Project: MAYBROOK ELEMENTARY SCHOOL – INTERIM HOUSING

DSA File No.: 19-65
DSA Application No.: 03-122420
GBA Project No.: 2215

ADDENDUM NO. 01

Date: February 13, 2023

Owner: LOWELL JOINT HIGH SCHOOL DISTRICT
11019 Valley Home Avenue
Whittier, CA 90603

Architect: Ghataode Bannon Architects LLP
760 W. 16th Street - Unit B
Costa Mesa, CA 92627
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The clarifications, modifications, changes, additions, and/or deletions contained herein shall be incorporated within the construction documents for the project. Such information shall take precedence over that previously published.

CHANGES TO THE SPECIFICATIONS

Item No. 1.1

Specification Reference: 05 50 00 METAL FABRICATIONS
Description: Add Specification Section 05 50 00 METAL FABRICATIONS.

Item No. 1.2

Specification Reference: 33 33 00 SANITARY UTILITIES
Description: Add Specification Section 33 33 00 SANITARY UTILITIES.

CHANGES TO THE DRAWINGS

Item No. 1.3

Drawing Reference: C002 GRADING PLAN
Description: Revise Construction Note 4 Variable Thickness Asphalt Paving to be at ramp landings only.

Added Construction Note 5 Drywell west of the portable building with FF=284.51.

All portable ramp elevations and asphalt ramp landing transitions revised per elevations shown.

All portable finish floor elevations revised per elevations shown.

Add Construction Note 6 Metal Handrail details per architectural plans.

Extended new asphalt pavement to the east, north of the restroom portable.

Relocated drinking fountain.

Item No. 1.4

Drawing Reference: C003 DETAIL SHEET
Description: Added detail 4 Asphalt Landing Transition

Item No. 1.5

Drawing Reference: C004 WET UTILITY PLAN
Description: Relocated drinking fountain.

Revised sanitary sewer and water lines to drinking fountain.

Item No. 1.6

Drawing Reference: A001 OVERALL SITE + ACCESSABILITY PLAN, A001.1 ENLARGED SITE PLAN, A002 TYPICAL SITE DETAILS and A100 BUILDING GROUPS 1 THRU 5 FLOOR + SIGNAGE PLAN
Description: Add asphalt ramp landing transitions to all portables as indicated.

Item No. 1.7

Drawing Reference: A001.1 ENLARGED SITE PLAN
Description: Add asphalt ramp landing transitions to all portables as indicated.

Add steel handrail ramp extensions to portable Classrooms 502 and 503. Add Keynote 05 50 00.H4 Steel Handrails

Replace portable Classroom 301 with Classroom 402, and vice versa, reversing the door location and ramp direction at each.

Relocated drinking fountain.

Item No. 1.8

Drawing Reference: A002 TYPICAL SITE DETAILS
Description: Detail 8 Ramp Transition: Add asphalt ramp landing transitions per 4/C003 as indicated.

Detail 9: Add Detail 9 Handrail at Ramp Extension Detail.

Details 10, 11, 12 and 19 Enlarged Plans: Add asphalt ramp landing transitions as indicated.

Relocated drinking fountain.

Item No. 1.9

Drawing Reference: A100 BUILDING GROUPS 1 THRU 5 FLOOR + SIGNAGE PLAN
Description: Detail 8 Ramp Transition: Add asphalt ramp landing transitions per 4/C003 as indicated.

Item No. 1.10

Drawing Reference: E-0.01 SYMBOL LIST AND GENERAL NOTES
Description: Add (n) Data Quantity of Data Cables OSP Type note.

Item No. 1.11

Drawing Reference: E-0.02 SINGLE LINE DIAGRAM
Description: Add work at existing panel as indicated within the clouded area of attached Sheet E-0.02.

Item No. 1.12

Drawing Reference:	SHEET E-1.02 SITE SIGNAL PLAN
Description:	Revise connections to modular buildings as indicated within the clouded areas of attached Sheet E-1.02.

Item No. 1.13

Drawing Reference:	SHEET E-2.01 RELOCATABLE BUILDINGS ELECTRICAL PLAN
Description:	Revise IDF locations and quantities as indicated within the clouded areas of attached Sheet E-2.01.

Item No. 1.14

Drawing Reference:	SHEET E-3.01 RELOCATABLE BUILDINGS SIGNAL PLAN
Description:	Revise IDF locations and quantities as indicated within the clouded areas of attached Sheet E-3.01.

PRE-BID CLARIFICATION

Item No. 1.15

RFC NO:	01
Contractor:	Champion Electric
Question:	*Are the poles and overhead power conductors intended to be purchased or rented?*
Response:	Temporary power poles and conductors serving Construction Facilities and Temporary Controls are at the contractor's discretion. All other poles and overhead conductors are permanent and intended to be provided (purchased) as a part of the Contract.

ATTACHMENTS

8 ½ x 11:

05 50 00	METAL FABRICATIONS
33 33 00	SANITARY UTILITIES

Drawings (30 x 42)

C002	GRADING PLAN
C003	DETAIL SHEET
C004	WET UTILITY PLAN
A001	OVERALL SITE + ACCESSABILITY PLAN
A001.1	ENLARGED SITE PLAN
A002	TYPICAL SITE DETAILS
A100	A100 BUILDING GROUPS 1 THRU 5 FLOOR + SIGNAGE PLAN
E-0.01	SYMBOL LIST AND GENERAL NOTES
E-0.02	SINGLE LINE DIAGRAM
E-1.02	SITE SIGNAL PLAN
E-2.01	RELOCATABLE BUILDINGS ELECTRICAL PLAN
E-3.01	RELOCATABLE BUILDINGS SIGNAL PLAN

END OF ADDENDUM 01

SECTION 05 50 00 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Steel pipe and tube railings.

1.3 COORDINATION

A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

B. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

C. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

1.4 ACTION SUBMITTALS

A. Product Data: For the following:

1. Railing brackets.
2. Grout, anchoring cement, and paint products.

B. Sustainable Design Submittals:

1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.

C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

D. Samples: For each type of exposed finish required.

1. Fittings and brackets.

1.5 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers certifying that shop primers are compatible with topcoats.

C. Evaluation Reports: For post-installed anchors, from ICC-ES.

1.6 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."

1.7 DELIVERY, STORAGE, AND HANDLING

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

1.8 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of railing from single source from single manufacturer.

2.2 ACCESSIBILITY REQUIREMENTS

A. Comply with applicable provisions in the CBC and the 2010 ADA Standards for Accessible Design.

B. Ramps:

1. General: Ramps on accessible routes shall comply with CBC Section 11B-405 per CBC Section 11B-405.1.

a. Exception: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with CBC Section 11B-405.

2. Handrails: Ramp runs shall have handrails complying with CBC Section 11B-505 per CBC Section 11B-405.8.

a. Exceptions:

1) Reserved.
2) Reserved.
3) Curb ramps do not require handrails.
4) At door landings, handrails are not required on ramp runs less than 6 inches (152 mm) in rise or 72 inches (1829 mm) in length.

3. Edge Protection: Edge protection complying with CBC Section 11B-405.9.2 shall be provided on each side of a ramp runs and at each side of ramp landings per CBC Section 11B-405.9.

a. Exceptions:

1) Edge protection shall not be required on ramps that are not required to have handrails and have sides complying with CBC Section 11B-406.2.2.
2) Edge protection shall not be required on the sides of ramp landings serving an adjoining ramp run or stairway.
3) Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of 1/2 inch (12.7 mm) maximum within 10 inches (254 mm) horizontally of the minimum landing area specified in CBC Section 11B-405.7.

b. Reserved.
c. Curb or Barrier: A curb, 2 inches (51 mm) high minimum, or a barrier shall be provided that prevents the passage of a 4 inch (102 mm) diameter sphere, where any portion of the sphere is within 4 inches (102 mm) of the finish floor or ground surface. To prevent wheel entrapment, the curb or barrier shall provide a continuous and uninterrupted barrier along the length of the ramp per CBC Section 11B-405.9.2.

C. Handrails:

1. General: Handrails provided along walking surfaces complying with CBC Section 11B-403, required at ramps complying with CBC Section 11B-405, and required at stairs complying with CBC Section 11B-504 shall comply with CBC Section 11B-505 per CBC Section 11B-505.1.
2. Where Required: Handrails shall be provided on both sides of stairs and ramps per CBC Section 11B-505.2.

a. Exceptions:

1) In assembly areas, handrails shall not be required on both sides of aisle ramps where a handrail is provided at either side or within the aisle width.
2) Curb ramps do not require handrails.
3) At door landings, handrails are not required when the ramp run is less than 6 inches (152 mm) in rise or 72 inches (1829 mm) in length.

b. Orientation: The orientation of at least one handrail shall be in the direction of the stair run, perpendicular to the direction of the stair nosing, and shall not reduce the minimum required width of the stair per CBC Section 11B-505.2.1.

3. Continuity: Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs per CBC Section 11B-505.3.

   a. Exception: In assembly areas ramp handrails adjacent to seating or within aisle width shall not be required to be continuous in aisles serving seating.

4. Height: Top of gripping surfaces of handrails shall be 34 inches (864 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces per CBC Section 11B-505.4 and CBC Figure 11B-505.4.
5. Clearance: Clearance between handrail gripping surfaces and adjacent surfaces shall be 1-1/2 inches (38 mm) minimum. Handrails may be located in a recess if the recess is 3 inches (76 mm) maximum deep and 18 inches (457 mm) minimum clear above the top of the handrail per CBC Section 11B-505.5 and CBC Figure 11B-505.5.
6. Gripping Surface: Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1-1/2 inches (38 mm) minimum below the bottom of the handrail gripping surface per CBC Section 11B-505.6 and CBC Figure 11B-505.6.

   a. Exceptions:

      1) Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.
      2) The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch (3.2 mm) for each 1/2 inch (12.7 mm) of additional handrail perimeter dimension that exceeds 4 inches (102 mm).

7. Cross Section: Handrail gripping surfaces shall have a cross section complying with CBC Section 11B-505.7.1 or 11B-505.7.2 per CBC Section 11B-505.7.

   a. Circular Cross Section: Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1-1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum per CBC Section 11B-505.7.1.
   b. Non-Circular Cross Section: Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches (102 mm) minimum and 6-1/4 inches (159 mm) maximum, and a cross-section dimension of 2-1/4 inches (57 mm) maximum per CBC Section 11B-505.7.2 and CBC Figure 11B-505.7.2.

8. Surfaces: Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges per CBC Section 11B-505.8.
9. Fittings: Handrails shall not rotate within their fittings per CBC Section 11B-505.9.

10. Handrail Extensions: Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs per CBC Section 11B-505.10.

    a. Exceptions:

        1) Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.
        2) In assembly areas, extensions shall not be required for ramp handrails in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles.
        3) In alterations, share the extension of the handrail in the direction of stair flight or ramp run would create a hazard, the extension of the handrail may be turned 90 degrees from the direction of the stair flight or ramp run.

    b. Top and Bottom Extension at Ramps: Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run per CBC Section 11B-505.10.1.
    c. Top Extension at Stairs: At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight per CBC Section 11B-505.10.2 and CBC Figure 11B-505.10.2.
    d. Bottom Extension at Stairs: At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the last riser nosing. The horizontal extension of a handrail shall be 12 inches (305 mm) long minimum and a height equal to that of the sloping portion of the handrail as measured above the stair nosings. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight per CBC Section 11B-505.10.3 and CBC Figure 11B-505.10.3.

2.3 PERFORMANCE REQUIREMENTS

A. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C),material surfaces.

2.4 SUSTAINABILITY REQUIREMENTS

A. Comply with applicable provisions in the CGBC.

B. Recycled Content of Steel Products: Recycled content not less than 20 percent.

C. Low-Emitting Materials: Paints and coatings shall comply with the requirements of authorities having jurisdiction.

2.5 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

1. Provide type of bracket with flange tapped for concealed anchorage to threaded hanger bolt and that provides 1-1/2 inch (38 mm) clearance from inside face of handrail to finished wall surface.

2.6 STEEL AND IRON

A. Tubing: ASTM A 500 (cold formed) or ASTM A 513.

B. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

C. Plates, Shapes, and Bars: ASTM A 36/A 36M.

2.7 FASTENERS

A. General: Provide the following:

1. Ungalvanized-Steel Railings: Plated steel fasteners complying with ASTM B 633 or ASTM F 1941 (ASTM F 1941M), Class Fe/Zn 5 for zinc coating.
2. Hot-Dip Galvanized Railings: Type 304 stainless-steel or hot-dip zinc-coated steel fasteners complying with ASTM A 153/A 153M or ASTM F 2329 for zinc coating.
3. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.

C. Fasteners for Interconnecting Railing Components:

1. Provide concealed fasteners for interconnecting railing components and for attaching them to other work, unless otherwise indicated.
2. Provide Phillips or tamper-resistant flat-head machine screws for exposed fasteners unless otherwise indicated.

D. Post-Installed Anchors: Torque-controlled expansion anchors capable of sustaining, without failure, a load equal to 6 times the load imposed when installed in unit masonry and 4 times the load imposed when installed in concrete, as determined by testing according to ASTM E 488/E 488M, conducted by a qualified independent testing agency.

1. Material for Interior Locations: Carbon-steel components zinc-plated to comply with ASTM B 633 or ASTM F 1941 (ASTM F 1941M), Class Fe/Zn 5, unless otherwise indicated.
2. Material for Exterior Locations and Where Stainless Steel Is Indicated: Alloy Group 1 (A1) stainless-steel bolts, ASTM F 593 (ASTM F 738M), and nuts, ASTM F 594 (ASTM F 836M).

2.8 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

B. Shop Primers: Provide primers that comply with Section 09 96 00 "High-Performance Coatings."

C. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.

D. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.

1. Water-Resistant Product: At exterior locations and where indicated provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

2.9 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage as indicated on Drawings.

B. Shop assemble railings to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.

C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

D. Form work true to line and level with accurate angles and surfaces.

E. Fabricate connections that are exposed to weather in a manner that excludes water. Provide weep holes where water may accumulate.

F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.

G. Connections: Fabricate railings with welded connections unless otherwise indicated.

H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove flux immediately.
4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
5. All welded joints and surfaces shall be ground smooth. No sharp or abrasive corners, edges, or surfaces shall remain after fabrication.

I. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.

1. Fabricate splice joints for field connection using an epoxy structural adhesive if this is manufacturer's standard splicing method.

J. Form Changes in Direction as Follows:

1. By radius bends of radius indicated or by inserting prefabricated elbow fittings of radius indicated.

K. For changes in direction made by bending, use jigs to produce uniform curvature for each repetitive configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

L. Close exposed ends of railing members with prefabricated end fittings.

M. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch (6 mm) or less.

N. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.

O. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.

P. For railing posts set in concrete, provide steel sleeves not less than 6 inches (150 mm) long with inside dimensions not less than 1/2 inch (13 mm) greater than outside dimensions of post, with metal plate forming bottom closure.

2.10 STEEL AND IRON FINISHES

A. Galvanized Railings:

1. Hot-dip galvanize exterior steel railings, including hardware, after fabrication.
2. Hot-dip galvanize steel railings where indicated, including hardware, after fabrication.

3. Comply with ASTM A 123/A 123M for hot-dip galvanized railings.
4. Comply with ASTM A 153/A 153M for hot-dip galvanized hardware.
5. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.
6. Fill vent and drain holes that are exposed in the finished Work, unless indicated to remain as weep holes, by plugging with zinc solder and filing off smooth.

B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.

C. For nongalvanized-steel railings, provide nongalvanized ferrous-metal fittings, brackets, fasteners, and sleeves; however, galvanize anchors to be embedded in exterior concrete or masonry.

D. Preparation for Shop Priming Galvanized Items: After galvanizing, thoroughly clean items of grease, dirt, oil, flux, and other foreign matter, and treat with metallic phosphate process.

1. Comply with requirements in Section 09 96 00 "High-Performance Coatings."

E. Shop prime iron and steel items unless they are to be embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.

1. Shop prime with primers specified in Section 09 96 00 "High-Performance Coatings."

F. Preparation for Shop Priming: Comply with requirements in Section 09 96 00 "High-Performance Coatings."

G. Shop Priming: Apply shop primer to comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.

1. Stripe paint corners, crevices, bolts, welds, and sharp edges.
2. Comply with requirements in Section 09 96 00 "High-Performance Coatings."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine plaster and gypsum board assemblies, where reinforced to receive anchors, to verify that locations of concealed reinforcements are clearly marked for Installer. Locate reinforcements and mark locations if not already done.

3.2 INSTALLATION, GENERAL

A. Fit exposed connections together to form tight, hairline joints.

B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

1. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
2. Set posts plumb within a tolerance of 1/16 inch in 3 feet (2 mm in 1 m).
3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet (6 mm in 3.5 m).

C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

D. Adjust railings before anchoring to ensure matching alignment at abutting joints.

E. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.3 RAILING CONNECTIONS

A. Nonwelded Connections: Use mechanical or adhesive joints for permanently connecting railing components. Seal recessed holes of exposed locking screws using plastic cement filler colored to match finish of railings.

B. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.

C. Expansion Joints: Install expansion joints at locations indicated but not farther apart than required to accommodate thermal movement. Provide slip-joint internal sleeve extending not less than 2 inches (50 mm) beyond joint on either side, fasten internal sleeve securely to one side, and locate joint within 6 inches (150 mm) of post.

3.4 ANCHORING POSTS

A. Use metal sleeves preset and anchored into concrete for installing posts. After posts are inserted into sleeves, fill annular space between post and sleeve with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.

B. Cover anchorage joint with flange of same metal as post, welded to post after placing anchoring material or attached to post with set screws.

C. Anchor posts to metal surfaces with oval flanges, angle type, or floor type as required by conditions, connected to posts and to metal supporting members as follows:

1. For steel pipe railings, weld flanges to post and bolt to metal supporting surfaces.

3.5 ATTACHING RAILINGS

A. Attach railings to wall with wall brackets. Provide brackets with 1-1/2 inch (38 mm) clearance between inside face of handrail and finished wall surface. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.

B. Secure wall brackets and railing end flanges to building construction as follows:

1. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.
2. For steel-framed partitions, use self-tapping screws fastened to steel framing or to concealed steel reinforcements.

3.6 ADJUSTING AND CLEANING

A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

1. Comply with requirements in Section 09 96 00 "High-Performance Coatings."

B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas, and repair galvanizing to comply with ASTM A 780/A 780M.

3.7 PROTECTION

Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

END OF SECTION 05 50 00

SECTION 33 30 00 - SANITARY UTILITIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Supply and installation of sanitary sewer system from building wall perimeter, unless noted otherwise, to site sanitary sewer point of connection as shown on Construction Documents.

B. Closed-circuit television inspection of sewer laterals.

C. Contractor shall furnish all labor, materials, services, testing, transportation and equipment necessary for the completion of all piping and including the demolition and removal of certain equipment, piping and appurtenances all as required and as indicated on drawings and specified herein. Work materials and equipment not indicated or specified which is necessary for the complete and proper operation of the work of this Section in accordance with the true intent and meaning of the contract documents shall be provided and incorporated at no additional cost to the Owner.

1.2 RELATED SECTIONS

A. Trenching Requirements: Conform to the requirements of Section 31 20 00 – Earthwork.

1.3 SUBMITTALS

A. Product Data:

1. Manufacturer's Catalog data for materials. Include technical data for pipe, gaskets, joints, couplings, and cleanout yard box with lid, sand bedding, tracer wire and detectable warning tape.

B. Closeout Submittal: Submit three DVD's of Closed-circuit television inspections performed. Include the following information:

1. Electronic Media Recordings: Visual and audio record of the entire length of pipe. For existing laterals identify problem areas, such as roots, cracks, fractures, broken pipe, and other unusual conditions found.

2. Digital Photographs of the pipe condition, connections, points of interest and defects found. Indicate distance of defects to a point of reference such as face of building or mainline.

3. Inspection Log: Provide written report including:

a. Date and time of inspection.

b. Name Project, Contractor, and operator name.

c. Location, material and size of pipe.

d. Description of defects found, if any.

C. Certificates:

1. Submit manufacturer's certified statement that the pipe has been manufactured and tested in accordance with the applicable requirements of the California Plumbing Code, ASTM, & The Standard Specifications for Public Works Construction.

1.4 LICENSES, PERMITS & FEES

A. The Contractor shall have a Class "C-34" or Engineering "A" Contractors license valid in the State of California.

1.5 DISPOSAL OF REMOVED MATERIALS INCLUDING ASBESTOS-CEMENT PIPE

A. All removed materials, except those indicated on the plans or described herein to remain the property of the Owner, shall become the property of the Contractor and shall be disposed in accordance with local, state, and federal laws. Should any of those materials be considered as hazardous the Contractor shall provide the Owners Inspector with paper custody trail documentation of the disposal.

B. Asbestos – Cement (A-C) Pipe Removal and Disposal: The plans for the project may indicate that existing asbestos-cement pipe is to be removed from the ground. Where so indicated the Contractor shall excavate with care, expose the pipeline and remove the A-C pipe to the nearest joint. Should the plans not call out the removal of the A-C pipe and A-C pipe is encountered, the Contractor shall obtain approval from the Inspector as to whether or not the A-C pipe is to be removed or can be left in place. Cutting of the pipe shall only be done if absolutely there is no other way to expose the length of pipe to the nearest joint that be separated and the Inspector approves the cutting of the pipe. Cutting of the pipe shall be done with a mechanical saw with a pressure water source to dampen the pipe and the dust from the cutting. To remove a coupling, the coupling may have to be broken in the trench. The pipe once removed from the trench may be broken for handling. The breaking shall be done within a plastic bagging or sheeting material to minimize the release of asbestos fibers into the atmosphere. Once removed and broken, if necessary, the A-C material shall be bagged and disposed of legally with the Inspector to be given a copy of all Contractor paperwork as to the legal disposal of the material. If the A-C pipe section(s) are removed intact the pipe can be removed by the Contractor from the project site and become the property and responsibility of the Contractor.

