March 28, 2025

ADDENDUM 02

Project:
New 2 Story Classroom Building
Rogers Middle School
Lawndale, CA 90260

WW Project No. 22029.01
DSA Application No. 03-123867
File No. 19-57
Owner:
Lawndale Elementary School District
4110 W. 154th St.
Lawndale, CA 90260

Architect:
WestbergWhite Architects, Inc.
7700 Irvine Center Dr. Suite 100
Irvine, CA 92618
(714) 508-1780

TO: PROSPECTIVE BIDDERS

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated October 24, 2024.

The following changes, additions, deletions, or corrections, becomes a part of the Contract Documents for the above named Project. All other conditions remain the same.
The bidders shall be responsible for transmitting this information to all affected subcontractors and suppliers prior to the closing of the bids.
Prospective Bidders must acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

Item No. AD-02-00 **CHANGES TO PREVIOUS ADDENDUM**

1. Lid Report: This is for District Use Only. Contractor is to disregard this report in his scope of work.
2. Offsite Plan Document: This information is for Reference Only. The scope of work required for the offsite work is indicated in the current civil plans.
3. Hydrology and Hydraulics Report: This is for District Use Only. Contractor is to disregard this report in his scope of work.
4. SWPPP Report: Contractor is follow requirements in this report in regards to stormwater and erosion control. The Geotechnical Report that is contained within this report is redundant to the Geotechnical Report the District has provided in their website. Contractor is to disregard the Geotechnical Report in the SWPPP Report.

Item No. AD-02-0 **CHANGES TO BID DOCUMENTS**

See Bid Form Page 6, UNIT PRICES:
Complete and Insert attached form into the Bid Package

Item No. AD-02-1 **CHANGES TO SPECIFICATIONS**

Revised items in the following sections are indicated as follows:
Items to be deleted are indicated by ~~strikeout~~
Items to be added are indicated in **bold**

Item No. AD-02-1 **CHANGES TO SPECIFICATIONS**

A. ***Insert following new specification sections issued with this Addendum:***

a) Section 11 6833 – Athletic Field Equipment
b) Section 11 8129 – Facility Fall Protection

B. ***Revise following Specification Sections as indicated – Sections are not reissued.***

a) Section 03 3000 – Cast-in-Place Concrete
    a. Article 2.06, paragraph B, Item 3, a, 1):
        1) Revise “LS” to read “CS”

C. ***Replace existing specification sections with following revised specification sections issued with this Addendum:***

a) Revised Items are indicated as follows:
    a. Items to be deleted are indicated by strikeout
    b. *Items to be added are indicated in bold.*

b) Table of Contents
    a. Delete Table of Contents in its entirety and replace it with revised Table of Contents issued with this Addendum.

c) Section 09 3000 – Tile
    a. Delete Section 09 3000 in its entirety and replace it with revised Section 09 3000 issued with this Addendum.

d) Section 09 7200 – Wall Covering
    a. Delete Section 09 7200 in its entirety and replace it with revised Section 09 7200 issued with this Addendum.

e) Section 10 1400 – Signage
    a. Delete Section 10 1400 in its entirety and replace it with revised Section 10 1400 issued with this Addendum.

f) Section 32 1100 – Base Course

a. Delete Section 32 1100 in its entirety and replace it with revised Section 32 1100 issued with this Addendum.

g) Section 32 1216 – Asphalt Paving

a. Delete Section 32 1246 in its entirety and replace it with revised Section 32 1216 issued with this Addendum.

Item No. AD-02-2 **REVISIONS TO DRAWINGS**

GENERAL

1. G001 SHEET INDEX, SYMBOLS, ABBREVIATIONS & NOTES

a) Note added to scope of work "- THIS PROJECT IS DIVIDED IN 2 PHASES TO ADDRESS REMOVAL OF RELOCATABLES AND REGRADING OF THE SITE."
b) A871 has been renamed to A871 roof details in sheet index.

2. G002 SIGNAGE DETAILS

a) Sign 5R has been removed. Does not apply to the project.
b) Sign 12A and 12C have been removed. Does not apply to the project. 12B is renamed as 12A and detail 12D has been renamed as 12B.

3. G101 BUILDING EGRESS AND SIGNAGE PLAN - FIRST FLOOR PLAN

a) Designation AE has been added to the legend and located on the plans for accessible elevator direction.
b) Designation AT has been added to the legend and located on the plans for accessible toilet room direction per 12A/G002.
c) Detail 5I/G002 has been added to the CS designation as sign to be added for 2 way communication signage.
d) VS for video surveillance location has been changed.

5. G102 BUILDING EGRESS AND SIGNAGE PLAN – SECOND FLOOR PLAN

a) Designation AE has been added to the legend and located on the plans for accessible elevator direction.
b) Designation AT has been added to the legend and located on the plans for accessible toilet room direction per 12A/G002.
c) Detail 5I/G002 has been added to the CS designation as sign to be added for 2 way communication signage.
d) VS for video surveillance location has been changed.

CIVIL

1. C-2.0 SITE CONTROL PLAN – PHASE 1

a) Fence limit for phase 1 has been updated.
b) Detail reference for construction 18 has been updated.
c) Detail reference for construction 19 has been updated.
d) Construction 34 has been added.
e) Keynote 34 has been added.

2. C-4.0 SITE UTILITY PLAN – PHASE 1

a) Construction 37 has been updated.
b) Construction 45 has been updated.

ARCHITECTURAL

1. A001 OVERALL SITE PLAN

a) Walls of trash enclosure is put back into the drawings. They were accidently hidden in ADD01.

2. A101 FIRST FLOOR PLAN

a) LVT-1 flooring designation has been changed to HVT-1.
b) Room Tags 123 and 124 have been added.
c) Door tags 123A and 124A have been added.

3. A102 SECOND FLOOR PLAN

a) LVT-1 flooring designation has been changed to HVT-1.
b) 217A door has been re-added to the project.,
c) Wall tag 1A has been added to the project for the workroom.

4. A301 ROOF PLAN

a) Mechanical tie offs have been located on the plans. See construction note BN087 "PROVIDE TIE OFFS PER DETAIL 14/A870".
b) Keynote BN083 has been added to designate the mechanical units.
c) Mechanical units, split conditioning units and exhaust fans have been located on the plans with dimensions.
d) BN088 has been added to the project to provide a new roof hatch per 9/1870.
e) BN092 has been added to locate the new split air conditioning system.
f) BN094 was added to designate the new walkway pads on the plan.
g) Walkway pads have been added to the plan.

5. A401 EXTERIOR ELEVATIONS

a) Replace the entire sheet with the provided drawing.
b) Items that have been modified:
    a. Graphical changes to show more clarification
    b. Plaster control joints have been adjusted
    c. See the updated color designations.
    d. Dimensions provided to locate plaster control joints.

6. A660 STAIR #1 ENLARGED PLAN AND SECTIONS

a) New storge room has been added underneath the stair in detail 1. Dimensions wall tags and details has been added. Details 2,3,4,6 and 5 has been revised accordingly to show the new storage details and elevations.
b) Detail 7 will have new HSS sizes to create a new frame that does not include the picture frame that was in the original approve drawings. See structural for more information.

7. A661 STAIR #2 ENLARGED PLAN AND SECTIONS

a) New storge room has been added underneath the stair in detail 1. Dimensions wall tags and details has been added. Details 2,3,4,6 and 5 has been revised accordingly to show the new storage details and elevations.
b) Detail 7 will have new HSS sizes to create a new frame that does not include the picture frame that was in the original approve drawings. See structural for more information.

8. A833 BALCONY DETAILS

a) Detail 10 added to show the water proofing elements at the storage rooms at stair 1.
b) Detail 13 was added to show the jamb condition where the opening at the stairs occurs.
c) Detail 14 was added to show the finishes around the opening @ stair #2.
d) Detail 17 was added to show the finishes around the opening at stair 1.

9. A841 WALL TYPES AND DETAILS

a) Detail 11 and 13 Curbs Have been removed from the plumbing wall and tiled wall.

10. A842 WALL TYPES AND DETAILS

a) Detail 17 has been revised to call out for ¼" thick alum. Letter or panels.
b) Detail 17 calls out for film and lettering font to be approved by the districts
c) Detail 20 will call out for ¼" aluminum instead of stainless steel.

11. A853 CEILING DETAILS

a) Detail 1 plaster control join has been added back to the project.

12. A860 CASEWORK DETAILS

a) Detail 19 will be moved to be detail 8.
b) Detail 18: The tile pattern has been adjusted on the elevation of the drinking fountain.
c) Detail 18: See new tile designations.
d) Detail 19: Detail 19 was added to show the bracing going through the countertop and the base cabinet.

13. A870 ROOF DETAILS (CONCRETE OVER METAL DECK ONLY)

a) Roof Tie off detail has been added see A301 for the location of each tie off.

14. A871 ROOF DETAILS

a) Concrete condenser has been added to the detail therefore the flashing and cant strip has been modified to accommodate for that.
b) Detail 11B has been added to show the condition where 2 split air conditioning units sit on a single concrete condenser.
c) Detail 9 has not been modified only moved to create more space for detail 11.

15. A890 STAIR DETAILS

a) Detail 11 has been added to show the sill condition at the opening at stairs. Detail will accommodate for both stair 1 and stair 2.
b) Detail 13 has been renamed as handrail at HSS
c) Detail 15 will have a revised dimension of 1 ½" clear instead of 1" clear.

STRUCTURAL

1. S1-13 TYPICAL METAL STUD DETAILS

a) 9/S1-13: New detail added for hood support

2. S2-1 FOUNDATION PLAN

a) Concrete curbs removed.
b) Revised stair support to have one central column.
c) Added storage room underneath the stairs.
d) Concrete curbs added.
e) Added to sheet note #7.
f) Revised slab on grade call out.
g) Added SF-6 and SF-7 for spread footing schedule.

3. S3-1 2ND FLOOR FRAMING PLAN

a) Removed detail call-out at stair columns.

b) Upsized HSS landing beam for revised stair column layout.

4. S3-2 ROOF FRAMING PLAN

a) Added roof tie-backs.

5. S4-1 FOUNDATION DETAILS

a) 6/S4-1: Removed galvanizing and added graphics to ensure that all steel received at least 3" concrete cover.
b) 12/S4-1: Detail added for metal studs under the stairs.

6. S5-1 FRAMING DETAILS

a) 4/S5-1: Added detail for roof tie-backs.

7. S5-2 FRAMING DETAILS

a) 12&17/S5-2: Removed "4x4" from HSS call out.
b) 17/S5-2: Revised layout of stud wall framing relative to the HSS frame.

8. S5-3 FRAMING DETAILS

a) 1,1.2,&2.2/S5-3: Revised HSS member sizes.
b) 1.2/S5-3: Revised framing around openings and added outriggers.

MECHANICAL

1. M011 MECHANICAL SCHEDULES

a) Added EF-3 to “EXHAUST FAN SCHEDULE”.

2. M021 MECHANICAL DETAILS

a) Revised detail #2.

3. M023 MECHANICAL DETAILS

a) New sheet showing the kiln hood detail and in-line exhaust fan detail.

4. M101 MECHANICAL FIRST FLOOR PLAN

a) Revised the supply air ductwork in CLASSROOM 101.
b) Added the kiln hood, EF-3, door louvers to KILN 103.

PLUMBING

1. P101 PLUMBING FIRST FLOOR PLAN

a) Revised the SD and OD piping at exterior wall of KILN 103.
b) Updated the shaft background at BOYS 109 and GIRLS 110.

2. P102 PLUMBING SECOND FLOOR PLAN

a) Revised the SD and OD piping at exterior wall of CUST. 203.
b) Updated the shaft background at BOYS 109 and GIRLS 110.

3. P301 PLUMBING ENLARGED TOILET PLANS

a) Updated the shaft background at BOYS 109 and GIRLS 110 on plan view #1

ELECTRICAL

1. E004 LIGHTING FIXTURE SCHEDULE

a) Revised “LED Luminaire Schedule” to add new fixture type.

2. E005 PANEL SCHEDULES

a) Revised panel schedule for Panel ‘2HVAC’ for added kiln exhaust fan.

1. **E006 PANEL SCHEDULES**

a) Revised panel schedule for Distribution Panel ‘2DB-R’ for added kiln.

2. **E201 FIRST FLOOR PLAN – LIGHTING**

a) Revised plan to adjust light fixture types for kiln location.

3. **E301 FIRST FLOOR PLAN – POWER**

a) Revised plan for relocation of Panel ‘2PEVC’, ‘4LT’ and lighting inverter.
b) Added power provisions for kiln and kiln exhaust fan.

4. **E302 SECOND FLOOR PLAN – POWER**

a) Revised plan to adjust location of Panel ‘4LT’ and Lighting inverter in 2nd floor Electrical room.

FIRE ALARM:

1. FA202 SECOND FLOOR PLAN – FIRE ALARM

a) Revised plan to adjust RPS, FATC and AMP layout in 2nd floor Electrical room to locate lighting inverter in this room.

FIRE PROTECTION

1. FP101 FIRE PROTECTION FIRST FLOOR REFLECTED CEILING PLAN

a) Added new sprinkler head type and total quantity to the “SPRINKLER LEGEND”.
b) Revised the sprinkler head type at “KILN 103”.
c) Updated the shaft background at BOYS 109 and GIRLS 110.

2. FP201 FIRE PROTECTION FIRST FLOOR PIPING PLAN

a) Added new sprinkler head type and total quantity to the “SPRINKLER LEGEND”.
b) Revised the sprinkler head type at “KILN 103”.
c) Added new sprinkler head below the kiln hood.
d) Updated the shaft background at BOYS 109 and GIRLS 110.

Item No.AD-01-3 **ATTACHMENTS**

Specifications:

00 01100 TABLE OF CONTENTS
09 3000 TILE
09 7200 WALL COVERING
10 1400 SIGNAGE
11 8129 FACILITY FALL PROTECTION
32 1100 BASE COURSE
32 1216 ASPHALT PAVING

Drawings:

Re-issued Drawings are 30 x 42 inches
Revised portion of Drawings are 11 x 17 or 8-1/2 x 11 (SKX-XX)

General:

G001 SHEET INDEX, SYMBOLS, ABBREVIATIONS & NOTES
G002 SIGNAGE DETAILS
G101 BUILDING EGRESS AND SIGNAGE PLAN - FIRST FLOOR PLAN
G102 BUILDING EGRESS AND SIGNAGE PLAN – SECOND FLOOR PLAN

Civil:

C-2.0 SITE CONTROL PLAN – PHASE 1
C-4.0 SITE UTILITY PLAN – PHASE 1

Architectural:

A001 OVERALL SITE PLAN
A101 FIRST FLOOR PLAN
A102 SECOND FLOOR PLAN
A301 ROOF PLAN
A401 EXTERIOR ELEVATIONS
A660 STAIR #1 ENLARGED PLAN AND SECTIONS
A661 STAIR #2 ENLARGED PLAN AND SECTIONS
A833 BALCONY DETAILS
A841 WALL TYPES AND DETAILS
A842 WALL TYPES AND DETAILS
A853 CEILING DETAILS
A860 CASEWORK DETAILS
A870 ROOF DETAILS (CONCRETE OVER METAL DECK ONLY)
A871 ROOF DETAILS
A890 STAIR DETAILS

Structural:

S1-13 TYPICAL METAL STUD DETAILS
S2-1 FOUNDATION PLAN
S3-1 2ND FLOOR FRAMING PLAN
S3-2 ROOF FRAMING PLAN

S4-1 FOUNDATION DETAILS
S5-1 FRAMING DETAILS
S5-2 FRAMING DETAILS
S5-3 FRAMING DETAILS

MECHANICAI:
M011 MECHANICAL SCHEDULE
M023 MECHANICAL DETAILS
M101 MECHANICAL FIRST FLOOR PLAN

ELECTRICAL:
E004 LIGHTING FIXTURE SCHEDULE
E005 PANEL SCHEDULES
E006 PANEL SCHEDULES
E201 FIRST FLOOR PLAN – LIGHTING
E301 FIRST FLOOR PLAN – POWER
E302 SECOND FLOOR PLAN – POWER

FIRE ALARM:
FA202 SECOND FLOOR PLAN – FIRE ALARM

Documents:

STRUCTURAL:
BID FORM – Unit Prices
ADD_02_Structural calculations

End of Addenda 02

BID REQUESTS FOR INFORMATION (RFI'S)

4. **Question:** AMG Associated – Pre-Bid RFI 2
   Please confirm builder's risk insurance requires flood and earthquake coverage.

   Response:
   Refer to General Conditions Articles 11.3

6. **Question:** Archico Design Build RFI #1
   Please confirm if a sub contractor is holding one of the following licenses: C4, C7, C-10, C16, C-20, C-34, C-36, C-38, C-42, C-43 & C-46, but is not performing Sheet Metal, Fire Sprinkler, Plumbing, HVAC, Electrical, Low Voltage and Solar. They can be listed and don't need to be prequalified.

   Response:
   Refer to Notice Inviting Bidders

6.2 **Question:** Archico Design Build RFI #3
   Will School District consider to extend deadline for submitting prequalification beyond March 12, 2025? We are not getting enough bidders for certain trades such as solar and sheet metal.

   Response:
   Pre-Qualification Deadline is March 12, 2025

6.3 **Question:** Archico Design Build RFI #4
   Should sign legend 'XR' in sheet G101 and G102 reference detail 5K/G002 in lieu of 5B/G0042?

   Response:
   Sign "XR" will refer to 5K/G002 in the addendum no.1.

6.4 **Question:** Archico Design Build RFI #05
   A. Are all Fire Dept. knox boxes shown in sheet F001 new and in our scope of work?
   B. Please also provide specifications if all or some of these knox boxes will be in our scope of work

   Response:
   A. Yes, all knox boxes are new.
   B. Specification section 32 3113 will include them in the addenda.

6.5 **Question:** Archico Design Build RFI #06
   Please clarify existing electrical utility components/ lines to be removed per CD-1.0 Removal Note #22. E100 does not clearly show whether electrical line between "MSB-2" and "MSB-1", and electrical line between "MSB-1" and "MSB" are to be removed, or to remain.

   Response:
   Electrical items to be removed and protect shall be referred to Electrical drawings.

6.6 **Question:** Archico Design Build RFI #07

A. Is herbicide treatment per Specification 321216, section 2.01.B required? Herbicide treatment is not in Specification, Part 3 Execution, or in detail 1/C-5.0**.**
B. Specification 321216, section 2.01.C.3 calls out Tensar- GlassPave Paving Mat 25 beneath asphalt overlay. Detail 1/C-5.0 for over 3" thick asphalt paving does not call for paving mat fabric between the top and the bottom layer of asphalt. Does paving mat fabric per Specification 321216- 2.01.C.3 applied to asphalt paving over 3" thick?
C. Detail 1/C-5.0 calls out Type III.C3, PG-64-10 at asphalt paving equal or less than 3" thick, and Type III.C3, PG-64-10 for asphalt top layer and Type III. B3, PG-64-10 for asphalt bottom layer at asphalt paving over 3" thick. Specification 321216, section 2.01.F.1.a.1 specifies C2, PG-64-10 asphalt. Please clarify which governs for asphalt concrete mixtures.

Response:

A. Herbicide treatment is not required, this will be removed in specification.
B. For asphalt thickness greater than 3", the paving mat fabric is not required. The paving mat fabric will be removed from the specification.
C. The civil drawings shall govern the asphalt concrete mixture to be used for asphalt thicknesses greater than 3". The specification will be revised accordingly.

6.7 **Question:** Archico Design Build RFI #08

Specification 320117 Asphalt Paving Repair is missing from the table of contents. Does this specification section apply?

Response:

Will be added to the TOC. section applies where slurry coat is to be applied.

6.8 **Question:** Archico Design Build RFI #09

Please clarify thickness of asphalt concrete in existing asphalt paving assembly per sheet C-2.0 and C-2.1 Construction Note #30.

Response:

Construction Note 30 on Sheets C-2.0 and C-2.1 refers to Detail 1 on Sheet C-5.2. As shown in Detail 1/5.2, for trenching in paved areas, the existing pavement shall be replaced with the same material, with the thickness increased by 1" over the existing.

6.9 **Question:** Archico Design Build RFI #10

A. C-2.0 & C-2.1 Construction Note #15 referenced detail 2&4/A005 for fence and gates detail. Would detail 10 & 11/A007 be the fence and gate details instead? Please also provide fence height(s) and gate size(s).
B. C-2.1 shows new pair vehicular gates. But CD-1.1 Protect-In-Place Note #40 shows this pair gate is existing. Please clarify which governs.

Response:

A. Reference detail from Note 15 on Sheet C-2.1 has been changed to note 10, 11 and 15/A007 of architectural drawings.
B. Vehicular gate to be protected in place

6.10 **Question:** Archico Design Build RFI #11

A. Please provide manufacturer and model number for new basketball post/ backstop/ hoop per C-2.0: Construction Note #19, and detail 2/A008**.**
B. Please also clarify concrete strength (28 days), and footing vertical rebars for basketball post footings. Detail 2/A008 noted (8) #4 vertical, but detail 1/A008 noted (4) #5 vertical.

Response:
Revise reference from 2/A008 to 7,11/A008

6.11 **Question:** Archico Design Build RFI #12
What is dimension 'c' shown on concrete curb detail 5/C-5.0 table?

Response:
Dimension 'c' refers to the bottom width of the curb. It has been removed from the detail since the required batter slope has been provided.

6.12 **Question:** Archico Design Build RFI #13
A. D001- General Note #SD072 noted existing relocatable building 'O', 'P' & 'Q' to be removed right after completion of construction and occupy of this project. However, CD-1.0 & C-2.0 show these buildings to be protected in place and remain. If these three relocatable buildings are to be removed, please confirm they will be removed by others after completion of this project.
B. Are we going to sawcut & demo portion of existing concrete paving per D001- General Note #SD001, or the whole section of existing concrete paving per CD-1.1- Removal Note #2 & #6?

Response:
Please see revised drawings from both disciplines the scope of work of this portion of the projects has been completely modified.

6.13 **Question:** Archico Design Build RFI #14
Detail15/A002 for (N) A.C. Paving to (E) A.C. Paving is different from 4/C-5.0 top detail. Site Concrete reinforcement shown in detail 1,3,4,5,7&8/A002, and dimensions shown in detail 10&12/A002 are also different from similar details 2&3/C-5.0, and 1&2/C-5.1. Please clarify whether civil or architectural details govern.

Response:
15/A002 is only sowing the 3rd condition of 4/C-5.0. All reinforcements will be per civil's drawings. 1,3,4,7,8/A003 will now refer to civil drawings for reinforcement. Detail 5/A003 will stay as is as civil is not showing a similar detail for a straight curb. For placement of joints follow architectural over civil as the expansion joint and control joint will be controlled by architectural drawings

6.14 **Question:** Archico Design Build RFI #15

Sheet A003- Keynote #BN001 and #BN037 point to the wrong parts of the building and seem to be coming out of nowhere of the building. It seems Keynote #BN001 is referring to 2/FL balcony between Grid 7 to 18/B to C. But the assembly note is wrong as there is no TPO roofing and R-30 batt insulation at 2/FL balcony assembly. Please clarify.

Response:

Sheet A003 does not include any of these information.

6.15 **Question:** Archico Design Build RFI #16

A. C-2.1 Construction Note #3 noted trash enclosure slab to be 5.5" thick within CMU wall enclosure. However, 1/A007 noted same slab to be 7" thick. Also, 1/A007 shows 6" concrete curb that is not shown on C-2.1. Please clarify which governs.

B. 16/S1-3 shows 3'-3" wide and 4'-3" wide CMU wall footings. Please clarify which footing width should we apply for trash enclosure CMU walls per 1/A007.

Response:

The civil drawings is revised to reflect a pavement thickness of 7" within the trash enclosure. Per Note 29 on Sheet C-2.1, it is mentioned that the trash enclosure is to be constructed according to the architectural drawings. Architectural drawings governs for trash enclosure detail.

6.16 **Question:** Archico Design Build RFI #17

Will letters per 17A/A842 and school logo per 17B/A842 to be provided and installed by owner? If it will be by contractor, please clarify logo dimensions, material and color, and letters size, font style and dimensions per District standards as noted in detail 17/A842.

Response:

Color, exact logo shape, and font is to be provided by the district. The overall width and height of the logo is noted on the drawings already. The overall height of the lettering will be added.

6.17 **Question:** Archico Design Build RFI #18

Concrete slab on grade note in detail 1/A501 is inconsistent with same note in detail 2&3/A501, and S2-1 Foundation Note #7. Please clarify.

Response:

Note on arch drawings will refer to S2-1

6.18 **Question:** Archico Design Build RFI #19

Does 'Weather Barrier' noted for plaster soffit in detail 2/A501 and 2/A502 refer to vapor permeable weather-resistive barrier per Specification section 2.02?

Response:

Note removed. We will call out exterior plaster system per specifications.

6.19 **Question:** Archico Design Build RFI #20

A. Are we required to paint exterior walls and soffits plaster? Specification 099100, section 1.04.B.3 is inconclusive on this

B. If fog coat is required per Specification 099100, section 1.04.B.3.b, please specify fog coat material. Fog coat is not in Specification 092513.

Response:

A. Paint exterior Portland cement plaster walls and soffits as specified in Section 09 9100.

B. Fog coat is not required.

6.20 **Question:** Archico Design Build RFI #21

Wall section 1/A503 noted 6" thick mineral wool (STC-50 minimum) sound insulation between all classrooms. Specification 072100, section 2.03 only calls for glass fiber insulation. Does note in detail 1/A503 mean 6" glass fiber insulation?

Response:

Notes revised. Refer to specifications.

6.21 **Question:** Archico Design Build RFI #22

Please provide material selection or specifications for 'CF-1' (concrete floor seal) for Room #102, 111, 113, 119, 211 & 213 per A700 Room Finish Schedules.

Response:

See specification section 03 3000

6.22 **Question:** Archico Design Build RFI #23

Refer to A720. (I) Where does 'CF-2' apply? (II) Where does 'CPT-1' apply?

Response:

CF-2 has been renamed as SC-1 and location has been indicated on finish schedule on A700.

CPT-1 has been renamed as EM-1 and has been located on floor plans A101 and A102.

6.23 **Question:** Archico Design Build RFI #24

A. Where does 'Abuse Resistant Gypsum Board- Type 3' per Specification 092900, section 2.02.C apply? It is not indicated in interior elevations (sheet A602 to A604), Room Finish Schedule (A700), or Wall Types & Details (A841 to A842).

B. Please confirm all wall types in detail 1 to 3/A841 comply with minimum STC-40 per Specification 092900, section 2.03.D.

Response:

A. See finish schedule on 700 that will call out the locations where abuse resistant gyp. bd.will be used.

B. Confirmed!

6.24 **Question:** Archico Design Build RFI #25
Please confirm waterproofing per Specification 071416 applies at balconies per 1&3/A833.

Response:
SEE SPECIFICATION FOR WATER PROOFING, NOTES ARE REMOVED.

6.25 **Question:** Archico Design Build RFI #26
Detail 9/A833 show 6" high concrete base at exterior steel columns. However, S2-1 refer to detail 5A/S4-1 for exterior steel columns at 1/FL breezeway. S3-1 does not show any detail for exterior steel column at 2/FL balcony. If detail 9/A833 apply to both 1/FL & 2/FL exterior steel columns, please clarify size and reinforcement of 6" high concrete column base.

Response:
DETAIL 9/A833 HAS BEEN REMOVED.

6.26 **Question:** Archico Design Build RFI #27
A720 and Specification 093000, section 2.02 seems to specify different manufacturer and color for PT-2 & PT-4, and different manufacturer, size and color for PT-1. Please clarify which governs.

Response:
Specifications will be revised in ADD-02.
Drawings govern.

6.27 **Question:** Archico Design Build RFI #28
Please clarify width and route of roof walkway pads per Specification 2.03. It is not shown on sheet A301.

Response:
SEE WALKWAY PADS IN ROOF PLAN OF ADD02

6.28 **Question:** Archico Design Build RFI #29
Should Door #217A be Type 'CP' with 12"x12" min. door louvers per M102- Plan Note #14?

Response:
12"X12" louver added

6.29 **Question:** Archico Design Build RFI #30
Please confirm moisture vapor emission control system per Specification 090562 is mandatory to be installed prior to install floorings for this project.

Response:
The moisture vapor emission control system is only required when the moisture content of the slab does not meet floor covering manufacturer's requirements when test in accordance with Section 01 4525 - Concrete Moisture Testing.

6.30 **Question:** Archico Design Build RFI #31

Please advise location and size of area that will be provided for contractors' crew parking and staging for this project.

Response:

This matter is to be coordinated with the district during the construction phase

6.31 **Question:** Archico Design Build RFI #32

Refer to Electrical Phasing Notes on E001. Are there any phasing requirements for this project? If yes, please provide phasing logistics plan(s) and schedule.

Response:

Yes, please see the update scope of work on architectural plans. And changes on D001 and A001 in ADD01.

6.32 **Question:** Archico Design Build RFI #33

Refer to E100- Demolition Note #4 & #5 and E101- Remodel Note #5. Can we perform electrical shut down and tie-in work at after hours?

Response:

Electrical shutdown and Tie-in work shall occur after normal hours.

6.33 **Question:** Archico Design Build RFI #34

A. C-1.0 Geotechnical Note #5 states exposed excavation soils bottom shall be scarified/ reworked to a minimum one foot depth. However, Geotechnical Note #8 states exposed excavation soils bottom shall be scarified/ reworked to a depth of six inches. Please clarify which note governs.
B. C-1.0 Geotechnical Note #13 states for exterior flatwork & pavement, the upper six inches of exposed excavation soils bottom shall be scarified/ reworked to at least 90% relative compaction. However, Geotechnical Note #27 and detail 2/C-5.0 for concrete paving, and detail 1/C-5.0 for asphalt paving over 3" thick, the upper twelve inches of exposed excavation soils bottom shall be scarified/ reworked to at least 95% relative compaction for concrete paving, and to at least 90% relative compaction for asphalt paving over 3" thick. Please clarify which governs.

Response:

A. The Geotechnical note specified two different subgrade scarification depths. The civil team followed the more stringent value, which is a 12" depth of subgrade scarification for both asphalt and concrete pavement conditions as confirmed by the Geotechnical Engineer. This has been reflected in the pavement details (see Details 1 and 2 on Sheet C-5.0).

B. The Geotechnical report specified different subgrade relative compaction values under asphalt and concrete pavement. The civil team follows the Geotech recommendation for subgrade compaction under asphalt pavement at 90%, and subgrade compaction under concrete pavement at 95%. The relative compaction has been confirmed by the Geotech engineer to be different for asphalt and concrete pavement.

‘

6.34 **Question:** Archico Design Build RFI #35

Refer to CD-1.0 & CD-1.1 Removal Note #28, and referenced detail 1/C-5.2. Please clarify thickness of existing asphalt paving where CD-1.0 and CD-1.1 Removal Note #28 applies.

Response:

The existing asphalt thickness is not provided in the available as-built drawings. For estimation purposes, we can assume a thickness of 4", but this should be verified during site construction.

6.35 **Question:** Archico Design Build RFI #36

'SF-6' & 'SF-7' shown on foundation plan 1/S2-1 are missing from Spread Footing Schedule. Please provide missing spread footing dimensions and reinforcement details.

Response:

Structural Response: Schedule added in Addendum #1.

6.36 **Question:** Archico Design Build RFI #37

S2-1 Foundation Note #7 calls out minimum 4 inches of 1/2" compacted crushed rock layer under 15 Mil vapor barrier. Slab on grade note on Foundation Plan. 1/S2-1 does not call out the 4 inches of 1/2" compacted crushed rock layer. Please clarify which governs.

Response:

Structural Response: rock layer is required. Notes updated in Addendum #1.

14. **Question:** New Dynasty Construction - Pre-Bid RFI #01

Please see attached RFIs from our signage subcontractor

A) Page A401 –KN BN041 is pointing to carbon steel welded to perforated metal. Please clarify. We're bidding the logo as ¼" aluminum – two parts, seems covered with a digital print cougar image.
B) We're bidding the letters as aluminum with "brushed stainless" painted finish – both of these items are alternately referred to as aluminum, rolled steel and brushed stainless steel. Please advise.
C) Are there building numbers, maybe letters? How many digits? How tall / thick? Illuminated? Please direct me to the elevation page number.
D) NOT on the location plans – please confirm status in scope of RN 5G/G002, Stair Level (not needed for open stairwells) 1B/G003, NX 5J/G002, CS, Two Way Communication (15/A670) and:
E) VS Video Surveillance (3/G003) appear from the location plans to be wall mounted. How many are to be wall mounted and how many post mounted?
F) The following sign types (by location on the detail plans) are not represented on the location plans

G002:

a) 5S – Storage Room
b) 5K and L – Emergency Communication and Exit Route Directional
c) 11 – ACC Directional A - D
d) 16 – Area of Assisted Rescue

G) Please provide locations and/or quantities.

G003:

- 1A – Push for Help
- 6 – Restroom Signage

H) Please provide location and/or quantities.

F001:

- 1 – PIV and DDCV

Response:

A. PLEASE USE ALUM.
B. FINISH WILL BE PER REVISED SPECIFICATIONS IN ADD02
C. Not illuminated. Thickness and size is noted on the details. Building number and font is to be confirmed with the district during construction
D. All has been located on the plans. AS will refer to 8/A002
E. All will be wall mounted see revised detail in ADD01
F. G002:
  a. Detail has been removed
  b. 5K is designated by XR designated on G102 onADD01, 5I (changed from 5L) will be located in ADD02 see revised drawings
  c. Detail 11 has been renumbered as detail 12. 12A, 12C has been removed. All other will be designated G101,G102
  d. See designation RA on G101 and G102
G. G003:
  a. see designation CS for push for help signage on G101, G102
  b. detail 6 has been removed
H. F001
  a. noted in SN099 on F001 in ADD-01

Architect

Mechanical

Civil

Plumbing

Structural

Electrical

END OF ADDENDUM 02

UNIT PRICES

Unit Prices below shall not be utilized by the District in the determination of the lowest responsive, responsible bidder.

Unit Prices shall be utilized, at the District's option, to determine changes to the contract amount and shall be valid for the entire duration of the Contract. Failure of the Contractor to submit the Unit Prices listed below may be deemed non-responsive by the District. Unit Prices shall be inclusive of all costs for labor, material, equipment, supervision, overhead, insurances, disposal fees, bonds, and profit. Suitability of soil shall be as defined in the geotechnical report.

NO.	ITEM DESCRIPTION	UNIT OF MEASURE	UNIT PRICE
1.	Cost to import structurally suitable soil. Cost shall include transport, dumping, backfill, and compaction per cubic yard, bank measure.	CY	
2.	Cost to export structurally suitable soil. Cost shall include excavation, loading, transport, and legal disposal per cubic yard, bank measure.	CY	
3.	Cost to export structural unsuitable soil/debris. Cost shall include excavation, loading, transport, and legal disposal per cubic yard, bank measure.	CY	

Hourly Rates:

Provide the following hourly rates for Contractor's project personnel, in dollars per hour. These rates shall be used in determination of changed, extra, or deleted work to the contract:

Title	Hourly Rate
Project Manager	
Project Superintendent	
Project Engineer	

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SECTION 09 3000

TILE

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Porcelain tile.
   2. Crack isolation and waterproofing membranes for tile.
   3. Setting beds for floor and wall tile:
      a. Cured mortar bed with thinset floor tile
      b. Thinset for floor and wall tile
   4. Mock-ups

B. Related Sections:
   1. Section 01 4100: Regulatory Requirements; current Code edition.
   2. Section 03 3000: Cast-In-Place Concrete.
   3. Section 07 9200: Joint Sealants
   4. Section 08 3100: Access Doors and Panels; occurring in tile walls.
   5. Section 09 2900: Gypsum Board; tile backer board
   6. Section 09 6500: Resilient Flooring

C. Releated Requirements:
   1. Access doors and panels specified in Plumbing and HVAC Sections and indicated on Drawings as occurring in tile walls are to conform to requirements of Section 08 3100 for type and finish.

1.02 REFERENCES

A. California Code of Regulations (CCR), Title 24, Part 2, California Building Code (CBC), Volumes 1 and 2, current edition.
   1. Chapter 11B – Accessibility to Public Buildings, Public Accommodations, Commercial Buildings, and Public Housing.

B. ASTM International (ASTM):
   1. ASTM A1064 – Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
   2. ASTM C 91 – Standard Specification for Masonry Cement
   3. ASTM C 144 – Standard Specification for Aggregate for Masonry Mortar
   4. ASTM C 150 – Standard Specification for Portland Cement
   5. ASTM C 206 – Standard Specification for Finishing Hydrated Lime
   6. ASTM C 207 – Standard Specification for Hydrated Lime for Masonry Purposes
   7. ASTM C645 – Standard Specification for Nonstructural Steel Framing Members
   8. ASTM D 2047 – Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine
   9. ASTM D 4551 – Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane

C. American National Standards Institute, Inc. (ANSI):
   1. ANSI A108 – Standard Specifications for the Installation of Ceramic Tile.
   2. ANSI A118 – Standard Specifications for Ceramic Tile Installation Materials.
   3. ANSI A137.1 – Standard Specifications for Ceramic Tile.

D. Tile Council of North America (TCNA):
   1. TCNA Handbook for Ceramic, Glass, and Stone Tile Installation, latest edition.

1.03 DEFINITIONS

A. Regular Tile:
   1. Defined as tile of nominal size of 15 inches or less.

B. Large Format Tile:
   1. Defined as tile of nominal size greater than 15 inches up to 1 square meter.

1.04 SUBMITTALS

A. Product Data:
   1. Manufacturer's data, standard specifications, and other technical information for each product specified.

B. Samples:
   1. Minimum of four samples, or four sample sets for each type of tile and for each color and texture required:
      a. Not less than 12 inches square.
         1) Mounted on plywood or hardboard backing and grouted as required.
      b. Provide minimum of four board-mounted tiles for sizes 4-1/4 inches and larger.
   2. Full size samples for each type of trim, accessory and for each color.
   3. Minimum of four 6 inch long sample of stone thresholds.
   4. Samples of metal edge strips.

C. Installation Instructions:
   1. Manufacturer's preparation and installation instructions.

D. Certificates:
   1. Manufacturer's certification that grout materials being provided are suitable for intended use, meet or exceed referenced standards.
   2. DCOF AcuTest friction test reports for floor tile.

E. Reference Methods:
   1. Copies of TCNA and ANSI Methods and Standards.

1.05 QUALITY ASSURANCE

A. Laboratory Testing:
   1. Test tile for compliance with ASTM C 2047 by testing laboratory approved by [DSA] [Owner].

B. Qualifications of Tile Manufacturer:
   1. Company specializing in types of tile specified.

a. Including trim units, and thresholds when required, with five years minimum experience.
b. Obtain tile and trim components from single source for each type and color of tile with resources to provide products of consistent quality in appearance and physical properties.

C. Qualification of Installation System Manufacturer:
1. Company specializing manufacturing of installation systems and materials:
a. Including mortars, grouts, and adhesives
b. With ten years minimum experience.
2. Obtain grout and setting materials from single source manufacturer to ensure consistent quality and compatibility.

D. Qualifications of Installer:
1. Company specializing in installation of types of tile and installation systems specified.
a. Including trim units, and thresholds when required, with five years minimum experience with installations of similar scope, materials, and design.

E. Pre-Installation Meetings:
1. Following approval of submittals and prior to start of Work and setting of tile:
a. Schedule on-site meeting with Contractor, Owner, Architect, Project Inspector, and representatives of material manufacturer and tile installer:
1) Review following for conformance with specified requirements:
a) Conditions and Drawings for each substrate.
b) Tile, tile installation materials, and finishing equipment.
c) Mock-ups

F. Mock-Ups:
1. Construct mock-ups of tile installations when requested by Architect.
a. Provide one mock-up for each type, class, and color of tile specified.
b. Each mock-up to include:
1) Type of installation required.
2) Tile pattern, including special patterns and accent tiles.
3) Joint alignment between floor and wall tile and base.
c. Locate in area on Project Site approved by Architect,
2. Make mock-up approximately 4 by 4 feet.
3. Blend tiles to achieve smooth transition within range approved in advance by Architect.
4. Accepted mock-ups in undisturbed condition at time of completion may be used as part of Work, and may be included in finished work, when so directed by Architect.
5. Revise as necessary to secure Architect's acceptance.
6. Mock-ups, when accepted by Architect, will be used as basis for comparison with remainder of tile work for purposes of acceptance or rejection.
7. When mock-up panels are not permitted to be part of finished Work, completely demolish and remove them from Project Site upon completion and acceptance of tile Work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged tile materials in original in manufacturer's sealed containers, with seals unbroken and manufacturer's labels intact until time of use.
   1. Prevent damage or contamination to materials by water, foreign matter or other causes.

B. Keep materials clean and dry.

1.07 PROJECT CONDITIONS

A. Maintain environmental conditions and protect Work during and after installation to comply with referenced standards and manufacturer's printed recommendations.

B. Maintain temperatures at not less than 50 degrees F in tiled areas during installation and for 7 days after completion, unless higher temperatures are required by referenced installation standard, or manufacturer's instructions.

C. Shade Work area from direct sunlight during installation as needed to prevent rapid evaporation caused by excessive heat.

D. Observe manufacturer's recommended safety precautions, including those pertaining to ventilation.

E. Illuminate Work area during installation, providing same level and angle of illumination as will be available for final inspection.

F. Protection:
   1. Protect adjacent surfaces during progress of Work of this Section.
   2. Close rooms and spaces to traffic until mortar and grout have set for minimum of 72 hours.

1.08 REGULATORY REQUIREMENTS

A. Comply with requirements of current California Building Code and Chapter 11B

B. Comply with applicable parts of following codes or standards as minimum requirement:
   1. ANSI A108.
   2. ANSI A118.
   3. ANSI A137.1, Section 9.6 – DCOF AcuTest.

1.09 EXTRA MATERIAL

A. Provide minimum of 5 percent of each type and color of tile and accessory shapes, from same run or lot as installed tile.
   1. Furnish full size units matching units installed, packaged with protective covering for storage, in manufacturers’ cartons identified with appropriate labels.

1.10 WARRANTY

A. Manufacturer's Warranty:
   1. For tile products and installation materials.
      a. Provide 5 year material warranty.

B. Installer's Warranty:
   1. Provide 5 year labor warranty on tile installation.

C. Manufacturer's Warranty:
   1. For Crack Isolation and Waterproofing Membranes:
      a. Provide 10 year material warranty for crack isolation and waterproofing membrane installation.
         1) Includes tile setting and grouting materials.

PART 2 PRODUCTS

2.01 PRODUCTS – GENERAL

A. Comply with ANSI A137.1 for types, compositions, and grades of tile indicated.
   1. Furnish tile complying with "Standard Grade" requirements unless otherwise indicated.

B. Comply with ANSI standard referenced with products and materials indicated for setting and grouting

C. Dynamic Coefficient of Friction (DCOF): Provide floor tiles with coefficient of friction equal to or greater than 0.42 when tested in accordance with provisions of ANSI A137.1, Section 9.6 – DCOF AcuTest.

D. Condition of Surfaces to Receive Tile:
   1. Verify that surfaces to receive mortar setting bed and tile are firm, dry, clean, and free from oily or waxy films and curing compounds.

2.02 TILE PRODUCTS

A. ~~Porcelain Floor Tile: **PT-1**~~
   1. ~~Porcelain Floor Tile – Field~~
   2. ~~Face Size: Nominal 12 inches by 12 inches~~
   3. ~~Nominal Thickness: 5/16 inch~~
   4. ~~Surface/Texture: Matte~~
   5. ~~Collection: Color Story Floor~~
   6. ~~Color: Storm Gray 0017~~
   7. ~~Manufacturer: American Olean~~
   8. ~~Stacked Bond Pattern.~~

A. **Porcelain Floor Tile: PT-1**
   1. **Porcelain Floor Tile**
   2. **Face Size: Nominal 2 inches by 2 inches**
      a. **Dot-mounted on 12 inch x 24 inch sheet.**
   3. **Nominal Thickness: 1/4 inch**
   4. **Surface/Texture: Matte**
   5. **Collection: Portfolio**

6. **Color: Iron Grey PF06**
7. **Manufacturer: Daltile Colorbody Porcelain**

B. ~~Porcelain Floor Tile: **PT-2**~~
1. ~~Glazed Porcelain Wall Tile – Field~~
2. ~~Face Size: Nominal 12 inches by 24 inches~~
3. ~~Nominal Thickness: 5/16 inch~~
4. ~~Surface/Texture: Polished~~
5. ~~Collection: Style II~~
6. ~~Color: Pure White.~~
7. ~~Manufacturer: Emser Tile~~
8. ~~Stacked Bond Pattern.~~

B. **Porcelain Tile Coved Base: PT-2**
1. **Base for Floor Tile PT-1**
2. **Face Size: Nominal 6 inches by 12 inches.**
3. **Nominal Thickness: 1/4 inch**
4. **Surface/Texture: Matte**
5. **Collection: Portfolio**
6. **Color: Iron Grey PF06**
7. **Manufacturer: Daltile Colorbody Porcelain**

C. ~~Porcelain Wall Tile – Accent: **PT-3**~~
1. ~~Bullnose Trim for Tile TT-1: Daltile S-43F9~~
2. ~~Face Size: Nominal 4 inches by 12 inches.~~
3. ~~Surface/Texture: Glossy~~
4. ~~Collection Color Story Wall~~
5. ~~Color: Grace 0068~~
6. ~~Manufacturer: American Olean.~~
7. ~~Stacked Bond Pattern~~

D. ~~Porcelain Tile Coved Base: **PT-4**~~
1. ~~Base for Floor Tile PT-1~~
2. ~~Face Size: Nominal 6 inches by 12 inches.~~
3. ~~Nominal Thickness: 5/16 inch~~
4. ~~Surface/Texture: Matte~~
5. ~~Collection: Color Story Floor~~
6. ~~Color: Storm Gray 0017~~
7. ~~Manufacturer: American Olean~~

C. **Ceramic Wall Tile: CT-1**
1. **Glazed Ceramic Wall Tile - Field**
2. **Face Size: Nominal 12 inches x 24 inches**
3. **Nominal Thickness: 3/8 inch**
4. **Surface/Texture: Glossy**
5. **Color: Carnation CU48**
6. **Manufacturer: Daltile ColorMatch**
    a. **Glazed Ceramic**

D. **Ceramic Wall Tile: CT-2**
   1. **Glazed Ceramic Wall Tile - Accent**
   2. **Face Size:**
      a. **Nominal: 4 inches x 12 inches**
      b. **Actual: 4-1/4 inches x 12-7/8 inches**
   3. **Nominal Thickness: 5/16 inch**
   4. **Surface/Texture: Glossy**
   5. **Color: Grace 0068**
   6. **Manufacturer: American Olean Color Story**
      a. **Glazed Ceramic**

E. Marble Threshold: **MT-1**
   1. Double Bevel Threshold
   2. Size: Nominal 4 inches wide by 36 inches long.
   3. Nominal Thickness: 3/8 inch
   4. Surface/Texture: Polished
   5. Style: Natural Stone
   6. Color: Carrara White M701.
   7. Manufacturer: American Olean.

2.03 INSTALLATION MATERIALS

A. Mortar Sand:
   1. Conforming to ASTM C 144.

B. Cement:
   1. Portland Cement:
      a. Conforming to ASTM C 150, Type I.
   2. Masonry Cement:
      a. Conforming to ASTM C 91, Type S or M.

C. Hydrated Lime:
   1. Conforming to:
      a. ASTM C 206, Type S
      b. ASTM C 207, Type S

D. Water:
   1. Clean and potable.

E. Welded Wire Fabric Reinforcing:
   1. For installation in cured mortar bed.
   2. Welded Wire conforming to ASTM A 1064.
      a. Two x Two inch mesh, 16/16

F. Waterproof Membrane:
   1. Cold-applied laminated CPE composite sheet membrane waterproofing for thin-set tile setting application of latex-modified mortar and grout.
   2. Products and Manufacturer:
      a. NobleSeal TS Membrane Waterproofing System by Nobel Company, or approved equal.
         1) Zero VOC
   3. Liquid applied membranes are not acceptable.

G. Crack Isolation Membrane:
   1. Sheet membrane product specifically manufactured for use in thin-set tile installations at slab-on-grade conditions as crack isolation sheet to prevent cracks in concrete slab from telegraphing through to tile.
   2. Products and Manufacturer:
      a. NobleSeal® TS or CIS Membrane by Noble Company, or approved equal.
         1) Zero VOC
   3. Liquid applied membranes are not acceptable.

2.04 MORTAR

A. Polymer-Modified Portland Cement Mortar:
   1. Polymer -Modified Portland Cement Dry-Set Mortar:
      a. Conforming to ANSI A 118.4.
         1) Gauged with Acrylic Mortar Admix
      b. Conforming to ANSI A 118.15:
         1) Gauged with improved modified Acrylic Mortar Admix for large format tiles.

2.05 GROUT

A. Manufacturers:
   1. Basis-of-Design:
      a. Design for grout materials is based on products as manufactured by ~~Mapei North America, Deerfield Beach, FL.~~ **Custom Building Products, Huntington Beach, CA**

B. Wall Grout:
   1. Polymer-Modified Portland Cement Grout:
      a. Approved standard factory mixed and packaged Portland cement tile grout material containing waterproofing and curing admixtures.
         1) Conforming to ANSI A118.7
      b. For use as wall grout, unless noted otherwise.

C. Floor Grout:
   1. Chemical-resistant, water-cleanable, grouting epoxy:
      a. Conforming to ANSI A118.3
   2. Provide product capable of withstanding continuous and intermittent exposure to temperatures up to 140 degrees F and 212 degrees F, respectively.
      a. Certified by grout manufacturer for intended use.

D. Grout Joints:
   1. Unsanded grout on joints less than than 1/8 inch.
   2. Sanded grout on joints 1/8 inch or greater.

E. Grout Colors:
   1. As selected/scheduled by Architect.

2.06 MISCELLANEOUS MATERIALS

A. Separation Material:
   1. For expansion joints indicated to receive sealant.
      a. Including perimeters and floor mortar beds.
   2. Quality Foam, QF 200 White:
      a. Size: 3/8 inch wide x 5 inches high.

B. Sealant and Backer Rod:
   1. Comply with specified requirements in Section 07 9200
   2. Provide sealant and primer from one manufacturer, acceptable to tile and grout manufacturers.
   3. Provide backer rod as specified for compatibility with sealants.

C. Accessory Materials:
   1. Premolded accessories for crack isolation and waterproofing membranes.
      a. Including, but not necessarily limited to premolded corners.

D. Cleaner and Sealer:
   1. General:
      a. Provide materials from one manufacturer, acceptable to tile and grout manufacturers.
      b. Basis-of-Design:
      c. Provide cleaner and sealer products manufactured by one following manufacturers:
         1) Aqua Mix Inc., Torrington, CT
         2) Custom Building Products, Huntington Beach, CA
         3) Miracle Sealants Company, div. of Rust-Oleum Corporation, Vernon Hills, IL
         4) Approved equal may be provided, subject to compatibility with specified tile and grout materials..
   2. Cleaner:
      a. Neutral Phosphate-Free Cleaner:
         1) Concentrated Tile Cleaner by Aqua Mix Inc.
         2) Tile Lab Concentrated Tile/Stone Cleaner by Custom Building Products.
         3) Tile & Stone Cleaner by Miracle Sealants Company.
   3. Sealer:
      a. Fungus and Bacteria Resistant, Stain and Slip-Resistant as specified for Tile:
         1) Penetrating Sealer by Aqua Mix.
         2) Tile Lab Surface Gard by by Custom Building Products
         3) 511 Impregnator by by Miracle Sealants Company

2.07 SOURCE QUALITY CONTROL

A. Source of Materials:
   1. Obtain materials from single source with resources to provide products of consistent quality in appearance and physical properties.

