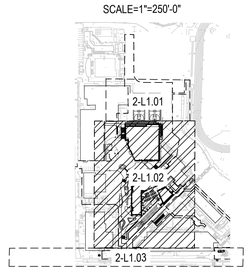
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08	SYNTHETIC TURF SURFACING	08/ 2-L5.01	PER DETAIL
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24	6' HT. CHAIN LINK FENCE	04/ 2-L5.05	GALVANIZED STEEL
25	DRINKING FOUNTAIN	17/ 2-L5.06	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF.
26	BIKE RACK	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF. RECOM.
27	TABLES / BENCHES	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF.
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34	BLOCK CLIMBER	19/ 2-L5.04	CUSTOM COLOR/FINISH BY COLUMBIA CASCADE
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42	BASKETBALL COURT	13/ 2-L5.04	PER DETAIL
43	BASKETBALL POLE AND ASSEMBLY (REUSED)	10/ 2-L5.04	PER DETAIL
44	WALK OFF MAT	13/ 2-L5.01	GRIDLINE G6 STAINLESS STEEL BY 'CS CONST. SPECIALTIES'
45	6' HT. CHAIN LINK DBL. SWING PEDESTRIAN GATE	04/ 2-L5.06	GALVANIZED STEEL
46	BIKE LOCKER	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF. RECOM.

REFERENCE KEYNOTE LEGEND

NOTE	DESCRIPTION	DET/ SHT	COMMENTS
A	EXISTING PAVING		PROTECT IN PLACE
B	EXISTING STAIR		PROTECT IN PLACE
C	EXISTING FENCE		PROTECT IN PLACE
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J	BUILDING CANOPY	PER ARCH	
K	BUILDING COLUMN	PER ARCH	
L	BUILDING STAIRS	PER ARCH	
M	BUILDING ELEVATOR	PER ARCH	
N	MODULAR WETLAND	PER CIVIL	

KEYMAP

SCALE=1"=250'-0"



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Irvine, California 92617

REGISTERED LANDSCAPE ARCHITECT ANTHONY GUY TOBIN No. 5030 STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	09/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025
3RD CDP SUBMITTAL	10/30/2025

Job Number	31722
Checked By	
Scale	1"=20'

MATERIALS PLAN

2-L1.02

SITE SYMBOLS LEGEND

SYM.	DESCRIPTION	SYM.	DESCRIPTION	DET.
	FIRE HYDRANT - PER CIVIL		SAWCUT JOINT	02/ L5.01
	CATCH BASIN - PER CIVIL		EXPANSION JOINT	02/ L5.01
CO	CLEAN OUT - PER CIVIL		MATCHLINE	
MH	MAN HOLE - PER CIVIL		PROPERTY LINE/ RIGHT OF WAY	
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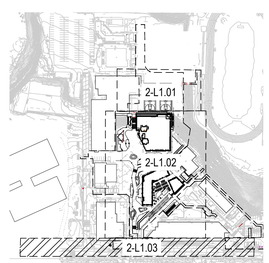
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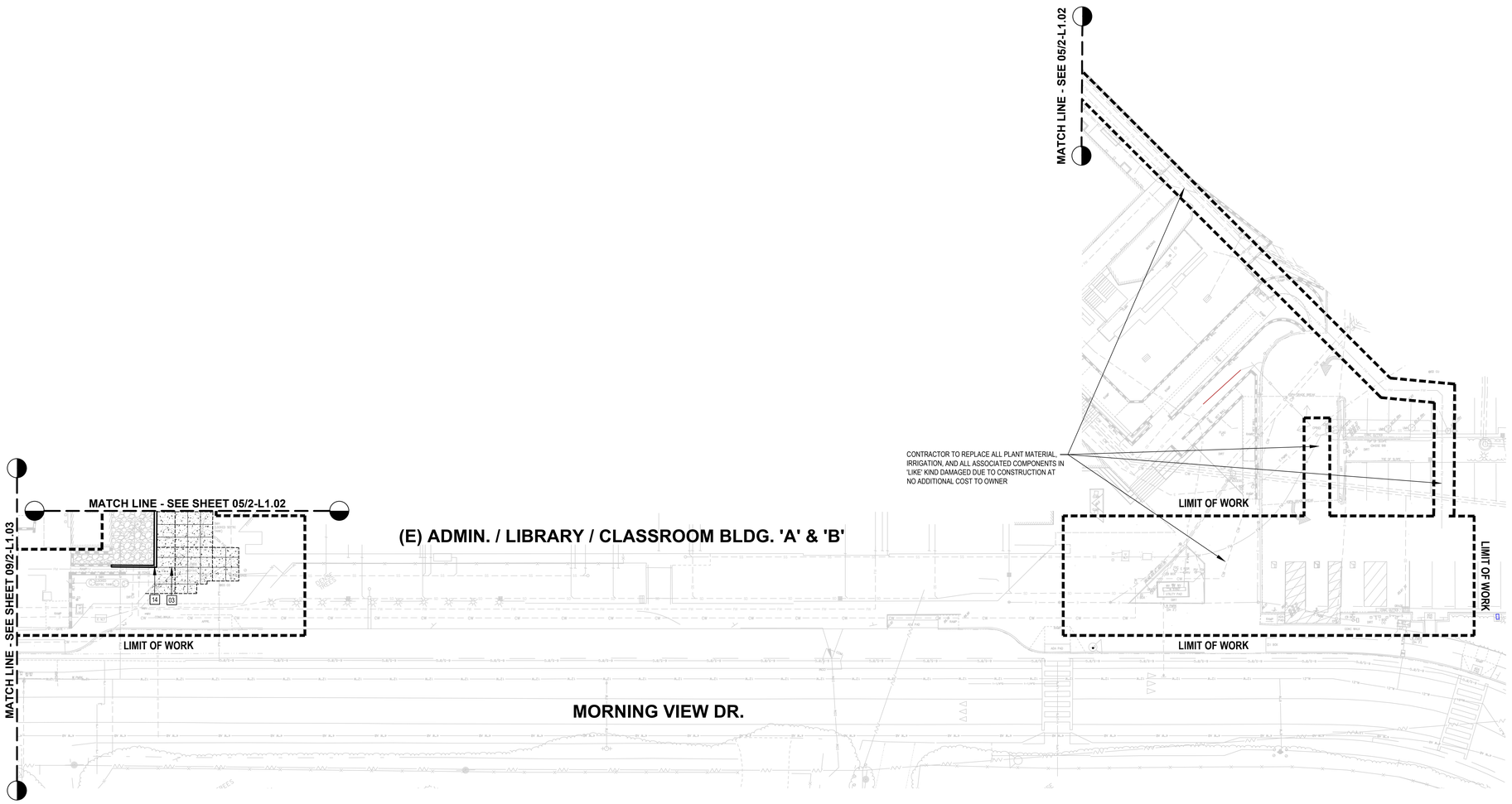
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46	BIKE LOCKER	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF. RECOM.

REFERENCE KEYNOTE LEGEND

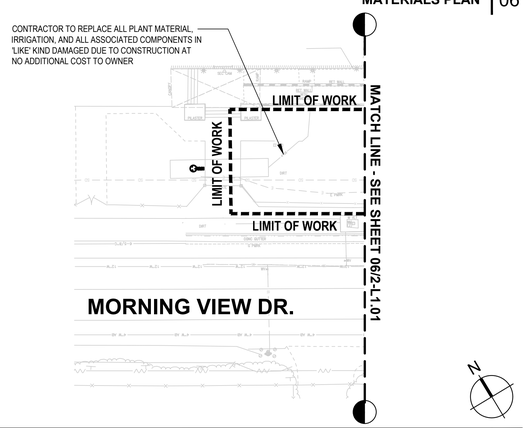
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C	EXISTING FENCE		PROTECT IN PLACE
D	EXISTING GATE		PROTECT IN PLACE
E	EXISTING SITE WALL		PROTECT IN PLACE
F	EXISTING KILN		PROTECT IN PLACE
G	RELOCATED TRANSFORMER	PER ELEC	
H	A.C. PAVING	PER CIVIL	
J	BUILDING CANOPY	PER ARCH	
K	BUILDING COLUMN	PER ARCH	
L	BUILDING STAIRS	PER ARCH	
M	BUILDING ELEVATOR	PER ARCH	
N	MODULAR WETLAND	PER CIVIL	

KEYMAP





MATERIALS PLAN | 06



MATERIALS PLAN | 05

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MALIBU MIDDLE SCHOOL
INCREMENT 02

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Malibu, CA 90265
APN: 4469-017-900
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

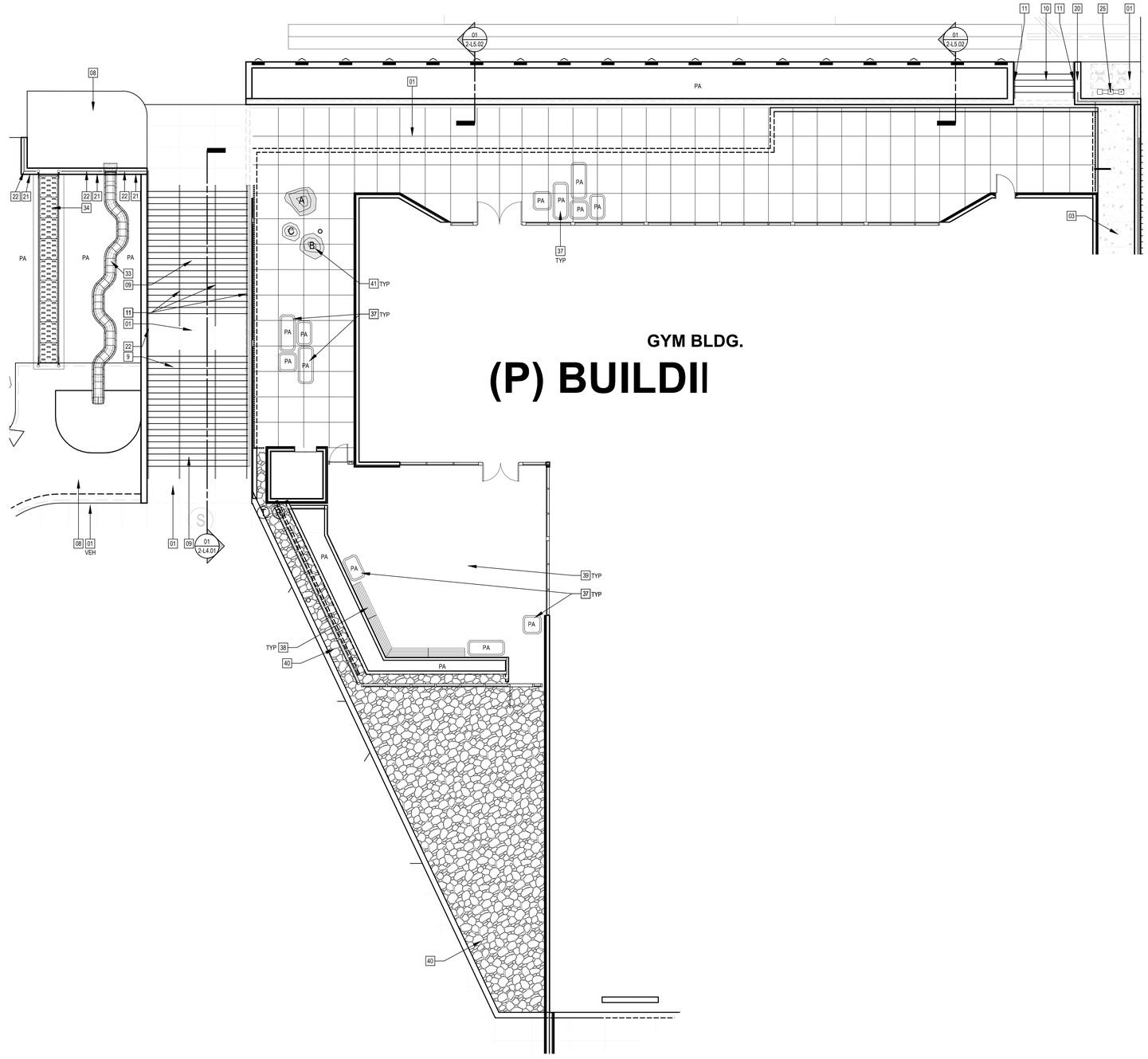
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Submittal	Date
SCHEMATIC DESIGN	09/04/2024
90% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/09/2025
2ND CDP SUBMITTAL	10/03/2025

Job Number	31722
Checked By	
Scale	1"=20'

MATERIALS PLAN

2-L1.03



MATERIALS KEYNOTE LEGEND

NOTE	DESCRIPTION	DET/ SHT	COLOR / FINISH
01	CONCRETE PAVING - TYPE 1	01/ 2-L5.01	NATURAL GREY / TOPCAST 05
02	CONCRETE RAMP		NATURAL GREY / TOPCAST 05
03	CONCRETE PAVING - TYPE 3	01/ 2-L5.01	NATURAL GREY MEDIUM BROOM
04	ROCK MULCH (ON GRADE)	16/ 2-L5.01	'TOPANGA' BY DECORATIVE STONE SOLUTIONS
05	CONCRETE PAVING - TYPE 5	01/ 2-L5.01	DAVIS COLOR 'MOCHA' / TOP CAST 25
06	CONCRETE FLUSH CURB UNDER SYNTHETIC TURF	09/ 2-L5.01	NATURAL GREY / SMOOTH TROWEL
07	DECORATIVE BOULDERS	24/ 2-L5.01	'TOPANGA' TYPE A,B,C PER DETAIL AVAIL. BY DECORATIVE STONE SOLUTIONS
08	SYNTHETIC TURF SURFACING	08/ 2-L5.01	PER DETAIL
09	CONCRETE STAIRS - TYPE 1	17/ 2-L5.01	NATURAL GREY / TOP CAST 05
10	CONCRETE STAIRS - TYPE 2	17/ 2-L5.01	DAVIS COLOR 'MOCHA' / TOP CAST 05
11	HANDRAIL AT STAIRS	01/ 2-L5.03	STAINLESS STEEL
12	CONCRETE RAMP	01/ 2-L5.01	DAVIS COLOR 'MOCHA' / TOP CAST 25
13	HANDRAIL AT RAMP	07/ 2-L5.03	STAINLESS STEEL
14	CONCRETE RETAINING WALL - TYPE 1	02/ 2-L5.02	NATURAL GREY AS CAST SMOOTH TROWEL
15	CONCRETE FREESTANDING WALL - TYPE 2	20/ 2-L5.02	DAVIS COLOR 'MOCHA' / TOP CAST 03, ETCH
16	CONCRETE RETAINING WALL W/ TOE KICK - TYPE 3	10/ 2-L5.02	DAVIS COLOR 'MOCHA' / TOP CAST 03, ETCH
17	CMU WALL	03/ 2-L5.02	PER DETAIL
18	NOT USED		
19	CONCRETE CHEEK WALL AT STAIRS - TYPE 6	09/ 2-L5.02	NATURAL GREY AS CAST SMOOTH TROWEL
20	CONCRETE CHEEK WALL AT STAIRS - TYPE 7	09/ 2-L5.02	DAVIS COLOR 'MOCHA' / TOP CAST 03, ETCH
21	CONCRETE WALL - TYPE 8	09/ SIM. 2-L5.02	NATURAL GREY / AS CAST SMOOTH TROWEL
22	GUARDRAIL AT WALL	13/ 2-L5.03	STAINLESS STEEL
23	6' HT. CHAIN LINK SERVICE GATE	03/ 2-L5.05	GALVANIZED STEEL
24	6' HT. CHAIN LINK FENCE	04/ 2-L5.05	GALVANIZED STEEL
25	DRINKING FOUNTAIN	17/ 2-L5.06	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF.
26	BIKE RACK	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF. RECOM.
27	TABLES / BENCHES	PER PLAN	SEE SITE FURN. LEGEND 2-L0.01 INSTALL PER MANUF.
28	SKATEBOARD STORAGE RACK	PER PLAN	POWDER COATED 8 STORAGE CAP
29	CONVENIENCE POWER PEDESTALS	PER ELEC	CHRG. W/ (1) GFCI AND (1) USB
30	SITE LIGHTING	15, 23/ 2-L5.06	CUSTOM COLOR/ CUSTOM FINISH
31	METAL PANEL DOUBLE GATE - CMU ENCLOSURE	01/ 2-L5.06	CORRUGATED METAL
32	CLIMBING WALL (OVER (N) MDF)	11/ 2-A8.44	CUSTOM COLOR/FINISH BY 'EL DORADO CLIMBING'
33	SLIDE	01, 03/ 2-L5.04	CUSTOM COLOR/FINISH BY COLUMBIA CASCADE
34	BLOCK CLIMBER	19/ 2-L5.04	CUSTOM COLOR/FINISH BY COLUMBIA CASCADE
35	SHADE PAVILION CANOPY	01/ 2-L5.05	CUSTOM COLOR/ CUSTOM FINISH
36	CIP CONCRETE WALLS W/ TOE KICK LIGHTING	- -	CUSTOM COLOR/ CUSTOM FINISH
37	FREESTANDING LIGHTWEIGHT PLANTERS	PER PLAN	MONTARA BY 'TOURNESOL'/ MA-363630 (QTY. 4) MA-483024 (QTY. 3) MA-723024 (QTY. 5)
38	RAISED METAL PLANTERS WITH WOOD SEATING	01, 02/ 2-A8.42	KITSAP MDLR. PLNTR. WALLS W/ RETURN LIP / 30" HT. WITH 'WALLY A' STYLE BENCH BY 'TOURNESOL'
39	COMPOSITE TREX SYSTEM	D1/ 2-A8.12	'TREX TRANSCEND' DECKING CUSTOM CLR./FNSH.
40	DECORATIVE ROCK MULCH (ON STRUCTURE)	20/ 2-L5.01 SIM	'TOPANGA' / 2"-4" IN SIZE AVAIL. BY DECORATIVE STONE SOLUTIONS
41	LIGHTWEIGHT BOULDER ON STRUCTURE	24/ 2-L5.01 SIM	TYPE A,B,C PER DETAIL AVAIL. BY DECORATIVE STONE SOLUTIONS
42	BASKETBALL COURT	13/ 2-L5.04	PER DETAIL
43	BASKETBALL POLE AND ASSEMBLY (REUSED)	10/ 2-L5.04	PER DETAIL
44	WALK OFF MAT	13/ 2-L5.01	GRIDLINE G6 STAINLESS STEEL BY 'CS CONST. SPECIALTIES'
45	6' HT. CHAIN LINK DBL. SWING PEDESTRIAN GATE	04/ 2-L5.06	GALVANIZED STEEL
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N — PLAN NORTH

N — TRUE NORTH

0 4 8 16

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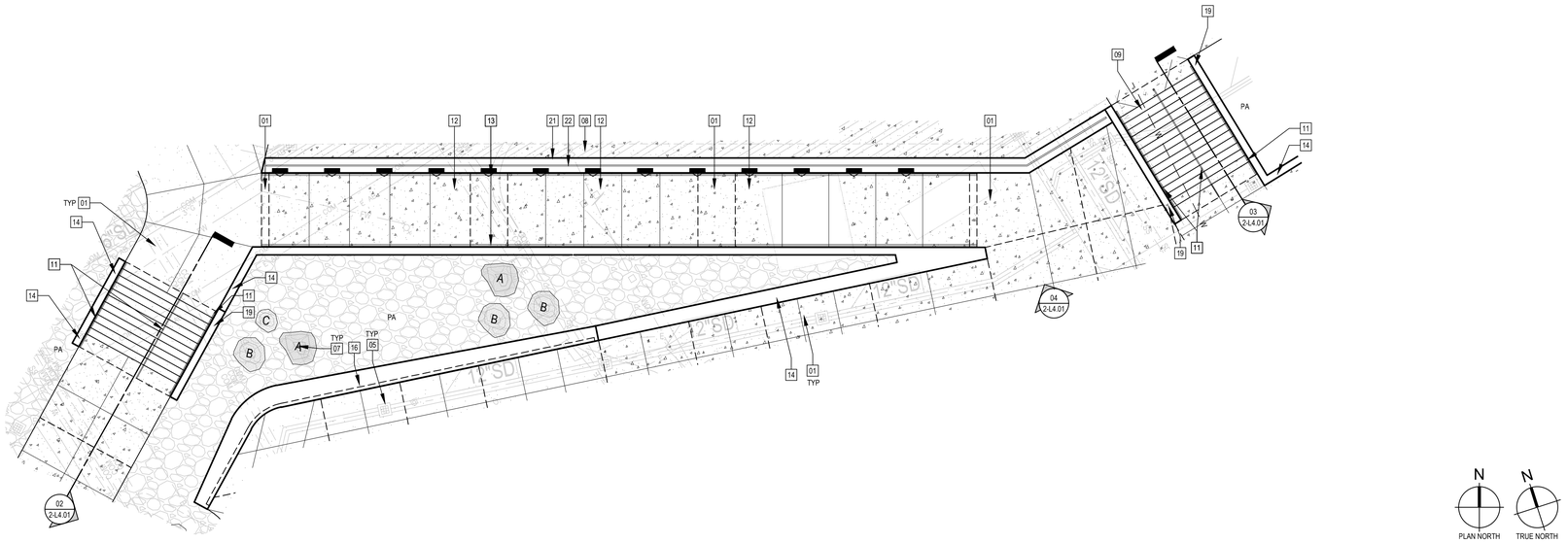
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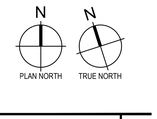
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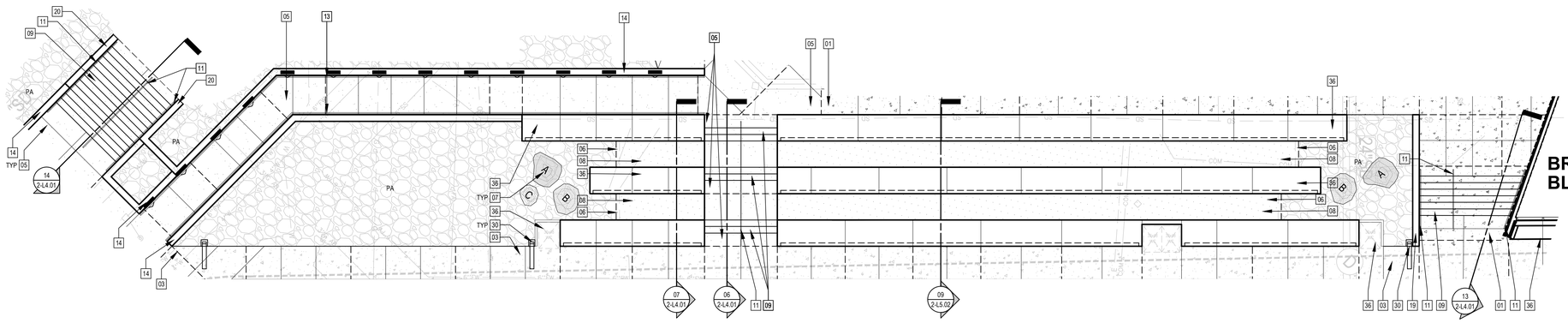
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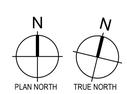
MATERIALS AND LAYOUT ENLARGEMENT PLAN

2-L3.01









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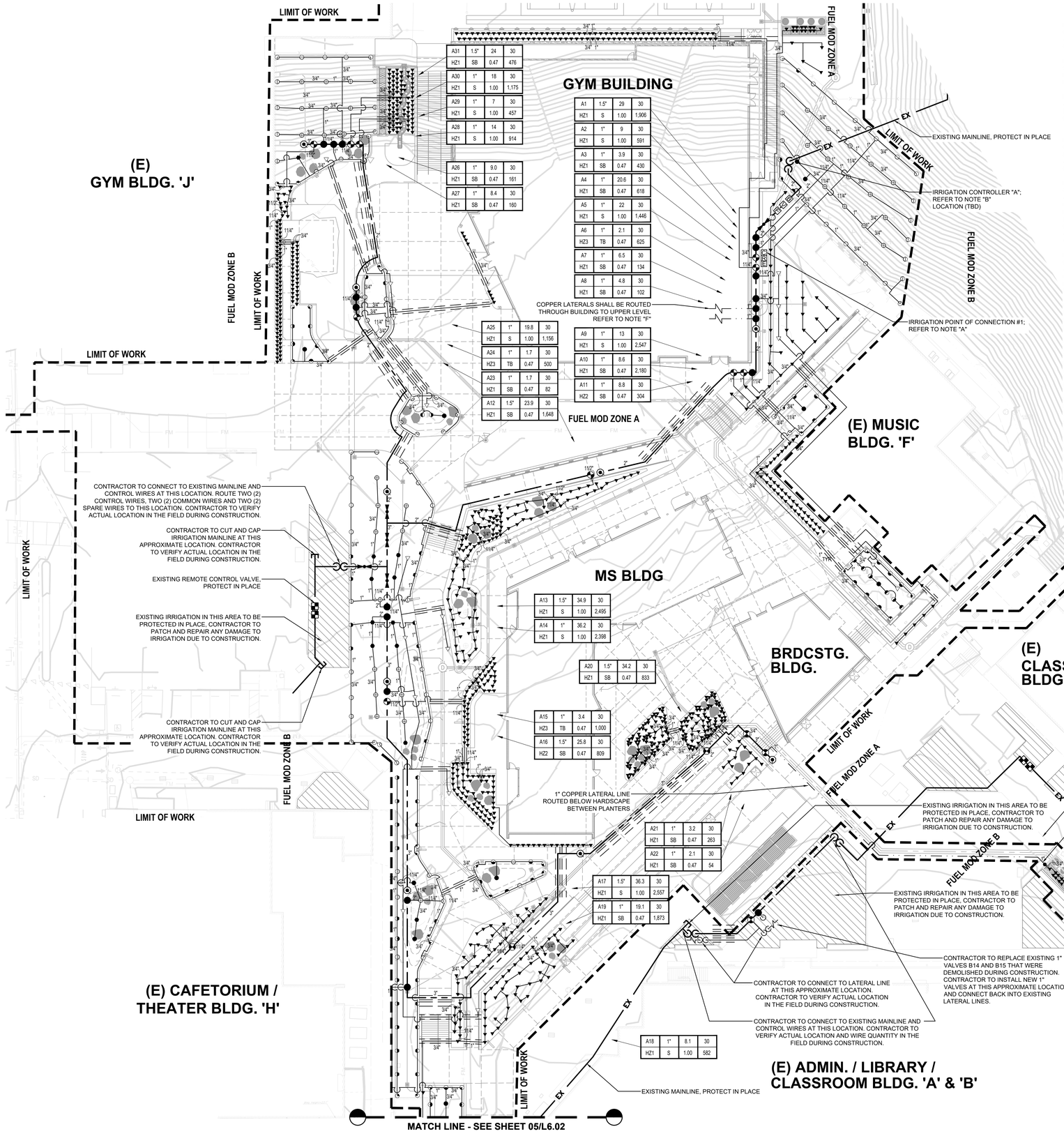
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Job Number	31722
Checked By	
Scale	1/8" = 1'

MATERIALS AND LAYOUT ENLARGEMENT PLAN

2-L3.02



EXISTING IRRIGATION NOTES

NOTE 1:
CONTRACTOR SHALL MAINTAIN EXISTING MAINLINES IN WORKING ORDER. COORDINATE ALL INTERRUPTIONS OF OPERATION OF THE EXISTING IRRIGATION TO A MINIMUM. COORDINATE ALL INTERRUPTIONS WITH THE OWNER'S REPRESENTATIVE.

NOTE 2:
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING IRRIGATION EQUIPMENT DAMAGED DURING CONSTRUCTION AND IF DAMAGED, SHALL REPLACE WITH SAME MANUFACTURER AND MODEL.

NOTE 3:
ANY EXISTING IRRIGATION CONTROL VALVES CONNECTED TO EXISTING CONTROLLER SHALL BE RECONNECTED TO EXISTING CONTROLLER. CONFIRM PROPER CONTROLLER OPERATION AND INSTALLATION WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK AND UPON COMPLETION OF WORK.

NOTE 4:
CONTRACTOR SHALL CONFIRM THE EXISTING CONTROLLER MAKE AND MODEL AND SHALL CONFIRM THAT SAID CONTROLLER HAS ADEQUATE OPEN STATIONS TO OPERATE ANY ADJUSTED AND ALL PROPOSED IRRIGATION SYSTEM MODIFICATIONS. NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE SHOULD ANY DISCREPANCIES BE NOTED.

NOTE 5:
CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR/MODIFICATION/REROUTING OF ALL ADJACENT IRRIGATION SYSTEM EQUIPMENT THAT IS AFFECTED BY NEW CONSTRUCTION IMPROVEMENTS. CONTRACTOR SHALL REPAIR SAID SYSTEMS TO A LIKE NEW MANNER, PROVIDING NO LESS THAN 100% OF HEAD RADIUS COVERAGE IN ALL AREAS WITH SYSTEM LAYOUT AS APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL CONFIRM ALL AREAS REQUIRING MODIFICATION WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO BIDDING WORK AND PRIOR TO STARTING WORK.

NOTE 6:
CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL AND DISPOSAL OF ALL EXISTING IRRIGATION EQUIPMENT AFFECTED BY THE NEW CONSTRUCTION IMPROVEMENTS, IF NECESSARY. CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO BE REMOVED AND DISPOSED OF IN FIELD PRIOR TO BIDDING WORK AND PRIOR TO STARTING WORK.

NOTE 7:
CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO BIDDING WORK AND AGAIN PRIOR TO STARTING WORK. VERIFICATION SHALL BE DOCUMENTED AND DELIVERED TO OWNER'S REPRESENTATIVE.

NOTE 8:
CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT OF ALL SCH 40 PVC SLEEVING UNDER PAVING, WALLS AND CURBS AT NO LESS THAN 24" BELOW GRADE AND NO LESS THAN 2X DIAMETER OF IRRIGATION PIPE IN AREAS WHERE PIPE CROSSING WILL OCCUR. WHEN PIPE SIZE IS NOT AVAILABLE USE 6" SLEEVING MATERIAL. CONFIRM CROSSINGS WITH OWNER'S REPRESENTATIVE PRIOR TO PAVING AND HARDSCAPE CONSTRUCTION.

NOTE 9:
EXISTING IRRIGATION IN THIS AREA SHALL BE PROTECTED IN PLACE FOR CONTINUED USE. CONTRACTOR SHALL VERIFY THE EXTENT OF THE EXISTING SYSTEM AND MAKE ADJUSTMENTS TO CAP OFF OR MODIFY THE EXISTING SYSTEM TO MEET THE NEW LANDSCAPE CONDITION IF NECESSARY.

NOTE 10:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING WITHIN THE DRIPLINE OF EXISTING TREES. NO MECHANICAL TRENCHING WITHIN THE DRIPLINE OF THE EXISTING TREE WILL BE ALLOWED. AIR SPADE SHALL BE UTILIZED FOR ALL TRENCHING WITHIN THE DRIPLINE OF TREES. CONTRACTOR SHALL REFER TO ARBORIST REPORT FOR ADDITIONAL PRECAUTIONS REQUIRED FOR THE EXISTING TREES. VERIFY ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE.

NOTE A:
POINT OF CONNECTION (POC) #1 SHALL BE A CONNECTION TO AN EXISTING 4" DOMESTIC IRRIGATION WATER MAINLINE DOWNSTREAM OF AN EXISTING 2" IRRIGATION METER WITH A 2" SERVICE LINE. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION, WATER TYPE, METER SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. MEASUREMENT OF THE STATIC (NO WATER MOVING) WATER PRESSURE IS ACCEPTABLE FOR POTABLE WATER SYSTEMS WHERE NO PUMP HAS BEEN INDICATED ON THESE PLANS. WHEN USING RECYCLED WATER, OR ON POTABLE WATER SYSTEMS REQUIRING A PUMP, ONLY THE MEASUREMENT OF DYNAMIC (WATER MOVING THROUGH THE METER) WATER PRESSURE, SHALL BE ACCEPTABLE. THE DYNAMIC WATER PRESSURE SHALL BE MEASURED AT THE MAXIMUM SYSTEM DEMAND AS INDICATED BELOW. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION AS SHOWN HEREIN, ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

WATER PRESSURE AT POC:	145	PSI (STATIC)
DESIGN WATER PRESSURE:	77	PSI
MAXIMUM SYSTEM DEMAND:	36	GPM
RESIDUAL WATER PRESSURE:	68	PSI

NOTE B:
CONTROLLER "A" SHALL BE OF THE BRAND, MODEL AND STATION SIZE AS INDICATED ON THE IRRIGATION MATERIALS LEGEND. THE CONTROLLER SHALL BE INSTALLED IN THE APPROXIMATE LOCATION SHOWN. THE CONTRACTOR SHALL COORDINATE THE REQUIRED ELECTRICAL POWER SUPPLY AT THIS LOCATION WITH THE OWNER'S AUTHORIZED REPRESENTATIVE. FINAL LOCATION OF CONTROLLER AND ELECTRICAL POINT OF CONNECTION SHALL BE CONFIRMED WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

NOTE C:
THESE PLANS ARE DIAGRAMMATIC, THE MAINLINE AND RELATED IRRIGATION EQUIPMENT IS SHOWN WITHIN THE PAVING FOR CLARITY ONLY. THE ACTUAL LOCATION OF MAINLINE AND RELATED IRRIGATION EQUIPMENT SHALL BE WITHIN PLANTER AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES, TYPICAL.

NOTE D:
CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR IN THE LANDSCAPE, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, TREES, ETC. WHEN A SLIGHT RELOCATION OF THE HEAD IS NOT SUFFICIENT TO CLEAR THE OBSTACLE, OR IF IT NEGATIVELY AFFECTS THE COVERAGE, AN ADDITIONAL HEAD SHALL BE INSTALLED TO PLACE ONE HEAD ON EITHER SIDE OF THE OBSTACLE. THE NOZZLES OF THESE TWO HEADS SHALL HAVE ARC PATTERNS THAT ADD UP TO THE ORIGINAL ARC PATTERN OF THE HEAD INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

NOTE E:
THESE PLANS ARE DIAGRAMMATIC, TREE BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN THE PAVING FOR CLARITY ONLY, THE ACTUAL LOCATIONS SHALL BE WITHIN THE PLANTER. THE TREE BUBBLERS SHALL BE AUGNED WITH TREES AS SHOWN ON THE PLANTING PLANS, AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

NOTE F:
LATERAL LINE PIPING WITHIN BUILDING SHALL BE A TYPE K COPPER AND IS SHOWN FOR CLARITY ONLY, ACTUAL DESIGN AND ROUTING SHALL BE COMPLETED BY PLUMBING ENGINEER AND INSTALLED BY PLUMBING CONTRACTOR. EACH STUB-OUT WITHIN EACH PLANTER SHALL HAVE A COPPER FEMALE ADAPTER FOR THE LANDSCAPE CONTRACTOR CONNECTION. ALL PIPING THROUGH BUILDING TO EXTERIOR AND THROUGH BUILDING TO UPPER FLOOR SHALL BE PROVIDED BY PLUMBER.

NOTE G:
PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND LANDSCAPE ARCHITECT A SCALED SHOP DRAWING INDICATING THE PROPOSED LOCATIONS FOR THE IRRIGATION EQUIPMENT LISTED BELOW. THE SHOP DRAWING SHALL BE PREPARED TO THE SATISFACTION OF THE OWNER AND LANDSCAPE ARCHITECT. SHOP DRAWINGS MUST INCLUDE THE PROPOSED LOCATIONS FOR THE FOLLOWING ITEMS:

1. POINT OF CONNECTION (INCLUDING WATER POC, BACK FLOW DEVICES, MASTER CONTROL VALVES, FLOW SENSORS, ETC.)
2. ISOLATION VALVES
3. AUTOMATIC CONTROL VALVES (INDICATE STATION NUMBER)
4. QUICK COUPLING VALVES
5. IRRIGATION CONTROLLER(S)
6. RELATED EQUIPMENT (AS MAY BE DIRECTED).

EACH PIECE OF AFOREMENTIONED EQUIPMENT SHALL HAVE IT'S PROPOSED INSTALLED LOCATION SHOWN ON THE SHOP DRAWINGS. THE SYMBOL FOR EACH PRODUCT SHALL BE A SCALED REPRESENTATION OF THE FOOTPRINT OF THE EQUIPMENT OR THE VALVE BOX IN WHICH THE EQUIPMENT IS INSTALLED. CONTRACTOR SHALL INSTALL ALL VALVE BOXES AND RELATED EQUIPMENT PER THE OWNER APPROVED SHOP DRAWINGS. ONCE THE SHOP DRAWING LOCATIONS ARE APPROVED, THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO ADJUSTMENTS TO THE APPROVED VALVE BOX PLACEMENT WITHOUT PRIOR WRITTEN ACCEPTANCE. ANY IRRIGATION EQUIPMENT INSTALLED WITHOUT PRIOR APPROVAL WITH SHOP DRAWINGS WILL BE SUBJECT TO RELOCATION BASED ON DIRECTION BY THE LANDSCAPE ARCHITECT AT THE CONTRACTOR'S EXPENSE.

WATER PRESSURE LOSS CALCULATIONS

WATER METER NUMBER	1	WATER METER SIZE (Inches)	1.00
HYDRAULIC GRADE LINE (FT)	110	WATER METER ELEVATION (FT)	110
ELEVATION DIFFERENCE (FT)	0	STATIC PRESSURE (PSI)	145.0
REMOTE CONTROL VALVE #	A1	REMOTE CONTROL VALVE SIZE (In.)	1.00
R.C.V. DEMAND (GPM)	29	TOTAL DEMAND (GPM)	29
HIGHEST HEAD SERVED (FT)	135	STATIC PRESSURE AT HIGHEST HEAD	134.2

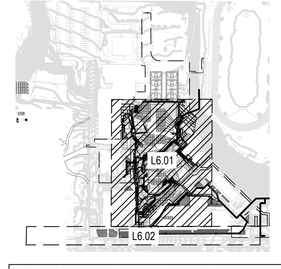
sweeney + associates — IRRIGATION DESIGN AND CONSULTING

PRESSURE LOSS CALCULATION IS PROVIDED FOR THIS PROJECT BY SWEENEY & ASSOCIATES, INC. UNAUTHORIZED USE BY ANY OTHER PERSON, COMPANY OR PROJECT IS FORBIDDEN WITHOUT WRITTEN PERMISSION.

SIZE (Inches)	DESCRIPTION	FLOW	#	LOSS	
2.00	SERVICE LINE (50 FT OF TYPE K COPPER)	29	1	0.50	PSI
2.00	WATER METER (XXXX TYPE)	29	2	3.30	PSI
2.00	BACKFLOW PREVENTER (R/P TYPE)	29	3	12.00	PSI
2.00	FILTRATION (WYE FILTER)	29	4	0.30	PSI
2.00	PRESSURE REGULATOR (WILKINS 500HLR)	29	5	3.50	PSI
2.00	BFD ASSEMBLY PIPING (BRASS W/ 4 ELLS)	29	6	0.60	PSI
1.50	MASTER CONTROL VALVE	29	7	1.53	PSI
1.50	FLOW SENSOR	29	8	1.00	PSI
1.50	ISOLATION VALVES (BALL TYPE)	29	9	1.00	PSI
3.00	450 FEET OF MAINLINE: CL. 315 PVC	29	10	3.74	PSI
3.00	10 - 90 DEGREE ELBOWS	29	13	1.41	PSI
1.50	REMOTE CONTROL VALVE ASSEMBLY	29	14	3.50	PSI
10%	LATERAL LINE LOSSES	29	15	3.00	PSI
20%	FITTING LOSS (IN ADDITION TO ELBOWS SHOWN)	N/A	16	0.75	PSI
25.00	ELEVATION CHANGE (P.O.C. TO HIGHEST HEAD)	N/A	17	10.83	PSI
TOTAL SYSTEM PRESSURE LOSS (SUM OF #1 THRU #17)			18	46.9	PSI
PRESSURE REQUIRED AT HEAD (OPERATING PRESSURE)			19	30.0	PSI
TOTAL PRESSURE REQUIRED (SUM OF #18 AND #19)			20	76.9	PSI
STATIC WATER PRESSURE (FROM ABOVE)			21	145.0	PSI
RESIDUAL PRESSURE (SUBTRACT #20 FROM #21)			22	68.1	PSI
SET PRV OR MCV AT (#20 PLUS 10 PSI)			23	86.9	PSI
PRESSURE BOOST, IF REQUIRED (SET TO ACHIEVE 20 PSI RESIDUAL)			24	N/A	PSI

KEYMAP

SCALE=1"=250'-0"



I HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN

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IRRIGATION PLAN | 05

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REGISTERED LANDSCAPE ARCHITECT ANTHONY TOBIN 5939 — STATE OF CALIFORNIA

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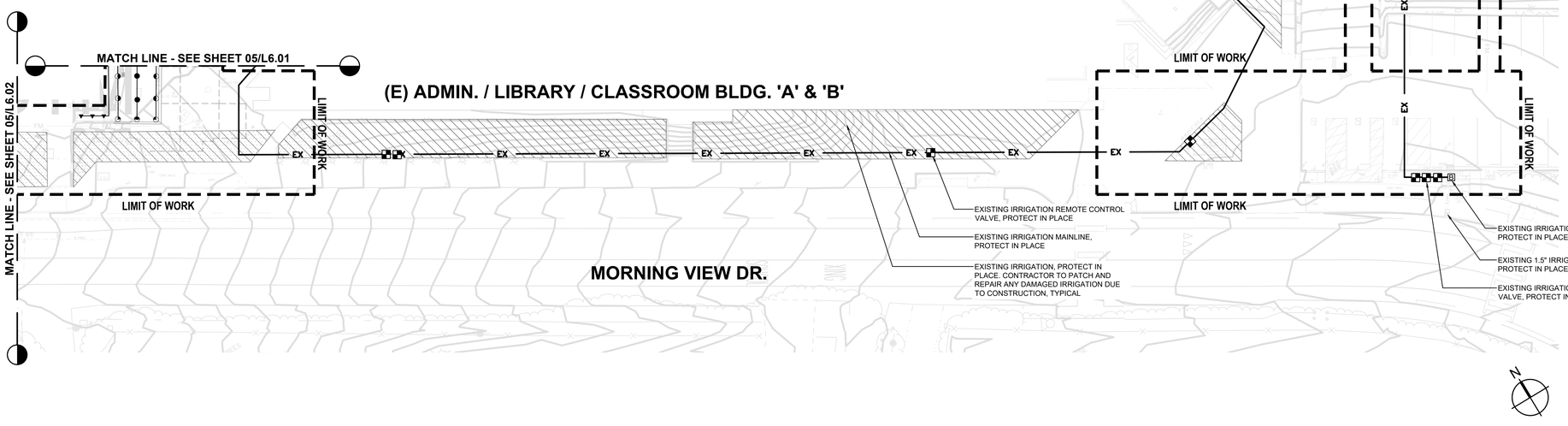
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3RD CDP SUBMITTAL	10/30/2025

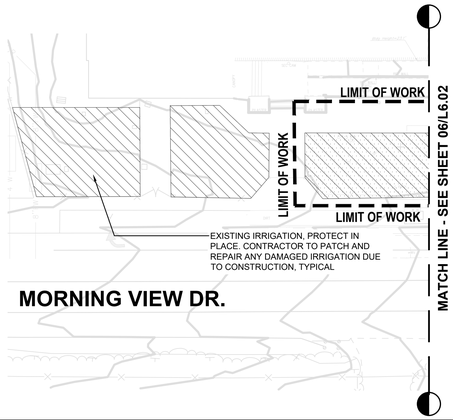
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Scale	1" = 20'

IRRIGATION PLAN

2-L6.01



IRRIGATION PLAN | 06



IRRIGATION PLAN | 05

EXISTING IRRIGATION NOTES

NOTE 1:
CONTRACTOR SHALL MAINTAIN EXISTING MAINLINES IN WORKING ORDER. COORDINATE ALL INTERRUPTIONS OF OPERATION OF THE EXISTING IRRIGATION TO A MINIMUM. COORDINATE ALL INTERRUPTIONS WITH THE OWNER'S REPRESENTATIVE.