1.6 DRAWINGS

A. Because of the small scale drawings, it is not possible to indicate all offsets, fittings and accessories which may be required. The Contractor shall carefully investigate the conditions surrounding installation of his work, furnishing the necessary piping, fittings, traps, and other devices which may be required to complete the installation.

B. The general arrangement indicated on the drawings shall be followed as closely as possible. Coordinate with the Architectural, Structural, Mechanical and Electrical Drawings prior to installation of piping fixtures and equipment to verify adequate space available for installation of the work shown. In the event a field condition arises which makes it impossible to install the work as indicated, submit, in writing, the proposed departures to the Architect for his acceptance. Only when Architect's acceptance is given, in writing, shall Contractor proceed with installation of the work.

C. In case of a difference in the specifications or drawings, or between the specifications and the drawings or in the drawings, the Contractor shall figure the most expensive alternate and after award of contract, shall secure direction from the Architect.

1.7 EXAMINATION OF PREMISES

A. Before bidding on this work, Contractors shall make a careful examination of the premises and shall thoroughly familiarize themselves with the requirements of the contract. By the act of submitting a proposal for the work included in this contract, the Contractor shall be deemed to have made such study and examination, and that he is familiar with and accepts all conditions of the site.

1.8 PROTECTION

A. All work, equipment and materials shall be protected at all times. Contractor shall make good all damage caused either directly or indirectly by his own workmen. Contractor shall also protect his own work from damage. He shall close all pipe openings with caps or plugs during installation. He shall protect all his equipment and materials against dirt, water, chemical and mechanical injury. Upon completion, all work shall be thoroughly cleaned and delivered in a new condition.

B. Contractor shall be held responsible for all damage to equipment and materials until he has received written notice from the Architect or Engineer that his work has been accepted.

1.9 LOCATIONS

A. The locations of apparatus, piping and equipment indicated on the drawings are approximate. Piping and equipment shall be installed in such a manner as to avoid all obstruction, preserve headroom, and keep openings and passages clear. The locations of and mounting heights of all fixtures shall be coordinated with the architectural plans and room elevations.

B. Clearances and Openings: Contractor shall cooperate and coordinate his work with all other trades to avoid confliction and permit for a neat and orderly appearance of the entire installation. The Contractor shall, in advance of the work, furnish instructions to the General Contractor as to his requirements for equipment and material installation of any kind, whether or not specifically mentioned on drawings or in the specifications, and shall include recesses, chases in walls, and all required openings in the structure. Should furnishing this information be neglected, delayed or incorrect and additional cuttings are found to be required, the cost of the same shall be charged to this Contractor.

1.10 SUBSTITUTIONS

A. The Contractor assumes full responsibility that alternate manufacturers, items and procedures will meet the job requirements and is responsible for cost of redesign and of modifications to this and other parts of work caused by alternate items furnished under work in this Section. In view of these responsibilities, it is the purpose of these specifications to establish procedures which ensure that the Contractor has considered all the ramifications of proposed alternates before submitting them for review. Submittals which do not comply with the requirements of these specifications or which indicate proposed alternates were selected without proper regard to the requirements of the job, will not be approved. No more than one proposed alternate will be considered for each item.

B. This Contractor is responsible to provide sufficient information to allow the Engineer to analyze any proposed alternate. If inadequate information is provided, the proposal will not be approved and resubmittal will not be allowed.

C. The Architect or his authorized representative shall be the sole judge as to the quality and suitability of proposed alternate equipment, fixtures or materials and decisions of the Architect or that of his representative shall be final and conclusive.

1.11 RECORD DRAWINGS

A. Contractor shall provide and keep up-to-date a complete "as-built" record set of redline prints which shall show every change from the original drawings and the exact "as-built" locations and sizes of the work provided under this Section of the specifications. This set shall include locations, dimensions, depth of buried piping, cleanouts, manholes, sewer invert locations, plugged wyes, tees, etc. On completion of the work, the Contractor shall incorporate all as-built information on a set of reproducible tracings provided by the Architect and this set of reproducibles shall be delivered to the Architect.

1.12 QUALITY ASSURANCE

A. Comply with the following as a minimum requirement:

1. System Description: Grades and elevations are to be established with reference to the benchmarks referenced on the Plans.

2. The work provided herein shall conform to and be in accordance with the Contract Plans, General Conditions/Specifications and Special Provisions, as well as the Standard Specifications for Public Works Construction ("Green Book"), 2018 Edition, adopted by the Southern California Chapter, American Public Works Association; herein referred to as the "Standard Specifications".

3. California Plumbing Code, CPC, 2019 Edition, Chapter 7.

4. California Administrative Code, Title 22, Section 64630(e)(2).

5. Underwriters Laboratories.

6. American Society of Testing Materials.

1.13 INSPECTION

A. Notice shall be given to the Owner's Inspector at least 48 hours before starting construction.

B. Contractor shall not allow or cause any of his work to be covered up before it has been duly inspected, tested and approved by the Owner, Architect or any other authorized inspectors having legal jurisdiction over his work. Should he fail to observe the above, he shall uncover the work and, after it has been inspected, tested and approved, recover it at his own expense.

C. Inspection of the work shall not relieve the contractor of any obligations to complete the work as prescribed by the standard specifications. Any known defective work shall be corrected before testing or final inspection will be permitted. Unsuitable materials may be rejected even if these materials have been previously overlooked by the Inspector.

D. The Owner shall have the authority to suspend the work completely or in part for such time as it may deem necessary if the contractor fails to carry out instructions given by the Owner, or to perform any required provisions of the plans and specifications. The contractor shall immediately comply with a written order of the Owner to suspend the work completely or in part. The work shall be resumed when improper methods or defective work are corrected as ordered and approved in writing by the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Pipeline:

1. Project site sanitary sewer.

a. PVC (Poly Vinyl Chloride) Schedule 40 DWV Pipe, Conforming to ASTM D2665, ASTM F794, and ASTM F1866. Installer of PVC Schedule 40 DWV piping system shall carry ASTM D2855 and ASME B31.3 qualification. Installer shall provide proof of these qualifications to IOR prior to commencing work. Manufacturer: Charlotte pipe and foundry, Spears Manufacturing Company, Harvel Plastics Inc., or equal.
b. PVC primer and solvent for chemical weld of pipe and fittings shall be as recommended by pipe manufacturer. Containers for solvent and primer shall be clearly marked with manufacturer's data. Solvent and primer shall not be more than one year old. The safety placards must be visible. Blue or red hot glue shall not be used.
c. Primer: Weld-On P-70 by IPS, Conforming to ASTM F656.
d. Cement: Weld-On 711 (gray) by IPS, Conforming to ASTM D2564.

B. Cleanout Assemblies: Cleanout plug shall be line size.

1. See Construction Documents for details.

C. Manhole Brick Mortar, Grout, and Plaster: Conform to Standard Specifications for Public Works Construction, Section 202 - Masonry Materials.

D. Metal Covers, Frames and Accessories:

1. Conform to Section 206 – Miscellaneous Metal Items of the Standard Specifications for Public Works Construction.
2. Metal Covers and Frames: Vandal-resistant design.
3. Hot-dip galvanize all steel parts after fabrication and prior to assembly in accordance with Section 210 – Paint and Protective Coating of the Standard Specifications for Public Works Construction.

E. Bedding Materials: Conform to the requirements of Section 31 20 00 – Earthwork.

PART 3 - EXECUTION ON PRIVATE PROPERTY

3.1 PIPELINE INSTALLATION

A. Install pipeline in a practical alignment and uniform slope to the point of connection as indicated on the plans. Prior to trench excavation, verify size, material, depth, and location of the point of connection. Notify Civil Engineer if point of connection elevation is different then that shown on construction drawings as it may affect the design of the system.

B. No pipe shall be laid until the Geotechnical Project Manager inspects and approves the conditions of the bottom of the trench.

C. Pipe laying shall proceed "up grade" with the spigot section of the bell-and-spigot pipe pointing in the direction of the flow.

D. Each section of pipe shall be laid true to line and grade and in such a manner as to form an close concentric joint with the adjoining pipe and to prevent sudden offsets in the flow line.

E. Where invert elevations are indicated, run pipe at a uniform slope between inverts shown.

F. Join pipes and fittings as recommended by the manufacturer.

G. All sewer lines & cleanouts shall be staked by a licensed surveyor if slope of grade is less than 2% and a complete set of cut sheets shall be supplied to the Inspector. All construction staking shall be installed and verified for grade and alignment prior to the start of construction.

H. PVC schedule 40 DWV pipe and fittings shall be solvent welded. PVC pipe ends shall be cut ninety (90) degrees and Beveled from 10°-15° with a proper beveling tool, cleaned and cleared of cutting burrs prior to cementing. Use approved reaming tool. Pipe ends shall be wiped clean and free of dirt, moisture, oil, and other foreign material with a rag. Primer shall be applied until the surface of the pipe and fitting is softened. Cement shall be applied with a light coat on the inside of the fitting and two heavier coats on the outside of the pipe. Pipe shall be inserted into the fitting and given a quarter turn while inserting if possible to help seat the cement while both the inside socket surface and outside surface of pipe are wet with solvent cement. Hold joint in place and undisturbed for 1 minute after assembly. Excess cement shall be wiped from the outside of the pipe.

I. Pipe shall not be laid when the condition of the trench or the weather is unsuitable.

J. The interior of the sewer pipe shall be kept clean of dirt and debris at all times. When work is not in progress, open ends of pipe and fittings shall be plugged.

K. Where clearing after laying is difficult because of small pipe size, a suitable swab or squeegee shall be kept in the pipe and bulled forward past every joint immediately after joining has been completed.

3.2 CLEARANCES OF SANITARY PIPELINE

A. Buildings or Structures - 2 feet.

B. Parallel to Water Line:

1. Building sanitary drain, (that which starts from the building perimeter to existing site sewer) shall not be laid in a common trench with the water line unless the bottom of the water line shall be at least 12 inch above the top of the sewer pipeline.

2. In addition, the water pipe shall be placed on a solid shelf excavated on one side of the common trench with a minimum clear horizontal distance of 12 inch sewer or drain line.
3. Site sanitary sewer (receiving more than one building sanitary drain or acid pipeline) shall be separated from the water line in accordance with the requirements of the State of California, Human and Welfare Agency, Department of Health Services.

C. Crossing Water Line:

1. Building sanitary drain shall be installed a minimum of 12 inches below the potable water line

2. Site sanitary sewer shall be separated from the water main in accordance with the requirements of the State of California Administrative Code, Title 22, Section 64630(e)(2).

3.3 CLEANOUTS

A. In general, provide cleanouts at the upper terminal for each sanitary pipeline, at intervals not exceeding 100 feet in straight run and any fraction thereof and for each aggregate horizontal change in direction exceeding 135 degrees. See construction drawings for locations.

B. Install required cleanouts before horizontal pipelines are covered.

C. In concrete-paved areas, extend cleanouts flush with finish grade.

D. In unpaved and asphalt-paved areas, install cleanouts in yard boxes 4 inches below the yard box cover.

E. In traffic areas, install countersunk cleanout plugs where raised heads protrude.

3.4 PIPE REMOVAL

A. All existing underground sewer pipe and cleanouts, within the limits of new sewer pipe trenching shown on the plans, shall be removed from the site by the Contractor.

B. Sewer lines which are to remain as abandoned, but have had pipe cut and removed, shall be capped.

3.5 PROTECTION

A. Where new building sewers are to be connected into a sewer line which is in active use, the CONTRACTOR shall call for such protection as is necessary to prevent construction debris from being washed into the active sewers. Plugged inlets or

other suitable protection shall be called for in the active manhole before beginning manhole modifications or tract sewer cleaning.

3.6 CLOSED-CIRCUIT TELEVISION INSPECTION

A. Coordinate with owners inspector time and date of inspection. Project Inspector shall be present during the CCTV inspection.

B. Clean laterals by hydraulic jet.

C. Perform internal closed-circuit television inspection of lateral from the building to the campus mainline. Record sewer in its entirety with no breaks or interruptions. Move camera at a speed no greater than 30 feet per minute, stopping for a minimum of ten seconds to record pipe connections, defects, and points of interest.

D. Maintain technical quality, sharp focus and distortion free picture. Pan, tilt, and rotate as necessary to best view and evaluate connections, defects and points of interest.

E. Closed-circuit Television Equipment: As a minimum equipment shall include:

1. Television camera specially designed for pipe inspections, and operative in 100 percent humidity conditions.

2. Camera and television monitor capable of producing minimum 470H-line resolution color video picture.

3. Camera capable to inspect laterals as small as three inches up to 70 feet from sewer mainline.

4. Camera lighting shall be suitable to allow clear picture of inner wall at least ten feet in front.

F. Defective Work:

1. New Laterals: Defective Work found shall be repaired at Contractor's expense. Perform a new closed-circuit television inspection at no cost to owner.

2. Existing Laterals:

a. If roots, sludge, or sediment material or other defect not related to the Work of this project impedes inspection, withdraw camera, restart inspection from opposite end and notify Owner of defects found.

3. If obstruction or stoppage was caused by Work related to this project, remove obstruction at no cost to Owner. Perform a new closed-circuit television inspection at Contractor's expense.

3.7 TESTING OF SEWER PIPE

A. After installation of sewer pipe, testing shall be performed. The piping of the sewer system shall be tested with water or air except that plastic pipe shall not be tested with air. Contractor to follow guidelines set forth by the California Plumbing Code section 712.0 Testing.

3.8 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION 33 30 00

KEYNOTE NUMBERS MAY NOT NECESSARILY CORRESPOND PRECISELY TO SPECIFIC SPECIFICATION SECTIONS OF THE WORK. REFER TO THE SPECIFICATION TABLE OF CONTENTS FOR PRECISE SPECIFICATION DIVISION NUMBERS ASSOCIATED WITH THE WORK. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE NUMBER(S) SPECIFICALLY CORRESPOND PRECISELY TO SPECIFICATION SECTIONS OR DIVISIONS PROVIDED IN THE TECHNICAL SPECIFICATIONS.

NOTE TO CONTRACTOR: BEFORE GRADING OR TRENCHING OCCURS, THE CONTRACTOR SHALL COMPLETE HIS OWN UNDERGROUND UTILITY MAPPING SURVEY OF THE PROJECT SITE TO DETERMINE WERE EXISTING UTILITIES ARE AND WHERE POSSIBLE UNDERGROUND CONFLICTS MAY OCCUR.

*** = RAMP LANDING AT TOP: 2.0% MAX. SLOPE IN ANY DIRECTION

** = RAMP LANDING AT BOTTOM: 2.0% MAX. SLOPE IN ANY DIRECTION (MINIMUM 6' LONG x 5' WIDE)

(E)PARKING LOT

(E)BUILDING

TEMP BENCH MARK = EDGE OF CONCRETE ELEVATION = (285.98)

(E)PERIMETER OF DIRT DUMP PROGRESS AS OF JULY 8, 2022 AROUND NOON

FF=283.56 | FF=283.81 | FF=284.16 | FF=284.19 | FF=284.12 | FF=283.61 | FF=283.32 | FF=284.27 | FF=284.82 | FF=285.41 | FF=285.48 | FF=284.51

(E) RELO. CLASSRM A9 A#03-119943

(E) RELO. CLASSRM A8 A#03-119943

(E) RELO. CLASSRM A7 A#03-119943

(E) RELO. CLASSRM A6 A#03-119943

(E) RELO. CLASSRM A5 A#03-119943

**** = 2H:1V MAXIMUM SLOPE ON FLARED SIDES

GENERAL EARTHWORK NOTES FOR PORTABLES INSTALLED IN GRASS:

IN ORDER TO ACHIEVE A UNIFORM BEARING SURFACE FOR THE PROPOSED PORTABLES, THE SUBGRADE SOILS SHALL BE OVER-EXCAVATED TO A MINIMUM DEPTH OF 12 INCHES BELOW THE GROUND SURFACE (BGS). THE EXCAVATED SOIL MATERIAL SHOULD THEN BE AIR-DRIED AS NECESSARY TO ACHIEVE A UNIFORM MOISTURE CONTENT THAT IS NO MORE THAN 2 PERCENT ABOVE OPTIMUM, AND REPLACED AS ENGINEERED FILL HAVING A MINIMUM RELATIVE COMPACTION OF 95 PERCENT OF THE APPLICABLE MAXIMUM DENSITY STANDARD. LOCALIZED CONDITIONS (SUCH AS POCKETS OF LOOSE SOIL) MAY BE ENCOUNTERED WHICH WOULD REQUIRE DEEPER OVEREXCAVATION; HOWEVER, IF ENCOUNTERED, THESE AREAS ARE ANTICIPATED TO BE OF LIMITED EXTENT.

FILL PLACEMENT

ALL FILLS SHOULD BE PLACED IN 6-TO 8-INCH THICK MAXIMUM LIFTS, WATERED OR AIR DRIED AS NECESSARY TO ACHIEVE A MOISTURE CONTENT THAT IS AT LEAST EQUAL TO THE LABORATORY-DETERMINED OPTIMUM VALUE AND NO MORE THAN 2 PERCENT OVER OPTIMUM, AND THEN COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95 PERCENT. THE LABORATORY MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT FOR EACH CHANGE IN SOIL TYPE SHOULD BE DETERMINED IN ACCORDANCE WITH THE CURRENT REVISION OF ASTM TEST METHOD D 1557.

NOTE: REFER TO THE GENERAL EARTHWORK NOTES HEREON FOR EARTHWORK PROCEDURES UNDER THE NEW PORTABLE BUILDINGS. APPLY WEED CONTROL, DOW ELANCO SPIKE 80DF, OR APPROVED EQUAL, TO EARTH AFTER GRADING IS COMPLETED AND BEFORE BUILDING IS SET.

IRRIGATION NOTE:
A WORKING IRRIGATION SYSTEM EXISTS ON THIS SITE. TAKE CARE TO NOT DAMAGE EXISTING IRRIGATION SYSTEM. REPAIR IRRIGATION CONTROL WIRES OR OTHER LOW VOLTAGE WIRES IN AREAS THAT ARE DAMAGED BY THE CONTRACTOR. REPAIR AND REPLACE BROKEN LINES AND EQUIPMENT DAMAGED DURING THE COURSE OF CONSTRUCTION. REPAIR MATERIALS SHALL BE AS THE SAME AS EXISTING MATERIAL OR AS REQUIRED BY THE ARCHITECT.

*** = RAMP LANDING AT TOP: 2.0% MAX. SLOPE IN ANY DIRECTION

** = RAMP LANDING AT BOTTOM: 2.0% MAX. SLOPE IN ANY DIRECTION (MINIMUM 6' LONG x 5' WIDE)

MINIMUM CLASSROOM BLDG. F.F. ABOVE F.S. = 13-5/8" (1.14')
1-1/8" THICK PLYWOOD FLOORING / 8" DEPTH OF CHANNEL BEAM / 4.5" WOOD BLOCKS

MAXIMUM CLASSROOM BLDG. F.F. ABOVE F.S. = 27-1/8" (2.26')
1-1/8" THICK PLYWOOD FLOORING / 8" DEPTH OF CHANNEL BEAM / 18" WOOD BLOCKS

MINIMUM RESTROOM BLDG. F.F. ABOVE F.S. = 14-1/8" (1.18')
1-1/8" THICK PLYWOOD FLOORING / 7" DEPTH OF CHANNEL BEAM / 6" WOOD BLOCKS

MAXIMUM RESTROOM BLDG. F.F. ABOVE F.S. = 26-1/8" (2.18')
1-1/8" THICK PLYWOOD FLOORING / 7" DEPTH OF CHANNEL BEAM / 18" WOOD BLOCKS

CONSTRUCTION NOTES:

- (P) PROTECT EXISTING IMPROVEMENT IN PLACE.
- (1) CONSTRUCT ASPHALT PAVEMENT PER TABLE 1/C003.
- (2) CONSTRUCT CONCRETE REDWOOD HEADER PER DETAIL 2/C003.
- (3) CLEAR & GRUB EXISTING TURF. REGRADE TO THE ELEVATIONS / CONTOURS SHOWN HEREON. COMPACT DIRT TO A MINIMUM 85% RELATIVE DENSITY PER ASTM D1557.
- (3A) CLEAR & GRUB EXISTING TURF. REGRADE TO THE ELEVATIONS / CONTOURS SHOWN HEREON. COMPACT DIRT TO A MINIMUM 95% RELATIVE DENSITY PER ASTM D1557.
- (4) CONSTRUCT ASPHALT LANDING TRANSITION PER DETAIL 4/C003.
- (5) CONSTRUCT HVAC DRYWELL PER DETAIL 5/C003.
- (6) CONSTRUCT METAL HANDRAIL PER DETAILS ON ARCHITECTURAL PLANS.