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

A. Examine substrates, areas, and conditions under which Work will be performed for compliance with specified requirements for installation tolerances and other conditions affecting performance of installed tile.
   1. Coordinate with other trades as needed to ensure that proper substrata are provided to receive work
   2. Verify that vents, drains, piping, and other projections through substrate have been installed.
   3. Correct conditions detrimental to timely and proper completion of Work.
   4. Do not proceed until unsatisfactory conditions are corrected.

B. Verify that substrates for setting tile are firm; dry, clean and within flatness tolerances required by relevant ANSI A108 tile installation standards and following:
   1. Where Portland cement mortar setting bed will be installed, do not commence installation of setting bed until substrata are within following tolerances:
      a. Horizontal Surfaces:
         1) Level within 1/4 inch in 10 feet in any direction.
      b. Vertical Surfaces:
         1) Plumb within 1/4 inch in 8 feet in any direction.
   2. Where tile units will be thin-set directly to substrata, do not commence installation of tile units until substrata are within following tolerances:
      a. Horizontal Surfaces:
         1) Level within 1/8 inch in 10 feet in any direction, except for slope to floor drains.
      b. Vertical Surfaces:
         1) Plumb within 1/8 inch in 8 feet in any direction.

C. Surface Preparation:
   1. Condition of Surfaces to Receive Tile:
      a. Concrete Floors:
         1) Allow concrete floors to cure for 28 days minimum before beginning tile and grout installation.
         2) Verify that surfaces to receive mortar setting bed and tile are firm, dry, clean, and free from oily or waxy films and curing compounds.
         3) Remove laitance, sand, dust, and loose particles with air blast.
         4) Where coatings, such as curing compounds and other substances containing soap, wax, oil, or silicone remain and are incompatible with tile-setting materials, remove them using terrazzo or concrete grinder, drum sander, polishing machine equipped with heavy-duty wire brush, or shot-blast system.
      b. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical items of Work, and similar items located in or behind tile have been completed before installing tile.

3.02 SUBSTRATA AND SETTING BEDS

A. Floors:
   1. Install polymer-modified Portland cement mortar setting bed over cured concrete slab.

a. Do not abut against vertical surfaces.
1) Install foam separation material at perimeters and expansion joint locations for sealant joints.

2. Mix setting mortar in accordance with ANSI A.108.1a.2.2.
3. Once begun, continue mortar installation until room is completely filled.
a. Discard batch not floated and finished within 1/2 hour of mixing.
b. Firmly compact before screeding.
c. Screed to true plane and pitch as indicated.
d. Slope mortar bed sufficiently that water flows to drain and no puddling will occur.
e. Slope mortar down to floor drains for proper installation of waterproof or crack isolation membrane.
f. After screeding, firmly rub down with steel or wood float.
4. Cure mortar bed with light fog spray of water and cover with 6 mil polyethylene for 72 hours.

B. Crack Isolation and Waterproof Membranes:
1. Crack Isolation Membrane:
a. Install crack isolation membrane over cured mortar bed in accordance with TCNA Method F122 at Ground Level (slab-on-grade) rooms scheduled to have tile.
1) Use of liquid products is not permitted.
2. Waterproof Membrane:
a. Install waterproof membrane over concrete slab in accordance with TCNA Method F122 at upper floor rooms scheduled to have tile.
1) Use of liquid products is not permitted.

C. Walls:
1. Substrate for Wall Tile and Base:
a. Cementitious tile backer board, as specified in Section 09 2900
2. Installing cementitious backer units on walls:
a. Pre-cut units to size, and make necessary cutouts.
b. Fasten units at 8 inches on center where joints occur over stud, using manufacturer's approved fasteners and washers.
1) Use fastener combined with countersunk washer to secure two abutting units.
3. Where two units abut, leave gap from 1/8 inch to 3/16 inch wide.
a. Fill solid with mortar, and cover with fiberglass tape embedded in skim coat of mortar.

D. Verify that joints in tile substrates are coordinated with sealed tile joint locations
1. Where not coordinated, adjust as required by Architect.

E. Do not install tile until construction in spaces is completed and ambient temperature and humidity conditions are being maintained to comply with referenced standards and manufacturer's written instructions.

F. Protect adjacent surfaces during progress of the Work.

3.03 TILE INSTALLATION – GENERAL

A. General:
   1. Conform to manufacturers printed instructions, and applicable requirements of ANSI and TCNA Standards.
   2. Install tile by pressing and beating tile into place to obtain 100 percent coverage by mortar on back of each tile.
      a. Back-butter tiles if necessary to achieve 100 percent coverage.
   3. Maintain minimum temperature limits and installation practices recommended by setting materials manufacturers.
   4. Minimum Coverage of Bond Mortar: 80 percent.
      a. 95 percent in shower areas or exterior installations

B. Limits of Tile:
   1. Extend tile into recesses and under equipment and fixtures to achieve complete covering without interruptions, unless otherwise indicated.
   2. Terminate tile neatly at obstructions, edges, and corners, without disruption of pattern or joint alignment.

C. Joining Pattern:
   1. Install tile in grid pattern, unless otherwise indicated.
   2. Layout tile work, and center tile fields both directions in each space or on each wall area.
      a. Adjust to minimize tile cutting.
   3. Provide uniform joint widths in accordance with manufacturers recommendations, unless indicated otherwise.

D. Joint Alignment:
   1. Align joints when adjoining tiles on floor, base, trim, and walls are same size.
   2. Adjust joints widths as necessary for different size tiles to maintain patterns from floors to base to walls.
   3. Nominal joint width is 1/8 inch, but they may be adjusted plus or minus as necessary.
      a. Do not attempt to make same joint width work consistently for every surface.
   4. If joint widths on walls need to be less than that for floor tile to maintain alignment with floor tile pattern, then reduce joints as necessary.
   5. Joints widths are to be uniform within each surface.
      a. Floor and wall plane are to have consistent joint widths.
         1) Widths will be permitted to vary from floor to base and wall to make them align.
         2) Use 1/16 inch, 1/8 inch, 3/16 inch or 1/4 inch joint spacers where necessary.

E. Tile Mounted in Sheets:
   1. Install joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished Work.

F. Accurately form intersections and returns.
   1. Perform cutting and drilling of tile without marring visible surfaces.
   2. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints.
   3. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.

G. Allowable Variations in Finished Work:
   1. Do not exceed following deviations from level and plumb, and from elevations, locations, slopes, and alignments shown:
      a. Horizontal surfaces: 1/8 inch in 10 feet in any direction.
      b. Vertical surfaces: 1/8 inch in 8 feet in any direction.

3.04 TILE INSTALLATION – FLOOR

A. Install tile over properly cured setting bed and crack isolation or waterproof membrane utilizing thin-set method with polymer-modified Portland cement bond mortar, in accordance with manufacturer's printed instructions and ANSI A108.5.
   1. Confirm substrate is completely clean and free of dust.
   2. Cut foam at floor perimeters flush with top of mortar bed.
   3. Ensure that bond coats do not intrude into joints to receive sealant.

B. Placement Method:
   1. Place tile into fresh mortar and move and press or beat in tile to ensure full contact.
   2. Before setting proceeds, set and remove three tiles or sheets of tiles to confirm specified coverage of bond mortar.
   3. When coverage is insufficient, utilize larger toothed trowel or back butter tiles until proper coverage is provided.

3.05 TILE INSTALLATION – WALLS

A. Install wall tile over properly installed tile backer board, utilizing thin-set method with polymer-modified Portland cement bond mortar, in accordance with manufacturer's printed instructions and ANSI A108.5.
   1. Confirm substrate is completely clean and free of dust.
   2. Ensure that bond coats do not intrude into joints to receive sealant.

B. Lay out tile wainscots, where occurring, to next full tile beyond dimensions indicated.

C. Spot tile backer board substrate with mortared tile, set plumb and true, to accurately indicate plane of finished tile surfaces.

D. Set tile with horizontal joints level and vertical joints plumb, with surfaces true and plumb, and edges of tiles flush.

E. Rub exposed cuts smooth with fine stone.
   1. Do not set cut edge against fixture or adjoining surface without 1/16 inch sealant joint.

3.06 ACCESS DOOR AND PANEL INSTALLATION

A. Install access doors and panels, furnished under other sections, where required, in correct location, plumb or level, flush with adjacent construction, and securely fastened to framing.

3.07 EXPANSION / CONTROL JOINTS

A. Comply with TCNA Handbook, Method EJ171.
   1. Locate expansion, control, contraction, or isolation joints where indicated on Drawings, and as follows:
      a. Interior: 20 feet to 25 feet in each direction
      b. Exterior: 8 feet to 12 feet in each direction
      c. Interior tilework exposed to direct sunlight or moisture:
         1) 8 feet to 12 feet in each direction.

B. Other Sealant Filled Joints:
   1. Directly above joints in concrete substrates where tile abuts restraining surfaces such as perimeter walls, dissimilar floors, curbs, columns, pipes, ceilings, and where changes occur in backing materials.
   2. At horizontal and vertical changes in plane.
   3. At perimeter walls in rooms and spaces larger than 12 feet on one side.
   4. As continuation of expansion joints, control joints, cold joints, and seismic joints in building structure which occur in tiled areas, making such joints in tile work not less in width than joint which is being continued.
   5. Where indicated during installation of mortar beds.
   6. Do not saw-cut joints after installing tiles.

C. Extend openings for joints completely through tile, mortar, mortar bed, and reinforcing.
   1. Make openings for joints same width as tile joints.
   2. Keep joints open and free from mortar and grout until filled with sealant.
   3. Apply joint primer in wet areas, and apply elsewhere as recommended by sealant manufacturer.
   4. Make joint edges free from dirt, oils, wax, and other contaminants.

3.08 GROUTING

A. General:
   1. Do not begin grouting floor tiles until they are firmly set and, in no case, in less than 48 hours after they have been installed.
   2. Remove spacers, ropes, glue, and similar foreign matter prior to grouting.
   3. When using proprietary grout, adhere strictly to manufacturer's directions unless otherwise specified or acceptable in advance by Architect.
   4. Prior to start of grouting, ensure that wall and floor tile surfaces are clean and excessive bond mortar is scraped and vacuumed from joints.
      a. Approximately 2/3 depth of tile should be open for grouting.

B. Installation – General:
   1. Follow manufacturer's instructions and following for mixing grout:
      a. Mix grout by hand or with slow-speed drill motor not exceeding 300 rpm, achieving stiff non-slumping consistency, and using minimum amount of liquid to achieve workable mix.
   2. Once grout Work commences, proceed until complete wall or floor area is finished utilizing one batch of grout.

C. Polymer-modified Portland Cement Grouting:
   1. Dampen tile surface and joints with water using sponge, but leaving no puddles in joints.
   2. Force maximum amount of approved grout into joints in accordance with pertinent recommendations contained in ANSI A 108.10
      a. Use sufficient pressure on rubber float so as to fill joints completely.
         1) Fill joints of cushion-edge tile to depth of cushion.
         2) Fill joints of square-edge tile flush with surface.
      b. Scrape excess grout off tile surface with rubber float.
      c. Smooth or tool grout to uniform joint finish.
      d. Do not over water.
   3. Fill gaps and skips.
      a. Do not permit mortar or mounting mesh to show through grouted joints.
      b. Provide hard finished grout which is uniform in color, smooth, and without voids, pin holes, or low spots.
      c. Leave tile clean.

3.09 CURING OF TILE INSTALLATION AND GROUT

A. Damp cure tile installations, including polymer-modified Portland cement grouts, for 72 hours minimum.
   1. Remove final grout haze with clean soft cloth.
   2. Cover with 40 Ib. kraft paper.
   3. Leave paper in place for protection.
   4. Do not use polyethylene sheets directly over tile on horizontal surfaces.

3.10 SEALANT INSTALLATION

A. Prepare and clean joints to receive sealant to ensure joints are free and clear of setting and grouting materials and construction debris.

B. Install sealants in accordance with requirements of Section 07 9200.

C. Seal between tile and penetration and restraining surfaces with sealant matching color of grout/joint filler.

3.11 CLEANING AND SEALING OF TILE AND GROUT

A. After completion of tile installation and curing, thoroughly clean tile using neutral cleaner acceptable to manufacturers of tile and grout, complying with manufacturer's instructions.
   1. Do not use acid or acid cleaners to clean tile.

B. Apply specified sealer in accordance with manufacturer's instructions.
   1. Avoid overlapping, puddling, and rundown.
   2. Completely wipe surface dry within 3 to 5 minutes using cotton or paper towels.
   3. Do not allow sealer to dry on tile.
   4. After 2 hours, test surface by applying water droplets to surface.
      a. When water is absorbed, apply second coat.
   5. Avoid surface traffic for 24 hours.

3.12 REPLACEMENT

A. Remove and replace cracked, chipped, broken, and otherwise defective tiles with proper material.
   1. Replace grout as neccessary due to replacement of tile.
   2. Match existing color without evidence of replacement.

B. Remove Work not complying with requirements of Contract Documents or referenced standards, and promptly replace with Work which does comply.

3.13 CLEANING

A. Remove and legally dispose of rubbish, debris, and waste material off Project Site.
   1. Comply with requirements of Sections 01 7419 and 01 7423.

3.14 PROTECTION

A. Do not permit foot traffic on installed tile until mortar and grout has set for minimum of 72 hours.

B. Do not permit foot traffic on installed sealant for minimum of 48 hours or protect with hardboard strips.

C. Protect Work until Substantial Completion.

END OF SECTION 09 3000

SECTION 09 7200

WALL COVERINGS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. **Non-**Woven-Backed Vinyl Wall Covering – **VWC-1**
   2. Wall Covering Accessories:
      a. Primer and adhesive.

B. Related Sections:
   1. Section 01 4100: Regulatory Requirements; current Code edition.
   2. Section 09 2900: Gypsum Board
   3. Section 09 9100: Painting; for prime painting of gypsum board.

1.02 REFERENCES

A. California Code of Regulations (CCR), Title 24, Part 2, California Building Code (CBC), Volumes 1 and 2, current edition.
   1. Chapter 8 – Interior Finishes.

B. ASTM International (ASTM):
   1. ASTM D 751 – Standard Test Method for Coated Fabrics
   2. ASTM D1308 – Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
   3. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials
   4. ASTM E 603 – Standard Guide for Room Fire Experiments
   5. ASTM F 793 – Standard Classification of Wall Coverings by Use Characteristics
   6. ASTM G 21 – Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

C. Wallcoverings Association (WA):
   1. W-101 – WA Quality Standard for Polymer Coated Fabric Wallcovering

D. National Fire Protection Association (NFPA):
   1. NFPA 255 – Standard Method of Test of Surface Burning Characteristics of Building Materials.
   2. NFPA 286 – Standard Methods of Fire Tests For Evaluating Contribution of Wall And Ceiling Interior Finish to Room Fire Growth.

E. UL, LLC (UL):
   1. UL 723 – Standard Test for Surface Burning Characteristics of Building Materials.

F. South Coast Air Quality Management District (SCAQMD):
   1. Rule 1113 – Architectural Coatings
   2. Rule 1168 – Adhesive and Sealant Applications.

1.03 SUBMITTALS

A. Product Data:
   1. Manufacturer's product data for each type of product specified.
      a. Include data on physical characteristics, durability, fade resistance, and flame resistance characteristics.

B. Installation Instructions:
   1. Manufacturer's written installation instructions for each type of product specified.

C. Samples:
   1. Minimum of four 12 inches by 12 inches samples of each color, texture, and pattern specified for verification.
      a. Showing full range of variations expected in these characteristics.
      b. Include digitally printed wall covering.
   2. Minimum of three full-width samples:
      a. Minimum of 54 inches wide by not less than 36 inches long.
      b. For each wall covering, including digitally printed..
   3. Prepare samples from same dye lot to be used for Work

D. Certification:
   1. Product certificates signed by manufacturers of wall coverings certifying that their products comply with specified requirements.
   2. Provide written evidence that materials proposed for use, conform to recommendations of vinyl wall covering manufacturer for warranted installations.

E. Maintenance Instructions:
   1. Two copies of manufacturer's printed instructions for maintenance of installed Work.
      a. Include one copy for inclusion in maintenance manuals specified under Division 01.

1.04 QUALITY ASSURANCE

A. Substitutions:
   1. Wall coverings submitted for approval as equal to specified wall covering must be equal in every respect, including color selection.
   2. Submittals to include full range of colors and manufacturer's written specification.
   3. Color/Pattern Texture:
      a. Match Architect's samples for color, pattern and texture.
   4. Comply with requirements for substitutions in Division 01.

B. Imperfections in Material:
   1. Imperfections such as engraving roller die marks, roller repeat marks, glossy surface appearance, or other features deemed not in conformance with specified materials, will be cause for rejection by Architect.
      a. When evidenced in either submitted samples, or manufactured material delivered to Project Site.

C. Testing:
   1. Perform tests in accordance with W-101, except as follows:
      a. Adhesion of vinyl coating to the fabric backing shall be tested in accordance with ASTM D 751.
      b. Test resistance to strong cleaning solutions by immersing one-half of material into solution of 1 percent sodium hydroxide (NaOH), or mild non-abrasive spray household cleaner for period of 24 hours, then rinse, dry and observe for possible discoloration.
      c. Provide materials that have zone inhibition rating of “0" on face, and “1" on backing to resist growth of mildew and bacteria, as determined by test method ASTM G 21

D. Applicators Qualifications:
   1. Perform Work of this Section by firm regularly engaged in installation of vinyl wallcoverings of types and qualities specified.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project Site in original packages or containers clearly labeled to identify manufacturer, brand name, quality or grade, and fire performance characteristics.

B. Store materials inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.

C. Maintain room temperature within storage area above 55 degrees F during period materials are stored.

1.06 PROJECT CONDITIONS

A. Space Enclosure and Environmental Limitations:
   1. Do not install wall covering until completion of following:
      a. Space is enclosed and weatherproof.
      b. Wet-work in space is completed and nominally dry
      c. Work above ceilings is complete.

B. Maintain ambient-temperature within building at constant minimum temperature of not less than 60 degrees F for at least seven days prior to and throughout installation period and for seven days after completion of installation.
   1. Ensure that ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy.
   2. Do not apply adhesive when substrate surface temperature or ambient temperature is below 55 degrees F.
   3. Room Humidity: Not to exceed 90 percent.

C. Lighting:
   1. Do not install wall covering until permanent lighting is in place.
   2. Provide not less than 80 foot candles per square foot minimum, measured mid-height on surfaces to receive wall coverings.

D. Ventilation:
   1. Provide continuous ventilation during installation
      a. For not less than time recommended by wall covering manufacturer for full drying or curing.

E. Wall Conditions:
   1. Ensure that wall surface is clean, dry, structurally sound, and free of mildew, grease, dust, or other stains.
   2. Prime wall surfaces with quality wall covering primer as approved by manufacturer.
      a. Comply with requirements specified in Section 09 9100.

1.07 REGULATORY REQUIREMENTS

A. Fire Performance Characteristics:
   1. Provide materials bearing UL label and marking and complying with following fire resistance characteristics:
      a. Woven-Backed Vinyl Wall Covering – **VWC-1**
         1) Class A Rating in accordance with ASTM E 84/NFPA 255 (Tunnel Test).
         2) NFPA 286 (Corner Burn Test):
            a) Flame Spread Index: 15
            b) Smoke Developed Index: 25

B. Fire Detection Characteristics:
   1. Provide materials containing thermoparticulating ingredients that have been laboratory tested for Early Warning Effect in accordance with ASTM E 603.
   2. Submit test results certifying that when one square foot section of material is heated to 3000 degrees F, wallcovering emits odorless, colorless non-toxic vapor that will activate ionization smoke detector.

1.08 WARRANTY

A. Submit manufacturer's limited five-year written warranty against manufacturing defects.
   1. Warrant wall covering materials, when adhered to sound surface with manufacturer’s recommended procedures and adhesive, to be free of manufacturing defects for period of 5 years from date of Owner’s acceptance of Project.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis-of-Design:
   1. Design of wall covering materials is based on products as manufactured by Koroseal Interior Products, LLC, Fairlawn, OH

B. Subject to compliance with specified requirements, comparable products may be submitted by alternate manufacturers in accordance with requirements for product substitutions specified in Section 01 6000 and following:
   1. Submit items listed in Article 1.04 and as specified in Section 01 3300, for evaluation of proposed system.

2. Approval is subject to availability of acceptable color and pattern.
3. Manufacturer's 5 year material warranty for wall covering.

2.02 MATERIALS

A. Non-Woven-Backed Vinyl Wall Covering – **VWC-1**:
   1. Conforming to:
      a. WA 101, Type II, ~~and ASTM F 793~~, Category V, Type II.
      b. **Fire Rating:**
         1) **Conforming to ASTM E 84. Class A**
   2. Color: ~~India Ink 5921 76~~ **1920-08 Urban White**
      a. Total Weight: 20.0 oz./ linear yard
         13.3 oz. / square yard.
      b. Roll Width: 52 inches to 54 inches.
      c. Backing: ~~Osnaberg~~ **Non-Woven**
      d. Gauge: 0.025 inch
      e. Tensile Strength: 50 x 55 lbr, minimum.
      f. Tear Strength: 25 x 25 lbr, minimum.
   3. Repeat:
      a. Vertical and Horizontal: N/A
      b. Nominal Pattern Width: 51 inches
      c. Match Information: Random Match, Reverse Hang.
   4. **Product and** Manufacturer:
      a. **Axis II by** Koroseal Interior Products, LLC

2.03 ACCESSORIES

A. Primer and Adhesive:
   1. Manufacturer's recommended adhesive, primer, and sealer, manufactured expressly for use with each type of wall covering on substrate as indicated.
   2. Provide materials conforming to SCAQMD Rules 1113 and 1168, and which are mildew-resistant and non-staining to wall covering.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates for compliance with requirements for moisture content and other conditions affecting performance of Work of this Section.
   1. Complete finishing operations, including painting, before beginning installation of wall covering materials.
   2. Ensure that wall surfaces specified to receive wall covering materials are dry and free from dirt, grease, loose paint, and scale.
   3. Do not proceed with installations until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Surface Preparation:
   1. Gypsum Board Surfaces:
      a. Recess screws.
      b. Repair irregular tape joints, sand and remove dust.

2. Sand high spots and spackle low areas of gypsum board surfaces to eliminate imperfections that may telegraph through fabric or affect wall covering installation.
3. Ensure gypsum board surfaces scheduled to receive wall covering are properly primed under Section 09 9100.
    a. Apply surface sealer to gypsum drywall which will permit subsequent removal of wall covering without damage to paper facing.
    b. Prime substrate as recommended by manufacturer.

B. Clean substrates of substances that could impair wall covering bond, including mold, mildew, oil, grease, incompatible primers, and dirt.

C. Remove switch plates, wall plates, and surface-mounted fixtures in areas where wall covering is to be applied.

D. Acclimatize wall covering materials by removing from packaging in area of installation not less than 24 hours before application.

3.03 INSTALLATION – GENERAL

A. Comply with wall coverings manufacturer's written installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Place wall covering panels consecutively in order cut from rolls, including filling of spaces above or below openings as required.
1. Hang by reversing alternate strips except on match patterns.

C. Apply adhesive to back of wall covering and place in accordance with manufacturer's instructions:
1. Install seams vertically and plumb and at least 6 inches away from corners
2. Horizontal seams will not be permitted.
3. Place wall covering continuously over internal and external corners.
4. Overlap seams and double-cut to assure tight closure.
5. Work from top to bottom then side to side.
6. Roll sheet firmly into adhesive for positive contact
    a. Roll, brush, or use broad knife to remove air bubbles, wrinkles, blisters, and other defects.
    b. Cut wall covering evenly to edges of outlet boxes or support.

D. Trim selvages as required to assure uniformity and pattern match at seams.

E. Lap and double cut seams.

F. Remove excess adhesive and residue along finished seams in accordance with manufacturer's instructions.

G. Replace removed plates and fixtures; verify cut edges of wall covering are completely concealed.

3.04 CLEANING

A. Use cleaning methods recommended by wall covering manufacturer.

B. Replace strips that cannot be cleaned.

C. Upon completion of Work, remove surplus materials, rubbish, and debris resulting from wall covering installation and leave areas of Work in neat, clean condition.

END OF SECTION 09 7200

SECTION 10 1400

SIGNAGE

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Furnishing materials, labor, and equipment necessary for completion of signage as indicated on Drawings and as specified.
   2. Types of signage include, but is not necessarily limited to following:
      a. Interior and exterior room signs and directional signs
      b. Geometric restrooms signs
      c. Evacuation plans
      d. Exterior regulation and directional signage.
      e. Exterior building signs.
         1) Includes Premises Identification signage.
   3. Engaging independent Braille reading consultant.

B. Related Sections:
   1. Section 01 4100: Regulatory Requirements; current Code edition.
   2. Section 05 0513: Shop-Applied Coatings for Metal
   3. Section 32 1723: Pavement Markings; accessible parking striping

C. Related Requirements:
   1. Refer to Division 26 Sections for illuminated exit signs.

1.02 REFERENCES

A. California Code of Regulations (CCR), Title 24, current edition.
   1. Part 2, California Building Code (CBC), Volumes 1 and 2.
      a. Chapter 11B – Accessibility to Public Buildings, Public Accommodations, Commercial Buildings, and Public Housing.
   2. Part 9, California Fire Code (CFC):
      a. Chapter 5, Section 505 – Premises Identification.

B. **ASTM International (ASTM):**
   1. **ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate**

C. **Aluminum Association (AA):**
   1. **DAF-45 – Designation System for Aluminum Finishes**

1.03 DEFINITIONS

A. Accessible Route:
   1. Continuous unobstructed path that complies with California Building Code (CBC).

B. Characters:
   1. Letters, numbers, punctuation marks, and typographic symbols.

C. Circulation Path:
   1. Exterior or interior way of passage from one place to another for pedestrians, including, but not limited to, walks and hallways.

D. Common Use:
   1. Interior and exterior rooms, spaces, or elements made available for occupancy by students, staff, or others visiting or utilizing facilities.

E. Facility:
   1. Portions of buildings, structures, equipment, walks, passageways, or other real or property located on Project Site.

F. ISA:
   1. International Symbol of Accessibility

G. Pictogram:
   1. Pictorial symbol, which is recognized as representing activities, facilities, or concepts.

H. Premises Identification:
   1. Building address identification complying with CFC Section 505.1

I. Sign:
   1. Architectural element composed of displayed text, symbolic, tactile or pictorial information.

J. Space:
   1. Definable area, such as room, toilet room, hall, entrance, storage room, or lobby.

K. Tactile:
   1. Object that can be perceived through sense of touch.

1.04 SYSTEM DESCRIPTION

A. Comply with most stringent requirements of CBC, current edition, Chapter 11B for following:
   1. Tactile character type and size.
   2. Finish and contrast.
   3. Raised and visual characters.
   4. Visual character and line spacing height and installation height.
   5. Braille:
      a. Use California (Contracted) Grade 2 Braille wherever Braille is required.
   6. Tactile sign inst allation height and location.
   7. Parking lot entrance signs and accessible parking space identification signs.
   8. Circulation path signs leading from public right of ways, public transportation, and parking lots.
   9. Identify accessible building entrances with ISA per CBC Section 11B-216.6.
   10. Identify each permanent room and space required to be identified by sign with sign installed adjacent to door it identifies, with raised characters and Braille.
   11. Tactile Exit Signs: Required per CBC Section 1013.4
   12. Signs indicating provision of special equipment for hearing impaired (i.e. TTY phone, volume control phones, and Assistive Listening Systems (ALS).

1.05 SUBMITTALS

A. Product Data:
   1. Manufacturer's technical data and installation instructions for each type of sign required.

B. Samples:
   1. Each sign form and material showing finishes, colors, surface textures and qualities of manufacturer and design of each sign component including graphics.
      a. Full-size sample units, when requested by Architect.
      b. Acceptable units may be installed as part of Work.
   2. **Finish on aluminum dimensional letters:**
      a. **Selection Samples:**
         1) **Minimum of two, 4 inch x 6 inch dsmplrs, of same material to be used for letters of following finishes:**
            a) **AA-M31 Fine Satin**
            b) **AA-M32 Medium Satin**
      b. **Verification samples of finish on aluminum dimensional metal letters:**
         1) **Minimum of four, 4 inch x 6 inch samples, of selected finish to be used for letters.**
      c. **Conform to AA DAF-45.**

C. Shop Drawings:
   1. For fabrication and erection of signs.
      a. Include plans, elevations, and large scale details of sign wording and lettering layout.
      b. Show anchorages and accessory items.
      c. Furnish location template drawings for items supported or anchored to permanent construction.
      d. Furnish full-size spacing templates for individually mounted letters.

1.06 QUALITY ASSURANCE

A. Uniformity of Manufacturer:
   1. For each separate type of sign required, obtain signs from one source from single manufacturer.

B. Accessibility:
   1. Comply with CBC, Chapter 11B.
      a. Provide tactile exit signage complying with CBC Section 1013.4.

C. Independent Braille Reading Consultant:
   1. Engage independent Braille Reading Consultant to read and confirm that Braille on signage matches words on signs.
   2. Fabricate signs prior to Braille reading consultant reading signs.
      a. Physical fingertip to sign verification is required.
      b. Exceptions to this requirement are not permitted and will not be approved.
   3. When signs have been fabricated, they are to be sent to Braille Reading Consultant for verification and confirmation of compliance.
      a. Signs not in compliance are to be brought to attention of District/Owner and Architect prior to refabrication.

b. Upon completion of review of non-compliant signs by District/Owner and Architect, those signs are to be refabricated at no additional cost to District/Owner.
c. A final review of newly fabricated signs are to be verified and confirmed in compliance by the Braille Reading Consultant prior to installation.

4. Provide letter from Braille Reading Consultant to District/Owner and Architect that complete review of Braille signage has been performed in accordance with requirements set forth in these Specifications.
5. Braille Reading Consultant:
   a. Following agency has been approved by District/Owner:
      1) Wayfinder Family Services, 5300 Angeles Vista Blvd., Los Angeles, CA 90043.
      2) Contact:
         a) Allison Burdett, 323-295-4555, aburdett@wayfinderfamily.org
   b. Other Braille reading consultants may be used but will require prior approval by Architect before award of Contract.
      1) No consultants will be approved after award of Contract.

PART 2 PRODUCTS

2.01 GENERAL

A. Letter Style:
   1. Helvetica Medium, unless indicated otherwise..
   2. Upper Case Letters only.

B. Letter Style for Premises Identification Signs:
   1. Arabic Numbers and alphabetical letters.
   2. Upper Case Letters only.

2.02 CAST METAL PLAQUES

A. Manufacturer:
   1. One of following or approved equal:
      a. Gemini, Inc.
      b. Metal Arts; Div. of L & H Mfg.
      c. Mills Manufacturing, Inc.
      d. Southwell Co.

B. Type:
   1. Cast bronze plaques using lead-free red brass.

C. Fabricate cast metal plaques of size, shape and thickness shown.
   1. Provide units free of pits, scale, and sand holes or other defects, with required raised letters, numbers, and characters.
   2. Hand tool and buff to provide clean, sharp figures with bright finish.
   3. Protect exposed surfaces with 2 coats of clear, non-yellowing lacquer.
   4. Letters raised 1/8 inch.
   5. Background Texture: Dark pebbled texture.
   6. Border: Straight edge.
   7. Size: 16 by 20 inches.

D. Provide rosette covers and expansion bolts for mounting.

E. Provide plaque with following text; verify exact wordage.
   1. Building Name.
   2. School District Board of Education.
   3. Architect's Name.
   4. Contractor's Name.
   5. Date of Dedication.

2.03 DIMENSIONAL METAL LETTERS

A. Manufacturer:
   1. One of following or approved equal:
      a. ASI Sign Systems
      b. Gemini, Inc.
      c. Metal Arts; Div. of L & H Mfg.
      d. Mills Manufacturing, Inc.
      e. Southwell, Co.

B. Type:
   1. Individual cast aluminum letters.

C. Furnish cast metal letters and numbers of size, identification as shown on drawings.
   1. Furnish cast units with smooth flat faces, sharp corners, true lines and accurate profiles.
   2. Provide units free of pits, scale, sand holes, or other defects.

D. **Aluminum Plate:**
   1. **Alloy and temper recommended by manufacturer for strength, corrosion resistance, and application of required finish:**
      a. **Either 6061-T6 or 6063-T5 aluminum alloy, conforming to ASTM B 209 for sheet/plate.**
   2. **Size: As indicated on Drawings.**
      a. **Provide cut-out as required to accommodate insert to be provided by Owner.**

E. Finish:
   1. ~~Metal Finish Type A as specified in Section 05 0513~~.
   1. **As selected by Architect from samples submitted under Article 1.05, paragraph B, Item 2.**
      a. **Conforming to AA DAF-45**

F. **Isolation Between Dissimilar Materials:**
   1. **Provide single-component, inert-type non-corrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.**
      a. **VOC compliant.**
   2. **Elasto-Deck BT as manufactured by Pacific Polymers, Division of Holcim Solutions and Products US, or equivalent product acceptable to Architect.**

2.02 PLASTIC SIGNS

A. Basis-of-Design:
   1. Design for interior plastic room signs is based on Best Sign Systems standard HC 300 ADA System plaque signs and accessories as manufactured by Best Plastics, Inc., Montrose, CO.

B. Subject to compliance with specified requirements, comparable products may be submitted by alternate manufacturers in accordance with requirements for product substitutions specified in Section 01 6000 and following:
   1. Submit items listed in “Submittals” Article and as specified in Section 01 3300, for evaluation of proposed system.
   2. Complete project shop drawings for similar project may be submitted for evaluation purposes, however shop drawings specific to this Project will be required from successful bidder.
   3. Copy of manufacturer's finish and material warranty.

C. Material:
   1. Plaque stock of laminated phenolic and melamine plastic (MP) for interior signs and fiberglass (FP) for exterior signs suited for graphic sandblast process.
   2. Sign stock with face and core plies suited for integral raised profile of text and braille, in finishes and color combinations indicated or, when not indicated, as selected from manufacturer's standards.
   3. NEMA rated self-extinguishing.
   4. Thickness: 1/4 inch.
   5. Edges: Square cut.
   6. Corners: As indicated on Drawings.

D. Finish and Contrast:
   1. Matte finish with color of characters and symbols contrasting with background by minimum of 70 percent, and have non-glare finish per CBC Sections 11B-703.5.1, 11B-703.6.2, and 11B-703.7.1
   2. Colors as selected by Architect.

E. Raised (Tactile) and Visual Characters:
   1. Provide raised characters minimum of 5/8 inch and maximum of 2 inches high, based on height of uppercase letter “I”, complying with CBC Sections 11B-703.2 and 11B-703.2.5
      a. Accompanied by California Contracted Grade 2 Braille complying with CBC Section 11B-703.2.
   2. Proportions:
      a. Select Characters from fonts where width of uppercase letter "O" is 60 percent minimum and 110 percent maximum of height of uppercase letter "I" per CBC Sections 11 B-703.4 and 11 B-703.6
   3. Format:
      a. Horizontal Text Format per CBC Sections 11 B-703.2 and 11 B-703.5
   4. Stroke Thickness:
      a. Stroke thickness of uppercase letter "I" – 15 percent maximum of height of character per CBC Section 11 B-703.4 and 11B-703.6
   5. Raised Character and Line Spacing:
      a. Measure character spacing between two closest points of adjacent raised characters within message, excluding word spaces.
      b. Where characters have rectangular cross sections, make spacing between individual raised characters 1/8 inch minimum and 4 times raised character stroke width maximum.

c. Where characters have other cross sections, make spacing between individual raised characters 1/16 inch minimum and 4 times raised character stroke width maximum at base of cross sections, and 1/8 inch minimum and 4 times raised character stroke width maximum at top of cross sections.
d. Separate Characters from raised borders and decorative elements 3/8 inch minimum.
e. Make spacing between baselines of separate lines of raised message at 135 percent minimum and 170 percent maximum of raised character height per CBC Section 11 B-703.2

6. Visual Character and Line Spacing:
   a. Measure visual character spacing on between two closest points of adjacent characters, excluding word spaces.
   b. Make spacing between individual characters at 10 percent minimum and 35 percent maximum of character height.
   c. Make spacing between the baselines of separate lines of characters within message at 135 percent minimum and 170 percent maximum of character height per CBC Section 11B-703.5
7. Visual Character Height and Installation Height:
   a. Minimum character height complying with CBC Table 11 B-703.5.5
8. Measure viewing distance as horizontal distance between character and obstruction preventing further approach towards sign.
9. Base character height on uppercase letter "I".
   a. Install visual characters at 40 inches minimum above finish floor or ground except for elevator car controls, floor-level exit signs and emergency procedures information per CBC Section 11 B-703.5.
10. Visual Character Case and Style:
    a. Visual Characters on Sign:
       1) Uppercase or lowercase or combination of both and conventional in form.
    b. Characters:
       1) Not to be italic, oblique, script, highly decorative, or of other unusual forms per CBC Section 11 B-703.5
11. Visual Character Stroke Thickness:
    a. Stroke thickness of uppercase letter "I": 10 percent maximum of height of character per CBC Section 11 B-703.5
12. Provide pictograms, where required, complying with CBC Section 11B-703.6.
13. Symbol of accessibility (ISA): Comply with CBC Section 11B-703.7.

F. Braille:
1. Use California (Contracted) Grade 2 Braille wherever Braille is required, complying with CBC Sections 11B-703.3 and 11B-703.4
2. Braille Dots:
   a. Locate 0.100 inch on center in each cell with 0.300 inch space between cells, measured from second column of dots in first cell to first column of dots in second cell.
   b. Raised minimum of 0.025 inch above background.
   c. Domed or rounded per CBC Sections 11B-703.3 and 11B-703.3.1
3. Position Braille below corresponding text in horizontal format, flush left or centered.
4. Place Multi-lined text, Braille below entire text.

5. Separate Braille 3/8 inch minimum and 1/2 inch maximum from other tactile characters, and 3/8 inch minimum from raised borders and decorative elements. per CBC Section 11 B-703. 3

G. Applied copy is not acceptable.

H. Geometric Toilet Room Signs:
   1. Comply with CBC Section 11B-703.7.2.6
   2. Fabricated of 1/4 inch thick, non-glare material contrasting with restroom door (light to dark, or dark to light).
   3. Boys/Mens Rooms:
      a. Triangular with equal sides,12 inches in length.
   4. Girls/Women Rooms:
      a. Circle, 12 inch in diameter.
   5. When restroom or other sanitary facility is accessible, place ISA in center of geometric sign.
   6. Non-tactile text, such as “Staff Only”, may be added to sign.
   7. Install signs on door leading into restroom or other sanitary facility, centered on door, with center of sign 60 inches from finished floor.

I. Provide Plastic Signs as indicated in schedule and details.

2.03 PARKING LOT ENTRANCE AND ACCESSIBLE PARKING SPACE IDENTIFICATION SIGNS

A. Sign Requirements:
   1. Parking Lot Entrance Signs:
      a. Comply with CBC Chapter 11B, warning that cars parked in parking spaces reserved for people with disabilities will be towed.
   2. Identify parking spaces reserved for people with disabilities with reflective sign featuring ISA, complying with CBC, Chapter 11B.
      a. Identify van-accessible spaces by including term "Van Accessible” below pictogram on same sign, or install separate sign with words below ISA sign.per CBC Section 11B-502.6

B. Sign Fabrication:
   1. Fabricate signs of 3M Scotchlite Brand reflective sheeting laminated to 18 gage galvanized heavy-duty steel.
   2. Size:
      a. Minimum 17 inches x 22 inches.
   3. White reflective graphics on dark blue reflective background.
   4. Character Styles and Proportions:
      a. Minimum of one inch high.
   5. Provide with ISA, minimum 8 inches high.
   6. Posts:
      a. Provide 0.050 inch thick aluminum, or 14 gage galvanized steel, square tube, 2-1/4 inches square, punched.
      b. Furnish with corrosion and tamper resistant fasteners.

C. Sign Installation and Mounting:
   1. Install Parking Lot Entrance Signs on wall or pole in conspicuous place at each entrance to off-street parking facilities, or immediately adjacent to, and visible from each accessible stall or space.

2. Install Parking Space Signs as follows:
    a. On wall or pole at head of each accessible parking space.
    b. In public way, with bottom edge of sign minimum of 80 inches above pavement or ground.
    c. In planting area, parking strip, or on wall, with bottom edge of sign minimum of 60 inches above pavement or ground.

D. Painting and Sriping:
1. Identify reserved parking spaces with ISA at foot of space in compliance with CBC, Chapter 11B.
    a. Stripe access aisles as required.
2. Perform painting and striping in accordance with requirements in Section 32 1723.

2.04 ACCESSIBLE PATH OF TRAVEL SIGNS

A. Accessible Path of Travel Signs:
1. Circulation paths of travel with stairs or other obstacles leading from public right of ways, public transportation, and parking lots, that are not accessible, or do not lead to accessible entrances to building.
    a. Locate accessible route signage at decision points compliant with CBC Chapter 11B directing people with disabilities to accessible routes or entrances.
    b. Locate and install signs so steps will not have to be retraced.
2. Graphics:
    a. White on dark blue background; non-glare, high contrast signs.
    b. Conform to requirements of CBC Chapter 11B
    c. ISA minimum 4-1/2 inches high.
3. Installation Location and Mounting:
    a. Mount sign on post or wall with lower edge of sign between 48 inches and 60 inches above ground or surface.

2.05 INFORMATIONAL SIGNS

A. Building Entrance Signs:
1. Install sign at building entrances stating: “No Smoking in Building”, in accordance with California statute prohibiting smoking in public buildings.
2. When functional spaces have individual entrances from exterior of building, or from courtyard, and such entrances are accessible, one sign can be placed on each exterior elevation stating “All Rooms Have Accessible Entrances.”
    a. Include ISA on such signs, and include phrase: “No smoking in Building”.

B. Room Identification Signs:
1. Identify each permanent room and space required to be identified by sign with sign installed adjacent to door it identifies, with raised characters and Braille.
    a. This includes entrances to rooms and spaces, which are entered by exterior entrance or by door off interior corridor or courtyard, per CBC Chapter 11B.
2. Toilet Room Identification Signs:
    a. Include gender pictogram in 6 inch high field.
    b. Locate pictogram field above raised character and Braille text on tactile sign, which is to be located adjacent to latch side of the door, per CBC Chapter 11B.

c. Where there is not adequate space for sign immediately adjacent to door, and door opens inward, gender pictogram, ISA, and raised characters and Braille can be included on geometric sign installed on door.

2.06 PREMISES IDENTIFICATION SIGNS

A. Address Identification:
   1. Provide address identification signs on [new] [existing] buildings complying with following:
      a. Cast aluminum letters and numerals same as specified for dimensional metal letters.
      b. Furnish address identification characters in contrasting color from background.
         1) Color: As selected by Architect
      c. Provide text consisting of Arabic numbers and alphabetical letters.
         1) Do not spell out numbers.
         2) Refer to Drawings for specific text.
      d. Size of Characters:
         1) Not less than 4 inches high.
         2) Minimum Stroke Width: 1/2 inch

PART 3 EXECUTION

3.01 INSTALLATION

A. General – Locate sign units and accessories where shown, scheduled, or directed by Architect.
   1. Use mounting methods shown or selected by Architect.
   2. Comply with manufacturer's instructions, and CCR, Title 24, Part 2, CBC Chapter 11 B.

B. Install level, plumb, and at proper height with sign surfaces free from distortion or other defects in appearance.
   1. Cooperate with other trades for installation to finish surfaces.
   2. Repair or replace damaged units as directed by Architect.

C. Cast Metal Plaques:
   1. Mount plaques using standard method recommended by manufacturer for type of wall surface indicated.
   2. Concealed Mounting:
      a. Mount plaques by inserting threaded studs into tapped lugs on back of plaque.
      b. Set in predrilled holes filled with quick-setting cement.
   3. Face Mounting:
      a. Mount plaques using exposed fasteners with rosettes attached through face of plaque into wall.

D. Dimensional Letters and Numbers:
   1. Mount letters and numbers using standard fastening methods recommended by manufacturer for letter form, type of mounting, wall construction, and condition of exposure indicated.
   2. Provide heavy paper template to establish letter spacing and to locate holes for fasteners.

3. Flush Mounting:
    a. Mount letters with backs in contact with wall surface.
4. Projected Mounting:
    a. Mount letters at projection distance from wall surface indicated.

E. Tactile Sign Installation Height and Location:
1. Locate tactile characters on signs minimum of 48 inches above finish floor or ground surface, measured from baseline of lowest Braille cells and 60 inches maximum above finish floor or ground surface, measured from baseline of highest line of raised characters.
2. Locate tactile signs on approach side of of door at entry or exit, and allow for reach within 0 inches of required clear floor space oer CBC Section and Figure 11B-703.4.2.
    a. Where tactile sign is provided at door, locate sign on wall alongside door at latch side.
    b. When at double doors with one active leaf, locate sign on inactive leaf.
    c. When at double doors with two active leafs, locate sign to right of right hand door.
    d. Where there is no wall space at latch side of single door or at right side of double doors, locate signs on nearest adjacent wall.
    e. Locate signs containing tactile characters so that clear floor space of 18 inches minimum by 18 inches minimum, centered on tactile characters, is provided beyond arc of door swing between closed position and 45 degree open position per CBC Section 11 B-703.4

F. Plastic Signs:
1. Mount sign with aluminum T-type bracket, finish to match adjacent surface or adhesive mount with adhesive recommended by sign manufacturer for application to substrate.
2. Locate signs so that person may approach within 3 inches of sign without encountering protruding objects or standing within swing of door per CBC Chapter 11B.

G. Premises Identification Signs:
1. Install address identification signs in position visible from street or road facing Property.
    a. Position as approved by fire code official.
    b. Install additional address identification signs in approved locations when required by fire code official to facilitate emergency response.

3.02 CLEANING AND PROTECTION

A. At completion of installation, clean soiled sign surfaces in accordance with manufacturer's instructions.
1. Protect units from damage until acceptance by Owner.

END OF SECTION 10 1400

SECTION 11 8129

FACILITY FALL PROTECTION

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Provide complete fall protection system in accordance with requirements of Drawings and Specifications.
   2. Equipment Includes:
      a. Permanently attached roof tie-back anchors.

B. Related Sections:
   1. Section 01 3300: Submittal Procedures
   2. Section 01 4100: Regulatory Requirements; current Code edition.
   3. Section 01 6000: Product Requirements
   4. Section 01 7700: Closeout Procedures
   5. Section 01 7839: Project Record Documents

1.02 REFERENCES

A. California Code of Regulations (CCR):
   1. Title 8, General Industry Safety Orders:
      a. Article 6, Appendix C – Personal Fall Arrest System.
   2. Title 24, Part 2, California Building Code (CBC), Volumes 1 and 2, current edition:
      a. Chapter 15 – Roof Assemblies and Rooftop Structures.

B. ASTM International (ASTM):
   1. ASTM A 36 – Standard Specification for Carbon Structural Steel
   2. ASTM A 53 – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
   3. ASTM A 123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
   4. ASTM A 572/A 572M – Standard Specification for High Strength Low-Alloy Columbium-Vanadium Structural Steel
   5. ASTM A 780 – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings

C. American Welding Society (AWS):
   1. AWS D1.1 – Structural Welding Code – Steel
   2. AWS QC1 – Standard for AWS Certification of Welding Inspectors.

D. International Association of Plumbing and Mechanical Officials (IAPMO):
   1. Uniform Evaluation Service (UES):
      a. UES Report Number 461

1.03 SUBMITTALS

A. General:
   1. Make submittals in accordance with requirements of Section 01 3300.

B. Product Data:
   1. Product specific Code Evaluation Report.
   2. Manufacturer's installation method and procedures:
      a. Clearly designate work to be performed by subcontractors.
   3. Provide written assurance to Owner that proposed safety devices and equipment meet or exceed relevant provisions of Minimum Equipment Design and Performance Standards.

C. Shop Drawings and Calculations:
   1. Scaled Drawings complying with relevant sections included in Minimum Equipment Design and Performance Standards.
   2. Clearly show details of fabrication and installation of equipment:
      a. Including, but not necessarily limited to following:
         1) Construction details, material descriptions, dimensions of individual components and profiles, and finish of specified product.
         2) Roof Plan showing tie-back anchor locations.
         3) Equipment details.
         4) Maximum loads.
         5) Connection to existing building structure
   3. Calculations:
      a. Provide calculations necessary to show compliance with these specifications.
   4. Construction documents only indicate typical details and information to provide general design intent.
      a. Shop drawings are to contain details for field conditions necessary for complete installation of product and proper interface with adjacent products.
   5. Drawings and calculations are to be prepared by, or under direction of, Registered Professional Engineer licensed in State of California, with thorough experience of functionality of fall protection systems.
      a. Affix signature and stamp of Professional Engineer to Drawings and Calculations.

1.04 QUALITY ASSURANCE

A. Manufacturer’s Qualifications:
   1. Currently certified by International Organization for Standardization (ISO) with experience specifically related to scope of work.
   2. Directly responsible for assuring that Work is performed by skilled and trained workmen.
      a. That Work complies with government agencies, applicable trade design, performance references, and regulatory requirements:
         1) Including, but not necessarily limited to permits, fees, and inspections, for authorities having jurisdiction.

B. Field Measurements:
   1. Verify information shown on Drawings in relation to other building elements by field measurements.
   2. Ensure supporting structure, attachments, are in satisfactory condition, are compatible with system being supplied, and comply with federal and state regulations referenced.
   3. Perform field measurements prior to preparation of shop drawings to ensure proper fit of components.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Delivery:
   1. Schedule delivery to minimize on-site storage.
   2. Coordinate delivery with Owner and Contractor minimum of fifteen calendar days in advance.

B. Storage:
   1. Provide on-site storage, subject to approval of Owner to protect equipment from potential damage and adverse weather conditions.

C. Access:
   1. Ensure appropriate access and egress to each work area for workers and delivery of equipment.

1.06 REGULATORY REQUIREMENTS

A. Complete Work in accordance with following requirements:
   1. California Code of Regulations (CCR):
      a. Title 8, Article 6, Appendix C.
      b. Title 24, CBC Part 2, current edition:
         1) Chapter 15.
   2. AWS D1.1 – Structural Welding Code – Steel.

1.07 WARRANTY

A. Manufacturer’s Warranty:
   1. Manufacturer's written guarantee, countersigned by installer, that that warrants system against defects in materials and workmanship.
      a. Warranty covers defective conditions not due to ordinary wear and tear, improper use, or unscheduled maintenance.
   2. Warranty Period:
      a. Twelve months from date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Basis-of-Design:
   1. Design of fall protection system is based on products as manufactured by Hardy Fall Protection Systems, Dana Point, CA, 949.636.1255, www.hardyfps.com

2.02 MATERIALS

A. General:
   1. Provide materials that are resistant to corrosion due to atmospheric exposure.
   2. Steel Components:
      a. Hot dip galvanized to prevent corrosion.
         1) Complying with ASTM A 123.
   3. Construction of Components:
      a. New material with alloy and heat treatment requirements specified on fabrication drawings and verified at time of manufacturing.

2.03 ROOF TIE-BACK ANCHORS

A. General:
   1. Fabricate anchors of steel to be used for support of independent safety lines.

B. Anchor Components:
   1. Complete Assembly:
      a. HTB Post
   2. Forged Loop:
      a. Cal/OSHA Forged Loop.
      b. Part No.1093
      c. Mild Steel Q354 complying with ASTM A 572/A 572M.
   3. Pipe:
      a. Nominal 3-1/2 inch extra strong steel pipe (4 inch O.D.)
         1) Complying with ASTM A 53.
   4. Component Finish:
      a. Hot dip galvanized complying with ASTM A 123.

C. Anchors:
   1. Design anchors to support 5,000 lbs. ultimate load in all directions without permanent deformation.
   2. Design anchors with minimum 2 inch inside diameter, with rounded or beveled edges to prevent chafing of lines.
   3. Anchor Height :
      a. Minimum allowable to provide appropriate weatherproof seal as indicated on Architectural Drawings.
   4. Hop dip galvanize components exposed to elements.
   5. Provide separate anchors for Primary Suspension Lines and Independent Safety Lines, unless anchor post has been designed for 2 times design load.