NOTE 2:
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING IRRIGATION EQUIPMENT DAMAGED DURING CONSTRUCTION AND IF DAMAGED, SHALL REPLACE WITH SAME MANUFACTURER AND MODEL.

NOTE 3:
ANY EXISTING IRRIGATION CONTROL VALVES CONNECTED TO EXISTING CONTROLLER SHALL BE RECONNECTED TO EXISTING CONTROLLER. CONFIRM PROPER CONTROLLER OPERATION AND INSTALLATION WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK AND UPON COMPLETION OF WORK.

NOTE 4:
CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR/MODIFICATION/REROUTING OF ALL IRRIGATION SYSTEM EQUIPMENT THAT IS AFFECTED BY NEW CONSTRUCTION IMPROVEMENTS. CONTRACTOR SHALL REPAIR SAID SYSTEMS TO A LIKE NEW MANNER, PROVIDING NO LESS THAN 100% OF HEAD RADIUS COVERAGE IN ALL AREAS WITH SYSTEM LAYOUT AS APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL CONFIRM ALL AREAS REQUIRING MODIFICATION WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO BIDDING WORK AND PRIOR TO STARTING WORK.

NOTE 5:
CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO BIDDING WORK AND AGAIN PRIOR TO STARTING WORK. VERIFICATION SHALL BE DOCUMENTED AND DELIVERED TO OWNER'S REPRESENTATIVE.

NOTE 6:
CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT OF ALL SCH 40 PVC SLEEVING UNDER PAVING, WALLS AND CURBS AT NO LESS THAN 24" BELOW GRADE AND NO LESS THAN 2X DIAMETER OF IRRIGATION PIPE IN AREAS WHERE PIPE CROSSING WILL OCCUR. WHEN PIPE SIZE IS NOT AVAILABLE USE 6" SLEEVING MATERIAL. CONFIRM CROSSINGS WITH OWNER'S REPRESENTATIVE PRIOR TO PAVING AND HARDSCAPE CONSTRUCTION.

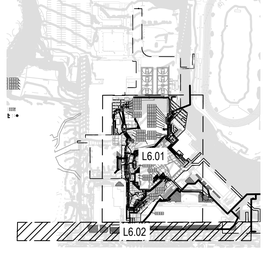
NOTE 7:
EXISTING IRRIGATION IN THIS AREA SHALL BE PROTECTED IN PLACE FOR CONTINUED USE. CONTRACTOR SHALL VERIFY THE EXTENT OF THE EXISTING SYSTEM AND MAKE ADJUSTMENTS TO CAP OFF OR MODIFY THE EXISTING SYSTEM TO MEET THE NEW LANDSCAPE CONDITION IF NECESSARY.

NOTE 8:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING WITHIN THE DRIPLINE OF EXISTING TREES. NO MECHANICAL TRENCHING WITHIN THE DRIPLINE OF THE EXISTING TREE WILL BE ALLOWED. AIR SPADE SHALL BE UTILIZED FOR ALL TRENCHING WITHIN THE DRIPLINE OF TREES. CONTRACTOR SHALL REFER TO ARBORIST REPORT FOR ADDITIONAL PRECAUTIONS REQUIRED FOR THE EXISTING TREES. VERIFY ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE.

PATCH AND REPAIR

KEYMAP

SCALE=1"=250'-0"



I HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN

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ANDREW JOY TOBIN
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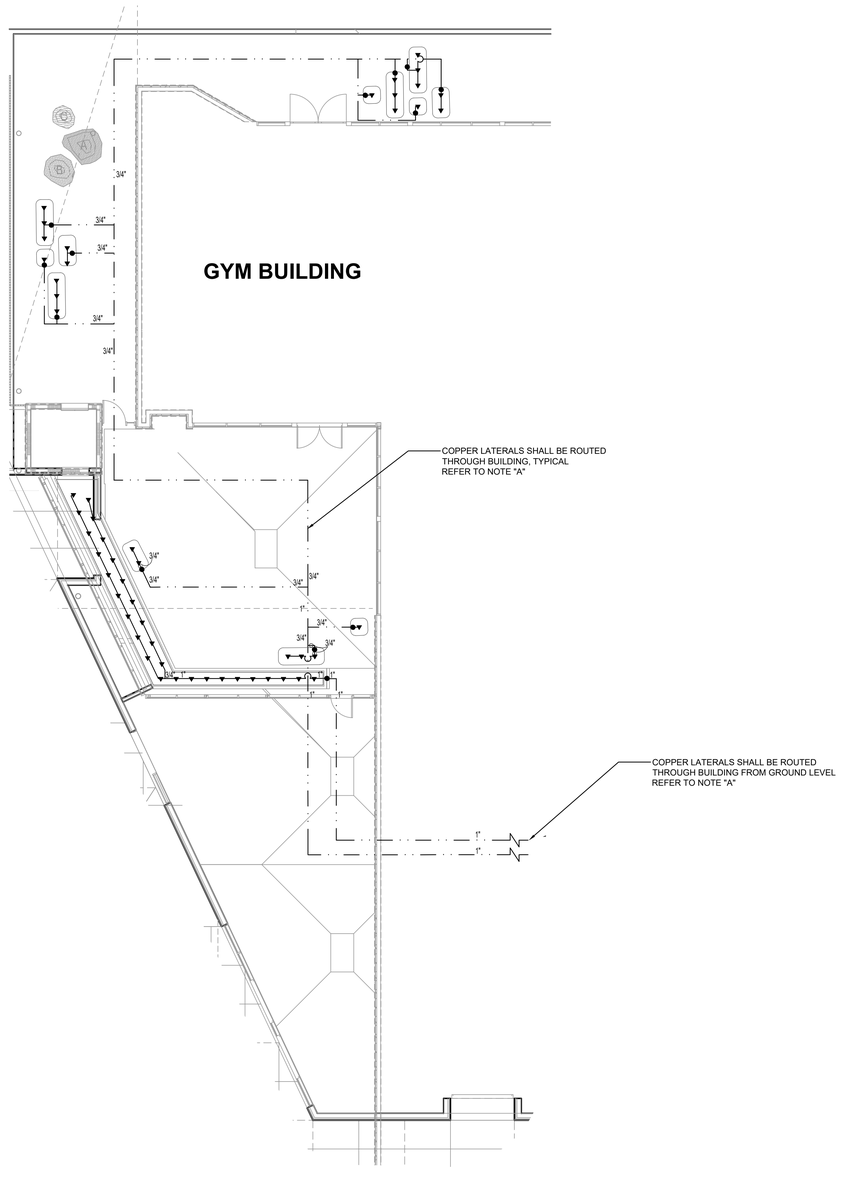
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Scale	1" = 20'

IRRIGATION PLAN

2-L6.02

NOTE A:
LATERAL LINE PIPING WITHIN BUILDING SHALL BE A TYPE K COPPER AND IS SHOWN FOR CLARITY ONLY, ACTUAL DESIGN AND ROUTING SHALL BE COMPLETED BY PLUMBING ENGINEER AND INSTALLED BY PLUMBING CONTRACTOR. EACH STUB-OUT WITHIN EACH PLANTER SHALL HAVE A COPPER FEMALE ADAPTER FOR THE LANDSCAPE CONTRACTOR CONNECTION. ALL PIPING THROUGH BUILDING TO EXTERIOR AND THROUGH BUILDING TO UPPER FLOOR SHALL BE PROVIDED BY PLUMBER.



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IRRIGATION PLAN ENLARGEMENT PLAN 05

I HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN

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Scale	1/8" = 1'

IRRIGATION ENLARGEMENT PLAN

2-L6.03

WATER AUDIT AND MAINTENANCE SCHEDULE

THE CONTRACTOR WILL CONDUCT AN IRRIGATION AUDIT USING A CERTIFIED IRRIGATION AUDITOR, AFTER THE FINAL FIELD OBSERVATION HAS BEEN COMPLETED AND ALL IRRIGATION COMPONENTS ARE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THE IRRIGATION SYSTEM IS ACCEPTED BY THE PROJECT ARCHITECT FOR MAINTENANCE.

THE IRRIGATION AUDIT WILL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

1. PLACE FLAGS AT EACH HEAD IN THE ZONE
2. MEASURE SPACING AND MARK MID POINTS BETWEEN HEADS.
3. PLACE WATER MEASURING RECEPTACLES.
4. TAKE READINGS OF WATER LEVEL IN RECEPTACLES AND RECORD RESULTS.
5. MEASURE HEAD PRESSURE IN EACH ZONE AND RECORD RESULTS.
6. AFTER COMPLETING ZONE ADVANCE TO NEXT ZONE AND REPEAT PROCEDURE.
7. SUBMIT THE RESULTS OF THE AUDIT TO THE PROJECT ARCHITECT.

THE IRRIGATION MAINTENANCE SCHEDULE TASKS LISTED BELOW ARE INTENDED AS MINIMUM STANDARDS AND MORE FREQUENT ATTENTION MAY BE REQUIRED DEPENDING ON THE PARTICULAR SITE CONDITIONS.

MAINTENANCE TASK

1. CONTROLLER CABINET - OPEN CABINET AND CLEAN OUT DEBRIS AND REPLACE BATTERY AS NECESSARY. CHECK WIRING AND REPAIR AS NEEDED AND CHECK CLOCK AND RESET IF NECESSARY.
FREQUENCY: QUARTERLY

2. IRRIGATION SCHEDULE - ADJUST SCHEDULE FOR SEASONAL VARIATIONS AND OTHER CONDITIONS WHICH MAY AFFECT THE AMOUNT OF WATER NEEDED TO MAINTAIN PLANT HEALTH ADJUST AS NECESSARY.
FREQUENCY: MONTHLY

3. POC - VISUALLY INSPECT COMPONENTS FOR LEAKS, PRESSURE SETTINGS, SETTLEMENT OR OTHER DAMAGE AFFECTING THE OPERATION OF A COMPONENT. REPAIR AS NEEDED.
FREQUENCY: QUARTERLY

4. REMOTE CONTROL VALVES, ISOLATION VALVES AND QUICK COUPLER VALVES - VISUALLY INSPECT FOR LEAKS, SETTLEMENT, WIRE CONNECTIONS AND PRESSURE SETTINGS. REPAIR OR ADJUST AS NEEDED.
FREQUENCY: QUARTERLY

5. MAINLINE & LATERALS - VISUALLY INSPECT FOR LEAKS OR SETTLEMENT OF TRENCH.
FREQUENCY: QUARTERLY

6. SPRINKLERS - VISUALLY CHECK FOR ANY BROKEN MISALIGNED OR CLOGGED HEADS. HEADS WITH INCORRECT ARC, INADEQUATE COVERAGE OR OVERSPRAY AND LOW HEAD DRAINAGE. REPAIR AS NEEDED.
FREQUENCY: WEEKLY

7. FILTERS AND STRAINERS - VISUALLY CHECK FOR LEAKS, BROKEN FITTING, CLEAN AND FLUSH SCREENS.

AUDIT SHALL BE IN ACCORDANCE WITH THE LATEST STATE OF CALIFORNIA LANDSCAPE WATER MANAGEMENT PROGRAM AS DESCRIBED IN THE LATEST LANDSCAPE IRRIGATION AUDITOR HANDBOOK. THE LANDSCAPE IRRIGATION AUDITS TO BE CONDUCTED BY A QUALIFIED INDIVIDUAL AND THE AUDIT SCHEDULE SHALL BE CONDUCTED AT LEAST ONCE EVERY FIVE YEARS IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 20, DIVISION 1 OF THE LOS ANGELES COUNTY CODE.

MAINTENANCE SCHEDULES. A REGULAR MAINTENANCE SCHEDULE SATISFYING THE FOLLOWING CONDITIONS SHALL BE SUBMITTED AS PART OF THE LANDSCAPE DOCUMENTATION PACKAGE.

LANDSCAPE SHALL BE MAINTAINED TO ENSURE WATER EFFICIENCY. A REGULAR MAINTENANCE SCHEDULE SHALL INCLUDE, BUT NOT BE LIMITED TO, CHECKING, ADJUSTING, AND REPAIRING IRRIGATION EQUIPMENT, RESETTING THE AUTOMATIC CONTROLLER, AERATING AND DETHATCHING TURF AREAS, REPLENISHING MULCH, FERTILIZING, PRUNING, AND WEEDING IN ALL LANDSCAPE AREAS.

WHENEVER POSSIBLE, REPAIR OF IRRIGATION EQUIPMENT SHALL BE DONE WITH THE ORIGINALLY SPECIFIED MATERIALS OR THEIR EQUIVALENTS.

A LANDSCAPE IRRIGATION AUDIT SCHEDULE AS REQUIRED IN CHAPTER 20.09 OF TITLE 20 MAY BE RECOMMENDED. THE MAXIMUM PERIOD BETWEEN AUDITS SHALL BE FIVE YEARS.

LANDSCAPE IRRIGATION AUDIT SCHEDULES. A SCHEDULE OF LANDSCAPE IRRIGATION AUDITS OF AT LEAST EVERY FIVE YEARS MUST BE ESTABLISHED, FOR ALL BUT SINGLE-FAMILY RESIDENCES, AND OTHER PROJECTS WITH LANDSCAPE AREA LESS THAN 1 ACRE (0.405 HA). AS REQUIRED IN CHAPTER 20.09 OF TITLE 20 (UTILITY CODES), AN AUDIT SATISFYING THE FOLLOWING CONDITIONS SHALL BE SUBMITTED TO THE COUNTY AS PART OF THE LANDSCAPE DOCUMENTATION PACKAGE.

AT A MINIMUM, AUDITS SHALL BE IN ACCORDANCE WITH THE LATEST STATE OF CALIFORNIA LANDSCAPE WATER MANAGEMENT PROGRAM AS DESCRIBED IN THE LANDSCAPE IRRIGATION AUDITOR HANDBOOK, PREPARED FOR THE CALIFORNIA DEPARTMENT OF WATER RESOURCES, WATER CONSERVATION OFFICE, THE ENTIRE DOCUMENT, WHICH IS HEREBY INCORPORATED BY REFERENCE.

THE SCHEDULE SHALL PROVIDE FOR LANDSCAPE IRRIGATION AUDITS TO BE CONDUCTED BY A QUALIFIED INDIVIDUAL AS DETERMINED BY THE DIRECTOR AT LEAST ONCE EVERY FIVE YEARS IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 20, DIVISION 1 OF THE LOS ANGELES COUNTY CODE.

CONTRACTOR TO PROTECT AND PRESERVE IN PLACE ALL EXISTING SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE RESET BY A LICENSED LAND SURVEYOR AND THE APPROPRIATE CORNER RECORD MUST BE FILED WITH THE COUNTY OF LOS ANGELES.

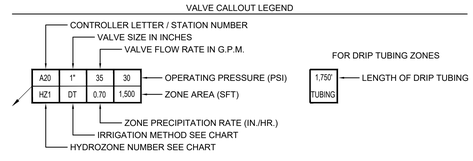
IRRIGATION NOTES

1. ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
3. THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
5. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
6. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
7. INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
8. ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
9. CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAIN LINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS.
10. ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
11. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.
12. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
13. CONTRACTOR SHALL INSTALL ADDITIONAL CHECK VALVES TO HEADS AND LATERALS AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.
14. THE CONTRACTOR SHALL USE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS. SWEENEY AND ASSOCIATES RECOMMENDS MEASURING FOR PROPER GROUND AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH MANUFACTURER SPECIFICATIONS.

IRRIGATION MATERIAL LEGEND

SYMBOL Q	T	H	F	MANUFACTURER	MODEL NO. / DESCRIPTION	FLOW RATE (GPM)	PSI	RADIUS	P.R. (TRI.)	DETAIL
				TORO	570Z-12P-PRX-COM 12" POP-UP SHRUB HEAD WITH 10Q/10T/10H/10F "O" NOZZLES	.23, .34, .51, 1.03	30	10 FT	1.00 IN./HR.	A
				TORO	570Z-12P-PRX-COM 12" POP-UP SHRUB HEAD WITH 12Q/12T/12H/12F "O" NOZZLES	.37, .49, .74, 1.48	30	12 FT	1.00 IN./HR.	A
				TORO	570Z-12P-PRX-COM 12" POP-UP SHRUB HEAD WITH 15Q/15T/15H/15F "O" NOZZLES	.58, .77, 1.16, 2.31	30	15 FT	1.00 IN./HR.	A
▼				TORO	570Z-6P-PRX-COM 6" POP-UP BUBBLER HEAD WITH A SB-90-PC2 STREAM NOZZLE . EACH SYMBOL REPRESENTS ONE BUBBLER PER SHRUB. SHRUBS SPACED AT 24" O.C TYPICAL.	.21	30	1.5 FT	0.47 IN./HR. (F)	A
▽				TORO	570Z-6P-PRX-COM 6" POP-UP BUBBLER HEAD WITH A 2B-90-PC2 STREAM BUBBLER NOZZLE. EACH SYMBOL REPRESENTS TWO (2) BUBBLERS PER TREE OR PALM. PLACE BUBBLERS AT EDGE OF ROOT BALL ON OPPOSITE SIDES OF TREE OR PALM, TYPICAL. ADJUST BUBBLER STREAMS TO WET THE ROOT BALL AND AMENDED SOIL WITHOUT HITTING THE TRUNK OF THE TREE OR PALM.	.21 (.42 TOTAL)	30	1.5 FT	0.47 IN./HR. (F)	A,B
	B			WILKINS	975XLS, 2" R/P BACK FLOW PREVENTION DEVICE WITH WYE STRAINER, INSTALL WITH BRASS NIPPLES, UNIONS AND FITTINGS, SIZED PER DEVICE					C
NO SYMBOL				WILKINS	500XL-HLR 2" BRONZE, HIGH LOW RANGE (10-125 PSI) PRESSURE REGULATOR, WITH SINGLE UNION FIPT X FIPT CONNECTIONS, INSTALL PRESSURE REGULATOR ON THE DOWNSTREAM SIDE OF THE BACK FLOW DEVICE. SET WATER PRESSURE TO 10 PSI ABOVE DESIGN PRESSURE SHOWN ON POC NOTES.					C
NO SYMBOL				V.I.T.	STRONG BOX SBBC-45SS "SMOOTH TOUCH" STAINLESS STEEL BACK FLOW DEVICE ENCLOSURE					C
	V			BUCKNER	3300-150 1 1/2" NORMALLY OPEN, BRASS MASTER CONTROL VALVE. WIRE MCV TO THE CONTROLLER USING A SEPARATE PILOT AND GROUND WIRE, ROUTE INSIDE CONDUIT WITH FLOW SENSOR WIRE. INSTALL INSIDE A STANDARD RECTANGULAR VALVE BOX.					D
	F			CALSENSE	FM-1.5B, 1 1/2" BRASS FLOW SENSOR, WIRE TO CONTROLLER USING TWO (2) #14UF AWG WIRES INSIDE A 1" CONDUIT, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.					E
				WATTS	FBC-3C BRONZE BALL VALVE, SIZE TO MATCH MAINLINE SIZE					F
				RAIN BIRD	HQ-44RC, 1" QUICK COUPLER VALVE, INSTALL WITHIN 10" ROUND VALVE BOX , INSTALL WATTS 11/2" FBC-3C BALL VALVE UPSTREAM OF QCV					G
				SUPERIOR	950 SERIES BRASS REMOTE CONTROL VALVE, SIZE AS SHOWN (1" AND 1 1/2" SIZES). INSTALL A WATTS FBC-3C, FULL PORT BRONZE BALL VALVE ON THE UPSTREAM SIDE OF EACH RCV, SIZE PER RCV SIZE.					H
				SUPERIOR	SUPERIOR 950I SERIES, SIZE AS SHOWN (1" AND 1 1/2" SIZES). INSTALL A DISC FILTER AND AN INLINE PRESSURE REGULATOR ON THE DOWNSTREAM SIDE OF EACH DRIP REMOTE CONTROL VALVE (DRCV). FOR 1" DRCV'S INSTALL A RAIN BIRD LCRBY-100D DISC FILTER AND A SENNINGER 1" PMR-40-MF PRESSURE REGULATOR. FOR 1 1/2" DRCV'S INSTALL A RAIN BIRD LCRBY-150D DISC FILTER AND A SENNINGER 1 1/4" PMR-40-HF PRESSURE REGULATOR. USE A 1 1/2" SCH. 40 PVC THREADED COUPLING, A 1 1/2" X 1 1/4" PVC THREADED REDUCER BUSHING, AND A 1 1/4" X 2" SCH. 80 PVC NIPPLE AS REQUIRED TO CONNECT THE 1 1/4" REGULATOR TO THE DOWNSTREAM SIDE OF THE 1 1/2" FILTER. INSTALL THE DRCV ASSEMBLY INSIDE A JUMBO RECTANGULAR VALVE BOX. INSTALL A WATTS FBC-3C, FULL PORT BRONZE BALL VALVE ON THE UPSTREAM SIDE OF EACH RCV, SIZE PER RCV SIZE.					H,I
				EXISTING	EXISTING REMOTE CONTROL VALVE, PROTECT IN PLACE UNLESS OTHERWISE NOTED					A
	C			I.T.S. CALSENSE	IMPERIAL TECHNICAL SERVICES CALSENSE CONTROLLER ASSEMBLY, CONTROLLER 'C' MOD.# ICA1-CS3-48/CSTP110/CS3EN/CS3POC/FM15B/3300-150 COORDINATE CAT 5 OR 6 CABLE WITH A RJ-45 JACK IN CONDUIT BETWEEN THE CONTROLLER AND THE NEAREST ROUTER. RUN NOT TO EXCEED 328' INCLUDING BENDS AND TWISTS. CONTACT DARYL GREEN @ 949.584.7311 AT IMPERIAL TECHNICAL SERVICES					J
NO SYMBOL				PAIGE ELECTRIC	THE CONTROLLER SHALL BE GROUNDED USING A #182000 5/8" X 8 FOOT COPPER CLAD GROUND ROD, A #182005 CAST BRONZE ROD CLAMP AND THE REQUIRED LENGTH OF #6AWG BARE, SINGLE STRAND COPPER GROUND WIRE.					K
	E			N/A	120 VOLT ELECTRICAL POWER FOR CONTROLLER, PROVIDED BY ELECTRICIAN, VERIFY ACTUAL LOCATION IN FIELD					N/A
				AS APPROVED	PVC PIPE 3/4" - 1 1/2" SCH. 40, SOLVENT WELD WITH SCH. 40 PVC FITTINGS, AS LATERAL LINES INSTALLED 12" BELOW FINISHED GRADE					L
				AS APPROVED	PVC PIPE 2" - 3" CL. 315, SOLVENT WELD WITH SCH. 80 PVC FITTINGS, AS MAINLINES. 2" MAINLINES INSTALLED 18" BELOW FINISHED GRADE, 3" MAINLINES INSTALLED 24" BELOW FINISHED GRADE.					L,N
		EX		EXISTING	EXISTING IRRIGATION MAINLINE, PROTECT IN PLACE					N/A
				AS APPROVED	PVC PIPE SCH. 40 AS SLEEVING, 2 TIMES THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED (2" MINIMUM SIZE) INSTALL ALL PIPE AND WIRE UNDER PAVING, HARDSCAPE, ETC. (OR AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE) INSIDE SLEEVES. SLEEVES UNDER PEDESTRIAN PAVING SHALL BE INSTALLED 24" BELOW FINISHED GRADE. SLEEVES UNDER VEHICULAR PAVING SHALL BE INSTALLED 36" BELOW FINISHED GRADE.					M
NO SYMBOL				LASCO	ALL FITTINGS USED WITH SOLVENT WELD MAINLINE PIPE SHALL BE SCH. 80 PVC FITTINGS, GRAY IN COLOR, AND SIZED TO MATCH THE MAINLINE PIPE. ALL FITTINGS USED WITH SOLVENT WELD LATERAL LINE PIPE SHALL BE SCH. 40 PVC, WHITE IN COLOR, AND SIZED TO MATCH THE LATERAL LINE PIPE. ALL THREADED PVC NIPPLES SHALL BE SCH. 80 PVC PIPE, DARK GRAY IN COLOR, WITH MOLDED THREADS.					N/A
NO SYMBOL				AS APPROVED	ALL SOLVENT WELD CONNECTIONS FOR BOTH MAINLINE AND LATERAL LINE SHALL BE MADE USING THE TWO-STEP PROCESS OF PRIMER AND SOLVENT CEMENT. PRIMER SHALL BE LOW VOC "PURPLE PRIMER". MAINLINE SOLVENT CEMENT SHALL BE LOW VOC, "GRAY-HEAVY BODY" CEMENT. LATERAL LINE SOLVENT CEMENT SHALL BE LOW VOC, GRAY OR BLUE COLORED MEDIUM BODIED CEMENT. USE DAUBERS SIZED AT LEAST ONE-HALF THE SIZE OF THE LARGEST PIPE BEING JOINED. ALL SOLVENT CEMENTED JOINTS SHALL BE MADE PER THE PIPE AND FITTING MANUFACTURER'S RECOMMENDATIONS.					N/A
NO SYMBOL				AS APPROVED	ALL SOLVENT WELD MAINLINES ABOVE 2" IN SIZE SHALL HAVE CONCRETE THRUST BLOCKING INSTALLED AT ALL DIRECTIONAL CHANGES INCLUDING ELBOWS (45° AND 90°) AND TEES. MAINLINE PIPES UNDER 2" SIZE AND ALL LATERAL LINES DO NOT REQUIRE THRUST BLOCKING.					N
				AS APPROVED	TYPE 'K' COPPER PIPING ROUTED BETWEEN PLANTERS UNDER STEPPED PAVING. COPPER PIPING SHALL BE INSTALLED BY THE LANDSCAPE CONTRACTOR. COPPER PIPING SHOWN IS FOR REFERENCE ONLY. VERIFY LOCATION, SIZE AND STUB-OUTS OF COPPER PIPING IN THE FIELD PRIOR TO STARTING WORK.					N/A
				AS APPROVED	CONNECTION POINT BETWEEN COPPER PIPING AND PVC IRRIGATION PIPING. COPPER PIPE STUB-OUT SHALL HAVE A LINE SIZED SWEAT X FIPT COPPER ADAPTER PROVIDED FOR CONNECTION TO THE IRRIGATION PIPING. USE A LINE SIZED X 6" SCH. 80 T.O.E. PVC NIPPLE AND A LINE SIZED PVC COUPLING FOR THE CONNECTION. VERIFY LOCATION, SIZE AND STUB-OUTS OF COPPER PIPING IN THE FIELD PRIOR TO STARTING WORK.					N/A
NO SYMBOL				PAIGE ELECTRIC	P7079D POLYETHYLENE INSULATED, SOLID COPPER CONDUCTOR IRRIGATION CONTROL WIRE #14UF AWG DIRECT BURIAL (U.L. APPROVED). PILOT WIRES SHALL BE RED IN COLOR, COMMON GROUND WIRE SHALL BE WHITE IN COLOR, SPARE WIRES SHALL BE YELLOW IN COLOR. THE CONTRACTOR SHALL ROUTE TWO (2) SPARE CONTROL WIRES (YELLOW) FROM THE CONTROLLER ALONG THE MAINLINE IN ALL DIRECTIONS AWAY FROM THE CONTROLLER. LOOP SPARE WIRES UP AND INTO EACH VALVE BOX ALONG THE MAINLINE, PROVIDING A 3 FOOT MINIMUM LOOP. WHERE MULTIPLE CONTROLLERS ARE USED ON THE PROJECT, EACH CONTROLLER SHALL HAVE A DIFFERENT COLOR FOR PILOT WIRES.					L,M,O
NO SYMBOL				GPH IRRIGATION	GDBRY6 DIRECT BURIAL, 100% SILICONE GEL, WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE SPLICES AND CONNECTIONS					O
NO SYMBOL				NDS (K.B.I.)	KSC-XXX-S SWING CHECK VALVE, LATERAL LINE SIZE, INSTALL ONE (1) ON THE DOWNSTREAM SIDE OF EACH RCV WHEN THE RCV IS LOWER THAN THE SPRINKLERS, BUBBLERS OR DRIP EMITTERS. INSTALL WITHIN SPRINKLER / BUBBLER / DRIP ZONES AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.					N/A
NO SYMBOL				NDS (K.B.I.)	KC-XXX-S SPRING CHECK VALVE, LATERAL LINE SIZE, INSTALL ONE (1) ON THE DOWNSTREAM SIDE OF EACH RCV WHEN THE RCV IS HIGHER THAN THE SPRINKLERS, BUBBLERS OR DRIP EMITTERS. INSTALL WITHIN SPRINKLER / BUBBLER / DRIP ZONES AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.					N/A
NO SYMBOL				CARSON	VALVE BOXES, SIZE PER EQUIPMENT LEGEND, WITH T-COVER LIDS AND CAPTIVE BOLT AND LOC-KIT. FOR ROUND FLUSH VALES AND AIR RELIEF VALVES USE MODEL 708, 10" ROUND SHALL BE MODEL 910, 12" STANDARD RECTANGULAR, SHALL BE MODEL 1220, SUPER JUMBO SHALL BE MODEL 1324, AND SUPER JUMBO XL SHALL BE MODEL 1730. VALVE BOXES SHALL HAVE GREEN HDPE BODY AND GREEN LIDS IN TURF, GREEN LIDS IN SHRUB BEDS, AND TAN LIDS IN ROCK MULCH. FOR USE IN NON-VEHICULAR TRAFFIC SITUATIONS ONLY. DO NOT INSTALL IN CONCRETE OR ASPHALT.					P

VALVE CALLOUT LEGEND



HYDROZONE DESCRIPTION CHART			
NUMBER	DESCRIPTION OF THE HYDROZONE	WUCOLS	PLANT FACTOR
HZ 1	LOW WATER USE PLANTINGS	L	0.30
HZ 2	MODERATE WATER USE PLANTINGS	M	0.40
HZ 3	LOW WATER USE TREES	L	0.30

IRRIGATION METHOD DESCRIPTION CHART			
LETTERS	DESCRIPTION OF THE IRRIGATION	TYPE	IR. EFFICIENCY
S	SPRAY HEADS	SPRAY	0.75
SB	SHRUB BUBBLERS	DRIP	0.81
TB	TREE BUBBLERS	DRIP	0.81

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF MALIBU WATER EFFICIENT LANDSCAPE ORDINANCE NO. 461 AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE

SIGNATURE: DATE: 10-02-25

I HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN

811

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
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Murrieta, Ca 92563
e: info@sweeneyassoc.com t: (951) 461-6850
w: www.sweeneyassoc.com f: (951) 461-6850

RECOMMENDED TREE WATERING SCHEDULE

TREE TRUNK WIDTH SIZE	RECOMMENDED WATER VOLUME	WATERING FREQUENCY BASED ON SPECIES	MONTHS APRIL TO OCTOBER	MONTHS NOVEMBER TO MARCH
NEWLY PLANTED (LESS THAN 5")*	10 TO 20 GALLONS	NEWLY PLANTED TREE	WEEKLY	BI-WEEKLY
AVERAGE STREET TREE (16")*	160 GALLONS	MINIMAL	ONCE OR TWICE A MONTH	NONE
SMALL (5" TO 12")*	80 GALLONS	MINIMAL	ONCE OR TWICE A MONTH	NONE
		MODERATE	TWICE TO THREE TIMES A MONTH	ONCE A MONTH
		HIGH	WEEKLY	ONCE TO TWICE A MONTH
MEDIUM (13" TO 21")*	160 GALLONS	MINIMAL	ONCE OR TWICE A MONTH	NONE
		MODERATE	TWICE TO THREE TIMES A MONTH	ONCE A MONTH
		HIGH	WEEKLY	ONCE TO TWICE A MONTH
LARGE (22" TO 30")*	260 GALLONS	MINIMAL	ONCE OR TWICE A MONTH	NONE
		MODERATE	TWICE TO THREE TIMES A MONTH	ONCE A MONTH
		HIGH	WEEKLY	ONCE TO TWICE A MONTH
VERY LARGE (31" AND OVER)*	310 GALLONS	MINIMAL	ONCE OR TWICE A MONTH	NONE
		MODERATE	TWICE TO THREE TIMES A MONTH	ONCE A MONTH
		HIGH	WEEKLY	ONCE TO TWICE A MONTH

* WIDTH OF TREE TRUNK AT FOUR FEET FROM GROUND LEVEL

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package

Project Name: Malibu MS & HS Ph2
Project Address: 30215 Morning View Dr. Malibu, California 90265

s+a sweeney + associates IRRIGATION DESIGN AND CONSULTING

Reference Evapotranspiration (ETo) 44.1 In./Yr. **Residential Project?** No

Hydrozone # / Planting Description*	Plant Factor	Irrigation Method*	Irrigation Efficiency (IE)*	ETAF (PF / IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)*
Regular Landscape Areas							
1. Low Water Use Plantings	0.30	Drip	0.81	0.38	27,238	10,350	283,002
2. Moderate Water Use Plantings	0.40	Drip	0.81	0.50	1,113	557	15,216
3. Low Water Use Trees	0.30	Bubblers	0.81	0.38	2,125	808	22,079
				Totals:	**30,476**	**11,714**	
				Totals:	**0**	**0**	
				Estimated Total Water Use (ETWU) Total:			**320,296**
				Maximum Applied Water Allowance (MAWA)*:			**374,974**

* Hydrozone # / Planting Description	* Irrigation Method	* Irrigation Efficiency
E.g.	*Overhead Spray of*	*0.75 for Spray*
1.) Front Lawn	*Drip*	*0.81 for Drip*
2.) Low Water Use Plantings		
3.) Medium Water Use Plantings		

** ETWU (Annual Gallons Required) = ETo x 0.62 x ETAF x Area*
Where 0.62 is a conversion factor that converts acre-inches/acre/year to gallons/square foot/year.

** MAWA (Annual Gallons Allowed) = ETo x 0.62 x [(ETAF x LA) + ((1 - ETAF) x SLA)]*
Where 0.62 is a conversion factor that converts acre-inches/acre/year to gallons/square foot/year,
LA is the total landscape area in square feet, SLA is the total special landscape area in square feet,
and ETAF is 0.55 for residential projects and 0.45 for non-residential projects.

Evapotranspiration Adjustment Factor (ETAF) Calculations

This non-residential project complies with the WELO and its average ETAF is less than 0.45

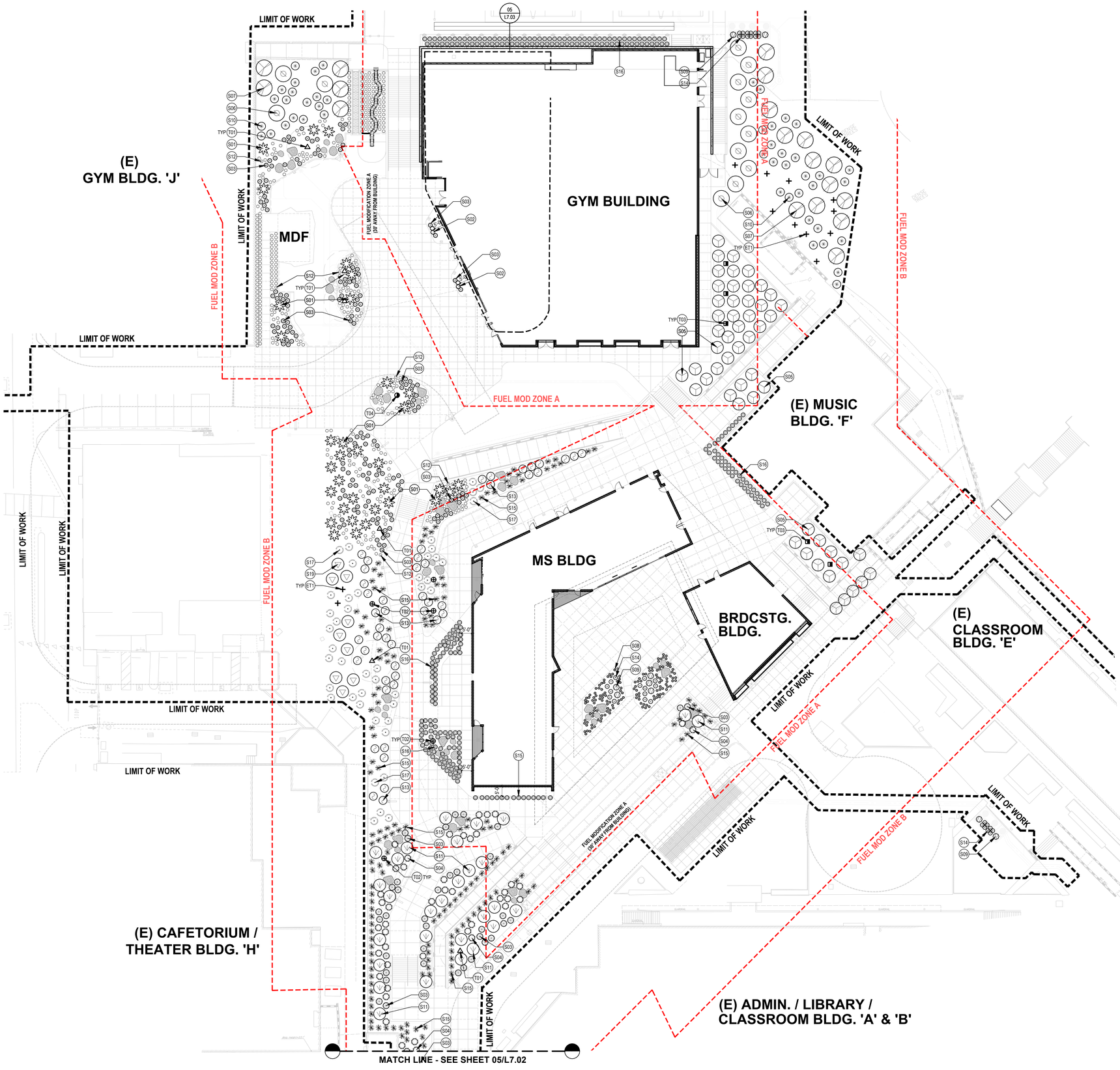
Regular Landscape Areas (Excludes Special Landscape Areas)	
Total ETAF x Area	11,714
Total Area	30,476
Average ETAF	**0.38**

All Landscape Areas (Includes Special Landscape Areas)	
Total ETAF x Area	11,714
Total Area	30,476
Average ETAF	**0.38**

IRRIGATION CONTROLLER RUN TIMES

POC or Controller		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total / Avg.
A	**ETo / Month (Inches):**	1.79	2.12	3.30	4.49	4.73	5.03	5.40	5.38	3.94	3.40	2.42	2.22	**44.22**
	ETo / Day (Inches):	0.06	0.08	0.11	0.15	0.15	0.17	0.17	0.17	0.13	0.11	0.08	0.07	**0.12**
	Irrigation Days / Week:	3	4	4	4	5	5	5	5	4	4	4	3	

Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Low Water Us Plantings	0.30	0.47	0.81	6.4	6.3	8.8	12.4	10.1	11.1	11.5	11.5	10.9	9.1	6.7	7.9	Min./Day/Zone
Bubblers	**Number of Zones:**		14	**89.2**	**87.7**	**123.3**	**173.4**	**141.4**	**155.4**	**161.4**	**160.8**	**152.1**	**127.0**	**93.4**	**110.6**	**Total Min./Day**
Low Water Us Plantings	0.30	0.70	0.75	4.6	4.5	6.4	9.0	7.3	8.0	8.4	8.3	7.9	6.6	4.8	5.7	Min./Day/Zone
Spray	**Number of Zones:**		12	**55.4**	**54.5**	**76.6**	**107.8**	**87.9**	**96.6**	**100.3**	**100.0**	**94.6**	**79.0**	**58.1**	**68.7**	**Total Min./Day**
Moderate Water Us Planti	0.40	0.47	0.81	8.5	8.4	11.7	16.5	13.5	14.8	15.4	15.3	14.5	12.1	8.9	10.5	Min./Day/Zone
Bubblers	**Number of Zones:**		2	**17.0**	**16.7**	**23.5**	**33.0**	**26.9**	**29.6**	**30.7**	**30.6**	**29.0**	**24.2**	**17.8**	**21.1**	**Total Min./Day**
Low Water Use Trees	0.30	0.47	0.81	6.4	6.3	8.8	12.4	10.1	11.1	11.5	11.5	10.9	9.1	6.7	7.9	Min./Day/Zone



PLANTING LEGEND

TREE LIST

REF.	SYM.	QTY.	BOTANICAL NAME/ COMMON NAME	WUCOLS	SIZE/ SPACING
T01	△	6	ARBUTUS 'MARINA' MARINA STRAWBERRY TREE	L	24" BOX STD. PER PLAN
T02	⊕	5	CERCIS OCCIDENTALIS WESTERN REDBUD	L	24" BOX STD. PER PLAN
T03	◨	5	HETEROMELES ARBUTIFOLIA TOYON	L	24" BOX STD. PER PLAN
T04	◑	1	QUERCUS AGIFOLIA COAST LIVE OAK	L	60" BOX STD. PER PLAN
ET1	+	14	EXISTING TREE PROTECT IN PLACE	-	-