HATCH LEGEND:

- = EXISTING BUILDING TO REMAIN
- = NEW BUILDING
- = EXISTING ASPHALT TO REMAIN
- = CLEAR, GRUB & REGRADE EXISTING TURF
- = NEW ASPHALT PAVEMENT
- = ASPHALT RAMP TRANSITION (4)

SCALE: 1" = 10'

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FPL
FPL and Associates, Inc.
Traffic • Transportation • Civil
30 Corporate Park, Suite 401
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Phone: 949-252-1688

REGISTERED PROFESSIONAL ENGINEER ALAN W. FPL No. C 54871 Exp. 06-30-23 CIVIL STATE OF CALIFORNIA — Consultant Seal

MAYBROOK ELEMENTARY SCHOOL
INTERIM HOUSING
11700 MAYBROOK AVENUE, WHITTIER CA 90604
LOWELL JOINT SCHOOL DISTRICT

GRADING PLAN

REVISIONS:
1 ADDENDUM 1 2-13-2023
2
3
4
5
6
7
8

Date: 07/29/22
Job: #2215
Scale:
Drawn:

C002

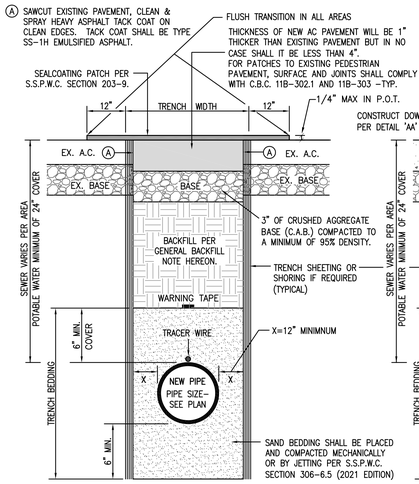
SHEET OF XXX
XREF:

Plot Date: 2/10/2023 5:30:40 PM Last Save By: ron.canedy Login: Ron.Canedy S:\Jobs\2724 - GBA Projects\2724.31 - Maybrook ES\Civil\Maybrook ES - C002 Grading Plan.dwg

WET UTILITY TRENCHING DETAILS

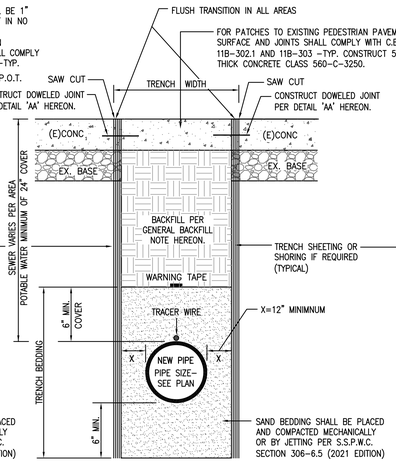
NOT TO SCALE

KEYNOTE NUMBERS MAY NOT NECESSARILY CORRESPOND PRECISELY TO SPECIFIC SPECIFICATION SECTIONS OF THE WORK. REFER TO THE SPECIFICATION TABLE OF CONTENTS FOR PRECISE SPECIFICATION DIVISION NUMBERS ASSOCIATED WITH THE WORK. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE NUMBER(S) SPECIFICALLY CORRESPOND PRECISELY TO SPECIFICATION SECTIONS OR DIVISIONS PROVIDED IN THE TECHNICAL SPECIFICATIONS.



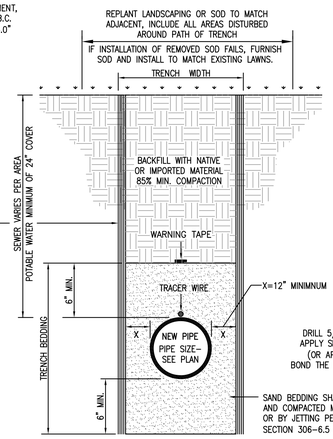
EXISTING ASPHALT AREAS

N.T.S.



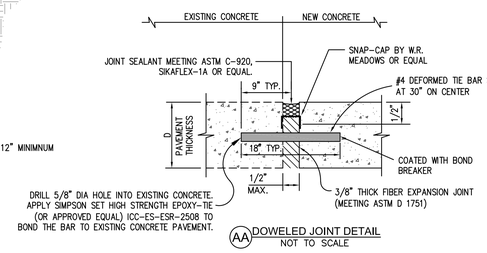
EXISTING CONCRETE AREAS

N.T.S.



NEW OR EXISTING LANDSCAPED AREAS

N.T.S.



AA DOWELED JOINT DETAIL

NOT TO SCALE

TRENCH EXCAVATION, BEDDING, & BACKFILL NOTES:

EXCAVATION NOTE: THE 2019 CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (CAL/OSHA) WILL REQUIRE A PERMIT FOR THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE (5) FEET OR DEEPER AND INTO WHICH A PERSON IS REQUIRED TO DESCEND. FOR PERMIT PURPOSES, "DESCEND" MEANS TO ENTER ANY PART OF THE TRENCH OR EXCAVATION ONCE THE EXCAVATION HAS ATTAINED A DEPTH OF 5 FEET OR MORE. FOR REGULATIONS RELATING TO PERMITS FOR EXCAVATIONS AND TRENCHES, REFER TO THE CALIFORNIA CODE OF REGULATIONS TITLE 8, CHAPTER 3.2, ARTICLE 2, SECTION 341 OF THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (CAL/OSHA)

THE CONTRACTOR SHALL SUBMIT A DETAIL SHOWING THE DESIGN OR SHORING; BRACING SLOPING OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARDS OF CAVING GROUND DURING THE EXCAVATION. THE PLAN SUBMITTED SHALL BE SIGNED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER CERTIFIED THAT THE PLAN COMPLIES WITH ALL OSHA CONSTRUCTION SAFETY ORDERS.

BEDDING MATERIAL SHALL BE COARSE SAND WITH SAND EQUIVALENT OF 30 OR GREATER. NO ANGULAR STONES OR PEA ~~GRAVELS~~ WILL BE ALLOWED IN PIPE BEDDING.

COMPACTION METHODS: ALL BEDDING & BACKFILL COMPACTION SHALL BE BY HAND-OPERATED, PLATE-TYPE, VIBRATORY, OR OTHER SUITABLE HAND-TAMPERS IN AREAS NOT ACCESSIBLE TO LARGER ROLLERS OR COMPACTERS. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO CONDUITS, PIPES, AND ANY APPURTENANCES. WATER DENSIFICATION BY INUNDATION OR JETTING SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM CIVIL ENGINEER.

SHEETING: WHEN EXCAVATION DEPTHS OR SOIL CONDITIONS REQUIRE SHORING OR USE OF A TRENCH BOX, THE BOTTOM OF THE SHORING OR TRENCH BOX SHOULD BE PLACED NO LOWER THEN THE TOP OF THE PIPE. THIS PREVENTS DISRUPTION OF THE BACKFILL ENVELOPE WHEN REMOVING THE SHORING OR TRENCH BOX. IF THIS PRACTICE CANNOT BE FOLLOWED, CONSIDERATION SHOULD BE GIVEN TO LEAVING THE SHORING IN PLACE.

GENERAL BACKFILL NOTES:

EXCAVATED TRENCH MATERIAL TO BE INSTALLED FOR BACKFILLING SHALL BE CLEAN, FREE OF LARGE CLODS AND STONES LARGER THAN 3-INCHES IN ANY DIMENSION. INSTALL BACKFILL MATERIALS IN LAYERS NOT TO EXCEED 8 TO 10-INCHES IN THICKNESS AND COMPACT TO A MINIMUM 90% OF THE MAXIMUM DENSITY. IN LIEU OF USING NATIVE MATERIAL IN PAVED AREAS, THE USE OF A SLURRY BACKFILL MAY BE SUBSTITUTED. SAND SLURRY SHALL CONSIST OF 1 SACK PORTLAND CEMENT (CLASS 100-E-100) PER CUBIC YARD OF SAND SLURRY MIX. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ANY EXCESS BACKFILL MATERIAL FROM THE SITE.

WARNING TAPE NOTES (POTABLE WATER):

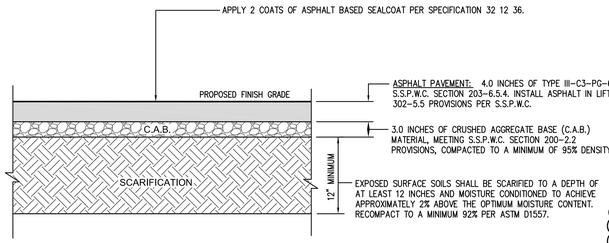
A METALLIC LINED TAPED FOR UNDERGROUND PIPES, MARKED "CAUTION BURIED WATER LINE BELOW", IN POLYETHYLENE FILM COLOR BLUE, INSTALLED ABOVE PIPE, MINIMUM 2" WIDE.

WARNING TAPE NOTES (SANITARY SEWER):

A METALLIC LINED TAPED FOR UNDERGROUND PIPES, MARKED "CAUTION BURIED SEWER LINE BELOW", IN POLYETHYLENE FILM COLOR GREEN, INSTALLED ABOVE PIPE, 6" WIDE.

TRACER WIRE NOTES:

COPPER TRACER WIRE SHALL BE INSTALLED ON ALL NON-METALLIC PIPELINES, 2" AND GREATER, JUST ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE. THE COPPER WIRE SHALL BE TYPE THWN #12 AWG GAUGE FOR SEWER, STORM & POTABLE WATER, #14 AWG GAUGE FOR IRRIGATION PIPES AND #18 AWG GAUGE FOR POLYETHYLENE GAS LINES. ALL TRACER WIRE SHALL HAVE HEAT AND MOISTURE RESISTANT INSULATION.

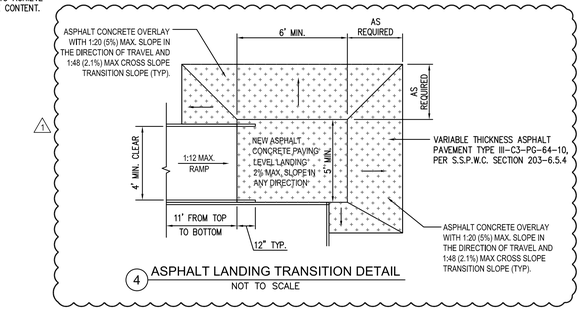


FLOOD TEST NOTE:

BEFORE ACCEPTANCE, ALL NEW ASPHALT SHALL BE WATER TESTED TO ENSURE PROPER DRAINAGE AS DIRECTED BY THE INSPECTOR. THE CONTRACTOR SHALL PROVIDE WATER FOR THIS PURPOSE. THE FLOODING SHALL BE DONE BY WATER TANK TRUCK. DEPRESSIONS WHERE THE WATER PONDS TO A DEPTH OF MORE THAN 1/8-INCH SHALL BE FILLED OR THE SLOPE CORRECTED TO PROVIDE PROPER DRAINAGE. THE EDGES OF THE FILL SHALL BE FEATHERED AND SMOOTHED SO THAT THE JOINT BETWEEN THE FILL AND THE ORIGINAL SURFACE IS INVISIBLE. NO STANDING WATER SHALL REMAIN AFTER 60 MINUTES ON A 70 DEGREE F (OR WARMER) DAY. INSTALL FIRST COAT OF SEAL COAT ON ASPHALT BEFORE FLOOD TESTING OCCURS.

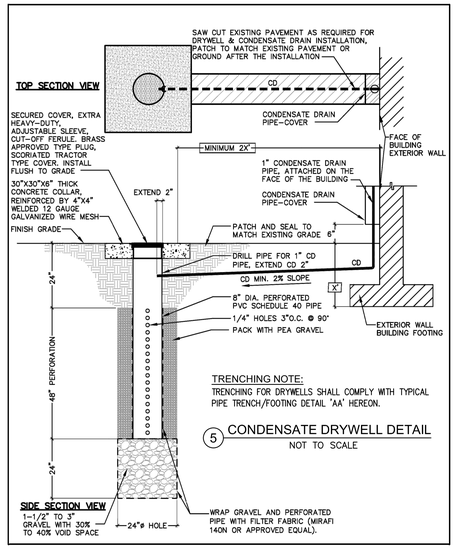
1 ASPHALT PAVEMENT DETAIL

NOT TO SCALE



4 ASPHALT LANDING TRANSITION DETAIL

NOT TO SCALE

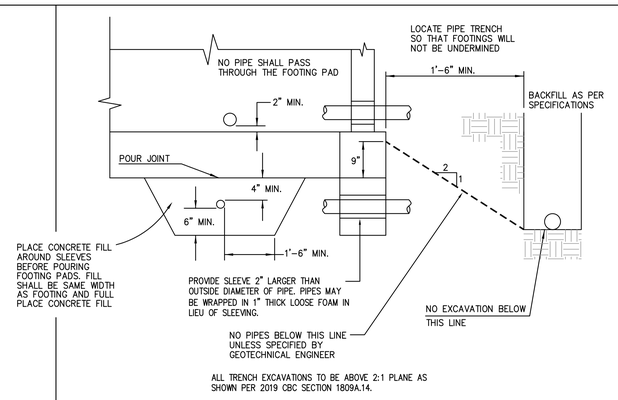


TRENCHING NOTE:

TRENCHING FOR DRYWELLS SHALL COMPLY WITH TYPICAL PIPE TRENCH/FOOTING DETAIL 'AA' HEREON.

5 CONDENSATE DRYWELL DETAIL

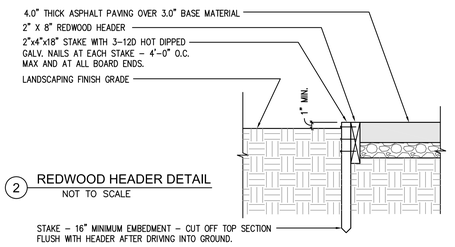
NOT TO SCALE



ALL TRENCH EXCAVATIONS TO BE ABOVE 2:1 PLANE AS SHOWN PER 2019 CBC SECTION 1809A.14.

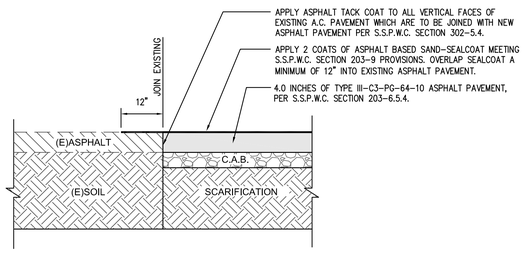
AA TYPICAL PIPE TRENCH / FOOTING DETAIL

NOT TO SCALE



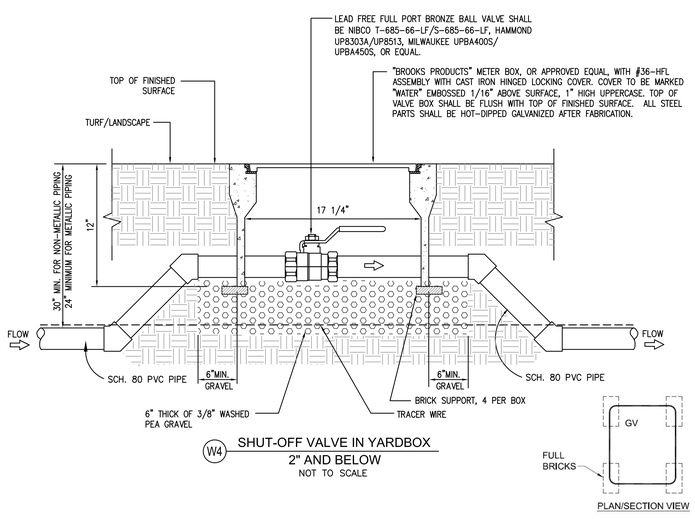
2 REDWOOD HEADER DETAIL

NOT TO SCALE



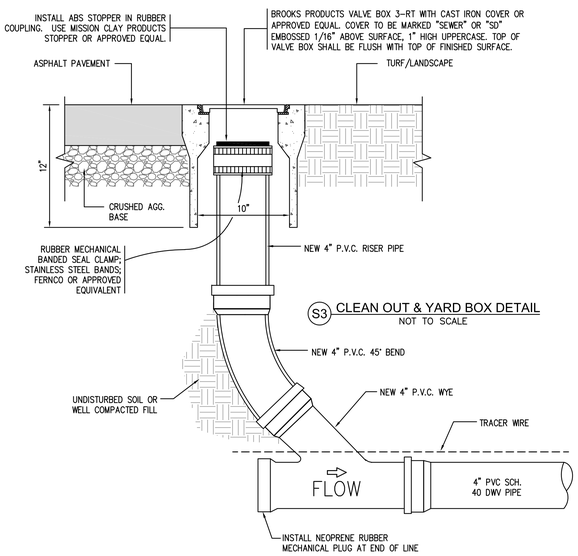
BB (E)ASPHALT TO NEW ASPHALT JOIN DETAIL

NOT TO SCALE



W4 SHUT-OFF VALVE IN YARDBOX 2" AND BELOW

NOT TO SCALE



S3 CLEAN OUT & YARD BOX DETAIL

NOT TO SCALE

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DETAIL SHEET

REVISIONS:

1	ADDENDUM 1	2-13-2023
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Date: 07/29/22
Job: #2215
Scale:
Drawn:

C003

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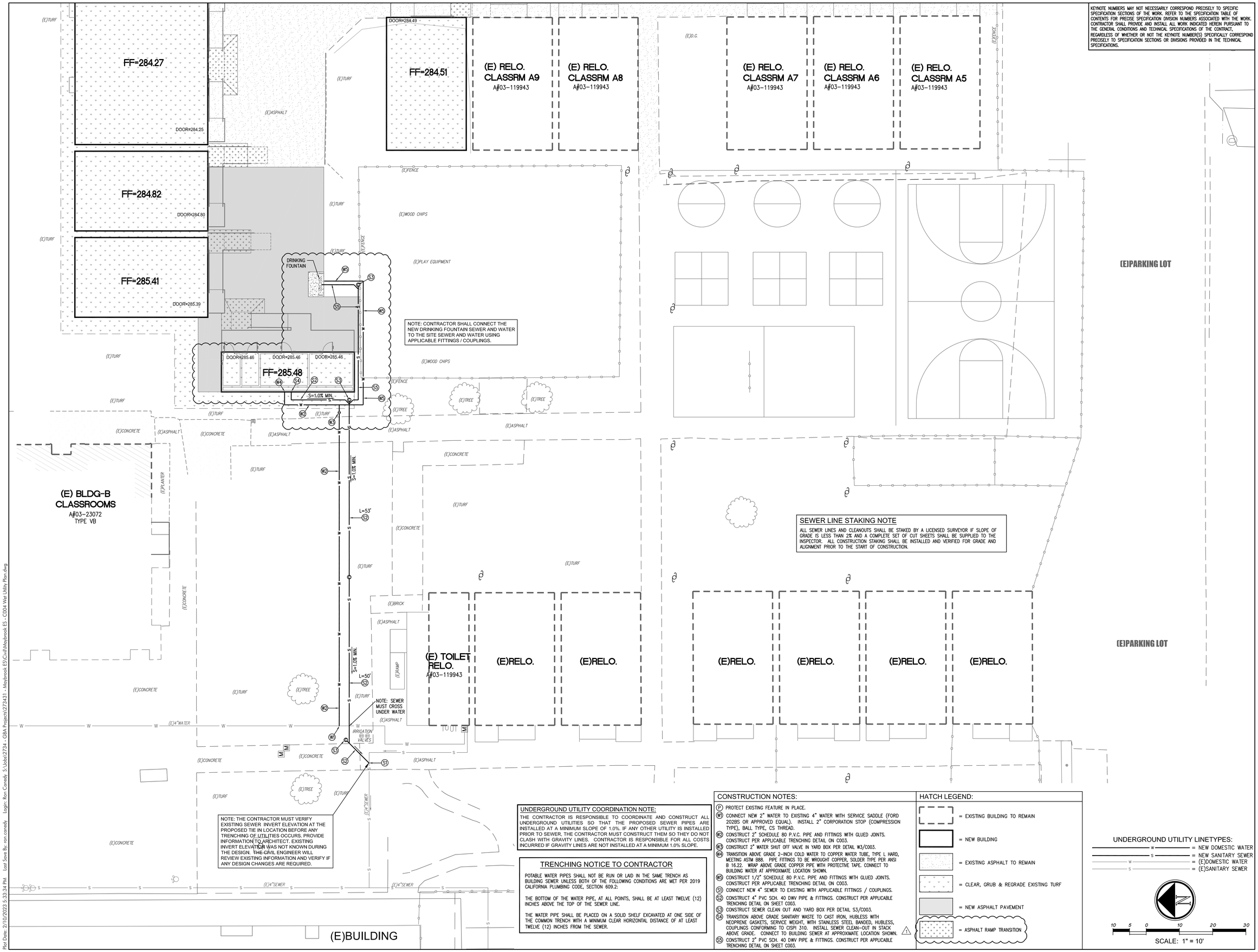

NOTE: CONTRACTOR SHALL CONNECT THE NEW DRINKING FOUNTAIN SEWER AND WATER TO THE SITE SEWER AND WATER USING APPLICABLE FITTINGS / COUPLINGS.

NOTE: THE CONTRACTOR MUST VERIFY EXISTING SEWER INVERT ELEVATION AT THE PROPOSED TIE IN LOCATION BEFORE ANY TRENCHING OF UTILITIES OCCURS. PROVIDE INFORMATION TO ARCHITECT. EXISTING INVERT ELEVATION WAS NOT KNOWN DURING THE DESIGN. THE CIVIL ENGINEER WILL REVIEW EXISTING INFORMATION AND VERIFY IF ANY DESIGN CHANGES ARE REQUIRED.

SEWER LINE STAKING NOTE

ALL SEWER LINES AND CLEANOUTS SHALL BE STAKED BY A LICENSED SURVEYOR IF SLOPE OF GRADE IS LESS THAN 2% AND A COMPLETE SET OF CUT SHEETS SHALL BE SUPPLIED TO THE INSPECTOR. ALL CONSTRUCTION STAKING SHALL BE INSTALLED AND VERIFIED FOR GRADE AND ALIGNMENT PRIOR TO THE START OF CONSTRUCTION.

UNDERGROUND UTILITY COORDINATION NOTE:

THE CONTRACTOR IS RESPONSIBLE TO COORDINATE AND CONSTRUCT ALL UNDERGROUND UTILITIES SO THAT THE PROPOSED SEWER PIPES ARE INSTALLED AT A MINIMUM SLOPE OF 1.0%. IF ANY OTHER UTILITY IS INSTALLED PRIOR TO SEWER, THE CONTRACTOR MUST CONSTRUCT THEM SO THEY DO NOT CLASH WITH GRAVITY LINES. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED IF GRAVITY LINES ARE NOT INSTALLED AT A MINIMUM 1.0% SLOPE.

