September 5, 2025

Addendum No. B
To the contract documents for NORTH VERDEMONT ELEMENTARY SCHOOL, DSA No. 04-122168
For the SAN BERNARDINO CITY SCHOOL DISTRICT
LPA Project No.: 30899

NOTICE TO BIDDERS

This addendum forms a part of the contract and modifies the original DSA approved documents dated 12.14.2023 . It is intended that all work affected by the following modifications shall conform to related provisions and general conditions of the Contract of the original drawings and specifications. Modify the following items wherever appearing in any drawings or sections of the specifications. Acknowledge receipt of Addendum No. B in the space provided on the Bid Form. Failure to do so may subject to disqualification.

Changes to Specifications

Item No. 1 Section 074600 – Siding color removed from the spec because it's called out in the drawings

Item No. 2 Section 084313 – Revised as clouded

Item No. 3 Section 087100 – Hardware sets have been revised

Changes to Drawings

Item No. 1 A2.01 – FLOOR, FINISH, AND ROOF PLAN
a) Updated finish schedule

Item No. 2 A3.01 – EXTERIOR ELEVATIONS & BUILDING SECTIONS
a) Updated siding color in the legend
b) Added storefront system color to legend

Item No. 3 C0.01 – DEMOLITION PLAN
a) Added existing sloped planter to demolition scope.
b) Added protection notes for surrounding area to remain as is.

Item No. 4 C2.01 – GRADING AND RECONSTRUCTION PLAN
(a) Added construction note 11.
(b) Added elevation design information for added sloped planter scope.
(c) Added finished surface, top of wall, finished grade, and slope information.
(d) Added keynote references to retaining wall and retaining curb.

Item No. 5 C3.01 – STORM DRAIN PLAN
(a) Added construction notes 29 and 30.
(b) Added/adjusted storm drain inlets at sloped planter on the planting side and the hardscape side.
(c) Added laterals that connect to existing storm drain pipe.

Item No. 6 C5.01 – HORIZONTAL CONTROL, PAVING, AND STRIPING PLAN

(a) Adjusted softscape and hardscape limits at sloped planter north of existing building.

Item No. 7 C6.01 – EROSION CONTROL PLAN
(a) Added and adjusted gravel bags at sloped planter north of existing building.
(b) Added fiber rolls at sloped planter north of existing building.

Item No. 8 C7.01 – DETAILS
(a) Added details 20 and 21.

Item No. 9 L0.01 – LANDSCAPE NOTES AND SCHEDULES
a) Revised keynote references
b) Added tetherball pole to play equipment legend

Item No. 10 L1.01 – MATERIALS PLAN
a) Added slope area to scope, revised fencing, retaining walls, and paving around it.
b) Removed existing tetherball poles; added new tetherball to scope
c) Moved play striping around new tetherball poles
d) Revised keynote references

Item No. 11 L2.01 – LAYOUT PLAN
a) Revised dimensions around new slope area and hardcourts

Item No. 12 L5.04 – CONSTRUCTION DETAILS
a) Added detail 15 – Concrete Retaining Curb

Item No. 13 L5.05 – CONSTRUCTION DETAILS
a) Revised detail 12 and 17 to reference proposed tetherball pole
b) Added tetherball post footing detail to sheet

Item No. 14 L6.01 – IRRIGATION PLAN
a) Revised irrigation plan to accommodate new sloped planted area
b) Revised water preasure loss calculations

Item No. 15 L6.02 – IRRIGATION LEGEND AND NOTES
a) Revised irrigation schedule and water efficient landscape worksheet
b) Revised material in irrigation material legend

Item No. 16 L6.03 – IRRIGATION DETAILS
a) Revised detail

Item No. 17 L7.01 – PLANTING PLAN
a) Added planting to the new sloped area

Item No. 18 E0.10 – ELECTRICAL LEAD SHEET
a) Revised notes for the 'Symbols-Telephone Data' legend
b) Revised notes for 'Signal System Symbols' legend

Item No. 19 E2.01 – ELECTRICAL POWER FLOOR AND ROOF PLANS
a) Note 3 added to 'Plan Notes'

Drawings and Documents Issued

The drawings and documents listed above are issued as Addendum No. B and are to be included in the Contract Documents.

End of Addendum No. B

SECTION 074600
SIDING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Siding of the following types
   1. Fiber Cement Horizontal Lap Siding (RusticSeries).

1.02 RELATED SECTIONS

A. Section 061000 - Rough Carpentry.

B. Section 099000 - Painting.

1.03 SUBMITTALS

A. Submit under provisions of Section 013000.

B. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Research/Evaluation Reports: For fire-retardant-coated wood.

D. Verification Samples: For each finish product specified, two samples, representing actual product and color.

1.04 QUALITY ASSURANCE

A. Installer Qualifications: Installer shall be licensed, registered or otherwise acceptable to authorities having jurisdiction to install exterior building products.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Inspect the materials upon delivery to assure specified products have been received. Store products in a safe area, away from construction traffic. Store under cover and off the ground, protected from moisture. Follow Care and Maintenance Guide by Woodtone.

1.06 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.07 WARRANTY

A. Material Warranty: Provide manufacturer's standard warranty and as follows:
   1. RusticSeries: As provided by siding substrate manufacturer.

B. Coating Warranty: Provide manufacturer's standard warranty and as follows:
   1. RusticSeries Coatings: 20 year warranty on the coating when factory applied.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: Woodtone, which is located at: 8007 Aitken Rd.; Chilliwack, BC; Canada V2R 4H5; Toll Free Tel: 800-663-9844; Fax: 604-792-3976; Email: request info (info@woodtone.com); Web: www.woodtone.com or Equal

B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.02 SIDING

A. Substrate: Fiber Cement Siding; James Hardie products as coated by Woodtone.

1. Type: Horizontal Fiber Cement Siding: HardiePlank as coated by Woodtone.
   a. Style: Lap siding; 7-1/4 inches (185 mm) wide. .
   b. Texture: Cedarmill with squared edge.
   c. Thickness: 5/16 inch (7.9 mm).
   d. Length: 12 feet (3657 mm).
2. Finish: Factory Finish Top Coating.
   a. Color: Smooth; As indicated on plans.

B. Requests for substitutions will be considered in accordance with provisions of Section 016000.

2.03 FINISH COATING SYSTEM

A. Wood Appearance Proprietary Two Coat System.

2.04 FASTENERS

A. Nails for Fiber Cement Siding and Engineered Wood Siding with Woodtone RusticSeries Coating: As recommended by fiber cement siding manufacturer.

PART 3 EXECUTION

3.01 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions including the following:
   1. Coordinate work with related trades; scribe and cope siding boards for accurate fit. Allow for installation of related work to avoid cutting and patching.
   2. Select siding boards of longest practical lengths. Discard boards that are warped, twisted, bowed, crooked or otherwise defective.
   3. Comply with siding manufacturer's and substrate manufacturer's installation instructions. Comply with local building codes and regulations.
   4. Apply touch up coating on surfaces and ends cut during installation.
   5. As work proceeds, maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris related to this work.

B. Finish materials on all ends and sides and ends. Apply touch up coating on new cuts. Factory finishing is preferred.

3.03 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 074600

SECTION 084313
ALUMINUM-FRAMED STOREFRONTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Aluminum-framed storefront, with vision glass.

B. Aluminum doors and frames.

C. Weatherstripping.

1.02 RELATED REQUIREMENTS

A. Section 087100 - Door Hardware: Hardware items other than specified in this section.

1.03 REFERENCE STANDARDS

A. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; 2015.

B. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document); 2015.

C. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels; 2013.

D. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2021.

E. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2021.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate with installation of other components that comprise the exterior enclosure.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details.

C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
   1. Include design engineer's stamp or seal on shop drawings for attachments and anchors.

D. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.

E. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.06 QUALITY ASSURANCE

A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State in which the Project is located.

B. Manufacturer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.
   1. Provide certified glass products through ANSI accredited certifications that include plant audits and independent laboratory performance testing.
      a. Insulating Glass Certification Council (IGCC).
      b. Safety Glazing Certification Council (SGCC).

C. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.
   1. Provide company, field supervisors, and installers that hold active ANSI accredited certifications in appropriate categories for work specified.
      a. North American Contractor Certification (NACC) for glazing contractors.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Handle products of this section in accordance with AAMA CW-10.

B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.08 FIELD CONDITIONS

A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

1.09 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a five year period after Date of Substantial Completion.

C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.

D. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 BASIS OF DESIGN -- FRAMING FOR INSULATING GLAZING

A. Front-Set Style, Thermally-Broken:
   1. Basis of Design: Arcadia; AFG601T.

2.02 MANUFACTURERS

A. Aluminum-Framed Storefront and Doors:
   1. Arcadia; AFG601T; 5920.

2.03 STOREFRONT

A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
   1. Glazing Rabbet: For 1 inch insulating glazing.
   2. Finish: Superior performing organic coatings.
   3. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
   4. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
   5. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
   6. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
   7. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
   8. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.

2.04 COMPONENTS

A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
   1. Framing members for interior applications need not be thermally broken.
   2. Glazing Stops: Flush.
   3. Cross-Section: As indicated on drawings.

B. Glazing: As specified in Section 088000.

C. Swing Doors: Glazed aluminum.
   1. Thickness: 1-3/4 inches.
   2. Top Rail: 4 inches wide.
   3. Vertical Stiles: 4-1/2 inches wide.
   4. Bottom Rail: 10 inches wide.
   5. Glazing Stops: Square.
   6. Finish: Same as storefront.

D. Sliding Storefront Doors: Full glazed extruded aluminum frame and operable panels; manual operation; bottom rollers; flat or recessed sill.
   1. Configuration and Size: As indicated on drawings.
   2. Glazing Thickness: 1 inch.
   3. Provide deadlock keyed both sides on each operable panel.
   4. Manufacturers:
      a. Basis of Design: Arcadia 5920.

E. Magnetic Window Contacts: For operable window units and sliding glass door units, install press-fit recessed magnetic contact.
   1. Window contact similar to Seco-Alarm SM-407-5T, 3/8" stubby press-fit magnetic contact with magnet. Window contact shall meet the following:
      a. Rated for temperatures between -15 degrees F to 160 degrees F
      b. Case: Weatherproof, high-impact ABS plastic, white in color
      c. Magnets: Alinico 5
      d. Contact capacity: 10W (max)
      e. Switching voltage: 100VDC or 100VAC (max)
      f. Switching current: 300mA (DC) (max)
      g. Carry current: 800mA (max)
      h. Contact resistance (initial): 0.1 ohm (max)
      i. Breakdown voltage: 200 VDC between contacts
      j. Operation time: 0.4 msec (max)
      k. Release time: 0.05 msec (max)
      l. Resonant frequency: 3700Hz + 300Hz
      m. Operating frequency: 500Hz (max)
   2. Provide #22AWG copper alloy leads, 72" in length, or long enough to be routed to points of connection at ceiling control boxes without splices.
   3. Refer to HVAC contract drawings for connection diagrams
   4. Provide factory-drilled holes in operable window or sliding door units.

2.05 MATERIALS

A. Extruded Aluminum: ASTM B221 (ASTM B221M).

B. Fasteners: Stainless steel.

C. Exposed Flashings: Aluminum sheet, 20 gage, 0.032 inch minimum thickness; finish to match framing members.

D. Concealed Flashings: Galvanized steel, 26 gage, 0.0179 inch minimum base metal thickness.

E. Sill Flashing Sealant: Elastomeric, silicone or polyurethane, compatible with flashing material.

F. Sealant for Setting Thresholds: Non-curing butyl type.

G. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

2.06 FINISHES

A. Superior Performing Organic Coatings System: Manufacturer's standard multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at least 80 percent of aluminum extrusion and panels surfaces having minimum total dry film thickness (DFT) of 1.2 mils, 0.0012 inch.

B. Color: As indicated on drawings.

2.07 HARDWARE

A. For each door, include weatherstripping, sill sweep strip, and threshold.

B. Other Door Hardware: As specified in Section 087100.

C. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.

D. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.

E. Threshold: Extruded aluminum, one piece per door opening, ribbed surface; provide on all doors.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify dimensions, tolerances, and method of attachment with other work.

B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION

A. Install wall system in accordance with manufacturer's instructions.

B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.

C. Provide alignment attachments and shims to permanently fasten system to building structure.

D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.

E. Provide thermal isolation where components penetrate or disrupt building insulation.

F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.

G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.

H. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

I. Set thresholds in bed of sealant and secure.

J. Install hardware using templates provided.
   1. See Section 087100 for hardware installation requirements.

K. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

L. Magnitic Window Contacts: Coordinate with paragraph 2.04-E.
   1. Holes for recessed magnetic window contacts shall be factory drilled.
   2. Magnetic window contact device as well as copper alloy leads shall be factory provided and factory or field installed.

3. Recessed magnetic window contacts shall be installed so that they are not visible when window operable in in the closed position.

3.03 TOLERANCES

A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.

B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.04 ADJUSTING

A. Adjust operating hardware and sash for smooth operation.

3.05 CLEANING

A. Remove protective material from pre-finished aluminum surfaces.

B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths, and take care to remove dirt from corners and to wipe surfaces clean.

C. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.

3.06 PROTECTION

A. Protect installed products from damage until Date of Substantial Completion.

END OF SECTION 084313

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SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Sliding doors.
3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Flush Wood Doors”.
2. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.

5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

D. Proof of Compliance: (California located Projects): Provide a list of product(s) containing chemicals known to cause cancer or reproductive toxicity as defined by the Office of Environmental Health Hazard Assessment (OEHHA) under Proposition 65 (CA Code of Regulations, Title 27, Section 27001). The list includes the specific chemical(s), if the chemical will be exposed to consumers, the means of warning, and an illustration of the label.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

F. California Building Code: Provide hardware that complies with CBC Section 11B.

1. All openings as a part of an accessible route shall comply with CBC Section 11B-404.
2. The clear opening width for a door shall be 32” minimum. For a swinging door it shall be measured between the face of the door and the stop, with the door open 90 degrees. There shall be no projections into it below 34” and 4” maximum projections into it between 34” and 80” above the finish floor or ground. Door closers and stops shall be permitted to be 78” minimum above the finish floor or ground. CBC Section 11B-404.2.3.
3. Operable hardware on accessible doors shall comply with CBC Section 11B-309.4 and shall be operable with one hand and shall not require tight grasping, pinching, or twisting

of the wrist. Operable parts of such hardware shall be 34" minimum and 44" maximum above finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

4. Hardware (including panic hardware) shall not be provided with "nightlatch" function for any accessible doors or gates unless the following conditions are met:

    a. Such hardware has a 'dogging' feature and is dogged during the time the facility is open.
    b. All 'dogging' operation is performed only by employees as their job function (non-public use).

5. The force for pushing or pulling open a door shall be in accordance with CBC Section 11B-404.2.9.

    a. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2 N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.
    b. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2N) maximum to comply with CBC Section 11B-309.4.
    c. The 5 pound (22.2 N) maximum force shall be validated for the size of the door used. The Building Materials Listing of the California State Fire Marshal shall indicate that the door hardware meets the 5 pound (22.2 N) force and shall also list the largest door that can be used.

6. Door closing speed shall comply with CBC Section 11B-404.2.8. Closers shall be adjusted so that the required time to move a door from an open position of 90 degrees to a position of 12 degrees from the latch is 5 seconds minimum. Spring hinges shall be adjusted so that the required time to move a door from an open position of 70 degrees to the closed position is 1.5 seconds minimum.
7. Floor stops shall not be located in the path of travel and 4" maximum from walls.
8. Thresholds shall comply with CBC Section 11B-404.2.5.

G. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s),

Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

J. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions

of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Please note that ASSA ABLOY is transitioning the Yale Commercial brand to Arrow. This affects only the brand name; the products and product numbers will remain unchanged. The brand transition is expected to be complete in or about May of 2024, and products shipping after that time will be branded Arrow.

D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 BUTT HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:

a. McKinney (MK) - TA/T4A Series, 5 knuckle.

2.3 CONTINUOUS HINGES

A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:.

a. Pemko (PE).

2.4 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.

2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
6. Manufacturers:

    a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Match Facility Standard.

C. Large Format Interchangeable Cores: Provide removable cores (LFIC) as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.

D. Permanent Cores: Match standard. Reference Division 01 for material required under project. Installation to be included under Division 08 "Door Hardware" base bid package.

1. Small Format Interchangeable Cores: Core insert, removable by use of a special key; usable with other manufacturers' cylinders.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Field verify and key cylinders to match Owner's existing system.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

G. Construction Keying: Provide temporary keyed construction cores.

H. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:

a. Lund Equipment (LU).
b. MMF Industries (MM).
c. Telkee (TK).

2.7 MORTISE LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all features and functionality as specified herein.

1. Manufacturers:

a. Corbin Russwin Hardware (RU) - ML2000 Series.
b. Sargent Manufacturing (SA) - 8200 Series.

2.8 MULTI-POINT LOCKS AND LATCHING DEVICES

2.9 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.

3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.10 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. Exit devices shall have a five-year warranty.
2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.
4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
6. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

8. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
9. Rim Exit Devices: Exit device rails shall release with less than 5 pounds of pressure per the California Building Code.
10. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

11. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
12. Rail Sizing: Provide exit device rails factory sized for proper door width application.
13. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:

a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
b. Sargent Manufacturing (SA) - 80 Series.

2.11 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.
2. Manufacturers:

a. Norton Rixson (NO) - 7500 Series.
b. Sargent Manufacturing (SA) - 351 Series.

2.12 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

    a. Rockwood (RO).

2.13 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Rockwood (RO).

2.14 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).

2.15 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.16 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

Hardware Sets

Set: 1.1

Doors: 01, 02

1	Continuous Hinge	CFM SLF-HD1		PE
1	Rim Exit Device, Storeroom	16 43 5CH 525 64 8804 x Less Pull	US32D	SA
2	Perm Core	Match Facility Standard	US15	SA
1	Straight Door Pull	RM3301	US32D	RO
1	Surface Closer	351 P10	EN	SA
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Door Stop	466-RKW	Black	RO
1	Gasketing	Included by Aluminum Door Supplier		OT
1	Sweep	18062CNB		PE
1	Threshold	Per Sill Detail		PE

Notes: ***Coordinate pull mounting to avoid interfering with cylinder.***

Set: 2.1

Doors: 05, 06

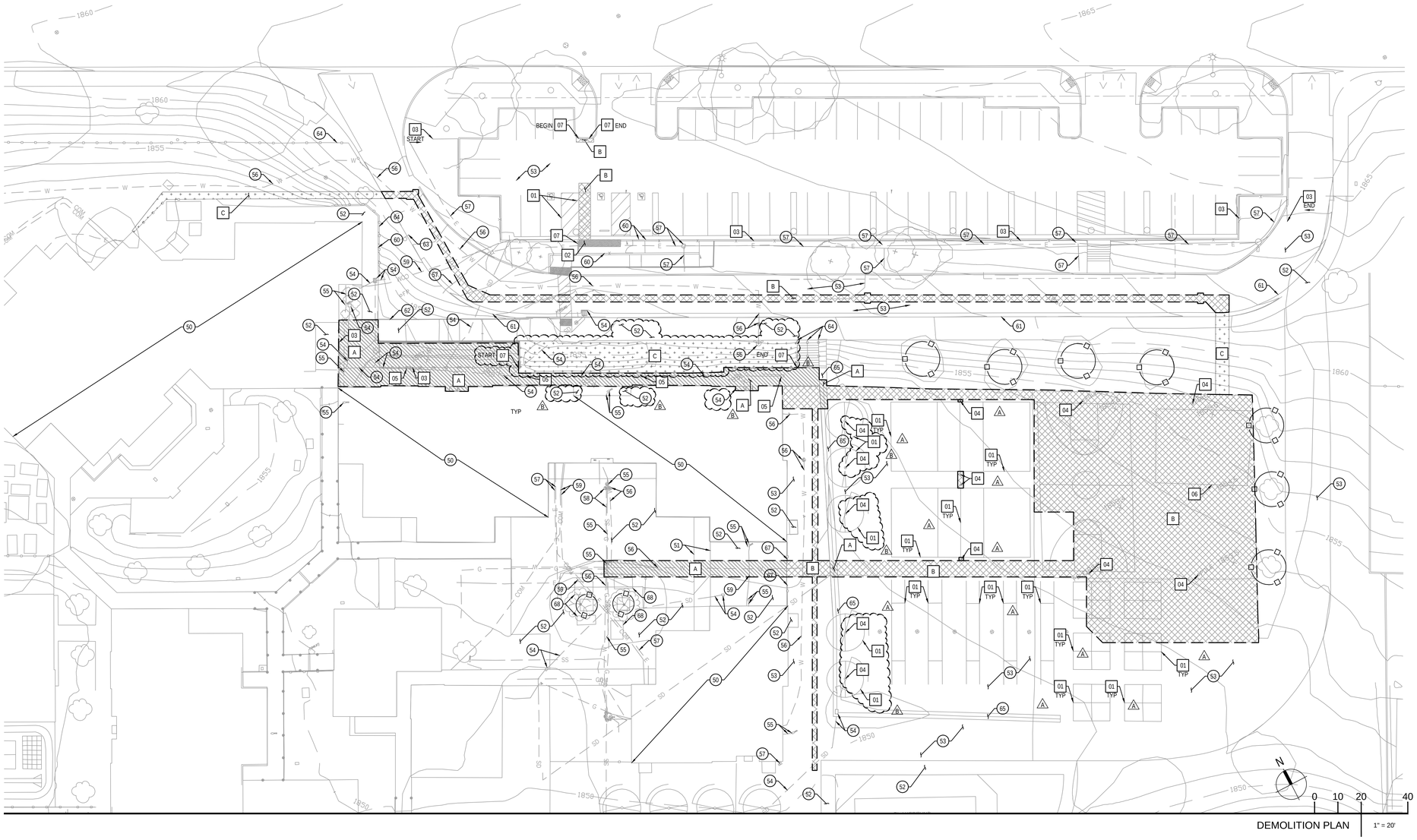
3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Privacy Lock	LB V21 64 8265 LW1L	US26D	SA
1	Perm Core	Match Facility Standard	US15	SA
1	Surface Closer	351 UO	EN	SA
1	Mop Plate	K1050 6" high CSK BEV	US32D	RO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Wall Stop	403	US26D	RO
1	Gasketing	S88BL		PE

Set: 3.0

Doors: 03

1	Specialty Door	All Hardware Provided by Door Manufacturer		OT

END OF SECTION 087100



DEMOLITION PLAN 1" = 20'

DEMOLITION LEGEND

LABEL	DESCRIPTION
A	REMOVE (E) CONCRETE PAVEMENT/SIDEWALK,
B	REMOVE (E) AC PAVEMENT.
C	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 AND 10/L7.02.
	SAWCUT (E) PAVEMENT AS NEEDED. SEE DEMOLITION NOTE 6 AND 10 SHEET C0.01.
	APPROXIMATE LIMIT OF WORK LINE.
	REMOVE (E) UTILITY, SEE DEMOLITION NOTES 2, 4, 8, AND 9 SHEET C0.01.

DEMOLITION KEYNOTES

KEY NOTE	DESCRIPTION
01	REMOVE (E) STRIPING.
02	REMOVE (E) TRUNCATED DOMES.
03	REMOVE (E) FENCE AND FOOTINGS, SEE LANDSCAPE PLANS FOR IMPROVEMENTS.
04	REMOVE (E) POLES AND FOOTINGS. PATCH EXISTING ASPHALT. A
05	REMOVE (E) STORM DRAIN PIPE AND APPURTENANCES. SEE UTILITY PLAN FOR IMPROVEMENTS.
06	REMOVE AND RELOCATE (E) STORAGE CONTAINER. CONTRACTOR TO COORDINATE WITH SCHOOL DISTRICT ON RELOCATION.
07	REMOVE (E) CONCRETE CURB.

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) ELECTRICAL FACILITIES.
58	PROTECT (E) GAS FACILITIES.
59	PROTECT (E) TELECOMMUNICATION FACILITIES.
60	PROTECT (E) CURB.
61	PROTECT (E) CURB AND GUTTER
62	PROTECT (E) RETAINING WALL.
63	PROTECT (E) MONUMENT AND/OR SIGN POST.
64	PROTECT (E) FENCE AND/OR HANDRAIL.
65	PROTECT (E) GUTTTER.
66	PROTECT (E) POLES AND FOOTINGS.
67	PROTECT (E) FENCE GATES.
68	PROTECT (E) BENCHES.