SHRUB LIST

S01	✳	34	AGAVE ATTTENUATA FOXTAIL AGAVE	L	5-GAL/ 6' O.C PER PLAN
S02	◯	25	ALOE 'BLUE ELF' BLUE ELF ALOE	L	1-GAL/ 24" O. PER PLAN
S03	◌	200	ALOE RUDIKOPPE LITTLE RED RIDING HOOD ALOE	L	5-GAL/ 3' O.C PER PLAN
S04	◯	48	ALOE VERA MEDICINAL ALOE	L	5-GAL/ 3' O.C PER PLAN
S05	Y	53	ARCTOSTAPHYLOS EDMUNDSII 'CARMEL SUR' CARMEL SUR MANZANITA	L	5-GAL/ 6' O.C PER PLAN
S06	⊙	13	BACCHARIS PILULARIS 'PIGEON PT.' PIGEON PT. DWARF COYOTE BRUSH	L	5-GAL/ 8' O.C PER PLAN
S07	Y	18	CEANOTHUS GRISEUS 'YANKEE PT.' YANKEE PT. CARMEL CREEPER	L	5-GAL/ 8' O.C PER PLAN
S08	○	144	CERASTIUM TOMENTOSUM SNOW-IN-SUMMER	L	5-GAL/ 12" O. PER PLAN
S09	/	9	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	L	5-GAL/ 3' O.C PER PLAN
S10	✳	46	DASYLIRION WHEELERI GREY DESERT SPOON	L	5-GAL/ 4' O.C PER PLAN
S11	V	29	DELOSPERMA COOPERI HARDY ICE PLANT	L	5-GAL/ 6' O.C PER PLAN
S12	○	418	FESTUCA CINERA BLUE FESCUE	L	5-GAL/ 18" O. PER PLAN
S13	✓	47	HESPERALOE PARVIFLORA RED YUCCA	L	5-GAL/ 4' O.C PER PLAN
S14	⊖	34	JUNCUS PATENS CALIFORNIA GRAY RUSH	L	5-GAL/ 24" O. PER PLAN
S15	✳	179	LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	L	5-GAL/ 3' O.C PER PLAN
S16	◇	373	LIRIOPE SPICATA CREEPING LILY TURF	M	5-GAL/ 24" O. PER PLAN
S17	·	44	MUHLENBERGIA RIGENS DEER GRASS	L	5-GAL/ 4' O.C PER PLAN
S18	◇	29	SEDUM NUSSBAUMERIANUM COPPERTONE STONECROP	L	5-GAL/ 24" O. PER PLAN
S19	V	9	YUCCA RECURVIFOLIA CURVE-LEAF YUCCA	L	5-GAL/ 6' O.C PER PLAN

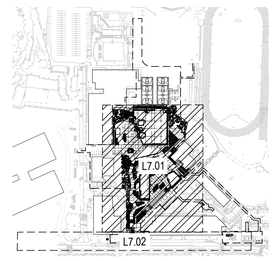
MISCELLANEOUS SYMBOLS

LINEAR ROOT BARRIER

SOIL SAMPLE LOCATION (6 TOTAL)

KEYMAP

SCALE=1"=250'-0"



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REGISTERED LANDSCAPE ARCHITECT
ANDREW TOBIN #5
STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
95% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025
3RD CDP SUBMITTAL	10/30/2025

Job Number	31722
Checked By	
Scale	1" = 20'

PLANTING PLAN

L7.01

PLANTING LEGEND

TREE LIST

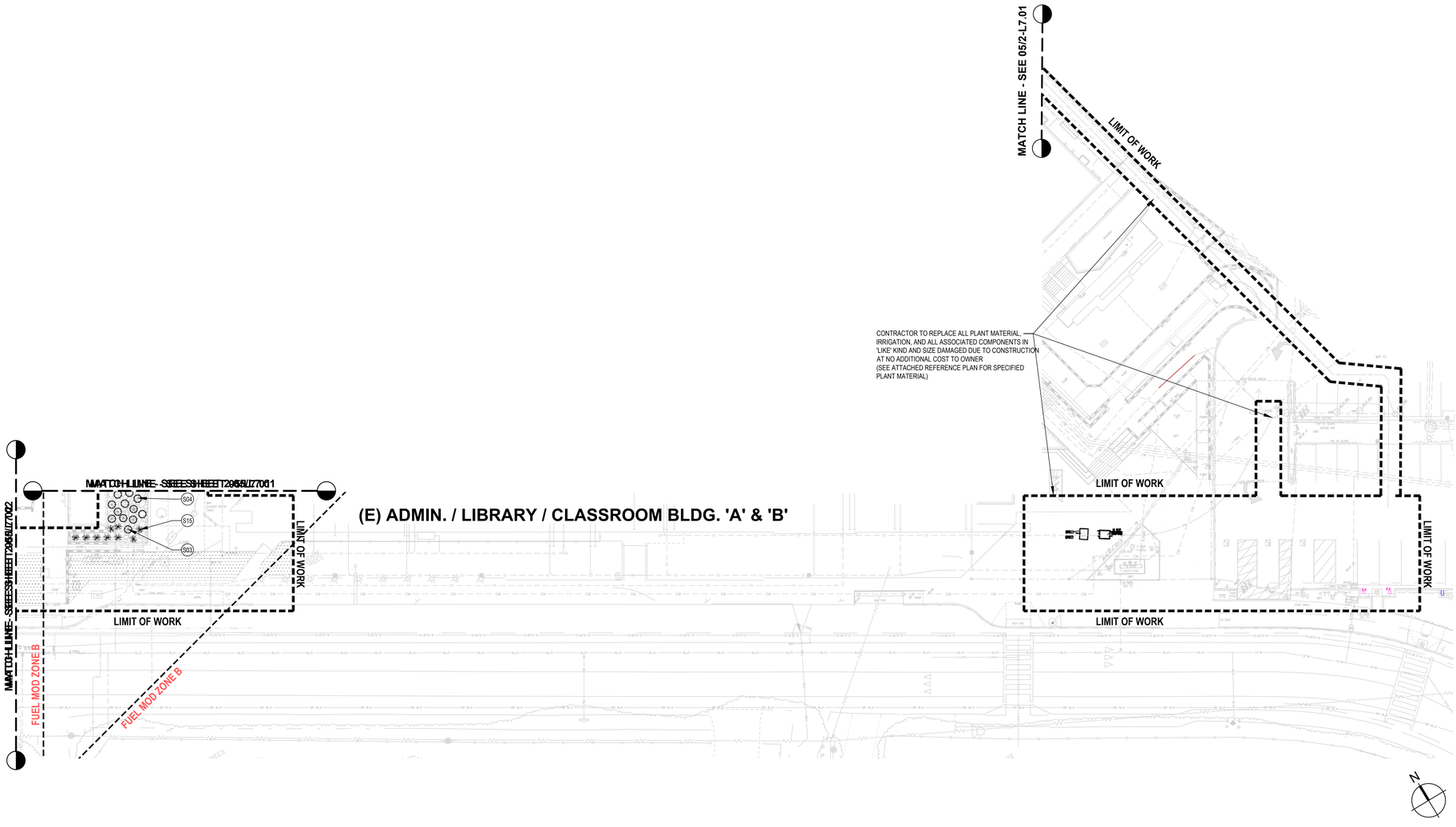
REF.	SYM.	QTY.	BOTANICAL NAME/ COMMON NAME	WUCOLS	SIZE/ SPACING	COMMENTS/ DET
T01	△	6	ARBUTUS 'MARINA' MARINA STRAWBERRY TREE	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T02	⊕	5	CERCIS OCCIDENTALIS WESTERN REDBUD	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T03	◨	5	HETEROMELES ARBUTIFOLIA TOYON	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T04	◑	1	QUERCUS AGIFOLIA COAST LIVE OAK	L	60" BOX STD / PER PLAN	01/ 2-L7.04
ET1	+	14	EXISTING TREE PROTECT IN PLACE	-	-	16/ 2-L7.04

SHRUB LIST

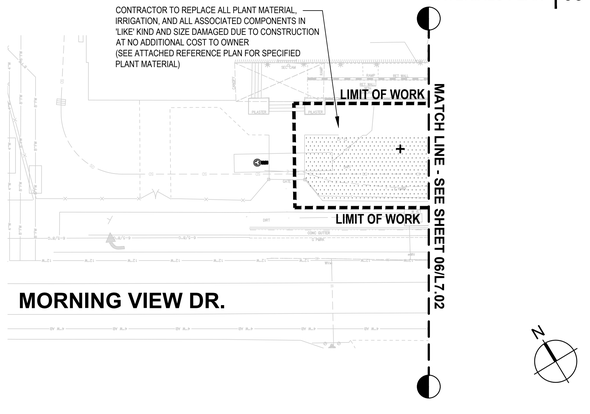
S01	✳	34	AGAVE ATTTENUATA FOXTAIL AGAVE	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S02	◯	25	ALOE 'BLUE ELF' BLUE ELF ALOE	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S03	◯	200	ALOE RUDIKOPPE LITTLE RED RIDING HOOD ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S04	◯	48	ALOE VERA MEDICINAL ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S05	Y	53	ARCTOSTAPHYLOS EDMUNDSII 'CARMEL SUR' CARMEL SUR MANZANITA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S06	S	13	BACCHARIS PILULARIS 'PIGEON PT.' PIGEON PT. DWARF COYOTE BRUSH	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S07	Y	18	CEANOTHUS GRISEUS 'YANKEE PT.' YANKEE PT. CARMEL CREEPER	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S08	◯	144	CERASTIUM TOMENTOSUM SNOW-IN-SUMMER	L	5-GAL/ 12" O.C. PER PLAN	08, 11/ 2-L7.04
S09	/	9	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S10	✳	46	DASYLIRION WHEELERI GREY DESERT SPOON	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S11	V	29	DELOSPERMA COOPERI HARDY ICE PLANT	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S12	◯	418	FESTUCA CINERA BLUE FESCUE	L	5-GAL/ 18" O.C. PER PLAN	08, 11/ 2-L7.04
S13	Y	47	HESPERALOE PARVIFLORA RED YUCCA	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S14	—	34	JUNCUS PATENS CALIFORNIA GRAY RUSH	L	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S15	✳	179	LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S16	◯	373	LIRIOPE SPICATA CREEPING LILY TURF	M	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S17	·	44	MUHLENBERGIA RIGENS DEER GRASS	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S18	◯	29	SEDUM NUSSBAUMERIANUM COPPERTONE STONECROP	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S19	V	9	YUCCA RECURVIFOLIA CURVE-LEAF YUCCA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04

MISCELLANEOUS SYMBOLS

------	LINEAR ROOT BARRIER	12/ 2-L7.04
	SOIL SAMPLE LOCATION (6 TOTAL)	



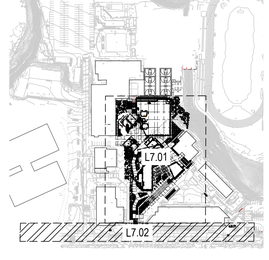
MATERIALS PLAN 06



MATERIALS PLAN 05

KEYMAP

SCALE=1"=250'-0"



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REGISTERED LANDSCAPE ARCHITECT ANTHONY TOBIN No. 5030 STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

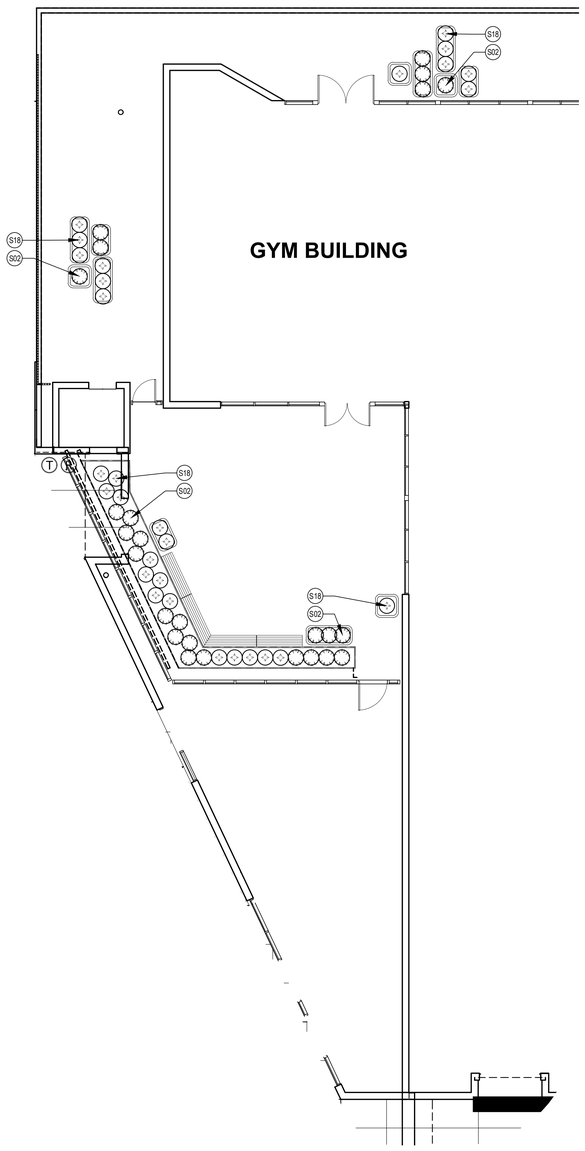
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	01/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025

Job Number	31722
Checked By	
Scale	1"=20'

PLANTING PLAN

2-L7.02



PLANTING LEGEND

TREE LIST

REF.	SYM.	QTY.	BOTANICAL NAME/ COMMON NAME	WUCOLS	SIZE/ SPACING	COMMENTS/ DET
T01	△	6	ARBUTUS 'MARINA' MARINA STRAWBERRY TREE	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T02	⊕	5	CERCIS OCCIDENTALIS WESTERN REDBUD	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T03	◨	5	HETEROMELES ARBUTIFOLIA TOYON	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T04	◑	1	QUERCUS AGIFOLIA COAST LIVE OAK	L	60" BOX STD / PER PLAN	01/ 2-L7.04
ET1	+	-	EXISTING TREE PROTECT IN PLACE	-	-	16/ 2-L7.04

SHRUB LIST

S01	✳	AS REQ'D	AGAVE ATTTENUATA FOXTAIL AGAVE	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S02	◯	AS REQ'D	ALOE 'BLUE ELF' BLUE ELF ALOE	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S03	◌	AS REQ'D	ALOE RUDIKOPPE LITTLE RED RIDING HOOD ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S04	◯	AS REQ'D	ALOE VERA MEDICINAL ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S05	Y	AS REQ'D	ARCTOSTAPHYLOS EDMUNDSII 'CARMEL SUR' CARMEL SUR MANZANITA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S06	⊙	AS REQ'D	BACCHARIS PILULARIS 'PIGEON PT.' PIGEON PT. DWARF COYOTE BRUSH	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S07	Y	AS REQ'D	CEANOTHUS GRISEUS 'YANKEE PT.' YANKEE PT. CARMEL CREEPER	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S08	○	AS REQ'D	CERASTIUM TOMENTOSUM SNOW-IN-SUMMER	L	5-GAL/ 12" O.C. PER PLAN	08, 11/ 2-L7.04
S09	/	AS REQ'D	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S10	✳	AS REQ'D	DASYLIRION WHEELERI GREY DESERT SPOON	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S11	V	AS REQ'D	DROSANTHEMUM FLORIBUNDUM ICE PLANT	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S12	○	AS REQ'D	FESTUCA CINERA BLUE FESCUE	L	5-GAL/ 18" O.C. PER PLAN	08, 11/ 2-L7.04
S13	/	AS REQ'D	HESPERALOE PARVIFLORA RED YUCCA	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S14	—	AS REQ'D	JUNCUS PATENS CALIFORNIA GRAY RUSH	L	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S15	✳	AS REQ'D	LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S16	◇	AS REQ'D	LIRIOPE SPICATA CREEPING LILY TURF	M	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S17	·	AS REQ'D	MUHLENBERGIA RIGENS DEER GRASS	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S18	◇	AS REQ'D	SEDUM NUSSBAUMERIANUM COPPERTONE STONECROP	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S19	V	AS REQ'D	YUCCA RECURVIFOLIA CURVE-LEAF YUCCA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04

MISCELLANEOUS SYMBOLS

- - -	LINEAR ROOT BARRIER	12/ 2-L7.04
	SOIL SAMPLE LOCATION (6 TOTAL)	

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MALIBU MIDDLE SCHOOL
INCREMENT 02

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Malibu, CA 90265
APN: 4469-017-900
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

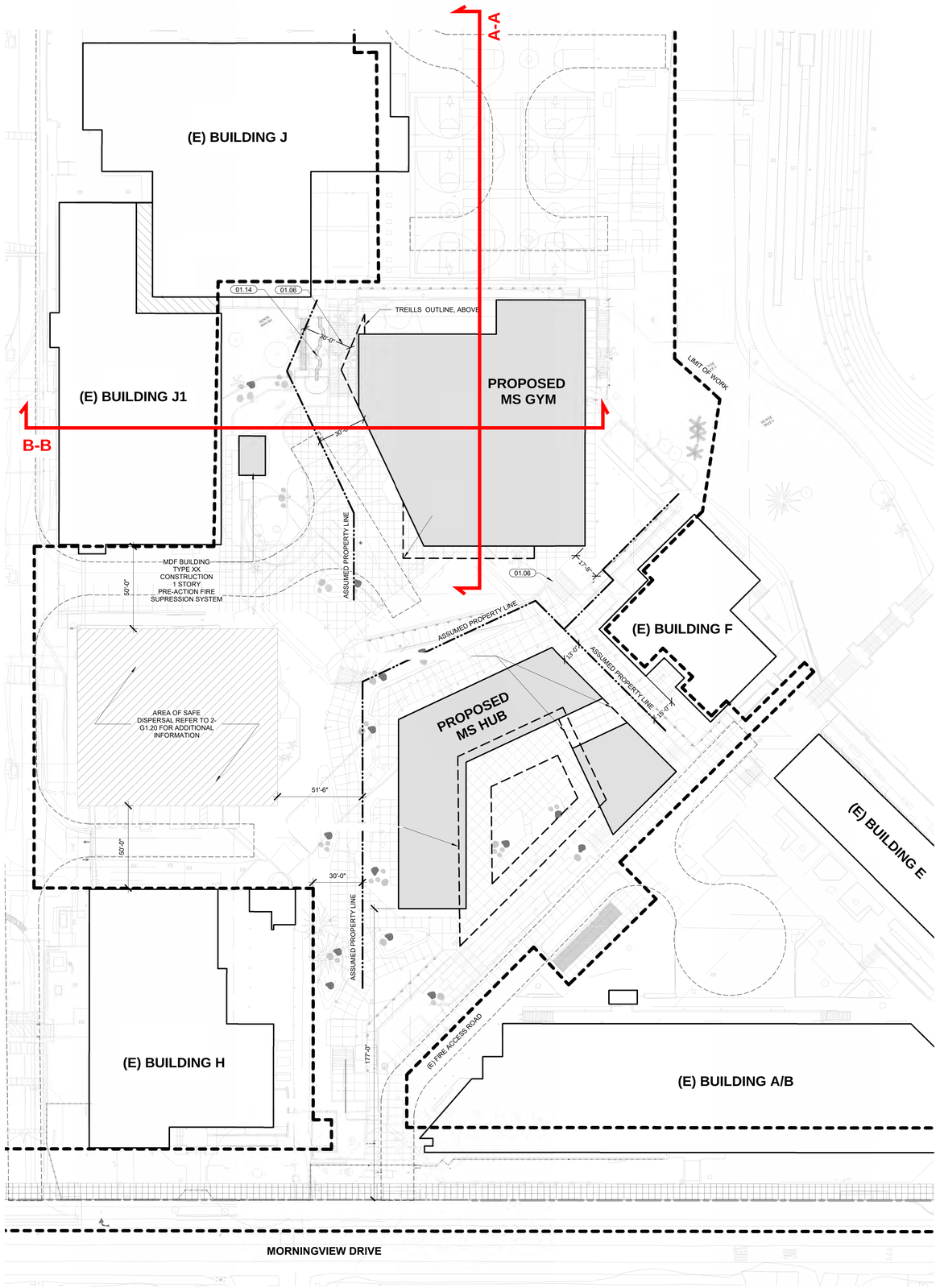
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	
Scale	1/8" = 1'

PLANTING PLAN ENLARGEMENT PLAN

2-L7.03

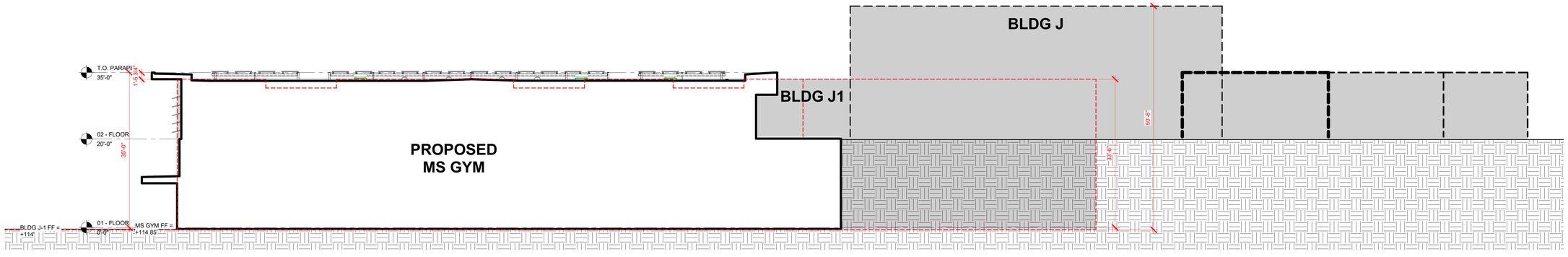


ATTACHMENT 3

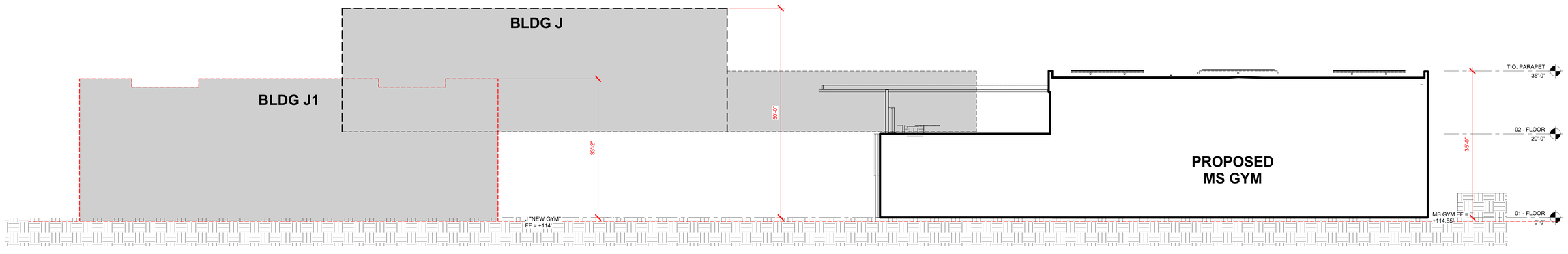
TRUE NORTH

PROJECT NORTH

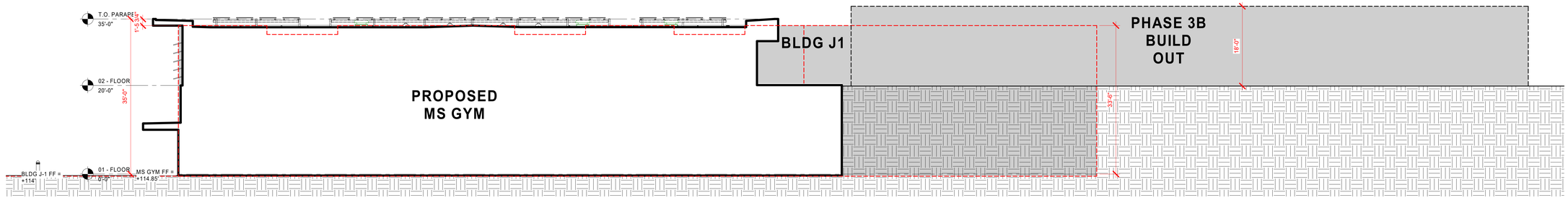
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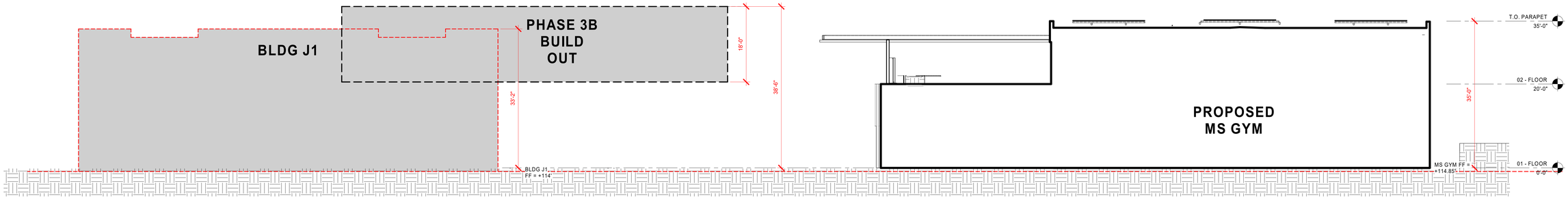
NORTH/SOUTH SITE SECTION - WITH EXISTING GYM
SCALE: 1"=10'



EAST/WEST SITE SECTION - WITH EXISTING GYM
SCALE: 1"=10'



NORTH/SOUTH SITE SECTION - PHASE 3B
SCALE: 1"=10'



EAST/WEST SITE SECTION - PHASE 3B
SCALE: 1"=10'



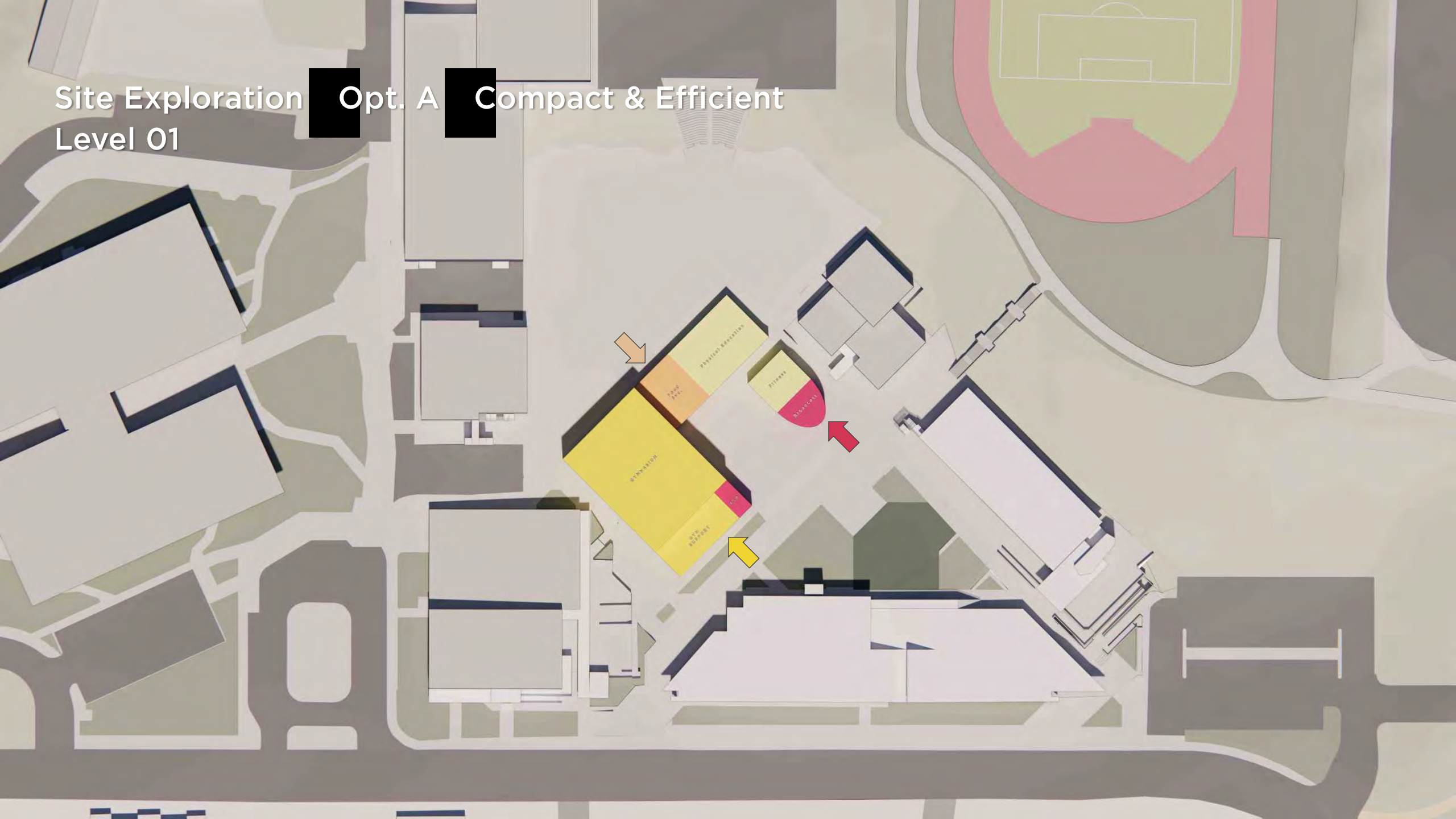
Malibu Middle School Phase 2

Conceptual Design Meeting

May 03, 2024

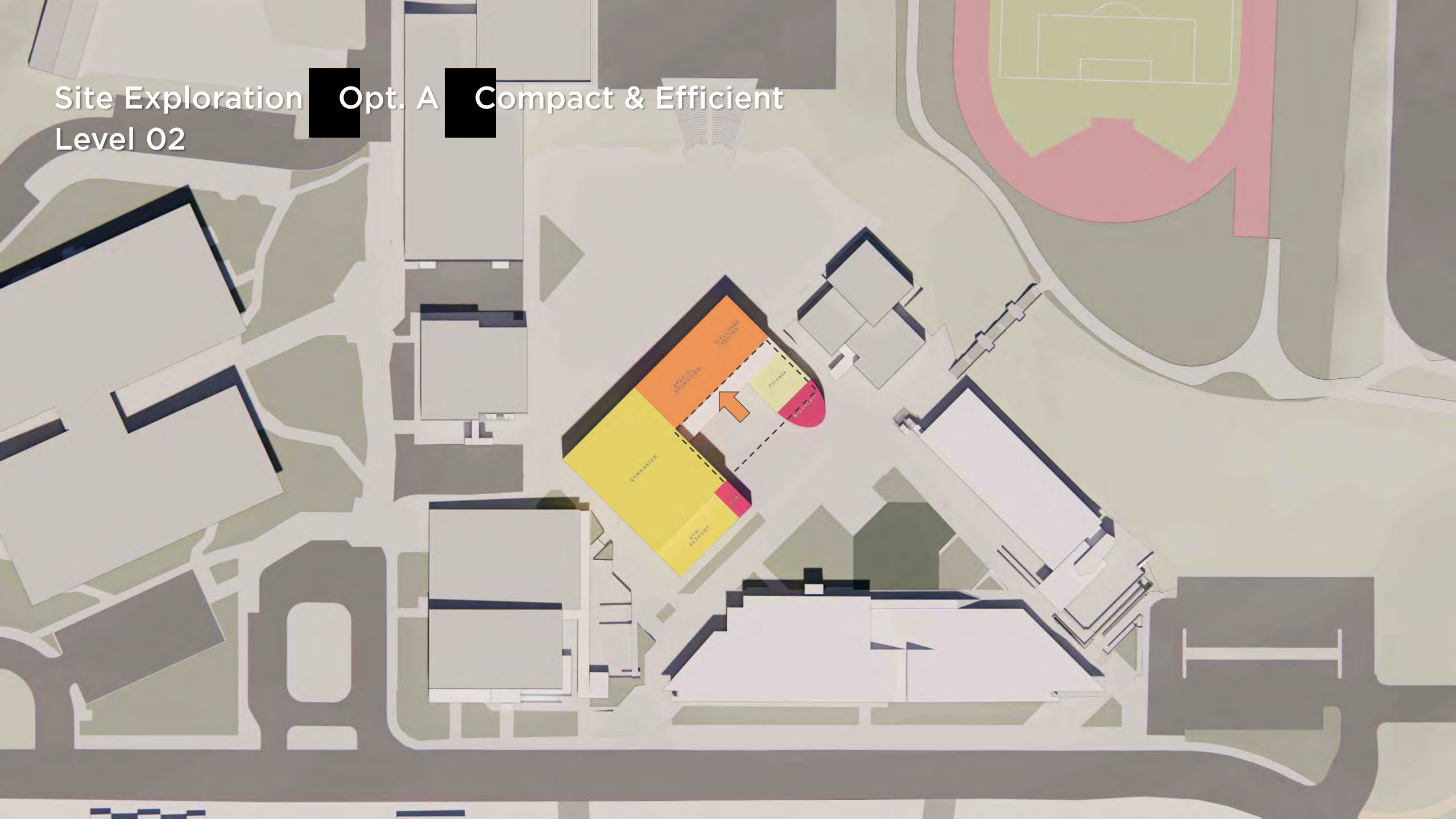
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Level 01



Site Exploration [redacted] Opt. A [redacted] Compact & Efficient

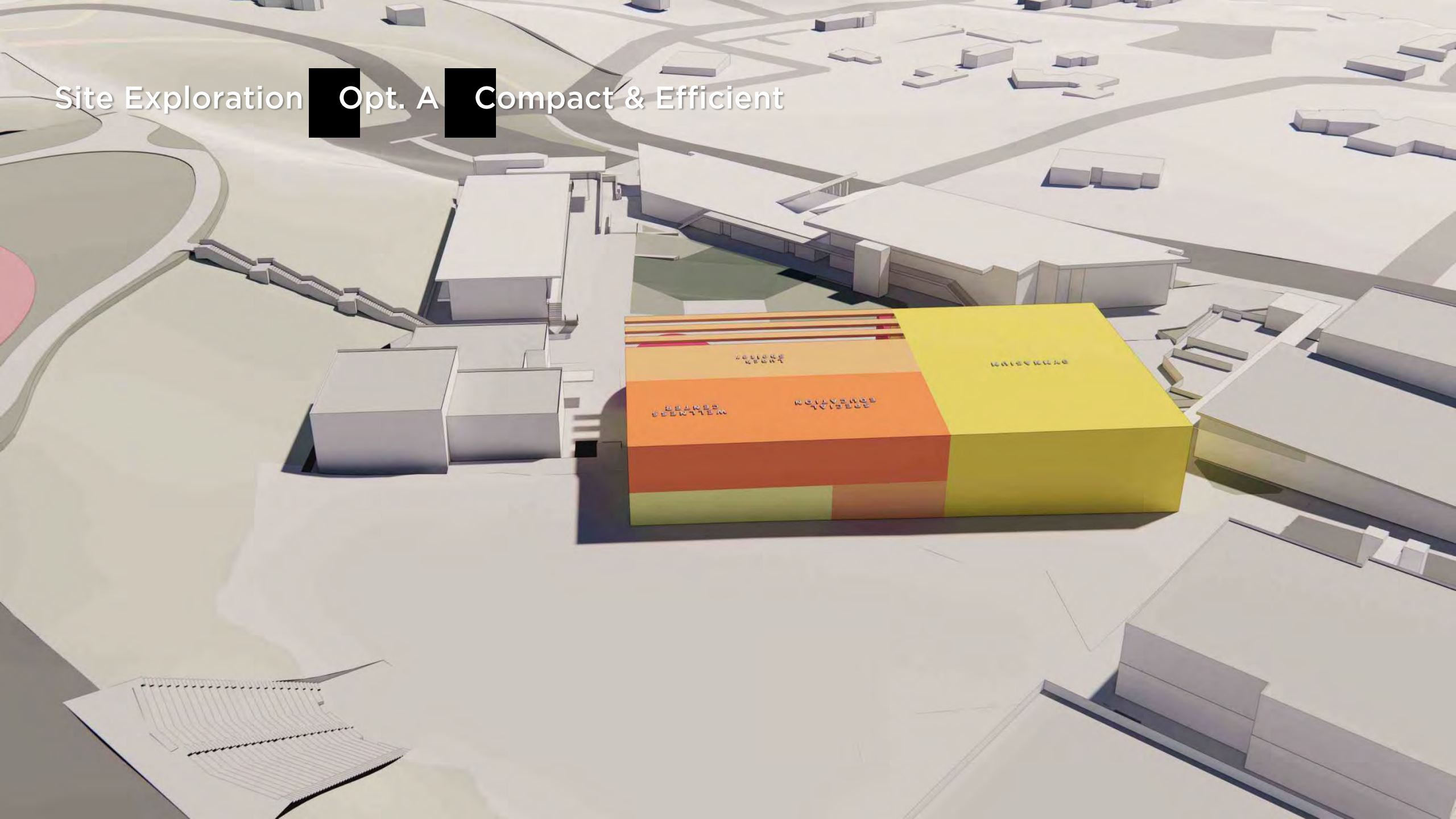
Level 02



Site Exploration | Opt. A | Compact & Efficient



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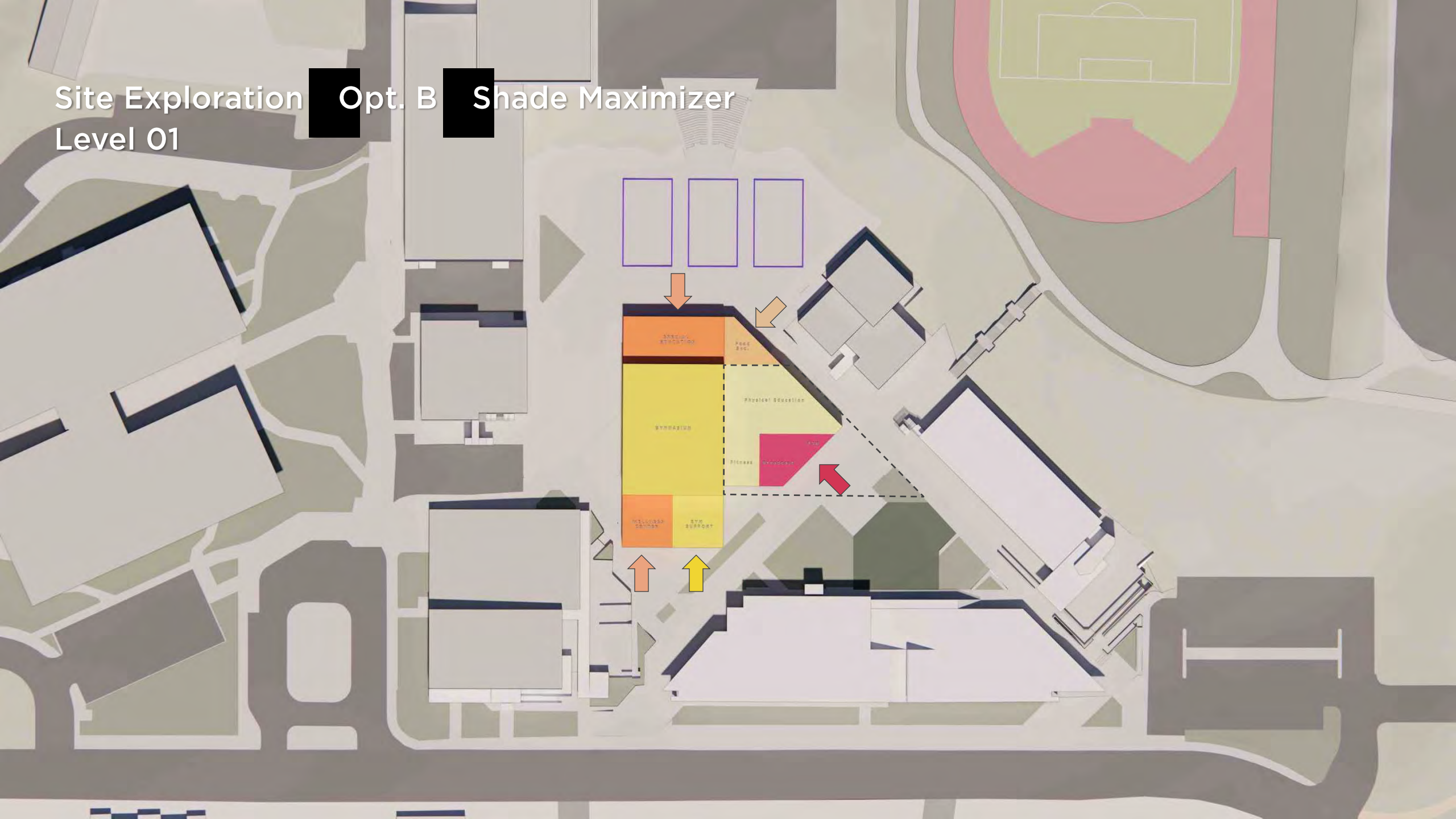


Site Exploration | Opt. A | Compact & Efficient



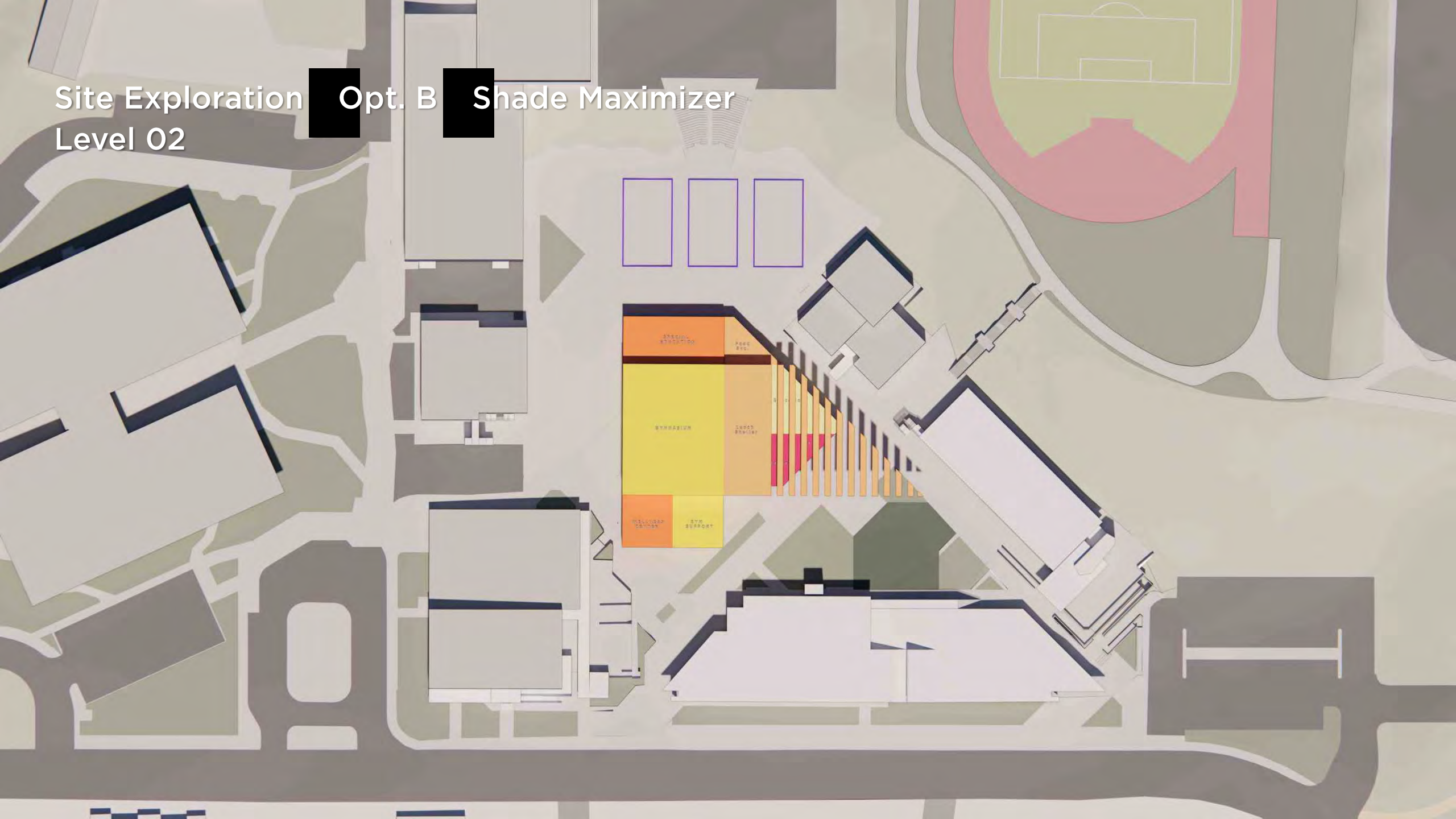
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Level 01