TRENCHING NOTICE TO CONTRACTOR

POTABLE WATER PIPES SHALL NOT BE RUN OR LAID IN THE SAME TRENCH AS BUILDING SEWER UNLESS BOTH OF THE FOLLOWING CONDITIONS ARE MET PER 2019 CALIFORNIA PLUMBING CODE, SECTION 609.2:

THE BOTTOM OF THE WATER PIPE, AT ALL POINTS, SHALL BE AT LEAST TWELVE (12) INCHES ABOVE THE TOP OF THE SEWER LINE.

THE WATER PIPE SHALL BE PLACED ON A SOLID SHELF EXCAVATED AT ONE SIDE OF THE COMMON TRENCH WITH A MINIMUM CLEAR HORIZONTAL DISTANCE OF AT LEAST TWELVE (12) INCHES FROM THE SEWER.

CONSTRUCTION NOTES:

- (P) PROTECT EXISTING FEATURE IN PLACE.
- (W1) CONNECT NEW 2" WATER TO EXISTING 4" WATER WITH SERVICE SADDLE (FORD 202BS OR APPROVED EQUAL). INSTALL 2" CORPORATION STOP (COMPRESSION TYPE), BALL TYPE, CS THREAD.
- (W2) CONSTRUCT 2" SCHEDULE 80 P.V.C. PIPE AND FITTINGS WITH GLUED JOINTS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON C003.
- (W3) CONSTRUCT 2" WATER SHUT OFF VALVE IN YARD BOX PER DETAIL W3/C003.
- (W4) TRANSITION ABOVE GRADE 2-INCH COLD WATER TO COPPER WATER TUBE, TYPE L HARD, MEETING ASTM B88. PIPE FITTINGS TO BE WROUGHT COPPER, SOLDER TYPE PER ANSI B 16.22. WRAP ABOVE GRADE COPPER PIPE WITH PROTECTIVE TAPE. CONNECT TO BUILDING WATER AT APPROXIMATE LOCATION SHOWN.
- (W5) CONSTRUCT 1/2" SCHEDULE 80 P.V.C. PIPE AND FITTINGS WITH GLUED JOINTS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON C003.
- (S1) CONNECT NEW 4" SEWER TO EXISTING WITH APPLICABLE FITTINGS / COUPLINGS.
- (S2) CONSTRUCT 4" PVC SCH. 40 DWV PIPE & FITTINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C003.
- (S3) CONSTRUCT SEWER CLEAN OUT AND YARD BOX PER DETAIL S3/C003.
- (S4) TRANSITION ABOVE GRADE SANITARY WASTE TO CAST IRON, HUBLESS WITH NEOPRENE GASKETS, SERVICE WEIGHT, WITH STAINLESS STEEL BANDED, HUBLESS, COUPLINGS CONFORMING TO CISPI 310. INSTALL SEWER CLEAN-OUT IN STACK ABOVE GRADE. CONNECT TO BUILDING SEWER AT APPROXIMATE LOCATION SHOWN. ⚠1
- (S5) CONSTRUCT 2" PVC SCH. 40 DWV PIPE & FITTINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C003.

HATCH LEGEND:

- = EXISTING BUILDING TO REMAIN
- = NEW BUILDING
- = EXISTING ASPHALT TO REMAIN
- = CLEAR, GRUB & REGRADE EXISTING TURF
- = NEW ASPHALT PAVEMENT
- = ASPHALT RAMP TRANSITION

UNDERGROUND UTILITY LINETYPES:

- W = NEW DOMESTIC WATER
- S = NEW SANITARY SEWER
- W = (E)DOMESTIC WATER
- S = (E)SANITARY SEWER

10 5 0 10 20 30

SCALE: 1" = 10'

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WET UTILITY PLAN

REVISIONS:
- ⚠1 ADDENDUM 1 2-13-2023
- ⚠2
- ⚠3
- ⚠4
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Date: 07/29/22
Job: #2215
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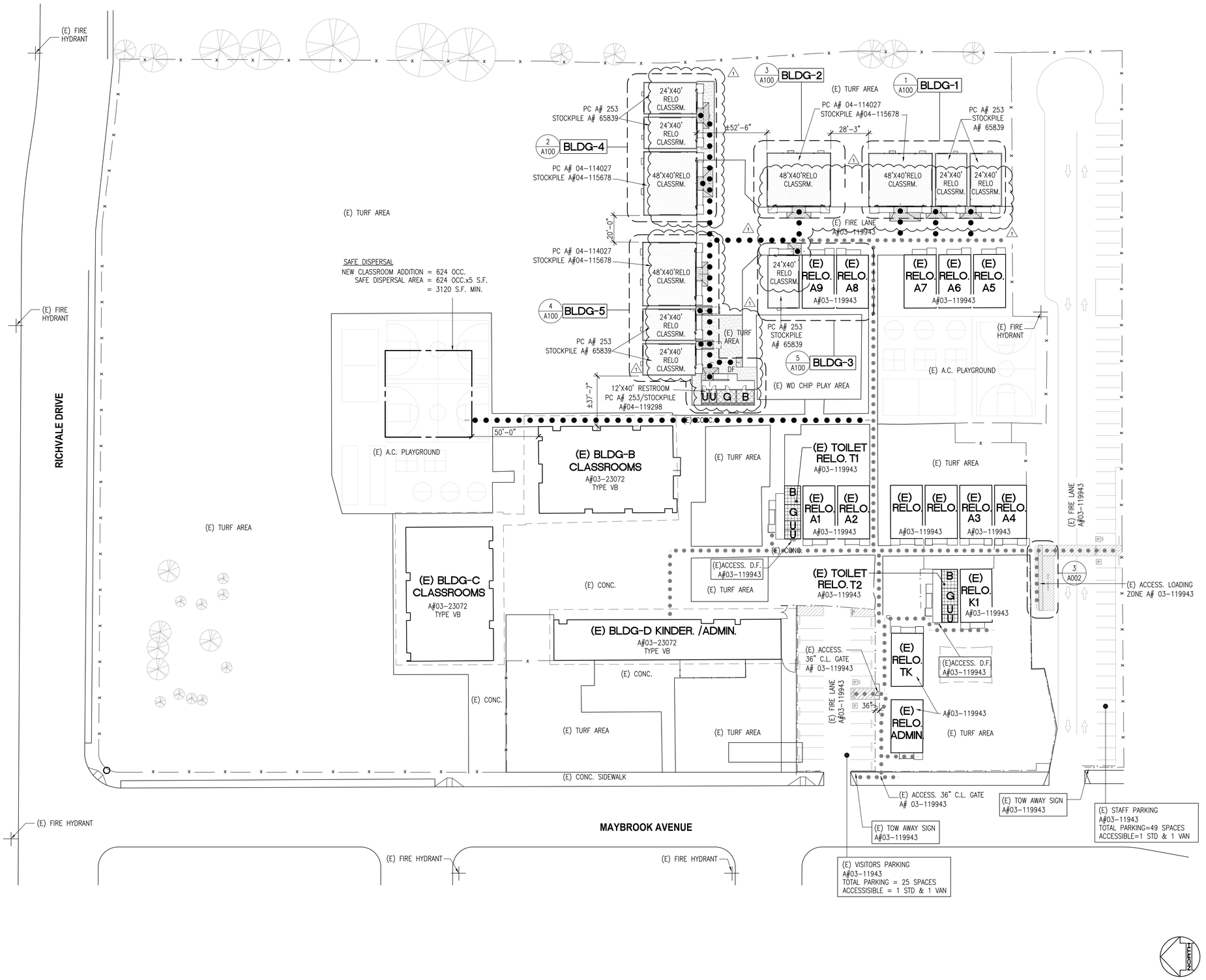

OVERALL SITE & ACCESSIBILITY PLAN | 5 | 1"=30'-0"

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SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. PROTECT AND SAFEGUARD FROM DAMAGES ALL EXISTING CONSTRUCTION AND FINISHES TO REMAIN.
3. PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES.
4. WHERE REMOVAL OF CONCRETE WALKS, MOWSTRIPS, CURBS AND GUTTERS IS REQUIRED BY THE EXECUTION OF THIS CONTRACT, REMOVE THE CONCRETE WORK TO THE NEAREST EXISTING EXPANSION OR CONTROL JOINT (SAWCUT IF REQUIRED). CURBS AND GUTTERS MAY BE REMOVED IN MINIMUM LENGTHS OF 6' IF THE DISTANCE BETWEEN EXISTING JOINTS IS 12' OR MORE. REPLACE REMOVED WORK WITH REINFORCED CONCRETE TO MATCH ADJACENT EXISTING WORK IN PROFILE, JOINT LAYOUT AND FINISH.
5. WHERE ASPHALT PAVING IS DAMAGED BY THE EXECUTION OF THIS CONTRACT, PATCH & REPAIR TO ORIGINAL OR BETTER CONDITION. WHERE (E) LAWNS ARE DAMAGED BY THE EXECUTION OF THIS CONTRACT, FILL, COMPACT, AND REPLANT AREA TO MATCH EXISTING TURF AREA.
6. CONTRACTOR SHALL MAINTAIN EXISTING PLANTING WITHIN THE JOB SITE FENCE ENCLOSURE DURING DEMOLITION AND CONSTRUCTION PHASES. EXISTING IRRIGATION SYSTEMS SHALL EITHER REMAIN OPERATIONAL FOR CONTRACTOR'S USE OR CONTRACTOR SHALL HAND WATER EXISTING PLANT MATERIALS AT LEAST ONCE A WEEK.
7. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED DURING THE CONSTRUCTION PERIOD WITH THE SAME SPECIES OF EQUAL OR GREATER SIZE.

SITE PLAN LEGEND

- NEW RELOCATABLE BUILDINGS
- NEW ACCESSIBLE RESTROOMS W=WOMEN M=MEN G=GIRLS B=BOYS T=TOILET U=UNISEX
- NEW ASPHALT PAVING PER CIVIL
- (E) C.L. FENCE
- (E) FIRE HYDRANT
- (E) POWER POLE
- (D) (E) STORM DRAIN MAN HOLE
- (E) ACCESSIBLE PATH OF TRAVEL (P.O.T.) PER DSA A# 03-119943
- POT – PATH OF TRAVEL

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT INDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS, AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS, OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS, OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

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OVERALL SITE + ACCESSIBILITY PLAN

REVISIONS:
1 ADDENDUM 01 2/13/2023
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Date: 10/28/22
Job: #2215
Scale:
Drawn:

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SHEET – OF XXX
XREF:

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KEYNOTES

DIVISION 05 - METALS

05 50 00.H4 – GALV. STL. HANDRAIL

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 12 16.A2 – ASPHALTIC CONCRETE PAVING O/ BASE, SEE CIVIL DRAWINGS

(E) TURF AREA

CLASSROOM 403 – 24X40 (RH) – PC A# 253 – STK A# 65839 – SN 17158-59

CLASSROOM 402 – 24X40 (RH) – PC A# 253 – STK A# 65839 – SN 17166-67

CLASSROOM 401 – 48X40 – PC A#04-114027 – STK A#04 115678 – SN 11810-11-12-13

BLDG-4

BLDG-2

CLASSROOM 201 – 48X40 – PC A#04-114027 – STK A#04 115678 – SN 11822-23-24-25

BLDG-1

CLASSROOM 103 – 48X40 – PC A#04-114027 – STK A#04 115678 – SN 11826-27-28-29

CLASSROOM 102 – 24X40 (RH) – PC A# 253 – STK A# 65839 – SN 17168-69

CLASSROOM 101 – 24X40 (RH) – PC A# 253 – STK A# 65839 – SN 17170-71

(E) FIRE LANE A#03-119943

BLDG-5

CLASSROOM 501 – 48X40 – PC A# 04-114027 – STK A#04 115678 – SN 11818-19-20-21

CLASSROOM 502 – 24X40 (LH) – PC A# 253 – STK A# 65839 – SN 17162-63

CLASSROOM 503 – 24X40 (LH) – PC A# 253 – STK A# 65839 – SN 17164-65

12X40 RESTROOM – PC A# 253 – STK A#04-119298 – SN 19931

STAFF – STAFF – GIRLS – BOYS

(E) TURF AREA

(E) CONC. WALKWAY

CLASSROOM 301 – 24X40 (LH) – PC A# 253 – STK A# 65839 – SN 17160-61

(E) RELO. CLASSRM A9 – A#03-119943

(E) RELO. CLASSRM A8 – A#03-119943

(E) RELO. CLASSRM A7 – A#03-119943

(E) RELO. CLASSRM A6 – A#03-119943

(E) RELO. CLASSRM A5 – A#03-119943

BLDG-3

(E) TURF AREA

(E) WD CHIP PLAY AREA

(E) CONC. WALKWAY

(E) A.C. PLAYGROUND

NORTH

ENLARGED SITE PLAN 5 1"=10'-0"

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ENLARGED SITE PLAN

REVISIONS:
1 ADDENDUM 01 2/13/2023
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Date: 10/28/22
Job: #2215
Scale:
Drawn:

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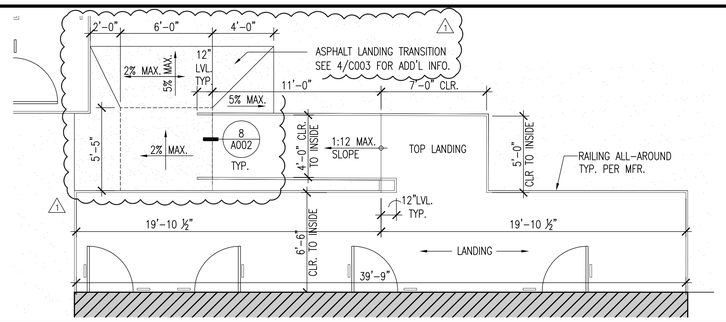
NOTE: REFER TO STOCKPILE A#04-119298 SHEET 119298 R-1.03 & 119298 R-2.01 FOR RAMP DETAILS & ADDITIONAL INFO.



12'X40' RESTROOM RAMP & LANDING ENLARGED PLAN — 11 — 1/4" = 1'-0"

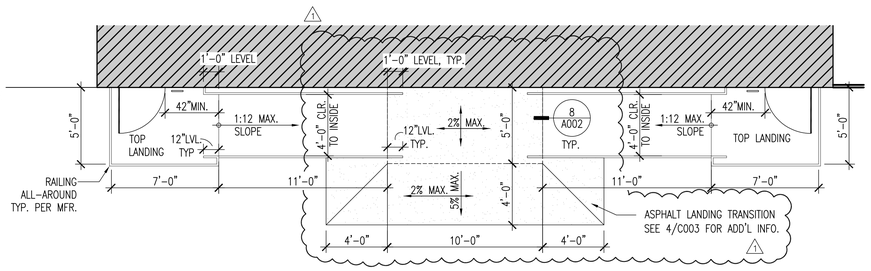
SPECIAL INSPECTIONS EXEMPT ITEMS:

HANDRAILS, GUARDRAILS, AND MODULAR RELOCATABLE RAMPS ASSOCIATED WITH WALKING SURFACES LESS THAN 30" ABOVE ADJACENT GRADE (EXCLUDING POST BASE CONNECTIONS PER THE EXCEPTION LANGUAGE IN SECTION 1705A.2.1): FILLET WELDS SHALL NOT BE GROUND FLUSH.

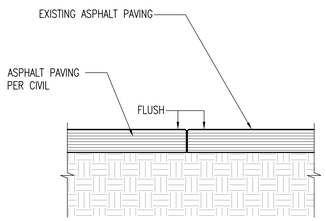
DETAIL5.LOADING ZONE

ACCESSIBLE LOADING ZONE — 3 — 1/4" = 1'-0"

NOTE: REFER TO STOCKPILE A#04-115678 SHEETS 115678 R-1.01 & 115678 R-2.01 FOR RAMP DETAILS & ADDITIONAL INFO.



48'X40' CLASSROOM TYP. RAMP & LANDING ENLARGED PLAN — 12 — 1/4" = 1'-0"



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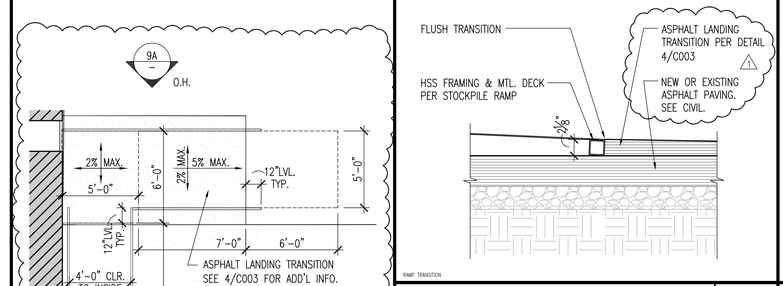
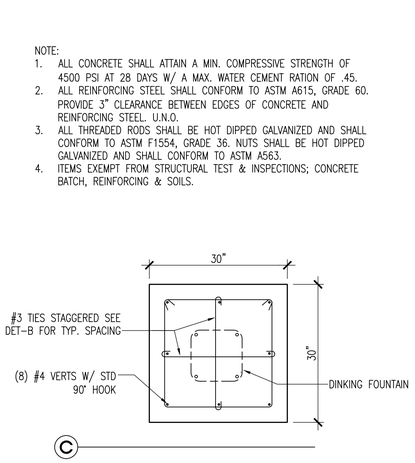
ASPHALT PAVING JOINT — 7 — 1 1/2" = 1'-0"

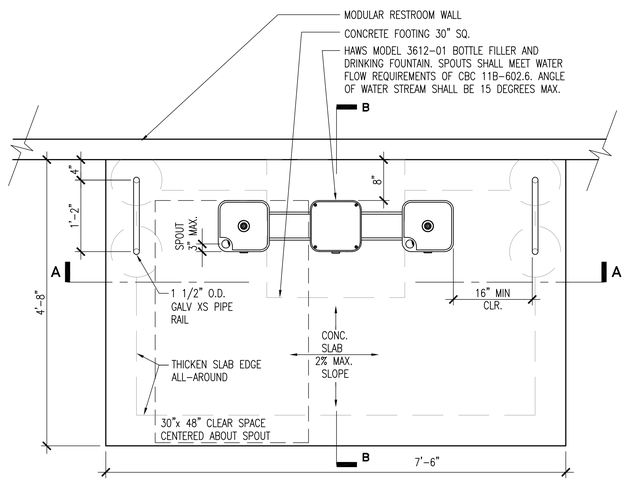


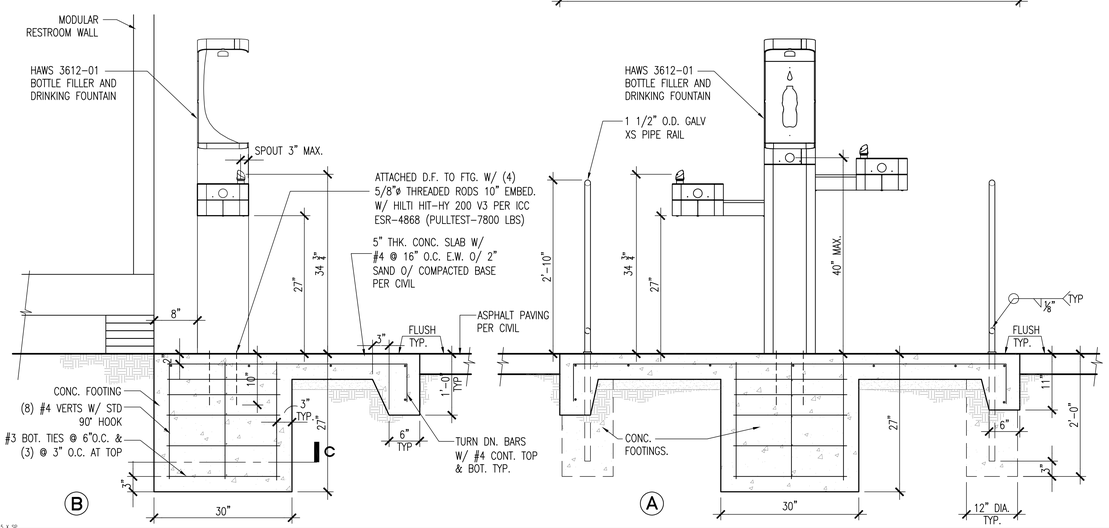
RAMP TRANSITION

RAMP TRANSITION — 8 — 1 1/2" = 1'-0"

NOTE:
1. ALL CONCRETE SHALL ATTAIN A MIN. COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS W/ A MAX. WATER CEMENT RATION OF .45.
2. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. PROVIDE 3" CLEARANCE BETWEEN EDGES OF CONCRETE AND REINFORCING STEEL. U.N.O.
3. ALL THREADED RODS SHALL BE HOT DIPPED GALVANIZED AND SHALL CONFORM TO ASTM F1554, GRADE 36. NUTS SHALL BE HOT DIPPED GALVANIZED AND SHALL CONFORM TO ASTM A563.
4. ITEMS EXEMPT FROM STRUCTURAL TEST & INSPECTIONS; CONCRETE BATCH, REINFORCING & SOILS.