LPA

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09/03/25

NORTH VERDEMONT ELEMENTARY SCHOOL

3555 W. MEYERS ROAD
SAN BERNARDINO, CA 92407

Developed for
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

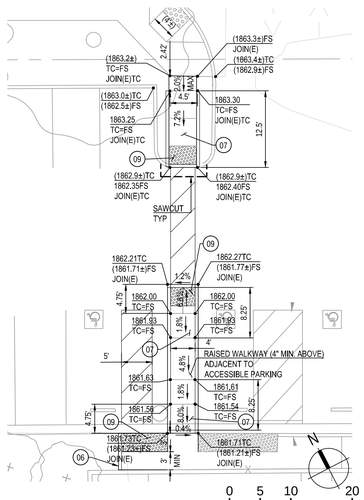
Revision	Date
ADDENDUM A	07/31/2025
ADDENDUM B	09/03/2025

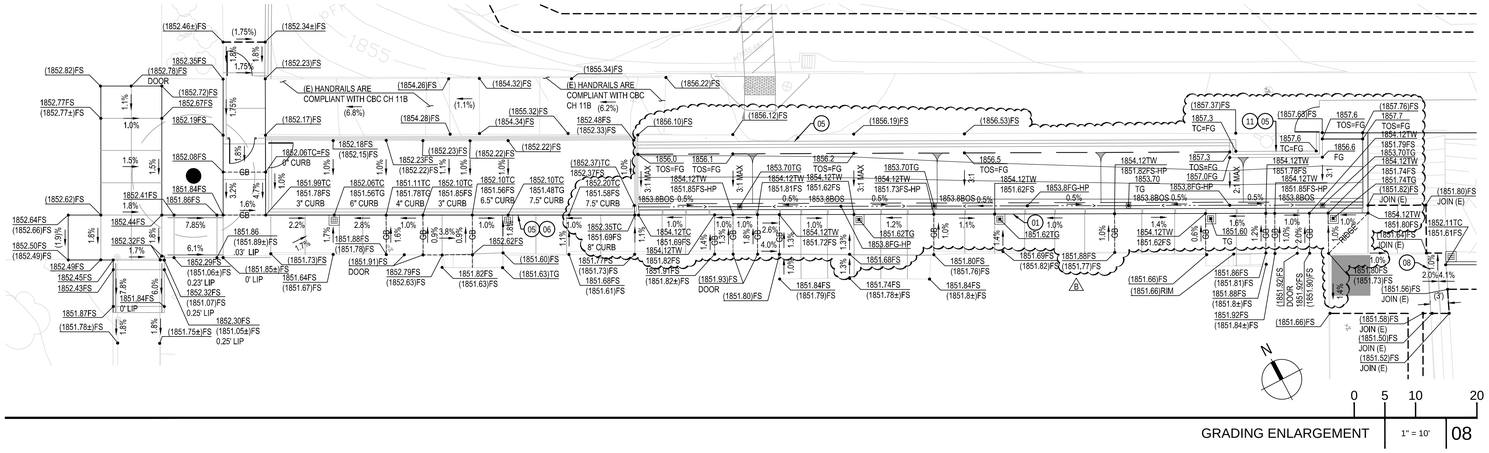
Submittal	Date
100% SCHEMATIC DESIGN	02/16/2023
DSA SUBMITTAL	04/19/2023
DSA BACK CHECK	09/07/2023

Job Number	30899
Date Published	09/03/2025
Checked By	A.C.
Scale	1" = 20'

DEMOLITION PLAN

C1.01



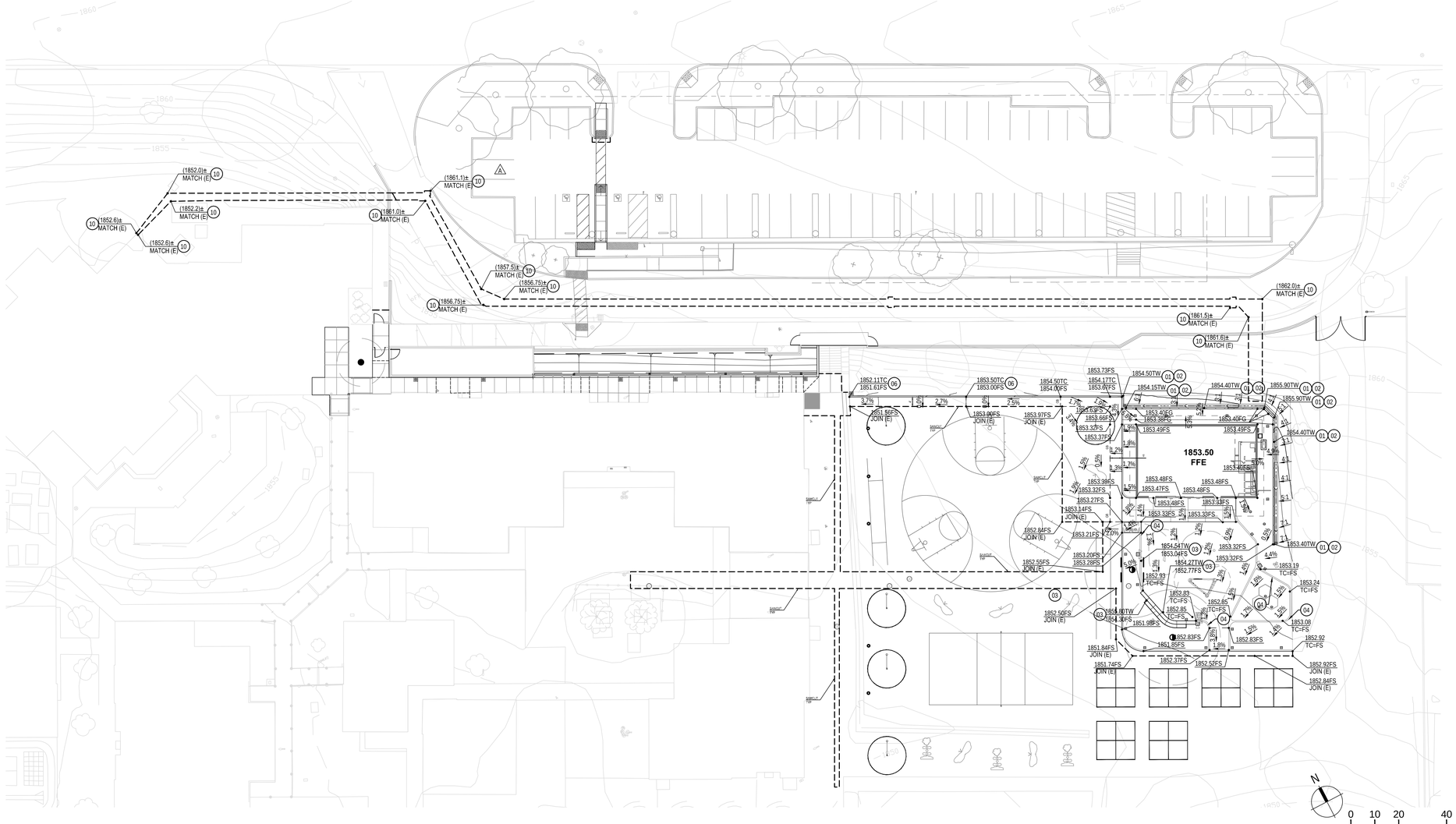


LEGEND

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

GRADING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
01	CONSTRUCT RETAINING WALL PER LANDSCAPE AND STRUCTURAL PLANS. SEE DETAIL 17, SHEET L5.03. RETAINING HEIGHT VARIES BETWEEN 12" TO 30", SEE PLAN FOR TOP OF WALL AND FINISHED SURFACE ELEVATIONS.
02	CONSTRUCT RETAINING WALL VALLEY GUTTER ON RETAINED SIDE OF WALL PER DETAIL 07, SHEET C7.01.
03	CONSTRUCT SEAT WALLS PER LANDSCAPE PLANS.
04	CONSTRUCT MOW CURB PER LANDSCAPE PLANS.
05	CONSTRUCT FENCE PER LANDSCAPE PLANS.
06	CONSTRUCT VERTICAL CURB PER DETAIL 08, SHEET C7.01.
07	CONSTRUCT ACCESSIBLE CURB RAMP PER DETAIL 12, SHEET C7.01.
08	CONSTRUCT VALLEY GUTTER PER DETAIL 16, SHEET C7.01.
09	CONSTRUCT TRUNCATED DOMES PER DETAIL 13, SHEET C7.01.
10	ELECTRICAL CONDUIT TRENCHING, SEE SHEET E1.10. A
11	CONSTRUCT RETAINING CURB PER LANDSCAPE AND STRUCTURAL PLANS. SEE DETAIL 15, SHEET L5.04. SEE PLAN FOR TOP OF CURB AND FINISHED SURFACE ELEVATIONS. B



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REGISTERED PROFESSIONAL ENGINEER KATHLEEN M. DAWLEY R.C.E. 68369 EXP. 9-30-25 CIVIL STATE OF CALIFORNIA
09/03/25

NORTH VERDEMONT ELEMENTARY SCHOOL

3555 W. MEYERS ROAD
SAN BERNARDINO, CA 92407

Developed for
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

Revision	Date
ADDENDUM A	07/31/2025
ADDENDUM B	09/03/2025

Submittal	Date
100% SCHEMATIC DESIGN	02/16/2023
DSA SUBMITTAL	04/19/2023
DSA BACK CHECK	09/07/2023

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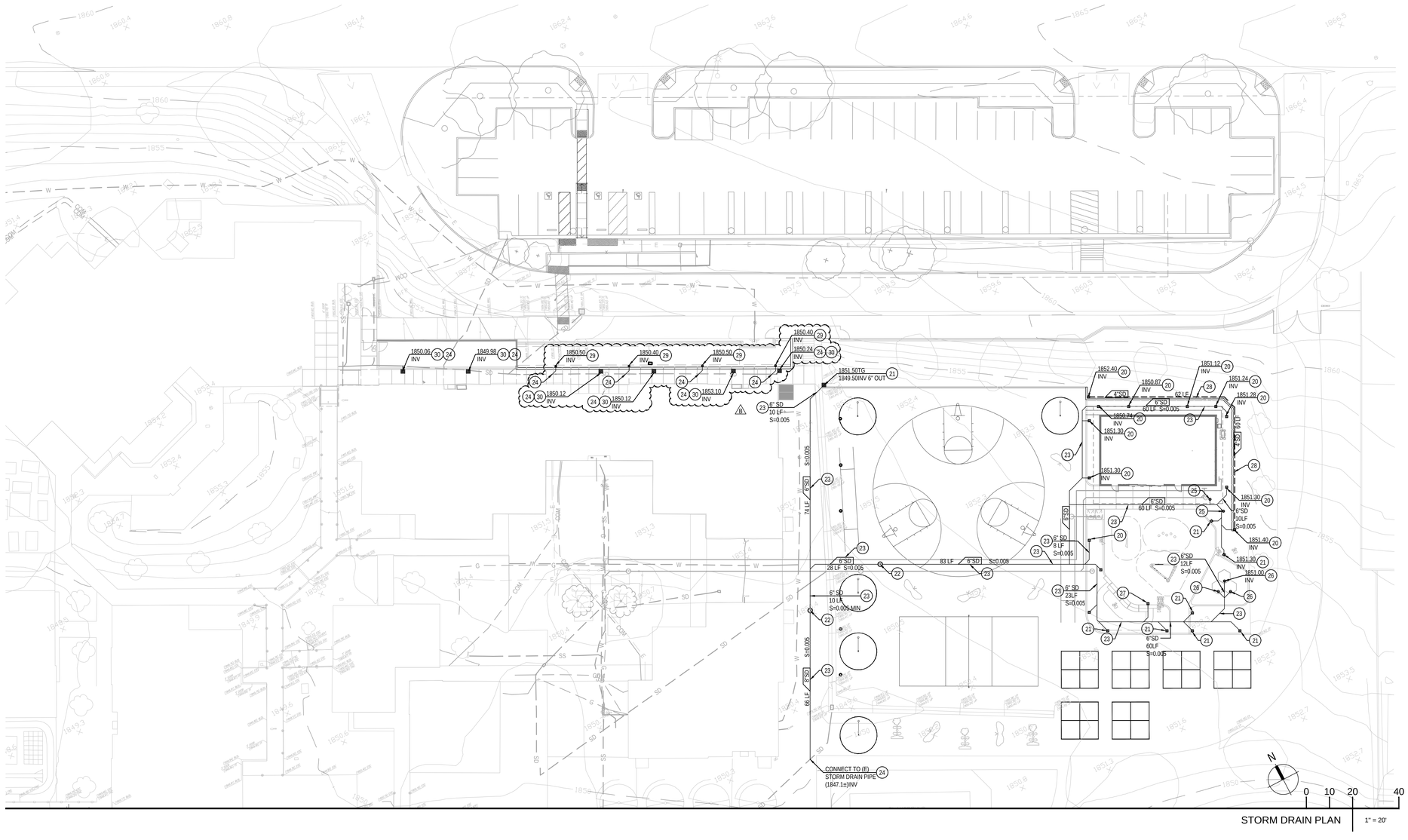
Scale	AS SHOWN

A

GRADING AND RECONSTRUCTION PLAN

C2.01



STORM DRAIN PLAN

1" = 20'

STORM DRAIN CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
20	SUPPLY AND INSTALL 4" RISER WITH NDS 12"X12" ATRIUM GRATE (BLACK) OR EQUIVALENT PER DETAIL 01 SHEET C7.01.
21	SUPPLY AND INSTALL 12"X12" PRECAST CONCRETE DRAIN INLET WITH ADA COMPLIANT GRATE PER DETAIL 02, SHEET C7.01. PLACE ELONGATED GRATE OPENINGS PERPENDICULAR TO THE PATH OF TRAVEL DIRECTION.
22	SUPPLY AND INSTALL STORM DRAIN CLEAN OUT PER DETAIL 03, SHEET C7.01.
23	PLACE HDPE PIPE WITH TRENCH AND BACKFILL PER DETAIL 04, SHEET C7.01. SIZE PER PLAN.
24	CONNECT TO EXISTING STORM DRAIN. CONTRACTOR TO VERIFY ELEVATION OF EXISTING PIPE AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
25	SUPPLY AND INSTALL 4" RISER WITH NDS 9"X9"ATRIUM GRATE (BLACK) OR EQUIVALENT PER DETAIL 09, SHEET C7.01. SEE RAIN CHAIN COBBLE BEDDING SURROUNDING DRAIN DETAIL 15, SHEET L5.01.
26	SUPPLY AND INSTALL 4" PLANTER DRAIN PER DETAIL 10, SHEET C7.01.
27	SUPPLY AND INSTALL 6" MIFAB OR APPROVED EQUAL UNDERDRAIN PER DETAIL 11, SHEET C7.01. CONDITION UNDER RUBBERIZED PLAY SURFACE PER LANDSCAPE PLANS, SEE DETAIL 17, SHEET L5.01.
28	SUPPLY AND INSTALL 4" PERFORATED PIPE FOR RETAINING WALL SUBDRAINAGE PER LANDSCAPE DETAIL 13, SHEET L5.03.
29	SUPPLY AND INSTALL 4" RISER WITH NDS 9"X9" ATRIUM GRATE (BLACK) OR EQUIVALENT PER DETAIL 09 SHEET C7.01. PENETRATE PIPE THRU RETAINING WALL PER STRUCTURAL DETAIL 01 SHEET S6.01.
30	SUPPLY AND INSTALL 12"X12" NDS DRAIN INLET WITH ADA COMPLIANT GRATE PER DETAIL 20, SHEET C7.01. PLACE ELONGATED GRATE OPENINGS PERPENDICULAR TO THE PATH OF TRAVEL DIRECTION.

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 04 SHEET C7.01 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 5½" 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

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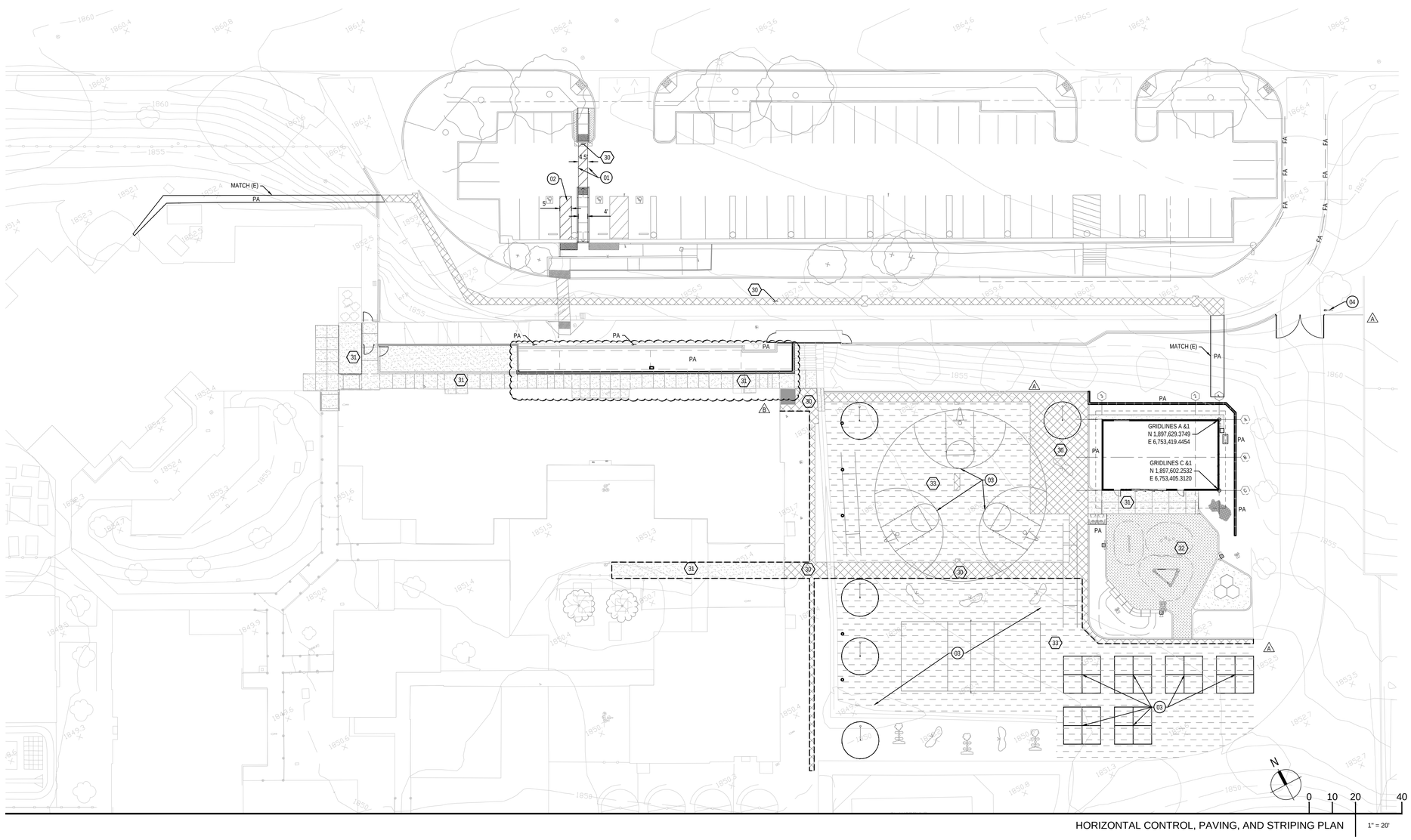
STORM DRAIN PLAN

C3.01



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	HEAVY DUTY AC PAVEMENT 4" AC OVER 6" CL II AB PER DISTRICT DESIGN STANDARDS.
31	PEDESTRIAN CONCRETE PAVEMENT 4" PCC OVER 4" CL II AB PER DISTRICT DESIGN STANDARDS.
32	RUBBERIZED PLAY SURFACING 2" AC OVER 4" CL II AB PER DISTRICT DESIGN STANDARDS. SEE LANDSCAPE PLANS FOR SURFACE MATERIAL AND EDGING DETAILS.
33	AC PAVEMENT SLURRY SEAL SLURRY SEAL PER LATEST GREENBOOK EDITION SECTION 302-4. A
PA	PLANTING AREA SEE LANDSCAPE PLANS.

STRIPING CONSTRUCTION NOTES

KEY NOTE	DESCRIPTION
01	PAINT 4" WIDE WHITE ACCESSIBLE PATH STRIPING PER DETAIL 14, SHEET C7.01.
02	PAINT LOADING AND UNLOADING ZONE ACCESS AISLE BORDER BLUE (COLOR NO.15090 PER FEDERAL STD. NO. 595C) STRIPING, 4" WIDE.
03	PROVIDE PAVEMENT STRIPING PER LANDSCAPE PLANS. A
04	FIRE LANE NO PARKING SIGN PER DETAIL 18, SHEET C7.01

STRIPING LEGEND

SYMBOL	DESCRIPTION
FA	FIRE ACCESS. PAINT CURB RED PER DETAIL 15, SHEET C7.01.

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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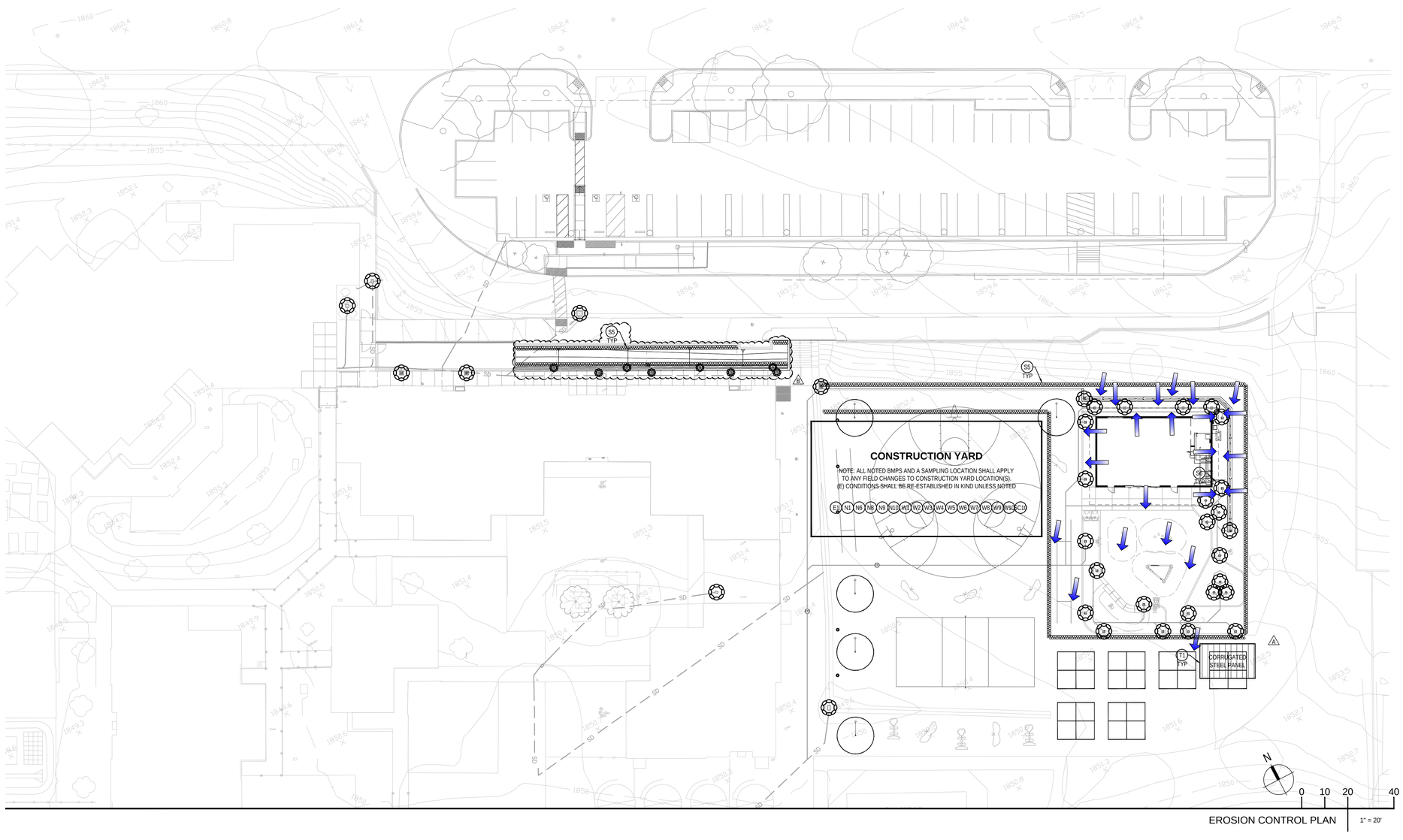
HORIZONTAL CONTROL, PAVING, AND STRIPING PLAN

C5.01



EROSION CONTROL PLAN 1" = 20'

EROSION CONTROL NOTES

-SEE SHEET C0.01 FOR EROSION AND SEDIMENT CONTROL NOTES.

-SEE SHEET C0.01 FOR BMP MAINTENANCE NOTES.

-ALL BMPS PER CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA)(UNLESS NOTED OTHERWISE) AND ARE AVAILABLE AT www.casqa.org.

-BMPS "NOT" CALLED OUT PER PLAN, ARE SHOWN FOR REFERENCE AS BMP OPTIONS PER QSP (QUALIFIED SWPPP PRACTITIONER) FIELD RECOMMENDATIONS.

-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
	APPROXIMATE LIMIT OF GRADING
	FLOW DIRECTION

EROSION CONTROL BMPs:

KEY NOTE	DESCRIPTION
E1	EC-1, SCHEDULING
E2	EC-2, PRESERVATION OF EXISTING VEGETATION
E16	EC-16, NON-VEGETATIVE STABILIZATION

SEDIMENT CONTROL BMPs:

S3	SE-3, SEDIMENT TRAP
S5	SE-5, FIBER ROLLS
S6	SE-6, GRAVEL BAG BERM
S7	SE-7, STREET SWEEPING AND VACUUMING
S10	SE-10, STORM DRAIN INLET PROTECTION

TRACKING CONTROL BMPs:

T1	TC-1, STABILIZED CONSTRUCTION ENTRANCE/EXIT
T2	TC-2, STABILIZED CONSTRUCTION ROADWAY
T3	TC-3, ENTRANCE/OUTLET TIRE WASH

NON-STORMWATER MANAGEMENT CONTROL BMPs:

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
N10	NS-10, VEHICLE AND EQUIPMENT MAINTENANCE
N12	NS-12, CONCRETE CURING
N13	NS-13, CONCRETE FINISHING

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

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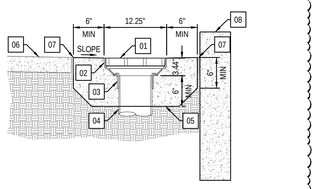
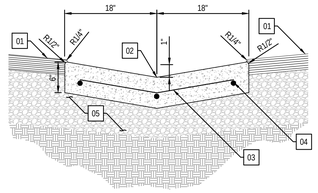
EROSION CONTROL PLAN

C6.01



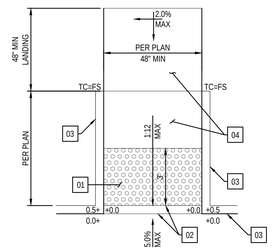
01 NDS CAST IRON GRATE INSTALL FLUSH 12" SQUARE PART NO. 1213
02 NDS LOW PROFILE ADAPTER 12" SQUARE PART NO. 1230
03 NDS UNIVERSAL ADAPTER PART NO. 1243 - 3" OR 4" OUTLET PART NO. 1245 - 3" OR 4" OFFSET OUTLET PART NO. 1266 - 6" OUTLET PART NO. 1888 - 8" OUTLET
04 OUTLET PIPE PER STORM DRAIN PLAN
05 CONCRETE COLLAR CLASS 'C' LOAD RATING/H20
06 FINISHED SURFACE CONCRETE PAVING PER PLAN
07 EXPANSION JOINT AT CONCRETE PAVING PER LANDSCAPE PLAN
08 VERTICAL CURB OR RETAINING WALL PER PLAN

NDS DRAIN INLET — NTS — 20



01 FINISHED SURFACE
02 FLOW LINE PER PLAN
03 #3 REBAR @ 18" OC
04 (3) #3 REBAR CONTINUOUS TYP
05 PAVING SECTION PER PLAN

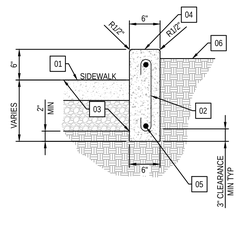
VALLEY GUTTER — NTS — 16



NOTE:
CROSS SLOPE OF RAMP AND LANDING NOT TO EXCEED 2% TYP

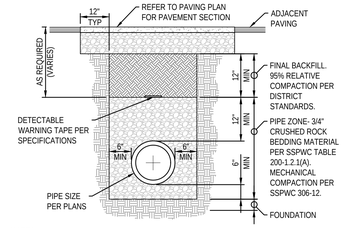
01 PRECAST TRUNCATED DOME PAVERS PER DETAIL 13 HEREON.
02 FLUSH CURB PER DETAIL 19 HEREON. CROSS SLOPE OF FLUSH CURB NOT TO EXCEED 2% MAX
03 CONCRETE VERTICAL CURB PER DETAIL 08 HEREON.
04 PEDESTRIAN CONCRETE PAVEMENT PER KEYNOTE 31, SHEET C5.01.