Site Exploration | Opt. B | Shade Maximizer

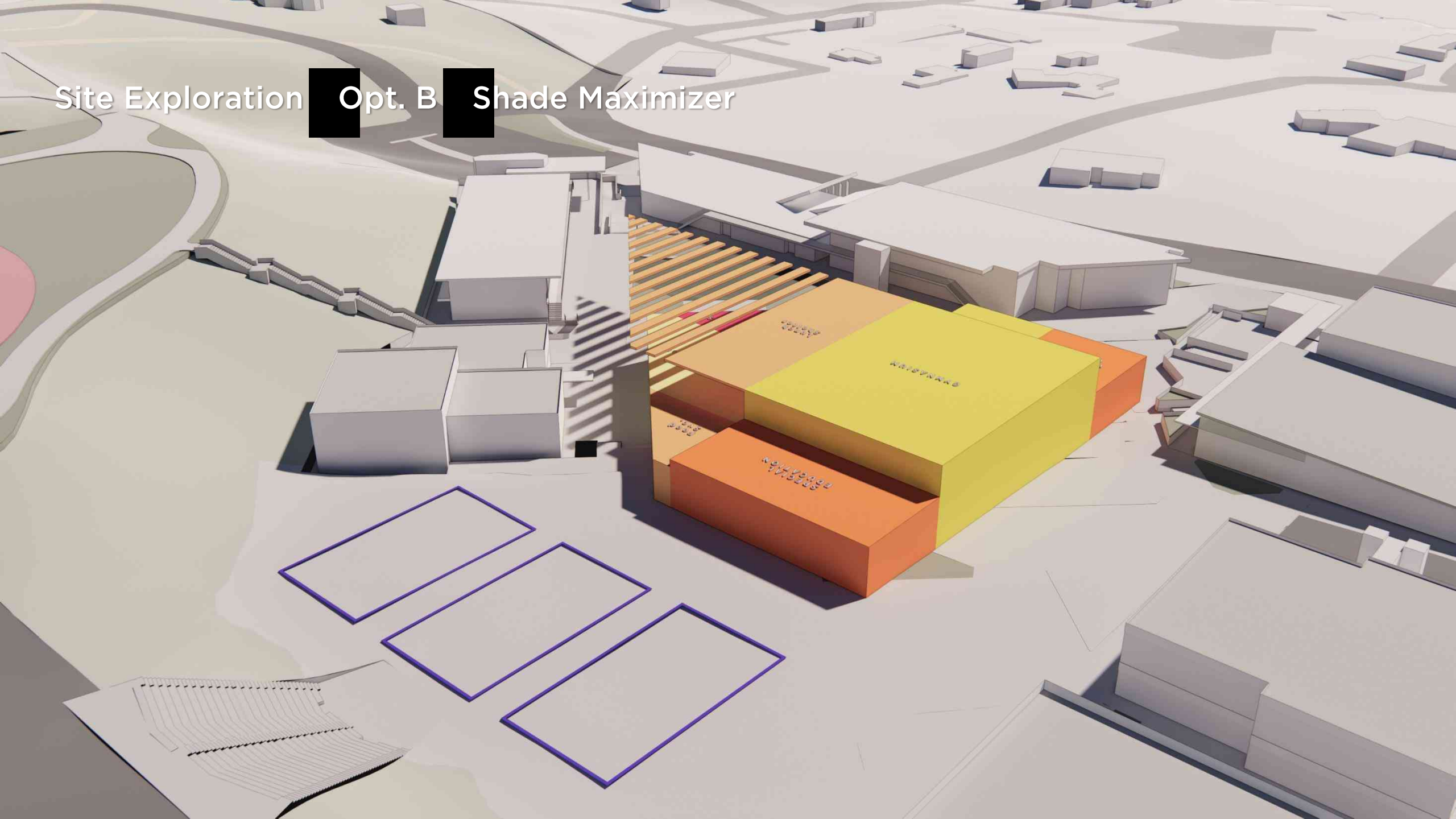
Level 02



Site Exploration | Opt. B | Shade Maximizer



Site Exploration [redacted] Opt. B [redacted] Shade Maximizer

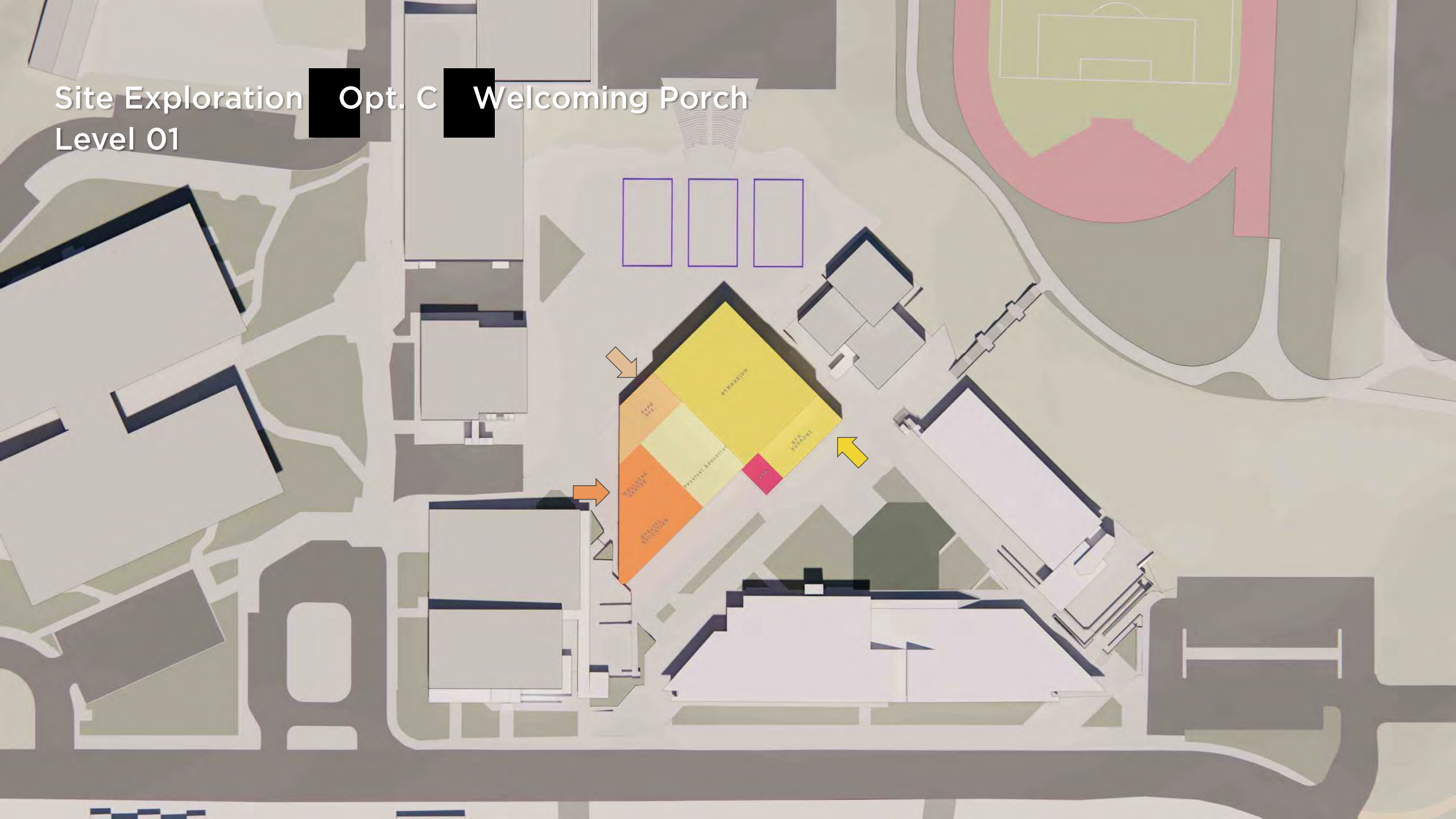


Site Exploration | Opt. B | Shade Maximizer



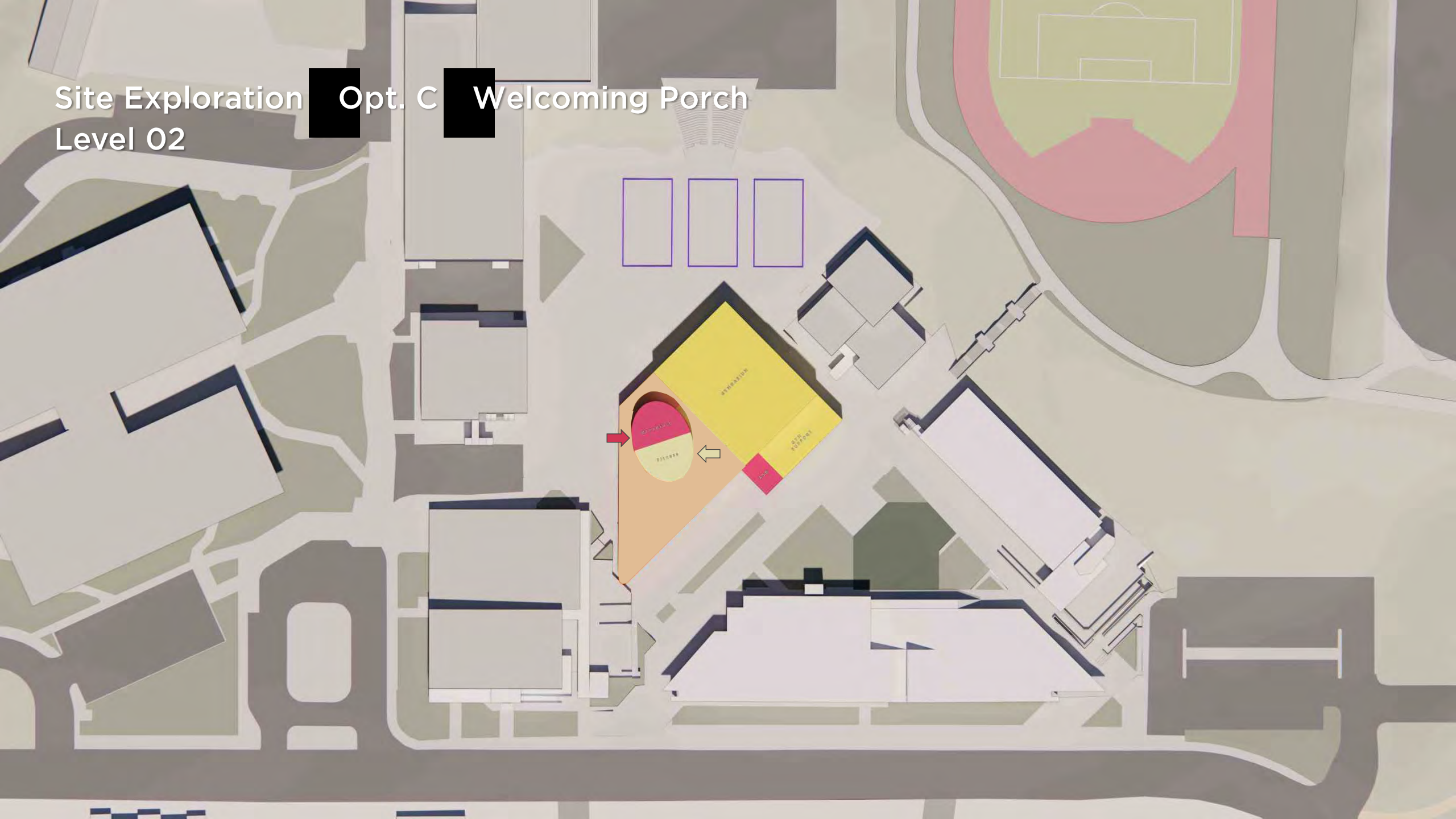
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Level 01



Site Exploration [redacted] Opt. C [redacted] Welcoming Porch

Level 02



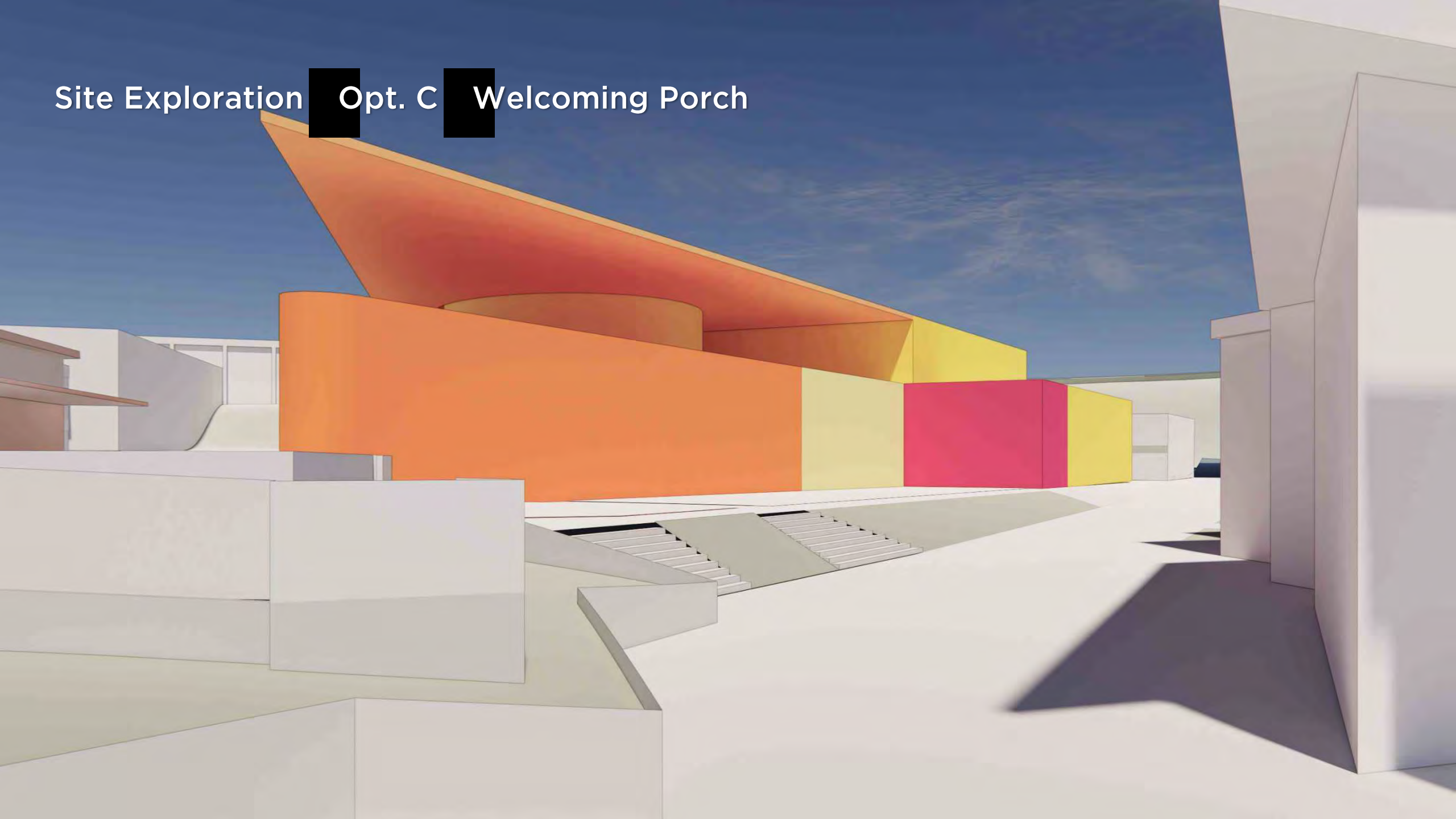
Site Exploration | Opt. C | Welcoming Porch



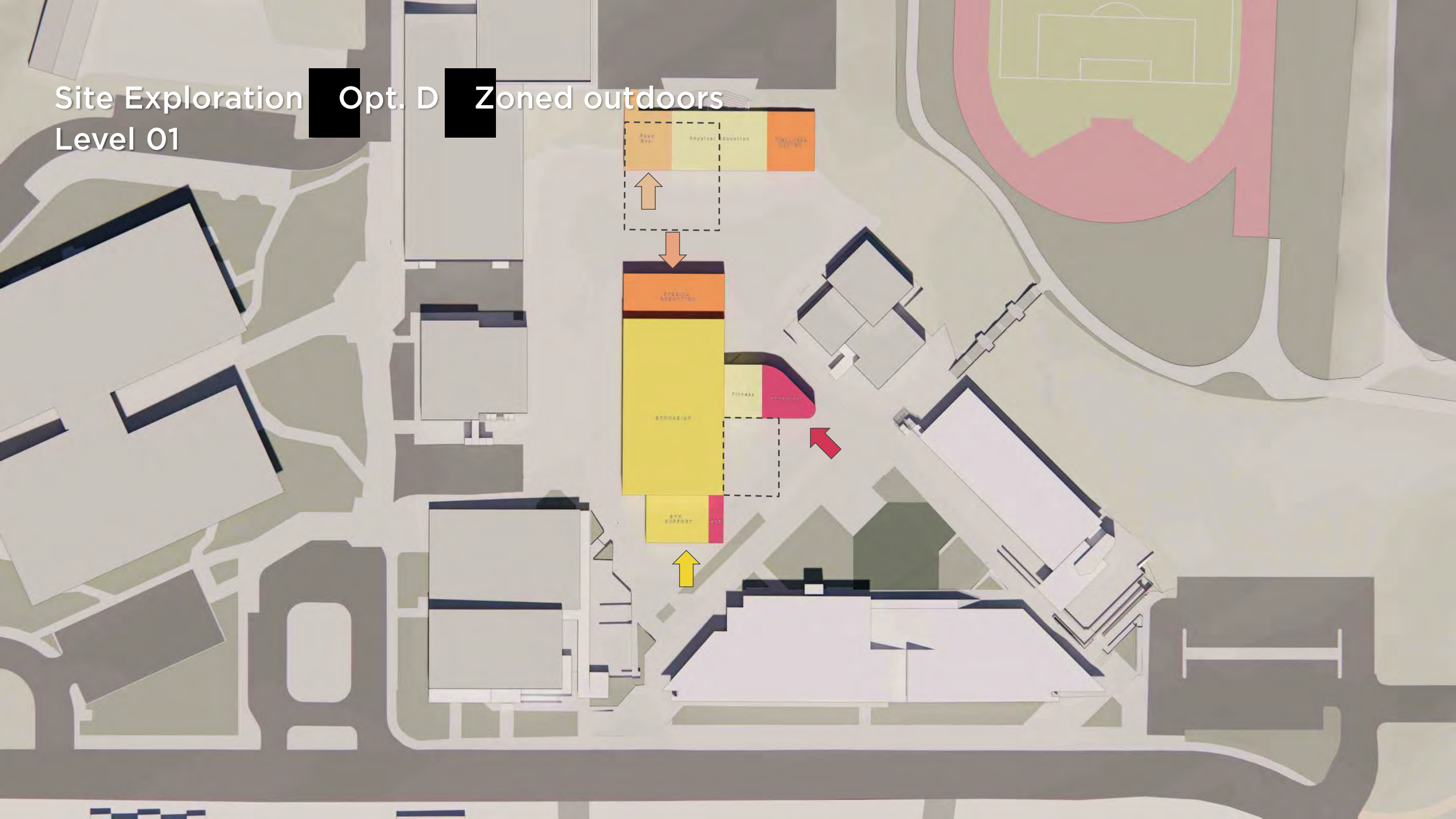
Site Exploration | Opt. C | Welcoming Porch



Site Exploration | Opt. C | Welcoming Porch



Site Exploration [redacted] Opt. D [redacted] Zoned outdoors
Level 01



Site Exploration | Opt. D | Zoned outdoors



Site Exploration | Opt. D | Zoned outdoors



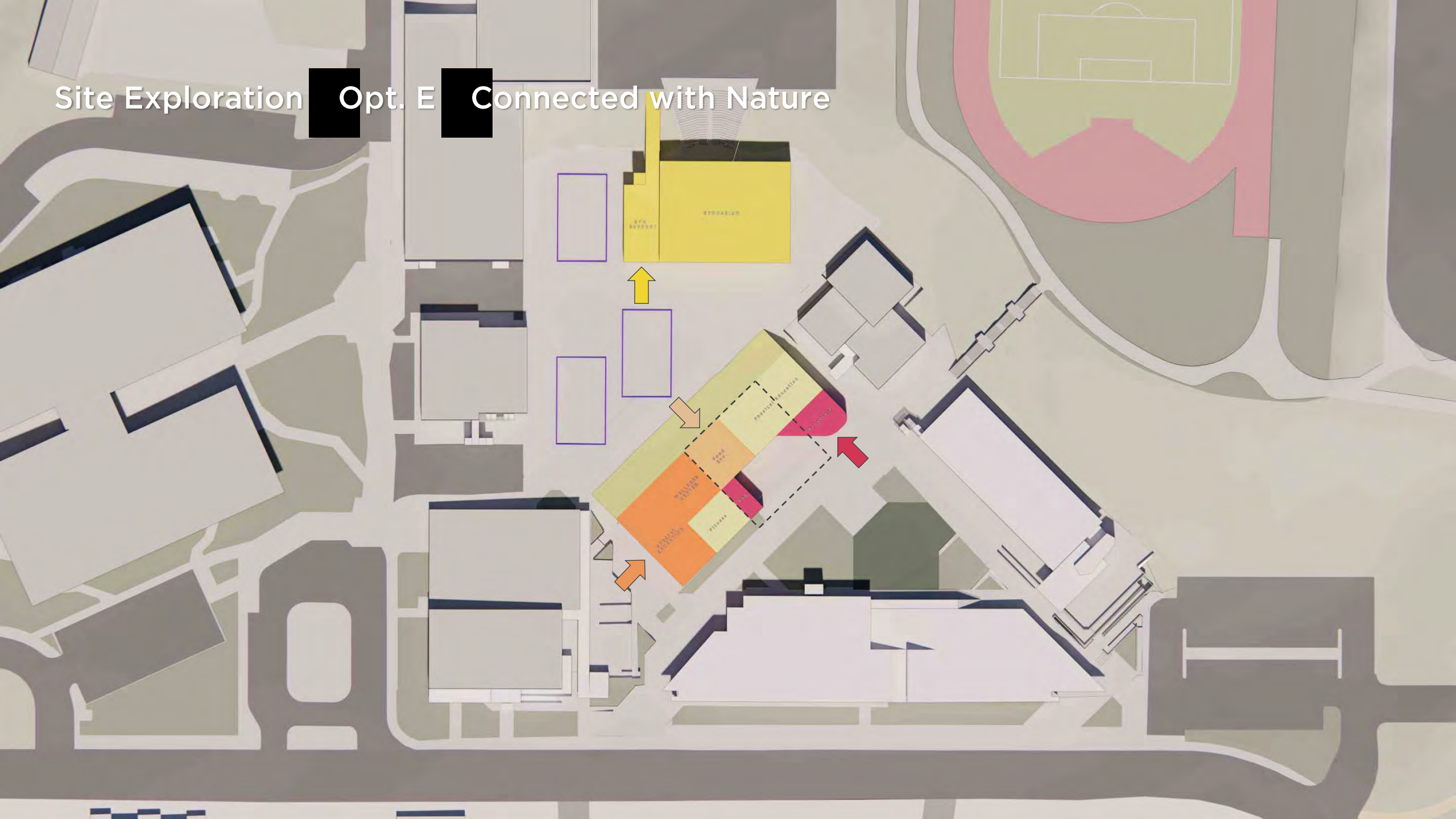
Site Exploration [redacted] Opt. D [redacted] Zoned outdoors



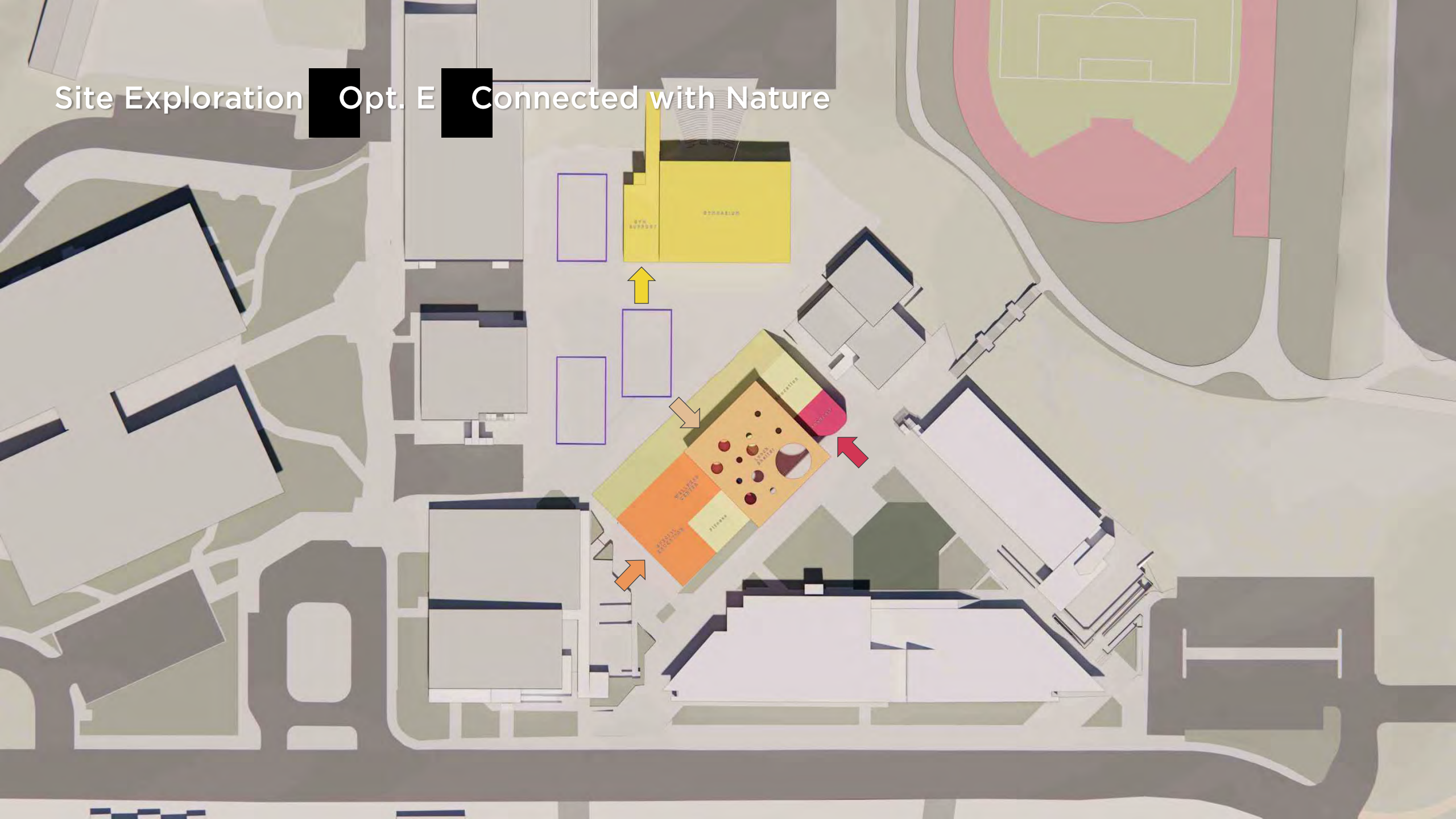
Site Exploration | Opt. D | Zoned outdoors



Site Exploration Opt. E Connected with Nature



Site Exploration [redacted] Opt. E [redacted] Connected with Nature



Site Exploration | Opt. E | Connected with Nature



Site Exploration | Opt. E | Connected with Nature



Site Exploration [redacted] Opt. E [redacted] Connected with Nature



Site Exploration Opt. E Connected with Nature





Malibu Middle School Phase 2

Pre Design Review

June 13, 2024

Malibu HS & MS Campus Plan - Phase 2

High School

1. Classrooms / Student Support Services / Administrative and Campus Support (Phase 1)
2. Building J – New Gymnasium (existing)
3. Building J – Old Gymnasium (existing)
4. Building J – Locker Rooms (existing)

Middle School

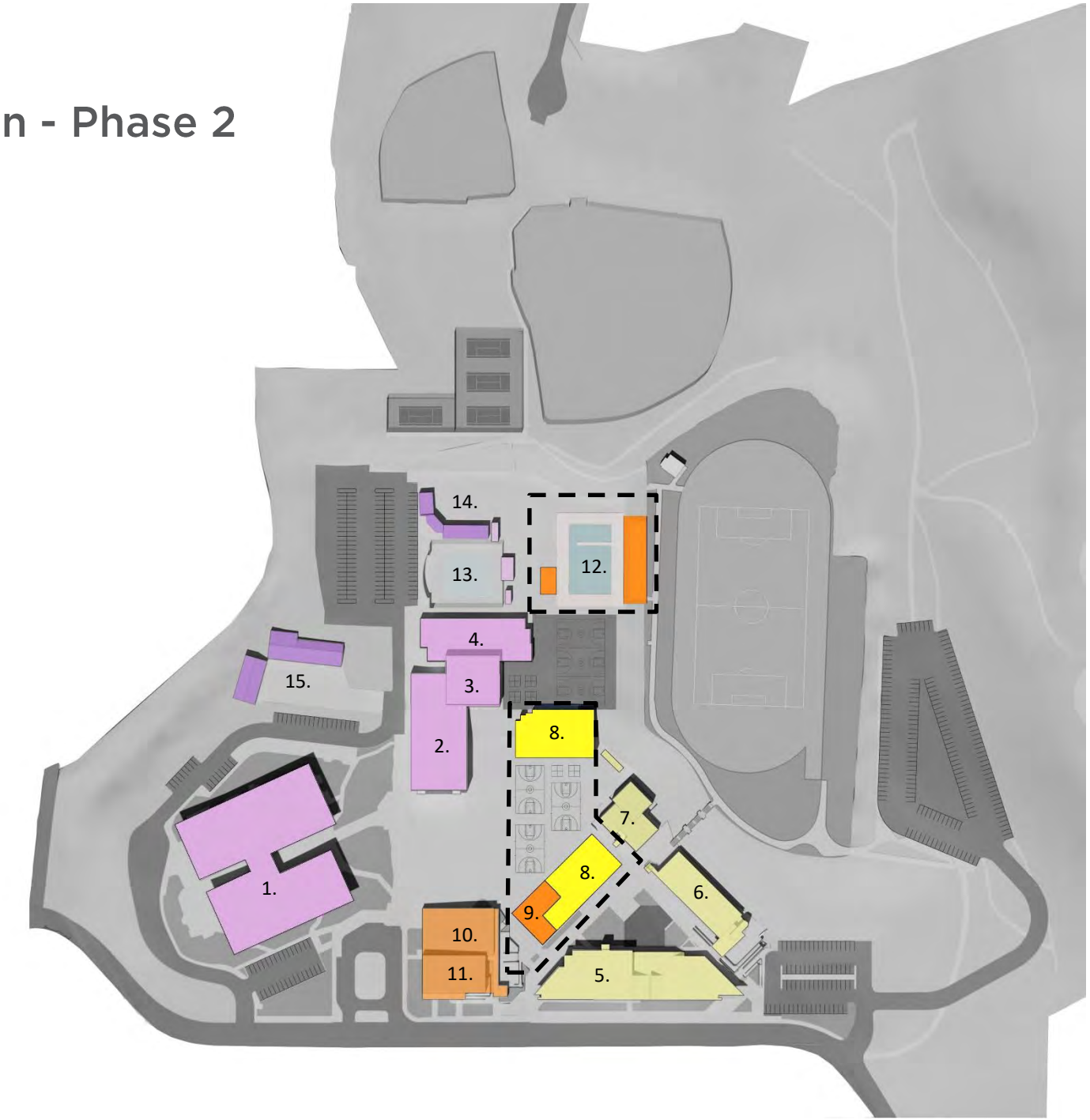
5. Building A/B – Administration / Library / Classrooms (existing)
6. Building E – Classrooms (existing)
7. Building F – Music (existing)
8. **Building D – Gymnasium / Fitness / PE / Student Activities / Food Service**

Shared Uses

9. **Living Skills and Campus Wellness Center**
10. Food Service & Auditorium Support
11. Auditorium
12. **Aquatics Center / Field House**

Other

13. Pool (existing)
14. Boys & Girls Club (existing)
15. Bus Barn – (existing)



Malibu HS & MS Campus Plan - Phase 3

High School

1. Classrooms / Student Support Services / Administrative and Campus Support (Phase 1)
2. **Gymnasium Lobby**
3. Building J – Gymnasium (existing)
4. **Weight Room & Dance**
5. **Locker Rooms / Athletic Sports Programs**

Middle School

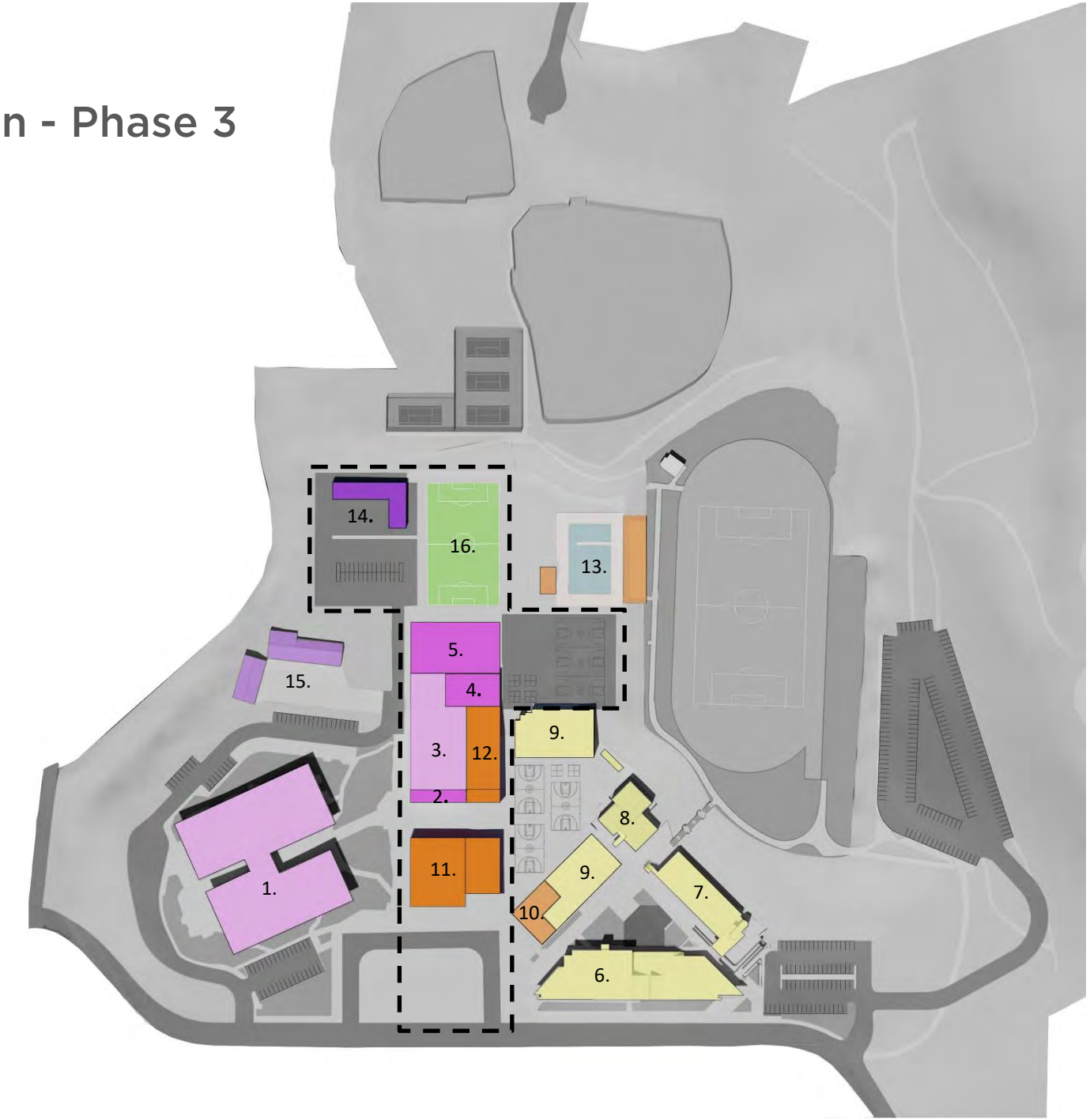
6. Building A/B – Administration / Library / Classrooms (existing)
7. Building E – Classrooms (existing)
8. Building F – Music (existing)
9. Building D – Gymnasium / Fitness / PE / Student Activities / Food Service (Phase 2)

Shared Uses

10. Living Skills and Campus Wellness Center (Phase 2)
11. **Theatre**
12. **Performing Arts (Music, Drama, Video Production)**
13. Aquatics Center / Field House (Phase 2)

Other

14. **Boys and Girls Club**
15. Bus Barn – (existing)
16. **Practice Field**



Malibu HS & MS Campus Plan - Phase 4

High School

1. Classrooms / Student Support Services / Administrative and Campus Support (Phase 1)
2. Gymnasium Lobby
3. Building J – Gymnasium (existing)
4. Weight Room & Dance
5. Locker Rooms / Athletic Sports Programs

Middle School

6. Building A/B – Administration / Library / Classrooms (existing)
7. Building E – Classrooms (existing)
8. Building D – Gymnasium / Fitness / PE / Student Activities / Food Service (Phase 2)

Shared Uses

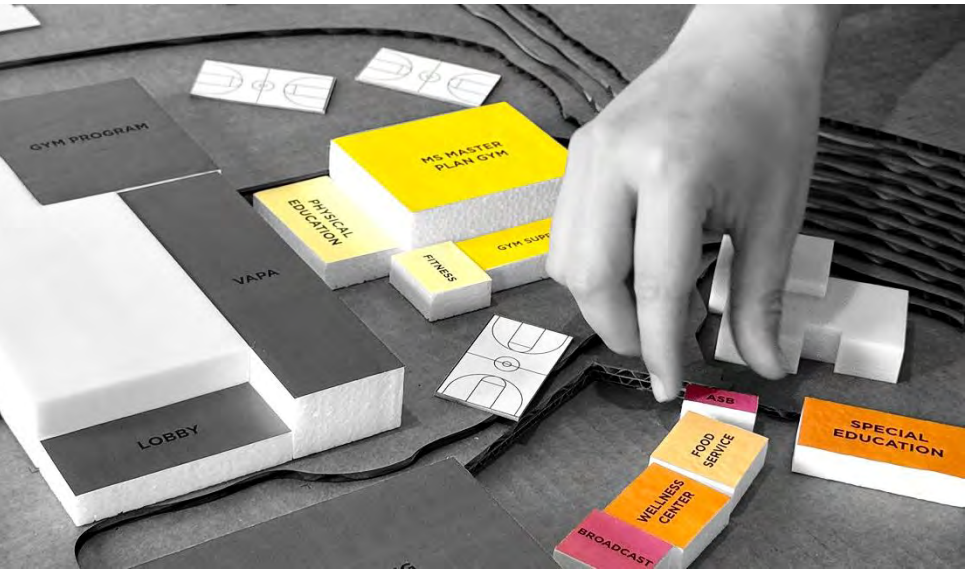
9. Living Skills and Campus Wellness Center (Phase 2)
10. Theatre (Phase 3)
11. Performing Arts (Music, Drama, Video Production) (Phase 3)
12. Aquatics Center / Field House (Phase 2)
13. **Stadium Bleachers**

Other

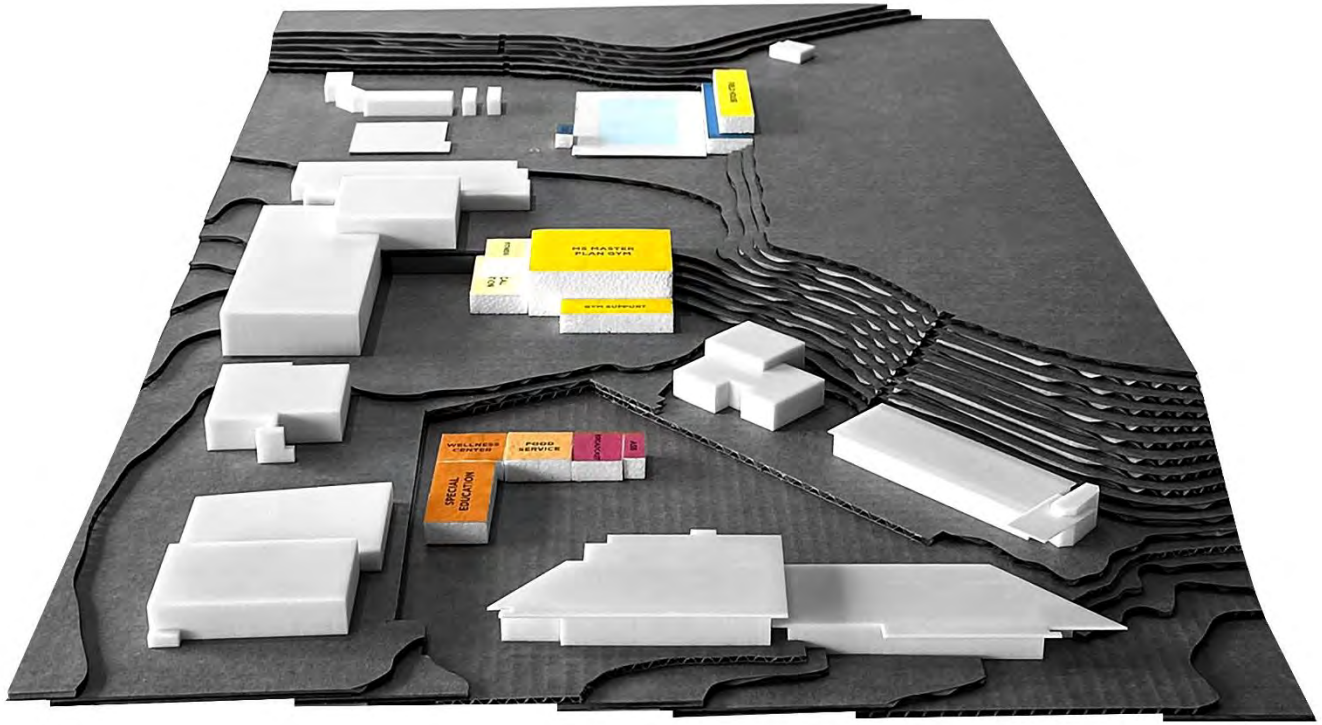
14. Boys and Girls Club (Phase 3)
15. **New Parking (80 stalls)**
16. Practice Field (Phase 3)