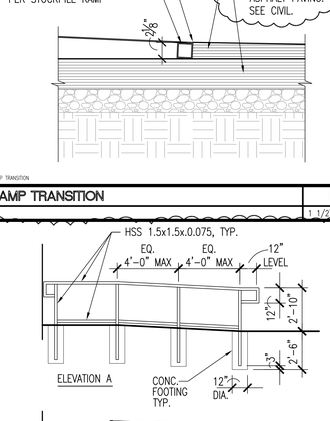






FREESTANDING DRINKING FOUNTAIN — 20 — 1/4" = 1'-0"

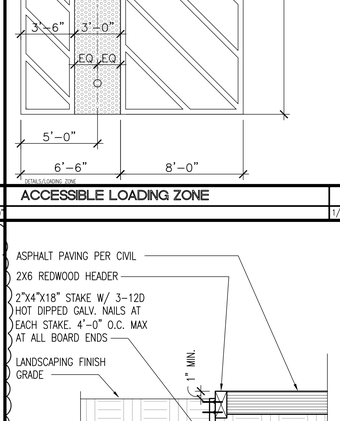
24'X40' CLASSROOM TYP. LANDING W/ RAIL ENLARGED PLAN — 19 — 1/4" = 1'-0"



REFER TO R-1.03 & R-2.01 FOR ADD'L INFO.

888_88.dwg

HANDRAIL AT RAMP EXTENSION DETAIL — 9 — 1/4"=1'-0"



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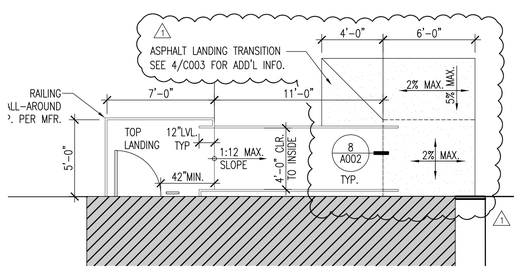
REDWOOD HEADER AT ASPHALT PAVING — 4 — 1 1/2" = 1'-0"



24'X40' CLASSROOM TYP. RAMP & LANDING ENLARGED PLAN — 10 — 1/4" = 1'-0"

5

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INTERIM HOUSING
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LOWELL JOINT SCHOOL DISTRICT

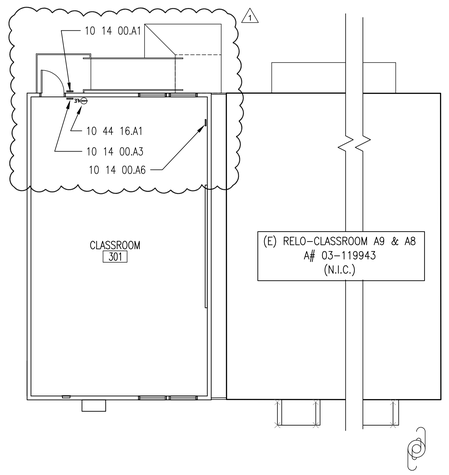
TYPICAL SITE DETAILS

REVISIONS:
1 ADDENDUM 01 2/13/2023
2
3
4
5
6
7
8

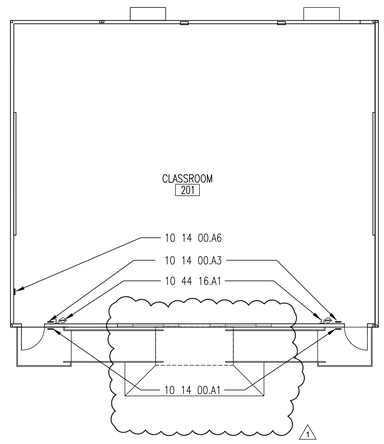
Date: 10/28/22
Job: #2215
Scale:
Drawn:

A002

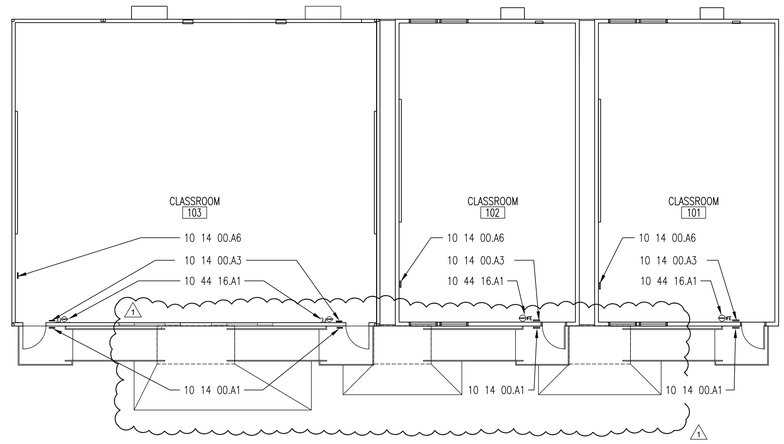
SHEET – OF XXX
XREF:



BUILDING-3 FLOOR PLAN 5 1/8"=1'-0"



BUILDING-2 FLOOR PLAN 3 1/8"=1'-0"



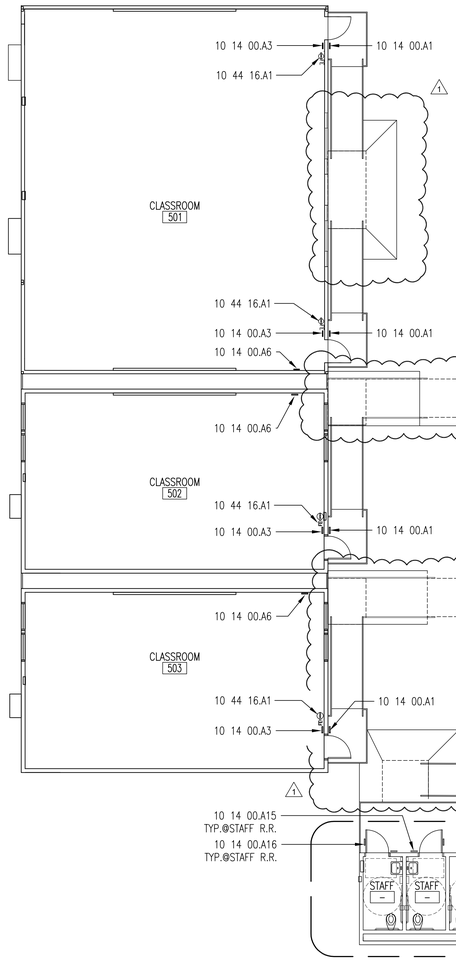
BUILDING-1 FLOOR PLAN 1 1/8"=1'-0"

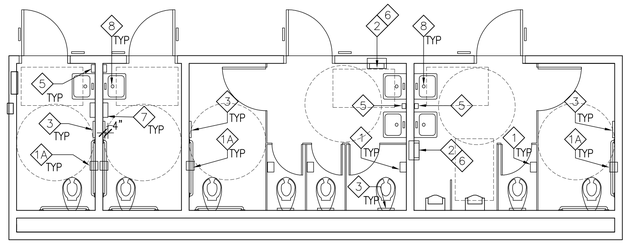
KEYNOTE NUMBERS MAY NOT NECESSARILY CORRESPOND PRECISELY TO SPECIFIC SPECIFICATION SECTIONS OF THE WORK. REFER TO THE SPECIFICATION TABLE OF CONTENTS FOR PRECISE SPECIFICATION DIVISION NUMBERS ASSOCIATED WITH THE WORK. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE NUMBER(S) SPECIFICALLY CORRESPOND PRECISELY TO SPECIFICATION SECTIONS OR DIVISIONS PROVIDED IN THE TECHNICAL SPECIFICATIONS.

KEYNOTES

DIVISION 10 - SPECIALTIES

10 14 00.A1 – TACTILE ROOM ID/NUMBER, 7/A003
10 14 00.A11 – TACTILE MENS/BOYS RESTROOM SIGN, 13/A003
10 14 00.A12 – MENS/BOYS DOOR SIGN, 14/A003
10 14 00.A13 – TACTILE WOMENS/GIRLS RESTRM. SIGN, 11/A003
10 14 00.A14 – WOMENS/GIRLS DOOR SIGN, 12/A003
10 14 00.A15 – TACTILE UNISEX RESTROOM SIGN, 15/A003
10 14 00.A16 – UNISEX DOOR SIGN, 16/A003
10 14 00.A3 – TACTILE EXIT SIGN, 9/A003
10 14 00.A6 – ASSISTIVE LISTENING DEVICE SIGN, 17/A003
10 44 16.A1 – FIRE EXTINGUISHER, 23/A003

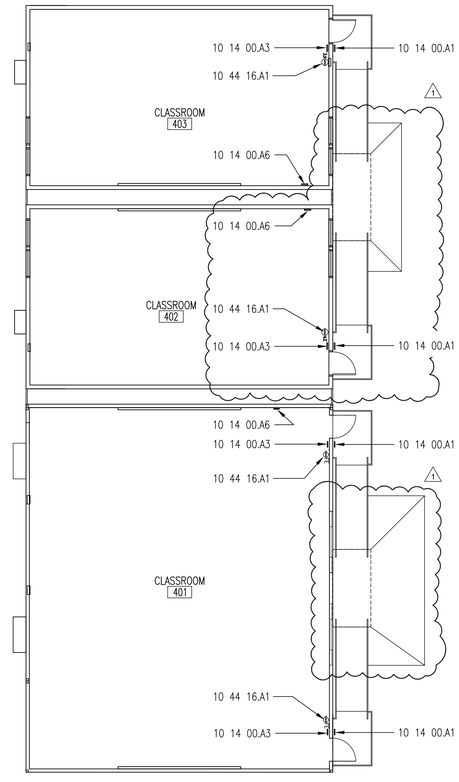




NOTE:
1. REFER TO STK-119298 ALT-01 DETAIL-1 & STK-11928 ALT-03 FOR APPROVED PLUMBING FIXTURES MOUNTING HEIGHTS AND LOCATIONS.
2. REFER TO STK-119298 ALT-03 DETAIL-3 & 10 FOR TYP. TOILET ACCESSORIES MOUNTING LOCATIONS & HEIGHTS.

A – ENLARGED RESTROOM PLAN REF: STK-11928 ALT-01 DETAIL-1
1/4"=1'-0"

BUILDING-5 FLOOR PLAN 4 1/8"=1'-0"



BUILDING-4 FLOOR PLAN 2 1/8"=1'-0"

TOILET ACCESSORIES LEGEND

1 – TOILET PAPER DISPENSER (STANDARD STALL) SURFACE MOUNTED – BOBRICK B-2888
1A – TOILET TISSUE DISPENSER (ACCESSIBLE) RECESSED – BOBRICK B-3888
2 – PAPER TOWEL DISPENSER, SURFACE MOUNTED, BOBRICK B-262
3 – TOILET SEAT COVER DISPENSER, SURFACE MOUNTED, BOBRICK B-221
4 – SANITARY NAPKIN DISPOSAL, SURFACE MOUNTED, BOBRICK B-270
5 – SOAP DISPENSER, SURFACE MOUNTED, BOBRICK B-2111
6 – WASTE RECEPTACLE, RECESSED, BOBRICK B-3644
7 – SURFACE MOUNTED PAPER TOWEL DISPENSER & WASTE RECEPTACLE 4" MAX PROTRUSION BOBRICK B-3699
8 – TRUEBRO TRAP & PIPING INSULATION

ACCESSIBLE TURNAROUND SPACE MIN. 62"DIA. X 27"H CLEAR

30"X48" CLEAR SPACE

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INTERIM HOUSING
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LOWELL JOINT SCHOOL DISTRICT

BUILDING GROUPS 1 THRU 5
FLOOR + SIGNAGE PLAN

REVISIONS:
1 ADDENDUM 01 2/13/2023
2
3
4
5
6
7
8

Date: 10/28/22
Job: #2215
Scale:
Drawn:

A100

SHEET – OF XXX
XREF:

SYMBOLS LIST

(ALL SYMBOLS NOT NECESSARILY USED ON THESE DRAWINGS)
ALL SYMBOL DESCRIPTIONS ARE SUBJECT TO MODIFICATION AS NOTED ON THE DRAWINGS

(n) DATA — QUANTITY OF DATA CABLES OSP TYPE.

CONDUIT, INSTALLED CONCEALED IN OR UNDER FLOOR OR BELOW GRADE, 3/4" CONDUIT MINIMUM.

CONDUIT, INSTALLED EXPOSED.

CONDUIT, INSTALLED CONCEALED IN WALL OR IN CEILING SPACE.
- 3/4" C - 2 #12
- 3/4" C - 3 #12
- 3/4" C - 4 #12
- 3/4" C - 5 #12
- 3/4" C - 6 #12
- 1" C - 7 #12
- 1" C - 8 #12
- 1 1/4" C - 9 #12

B-5, 7, 9 — HOMERUN TO PANEL "B" FOR CIRCUITS 5, 7, 9 WITH COMMON NEUTRAL.

UNDERGROUND CONDUIT STUBOUT, STUB 5'-0" FROM BUILDING OR WALKWAY, CAP, MARK AND RECORD.

COMBINATION CLOCK/SPEAKER ON FLUSH WALL MOUNTED BACKBOX, +90" W/ 1" CONDUIT TO ACCESSIBLE CEILING SPACE, U.N.O.

WP [S] — EXTERIOR SPEAKER AND VANDELPROOF GRILLE ON FLUSH IN WALL BACKBOX, +90" WITH 1" CONDUIT TO ACCESSIBLE CEILING SPACE, UNLESS NOTED OTHERWISE.

WP [K] — INTRUSION DETECTION SYSTEM KEY PAD, ON FLUSH WALL MOUNTED OUTLET BOX, +45". WITH 1" CONDUIT TO ACCESSIBLE CEILING SPACE.

INTRUSION DETECTION SYSTEM MOTION SENSOR, ON FLUSH WALL MOUNTED OUTLET BOX, +90". WITH 1" CONDUIT TO ACCESSIBLE CEILING SPACE.

[C] — INTRUSION DETECTION SYSTEM DOOR CONTACTS CONCEALED WITH DOOR FRAME WITH 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE.

TV — TELEVISION SYSTEM - 1" C WITH CONDUCTORS AS SPECIFIED.

ID — INTRUSION DETECTION SYSTEM - 3/4"C., WITH CONDUCTORS AS SPECIFIED.

D1 — COMPUTER/DATA PROCESSING SYSTEM - 1"C. WITH CONDUCTORS AS SPECIFIED.
- D2 - 1"C. WITH CONDUCTORS AS SPECIFIED.
- D3 - 1"C. WITH CONDUCTORS AS SPECIFIED.
- D4 - 1 1/4"C. WITH CONDUCTORS AS SPECIFIED.
- D5 - 1 1/4"C WITH CONDUCTORS AS SPECIFIED.

[TV] — TELEVISION OUTLET WITH TELEVISION CONNECTOR IN SURFACE MOUNTED RACEWAY SYSTEM AS INDICATED ON PLANS, U.N.O.

COMPUTER OUTLET WITH ONE (1) COMPUTER CONNECTOR, ON FLUSH WALL MOUNTED OUTLET BOX, +18", UNLESS NOTED OTHERWISE. "C" INDICATES EXISTING HORIZONTAL FLUSH WALL MOUNTED OUTLET BOX +6" ABOVE COUNTER SPLASH. PROVIDE 1" CONDUIT INTO CEILING SPACE.

C — COMPUTER OUTLET WITH TWO (2) COMPUTER CONNECTORS, ON FLUSH WALL MOUNTED OUTLET BOX, +18", UNLESS NOTED OTHERWISE. "C" INDICATES EXISTING HORIZONTAL FLUSH WALL MOUNTED OUTLET BOX + 6" ABOVE COUNTER SPLASH. PROVIDE 1" CONDUIT INTO CEILING SPACE.

C — COMPUTER OUTLET WITH THREE (3) COMPUTER CONNECTORS, ON FLUSH WALL MOUNTED OUTLET BOX, +18", UNLESS NOTED OTHERWISE. "C" INDICATES EXISTING HORIZONTAL FLUSH WALL MOUNTED OUTLET BOX + 6" ABOVE COUNTER SPLASH. PROVIDE 1" CONDUIT INTO CEILING SPACE.

C — COMPUTER OUTLET WITH FOUR (4) COMPUTER CONNECTORS, ON FLUSH WALL MOUNTED OUTLET BOX, +18", UNLESS NOTED OTHERWISE. "C" INDICATES EXISTING HORIZONTAL FLUSH WALL MOUNTED OUTLET BOX + 6" ABOVE COUNTER SPLASH. PROVIDE 1-1/4" CONDUIT INTO CEILING SPACE.

COMPUTER OUTLET WITH ONE (1) COMPUTER CONNECTOR, ON OUTLET BOX LOCATED ABOVE CEILING, UNLESS NOTED OTHERWISE.

COMPUTER OUTLET WITH TWO (2) COMPUTER CONNECTORS, ON OUTLET BOX LOCATED ABOVE CEILING, UNLESS NOTED OTHERWISE.

COMPUTER/VOICE OUTLET WITH ONE (1) COMPUTER CONNECTOR AND ONE (1) VOICE CONNECTOR IN SURFACE MOUNTED RACEWAY SYSTEM AS INDICATED ON PLANS, U.N.O.

F — FIBER OPTIC OUTLET WITH THREE (3) SETS OF FIBER OPTIC CONNECTORS (6 CONNECTORS) IN FLUSH WALL MOUNTED OUTLET BOX AT + 18", UNLESS NOTED OTHERWISE. PROVIDE 1" CONDUIT INTO CEILING SPACE.

M — MICROPHONE OUTLET, ON FLUSH WALL MOUNTED OUTLET BOX, +18".

M R — MICROPHONE OUTLET, "R" INDICATES RECESSED FLOOR BOX WITH MULTI-SERVICE FITTINGS.

E — ASSISTIVE LISTENING SYSTEM EMITTER, SURFACE MOUNTED ON FLUSH MOUNTED OUTLET BOX. MOUNTING HEIGHT AS INDICATED ON THE ELECTRICAL DRAWINGS.

M1 — MICROPHONE SYSTEM - 3/4"C. WITH CONDUCTORS AS SPECIFIED.
- M2 - 1"C. WITH CONDUCTORS AS SPECIFIED.
- M3 - 1 1/4"C. WITH CONDUCTORS AS SPECIFIED.

HPS	HIGH PRESSURE SODIUM
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
AS/AF	AMP SWITCH, AMP FUSE
CIRC.,CKT.	CIRCUIT
CB	CIRCUIT BREAKER
C	CONDUIT
C.O.	CONDUIT ONLY
CONN	CONNECTED
CLCB	CURRENT LIMITING CIRCUIT BREAKER
DIA	DIAMETER
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
E-O-L	END-OF-LINE CIRCUIT TERMINATOR.
EF	EXHAUST FAN
FT or '	FEET
FA	FIRE ALARM
FLA	FULL LOAD AMPS
GFI	GROUND FAULT INTERRUPTER.
GRD	GROUND
HOA	HAND-OFF-AUTO
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
H.,W.,D.,L.	HEIGHT, WIDTH, DEPTH, LENGTH
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
IN. or "	INCHES
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATT
LCL	LONG CONTINUOUS LOAD
L.F.	LINEAR FEET
LTG, LTS	LIGHTING
LPS	LOW PRESSURE SODIUM
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MH	METAL HALIDE
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MCP	MOTOR CIRCUIT PROTECTOR
MTD	MOUNTED
MW	MICROWAVE
NEC	NATIONAL ELECTRICAL CODE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO. or #	NUMBER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED.
PRIMARY	OVER 600 VOLTS
PH. or ϕ	PHASE
PROVIDE	FURNISH, INSTALL AND CONNECT.
PA	PUBLIC ADDRESS
REC, RECEPT	RECEPTACLE
U.N.O.	UNLESS NOTED OTHERWISE

FLUORESCENT LIGHTING FIXTURE, RECESS MOUNTED, WITH OUTLET BOX.

FLUORESCENT LIGHTING FIXTURE, SURFACE OR PENDANT MOUNTED ON FLUSH MOUNTED OUTLET BOX.

FLUORESCENT STRIP OR INDUSTRIAL LIGHTING FIXTURE, SURFACE, CHAIN OR PENDANT MOUNTED ON FLUSH MOUNTED OUTLET BOX.

LIGHTING FIXTURE, SURFACE OR PENDANT MOUNTED, ON FLUSH CEILING MOUNTED OUTLET BOX..

LIGHTING FIXTURE, RECESS MOUNTED, WITH OUTLET BOX.

LIGHTING FIXTURE, SURFACE OR FLUSH MOUNTED AS INDICATED ON FIXTURE SCHEDULE, ON WALL MOUNTED OUTLET BOX, +90". STEM INDICATES WALL MOUNTED OUTLET BOX, TYPICAL.

OUTLET ON EMERGENCY OR NIGHT LIGHT LIGHTING CIRCUIT.

POST TOP LIGHTING STANDARD, POLE MOUNTED LUMINAIRE AND POLE SUPPORT BASE.

LIGHTING FIXTURE WITH LAMPS ON NORMAL AND EMERGENCY LIGHTING CIRCUITS, PROVIDE SEPARATE LAMP BALLASTS AS REQUIRED.

LIGHTING FIXTURE RECESSED MOUNTED WITH OUTLET BOX AND REMOTE MOUNTED JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING. PROVIDE FLEXIBLE CONDUIT CONNECTION 6 FT. MAXIMUM LENGTH, 1/2" DIAMETER MINIMUM, FROM JUNCTION BOX TO FIXTURE OUTLET. PROVIDE CONDUCTORS IN CONDUIT, QUANTITY AS REQUIRED FOR INDICATED CIRCUITS AND SWITCHING CONTROLS, #12 (AWG) MINIMUM.

LIGHTING STANDARD WITH SINGLE ARM MOUNTED LUMINAIRE AND POLE SUPPORT BASE.

LIGHTING STANDARD WITH TWIN ARM MOUNTED LUMINAIRES AND POLE SUPPORT BASE.

UPLIGHT, MOUNTED FLUSH WITH FINISH GRADE.

FLOODLIGHTING FIXTURE WITH WEATHERPROOF OUTLET BOX.

TRACK LIGHTING WITH FIXTURE(S), CEILING, PENDANT, OR WALL MOUNTED, WITH FLUSH OUTLET BOX.