D. Attachment to Structure:
   1. Weld posts to structural steel as indicated on Structural Drawings.

2.04 DESIGN REQUIREMENTS

A. Design equipment to suit building in accordance with plans, specifications, standards, and regulations/codes.

B. Produce engineering drawings in legible format that clearly show in sufficient detail components and assembly of proposed system.
   1. Include layout of building that shows location of tie-back anchors.

C. Provide literature including detailed specifications for components not produced by primary manufacturer.

D. Design components to provide adequate attachment to building and suited to current fall protection practices.
   1. Ensure compatibility with industry standard equipment.

E. Ensure anchor components conform to proper engineering principles and have been designed by Professional Engineer qualified in the design of fall protection equipment, its application, and safety requirements.

F. Design equipment to ensure that primary support equipment is capable of sustaining without failure at least four times maximum static working load applied or transmitted to components, (4 to 1 safety factor), in addition to applicable code requirements.

2.05 PERFORMANCE REQUIREMENTS

A. Manufacturer Performance:
   1. Provide on-site labor by licensed California Contractor.
   2. Coordinate and perform Work by manufacturer or their authorized representative.
   3. Provide documentation to Owner that manufacturer carries specific liability insurance (products and completed operations) as required by Owner.
   4. Certify in writing that system meets provisions of these Specifications.
   5. Final inspection and certification of safe use:
      a. Must be performed by licensed California Scaffold Inspection and Testing (SIT) company with appropriate experience specifically related to scope of work.

B. Minimum Equipment Performance and Design Standards:
   1. Refer to referenced standards in Article 1.02 and regulatory requirements in Article 1.07.

PART 3 EXECUTION

3.01 INSPECTION

A. Verify dimensions and clearances.

B. Inspect Project Site conditions that affect installation and operation of fall protection equipment.
   1. Bring unsatisfactory, unsuitable, or incompatible conditions to attention of Architect.
   2. Do not proceed with Work of this section until such conditions have been corrected to meet manufacturer's written and published recommendations and Construction Documents.

C. Independent weld inspection will be provided by Owner's Testing Agency for welding performed at Project Site.
   1. Manufacturer is responsible for welding performed at factory.

3.02 INSTALLATION

A. Prior to delivery, assemble, and thoroughly test components for functionality and safety.
   1. Rectify issues prior to shipment.

B. Install items in accordance with approved shop drawings and manufacturer's specifications and instructions to provide accurate finished product with complete functionality to operate in efficient manner.

C. Coordinate installation with other subcontractors to avoid conflicts with work of other related trades.

3.03 DEMONSTRATION

A. Test equipment and certify prior to completion of installation.

B. Demonstrate equipment in relation to description of operation to satisfaction of the Owner's representative.

C. Allow for two full days minimum to allow for complete range of motion of system to be demonstrated.

D. Provide necessary training along with operating instructions to maintenance personnel and service personnel in accordance with Title 8 of General Industry Safety Orders, to ensure proper use of system.
   1. Allow for one full day minimum for training program.

E. Training and demonstration of system must be completed prior to release of equipment to Owner.
   1. Problems identified during demonstration must be rectified to satisfaction of Architect and Owner, prior to release of equipment and upon completion of punch list work.

3.04 CLOSEOUT

A. Promptly resolve matters and conditions described on Owner's punch list

B. Maintenance Data:
   1. Submit one copy of system Equipment Manual and Inspection Log Book, with “Initial Inspection – Certificate of Safe Use” and “Inspection Sign-Off” forms completed.
   2. Submit two copies of as-built shop drawing showing equipment locations and details for building records.
      a. Submit as-built shop drawings in hard copy format and CAD files to be reviewed by manufacturer prior to submission to Architect and Owner.
      b. Submit as-built shop drawings to Architect and Owner in accordance with requirements of Section 01 7839.

C. Letter of Assurance:
   1. Submit to Architect and Owner upon completion of Work.

D. Operation and Maintenance Manuals:
   1. Submit in accordance with requirements of Section 01 7700.

E. Warranty:
   1. Submit three executed and notarized manufacturer's warranty for material and workmanship to Owner at Substantial Completion of Project.

END OF SECTION 11 8129

SECTION 32 1100

BASE COURSE

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Furnishing and installing base course material under paving.

B. Related Sections:
   1. Section 31 0000: Earthwork; other base materials.
   2. Section 32 0117: Asphalt Paving Repair
   3. Section 32 1216: Asphalt Paving.
   4. Section 32 1313: Concrete Paving

1.02 REFERENCES

A. State of California Department of Transportation (Caltrans):
   1. Standard Specifications:
      a. Division IV – Subbases and Bases
         1) Section 26 – Aggregate Bases.

B. Public Works Standards, Inc.:
   1. Standard Specifications for Public Works Construction (SSPWC):
      a. The "Greenbook"; current edition.
   2. Standard Plans for Public Works Construction (SPPWC); current edition.

1.03 DEFINITIONS

A. Caltrans Class 2 Base:
   1. Comply with Section 26-1.02B of Caltrans Standard Specifications, current edition
      a. Aggregate Gradation:
         1) Conforming within percentage passing limits for sieve sizes shown in Aggregate Gradation Table.
      b. Aggregate Quality Characteristics:
         1) Complying with requirements shown in Aggregate Quality Characteristics Table

B. Crushed Aggregate Base:
   1. Consisting entirely of crushed rock and rock dust.
      a. Conforming to requirements of SSPWC Sections 200-1.1 and 200-1.2

C. **Reinforced Grid Mat:**
   1. **Used to provide base stabilization and subgrade reinforcement**

1.04 SUBMITTALS

A. Product Data:
   1. Include material source, technical information, and test data for base materials.

2. Gradation and quality certifications: Dated within 30 days of submittal.

B. **Reinforced Geogrid Mat**
   1. **Manufacturer's product information and installation procedures for reinforced geogrid mat fabric.**

C. Samples:
   1. Minimum 5 pound container of proposed base course material.

1.05 QUALITY ASSURANCE

A. Comply with Caltrans Standard Specifications or SSPWC as minimum requirement, except where indicated otherwise.

PART 2 PRODUCTS

2.01 BASE COURSE / REINFORCED GRID MAT MATERIALS

A. Caltrans Class 2 Base: :
   1. Conforming to Caltrans Class 2 as defined in Article 1.05 B.

B. Crushed Aggregate Base:
   1. Conforming to requirements of SSPWC as defined in Article 1.05 A.

C. **Reinforced Grid Mat**
   1. **BX-1100 as manufactured by Tensar International Corporation, Alpharetta, GA, or approved equal.**

2.02 MATERIAL APPROVAL

A. Provide Base material as inspected by Project Inspector prior to installation.
   1. Owner may choose to have additional tests performed by geotechnical engineer, retained by Owner before installation.

PART 3 EXECUTION

3.01 BASE COURSE INSTALLATION

A. **Install Reinforced Geogrid Mat in accordance with Geotechnical recommendation if thinner base material thickness is preferred.**
   1. **Provide reinforced geogrid mat over subgrade as specified and in accordance with manufacturer's installation procedures.**

B. Install base course material in layers not exceeding 3 inches in thickness, unless otherwise required.
   1. Grade and compact to indicated levels or grades
      a. Cut and fill.
      b. Water and roll until surface is hard and true to line, grade and required section.
      c. Provide relative compaction of at least 95 percent, unless otherwise required.
   2. Grade base course to elevations indicated on Drawings, ready to receive specified surfacing.

3.02 CLEANING

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

3.03 PROTECTION

A. Protect Work until Substantial Completion.

END OF SECTION 32 1100

SECTION 32 1216

ASPHALT PAVING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Material and installation for following:
      a. ~~Engineered stress-relieving paving mat fabric.~~
      a. Asphalt (bituminous) surfacing.
         1) Single course bituminous paving.
      b. Seal coat for asphalt surfacing

B. Related Sections:

1.	Section 01 5000:	Temporary Facilities and Controls; barriers and temporary controls
2.	Section 01 5713:	Temporary Erosion and Sediment Controls
3.	Section 31 0000:	Earthwork; compacted subgrade for paving.
4.	Section 32 0117:	Asphalt Paving Repair
5.	Section 32 0523:	Concrete for Exterior Improvements; precast concrete wheel stops.
6.	Section 32 1100:	Base Course
7.	Section 32 1313:	Concrete Paving
8.	Section 32 1723:	Pavement Markings

1.02 REFERENCES

A. ASTM International (ASTM):
   1. ASTM D 276 – Standard Test Methods for Identification of Fibers in Textiles
   2. ASTM D 946 – Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction
   3. ASTM D 1188 – Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples.
   4. ~~ASTM D 5035 – Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method).~~
   5. ~~ASTM D 6140 – Standard Test Method to Determine Asphalt Retention of Paving Fabrics Used in Asphalt Paving for Full Width Applications~~
   6. ~~ASTM D 6241 – Standard Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe~~

B. American Association of State Highway and Transportation Officials (AASHTO):
   1. AASHTO Standard Specifications for Highway Materials and Methods of Sampling and Testing.

C. The Asphalt Institute (AI):
   1. AI MS-2 – Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types; current edition.
   2. AI MS-19 – A Basic Asphalt Emulsion Manual; current edition.

D. Public Works Standards, Inc.:
   1. Standard Specifications for Public Works Construction (SSPWC):
      a. The "Greenbook"; current edition.
   2. Standard Plans for Public Works Construction (SPPWC); current edition.

1.03 SUBMITTALS

A. Product Data:
   1. Base Materials:
      a. Refer to base course materials specified in Section 32 1100.
   2. ~~Herbicide Treatment:~~
      a. ~~Manufacturer's technical data for products proposed for use.~~
      b. ~~Certificate indicating compliance with EPA requirements.~~
   3. Bituminous Materials:
      a. Manufacturer's technical data for materials and products
      b. Site plan indicating extent of paving and accessories.
   4. ~~Engineered Stress-Relieving Paving Mat Fabric:~~
      a. ~~Manufacturer's product information and installation procedures for engineered stress-relieving paving mat fabric~~
   5. Seal Coat:
      a. Manufacturer's product information and application procedures for seal coating.

B. Weighmaster Certificates:
   4. Furnish licensed weighmaster certificates with each load of asphalt (bituminous) surfacing delivered to Project.
   5. Yield of Asphalt Material:
      a. 24 pounds per square foot of paving area based on 2 inch thickness after rolling.
      b. 5 percent tolerance will be allowed between total calculated weight and actual weight incorporated in Work.
   6. Deliver certificates to Owner's representative, who will collect certificates and ensure that material represented by each certificate is actually incorporated in Work.

1.04 QUALITY ASSURANCE

A. Comply with SSPWC as minimum requirement asphalt (bituminous) surfacing materials and installation.

B. ~~Pre-Construction Conference: Prior to installation of engineered paving mat, arrange meeting at Project Site with manufacturer's representative and paving mat installer.~~
   1. ~~Notify Architect and Project Inspector of meeting minimum of 7 days in advance of time of meeting, or as specified in Section 01 3119.~~
   2. ~~Provide copy of manufacturer's specifications Project Inspector at meeting~~
   3. ~~Arrange for manufacturer's representative to be present, at minimum, for first day of installation of engineered paving mat and available thereafter upon request by Architect or installer.~~

1.05 DELIVERY, STORAGE, AND HANDLING

A. Delivery of Sealer Material:
   1. Agitate bulk materials during transport.

B. ~~Store engineered paving mat per manufacturer's recommendations in dry covered condition free from dust, dirt, and moisture.~~

1.06 PROJECT CONDITIONS

A. Information on Drawings does not constitute guarantee of accuracy or uniformity of soil conditions over Project Site.

B. Grade Control:
   1. Establish and maintain required lines and elevations.

C. Field Conditions for Asphalt (Bituminous) Surfacing Placement:
   1. Place bitumen mixture when temperature is not more than 15 degrees F below bitumen supplier's bill of lading and not more than maximum specified temperature.
   2. Do not place asphalt (bituminous) surfacing when atmospheric temperature is below 40 degrees F, or during unsuitable weather.

1.07 MAINTENANCE

A. Extra Material:
   1. Furnish 10 gallons of sealer material in unopened containers.

PART 2 PRODUCTS

2.01 MATERIALS

A. Headers and Stakes:
   1. Headers:
      a. "Construction Heart" Grade redwood as graded by Redwood Inspection Service.
      b. Size: 2 x 6, unless otherwise indicated.
   2. Stakes:
      a. 2 x 4 redwood or 2 x 3 Douglas Fir, Construction Grade.
   3. Nails:
      a. Common, galvanized, 12d minimum.

B. ~~Herbicide Treatment:~~
   1. ~~Commercial chemical for weed control, registered by Environmental Protection Agency (EPA).~~
   2. ~~Provide granular, liquid, or wettable powder form.~~
   3. ~~Manufacturers:~~
      a. ~~Subject to compliance with specified requirements, provide products of one of following:~~
         1) ~~Bayer~~
         2) ~~Dow AgroSciences~~
         3) ~~E.I. Du Pont du Nemours and Company~~
         4) ~~FMC Corporation~~

5) ~~Monsanto Company~~
6) ~~U.S. Borax & Chemical Corporation.~~

C. ~~Engineered Stress-Relieving Paving Mat Fabric:~~
1. ~~Engineered paving mat within pavement structure as shown on Drawings or directed by Project Inspector.~~
a. ~~Mat provides moisture barrier/stress relieving membrane and when placed beneath hot-mix asphalt overlay.~~
2. ~~Provide engineered paving mat material meeting following physical properties:~~

PHYSICAL PROPERTIES OF FIBERGLASS POLYESTER PAVING MAT			
Property	**Test Method**	**Units**	**MARV***
Asphalt Retention	ASTM D 6140	l/m2 (gal./yd2)	0.47 (0.10)
Mass per unit area	ASTM D 5261	g/m2 (oz/yd2)	136 (4.0)
Tensile strength, MD	ASTM D 5035	kN/m (lb/in)	25 min (140)
Tensile Strength, CD	ASTM D 5035	kN/m (lb/in)	25 min (140)
CBR Puncture**	ASTM D 6241	N	1112 (250)
Elongation at maximum load, MD	ASTM D 5035	percent	<5
Elongation at maximum load, CD	ASTM D 5035	percent	<5
Melting point	ASTM D 276	C (F)	>230 (>446)
* MARV = Minimum Average Roll Value ** Assess 360 degree tensile strength symmetry			

3. ~~Product and Manufacturer:~~
a. ~~GlasPave Paving Mat 25 as manufactured by Tensar International Corporation, Alpharetta, GA, or approved equal.~~

D. Base Course:
1. Refer to Section 32 1100.

E. Miscellaneous Materials:
1. Aggregate for Binder Course:
a. In accordance with Caltrans specifications for Grade PG 64-10 Binder.
2. Aggregate for Wearing Course:
a. In accordance with Caltrans or SSPWC specifications.
3. Fine Aggregate:
a. In accordance with Caltrans or SSPWC specifications.
4. Mineral Filler:
a. Finely ground particles of limestone, hydrated lime or other mineral dust, free of foreign matter.
1) Conforming to Caltrans or SSPWC specifications.
5. Primer:
a. In accordance with SSPWC 203-2.4.
6. Tack Coat:
a. In accordance with SSPWC specifications.

F. Bituminous Surface Course:
   1. Vehicle Traffic:
      a. Provide materials of class, grade, or type indicated, conforming to SSPWC, Section 203-6.4 – Asphalt Concrete Mixtures.
         1) Class and Grade: ~~C2-PG 64-10 per SSPWC Section 203-6.4.1~~ **See Details on Civil Drawings.**

G. Seal Coat:
   1. Provide seal coat materials conforming to SSPWC Section 203-9 by one of following or approved equal:
      a. Guard-Top, Division of Western Emulsions Inc.
      b. OverKote by Diversified Asphalt Products
      c. Park Top by Western Colloid Products

2.02 MIX DESIGNS FOR ASPHALT (BITUMINOUS) SURFACING

A. Design mixes conforming to Caltrans standards or SSPWC specifications.

B. Submit proposed mix design of each class of mix for review prior to beginning of Work.

2.03 SOURCE QUALITY CONTROL

A. Obtain materials from same source throughout Project.

B. Test mix design and samples in accordance with AI MS-2.

2.04 PERFORMANCE REQUIREMENTS

A. Design asphalt paving section and aggregate base course, as designated in Geotechnical Report.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

3.02 BASE COURSE INSTALLATION

A. Refer to Section 32 1100

3.03 HEADER INSTALLATION

A. Install headers along edge of asphalt (bituminous) surfacing abutting turf, earth, or planting area, unless indicated otherwise.

B. Install headers so bottom surface has continuous bearing on solid grade.
   1. Where excavation for headers is undercut, thoroughly tamp soil under header.

2. Compact backfill on both sides of header to density of adjacent undisturbed earth.

C. Fasten headers in place with redwood or Douglas fir stakes of length necessary to extend into solid grade minimum of 12 inches.
   1. Provide stakes of sound material, neatly pointed, driven vertically, and securely nailed to headers.
      a. Space stakes, not to exceed 4 feet on centers with top of stakes set one inch below top of header.
      b. Provide minimum of 2-12d galvanized common nails through each stake.

D. Remove existing headers where new surfacing is installed adjacent to existing surfacing.

E. Install temporary headers at transverse joints of paving where continuous paving operations are not maintained.

F. Provide additional stakes and anchorage as required to fasten headers in place.

3.04 PREPARATION

A. Primer: Apply primer in accordance with Greenbook Section 302-5.3.

B. Tack Coat:
   1. Apply tack coat in accordance with Caltrans Specifications Section 39 and following:
      a. Apply tack coat to asphalt concrete base course or sand asphalt base course.
      b. Apply emulsified asphalt tack coat between each lift or layer of full depth asphalt concrete and sand asphalt bases and on surface of bases where asphalt paving will be constructed.
      c. Apply tack coat to surfaces of previously constructed asphalt concrete base courses or Portland cement concrete surfaces abutting or projecting into asphalt pavement.
   2. Coat surfaces of curbs and gutters, and manhole, catch basin, and other structure frames with oil to prevent bond with asphalt pavement.
      a. Do not tack coat these surfaces.

3.05 ~~ENGINEERED PAVING MAT INSTALLATION~~

A. ~~Tack Coat:~~
   1. ~~Asphalt Binder for Application of Mat: PG 64–10.~~
   2. ~~Application Rates:~~
      a. ~~New Pavement Surface: 0.15 gallons per square yard.~~
      b. ~~Aged Oxidized Surface: 0.17 gallons per square yard.~~
      c. ~~Milled Surface: 0.2 gallons per square yard.~~

B. ~~Placement – General:~~
   1. ~~Examine surface on which the engineered paving mat is to be placed to ensure it is reasonably free of dirt, water, vegetation, or other debris.~~
   2. ~~Do not place asphalt binder (tack coat) or engineered paving mat when in judgment of Project Inspector weather conditions are not suitable.~~

3. ~~Ensure air and pavement temperatures are sufficient to allow tack coat to hold engineered paving mat in place.~~
    a. ~~Air Temperature:~~
        1) ~~50 degrees F and rising for placement of asphalt tack coat.~~

C. ~~Application of Tack Coat:~~
1. ~~By calibrated distributor truck spray bar.~~
    a. ~~Emulsified asphalt is not allowed~~
2. ~~Temperature of Tack Coat: Sufficiently high enough to permit uniform spray pattern.~~
    a. ~~Between 325 degrees F and 400 degrees F.~~
3. ~~Target Width of Tack Coat Application:~~
    a. ~~Engineered paving mat material width plus 4 inches.~~
    b. ~~Wide enough to cover entire width of engineered paving mat material overlaps.~~
    c. ~~Apply only as far in advance of engineered paving mat material installation as is appropriate to ensure tacky surface at time of engineered paving mat material placement.~~
    d. ~~Do not allow pedestrian or vehicle traffic on tack coat.~~

D. ~~Placement of Engineered Paving Mat:~~
1. ~~Place engineered paving mat onto tack coat with minimum folds or wrinkles and before tack coat has cooled and lost tackiness.~~
2. ~~Wrinkles or Folds in Excess of 1 inch: Slit and laid flat or pulled out and replaced as directed by Project Inspector.~~
3. ~~In repaired areas, apply additional tack coat as needed to achieve sound bond to substrate.~~
4. ~~Remove and replace damaged engineered paving mat per manufacturer's recommendations, at Contractor's expense with same type of material.~~
5. ~~Use brooming, squeegee, or pneumatic tire rolling to remove air bubbles and to maximize engineered paving mat contact with pavement surface.~~
    a. ~~Perform in accordance with manufacturer's specifications~~
6. ~~Counter excess tack coat that bleeds through engineered paving mat under normal construction traffic by broadcasting clean sand or hot mix asphalt to create bond break between excess tack and construction equipment tires.~~
    a. ~~Where sand is applied, remove excess sand from interlayer prior to placing hot mix asphalt overlay.~~
    b. ~~Do not use other materials, such as asphalt release agents or diesel, for this purpose.~~
7. ~~Do not allow traffic, except necessary construction traffic to be driven on engineered paving mat.~~
8. ~~Closely follow placement of engineered paving mat with placement of first lift of hot mix asphalt overlay.~~
9. ~~Pave areas in which engineered paving mat has been placed during same day.~~
10. ~~In event of rainfall on engineered paving mat prior to placement of first hot mix asphalt overlay lift, allow engineered paving mat to dry before hot mix asphalt is placed.~~
11. ~~Compacted thickness of first lift of hot mix asphalt overlay on engineered paving mat: Not less than 1.5 inches.~~
    a. ~~Temperature of mix at placement not to exceed engineered paving mat melting point temperature.~~

b. ~~Where total hot mix asphalt overlay thickness is less than 1.5 inches, do not place engineered paving mat.~~

3.06 MIXING OF ASPHALT (BITUMINOUS) MATERIAL

A. Mix uniformly, using dry material to avoid foaming.

3.07 CONSTRUCTION OF ASPHALT PAVING

A. Provide ~~engineered paving mat and~~ asphalt (bituminous) surfacing material over base course as specified and in accordance with manufacturer's installation procedures.

B. Clean, dry, and uniformly coat with asphalt emulsion film, surfaces of walls, concrete, masonry, or existing asphalt (bituminous) surfacing indicated to be in direct contact with installed asphalt (bituminous) surfacing.

C. Thicken edges of asphalt (bituminous) surfacing that do not abut walls, concrete, or masonry, and edges joining existing asphalt (bituminous) surfaces.
   1. Remove headers at existing asphalt (bituminous) surfacing where new bituminous surfacing is to be installed.
   2. Thicken edges an additional 2 inches and taper to the indicated or specified thickness 6 inches back from such edges.

D. Provide adequate protection for concrete, planting areas, and other finish Work adjacent to areas indicated to receive asphalt (bituminous) surfacing.

E. Stakes or Screeds: Provide grade or screed stakes spaced not more than 15 feet apart in flow lines with grades of less than one percent.
   1. Continuous screeds may be provided instead of stakes

F. Placing – General:
   1. Do not install asphalt (bituminous) surfacing when atmospheric temperature is below 40 degrees F or when fog or other unsuitable weather conditions are present.
      a. Temperature of Mixture at Time of Installation:
         1) Not lower than 260 degrees F in warm weather or higher than 320 degrees F in cold weather.
   2. Where 2 inch or 3 inch thick asphalt (bituminous) surfacing is indicated or specified, install surfacing in one course.
   3. Where asphalt (bituminous) surfacing is indicated or specified 4 inches or more in thickness, except for thickened edges, install asphalt (bituminous) surfacing in courses of approximately equal thickness, with each course not exceeding 2-1/2 inches in thickness unless otherwise required by Architect.

G. Placing Single Course Asphalt Pavement:
   1. Install Work in accordance with Caltrans or SSPWC specifications.
   2. Place asphalt within 24 hours of applying primer or tack coat.
   3. Compact pavement by rolling to specified density.
      a. Do not displace or extrude pavement from position.
      b. Hand compact in areas inaccessible to rolling equipment.
   4. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.

H. Spreading:
   1. Install asphalt (bituminous) surfacing in manner to cause least possible handling of mixture
   2. In open areas and wherever practicable:
      a. Install by mechanical means with self-propelled mechanical spreader.
   3. In confined or restricted areas:
      a. Install mixture with hot shovels and rakes, and smooth with lutes.

I. Joints:
   1. Provide vertical joints between successive runs.
      a. Install joints true to line, grade, and cross section.
      b. Lapped joints are not permitted.

J. Rolling:
   1. Finish roll with self-propelled tandem roller weighing at least 8 tons.
      a. Break down roll with self-propelled roller weighing between 1-1/2 tons and 8 tons.
   2. Roll in manner that preserves flow lines and established finished grades.
      a. Break down roll in areas adjacent to flow lines parallel to flow lines.
      b. Break down roll after bituminous surfacing is installed without shoving or cracking of mixture under roller.
      c. Continue finish rolling until surfacing is unyielding, true to grade, and meets requirements for specified smoothness.
      d. Areas inaccessible to finish roller may be finish rolled with breakdown roller or tamped with hot tamping irons and smoothed with hot smoothing irons or hand roller.
   3. Where asphalt (bituminous) surfacing abuts concrete, masonry, and walks or paving, tamp joint smooth, when necessary, as described above to obtain uniformly even joint, true to line and grade.
      a. Tamp and smooth to properly compact.
   4. Provide compacted asphalt (bituminous) surfacing with bulk specific gravity of at least 2.31 when tested in accordance with ASTM D 1188.

K. Pavement at Heavy Duty Asphalt Paving Areas:
   1. Single course of 3 inch compacted thickness, sand seal coat.

3.08 TOLERANCES

A. Smoothness:
   1. Ensure that surface of asphalt (bituminous) surfacing after rolling:
      a. Is even, smooth, and uniform in texture with no voids or rock pockets
      b. Free of roller marks, or other irregularities
      c. Not varying by more than 1/8 inch, except at local depressions or raised areas as indicated, when 10 foot straightedge is placed on surface.

B. Grade:
   1. Finished Grade:
      a. Not vary more than 0.02 foot above or below required grade.
   2. Compensate for variations within prescribed tolerance so that average grade and cross-section are provided.

3.09 FLOOD TESTING

A. Flood test completed asphalt (bituminous) surfacing in presence of Project Inspector before seal coat has been installed.
   1. Repair areas of standing water or puddles and flood test locally.

3.10 SEAL COAT

A. General:
   1. Allow asphalt (bituminous) surfacing to cure for minimum of 30 days, then apply two coats of surface seal as specified
   2. Where indicated, provide multiple coats of surface seal to existing asphalt (bituminous) surfacing.

B. Surface Preparation:
   1. After asphalt (bituminous) surfacing has passed flood test, thoroughly wash surfaces with water to remove dirt, debris, excessive oil and grease, or other foreign matter and allow to dry before applying seal coat.
   2. Apply seal coat after asphalt (bituminous) surfacing has passed flood test.

C. Application:
   1. Install seal coat in strict accordance with manufacturer's written directions and recommendations.
   2. Install 2 coats of seal coat to new asphalt (bituminous) surfacing.
   3. Where new asphalt (bituminous) surfacing is installed adjacent to existing asphalt (bituminous) surfacing, overlap surface seal minimum of 12 inches onto existing asphalt (bituminous) surfacing.
   4. Where existing asphalt (bituminous) surfacing is indicated to be patched and sealed.
      Apply 2 coats of surface seal after patching.

3.11 FIELD QUALITY CONTROL

A. Additional Testing:
   1. Owner reserves right to obtain samples and perform tests to ensure compliance with Specifications, and to review weight slips and invoices of materials delivered to Project Site.

B. Provide field inspection and testing.
   1. Take samples and perform tests in accordance with AI MS-2.

3.12 CLEANING

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

3.13 PROTECTION

A. Immediately after placement, protect pavement from mechanical injury for 7 days or until surface temperature is less than 140 degrees F.
   1. Protect Work until Substantial Completion.

END OF SECTION 32 1216

CHAPTER 4, PART 1, TITLE 24, C.C.R., ADMINISTRATIVE REQUIREMENTS (PARTIAL LISTING ONLY)

1. A COPY OF PARTS 1 AND 5, TITLE 24, C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
2. ALL CHANGE ORDERS ARE NOT VALID UNTIL APPROVED BY DSA PER SECTION 4-338, PART 1 TITLE 24
3. ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND APPROVED T AND I SHEET
4. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
5. TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335 OF PART 1, TITLE 24 AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR.
6. DSA WILL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24.
7. A "DSA CERTIFIED" CLASS 1 PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. INSPECTION WILL BE IN ACCORDANCE WITH SECTION 4-333(B). THE DUTY OF THE INSPECTOR WILL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.
8. SUPERVISION OF THE CONSTRUCTION BY DSA WILL BE IN ACCORDANCE WITH SECTION 4-334, PART 1, TITLE 24.
9. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS WILL SUBMIT VERIFIED REPORTS (FORM DSA-6 BY INSPECTORS AND DSA-6A/E BY ARCHITECTS AND ENGINEERS) IN ACCORDANCE WITH SECTION 4-336 AND 4-334, PART 1, TITLE 24.
10. THE ARCHITECT AND THE STRUCTURAL ENGINEER WILL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTION 4-333(A) AND 4-341, PART 1, TITLE 24.
11. THE CONTRACTOR WILL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1, TITLE 24.

APPLICABLE CODES AS OF JUNE 15, 2023

PART 1	2022	BUILDING STANDARDS ADMINISTRATIVE CODE. TITLE 24, C.C.R.
PART 2	2022	CALIFORNIA BUILDING CODE (C.B.C.), TITLE 24, C.C.R. (2015 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMMENDMENTS)
PART 3	2022	CALIFORNIA ELECTRICAL CODE (C.E.C.), 2001, TITLE 24, C.C.R. (2014 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION AGENCY, NFPA)
PART 4	2022	CALIFORNIA MECHANICAL CODE (C.M.C.), TITLE 24, C.C.R. (2015 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
PART 5	2022	CALIFORNIA PLUMBING CODE (C.P.C.), TITLE 24, C.C.R. (2015 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
PART 6	2022	CALIFORNIA ENERGY CODE (C.P.C.), TITLE 24, C.C.R.
PART 9	2022	CALIFORNIA FIRE CODE (C.F.C.), TITLE 24, C.C.R. (2015 INTERNATIONAL FIRE CODE OF THE IN'L CODE COUNCIL)
PART 10	2022	CALIFORNIA EXISTING BUILDING CODE, TITLE 24, C.C.R. (2015 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL WITH AMMENDMENTS)
PART 11	2022	CALIFORNIA GREEN BUILDING STANARDS CODE, TITLE 24, C.C.R.
PART 12	2022	CALIFORNIA REFERENCED STANDARDS CODE, TITLE 24, C.C.R.
2010 ADA		AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS

PARTIAL LIST OF APPLICABLE STANDARDS

2022 CALIFORNIA BUILDING CODE (FOR SFM) REFERENCE STANDARDS CHAPTER 35
2022 CALIFORNIA FIRE CODE CHAPTER 80

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS (CALIFORNIA AMENDED) - 2022 EDITION
NFPA 14	STANDPIPE SYSTEMS - 2019 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS - 2021 EDITION
NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS - 2021 EDITION
NFPA 20	STATIONARY PUMPS - 2019 EDITION
NFPA 24	PRIVATE FIRE SERVICE MAINS - 2019 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) (NOTE: SEE UL STANDARD 1971 FOR 'VISUAL DEVICES') - 2022 EDITION
NFPA 80	FIRE DOOR AND OTHER OPENING PROTECTIVES - 2019 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS - 2019 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS - 2018 EDITION
ICC 300	STANDARDS FOR BLEACHERS, FOLDING/TELESCOPING SEATING & GRANDSTANDS 2017

APPLICABLE CODES

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS,
INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

(APPLICATION NO. 03-123867 FILE NO. 19-57)

☒ THE DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET INDICATED WITH AN '*'
☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

1) DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2) COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

THIS STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344" OF TITLE 24, PART 1. (TITLE 24, PART 1, SECTION 4-317 [b])

I FIND THAT: ☒ ALL DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET
☐ THIS DRAWING OR PAGE

☒ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN, AND	☐ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN INTENT, AND
☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.	☐ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.
SIGNATURE [signed] DATE 12/21/2023	SIGNATURE DATE
ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE	ARCHITECT OR ENGINEER DELEGATED RESPONSIBILITY FOR THIS PORTION OF THE WORK
Paul D. Westberg PRINT NAME	PRINT NAME
C11045 — SEPTEMBER, 2025 LICENSE NUMBER — EXPIRATION DATE	LICENSE NUMBER — EXPIRATION DATE

DSA 1R A-18

STATEMENT OF GENERAL CONFORMANCE

1. WHERE NO SPECIFIC DETAIL IS SHOWN, THE FRAMING, CONSTRUCTION OR FINISHING SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OR IN THE ABSENCE OF SAME SHALL BE TREATED ACCORDING TO STANDARD PROCEDURES AS APPROVED BY THE ARCHITECT OR ACCORDING TO MANUFACTURERS STANDARDS.
2. VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE.
3. MINOR ITEMS USED IN THE CONSTRUCTION OF THIS PROJECT MAY BE INDICATED ON THE DRAWINGS BUT NOT NECESSARILY IN THE SPECIFICATIONS. SUCH MINOR ITEMS ARE GENERALLY REFERENCED TO A MANUFACTURER INCLUDING A MODEL NUMBER, WHERE APPLICABLE. HOWEVER, ALL SUCH MINOR ITEMS SHALL BE GOVERNED BY ALL ASPECTS OF THE SPECIFICATIONS AS IF WRITTEN THEREIN.
4. THE CONTRACTOR SHALL MAKE ALL EFFORTS NOT TO DISTURB THE OPERATION OF THE EXISTING PREMISES INCLUDING ACCESS THERETO; PROVIDE ALL REQUIRED CONSTRUCTION FENCING, BARRICADES, WARNING SIGNS AND LIGHTS; PROTECT AGAINST ANY POTENTIAL FLOOD HAZARDS OR AIR POLLUTION AND SHALL EXERCISE ANY AND ALL REQUIRED SAFETY MEASURES TO PROTECT AND RENDER SAFE THE PREMISES TO ALL OCCUPANTS.
5. CONTRACTOR SHALL ALSO ABIDE BY CBC 2022 CHAPTER 33 SECTION 3303.2: PROTECTION OF PEDESTRIANS DURING CONSTRUCTION OR DEMOLITION.
6. WHERE EXISTING FEATURES HAVE TO BE DISTURBED TO EXECUTE THE WORK SHOWN ON ANY OF THE DRAWINGS OR CALLED FOR IN SPECIFICATIONS INCLUDING BUT NOT NECESSARILY LIMITED TO THE REMOVAL OF CONCRETE SLABS, ELEMENTS OF WALL AND CEILING SECTIONS, FLOOR, WALL AND CEILING FINISHES AND ELEMENTS OF ROOFING, SUCH FEATURES MUST BE REPLACED TO MATCH EXISTING CONDITIONS, SURFACES AND FINISHES. WHILE FINISHES SUCH AS CARPET MAY BE REMOVED AND REPLACED AFTER WORK IS COMPLETE. FINISHES THAT CANNOT BE REPLACED IN THIS MANNER MUST BE REPLACED WITH NEW MATERIALS MATCHING EXISTING AS CLOSE AS POSSIBLE.
7. WHERE EXECUTING THE WORK SHOWN ON ANY OF THESE DRAWINGS OR CALLED FOR IN SPECIFICATIONS REQUIRES PENETRATION OF EXTERIOR WALLS OR ROOFS, SUCH WORK SHALL BE FLASHED, SEALED OR OTHERWISE MADE TIGHT AGAINST THE ENTRANCE OF AIR OR WATER
8. WHILE DRAWINGS INDICATE ITEMS TO BE REMOVED, REPLACED OR REWORKED, THEY MAY NOT NECESSARILY INDICATE ALL ASPECTS OF WORK REQUIRED IN THE REMOVAL, REPLACEMENT OR REWORK OF SUCH ITEMS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ALL WORK NECESSARY TO COMPLETE AND FINISH ALL AREAS IN AND AROUND SUCH ITEMS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE BY HIM TO THE DISTRICT'S PREMISES OR OTHERWISE, AND SHALL REPAIR SAME AT HIS OWN EXPENSE. NOTE THAT HEAVY EQUIPMENT DRIVEN OVER ASPHALT CONCRETE PAVEMENT IN THE SCHOOL YARD MAY CAUSE DAMAGE TO SUCH PAVEMENT.
10. TOILET ROOM ACCESSORIES ARE CALLED OUT IN SPECIFICATIONS. WHERE NOT LOCATED ON DRAWINGS THEY SHALL BE MOUNTED PER DIRECTIONS FROM THE ARCHITECT.
11. WHERE INTERIOR OR EXTERIOR TRENCHING REQUIRES REMOVAL OF CONCRETE OR A.C. PAVING, SUCH PAVING MUST BE REMOVED BY SAW CUTTING AND REPLACED AFTER WORK IS COMPLETE - TO MATCH EXISTING.
12. WORK REQUIRED SHALL INCLUDE BUT NOT BE NECESSARILY BE LIMITED TO WORK CALLED FOR BY NOTES ON BUILDING FLOOR PLANS.
13. GENERAL CONTRACTOR MUST CAREFULLY SCRUTINIZE ALL DRAWINGS TO ASCERTAIN ALL REQUIRED WORK ARISING OUT OF WORK DONE BY MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SUB-CONTRACTORS.
14. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE CONTRACT IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITION SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE IN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT (C.C.D.) OR AN ADDITIONAL SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR).
15. ALL PROPOSED BUILDING ENTRIES / EXITS TO BE BARRIER FREE.
16. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDA OR A CONSTRUCTION CHANGE DOCUMENT (C.C.D.) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
17. CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH STRUCTURAL ELEMENTS IS NOT TO BE STARTED UNTIL THE DETAILS HAVE BEEN REVIEWED AND APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER AND THE DSA FIELD ENGINEER IF DETAILS DO NOT SHOW OR CONFORM TO THE APPROVED DRAWINGS.
18. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION WHICH HAS BEEN CONCEALED AND IS NOT COVERED BY THE CONSTRUCTION DOCUMENTS, WHEREIN THE FINISH WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE REGULATIONS, A CHANGE ORDER OR SEPARATE SET OF PLANS/SPECIFICATIONS DETAILING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK (SECTION 4-137(C), PART 1, TITLE 24, CCR).
19. CONTRACTOR TO NOTE: WHERE EXISTING ROOM SIGNAGE IS BEING REMOVED AND REPLACED, ALL ROOM SIGNAGE VERBAIGE MUST MATCH THE EXISTING ROOM SIGN VERBIAGE IN-KIND. CONTRACTOR TO DOCUMENT THE EXISTING ROOM SIGNAGE VERBIAGE PRIOR TO DISPOSING OF THE EXISTING SIGNAGE.
20. WHERE EXISTING UTILITIES ARE INDICATED IN THE GENERAL VICINITY OF NEW WORK, VERIFY EXACT LOCATION BY POT-HOLING, METAL DETECTION, OR ELECTRICAL CURRENT DETECTION, PRIOR TO STARTING WORK. ALL WORK SHALL CONFORM TO 2022 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
21. ALL WORK SHALL CONFORM TO 2022 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
22. A WRITTEN SITE SAFETY PLAN IN COMPLIANCE WITH CFC 3303.1.1 MUST BE PREPARED AND AVAILABLE ON SITE PRIOR TO COMMENCEMENT OF ANY MOBILIZATION, DEMOLITION AND / OR CONSTRUCTION

01

GENERAL NOTES

GENERAL (9 Sheets)

G000	COVER SHEET
G001	SHEET INDEX, SYMBOLS, ABBREVIATIONS, AND NOTES
G002	SIGNAGE DETAILS
G003	SIGNAGE DETAILS
G004	SIGNAGE DETAIL AND GENERAL MOUNTING HEIGHTS
G101	BUILDING EGRESS AND SIGNAGE PLAN - FIRST FLOOR PLAN
G102	BUILDING EGRESS AND SIGNAGE - SECOND FLOOR PLAN
F001	FIRE ACCESS PLAN

***CIVIL** (23 Sheets)

C-1.0	GENERAL NOTES, LEGENDS AND ABBREVIATIONS
C-1.1	EXISTING CONDITION
CD-1.0	SITE DEMOLITION PLAN - PHASE 1
CD-1.1	SITE DEMOLITION PLAN - PHASE 1
CD-1.2	SITE DEMOLITION PLAN - PHASE 2
C-2.0	SITE CONTROL PLAN - PHASE 1
C-2.1	SITE CONTROL PLAN - PHASE 1
C-2.2	SITE CONTROL PLAN - PHASE 2
C-3.0	SITE GRADING PLAN - PHASE 1
C-3.1	SITE GRADING PLAN - PHASE 2
C-3.2	ENLARGED SITE GRADING PLAN - PHASE 1
C-3.3	ENLARGED SITE GRADING PALN - PHASE 2
C-3.4	SITE GRADING SECTION - PHASE 1
C-3.5	ENLARGED SITE GRADING SECTION - PHASE 2
C-4.0	SITE UTILITY PLAN - PHASE 1
C-4.1	SITE UTILITY PLAN - PHAE 1
C-4.2	SITE UTILITY PLAN -PHASE 2
C-4.3	STORMDRAIN PROFILE - PHASE 1
C-4.4	STORMDRAIN PROFILE - PHASE 2
C-5.0	MISCELLANEOUS DETAILS
C-5.1	MISCELLANEOUS DETAILS
C-5.2	MISCELLANEOUS DETAILS
C-5.3	MISCELLANEOUS DETAILS
C-5.4	MISCELLANEOUS DETAILS
C-6.0	EROSION CONTROL PLAN - PHASE 1
C-6.1	EROSION CONTROL PLAN - PHASE 1
C-6.2	EROSION CONTROL PLAN - PHASE 2
C-6.3	EROSION CONTROL DETAILS
C-7.0	OVEREXCAVATION PLAN - PHASE 1
C-7.1	OVEREXCAVATION PLAN - PHASE 1
C-7.2	EROSION CONTROL PLAN - PHASE 2

ARCHITECTURAL (43 Sheets)

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A001	OVERALL SITE PLAN
A002	ENLARGED SITE PLAN
A003	SITE DETAILS
A004	ENLARGED PARKING PLANS & SITE SIGNAGE AND PARKING DETAILS
A005	SOLAR SHADE STRUCTURE PLAN AND DETAILS
A006	ENLARGED PLANS & SITE RAILING DETAILS
A007	TRASH ENCLOSURE AND MISC. SITE DETAILS
A008	BASKETBALL COURTS PLANS & DETAILS
A101	FIRST FLOOR PLAN
A102	SECOND FLOOR PLAN
A201	FIRST FLOOR REFLECTED CEILING PLANS
A202	SECOND REFLECTED CEILING PLANS
A301	ROOF PLAN
A401	EXTERIOR ELEVATION
A500	BUILDING SECTIONS
A501	WALL SECTIONS
A502	WALL SECTIONS
A503	WALL SECTIONS
A601	ENLARGED TOILET PLANS & INTERIOR ELEVATIONS
A602	INTERIOR ELEVATIONS
A603	INTERIOR ELEVATIONS
A604	INTERIOR ELEVATIONS
A605	ENLARGED TOILET PLANS & INTERIOR ELEVATION
A660	STAIR #1 ENLARGED PLAN AND SECTIONS
A661	STAIR #2 ENLARGED PLAN AND SECTIONS
A670	ELEVATOR PLANS AND SECTIONS
A671	ELEVATOR PLANS AND SECTIONS
A700	DOOR, WINDOW AND ROOM FINISH SCHEDULE
A720	COLOR SCHEDULE
A831	COLUMN DETAILS
A833	BALCONY DETAILS
A840	INTERIOR WALL AND PARTITION DETAILS
A841	WALL TYPES AND DETALS
A842	WALL TYPES AND DETAILS
A850	CEILING NOTES
A851	CEILING DETAILS AND NOTES
A852	CEILING DETAILS
A853	CEILING DETAILS
A860	CASEWORK DETAILS
A870	ROOF DETAILS (CONCRETE OVER METAL DECK)
A871	ROOF DETAILS
A880	DOOR AND ALUMINUM WINDOW DETAILS
A890	STAIR DETAILS

***STRUCTURAL** (28 Sheets)

S0-1	GENERAL NOTES
S0-2	GENERAL NOTES
S1-1	TYPICAL REBAR & S.O.G DETAILS
S1-2	TYP EXCAVATION & FOOTING DETAILS
S1-3	TYPICAL FOUNDATION DETAILS
S1-4	TYPICAL METAL STUD DETAILS
S1-5	TYPICAL METAL STUD DETAILS
S1-6	TYPICAL METAL STUD DETAILS
S1-7	TYPICAL METAL STUD DETAILS
S1-8	TYPICAL METAL STUD DETAILS
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S1-10	TYPICAL STEEL DETAILS
S1-11	TYPICAL STEEL DETAILS
S1-12	TYPICAL STEEL DETAILS
S1-13	TYPICAL MECHANICAL EQUIPMENT DETAILS
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S4-1	FOUNDATION DETAILS
S5-1	FRAMING DETAILS
S5-2	FRAMING DETAILS
S5-3	FRAMING DETAILS
S6-1	WALL ELEVATIONS

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M010	MECHANICAL SCHEDULES
M011	MECHANICAL SCHEDULES
M020	MECHANICAL DETAILS
M021	MECHANICAL DETAILS
M022	MECHANICAL DETAILS
M023	MECHANICAL DETAILS
M030	TITLE 24 CALCULATIONS
M031	TITLE 24 CALCULATIONS
M101	MECHANICAL FIRST FLOOR PLAN
M102	MECHANICAL SECOND FLOOR PLAN
M201	MECHANICAL ROOF PLAN

***PLUMBING** (8 Sheets)

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P010	PLUMBING SCHEDULES
P020	PLUMBING DETAILS
P030	PLUMBING SITE PLAN
P101	PLUMBING FIRST FLOOR PLAN
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P201	PLUMBING ROOF PLAN
P301	PLUMBING ENLARGED TOILET PLANS

***ELECTRICAL** (19 Sheets)

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E002	SINGLE LINE DIAGRAM
E004	LIGHTING FIXTURE SCHEDULE
E005	PANEL SCHEDULES
E006	PANEL SCHEDULES
E007	TITLE 24 -INDOOR
E008	TITLE 24 -OUTDOOR
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E101	SITE PLAN -ELECTRICAL REMODEL
E101P	SITE PLAN - ELECTRICAL REMODEL EGRESS PHOTOMETRIC
E201	FIRST FLOORPLAN -LIGHTING
E201P	FIRST FLOOR PLAN - LIGHTING EGRESS PHOTOMETRIC
E202	SECOND FLOOR PLAN -LIGHTING
E202P	SECOND FLOOR PLAN - LIGHTING EGRESS PHOTOMETRIC
E301	FIRST FLOOR PLAN -POWER
E302	SECOND FLOOR PLAN -POWER
E303	ROOF PLAN -POWER
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS

***TECHNOLOGY** (9 Sheets)

T001	TECHNOLOGY COVERSHEET
T100	SITE PLAN -TECHNOLOGY DEMOLITION
T101	SITE PLAN -TECHNOLOGY
T201	FIRST FLOOR PLAN -TECHNOLOGY
T202	SECOND FLOOR PLAN -TECHNOLOGY
T301	ENLARGED PLANS - TECHNOLOGY
T401	TECHNOLOGY SCHEDULES
T501	TECHNOLOGY DETAILS
T601	TECHNOLOGY DIAGRAMS

***FIRE ALARM** (7 Sheets)

FA001	FIRE ALARM COVERSHEET
FA002	FIRE ALARM RISER DIAGRAM AND CALCULATIONS
FA100	SITE PLAN -FIRE ALARM DEMOLITION
FA101	SITE PLAN -FIRE ALARM REMODEL
FA201	FIRST FLOOR PLAN -FIRE ALARM
FA202	SECOND FLOOR PLAN -FIRE ALARM
FA501	FIRE ALARM DETAILS

***FIRE PROTECTION** (6 Sheets)

FP001	FIRE PROTECTION GENERAL NOTES AND SITE PLAN
FP101	FIRE PROTECTION FIRST FLOOR REFLECTED CEILING PLAN
FP102	FIRE PROTECTION SECOND FLOOR REFLECTED CEILING PLAN
FP201	FIRE PROTECTION FIRST FLOOR PIPING PLAN
FP202	FIRE PROTECTION SECOND FLOOR PIPING PLAN
FP301	FIRE PROTECTION BUILDING SECTIONS AND SEISMIC BRACING

COMPLETE SET (163 Sheets)

SHEET INDEX

OWNER
LAWNDALE ELEMENTARY SCHOOL DISTRICT
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T: (310) 973-1300, EXT 50082 F: (323) 680-4991
CONTACT: JORGE RAMIREZ

STRUCTURAL
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CONTACT: ALEX QUINONEZ, P.E., S.E.
SENIOR PROJECT ENGINEER, ASSOCIATE
YOUNG NAM, PE SE

HARDWARE CONSULTANT
ALLEGION
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DIAMOND BAR, CA 91765
T: 714-293-5912
CONTACT: SAK CHANSAMONE

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CONTACT: JON GOMER, SR. PROJECT MGR./ ARCHITECT
GANG CHEN, PROJECT ARCHITECT, LEED AP BD+C

MECHANICAL, PLUMBING
PEZESHKI ENGINEERING, INC.
1920 E. WARNER AVE., SUITE 3-H
SANTA ANA, CA, 92705
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CONTACT: MATTHEW M. PEZESHKI, PE, LEED AP, PRINCIPAL
IGGY HERNANDEZ, SENIOR PROJECT MANAGER (MECH)
RAMON BARELA, PROJECT DIRECTOR (PLUMBING)

CIVIL
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CONTACT: NESTOR C. IGNACIO, JR., P.E., PRINCIPAL
PROJECT EXECUTIVE
VICTORIO O. MENOR

CONTACT

THIS PROJECT CONSISTS OF BUT NOT LIMITED TO:

- NEW CONSTRUCTION OF 2-STORY CLASSROOM BUILDING.
- AN APPROXIMATELY 29'-4" X 54'-8" SOLAR SHADE STRUCTURE
- NEW TRASH ENCLOSURE
- THIS PROJECT IS DIVIDED IN 2 PHASES TO ADDRESS REMOVAL OF RELOCATABLES AND REGRADING OF THE SITE.