Site Exploration – Physical Model

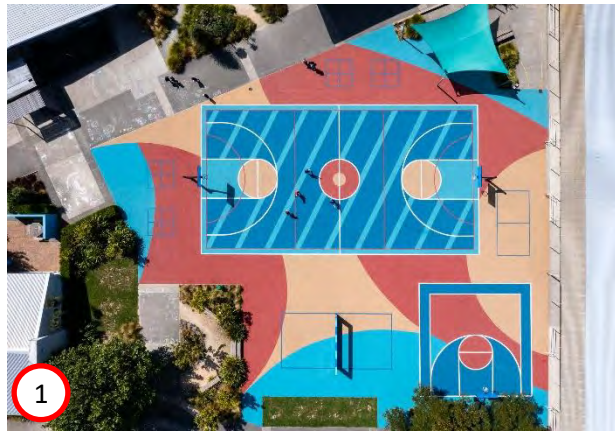






Malibu MS – Phase 2 | Site Exploration







Malibu MS – Phase 2 | Site Exploration









Malibu MS – Phase 2 | Site Exploration







Malibu MS/HS – Phase 2 | Site Exploration – Aquatic Complex











Malibu Middle School Phase 2

Schematic Design Meeting 02

July 11, 2024

Malibu HS & MS Campus Plan - Phase 2

High School

1. Classrooms / Student Support Services / Administrative and Campus Support (Phase 1)
2. Building J – New Gymnasium (existing)
3. Building J – Old Gymnasium (existing)
4. Building J – Locker Rooms (existing)

Middle School

5. Building A/B – Administration / Library / Classrooms (existing)
6. Building E – Classrooms (existing)
7. Building F – Music (existing)
8. **Building D – Gymnasium / Fitness / PE / Student Activities / Food Service**

Shared Uses

9. **Living Skills and Campus Wellness Center**
10. Food Service & Auditorium Support
11. Auditorium
12. **Aquatics Center / Field House**

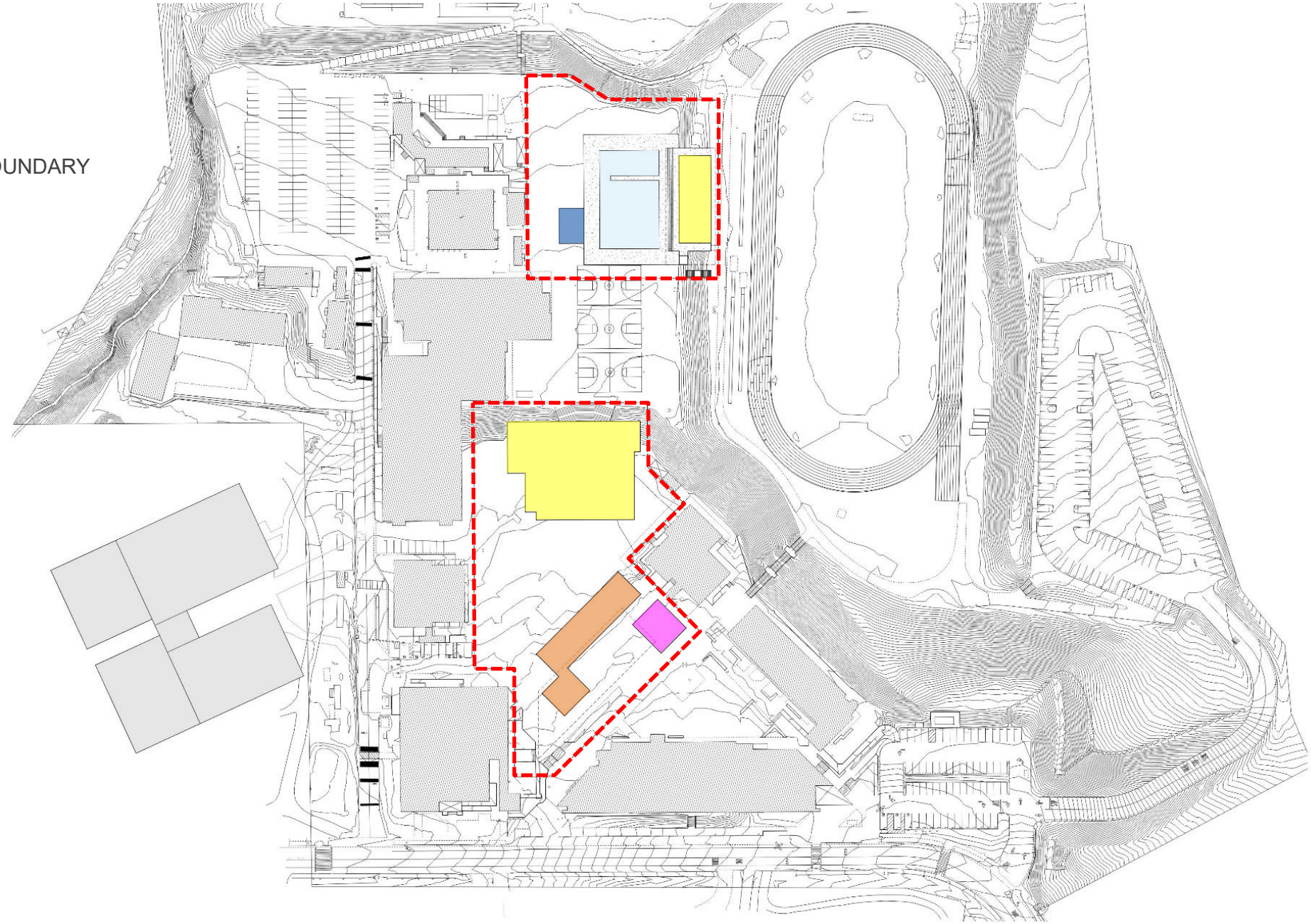
Other

13. Pool (existing)
14. Boys & Girls Club (existing)
15. Bus Barn – (existing)

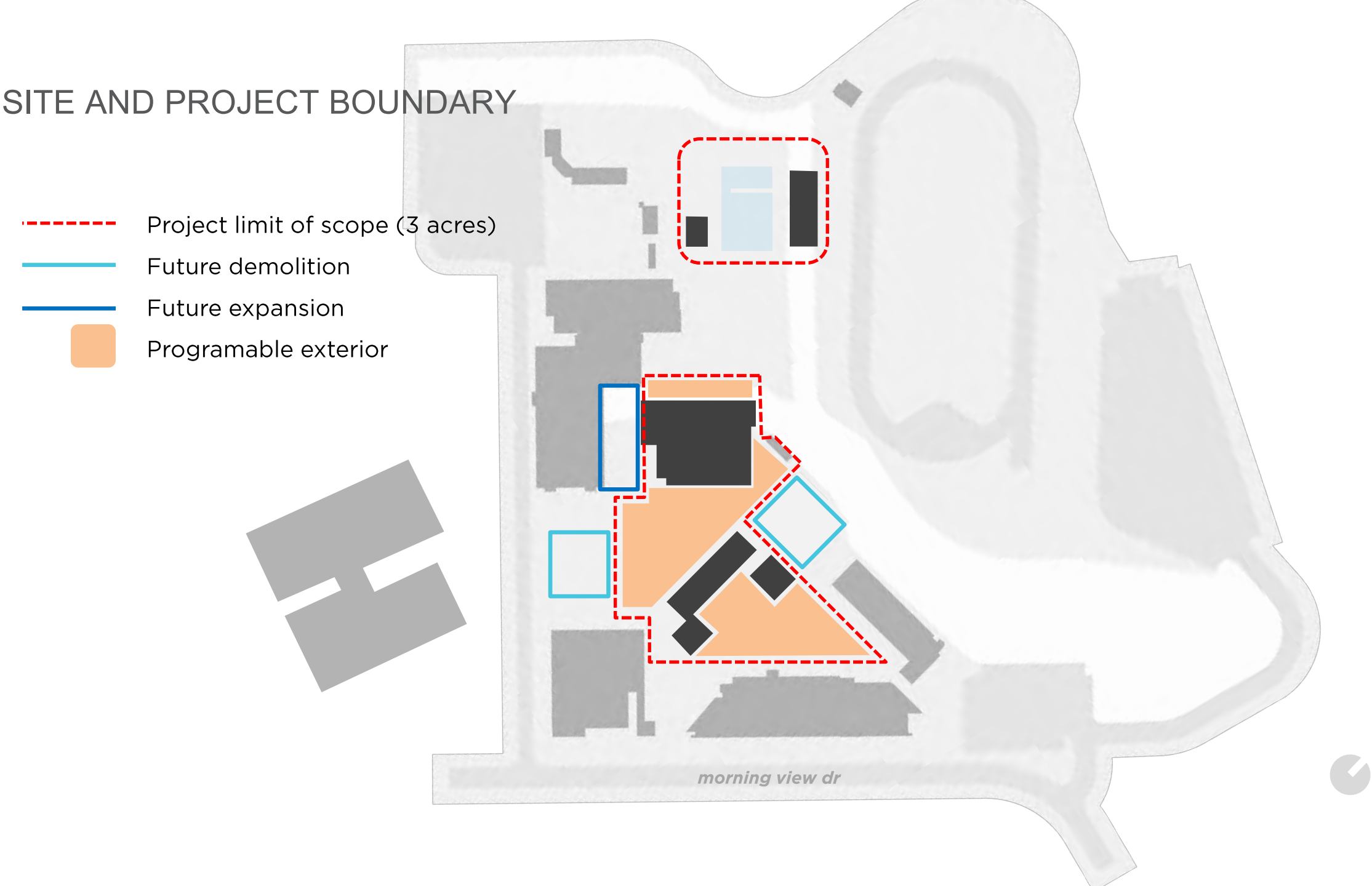


PHASE 2

PROJECT BOUNDARY



SITE AND PROJECT BOUNDARY

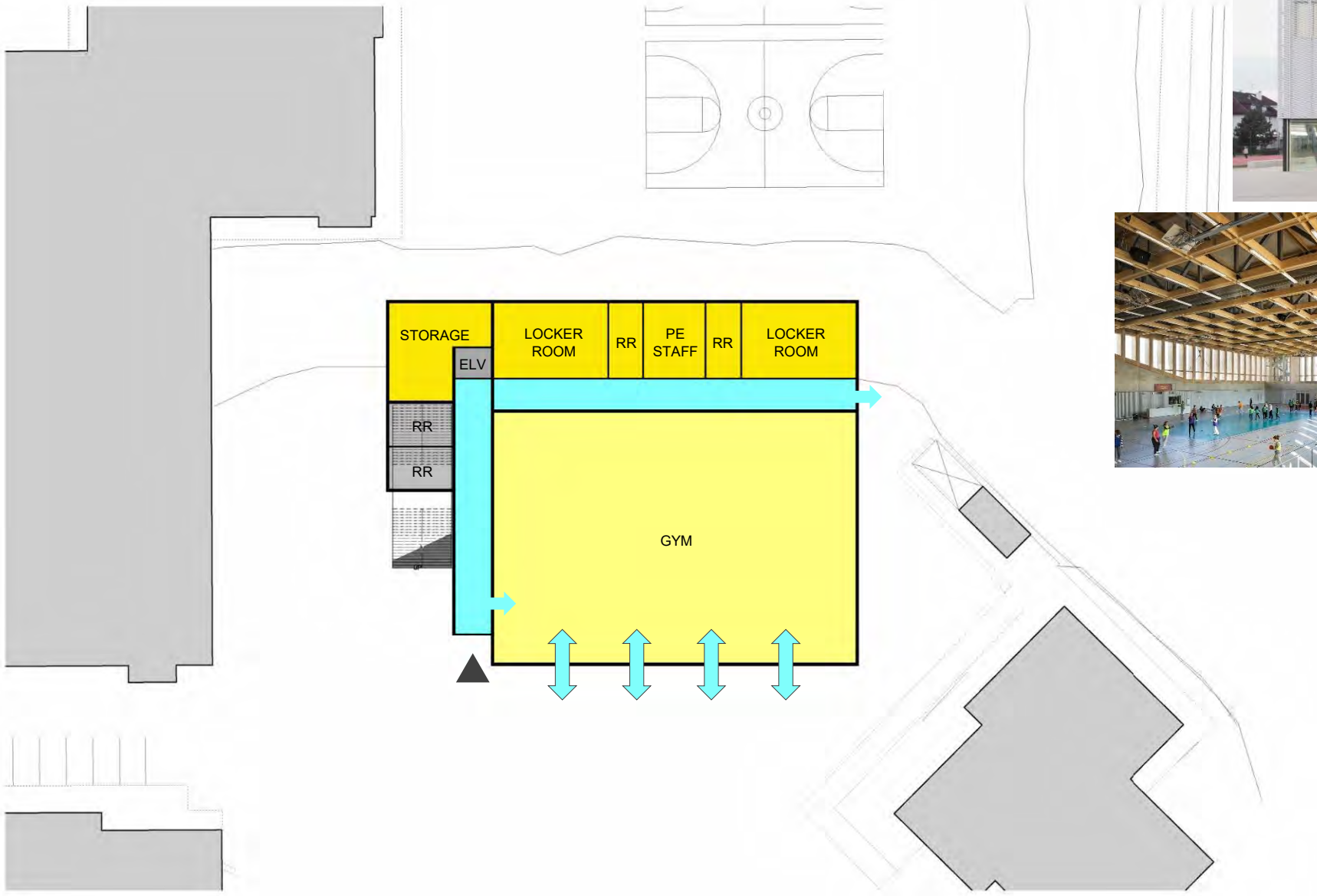


CONCEPT A – MS GYM – LEVEL 1



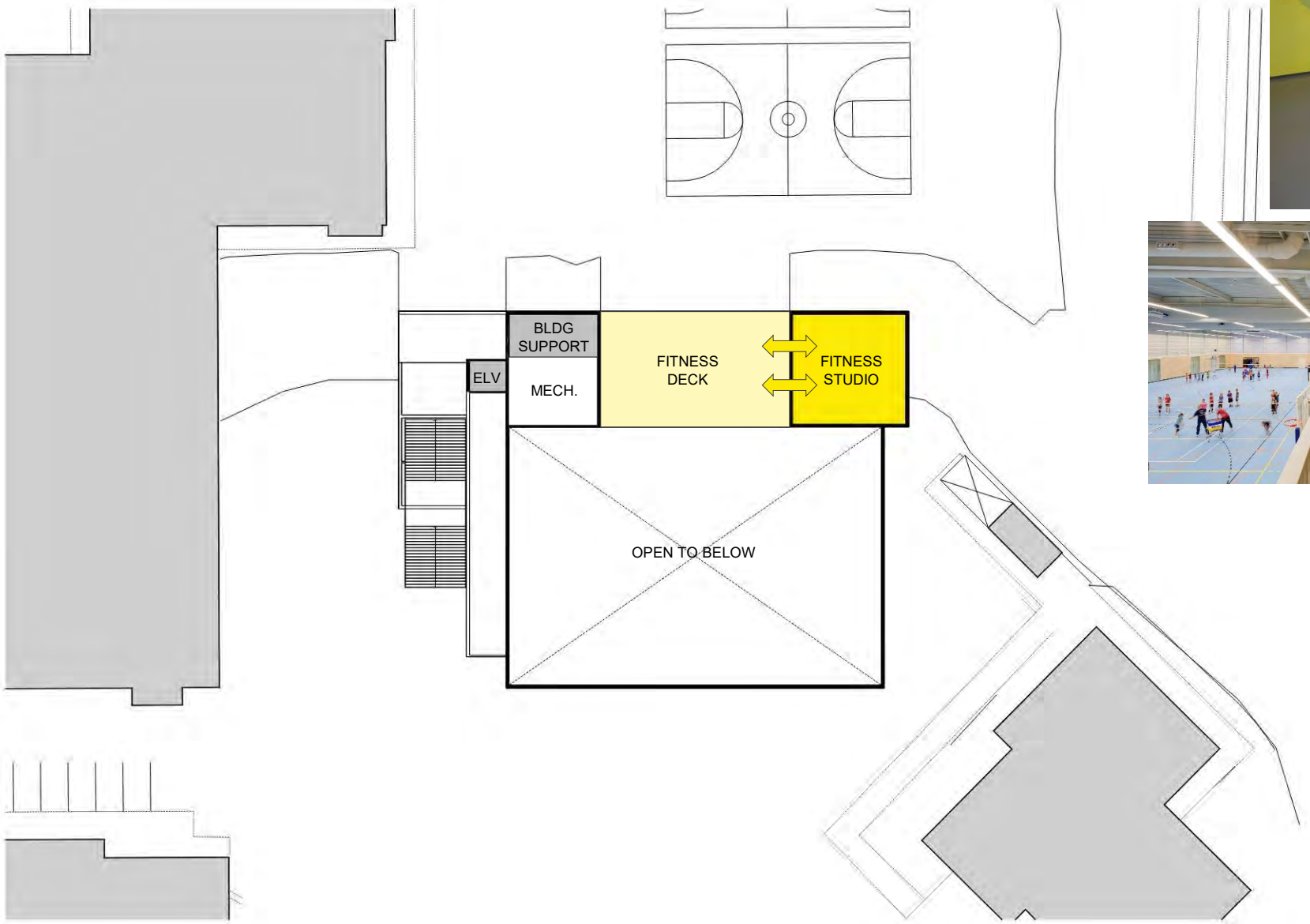






Main Entry
Physical Education
Gymnasium
Public
Support

CONCEPT A – MS GYM – LEVEL 2









- Main Entry
- Physical Education
- Gymnasium
- Public
- Support

CONCEPT A – MIDDLE SCHOOL



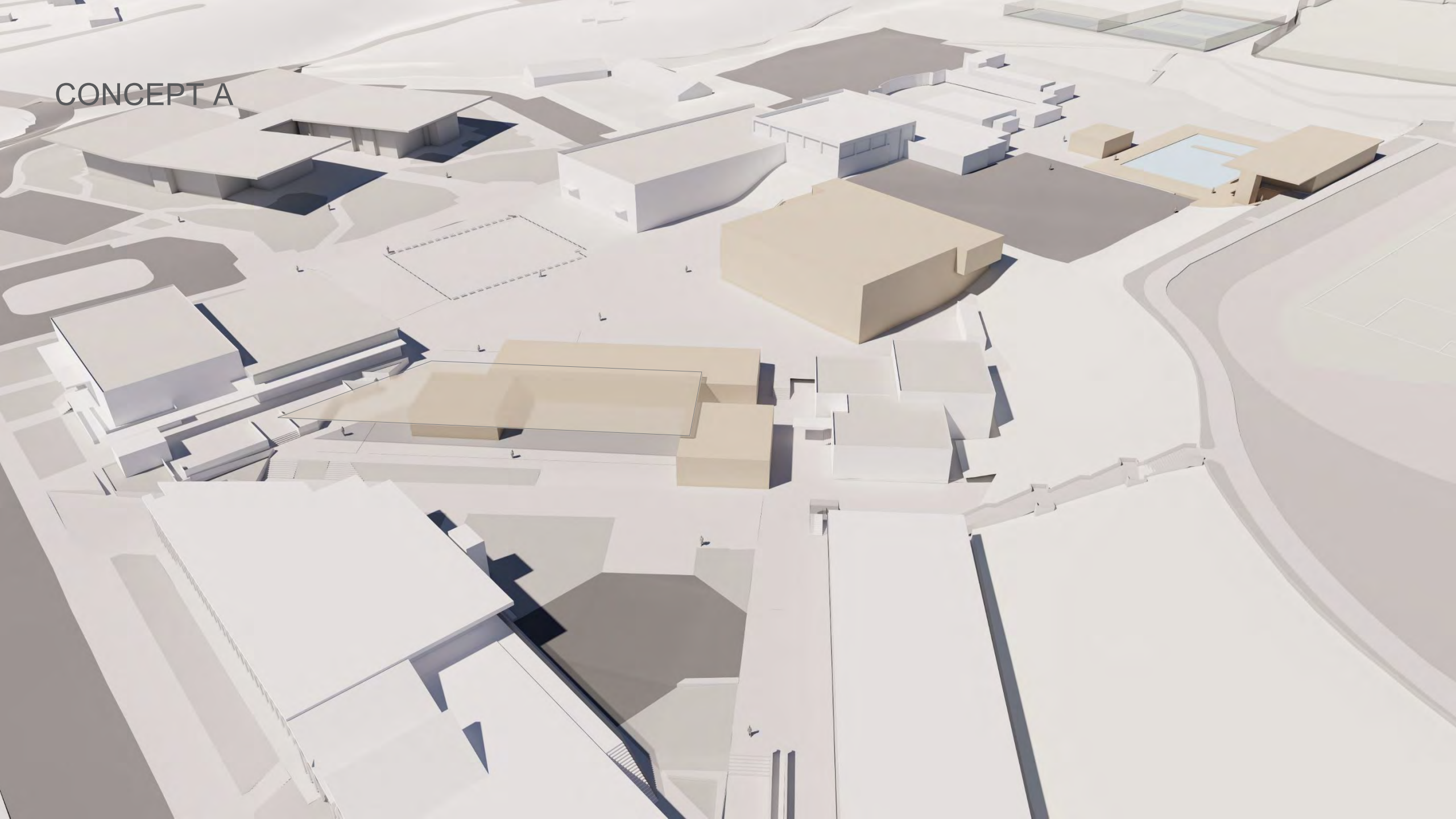




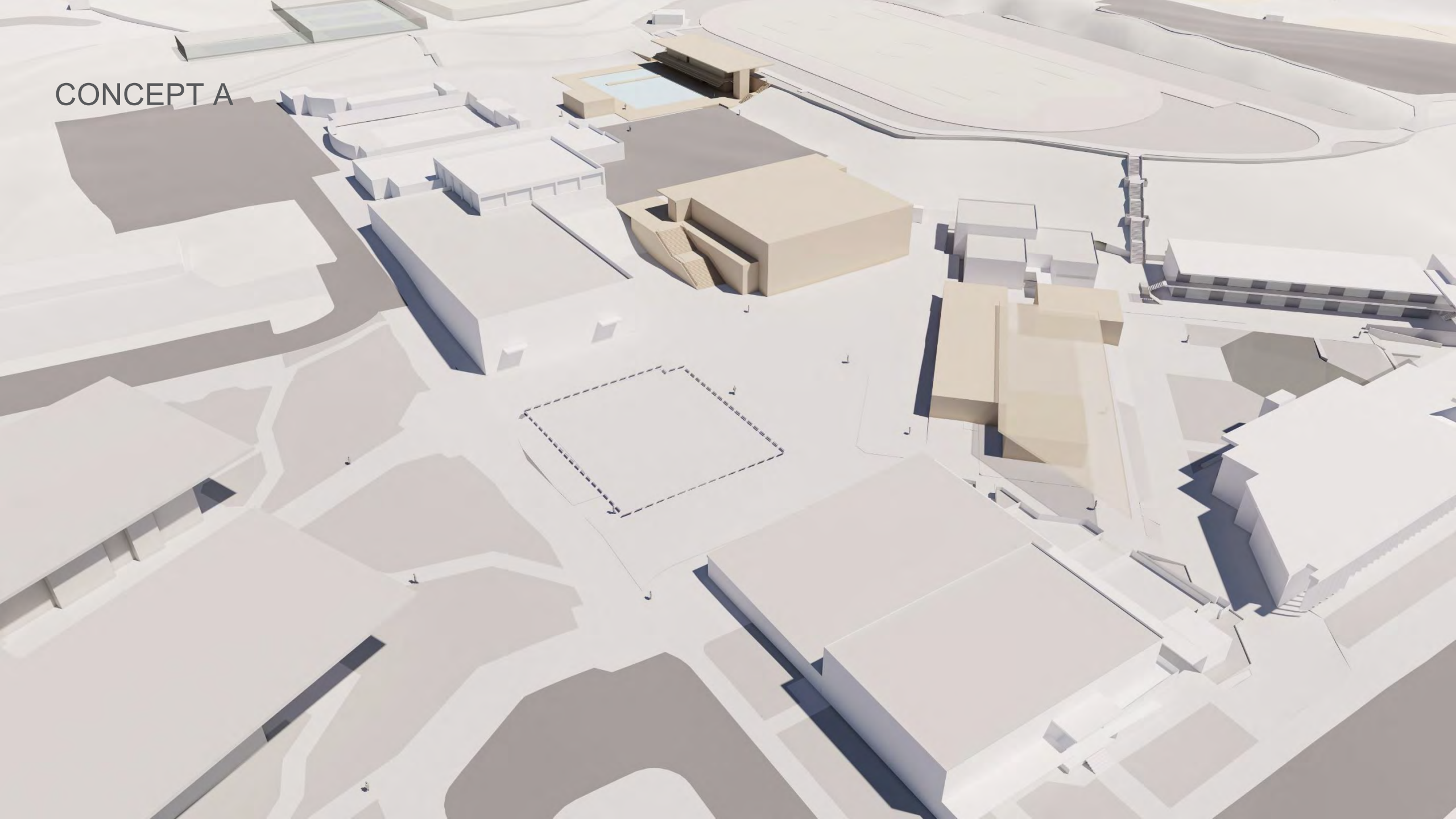


- Wellness / Special Education
- Food Service
- ASB / Broadcast
- Support
- Lunch / Shade Canopy Above

CONCEPT A



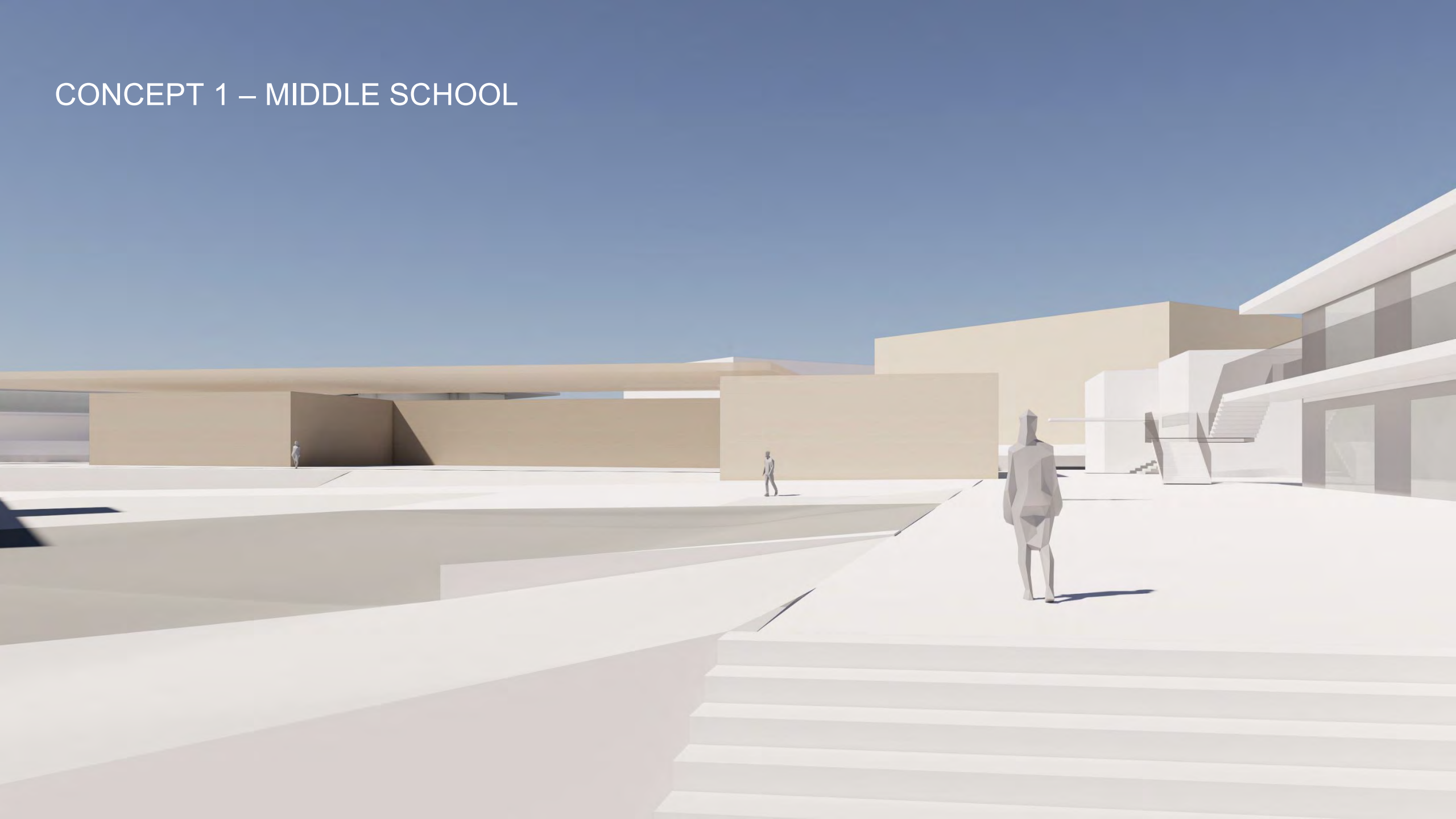
CONCEPT A



CONCEPT A – MS GYM



CONCEPT 1 – MIDDLE SCHOOL

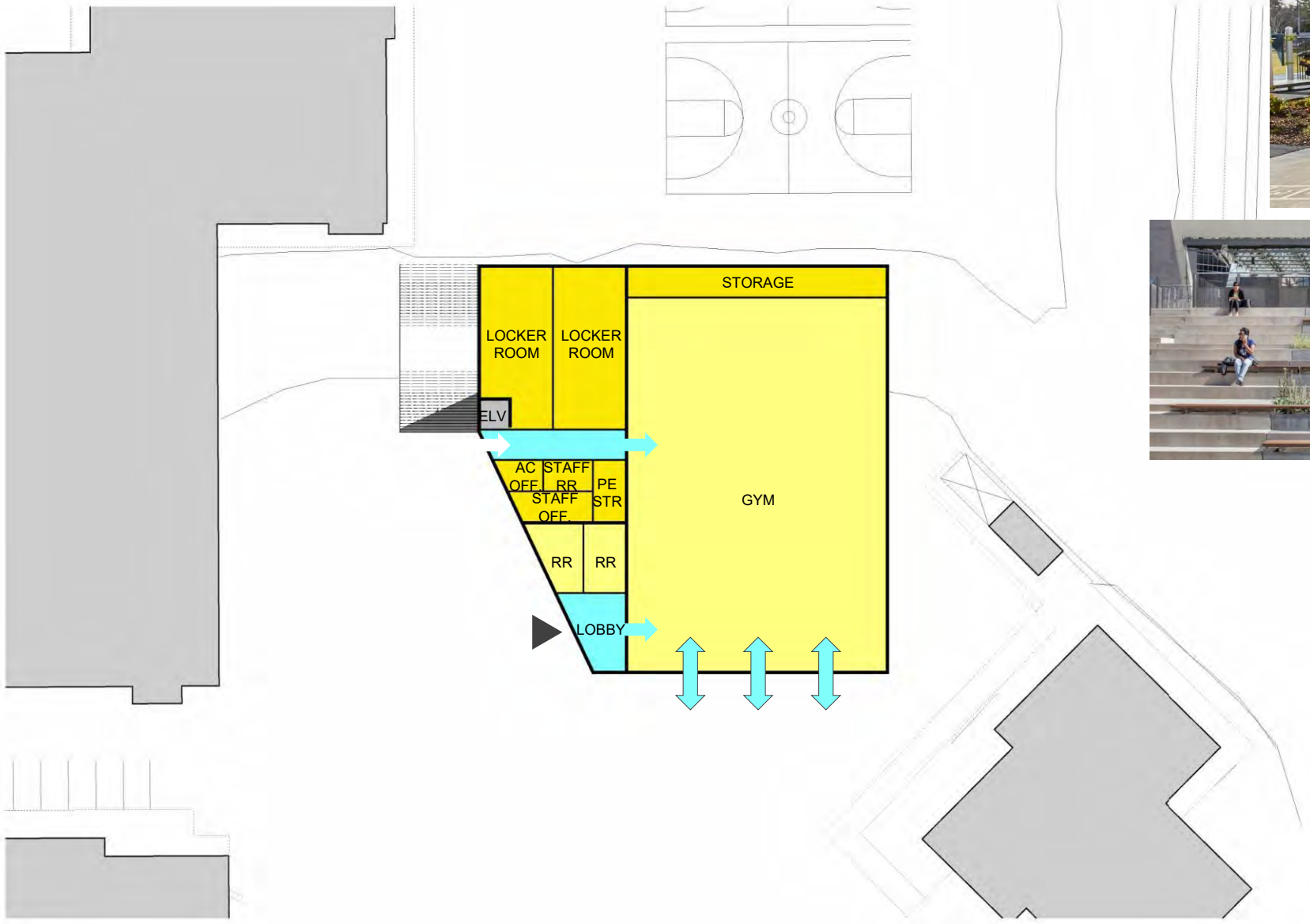


CONCEPT B – MS GYM – LEVEL 1



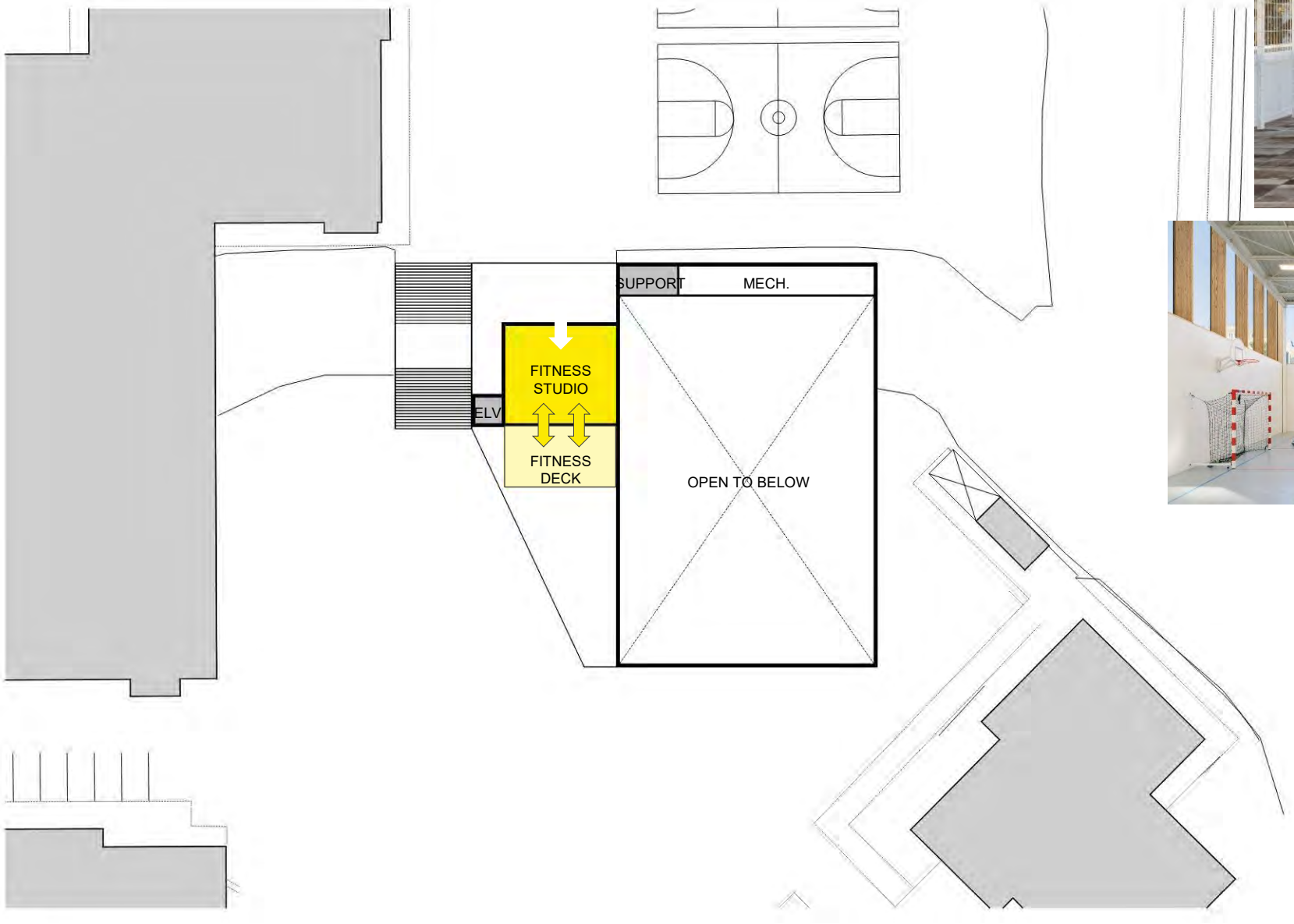






- Main Entry
- Physical Education
- Gymnasium
- Public
- Support

CONCEPT B – MS GYM – LEVEL 2









- Main Entry
- Physical Education
- Gymnasium
- Public
- Support

CONCEPT 1 – MIDDLE SCHOOL

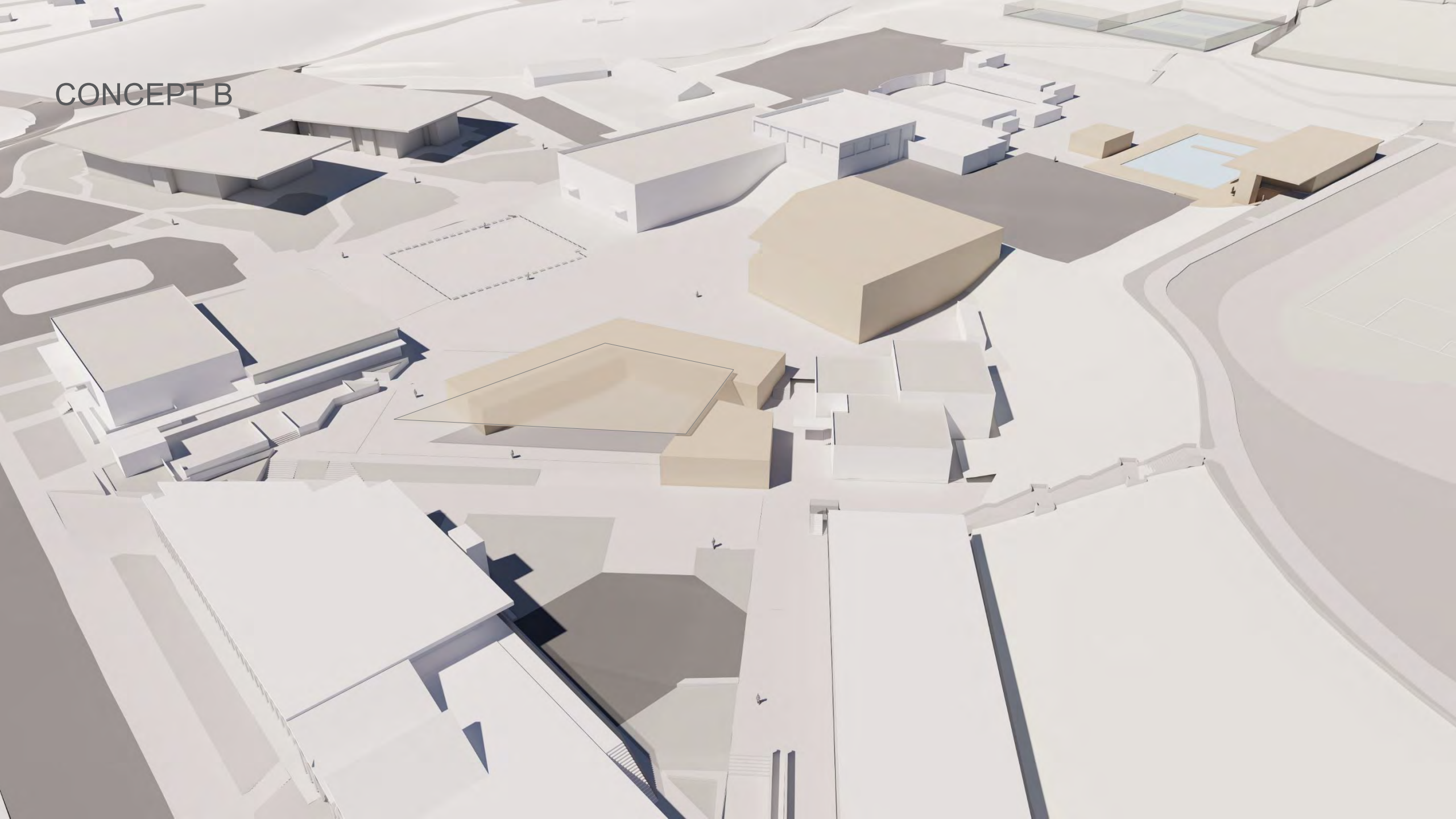




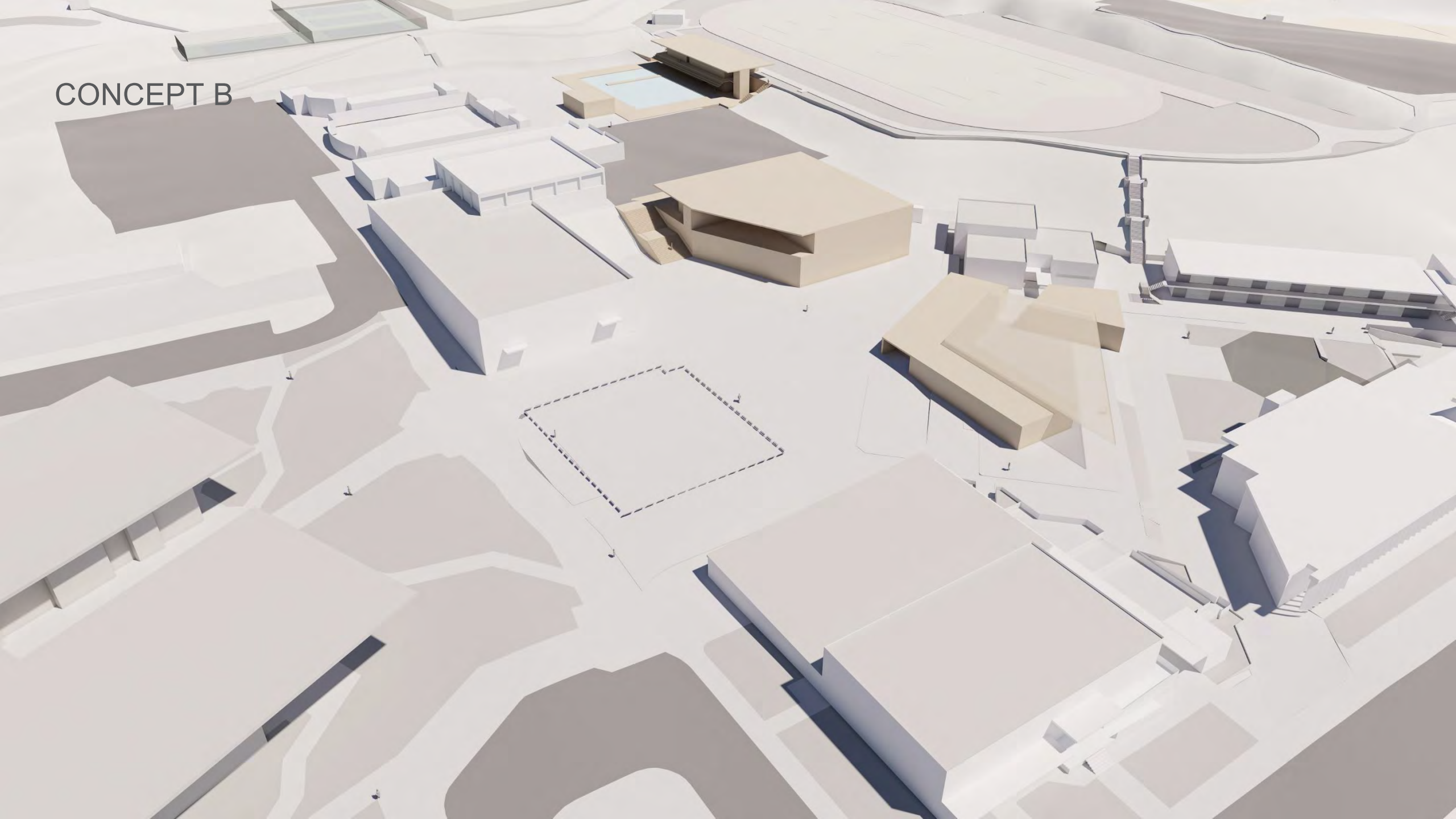


- Wellness / Special Education
- Food Service
- ASB / Broadcast
- Support
- Lunch / Shade Canopy Above