EXIT SIGN SINGLE FACE, ON FLUSH CEILING MOUNTED OUTLET BOX. ARROW INDICATES DIRECTIONAL ARROW ON EXIT SIGN FACE. REFER TO ARCHITECTURAL DRAWINGS FOR PHOTOLUMINESCENT, FLOOR-LEVEL EXIT MARKERS AND EXIT PATH MARKINGS.

EXIT SIGN DOUBLE FACE, ON FLUSH CEILING MOUNTED OUTLET BOX. REFER TO ARCHITECTURAL DRAWINGS FOR PHOTOLUMINESCENT, FLOOR-LEVEL EXIT MARKERS AND EXIT PATH MARKINGS.

EXIT SIGN, ON FLUSH WALL MOUNTED OUTLET BOX, +90". REFER TO ARCHITECTURAL DRAWINGS FOR PHOTOLUMINESCENT, FLOOR-LEVEL EXIT MARKERS AND EXIT PATH MARKINGS.

LOW LEVEL EXIT SIGN. BOTTOM EDGE OF SIGN +6" A.F.F.

2 / 100 — FIXTURE SCHEDULE DESIGNATION. "2" INDICATES FIXTURE TYPE, "100" INDICATES FIXTURE TOTAL WATTAGE.

S 2, P a, b — SINGLE POLE TOGGLE SWITCH, ON FLUSH WALL MOUNTED OUTLET BOX, +45". INSTALL MULTIPLE SWITCHES UNDER COMMON COVER PLATE. SUBSCRIPT OR SUPERSCRIPT AT SWITCH SYMBOL INDICATES THE FOLLOWING:
- 2 - DOUBLE POLE
- 3 - THREE WAY
- 4 - FOUR WAY
- P - PILOT LIGHT
- M - MANUAL MOTOR STARTERS
- K - KEY OPERATED
- R - SPDT MOMENTARY CONTACT RELAY SWITCH
- V - VAPOR PROOF
- a,b,c,d, ETC. - MULTIPLE SWITCHES WITH IDENTIFICATION OF OUTLET CONTROLLED.

SWITCH FOR CONTROL OF LOW VOLTAGE LIGHTING RELAY(S), ON FLUSH WALL MOUNTED OUTLET BOX, +45". INSTALL MULTIPLE SWITCHES UNDER COMMON COVER PLATE.

INCANDESCENT LIGHTING DIMMER, ON FLUSH WALL MOUNTED OUTLET BOX +45". DIMMERS SHALL BE 2000 WATT, UNLESS NOTED OTHERWISE.

LINE VOLTAGE LIGHTING CONTROL OCCUPANCY MOTION SENSOR ON FLUSH CEILING MOUNTED OUTLET BOX.

DS — LIGHTING CONTROL SYSTEM OCCUPANCY MOTION SENSOR ON FLUSH CEILING MOUNTED OUTLET BOX.

DUPLEX CONVENIENCE RECEPTACLE VERTICAL ON FLUSH WALL MOUNTED OUTLET BOX, +18". STEM INDICATES WALL MOUNTED OUTLET BOX, TYPICAL.

DUPLEX CONVENIENCE RECEPTACLE HORIZONTAL ON FLUSH WALL MOUNTED OUTLET BOX, +6" ABOVE COUNTER SPLASH.

DUPLEX CONVENIENCE RECEPTACLE SPLIT WIRED, ON FLUSH WALL MOUNTED OUTLET BOX, +18".

DOUBLE DUPLEX (FOUR-PLEX) CONVENIENCE RECEPTACLE ON ONE FLUSH WALL MOUNTED OUTLET BOX +18".

SINGLE RECEPTACLE, NEMA CONFIGURATION PER EQUIPMENT MANUFACTURER REQUIREMENTS, ON FLUSH WALL MOUNTED OUTLET BOX, +18".

DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT INTERRUPTER, VERTICAL ON FLUSH WALL MOUNTED OUTLET BOX +18".

DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT INTERRUPTER, HORIZONTAL ON FLUSH WALL MOUNTED OUTLET BOX, +6" ABOVE COUNTER SPLASH.

WP — DUPLEX CONVENIENCE RECEPTACLE, WITH INTERNAL GROUND FAULT INTERRUPTER, IN FLUSH WALL MOUNTED ENCLOSURE WITH HINGED DOOR, LOCK AND KEY, +18".

WP — DUPLEX CONVENIENCE RECEPTACLE, WITH INTERNAL GROUND FAULT INTERRUPTER, ON FLUSH WALL MOUNTED OUTLET BOX WITH SPRING DOOR COVER, +18".

R — DOUBLE DUPLEX CONVENIENCE RECEPTACLE, "R" INDICATES RECESSED FLOOR BOX WITH MULTI-SERVICE FITTINGS

DUPLEX CONVENIENCE RECEPTACLE, IN FLUSH FLOOR OUTLET BOX, UNLESS NOTED OTHERWISE.

P — DUPLEX CONVENIENCE RECEPTACLE ON FLUSH, FLOOR MOUNTED OUTLET BOX, "P" INDICATES PEDESTAL TYPE ON FLUSH FLOOR MOUNTED OUTLET BOX.

P — DUPLEX CONVENIENCE RECEPTACLES, BACK TO BACK, "P" INDICATES PEDESTAL TYPE ON FLUSH FLOOR MOUNTED OUTLET BOX.

P — DUPLEX CONVENIENCE RECEPTACLE, ON FLUSH CEILING MOUNTED OUTLET BOX.

SURFACE MULTI-OUTLET RACEWAY WITH PRE-WIRED RECEPTACLES IN RACEWAY 24" ON CENTER, ON FLUSH WALL MOUNTED OUTLET BOX, +6" ABOVE COUNTER SPLASH.

J — JUNCTION BOX, FLUSH WALL MOUNTED, +18".

J — JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING.

J — INDICATES CONNECTION TO EQUIPMENT AS REQUIRED, TYPICAL.

T — THERMOSTAT ON FLUSH WALL MOUNTED OUTLET BOX, REFER TO MECHANICAL DRAWINGS FOR HEIGHT AND LOCATION.

A / E-1 — PANELBOARD, ADJACENT LINE INDICATES PANEL FRONT. ADJACENT BALLOON INDICATES PANEL DESIGNATION "A", SEE DRAWING E-1 FOR PANEL SCHEDULE.

TERMINAL CABINET OR EQUIPMENT CABINET. ADJACENT LINE INDICATES CABINET FRONT.

A / E-1 — FLOOR STANDING SWITCHGEAR ADJACENT BALLOON INDICATES EQUIPMENT DESIGNATION "DBA", SEE DRAWING E-1 FOR SINGLE LINE DIAGRAM AND/OR SCHEDULE.

CIRCUIT BREAKER STATIONARY (NON-DRAWOUT), SECONDARY VOLTAGE.

CIRCUIT BREAKER WITH ZERO SEQUENCE GROUND FAULT RELAY SYSTEM.

TRANSFORMER; KVA, LINE AND LOAD VOLTAGE RATINGS AS INDICATED.

OR — FUSED SAFETY SWITCH (DISCONNECT), HORSE POWER RATED. MOUNT ON WALL +45", OR ON EQUIPMENT +36". PROVIDE SWITCH AND FUSES SIZED PER EQUIPMENT MANUFACTURER REQUIREMENTS.

PUSH BUTTON STATION WITH "STOP-START" PUSH BUTTONS AND RED INDICATING PILOT LIGHT ON FLUSH WALL MOUNTED OUTLET BOX, +45".

ELECTRICAL WEATHERHEAD

ELECTRICAL UTILITY POLE

GENERAL NOTES

1. THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE INSTALLATION OF SYSTEMS. THE OMISSION OR EXPRESSED REFERENCE TO ANY ITEM OF LABOR OR MATERIALS REQUIRED FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH PRESENT PRACTICE OF THE TRADE SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH ADDITIONAL LABOR AND MATERIALS.
2. REFER TO THE MODULAR PC DRAWINGS AND ARCHITECTURAL DRAWINGS FOR NOTES AND OTHER ELECTRICAL REQUIREMENTS NOT SHOWN ON THE ELECTRICAL DRAWINGS AND TO DETERMINE NEW CONSTRUCTION, IF THERE ARE OMISSIONS OR CONFLICTS BETWEEN THE ELECTRICAL DOCUMENTS AND THE DOCUMENTS OF OTHER TRADES, CLARIFY THESE POINTS WITH THE ARCHITECT BEFORE SUBMITTING A BID.
3. THESE PLANS, SPECIFICATIONS, AND ALL MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL LEGAL AND INDUSTRY REQUIREMENTS, AND STANDARDS INCLUDING WITHOUT LIMITATION TO THE FOLLOWING:
   A. CALIFORNIA CODE OF REGULATIONS TITLE 24, PARTS 1 AND 2 (CALIFORNIA BUILDING CODE), 2019 EDITION.
   B. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 (CALIFORNIA ELECTRICAL CODE), 2019 EDITION.
   C. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 6 (CALIFORNIA ENERGY CODE), 2019 EDITION.
   D. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9 (CALIFORNIA FIRE CODE), 2019 EDITION.
   E. OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
   F. THE ELECTRICAL SYSTEMS FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR.
   G. THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.
   H. THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.
4. IN USING THE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, THE CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE ELECTRICAL WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM THE ARCHITECT OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.
5. WHEN INTERPRETING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
   A. SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE. FIELD VERIFY DIMENSIONS PRIOR TO INSTALLATION OF DEVICES. NOTE THAT FOR THE FIRE ALARM DRAWINGS LOCATION AND DIMENSIONAL SEPARATION AND DEMENSIONAL RELATIONSHIP TO THE SPACE MAY BE REQUIRED IN DETERMINING THE FINAL LOCATION OF DEVICES.
6. SUBMITTALS WILL BE REVIEWED BY THE ARCHITECT, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
7. IN NO EVENT WILL ANY SITE VISITS BY THE ELECTRICAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. NOTIFY THE PROJECT INSPECTOR IN WRITING WHEN INSTALLATION IS COMPLETE AND THAT A FINAL INSPECTION OF THIS WORK CAN BE PERFORMED. IN THE EVENT DEFECTS OR DEFICIENCIES ARE FOUND DURING THIS FINAL INSPECTION, THEY SHALL BE CORRECTED TO THE SATISFACTION OF THE PROJECT INSPECTOR BEFORE FINAL ACCEPTANCE CAN BE ISSUED.
9. REFER TO THE DRAWINGS AND SHOP DRAWINGS OF OTHER TRADES FOR ADDITIONAL DETAILS WHICH AFFECT THE PROPER INSTALLATION OF ELECTRICAL WORK.
10. BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL FEATURES OF THE EXISTING BUILDINGS AND SITE, AND ALL DRAWINGS WHICH MAY AFFECT THE EXECUTION OF THE WORK.
11. PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE FROM ANY CAUSE WHATEVER AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL THE WORK UNTIL FINAL ACCEPTANCE OF THE WORK BY THE IOR(PI) AND REPLACE ALL DAMAGED OR DEFECTIVE WORK, MATERIALS AND EQUIPMENT BEFORE REQUESTING FINAL ACCEPTANCE.
12. THE DRAWINGS INDICATE IN A DIAGRAMMATIC MANNER, THE DESIRED LOCATIONS OF ARRANGEMENT OF THE COMPONENTS OF ELECTRICAL WORK. DETERMINE EXACT CONDUIT ROUTING, CONDUIT BENDS, AUXILIARY JUNCTION BOXES, SUPPORTS, AND UNDEFINED CONSTRUCTION DETAILS AS A JOB CONDITION TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE CODE REQUIREMENTS. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE, AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF CONDITIONS ENCOUNTERED.
13. PERFORM CUTTING AND PATCHING ON THE CONSTRUCTION WORK WHICH MAY BE REQUIRED FOR THE PROPER INSTALLATION OF THE ELECTRICAL WORK. PATCHING SHALL BE OF THE SAME MATERIAL, WORKMANSHIP AND FINISH AS SPECIFIED AND ACCURATELY MATCH SURROUNDING WORK TO SATISFACTION OF THE ARCHITECT. DO NOT CUT STRUCTURAL MEMBERS OR COMPONENTS WITHOUT ADVANCE REVIEW BY ARCHITECT PRIOR TO PERFORMING THE CUTTING.
14. PROVIDE ALL EQUIPMENT WITH ENCLOSURES LISTED OR LABELED FOR USE AND LOCATION WHERE SUCH EQUIPMENT IS INSTALLED.
15. GROUNDING SHALL BE EXECUTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, BOTH OF THE STATE OF CALIFORNIA AND LOCAL AUTHORITIES HAVING JURISDICTION.
16. PROVIDE GROUND WIRE IN EACH CONDUIT CONTAINING CIRCUITS FEEDING RECEPTACLES. THE CONDUIT SHALL NOT BE PERMITTED TO SERVE AS THE ONLY ELECTRICAL GROUND RETURN PATH.
17. CONDUIT FOR TELEPHONE/DATA CABLING SHALL COMPLY WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:
   A. INSIDE BEND RADIUS SHALL BE AT LEAST 10 TIMES ITS INTERNAL DIAMETER.
   B. PROVIDE PULL BOXES WHENEVER CONDUIT LENGTH EXCEEDS 150 FEET AND WHEN COMBINED BENDS ARE GREATER THAN 180 DEGREES.
   C. ALL CONDUIT SHALL BE PROVIDED WITH INSULATED BUSHINGS.
   D. MAINTAIN A MINIMUM CLEARANCE OF 4 FEET FROM MOTORS AND TRANSFORMERS.
   E. MAINTAIN A MINIMUM CLEARANCE OF 12 INCHES FROM POWER CIRCUITS.
   F. MAINTAIN A MINIMUM CLEARANCE OF 12 INCHES FROM FLUORESCENT LIGHT FIXTURES.
18. COORDINATE MOUNTING HEIGHTS OF RECEPTACLES, SWITCHES, A/V DEVICES, SECURITY DEVICES, ETC. MOUNTED ON COMMON WALLS SO THAT ALL OUTLETS ARE MOUNTED TO ALIGN HORIZONTALLY.

ELECTRICAL NOTES

A. EXISTING ELECTRICAL SERVICE HAS BEEN INVESTIGATED AND FOUND TO HAVE ADEQUATE CAPACITY FOR THE PROPOSED LOAD ADDITION AS SHOWN ON THESE PLANS. OR

B. SOURCE OF POWER HAS BEEN INVESTIGATED AND IS ADEQUATE FOR THE ADDITIONAL LOAD.

C. SITE INSPECTOR IS TO WITNESS AND VERIFY GROUNDING TESTS.

SCHOOL EQUIPMENT ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (e.g., OSHPD OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

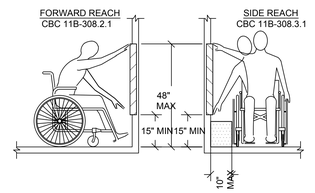
MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

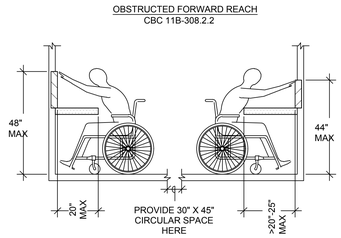
MP ☐ MD ☐ PP ☐ E ☒ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

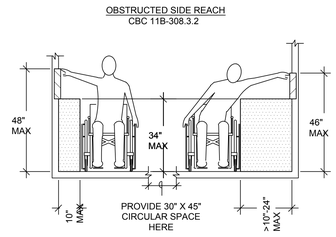
MP ☐ MD ☐ PP ☐ E ☐ - OPTION 2: SHALL COMPLY WITH APPLICABLE OSHPD PRE-APPROVAL (OPM#)

#_____.

ELECTRICAL MOUNTING REACH RANGES







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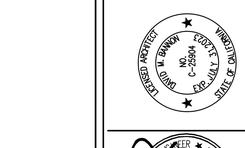
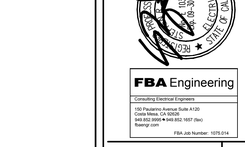


Architect Seal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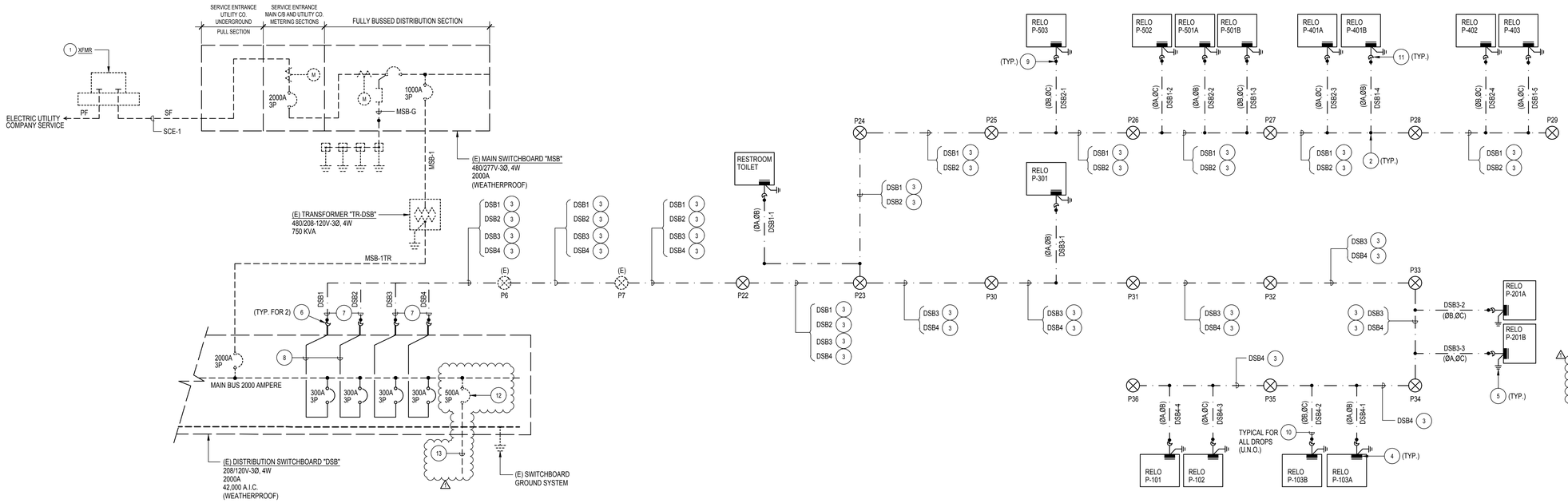

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PLAN NOTES

1. EXISTING UTILITY COMPANY TRANSFORMER.
2. PROVIDE INSULATED ARRIAL SPLICE AND EXTEND TO BUILDING WEATHERHEAD AS INDICATED AND CONNECT AS REQUIRED.
3. PROVIDE QUADRUPLEX ALUMINUM CABLE WITH ACSR FULL SIZE MESSENGER AND 4/0 AWG PHASE CONDUCTORS. GENERAL CABLE "SINGLEFOOT/XP" SERIES OR EQUAL BY OTHER MANUFACTURER.
4. RELOCATABLE BUILDING PANELBOARD.
5. RELOCATABLE BUILDING GROUNDING SYSTEM. SEE MODULAR BUILDING GROUNDING DETAIL "6" ON SHEET E-0.03 FOR MORE INFORMATION.
6. PROVIDE 3" WEATHERPROOF WEATHERHEAD FOR ROUTING MAIN DISTRIBUTION SWITCHBOARD'S FEEDER. SEE DETAILS ON SHEET E-0.05 FOR MORE INFORMATION.
7. PROVIDE #2 ALUMINUM EQUIPMENT GROUNDING CONDUCTOR THROUGHOUT ENTIRE AERIAL DISTRIBUTION.
8. EXTEND 4##4/O AND 1#2 GRD. COPPER CONDUCTOR FROM PANEL TO WEATHERPROOF HEAD.
9. SPLICE AT CONDUCTORS FROM PANEL AND EXTEND AS INDICATED.
10. PROVIDE TRIPLEX ALUMINUM CABLE WITH ACSR FULL SIZE MESSENGER AND #1 AWG PHASE CONDUCTORS, GENERAL CABLE "PYRULA/XP" SERIES OR EQUAL BY OTHER MANUFACTURER.
11. PROVIDE WEATHER HEAD TO BE INSTALLED AT THE BACK OF RELOCATABLE CLASSROOM. THE WEATHERHEAD CONDUIT SHALL BE EXTENDED TO BUILDING PANEL. USE LB FITTING TO BACK OF PANEL AND SEAL PENETRATION THROUGH BUILDING WALL. SEE DETAIL "1" ON SHEET E-0.03 FOR CONDUIT SEALING INFORMATION.
12. EXISTING CIRCUIT BREAKER SHALL BE REMOVED TO MAKE ROOM FOR NEW 300A BREAKER.
13. VERIFY EXISTING LOAD IS REMOVED. CAP OFF WIRES.