ACCESSIBLE CURB RAMP - SINGLE — NTS — 12



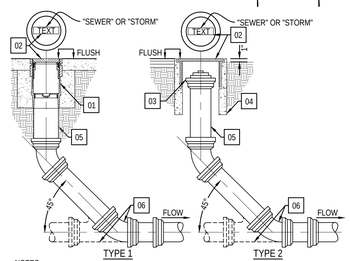
01 FINISHED SURFACE
02 #3 REBAR @ 36" OC
03 PAVEMENT SECTION PER PLAN
04 SLOPE 1/4" PER FOOT
05 (2) #4 REBAR CONTINUOUS TYP
06 FINISHED GRADE

VERTICAL CURB — NTS — 08



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 FIELD INSPECTOR. FILTER FABRIC IF USED SHALL SATISFY THE REQUIREMENTS FOR A TYPE 180N, NONWOVEN GEOTEXTILE PER SSPWC 213-2 (LATEST EDITION).

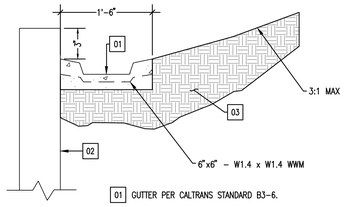
PIPE TRENCH - STORM DRAIN — NTS — 04



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

CLEANOUT — NTS — 03

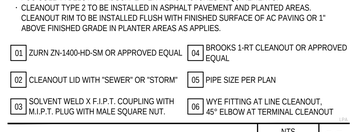


01 GUTTER PER CALTRANS STANDARD B3-6.
02 RETAINING WALL PER PLAN
03 COMPACTED SUBGRADE

RETAINING WALL DRAIN — NTS — 07

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 — 06



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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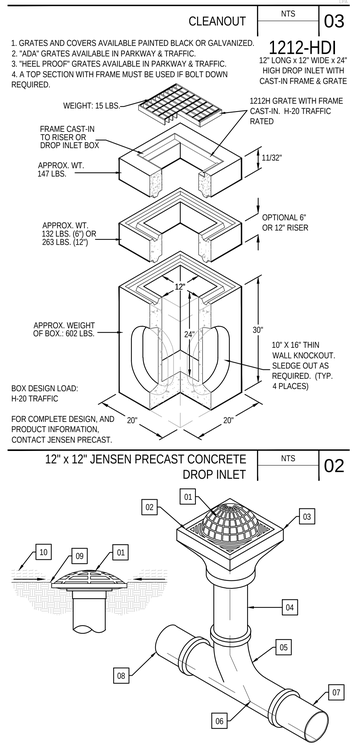
PIPE TRENCH - SEWER — NTS — 05



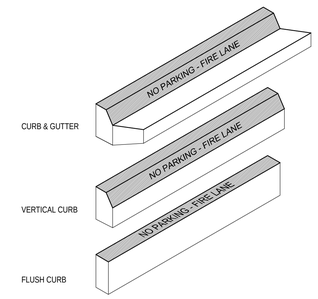
12" x 12" JENSEN PRECAST CONCRETE DROP INLET — NTS — 02

01 SWALE
02 RETAINING WALL PER PLAN
03 COMPACTED SUBGRADE

RETAINING WALL AT SLOPED PLANTER — NTS — 21

01 FINISHED SURFACE / FINISHED GRADE
02 #3 REBAR @ 36" OC
03 (2) #4 REBAR CONTINUOUS TYP
04 PAVEMENT SECTION PER PLAN

FLUSH CURB — NTS — 19



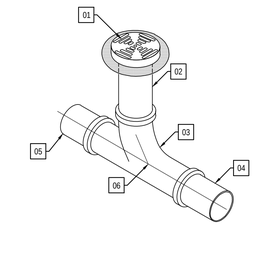
WORDS TO BE STENCILED ON CURB AS SHOWN ABOVE

3" HIGH WHITE PAINTED STENCILED (3/4" STROKE) LETTERS

STENCILING AT EVERY 25 FEET ON CENTER OR PORTION THEREOF

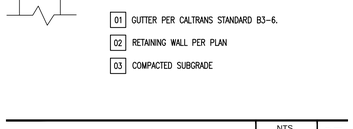
LEGEND
CURBS SHALL BE PAINTED OSHA SAFETY RED

FIRE LANE CURB PAINTING — NTS — 15



01 MIFAB F1100-6 (6" STRAINER) FLOOR DRAIN OR APPROVED EQUAL
02 6" PVC RISER
03 WYE FITTING
04 STORM DRAIN PIPE PER PLAN
05 PLUG IF AT END RUN
06 INVERT PER PLAN

6" ROUND FLOOR DRAIN — NTS — 11

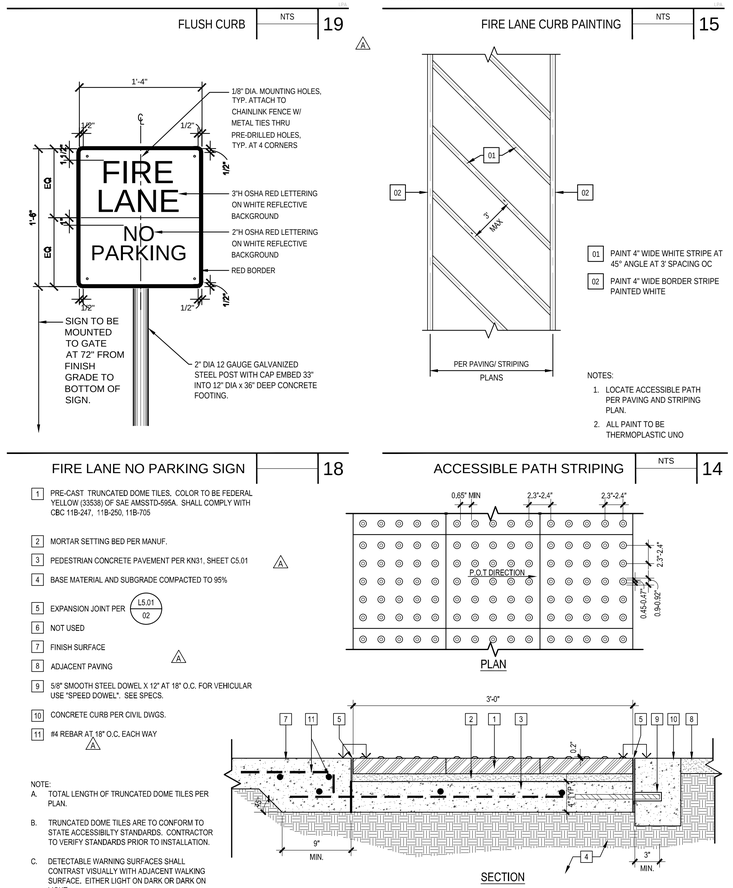


01 9" SQUARE BLACK ATRIUM GRATE. NDS PART NO. 981 OR APPROVED EQUAL
02 TG ELEVATION PER PLAN
03 9" NDS PART NO. 930 AND 1243 OR APPROVED EQUAL
04 4" PVC SDR 35 RISER
05 WYE FITTING
06 INVERT ELEVATION PER PLAN
07 STORM DRAIN PER PLAN
08 PLUG IF AT END OF RUN
09 GRATE RIM FLUSH WITH FINISHED GRADE UNLESS NOTED OTHERWISE
10 MATERIAL PER LANDSCAPE PLANS

9" SQUARE ATRIUM PLANTER DRAIN — NTS — 09

01 FINISHED SURFACE
02 EDGE OF FINISHED SURFACE
03 PLANTER
04 4" ROUND ATRIUM GRATE. NDS PART NO. 78 OR APPROVED EQUAL
05 4" PVC SDR 35 RISER

4" ROUND ATRIUM PLANTER DRAIN — NTS — 10



NOTE:
A. TOTAL LENGTH OF TRUNCATED DOME TILES PER PLAN.
B. TRUNCATED DOME TILES ARE TO CONFORM TO STATE ACCESSIBILITY STANDARDS. CONTRACTOR TO VERIFY STANDARDS PRIOR TO INSTALLATION.
C. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACE. EITHER LIGHT ON DARK OR DARK ON LIGHT.

1 PRE-CAST TRUNCATED DOME TILES. COLOR TO BE FEDERAL YELLOW (33538) OF SAE AMSSTD-595A. SHALL COMPLY WITH CBC 11B-247, 11B-250, 11B-705
2 MORTAR SETTING BED PER MANUF.
3 PEDESTRIAN CONCRETE PAVEMENT PER KN31, SHEET C5.01
4 BASE MATERIAL AND SUBGRADE COMPACTED TO 95%
5 EXPANSION JOINT PER (L5.01 / 02)
6 NOT USED
7 FINISH SURFACE
8 ADJACENT PAVING
9 5/8" SMOOTH STEEL DOWEL X 12" AT 18" O.C. FOR VEHICULAR USE "SPEED DOWEL". SEE SPECS.
10 CONCRETE CURB PER CIVIL DWGS.
11 #4 REBAR AT 18" O.C. EACH WAY

ACCESSIBLE PATH STRIPING — NTS — 14

FIRE LANE NO PARKING SIGN — NTS — 18

NOTES:
1. LOCATE ACCESSIBLE PATH PER PAVING AND STRIPING PLAN.
2. ALL PAINT TO BE THERMOPLASTIC UNO

PRECAST TRUNCATED DOME PAVERS - MORTAR SET — 1-1/2" = 1'-0" SAME — 13

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09/03/25

NORTH VERDEMONT ELEMENTARY SCHOOL
3555 W. MEYERS ROAD
SAN BERNARDINO, CA 92407
Developed for
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

Revision	Date
ADDENDUM A	07/31/2025
ADDENDUM B	09/03/2025

Submittal	Date
100% SCHEMATIC DESIGN	02/16/2023
DSA SUBMITTAL	04/19/2023
DSA BACK CHECK	08/07/2023

Job Number	30899
Date Published	09/03/2025
Checked By	A.C.
Scale	N/A

DETAILS

C7.01

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
℄	CENTERLINE
⌀	DIAMETER OR ROUND
#	POUND OR NUMBER
ADJ.	ADJACENT
AGGR.	AGGREGATE
AL.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
AC.	ASPHALT
ACC.	ACCESSIBLE
B.C.R.	BEGINNING OF CURVE RADIUS
B.O.C.	BACK OF CURB
B.O.W.	BOTTOM OF WALL
B.O.S.	BOTTOM OF SLOPE
BLDG.	BUILDING
BLK.	BLOCK
C.E.	CIVIL ENGINEER
C.I.P.	CAST IN PLACE
CLKG.	CAULKING
CMU.	CONCRETE MASONRY UNIT
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CTR.	CENTER
D.A.	DISABLED ACCESS
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DWGS.	DRAWINGS
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
EQ.	EQUAL
EXP.	EXPANSION
EXT.	EXTERIOR
F.G.	FINISH GRADE
F.S.	FINISH SURFACE
F.O.B.	FACE OF BUILDING
F.O.C.	FACE OF CURB
F.O.W.	FACE OF WALL
GA.	GAUGE
GALV.	GALVANIZED
GND.	GROUND
GR.	GRADE
HDR	HEADER
HT.	HEIGHT
LT.	LIGHT
MAX.	MAXIMUM
MET.	METAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MTD.	MOUNTED
MTL.	MATERIAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER (DIM.)
PA	PLANTING AREA
PRCST.	PRECAST
P.I.P.	POURED IN PLACE
P.O.T.	POINT OF TANGENCY
P.T.S.	POST TENSION SLAB
QTY	QUANTITY
R.	RISER
RAD.	RADIUS
REINF.	REINFORCED
REQ.	REQUIRED
SCHED.	SCHEDULE
SHT.	SHEET
SPEC.	SPECIFICATION
S.S.	STAINLESS STEEL
STD.	STANDARD
STRL.	STRUCTURAL
T.	TREAD
T.C.	TOP OF CURB
T.O.S.	TOP OF SLOPE
T.O.W.	TOP OF WALL
TYP.	TYPICAL
TBD.	TO BE DETERMINED
VERT.	VERTICAL
W/	WITH
W/O	WITHOUT

METAL FENCE AND GATE NOTES

1. SUBMIT SHOP DRAWINGS TO LANDSCAPE ARCHITECT OF ALL FENCE AND GATE COMPONENTS INCLUDING PLANS, ELEVATIONS AND DETAILS AS NECESSARY FOR COMPLETE INSTALLATION.
2. ALL WELDS PER DETAILS. COLD GALVANIZE ALL FIELD WELDS.
3. ALL POSTS SHALL HAVE WELDED METAL CAPS.
4. ALL MEMBERS TO BE 9 GUAGE WALL THICKNESS MINIMUM, UNLESS NOTED OTHERWISE
5. ALL GATES AND FENCES, INCLUDING CORRUGATED METAL PANEL TO BE PAINTED, SEE MATERIALS PLAN FOR COLOR.
6. FIELD VERIFY LOCATIONS OF EXISTING FENCES, POSTS, AND GATES. FOR NETTING POSTS LOCATIONS SEE PLANS AND ELEVATIONS. IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE LANDSCAPE ARCHITECT'S PLANS, THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT FOR DIRECTION AS TO HOW TO PROCEED.
7. SUBMIT SAMPLES OF ALL COMPONENTS AND MATERIALS TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.
8. GATE HARDWARE FINISH AND COLOR TO MATCH GATE/FENCE.
9. ANY COMPONENTS REQUIRED FOR A COMPLETE FENCE/GATE SYSTEM, BUT NOT SHOWN, SHOULD BE CONSIDERED A PART OF THESE DRAWINGS AND INCLUDED IN THE FINAL INSTALLED SYSTEM.
10. CONTRACTOR TO VERIFY ALL ATTACHMENTS AND DIMENSIONS, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
11. ALL JOINTS TO BE WELDED TO MAKE A SOLID GATE FRAME.

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. PLANT ALL TREES A MIN. OF 5' FROM ANY DRAIN LINES. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL DRAIN LINES PRIOR TO COMMENCING WORK.
17. TREES ARE TO BE A MINIMUM OF 5' AWAY FROM ANY HARDSCAPE SUCH AS CURBS, WALKS, ETC.
18. LANDSCAPE MAINTENANCE PERIOD IS 90 DAYS.
19. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LAYOUT AND MATERIALS NOTES

1. THE CONTRACTOR SHALL LAYOUT AND FIELD VERIFY ALL DIMENSIONS OF DRIVEWAY, PLANTERS, WALKS, SLOPES AND RELATED WORK PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE.
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. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE.
4. THIS DRAWING INCLUDES THE LOCATION OF AREA DRAINS FOR REFERENCE. REFER TO RELATED CIVIL ENGINEER'S DRAWINGS FOR CONSTRUCTION DETAILS AND UTILITY CONNECTIONS.
5. REFER TO ELECTRICAL ENGINEER'S DRAWINGS FOR LIGHT FIXTURE SCHEDULE AND CIRCUITRY AS NECESSARY.
6. WHERE DIMENSIONS ARE CALLED AS "EQUAL", ALL REFERENCED ITEMS SHALL BE SPACED EQUALLY, MEASURED TO THEIR CENTERLINES.
7. ALL MEASUREMENTS ARE TO FACE OF WALL, CURB OR OTHER FIXED SITE IMPROVEMENT, UNLESS OTHERWISE NOTED. DIMENSIONS TO CENTERLINES AS INDICATED.
8. INSTALL ALL INTERSECTING ELEMENTS AT 90 DEGREES TO EACH OTHER UNLESS OTHERWISE NOTED.
9. ALL DRAINS/ BASINS SHOULD HAVE BLACK ATRIUM TYPE GRATES WITHIN SHRUBS/GROUNDCOVER AREAS AND BLACK FLAT TYPE GRATES IN TURF AREAS.

LANDSCAPE GRADING AND DRAINAGE

1. REFER TO CIVIL ENGINEER'S GRADING PLANS FOR SITE GRADING, DRAINAGE, AND UTILITY LOCATIONS. 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. REFER TO CIVIL ENGINEER'S DRAWINGS FOR SUBDRAINAGE POINT OF IN CONNECTION TO STORM DRAIN.
3. THE CONTRACTOR SHALL REQUEST OBSERVATION AS REQUIRED 48 HOURS ADVANCE OF PERFORMING WORK.
4. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA 800/227-2600) OR DIG ALERT (800-422-4133) 48 HOURS PRIOR TO ANY EXCAVATION.
5. ALL GRADING OPERATIONS SHALL CONFORM TO LOCAL GUIDELINES.
6. FIELD VERIFY EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION AND ELEVATION IN THE FIELD PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION.
7. NO CHANGE IN CONTRACT PRICE WILL BE ALLOWED FOR ACTUAL OR CLAIMED DISCREPANCY BETWEEN EXISTING GRADE AND THOSE SHOWN ON PLANS AFTER CONTRACTOR HAS ACCEPTED EXISTING GRADES AND MOVED ONTO THE SITE.
8. ALL PROPOSED GRADES ARE TO MEET AND BLEND IN WITH EXISTING GRADING AT PROJECT LIMIT AND EXISTING SIDEWALK. PRECISE ELEVATIONS INDICATED ON PLANS TO BE VERIFIED IN FIELD TO AS-BUILT CONDITION.
9. THE DEBRIS CREATED BY LANDSCAPE GRADING OPERATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF OFF-SITE.
10. FINAL LANDSCAPE GRADING SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO INSTALLATION OF PLANTING.

GENERAL NOTES

1. BASE INFORMATION INCLUDING THE LOCATION OF PROPERTY LINES, EASEMENTS, BUILDINGS, ROADS AND CURBS HAVE BEEN TAKEN FROM THE CIVIL ENGINEER'S DRAWINGS. REFER TO CIVIL ENGINEER'S DRAWINGS FOR ADDITIONAL INFORMATION.
2. REFER TO THE CIVIL ENGINEER'S DRAWINGS FOR PROPOSED UTILITY INFORMATION INCLUDING STORM DRAIN, SEWER, WATER, ELECTRICAL, GAS, TELEPHONE AND CABLE TV.
3. REFER TO CITY AND/OR COUNTY STANDARD PLANS AND SPECIFICATIONS WHERE APPLICABLE.
4. VERIFY SITE INFORMATION, INCLUDING PROPERTY LINES, EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES AND STRUCTURES, AND OTHER INFORMATION AFFECTING THE SCOPE OF WORK INCLUDED ON THESE DRAWINGS. 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 THE LANDSCAPE ARCHITECT FOR DIRECTION ON HOW TO PROCEED.
5. EXCAVATION IN THE VICINITY OF UTILITIES AND EXISTING MATERIALS SHALL BE UNDERTAKEN WITH CARE. THE CONTRACTOR BEARS FULL RESPONSIBILITY FOR THIS WORK. ANY DAMAGE CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOL RELATED TO THE EXECUTION OF THE CONTRACT SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION REQUIRED TO ACCOMPLISH ALL CONSTRUCTION OPERATIONS. ALL PIPING, CONDUIT, SLEEVES, ETC., SHALL BE SET IN PLACE PRIOR TO INSTALLATION OF CONSTRUCTION ITEMS.
7. CONTRACTOR SHALL BE RESPONSIBLE TO CONSULT WITH SITE SUPERINTENDENT, APPROPRIATE AGENCIES AND PLANS, FOR THE LOCATIONS OF ALL UNDER-GROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
8. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.
9. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
10. PRIOR TO INSTALLATION OF ANY CONSTRUCTION ITEM, FORMS WITH STEEL IN PLACE AND COMPACTED SUBGRADE COMPLETE, SHALL BE OBSERVED AND REVIEWED BY THE LANDSCAPE ARCHITECT.
11. ALL WALLS AND WALKS SHOULD HAVE SMOOTH, CONTINUOUS CURVES AS INDICATED ON PLANS.
12. ALL PROPERTY LINES, LOT LINES, AND TOP OF SLOPE LINES SHALL BE VERIFIED PRIOR TO COMMENCING WORK.
13. ALL ELECTRICAL JUNCTION BOXES FOR LIGHTS SHALL BE IN PLANTING AREAS AND LOCATION REVIEWED BY THE LANDSCAPE ARCHITECT. STAKE LOCATION PRIOR TO INSTALLATION.
14. SEE CIVIL ENGINEER'S DRAWINGS FOR CURBS AND A/C PAVING.
15. REFER TO CIVIL ENGINEER'S DRAWINGS FOR ELEVATIONS AND LOCATION OF DRAINAGE STRUCTURES PRIOR TO INSTALLATION OF WALKS, FOOTINGS AND OTHER STRUCTURES.
16. RAISE ALL VAULTS/UTILITIES BOXES TO GRADE WITHIN LIMITS OF WORK. FIELD VERIFY PRIOR TO BID.

SHEET INDEX

SITE FURNISHINGS LEGEND

SYM.	DESC.	MANUF.	MODEL #	COLOR	FINISH/PTRN.	QTY.	DTL
	BIRD HOUSE	VESTRE	WINGS, WIDE BIRD HOUSE WINGS, W/ 2M MOUNTING POLE CASTING IN GROUND; MODEL # 5824, 5827C	RAL 1018 ZINKGELB	POWDERCOAT FINISH	2	14/ L5.03
B A	BOULDERS	SOUTHWEST BOULDER AND STONE	NAVAJO BOULDERS A- 4' x 3'-4" B- 2' x 1'-8"	STANDARD	STANDARD	A - 5 B - 8	11/ L5.01
	DRINKING FOUNTAIN	HAWS	MODEL 3612	BLUE A	STANDARD	1	02/ L5.03
	BIKE LOCKER	DURA BIKE LOCKER	DL1 MODEL SINGLE BIKE LOCKER	COLOR: MESA TAN	STANDARD	2	PER MANUF.

PLAY EQUIPMENT LEGEND

SYM.	DESC.	MANUF.	MODEL #	COLOR	FINISH/PTRN.	QTY.	DTL
	TRIO CLIMBER	NATURE SERIES	EP-NS-037	EASTERN WHITE CEDAR GREEN HDPE	N/A	1	INSTALL PER MANUF.
	WOBBLE PODS	NATURE SERIES	EP-NS-008 _5-12 YEARS; 9" H; 14" H; 18" H	EASTERN WHITE CEDAR	N/A	1 TOTAL (SET OF 5)	INSTALL PER MANUF.
	WOBBLE LOG	NATURE SERIES	EP-NS-001	EASTERN WHITE CEDAR	N/A	1	INSTALL PER MANUF.
	BASKETBALL STRAIGHT POLE WITH GOAL/ NET	LA STEEL CRAFT	POST AND SUPPORTS: LA-125EPC BLACK BACKBOARD: LA-24T (42X60) RIM: LA-41 BREAKAWAY DOUBLE RIM NET: LA-34 NYLON POST PAD (3X): LA-PP-656 BLACK	STANDARD	POWDER COATING FINISH	3	12/ L5.04
•	VOLLEYBALL SLEEVES, POSTS & NET	PW ATHLETIC	POSTS 2218-21GP - BLACK GROUND SLEEVE: 8305-24-1 BRASS CAP: 8305-1B POST ACCESSORIES: 8321-05NT PULLY: 8321-05C NET: 8361-20 POST PADS (2X): LA-PP-656 BLACK	STANDARD	GALVANIZED POST	1 PAIR	20/ L5.04
B	TETHERBALL POLE	LA STEEL CRAFT	TBPCB	STANDARD	GALVANIZED POST	6	24/ L5.05

SITE SYMBOLS LEGEND

SYM.	DESC.	DET/ SHEET	SYM.	DESC.	DET/ SHEET
	PROPOSED FIRE HYDRANT			SAWCUT JOINT	02/ L5.01
	DRAIN PER CIVIL			EXPANSION JOINT	02/ L5.01
IC	IRRIGATION CONTROLLER			LIMIT OF WORK	
CO	CLEAN OUT			MATCHLINE	
	POST INDICATOR VALVE			PROPERTY LINE/ RIGHT OF WAY	
	POST INDICATOR VALVE / FIRE DEPARTMENT CONNECTION		PA	PLANTING AREA	
DCDA	(E) DOMESTIC BACKFLOW PREVENTOR			ALIGN	
WM	(E) DOMESTIC WATER METER			EXISTING TREE/ PROTECT IN PLACE	

NOTES:
1. UTILITIES SHOWN ARE FOR REFERENCE ONLY. SEE CIVIL DWGS. FOR DETAILS AND EXACT LOCATIONS. FINAL LOCATIONS TO BE REVIEWED BY LANDSCAPE ARCHITECT.
2. FOR SITE LIGHTING LEGEND, SEE L0.01

SITE LIGHTING LEGEND

KEY NOTE	DESCRIPTION	DET/ SHEET	COMMENTS
	LIGHT POLE	19/ L5.02	SEE ELEC. PLANS FOR MODEL NO. AND COLOR TO BE SELECTED FROM RAL COLOR CHART

KEYNOTES

NOTE	DESCRIPTION	DET/ SHT	COLOR / FINISH
01	CONCRETE PAVING	01/ L5.01	NATURAL GRAY/ BROOM FINISH
02	CONCRETE BAND AT A.C./ CONC. PAVING	19/ L5.01	NATURAL GRAY/ BROOM FINISH
03	STABALIZED DECOMPOSED GRANITE PAVING	16/ L5.01	CALIFORNIA GOLD/ AVAIL. THRU SB + S
04	METAL EDGING	20/ L5.01	PERMASTRIP FLO/ AVAIL THRU PERMALOC
05	HAND SET COBBLE	15/ L5.01	6"-8" SIZE; COLOR: MEXICAN SUNBURST PEBBLE AVAIL. THRU SB+S
06	RUBBER PLAY SURFACING	09/ L5.01	75% STD. GREEN, 25% BRT GREEN AVAIL. THRU SPECTRAPOUR
07	C.I.P. TERRACED WALL	01/ L5.03	NATURAL GRAY/ SMOOTH TROWEL W/ ANTI-GRAFFITI COATING
08	WOOD RAISED PLANTER	03/ L5.03	24" HIGH; CEDAR; IMPORT TOPSOIL WITH DRAINAGE ROCKS
09	CHAIN LINK FENCE	01/ L5.02	GALVANIZED
10	CHAIN LINK VEHICULAR GATE	14/ L5.02	GALVANIZED
11	CHAIN LINK PEDESTRIAN SINGLE GATE	02/ L5.02	GALVANIZED A
12	METAL PICKET SINGLE GATE AND COM BOX	03/ L5.02	PER DETAIL
13	KNOX BOX POST	18/ L5.03	PER DETAIL
14	DRINKING FOUNTAIN WITH GUARD RAILS	02/ L5.03	REFER TO SITE FURNISHINGS LEGEND, SHEET L0.01
15	CONCRETE PAD AT POLE LIGHT	15/ L5.02	PER DETAIL
16	CANTILEVER FENCE PANEL	20/ L5.02	PER DETAIL
17	12' WD CONC. BAND AT FENCE	24/ L5.02	PER DETAIL
18	CONC. RETAINING WALL	13/ L5.03	NATURAL GRAY/ SMOOTH TROWEL
19	RAMP HANDRAIL	01/ L5.04	PER DETAIL
20	RAIN CHAIN	14/ L5.01	PER DETAIL
21	BOULDER	11/ L5.01	REFER TO SITE FURNISHINGS LEGEND IN L0.01
22	BIKE LOCKER	- -	REFER TO SITE FURNISHINGS LEGEND IN L0.01
23	BIRD HOUSE	14/ L5.03	REFER TO SITE FURNISHINGS LEGEND IN L0.01
24	BASKETBALL POLE	12/ L5.04	REFER TO SITE FURNISHINGS LEGEND IN L0.01
25	BASKETBALL HALF COURT CIRCLE	01/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
26	VOLLEYBALL POST	17/ L5.04	REFER TO SITE FURNISHINGS LEGEND IN L0.01
27	VOLLEYBALL COURT	09/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
28	FOUR SQUARE COURT	11/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
29	TETHERBALL COURT - TYPE 1	12/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
30	TETHERBALL COURT - TYPE 2	17/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
31	HOPSCOTCH - TYPE 1	18/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
32	HOPSCOTCH - TYPE 2	22/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
33	EAGLE BALL COURT	23/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
34	CONC. BAND AT RUBBERIZED PLAY SURFACING	13/ L5.01	PER DETAIL
35	TRIO CLIMBER	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
36	WOBBLE PODS	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
37	WOBBLE LOG	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
38	BASKETBALL STRAIGHT POLE W/ GOAL NET	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
39	VOLLEYBALL SLEEVES, POSTS, AND NET	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
40	CONC. RETAINING CURB	15/ L5.04	NATURAL GRAY/ SMOOTH TROWEL