02

SCOPE OF WORK

FABRICATION AND INSTALLATION OF DEFFERED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTUAL ENGINEER AND APPROVED BY THE DSA. LIST OF DEFFERED SUBMITTAL ITEMS FOR THIS PROJECT:

1. ELEVATOR GUIDE RAILS AND SUPPORT BRACKETS
2. PRE-MANUFACTURED PHOTOVOLTAIC SOLAR PANELS AT NEW LUNCH SHELTER.

DEFERRED APPROVALS

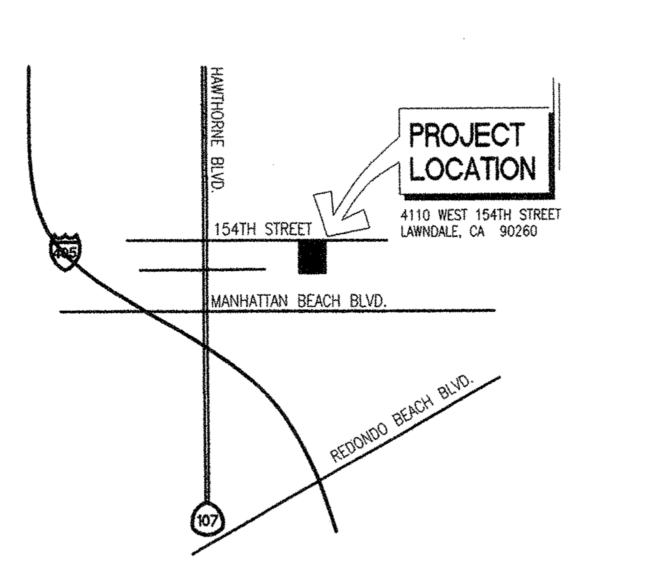
GRID HEAD / LINES — 0
REVISION TAG — 1
WALL TYPE TAG — 1X
WINDOW TYPE — A
DOOR TAG / NUMBER — DOOR
KEYNOTE TAG — BN000
CASEWORK TAG — UNIT DEPTH 12"; INDICATES MODIFICATION; UNIT HEIGHT* 36"; WI DESIGNATION 100; UNIT LENGTH 48"; PROVIDE LOCK L
*HEIGHT INCLUDES COUNTERTOP
COLOR TAG SEE SHEET A704 — CMU-1
ROOM TAG — ROOM NAME; 101 ROOM NUMBER
EXTERIOR ELEVATION — 1 ELEVATION NUMBER; A401 SHEET NUMBER
INTERIOR ELEVATION — 1, 2, 3, 4 ELEVATION NUMBER; A601 SHEET NUMBER
DETAIL REFERENCE — 1 DETAIL NUMBER; A101 SHEET NUMBER
BUILDING SECTION REFERENCE — 1 SECTION NUMBER; A101 SHEET NUMBER
WALL SECTION REFERENCE — 1 SECTION NUMBER; A101 SHEET NUMBER
CALLOUT DESIGNATION — 1 CALLOUT NUMBER; A101 SHEET NUMBER
SPOT ELEVATION — 10' - 0"
CEILING HEIGHT TAG — 9'-0" CEILING HEIGHT PER REFLECTED CEILING PLAN

TYPICAL SYMBOLS

℄	CENTERLINE	C.J.	CEILING JOIST OR CONTROL JOINT	E.O.S.	EDGE OF SLAB	I.D.	INSIDE DIAMETER / DIMENSION	NOM.	NOMINAL	SHT.	SHEET
PL	PLATE	CLG.	CEILING	EQ.	EQUAL	IDF	INTERMEDIATE DISTRUBUTION FRAME	N.T.S.	NOT TO SCALE	SHTG.	SHEATHING
&	AND	CLR.	CLEAR	EXH.	EXHAUST	IN.	INCH	O/	OVER	SIM.	SIMILAR
@	AT OR ABOUT	C.M.U.	CONCRETE MASONRY UNIT	EXIST.	EXISTING	INT.	INTERIOR	O.A.	OVERALL / OUTSIDE AIR	SPEC.	SPECIFICATION
'	FOOT	COL.	COLUMN	EXP.	EXPANSION	INV.	INVERT	O.C.	ON CENTER	SQ.	SQUARE
"	INCH OR REPEAT	CONC.	CONCRETE	F.D.	FLOOR DRAIN	JAN.	JANITOR	O.D.	OUTSIDE DIAMETER / DIMENSION	S.S.	STAINLESS STEEL
#	POUND OR NUMBER	CONN.	CONNECTION	F.O.C.	FACE OF CONCRETE/CURB	JT.	JOINT	PH	PANIC HARDWARE	S/S	SERVICE SINK
+/-	VERIFY IN FIELD	CONT.	CONTINUOUS	F.O.F.	FACE OF FINISH	JST.	JOIST	P.I.V.	PRESSURE INDICATOR VALVE	STD.	STANDARD
		C.T.	CERAMIC TILE	F.O.M.	FACE OF MASONRY	LAM.	LAMINATE	PL.	PLATE	STL.	STEEL
A.B.	ANCHOR BOLT	DBL.	DOUBLE	F.O.S.	FACE OF STUDS	LAV.	LAVATORY	P. LAM.	PLASTIC LAMINATE	STOR.	STORAGE
A.C.	ASPHALTIC CONCRETE	DEPT.	DEPARTMENT	F.R.P.	FIBERGLASS REINFORCED PANEL	LB.	POUND	PLAS.	PLASTER	STRUCT.	STRUCTURAL
A/C	AIR CONDITIONING	DET.	DETAIL	F.S.	FULL SIZE / FINISH SURFACE	L.F.	LINEAL FEET	PLUMB.	PLUMBING	SUSP.	SUSPENDED
ACC.	ACCESSIBLE	D.F.	DRINKING FOUNTAIN	FT.	FOOT OR FEET	L.P.	LOW POINT	PLWD.	PLYWOOD	T.	TREAD / TEMPERED
ADJ.	ADJUSTABLE / ADJACENT	DF	DOUGLAS FIR	FTG.	FOOTING	LT.	LIGHT	PR.	PAIR	T.B.	TOP OF BEAM
A.F.F.	ABOVE FINISH FLOOR	DG	DECOMPOSTED GRANITE	GA.	GUAGE / GAGE	LT. WT.	LIGHT WEIGHT	PREFAB.	PREFABRICATED	T.C.	TOP OF CURB OR CONCRETE
ALUM.	ALUMINUM	DIA.	DIAMETER	GALV.	GALVANIZED IRON	MAT.	MATERIAL	PT.	POINT	TEL.	TELEPHONE
APPROX.	APPROXIMATE	DIAG.	DIAGONAL	G.B.	GRAB BAR	MAX.	MAXIMUM	Q.T.	QUARRY TILE	TEMP.	TEMPERED / TEMPORARY
ARCH.	ARCHITECTURAL	DIM.	DIMENSION	G.I.	GALVANIZED IRON	M.B.	MACHINE BOLT	R.	RISER / RADIUS	TERR.	TERRAZZO
ASPH.	ASPHALT	DISP.	DISPENSER / DISPOSAL	GLU-LAM	GLUE LAMINATE BEAM	MDF	MAIN DISTRIBUTION FRAME	R.A.	RETURN AIR	TEXT.	TEXTURED
ACT.	ACOUSTICAL TILE	DN.	DOWN	GR.	GRADE	MECH.	MECHANICAL	RAD.	RADIUS	T&G	TONGUE AND GROOVE
BD.	BOARD	DR.	DOOR	GYP.	GYPSUM	MED.	MEDIUM	RECPT.	RECEPTACLE	THK.	THICK
BLDG.	BUILDING	D.S.	DOWN SPOUT	GYP. BD.	GYPSUM BOARD	MET.	METAL	REF.	REFERENCE	T.L.	TOP OF LEDGER
BLK.	BLOCK	DWG.	DRAWING	H.B.	HOSE BIBB	MEZZ.	MEZZANINE	REFR.	REFRIGERATOR	T.O.P.	TOP OF PARAPET
BLKG.	BLOCKING	(E)	EXISTING	HDR.	HEADER	MFR.	MANUFACTURER	REG.	REGISTER / REGULAR	T.O.D.	TOP OF METAL DECK
BM.	BEAM	E.	EAST / ENAMEL	HDWD.	HARDWOOD	MH.	MANHOLE	REINF.	REINFORCED	T.S.	TOP OF STEEL
B.M.	BENCHMARK	EA.	EACH	HDWR.	HARDWARE	MIN.	MINIMUM / MINUTE	REQ.	REQUIRED	T.O.W.	TOP OF WALL
BOT.	BOTTOM	E.G.	EXISTING GRADE	HGT.	HEIGHT	MISC.	MISCELLANEOUS	RESIL.	RESILIENT	TYP.	TYPICAL
C.B.	CATCH BASIN	E.J.	EXPANSION JOINT	H.M.	HOLLOW METAL	M.O.	MASONARY OPENING	R.O.	ROUGH OPENING		
CEM.	CEMENT	ELEC.	ELECTRICAL	HORIZ.	HORIZONTAL	MTD.	MOUNTED	S.	SOUTH / SPANDREL		
CER.	CERAMIC	ELEV.	ELEVATOR / ELEVATION	H.P.	HIGH POINT	(N)	NEW	SCHED.	SCHEDULE		
C.F.M.	CUBIC FEET PER MINUTE	EMER.	EMERGENCY	HR.	HOUR	N.I.C.	NOT IN CONTRACT	SECT.	SECTION		
C.I.	CAST IRON	ENCL.	ENCLOSURE	HVAC.	HEATING, VENT, AIR CONDITIONING	NO.	NUMBER	S.F.	SQUARE FOOT		

KEYNOTES SPECIFIC TO BUILDING WORK		KEYNOTES SPECIFIC TO SITE WORK	
BE	BUILDING EXISTING	SE	SITE EXISTING
BD	BUILDING DEMOLITION	SD	SITE DEMOLITION
BN	BUILDING NEW	SN	SITE NEW

ABBREVIATION



VICINITY MAP

BUILDING (NEW CONSTRUCTION)

CONSTRUCTION TYPE:	II-B (FULLY SPRINKLERED)		
OCCUPANCY:	E		
	ALLOWED	ACTUAL	
NUMBER OF STORY (TABLE 504.4)	3	2	
BUILDING HEIGHT (TABLE 504.3)	55'	43'	
BASIC ALLOWABLE AREA (TABLE 506.2)		43,500 S.F.	
FRONTAGE INCREASE -		NOT USED	
ALLOWABLE AREA PER STORY -		43,500 S.F.	
TOTAL ALLOWABLE AREA -		**87,000 S.F.**	
ACTUAL BUILDING AREA			
FIRST FLOOR -	E:	9,369 S.F.	
	BALCONY & STAIRS:	5,613 S.F.	
	TOTAL:	**14,982 S.F.**	
SECOND FLOOR -	E:	8,884 S.F.	
	BALCONY:	4,292 S.F.	
	TOTAL:	**13,175 S.F.**	
TOTAL BUILDING AREA:		**28,157 S.F.**	**O.K.**

FIRE RESISTANCE RATING REQUIREMENTS (PER TABLE 601)

STRUCTURAL FRAME:	0 HR
EXTERIOR NON-BEARING WALLS	TABLE 602
INTERIOR NON-BEARING PARTITIONS	0HR
FLOOR CONSTRUCTION	0HR
ROOF CONSTRUCTION	0HR
SHAFT ENCLOSURE PER 713.4	1 HR

FIRE RESISTANCEOF EXTERIOR WALLS (PER TABLE 705.5)

TYPICAL, ALL WALLS
FIRE SEPERATION DISTANCE > 10' — 0 HR

MAX. AREA OF EXTERIOR WALL OPENINGS (PER TABLE 705.8)

PORTION OF NORTH WALL
FIRE SEPERATION DISTANCE > 15' — 75%

OTHER LOCATIONS
FIRE SEPERATION DISTANCE > 20' — NO LIMIT

CODE ANALYSIS

STATE:

ARCHITECT:
architecture westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT — JON EDWARD GOMER — C-25861 EXP. 5-2025 — STATE OF CALIFORNIA

CONSULTANT:

01

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

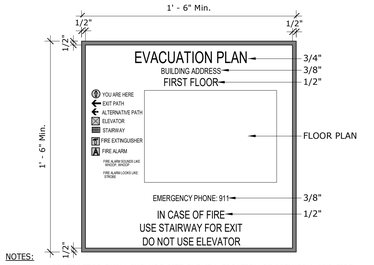
No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO:	22029.01
DATE:	2/27/2024
DRAWN:	MG/AV/GC
CHECK:	JG/GC
ARCHITECT:	JG
ENGINEER:	

SHEET DESCRIPTION:
SHEET INDEX, SYMBOLS, ABBREVIATIONS, AND NOTES

SHEET NO:
G001

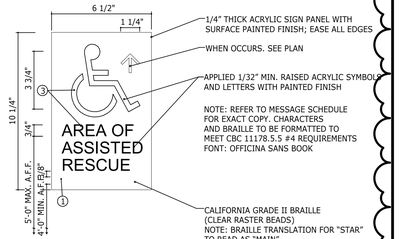
3/27/2025 6:37:19 PM C:\Users\avalipour\Documents\22029 LESD ROGERS MS_CONSTRUCTION BIDDING_avalipour.rvt



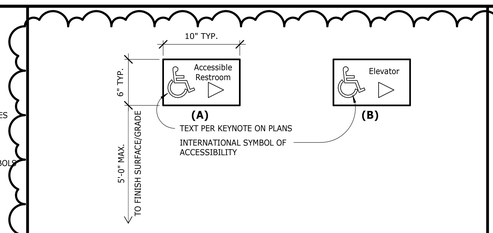
NOTES:

1. CONTRACTOR SHALL INCLUDE SITE SURVEY, CREATION OF ARTWORK, AND FIRE AUTHORITY APPROVAL
2. PLACE ONE SIGN AT EACH HALL / CORRIDOR ENTRANCE DOOR TO EACH STAIRWELL ON EVERY FLOOR
3. PLACE ONE SIGN AT EACH ELEVATOR LOBBY ON EVERY FLOOR
4. PATH OF TRAVEL TO BE APPROVED BY FIRE AUTHORITY & OWNER

EVACUATION PLAN SIGN 3" = 1'-0" 20



DIRECTIONAL SIGNAGE 3" = 1'-0" 16

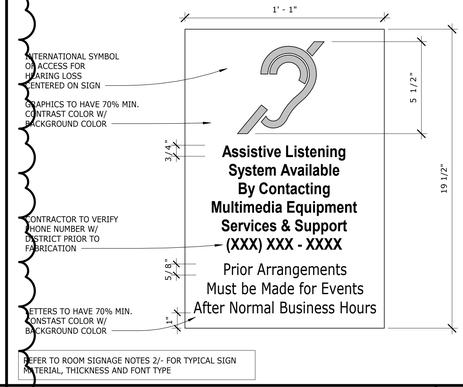


NOTES:

1. PROVIDE WHITE INTERNATIONAL SYMBOL OF ACCESSIBILITY ON A BLUE IN BACKGROUND. THE BLUE COLOR SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595B.

   SEE SIGN PLACEMENT AND DIRECTION OF ARROW ON SIGN ON SITE ACCESSIBILITY PLAN AND
2. BUILDING EGRESS AND SIGNAGES PLAN(S).

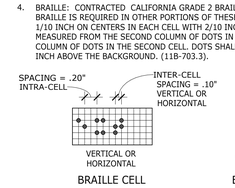
ACC. DIRECTIONAL SIGNAGE 1 1/2" = 1'-0" 12



REFER TO ROOM SIGNAGE NOTES 2/- FOR TYPICAL SIGN MATERIAL, THICKNESS AND FONT TYPE

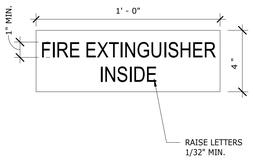
ASSISTIVE LISTENING SIGN 3" = 1'-0" 8

1. CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RAISED 1/32 INCH MINIMUM AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE.
2. CHARACTER HEIGHT: RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8 INCH AND A MAXIMUN OF 2 INCHES HIGH.
3. FINISH AND CONTRAST: CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. (11B-703.5.1)
4. BRAILLE: CONTRACTED CALIFORNIA GRADE 2 BRAILLE SHALL BE USED WHENEVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 1/10 INCH ON CENTERS IN EACH CELL WITH 2/10 INCH SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF 1/40 INCH ABOVE THE BACKGROUND. (11B-703.3).

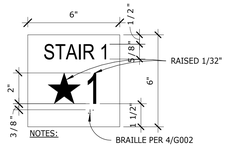


REQUIRED ROUNDED OR DOMED CALIFORNIA BRAILLE DOTS, EACH DISTINCT AND SEPARATE. DOTS WITH STRAIGHT SIDES AND FLAT TOPS ARE NOT READABLE FOR MANY BRAILLE USERS.

TACTILE / BRAILLE NOTES 3" = 1'-0" 4



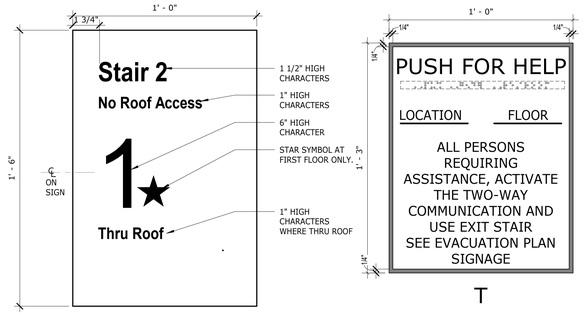
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NOTES:

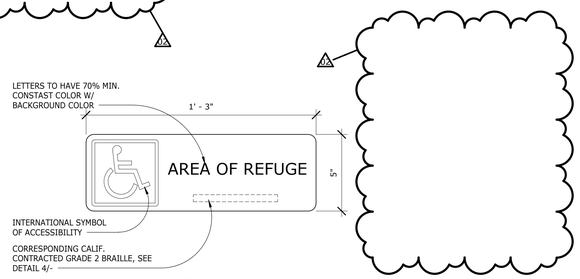
1. SIGN SHALL BE PERMANENTLY ATTACHED TO WALL AT LATCH SIDE OF DOOR AT EACH LANDING.
2. MOUNT SO CENTER OF SIGN IS AT 60" A.F.F.
3. STAR SYMBOL AT FIRST FLOOR ONLY.

V

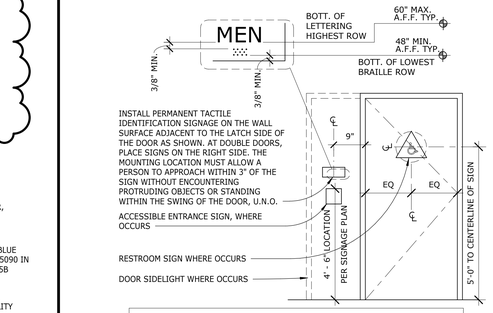


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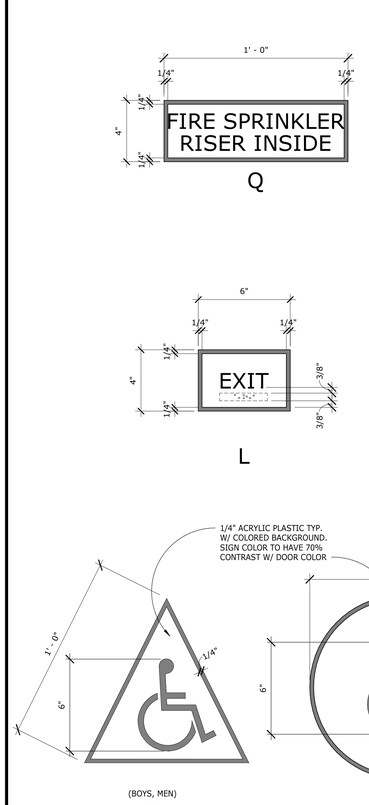


FOR SIGNAGE LOCATIONS SEE FLOOR PLANS. NEW SIGNAGE HEIGHT MUST COMPLY WITH CODE REQUIREMENTS AS SHOWN ON THE ELEVATION ABOVE

NOTES:

1. SIGN MATERIAL SHALL BE MIN. 1/4" THICK ACRYLIC PLASTIC WITH SURFACE PAINTED FINISH. SIGN GRAPHICS, NUMBERS AND LETTERS SHALL BE RAISED 1/32" .
2. LETTERS SHALL BE UPPER CASE, OFFICINA SANS BOOK FONT TYPE. AT TACTILE SIGN LOCATIONS SIGN SHALL BE ACCOMPANIED BY CALIF. CONTRACTED GRADE 2 BRAILLE WITH CHARACTER TYPE AND HEIGHT PER DETAIL ON THIS SHEET.
3. INSTALL ALL ROOM NAME/NUMBER SIGNAGE ON WALL AT EXTERIOR SIDE OF ROOM U.N.O.
4. INSTALL ALL EXIT AND EXIT ROUTE SIGNAGE ON WALL AT INTERIOR SIDE OF ROOM
5. SIGN BACKGROUND SHALL HAVE A 70% MIN. CONTRAST COLOR W/ TEXT LETTERS AND BORDER W/ NON GLARE FINISH.
6. SIGNS ADHESIVELY APPLIED TO GLASS SHALL HAVE ADDITIONAL PLASTIC BACKING SAME SIZE AS SIGN ADHESIVELY APPLIED TO OTHER SIDE OF GLASS.
7. ALL SIGNAGE TO BE ATTACHED WITH 3M VHB TAPE AND SILCONE ADHESIVE.
8. VERIFY SIGN TEXT AND ROOM NUMBER WITH OWNER.
9. REFER TO DETAIL 5G/- FOR MULTI LINE TEXT SIGNAGE REQUIREMENTS.
10. PROVIDE EASED EDGES ON ALL SIDES OF SIGNAGE.

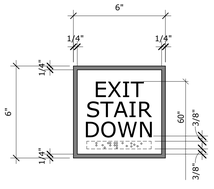
ROOM SIGNAGE NOTES 1/2" = 1'-0" 2



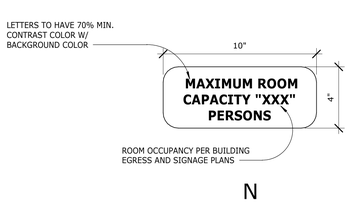
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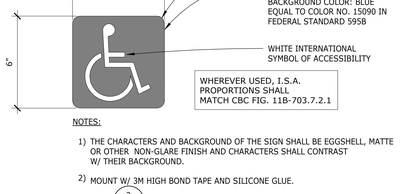
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NOTES:

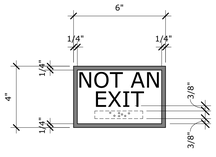
1) THE CHARACTERS AND BACKGROUND OF THE SIGN SHALL BE EGGSHELL, MATTE OR OTHER NON-GLARE FINISH AND CHARACTERS SHALL CONTRAST W/ THEIR BACKGROUND.
2) MOUNT W/ 3M HIGH BOND TAPE AND SILICONE GLUE.
3 SEE (2) AND SIGNAGE PLANS FOR LOCATIONS)

M

L



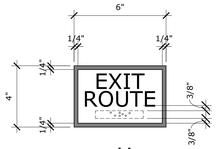
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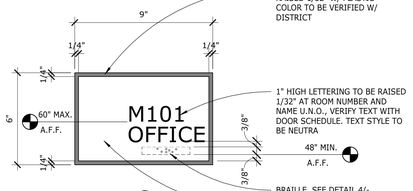
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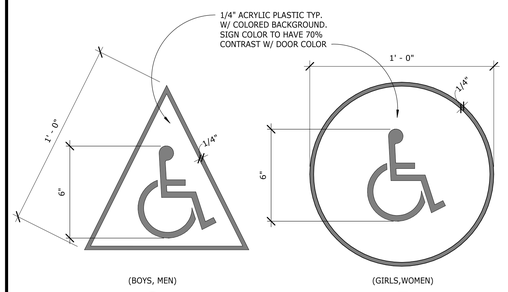
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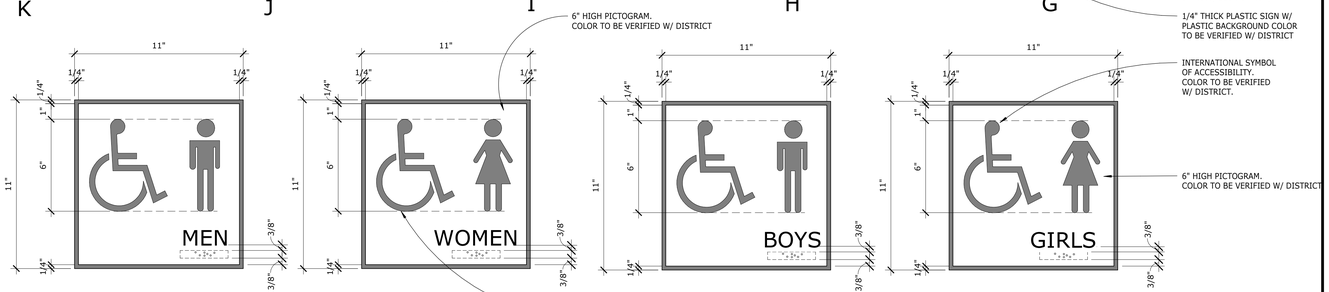
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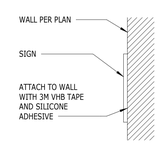
E C B A

NOTE:
1)REFER TO 2/- FOR ALL SIGN DESIGN AND ACCESSIBILITY REQUIREMENTS
2)REFER TO 1/- FOR INSTALLATION NOTES

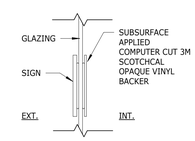
ROOM SIGNAGE 3" = 1'-0" 5

GENERAL NOTES

1. FOR MOUNTING SIGNAGE AT WINDOW SEE DETAIL B.
2. VERIFY ALL SIGN TEXT AND COLOR WITH ***DISTRICT*** PRIOR TO MANUFACTURING SIGNAGE.
3. PROVIDE AN ADDITIONAL 10 BUILDING SIGNS WITH 40 CHARACTERS PER SIGN TO BE DETERMINED DURING CONSTRUCTION PER THE ***DISTRICT***'S DIRECTION.



DETAIL A



NOTE: FOR APPLICATION TO GLASS PROVIDE A MATCHING BACK-UP PLATE & MOUNT TO INTERIOR SURFACE OF GLASS WITH ADHESIVE.

DETAIL B

SIGNAGE INSTALLATION NOTES 3" = 1'-0" 1

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD DEMER
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: RR / EM / MS
CHECK: JG / RR
ARCHITECT: JG
ENGINEER:

SHEET DESCRIPTION:
SIGNAGE DETAILS

SHEET NO:
G002

ELEVATOR TO STAIR #1
(3'-2") +(6'-2") + (35'-6") = 44'-10" < 200'

EXTERIOR EXIT STAIRWAY - STAIR #1
REQ. WIDTH: 140 x .3 = 42"
PROVIDED = 70"

ELEVATOR TO STAIR #2
(5'-6") +(176'-8") + (3'-3") = 185'-5" < 200'

EXTERIOR EXIT STAIRWAY - STAIR #2
REQ. WIDTH: 197 x .3 = 60"
PROVIDED = 70"

FIRST FLOOR - EGRESS AND SIGNAGE PLAN

1/8" = 1'-0"

1

SIGNAGE LEGEND

- (R) ROOM NAME/# SEE 5G/G002
- (X) EXIT SEE 5N/G002
- (XR) EXIT ROUTE SEE 5K/G002
- (NX) NOT AN EXIT SEE 5J/G002
- (AS) ASSISTIVE LISTENING SEE 8/G002
- (RC) ROOM CAPACITY SEE 5N/G002
- (VS) VIDEO SURVEILLANCE SEE 1/G002
- (AT) ACCESSIBLE TOILET ROUTE SEE 12A/G002
- (SD) EXIT STAIR DOWN SEE 5O/G002
- (SU) STAIR LEVEL SEE 5U/G002
- (SE) STAIR ELEVATION SEE 1V/G003
- (FR) FIRE RISER SEE 5Q/G002
- (FA) MAINTENANCE/FIRE ACCESS SEE 5P/G002
- (FE) FIRE EXSTINGUISHER INSIDE SEE 5P/G002
- (CS) TWO WAY COMMUNICATION SYSTEM SEE 15/A670, 5T/G002, 5V/G002
- (ES) EVACUATION SIGN SEE 20/G002
- (AR) AREA OF REFUGE SEE 5S/G002
- (AE) ACCESSIBLE ELEVATOR DIRECTION SIGNAGE 12B
- (TW) TOILET WALL SEE 5A, 5B, 5C,5E/G002
- (TD) TOILET DOOR SEE 5F,5G/G002
- (F1) FIRST FLOOR SEE 5/A671
- (F2) SECOND FLOOR SEE 5/A671
- (RA) DIRECTIONAL AREA OF ASSISTED RESCUE SEE 16/G002

EGRESS LEGEND

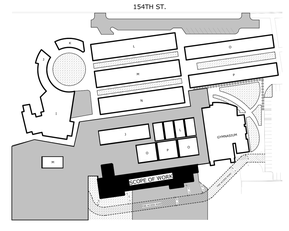
- 000' DISTANCE TO EXIT
- PATH OF EGRESS
- CUMULATIVE NUMBER OF OCCUPANTS ALONG PATH OF EGRESS
- NUMBER OF OCCUPANTS
- REQUIRED WIDTH
- EGRESS EXIT CAPACITY
- WIDTH FACTOR
- WIDTH PROVIDED
- NEW ILLUMINATED EXIT SIGN (DIRECTIONAL WHERE OCCURS)
- ROOM NAME
- FLOOR AREA (SQUARE FEET)
- ROOM NUMBER
- OCCUPANT CAPACITY
- OCCUPANT LOAD FACTOR
- NUMBER OF OCCUPANTS

NOTE:
FOR WALL TYPES SEE FLOOR PLANS SHEETS IN A100 SERIES

GRAPHIC LEGEND

- INTERIOR NON-RATED WALL ASSEMBLY: SEE WALL TYPE TAG ON FLOOR PLAN(S)
- COLUMN WHERE OCCURS, SEE STRUCTURAL
- INTERIOR 1 HOUR RATED WALL ASSEMBLY: RATED ASSEMBLY PER UL #U465 SEE WALL TYPE TAG ON FLOOR PLAN(S)
- ACCESSIBLE CLEAR SPACE: 5' DIAMETER TURNING SPACE
- ACCESSIBLE WORKSTATION / CLEAR SPACE: 30" x 48" (U.N.O.)

KEYMAP



3/27/2025 5:21:34 PM \\stn-ap\projects\LESD_22029.01_Rogers MS_2-Story Classroom Bldg\03_Drawings\00_DiP\Base\22029 LESD ROGERS MS_CONSTRUCTION BIDDING.rvt

STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD GRABER
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

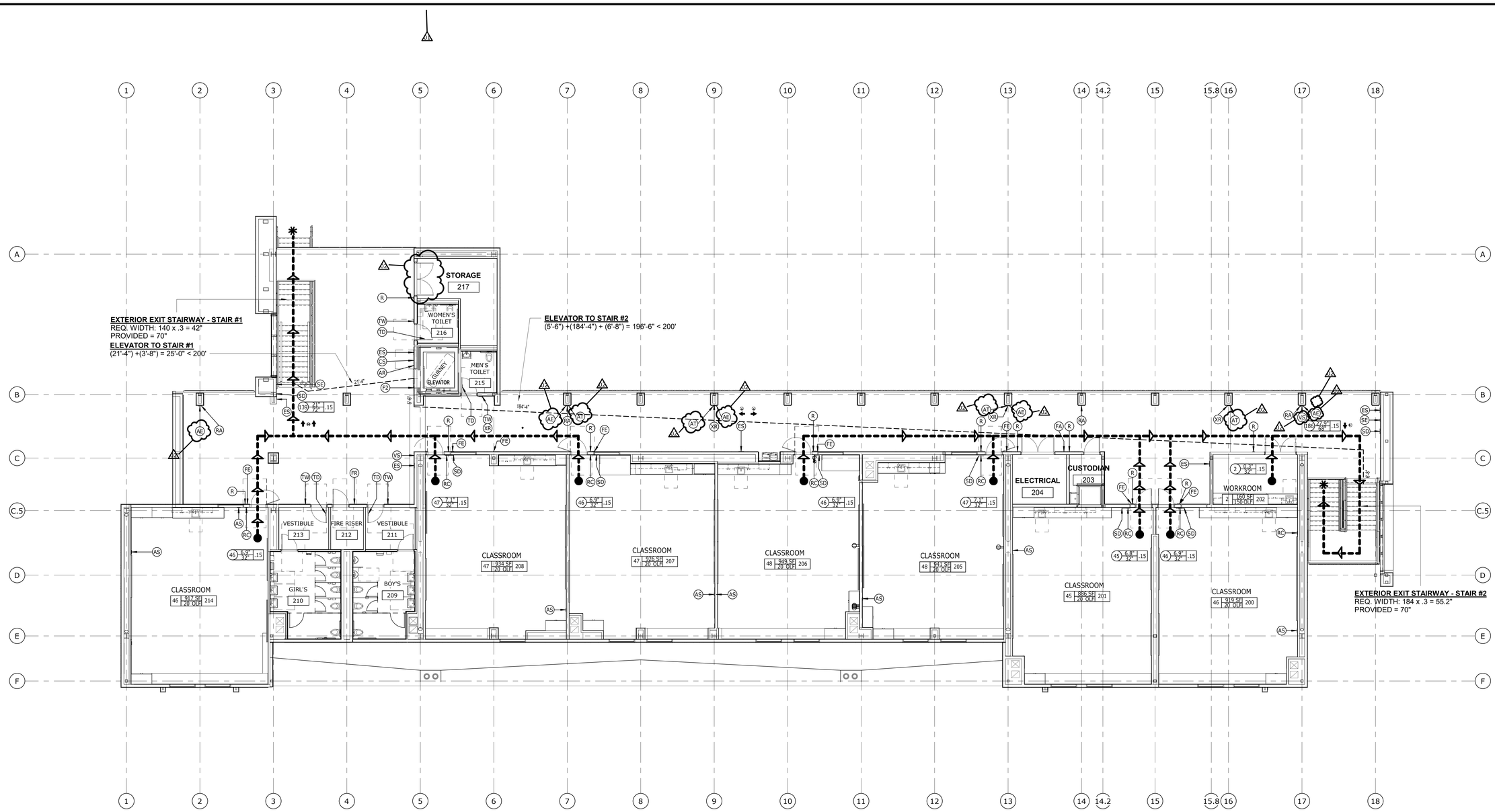
CLIENT:
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4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2024	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: JG
ENGINEER:

SHEET DESCRIPTION:
BUILDING EGRESS AND SIGNAGE PLAN - FIRST FLOOR PLAN

SHEET NO:
G101



SECOND FLOOR - EGRESS AND SIGNAGE PLAN

1/8" = 1'-0"

1

SIGNAGE LEGEND

- (R) ROOM NAME/# SEE 5G/G002
- (X) EXIT SEE 5N/G002
- (XR) EXIT ROUTE SEE 5K/G002
- (NX) NOT AN EXIT SEE 5J/G002
- (AS) ASSISTIVE LISTENING SEE 8/G002
- (RC) ROOM CAPACITY SEE 5N/G002
- (VS) VIDEO SURVEILLANCE SEE 1/G003
- (AT) ACCESSIBLE TOILET ROUTE SEE 12A/G002
- (SD) EXIT STAIR DOWN SEE 5O/G002
- (SU) STAIR LEVEL SEE 5U/G002
- (SE) STAIR ELEVATION SEE 1V/G003
- (FR) FIRE RISER SEE 5Q/G002
- (FA) MAINTENANCE/FIRE ACCESS SEE 5P/G002
- (FE) FIRE EXSTINGUISHER INSIDE SEE 5M/G002
- (CS) TWO WAY COMMUNICATION SYSTEM SEE 15/A670, 5T/G002, 5T/G002
- (ES) EVACUATION SIGN SEE 20/G002
- (AR) AREA OF REFUGE SEE 9S/G002
- (AE) ACCESSIBLE ELEVATOR DIRECTION SIGNAGE 12B
- (TW) TOILET WALL SEE 5A, 5B, 5C,5E/G002
- (TD) TOILET DOOR SEE 5F,5G/G002
- (F1) FIRST FLOOR SEE 5/A671
- (F2) SECOND FLOOR SEE 5/A671
- (RA) DIRECTIONAL AREA OF ASSISTED RESCUE SEE 16/G002

EGRESS LEGEND

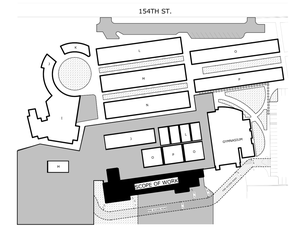
- 000' DISTANCE TO EXIT
- PATH OF EGRESS
- CUMULATIVE NUMBER OF OCCUPANTS ALONG PATH OF EGRESS
- NUMBER OF OCCUPANTS
- REQUIRED WIDTH
- EGRESS EXIT CAPACITY
- WIDTH FACTOR
- WIDTH PROVIDED
- NEW ILLUMINATED EXIT SIGN (DIRECTIONAL WHERE OCCURS)
- ROOM NAME
- FLOOR AREA (SQUARE FEET)
- ROOM NUMBER
- OCCUPANT CAPACITY
- OCCUPANT LOAD FACTOR
- NUMBER OF OCCUPANTS

NOTE:
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KEYMAP



3/27/2025 5:21:39 PM \\stn-ap\projects\LESD_22029.01_Rogers MS_2-Story Classroom Bldg\03_Drawings\00_DiP\Base\22029 LESD ROGERS MS_CONSTRUCTION BIDDING.rvt

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD GRABER
C-25861
EXP: 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

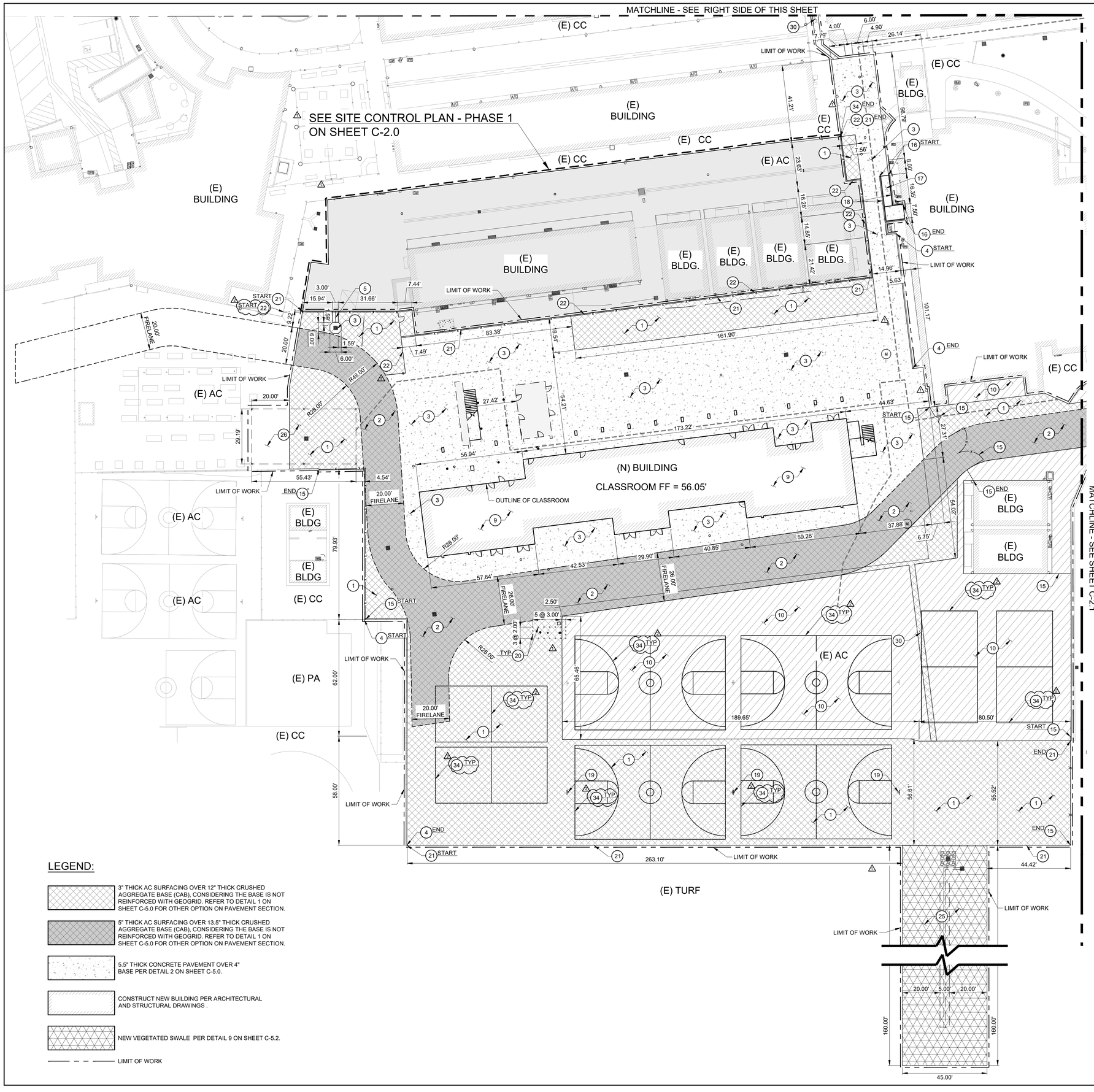
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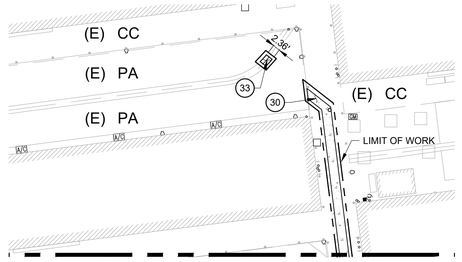
No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: JG
ENGINEER:

SHEET DESCRIPTION:
BUILDING EGRESS AND SIGNAGE - SECOND FLOOR PLAN

SHEET NO:
G102





CONSTRUCTION NOTES:

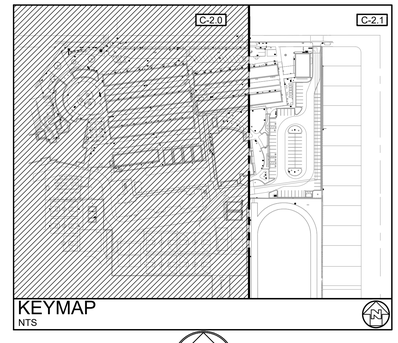
1. 3" THICK AC SURFACING OVER 12" THICK CRUSHED AGGREGATE BASE (CAB), CONSIDERING THE BASE IS NOT REINFORCED WITH GEOGRID. REFER TO DETAIL 1 ON SHEET C-5.0 FOR OTHER OPTION ON PAVEMENT SECTION.
2. 5" THICK AC SURFACING OVER 13.5" THICK CRUSHED AGGREGATE BASE (CAB), CONSIDERING THE BASE IS NOT REINFORCED WITH GEOGRID. REFER TO DETAIL 1 ON SHEET C-5.0 FOR OTHER OPTION ON PAVEMENT SECTION.
3. 5.5" THICK CONCRETE PAVEMENT OVER 4" BASE PER DETAIL 2 ON SHEET C-5.0.
4. CONSTRUCT CONCRETE CURB PER DETAIL 5 ON SHEET C-5.0.
5. CONSTRUCT CONCRETE V-GUTTER PER DETAIL 7 ON SHEET C-5.0.
9. CONSTRUCT NEW BUILDING PER ARCHITECTURAL AND STRUCTURAL DRAWINGS.
10. APPLY SLURRY COAT OVER EXISTING ASPHALT PAVEMENT PER SPECIFICATION.
15. INSTALL FENCE AND GATE PER DETAIL 10, 11, AND 15 ON SHEET A007.
16. CONSTRUCT CONCRETE GRAVITY WALL DETAIL 6 ON SHEET C-5.0.
17. CONSTRUCT NEW ACCESSIBLE CONCRETE RAMP PER DETAIL 1 ON SHEET C-5.1.
18. INSTALL RAMP HANDRAIL PER DETAIL 2 ON SHEET A006.
19. CONSTRUCT BASKETBALL HOOP POST PER DETAIL 7 AND 11 ON SHEET A008.
20. INSTALL DETERRENT BOLLARD PER DETAIL 7 ON SHEET C-5.2.
21. INSTALL AC PAVEMENT EDGING/REDWOOD HEADER PER DETAIL 6 ON SHEET C-5.2.
22. CONSTRUCT NEW CHAIN LINK FENCE AND GATE PER ARCHITECTURAL DRAWING.
23. NOT USED.
24. NOT USED.
25. NEW VEGETATED SWALE PER DETAIL 9 ON SHEET C-5.2.
26. NEW SOLAR SHADE STRUCTURE PER DETAIL 11 ON SHEET A005.
30. CONSTRUCT NEW PAVEMENT TO MATCH EXISTING PAVEMENT PER TRENCH SECTION DETAIL 1 ON SHEET C-5.2.
33. CONSTRUCT NEW CONCRETE V-GUTTER TO MATCH EXISTING CONCRETE GUTTER
34. INSTALL NEW STRIPING PLAYGROUND COURTS PER DETAIL 1 AND 3 ON SHEET A008

SHEET NOTES:

1. FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS, SEE SHEET C-1.0.
2. REFER TO ARCHITECTURAL DRAWINGS FOR OTHER SITE DIMENSIONS AND IMPROVEMENTS NOT SHOWN ON THIS DRAWING.
3. CONTRACTOR SHALL PROVIDE TEMPORARY STORMWATER BYPASS BETWEEN PHASE 1 AND PHASE 2.

LEGEND:

- 3" THICK AC SURFACING OVER 12" THICK CRUSHED AGGREGATE BASE (CAB), CONSIDERING THE BASE IS NOT REINFORCED WITH GEOGRID. REFER TO DETAIL 1 ON SHEET C-5.0 FOR OTHER OPTION ON PAVEMENT SECTION.
- 5" THICK AC SURFACING OVER 13.5" THICK CRUSHED AGGREGATE BASE (CAB), CONSIDERING THE BASE IS NOT REINFORCED WITH GEOGRID. REFER TO DETAIL 1 ON SHEET C-5.0 FOR OTHER OPTION ON PAVEMENT SECTION.
- 5.5" THICK CONCRETE PAVEMENT OVER 4" BASE PER DETAIL 2 ON SHEET C-5.0.
- CONSTRUCT NEW BUILDING PER ARCHITECTURAL AND STRUCTURAL DRAWINGS .
- NEW VEGETATED SWALE PER DETAIL 9 ON SHEET C-5.2.
- LIMIT OF WORK



SITE CONTROL PLAN - PHASE 1

GRAPHIC SCALE
20 10 0 20 40
SCALE: 1" = 20'

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR # 100
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CONSULTANT:

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REGISTERED PROFESSIONAL ENGINEER
VIRGILIO C. PARAS
No. C36079
Exp. 6/30/26
CIVIL
STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL

4110 W 154TH ST.
LAWNDALE CA 90260

No.	Rev. Date	Description
1	2025-03-20	ADDENDUM 1
2	2025-03-28	ADDENDUM 2

JOB NO: 22029.01

DATE:

DRAWN:

CHECK: Checker

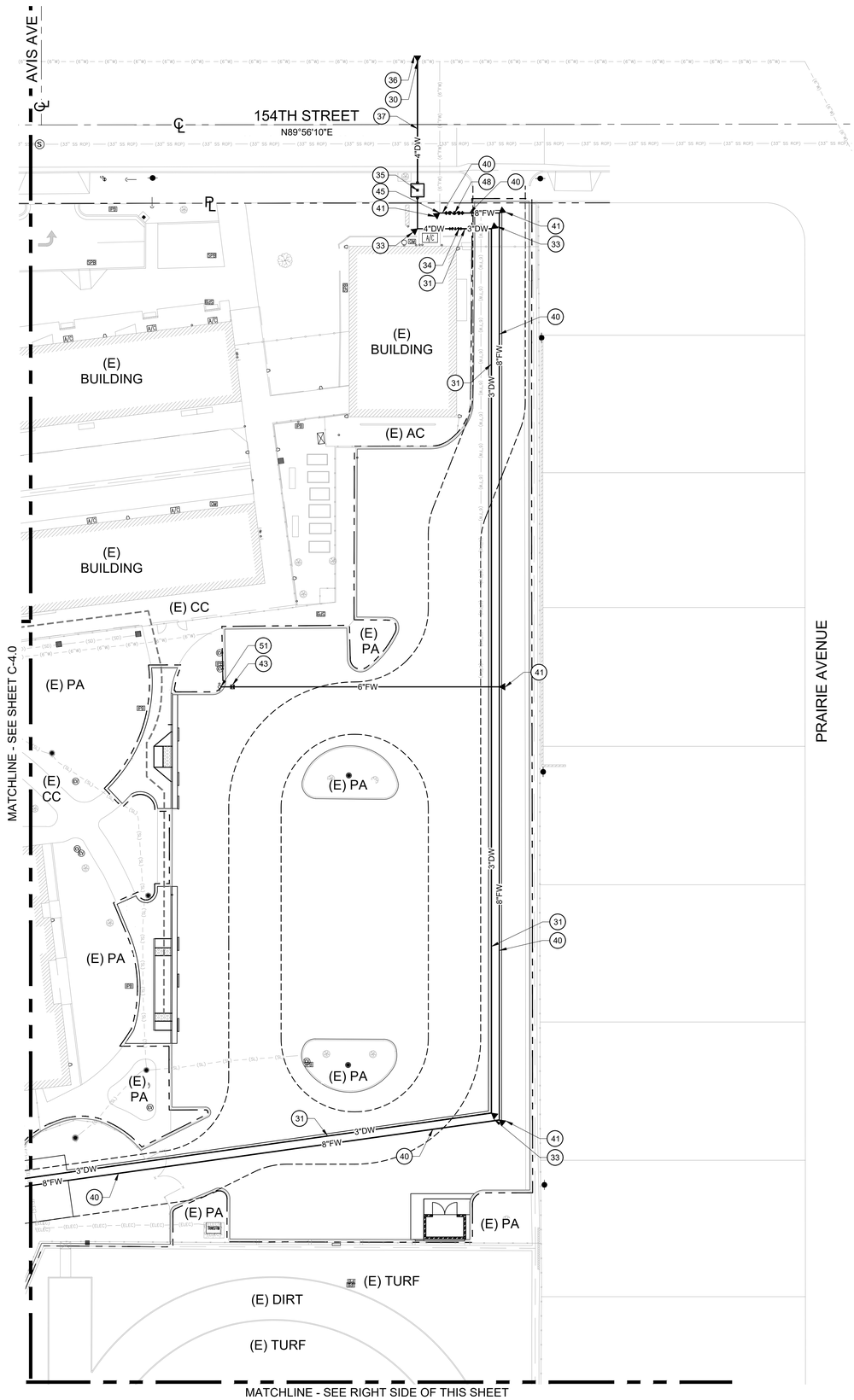
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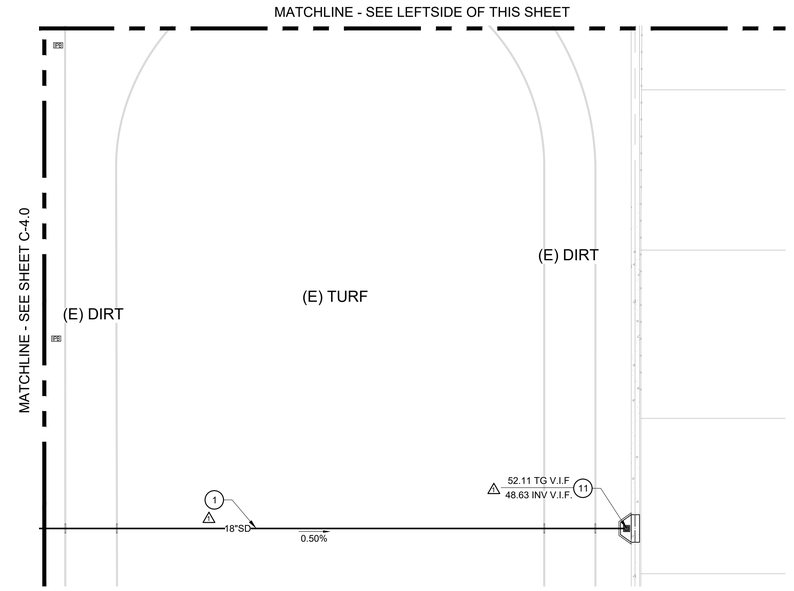
ENGINEER:

SHEET DESCRIPTION:
SITE CONTROL PLAN - PHASE 1

SHEET NO:

C-2.0





STORM DRAIN:

- (1) INSTALL PVC SDR-35 STORM DRAIN LINE, SEE PLAN FOR SIZES. FOR TRENCH SECTION REFER TO DETAIL 1 ON SHEET C-5.2.
- (11) INSTALL 24"X24" BUBBLER CATCH BASIN PER DETAIL 10 ON SHEET C-5.2.