MAYBROOK E.S. INTERIM — PROJECT NO. 1075.014

VOLTS 120/240 — PANELBOARD RP (BY RELO MANUFACTURE) — MAIN 100A
PHASE 1PH, 3W — BUS 100A
MTG FLUSH — LOCATION RELO BUILDING

CKT	A (VA)	B (VA)	LOAD TYPE	BKR	OUTLET QUAN	DESCRIPTION
1	5290	-----	M	50/2	1	HVAC 3.5 TON
3	-----	5290	M	----	---	-----
5	43	-----	L	20/1	1	R-EXTERIOR LTG.
7	-----	1000	G	20/1	1	x BUILDING IDF
9	200	-----	G	xx 20/1	1	xx ACS-1 (FA EXPANDER)
11	-----	200	G	xx 20/1	1	xx AMP-1 (FA AMPLIFIER)
A 2	864	-----	L	20/1		LIGHTS
B 4	-----	964	L	20/1		LIGHTS
A 6	900	-----	R	20/1		RECEPT.
B 8	-----	600	G	20/1		RECEPT.
A 10	200	-----	G	20/1	xx	STC (SIGNAL TERM. CABINET)
B 12	-----					PROVISION

	VA	AMPS
CONNECTED:		
PHASE A =	7497	62
PHASE B =	8054	67
TOTAL =	15551	65

L.C.L. @ 125% =	2339	
RECEPT. ( ) 10 kVA @ 50% =	900	
KITCHEN @ 65% =		
OTHER LOAD @ 100% =	12780	
TOTAL VA =	16019	
TOTAL AMPS =	67	

LOAD TYPE:
G - GENERAL (100%) — M - MOTOR (100%)
L - L.C.L. (125%) — M1 - MOTOR (125%)
R - RECEPTACLE (50%) — X - X-RAY (100%)
(10 kVA @ 100%) — X1 - X-RAY (50%)
K - KITCHEN (65%)

x - CIRCUIT OCCURS ONLY ON RELOS CLASSROOM 101, 402 AND 502.
xx- CIRCUIT OCCURS ONLY ON RELO CLASSROOM 103.
xxx- PROVIDE APPROVED CIRCUIT BREAKER LOCK-ON DEVICE, RED IN COLOR. LABEL "FIRE ALARM CONTROL CIRCUIT".
R - INDICATES THE CIRCUIT IS CONTROLLED BY RELAY OPERATED BY 7 DAY-24 HOURS TIMER.
INSTALL RELAY AND TIMER IN A SEPARATE COMPARTMENT ABOVE PANEL.

MAYBROOK E.S. INTERIM — PROJECT NO. 1075.014

VOLTS 120/240 — PANELBOARD RRP (BY RELO MANUFACTURER) — MAIN 100A
PHASE 1PH, 3W — BUS 100A
MTG FLUSH — LOCATION RESTROOM RELO BUILDING

CKT	A (VA)	B (VA)	LOAD TYPE	BKR	OUTLET QUAN	DESCRIPTION
1	720	-----	R	20/1	4	RECEPT.
3	-----	-----				PROVISION
5	-----	-----				PROVISION
7	-----					PROVISION
9	-----	-----				PROVISION
11	-----					PROVISION
A 2	1040	-----	L	20/1	13	LTS. / EXHAUST FAN
B 4	-----	1160	L	20/1	12	LTS. / EXHAUST FAN
A 6	-----					PROVISION
B 8	-----					PROVISION
A 10		-----				PROVISION
B 12	-----					PROVISION

	VA	AMPS
CONNECTED:		
PHASE A =	1760	15
PHASE B =	1160	10
TOTAL =	2920	12

L.C.L. @ 125% =	2750	
RECEPT. ( ) 10 kVA @ 50% =	720	
KITCHEN @ 65% =		
OTHER LOAD @ 100% =		
TOTAL VA =	3470	
TOTAL AMPS =	14	

LOAD TYPE:
G - GENERAL (100%) — M - MOTOR (100%)
L - L.C.L. (125%) — M1 - MOTOR (125%)
R - RECEPTACLE (50%) — X - X-RAY (100%)
(10 kVA @ 100%) — X1 - X-RAY (50%)
K - KITCHEN (65%)

MAYBROOK ELEMENTARY SCHOOL INTERIM HOUSING PROJECT			
SUBJECT: ELECTRICAL LOAD CALCULATION			
LOAD DESCRIPTION	AREA(SF)	CONNECTED A (VA)	CONNECTED CURRENT (A)
EXISTING RELOCATABLE BUILDINGS AT 15WATTS/SF	15360	230400	640
NEW RELOCATABLE BUILDINGS AT 15WATTS/SF	14400	216000	600
EXISTING SWITCHBOARD DSB CAPACITY AT 80%			1600
DSB SWITCHBOARD SPARE CAPACITY(A)			360

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fbaengr.com
FBA Job Number: 1075.014

MAYBROOK ELEMENTARY SCHOOL
INTERIM HOUSING
11700 MAYBROOK AVENUE, WHITTIER CA 90604
LOWELL JOINT SCHOOL DISTRICT

SINGLE LINE DIAGRAM, CALCULATION AND PANEL SCHEDULES

REVISIONS:
1 ADDENDUM 1 02/13/2023
2
3
4
5
6
7
8

Date: 06/01/22
Job: #2215
Scale: NONE
Drawn: FBA

E-0.02

SHEET – OF XXX
XREF:

PANEL SCHEDULES

SINGLE LINE DIAGRAM

SCALE: NONE

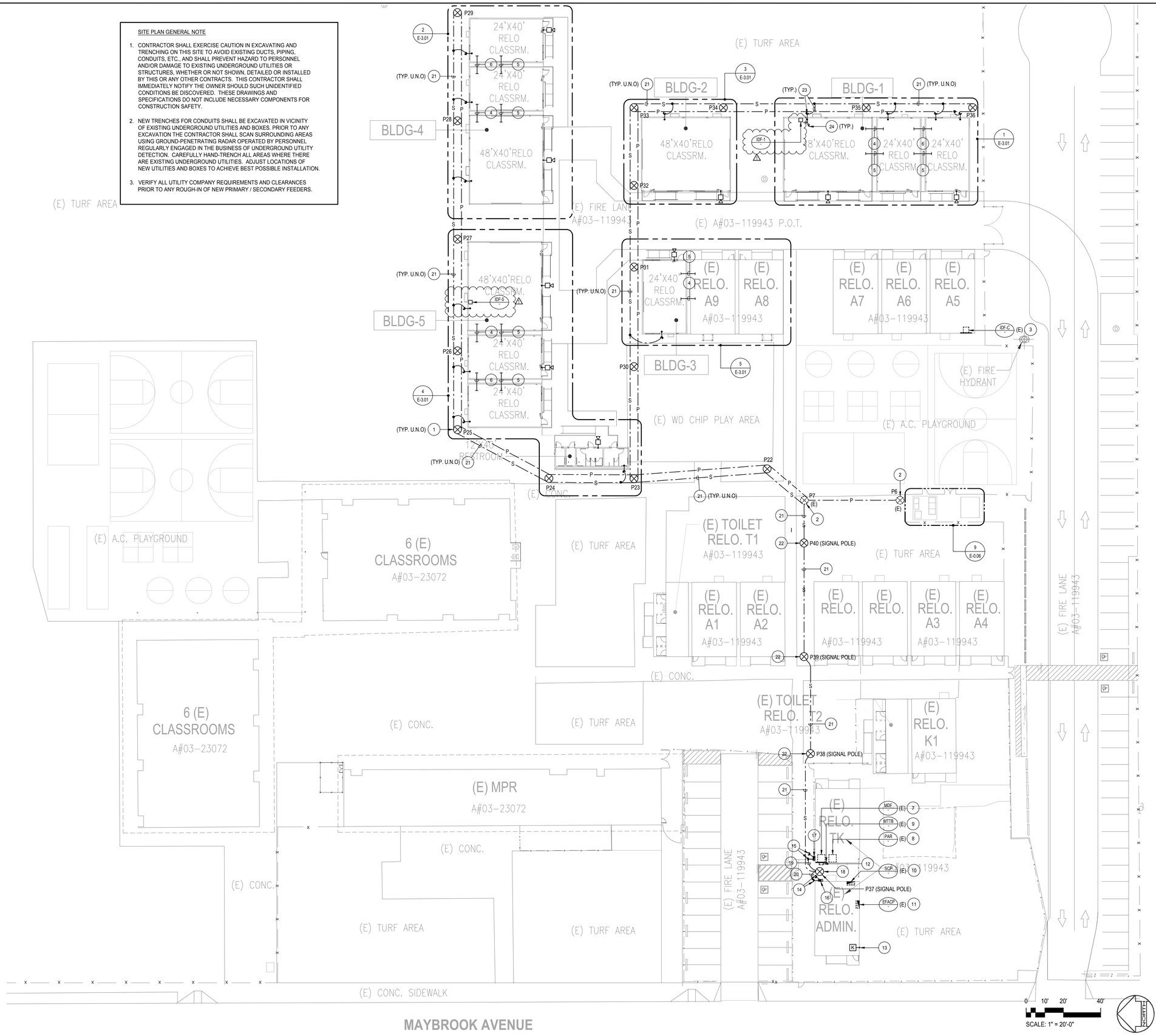
1

SITE PLAN GENERAL NOTE

1. CONTRACTOR SHALL EXERCISE CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING, CONDUITS, ETC., AND SHALL PREVENT HAZARD TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN, DETAILED OR INSTALLED BY THIS OR ANY OTHER CONTRACTS. THIS CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

2. NEW TRENCHES FOR CONDUITS SHALL BE EXCAVATED IN VICINITY OF EXISTING UNDERGROUND UTILITIES AND BOXES. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL SCAN SURROUNDING AREAS USING GROUND-PENETRATING RADAR OPERATED BY PERSONNEL REGULARLY ENGAGED IN THE BUSINESS OF UNDERGROUND UTILITY DETECTION. CAREFULLY HAND-TRENCH ALL AREAS WHERE THERE ARE EXISTING UNDERGROUND UTILITIES. ADJUST LOCATIONS OF NEW UTILITIES AND BOXES TO ACHIEVE BEST POSSIBLE INSTALLATION.

3. VERIFY ALL UTILITY COMPANY REQUIREMENTS AND CLEARANCES PRIOR TO ANY ROUGH-IN OF NEW PRIMARY / SECONDARY FEEDERS.



SITE SIGNAL PLAN

SCALE:	1
1" = 20'-0"	

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PLAN NOTES

1. PROVIDE UTILITY POLE FOR POWER AND SIGNAL DISTRIBUTION. SEE POLE DETAILS ON SHEET E-0.06 FOR MORE INFORMATION.
2. EXISTING UTILITY POLE TO REMAIN. PROTECT IN PLACE.
3. EXISTING IDF WALL MOUNTED TO REMAIN. PROTECT IN PLACE.
4. PROVIDE (3) 3" CONDUIT SLEEVES FOR ROUTING SIGNAL SYSTEM CONDUCTORS. SEE CONDUIT SLEEVE SEISMIC DETAIL "3" ON SHEET E-0.03 FOR MORE INFORMATION.
5. PROVIDE (1) 2" CONDUIT SLEEVES FOR ROUTING FIRE ALARM SYSTEM CONDUCTORS. SEE CONDUIT SLEEVE SEISMIC DETAIL "3" ON SHEET E-0.03 FOR MORE INFORMATION.
6. PROVIDE (2) 3" CONDUIT SLEEVES FOR ROUTING SIGNAL SYSTEM CONDUCTORS. SEE CONDUIT SLEEVE SEISMIC DETAIL "3" ON SHEET E-0.03 FOR MORE INFORMATION.
7. EXISTING MAIN DATA FRAME COMPUTER "MDF" TO REMAIN. UPGRADE AS REQUIRED TO SERVE THE NEW CONSTRUCTION.
8. EXISTING PUBLIC ADDRESS RACK TO REMAIN. UPGRADE AS REQUIRED TO SERVE THE NEW CONSTRUCTION.
9. EXISTING MAIN TELEPHONE BACKBOARD "MTTB" TO REMAIN. UPGRADE AS REQUIRED TO SERVE THE NEW CONSTRUCTION.
10. EXISTING SECURITY CONTROL PANEL "SCP" TO REMAIN. UPGRADE AS REQUIRED TO SERVE THE NEW CONSTRUCTION.
11. EXISTING FIRE ALARM CONTROL PANEL "FACP" TO REMAIN. UPGRADE AS REQUIRED TO SERVE THE NEW CONSTRUCTION.
12. EXISTING SIGNAL/FIRE ALARM PULL BOX TO REMAIN. PROTECT IN PLACE.
13. PROVIDE INTRUSION DETECTION SYSTEM KEY PAD. INSTALL NEW KEY PAD ADJACENT TO EXISTING CAMPUS KEY PAD.
14. INSTALL TWO (2) 3" RIGID GALVANIZED CONDUITS WITH WEATHERHEAD SERVICE FITTINGS FOR ROUTING INTRUSION DETECTION SYSTEM AND FIRE ALARM SYSTEM CONDUCTORS FROM BUILDING TO OVERHEAD POLE. SEE DETAIL "5" ON SHEET E-0.06 FOR MORE INFORMATION.
15. INSTALL TWO (2) 3" RIGID GALVANIZED CONDUITS WITH WEATHERHEAD SERVICE FITTINGS FOR ROUTING DATA SYSTEM AND CLOCK/PUBLIC ADDRESS SYSTEM CONDUCTORS FROM BUILDING TO OVERHEAD POLE. SEE DETAIL "5" ON SHEET E-0.06 FOR MORE INFORMATION.
16. PROVIDE ONE (1) 12" X 12" X 6"D. WEATHERPROOF PULL BOX AT EXTERIOR WALL OF THE BUILDING FOR ROUTING INTRUSION DETECTION SYSTEM AND FIRE ALARM SYSTEM CONDUCTORS.
17. PROVIDE ONE (1) 12" X 12" X 6"D. WEATHERPROOF PULL BOX AT EXTERIOR WALL OF THE BUILDING FOR ROUTING DATA SYSTEM AND PUBLIC ADDRESS SYSTEM CONDUCTORS.
18. PROVIDE UTILITY POLE FOR SIGNAL DISTRIBUTION. EXTEND SIGNAL SYSTEM CONDUCTORS FROM POLE TO WEATHER HEAD. SEE POLE DETAIL "5" ON SHEET E-0.06 FOR MORE INFORMATION.
19. PROVIDE SPECIFIED SIGNAL SYSTEM CONDUCTORS IN THE FOLLOWING CONDUIT ROUTED THROUGH ACCESSIBLE CEILING SPACE. TERMINATE ALL CONDUITS/CABLES TO RESPECTIVE SIGNAL SYSTEM EQUIPMENT.
    - 3"C. DATA WITH TWO (2) 12MMI/6SM FIBER OPTIC CABLES
    - 3"C. PUBLIC ADDRESS/TELECOM/CLOCK
20. PROVIDE SPECIFIED SIGNAL SYSTEM CONDUCTORS IN THE FOLLOWING CONDUIT ROUTED THROUGH ACCESSIBLE CEILING SPACE. TERMINATE ALL CONDUITS/CABLES TO RESPECTIVE SIGNAL SYSTEM EQUIPMENT.
    - 2"C. INTRUSION DETECTION SYSTEM
    - 2"C. FIRE ALARM SYSTEM
    - 2"C.O. ENERGY MANAGEMENT SYSTEM
21. PROVIDE OUTDOOR SPECIFIED OVERHEAD AERIAL RATED CABLES FOR THE FOLLOWING SYSTEMS:
    - DATA SYSTEM CABLES FIBER OPTIC
    - PUBLIC ADDRESS/TELECOM/CLOCK CABLES
    - INTRUSION DETECTION SYSTEM CABLES
    - FIRE ALARM SYSTEM
22. PROVIDE UTILITY POLE FOR SIGNAL DISTRIBUTION. SEE POLE DETAILS ON SHEET E-0.06 FOR MORE INFORMATION.
23. PROVIDE (5) 2" RIGID GALVANIZED CONDUITS WITH WEATHERHEAD SERVICE FITTINGS MOUNTED AT THE BACK OF RELOCATABLE BUILDINGS FOR EXTENSION OF OVERHEAD DATA, PUBLIC ADDRESS/TELECOM/CLOCK SYSTEM, ENERGY MANAGEMENT SYSTEM, INTRUSION DETECTION AND FIRE ALARM SYSTEM CONDUCTORS AS INDICATED. SEE POLE DETAILS ON SHEET E-0.06 FOR MORE INFORMATION.
24. CONNECT SIGNAL SYSTEM CONDUCTORS TO RESPECTIVE SIGNAL SYSTEM DEVICES AND/OR TERMINAL CABINET AS REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM. SEE SHEET E-3.01 AND E-4.01 FOR MORE INFORMATION.

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SITE SIGNAL PLAN

REVISIONS:

1	ADDENDUM 1	02/13/2023
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Date:	06/01/22
Job:	#2215
Scale:	1" = 20'-0"
Drawn:	FBA

E-1.02

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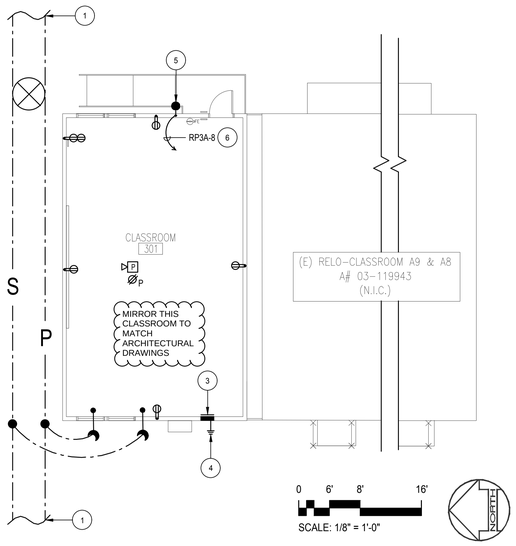

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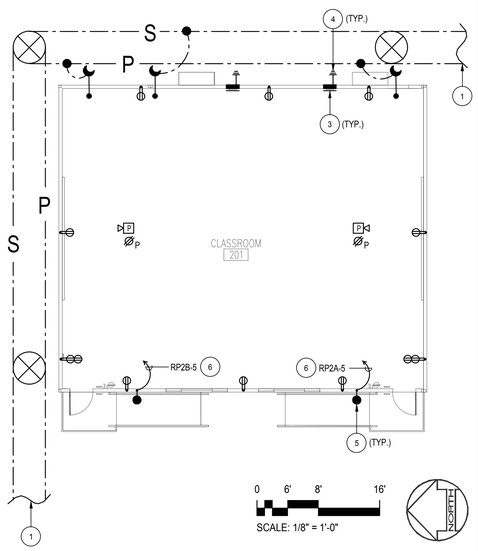
SCALE: 1/8" = 1'-0"

RELOCATABLE BLDG. 3 ELECTRICAL PLAN | SCALE: 1/8" = 1'-0" | 5



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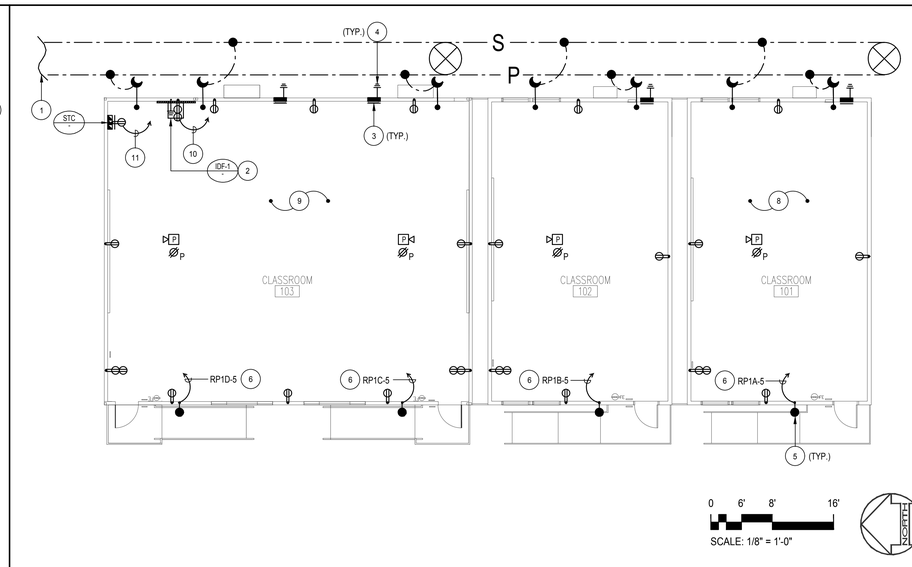
SCALE: 1/8" = 1'-0"

RELOCATABLE BLDG. 2 ELECTRICAL PLAN | SCALE: 1/8" = 1'-0" | 3



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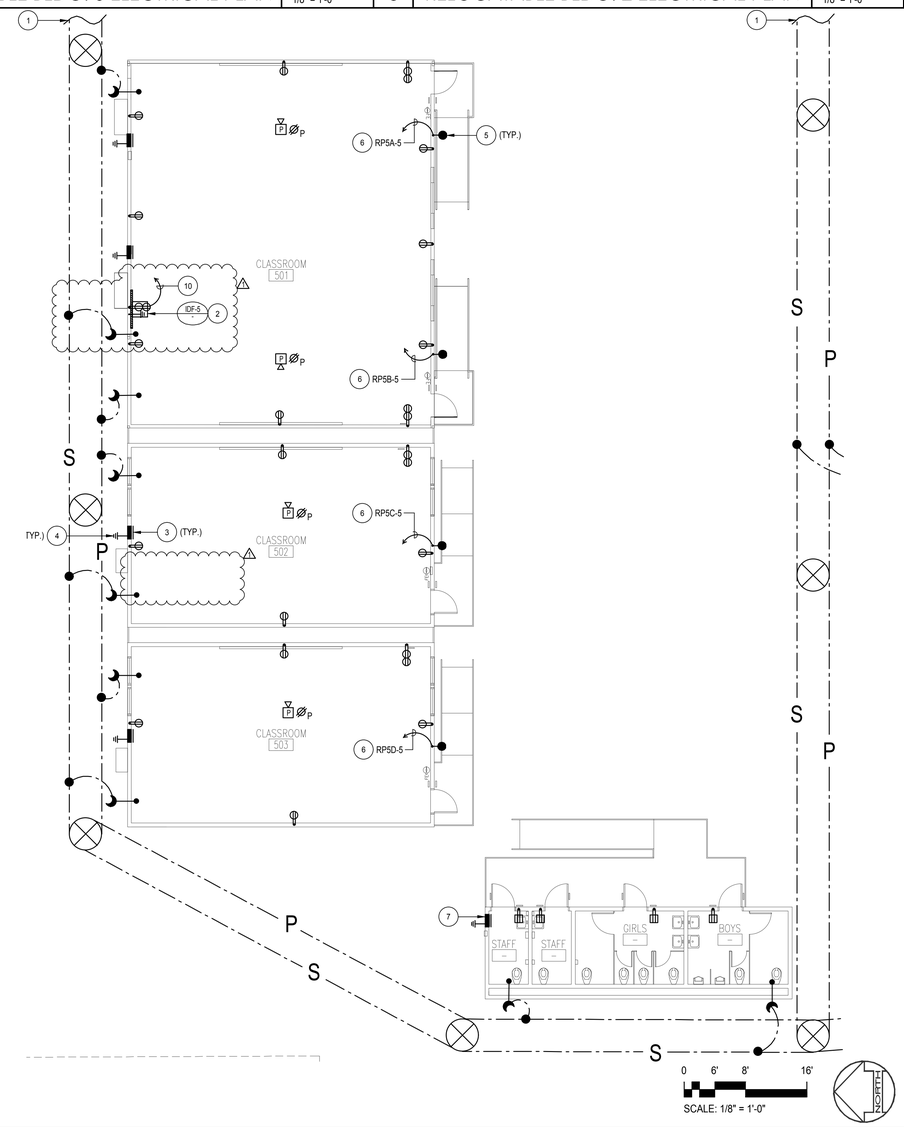
SCALE: 1/8" = 1'-0"