REFERENCE KEYNOTES

NOTE	DESCRIPTION	DET/ SHT	COMMENTS
A	EXISTING ASPHALT		PROTECT IN PLACE
B	EXISTING CONCRETE PAVING		PROTECT IN PLACE
C	EXISTING CURB AND GUTTER		PROTECT IN PLACE
D	EXISTING STAIR		PROTECT IN PLACE
E	EXISTING WALL		PROTECT IN PLACE
F	EXISTING FENCE		PROTECT IN PLACE
G	EXISTING GATE		PROTECT IN PLACE
H	EXISTING TREE		PROTECT IN PLACE
J	EXISTING PLAY STRIPING		PROTECT IN PLACE
K	EXISTING PARKING		PROTECT IN PLACE
L	BUILDING CANOPY	PER ARCH	
M	ELECTRICAL BOX	PER ELECTRICAL	
N	ASPHALT PAVING	PER CIVIL	
P	RAMP	PER CIVIL	
Q	MECHANICAL UTILITY	PER MECHANICAL	
R	NOT USED B		
S	VERTICAL CURB	PER CIVIL	
T	TRUNCATED DOME	PER CIVIL	
U	PARKING STRIPING	PER CIVIL	
V	CONCRETE CURB	PER CIVIL	
W	FIRE LANE NO PARKING SIGN	PER CIVIL A	

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Developed for
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A ADDENDUM A	07/31/2025
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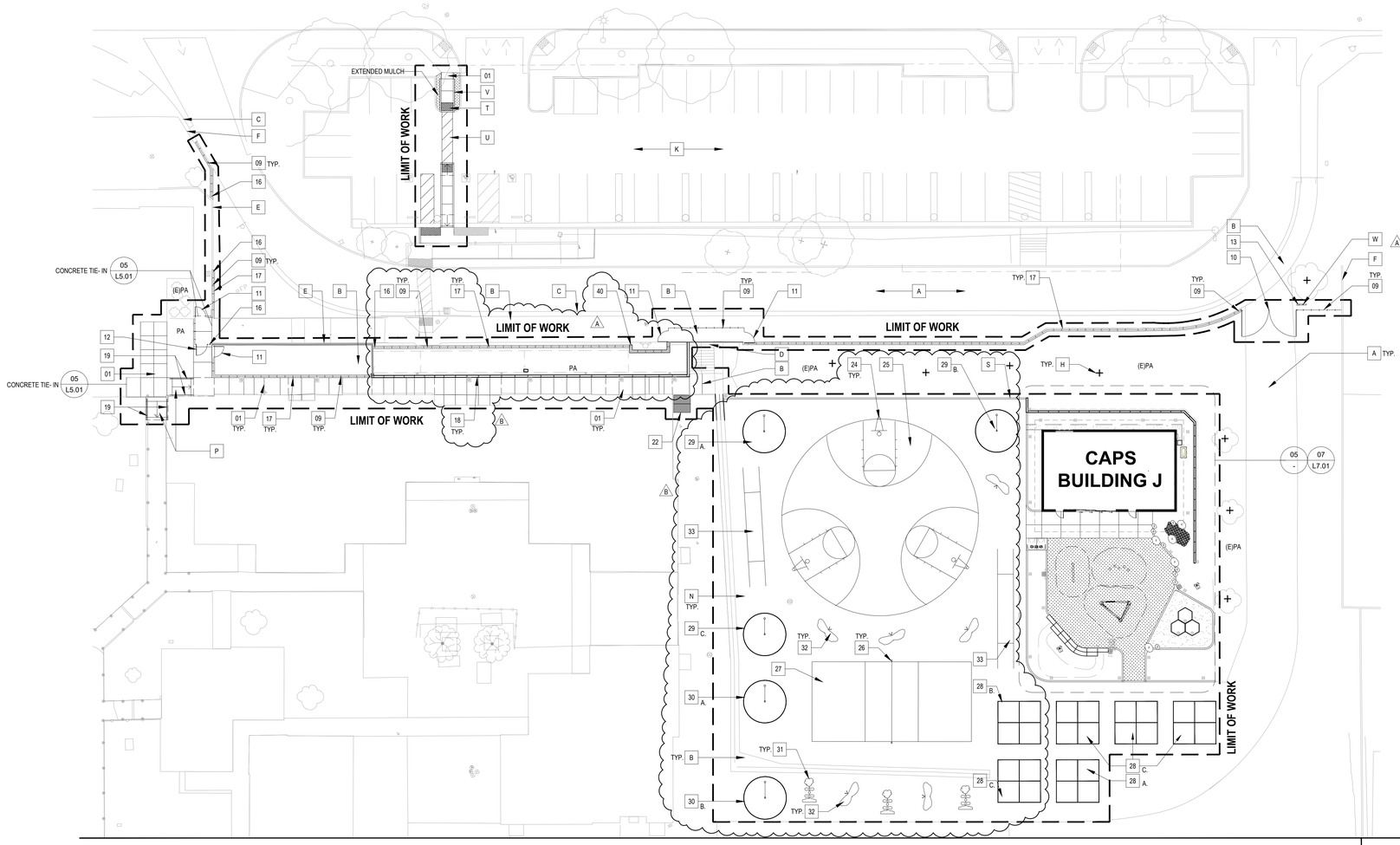
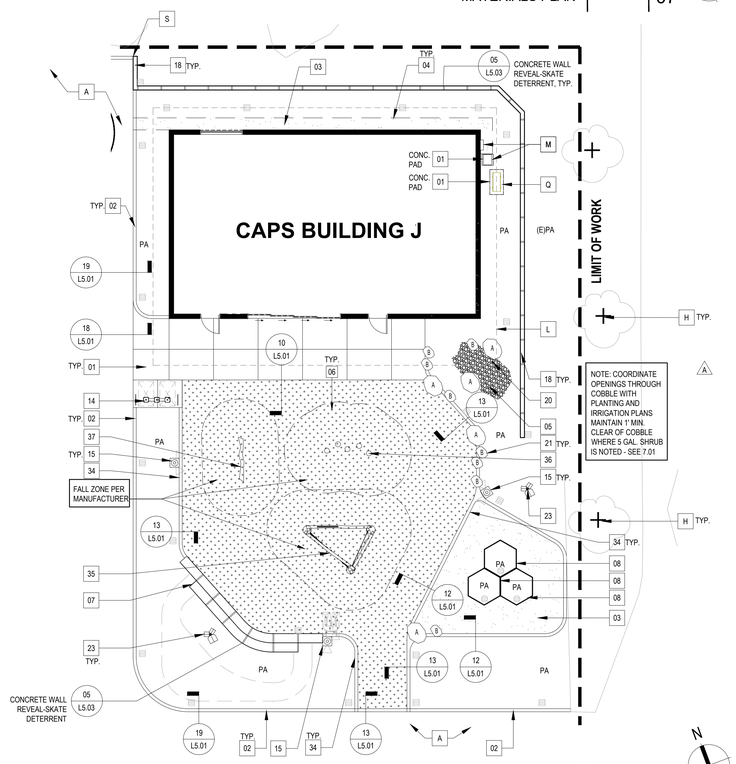
Scale	N/A

LANDSCAPE NOTES AND SCHEDULES

L0.01



MATERIALS PLAN | 1" = 20'-0" | 07



MATERIALS PLAN ENLARGEMENT | 1" = 10'-0" | 05

KEYNOTES

NOTE	DESCRIPTION	DET/ SHT	COLOR / FINISH
01	CONCRETE PAVING	01/ L5.01	NATURAL GRAY/ BROOM FINISH
02	CONCRETE BAND AT A.C./ CONC. PAVING	19/ L5.01	NATURAL GRAY/ BROOM FINISH
03	STABALIZED DECOMPOSED GRANITE PAVING	16/ L5.01	CALIFORNIA GOLD/ AVAIL. THRU SB + S
04	METAL EDGING	20/ L5.01	PERMASTRIP FLO/ AVAIL THRU PERMALOC
05	HAND SET COBBLE	15/ L5.01	6"-8" SIZE; COLOR: MEXICAN SUNBURST PEBBLE AVAIL. THRU SB+S
06	RUBBER PLAY SURFACING	09/ L5.01	75% STD. GREEN, 25% BRT GREEN AVAIL. THRU SPECTRAPOUR
07	C.I.P. TERRACED WALL	01/ L5.03	NATURAL GRAY/ SMOOTH TROWEL W/ ANTI-GRAFFITI COATING
08	WOOD RAISED PLANTER	03/ L5.03	24" HIGH; CEDAR; IMPORT TOPSOIL WITH DRAINAGE ROCKS
09	CHAIN LINK FENCE	01/ L5.02	GALVANIZED
10	CHAIN LINK VEHICULAR GATE	14/ L5.02	GALVANIZED
11	CHAIN LINK PEDESTRIAN SINGLE GATE	02/ L5.02	GALVANIZED A
12	METAL PICKET SINGLE GATE AND COM BOX	03/ L5.02	PER DETAIL
13	KNOX BOX POST	18/ L5.03	PER DETAIL
14	DRINKING FOUNTAIN WITH GUARD RAILS	02/ L5.03	REFER TO SITE FURNISHINGS LEGEND, SHEET L0.01
15	CONCRETE PAD AT POLE LIGHT	15/ L5.02	PER DETAIL
16	CANTILEVER FENCE PANEL	20/ L5.02	PER DETAIL
17	12' WD CONC. BAND AT FENCE	24/ L5.02	PER DETAIL
18	CONC. RETAINING WALL	13/ L5.03	NATURAL GRAY/ SMOOTH TROWEL
19	RAMP HANDRAIL	01/ L5.04	PER DETAIL
20	RAIN CHAIN	14/ L5.01	PER DETAIL
21	BOULDER	11/ L5.01	REFER TO SITE FURNISHINGS LEGEND IN L0.01
22	BIKE LOCKER	- -	REFER TO SITE FURNISHINGS LEGEND IN L0.01
23	BIRD HOUSE	14/ L5.03	REFER TO SITE FURNISHINGS LEGEND IN L0.01
24	BASKETBALL POLE	12/ L5.04	REFER TO SITE FURNISHINGS LEGEND IN L0.01
25	BASKETBALL HALF COURT CIRCLE	01/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
26	VOLLEYBALL POST	17/ L5.04	REFER TO SITE FURNISHINGS LEGEND IN L0.01
27	VOLLEYBALL COURT	09/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
28	FOUR SQUARE COURT	11/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
29	TETHERBALL COURT - TYPE 1	12/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
30	TETHERBALL COURT - TYPE 2	17/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
31	HOPSCOTCH - TYPE 1	18/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
32	HOPSCOTCH - TYPE 2	22/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
33	EAGLE BALL COURT	23/ L5.05	MULTIPLE PAINTED COLORS AVAIL. THRU STREETBOND
34	CONC. BAND AT RUBBERIZED PLAY SURFACING	13/ L5.01	PER DETAIL
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37	WOBBLE LOG	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
38	BASKETBALL STRAIGHT POLE W/ GOAL NET	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
39	VOLLEYBALL SLEEVES, POSTS, AND NET	- -	REFER TO PLAY EQUIPMENT LEGEND ON L0.01
40	CONC. RETAINING CURB	15/ L5.04	NATURAL GRAY/ SMOOTH TROWEL B

REFERENCE KEYNOTES

NOTE	DESCRIPTION	DET/ SHT	COMMENTS
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B	EXISTING CONCRETE PAVING		PROTECT IN PLACE
C	EXISTING CURB AND GUTTER		PROTECT IN PLACE
D	EXISTING STAIR		PROTECT IN PLACE
E	EXISTING WALL		PROTECT IN PLACE
F	EXISTING FENCE		PROTECT IN PLACE
G	EXISTING GATE		PROTECT IN PLACE
H	EXISTING TREE		PROTECT IN PLACE
J	EXISTING PLAY STRIPING		PROTECT IN PLACE
K	EXISTING PARKING		PROTECT IN PLACE
L	BUILDING CANOPY	PER ARCH	
M	ELECTRICAL BOX	PER ELECTRICAL	
N	ASPHALT PAVING	PER CIVIL	
P	RAMP	PER CIVIL	
Q	MECHANICAL UTILITY	PER MECHANICAL	
R	NOT USED B		
S	VERTICAL CURB	PER CIVIL	
T	TRUNCATED DOME	PER CIVIL	
U	PARKING STRIPING	PER CIVIL	
V	CONCRETE CURB	PER CIVIL	
W	FIRE LANE NO PARKING SIGN	PER CIVIL A	

SYM.	DESC.	DET/ SHEET	SYM.	DESC.	DET/ SHEET
	PROPOSED FIRE HYDRANT			SAWCUT JOINT	02/ L5.01
	DRAIN PER CIVIL			EXPANSION JOINT	02/ L5.01
IC	IRRIGATION CONTROLLER			LIMIT OF WORK	
CO	CLEAN OUT			MATCHLINE	
	POST INDICATOR VALVE			PROPERTY LINE/ RIGHT OF WAY	
	POST INDICATOR VALVE / FIRE DEPARTMENT CONNECTION		PA	PLANTING AREA	
	(E) DOMESTIC BACKFLOW PREVENTOR			ALIGN	
WM	(E) DOMESTIC WATER METER			EXISTING TREE/ PROTECT IN PLACE	

NOTES:
1. UTILITIES SHOWN ARE FOR REFERENCE ONLY. SEE CIVIL DWGS. FOR DETAILS AND EXACT LOCATIONS. FINAL LOCATIONS TO BE REVIEWED BY LANDSCAPE ARCHITECT.
2. FOR SITE LIGHTING LEGEND, SEE L0.01

SITE LIGHTING LEGEND

KEY NOTE	DESCRIPTION	DET/ SHEET	COMMENTS
	LIGHT POLE	19/ L5.02	SEE ELEC. PLANS FOR MODEL NO. AND COLOR TO BE SELECTED FROM RAL COLOR CHART

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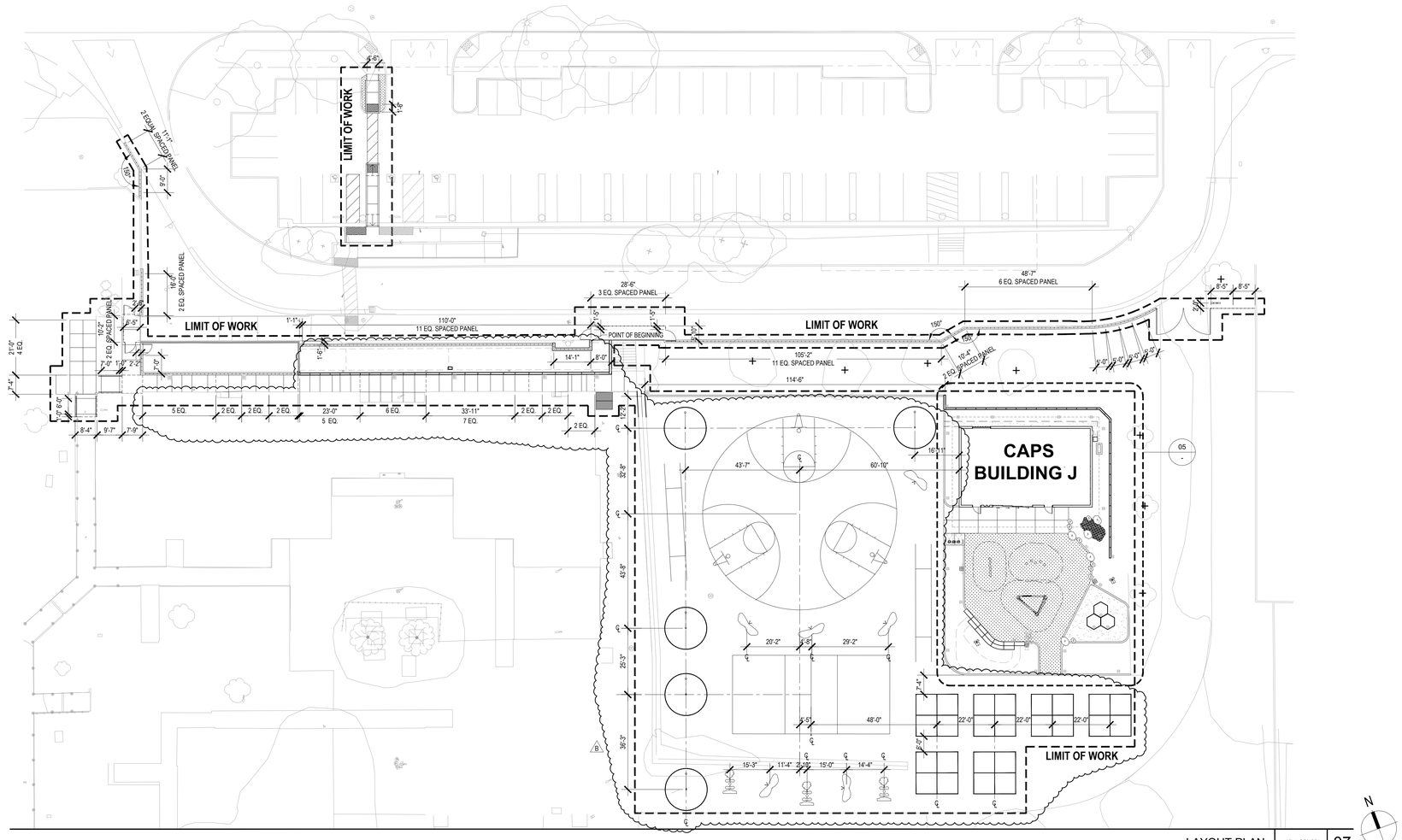
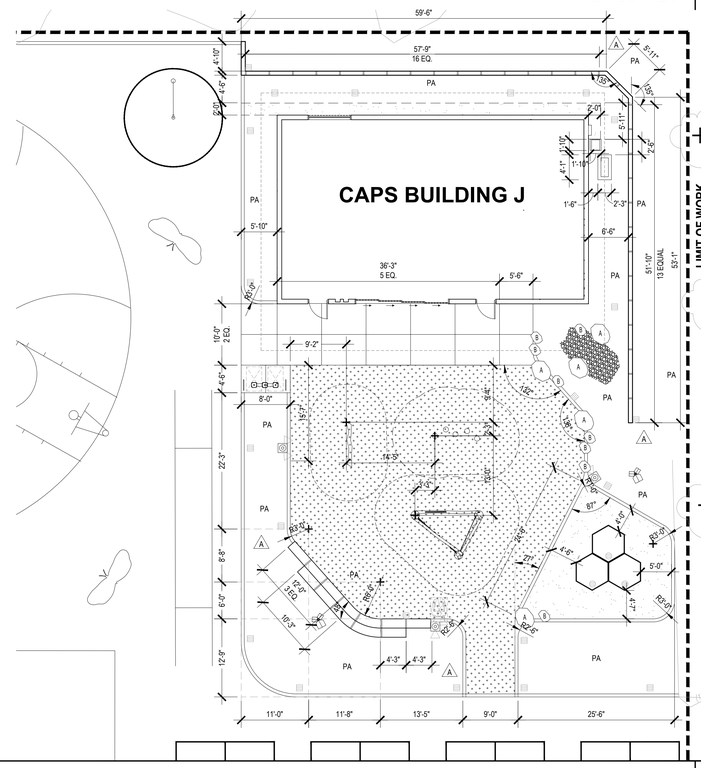
MATERIALS PLAN

L1.01



LAYOUT PLAN | 1" = 20'-0" | 07



LAYOUT PLAN ENLARGEMENT | 1" = 10'-0" | 05

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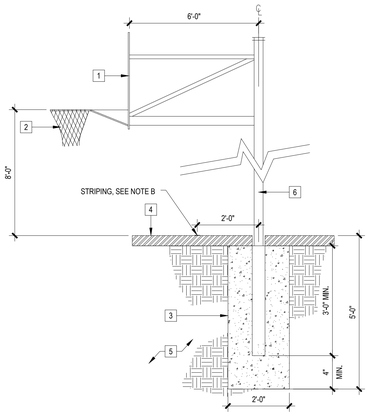
LAYOUT PLAN

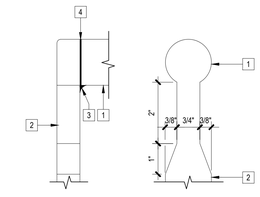
L2.01



1. CAST ALUMINUM BACKBOARD. FOR ADDITIONAL INFORMATION REFER TO PLAY EQUIPMENT LEGEND L0.02
2. HEAVY DUTY DOUBLE RIM GOAL W/MOUNTING HARDWARE & NET.
3. CONCRETE FOOTING AS SHOWN
4. AC PAVING PER CIVIL PLAN
5. SUBGRADE COMPACTION TO BE MINIMUM 95%
6. 5 ½" SINGLE POLE STRAIGHT STYLE WITH 6'-0" EXTENSION. FOR ADDITIONAL INFORMATION REFER TO PLAY EQUIPMENT LEGEND L0.02

NOTES:
A. ALL COMPONENTS ARE PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR IS TO VERIFY ALL MODEL #'S TO MATCH WRITTEN DESCRIPTION & FOR DUPLICATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
B. COURT STRIPING PER 01 / L5.05

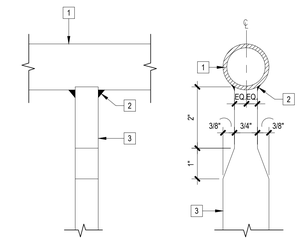
BASKETBALL POLE & BACKBOARD ASSEMBLY | 1/2"=1'-0" / SAME | 12



1. 1.66" O.D. SCH. 40 STEEL PIPE.
2. 1-1/2" x 3/4" THICK STEEL POST, SHAPED AS SHOWN
3. CONTINUOUS ⅛" FILLET WELD, BOTTOM ONLY
4. WELD ALL AROUND, GRIND SMOOTH.

NOTE:
A. MID RAIL TOP CONNECTION, SEE 04 / -
B. ALL COMPONENTS ARE TO BE HOT DIPPED GALVANIZED STEEL, SEE SPECS.

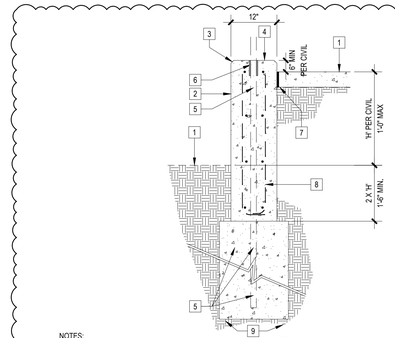
HANDRAIL END CONNICTION-D2 | 6" = 1'-0" / - | 08



1. 1.660" O.D. SCH. 40 STEEL PIPE.
2. 1/8" FILLET WELD ALL AROUND, GRIND SMOOTH
3. 1-1/2" x 3/4" THICK SOLID STOCK STEEL POST.

NOTE:
A. MID RAIL END CONNECTION, SEE 08 / -
B. ALL COMPONENTS ARE TO BE GALV. HOT DIPPED GALVANIZED STEEL, SEE SPECS.

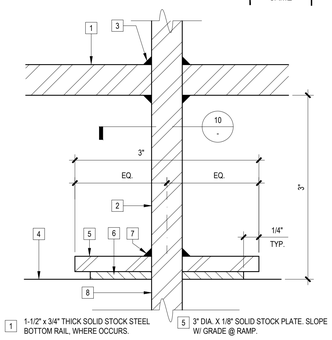
HANDRAIL MID CONNECTION-D2 | 6"=1'-0" / - | 04



1. FINISH SURFACE/ FINISH GRADE PER MATERIALS PLAN
2. CONCRETE WALL PER MATERIALS PLAN. REFER TO KEYNOTE LEGEND FOR COLOR & FINISH.
3. 3/4" CHAMFER, TYP. ALL EDGES.
4. TOP OF WALL WITH SMOOTH TROWEL FINISH.
5. CHAINLINK FENCE POST (WHERE OCCURS PER MATERIALS/LAYOUT PLAN) PER 13 / L5.02 FOOTING BELOW PER 13 / L5.02 CAISSON EMBEDMENT TO BEGIN BELOW CURB
6. NON-SHRINK GROUT.
7. EXPANSION JOINT AT VERTICAL SURFACE PER 08 / L5.01
8. #5 @ 12" O.C. EACH WAY EACH FACE
9. COMPACTED SUBGRADE PER SPECS SECTION 312319.

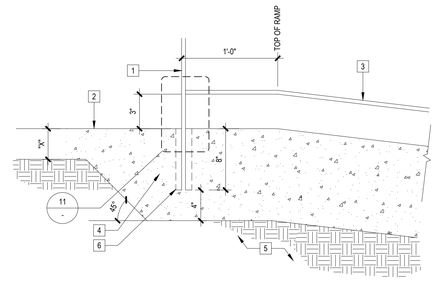
NOTES:
A. COLD JOINT PER ELEVATIONS.
B. REVEAL PER 05 / L5.03
B. REFER TO PLANS/ELEVATIONS FOR LOCATION OF JOINTS.
C. ALL FORM SEAMS ARE TO ALIGN WITH REVEALS SHOWN ON ELEVATIONS & PLANS. PROVIDE CUSTOM FORM BOARDS AS REQUIRED.
D. ANTI-GRAFFITI COATING ON ALL EXPOSED SIDES PER SPECS.
E. INFILL AT SNAP TIE VOID PER 21 / L5.03
F. NOT PART OF THE DSA APPROVAL

CONCRETE RETAINING CURB | 3/4" = 1'-0" / - | 15 | B



1. 1-1/2" x 3/4" THICK SOLID STOCK STEEL BOTTOM RAIL, WHERE OCCURS.
2. 1-1/2" x 3/4" THICK SOLID STOCK STEEL POST.
3. CONTINUOUS G.T.A.W. ⅛" FILLET WELD, TYP.
4. CONCRETE PAVING.
5. 3" DIA. X 1/8" SOLID STOCK PLATE. SLOPE W/ GRADE @ RAMP.
6. 1/8" THICK BLACK PVC SHIM.
7. CONTINUOUS ⅛" FILLET WELD. FOUR SIDES OF POST-ON TOP SIDE OF PLATE ONLY.
8. EMBED INTO STAIRS/PAVING, SEE 02 / - 03 / -

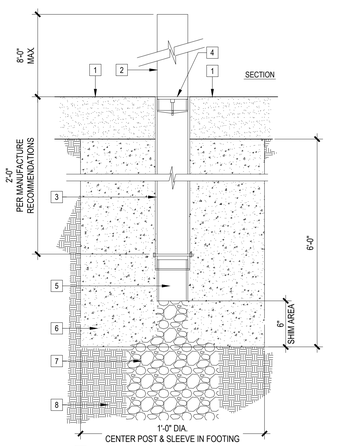
BASE PLATE ENLARGEMENT | FULL / - | 11



1. 1 1/2" x 3/4" THICK SOLID STEEL POST.
2. FINISH SURFACE.
3. 1-1/2" x 3/4" THICK SOLID STOCK STEEL BOTTOM RAIL.
4. CONCRETE PAVING
5. BASE MATERIAL AND COMPACTED SUBGRADE PER
6. CAST IN PLACE, CORE DRILL OR PROVIDE KNOCKOUT. SET POSTS WITH NON SHRINK GROUT.