CONCEPT B



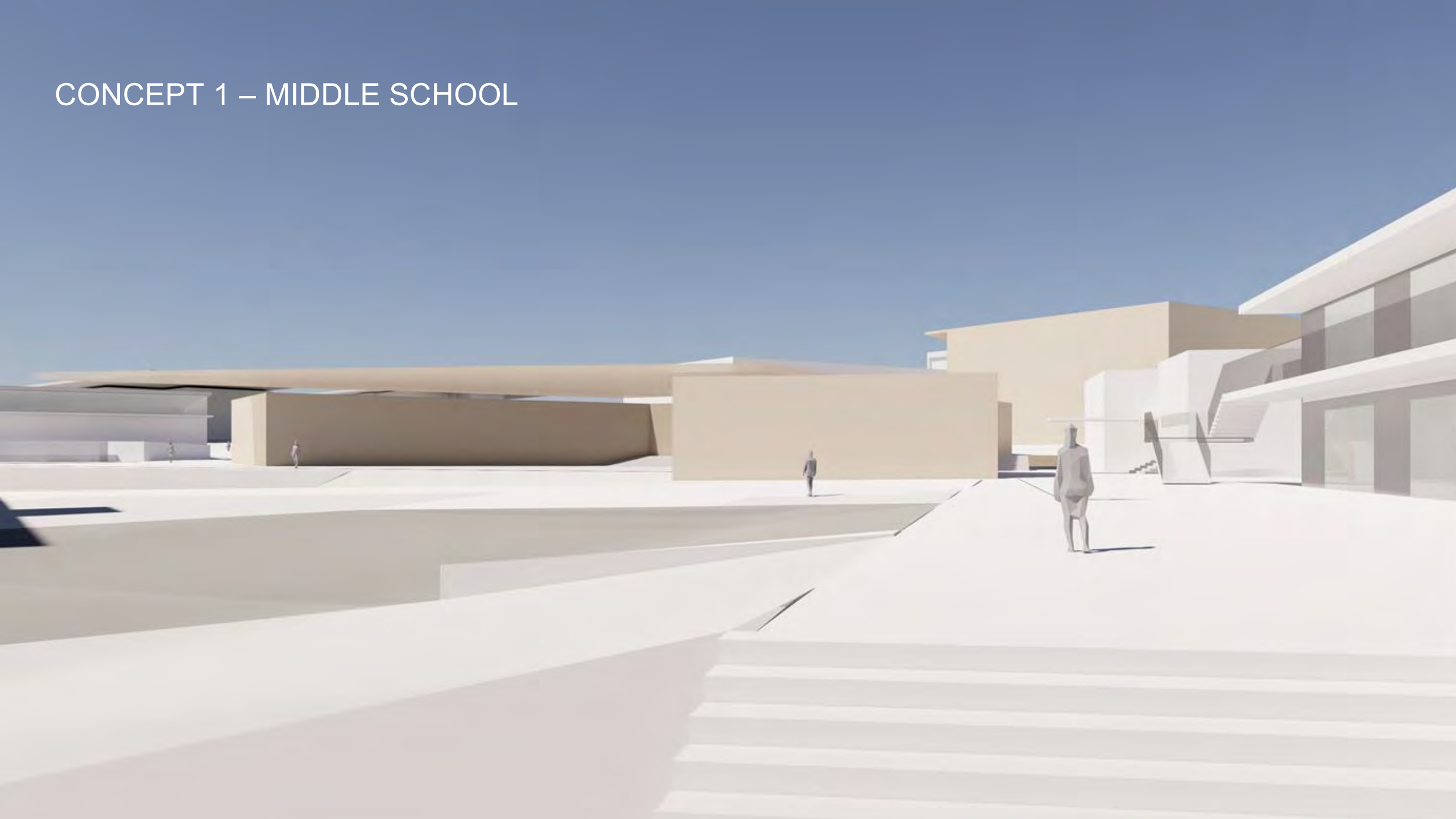
CONCEPT B



CONCEPT B – MS GYM



CONCEPT 1 – MIDDLE SCHOOL





Malibu Middle School Phase 2

Schematic Design Meeting 03

July 26, 2024

campus plan | phase 2

High School

1. Classrooms / Student Support Services / Administrative and Campus Support (Phase 1)
2. Building J – New Gymnasium (existing)
3. Building J – Old Gymnasium (existing)
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Middle School

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Shared Uses

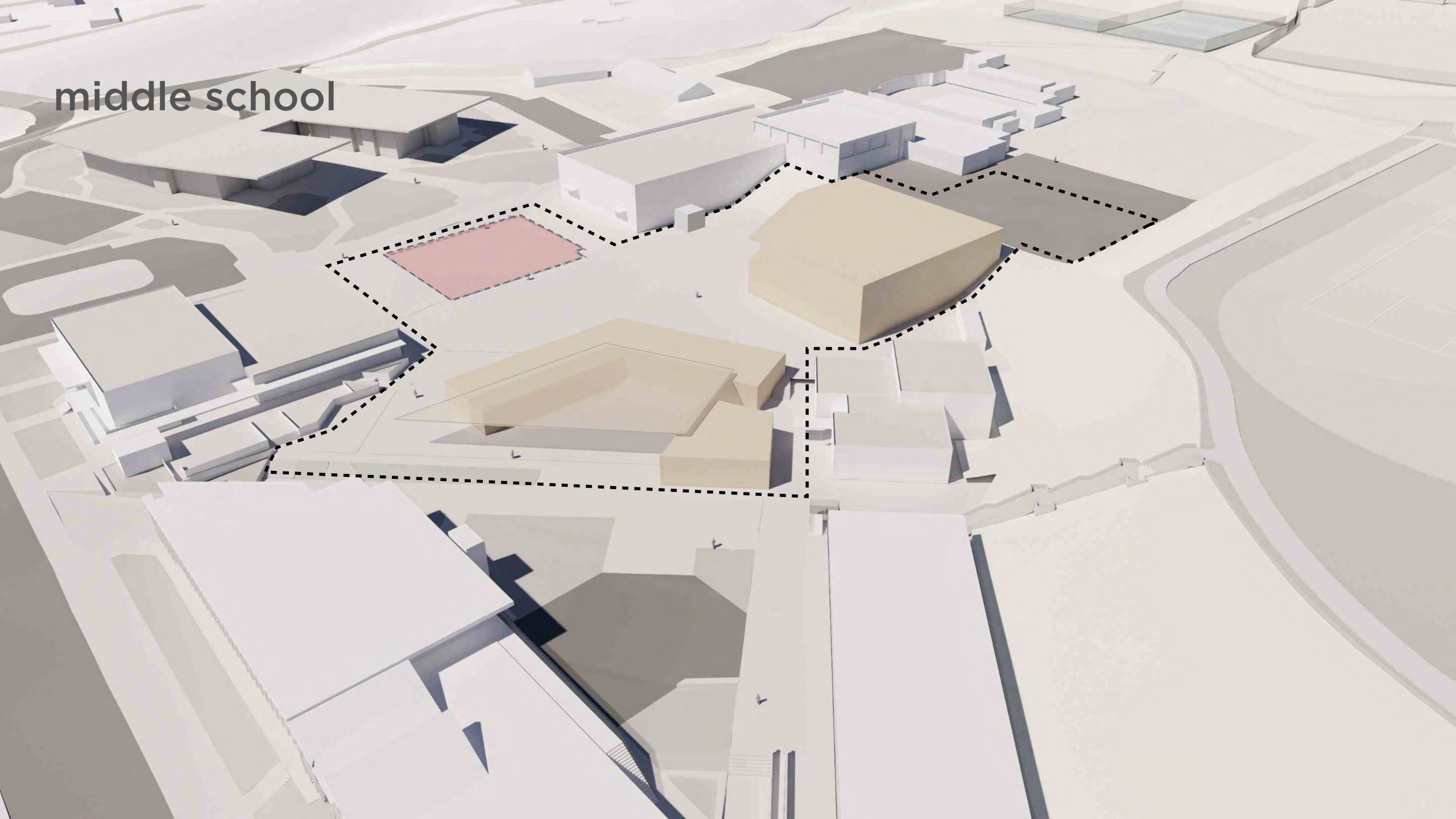
9. **Living Skills and Campus Wellness Center**
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11. Auditorium

Other

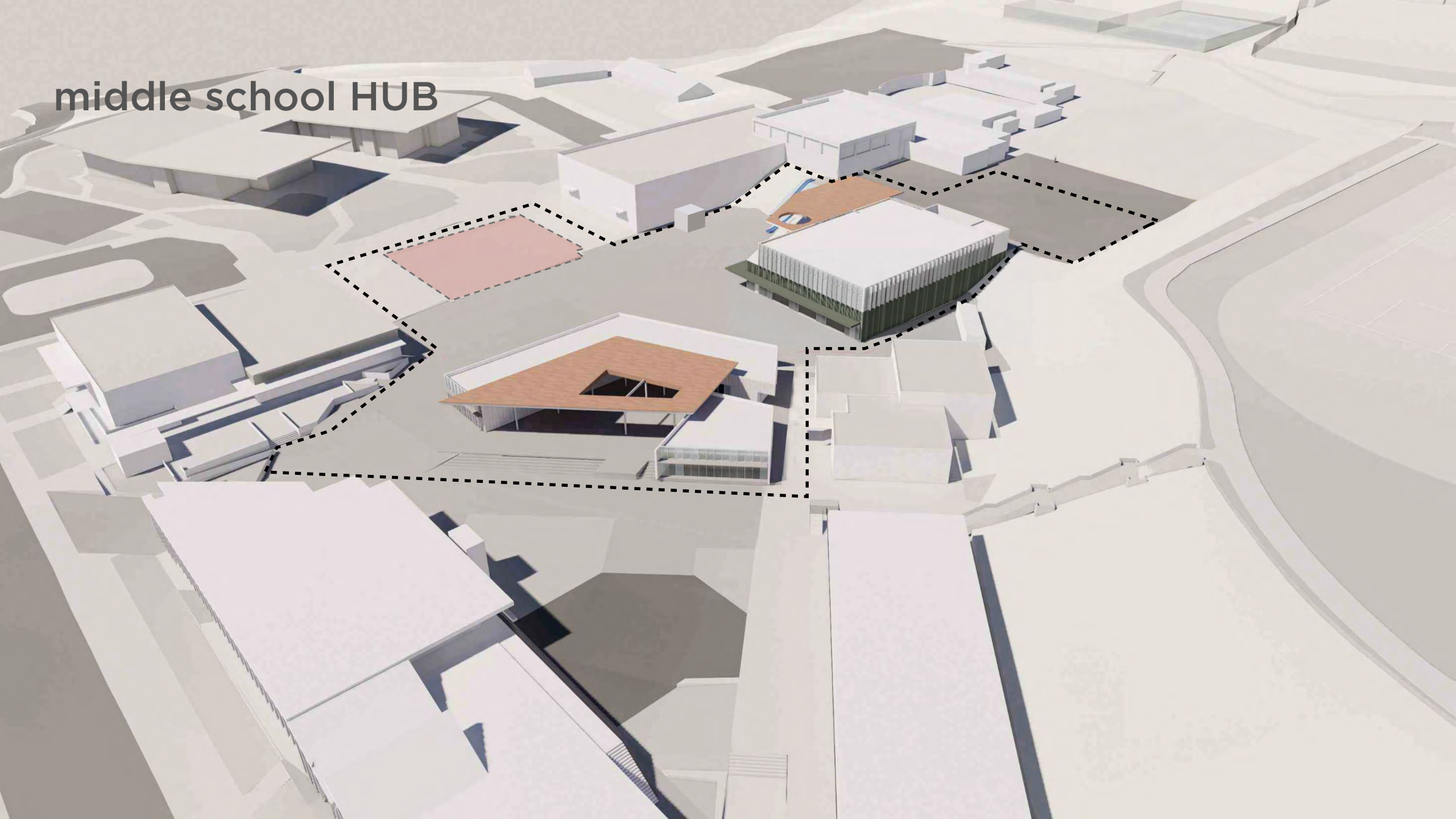
13. Pool (existing)
14. Boys & Girls Club (existing)
15. Bus Barn – (existing)

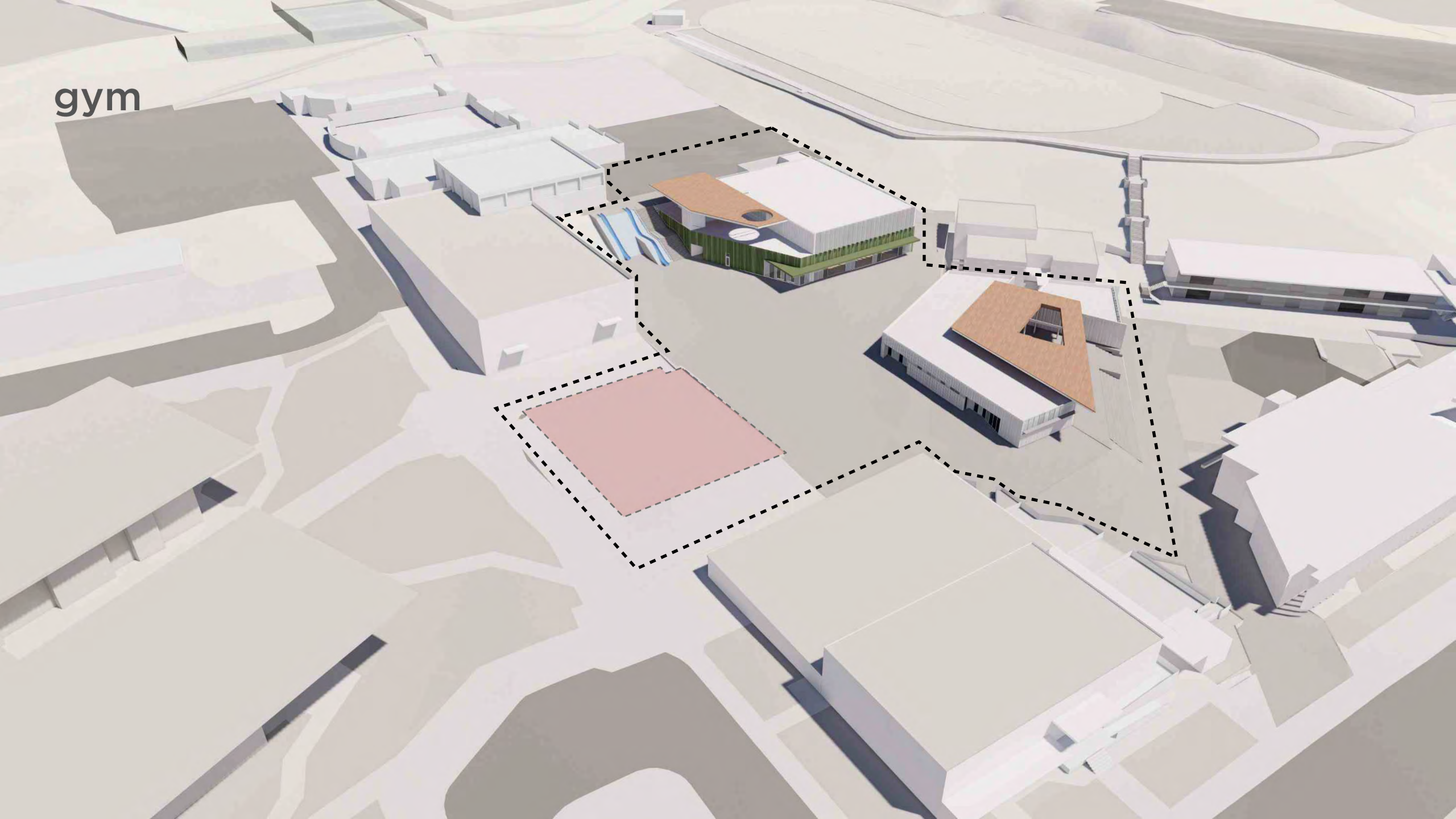


middle school



middle school HUB




gym

City of Malibu

23825 Stuart Ranch Rd., Malibu, California CA 90265-4804
(310) 456-2489 FAX (310) 456-7650

BIOLOGY REVIEW REFERRAL SHEET

TO: City of Malibu Biologist

FROM: City of Malibu Planning Department **REVISED DATE** 11/19/2025

PROJECT NUMBER: CDP 25-032

JOB ADDRESS: 30215 MORNING VIEW DR

APPLICANT / CONTACT: Elisa Younger, LPA Design Studios

APPLICANT EMAIL: eyounger@lpadesignstudios.com

PLANNER: Richard Greenbauer

PROJECT DESCRIPTION: Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings

REVISION:

TO: Malibu Planning Department and/or Applicant

FROM: City Biologist, Courtney McCammon

_____ **The project review package is INCOMPLETE and; CANNOT proceed through Final Planning Review until corrections and conditions from Biological Review are incorporated into the proposed project design** (See Attached).

X _____ **The project is APPROVED, consistent with City Goals & Policies associated with the protection of biological resources and CAN proceed through the Planning process.**

Building Plan Check (BPC) Required ☐ Yes ☐ No BPC Fees Req'd $_____

_____ **The project may have the potential to significantly impact the following resources, either individually or cumulatively: Sensitive Species or Habitat, Watersheds, and/or Shoreline Resources and therefore Requires Review by the Environmental Review Board (ERB).**

Courtney McCammon 11/25/25

Signature Date

Additional requirements/conditions may be imposed upon review of plan revision

Contact Information:

Courtney McCammon, City Biologist, biology@malibucity.org, (310) 456-2489, extension 277

City of Malibu

Biology • Planning Department
23825 Stuart Ranch Road · Malibu, California · 90265-4861
Phone (310) 456-2489 · Fax (310) 456-3356 · www.malibucity.org

BIOLOGY REVIEW SHEET

PROJECT INFORMATION

Applicant: (name and email)	Elisa Younger, LPA Design Studios eyounger@lpadesignstudios.com	
Project Address:	**30215 MORNING VIEW DR** Malibu, CA 90265	
Planning Case No.:	CDP 25-032	
Project Description:	Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings	
Date of Review:	November 25, 2025	
Reviewer:	Courtney McCammon	Signature: Courtney McCammon
Contact Information:	Phone: (310) 456-2489 ext 277	Email: biology@malibucity.org

SUBMITTAL INFORMATION

Site Plan:	
Site Survey:	
Landscape Plan:	11/19/25
Hydrozone Plan:	11/19/25
Irrigation Plan:	11/19/25
Fuel Modification Plan:	11/19/25
Grading Plan:	
OWTS Plan:	
Bio Assessment:	
Bio Inventory:	
Native Tree Survey:	
Native Tree Protection Plan:	
Miscellaneous:	
Previous Reviews:	8/12/25 (Incomplete), 9/17/25 (Incomplete), 10/19/25 (Incomplete)

REVIEW FINDINGS

Review Status:	☐	**INCOMPLETE**: Additional information and/or a response to the listed review comments is required.
	☒	**APPROVED**: The project has been approved with regards to biological impacts.
	☐	**CANNNOT APPROVE AS SUBMITTED**: The proposed project does not conform to the requirements of the MMC and/or LCP.
	☐	**ERB**: This project has the potential to impact ESHA and may require review by the Environmental Review Board pursuant to LIP Section 4.4.4

Recycled Paper

DISCUSSION:

1. The Maximum Applied Water Allowance (MAWA) for this project totals 374,974 gallons per year (gpy). The Estimated Applied Water Use (EAWU) totals 320,296 gpy. Therefore, the project meets the Landscape Water Conservation Ordinance Requirements.

RECOMMENDATIONS:

1. The project is recommended for **APPROVAL** with the following conditions:

   A. Prior to installation of any landscaping, the applicant shall obtain plumbing permit for the proposed irrigation system from the Building Safety Division.

   B. Prior to or at the time of a Planning final inspection, the property owner/applicant shall submit to the case planner a copy of the plumbing permit for the irrigation system installation that has been signed off by the Building Safety Division.

   C. Prior to final Planning inspection or other final project sign off (as applicable), the applicant shall submit to the Planning Director for review and approval a certificate of completion in accordance with the Landscape Water Conservation Ordinance (MMC 17.53). The certificate shall include the property owner's signed acceptance of responsibility for maintaining the landscaping and irrigation in accordance with the approved plans and MMC 17.53. (form attached)

   D. Prior to Final Plan Check Approval, if your property is serviced by the Los Angeles County Waterworks District No. 29, please provide landscape water use approval from that department. For approval contact:

      LA County Waterworks District 29
      Address: 23533 Civic Center Way, Malibu, CA 90265
      Email: wwsmaeng@dpw.lacounty.gov
      Phone: (310) 317 – 0209

      Please note: submit plans through EPIC-LA using the "Waterworks Division Landscape Water Efficiency Approval" application. This action may require several weeks. As such, the applicant should submit their approved landscape plans as soon as feasible in order to avoid a delay at plan check.

   E. Vegetation forming a view impermeable condition (hedge), serving the same function as a fence or wall, occurring within the side or rear yard setback shall be maintained at or below six feet in height. View impermeable hedges occurring within the front yard setback serving the same function as a fence or wall shall be maintained at or below 42 inches in height. Three sequential violations of this condition will result in a requirement to permanently remove the vegetation from the site.

F. Vegetation shall be situated on the property so as not to obstruct the primary view from private property at any given time (given consideration of its future growth).

G. Invasive plant species, as determined by the City of Malibu, are prohibited.

H. No vegetation is permitted within 5 feet of any structure.

I. No non-native plant species shall be approved greater than 50 feet from the residential structure.

J. The landscape plan shall prohibit the use of building materials treated with toxic compounds such as creosote and copper arsenate.

K. Grading/excavation/vegetation removal scheduled between February 1 - September 15 will require nesting bird surveys by a qualified biologist prior to initiation of such activities. Surveys shall be completed no more than five days from proposed initiation of site preparation activities. Should active nests be identified, a buffer area no less than 150 feet (300 feet for raptors) shall be fenced off until it is determined by a qualified biologist that the nest is no longer active. A report discussing the results of the surveys shall be turned in to the City within two business days of completion of surveys.

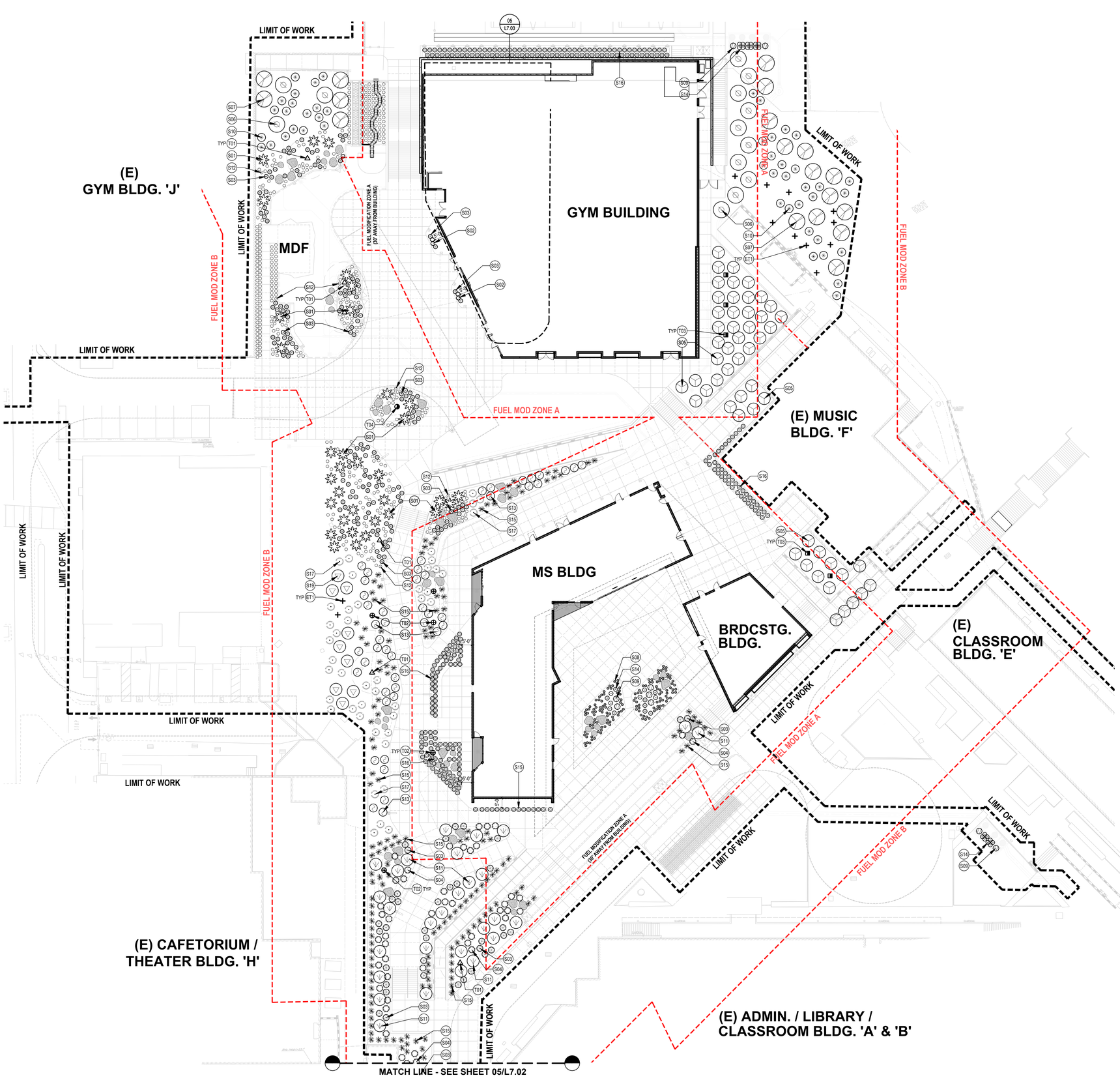
L. Night lighting from exterior and interior sources shall be minimized. All exterior lighting shall be low intensity and shielded so it is directed downward and inward so that there is no offsite glare or lighting of natural habitat areas. Up-lighting is prohibited.

2. **PRIOR TO ISSUING A CERTIFICATE OF OCCUPANCY**, the City Biologist shall inspect the project site and determine that all planning conditions to protect natural resources are in compliance with the approved plans.

-o0o-

If you have any questions regarding the above requirements, please contact the City Biologist office at your earliest convenience.

cc: Planning Project file
Planning Department



PLANTING LEGEND

TREE LIST

REF.	SYM.	QTY.	BOTANICAL NAME/ COMMON NAME	WUCOLS	SIZE/ SPACING
T01	△	6	ARBUTUS 'MARINA' MARINA STRAWBERRY TREE	L	24" BOX STD. PER PLAN
T02	⊕	5	CERCIS OCCIDENTALIS WESTERN REDBUD	L	24" BOX STD. PER PLAN
T03	◨	5	HETEROMELES ARBUTIFOLIA TOYON	L	24" BOX STD. PER PLAN
T04	◑	1	QUERCUS AGIFOLIA COAST LIVE OAK	L	60" BOX STD. PER PLAN
ET1	+	14	EXISTING TREE PROTECT IN PLACE	-	-

SHRUB LIST

S01	✳	34	AGAVE ATTTENUATA FOXTAIL AGAVE	L	5-GAL/ 6' O.C PER PLAN
S02	◯	25	ALOE 'BLUE ELF' BLUE ELF ALOE	L	1-GAL/ 24" O. PER PLAN
S03	◌	200	ALOE RUDIKOPPE LITTLE RED RIDING HOOD ALOE	L	5-GAL/ 3' O.C PER PLAN
S04	◯	48	ALOE VERA MEDICINAL ALOE	L	5-GAL/ 3' O.C PER PLAN
S05	Y	53	ARCTOSTAPHYLOS EDMUNDSII 'CARMEL SUR' CARMEL SUR MANZANITA	L	5-GAL/ 6' O.C PER PLAN
S06	⊙	13	BACCHARIS PILULARIS 'PIGEON PT.' PIGEON PT. DWARF COYOTE BRUSH	L	5-GAL/ 8' O.C PER PLAN
S07	Y	18	CEANOTHUS GRISEUS 'YANKEE PT.' YANKEE PT. CARMEL CREEPER	L	5-GAL/ 8' O.C PER PLAN
S08	○	144	CERASTIUM TOMENTOSUM SNOW-IN-SUMMER	L	5-GAL/ 12" O. PER PLAN
S09	/	9	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	L	5-GAL/ 3' O.C PER PLAN
S10	✳	46	DASYLIRION WHEELERI GREY DESERT SPOON	L	5-GAL/ 4' O.C PER PLAN
S11	V	29	DELOSPERMA COOPERI HARDY ICE PLANT	L	5-GAL/ 6' O.C PER PLAN
S12	○	418	FESTUCA CINERA BLUE FESCUE	L	5-GAL/ 18" O. PER PLAN
S13	V	47	HESPERALOE PARVIFLORA RED YUCCA	L	5-GAL/ 4' O.C PER PLAN
S14	⊖	34	JUNCUS PATENS CALIFORNIA GRAY RUSH	L	5-GAL/ 24" O. PER PLAN
S15	✳	179	LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	L	5-GAL/ 3' O.C PER PLAN
S16	◇	373	LIRIOPE SPICATA CREEPING LILY TURF	M	5-GAL/ 24" O. PER PLAN
S17	·	44	MUHLENBERGIA RIGENS DEER GRASS	L	5-GAL/ 4' O.C PER PLAN
S18	^	29	SEDUM NUSSBAUMERIANUM COPPERTONE STONECROP	L	5-GAL/ 24" O. PER PLAN
S19	V	9	YUCCA RECURVIFOLIA CURVE-LEAF YUCCA	L	5-GAL/ 6' O.C PER PLAN

MISCELLANEOUS SYMBOLS

LINEAR ROOT BARRIER

SOIL SAMPLE LOCATION (6 TOTAL)

CITY OF MALIBU
PLANNING DEPARTMENT

CITY BIOLOGIST APPROVAL

DATE 1/25/25

PLANNING REVIEW NO. CDP 25-032

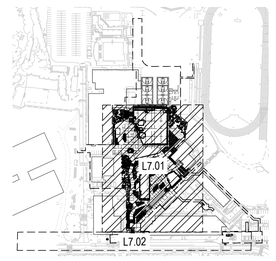
SIGNATURE Casey McLean

PRINT NAME

Any changes to the approved plans shall be submitted to the City Biologist for review and approval prior to implementation. This action does not constitute final approval by the Environmental and Community Development Department.

KEYMAP

SCALE=1"=250'-0"



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ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING
949-261-1001 Office
LPADesignStudios.com
5301 California Avenue, Suite 100
Irvine, California 92617

REGISTERED LANDSCAPE ARCHITECT
ANTHONY DE TOBIN #5
STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900
Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
90% DESIGN DEVELOPMENT	03/14/25
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025
3RD CDP SUBMITTAL	10/30/2025

Job Number	31722
Checked By	
Scale	1" = 20'

PLANTING PLAN

L7.01

CITY OF MALIBU
PLANNING DEPARTMENT

CITY BIOLOGIST APPROVAL

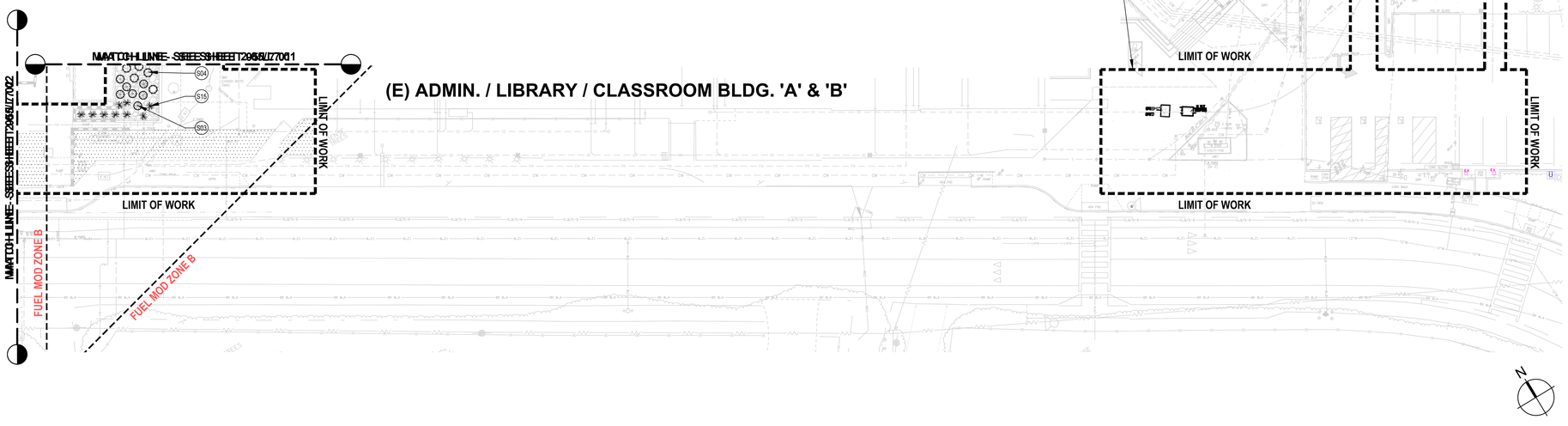
DATE 11/25/25

PLANNING REVIEW NO. CDP 25-032

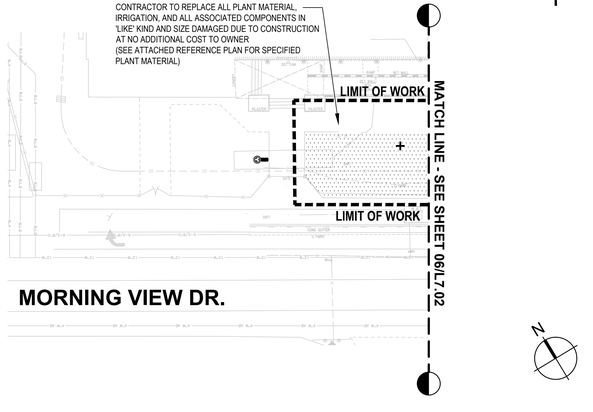
SIGNATURE Carsyn Mclean

PRINT NAME

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MATERIALS PLAN 06



MATERIALS PLAN 05

PLANTING LEGEND

TREE LIST

REF.	SYM.	QTY.	BOTANICAL NAME/ COMMON NAME	WUCOLS	SIZE/ SPACING	COMMENTS/ DET
T01	△	6	ARBUTUS 'MARINA' MARINA STRAWBERRY TREE	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T02	⊕	5	CERCIS OCCIDENTALIS WESTERN REDBUD	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T03	◨	5	HETEROMELES ARBUTIFOLIA TOYON	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T04	◑	1	QUERCUS AGIFOLIA COAST LIVE OAK	L	60" BOX STD / PER PLAN	01/ 2-L7.04
ET1	+	14	EXISTING TREE PROTECT IN PLACE	-	-	16/ 2-L7.04

SHRUB LIST

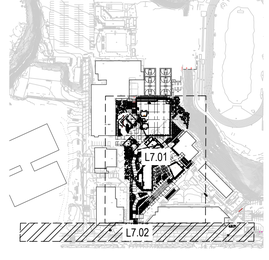
S01	✲	34	AGAVE ATTTENUATA FOXTAIL AGAVE	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S02	◯	25	ALOE 'BLUE ELF' BLUE ELF ALOE	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S03	◯	200	ALOE RUDIKOPPE LITTLE RED RIDING HOOD ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S04	◯	48	ALOE VERA MEDICINAL ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S05	Y	53	ARCTOSTAPHYLOS EDMUNDSII 'CARMEL SUR' CARMEL SUR MANZANITA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S06	S	13	BACCHARIS PILULARIS 'PIGEON PT.' PIGEON PT. DWARF COYOTE BRUSH	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S07	V	18	CEANOTHUS GRISEUS 'YANKEE PT.' YANKEE PT. CARMEL CREEPER	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S08	O	144	CERASTIUM TOMENTOSUM SNOW-IN-SUMMER	L	5-GAL/ 12" O.C. PER PLAN	08, 11/ 2-L7.04
S09	/	9	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S10	✳	46	DASYLIRION WHEELERI GREY DESERT SPOON	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S11	V	29	DELOSPERMA COOPERI HARDY ICE PLANT	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S12	◯	418	FESTUCA CINERA BLUE FESCUE	L	5-GAL/ 18" O.C. PER PLAN	08, 11/ 2-L7.04
S13	/	47	HESPERALOE PARVIFLORA RED YUCCA	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S14	—	34	JUNCUS PATENS CALIFORNIA GRAY RUSH	L	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S15	✳	179	LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S16	◯	373	LIRIOPE SPICATA CREEPING LILY TURF	M	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S17	·	44	MUHLENBERGIA RIGENS DEER GRASS	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S18	◯	29	SEDUM NUSSBAUMERIANUM COPPERTONE STONECROP	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S19	V	9	YUCCA RECURVIFOLIA CURVE-LEAF YUCCA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04

MISCELLANEOUS SYMBOLS

------	LINEAR ROOT BARRIER		12/ 2-L7.04
	SOIL SAMPLE LOCATION (6 TOTAL)		

KEYMAP

SCALE=1"=250'-0"



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ANDREW TOBIN
No. 5030
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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

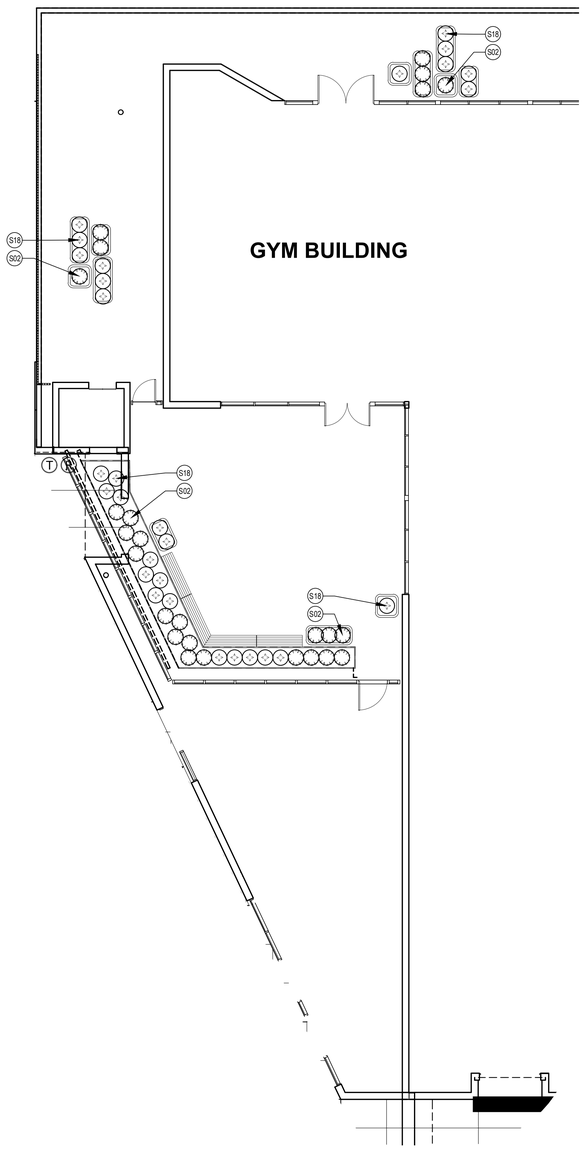
Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	01/14/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025
2ND CDP SUBMITTAL	10/03/2025

Job Number	31722
Checked By	
Scale	1"=20'

PLANTING PLAN

2-L7.02



PLANTING LEGEND

TREE LIST

REF.	SYM.	QTY.	BOTANICAL NAME/ COMMON NAME	WUCOLS	SIZE/ SPACING	COMMENTS/ DET
T01	△	6	ARBUTUS 'MARINA' MARINA STRAWBERRY TREE	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T02	⊕	5	CERCIS OCCIDENTALIS WESTERN REDBUD	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T03	◨	5	HETEROMELES ARBUTIFOLIA TOYON	L	24" BOX STD / PER PLAN	09/ 2-L7.04
T04	◑	1	QUERCUS AGIFOLIA COAST LIVE OAK	L	60" BOX STD / PER PLAN	01/ 2-L7.04
ET1	+	-	EXISTING TREE PROTECT IN PLACE	-	-	16/ 2-L7.04

SHRUB LIST

S01	✳	AS REQ'D	AGAVE ATTTENUATA FOXTAIL AGAVE	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S02	◯	AS REQ'D	ALOE 'BLUE ELF' BLUE ELF ALOE	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S03	◌	AS REQ'D	ALOE RUDIKOPPE LITTLE RED RIDING HOOD ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S04	◯	AS REQ'D	ALOE VERA MEDICINAL ALOE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S05	Y	AS REQ'D	ARCTOSTAPHYLOS EDMUNDSII 'CARMEL SUR' CARMEL SUR MANZANITA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S06	S	AS REQ'D	BACCHARIS PILULARIS 'PIGEON PT.' PIGEON PT. DWARF COYOTE BRUSH	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S07	Y	AS REQ'D	CEANOTHUS GRISEUS 'YANKEE PT.' YANKEE PT. CARMEL CREEPER	L	5-GAL/ 8' O.C. PER PLAN	08, 11/ 2-L7.04
S08	○	AS REQ'D	CERASTIUM TOMENTOSUM SNOW-IN-SUMMER	L	5-GAL/ 12" O.C. PER PLAN	08, 11/ 2-L7.04
S09	/	AS REQ'D	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S10	✳	AS REQ'D	DASYLIRION WHEELERI GREY DESERT SPOON	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S11	V	AS REQ'D	DROSANTHEMUM FLORIBUNDUM ICE PLANT	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04
S12	◯	AS REQ'D	FESTUCA CINERA BLUE FESCUE	L	5-GAL/ 18" O.C. PER PLAN	08, 11/ 2-L7.04
S13	/	AS REQ'D	HESPERALOE PARVIFLORA RED YUCCA	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S14	—	AS REQ'D	JUNCUS PATENS CALIFORNIA GRAY RUSH	L	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S15	✳	AS REQ'D	LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	L	5-GAL/ 3' O.C. PER PLAN	08, 11/ 2-L7.04
S16	◇	AS REQ'D	LIRIOPE SPICATA CREEPING LILY TURF	M	5-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S17	·	AS REQ'D	MUHLENBERGIA RIGENS DEER GRASS	L	5-GAL/ 4' O.C. PER PLAN	08, 11/ 2-L7.04
S18	◇	AS REQ'D	SEDUM NUSSBAUMERIANUM COPPERTONE STONECROP	L	1-GAL/ 24" O.C. PER PLAN	08, 11/ 2-L7.04
S19	V	AS REQ'D	YUCCA RECURVIFOLIA CURVE-LEAF YUCCA	L	5-GAL/ 6' O.C. PER PLAN	08, 11/ 2-L7.04

MISCELLANEOUS SYMBOLS

- - -	LINEAR ROOT BARRIER	12/ 2-L7.04
	SOIL SAMPLE LOCATION (6 TOTAL)	

CITY OF MALIBU
PLANNING DEPARTMENT

CITY BIOLOGIST APPROVAL

DATE 11/25/25

PLANNING REVIEW NO. CDP 25-032

SIGNATURE Carsyn Mclean

PRINT NAME

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N PLAN NORTH

N TRUE NORTH

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5301 California Avenue, Suite 100
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LICENSED LANDSCAPE ARCHITECT TIMOTHY TOBIN PLATT 5052 STATE OF CALIFORNIA

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 Morning View Dr.
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
50% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	01/15/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	31722
Checked By	
Scale	1/8" = 1'

PLANTING PLAN ENLARGEMENT PLAN

2-L7.03

City of Malibu

23825 Stuart Ranch Rd., Malibu, California CA 90265-4861
(310) 456-2489 website: www.malibucity.org

ENVIRONMENTAL HEALTH REVIEW
REFERRAL SHEET

TO: City of Malibu Environmental Health Staff

FROM: City of Malibu Planning Staff **REVISED DATE** 10/14/2025

PROJECT NUMBER: CDP 25-032

JOB ADDRESS: 30215 MORNING VIEW DR

APPLICANT / CONTACT: Elisa Younger, LPA Design Studios

APPLICANT EMAIL: eyounger@lpadesignstudios.com

PROJECT DESCRIPTION: Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings

REVISION:

TO: Malibu Planning Department and/or Applicant

FROM: Malibu Environmental Health Staff

✓ **Conformance Review Complete** for project submittals reviewed with respect to the City of Malibu Local Coastal Plan/Local Implementation Plan (LCP/LIP) and Malibu Municipal Code (MMC). The Conditions of Planning conformance review and plan check review comments listed on the attached review sheet(s) (or else handwritten below) shall be addressed prior to plan check approval.