DOMESTIC WATER:

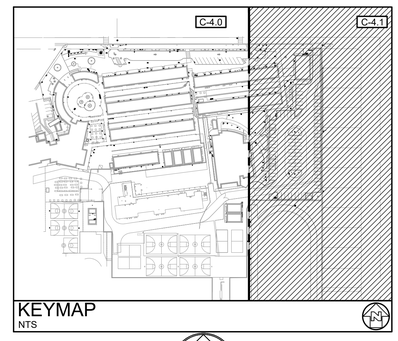
- (30) CONNECT TO EXISTING WATER MAIN. VERIFY IN FIELD EXACT LOCATION AND COORDINATE WITH WATER PURVEYOR FOR CONNECTION AND OTHER REQUIREMENTS PRIOR TO INSTALLATION.
- (31) INSTALL DR7 HDPE DOMESTIC WATER LINE PER DETAIL 1 ON SHEET C-5.2. SEE PLAN FOR SIZES.
- (33) INSTALL CONCRETE THRUST BLOCK AND TIES FOR WATERLINE PER DETAIL 6 ON SHEET C-5.1.
- (34) INSTALL REDUCED PRESSURE ASSEMBLY PER DETAIL 3 ON SHEETC-5.3.
- (35) INSTALL NEW WATER METER PER GSWC STANDARD DWG NO. P-30, SEE DETAIL 1 ON SHEET C-5.3. CONTRACTOR TO COORDINATE WITH THE WATER PURVEYOR AND PULL ALL NECESSARY PERMITS.
- (36) INSTALL CONCRETE THRUST BLOCK PER GSWC STANDARD DWG NO. P-18.
- (37) CONSTRUCT NEW 4" WATER LATERAL. COORDINATE WITH WATER PURVEYOR FOR PIPE MATERIAL AND REQUIREMENTS PRIOR TO INSTALLATION. REFER TO APPROVED WATER CONNECTION PLAN.

FIRE WATER:

- (40) INSTALL AWWA C900 FIRE WATER LINE PER DETAIL 1 ON SHEET C-5.2. SEE PLAN FOR SIZES.
- (41) INSTALL CONCRETE THRUST BLOCK AND TIES FOR WATERLINE PER DETAIL 6 ON SHEET C-5.1.
- (43) INSTALL NEW GATE VALVE PER DETAIL 3 ON SHEET C-5.2.
- (45) CONNECT TO EXISTING PUBLIC WATER LATERAL. VERIFY IN FIELD EXACT LOCATION AND COORDINATE WITH WATER PURVEYOR FOR CONNECTION AND OTHER REQUIREMENTS PRIOR TO INSTALLATION REFER TO APPROVED WATER CONNECTION PLAN.
- (48) INSTALL DOUBLE CHECK VALVE DETECTOR ASSEMBLY PER DETAIL 8 ON SHEET C-5.2.
- (51) CONNECT TO EXISTING FIRE HYDRANT.

SHEET NOTES:

1. FOR GENERAL NOTES, LEGENDS AND ABBREVIATIONS, SEE SHEET C-1.0.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SURFACE AND/OR UNDERGROUND UTILITIES IN CONFLICT WITH THE PROPOSED DEMOLITION AND DESIGN ITEMS. CONTRACTOR SHALL REPORT ANY DISCREPANCIES AND/OR CONSTRUCTION RELATED ISSUES TO THE OWNER OR DESIGN TEAM PRIOR TO THE COMMENCEMENT OF WORK.
3. HAND DIG ONLY AT LOCATIONS WHERE UNDERGROUND UTILITIES NEED TO BE PROTECTED IN PLACE.
4. REFER UTILITY POINT OF CONNECTIONS TO BUILDING PER PLUMBING DRAWINGS.
5. TRENCH DETAIL FOR OFFSITE LATERAL SERVICE CONNECTION TO WATER MAIN IS PER GSWC STANDARD DWG NO. P-3, P-4 & P-4B , AND PER APPROVED WATER IMPROVEMENT PLAN.
6. FOR PIPES THAT RUN PARALLEL WITH FOOTINGS, CONCRETE ENCASEMENT IS REQUIRED WHERE THE FOOTING'S INFLUENCE LINE GOES ABOVE THE PIPE PER CBC 1809.14.



SITE UTILITY PLAN - PHASE 1

20 10 0 20 40

GRAPHIC SCALE

SCALE: 1" = 20'

STATE:

ARCHITECT:

architecture
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IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

CONSULTANT:

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REGISTERED PROFESSIONAL ENGINEER
VIRGILIO C. ABELEN
No. C36079
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STATE OF CALIFORNIA

PROJECT NAME:

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4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

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LAWNDALE CA 90260

No.	Rev. Date	Description
1	2025-03-19	ADDENDUM 1
2	2025-03-28	ADDENDUM 2

JOB NO: 22029.01

DATE:

DRAWN:

CHECK: Checker

ARCHITECT: PDW

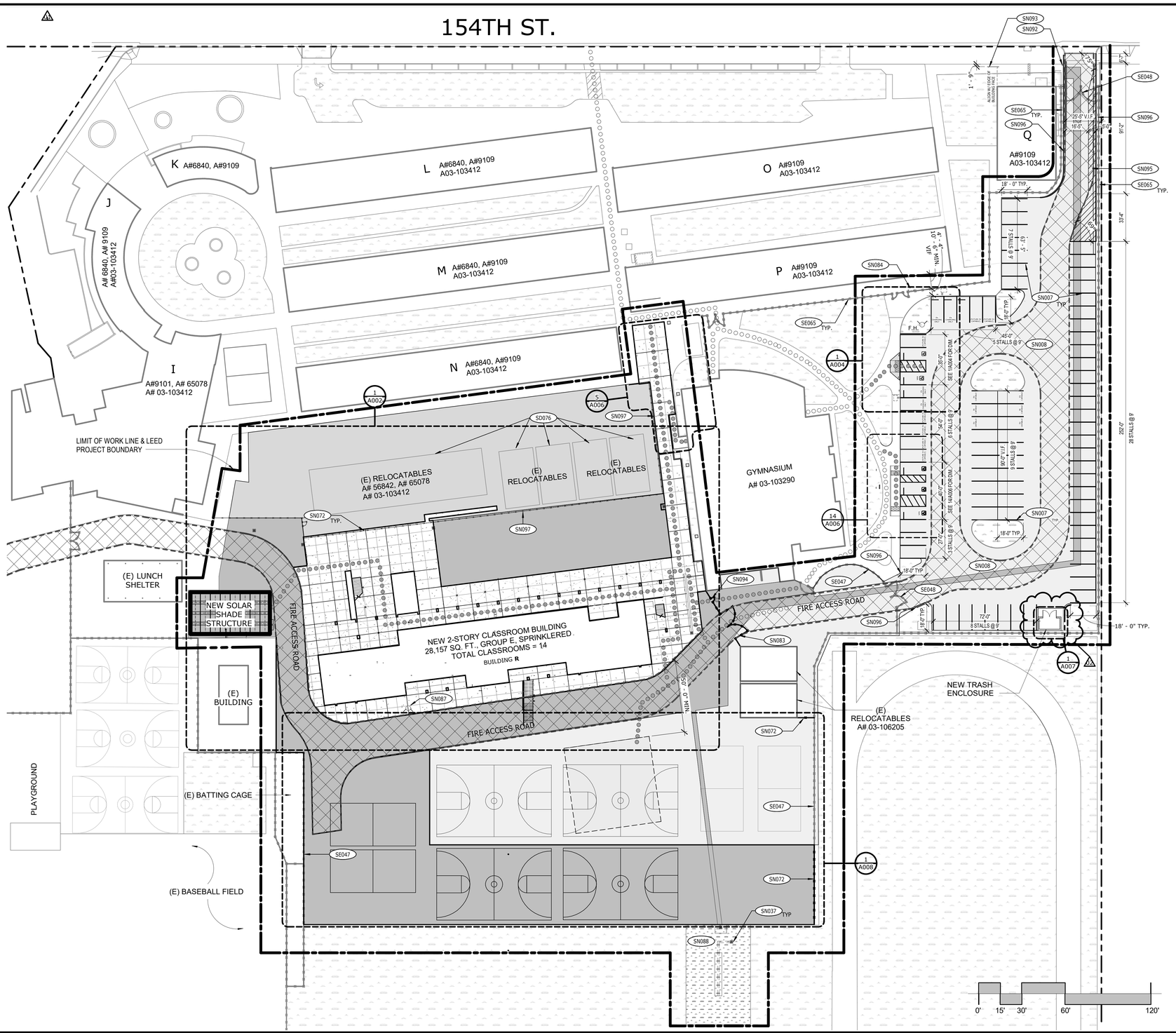
ENGINEER:

SHEET DESCRIPTION:

SITE UTILITY PLAN - PHASE 1

SHEET NO:

C-4.1



OVERALL SITE PLAN 1" = 30'-0" 1

SD076	CONTRACTOR TO REMOVE (E) RELOCATABLES IMMEDIETLY AFTER CONSTRUCTION CLOSE OUT AND CERTIFICATION OF THE CLASSROOM BUILDING. GRIND EXISTING AND PROVIDE NEW ASPHALT TOP COAT.
SE047	(E) CHAINLINK FENCE, POSTS AND FOOTING TO REMAIN. PROTECT IN PLACE
SE048	(E) GATE/FENCES POSTS TO BE PROTECTED IN PLACE.
SE065	(E) FENCING TO REMAIN. PROTECT IN PLACE
SN007	PAINT STANDARD STALL PARKING LOT STRIPING. SEE DETAIL 9/A004
SN008	APPLY SLURRY COAT OVER (E) A.C. PAVING FOR THE ENTIRE PARKING LOT. TYP.
SN037	PROVIDE GRATE FLUSH W/ GRADE. GRATE SHALL BE INSTALLED SO ELONGATED OPENINGS IN SURFACE ARE PLACED PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL. REFER TO C-2.0 AND C-2.1 FOR MORE INFO.
SN072	PROVIDE CHAINLINK FENCE PER DETAIL 11/A007. BOTTOM RAIL TO BE REINSTALLED TO ACCOMODATE (N) CONC CURB AS OCCURS. SEE CIVL FOR MORE INFO. ALL FENCING IS TEMPORRARY AND IS TO BE RELOCATED DUEING CONSTRUCTION TO PREVENT TRIPPING HAZRDS.
SN083	PROVIDE 6' CHAIN LINK FENCE WITH VEHICLE ACCESS GATE. SEE DETAIL 10,11/A007.
SN084	PROVIDE 30"X48" MIN REFUGE AREA.
SN087	ALL FIRE HYDRANTS SHALL MEASURE 6" X 4" X 2-1/2", BRASS OR BRONZE, CONFORMING TO AMERICAN WATER WORKS ASSOCIATION STANDARD C503, OR APPROVED EQUAL AND FH SHALL PROVIDE 1,750 GPM @ 20 PSI.
SN088	NEW VEGETATED SWALVE PER C-2.0
SN092	(N) TOW AWAY SIGNAGE PER 11/A004
SN093	(N) PROJECT IDENTIFICATION SIGNAGE PER 16/A004
SN094	PROVIDE AN ACCESSIBLE CHAINLINK GATE PER 15/A007.
SN095	RESTRIPE NO PARKING ZONE PER EXISTING CONDITION. SEE DETAIL 10/A004.
SN096	RE-PAINT CURBS SEE 17/A003. RE-PAINT PER THE EXISTING CONDIIONS.
SN097	PROVIDE TEMPORARY CONSTRUCTION FENCE TO BE LOCATED BY THE CONTRACTOR.

KEYNOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. ALL ITEMS SHOWN OR NOTED ARE NEW, UNLESS INDICATED OTHERWISE.
3. SEE SHEET ***F001*** FOR FIRE ACCESS PLAN AND CODE ANALYSIS
4. PROTECT AND SAFEGUARD FROM DAMAGE ALL EXISTING FINISHES AND WORK TO REMAIN.
5. PROVIDE TEMPORARY 8' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES AS DICTATED BY THE PHASING SCHEDULE.
6. WHERE REMOVAL OF CONCRETE WALKS, MOWSTRIPS, CURBS AND GUTTERS IS REQUIRED TO INSTALL UNDERGROUND UTILITIES, REMOVE THE CONCRETE WORK TO THE NEAREST EXISTING EXPANSION OR CONTROL JOINT (SAWCUT IF REQUIRED). MOWSTRIPS, 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.
7. COORDINATE THE REMOVAL, RELOCATION OR MODIFICATION OF EXISTING IRRIGATION LINES WITH THE DISTRICT PRIOR TO ANY TRENCHING, CLEARING AND GRUBBING, OR OTHER SITE EXCAVATIONS REQUIRED FOR NEW CONSTRUCTION.
8. RUN-OFF FROM PETROLEUM PRODUCTS, LIME AND MORTAR, SOIL STERILANTS, AND THE WASHING OF EQUIPMENT USED TO APPLY THESE MATERIALS, IS PROHIBITED WITHIN PLANTED AREAS.
9. 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 TWICE A WEEK. TURF SHALL BE MOWED AT LEAST ONCE EVERY TWO WEEKS.
10. FOR SITE REPAIR WORK NOT SHOWN ON ARCHITECTURAL PLANS, SEE CIVIL, LANDSCAPE, ELECTRICAL, PLUMBING AND MECHANICAL SITE PLANS.
11. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED, DECLINING IN HEALTH, SUFFERING DIEBACK, THAT HAVE LOST FORM AND SIZE, OR THAT DIE DURING THE CONSTRUCTION PERIOD, WITH THE SAME SPECIE OF EQUAL OR GREATER SIZE.
12. REPAIR ASPHALT PARKING LOTS, SPEED BUMPS AND PAINTED CROSSWALKS DAMAGED BY THE EXECUTION OF THIS CONTRACT TO ORIGINAL OR BETTER CONDITION. REPAINT CROSSWALKS AND SPEED BUMP STRIPING THEIR FULL LENGTHS ACROSS ROADWAYS.
13. PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUTS IN PLANTED AREAS.
14. MAXIMUM SLOPE ON NON-RAMPED CONCRETE IS 5% IN THE DIRECTION OF TRAVEL AND 2% CROSS-SLOPE.
15. PROVIDE IRRIGATION SLEEVES UNDER HARDSCAPE AT "PLANTED AREAS" (WITHIN PROJECT LIMITS) - COORDINATE WITH DISTRICT.
16. TREES, SHRUBS, TURF, AND IRRIGATION ARE BY THE DISTRICT. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL COORDINATE PLANTING AND IRRIGATION WITH DISTRICT.
17. FOR WATER SERVICE DURING CONSTRUCTION, CONTRACTOR SHALL OBTAIN TEMPORARY WATER METER FROM THE CITY FOR CONNECTION TO EXIST. FIRE HYDRANT.
18. ALL UNCERTIFIED (E) P.O.T. IN THE PROJECT SCOPE SHALL NOT EXCEED 5% MAXIMUM RUNNING SLOPE AND 2% MAXIMUM CROSS SLOPE UNLESS OTHERWISE NOTED. MAXIMUM SLOPE SHALL NOT EXCEED 2% IN ALL DIRECTIONS WHERE P.O.T. TRAFFIC FLOW IS MULTIDIRECTIONAL , AT CHANGE OF DIRECTIONS, OR IN ANY ACCESSIBLE SPACE OR AREA WITH SLOPES TO DRAINS OR CATCH BASINS, ETC. CONTRACTOR IS TO VERIFY P.O.T. SHOWN IS IN COMPLIANCE, SEE NOTE 19 BELOW.
19. ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED, WILL BE REMOVED, OR MODIFIED TO COMPLY WITH CBC SECTION 11B-402 UNDER THIS PROJECT. CONTRACTOR TO NOTIFY ARCHITECT IF ANY BARRIERS ARE DISCOVERED PRIOR TO PROCEEDING WITH WORK.
20. PATH OF TRAVEL (P.O.T.)AS INDICATED IS A BARRIER FREE ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEEDS 1/4" VERTICAL AND IS AT LEAST 48" WIDE . SURFACE IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. CROSS-SLOPE DOES NOT EXCEEDS 2% OR SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED (11B-403.3). (POT) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (11B-307.4) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80" (11B-307.2) ARCHITECT TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC 11B-206.
21. GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN WAY IN THE PATH OF TRAVEL, GRID/OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM CLEAR IN THE DIRECTION OF TRAFFIC FLOW. IF SUCH CONDITION OCCURS, PROVIDE MANUFACTURERS CUT-SHEETS REVIEW.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE POT IDENTIFIED 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 CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH 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."

GENERAL NOTES

- EARTH/LANDSCAPE
- EXISTING BUILDING(S) NOT PART OF THIS CONRACT
- NEW BUILDINGS
- NEW ASPHALT REFER TO 15/A002, C-2.0, 1/C-5.0
- NEW ASPHALT REFER TO 15/A002, C-2.0, 1/C-5.0 TO BE INCORPORATED AFTER SUBSTANTIAL COMPELETION OF THE PROJECT
- (N) CONCRETE PAVING SEE 16,12,8/A002
- (N) GRASS
- LIMIT OF WORK
- PROPERTY LINE
- FIRE LANE
- FIRE ACCESS ROAD
- SAFETY DISPERSAL AREA
- PROVIDE NEW SLURRY COAT O/ ALL REMAINING (E)PAVING
- NEW AND EXISTING BUILDING LOCATOR
- EGRESS LIGHTING. SEE 1/A003, 5/A005 FOR DIMENSSIONS AND E101 AND 5/E502 FOR MORE INFORMATION
- PATH OF TRAVEL
- EXISTING PATH OF TRAVEL: A03-103412, A03-106205

SITE RENOVATION LEGEND

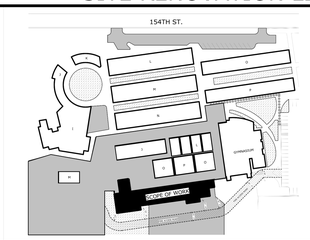
PARKING LOT 'P'

STANDARD STALLS:	64
VAN ACCESSIBLE STALLS (11B-208.2.4):	01
STANDARD ACCESSIBLE STALLS (TABLE 11B-208.2):	03
ACCESSIBLE EV CHARGING STATIONS (CG TABLE 5.106.5.3.1 & CBC TABLE 11B-228.3.2.1):	01
STANDARD EV CHARGING STATIONS (CG TABLE 5.106.5.3.1 & CBC TABLE 11B-228.3.2.1):	03
EV CAPABLE STALLS (CG TABLE 5.106.5.3.1):	13
TOTAL:	81

REQUIRED EV CHARGING STATIONS PER CALGREEN CODE TABLE 5.106.5.3.3
- TOTAL NUMBER OF PARKING SPACES IS 76-100 = 4 REQUIRED EV CHARGING SPACES.
REQUIRED ACCESSIBLE EV CHARGING STATIONS PER CBC TABLE 11B-228.3.2.1
- TOTAL NUMBER OF EV CHARGING STATIONS IS 1-5 = 1 VAN ACCESSIBLE

REQUIRED BICYCLE PARKING - PER CAL GREEN CODE SECTION 5.106.4.2
- STUDENT BICYCLE PARKING = 8 BIKE CAPACITY RACK PER NEW BUILDING
- STAFF BICYCLE PARKING = 2 PERMANENT, SECURE STAFF BIKE RACKS PER NEW BUILDING

PARKING TABULATION



KEY MAP

STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD DEMER
C-25861
EXP: 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

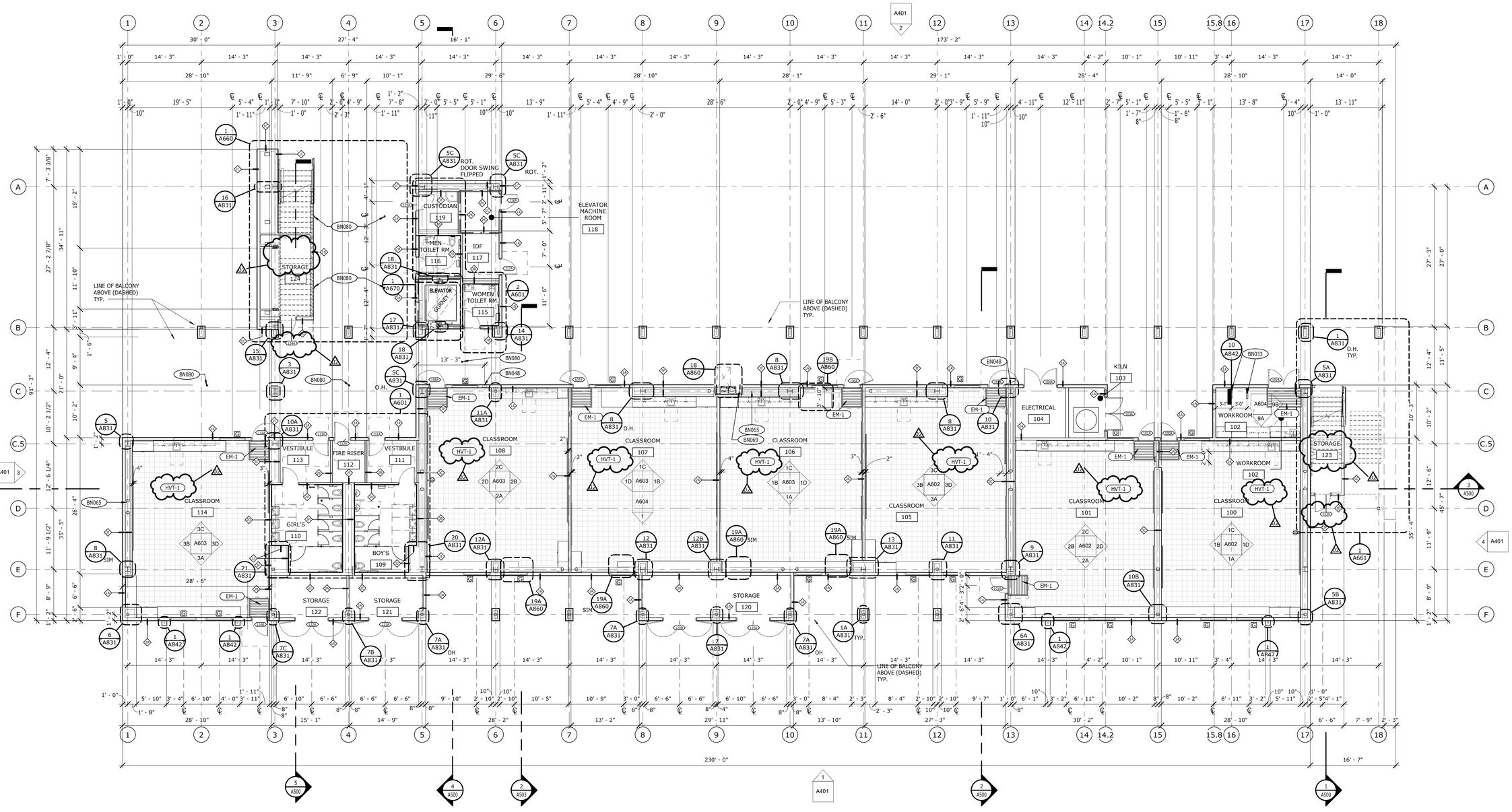
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MN
CHECK: Checker
ARCHITECT: JG
ENGINEER:

SHEET DESCRIPTION:
OVERALL SITE PLAN

SHEET NO:
A001



FIRST FLOOR PLAN

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

FLOOR PLAN GENERAL NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. STRUCTURAL COLUMNS ARE SHOWN FOR REFERENCE ONLY. FOR ACTUAL SIZE AND ORIENTATION, SEE STRUCTURAL DRAWINGS
3. ALL GYPSUM BOARD SHALL BE 5/8" THICK TYPE "X" (U.N.O.).
4. SEE ROOM & COLOR SCHEDULES A700 & A720 FOR FINISHES
5. PROVIDE FIRE-RESISTANT SEALANT MATERIAL AT ALL PENETRATIONS THROUGH FIRE WALLS, FIRE BARRIERS, CORRIDOR WALLS AND RATED HORIZONTAL ASSEMBLIES.
6. PROVIDE SOLID BACKING INSIDE WALLS FOR THE SUPPORT OF CASEWORK, MARKER BOARDS, LIGHT FIXTURES, AND MISC. ELEC. AND MECH. EQUIPMENT AS OCCURS, SEE STRUCTURAL DETAILS. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, INSTALLATION SHALL BE SUBJECT TO APPROVAL OF THE DSA OR FIELD INSPECTOR.
7. ALL DIMENSIONS TO EXTERIOR WALLS ARE TO FACE OF STUD U.N.O.
8. FOR ADDITIONAL ROOM SIGNAGE NOT SHOWN, SEE SHEETS G002 AND G003.
9. SEE REFLECTED CEILING PLANS ON A200 SHEETS FOR CEILING HEIGHTS AND FINISHES.
10. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL CABINET DIMENSIONS.
11. MILL WORK SUPPLIER SHALL ISSUE A WOODWORK INSTITUTE CERTIFIED COMPLIANCE CERTIFICATE WITH SHOP DRAWINGS AND STAMP ON EACH UNIT.
12. ALL CABINET LOCKS SHALL BE KEYED TO MATCH THE ROOM ENTRY DOOR.
13. FOR TYPICAL DIMENSIONS AND MOUNTING HEIGHTS OF ACCESSIBLE FIXTURES, ACCESSORIES, AND TYPICAL ACCESSIBILITY REQUIREMENTS SEE ACCESSORY MOUNTING LEGEND ON G002, A601, A671 & A860 SHEETS.
14. PROVIDE SOLID BACKING PER STRUCTURAL DETAILS INSIDE WALLS AS REQUIRED FOR THE SUPPORT OF CASEWORK, MARKER BOARDS, DISTRICT INSTALLED WINDOW COVERINGS, LIGHT FIXTURES, AND MISC. ELEC. AND MECH. EQUIPMENT AS OCCURS.
15. FLOOR AREA(S) WITH DRAIN(S) SHALL HAVE 2% MAX. SLOPE IN ALL DIRECTIONS.
16. FLOOR DRAIN(S) SHALL HAVE 1/2" MAX. STRAINER OPENINGS IN ALL DIRECTIONS.
17. ALL DIMENSIONS FOR ACCESS COMPLIANCE ARE TO FACE OF FINISH SURFACE U.N.O.
18. ALL SECOND FLOOR FINISH SURFACES ELEVATIONS ARE NOTED AS ELEVATIONS ABOVE THE FIRST FLOOR MAIN FINISH FLOOR ELEVATION OF 56.05'
19. REFER TO CIVIL GRADING PLANS FOR MORE INFORMATION.

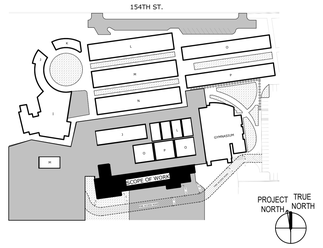
KEYNOTES

BN033	WALL-MOUNTED BIKE RACK. SEE DETAIL 10/A842.
BN048	PROVIDE SEMI RECESSED FIRE EXTINGUISHER CABINET @ 4" STUD SEE DETAIL 14/A840 AND FULLY RECESSED @ 6" STUD SEE DETAIL 2/A842. SEE SPEC SECTION 10 4400.
BN065	DIAGONAL BRACING. SEE STRUCTURAL PLANS.
BN069	SEAL AROUND BRACING PENETRATION AND PAINT TO MATCH ADJACENT SURFACE. TYPICAL AT ALL STRUCTURAL DIAGONAL BRACING PENETRATION.
BN080	PROVIDE FLOOR DRAINS. SEE 2/A002 FOR DIMENSIONS, C-3.0 FOR ELEVATIONS AND GRADING, P030 AND P101 FOR PLUMBING INFORMATION.

FLOOR PLAN LEGEND

- INTERIOR NON-RATED WALL ASSEMBLY: SEE WALL TYPE TAG ON FLOOR PLAN(S)
- COLUMN WHERE OCCURS, SEE STRUCTURAL
- INTERIOR 1 HOUR RATED WALL ASSEMBLY: RATED ASSEMBLY PER UL #U465 SEE WALL TYPE TAG ON FLOOR PLAN(S)
- WALL TYPE TAG: SEE WALL TYPES - SEE SHEET A841
- ACCESSIBLE CLEAR SPACE: 5' DIAMETER TURNING SPACE
- ACCESSIBLE WORKSTATION / CLEAR SPACE: 30" x 48" (U.N.O.)
- A — WINDOW TYPE TAG: SEE WINDOW SCHEDULE ON A700

KEYMAP



STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD DEMER
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL

NEW 2-STORY CLASSROOM BUILDING

4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL

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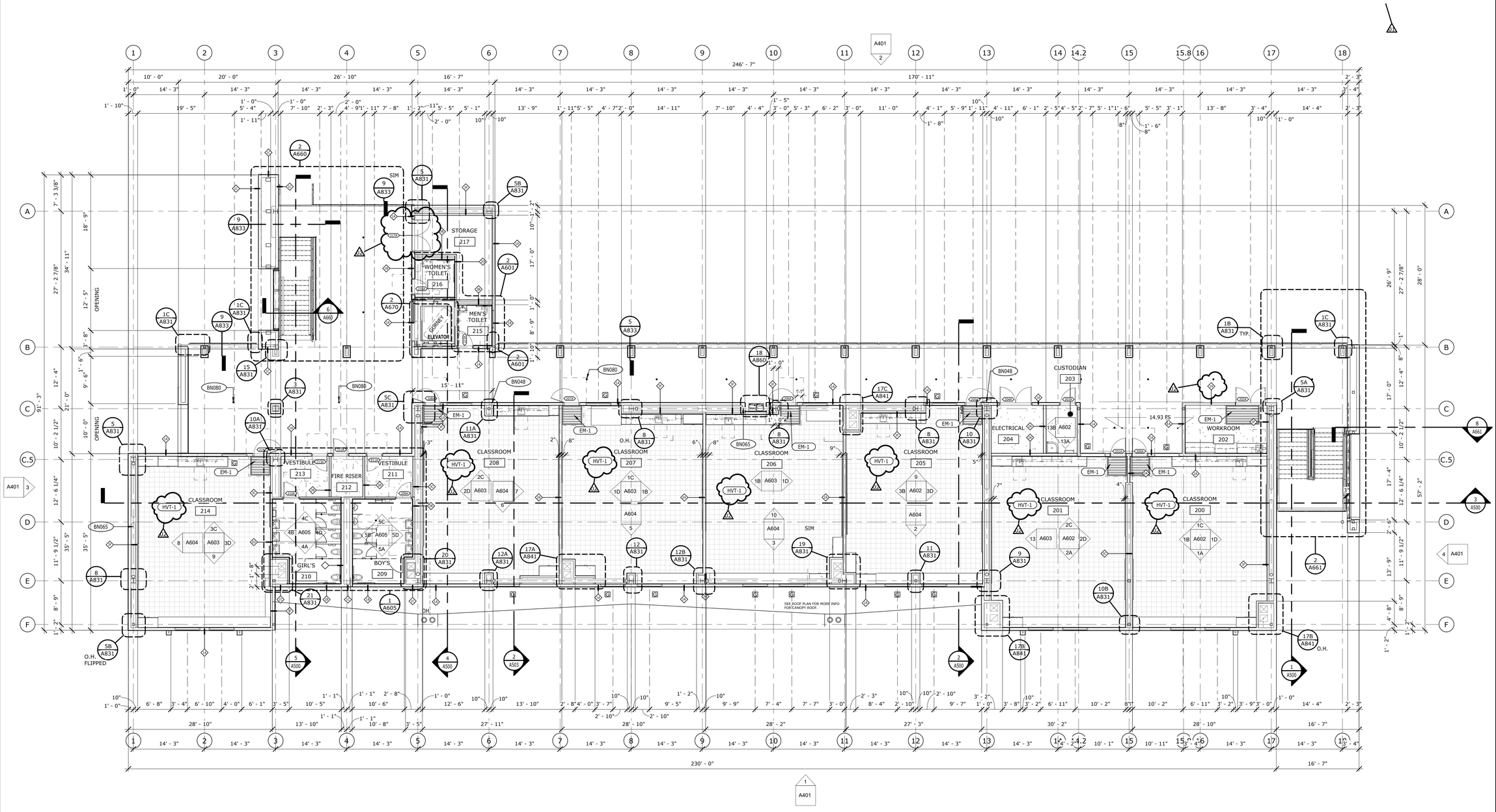
No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MG
CHECK: -
ARCHITECT: JG
ENGINEER:

SHEET DESCRIPTION:
FIRST FLOOR PLAN

SHEET NO:

A101



SECOND FLOOR PLAN

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

FLOOR PLAN GENERAL NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. STRUCTURAL COLUMNS ARE SHOWN FOR REFERENCE ONLY. FOR ACTUAL SIZE AND ORIENTATION, SEE STRUCTURAL DRAWINGS
3. ALL GYPSUM BOARD SHALL BE 5/8" THICK TYPE "X" (U.N.O.).
4. SEE ROOM & COLOR SCHEDULES A700 & A720 FOR FINISHES
5. PROVIDE FIRE-RESISTANT SEALANT MATERIAL AT ALL PENETRATIONS THROUGH FIRE WALLS, FIRE BARRIERS, CORRIDOR WALLS AND RATED HORIZONTAL ASSEMBLIES.
6. PROVIDE SOLID BACKING INSIDE WALLS FOR THE SUPPORT OF CASEWORK, MARKER BOARDS, LIGHT FIXTURES, AND MISC. ELEC. AND MECH. EQUIPMENT AS OCCURS, SEE STRUCTURAL DETAILS. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, INSTALLATION SHALL BE SUBJECT TO APPROVAL OF THE DSA OR FIELD INSPECTOR.
7. ALL DIMENSIONS TO EXTERIOR WALLS ARE TO FACE OF STUD U.N.O.
8. FOR ADDITIONAL ROOM SIGNAGE NOT SHOWN, SEE SHEETS G002 AND G003.
9. SEE REFLECTED CEILING PLANS ON A200 SHEETS FOR CEILING HEIGHTS AND FINISHES.
10. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL CABINET DIMENSIONS.
11. MILL WORK SUPPLIER SHALL ISSUE A WOODWORK INSTITUTE CERTIFIED COMPLIANCE CERTIFICATE WITH SHOP DRAWINGS AND STAMP ON EACH UNIT.
12. ALL CABINET LOCKS SHALL BE KEYED TO MATCH THE ROOM ENTRY DOOR.
13. FOR TYPICAL DIMENSIONS AND MOUNTING HEIGHTS OF ACCESSIBLE FIXTURES, ACCESSORIES, AND TYPICAL ACCESSIBILITY REQUIREMENTS SEE ACCESSORY MOUNTING LEGEND ON G002, A601, A671 & A860 SHEETS.
14. PROVIDE SOLID BACKING PER STRUCTURAL DETAILS INSIDE WALLS AS REQUIRED FOR THE SUPPORT OF CASEWORK, MARKER BOARDS, DISTRICT INSTALLED WINDOW COVERINGS, LIGHT FIXTURES, AND MISC. ELEC. AND MECH. EQUIPMENT AS OCCURS.
15. FLOOR AREA(S) WITH DRAIN(S) SHALL HAVE 2% MAX. SLOPE IN ALL DIRECTIONS.
16. FLOOR DRAIN(S) SHALL HAVE 1/2" MAX. STRAINER OPENINGS IN ALL DIRECTIONS.
17. ALL DIMENSIONS FOR ACCESS COMPLIANCE ARE TO FACE OF FINISH SURFACE U.N.O.
18. ALL SECOND FLOOR FINISH SURFACES ELEVATIONS ARE NOTED AS ELEVATIONS ABOVE THE FIRST FLOOR MAIN FINISH FLOOR ELEVATION OF 56.05'
19. REFER TO CIVIL GRADING PLANS FOR MORE INFORMATION.
20. SEE 3/A833 FOR SECOND FLOOR DRAIN AND SLAB PLAN.

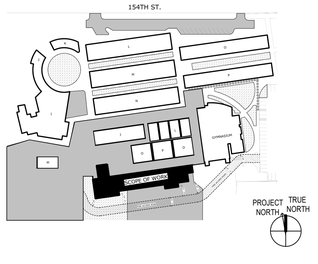
KEYNOTES

BN048	PROVIDE SEMI RECESSED FIRE EXTINGUISHER CABINET @ 4" STUD SEE DETAIL 14/A840 AND FULLY RECESSED @ 6" STUD SEE DETAIL 2/A842. SEE SPEC SECTION 10 4400.
BN065	DIAGONAL BRACING. SEE STRUCTURAL PLANS.
BN080	PROVIDE FLOOR DRAINS. SEE 2/A002 FOR DIMENSIONS, C-3.0 FOR ELEVATIONS AND GRADING, P030 AND P101 FOR PLUMBING INFORMATION.

FLOOR PLAN LEGEND

- INTERIOR NON-RATED WALL ASSEMBLY: SEE WALL TYPE TAG ON FLOOR PLAN(S)
- COLUMN WHERE OCCURS, SEE STRUCTURAL
- INTERIOR 1 HOUR RATED WALL ASSEMBLY: RATED ASSEMBLY PER UL #U465 SEE WALL TYPE TAG ON FLOOR PLAN(S)
- WALL TYPE TAG: SEE WALL TYPES - SEE SHEET A841
- ACCESSIBLE CLEAR SPACE: 5' DIAMETER TURNING SPACE
- ACCESSIBLE WORKSTATION / CLEAR SPACE: 30" x 48" (U.N.O.)
- A — WINDOW TYPE TAG: SEE WINDOW SCHEDULE ON A700

KEYMAP



NORTH

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JOHN EDWARD GRABER
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

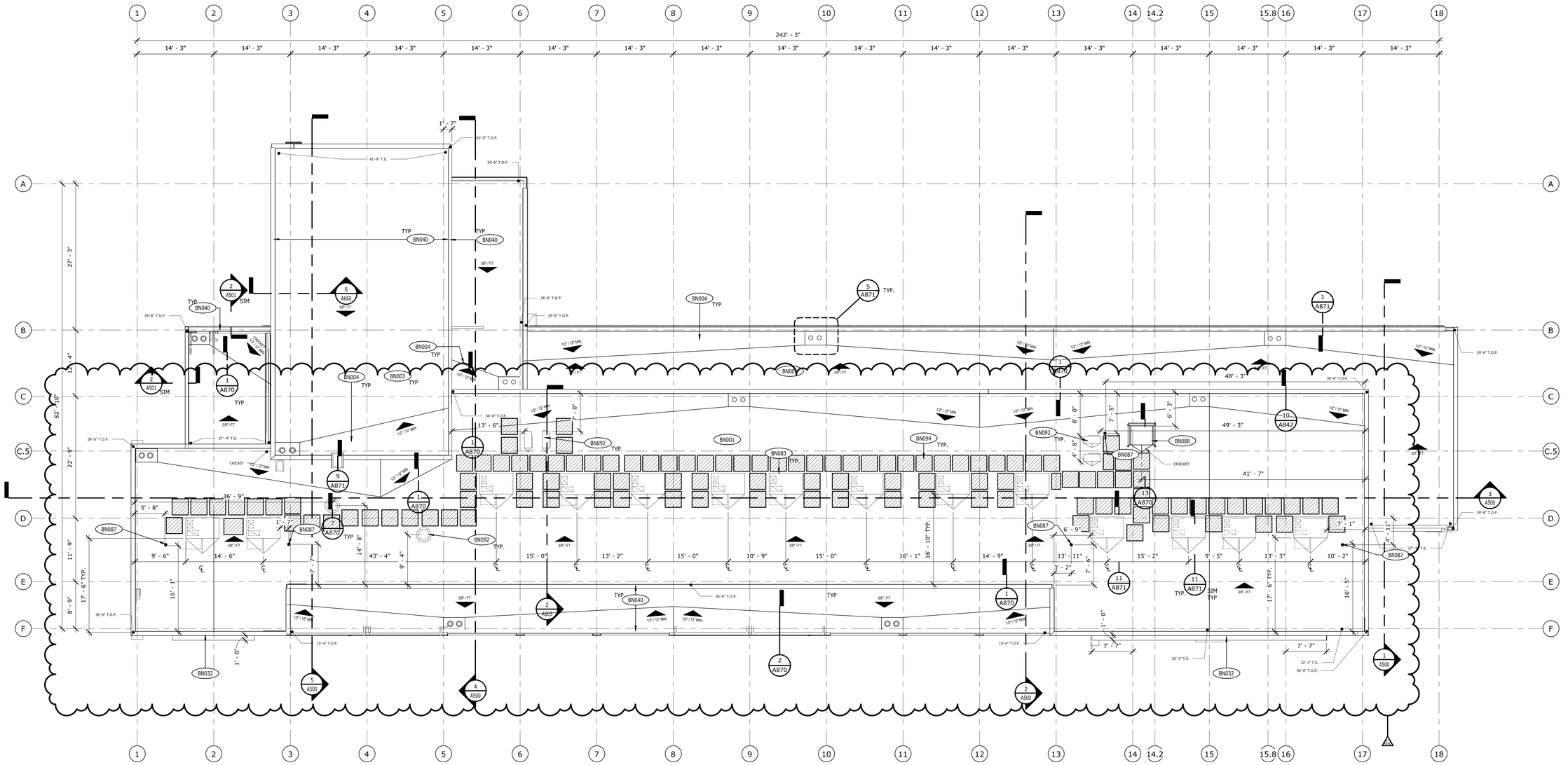
CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MG
CHECK: -
ARCHITECT: JG
ENGINEER:
SHEET DESCRIPTION: SECOND FLOOR PLAN

SHEET NO: A102



NORTH

ROOF PLAN

1/8" = 1'-0"

1

KEYNOTES

BN001	CLASS A TPO ROOFING OVER 2 1/2" LW CONCRETE OVER 2" METAL DECK OVER R-30 BATT INSULATION, SEE SPEC SECTION 07 5416. TYPICAL FOR MAIN ROOF
BN003	CLASS A TPO ROOFING OVER 1/2" GLASS-MATT ROOF BOARD OVER METAL DECK. TYPICAL FOR CANOPY ROOF
BN004	TYP. CRICKET AT CANOPY ROOF. CLASS A TPO ROOFING OVER 1/2" GLASS-MAT ROOF BOARD OVER RIGID INSULATION OVER METAL DECK.
BN032	EXTERIOR PLASTER SYSTEM PER 09 2513 OF SPECIFICATIONS
BN040	PROVIDE FINISH SHEET METAL FLASHING, COPING, OR TRIM
BN083	PROVIDE MECHANICAL UNIT PER 13/S1-13, 9/M020, AND 15/A871.
BN087	PROVIDE TIE OFFS PER DETAIL 14/A870.
BN088	PROVIDE NEW ROOF HATCH PER 9/A870.
BN092	AC UNIT SEE MECHANICAL DRAWINGS.
BN094	ROOF WALKWAY PADS PER SPECIFICATION.

ROOF PLAN LEGEND

ROOF MOUNTED HVAC EQUIPMENT - SEE MECHANICAL PLANS. SEE DETAIL ***15/A871*** FOR MOUNTING

ROOF ACCESS HATCH. SEE DETAIL ***13/A870***

ROOF MOUNTED EXHAUST OR RELIEF FAN - SEE MECHANICAL PLANS. SEE DETAIL ***7/A870*** FOR MOUNTING

ROOF DRAIN AND OVERFLOW - SEE MECHANICAL PLANS. SEE DETAIL ***5/A870*** FOR MOUNTING

INDICATES DIRECTION OF ROOF SLOPE

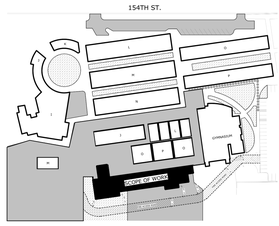
ABBREVIATIONS:
TOS - TOP OF SHEATHING, TOP - TOP OF PARAPET, TOD - TOP OF DRAIN,
DS - DOWNSPOUT, (E) - EXISTING

NOTE: REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SPECIFICATIONS ON INDIVIDUAL ITEMS

ROOF PLAN GENERAL NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. PROVIDE CRICKETS AS REQUIRED TO DIVERT WATER AROUND ROOF MOUNTED EQUIPMENT. SLOPE CRICKETS 1/2" MIN. PER FOOT.
3. ROOF-MOUNTED MECHANICAL EQUIPMENT IS SHOWN FOR REFERENCE ONLY. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
4. THE TOP OF ALL EQUIPMENT CURBS AND PADS SHALL BE LEVEL.
5. ALL ROOF ELEVATIONS ARE NOTED AS ELEVATIONS ABOVE THE FIRST FLOOR MAIN FINISH FLOOR ELEVATION OF 56.05'

KEYMAP



STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD GRABER
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

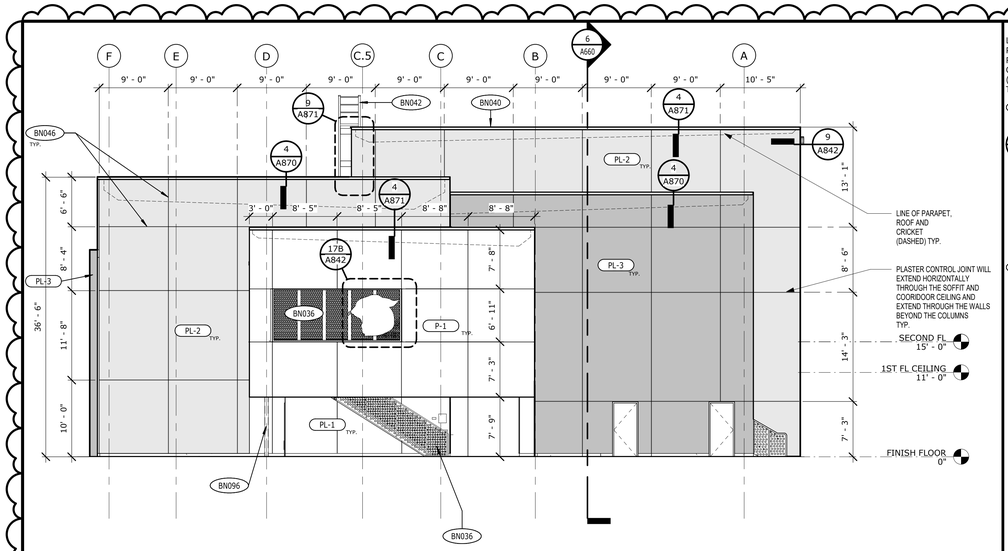
No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MG
CHECK: Checker
ARCHITECT: JG
ENGINEER:

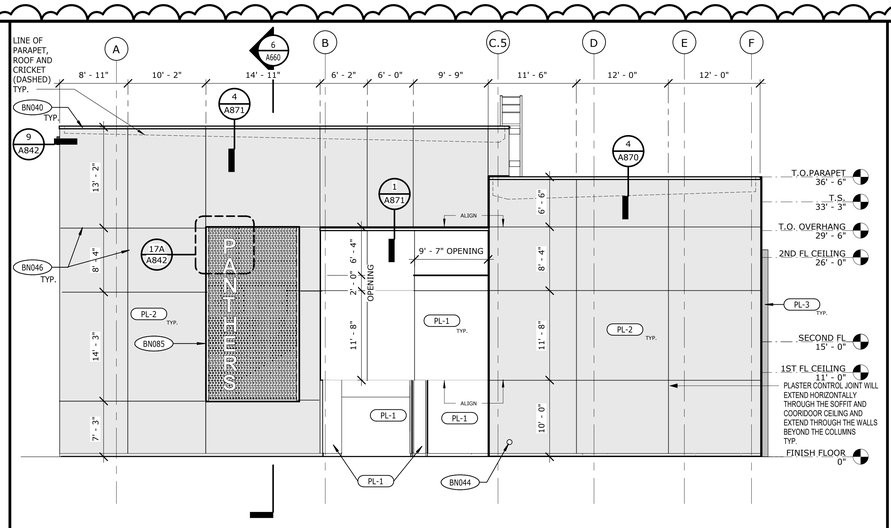
SHEET DESCRIPTION:
ROOF PLAN

SHEET NO:

A301



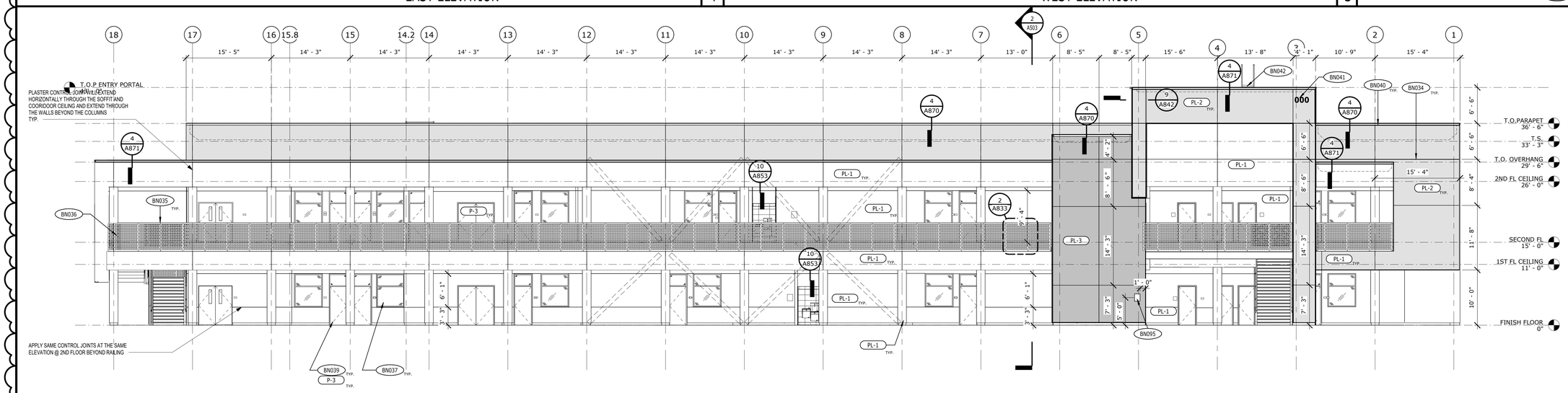
EAST ELEVATION 1/8" = 1'-0" | 4



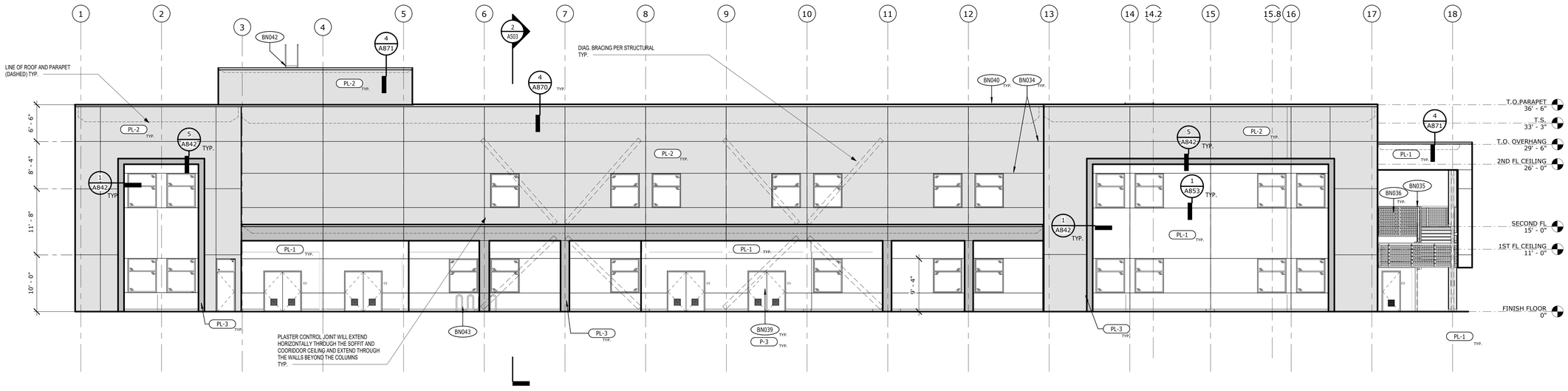
WEST ELEVATION 1/8" = 1'-0" | 3

KEYNOTES

BN034 PLASTER CONTROL JOINT. SEE 1/A853.
BN035 METAIL RAILING. SEE 2/A833.
BN036 PERFORATED METAL PANEL.
BN037 ALUMINUM WINDOWS WITH SHOP-APPLIED FINISH, SEE SPEC AND COLOR SCHEDULE.
BN039 HOLLOW METAL DOOR AND FRAME.
BN040 PRE-FINISHED SHEET METAL FLASHING, COPING OR TRIM.
BN041 ALUMNIN BUILDING LETTERING (3 LETTERS). PROVIDE ON TWO FACES OF THE BUILDING, CONFIRM BUILDING NUMBER AND LOCATION TO BE MOUNTED ON WITH THE DISTRICT. SEE 20/A842.
BN042 HIGH PARAPET ACCESS LADDER.
BN043 FLOOR MOUNTED BIKE RACK. SEE DETAIL 15/A004.
BN044 OVERFLOW OUTLET. SEE 7/A841.
BN046 PLASTER CONTROL JOINT. SEE 1/A853.
BN085 OPENING PER 5/S1-4.
BN095 PROVIDE A 12"x16" BRONZE PLAQUE. LETTERING TO BE DETERMINED BY THE DISTRICT.
BN096 EXPOSED COLUMN PROVIDED BY STRUCTURAL SEE S2-1. PAINT WITH HIGH PERFORMANCE COATING.