NOTES:
A. SEE 01 / - FOR RAMP HANDRAIL DETAIL
B. ALL COMPONENTS ARE TO BE HOT DIPPED GALVANIZED STEEL, SEE SPECS.

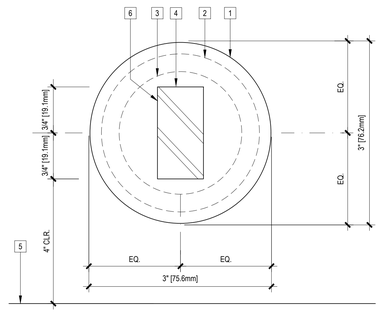
RAMP HANDRAIL EMBEDMENT | 1 1/2" = 1'-0" / - | 03



1. FINISH SURFACE,A.C. PAVING PER CIVIL.
2. UPRIGHT VOLLEYBALL POST, PER FIELD EQUIPMENT LEGEND
3. OUTDOOR GROUND SLEEVE, PER FIELD EQUIPMENT LEGEND. INSTALL TOP OF SLEEVE ½" BELOW FINISH SURFACE
4. BRASS CAP. LOCATE TOP OF COVER PLATE FLUSH WITH FINISH SURFACE.
5. INNER SLEEVE, INSTALLED IN CENTER OF FOOTING.
6. CONCRETE FOOTING
7. 1 C.F. PEA GRAVEL BASE FOR DRAINAGE
8. SUBGRADE COMPACTION TO BE MINIMUM 90%

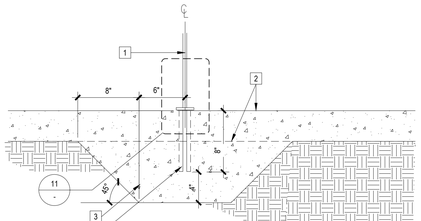
NOTES
A. VERIFY ALL DIMENSIONS AND COMPONENTS WITH MANUFACTURER PRIOR TO BID AND INSTALLATION.
B. VERIFY FINAL HEIGHT OF VOLLEYBALL POST WITH MANUFACTURER PRIOR TO SETTING POST.
C. SEE 09 / L5.05 FOR VOLLEYBALL COURT LAYOUT

VOLLEYBALL POST FOOTING | 1 1/2"=1'-0" / - | 17



1. 1/8" THICK SOLID STOCK STEEL PLATE
2. BLACK PVC SHIM BELOW
3. CAST INTO PLACE, CORE DRILL, OR PROVIDE KNOCKOUT. SET POST W/ NON SHRINK GROUT.
4. 1-1/2" x 3/4" SOLID STOCK STEEL POST OR 1-1/2" x 1-1/4" SOLID STOCK STEEL POST. SEE 01 / -
   CORE DRILL IS TO BE SMALLER THAN BASE PLATE
5. FACE OF WALL. WIDTH PER PLAN.
6. CONTINUOUS ⅛" FILLET WELD. FOUR SIDES OF POST-ON TOP SIDE OF PLATE ONLY.

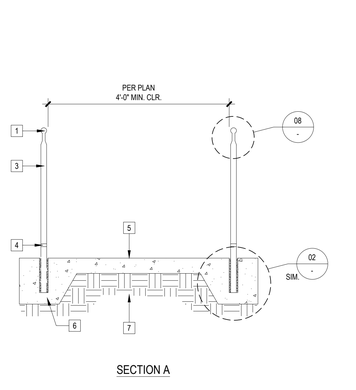
BASE PLATE - PLAN ENLARGEMENT | FULL / - | 10



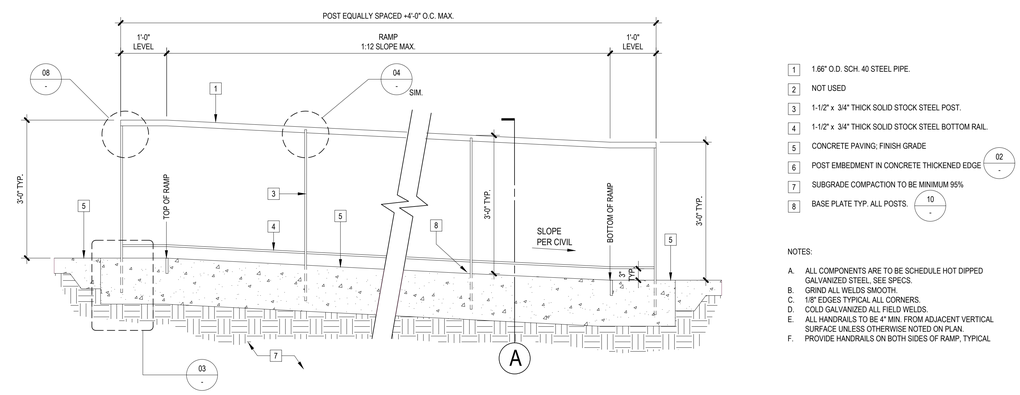
1. STEEL POST
2. CONCRETE PAVING
3. CONCRETE FOOTING
4. SUBGRADE COMPACTION TO BE MINIMUM 95%
5. CAST IN PLACE, CORE DRILL, OR PROVIDE SLEEVE. SET POSTS W/NON SHRINK GROUT. IF CORE DRILL IS PROVIDED FINAL SECTION IS TO MATCH FOOTING DIMENSION. CORE DRILL OR SLEEVE TO BE SMALLER THAN COVER PLATE. (2) SMALL OVERLAPING CORE HOLES MAY BE REQUIRED

NOTES:
A. ALL COMPONENTS ARE TO BE HOT DIPPED GALVANIZED STEEL, REFER TO SPEC.
B. REFER 01 / - TO FOR SIZES.

STAIR HANDRAIL END POST EMBEDMENT | 1 1/2" = 1'-0" / - | 02



SECTION A



1. 1.66" O.D. SCH. 40 STEEL PIPE.
2. NOT USED
3. 1-1/2" x 3/4" THICK SOLID STOCK STEEL POST.
4. 1-1/2" x 3/4" THICK SOLID STOCK STEEL BOTTOM RAIL.
5. CONCRETE PAVING; FINISH GRADE
6. POST EMBEDMENT IN CONCRETE THICKENED EDGE 02 / -
7. SUBGRADE COMPACTION TO BE MINIMUM 95%
8. BASE PLATE TYP. ALL POSTS. 10 / -

NOTES:
A. ALL COMPONENTS ARE TO BE SCHEDULE HOT DIPPED GALVANIZED STEEL, SEE SPECS.
B. GRIND ALL WELDS SMOOTH.
C. 1/8" EDGES TYPICAL ALL CORNERS.
D. COLD GALVANIZED ALL FIELD WELDS.
E. ALL HANDRAILS TO BE 4" MIN. FROM ADJACENT VERTICAL SURFACE UNLESS OTHERWISE NOTED ON PLAN.
F. PROVIDE HANDRAILS ON BOTH SIDES OF RAMP, TYPICAL

RAMP HANDRAIL | 3/4"=1'-0" / - | 01

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100% SCHEMATIC DESIGN	02/15/2023
50% CONSTRUCTION DOCUMENTS	03/28/2023
DSA SUBMITTAL	04/19/2023
DSA APPROVAL	06/07/2023

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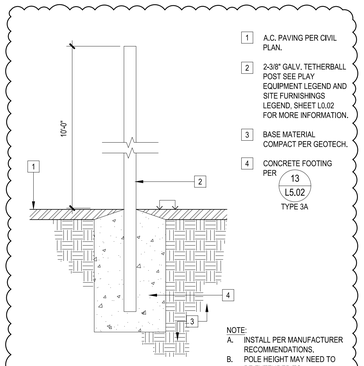
CONSTRUCTION DETAILS

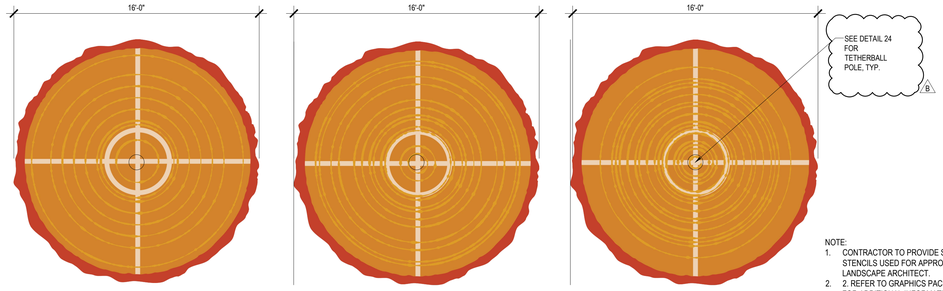
L5.04



1. A.C. PAVING PER CIVIL PLAN.
2. 2-3/8" GALV. TETHERBALL POST SEE PLAY EQUIPMENT LEGEND AND SITE FURNISHINGS LEGEND, SHEET L0.02 FOR MORE INFORMATION.
3. BASE MATERIAL COMPACT PER GEOTECH.
4. CONCRETE FOOTING PER 13 / L5.02 TYPE 3A

NOTE:
A. INSTALL PER MANUFACTURER RECOMMENDATIONS.
B. POLE HEIGHT MAY NEED TO BE EXTENDED TO ACCOMMODATE DEPTH BELOW GRADE.

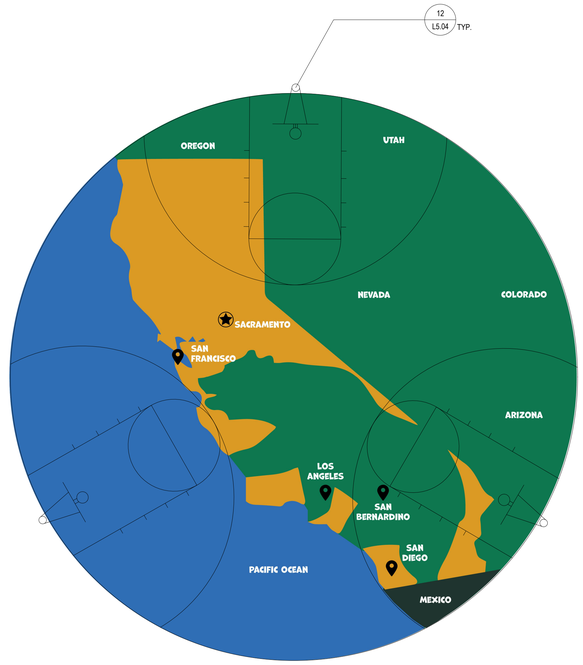
TETHERBALL POST FOOTING | 1" = 1'-0" | 24 B



TYPE -A TYPE -B TYPE -C

NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECT.
2. 2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : IRISH CREAM, MARIGOLD, SR MUSTARD, SR PAPRIKA.
4. SEE DETAIL 24 FOR TETHERBALL POLE. B

TREE STUMP TETHERBALL | 1/4" = 1'-0" | 12



NOTE:
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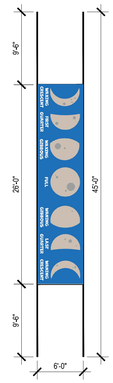
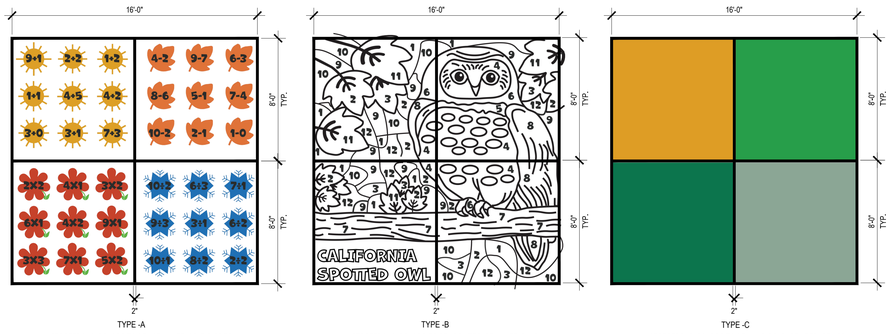
2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : SR WHITE, MARIGOLD, CL EMERALD GREEN, SR SAFETY BLUE, HUNTER GREEN.

BASKETBALL HALF COURT CIRCLE GRAPHIC | 1/8" = 1'-0" | 03



NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECT.
2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : SR WHITE, SR SANDSTONE, GUN METAL, SR SAFETY BLUE.

EAGLE BALL | 1/8" = 1'-0" | 23



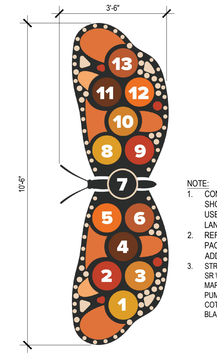
TYPE -A
STREETBOND COLORS TO BE : SR WHITE, CELTIC GREEN, MARIGOLD, PUMPKIN SPICE, SR PAPRIKA, SR SAFETY BLUE, BLACK

TYPE -B
STREETBOND COLORS TO BE : PEWTER, SR WHITE, BLACK

TYPE -C
STREETBOND COLORS TO BE : MARIGOLD, PEWTER, SEA FOAM, CELTIC GREEN, EMERALD GREEN

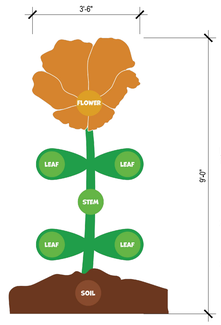
NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECT.
2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.

FOUR SQUARE | 1/4" = 1'-0" | 11



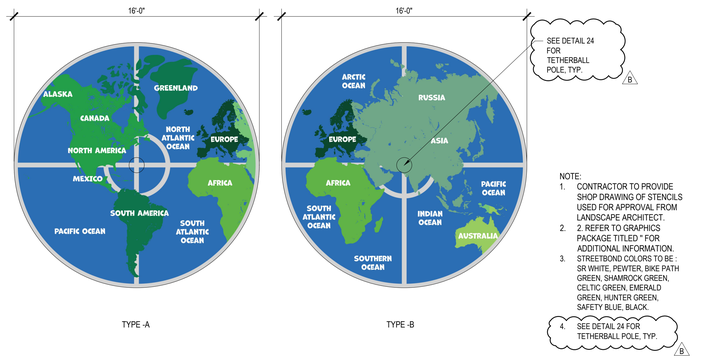
NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECTURE.
2. REFER TO GRAPHICS PACKAGE TITLE " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : SR WHITE, SR IRISH CREAM, MARIGOLD, SR MUSTARD, PUMPKIN SPICE, SR TERRA COTTA, SR PAPRIKA, BRICK, BLACK.

BUTTERFLY HOPSCOTCH | 1/2" = 1'-0" | 22



NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECTURE.
2. REFER TO GRAPHICS PACKAGE TITLE " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : SR WHITE, MARIGOLD, SR MUSTARD, SHAMROCK, CELTIC, TERRA COTTA, BRICK.

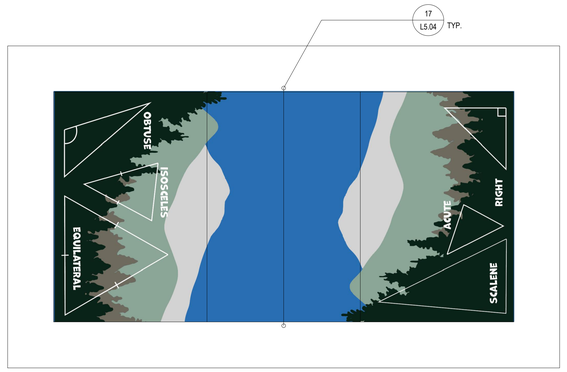
POPPY HOPSCOTCH | 1/2" = 1'-0" | 18

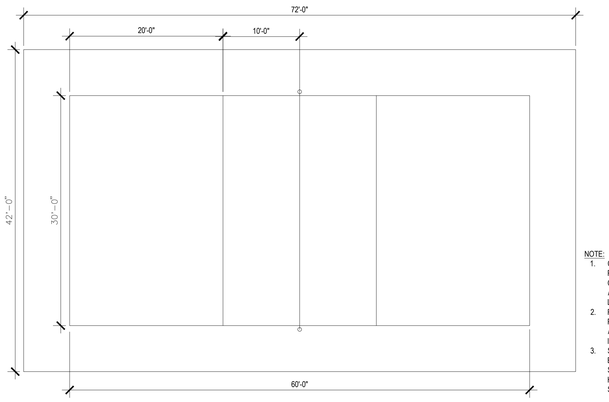


TYPE -A TYPE -B

NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECT.
2. 2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : SR WHITE, PEWTER, BIKE PATH GREEN, SHAMROCK GREEN, CELTIC GREEN, EMERALD GREEN, HUNTER GREEN, SAFETY BLUE, BLACK.
4. SEE DETAIL 24 FOR TETHERBALL POLE, TYP. B

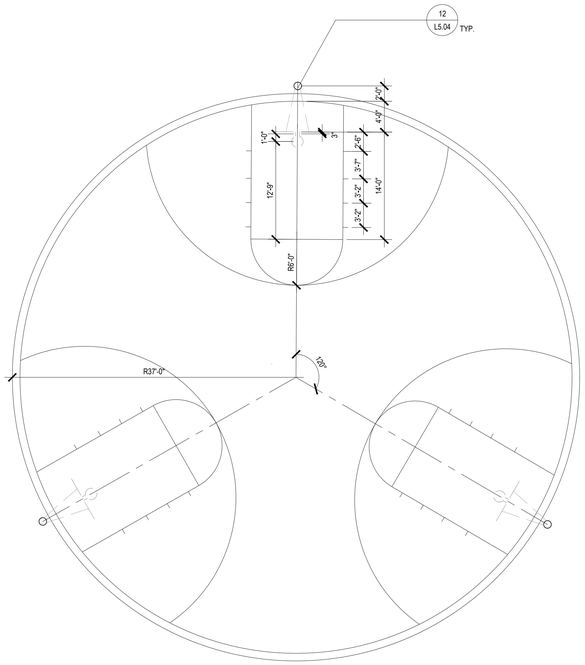
WORLD MAP TETHERBALL | 1/4" = 1'-0" | 17





NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECT.
2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.
3. STREETBOND COLORS TO BE : SR WHITE, PEWTER, SEA FOAM, GUN METAL, HUNTER GREEN, SR SAFETY BLUE.

VOLLEYBALL COURT | 1/8" = 1'-0" | 09



NOTE:
1. CONTRACTOR TO PROVIDE SHOP DRAWING OF STENCILS USED FOR APPROVAL FROM LANDSCAPE ARCHITECT.
2. REFER TO GRAPHICS PACKAGE TITLED " FOR ADDITIONAL INFORMATION.
3. FOR PAINTED GRAPHIC ON COURT SEE 03 / -

BASKETBALL HALF COURT CIRCLE | 1/8" = 1'-0" | 01

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Developed for
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

Revision	Date
A ADDENDUM B	09/03/2025

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50% CONSTRUCTION DOCUMENTS	03/28/2023
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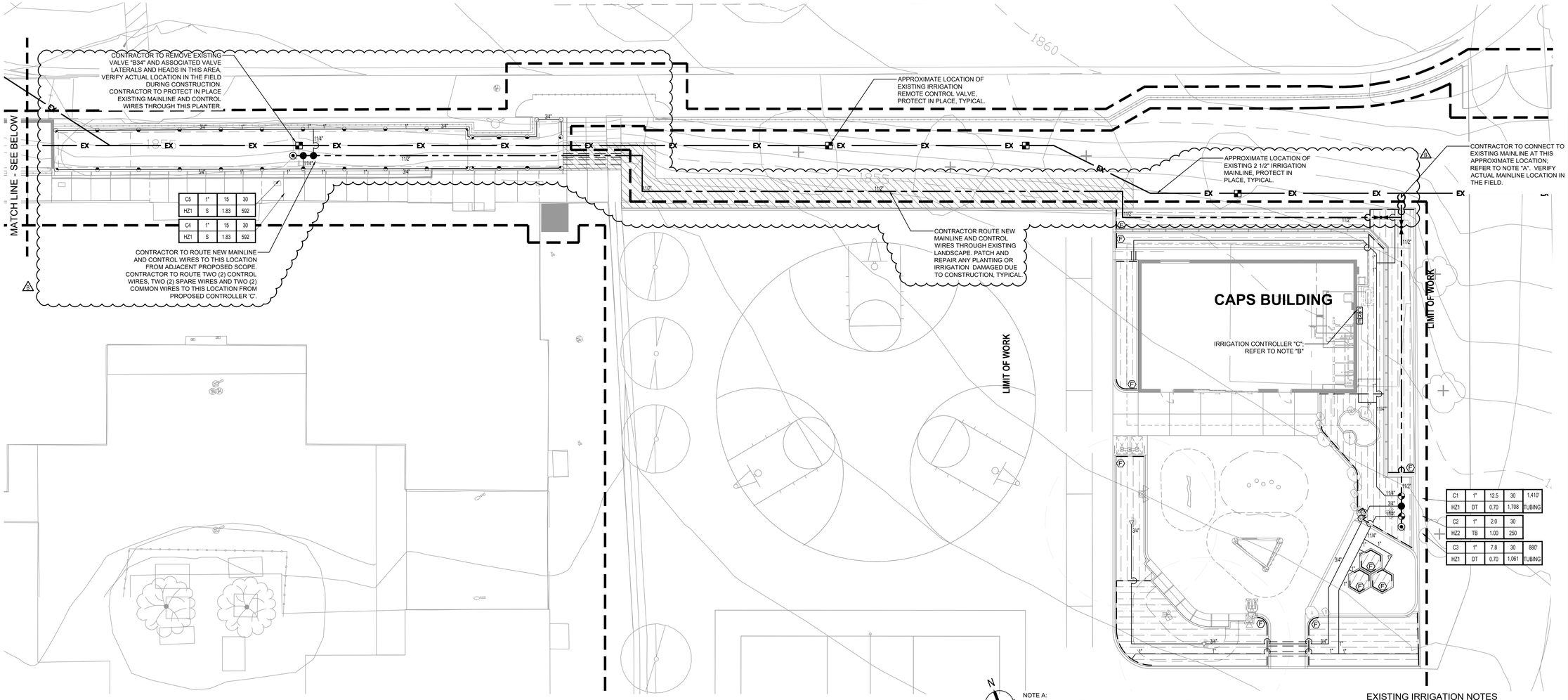
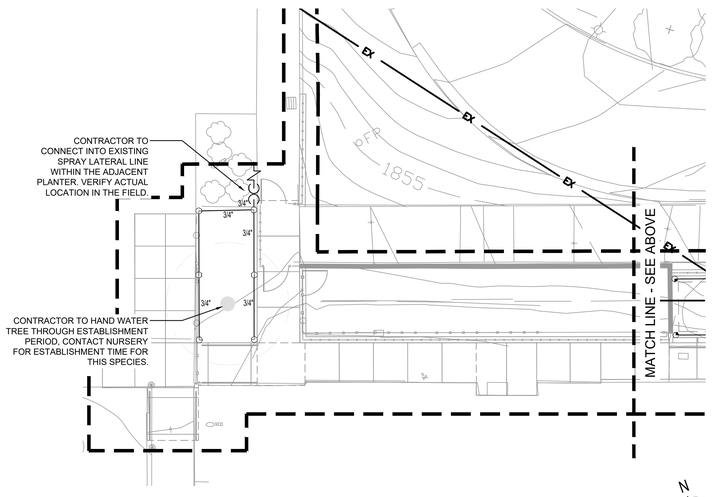
CONSTRUCTION DETAILS

L5.05



IRRIGATION ENLARGEMENT | 1" = 10'-0" | 01



IRRIGATION ENLARGEMENT | 1" = 10'-0" | 02

WATER PRESSURE LOSS CALCULATIONS

WATER METER NUMBER	1	WATER METER SIZE (Inches)	N/A
HYDRAULIC GRADE LINE (FT)	0	WATER METER ELEVATION (FT)	0
ELEVATION DIFFERENCE (FT)	0	MIN. REQ. STATIC PRESSURE (PSI) @ POC	45.0
REMOTE CONTROL VALVE #	C5	REMOTE CONTROL VALVE SIZE (In.)	1.00
R.C.V. DEMAND (GPM)	15	TOTAL DEMAND (GPM)	15
HIGHEST HEAD SERVED (FT)	0	STATIC PRESSURE AT HIGHEST HEAD	45.0

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	
1.50	ISOLATION VALVES (BALL TYPE)	15	9	1.00	PSI
1.50	275 FEET OF MAINLINE: SCH. 40 PVC	15	10	1.86	PSI
1.50	2 - 90 DEGREE ELBOWS	15	13	0.23	PSI
1.00	REMOTE CONTROL VALVE ASSEMBLY	15	14	3.50	PSI
10%	LATERAL LINE LOSSES	15	15	3.00	PSI
20%	FITTING LOSS (IN ADDITION TO ELBOWS SHOWN)	N/A	16	0.37	PSI
0.00	ELEVATION CHANGE (P.O.C. TO HIGHEST HEAD)	N/A	17	0.00	PSI
TOTAL SYSTEM PRESSURE LOSS (SUM OF #1 THRU #17)			18	10.0	PSI
PRESSURE REQUIRED AT HEAD (OPERATING PRESSURE)			19	30.0	PSI
TOTAL PRESSURE REQUIRED (SUM OF #18 AND #19)			20	40.0	PSI
STATIC WATER PRESSURE (FROM ABOVE)			21	45.0	PSI
RESIDUAL PRESSURE (SUBTRACT #20 FROM #21)			22	5.0	PSI
SET PRV OR MCV AT (#20 PLUS 10 PSI)			23	N/A	PSI
PRESSURE BOOST, IF REQUIRED (SET TO ACHIEVE 20 PSI RESIDUAL)			24	N/A	PSI

PATCH AND REPAIR

NOTE A:
POINT OF CONNECTION (POC) #1 SHALL BE A CONNECTION INTO AN EXISTING 2 1/2" DOMESTIC IRRIGATION WATER MAINLINE. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION, WATER TYPE, 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. 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 REQUIRED AT POC: 45 PSI (STATIC)
DESIGN WATER PRESSURE: 40 PSI
MAXIMUM SYSTEM DEMAND: 15 GPM
RESIDUAL WATER PRESSURE: 5 PSI

NOTE B:
CONTROLLER "C" 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:
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 ALIGNED 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 E:
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. ISOLATION VALVES
2. AUTOMATIC CONTROL VALVES (INDICATE STATION NUMBER)
3. QUICK COUPLING VALVES
4. IRRIGATION CONTROLLER(S)
5. 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.