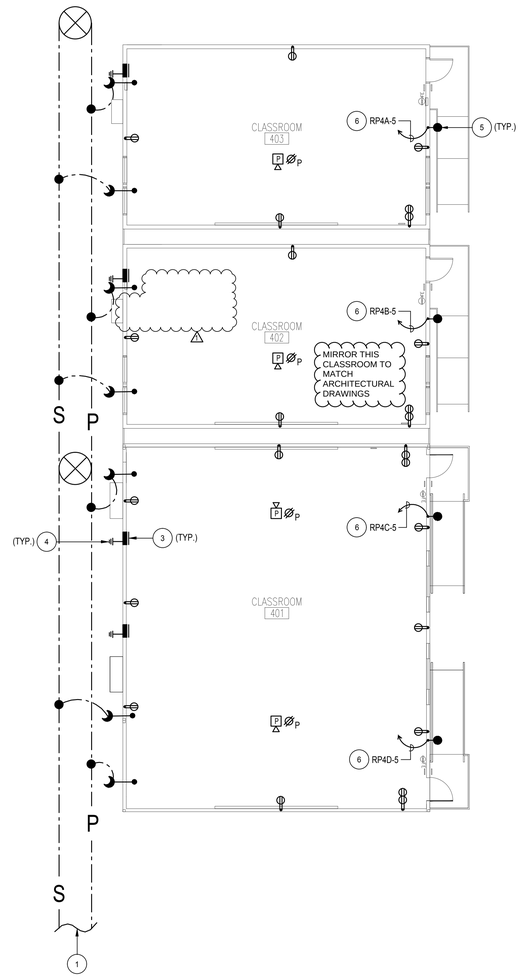
RELOCATABLE BUILDING 1 ELECTRICAL PLAN | SCALE: 1/8" = 1'-0" | 1



0 6' 8' 16'

SCALE: 1/8" = 1'-0"

RELOCATABLE BUILDING 5 ELECTRICAL PLAN | SCALE: 1/8" = 1'-0" | 4



0 6' 8' 16'

SCALE: 1/8" = 1'-0"

RELOCATABLE BUILDING 4 ELECTRICAL PLAN | SCALE: 1/8" = 1'-0" | 2

KEYNOTE NUMBERS MAY NOT NECESSARILY CORRESPOND PRECISELY TO SPECIFIC SPECIFICATION SECTIONS OF THE WORK. REFER TO THE SPECIFICATION TABLE OF CONTENTS FOR PRECISE SPECIFICATION DIVISION NUMBERS ASSOCIATED WITH THE WORK. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE NUMBER(S) SPECIFICALLY CORRESPOND PRECISELY TO SPECIFICATION SECTIONS OR DIVISIONS PROVIDED IN THE TECHNICAL SPECIFICATIONS.

PLAN NOTES

1. SEE SHEET E-1.01 FOR CONTINUATION.
2. PROVIDE WALL MOUNTED IDF COMPUTER / CABINET, WITH 3/4" PLYWOOD BACKBOARD AND POWER OUTLET AS INDICATED. PROVIDE GROUND BUS WITH 3/4"C.- 1#6 GROUND TO BUILDING GROUNDING SYSTEM AND CONNECT AS REQUIRED. SEE DETAIL "2" ON SHEET E-0.03 FOR IDF ANCHORAGE.
3. PORTABLE BUILDING'S ELECTRICAL PANEL PROVIDED BY RELO MANUFACTURER.
4. PROVIDE PORTABLE BUILDING'S GROUNDING SYSTEM. SEE MODULAR BUILDING GROUNDING DETAIL "5" ON SHEET E-0.03 FOR MORE INFORMATION.
5. PROVIDE SURFACE MOUNTED LED WALL PACK WITH DIE CAST ALUMINUM HOUSING AND PRISMATIC LENS. THE FIXTURE SHALL BE INTEGRAL PHOTOCELL OPERATED AND EMERGENCY BATTERY BACK-UP SYSTEM WITH 3/4"C.- 2#12, 1#12 GRD. TO BUILDING'S PANEL. THE LED POWER SUPPLY FIXTURE SHALL BE LISTED FOR WET LOCATION APPLICATION. THE LIGHT FIXTURE SHALL BE 43 WATTAGE HUBBEL/LNC2-18L-4K-070-4 OR APPROVED EQUAL.
6. ROUTE CONDUITS/CONDUCTORS THROUGH CEILING SPACE TO PANEL INDICATED AND CONNECT AS REQUIRED. SEE CORRESPONDING BUILDING'S PANEL SCHEDULE ON SHEET E-0.02 FOR MORE INFORMATION.
7. PROVIDE RESTROOM BUILDING'S ELECTRICAL PANEL. PROVIDE GROUNDING PER MODULAR BUILDING GROUND DETAIL "5" ON SHEET E-0.03.
8. PROVIDE COMPLETE CLASSROOM 24' X 40' ELECTRICAL POWER SYSTEM AS INDICATED. PROVIDE ALL REQUIRED CONDUITS, CONDUCTORS, CONNECTIONS, DEVICES.. AND ALL REQUIRED HARDWARE FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM.
9. PROVIDE COMPLETE CLASSROOM 48' X 40' ELECTRICAL POWER SYSTEM AS INDICATED. PROVIDE ALL REQUIRED CONDUITS, CONDUCTORS, CONNECTIONS, DEVICES.. AND ALL REQUIRED HARDWARE FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM.
10. PROVIDE 3/4"C. WITH 2#12, 1#12 GROUND TO THE BUILDING'S ELECTRICAL PANEL AND CONNECT AS REQUIRED. SEE CORRESPONDING BUILDING'S PANEL SCHEDULE ON SHEET E-0.02 FOR MORE INFORMATION.
11. CONNECT POWER TO SIGNAL TERMINAL CABINET WITH 3/4"C- - 2#12, 1#12 GRD. TO RELO PANEL. SEE CORRESPONDING BUILDING'S PANEL SCHEDULE ON SHEET E-0.02 FOR MORE INFORMATION.

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RELOCATABLE BUILDING
ELECTRICAL PLAN

REVISIONS:

1	ADDENDUM 1	02/13/2023
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Date:	06/01/22
Job:	#2215
Scale:	1/8" = 1'-0"
Drawn:	FBA

E-2.01

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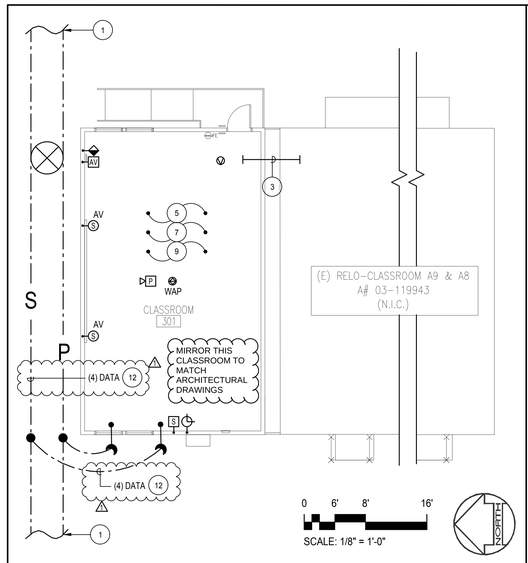
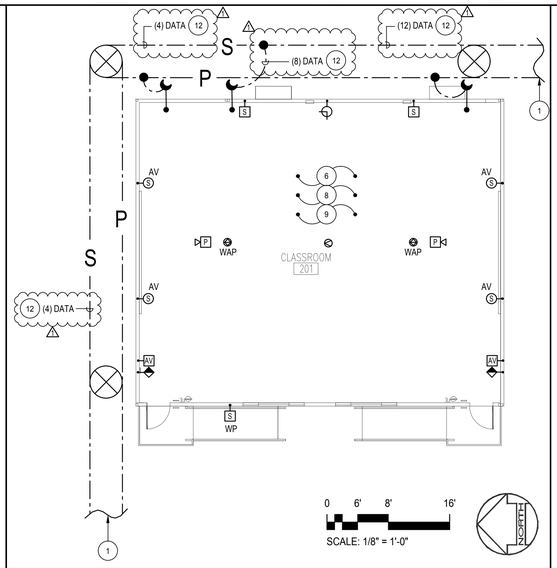
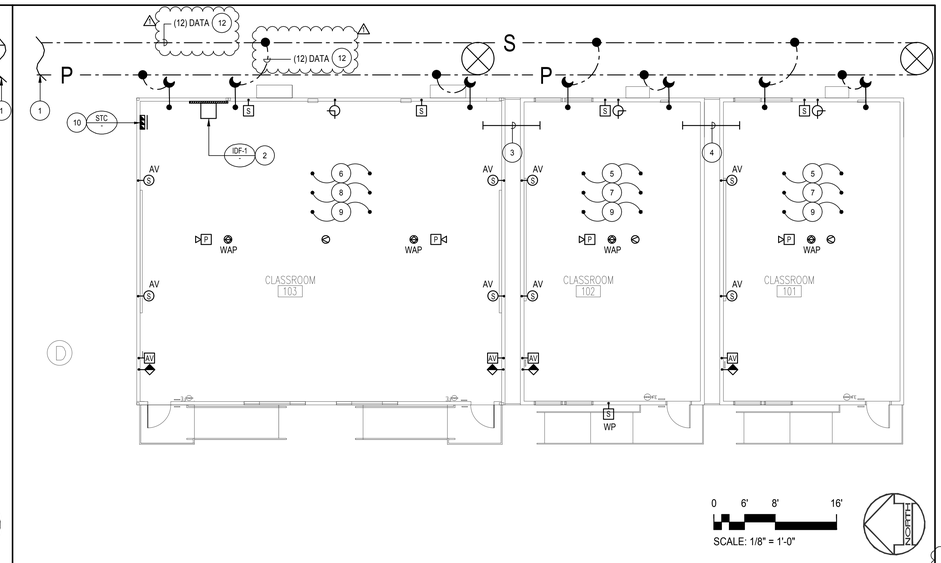
FBA Engineering / Plot Date: 2/9/2023 3:40 PM / Plotted by: John Nguyen / Drawing Location: I:\1075\014\E-2.01_1075014-RELO BLDG ELEC PLAN.dwg



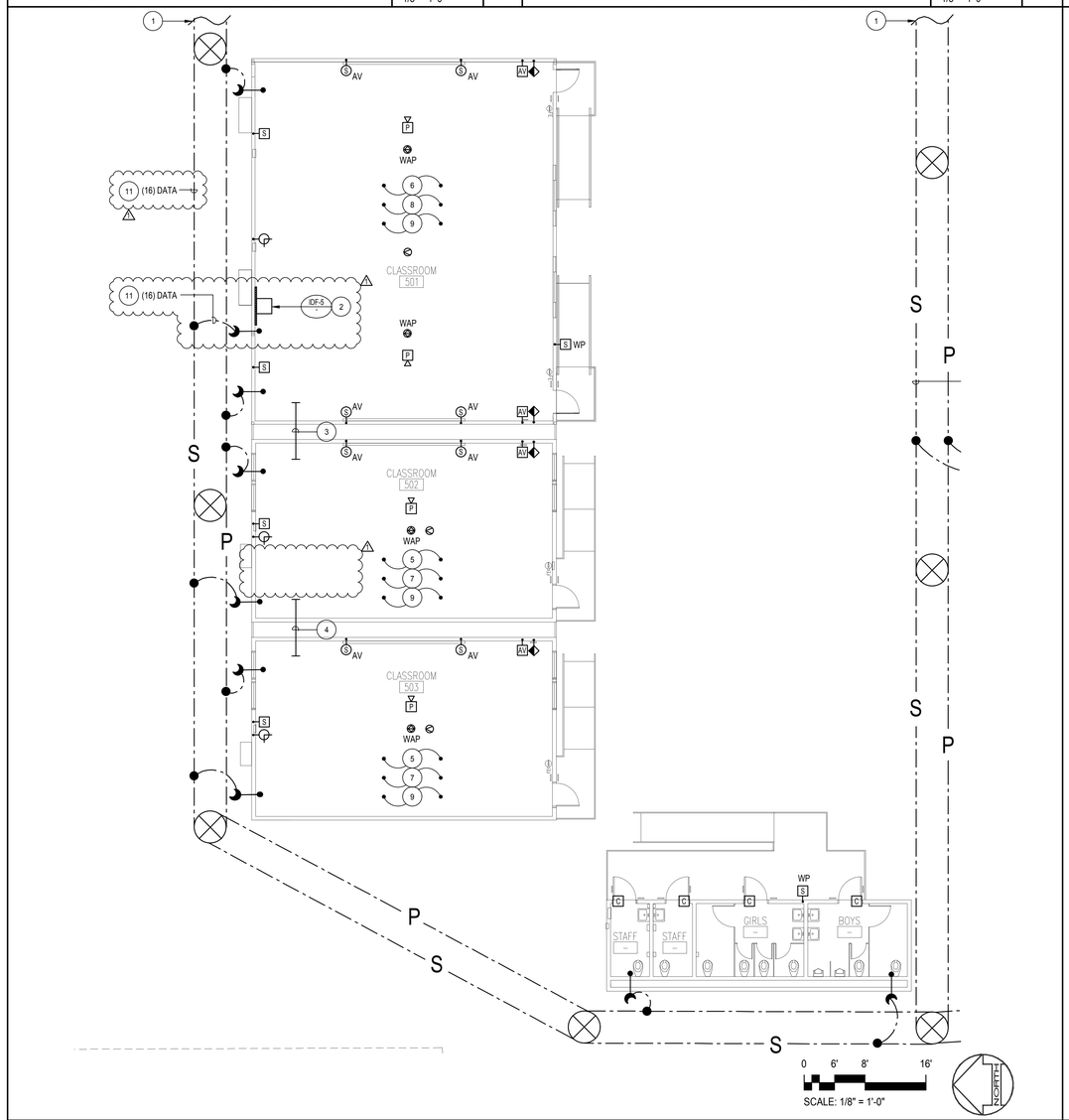
RELOCATABLE BLDG. 3 SIGNAL PLAN | SCALE: 1/8" = 1'-0" | 5



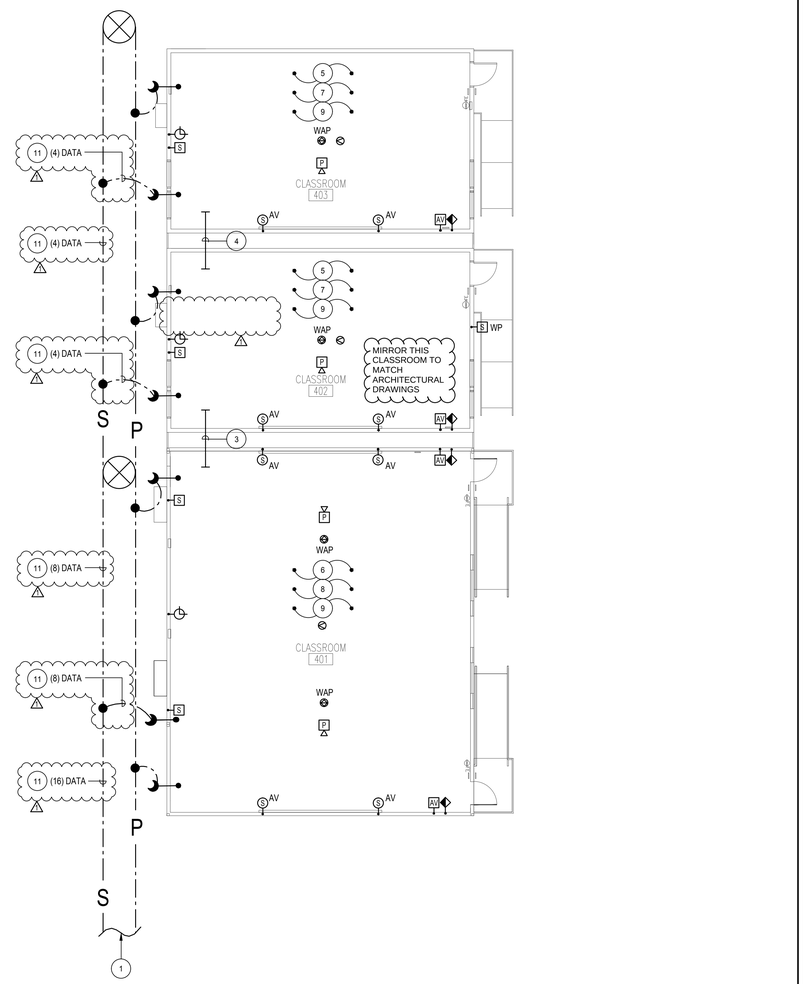
RELOCATABLE BLDG. 2 SIGNAL PLAN | SCALE: 1/8" = 1'-0" | 3



RELOCATABLE BUILDING 1 SIGNAL PLAN | SCALE: 1/8" = 1'-0" | 1



RELOCATABLE BUILDING 5 SIGNAL PLAN | SCALE: 1/8" = 1'-0" | 4



RELOCATABLE BUILDING 4 SIGNAL PLAN | SCALE: 1/8" = 1'-0" | 2

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PLAN NOTES

1. SEE SHEET E-1.02 FOR CONTINUATION.
2. PROVIDE WALL MOUNTED IDF COMPUTER / CABINET.
3. PROVIDE (3) 3" CONDUIT SLEEVES FOR ROUTING SIGNAL SYSTEM CONDUCTORS. SEE CONDUIT SLEEVE SEISMIC DETAIL "3" ON SHEET E-0.03 FOR MORE INFORMATION.
4. PROVIDE (2) 3" CONDUIT SLEEVES FOR ROUTING SIGNAL SYSTEM CONDUCTORS. SEE CONDUIT SLEEVE SEISMIC DETAIL "3" ON SHEET E-0.03 FOR MORE INFORMATION.
5. PROVIDE COMPLETE CLASSROOM 24' X 40' ELECTRICAL SIGNAL SYSTEM AS INDICATED. PROVIDE ALL REQUIRED CONDUITS, CONDUCTORS, CONNECTIONS, DEVICES... AND ALL REQUIRED HARDWARE FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM.
6. PROVIDE COMPLETE CLASSROOM 48' X 40' ELECTRICAL SIGNAL SYSTEM AS INDICATED. PROVIDE ALL REQUIRED CONDUITS, CONDUCTORS, CONNECTIONS, DEVICES... AND ALL REQUIRED HARDWARE FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM.
7. REFER TO TYPICAL CLASSROOM AUDIO/VISUAL SYSTEM RISER DIAGRAM DETAIL "7" ON SHEET E-0.03. PROVIDE ALL DEVICES AND CONNECTIONS FOR A COMPLETE OPERABLE CONTROL.
8. REFER TO TYPICAL CLASSROOM AUDIO/VISUAL SYSTEM RISER DIAGRAM DETAIL "6" ON SHEET E-0.03. PROVIDE ALL DEVICES AND CONNECTIONS FOR A COMPLETE OPERABLE CONTROL SYSTEM.
9. PROVIDE ASSISTIVE LISTENING SYSTEM DEVICES AND EQUIPMENTS PER SPECIFICATION #274119 FOR ALL CLASSROOMS. THE QUANTITY OF PORTABLE RECEIVERS SHALL BE MINIMUM 4% OF THE ROOM'S OCCUPANT LOAD NOT LESS THAN 2 UNITS.
10. PROVIDE 18" X 18" X 4"D. TERMINAL CABINET WITH THREE (3) BARRIERED COMPARTMENT FOR INTRUSION DETECTION, ENERGY MANAGEMENT SYSTEM AND PUBLIC ADDRESS/TELECOM SYSTEM.
11. PROVIDE DATA CABLES TO IDF-5 LOCATED IN CLASSROOM 501 (BUILDING 5). SEE SHEET E-1.02 FOR ADDITIONAL INFORMATION.
12. PROVIDE DATA CABLES TO IDF-1 LOCATED IN CLASSROOM 103 (BUILDING 1). SEE SHEET E-1.02 FOR ADDITIONAL INFORMATION.

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RELOCATABLE BUILDING
SIGNAL PLAN

REVISIONS:

1	ADDENDUM 1	02/13/2023
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Date:	06/01/22
Job:	#2215
Scale:	1/8" = 1'-0"
Drawn:	FBA

E-3.01

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FBA.Engineering / Plot Date: 2/9/2023 3:40 PM / Plotted by: John Nguyen / Drawing Location: I:\1075\01-elE-3.01_1075014 RELO BLDG SIGNAL PLAN.dwg