NORTH ELEVATION 1/8" = 1'-0" | 2



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

STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT JON EDWARD DEMER C-25861 EXP. 5-2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

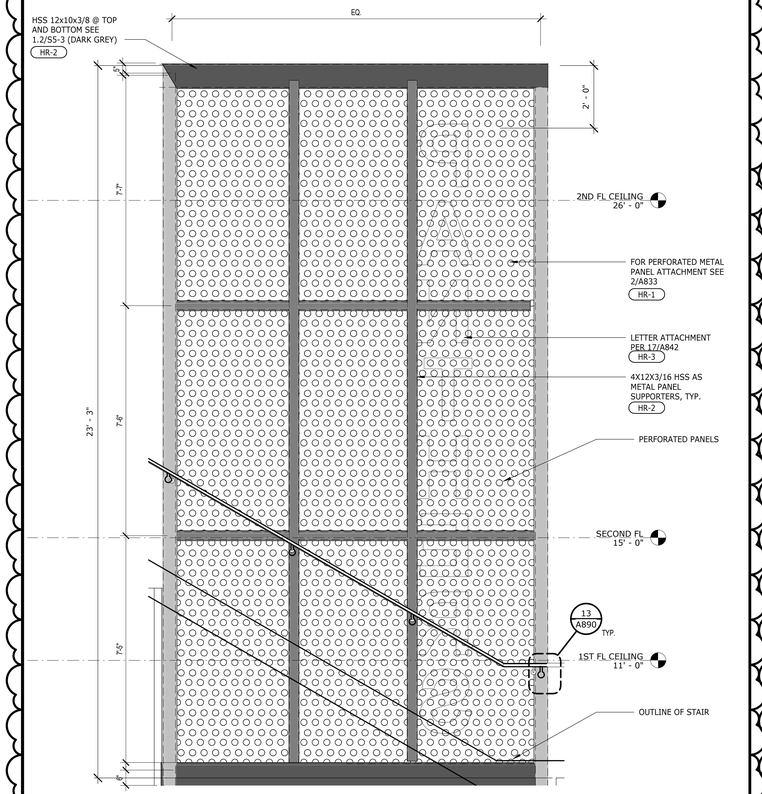
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4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

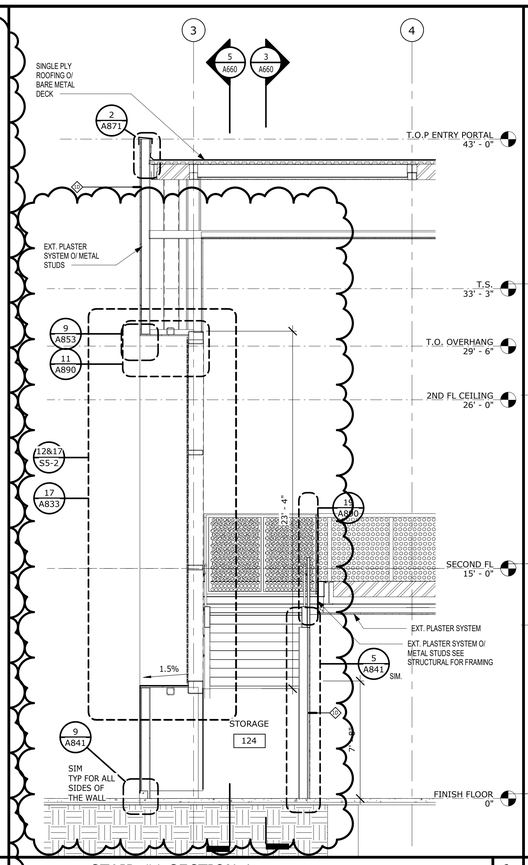
No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: JG
ENGINEER:
SHEET DESCRIPTION: EXTERIOR ELEVATION

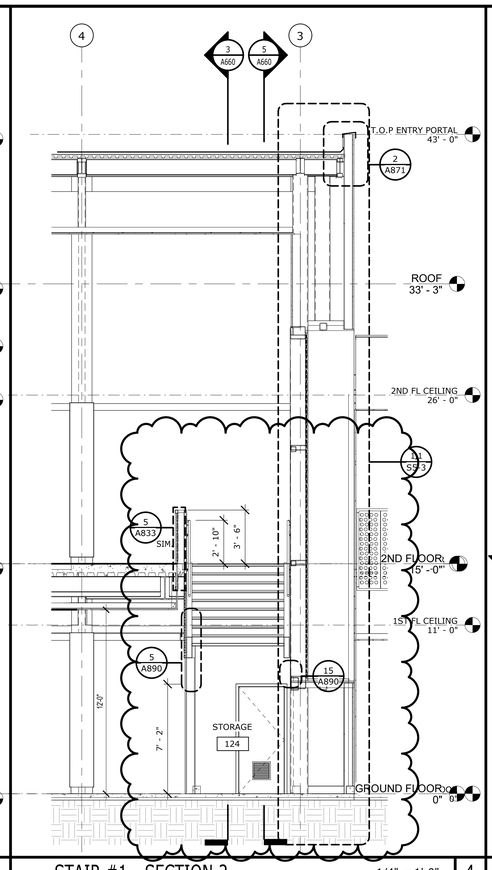
SHEET NO:
A401



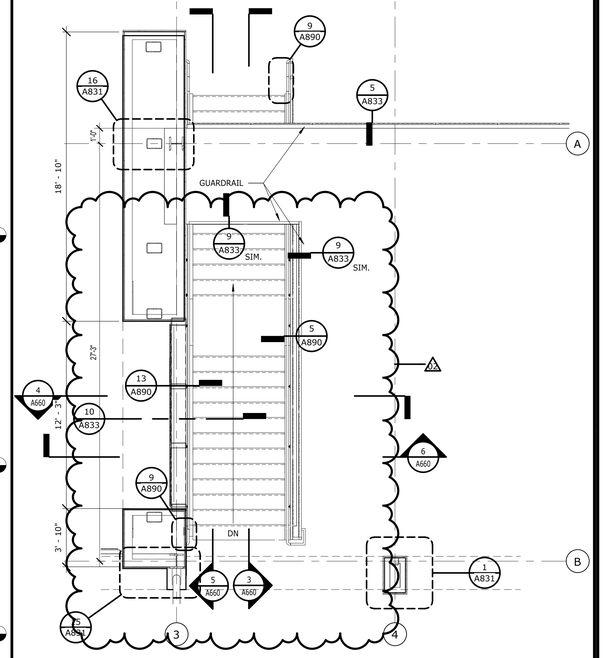
STAIR#1 PERFORATED PANEL 1/2" = 1'-0" | 7



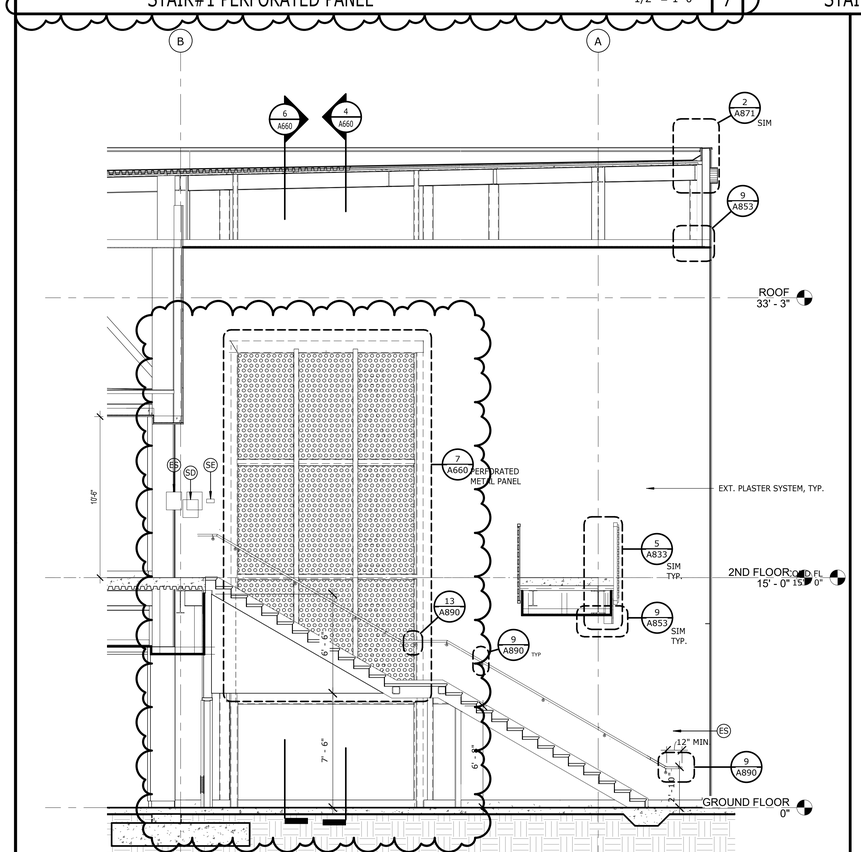
STAIR #1 SECTION 4 1/4" = 1'-0" | 6



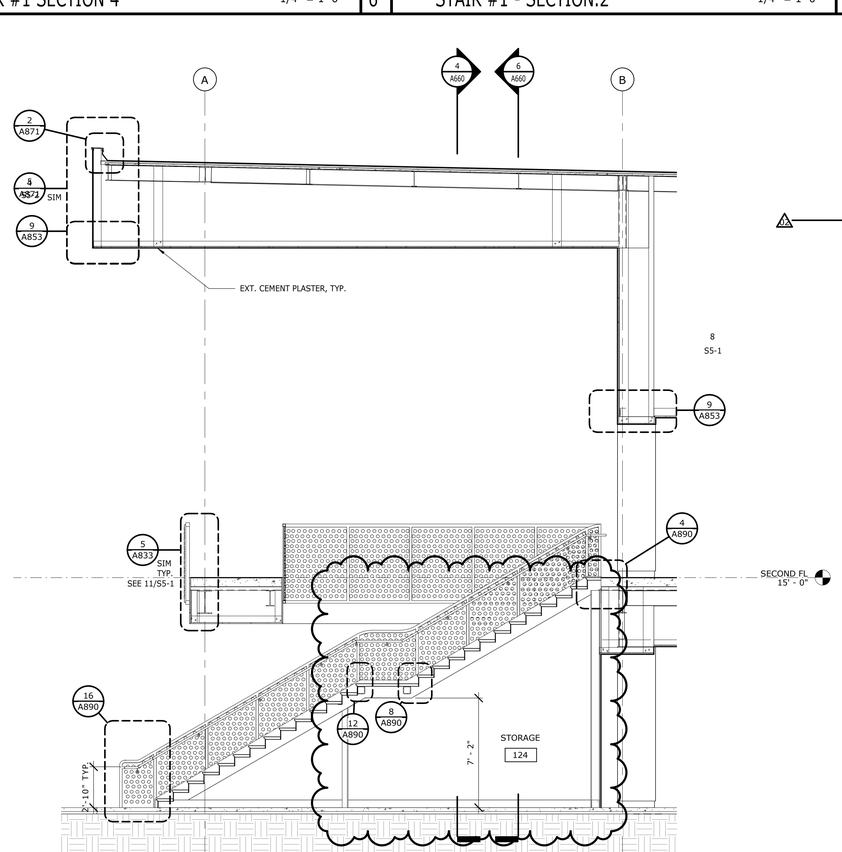
STAIR #1 - SECTION.2 1/4" = 1'-0" | 4



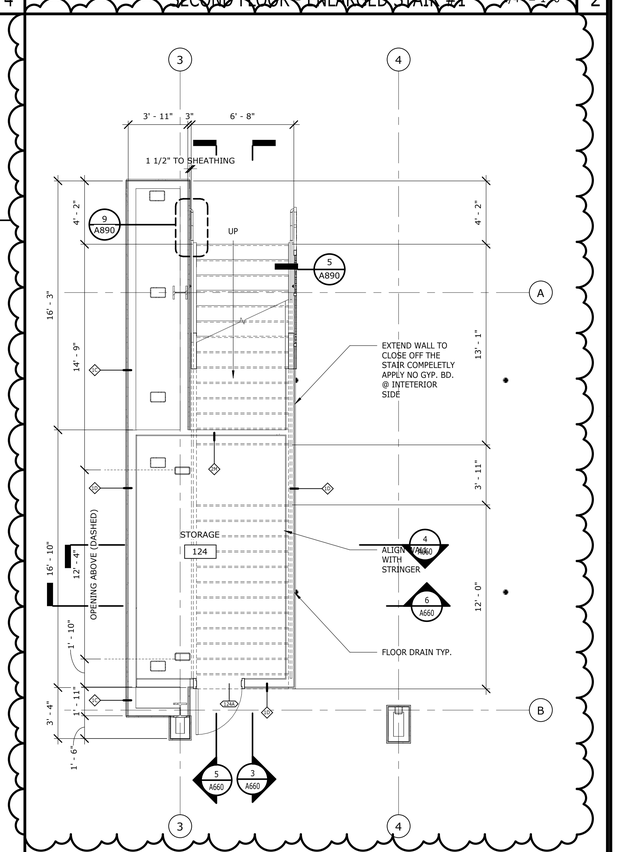
SECOND FLOOR - ENLARGED STAIR #1 1/4" = 1'-0" | 2



STAIR #1 - SECTION.3 1/4" = 1'-0" | 5



STAIR #1 - SECTION.1 1/4" = 1'-0" | 3



FIRST FLOOR - ENLARGED STAIR #1 1/4" = 1'-0" | 1

3/27/2025 5:50:54 PM \\stn-ap\projects\LESD_22029.01_Rogers MS_2-Story Classroom Bldg\03_Drawings\00_DiP\Base\Archive\22029 LESD ROGERS MS_CONSTRUCTION BIDDING.rvt

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT PAUL WESTBERG C-11045 EXP.9-2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

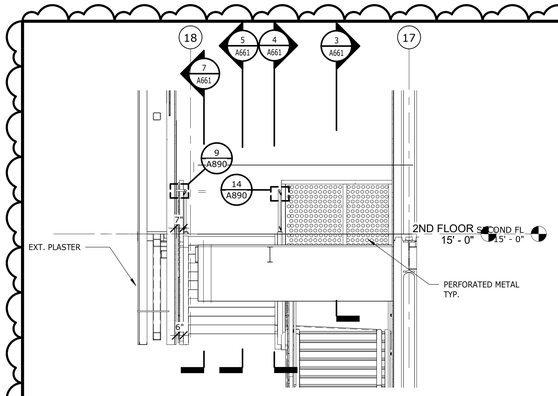
No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MG
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

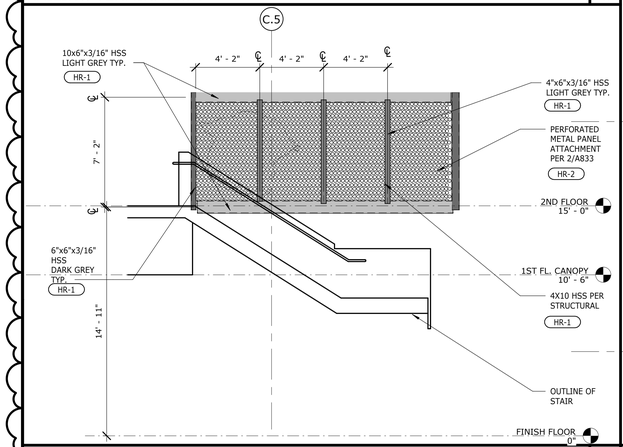
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STAIR #1 ENLARGED PLAN AND SECTIONS

SHEET NO:

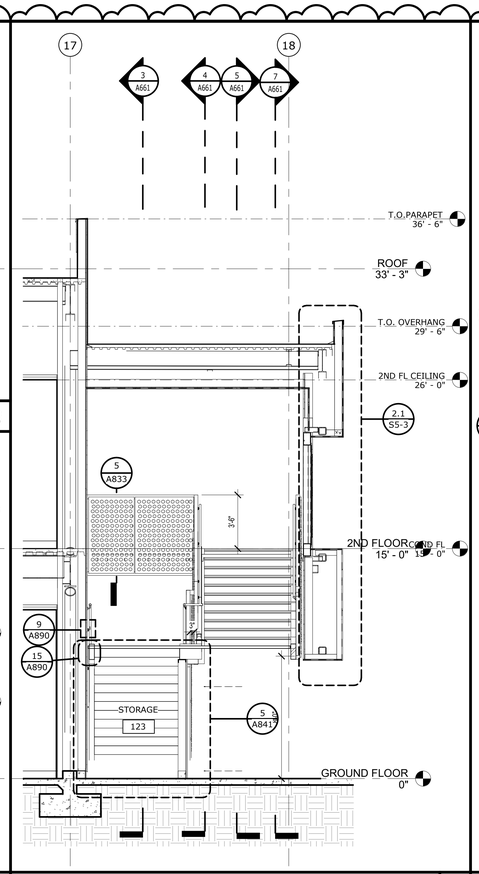
A660



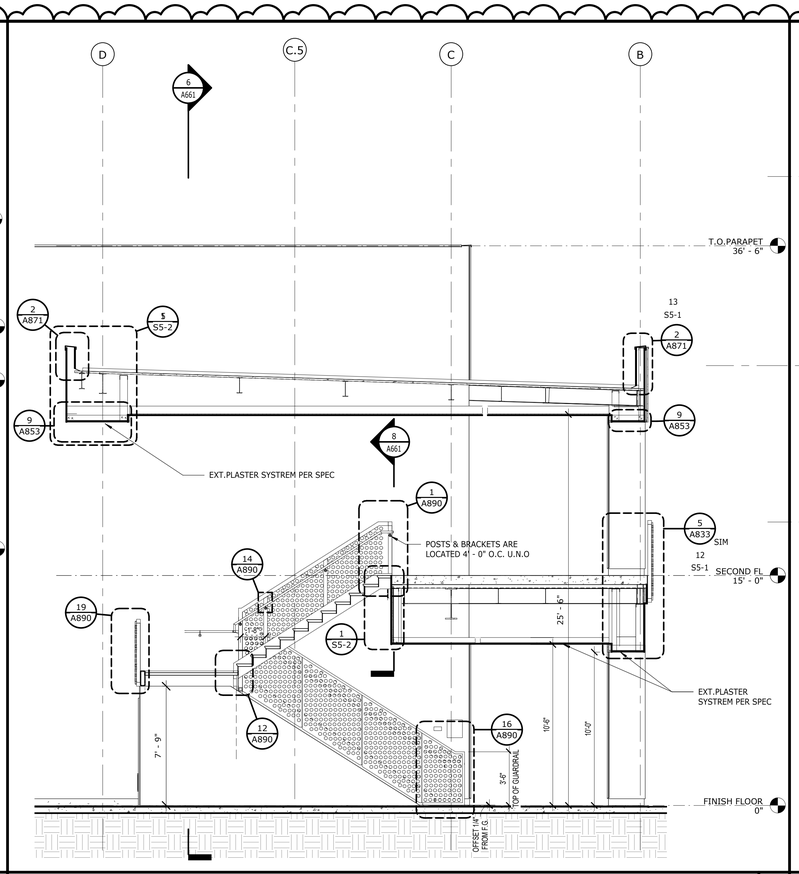
RAILING TERMINATION 1/4" = 1'-0" 8



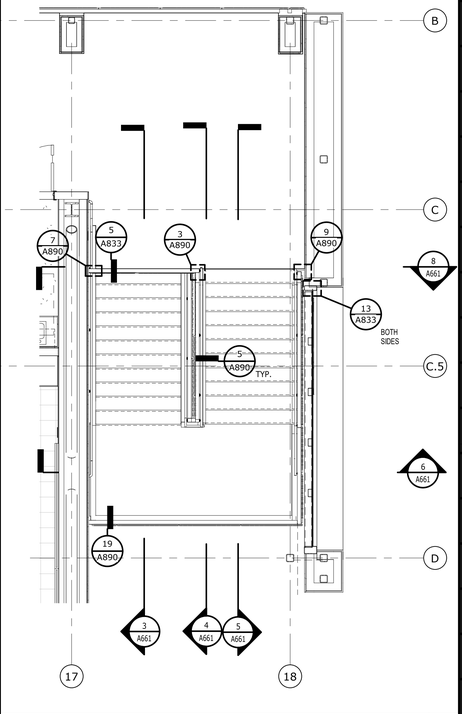
PERFORATED PANEL 1/4" = 1'-0" 7



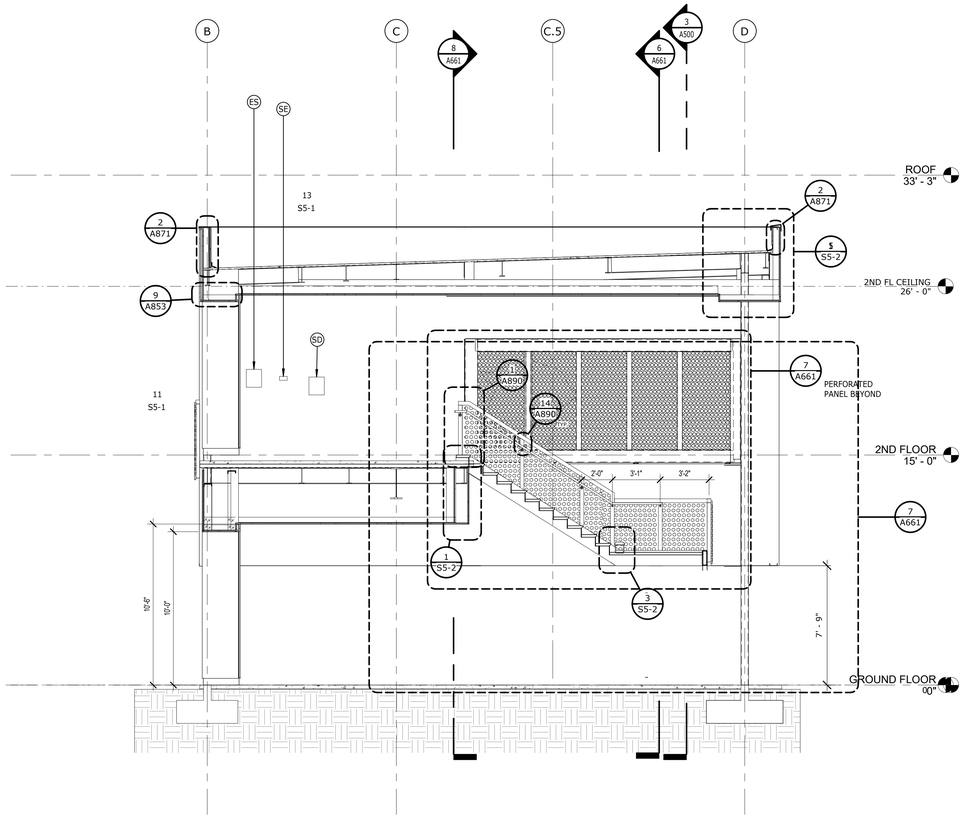
STAIR #2 - SECTION.3 1/4" = 1'-0" 6



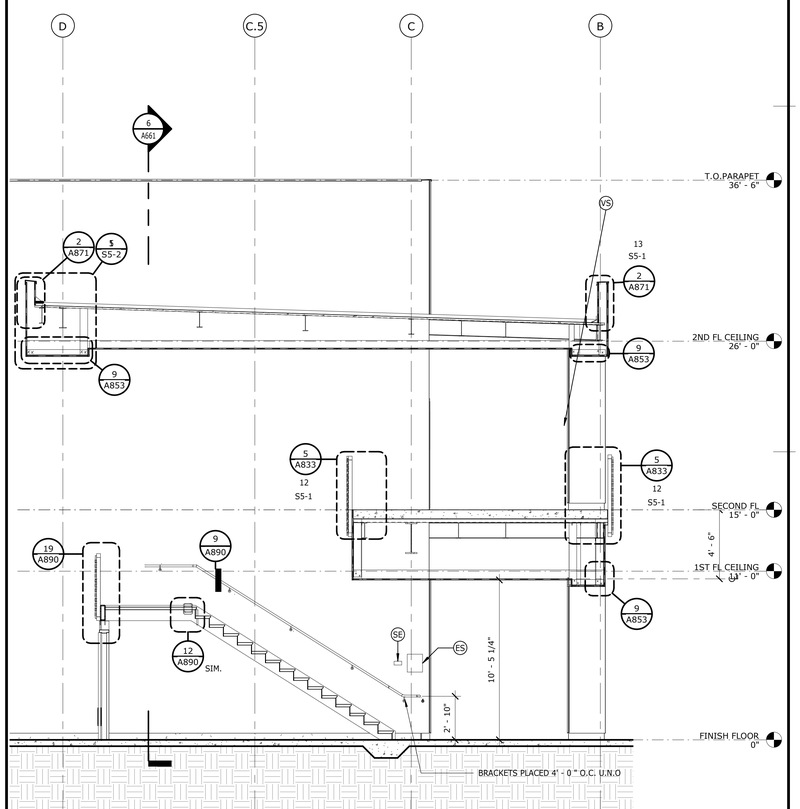
STAIR #2 - SECTION.2 1/4" = 1'-0" 4



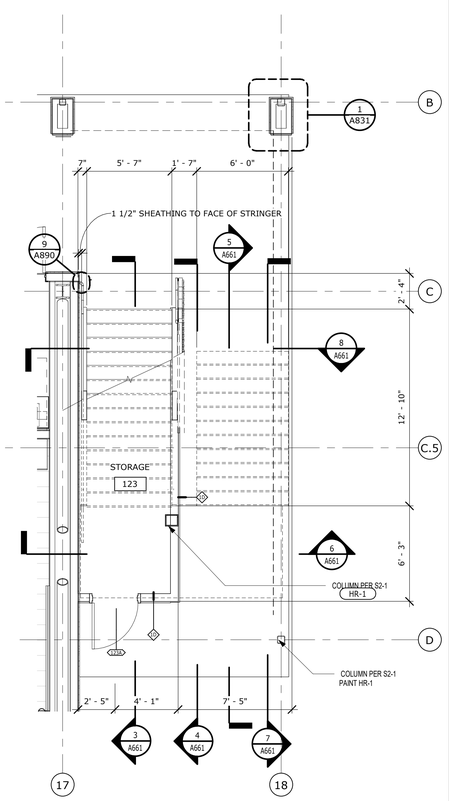
2ND FLOOR - ENLARGED STAIR #2 PLAN 1/4" = 1'-0" 2



Section 8 1/4" = 1'-0" 5



STAIR #2 - SECTION.1 1/4" = 1'-0" 3



1ST FLOOR - ENLARGED STAIR #2 PLAN 1/4" = 1'-0" 1

STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT
PAUL WESTBERG
C-11045
EXP.9-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

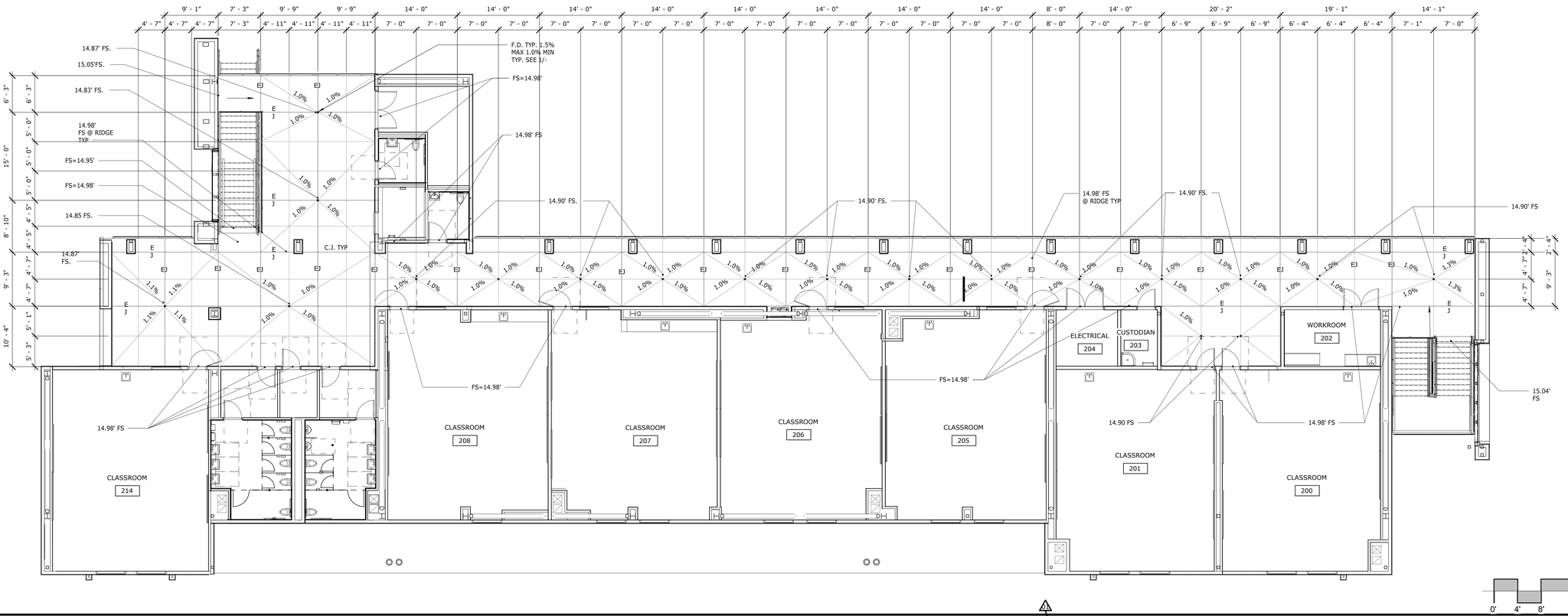
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

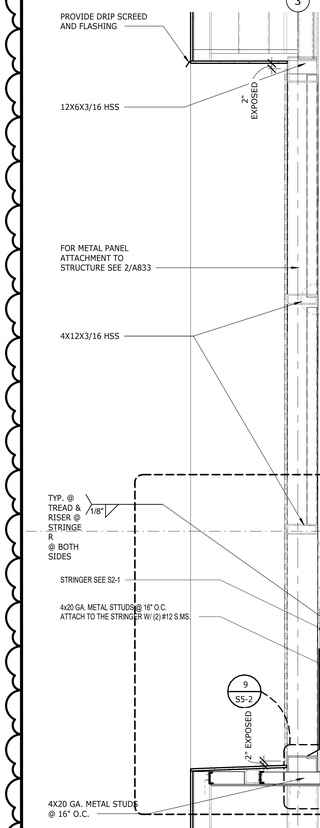
JOB NO:	22029.01
DATE:	2/27/2024
DRAWN:	Author
CHECK:	Checker
ARCHITECT:	PDW
ENGINEER:	

SHEET DESCRIPTION:
STAIR #2 ENLARGED PLAN AND SECTIONS

SHEET NO:
A661



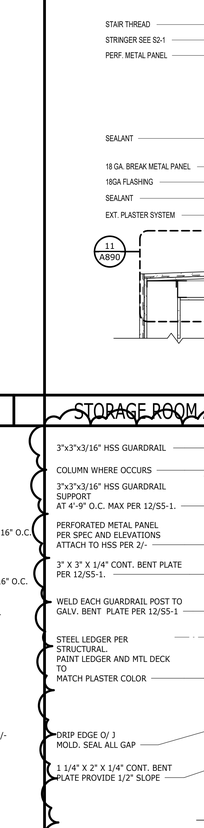
SECOND FLOOR DRAIN AND SLAB PLAN 1/8" = 1'-0"



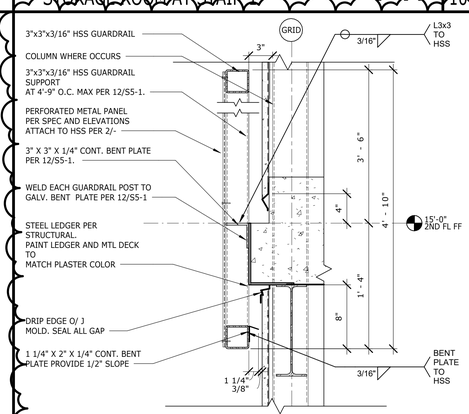
STAIR #1 PERF. METAL PANEL CONN. 1/2" = 1'-0" 17



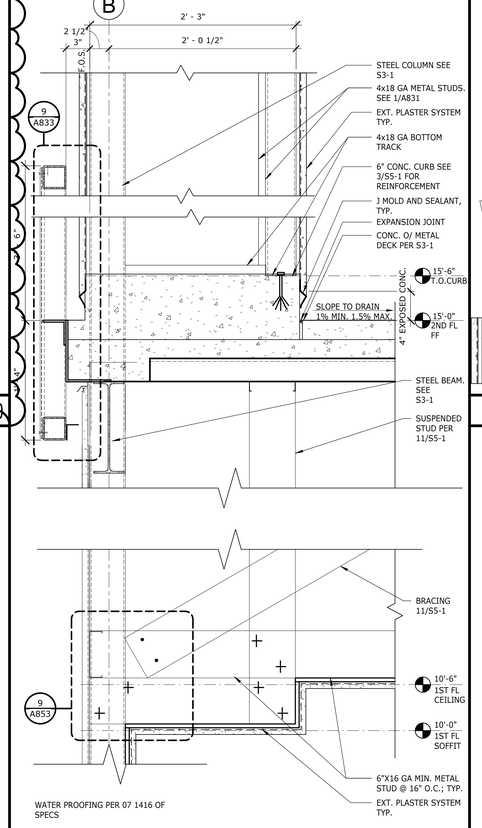
JAMB @ OPENING @ STAIR 1 1/2" = 1'-0" 13



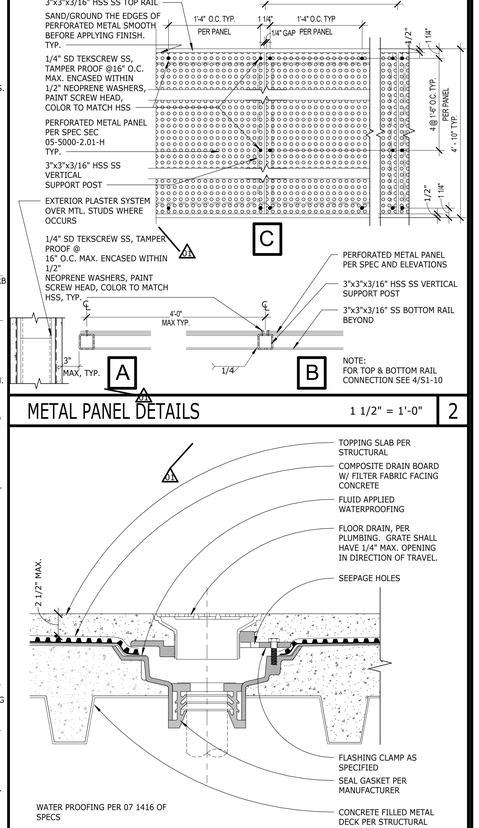
STORAGE ROOM AT STAIR 1 1" = 1'-0" 10



GUARDRAIL @ BALCONY CORRIDOR 1 1/2" = 1'-0" 9



GUARDRAIL/COL BASE AT BALCONY 1 1/2" = 1'-0" 5



METAL PANEL DETAILS 1 1/2" = 1'-0" 2

DECK DRAIN AT BALCONIES 3" = 1'-0" 1

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT PAUL WESTBERG C-11045 EXP.9-2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

3 WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

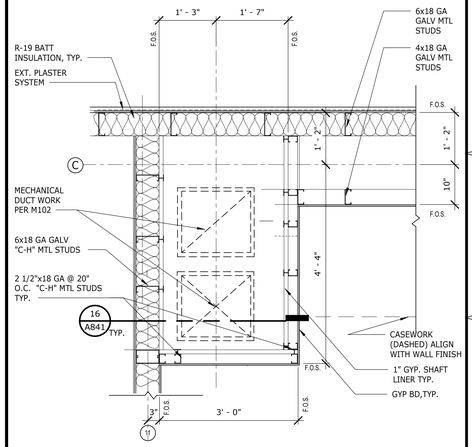
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

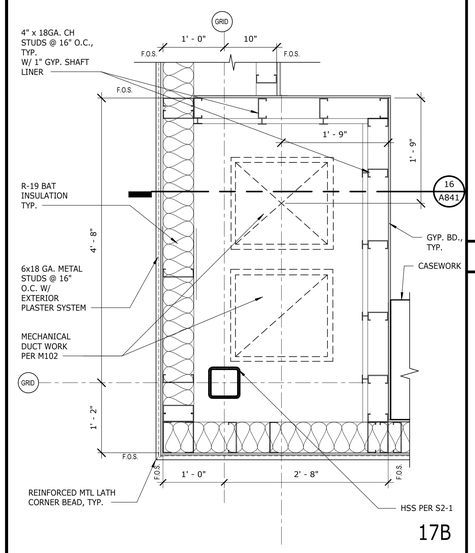
JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BALCONY DETAILS

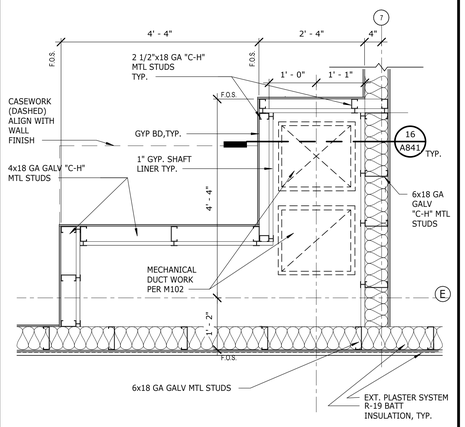
SHEET NO:
A833



17C

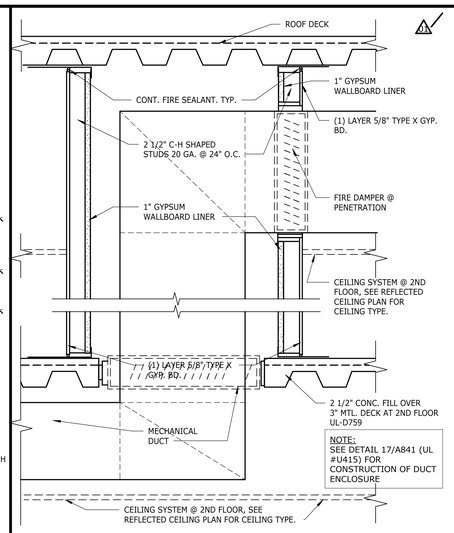


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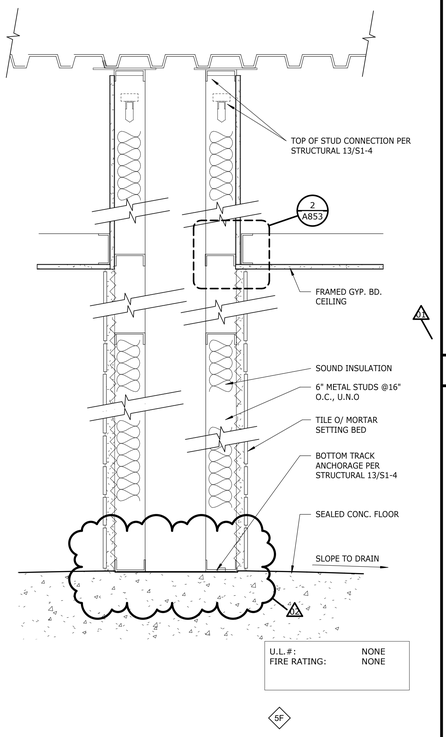


17A

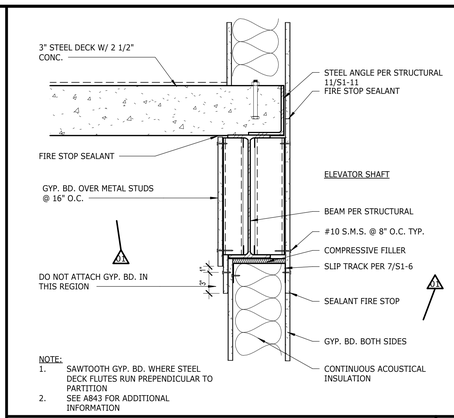
1 HR. RATED DUCT SHAFT CHASE DETAILS 3/4" = 1'-0" | 17



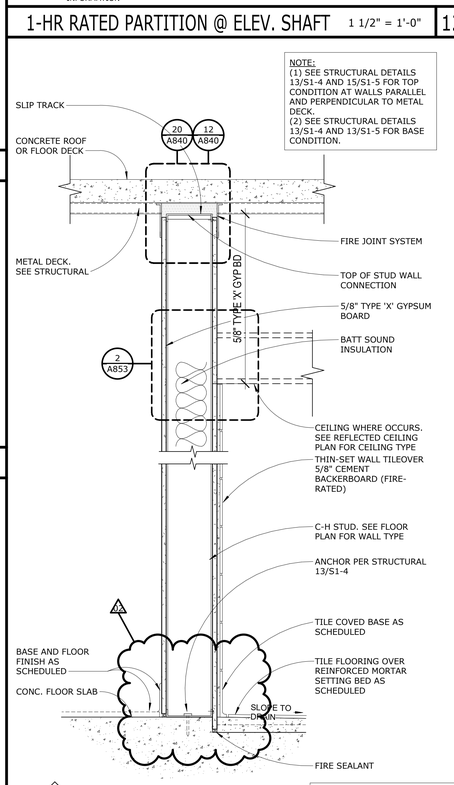
SHAFT ENCLOSURE @1ST FLOOR CLG. 1 1/2" = 1'-0" | 16



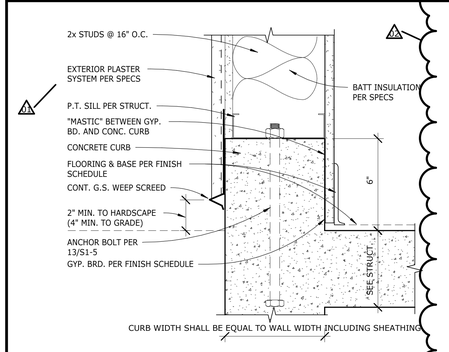
PLUMBING WALL 1 1/2" = 1'-0" | 13



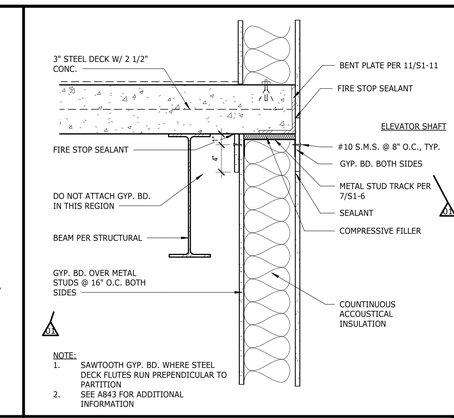
1-HR RATED PARTITION @ ELEV. SHAFT 1 1/2" = 1'-0" | 12



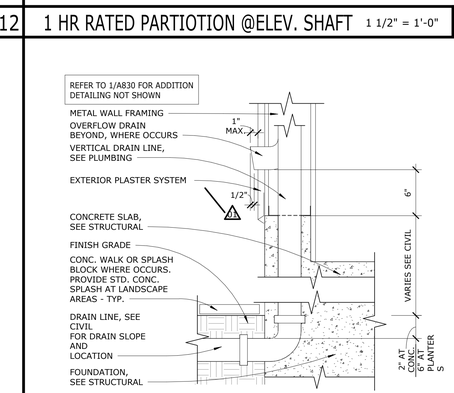
TILED WALL (CBC 713) TYPE 6 1 1/2" = 1'-0" | 11



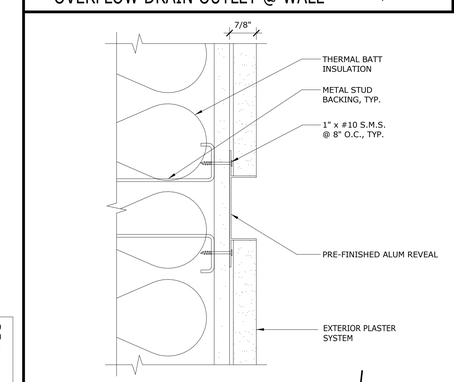
SCREED 3" = 1'-0" | 9



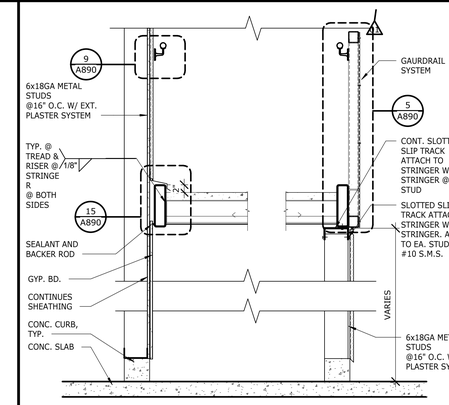
1 HR RATED PARTIOTION @ELEV. SHAFT 1 1/2" = 1'-0" | 8



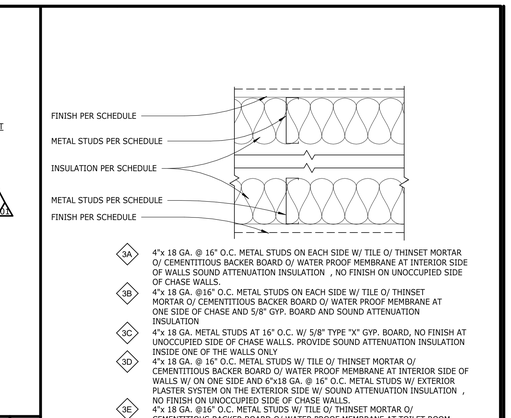
OVERFLOW DRAIN OUTLET @ WALL 1 1/2" = 1'-0" | 7



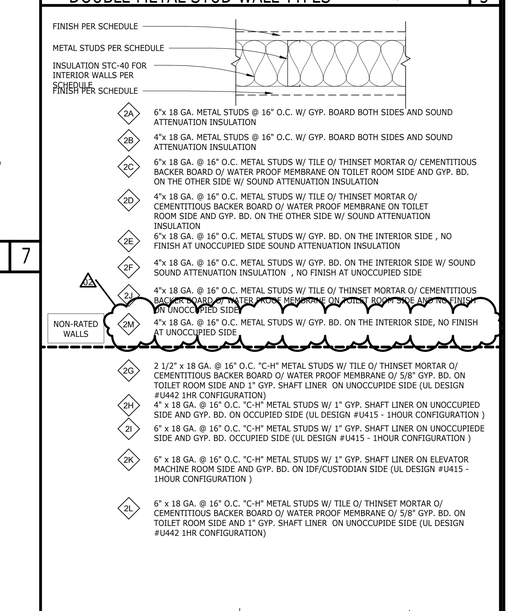
HORIZONTAL REVEAL 6" = 1'-0" | 6

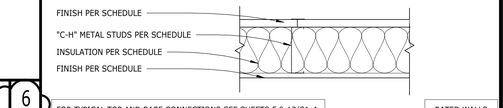


STORAGE ROOM @ STAIR 2 3/4" = 1'-0" | 5



DOUBLE METAL STUD WALL TYPES 1 1/2" = 1'-0" | 3

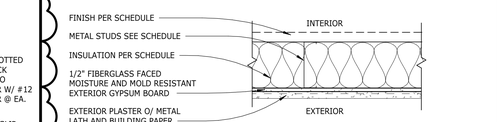




FOR TYPICAL TOP AND BASE CONNECTIONS SEE SHEETS 5 & 13/S1-4 SIMILAR TO 11/- FOR RATED WALLS

RATED WALLS

INTERIOR METAL STUD WALL TYPES 1 1/2" = 1'-0" | 2



FOR TYPICAL TOP AND BASE CONNECTIONS SEE SHEETS 13/S1-5

EXTERIOR METAL STUD WALL TYPES 1 1/2" = 1'-0" | 1

STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR, SUITE 100
IRVINE, CA 92618

LICENSED ARCHITECT
JON EDWARD GRABER
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
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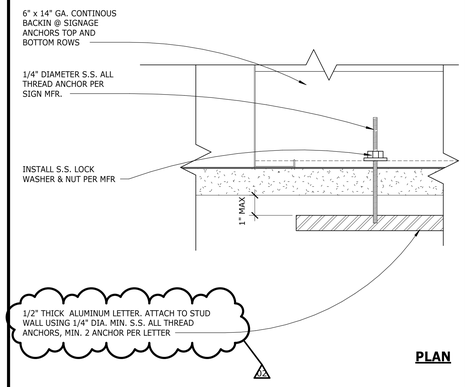
No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: JG
ENGINEER:

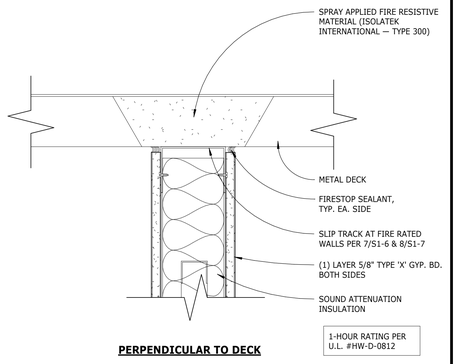
SHEET DESCRIPTION:
WALL TYPES AND DETAILS

SHEET NO:

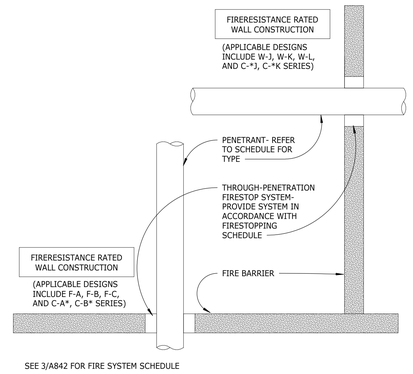
A841



ALUMINUM LETTER ATTACHMENT 6" = 1'-0" 20



1-HOUR RATED PARTION 3" = 1'-0" 16



THROUGH PEN. FIRESTOP SYSTEMS KEY 3" = 1'-0" 12

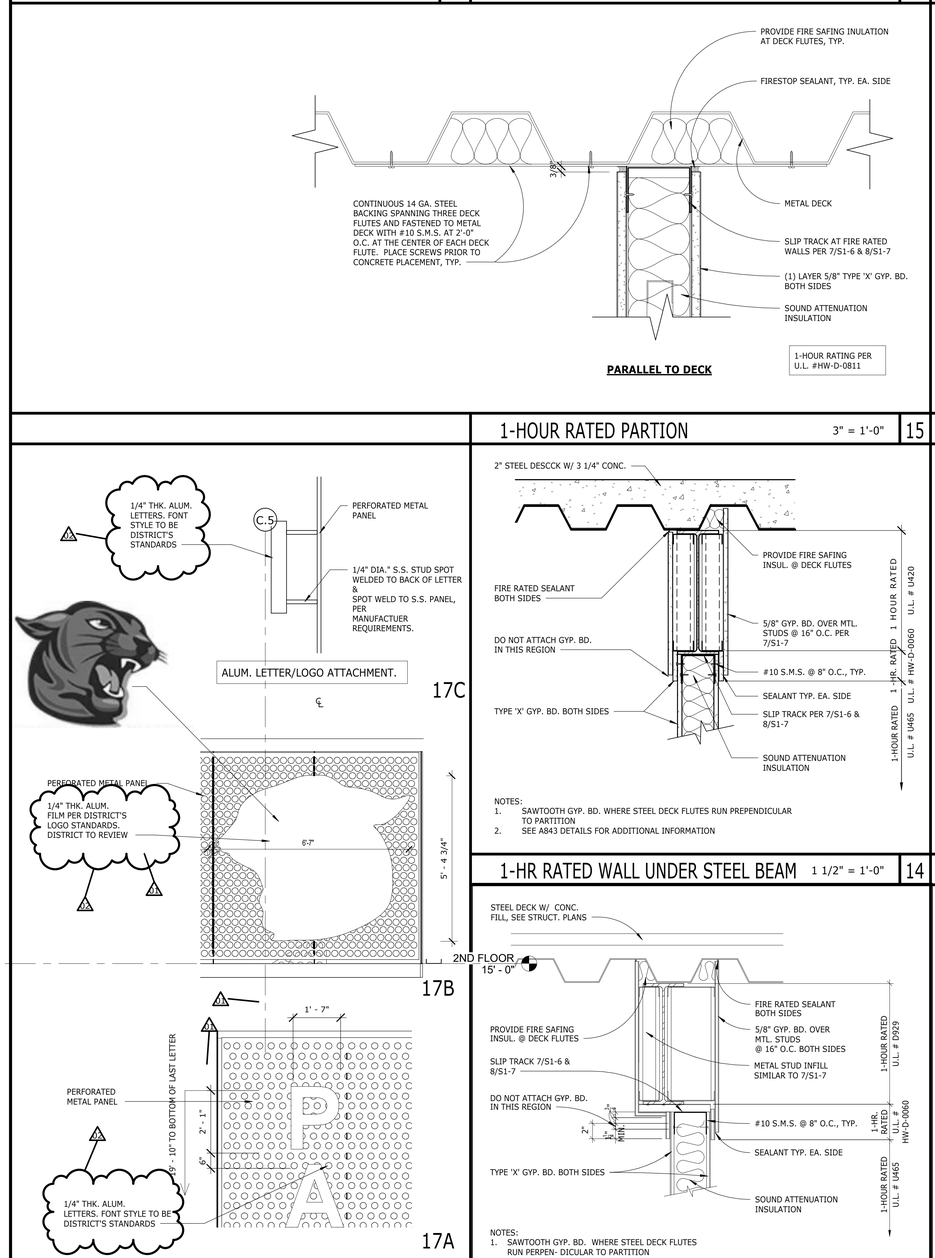
THROUGH-PENETRATION FIRESTOP SYSTEM SCHEDULE

Firestop Systems Are Listed Using the Alpha-Alpha-Numeric identification System Published in UL's Fire Resistence Directory, Vol. 2

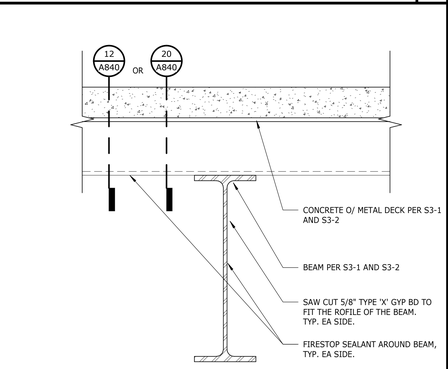
TYPE OF PENETRANT	APPLICABLE CONSTRUCTION: FLOOR PENETRATION SYSTEMS (First Alpha Component = C or W) — Concrete Floors with a Minimum Thickness Less Than or Equal to 5 Inches			WALL PENETRATION SYSTEMS (First Alpha Component = C or W)		Framed Walls
NO PENETRATING ITEMS	C-AJ-0001-0999 OR F-A-0001-0999					W-L-0001-0999
METALLIC PIPE, CONDUIT, OR TUBING	C-AJ-1001-1999 OR F-A-1001-1999					W-L-1001-1999
NONMETALLIC PIPE, CONDUIT, OR TUBING	C-AJ-2001-2999 OR F-A-2001-2999					W-L-2001-2999
ELECTRICAL CABLES	C-AJ-3001-3999 OR F-A-3001-3999					W-L-3001-3999
CABLE TRAYS WITH ELECTRICAL CABLES	C-AJ-4001-4999 OR F-A-4001-4999					W-L-4001-4999
INSUALTED PIPES	C-AJ-5001-5999 OR F-A-5001-5999					W-L-5001-5999
MISC. ELECTRICAL PENETRANTS	C-AJ-6001-6999 OR F-A-6001-6999					W-L-6001-6999
MISC. MECHANICAL PENETRANTS (EXCEPT DUCTWORK - DAMPERED)	C-AJ-7001-7999					W-L-7001-7999
GROUPINGS OF PENETRATIONS	C-AJ-8001-8999 OR F-A-8001-8999					W-L-8001-8999

FOR EACH LOCATION WHERE A FIRE-RESISTANCE-RATED FLOOR OR WALL ASSEMBLY IS PENETRATED, PROVIDE A UL-LISTED THROUGH-PENETRATION FIRESTOP SYSTEM SELECTED FROM THE APPLICABLE UL NUMBER RANGE LISTED ABOVE THAT COMPLIES WITH SPECIFICATION SECTION 07 84 00 "THROUGH-PENETRATION FIRESTOP SYSTEMS' AND IS SUITABLE FOR THE PENETRATION CONDITIONS INDICATED FOR THE PROJECT.