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.

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

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IRRIGATION PLAN

L6.01

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.
15. THE CONTRACTOR IS REQUIRED TO CONTACT DIGALERT OR 811 A MINIMUM OF TWO (2) DAYS PRIOR TO THE START OF ANY EXCAVATIONS ON THE PROJECT AND SPECIFICALLY PRIOR TO THE INSTALLATION OF ANY GROUNDING RODS. DIAL 811 OR LOG ONTO WWW.DIGALERT.ORG TO START A PROJECT TICKET. DIGALERT AND 811 IS A FREE SERVICE PROVIDED TO THE PROJECT. FAILURE TO CONTACT AND HAVE THE EXISTING UTILITIES IDENTIFIED, LOCATED AND MARKED SHALL MAKE THE CONTRACTOR SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES.

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):	2.00	2.70	3.80	4.60	5.70	6.90	7.90	7.40	5.90	4.20	2.60	2.00	55.70
	ETo / Day (Inches):	0.06	0.10	0.12	0.15	0.18	0.23	0.25	0.24	0.20	0.14	0.09	0.06	0.15
	Irrigation Days / Week:	3	4	4	5	5	6	6	6	5	4	4	3	

Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Low Water Use Plantings	0.30	0.70	0.81	4.8	5.4	6.8	6.8	8.2	8.5	9.4	8.8	8.7	7.5	4.8	4.8	Min./Day/Zone
Drip Tubing	Number of Zones:		2	**9.6**	**10.7**	**13.6**	**13.6**	**16.3**	**17.0**	**18.9**	**17.7**	**17.5**	**15.1**	**9.6**	**9.6**	**Total Min./Day**
Low Water Use Plantings	0.30	1.82	0.75	2.0	2.2	2.8	2.8	3.4	3.5	3.9	3.7	3.6	3.1	2.0	2.0	Min./Day/Zone
Spray	Number of Zones:		2	**4.0**	**4.5**	**5.7**	**5.7**	**6.8**	**7.1**	**7.8**	**7.3**	**7.3**	**6.3**	**4.0**	**4.0**	**Total Min./Day**
Moderate Water Use Trees	0.40	1.00	0.81	4.5	5.0	6.4	6.4	7.6	8.0	8.8	8.3	8.2	7.0	4.5	4.5	Min./Day/Zone
Bubblers	Number of Zones:		1	**4.5**	**5.0**	**6.4**	**6.4**	**7.6**	**8.0**	**8.8**	**8.3**	**8.2**	**7.0**	**4.5**	**4.5**	**Total Min./Day**
	Total Number of Zones:		5	18	20	26	26	31	32	36	33	33	28	18	18	Total Min./Day
	Total Controller Run Time in Hours:			**0.30**	**0.34**	**0.43**	**0.43**	**0.51**	**0.53**	**0.59**	**0.55**	**0.55**	**0.47**	**0.30**	**0.30**	**Total Hrs./Day**
				JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	

Note: These schedules are intended only for compliance with local municipal codes and the water efficient landscape ordinance. These calculations represent the MAXIMUM REASONABLE run times and are used to ensure that all irrigation may be completed during the specific watering window allowed. These schedules do not include rainfall, site soil types, specific exposures (shade versus sun), actual irrigation days, or specific slope position. It is solely the responsibility of the irrigation contractor to program the controller as required to apply the correct amount of irrigation water for the landscape. All smart controllers shall be programmed using the specified ET or weather sensing equipment, satellite provided ET data, soil moisture sensors, and rain shut off devices as required. Contractor shall provide a controller schedule inside the controller cabinet prior to final turnover of the project to the owner.

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: North Verdemont ES CAPS

Project Address: 3555 W. Meyers Rd, San Bernardino, California 92407

sweeney + associates — IRRIGATION DESIGN AND CONSULTING

Reference Evapotranspiration (ETo) 55.6 In./Yr. **Residential Project?** No

Hydrozone # / Planting Description[a]	Plant Factor	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF / IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)[d]
Regular Landscape Areas							
1. Low Water Use Plantings	0.30	Drip / Overhead	0.75	0.40	3,953	1,581	54,507
2. Moderate Water Use Trees	0.40	Bubblers	0.81	0.50	250	125	4,309
				Totals:	**4,203**	**1,706**	
				Estimated Total Water Use (ETWU) Total:			**58,816**
				Maximum Applied Water Allowance (MAWA)[e]:			**65,199**

[a] **Hydrozone # / Planting Description** — E.g. 1.) Front Lawn, 2.) Low Water Use Plantings, 3.) Medium Water Use Plantings

[b] **Irrigation Method** — Overhead Spray of 0.75 for Spray; Drip 0.81 for Drip

[c] **Irrigation Efficiency**

[d] ***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.

[e] ***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	
Total ETAF x Area	1,706
Total Area	4,203
Average ETAF	**0.41**

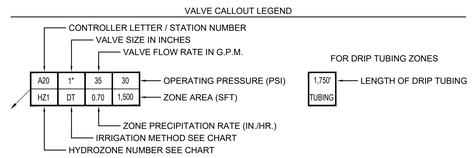
All Landscape Areas	
Total ETAF x Area	1,706
Total Area	4,203
Average ETAF	**0.41**

IRRIGATION MATERIAL LEGEND

SYMBOL Q	T	H	F	MANUFACTURER	MODEL NO. / DESCRIPTION	FLOW RATE (GPM)	PSI	RADIUS	PR. RATE	DETAIL
				RAIN BIRD	RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 8 SERIES HE-VAN ADJUSTABLE ARC NOZZLE	.29, .39, .59, 1.17	30	8 FT	2.03 IN./HR.	A
A				RAIN BIRD	RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 10 SERIES HE-VAN ADJUSTABLE ARC NOZZLE	.45, .59, .89, 1.78	30	10 FT	1.98 IN./HR.	A
				RAIN BIRD	RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 12 SERIES HE-VAN ADJUSTABLE ARC NOZZLE	.59, .79, 1.18, 2.37	30	12 FT	1.83 IN./HR.	A
				RAIN BIRD	RD-06-S-P30-F 6" POP-UP BUBBLER HEAD WITH A HUNTER MSBN-50Q STREAM BUBBLER NOZZLE EACH SYMBOL REPRESENTS TWO (2) BUBBLER TO PROVIDE A TOTAL OF TWO (2) BUBBLERS PER TREE. PLACE THE BUBBLER HEADS SIX (6) INCHES FROM THE ROOT BALL OF THE TREE AND ON OPPOSITE SIDES OF TREE. ADJUST BUBBLER STREAMS TO WET THE ROOT BALL AND ADJACENT AMENDED SOIL WITHOUT HITTING THE TRUNK OF THE TREE.	.50 (1.00 TOTAL)	30	1.5 FT	1.50 IN./HR.	A,B
NO SYMBOL				RAIN BIRD	SPRINKLER HEADS WITH 1/2" NPT INLETS SHALL BE INSTALLED WITH A SA-125050 POLY SWING JOINT AS PART OF THE ASSEMBLY					A
				NETAFIM	SUB-SURFACE DRIP TUBING AS DESCRIBED BELOW: TLHCVXR5-12 SUBSURFACE DRIP TUBING (BROWN EXTERIOR COLOR WITH A COPPER OXIDE STRIPE) WITH 0.53 GPH, PRESSURE COMPENSATING EMITTERS INTERNALLY INSTALLED IN THE DRIP TUBING AT 12" O.C. SPACING. DRIP TUBING SHALL BE EQUIPPED WITH A CONTINUOUS EXTERIOR CUPRON STRIPE, COPPER OXIDE INFUSED EMITTERS AND A PHYSICAL BARRIER TO PREVENT ROOT INTRUSION INTO THE DRIP EMITTER. DRIP EMITTERS SHALL BE CONTINUOUS FLUSHING TYPE AND EQUIPPED WITH A CHECK VALVE AND ANTI-SIPHON FEATURE. DRIP TUBING SHALL BE INSTALLED 4" BELOW THE FINISHED SOIL GRADE (NOT COUNTING MULCH) AND IN PARALLEL ROWS A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL BE INSTALLED A MAXIMUM OF 4" FROM THE EDGE OF ANY HARDSCAPE OR TURF EDGE. ALL SUBSEQUENT INTERIOR ROWS SHALL BE ADJUSTED TO PROVIDE AN EVEN SPACING ACROSS THE PLANTER WITHOUT EXCEEDING 16" MAXIMUM SPACING. INSTALL 9" PVC COATED GALVANIZED TUBING STAKES A MAXIMUM OF FIVE (5) FEET ON CENTER ALONG THE LENGTH OF THE TUBING. TUBING STAKES SHALL BE MODEL #GDTS140900 AS MANUFACTURED BY GPH IRRIGATION PRODUCTS (866) 582-9684. THE LINES SHOWN ON THE PLANS REPRESENT THE APPROXIMATE DIRECTION AND SPACING OF THE DRIP TUBING ROWS, SEE SPACING REQUIREMENTS ABOVE AND IN DETAILS.	0.53 GPH / EMITTER	30	N/A	0.70 IN./HR.	C,D,E
NO SYMBOL				NETAFIM	CONNECTION BETWEEN DRIP TUBING AND PVC SUPPLY AND DISCHARGE HEADERS SHALL BE MADE USING SCH. 40 PVC SXT FITTINGS, TL BARBED DRIP TUBING FITTINGS AND BLANK DRIP TUBING. USE A SCH. 40 PVCVLATERAL X LATERAL X 1/2" SxSxT TEE (OR A LATERAL X 1/2" SxT 90° ELBOW) FITTING ON THE PVC LATERAL LINE HEADER, A TL050MA BARB X 1/2" MALEVADAPTER, A SHORT LENGTH OF BLANK DRIP TUBING, AND A TLTEE BARBED TEE FITTING. ALL END RUNS OF TUBING SHALL BE CONNECTED WITH A PVC DISCHARGE HEADER. NO HEATING OF TUBING SHALL BE ALLOWED FOR ASSEMBLY.					C,D,E
NO SYMBOL				NETAFIM	TL SERIES 17mm BARBED FITTINGS FOR CONNECTIONS BETWEEN DRIP TUBING (TUBING-TO-TUBING ONLY). NO HEATING OF TUBING SHALL BE ALLOWED.					C,D,E
				AS APPROVED	PVC SUPPLY AND DISCHARGE HEADERS SHALL BE PVC LATERAL LINE PIPE (AS SHOWN BELOW), 1 1/4" MINIMUM SIZE WITH SCH. 40 PVC FITTINGS.					C,D,E
			F	GPH IRRIGATION/ HUNTER	GDFN DRIP FLUSH / INDICATOR NOZZLE, ORANGE IN COLOR, INSTALLED ONTO A HUNTER ECO-ID-12 12" POP-UP INDICATOR HEAD. THE FLUSH NOZZLE SHALL BE CLOSED FOR NORMAL OPERATION OF THE DRIP SYSTEM.					E,F
				LASCO	V17101N-SC 1 1/2" SLO-CLOSE SCH. 80 PVC, TRUE-UNION BALL VALVE WITH SOLVENT WELD SOCKET CONNECTIONS, LINE SIZE PER MAINLINE. INSTALL INSIDE A 10" ROUND VALVE BOX.					G
				RAIN BIRD	44LRC 1" QUICK COUPLER VALVE WITH LOCKING VINYL COVER AND A LASCO G13S-218 SWING JOINT. INSTALL INSIDE A 10" ROUND VALVE BOX.					H
				SUPERIOR	950 SERIES PRESSURE REGULATING, BRASS REMOTE CONTROL VALVE (RCV), SIZE AS SHOWN (1" SIZE), SET PRS-D PRESSURE REGULATOR TO PROVIDE THE OPERATING PRESSURE OF THE SPRINKLER / BUBBLER HEAD AT THE HIGHEST OR FARTHEST HEAD ON THE CONTROL VALVE ZONE (MEASURE PSI AT HEAD). INSTALL THE RCV INSIDE A STANDARD RECTANGULAR VALVE BOX.					I
				SUPERIOR	950 SERIES BRASS DRIP REMOTE CONTROL VALVE, SIZE AS SHOWN (1" SIZE). INSTALL A RAIN BIRD LCRBY-100D DISC FILTER AND A SENNINGER 1" PMR-40-MF PRESSURE REGULATOR DOWNSTREAM SIDE OF EACH DRIP REMOTE CONTROL VALVE (DRCV). INSTALL THE DRCV ASSEMBLY INSIDE A JUMBO RECTANGULAR VALVE BOX.					J
				EXISTING	EXISTING REMOTE CONTROL VALVE, PROTECT IN PLACE UNLESS OTHERWISE NOTED					A
			C	IRRITROL	MC-6E 6 STATION WALL MOUNTED CONTROLLER, INSTALLED WITHIN A VIT-STRONG BOX SB-16SSW STAINLESS STEEL WALL MOUNTED ENCLOSURE WITH CAS SUB-ASSEMBLY.					K
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. INSTALL INSIDE A 10" ROUND VALVE BOX.					L
			R	IRRITROL	RS500 WIRED RAIN SENSOR, MOUNT ON EXTERIOR WALL IN AN EXPOSED AREA, WIRE TO THE CONTROLLER.					M
			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 1/4" SCH. 40, SOLVENT WELD WITH SCH. 40 PVC FITTINGS, AS LATERAL LINES INSTALLED 12" BELOW FINISHED GRADE					N
				AS APPROVED	PVC PIPE 1 1/2" SCH. 40, SOLVENT WELD WITH SCH. 80 PVC FITTINGS, AS MAINLINES INSTALLED 18" BELOW FINISHED GRADE					N
			EX	AS APPROVED	EXISTING IRRIGATION MAINLINE, PROTECT IN PLACE, TYPICAL					N/A
				AS APPROVED	PVC PIPE SCH. 40 AS SLEEVING, TWICE 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.					O
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				WELD-ON	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 PURPLE IN COLOR, NSF LISTED AND VOC "PURPLE PRIMER". SOLVENT CEMENT SHALL BE 705 LOW VOC, GRAY 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				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.					N,O,P
NO SYMBOL				GPH IRRIGATION	GDBRY6 DIRECT BURIAL, 100% SILICONE GEL, WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE SPLICES AND CONNECTIONS					P
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				RAIN BIRD	ALL VALVE BOXES SHALL BE VB SERIES, PLASTIC TYPE WITH OVERLAPPING LIDS. VALVE BOX BODIES SHALL BE BLACK IN COLOR. LIDS FOR BOXES IN TURF AREAS SHALL BE GREEN. LIDS FOR VALVE BOXES IN SHRUB AREAS SHALL BE BLACK. ALL BOXES SHALL BE SECURED WITH A RAIN BIRD VB-LOCK-H HEXAGON HEAD BOLT, WASHER AND CLIP. BOXES SHALL BE AS SHOWN BELOW:					Q

DESCRIPTION	TURF AREAS (GREEN LIDS)	SHRUB AREAS (BLACK BOXES AND LIDS)
10" ROUND BOXES	VB-10RND	VB-10RNDB (BOX) AND VB-10RNDBKL (LID)
STANDARD RECTANGULAR BOXES	VB-STD	VB-STDB (BOX) AND VB-STDBKL (LID)
JUMBO RECTANGULAR BOXES	VB-JMB	VB-JMBB (BOX) AND VB-JMBBKL (LID)

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 TREES	M	0.40

IRRIGATION METHOD DESCRIPTION CHART			
LETTERS	DESCRIPTION OF THE IRRIGATION	TYPE	IR. EFFICIENCY
DT	DRIP TUBING	DRIP	0.81
TB	TREE BUBBLERS	DRIP	0.81
S	SPRAY HEADS	SPRAY	0.75

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

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NORTH VERDEMONT ES CAPS ADDITION
3555 W. MEYERS ROAD
SAN BERNARDINO, CA 92407
Developed for SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

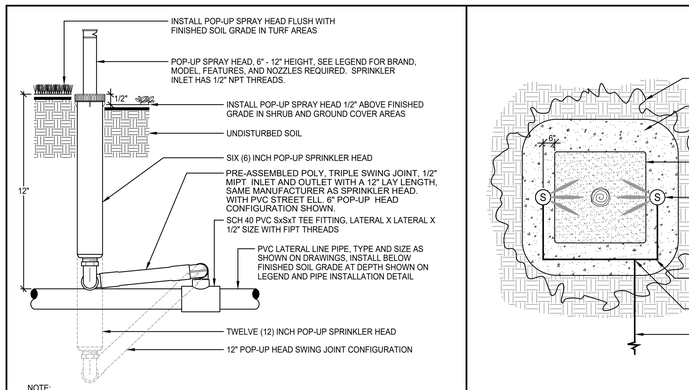
Revision	Date
ADDENDUM A	07/31/2025
ADDENDUM B	09/03/2025

Submittal	Date
100% SCHEMATIC DESIGN	02/15/2023
50% CONSTRUCTION DOCUMENTS	03/28/2023
DSA SUBMITTAL	04/19/2023
DSA APPROVAL	09/07/2023

Job Number	30899
Date Published	09/03/2025
Checked By	AG
Scale	N.T.S.

IRRIGATION LEGEND AND NOTES

L6.02

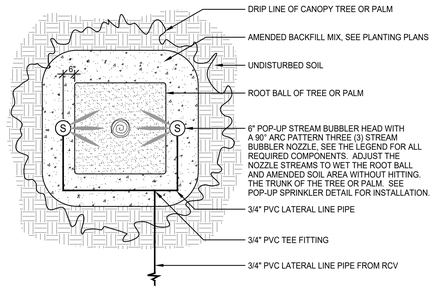


NOTE:
INSTALL SPRAY HEADS 4" FROM PAVING EDGE IN TURF AREAS.
INSTALL SPRAY HEADS 6" FROM PAVING EDGE IN SHRUB AND GROUND COVER AREAS.
INSTALL SPRAY HEADS 12" FROM THE FACE OF BUILDING WALLS OR WINDOWS.

INSTALL SPRAY HEADS PLUMB. ADJUST NOZZLE STREAM TO COVER THE LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.

SECTION VIEW - N.T.S.

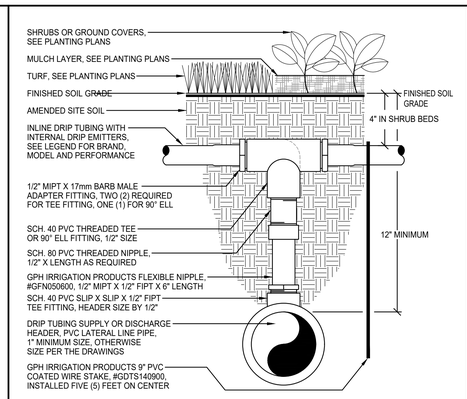
A POP-UP SPRINKLER HEAD



NOTE:
POSITION MSBN-50Q STREAM BUBBLER HEADS 6" FROM THE ROOT BALL.
POSITION MSBN-25Q STREAM BUBBLER HEADS 1" FROM THE ROOT BALL.

PLAN VIEW - N.T.S.

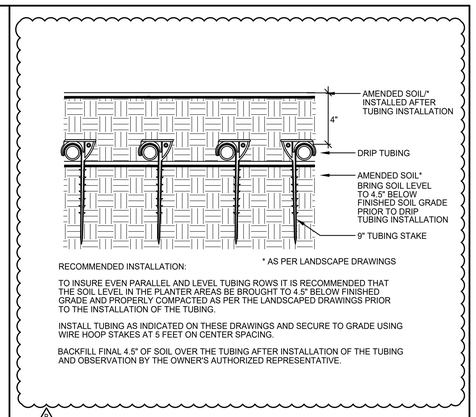
B TREE BUBBLER LAYOUT



NOTE:
DRIP TUBING CONNECTION REQUIRED FOR ALL CONNECTIONS BETWEEN DRIP TUBING AND PVC HEADERS.
FOR CONNECTIONS AT END RUNS OF TUBING, USE A 90° ELL FITTING AND ONE ADAPTER FITTING FOR CONNECTION.
FOR CONNECTIONS IN THE MIDDLE OF RUNS OF TUBING, USE A TEE FITTING AND TWO ADAPTER FITTINGS FOR THE CONNECTION.

SECTION VIEW - N.T.S.

C DRIP CONNECTION



RECOMMENDED INSTALLATION:

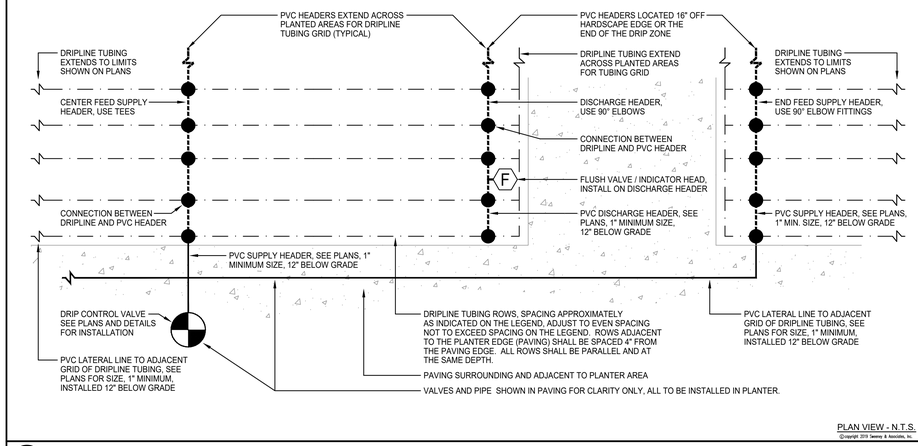
TO INSURE EVEN PARALLEL AND LEVEL TUBING ROWS IT IS RECOMMENDED THAT THE SOIL LEVEL IN THE PLANTER AREAS BE BROUGHT TO 4.5" BELOW FINISHED GRADE AND PROPERLY COMPACTED AS PER THE LANDSCAPED DRAWINGS PRIOR TO THE INSTALLATION OF THE TUBING.

INSTALL TUBING AS INDICATED ON THESE DRAWINGS AND SECURE TO GRADE USING WIRE HOOP STAKES AT 5 FEET ON CENTER SPACING.

BACKFILL FINAL 4.5" OF SOIL OVER THE TUBING AFTER INSTALLATION OF THE TUBING AND OBSERVATION BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

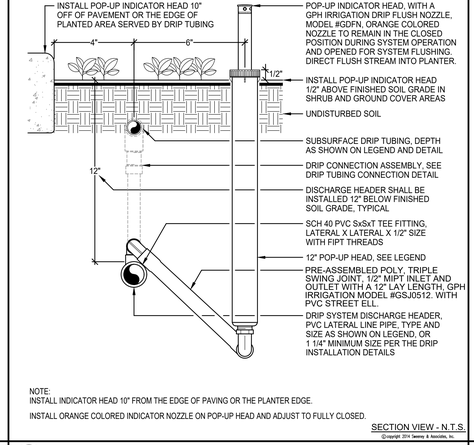
SECTION VIEW - N.T.S.

D DRIP TUBING LAYOUT (SECTION)



PLAN VIEW - N.T.S.

E DRIP TUBING LAYOUT

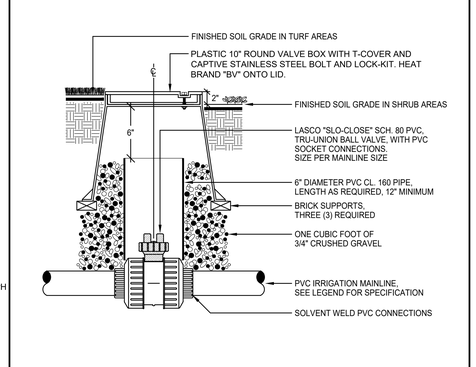


NOTE:
INSTALL INDICATOR HEAD 10" FROM THE EDGE OF PAVING OR THE PLANTER EDGE.

INSTALL ORANGE COLORED INDICATOR NOZZLE ON POP-UP HEAD AND ADJUST TO FULLY CLOSED.

SECTION VIEW - N.T.S.

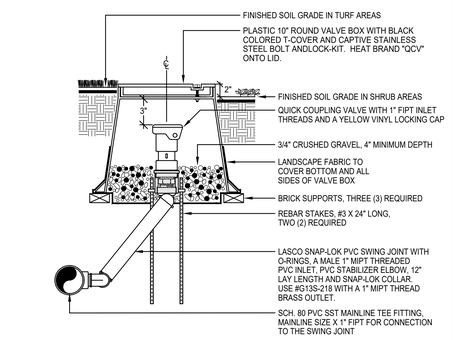
F FLUSH VALVE/INDICATOR HEAD



NOTE:
PROVIDE ONE (1) 30" LONG STEEL "VALVE KEY" FOR EACH TEN (10) BALL VALVES INSTALLED ON THE PROJECT.

SECTION VIEW - N.T.S.

G BALL VALVE



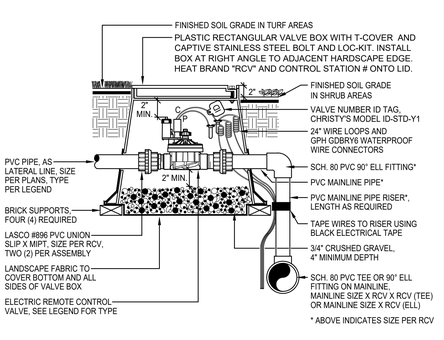
NOTE:
WHEN QCV IS LOCATED ON A MANIFOLD, USE A SCH. 80 SxT 90° ELBOW IN PLACE OF THE TEE FITTING. SIZE THE ELBOW AS MANIFOLD MAINLINE SIZE X 1" FIPT.

WHEN USING A 3/4" QUICK COUPLER VALVE, USE A LASCO G13T-212 SWING JOINT WITH A 3/4" BRASS OUTLET FOR CONNECTION TO THE QCV INLET. ALL OTHER PARTS OF SWING JOINT SHALL REMAIN 1" SIZE.

USE A NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS.

SECTION VIEW - N.T.S.

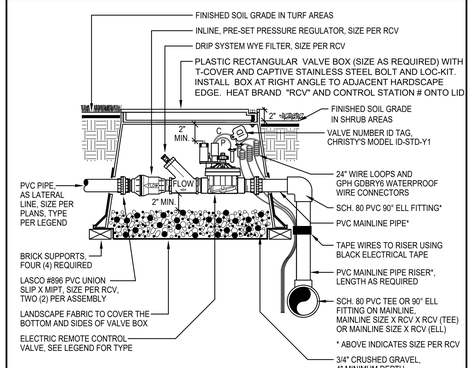
H QUICK COUPLER VALVE



NOTE:
USE AN APPROVED, NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS.
USE STANDARD BOX OPENINGS FOR ALL PIPING INTO THE BOX, DO NOT CUT THE BOX.

SECTION VIEW - N.T.S.