Building Plan Check (BPC) Required ☐ Yes ☑ No BPC Fees Req'd $

_____ **Conformance Review Incomplete** for the City of Malibu LCP/LIP and MMC. The Planning stage review comments listed on the City of Malibu Environmental Health review sheet(s) shall be addressed prior to conformance review completion.

OWTS Plot Plan: ☐ **NOT REQUIRED**

☑ **REQUIRED (attached hereto)** ☐ **REQUIRED (not attached)**

Matthew Thomas 11/19/2025

Signature **Date**

The applicant must submit to City of Malibu Environmental Health Staff to determine whether or not an onsite wastewater treatment system (OWTS) Plot Plan approval is required.

Public Counter hours for Environmental Health staff are Tuesdays and Thursdays, 8:00 AM – 12:00 PM.

City of Malibu

Environmental Health ● Environmental Sustainability Department
23825 Stuart Ranch Road · Malibu, California · 90265-4861
Phone (310) 456-2489 · Fax (310) 456-7650 · www.malibucity.org

ENVIRONMENTAL HEALTH REVIEW SHEET

PROJECT INFORMATION

Applicant: (name and email address)	Noemi Avila Zamudio navila-zamudio@smmusd.org		
Project Address:	**30215 Morning View Drive** Malibu, California 90265		
Planning Case No.:	CDP 25-032		
Project Description:	Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings		
Date of Review:	November 19, 2025		
Reviewer:	Matt Janousek	Signature:	
Contact Information:	Phone: (310) 456-2489	Email:	mjanousek@malibucity.org

SUBMITTAL INFORMATION

Architectural Plans:	NAC: Plans dated 10-22-2021, 6-3-2024 LPA: Plans dated 6-16-2025, **9-8-2025**
Grading Plans:	PSOMAS: Plans dated 10-22-2021
Landscape Plans:	NAC: Plans dated 10-22-2021
OWTS Plan:	Ensitu: OWTS plans dated 5-29-2024, 1-23-2025, 6-15-2025, **9-8-2025** AHSIRT: OWTS plan dated 12-7-2021.
OWTS Report:	Ensitu: OWTS Design Report dated 5-30-2024, **10-14-2025** AHSIRT: OWTS Design Report dated 12-7-2021.
Geology Report:	Leighton Consulting: Geotechnical Exploration report dated 1-15-2021; Seepage Pit Percolation Testing report dated 10-1-2021 (rev. 12-7-2024); Response to City of Malibu Review Comment Onsite Wastewater Treatment System (OWTS) dated 12-7-2024;
Miscellaneous:	Los Angeles RWQCB: General WDR Requirements Report dated **8-7-2025**; Active WDR w/ LA RWQCB as of 11-19-2012; Last WDR report submitted 1-11-2022. AHSIRT: 2nd Quarter 2024 Monitoring Report dated 7-3-2024. Low-flow specs for Sloan 2.3/A water closet. C.W. Driver: Onsite Wastewater Treatment System O&M Manual dated 11-26-2024. Covenant for Advanced OWTS signed 2-10-2025. City of Malibu: EH Conformance Review for CDPA 24-005 for new OWTS.
Previous Reviews:	8-26-2025, 10-14-2024; EH CRC for CDP 21-068 dated 4-20-2022

REVIEW FINDINGS

Planning Stage:	☒	**CONFORMANCE REVIEW COMPLETE** for the City of Malibu Local Coastal Program (LCP)/Local Implementation Plan (LIP) and Malibu Municipal Code (MMC). The listed conditions of Planning stage conformance review and plan check review comments shall be addressed prior to plan check approval.
	☐	**CONFORMANCE REVIEW INCOMPLETE** for the City of Malibu LCP/LIP and MMC. The listed Planning stage review comments shall be addressed prior to conformance review completion.
OWTS Plot Plan:	☐	**NOT REQUIRED**
	☒	**REQUIRED (attached hereto)** ☐ **REQUIRED (not attached)**

Based upon the project description and submittal information noted above, a **conformance review** was completed for a new advanced onsite wastewater treatment system (OWTS) proposed to serve the disposal needs of the subject property. The proposed advanced OWTS meets the minimum requirements of the Malibu Municipal Code (MMC) and the City of Malibu Local Coastal Program (LCP)/Local Implementation Plan (LIP).

Conditions of Planning Conformance Review:

1) **Waste Discharge Requirements:** *Monitoring and reporting parameters required under MRP No. CI-10846 of the Waste Discharge Requirements by the Regional Water Quality Control Board (RWQCB) shall be submitted to the Los Angeles RWQCB on the effective date of coverage under the General WDRs.*

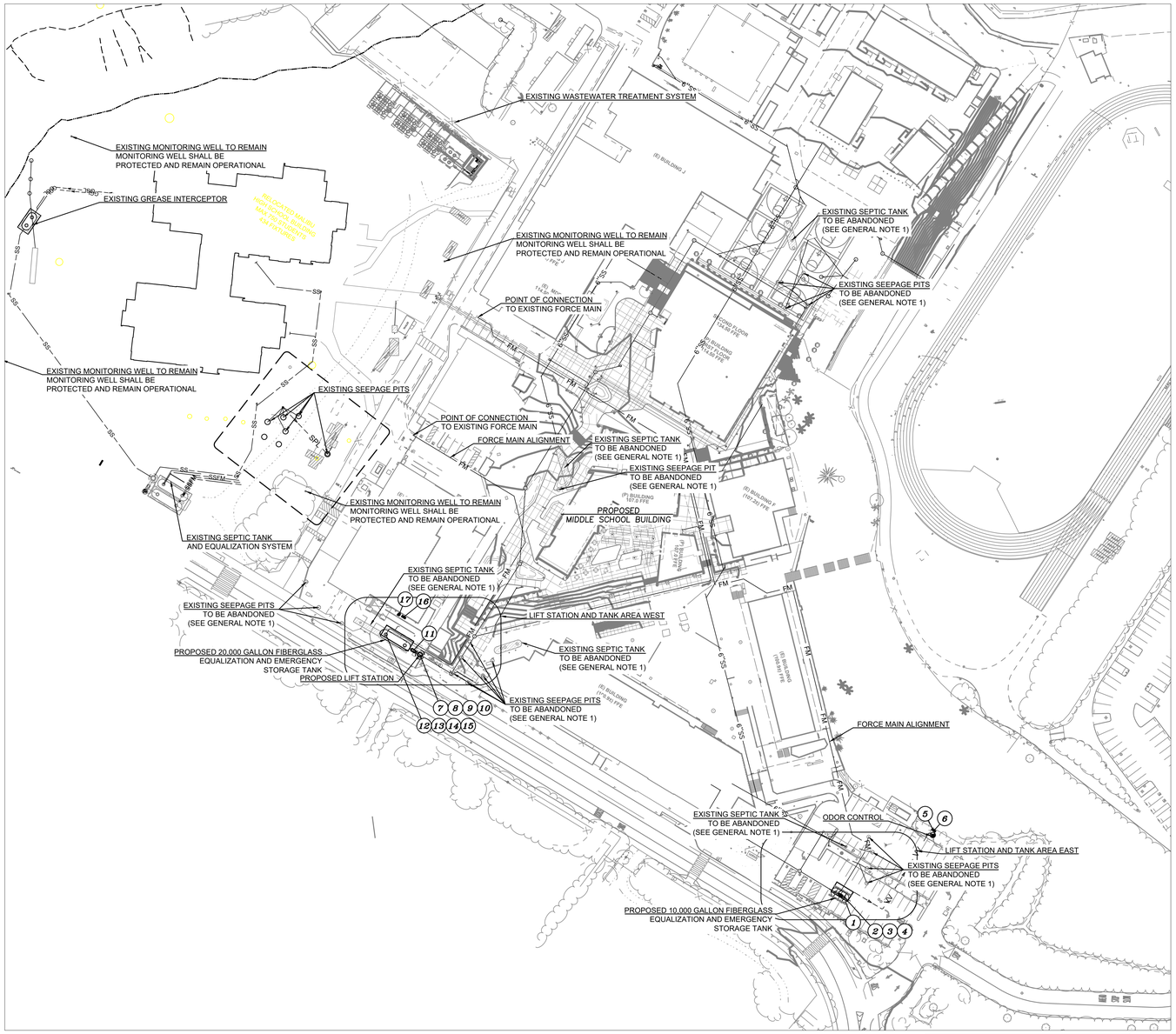
   No further Environmental Health review is required.

-o0o-

If you have any questions regarding the above requirements, please contact the Environmental Health office at your earliest convenience.

cc: Environmental Health file
Planning Department

Recycled Paper



02 / PW-02 — *PW-OVERALL SITE PLAN EXISTING AND PROPOSED*
SCALE: 1"=0060'

Project: 817-01 Malibu Middle School
Address: 817-01 Malibu Middle School

Designed By: JNY **Checked By** JNY **Des Date:** October 7, 2025 **Ch Date:** October 7, 2025

Type of Plumbing Fixture	BUILDING A EX	BUILDING A PRO	Building E EX	Building E PRO	Building F EX	Building F PRO	Building H EX	Building H PRO	Buiding J/I EX	Buiding J/I PRO	PH 2 HUB EX	PH 2 HUB PRO	PH2 GYM EX	PH2 GYM PRO	Existing Fixtures "A"	+	Proposed Fixtures "B"	=	Total Fixtures "A + B"	x	Unit Value "C"	=	Total Existing Fixture Units "A x C"	Total Proposed (Future) Fixture Units "(A + B) x C"
Drinking Fountain	3	3					2	2	6	6		1		1	11	+	2	=	13	x	1	=	11	13
Urinal			3	3					9	9		2		5	12	+	7	=	19	x	2	=	24	38
Bar Sink (Public)	1	1					1	1	2	2		1			4	+	1	=	5	x	2	=	8	10
Clothes Washer							1	1					1	1	1	+	1	=	2	x	3	=	3	6
Dishwasher							1	1							1	+		=	1	x	2	=	2	2
Laundry Sink							1	1							1	+		=	1	x	2	=	2	2
Lavatory (Wash Basin)	24	24	18	18	2	2	2	2	22	22		7		15	68	+	22	=	90	x	1	=	68	90
Kitchen Sink							2	2				1			2	+	1	=	3	x	2	=	4	6
Shower (Single Head)							1	1	14	14		1		1	15	+	2	=	17	x	2	=	30	34
Additional Shower Head to Common Drain									51	51					51	+		=	51	x	1	=	51	51
Water Closet (Flush Toilet, Less than 1.6 GPF)	23	23	15	15			2	2	35	35		7		18	75	+	25	=	100	x	4	=	300	400
Other Table 702.1 CPC)-Emergency Floor Drain	16	16							12	12		9		8	28	+	17	=	45	x	0	=	0	0
Other Table 702.1 CPC)-Floor Sink	2	2							1	1		6			3	+	6	=	9	x	2	=	6	18
Other Table 702.1 CPC)-Service Sink/Mop Basin	3	3					1	1	3	3		1		1	7	+	2	=	9	x	3	=	21	27
Other Table 702.1 CPC)-Lab Sink	18	18													18	+		=	18	x	1	=	18	18
Bedrooms																								

Fixture Units Summary Middle School		
Total Existing Fixture Units	548	
Total Proposed Fixture Units	167	
Total Fixture Units	715	
Malibu High School		
Total Fixture Units	312	
Malibu High School and Middle School		
Total Fixture Units	1027	
Flow Calculations Proposed (Q_P)		
Peak Flow, Q_P	12375	gpd
Average Flow, Q_A	10000	gpd
Design Flow, Q_P	10000	gpd
Influent Characteristics		
BOD5 (mg/l)	300	
TSS (mg/l)	300	
TN (mg/l)	75	
Effluent Characteristics		
BOD5 (mg/l)	20	
TSS (mg/l)	20	
TN (mg/l)	10	

G3 / PW-02 — *FIXTURE COUNT SUMMARY TABLE*
NO SCALE

MicroSepTec Design		
Design Flow	10,000	gpd
Design Influent BOD	300	mg/L
Design Effluent BOD	20	mg/L
Design Organic Loading BOD	23.37	lb BOD_5
MicroSepTec Model Specified	CS25	
MicroSepTec Tank Volume	7540	gal
MicroSepTec ES25 Base Organic Removal (1)	4.17	lb BOD_5
Minimum Number of MicroSepTec ES25 Required	6	units
PROPOSED MST DESIGN		
Actual Number of MicroSepTec ES25 Provided	6	units
Design Organic Removal	25.04	lb BOD_5
Design Tank Volume	45240	gal
Maximum Effluent Flow Based on Organic loading	10715	gpd
Maximum Effluent Flow Based on Hydraulic Loading	15000	gpd
Maximum Fixtures Based on Design Tank Volume	1566	

G6 / PW-02 — *TREATMENT SYSTEM SUMMARY TABLE*
NO SCALE

SITE PLAN TAG AND MAJOR EQUIPMENT LIST

Site Plan Tag	Tag	Description	Site Location	Physical Location	Manufacturer	Model Number	Supplier
0001	TK-0100	EQUALIZATION TANK	LIFT STATION AND TANK AREA EAST	LIFT STATION AND TANK AREA EAST	XERXES	10' DIA 10,000 GAL SINGLE WALL	CONTRACTOR SUPPLIED EQUALIZATION TANK TK-0100
0002	FV-0100	BIOTUBE PUMP VAULT	LIFT STATION AND TANK AREA EAST	INTEGRAL TO EQUALIZATION TANK TK-0100	ORENCO SYSTEMS		CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0003	P-0100	EQUALIZATION PUMP	LIFT STATION AND TANK AREA EAST	INTEGRAL TO EQUALIZATION TANK TK-0100	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0004	P-0110	EQUALIZATION PUMP	LIFT STATION AND TANK AREA EAST	INTEGRAL TO EQUALIZATION TANK TK-0100	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0005	PLC-0100	PROGRAMMABLE LOGIC CONTROLLER	LIFT STATION AND TANK AREA EAST	LIFT STATION AND TANK AREA EAST			CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0100
0006	OCU-0100	DRUM ODOR SCRUBBER	LIFT STATION AND TANK AREA EAST	LIFT STATION AND TANK AREA EAST	PURAFIL	DS-100	CONTRACTOR SUPPLIED DRUM SCRUBBER OCU-0100
0007	LS-0300	LIFT STATION	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST	XERXES		CONTRACTOR SUPPLIED LIFT STATION LS-0300
0008	P-0300	SUBMERSIBLE GRINDER PUMP AND GUIDERAILS	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	TSURUMI	TOS50MG22.2	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0009	P-0310	SUBMERSIBLE GRINDER PUMP AND GUIDERAILS	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	TSURUMI	TOS50MG22.2	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0010	P-0350	SUBMERSIBLE CHOPPER PUMP AND GUIDERAILS	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	TSURUMI	TOS50CG2.75	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0011	V-0300	VALVE VAULT 17"X30"X24"	LIFT STATION AND TANK AREA WEST	INTEGRAL TO LIFT STATION VAULT LS-0300	ARMORCAST	A6001640TAX24 H20 LOADING	CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300
0012	TK-0200	EQUALIZATION TANK	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST	XERXES	10' DIA 20,000 GAL SINGLE WALL	CONTRACTOR SUPPLIED EQUALIZATION TANK TK-0200
0013	FV-0200	BIOTUBE PUMP VAULT	LIFT STATION AND TANK AREA WEST	INTEGRAL TO EQUALIZATION TANK TK-0200	ORENCO SYSTEMS		CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0200
0014	P-0200	EQUALIZATION PUMP	LIFT STATION AND TANK AREA WEST	INTEGRAL TO EQUALIZATION TANK TK-0200	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0200
0015	P-0210	EQUALIZATION PUMP	LIFT STATION AND TANK AREA WEST	INTEGRAL TO EQUALIZATION TANK TK-0200	ORENCO SYSTEMS	PF500534-30	CONTRACTOR SUPPLIED COMPONENT OF EQUALIZATION TANK TK-0200
0016	PLC-0200	PROGRAMMABLE LOGIC CONTROLLER	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST			CONTRACTOR SUPPLIED COMPONENT OF LIFT STATION LS-0300 AND EQUALIZATION TANK TK-0200
0017	OCU-0200	DRUM ODOR SCRUBBER	LIFT STATION AND TANK AREA WEST	LIFT STATION AND TANK AREA WEST	PURAFIL	DS-100	CONTRACTOR SUPPLIED DRUM SCRUBBER OCU-0200

G2 / PW-02 — *PW-SITE PLAN EQUIPMENT LIST*
NO SCALE

Septic Tank (ST) Calculations		
Total Proposed Fixture Units	167	
Total Fixture Units	1027	
Minimum Septic Tank Size based on Fixtures	26675	gal
Design Flow, Q	10000	
Minimum Septic Tank Size based on Design Flow, Vol	8625	gal
Minimum Septic Tank Size	26675	gal
Design Septic Tank Size	50000	gal
Seepage Pit Calculations		
Minimum Seepage Pit Capacity Based On Design Flow Tank Size (Volx3)	25875	gal
Minimum Seepage Pit Capacity Based On Wastewater Design Flow (Qx3)	30000	gal
Minimum Seepage Pit Capacity	30000	gal
Design Present Seepage Pit Capacity	34752	gal
Design Expansion Seepage Pit Capacity	33816	gal

G4 / PW-02 — *SEPTIC TANK SIZE AND REQUIRED SEEPAGE PIT CAPACITY TABLE*
NO SCALE

Boring Number	Cap Depth ft	Depth Below Inlet ft	Total Depth ft	Dia. ft	Test Pit Capacity gal	Seepage Pit	Dia. ft	Cap Depth ft	Depth Below Inlet ft	Total Depth ft	Pit Capacity gal/day
Present Seepage Pits											
SP-1	6	24	30	2	2524	SP-1	6	6	24	30	7572
SP-2	6	23	29	2	2905	SP-2	6	6	23	29	8715
SP-3	6	24	30	2	3968	SP-3	6	6	24	30	11904
SP-4	6	24	30	2	2187	SP-4	6	6	24	30	6561
Total					11584						34752
Expansion Seepage Pits											
SP-5	6	24	30	2	7590	EP-1	6	6	24	30	22770
SP-6	6	24	30	2	3682	EP-2	6	6	24	30	11046
Total					11272						33816

G5 / PW-02 — *SEEPAGE PIT SUMMARY TABLE*
NO SCALE

CITY OF MALIBU
ENVIRONMENTAL SUSTAINABILITY DEPT.
ENVIRONMENTAL HEALTH
CONFORMANCE REVIEW
SIGNATURE: DATE 11/19/2025
THIS IS NOT AN APPROVAL. FINAL APPROVAL IS REQUIRED PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS

MALIBU HIGH SCHOOL (CDP 25-032)
MIDDLE SCHOOL / GYM (CDPA 24-005)

30215 MORNING VIEW DRIVE
MALIBU, CA 90265

MALIBU HIGHSCHOOL / MALIBU MIDDLE SCHOOL:
TOTAL 750 Students/85 Staff

HIGH SCHOOL:	1 Building (E)
FIXTURE UNITS:	312 Fixture Units (E)
GREASE INTERCEPTOR:	5,000 Gallon (E)
EQUALIZATION TANK:	20,000 Gallon (E)
PRIMARY TANK:	20,000 Gallon (E)
MIDDLE SCHOOL/GYM:	7 Buildings (N)
FIXTURE UNITS:	715 Fixture Units (N)
EQUALIZATION/EMERGENCY STORAGE:	1 - 20,000 Gallon Tank(N)
LIFT STATION:	1 - Xerxes (N)
EQUALIZATION/ EMERGENCY STORAGE	1 - 10,000 Gallon Tank (N)
LIFT STATION:	1 - Xerxes (N)
TREATMENT TANKS:	6 - 7,540 Gallon MicroSepTec CS25 w/UV Disinfection (E)
ACTIVE:	**6' x 24' BI w/6' Cap (SP-1)(E)
	6' x 23' BI w/6' Cap (SP-2)(E)
	6' x 24' BI w/6' Cap (SP-3)(E)
	6' x 24' BI w/6' Cap (SP-4)(E)
FUTURE:	6' x 24' BI w/6' Cap (SP-5,EP-1)(F)
	6' x 24' BI w/6' Cap (SP-6,EP-2)(F)
PERCOLCATION RATE:	7,572 gpd (SP-1)
	8,715 gpd (SP-2)
	11,904 gpd (SP-3)
	6,561 gpd (SP-4)
TOTAL ACTIVE RATE:	34,752 gpd (SP-1 to SP-4)
	22,770 gpd (SP-5, EP-1)
	11,046 gpd (SP-6, EP-2)
TOTAL FUTURE RATE:	33,816 gpd (SP-5,SP-6)
REFERENCES:	Ensitu: OWTS design reports dated 5-30-2024, 7-3-2025, 10-14-2025
	Leighton: Percolation test report dated 10-1-2021, 5-22-2025
WASTEWATER FLOW:	10,000 gpd
DESIGNER:	John Yaroslaski, RCE

NOTES:

1. This conformance review is for a new a new middle school, gym, 2 equalization/storage tanks, and 2 lift stations, to be connected to the advanced onsite wastewater system (OWTS) under the City of Malibu Planning case #CDPA 24-005.

2. This review relates only to the minimum requirements of the MMC and the Local Coastal Program, and does not include an evaluation of any geological, or other potential problems, which may require an alternative method of wastewater treatment.

3. This review is valid for one year, or until the Local Coastal Program and/or Administrative Policy changes render it noncomplying.

4. ***The proposed OWTS must conform to the monitoring and reporting parameters required under MRP No. CI-10846 of the Waste Discharge Requirements by the Regional Water Quality Control Board. Specifically, the minimum required separation to groundwater must be maintained.*

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5301 California Avenue, Suite 100
Irvine, California 92617

REGISTERED PROFESSIONAL ENGINEER
JOHN N. YAROSLASKI
60149
EXP. 06/2026
STATE OF CALIFORNIA

ENSITU
"Dedicated to achieving higher standards in onsite and decentralized wastewater systems."
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MALIBU MIDDLE & HIGH SCHOOL PHASE 2
30215 MORNING VIEW DRIVE
MALIBU, CALIFORNIA

Developed for SMMUSD

Revision	Date

Submittal	Date
SCHEMATIC DESIGN	09/04/2024
90% DESIGN DEVELOPMENT	12/13/2024
100% DESIGN DEVELOPMENT	03/03/2025
CDP SUBMITTAL	06/16/2025
50% CONSTRUCTION DOCS	06/27/2025
DSA SUBMITTAL	09/08/2025

Job Number	817-01
Checked By	JNY
Scale	

SITE PLAN AND TABLES

PW-02

City of Malibu

23825 Stuart Ranch Road • Malibu, California 90265-4861
(310) 456-2489 • Fax (310) 456-3356 • www.malibucity.org

GEOTECHNICAL REVIEW SHEET

Project Information

Date: November 3, 2025 **Review Log #:** **5347**

Site Address: 30215 Morning View Drive

Lot/Tract/PM #: **Planning #:** **CDP 25-032 P2**

Applicant/Contact: Noemi Avila-Zamudio, navila-zamudio@smmusd.org
Elisa Younger, eyounger@lpadesignstudios.com **BPC/GPC #:**

Contact Phone #: (949) 701-4115 **Fax #:** **Planner:** **Richard Greenbauer**

Project Type: Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, new OWTS with connections to the new and existing buildings

Submittal Information

Consultant(s) / Report Date(s):
*(Current submittal(s) in **Bold**.)*

Leighton, A Verdantas Company (Roe, CEG 2456; Kim, GE 2620): **10-03-2025**; 10-16-2024 (revised 5-23-2025)
Leighton Consulting, Inc. (Roe, CEG 2456, Gath, CEG 1292): 3-9-2021
Ref: Leighton Consulting, Inc.: 12-7-2024, 3-21-2022, 10-20-2020 (revised 1-15-2021): 10-1-2021 (OWTS supporting geologic report)
Ensitu Engineering, Inc. (Yaroslaski, RCE 30149): **10-14-2025**, 5-30-2024

2nd Coastal Development Permit Submittal
Architectural plans prepared by LPA Design Studios dated June 16, 2025.
Civil plans prepared by LPA Design Studios dated September 8, 2025.
Total Grading Yardage Verification Certificate prepared by Kathereen Shinkai dated October 3, 2025.
Malibu MS/HS – Solar PV plans prepared by Schneider Electric dated October 17, 2024.
Structural plans for Excavation for Malibu HS Gym Building prepared by Cefali & Associates, Inc. dated June 13, 2025.
Structural plans for Malibu Middle & High School Phase 2 prepared by LPA Design Studios dated June 16, 2025.
Ref: Malibu High School Phase 1, Increment 1 OWTS plans prepared by EnSitu Engineering, Inc. dated July 3, 2025.

Previous Reviews: 08-27-2025; Ref: 6-27-2025, 10-29-2024 (for CDPA 24-005); 6-15-2022, 3-21-2022, 3-3-2022 (for CDP 21-068); Environmental Health Review Sheets dated 8-26-2025, 8-15-2025, 4-17-2025, 10-14-2024 (for CDPA 24-005)

Review Findings

Coastal Development Permit Review

☒ The project is **ACCEPTABLE** from a geotechnical perspective.

☐ The project is **NOT ACCEPTABLE** from a geotechnical perspective. The listed 'Review Comments' shall be addressed prior to acceptance.

Project submittals were reviewed from a geotechnical perspective for conformance with applicable codes, guidelines, and standards of practice, including the following current City adopted standards:

- City of Malibu Local Coastal Program – Land Use Plan and Local Implementation Plan (LCP-LUP and LCP-LIP)
- Malibu Municipal Code – Title 15, Buildings and Construction
- City of Malibu Guidelines for the Preparation of Geotechnical Reports and Procedures for Report Submittal (November 2013) referred to herein as Geotechnical Report Guidelines

In the case of conflicting requirements between the Geotechnical Guidelines and any other referenced standards, the latest standard will apply. The Applicant is responsible for complying with the submittal requirements for all Planning variances, as appropriate; any questions regarding variances should be directed to the case Planner.

Remarks:

The project geotechnical review by the City is Planning-stage only for Local Coastal Program (LCP) conformance, pursuant to the submitted Coastal Development Permit application. The proposed project is regulated by the Division of State Architect-Structural Safety (DSA-SS) provisions within the 2022 California Building Code (CCR Title 24, Part 2). Building plan check review and building permit issuance are not within the City's purview.

The referenced response geotechnical report, response OWTS design report, and civil plans were reviewed by the City's consultants from a geotechnical perspective. This phase of the proposed development includes the demolition of the existing relocatable buildings, demolition of buildings K and I, and the construction of three new buildings, a 9,952 square foot one-story special education and campus wellness center, a new 31,846 square foot two-story gymnasium with offices and storage, and a new 265 square foot MDF building (technology building) connected by canopies and shade structures, along with a perimeter drive access for building access (fire lane), paved parking, utilities, hardscape and pavers. Grading consists of 8,140 yards of cut and 4,303 yards of fill, non-exempt, 6,028 yards of remedial and 3,837 yards of export.

Infiltration testing was performed at two locations from approximately 15 to 30 feet and yielded results that infiltration was not feasible at the locations tested.

Based on the submitted information, the new Malibu High School buildings will be serviced by a new advanced onsite wastewater treatment system (OWTS) consisting of a new 20,000-gallon Xerxes primary tank, 20,000-gallon Xerxes equalization tank, 5,000-gallon Xerxes grease interceptor, and four MicroSepTec EnviroServer ES25 treatment tanks housed in fiberglass reinforced plastic (FRP) tanks with effluent filters and UV disinfection systems. Effluent will be disposed in four present 6' diameter x 24' BI seepage pits with 6' caps (SP-1 thru SP-4) and an existing 6' diameter x 24' BI seepage pit with a 6' cap (SP-5) with 100% expansion consisting of two 6' diameter x 24' BI seepage pits with 6' caps (SP-5 and SP-6). The existing OWTS components on the property that will not be re-used for the new OWTS will be properly abandoned.

NOTE: The EIR for the Malibu Middle and High School Campus Specific Plan Project prepared by Placeworks, concludes, based on the Fault Rupture hazard Investigation prepared by Leighton Consulting, Inc. dated March 9, 2021, that, " … *no evidence of active faulting was identified during the Fault Rupture*

Hazard Investigation (Leighton Consulting, Inc. 2021b). The potential for fault rupture at the Project Site is considered low during the life of the school, and the student risk factor is therefore also considered low…the Escondido Thrust Fault is a potentially active fault that is mapped as traversing the Project Site (also known as the Malibu Coast Fault, Paradise Cove Fault, Rodriguez Canyon Fault, Ramirez Fault, and Escondido Thrust). It is likely more than 300,000 years old and poses no planning constraints to the Proposed Project."

NOTE: The referenced geotechnical report for the Phase II project includes the aquatics Center. However, the undersigned engineering geologic reviewer discussed the scope of the Phase II project with the Project Architect, and the aquatics center is **NOT** a part of the Phase II project.

Planning Level Geotechnical Review Comments:

None.

Notes for the Plans:

1. Please include the total grading yardage verification certificate on the civil plans.
2. The Project Geotechnical Consultant has recommended that additional Expansion Index testing be performed after the completion of grading to quantify the EI values presented in the report. Please include this comment as a note on the plans.

Please direct questions regarding this review sheet to the City's Geotechnical consultants listed below.

Engineering Geology Review by: _____ 11-3-2025

Christopher Dean, C.E.G. #1751, Exp. 9-30-26 Date
Engineering Geology Reviewer (408-656-3210)
Email: cdean@malibucity.org

Geotechnical Engineering Reviewed by: _____ 11-3-2025

Sheryl Shatz, PE 44033, GE 2288 exp. 6-30-27 Date
Geotechnical Engineering Reviewer (805-358-6813)
Email: sshatz@malibucity.org

This review sheet was prepared by representatives of Cotton, Shires and Associates, Inc., as an agent of the City of Malibu.

COTTON, SHIRES AND ASSOCIATES, INC.
CONSULTING ENGINEERS AND GEOLOGISTS

City of Malibu

23825 Stuart Ranch Rd., Malibu, California CA 90265-4804
(310) 456-2489 FAX (310) 456-7650

FIRE DEPARTMENT REVIEW
REFERRAL SHEET

TO: Los Angeles County Fire Department

FROM: City of Malibu Planning Division **DATE:** 08/05/2025

PROJECT NUMBER:	CDP 25-032
JOB ADDRESS:	30215 MORNING VIEW DR
APPLICANT / CONTACT:	Elisa Younger, LPA Design Studios
APPLICANT ADDRESS:	5301 California Ave, Suite 100 Irvine, CA 92617
APPLICANT PHONE #:	(949) 701-4115
APPLICANT FAX #:	
PROJECT DESCRIPTION:	Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings

---

TO: Malibu Planning Division and/or Applicant
FROM: Fire Prevention Engineering Assistant

Compliance with the conditions checked below is required prior to Fire Department approval.

The project DOES require Fire Department Plan Review and Developer Fee payment	✓
The project DOES NOT require Fire Department Plan Review	—
The required fire flow for this project is 1,500 gallons per minute at 20 pounds per square inch for a 1 hour duration. (Provide flow information from the water dept.)	✓
The project is required to have an interior automatic fire sprinkler system.	✓
Final Fuel Modification Plan Approval is required prior to Fire Department Approval	✓

Conditions below marked "not approved" shall be corrected on the site plan and resubmitted for Fire Department approval.

	App'd	N/app'd
Required Fire Department vehicular access (including width and grade %) as shown from the public street to the proposed project.	✓	
Required and/or proposed Fire Department Vehicular Turnaround	✓	
Required 5 foot wide Fire Department Walking Access (including grade %)	✓	
Width of proposed driveway/access roadway gates	✓	

*County of Los Angeles Fire Department Approval Expires with City Planning permits expiration, revisions to the County of Los Angeles Fire Code or revisions to Fire Department regulations and standards.

**Minor changes may be approved by Fire Prevention Engineering, provided such changes achieve substantially the same results and the project maintains compliance with the County of Los Angeles Fire Code valid at the time revised plans are submitted. Applicable review fees shall be required.

J. Mann — 11/06/2025

SIGNATURE **DATE**

Additional requirements/conditions may be imposed upon review of complete architectural plans.
The Fire Prevention Engineering may be contacted by phone at (818) 880-0341or at the Fire Department Counter:
26600 Agoura Road, Suite 110, Calabasas, CA 91302; Hours: Monday – Thursday between 7:00 AM and 11:00 AM

Rev 04/21/10 mr

City of Malibu

23825 Stuart Ranch Rd., Malibu, California CA 90265-4861
(310) 456-2489 FAX (310) 456-7650

PUBLIC WORKS REVIEW
REFERRAL SHEET

TO: Public Works Department

FROM: City of Malibu Planning Department **REVISED DATE** 10/08/2025

PROJECT NUMBER:	CDP 25-032
JOB ADDRESS:	30215 MORNING VIEW DR
APPLICANT / CONTACT:	Elisa Younger, LPA Design Studios
APPLICANT EMAIL:	eyounger@lpadesignstudios.com
PROJECT DESCRIPTION:	Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings
REVISION:	

TO: Malibu Planning Department and/or Applicant

FROM: Public Works Department

_____ **The following items described on the attached memorandum shall be addressed and resubmitted.**

X **The project was reviewed and found to be in conformance with the City's Public Works and LCP policies and CAN proceed through the Planning process.**

Building Plan Check (BPC) Required ☒ Yes ☐ No BPC Fees Req'd $_____

SIGNATURE

10/28/2025
DATE

Rev 120910

City of Malibu
MEMORANDUM

To: Community Development Department, Planning Division

From: Public Works Department
Kevin Chang, Assistant Civil Engineer

Date: October 27, 2025

Re: Proposed Conditions of Approval for 30215 Morning View Dr, CDP 25-032

The Public Works Department has reviewed the plans submitted for the above referenced project. Based on this review sufficient information has been submitted to confirm that conformance with the Malibu Local Coastal Plan (LCP) and the Malibu Municipal Code (MMC) can be attained. Prior to the issuance of building and grading permits, the applicant shall comply with the following conditions.

GRADING AND DRAINAGE

1. Clearing and grading during the rainy season (extending from November 1 to March 31) shall be prohibited for development LIP Section 17.3.1 that:
    - Is located within or adjacent to ESHA, or
    - Includes grading on slopes greater than 4:1
    - Approved grading for development that is located within or adjacent to ESHA or on slopes greater than 4:1 shall not be undertaken unless there is sufficient time to complete grading operations before the rainy season. If grading operations are not completed before the rainy season begins, grading shall be halted and temporary erosion control measures shall be put into place to minimize erosion until grading resumes after March 31, unless the City determines that completion of grading would be more protective of resources

2. Exported soil from a site shall be taken to the County Landfill or to a site with an active grading permit and the ability to accept the material in compliance with the City's LIP Section 8.3. **A note shall be placed on the project that addresses this condition.**

3. A grading and drainage plan shall be approved containing the following information prior to the issuance of grading permits for the project.

- Public Works Department General Notes
- The existing and proposed square footage of impervious coverage on the property shall be shown on the grading plan (including separate areas for buildings, driveways, walkways, parking, tennis courts and pool decks).
- The limits of land to be disturbed during project development shall be delineated on the grading plan and a total area shall be shown on the plan. Areas disturbed by grading equipment beyond the limits of grading, areas disturbed for the installation of the septic system, and areas disturbed for the installation of the detention system shall be included within the area delineated.
- The grading limits shall include the temporary cuts made for retaining walls, buttresses, and over excavations for fill slopes and shall be shown on the grading plan.
- If the property contains trees that are to be protected they shall be highlighted on the grading plan.
- If the property contains rare and endangered species as identified in the resources study the grading plan shall contain a prominent note identifying the areas to be protected (to be left undisturbed). Fencing of these areas shall be delineated on the grading plan if required by the City Biologist.
- Private storm drain systems shall be shown on the grading plan. Systems greater than 12-inch diameter shall also have a plan and profile for the system included with the grading plan.
- Public storm drain modifications shown on the grading plan shall be approved by the Public Works Department prior to the issuance of the grading permit.

STORMWATER

4. A Storm Water Pollution Prevention Plan shall be provided prior to the issuance of the Grading/Building permits for the project. This plan shall include an Erosion and Sediment Control Plan (ESCP) that includes, but not limited to:

Erosion Controls	Hydraulic Mulch
	Hydroseeding
	Soil Binders
	Straw Mulch
	Geotextiles and Mats
	Wood Mulching
Sediment Controls	Fiber Rolls
	Gravel Bag Berm
	Street Sweeping and/ or Vacuum
	Storm Drain Inlet Protection
	Scheduling
	Check Dam
Additional Controls	Wind Erosion Controls
	Stabilized Construction Entrance/ Exit

	Stabilized Construction Roadway
	Entrance/ Exit Tire Wash
Non-Stormwater Management	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
Waste Management	Material Delivery and Storage
	Spill Prevention and Control

All Best Management Practices (BMP) shall be in accordance to the latest version of the California Stormwater Quality Association (CASQA) BMP Handbook. Designated areas for the storage of construction materials, solid waste management, and portable toilets must not disrupt drainage patterns or subject the material to erosion by site runoff.

5. Prior to the approval of any permits and prior to the applicant submitting the required Construction General Permit documents to the State Water Quality Control Board, the applicant shall submit to the Public Works Department for review and approval an Erosion and Sediment Control Plan (ESCP). The ESCP shall contain appropriate site-specific construction site BMPs and developed and certified by a Qualified SWPPP Developer (QWD). All structural BMPs must be designed by a licensed California Engineer. The ESCP must address the following elements:

   - Methods to minimize the footprint of the disturbed area and to prevent soil compaction outside the disturbed area.
   - Methods used to protect native vegetation and trees.
   - Sediment/Erosion Control.
   - Controls to prevent tracking on and off the site.
   - Non-storm water controls.
   - Material management (delivery and storage).
   - Spill Prevention and Control.
   - Waste Management
   - Identification of site Risk Level as identified per the requirements in Appendix 1 of the Construction General Permit.
   - Landowner must sign the following statement on the ESCP:

     "I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate and complete. I am aware that submitting false and/or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/or adequately implement the ESCP

may result in revocation of grading and/or other permits or other sanctions provided by law."

6. A State Construction activity permit is required for this project due to the disturbance of more than one acre of land for development. Provide a copy of the letter from the State Water Quality Control Board containing the WDID number prior to the issuance of grading or building permits.

7. A Storm Water Management Plan (SWMP) is required for this project. Storm drainage improvements are required to mitigate increased runoff generated by property development. The applicant shall have the choice of one method specified within the City's Local Implementation Plan Section 17.3.2.B.2. The SWMP shall be supported by a hydrology and hydraulic study that identifies all areas contributory to the property and an analysis of the predevelopment and post development drainage of the site. The SWMP shall identify the Site design and Source control Best Management Practices (BMP's) that have been implemented in the design of the project (See LIP Chapter 17 Appendix A). The SWMP shall be reviewed and approved by the Public Works Department prior to the issuance of the grading/building permits for this project.

8. A Water Quality Mitigation Plan (WQMP) is required for this project. The WQMP shall be supported by a hydrology and hydraulic study that identifies all areas contributory to the property and an analysis of the predevelopment and post development drainage of the site. The WQMP shall meet all the requirements of the City's current Municipal Separate Stormwater Sewer System (MS4) permit. The following elements shall be included within the WQMP:
    - Site Design Best Management Practices (BMP's)
    - Source Control BMP's
    - Treatment Control BMP's that retains on-site the Stormwater Quality Design Volume (SWQDv). Or where it is technical infeasible to retain on-site, the project must biofiltrate 1.5 times the SWQDv that is not retained on-site.
    - Drainage Improvements
    - A plan for the maintenance and monitoring of the proposed treatment BMP's for the expected life of the structure.
    - A copy of the WQMP shall be filed against the property to provide constructive notice to future property owners of their obligation to maintain the water quality measures installed during construction prior to the issuance of grading or building permits.
    - The WQMP shall be submitted to Public Works Department and the fee applicable at time of submittal for the review of the WQMP shall be paid prior to the start of the technical review. The WQMP shall be approved prior to the Public Works Department's approval of the grading and drainage plan and or building plans. The Public Works Department will tentatively approve the plan and will keep a copy until the completion of the project. Once the project is completed, the applicant shall verify the installation of the BMP's, make any revisions to the WQMP, and resubmit to the Public Works Department for approval. The original signed and

notarized document shall be recorded with the County Recorder. A copy of the WQMP shall be submitted to the Public Works Department prior to the certificate of occupancy.