FIRESTOP SYSTEM SCHEDULE 3" = 1'-0" 3



1-HOUR RATED PARTION 3" = 1'-0" 15

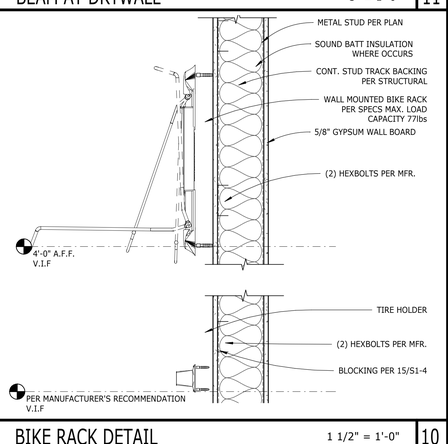


BEAM AT DRYWALL 3" = 1'-0" 11

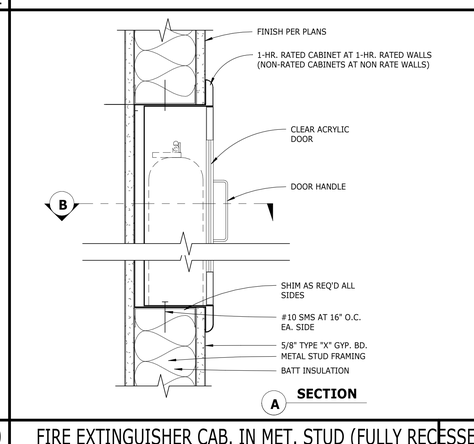
NOTE: VERIFY LOGO COLORS, FONTS, DIMENSSIONS WITH DISTRICT'SSTANDARDS

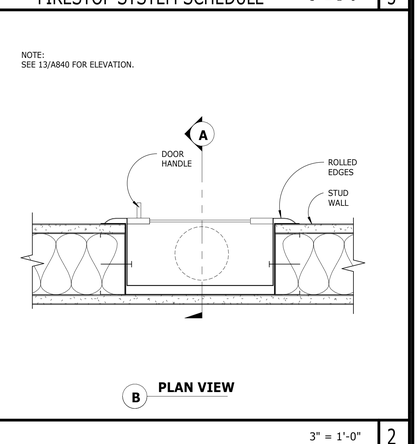
ALUM DECORATIVE LETTERING/LOGO 1/2" = 1'-0" 17

1-HR RATED WALL UNDER STEEL BEAM 1 1/2" = 1'-0" 14



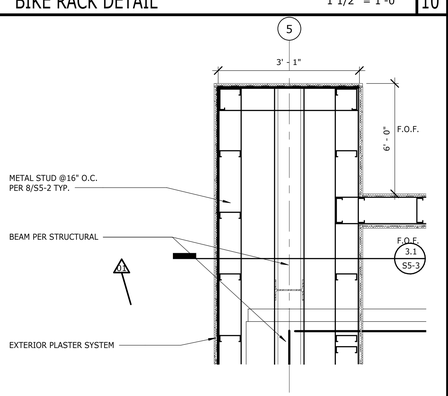
BIKE RACK DETAIL 1 1/2" = 1'-0" 10



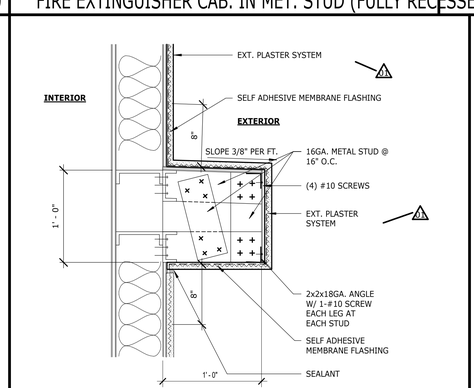


FIRE EXTINGUISHER CAB. IN MET. STUD (FULLY RECESSED) 3" = 1'-0" 2

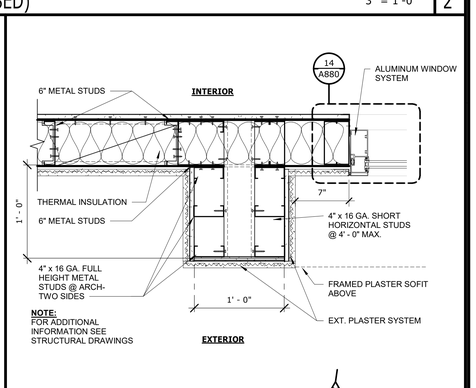
FIRE RATED WALL UNDE STL. BEAM 1 1/2" = 1'-0" 13



PLAN DETAIL @ ENTRY PORTICO 3/4" = 1'-0" 9



EXT. ETRUDED FRAME HEAD DETAIL 1 1/2" = 1'-0" 5



EXT. EXTRUDED FRAME JAMP DETAIL 1 1/2" = 1'-0" 1

STATE:

ARCHITECT:
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LICENSED ARCHITECT PAUL WESTBERG C-11045 EXP.9-2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

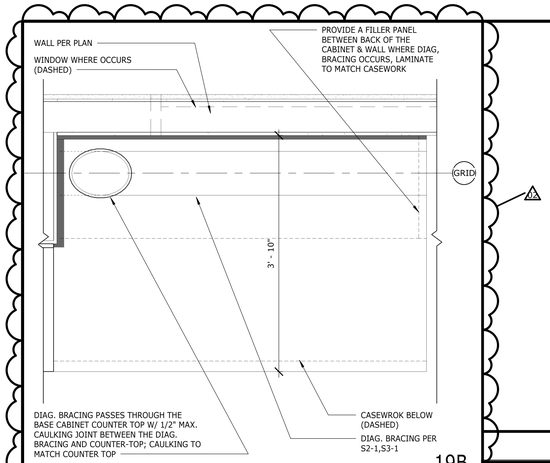
CLIENT:
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
01	03/19/2025	ADDENDUM 1
02	03/28/2025	ADDENDUM

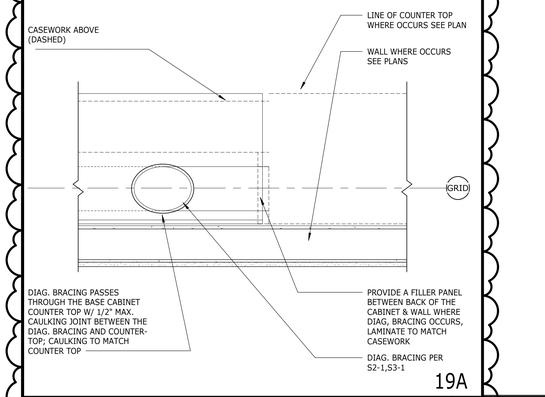
JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
WALL TYPES AND DETAILS

SHEET NO:
A842

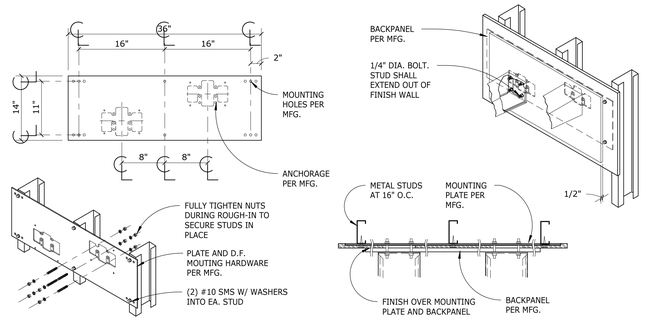


19B

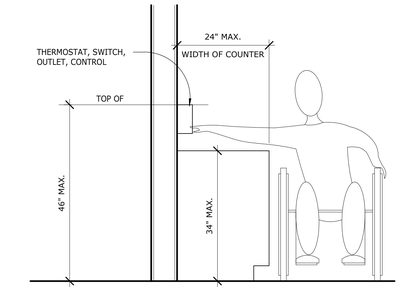


19A

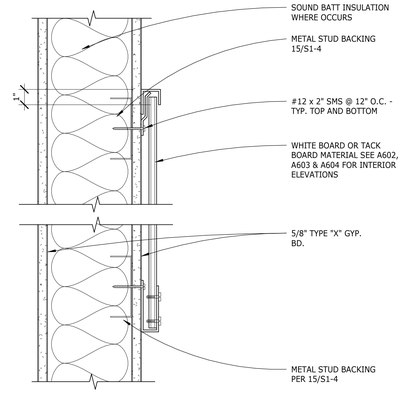
DIAG. BRACING THROUGH COUNTER TOP 1" = 1' - 0" | 19



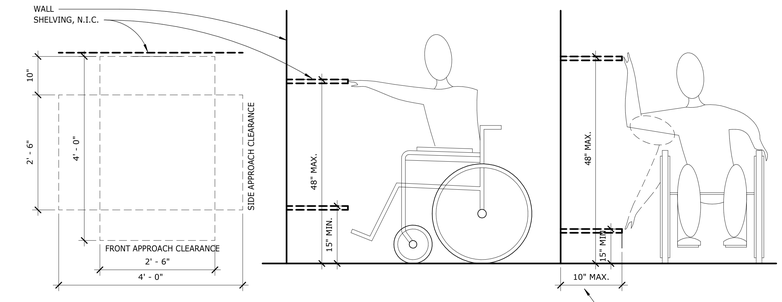
DRINKING FOUNTAIN ANCHORAGE 3/4" = 1'-0" | 12



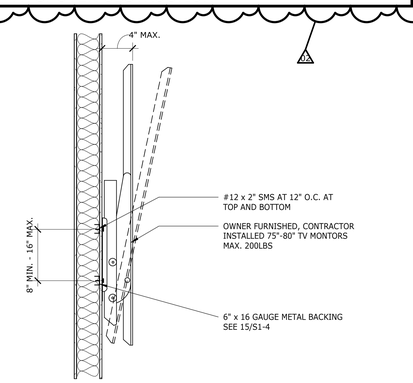
MTG. OVER OBSTRUCTION 3/4" = 1'-0" | 8



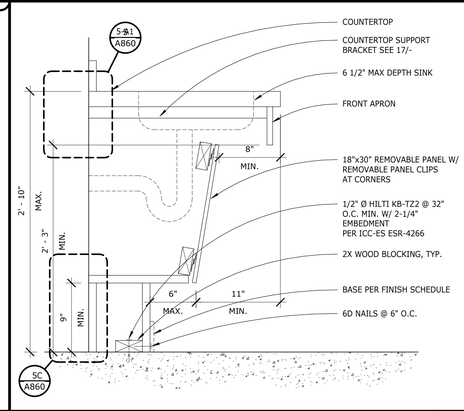
WHITE BOARD DETAIL 3" = 1'-0" | 4



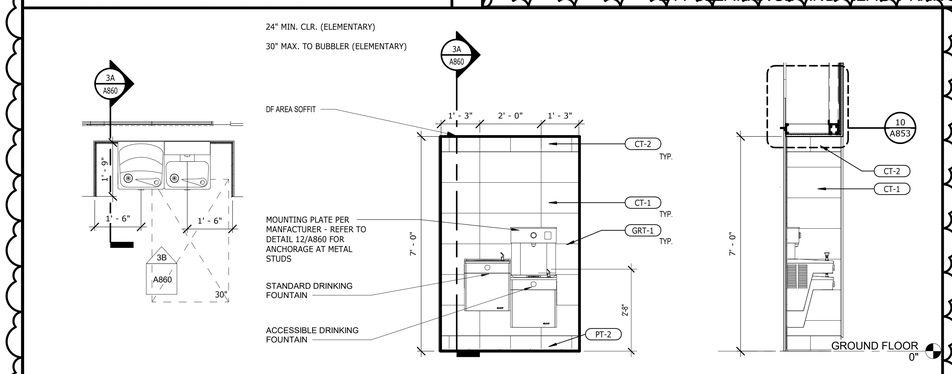
ADA CLEARANCE AND REACH RANGE REQUIREMENTS 3/4" = 1'-0" | 11



TV MOUNT DETAIL 3/4" = 1'-0" | 7

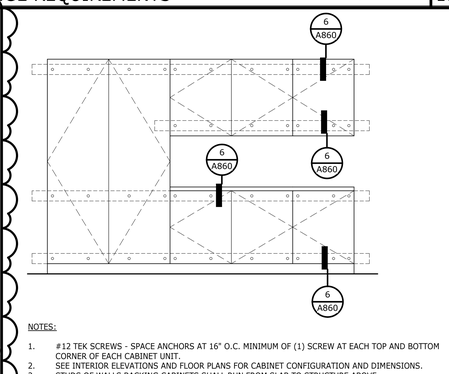


ACCESSIBLE SINK 1 1/2" = 1'-0" | 3



3C PLAN VIEW 3B FRONT VIEW 3A SIDE VIEW

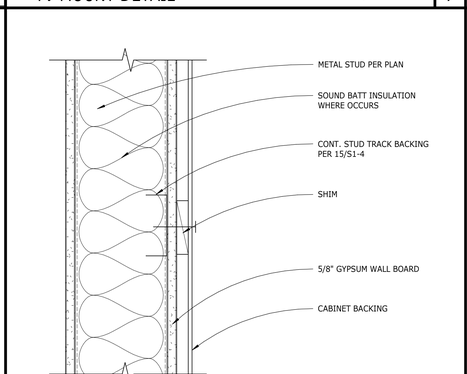
ACCESSIBLE DRINKING FOUNTAIN 1/2" = 1'-0" | 18



NOTES:

1. #12 TEK SCREWS - SPACE ANCHORS AT 16" O.C. MINIMUM OF (1) SCREW AT EACH TOP AND BOTTOM CORNER OF EACH CABINET UNIT.
2. SEE INTERIOR ELEVATIONS AND FLOOR PLANS FOR CABINET CONFIGURATION AND DIMENSIONS.
3. STUDS OF WALLS BACKING CABINETS SHALL RUN FROM SLAB TO STRUCTURE ABOVE.
5. SEE DETAIL 15/S1-4 FOR WALL HUNG BACKING AT METAL STUDS.

CASEWORK BACKING AND ANCHORAGE 1/2" = 1'-0" | 10



CASEWORK BACKING SECTION 3" = 1'-0" | 6

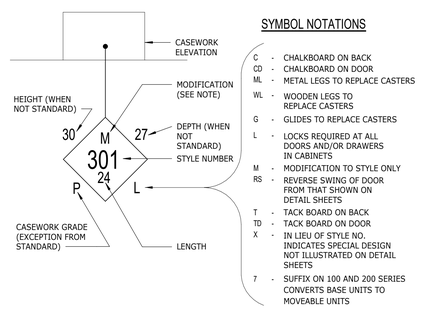
CASEWORK

1. ONLY THOSE CABINETS CALLED OUT ON BUILDING INTERIOR ELEVATIONS AND FLOOR PLANS SHALL BE PROVIDED.
2. DOOR SWINGS SHALL BE AS SHOWN ON INTERIOR ELEVATIONS. IF NOT ELEVATED, SWINGS SHALL BE AS SHOWN ON DETAIL SHEET ILLUSTRATIONS. SYMBOL 'RS' INDICATES REVERSE SWING.
3. ALL CABINET DIMENSIONS INDICATED ARE NOMINAL OUTSIDE DIMENSIONS, AND SHALL NOT BE EXCEEDED; (EXCEPTION - CABINETS ADJACENT TO WALLS MAY BE INCREASED IN LENGTH TO ELIMINATE THE NEED FOR FILLER STRIPS). A 3/4" TOLERANCE IS PERMITTED ON DIMENSIONS OVER 48". FOR 48" AND SMALLER DIMENSIONS, TOLERANCE IS LIMITED TO 1 1/2%. HEIGHT DIMENSION OF BASE CABINETS INCLUDES FINISHED TOP.
4. ALIGN SIDE OF CABINET WITH EDGE OF DOOR FRAME WHERE OCCURS.
5. PAPER AND CHART STORAGE UNITS SHALL BE 27" DEEP UNLESS OTHER WISE NOTED.

COUNTERTOPS AND BACKSPLASHES

1. WHERE BACKSPLASH IS INDICATED, IT SHALL BE 4" HIGH @ NON-SINK AREAS & 6" HIGH OR TO UNDERSIDE OF UPPER CABINETS AT WET AREAS (SEE INTERIOR ELEVATIONS), TOP MOUNTED TYPE, HAVING SQUARE TOP WITH SHELF EDGE.

SYMBOLS AND NOTATIONS FOR CABINETS



SYMBOL NOTATIONS

C	-	CHALKBOARD ON BACK
CD	-	CHALKBOARD ON DOOR
ML	-	METAL LEGS TO REPLACE CASTERS
WL	-	WOODEN LEGS TO REPLACE CASTERS
G	-	GLIDES TO REPLACE CASTERS
L	-	LOCKS REQUIRED AT ALL DOORS AND/OR DRAWERS IN CABINETS
M	-	MODIFICATION TO STYLE ONLY
RS	-	REVERSE SWING OF DOOR FROM THAT SHOWN ON DETAIL SHEETS
T	-	TACK BOARD ON BACK
TD	-	TACK BOARD ON DOOR
X	-	IN LIEU OF STYLE NO. INDICATES SPECIAL DESIGN NOT ILLUSTRATED ON DETAIL SHEETS
7	-	SUFFIX ON 100 AND 200 SERIES CONVERTS BASE UNITS TO MOVEABLE UNITS

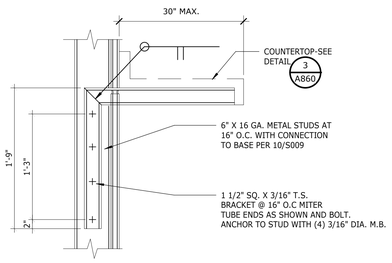
COUNTERTOP NOTATIONS

LAM. PLAS.	-	LAMINATED PLASTIC
HD. BD.	-	HARDBOARD
HDWD.	-	HARDWOOD
CST	-	COMPOSITION STONE
LAB. GRADE	-	ACID-RESISTANT LAMINATED PLASTIC
EP. RES.	-	EPOXY RESIN

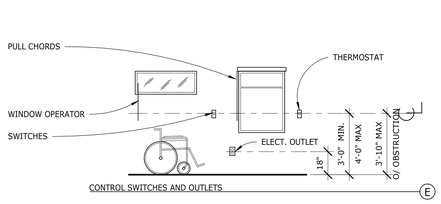
CASEWORK GRADES

P	-	PREMIUM
C	-	CUSTOM (TYPICAL GRADE U.N.O.)
E	-	ECONOMY
LAB	-	LABORATORY

CASEWORK GENERAL NOTES 12" = 1'-0" | 1

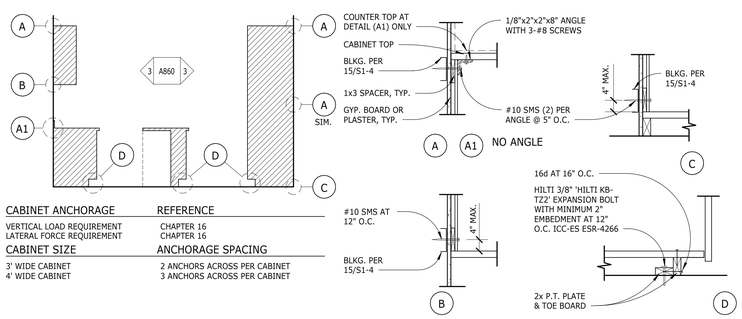


TYP. STEEL ANGLE UNDER COUNTERTOP 12" = 1'-0" | 17



NOTE: REFER TO WINDOW SCHEDULE FOR EXACT WINDOW CONFIGURATION.

ACCESSIBLITY REQUIREMENTS 1/4" = 1'-0" | 13



CABINET ANCHORAGE AT METAL STUD 1 1/2" = 1'-0" | 5

STATE:

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LICENSED ARCHITECT
JON EDWARD DEMERS
C-25861
EXP. 5-2025
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

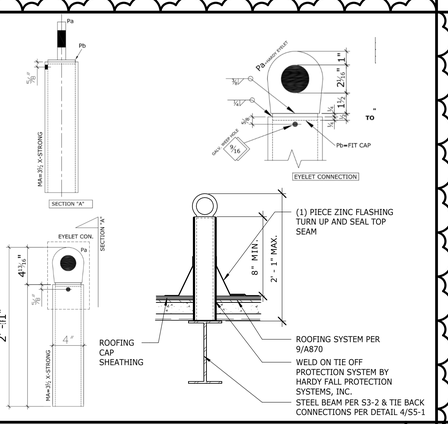
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

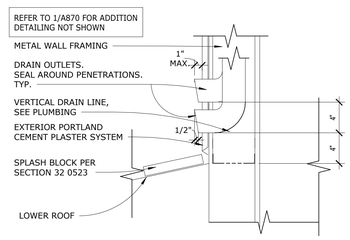
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DATE: 2/27/2024
DRAWN:
CHECK:
ARCHITECT: JG
ENGINEER:

SHEET DESCRIPTION:
CASEWORK DETAILS

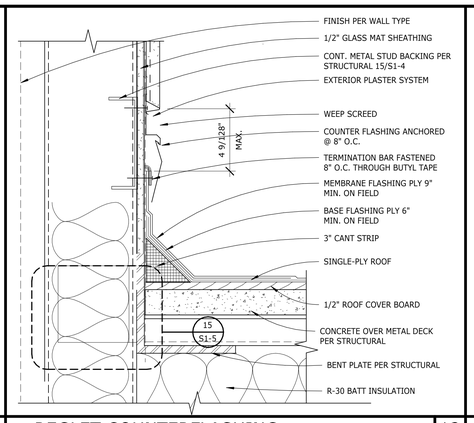
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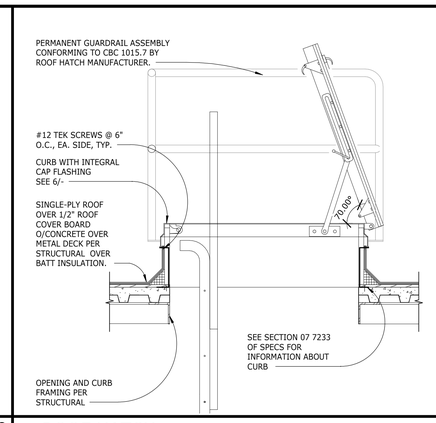
ROOF TIE OFFS 1" = 1'-0" | 18



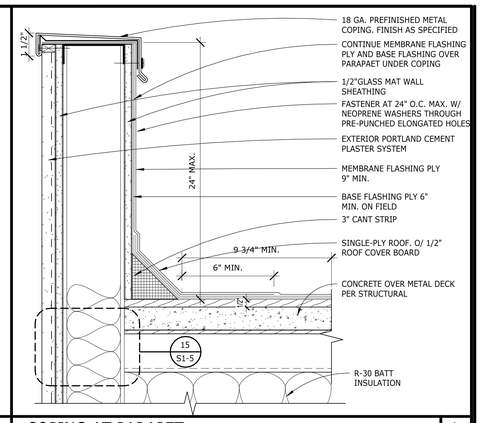
DRAIN OUTLET AT STUD WALL 1 1/2" = 1'-0" | 16



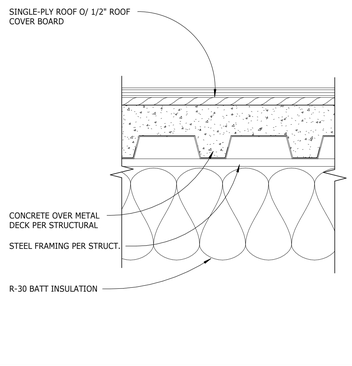
REGLET COUNTERFLASHING 3" = 1'-0" | 12



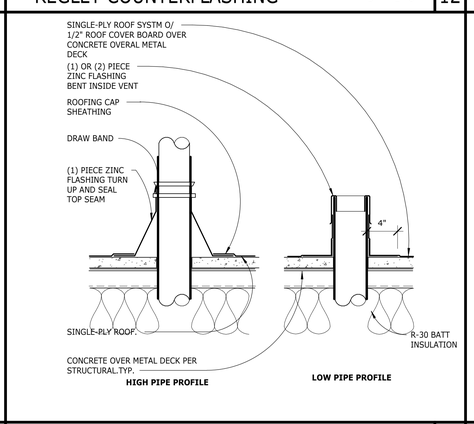
ROOF HATCH 1" = 1'-0" | 8



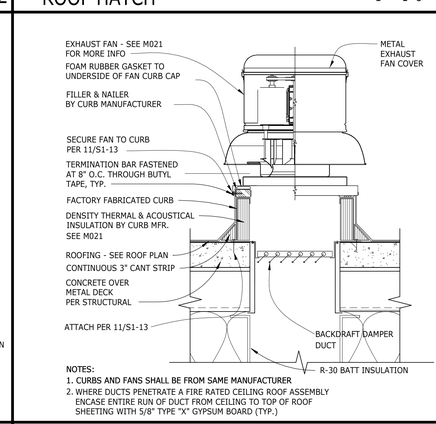
COPING AT PARAPET 3" = 1'-0" | 4



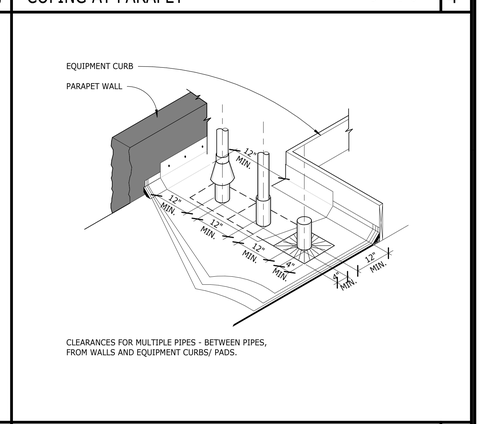
SINGLE-PLY O/ MTL DECK 3" = 1'-0" | 9



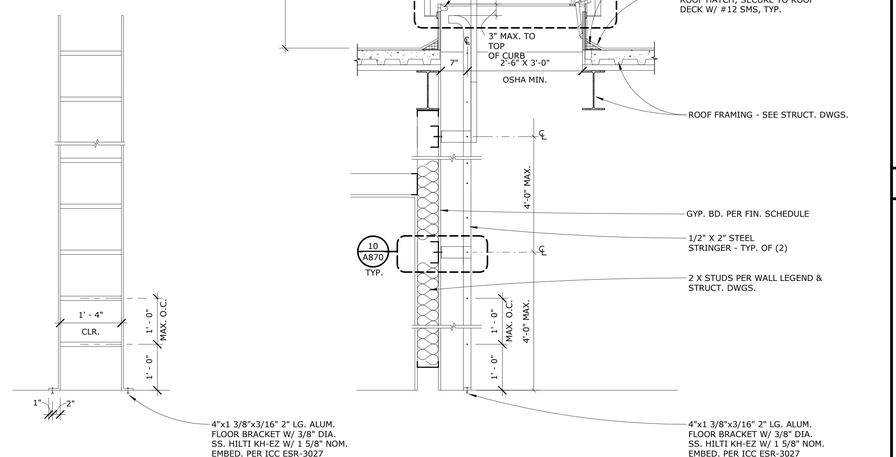
TYP. ROOF PENETRATIONS 1 1/2" = 1'-0" | 11



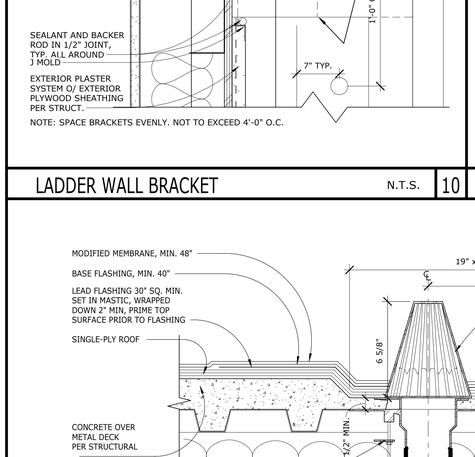
EXHAUST FAN 3" = 1'-0" | 7



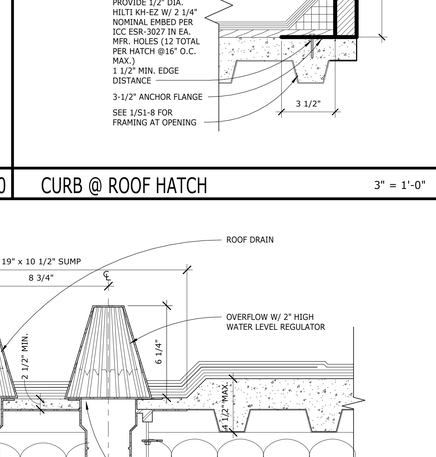
PENETRATION CLEARANCES 1/2" = 1'-0" | 3



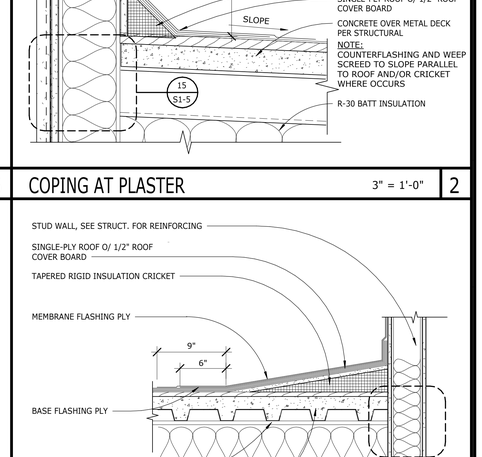
ROOF ACCESS LADDER - ROOF 3/4" = 1'-0" | 13



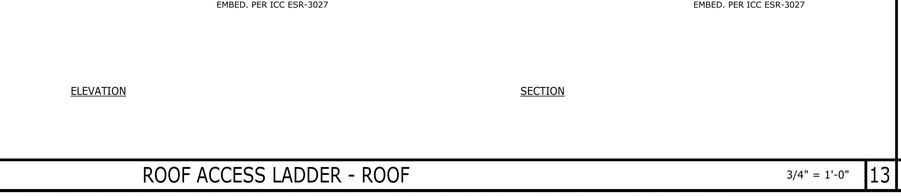
LADDER WALL BRACKET N.T.S. | 10



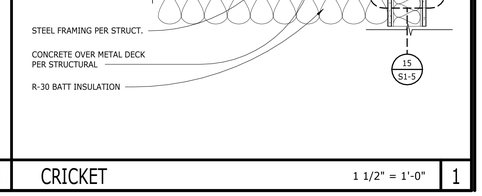
CURB @ ROOF HATCH 3" = 1'-0" | 6



COPING AT PLASTER 3" = 1'-0" | 2



ROOF DRAIN AND OVERFLOW DRAIN SUMP 3" = 1'-0" | 5



CRICKET 1 1/2" = 1'-0" | 1

STATE:

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(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT PAUL WESTBERG C-11045 EXP.9-2025 STATE OF CALIFORNIA

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CLIENT:

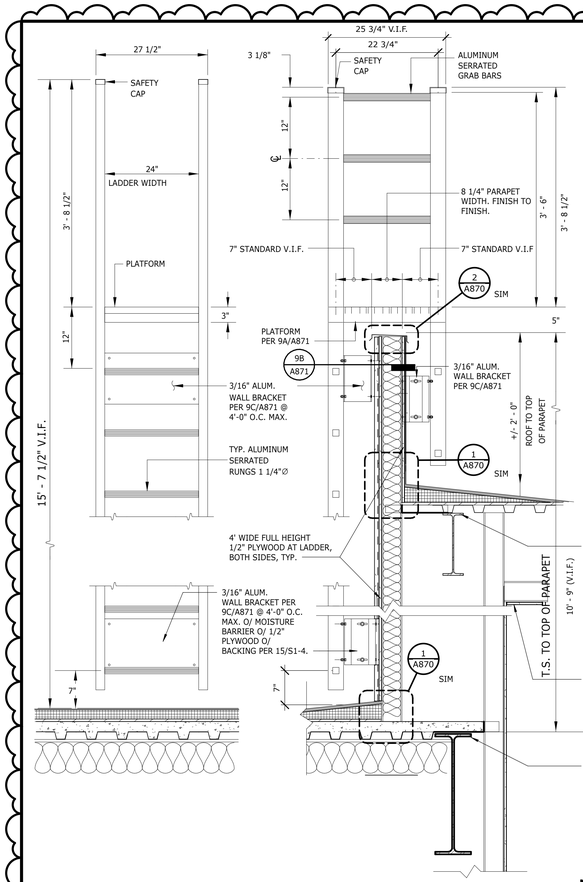
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MG/AV/GC
CHECK: GC/JG/RB
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
ROOF DETAILS (CONCRETE OVER METAL DECK)

SHEET NO:
A870

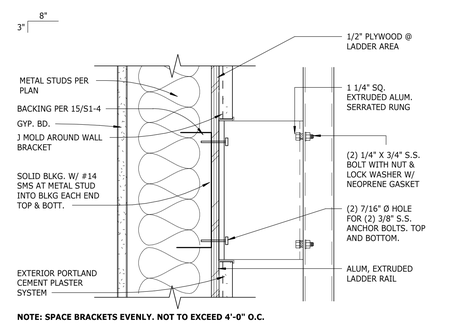


FRONT ELEVATION
N.T.S.

SIDE ELEVATION
N.T.S.

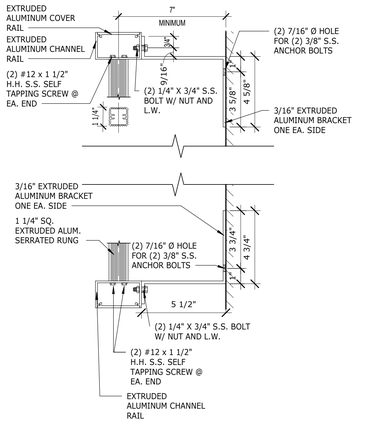
NOTE: LADDER ASSEMBLY INCLUDING PLATFORM COMES PRE-ASSEMBLED FROM MFR.

HIGH PARAPET ACCESS LADDER1 — 1" = 1'-0" — 9

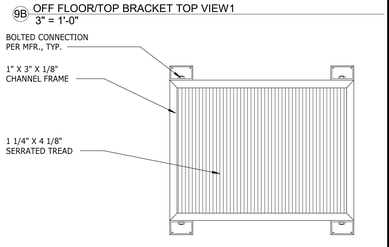


NOTE: SPACE BRACKETS EVENLY. NOT TO EXCEED 4'-0" O.C.

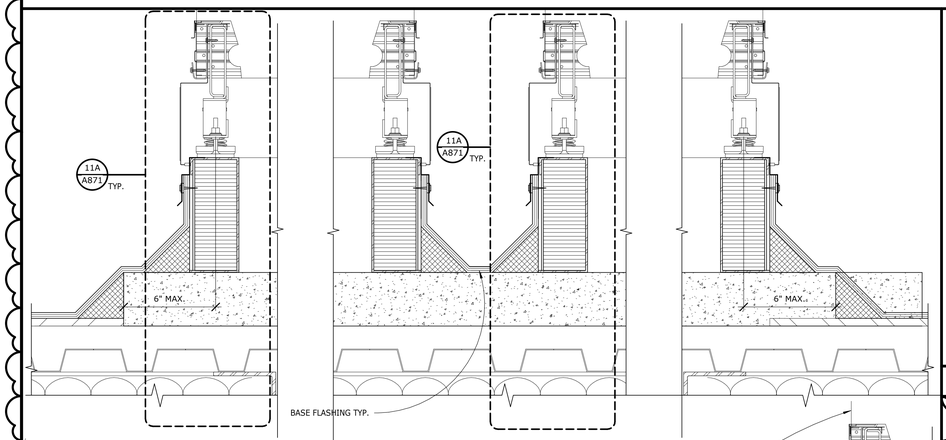
9C OFF FLOOR/ TOP BRACKET SIDE VIEW1
3" = 1'-0"



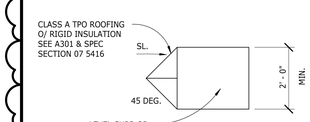
9B OFF FLOOR/TOP BRACKET TOP VIEW1
3" = 1'-0"



9A PLATFORM PLAN1
6" = 1'-0"

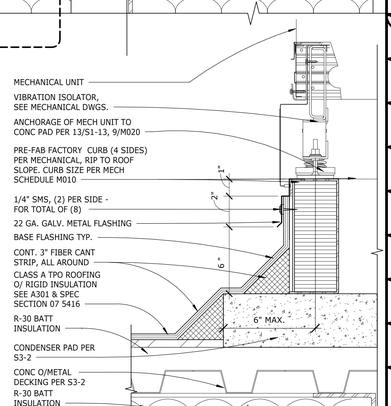


11B: SPLIT AIR CONDITIONING CURB AND CONDENSER



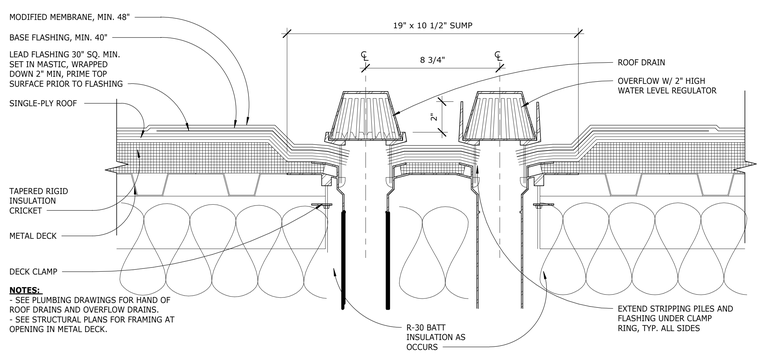
CRICKET PLAN A
NO SCALE

NOTES:
1. ANY SECUREMENT OF UNITS OR SUPPORTS INTO THE HORIZONTAL PLATFORM SURFACE SHALL BE THROUGH SOLID 1/4" NEOPRENE GASKET. APPLY ELASTOMERIC SEALANT ON UNDERSIDE AND TOP OF GASKET IMMEDIATELY PRIOR TO INSTALLING BOLTS.
2. INSTALL CRICKET ON HIGH SIDE OF PLATFORMS 24" OR WIDER. MITER CRICKET TO MEET FLUSH WITH DECK AND PLATFORM. PLATFORM SHALL BE RAISED AS NECESSARY TO EXTEND A MINIMUM 7 1/2" ABOVE THE CRICKET (WHERE REQUIRED).
3. PROVIDE SOLID BLOCKING AT ISOLATORS.



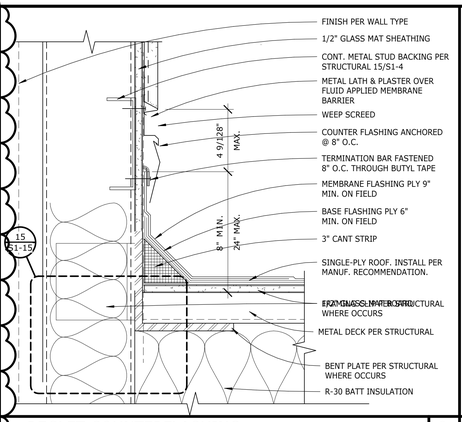
11A: MECHANICAL UNIT CURB

MECHANICAL UNIT CURB — 3" = 1'-0" — 11

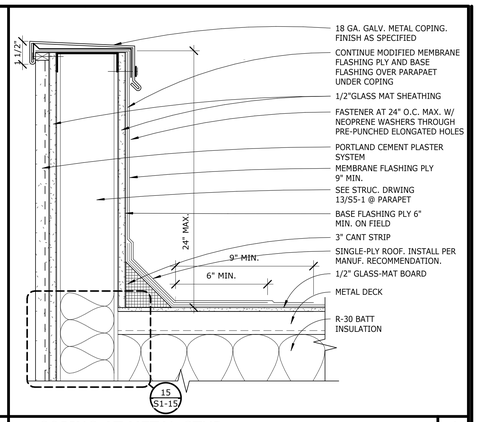


NOTES:
- SEE PLUMBING DRAWINGS FOR HAND OF ROOF DRAINS AND OVERFLOW DRAINS.
- SEE STRUCTURAL PLANS FOR FRAMING AT OPENING IN METAL DECK.

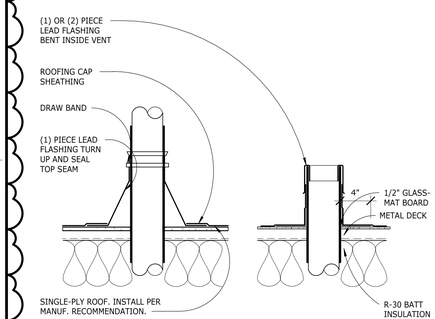
ROOF DRAIN AND OVERFLOW DRAIN SUMP — 3" = 1'-0" — 5



REGLET COUNTERFLASHING — 3" = 1'-0" — 8

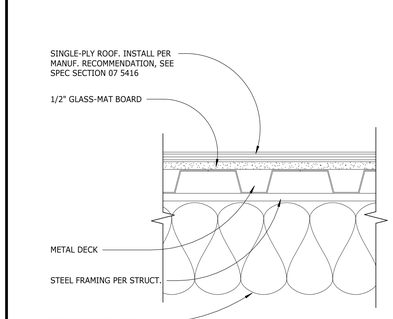


COPING AT METAL STUD — 3" = 1'-0" — 4

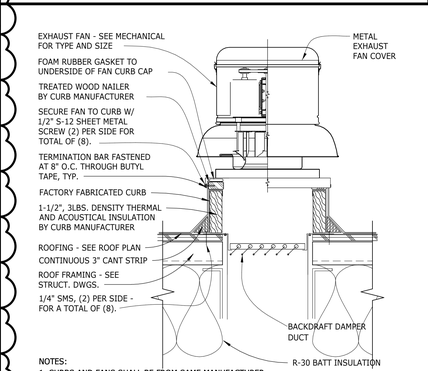


HIGH PIPE PROFILE **LOW PIPE PROFILE**

TYP. ROOF PENETRATIONS — 1 1/2" = 1'-0" — 7

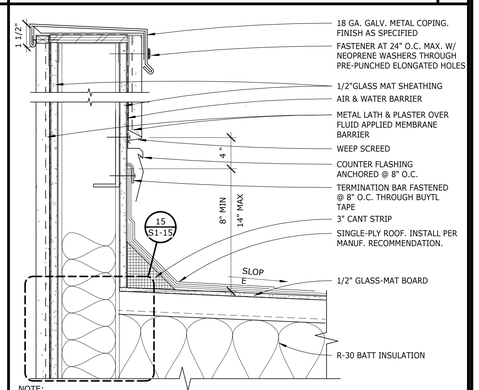


SINGLE-PLY O/ MTL DECK — 3" = 1'-0" — 3



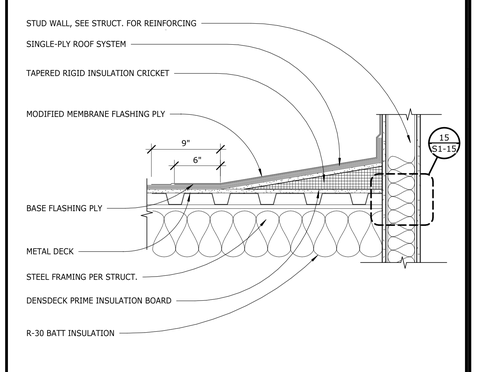
NOTES:
1. CURBS AND FANS SHALL BE FROM SAME MANUFACTURER
2. WHERE DUCTS PENETRATE A FIRE RATED CEILING ROOF ASSEMBLY ENCASE ENTIRE RUN OF DUCT FROM CEILING TO TOP OF ROOF SHEETING WITH 5/8" TYPE "X" GYPSUM BOARD (TYP.)