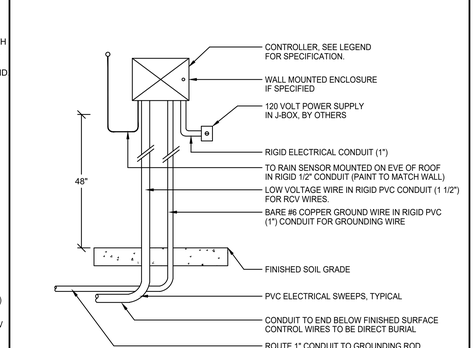
I REMOTE CONTROL VALVE



NOTE:
USE AN APPROVED, NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS.
USE STANDARD BOX OPENINGS FOR ALL PIPING INTO THE BOX, DO NOT CUT THE BOX.

SECTION VIEW - N.T.S.

J DRIP REMOTE CONTROL VALVE



NOTE:
INSTALL ENCLOSURE AS INDICATED BY MANUFACTURER'S RECOMMENDATION.

SECTION VIEW - N.T.S.

K WALL MOUNTED CONT. ASSEMBLY

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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NORTH VERDEMONT ES CAPS ADDITION
3555 W. MEYERS ROAD
SAN BERNARDINO, CA 92407
Developed for SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

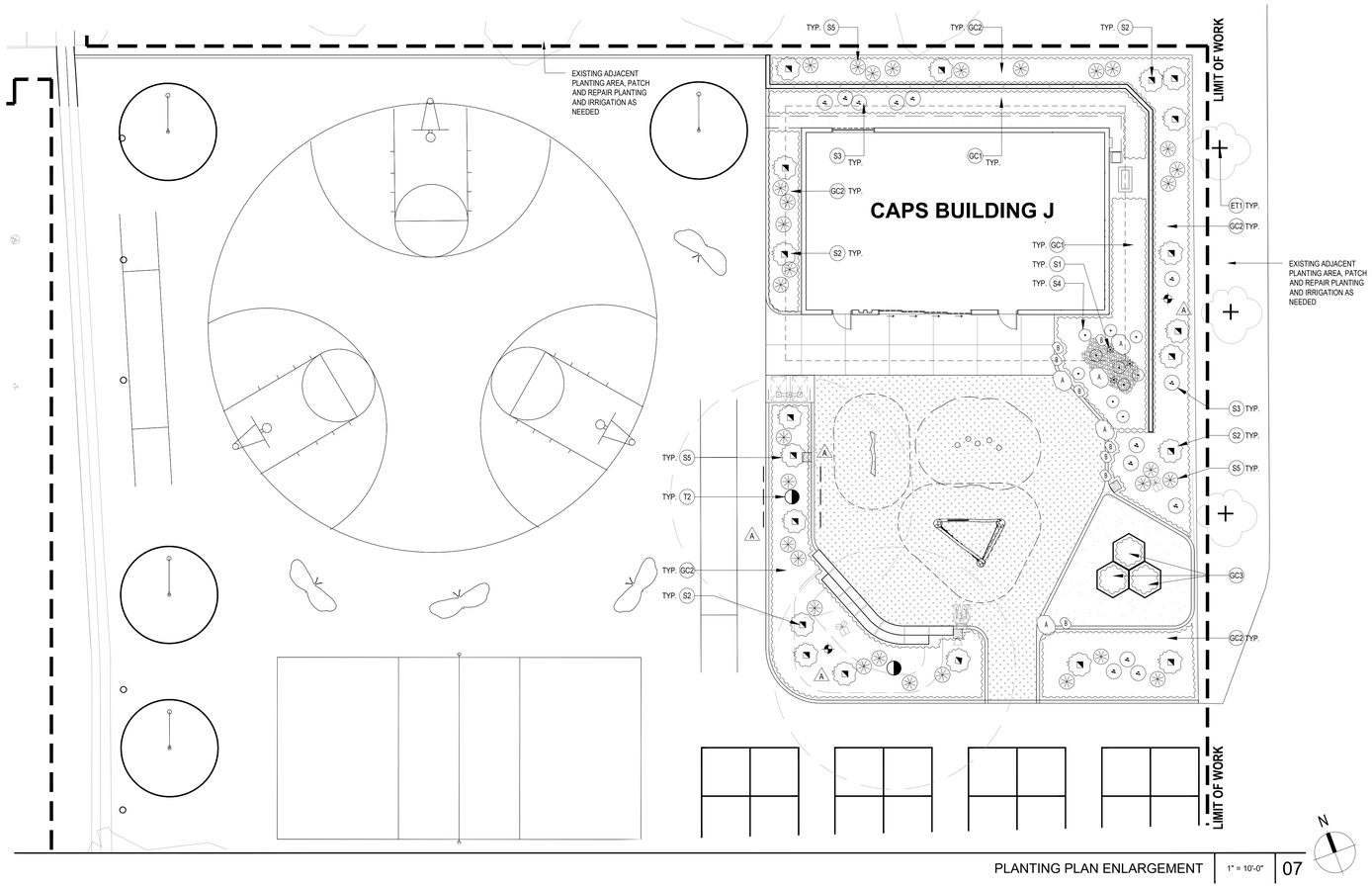
Revision	Date
1 ADDENDUM A	07/31/2025
2 ADDENDUM B	09/03/2025

Submittal	Date
100% SCHEMATIC DESIGN	02/15/2023
50% CONSTRUCTION DOCUMENTS	03/28/2023
DSA SUBMITTAL	04/19/2023
DSA APPROVAL	09/07/2023

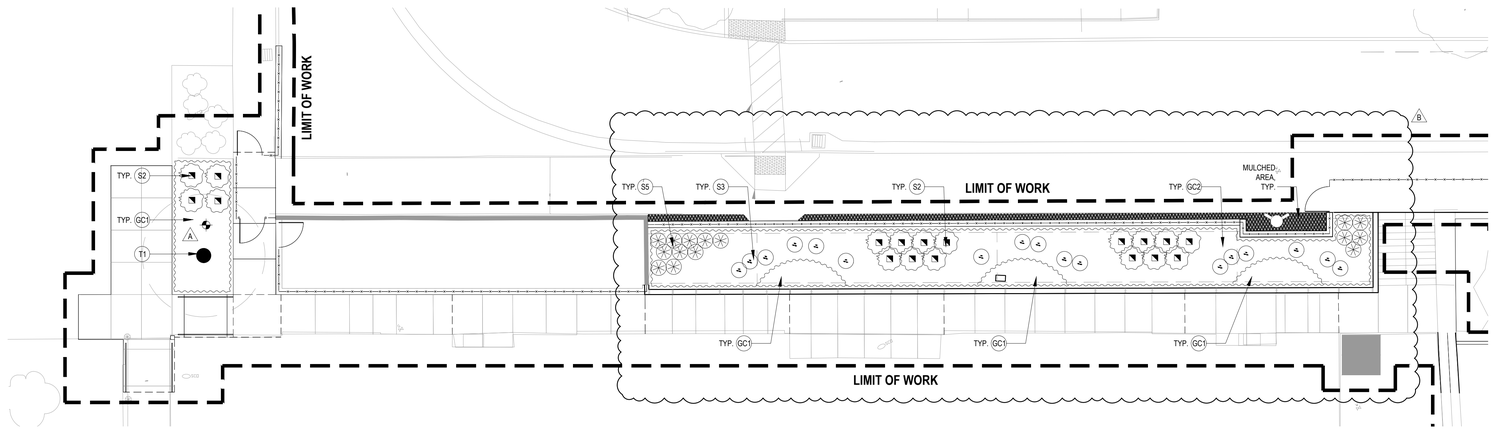
Job Number	30899
Date Published	09/03/2025
Checked By	AG
Scale	N.T.S.

IRRIGATION DETAILS

L6.03



PLANTING PLAN ENLARGEMENT | 1" = 10'-0" | 07



PLANTING PLAN ENLARGEMENT | 1" = 10'-0" | 05

PLANTING LEGEND

TREE LIST (NCN.)- NO COMMON NAME (*)- UNLESS NOTED ON PLAN

REF.	QTY.	SYM.	BOTANICAL NAME/ COMMON NAME	SIZE/ SPACING	COMMENTS/ DETAIL
T1	01	●	LAGERSTROEMIA INDICA 'MUSKOGEE'/ CALIFORNIA SYCAMORE	48" BOX/ PER PLAN	01/ L7.02
T2	02	◑	PLATANUS RACEMOSA/ CALIFORNIA SYCAMORE	48" BOX/ PER PLAN	01/ L7.02
ET1	PER PLAN	+	EXISTING TREE TO REMAIN PROTECT IN PLACE		10/ L7.02

SHRUBS

REF.	QTY.	SYM.	BOTANICAL NAME/ COMMON NAME	SIZE/ SPACING	COMMENTS/ DETAIL
S1	AS SHOWN	✳	CHONDROPETALUM TECTORUM CAPE RUSH	5 GAL/ AS SHOWN	03/ L7.02
S2	AS SHOWN	◔	CISTUS x PURPUREUS PURPLE ROCKROSE	5 GAL/ AS SHOWN	03/ L7.02
S3	AS SHOWN	◦	ENCELIA CALIFORNIA BUSH SUNFLOWER	5 GAL/ AS SHOWN	03/ L7.02
S4	AS SHOWN	•	JUNCUS PATENS 'ELK BLUE' ELK BLUE CAPE RUSH	5 GAL/ AS SHOWN	03/ L7.02
S5	AS SHOWN	❀	SALVIA ' ALLEN CHICKERING' ALLEN CHICKERING SAGE	5 GAL/ AS SHOWN	03/ L7.02

GROUNDCOVER

REF.	QTY.	SYM.	BOTANICAL NAME/ COMMON NAME	SIZE/ SPACING	COMMENTS/ DETAIL
GC1	AS REQ'D		CAREX DIVULSA BERKELEY SEDGE	5 GAL/ 24" OC	03,09/ L7.02
GC2	AS REQ'D		FESTUCA MAIREI ATLAS FESCUE	5 GAL/ 30" OC	03,09/ L7.02
GC3	AS REQ'D		SALVIA ROSMARINUS ROSEMARY	1 GAL/ 24" OC	03,09/ L7.02

MISCELLANEOUS SYMBOLS

– – –	LINEAR ROOT BARRIER	04/ L7.02
	MULCHED AREA	PER SPECS
	SOIL SAMPLE LOCATION (03 TOTAL)	

NOTES:

1. CONTRACTOR IS TO VERIFY ALL PROPERTY LINES/LIMITS OF WORK AND ADJUST ALL PLANTING AND IRRIGATION ACCORDINGLY. NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
2. CONTRACTOR MUST REPLACE ANY PLANT MATERIAL DAMAGED WITH 'LIKE' KIND, ON ANY ADJACENT PROPERTIES DUE TO GRADING OR CONSTRUCTION TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
3. SEE PLANTING NOTES ON SHEET L0.01
4. THE CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE EXISTING IRRIGATION, GRADING, AND PLANTING OF THIS PROPERTY AND ADJACENT PROPERTIES. ANY DAMAGE OR ADJUSTMENTS REQUIRED INCLUDING REPLACING OR RELOCATING IRRIGATION LINES, HEADS, VALVES, WIRES OR ANY UTILITY THAT OCCURS ON THE PARCEL DUE TO THE GRADING AND CONSTRUCTION OF THIS PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. THE OWNER'S REP. MUST REVIEW ANY REQUIRED MODIFICATIONS TO THESE AREAS PRIOR TO COMMENCING WORK. THE CONTRACTOR MUST NOTIFY THE OWNER'S AUTHORIZED REP. OF THESE CONDITIONS OR ANY DISCREPANCIES PRIOR TO COMMENCING WORK. TYP. ENTIRE SITE.
5. PROTECT ALL (E) TREES ON SITE WITHIN L.O.W. & OUTSIDE L.O.W. CONTRACTOR TO REPLACE ANY (E) TREES AND PLANT MATERIAL DAMAGED DURING CONSTRUCTION. A

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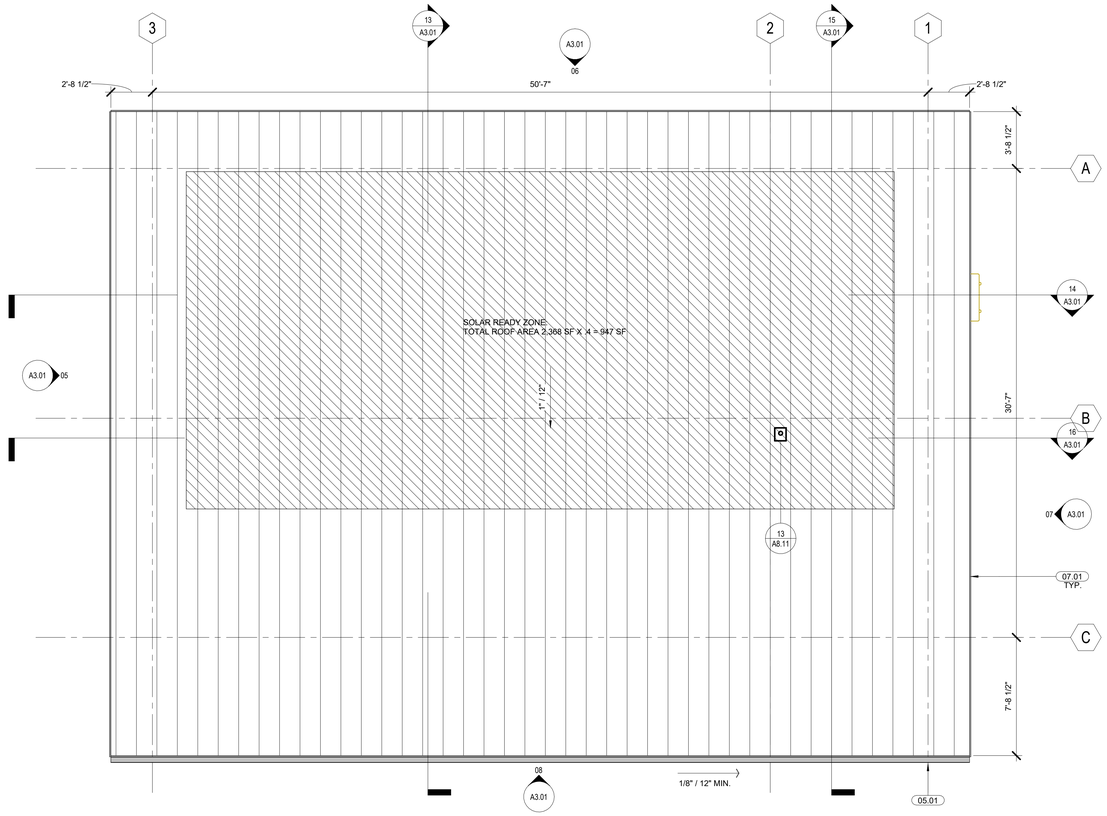
PLANTING PLAN

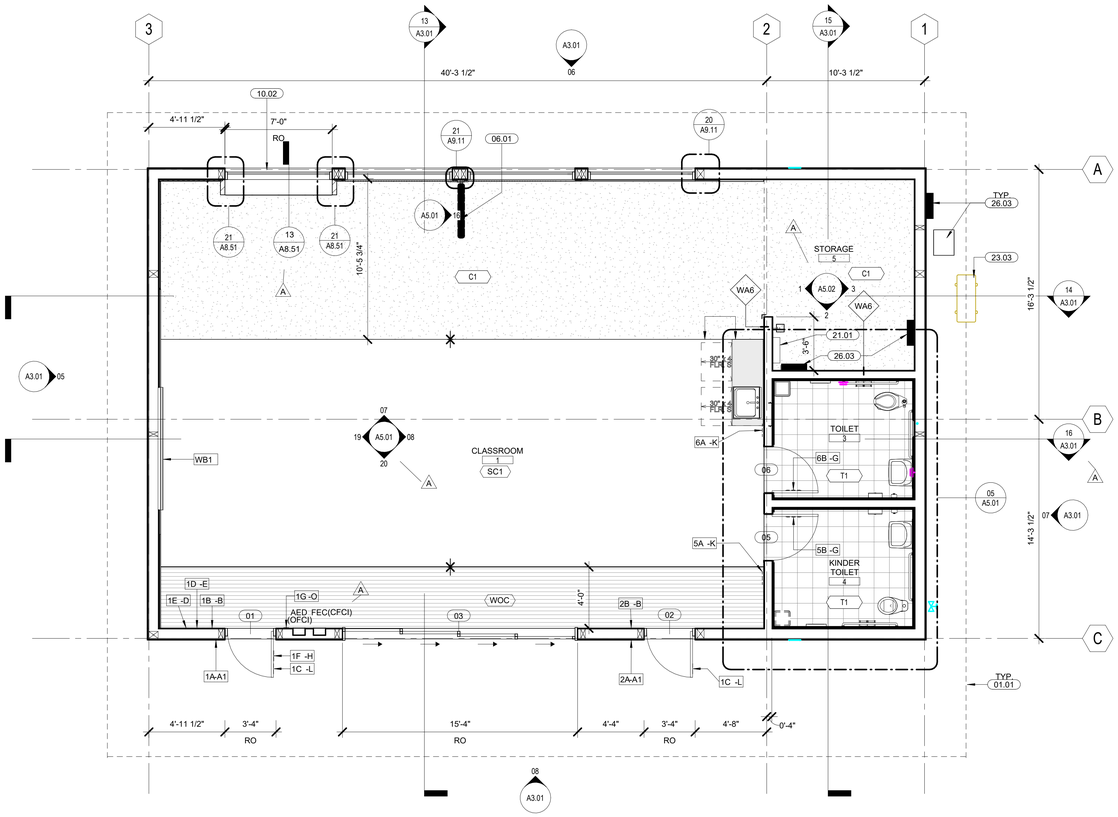
L7.01

FINISH SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	STYLE / NUMBER	COLOR / FINISH	COMMENTS
FLOOR FINISH					
SC1	SEALED CONCRETE	Curecrete Distribution	Ashford Formula	Grey	Classrooms, match exterior grey concrete
T1	TILES	Crossville	Color Blox 2.0	Cotton Sheets	Restrooms 12" X12" field tile
C1	CARPET TILE	Interface	Urban Retreat/127120250H	100639 Ivy	Classroom floor near featured walls
WOC	WALK OFF CARPET	Interface	SR799	Iron 100639	Classroom entry
WALL FINISH					
P1	PAINT	Dunn Edwards	N/A	Dreamy Blue DE5812	Field Paint
T1	TILES	Crossville	Color Blox 2.0	Cotton Sheets	Restrooms 12" X12" field tile
T2	TILE	Tilebar	Parry	Terracotta/ Matte	Restroom 8" x3" accent wall
T3	TILE	Tilebar	Parry	Marine Blue/ Matte	Restroom 8" x3" accent wall
AC1	ACOUSTICAL PANEL	Autex Acoustic	Quiet Space	Atlantis	Classroom Accent Wall in Hills form: Field- over 1" thick-wrap, RE: 14,17/A9.11
AC2	ACOUSTICAL PANEL	Autex Acoustic	Composition	Stonewash	Classroom Accent Wall in Hills form: Trim- over 1/2" thick-wrap, RE: 14,17/A9.11
WC	WALLCOVERING	MDC	N/A	N/A	Custom wallcovering graphic provided by architect
PB	PEG BOARD	Diamond Life	N/A	Natural	Custom size, see Interior Elevation RE: 17/A9.11
CEILING					
P2	PAINT	Dunn Edwards	N/A	Whisper DEW340/Semi-gloss	Restroom Ceiling Paint
AC3	ACOUSTICAL PANEL	Autex Acoustic	Horizon	Opera	Tree leaves suspended geometrical shape, RE: 13/A9.23
AC4	ACOUSTICAL PANEL	Autex Acoustic	Horizon	Gherkin	Tree leaves suspended geometrical shape, RE: 13/A9.23
TECTUM	TECTUM DIRECT ATTACH	Armstrong	Custom Size	Natural	Install in between the beams, RE:08/A9.23
ACT	ULTIMA HIGH NRC	Armstrong	24X48X7/8	White	Storage area
WALL BASE					
B1	RUBBER BASE	Burke	N/A	Silver Pine	Throughout,UNO
CASEWORK & DOORS					
WD1	BIRCH PLYWOOD	N/A	N/A	N/A	Casework, peg wall, tree trunk
WD2	LAMINATE	Nevamar	Armored Protection	Fossil Gray/ S-6031T	Sink casework
SS1	SOLID SURFACE	Cosentino	Dekton	Cara Blue	Sink countertop
SPECIALTY					
SF1	SOLAR SHADE FABRIC	Mechoshade	Ecoveil Sheer	6754 Stone	Window seat area
WB1	WHITE BOARD	Claridge	Glass Whiteboard-GB-GB-MGMI-46	Calm White	Magnetic white board ayt kinder wall, RE: 03/A9.11
CR	CORNER GUARD	Inpro	150F Flush Mount	Designers White 0101	1 or 2 wing wall at the storage room, RE: 11/A9.11



ROOF PLAN | 1/4" = 1'-0" | 14



FLOOR PLAN | 1/4" = 1'-0" | 02

SIGNAGE SCHEDULE

Mark	Type Mark	Sign Text Line 1	Sign Text Line 2	Sign Detail Reference	Mounting Location	Braille
1A	A1	1	CAPS ROOM	06/A10.41	WALL	Yes
1B	B	SEE DETAIL		07/A10.41	WALL	Yes
1C	L	SEE DETAIL		16/A10.41	DOOR	No
1D	E	SEE DETAIL		11/A10.41	WALL	No
1E	D	SEE DETAIL		10/A10.41	WALL	No
1F	H	SEE DETAIL		14/A10.41	DOOR	No
1G	O	SEE DETAIL		15/A10.41	DOOR	No
2A	A1	1	CAPS ROOM	06/A10.41	WALL	Yes
2B	B	SEE DETAIL		07/A10.41	WALL	Yes
5A	K	SEE DETAIL		12/A10.41	WALL	Yes
5B	G	SEE DETAIL		13/A10.41	DOOR	No
6A	K	SEE DETAIL		12/A10.41	WALL	Yes
6B	G	SEE DETAIL		13/A10.41	DOOR	No

ASSISTIVE LISTENING DEVICE

1. PROVIDE (2) RECEIVERS - HEARING AID COMPATIBLE

KEYNOTES

NUMBER	TEXT
01.01	**LINE OF ROOF ABOVE**
05.01	**METAL RAIN GUTTER - PROVIDE RAIN CHAIN AT DOWN-SPOUT**
06.01	**PLYWOOD TREE FEATURE, SEE DETAILS 12 & 15/A9.11**
07.01	**R1 STANDING SEAM METAL ROOF; RE: 03/A8.11**
10.02	**MOTORIZED SHADE AT FRAMED WINDOW, SEE DETAIL 22/A8.51**
21.01	**FIRE ALARM EQUIPMENT PER FIRE ALARM PLANS**
23.03	**MECHANICAL EQUIPMENT PER MECHANICAL PLANS**
26.03	**ELECTRICAL EQUIPMENT PER ELECTRICAL PLANS**

LEGEND

- BUILT IN CASEWORK
- ALIGN FINISHES
- CG — CORNER GUARD, SEE 11 /A9.11
- XX — FINISH TAG
- FLOOR FINISH TRANSITIONS. SEE DETAIL 01/A9.11

LEGEND

- SA2U — **WALL TYPE.** LETTER INDICATES WALL TYPE. SEE A9.03 SERIES.
- **STUD SIZE.** NUMBER INDICATES STUD SIZE. SEE A9.03 SERIES. REFER TO S0.91 FOR INTERIOR STUD WALL SCHEDULE
- WOOD STUD WALL CONSTRUCTION
- 101 — DOOR TAG
- SIGNAGE MARK
- 1i -1i — MARK TYPE
- FEC — RECESSED FIRE EXTINGUISHER CABINET, SEE 09/A9.11
- AED — RECESSED AED CABINET RE: 13/A9.11
- STANDING SEAM METAL ROOF, SEE 03/A8.11 COLOR: METALLIC SILVER
- XX" / XX" — ROOF SLOPE

GENERAL NOTES

1. PAINT ALL WALLS P1 U.N.O. ON INTERIOR ELEVATIONS. PROVIDE B1 AT ALL WALLS U.N.O
2. ALL NEW INTERIOR WALLS TO RECEIVE TAPE, LEVEL, FINISH, PRIMER AND TWO COATS OF PAINT (OR AS NECESSARY FOR A UNIFORM FINISH). REFER TO FINISH SPECIFICATIONS.
3. EXTERIOR WALL DIMENSIONS ARE TO EXTERIOR FACE OF STUD, U.N.O. INTERIOR WALL DIMENSIONS ARE TO THE FACE LINE OF STUD, U.N.O. VERIFY ANY DISCREPANCIES IN THE FIELD WITH THE ARCHITECT PRIOR TO BUILDING.
4. "EGGSHELL" PAINT FINISH TYPICAL THROUGHOUT, "SEMIGLOSS" FINISH AT ALL RESTROOMS OR WET LOCATIONS. "FLAT FINISH AT ALL CEILINGS
5. LOCATE DOOR FRAME 6" MIN. FROM ADJACENT WALL FRAMING, TYP. DOOR FRAMES ARE TO BE LOCATED 6" FROM ADJACENT WALL FRAMING, U.N.O.
6. ALL FIRE EXTINGUISHERS SHALL BE FM APPROVED AND SHALL BEAR THE FM SEAL OF APPROVAL.
7. WINDOW FRAME AND GLAZING TYPES PER EXTERIOR ELEVATIONS.
9. PAINT ALL CEILING/WALL ACCESS PANELS TO MATCH ADJACENT SERVICE.
10. CONTINUE FLOORING UNDER COUNTER WHERE BASE CABINETS ARE NOT SHOWN AND UNDER ACCESSIBLE MILLWORK.
11. REFER TO ENLARGED RESTROOM PLANS & INTERIOR ELEVATIONS FOR TILE FINISHES.
12. TYPICAL FLOOR TRANSITIONS ARE LOCATED AT THE CENTERLINE OF THE DOOR.
13. CONTRACTOR TO PROVIDE CRACK ISOLATION MEMBRANE UNDER ALL HARD TILE FINISHES.
14. EXPOSED CONTROL JOINTS TO BE REVIEWED BY ARCHITECT PRIOR TO POUR AND SAWCUT.
15. FOR BASE DETAIL REFER TO 4/A9.11
16. FOR TACK SURFACE DETAIL REFER TO 14/A9.11
17. FOR WALL PANEL CUTOUTS DETAIL REFER TO 10/A9.11
18. FOR WOOD STUD BLOCKING REFER TO 07/A9.11