MISCELLANOUS

9. The developer's consulting engineer shall sign the final plans prior to the issuance of permits.

City of Malibu

23825 Stuart Ranch Rd., Malibu, California CA 90265-4804
(310) 456-2489 FAX (310) 456-3356 www.malibucity.org

LOS ANGELES COUNTY WATERWORKS DISTRICTS REVIEW
REFERRAL SHEET

FROM: City of Malibu Planning Department **DATE: 08/05/2025**

PROJECT NUMBER:	**CDP 25-032**
JOB ADDRESS:	**30215 MORNING VIEW DR**
APPLICANT / CONTACT:	**Elisa Younger, LPA Design Studios**
APPLICANT EMAIL:	**eyounger@lpadesignstudios.com**
APPLICANT PHONE #:	**(949) 701-4115**
PLANNER:	**Richard Greenbauer**
PROJECT DESCRIPTION:	**Phase II of the Malibu Middle and High School Specific Plan: construction of three new buildings with associated landscaping and site utilities, OWTS with connections to the new and existing buildings**

TO: Malibu Planning Department and/or Applicant

FROM: LACWD No. 29, Malibu

Compliance with the conditions checked below is required prior to Waterworks District approval

The project **DOES NOT** require any system improvements for domestic and/or fire flow conditions	X*
The project **DOES NOT** require capital improvement fees and/or participation fees	X*
The project **DOES** require a Will Serve Letter ***(Final Waterworks Districts approval)***	X*
The project **DOES** require capital improvement fees and/or participation fees	
The project **DOES** require the owner to execute an agreement and participate financially in the design and construction of a future water system to increase local storage and conveyance capacity in the event of an interruption of the primary water supply	
The project **DOES** require private contract water system improvements for domestic and/or fire flow conditions	

The required fire flow for this project set by the Fire Department is 1,500** gallons per minute at 20 pounds per square inch for a 1** hour duration

Scope of water system improvements required:

*Necessary improvements completed and fees paid through specification WWD 29-885 (PC).
**FEPC2025-0779.

Note: Los Angeles County Waterworks District No. 29, Malibu approval expires upon the earliest of the following: 1) Two years from the date of this form; 2) Expiration date of the City Planning permit(s), or 3) Date County adopts changes to the county of Los Ange/es Fire Code an makes revisions to appli le ire Department regulations and standards.

SIGNATURE

1-6-2026
DATE

Additional requirements/conditions may be imposed upon review of complete architectural plans.
Los Angeles County Waterworks District No. 29, Malibu may be contacted by phone at (310) 317-1389 or at the Waterworks Public Counter:
23533 Civic Center Way, Malibu CA 90265; Hours: Monday-Thursday 8:00am – 12:00pm

LOS ANGELES COUNTY WATERWORKS DISTRICTS *

P. O. Box 1460
Alhambra, CA 91802
Telephone: (626) 300-3306

260 East Avenue K-8
Lancaster, CA 93535
Telephone: (661) 942-1157

23533 Civic Center Way
Malibu, CA 90265
Telephone: (310) 317-1389

TO:

☐ Los Angeles County
Department of Public Health
Environmental Health:
Drinking Water / Land Use Program
5050 Commerce Drive
Baldwin Park, CA 91706-1423

☐ Los Angeles County
Department of Public Works
Building & Safety Division

☐ Los Angeles County
Fire Department

☐ City of Lancaster
Building Department
44933 N. Fern Ave.
Lancaster, CA 93534

☒ City of Malibu
Building Department
23815 W. Stuart Ranch Rd.
Malibu, CA 90265

☐ City of Palmdale
Building Department
38300 N. Sierra Hwy.
Palmdale, CA 93550

RE: **30215 Morning View Drive** (Address) **MALIBU** (City) **90265** (Zip Code)

APN # 4469-017-901

Los Angeles County Waterworks District No. 29

***Will serve* water to the above *single lot* property subject to the following conditions:**

☐	Annexation of the property into Los Angeles County Waterworks District is required. **Water service to this property will not be issued until the annexation is completed.**
☐	The appropriate fees must be paid to the District and other related water agencies.
☒	The appropriate service connection fees have been paid to Waterworks Districts for the existing 4" service connection.
☒	The property has an existing 4" compound water meter. Meter and service upgrade may be required to comply with WWD Rules and Regulations 1-H-16d.
☐	The appropriate connection fees have been paid to Waterworks Districts for the proposed service.
☐	Water system improvements will be required to be installed by the developer subject to the requirements set by the Fire Department and the District.
☒	Water meter serving the property must be installed in accordance with Waterworks' District standards.
☒	Public water system and sewage disposal system must be in compliance with Health Department separation requirements.
☐	A portion of the existing fronting water main may be required to be replaced or upgraded if the water service tap cannot be made or if damage occurs to the water main.
☒	Property may experience low water pressure and / or shortage in high demand periods.
☐	The District **CAN NOT** serve water to this property at this time.
☒	Must comply with and satisfy City of Malibu requirements in order to obtain Water Service.
☒	A USC approved backflow device is required for this property and is to be installed and maintained by the property owner and tested annually.
☒	This Will Serve Letter is for phase II of the Malibu Middle and High School Plan including construction of three new buildings only. FEPC2025-0779. Fire Flow = 1,500 gpm for 1 hour.

By:	William Johnson	(310) 317-6243	1-6-2026
Signature	Print Name	Phone Number	Date

**** THIS WILL SERVE LETTER WILL EXPIRE ONE YEAR AFTER THE DATE OF ISSUANCE.***

CITY OF MALIBU
PLANNING DEPARTMENT
FINAL APPROVAL

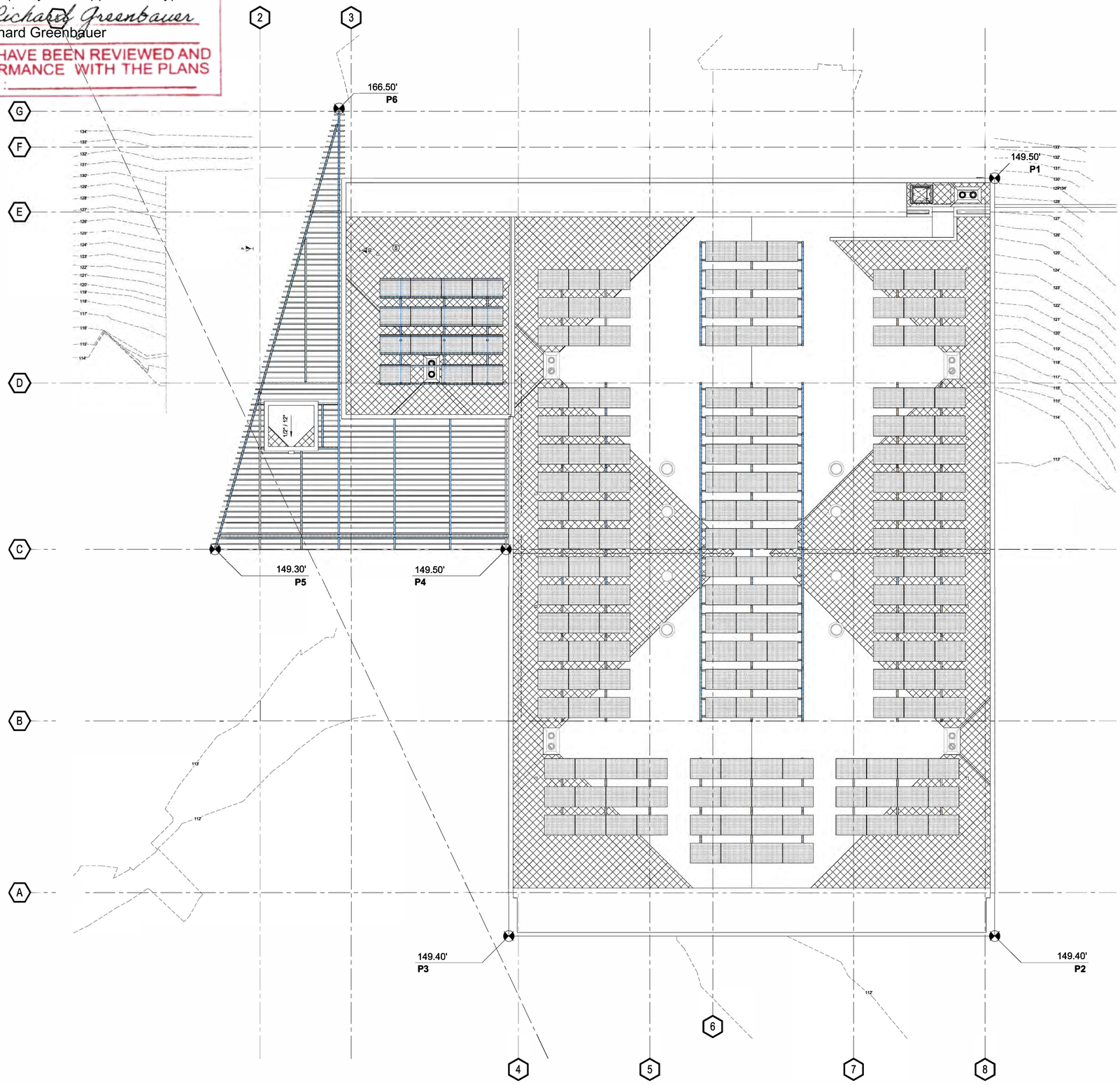
PLANNING REVIEW NO. CDP25-032

DATE 12/19/2025 (Story Pole Approval Only)

SIGNATURE Richard Greenbauer

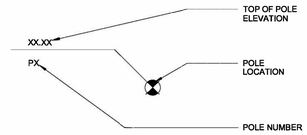
PRINT NAME Richard Greenbauer

THESE PLANS HAVE BEEN REVIEWED AND ARE IN CONFORMANCE WITH THE PLANS APPROVED ON :



GYM - BALLOON PLAN | 1/8" = 1'-0" | 2-G2-0.42 | 05

LEGEND



STORY POLES LOCATIONS

STORY POLE ID NUMBER	NATURAL GRADE	FINISH GRADE	POLE TOP ELEVATION	POLE HEIGHT (FROM NATURAL GRADE)
P1	128.4	114.5	149.5	21.1
P2	112.0 *	114.4	149.5	37.5
P3	111.5	114.4	149.5	38.0
P4	112.0	114.5	149.5	37.5
P5	114.5 **	114.3	149.5	35.0
P6	134.1	134.5	149.5	15.4

*Denotes FF of existing building I
**Denotes FF of existing relo building

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY (E) NATURAL GRADE @ BASES OF POLES, AND POLE HEIGHTS RELATIVE TO TOP OF POLE ELEVATION.
2. THE TOP ONE FOOT OF THE STORY POLES SHALL BE PAINTED WITH A CLEARLY VISIBLE BLACK PAINT.** MARKINGS SHALL ALSO BE MADE AT 18 FEET ABOVE FINISHED OR NATURAL GRADE, WHICHEVER RESULTS IN A LOWER BUILDING HEIGHT, AND AT ONE FOOT INCREMENTS ABOVE 18 FEET.
3. BRIGHT PERIMETER MARKER PENNANT FLAGS COLOR INDICATED ON PLAN, APPROXIMATELY ONE FOOT IN WIDTH SHALL BE PLACED CONNECTING POLES TO SHOW ALL PROPOSED ROOF AND RIDGELINES.
4. IF AT ANY TIME THE STORY POLES BECOME UNSAFE, THEY SHALL BE REPAIRED AND RESET IMMEDIATELY. THE STORY POLES SHALL BE REMOVED IMMEDIATELY IF DETERMINED BY THE CITY TO BE A PUBLIC SAFETY RISK.

** BALLOON METHOD IN LIEU OF TYPICAL STORY POLES TO BE USED FOR INSTALLATION.

BLACK BALLOONS TO BE USED TO INDICATE THE TOP ONE FOOT OF STORY POLES.

WAIVER OF RISK
I HEREBY ABSOLVE THE CITY OF ANY LIABILITY ASSOCIATED WITH THE CONSTRUCTION OF, OR DAMAGE CAUSED BY, THE PLACEMENT OF THE APPROVED STORY POLES.

SIGNATURE: Carey W. Upton DATE: Digitally signed by Carey W. Upton DN: cn=Carey W. Upton, o=Santa Monica-Malibu Unified School District, ou=Chief Operations Officer, email=cupton@smmusd.org, c=US Date: 2025.12.12 11:07:12 -08'00'

ATTACHMENT 5

LPA
ARCHITECTURE ENGINEERING INTERIOR DESIGN
LANDSCAPE ARCHITECTURE PLANNING
949-261-1001 Office
LPADesignStudios.com
5301 California Avenue, Suite 100
Irvine, California 92617

LICENSED ARCHITECT RICHARD MUSTO No. C19639 REN 12/31/2025 STATE OF CALIFORNIA

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Project documents describe the design intent of the work and are not a representation of as-built or existing conditions. LPA is not responsible for any discrepancies between the project documents and the existing conditions.

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MALIBU MIDDLE SCHOOL
INCREMENT 02

30215 MORNING VIEW DR.,
MALIBU, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision Date

Submittal Date

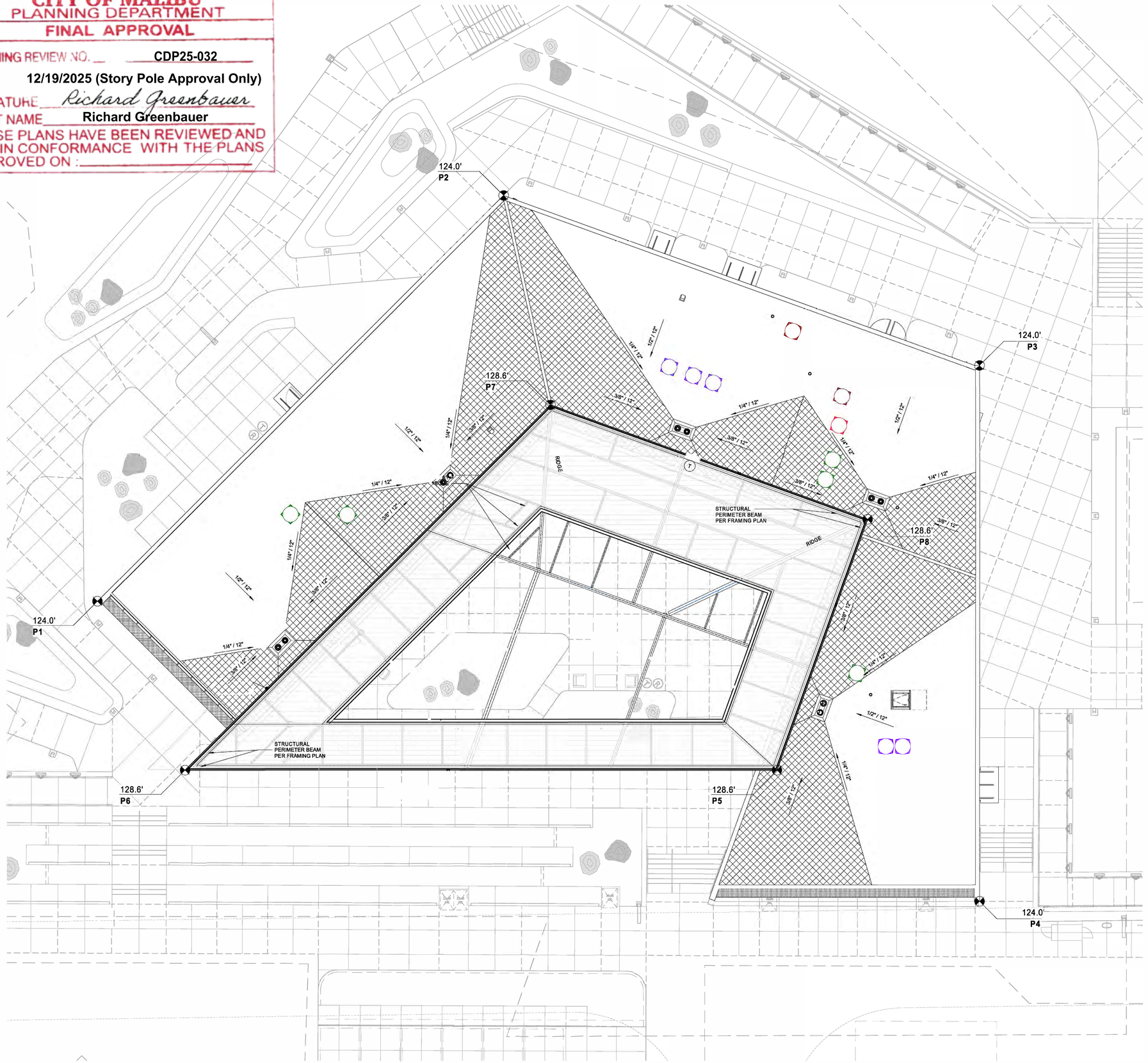
Job Number	31722
Checked By	Checker
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GYM - STORY POLE PLAN

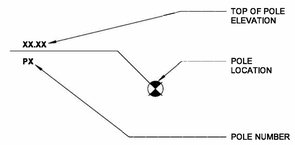
2-G2-0.42

CITY OF MALIBU
PLANNING DEPARTMENT
FINAL APPROVAL

PLANNING REVIEW NO. CDP25-032
DATE 12/19/2025 (Story Pole Approval Only)
SIGNATURE Richard Greenbauer
PRINT NAME Richard Greenbauer
THESE PLANS HAVE BEEN REVIEWED AND ARE IN CONFORMANCE WITH THE PLANS APPROVED ON :



LEGEND



STORY POLES LOCATIONS

STORY POLE ID NUMBER	NATURAL GRADE	FINISH GRADE	POLE TOP ELEVATION	POLE HEIGHT (FROM NATURAL GRADE)
P1	104.6	107.0**	124.0	19.4
P2	111.2*	107.0**	124.0	12.8
P3	110.2	107.0**	124.0	13.8
P4	103.3	103.2	124.0	20.7
P5	103.9	107.0**	128.6	24.7
P6	103.6	106.8	128.6	25.0
P7	107.1	107.0**	128.6	21.5
P8	105.7	107.0**	128.6	22.9

*Denotes FF of existing relo building
**Proposed FF of the HUB Building

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY (E) NATURAL GRADE @ BASES OF POLES, AND POLE HEIGHTS RELATIVE TO TOP OF POLE ELEVATION.
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WAIVER OF RISK.
I HEREBY ABSOLVE THE CITY OF ANY LIABILITY ASSOCIATED WITH THE CONSTRUCTION OF, OR DAMAGE CAUSED BY, THE PLACEMENT OF THE APPROVED STORY POLES.

SIGNATURE: Carey W. Upton DATE: Digitally signed by Carey W. Upton DN: cn=Carey W. Upton, o=Santa Monica-Malibu Unified School District, ou=Chief Operations Officer, email=cupton@smmusd.org, c=US 2025.12.12 11:05:54 -08'00'

LPA
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LANDSCAPE ARCHITECTURE PLANNING
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MALIBU HIGH SCHOOL
INCREMENT 02

30215 Morning View Dr.,
Malibu, CA 90265
APN: 4469-017-900

Developed for
SANTA MONICA - MALIBU UNIFIED SCHOOL DISTRICT

Revision	Date

Submittal	Date

Job Number	31722
Checked By	Checker
Scale	1/8" = 1'-0"

MS HUB - STORY POLE PLAN

2-G1-0.42








SPEED
LIMIT
30
















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EL.10.33
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BLD
COR










IKSU 256622 6
22G1




































MAIN ENTRANCE




PASSENGER LOADING ONLY





SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT

CAREY UPTON
CHIEF OPERATIONS OFFICER

310-450-8338 x79383
cupton@smmusd.org

DATE: January 6, 2026

TO: Joseph Smith, AICP, Contract Principal Planner, City of Malibu

FROM: Carey Upton, Chief Operating Officer

SUBJECT: CDP 25-032 / 30215 Morning View Dr.

SANTA MONICA – MALIBU UNIFIED SCHOOL DISTRICT'S CEQA GUIDELINES SECTION 15162 EVALUATION OF THE MALIBU MIDDLE AND HIGH SCHOOL CAMPUS PLAN PHASE 2 PROJECT (COASTAL DEVELOPMENT PERMIT NO. 25-032)

On December 6, 2024, Santa Monica–Malibu Unified School District staff met with the District's environmental consultant, PlaceWorks, and District legal counsel to review the proposed design for the Malibu Middle and High School Campus Plan – Phase 2 Project (Project) and to evaluate whether additional environmental review would be required pursuant to State CEQA Guidelines Section 15162 prior to initiating the entitlements process.

Prior to the District's meeting with the City of Malibu, PlaceWorks conducted an independent evaluation of the Phase 2 Project and determined that the environmental impacts associated with the Project had been adequately disclosed, analyzed, and mitigated, as appropriate, in the Malibu Middle and High School Specific Plan and Local Coastal Program (LCP) Amendment Project Final Environmental Impact Report (EIR) (State Clearinghouse No. 020080350). The Final EIR was certified by the Santa Monica–Malibu Unified School District on January 26, 2022, approved by the City of Malibu on October 23, 2023, and approved by the California Coastal Commission on November 17, 2023. Based on this analysis, no additional environmental review is required under CEQA for the Phase 2 Project.

On January 29, 2025, District staff, PlaceWorks, and District legal counsel met with the City of Malibu to review the proposed Phase 2 Project. At that meeting, it was further confirmed that no additional CEQA review or action would be required. The City's Senior Planner concurred with this determination, and a timeline for processing the Phase 2 Coastal Development Permit (CDP) was discussed and agreed upon.

Based on the determination that no additional environmental review was required, the District proceeded with the planning and permitting process for the Project. CEQA was not brought forward as a separate item to the Board of Education because no discretionary action was required. Once District staff, the District's Environmental Consultant, and District legal counsel confirmed that no

further CEQA review or action was necessary, no additional environmental steps were required to proceed.

On December 19, 2024, the Board of Education took action to approve the Lease-Leaseback Agreement with C.W. Driver, LLC, authorizing the District to proceed with Preliminary Construction Services and, subsequently, construction of the Phase 2 Project.

CEQA Guidelines Section 15162 states that when an EIR has been certified or a negative declaration adopted for a project, no subsequent or supplemental EIR need be prepared for the project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
- The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
- Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. (CEQA Guidelines Section 15162[a]).

Factors used in determining whether subsequent environmental review is required include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed, and covered infrastructure described in the Final EIR. The Phase 2 project falls within the parameters of the certified Specific Plan and would not require an amendment to the Specific Plan or the City of Malibu's Local Coastal Program. Based on the evaluation of staff, PlaceWorks and legal counsel, the District determined that the Phase 2 Project is within the scope of the program section of the Final EIR. Pursuant to CEQA Guidelines section 15162, no subsequent EIR is required because the circumstances under which the Phase 2 Project will be undertaken have not substantially changed such that new or more severe impacts would occur. Lastly, no new initial study would be required per CEQA Guidelines section 15168(c)(1) because the Phase 2 Project would not have effects that were not examined in the Final EIR.

Should you have any further questions, please contact me at 424-581-5426.

Sincerely,

Carey W. Upton

Digitally signed by Carey W. Upton
DN: cn=Carey W. Upton, o=Santa Monica-Malibu Unified School District, ou=Chief Operations Officer, email=cupton@smmusd.org, c=US
Date: 2026.01.07 16:34:29 -08'00'

Carey Upton
Chief Operations Officer
Santa Monica-Malibu Unified School District

MEMORANDUM

DATE	December 22, 2025
TO	Noemi Avila-Zamudio
FROM	Addie Farrell, Principal Environmental Services
SUBJECT	Phase 2 Malibu Middle School Hub and Gym Project

This memorandum demonstrates that environmental impacts associated with Coastal Development Permit Application (CDP) NO.25-032 for the Malibu Middle and High School Campus Plan Phase 2 Project (project) have been adequately disclosed, evaluated, and mitigated as appropriate in the Final Environmental Impact Report (EIR) (State Clearinghouse No. 020080350) that was certified by the Santa Monica-Malibu Unified School District (District or SMMUSD), approved by the City of Malibu, and approved by the California Coastal Commission (CCC).

CDP No. 25-032 is Phase 2 of the Specific Plan (Phase 2). Phase 2 includes the following components; demolition of Building K: Classroom Building (12,698sf) and Building I: Classroom Building (11,761sf), the removal of eight portable classroom buildings, construction of a new Middle School Building (MS HUB), construction of new Middle School gym building, construction of a new Main Distribution Framework (MDF) Building, new fire lane for new building access, a new Solar Farm, connections to the recently completed wastewater treatment system to the Phase 2 buildings, and associated grading and underground utility work and site improvements.

As stated in Section 1.2.2, *Type and Purpose of this DEIR,* "Consistent with the requirements set forth in State CEQA Guidelines Section 15168(c), later activities (i.e., Phase 2) would be examined in light of the information in this DEIR to determine whether an additional environmental document must be prepared. It is the intent of the District to use this DEIR for later phases to determine whether additional tiered analysis is necessary under Section 15152 of the State CEQA Guidelines. Factors to be used in determining whether subsequent environmental review is required include but are not limited to consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed, and covered infrastructure described in this DEIR."

The following analysis indicates that the project does not require further environmental review pursuant to State CEQA Guidelines Section 15162 of the State CEQA Guidelines, which states that when an EIR has been certified or a negative declaration adopted for a project, no subsequent or supplemental EIR need be prepared for the project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

» New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

- The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
- Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. (CEQA Guidelines Section 15162[a]).

TABLE 1 PHASE 2 EIR ANALYSIS

EIR Resource Area	Consistency With Certified EIR Analysis
Aesthetics	Consistent. Implementation of the Phase 2 Project would be developed in the same footprint identified in the EIR. The EIR contemplated Phase 2 to be designed as one building; however, the current design calls for development of two buildings, the Middle School Gym and the Middle School Hub. The Middle School Gym would have a maximum height of 35 feet, and the Middle School Hub would have a maximum height of 17 feet, both of which comply with the height restrictions evaluated in the EIR. All new lighting will implement Mitigation Measures MM AES-1 through MM AES-5, which would require new lighting be designed with low-intensity, full cut-off shielded light fixtures that maintain safe light levels while avoiding off-site lighting and night sky pollution, as required by the Specific Plan and the City of Malibu Dark Sky Ordinance. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to aesthetics.
Air Quality	Consistent. The EIR included calculation of construction and operational air emissions for the development of the MMHS Specific Plan and determined that it would not exceed applicable Southern California Air Quality Management District (SCAQMD) significance criteria. The EIR further determined that the project site is consistent with the SCAQMD's Air Quality Management Plan, would not alter any climate factors, and would not create objectionable odors. Construction emissions are anticipated to be similar to the emissions estimated in the EIR, which were substantially below the SCAQMD thresholds. Additionally, during construction of the Phase 2 Project the District will implement Mitigation Measure AQ-1, which would ensure that significant impacts do not occur to nearby sensitive receptors, including MMHS students and staff. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to air quality.
Biological Resources	Consistent. The EIR determined that with the implementation of mitigation measures, impacts to biological resources would be less than significant. With the exception of the proposed Solar Farm, the footprint of the Phase 2 Project is on land already developed with buildings and paved areas and is located at least 125 feet from the ESHA. Construction related activities are required to comply with Mitigation Measures MM BIO-2 through MM BIO-4 regarding nesting bird and special status vegetation, particularly during construction of the proposed Solar Farm. Additionally, the project will implement Mitigation Measure

TABLE 1 PHASE 2 EIR ANALYSIS

EIR Resource Area	Consistency With Certified EIR Analysis
	BIO-6 to ensure conformity to the City of Malibu's Local Coastal Program Native Tree Protection Ordinance. The District is required to comply with these mitigation measures for the proposed project, which would ensure impacts on sensitive species would not be significant. Therefore, no new or substantially more severe significant impacts to biological resources would occur.
Cultural Resources	Consistent. The EIR determined that there are no eligible historic resources located on the MMHS campus. The potential for archeological and paleontological resources does exist and implementation of Mitigation Measure CUL-1 will ensure that if such resources were discovered all grading and construction efforts that would disturb the site shall cease and the resource(s) shall be evaluated and managed in accordance with CEQA Guidelines Section 15064.5. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to cultural resources.
Energy	Consistent. The EIR determined that the construction and operation of the MMHS Specific Plan would not result in wasteful, inefficient, or unnecessary consumption of energy resources, nor would the Specific Plan conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The Phase 2 Project has been designed to be consistent with the project contemplated in the EIR. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to energy resources.
Geology and Soils	Consistent. The EIR determined that the MMHS campus is located in a site that could be subject to strong seismic ground shaking. As required by Mitigation Measure GEO-1, the Phase 2 Project is required to have a site-specific geotechnical report that would include design recommendations, including, but not limited to seismic design parameters, foundation design, retaining wall, grading, and trenching. Development of the Phase 2 Project would be required to comply with the California Building Code (CBC), the Field Act, and the Division of the State Architect's review to ensure that all seismic requirements under Title 24 of the CBC for school buildings are met. Implementation of these regulations would ensure that impacts related to groundshaking, liquefaction, or subsidence would be less than significant. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to geology and soils.
Greenhouse Gas Emissions	Consistent. The EIR determined that implementation of the MMHS Specific Plan would not generate significant GHG emissions. Since student capacity, staffing, and other community-related uses on the campus would not increase or change with implementation of the Phase 2 Project, it would not result in an increase in emissions from mobile sources, solid waste generation, water use, or wastewater generation. Construction emissions were determined not to exceed the SCAQMD threshold. The Phase 2 Project similarly will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to greenhouse gas emissions.
Hazards and Hazardous Materials	Consistent. The EIR for the MMHS Specific Plan determined that, as an educational use, the project would not involve the routine use of hazardous materials beyond small quantities required for normal maintenance and landscaping activities and would not create any health hazards. The EIR also determined that the project would not involve changes to circulation or site access and would not interfere with emergency plans. The Phase 2 Project would include the same uses as those evaluated in the EIR and would be constructed at the same location. Therefore, the Phase 2 Project would not result in any

TABLE 1 PHASE 2 EIR ANALYSIS

EIR Resource Area	Consistency With Certified EIR Analysis
	new or substantially more severe significant impact related to hazards and hazardous materials. With implementation of fire protection building and design features and compliance with existing current standards, regulations, and code requirements, the Phase 2 Project would not result in a significant risk of loss, injury, or death involving wildland fires.
Hydrology and Water Quality	Consistent. Prior to construction of the Phase 2 Project, the District would be required to prepare and implement site specific BMPs consistent with its Construction General NPDES Permit, Construction SWPPP, and MMC § 13.04.100, which are in place to control sediment and pollution from entering waterways. During operation, the new storm drain system would be designed to accommodate a 50-year storm, and the design would comply with the City's MS4 Permit and Municipal Code Chapter 13.04 (Stormwater Management and Discharge Control). The Phase 2 Project would result in the decommissioning of existing septic systems and sizing and replacement with tie-ins to the new wastewater treatment system infrastructure. The Phase 2 Project would result in a minor increase to impervious surfaces compared to existing conditions and would not result in substantial erosion or siltation on or off-site. The project would install new stormwater retention basins that would be developed to infiltrate and treat runoff from the new buildings and paved areas. As described in the EIR, groundwater levels beneath the campus are 50 to 70 feet below ground surface. Therefore, project construction would have no potential to intercept the underlying aquifer or otherwise alter the direction, rate, or flow of groundwater. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to hydrology.
Land Use	Consistent. The Phase 2 Project would continue the existing public educational use for the site. The project would be consistent with the goals and policies identified in the General Plan's Land Use Element, the City's LCP, and the City's Municipal Code that have been adopted for the purposes of avoiding or mitigating environmental impacts. The Specific Plan was developed to establish the development standards and plan for the redevelopment of campus facilities in multiple phases to enhance and modernize facilities and improve campus circulation. With adoption of the Specific Plan, these standards became the regulations against which all phases of campus development, including the Phase 2 Project, would be reviewed by the City. Where the Specific Plan does not identify development standards, development under the Specific Plan is required to conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to land use and planning.
Noise	Consistent. The EIR concluded that the MMHS Specific Plan would potentially increase existing noise levels at the project site during construction even with the implementation of Mitigation Measure N-1. Construction activities would be temporary and would comply with existing City regulations which limit hours of construction to normal working hours and regulate equipment maintenance and use as well as the allowable level of ambient noise (Section 8.24.050 of the City of MMC). Mitigation Measure N-1 will ensure that temporary noise barriers are erected when construction activities would be within the screening distance of 100 feet from the sensitive receptor property line; however, noise levels could exceed the City's construction noise limit and were found to be significant and

TABLE 1 PHASE 2 EIR ANALYSIS

EIR Resource Area	Consistency With Certified EIR Analysis
	unavoidable. Some Phase 2 construction related activities could occur within 100 feet or adjacent residential uses. Operation of the Phase 2 Project would not increase noise levels beyond existing noise levels as there would be no increase in student population and activities would be similar to existing activities. Noise levels during construction may exceed the City of Malibu's noise limits; however, not at a level significantly greater than what was identified in the EIR. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to noise.
Public Services	Consistent. The EIR determined that the MMHS Specific Plan would incrementally increase demand for some public services; however, the impact to the associated service providers would be less than significant. The Phase 2 Project would not increase the requirement for fire protection facilities and personnel, would not adversely affect the LACoFD's ability to provide adequate service, and would not require new or expanded police facilities that could result in adverse environmental impacts. Therefore, the Phase 2 Project would not result in any new or substantially more severe impacts related to public services.
Recreation	Consistent. The Phase2 Project includes the construction of improved recreational facilities with the development of the Middle School Gym. The Middle School Gym would serve MMHS students, and the community would be available for public use, as permitted in the 2019 Master Agreement between SMMUSD and the City of Malibu Regarding the Joint Use of School District Facilities. The Phase 2 Project would include enhancements to and expansion of the MMHS recreational facilities and would not result in any new or substantially more severe significant impacts related to recreation.
Transportation	Consistent. The Phase 2 Project would be confined to the MMHS campus and would not construct or modify the surrounding circulation network, including roads transit, bicycle, and pedestrian facilities. Therefore, the Proposed Project would not conflict with any regulations set forth by the City of Malibu's General Plan and/or LCP, nor with a program, plan, ordinance, or policy regarding public transit, roadway, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Construction activities would generate a temporary increase in traffic and an increase in Vehicle Miles Traveled (VMT). However, the increase in trips and the subsequent increase in VMT to the MMHS Campus would be temporary and vary with the level of effort necessitated by each phase of construction. During operation, development of the Phase 2 Project would not increase the student or employment population at MMHS, and the attendance boundaries of the school would not change; therefore, the Phase 2 Project would not result in more vehicle trips to and from the school during operation of the project when compared to existing conditions. During Phase 2 construction, the majority of construction traffic during the peak hours would consist of construction workers and vendors traveling to and from the MMHS. In addition, during Phase 2, the newly constructed drop-off and pick-up areas in Parking Lots C and D would be available, and the school would continue to use Parking Lot B and the new Parking Lots D and E that have been constructed during Phase 1. Mitigation measures T-1 and T-3 would be implemented during Phase 2. Once operational, the Phase 2 Project would continue to utilize the new drop-off and pick-up areas, and the new parking lots constructed during the Phase 1 Project. Therefore, the

TABLE 1 PHASE 2 EIR ANALYSIS

EIR Resource Area	Consistency With Certified EIR Analysis
	proposed project revision would not result in any new or substantially more severe significant impacts related to transportation/traffic.
Utilities and Service Systems	Consistent. All utility infrastructure improvements necessary for the implementation of the Phase 2 Project (specifically water, electrical, natural gas, telecommunications) would be developed internal to the Project Site during construction. Additionally, the new structures would be developed with modernized building materials and fixtures meeting current code requirements, resulting in a more efficient use of utilities. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to utilities and service systems.
Wildfire	Consistent. The MMHS campus is located within a very high fire hazard severity zone (VHFHSZ) with a high likelihood of exposure to a wildland fire and secondary effects of wildland fires. The Phase 2 Project would not require the installation of new power lines or other off-site utilities, including infrastructure for emergency/fire water lines. The proposed domestic and fire water lines would connect to the existing 12-inch public water main on Morning View Drive, and water would be supplied by the Los Angeles County Waterworks District No. 29. Project construction activities could result in exacerbated fire risks due to sparks, dry vegetation, and weather, particularly in areas where construction activities are in proximity to surrounding open space areas. Given the high potential for wildland fires and associated risks in the project area, construction-related impacts are considered potentially significant. Mitigation Measure W-1 would ensure fire prevention requirements are in place during all phases of construction activities. Mitigation Measure W-1 would reduce potential impacts associated with wildfire risks during construction to a level that is less than significant through implementation of fire prevention measures. Mitigation Measure GEO-1 would require adherence to design recommendations in the final Geotechnical Report for the Phase 2 Project. These recommendations include industry-proven standards to prevent soil erosion and unstable soils. Therefore, the Phase 2 Project would not result in any new or substantially more severe significant impacts related to wildfire risk.

As demonstrated in the preceding analysis, all environmental impacts associated with construction and operation of Phase 2 (the project) were adequately evaluated and mitigated. The standards set forth in State CEQA Guidelines Section 15162 are met, and no further environmental review is required.

NOTICE OF PUBLIC HEARING
CITY OF MALIBU
PLANNING COMMISSION

The Malibu Planning Commission will hold a public hearing on **TUESDAY, January 20, 2026, at 6:30 p.m.** in the Council Chambers, Malibu City Hall, 23825 Stuart Ranch Road, Malibu, CA on the project identified below.

Public comment can be submitted ahead of the public hearing to planningcommission@malibucity.org for inclusion in the public record. To participate during the public hearing, please review the meeting agenda posted at MalibuCity.org/AgendaCenter and follow the directions for public participation.

MALIBU MIDDLE AND HIGH SCHOOL CAMPUS SPECIFIC PLAN

Coastal Development Permit No. 25-032, Site Plan Review No. 25-039, And Demolition Permit No. 25-027 - An application to implement the Malibu Middle and High School Campus (MMHS) Campus Specific Plan (Phases 2, 3a, and 4a) with the construction of a new two-story 18,911 square-foot middle school gym (Building D) and outdoor sports courts, one-story 9,243 square-foot middle school student activity, food service, and special education building with canopy (Building D/I), one-story 333 square foot broadcasting/media arts building, middle school quad and walkways, site improvements, landscaping, on-grade solar installation, grading, and underground utility work, including a site plan review for a height increase over 18 feet, not to exceed 36 feet as allowed in the MMHS Specific Plan and a demolition permit for the demolition of existing classroom Buildings K and I, seven portable classroom buildings, and one portable restroom building

Location:	30215 Morning View Drive
APN:	4469-017-901
Zoning:	Institutional (I) and MMHS Campus Specific Plan Overlay District
Applicant:	LPA, Inc.
Owner:	Santa Monica-Malibu Unified School District (SMMUSD)
Appealable to:	City Council
Application Filed:	August 5, 2025
Case Planner:	Richard Greenbauer, Contract Planner (949) 489-1442, extension 132 greenbauer@civicsolutions.com

In accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15051 (State Clearinghouse [SCH] No. 202008350), the SMMUSD Board of Education (Board) adopted a Final Environmental Impact Report (EIR) for the MMHS Campus Specific Plan on January 26, 2022, which included all phases of development including the scope of work proposed in CDP No. 25-032. The EIR identified potential significant environmental impacts from the MMHS Campus Specific Plan but found that mitigation measures would reduce most impacts to less-than-significant levels. A Mitigation Monitoring and Reporting Program (MMRP) was adopted for the project. The EIR also identified significant and unavoidable impacts on aesthetics (light and glare) and noise (sensitive receptors). The Board weighed the benefits of the project against the unavoidable impacts and determined that the benefits outweigh them. A Statement of Overriding Considerations (SOC) was adopted as part of the Final EIR. The Board, acting as the lead agency for the proposed project, consulted with responsible agencies, including the City, during the preparation of the EIR. On July 11, 2022, the City Council adopted Resolution No. 22-32 certifying the adequacy of the Final EIR. The Final EIR, MMRP, SOC, and accompanying materials are available on the City's website

at: https://www.malibucity.org/397/Malibu-Middle-High-School-Improvements.

As the decision-making body for Coastal Development Permit No. 25-032, the City must review and consider the Final EIR before acting upon or approving the proposed Project. Pursuant to CEQA Guidelines Section 15162 and 15163, and based on the review of the entire record, including without limitation, the Final EIR, the Community Development Director finds that the proposed Project does not require further environmental review as: 1) no substantial changes are proposed to the Project and no substantial changes have occurred that require major revisions to the Final EIR due to the involvement of new significant environmental effects or an increase in severity of previously identified significant effects; and 2) no new information of substantial important has come to light that (a) shows the Project will have one or more significant effects not discussed in the Final EIR, (b) identifies significant impacts would not be more severe than those analyzed in the Final EIR, (c) shows that mitigation measures or alternatives are now feasible that were identified as infeasible and those mitigation measures or alternatives would reduce significant impacts, and (d) no changes or mitigation measures or alternatives have been identified or required. Pursuant to CEQA Guidelines Sections 15050(c), 15162(b), and 15163, the Community Development Director finds and recommends that no further environmental analysis or environmental documentation is necessary. Accordingly, the proposed Project is merely a step in furtherance of the MMHS Campus Specific Plan for which environmental review was performed and adopted by the Board. The Board further found that no supplemental or subsequent CEQA has been triggered by the proposed Project requiring additional environmental review.

A written staff report will be available at or before the hearing for the project. All persons wishing to address the Commission regarding this matter will be afforded an opportunity in accordance with the Commission's procedures.

Copies of all related documents can be reviewed by any interested person at City Hall during regular business hours. Oral and written comments may be presented to the Planning Commission on, or before, the date of the meeting.

LOCAL APPEAL – A decision of the Planning Commission may be appealed to the City Council by an aggrieved person by written statement setting forth the grounds for appeal. An appeal shall be filed with the City Clerk within ten days following the date of action (15 days for tentative maps) for which the appeal is made and shall be accompanied by an appeal form and filing fee, as specified by the City Council. Appeal forms may be found online at www.malibucity.org/planningforms or in person at City Hall, or by calling (310) 456-2489, extension 246.

IF YOU CHALLENGE THE CITY'S ACTION IN COURT, YOU MAY BE LIMITED TO RAISING ONLY THOSE ISSUES YOU OR SOMEONE ELSE RAISED AT THE PUBLIC HEARING DESCRIBED IN THIS NOTICE, OR IN WRITTEN CORRESPONDENCE DELIVERED TO THE CITY, AT OR PRIOR TO THE PUBLIC HEARING.

Yolanda Bundy, Community Development Director

Publish Date: December 25, 2025