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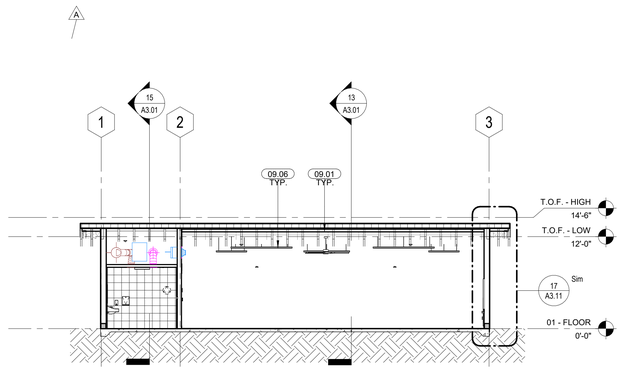
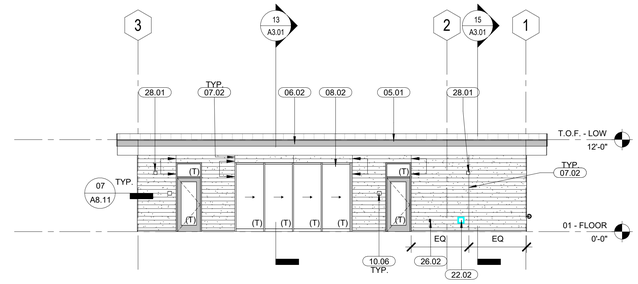
FLOOR, FINISH, AND ROOF PLAN

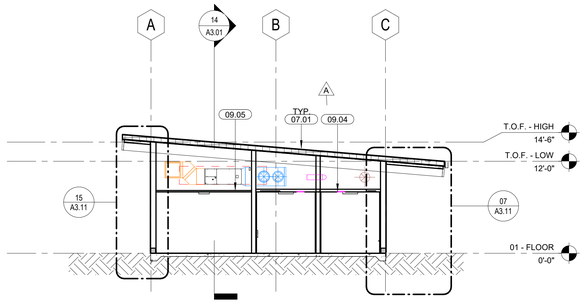
A2.01



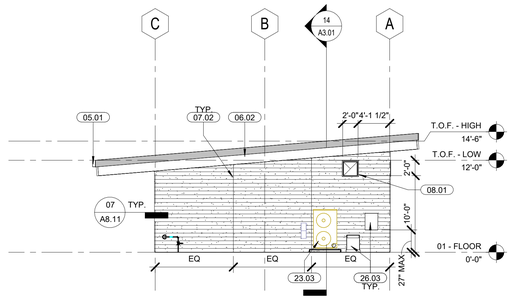
SECTION 5 | 1/8" = 1'-0" | 16



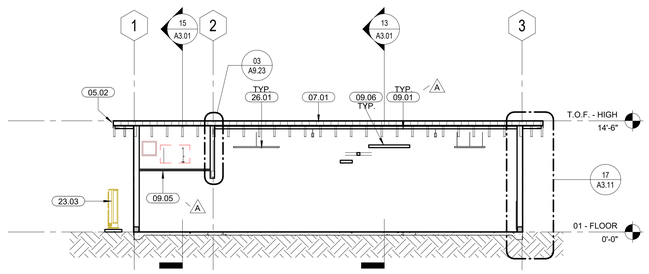
EXT ELEVATION - SOUTH | 1/8" = 1'-0" | 08



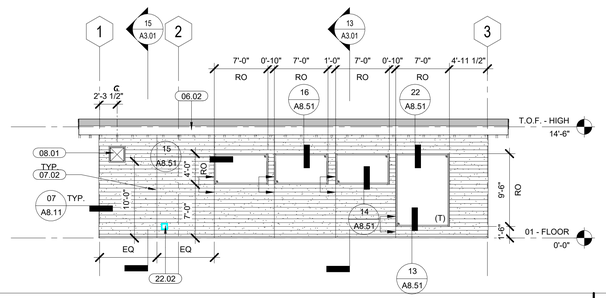
SECTION 3 | 1/8" = 1'-0" | 15



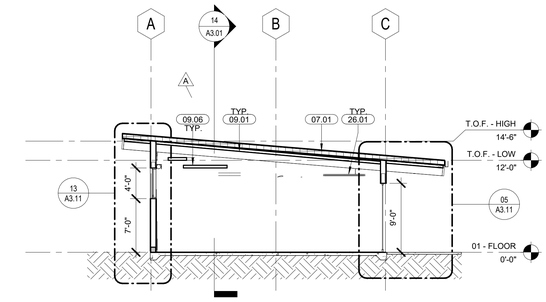
EXT ELEVATION - EAST | 1/8" = 1'-0" | 07



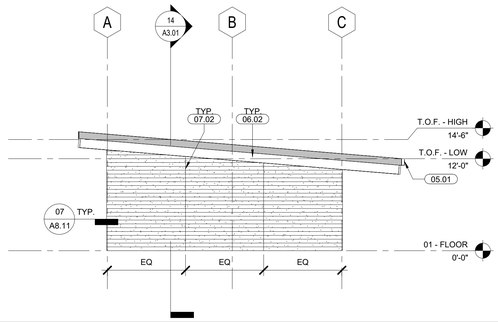
SECTION 2 | 1/8" = 1'-0" | 14



EXT ELEVATION - NORTH | 1/8" = 1'-0" | 06



SECTION 1 | 1/8" = 1'-0" | 13



EXT ELEVATION - WEST | 1/8" = 1'-0" | 05

KEYNOTES

NUMBER	TEXT
05.01	METAL RAIN GUTTER - PROVIDE RAIN CHAIN AT DOWN-SPOUT
05.02	SHEET METAL FASCIA; RE:
06.02	WOOD FRAMING; SEE STRUCTURAL
07.01	R1 STANDING SEAM METAL ROOF; RE: 03/A8.11
07.02	FIBER CEMENT BOARD SIDING JOINT; RE: 06/A8.11
08.01	ARCHITECTURAL LOUVER PER MECHANICAL REQUIREMENTS; RE: 18, 19 & 20/A8.51, PAINTED TO MATCH ADJACENT WALL PANELS
08.02	GLASS SLIDING DOOR PER DOOR SCHEDULE
09.01	TECTUM DIRECT-ATTACHED ACOUSTICAL PANEL PER CEILING PLAN
09.04	GYP BD CEILING PER REFLECTED CEILING PLAN
09.05	ACT CEILING PER REFLECTED CEILING PLAN
09.06	CEILING CLOUD PER RCP
10.06	SIGNAGE, RE:A10.41
22.02	HOSE BIB PER P2.01
23.03	MECHANICAL EQUIPMENT PER MECHANICAL PLANS
26.01	PENDANT LIGHT FIXTURE, REF LIGHTING PLANS AND 11/A9.23
26.02	OUTLETS PER ELECTRICAL PLAN; RE: 05&06/A9.11 FOR DETAILS
26.03	ELECTRICAL EQUIPMENT PER ELECTRICAL PLANS
28.01	SPEAKER PER ELECTRICAL PLAN

LEGEND

- METAL FASCIA; COLOR TO MATCH ROOF
- FIBER CEMENT BOARD SIDING BASIS OF DESIGN: HARDIE LAPPED PLANK 8.25" WIDE COLOR: AGED PEWTER
- ALUMINUM STOREFRONT SYSTEM (COLOR: DURANAR SUNSTORM COSMIC GRAY MICA UC106686F) W/ 1" IGU GLAZING WITH LOW-E COATING
- T.O.F. TOP OF WOOD WALL FRAMING
- (T) TEMPERED

GENERAL NOTES

1. ALL METAL FLASHING SHALL BE PAINTED TO MATCH ADJACENT SURFACE, TYP. U.N.O.
2. SIDING JOINTS SHALL BE CONTINUOUS ABOVE SILLS, UNDER SOFFITS, AND AROUND CORNERS. CONTROL JOINTS TO BE PAINTED, COLORS AS SPECIFIED BY ARCHITECT.
3. ALL GLAZING TO BE FULLY TEMPERED, U.N.O. PROVIDE SAFETY GLAZING PER 2022 CBC SECTION 2406. CONTRACTOR TO INDICATE SAFETY LOCATIONS IN SHOP DRAWINGS SUBMITTALS.
4. ALL WOOD FRAMING THAT IS EXPOSED TO VIEW SHALL BE PROVIDED WITH CLEAR COAT.
5. ALL MANUFACTURERS LISTED IN LEGEND SERVE AS THE BASIS OF DESIGN, SEE SPECIFICATIONS FOR LIST OF APPROVED MANUFACTURERS.
6. FOR TYPICAL WOOD STUD FRAMING CONNECTIONS, REFER TO STRUCTURAL DRAWINGS.

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EXTERIOR ELEVATIONS & BUILDING SECTIONS

A3.01

ABBREVIATIONS

4S/DP	4" SQUARE BY 2 1/8" DEEP BOX
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICAN WITH DISABILITIES ACT
A.F.F.	ABOVE FINISH FLOOR
A.F.G.	ABOVE FINISH GRADE
AWG	AMERICAN WIRE GAUGE
AMP, A	AMPERE
A.I.C.	AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)
AF/AT	AMP FRAME, AMP TRIP
AHJ	AUTHORITY HAVING JURISDICTION
AS/AF	AMP SWITCH, AMP FUSE
ATS	AUTOMATIC TRANSFER SWITCH
AVG	AVERAGE
BDF	BUILDING DISTRIBUTION FRAME
BR	BRANCH
BLDG	BUILDING
CEC	CALIFORNIA ELECTRICAL CODE
CIRC., CKT.	CIRCUIT
CB	CIRCUIT BREAKER
CSFD	COMBINATION SMOKE FIRE DAMPER
C.	CONDUIT
C.O.	CONDUIT ONLY, COMPLETE WITH PULLSTRING
CONN	CONNECTED
CPT	CONTROL POWER TRANSFORMER
CLCB	CURRENT LIMITING CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CT	CURRENT TRANSFORMER
(D)	EXISTING TO BE DEMOLISHED
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
E.C.	ELECTRICAL CONTRACTOR
EMS	ENERGY MANAGEMENT CONTROL SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
EWC	ELECTRIC WATER COLLER
E.P.O.	EMERGENCY POWER OFF
E-O-L	END-OF-LINE CIRCUIT TERMINATOR
EF	EXHAUST FAN
E/G	EQUIPMENT GROUND (GREEN)
EP	EXPLOSION PROOF
(E)	EXISTING EQUIP TO REMAIN
(ER*)	EXISTING EQUIP TO BE RELOCATED (*CORRESPONDS TO NEW LOCATION)
FT or '	FEET
FA	FIRE ALARM
FLA	FULL LOAD AMPS
GRD	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GEC	GROUNDING ELECTRODE CONDUCTOR
JBOX	JUNCTION BOX
K	DEGREE KELVIN
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATT
KWH	KILOWATT HOUR
HACR	HEATING AIR CONDITIONING REFRIGERATION
HOA	HAND-OFF-AUTO
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
H., W., D., L.	HEIGHT, WIDTH, DEPTH, LENGTH
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
IN. or "	INCHES
I/G	OSOLATED GROUND
IDF	INTERMEDIATE DISTRIBUTION FRAME
LCL	LONG CONTINUOUS LOAD
L.F.	LINEAR FEET
LTG, LTS	LIGHTING
LPS	LOW PRESSURE SODIUM
MAX.	MAXIMUM
MDF	MAIN DISTRIBUTION FRAME
MOCP	MAXIMUM OVERCURRENT PROTECTION
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
M.C.	MECHANICAL CONTRACTOR
M	METER
M/M	METER MAIN
MV	MERCURY VAPOR
MH	METAL HALIDE
MIN.	MINIMUM
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MCP	MOTOR CIRCUIT PROTECTOR
MFR.	MANUFACTURER
MTD	MOUNTED
MW	MICROWAVE
(N)	NEW
NATS	NON AUTOMATIC DISCONNECT
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
NF	NON-FUSED
NIC	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NL	NIGHT LIGHT
NO. or #	NUMBER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
%Z	PERCENT IMPEDANCE
PH. or ~	PHASE
PC	PHOTOCELL
P.C.	PLUMBING CONTRACTOR
P	POWER
PVC	POLY VINYL CHLORIDE
PDU	POWER DISTRIBUTION UNIT
PRIMARY	OVER 600 VOLTS
PROVIDE	FURNISH, INSTALL AND CONNECT
PT	POTENTIAL TRANSFORMER
PA	PUBLIC ADDRESS
RE	REPLACE EXISTING (IN-PLACE)
REC, RECEPT	RECEPTACLE
REF	REFRIGERATOR
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
SCC	SHORT CIRCUIT CURRENT
SCS	STRUCTURED CABLING SYSTEM
SFD	SMOKE FIRE DAMPER
SECONDARY	600 VOLTS AND LESS
SMACNA	SHEET MTL & AIR COND. CONTRACTORS' NATIONAL ASSOC.
SPD	SURGE PROTECTION DEVICE
SQ	SQUARE
TC	TIMECLOCK
TEL/DATA	TELEPHONE AND DATA
TV	TELEVISION
T.V.S.S.	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
U.G.P.S.	UNDERGROUND PULL SECTION
U.O.N.	UNLESS OTHERWISE NOTED
U.P.S.	UNINTERRUPTABLE POWER SYSTEM
VAV	VARIABLE AIR VOLUME
V	VOLTS
VA	VOLT AMPERES
VD	VOLTAGE DROP
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
W	WIRE
XFMR	TRANSFORMER
XX	EXISTING EQUIP TO BE DEMO'D

FLOOR BOX / SPECIALTY WALL BOX SYMBOLS

SINGLE SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. SEE SPECIFICATIONS FOR MORE INFORMATION.

TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. SEE SPECIFICATIONS FOR MORE INFORMATION.

ANNOTATIONS

AC-2	MECHANICAL EQUIPMENT CALLOUT, "AC" INDICATES UNIT TYPE AND "2" INDICATES UNIT NUMBER. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
3 / E-1	DETAIL CALLOUT, "3" INDICATES DETAIL NUMBER "E-1" INDICATES SHEET NUMBER.
XXXXXXXX	FEEDER SIZE DESIGNATION
XXX-X	LIGHTING FIXTURE DESIGNATION
XXX	KEYNOTE REFERENCE, REFER TO NOTES ON SHEETS, OR AS DIRECTED
1	REVISION REFERENCE
	WYE CONFIGURATION
	GROUND
	DELTA CONFIGURATION

BRANCH CIRCUIT SYMBOLS

A-1,3,5	HOME RUN TO PANEL. LETTER DESIGNATES PANEL, NUMBERS INDICATE CIRCUITS. PROVIDE DEDICATED NEUTRAL WIRE FOR EACH 'HOT' CIRCUIT IN CONDUIT RUN, #12 AWG MINIMUM UNLESS OTHERWISE NOTED.
	CONCEALED CONDUIT OR BRANCH CIRCUIT UNLESS OTHERWISE NOTED. 1/2" CONDUIT MINIMUM, (2) #12 AWG CONDUCTORS MINIMUM.
	CONDUIT OR BRANCH CIRCUIT CONCEALED BELOW GRADE, 3/4" CONDUIT MINIMUM WITH (2) 12 AWG CONDUCTORS MINIMUM AND A CODE SIZED EQUIPMENT GROUND.
	CONDUIT CONTINUATION.

LIGHTING SYMBOLS

PENDANT DOWNLIGHT

SURFACE MOUNTED DOWNLIGHT.

POLE MOUNTED ADJUSTABLE ACCENT LIGHT.

EXIT SIGN.

"EM" SHADED OR HALF-SHADED CONNECTION POINT INDICATES FIXUTRE ON EMERGENCY POWER.

LIGHTING CONTROLS

xx ab	CEILING MOUNTED SENSOR. PROVIDE WITH POWER PACK AND RELAYS FOR PLUG LOAD AND HVAC CONTROL. LETTERS "ab" INDICATE ZONES CONTROLLED. "xx" INDICATES THE FOLLOWING: • OS: DUAL TECHNOLOGY OCCUPANCY SENSOR • P: PHOTOCELL • OP: COMBINATION PHOTOCELL AND DUAL TECHNOLOGY OCCUPANCY SENSOR.
D ab	WALL MOUNTED COMBINATION OCCUPANCY SENSOR AND DIMMER SWITCH, MOUNTING HEIGHT PER ADA - UON OR REQUIRED. LETTERS "ab" INDICATE ZONES CONTROLLED.
MZ - # ab	LOW VOLTAGE MANUAL ON/OFF, DIMMING AND MULTI BUTTON ZONE SELECT CONTROL STATION. "#" DENOTES NUMBER OF ZONES. LETTERS "ab" INDICATE ZONES CONTROLLED.
$\$_K$	SINGLE POLE SWITCH, MOUNTING HEIGHT PER ADA. SUBSCRIPT "K" INDICATES KEY OPERATED SWITCH.

POWER SYMBOLS

	DUPLEX RECEPTACLE - MOUNTING HEIGHT PER ADA DETAIL 19/E7.01 OR AS NOTED. "C" INDICATES CONTROLLED RECEPTACLE, MUST BE WITHIN 6'-0" OF UNCONTROLLED RECEPTACLE PER TITLE 24 REQUIREMENTS.
	DOUBLE DUPLEX RECEPTACLE, MOUNTING HEIGHT PER ADA DETAIL 19/E7.01 OR AS NOTED.
	DUPLEX, GFCI RECEPTACLE, MOUNTING HEIGHT PER ADA DETAIL 19/E7.01 OR AS NOTED. WP INDICATES WEATHERPROOF, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
	DEDICATED 20A DUPLEX RECEPTACLE, MOUNTING HEIGHT PER ADA DETAIL 19/E7.01 OR AS NOTED.
	DUPLEX, GFCI RECEPTACLE MOUNTED ABOVE COUNTER, MOUNTING HEIGHT PER ADA DETAIL 19/E7.01 - UON OR REQUIRED. WP INDICATES WEATHERPROOF, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
J	WALL MOUNTED JUNCTION BOX. MOUNTING HEIGHT AS NOTED. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C..
J	JUNCTION BOX, MOUNTED IN ACCESSIBLE CEILING FOR APPLICATION DENOTED ON PLAN. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C.. MOUNT FLUSH IN FLOOR WHEN INDICATED IN A FLOOR BOX SYMBOL.
	SURFACE MOUNTED ELECTRICAL PANELBOARD OR LOAD CENTER. REFER TO PANEL SCHEDULE.
T	TRANSFORMER, REFER TO SINGLE LINE DIAGRAM.
F	FUSED DISCONNECT SWITCH, HP RATED, OR COMBINATION MOTOR STARTER/DISCONNECT SWITCH WITH FUSES PER EQUIPMENT MANUFACTURER AND WEATHERPROOF AS REQUIRED. PROVIDE FINAL CONNECTION TO UNIT EQUIPMENT. SEE MOTORIZED EQUIPMENT SCHEDULE FOR DISCONNECT AND STARTER SIZES.
M CT	UTILITY COMPANY METER. PROVIDE "CT's" AND "PT's" AS REQUIRED, REFER TO SINGLE LINE DIAGRAM.
1 150AF 150AT 3P	CIRCUIT BREAKER, LINE 1 REPRESENTS FRAME SIZE/RATING; LINE 2 REPRESENTS TRIP SIZE/RATING; LINE 3 REPRESENTS NUMBER OF POLES AND LINE 4 REPRESENTS MISCELLANEOUS BREAKER INFO. (SEE BELOW): SHUNT = PROVIDE SHUNT TRIP MECHANISM. HACR = PROVIDE HACR-RATED BREAKER. GFP = GROUND FAULT PROTECTION CLCB = CURRENT LIMITING CIRCUIT BREAKER SS = PROVIDE SOLID STATE CIRCUIT BREAKER
	GROUND CONNECTION, SIZE AS INDICATED OR AS REQUIRED.
PB OR P	PULLBOX, SIZED PER N.E.C. OR AS NOTED.

SYMBOLS - TELEPHONE / DATA

	DATA OUTLET BOX, WALL MOUNTED AT +15" A.F.F. (MIN. AS MEASURED TO BOTTOM OF BOX) - UON OR REQUIRED. STUB 3/4"C.O. WITH PULL STRINGS UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH ~~SINGLE GANG RING. SEE SCS1.1 FOR ADDITIONAL~~ INFORMATION. EXISTING PHONE SYSTEM IS ADA TO VOIP. B
WAP	~~DATA OUTLET BOX FOR WAP CONNECTION, CEILING~~ MOUNTED. PROVIDE (2) CAT6 CABLES TO DEVICE. B

SIGNAL SYSTEM SYMBOLS

B

WALL MOUNTED BATTERY/DIGITAL/ANALOG. CLOCK, FIELD VERIFY MOUNTING HEIGHT PRIOR TO INSTALLATION. CLOCK SYSTEM TO BE COMPATIBLE WITH RAWLINS SYSTEM. PROVIDE (1) CAT6 CABLE TO DEVICE.

SURFACE WALL MOUNTED SPEAKER. SPEAKER MUST BE INTEGRATED WITH EXISTING RAWLINGS SYSTEM. PROVIDE (1) CAT6 CABLE TO DEVICE.

SECURITY SYSTEM SYMBOLS

DC	DOOR CONTACT. TO BE CONNECTED TO SECURITY PANEL THROUGH LOW VOLTAGE WIRE.
K	WALL MOUNTED SECURITY KEYPAD. TO BE CONNECTED TO SECURITY PANEL THROUGH LOW VOLTAGE WIRE.
GB	GLASS BREAK SENSOR. TO BE CONNECTED TO SECURITY PANEL THROUGH LOW VOLTAGE WIRE.

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NORTH VERDEMONT ES CAPS ADDITION

3555 W. MEYERS ROAD
SAN BERNARDINO, CA 92407

Developed for
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

Revision		Date
B	Addendum B	09/03/2025

Submittal	Date
100% SCHEMATIC DESIGN	02/16/2023
DSA SUBMITTAL	04/19/2023
DSA APPROVAL	09/07/2023

Job Number	3089901
Checked By	Checker
Scale	

ELECTRICAL LEAD SHEET

E0.10

26 - EXHAUST FAN SCHEDULE - 233423

TAG	LOCATION	MOTOR DATA HP (WATTS)	ELECTRICAL VOLT.	PHASE	FLA	MCA	MOCP	DISCONNECT	CONDUIT/WIRE
EF-1	STORAGE - 5	0.28	115	1	8.8	11	20	MOTOR RATED TOGGLE SWITCH	1/2"C. 3#12 + 1#12G.

26 - HIGH VOLUME LOW SPEED CEILING FAN SCHEDULE - 233439

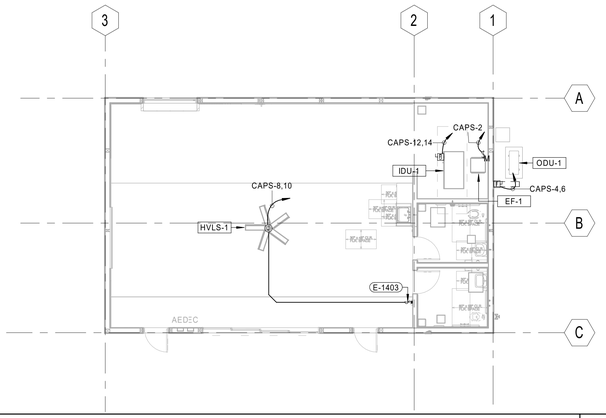
TAG	LOCATION	MOTOR DATA HP	ELECTRICAL VOLT.	PHASE	FLA	MCA	MOCP	DISCONNECT	CONDUIT/WIRE
HVLS-1	CLASSROOM 1	0.75	208	1	1	1.4	3	JUNCTION BOX	1/2"C. 3#12 + 1#12G.

26 - HEAT PUMP INDOOR UNIT SCHEDULE - 238127

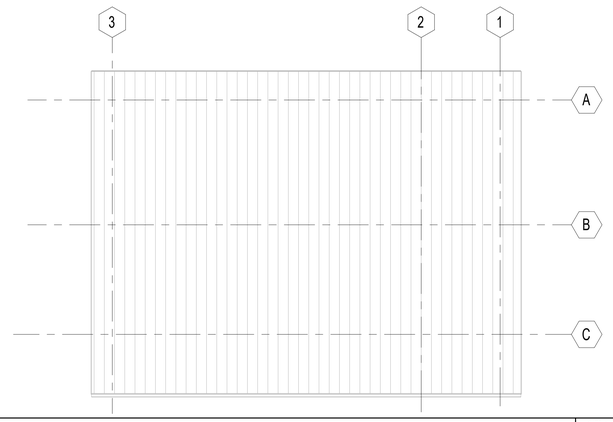
TAG	LOCATION	ELECTRICAL VOLT.	PHASE	FLA	MCA	MOCP	POWERED FROM OUTDOOR	DISCONNECT	CONDUIT/WIRE
IDU-1	STORAGE - 5	208	1	7.6	9.5	15	NO	30AS/1P/15AF NEMA 1	1/2"C. 3#12 + 1#12G.

26 - HEAT PUMP OUTDOOR UNIT SCHEDULE - 238127

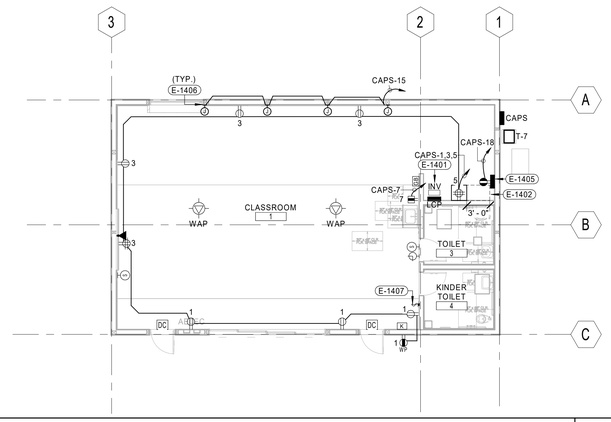
TAG	LOCATION	VOLT.	PHASE	ELECTRICAL MCA	MOCP	DISCONNECT	CONDUIT/WIRE
ODU-1	WEST	208 V	1	36.3	40	60AS/1P/35AF NEMA 3R	3/4"C. 3#8 + 1#10G.



1 - FLOOR - POWER | 1/8" = 1'-0" | 03



R - ROOF - POWER | 1/8" = 1'-0" | 10



1 - FLOOR - POWER | 1/8" = 1'-0" | 02

KEYNOTES

ITEM	DESCRIPTION
E-1401	PROVIDE BODINE ELI-S-400 MINI INVERTER AND MOUNT ON WALL ABOVE LIGHTING CONTROL PANEL. CIRCUIT ALL INTERIOR AND EXTERIOR EMERGENCY LIGHT FIXTURES THROUGH INVERTER.
E-1402	PROVIDE POWER FOR 24"W/X24"DX30"H IDF CABINET. MINIMUM 3' CLEARANCE REQUIRED.
E-1403	PROVIDE VARIABLE SPEED MOTOR RATED SWITCH TO CONTROL FAN.
E-1405	PROVIDE 120V POWER FOR SECURITY PANEL.
E-1406	PROVIDE POWER TO MOTORIZED SHADES.
E-1407	PROVIDE SWITCH FOR MOTORIZED SHADES CONTROL.

LEGEND

WOOD STUD WALL CONSTRUCTION

STANDING SEAM METAL ROOF

PLAN NOTES

1. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES TO THE DESIGNER.
2. ALL RECEPTACLES IN CLASSROOM TO BE TAMPER PROOF.
3. SECURITY SYSTEM MUST INTEGRATE WITH THE DISTRICTS DMP SYSTEM, WITH HEAD END AT THE POLICE STATION.

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ELECTRICAL POWER FLOOR AND ROOF PLANS

E2.01