EXHAUST FAN — 3" = 1'-0" — 6



NOTE:
COUNTERFLASHING AND WEEP SCREED TO SLOPE PARALLEL TO ROOF AND/OR CRICKET WHERE OCCURS

COPING AT PLASTER — 3" = 1'-0" — 2



CRICKET — 1 1/2" = 1'-0" — 1

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT
C-11045 EXP.9-2023
STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

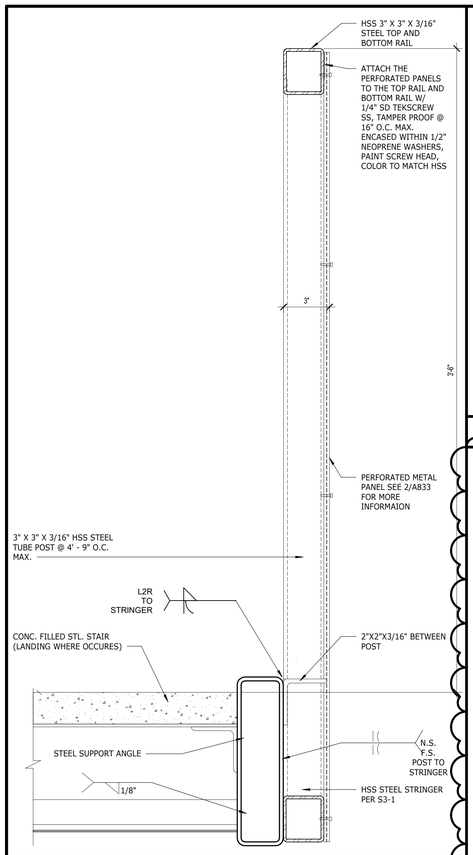
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

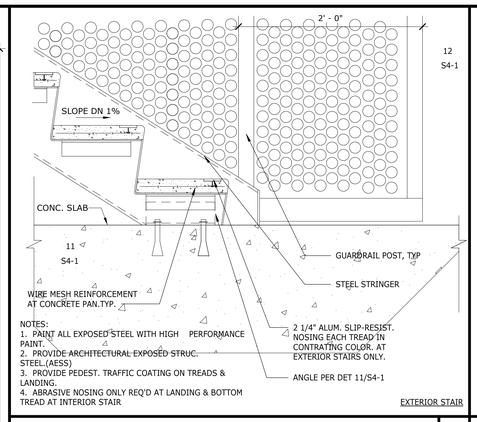
JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MG
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
ROOF DETAILS

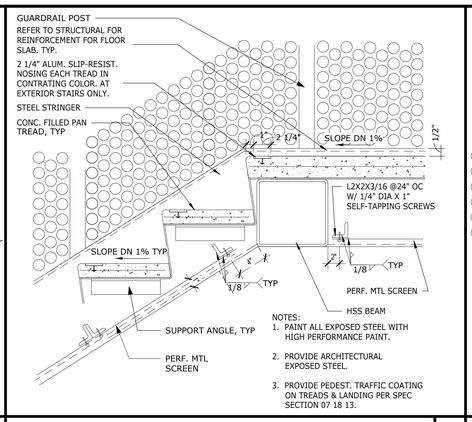
SHEET NO:
A871



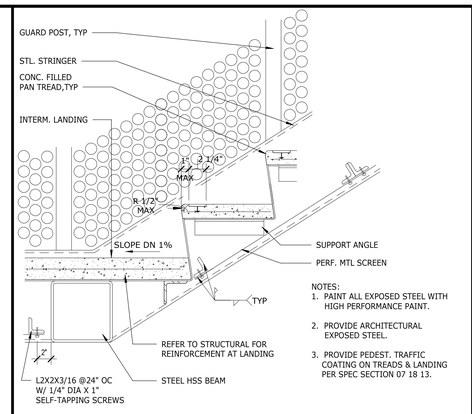
GUARDRAIL AT STRINGER 3" = 1'-0" 19



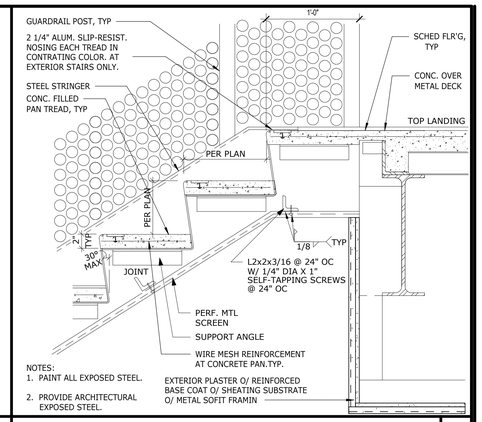
STAIR AT BOTTOM LANDING 1 1/2" = 1'-0" 16



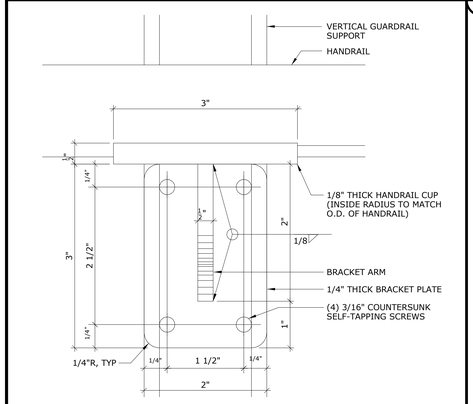
STAIR TOP @ INTERMED. LANDING 1 1/2" = 1'-0" 12



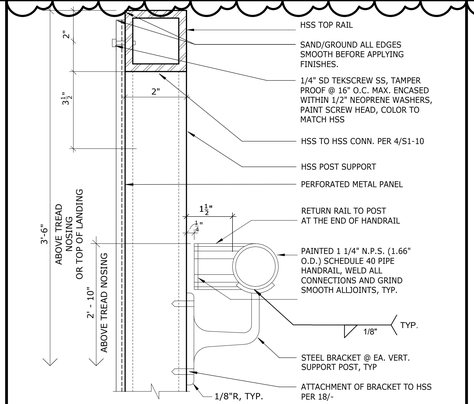
STAIR BOT. @ INTERMED. LANDING 1 1/2" = 1'-0" 8



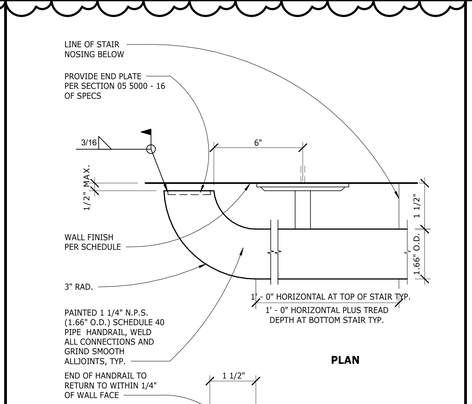
STAIR AT TOP LANDING 1 1/2" = 1'-0" 4



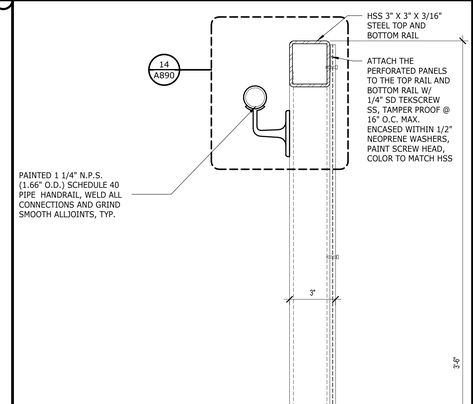
HANDRAIL BRACKET ELEVATION 12" = 1'-0" 18



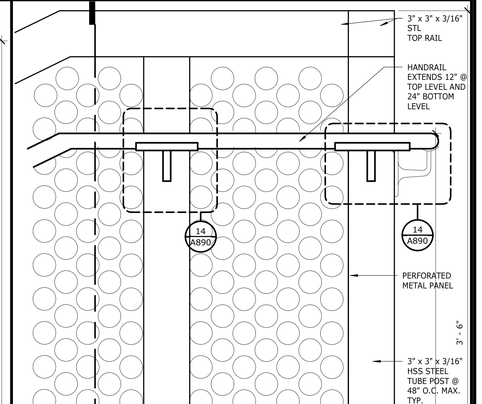
ENLARGED RAILING SECTION 6" = 1'-0" 14



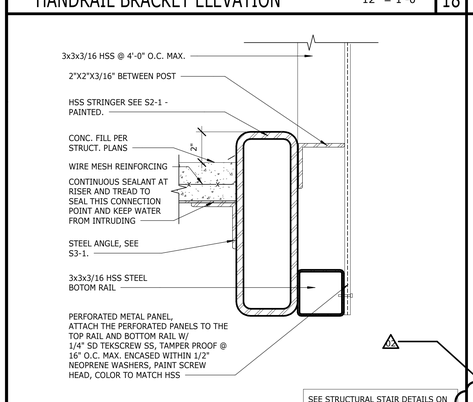
PERF. MTL. PANEL @ STAIR 1 3/4" = 1'-0" 11



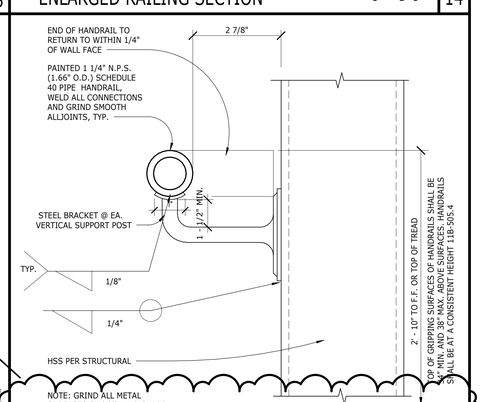
GUARDRAIL AT STRINGER 3" = 1'-0" 5



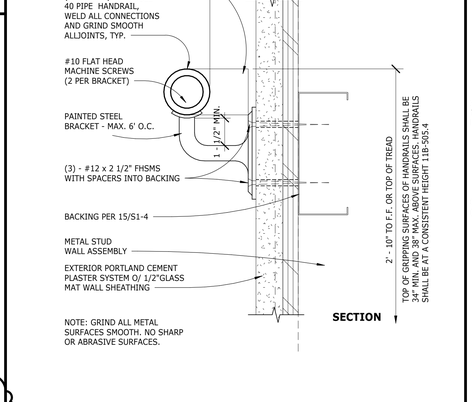
GUARDRAIL AT TOP LANDING 3" = 1'-0" 1



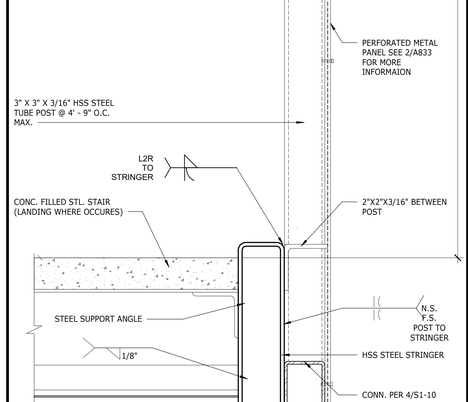
SECTION AT RISER AT HSS 3" = 1'-0" 17



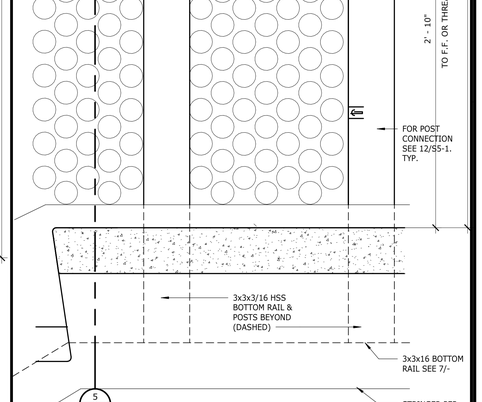
HANDRAIL AT HSS 6" = 1'-0" 13



HANDRAIL AT MTL. STUD WALL 6" = 1'-0" 9



DETAILS @ TOP/BOTTOM HSS 6" = 1'-0" 7



PERF. PANEL ATTACH. @STAIR & LANDING 6" = 1'-0" 3

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT — PAUL WESTBERG — C-11045 EXP.9-2025 — STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

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WILL ROGERS MIDDLE SCHOOL
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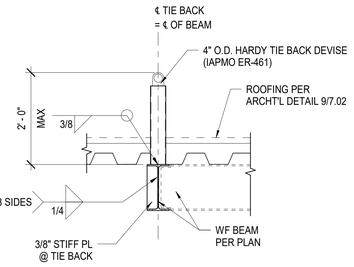
No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 2/27/2024
DRAWN: MH
CHECK: SW
ARCHITECT: PDW
ENGINEER:

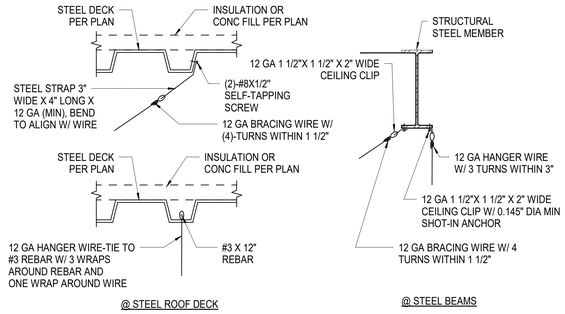
SHEET DESCRIPTION:
STAIR DETAILS

SHEET NO:

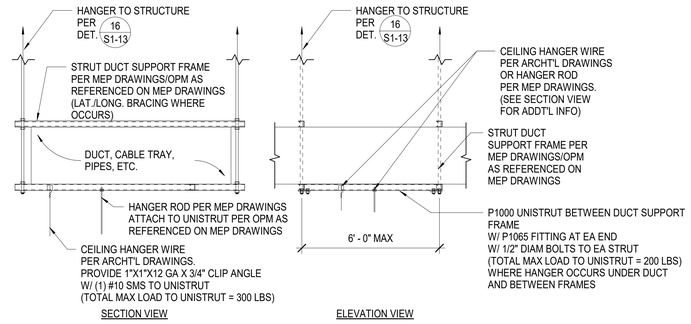
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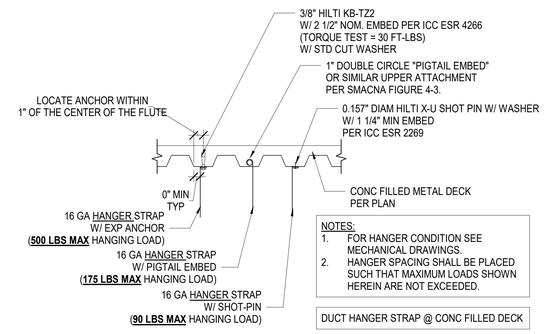
1 S1-13 **TIE BACK DETAIL**
SCALE: N.T.S.



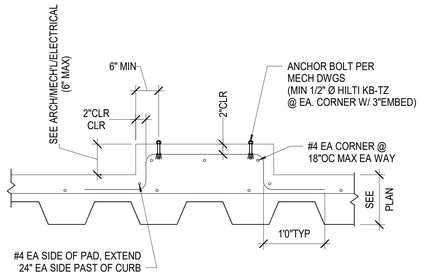
2 S1-13 **TYP WIRE CONNECTION TO STEEL FRAMING**
SCALE: N.T.S.



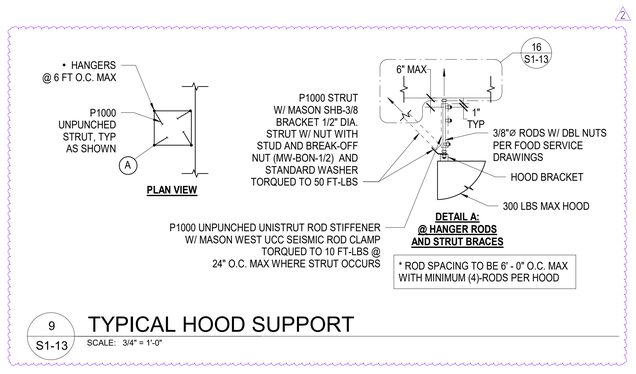
3 S1-13 **CEILING / MISC. EQUIPMENT (150 LBS MAX) HANGER AT OBSTRUCTION**
SCALE: N.T.S.



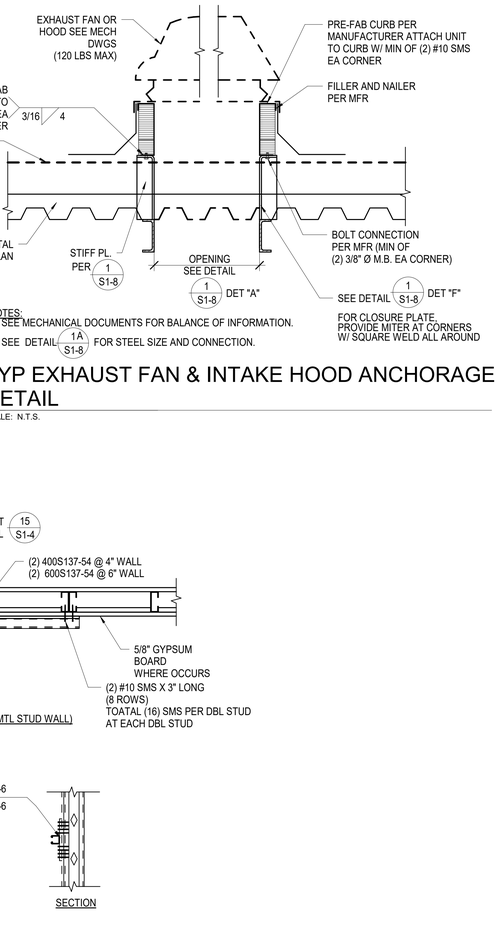
4 S1-13 **HANGER STRAP TO MTL DECK**
SCALE: N.T.S.



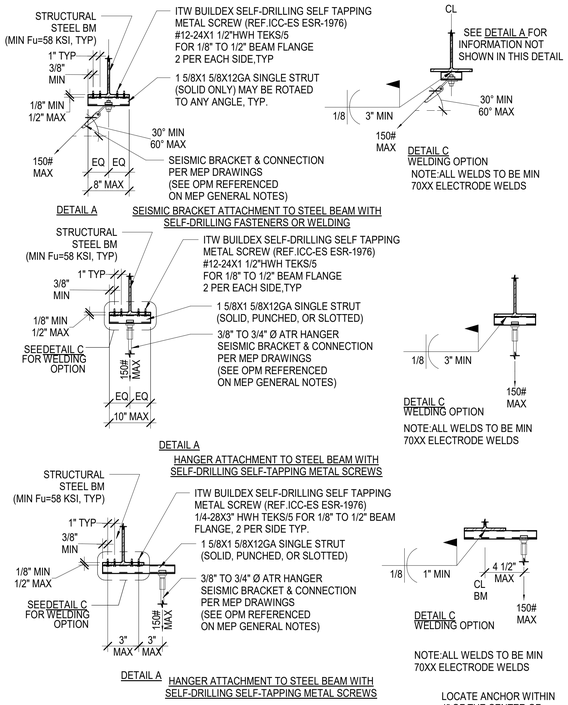
5 S1-13 **EQUIPMENT PAD**
SCALE: N.T.S.

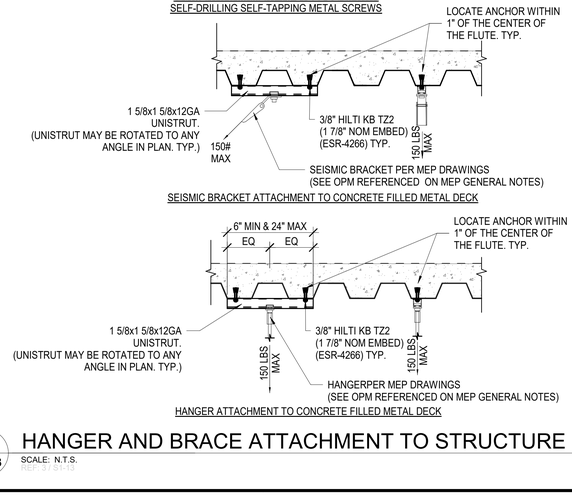


9 S1-13 **TYPICAL HOOD SUPPORT**
SCALE: 3/4" = 1'-0"

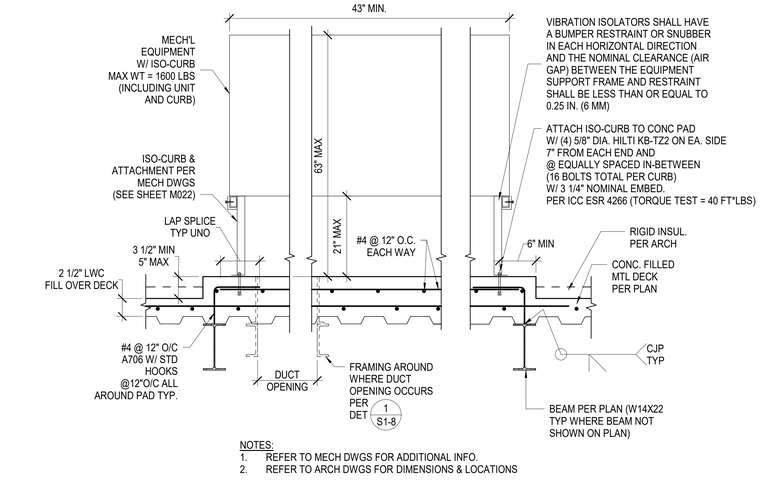


11 S1-13 **TYP EXHAUST FAN & INTAKE HOOD ANCHORAGE DETAIL**
SCALE: N.T.S.

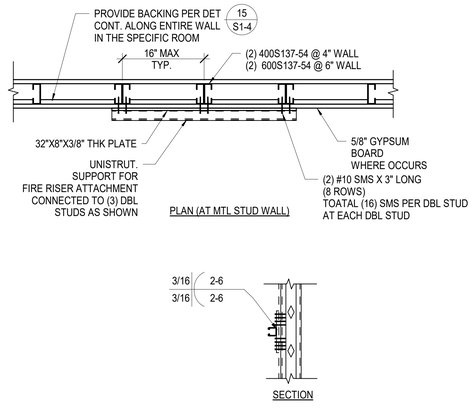




16 S1-13 **HANGER AND BRACE ATTACHMENT TO STRUCTURE**
SCALE: N.T.S.



13 S1-13 **SECTION AT EQUIPMENT PAD**
SCALE: N.T.S.



14 S1-13 **UNISTRUT TO METAL STUD/CONC WALL CONNECTION**
SCALE: N.T.S.

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
VCA ENGINEERS INC
CIVIL • STRUCTURAL
2151 Michelson Dr. #240
Irvine, CA 92612
Tel. 949.679.0870
Fax. 949.679.9370
Project No.: J908

PROJECT NAME:
WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
2	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: AQ
CHECK: YN
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
TYPICAL MECHANICAL
EQUIPMENT DETAILS

SHEET NO:
S1-13

FOUNDATION NOTES:

1. FOR GENERAL NOTES, SEE S0-## SERIES.
2. FOR TYPICAL DETAILS, SEE S1-## SERIES, SEE REFERENCES BELOW.
3. FOR OVER EXCAVATION DETAIL SEE 9 / S1-2 .
4. DRAWING DATUM = 0'-0" @ GROUND FLOOR FINISH FLOOR (SEE CIVIL & ARCH FOR ACTUAL ELEVATION)
5. FOR GRADE BEAM / WALL FTG CROSSING, SEE 9 / S1-3
   & FOR SPREAD FTG AT GRADE BEAM, SEE 2 / S1-3
6. FOR WALL FOOTING THRU / TERMINATION DETAIL SEE 6 / S1-3
7. TYPICAL SLAB ON GRADE UNDERLAYMENT: 15 MIL VAPOR BARRIER OVER A MINIMUM OF 4 INCHES OF 1/2" COMPACTED CRUSHED ROCK LAYER OVER COMPACTED FILL. CONTRACTOR TO PROTECT VAPOR BARRIER FROM PUNCTURE.
8. FOR SLAB SAWCUT AND CONTROL JOINT, SEE DETAIL 16 / S1-1
   & FOR TYPICAL SLAB EDGE, SEE 9 / S1-1
9. UNDERGROUND UTILITY NOTE: CONTRACTOR SHALL COORDINATE ALL NEW AND EXISTING UTILITIES PRIOR TO ANY FOUNDATION WORK PER 5 / S1-2 & 8 / S1-2 STEP FOOTINGS AS REQUIRED PER DETAIL 3 / S1-2 @ SLRS FRAMES, STEPS NOT NOTED HEREIN REQUIRE SEOR & DSA APPROVAL. WHERE ADDITIONAL STEPS ARE REQUIRED, NOTIFY SEOR.
10. INDICATES STEP IN FOOTING PER DETAIL 3 / S1-2 @ SLRS FRAMES, STEPS NOT NOTED HEREIN REQUIRE SEOR & DSA APPROVAL.
11. INDICATES DEPRESSED SLAB (2" UNO). SEE DETAIL 9 / S1-1 REFER TO ARCHT'L DRAWINGS FOR DEPRESSIONS NOT SHOWN AND ANY ADDITIONAL INFORMATION.
12. SHOWS ELEVATION OF FRAME ELEVATION
13. DENOTES WALL W/ CONC CURB (NOT SHOWN UNDER WINDOW FOR CLARITY),SEE ARCHT'L FOR CURB HEIGHT) 8 / S1-1 @ CURB ON GRADE; 1 / S4-1 @ EXTERIOR WALL AT GRADE UNO

FOOTING SCHEDULES:

SF-# INDICATES SPREAD FOOTING. SEE SPREAD FOOTING SCHEDULE FOR ADDITIONAL INFO.

SPREAD FOOTING SCHEDULE					
MARK	DIMENSIONS			REINFORCEMENT	
	LENGTH	WIDTH	DEPTH	BOTTOM	TOP
SF-4	4' - 0"	4' - 0"	18"	(7)-#6 E.W.	(4)-#6 E.W.
SF-5	5' - 0"	5' - 0"	18"	(7)-#6 E.W.	(5)-#6 E.W.
SF-6	6' - 0"	6' - 0"	18"	(7)-#6 E.W.	(5)-#6 E.W.
SF-7	7' - 0"	7' - 0"	18"	(8)-#6 E.W.	(8)-#6 E.W.
SF-8	8' - 0"	8' - 0"	18"	(8)-#6 E.W.	(8)-#6 E.W.
SF-9	9' - 0"	9' - 0"	30"	(10)-#7 E.W.	(10)-#7 E.W.
SF-10	10' - 0"	10' - 0"	30"	(11)-#7 E.W.	(11)-#7 E.W.

WF-# INDICATES WALL FOOTING.

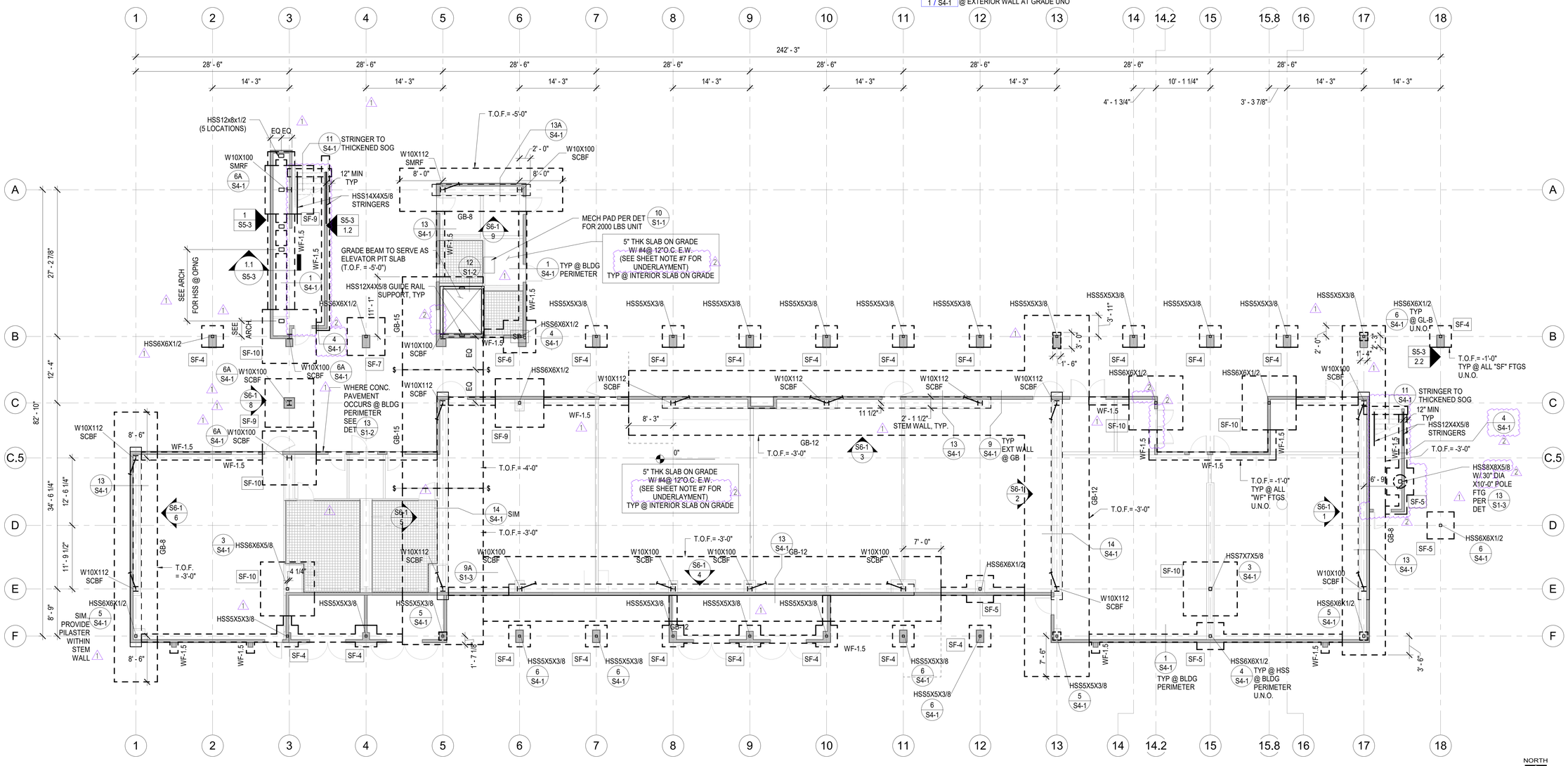
WALL FOOTING SCHEDULE					
MARK	DIMENSIONS		REINFORCEMENT		#4 TIES @ 16"O/C, U.N.O
	WIDTH	DEPTH	TOP BARS	BOTTOM BARS	
WF-1.5	1'-6"	18"	(3) #5	(3) #5	

CAP TIE
ALT CAP TIE

GB-# INDICATES WALL GRADE BEAM.

GRADE BEAM SCHEDULE							
MARK	DIMENSIONS		LONG. REINF.		TRANV. REINF.		#4 TIES @ 16" O.C., U.N.O.
	WIDTH	DEPTH	TOP BARS	BOTT. BARS	TOP BARS @12" O.C. @ EA COL	BOTT. BARS @12" O.C. @ EA COL	
GB-8	8' - 0"	3' - 6"	(6) #10	(9) #10	(8) #4	(8) #10	
GB-12	12' - 0"	3' - 9"	(11) #10	(13) #10	(12) #5	(12) #10	
GB-15	15' - 0"	4' - 0"	(13) #10	(19) #10	(15) #6	(15) #10	

ALT. CAP; 3 INTERMED U.N.O.; ALT HOOK LOCATION; EQ EQ; TYP. TIE LAYOUT U.N.O.



1 / S2-1 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"
REF DET: 1 S5-3

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Fax. 949.679.9370
Project No.: J908

PROJECT NAME:
WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

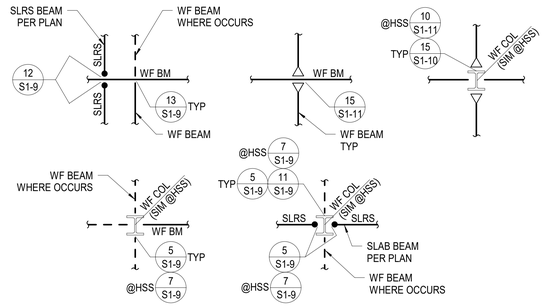
No.	Rev. Date	Description
	03/19/2025	ADDENDUM 1
	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: AQ
CHECK: YN
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FOUNDATION PLAN

SHEET NO:
S2-1

TYPICAL BM TO BM & BM TO COL. LEGEND

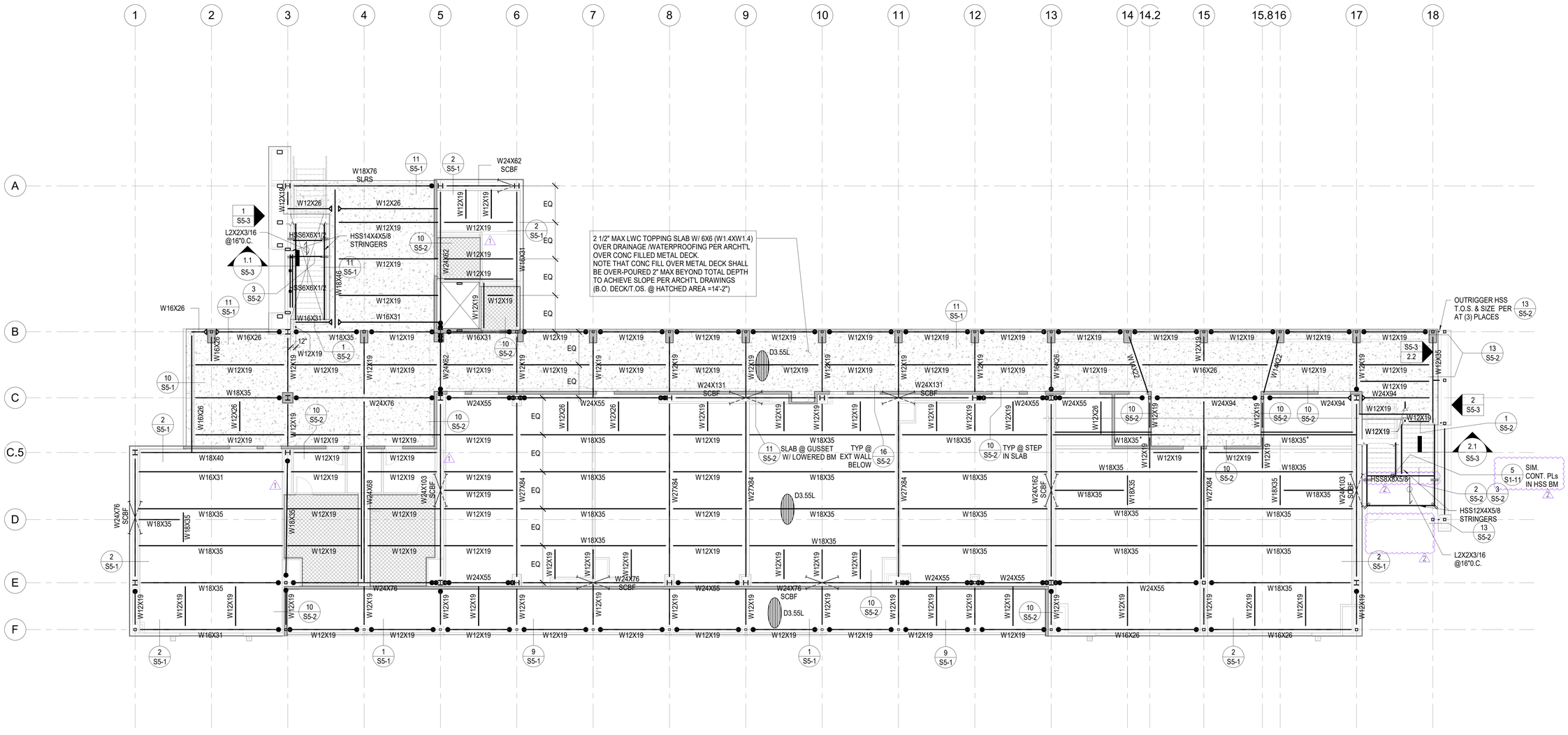


FLOOR FRAMING NOTES:

1. FOR GENERAL NOTES, SEE S0-## SERIES.
2. FOR TYPICAL DETAILS, SEE S1-## SERIES, SEE REFERENCES BELOW.
3. STEEL BEAMS NOT ON A GRID LINE SHALL BE LOCATED 1' - 1" FROM EDGE OF DECK UNO.
4. DECK PER DECK SCHEDULE BELOW SEE 13 / S1-8 FOR ADDITIONAL INFORMATION.
5. SEE PLAN FOR T.O.S. NOTE, COORDINATE T.O.S. NOTED WITH ARCHITECTURAL DRAWINGS
6. FOR TYPICAL BEAM TO BEAM CONNECTIONS, SEE DETAIL 13 / S1-9
7. CANTILEVER BEAM MOMENT CONNECTION SEE DET TYP BM TO BM & BM TO COL LEGEND.
8. COLUMNS : SEE FLOORS BELOW FOR SIZES NOT NOTED ON THIS SHEET.
9. SPLICE @WF BEAMS. SEE DETAIL 4 / S1-11 & SPLICE @ TUBE STL SEE DETAIL 13 / S1-10
   MITER CORNER IN TUBE STL SEE DET. 5 / S1-11
10. INDICATES BOLT CONNECTION AT SLRS SEE DETAIL 12 / S1-9
    INDICATES (3) ROWS OF A490SC, ●●●
    INDICATES (2) ROWS OF A490SC, ●●
    INDICATES (1) ROW OF A490SC, ●
11. INDICATES DEPRESSED SLAB (2" UNO). SEE DETAIL 6 / S1-10
    REFER TO ARCHT'L DRAWINGS FOR ADDT'L INFO. LOCATE MISC. W12X STEEL 10" FROM EDGE OF STEP
12. * NEXT TO BM SIZE INDICATES LOWERED BEAM AROUND DEPRESSED AREA SEE 2 / S1-10 FOR BEAM WITH WT SECTION.
    NOTE: DOUBLE LINE DENOTES EXTENT OF WT.
13. ALL STEEL BEAMS SHALL HAVE WELDED STUDS. SEE DETAIL 13 / S1-11
14. FRAME OPENINGS IN SLAB PER DET 1 / S1-8
15. DENOTES FLOOR/ROOF PENETRATION. FOR TRIM REINF SEE DETAIL 7 / S1-8 SEE ARCHT'L / MEP DRAWINGS FOR ACTUAL LOCATION AND ADDITION INFO AND ADDITIONAL PENETRATIONS NOT SHOWN IN THESE DRAWINGS
16. AT ALL SLRS BEAMS (DRAG BEAMS, SCBF/SMF BEAMS) PROVIDE BRACING @ 8'-0" O/C MAX PER DETAIL 1 / S1-12 & 2 / S1-12
17. DENOTES WALL W/ CONC CURB (NOT SHOWN UNDER WINDOW FOR CLARITY, SEE ARCHT'L FOR CURB HEIGHT)
    16 / S1-8 @ METAL DECK
    10 / S5-2 @ EXTERIOR WALL ON METAL DECK

DECK SCHEDULE

DECK MARK	TYPE	GAGE	I (IN4/FT)	S (TOP +) (IN3/FT)	S (BOT -) (IN3/FT)	TOTAL DEPTH(IN)	CONC FILL TYPE	REINF.	SIDE-SEAM ATTACHMENT	ATTACHMENT PATTERN	WELDED STUDS
D1.50B	ASC B IAPMO 0329	18	0.287	0.311	0.329	1 1/2"	N/A	N/A	TOP SEAM WELD @ 12" O/C	36/4	N/A
D2.45L	ASC 2W IAPMO 0329	18	0.570	0.472	0.488	4 1/2"	LWC	#3 @ 12" O/C E.W.	TOP SEAM WELD @ 24" O/C	36/4	3/4 DIAM. X 4" FN HT @ 12" O/C
D3.55L	ASC 3W IAPMO 0329	18	1.230	0.761	0.781	5 1/2"	LWC	#3 @ 12" O/C E.W.	TOP SEAM WELD @ 24" O/C	36/4	3/4 DIAM. X 5" FN HT @ 12" O/C



1 S3-1 2ND FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"
REF DET:1 S5-3

NORTH

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STATE:

ARCHITECT:

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NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

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No.	Rev. Date	Description
	03/19/2025	ADDENDUM 1
	03/27/2025	ADDENDUM 2

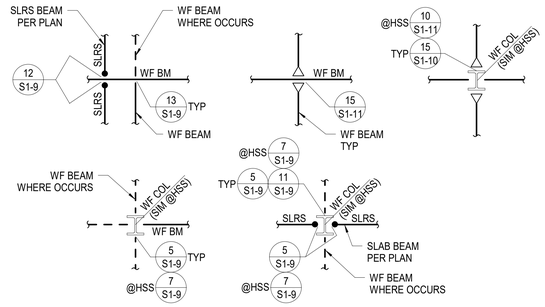
JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
SECOND FLOOR FRAMING PLAN

SHEET NO:

S3-1

TYPICAL BM TO BM & BM TO COL. LEGEND



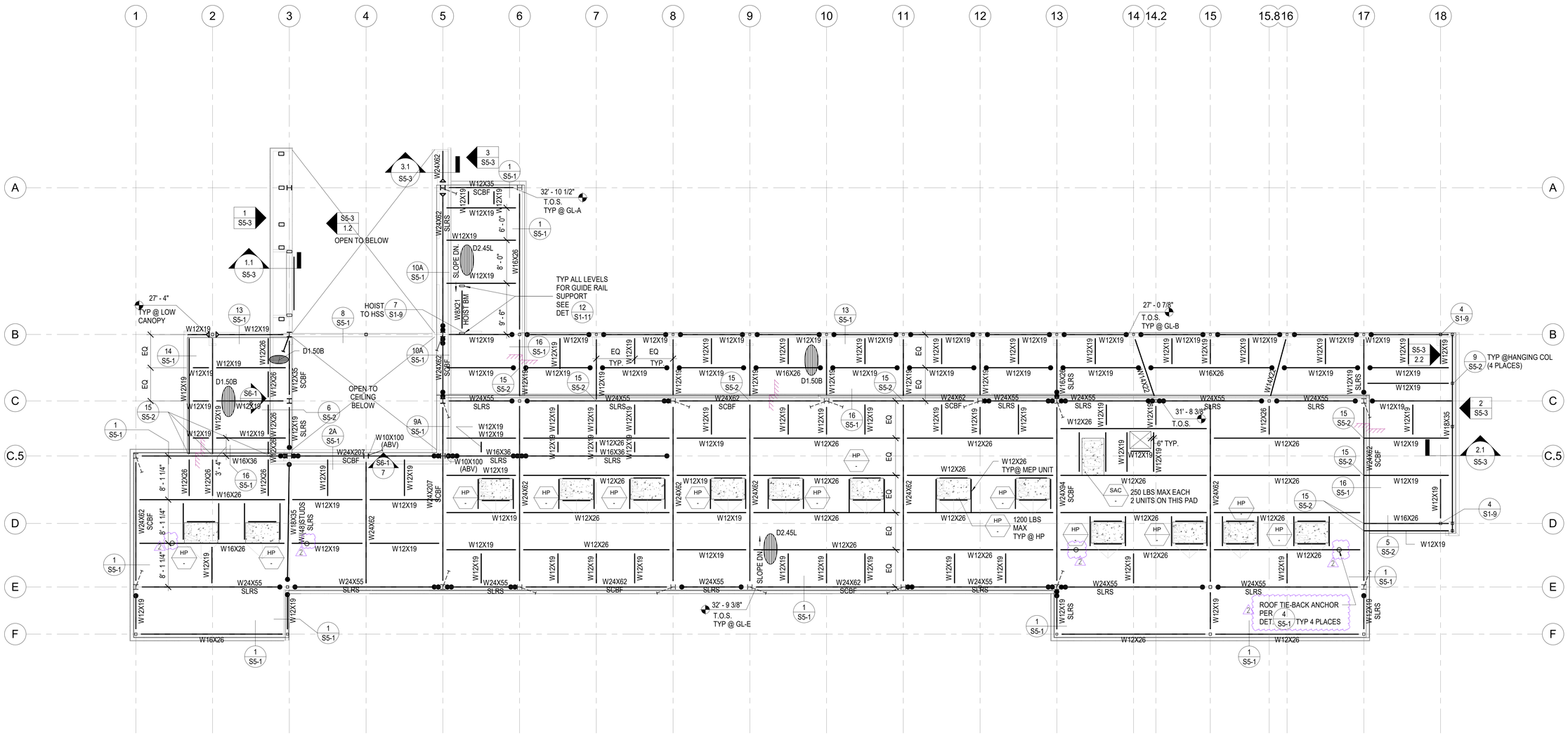
ROOF FRAMING NOTES:

1. FOR GENERAL NOTES, SEE S0-## SERIES.
2. FOR TYPICAL DETAILS, SEE S1-## SERIES, SEE REFERENCES BELOW.
3. NOT USED.
4. DECK PER DECK SCHEDULE BELOW
   SEE 13 / S1-8 FOR ADDITIONAL INFORMATION.
5. TOS = VARIES, SEE PLAN & VERIFY WITH ROOF SLOPES NOTED ON ARCHT'L DRAWINGS
   SEE DET. 3 / S1-11 FOR TYP. SLOPE SECTION.
   PROVIDE BENT PL @ SKEWED BEAMS PER PLAN DET. 2 / S1-11
6. FOR TYPICAL BEAM TO BEAM CONNECTIONS, SEE DETAIL 13 / S1-9
7. CANTILEVER BEAM MOMENT
   CONNECTION SEE DET TYP BM TO BM & BM TO COL LEGEND.
8. INDICATES BOLT CONNECTION AT SLRS SEE DETAIL 11 / S1-9
   INDICATES (3) ROWS OF A490SC, ●●●
   INDICATES (2) ROWS OF A490SC, ●●
   INDICATES (1) ROW OF A490SC, ●
9. INDICATES LOCATION OF MECH UNIT CONC PAD.
   SEE DET. 13 / S1-13
   REFER TO MECH AND ARCH DWGS FOR ADDITIONAL INFO.
11. ALL STEEL BEAMS SHALL HAVE WELDED STUDS. SEE DETAIL 13 / S1-11
12. SHOWS EXTERIOR WALL ELEVATION
13. AT ALL SLRS BEAMS & SMF/SCBF BEAMS PROVIDE BRACING @ 8'-0" O/C MAX
    PER DETAIL 1 / S1-12 & 2 / S1-12
10. FRAME OPENING IN ROOF FOR & ROOF DRAINS, E.F, ETC.
    PER DETAIL 1 / S1-8
14. DENOTES FLOOR/ROOF PENETRATION.
    FOR TRIM REINF SEE DETAIL 7 / S1-8
    SEE ARCH'T'L / MEP DRAWINGS FOR ACTUAL
    LOCATION AND ADDITION INFO AND ADDITIONAL
    PENETRATIONS NOT SHOWN IN THESE DRAWINGS
15. # / # MAX UNIT WT
    DENOTES MECH'L UNIT PER MECH'L DRAWINGS.
    SEE MECHANICAL DRAWINGS FOR ANCHORAGE

UNIT	MAX WT
TYP HP UNIT	1200 LBS
TYP SAC UNIT	250 LBS

DECK SCHEDULE

DECK MARK	TYPE	GAGE	I (IN4/FT)	S (TOP +) (IN3/FT)	S (BOT -) (IN3/FT)	TOTAL DEPTH(IN)	CONC FILL TYPE	REINF.	SIDE-SEAM ATTACHMENT	ATTACHMENT PATTERN	WELDED STUDS
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D2.45L	ASC 2W IAPMO 0329	18	0.570	0.472	0.488	4 1/2"	LWC	#3 @ 12" O/C E.W.	TOP SEAM WELD @ 24" O/C	36/4	3/4 DIAM. X 4" FN HT @ 12" O/C
D3.55L	ASC 3W IAPMO 0329	18	1.230	0.761	0.781	5 1/2"	LWC	#3 @ 12" O/C E.W.	TOP SEAM WELD @ 24" O/C	36/4	3/4 DIAM. X 5" FN HT @ 12" O/C



1 S3-2 ROOF FRAMING PLAN

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

REF DET:1 S5-3

NORTH

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Project No.: J908

PROFESSIONAL ENGINEER — PEDRO D. WAGNER — No. S4029 — Exp. 9/30/26 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
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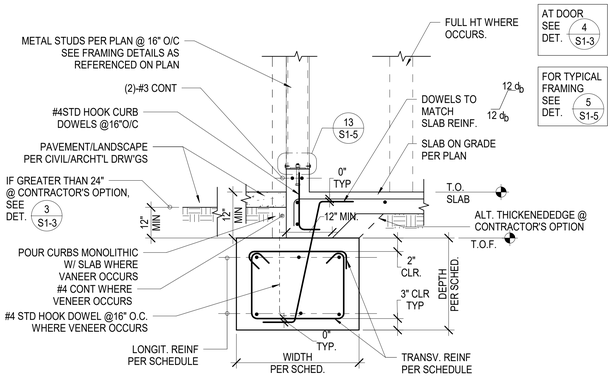
No.	Rev. Date	Description
2	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

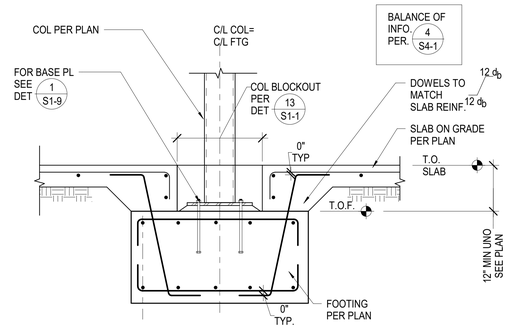
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ROOF FRAMING PLAN

SHEET NO:

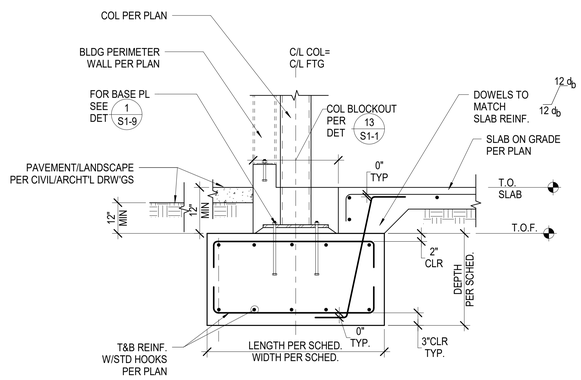
S3-2



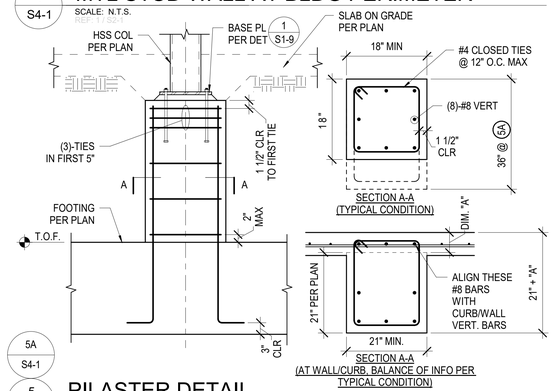
1 S4-1 **MTL STUD WALL AT BLDG PERIMETER**
SCALE: N.T.S.



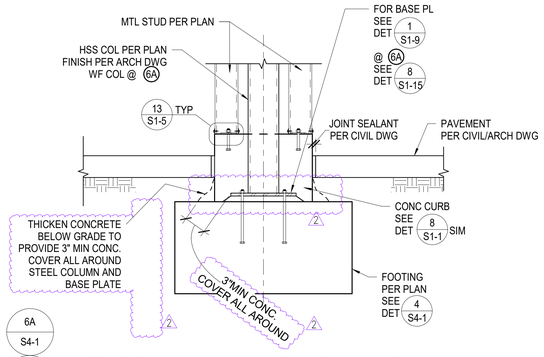
3 S4-1 **HSS COL AT BLDG INTERIOR**
SCALE: N.T.S.



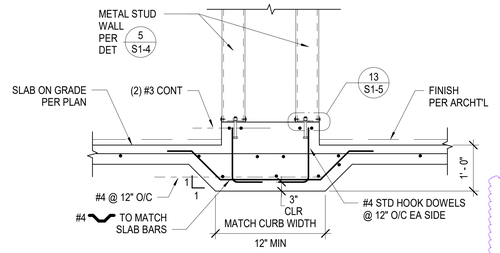
4 S4-1 **HSS COL AT BLDG PERIMETER**
SCALE: N.T.S.



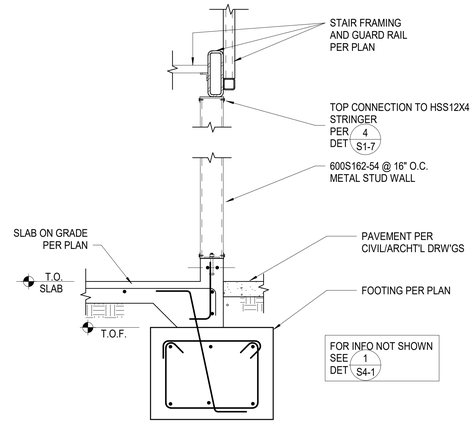
5A S4-1
5 S4-1 **PILASTER DETAIL**
SCALE: N.T.S.



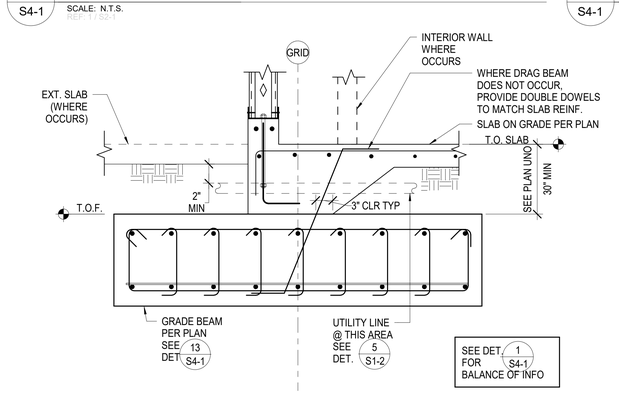
6A S4-1
6 S4-1 **HSS COL AT EXTERIOR OF BLDG**
SCALE: N.T.S.



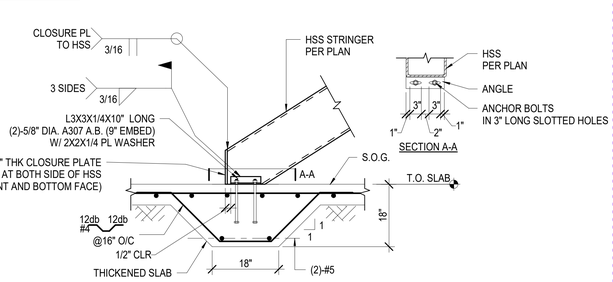
7 S4-1 **DOUBLE WALL AT CURB (MTL STUD)**
SCALE: N.T.S.



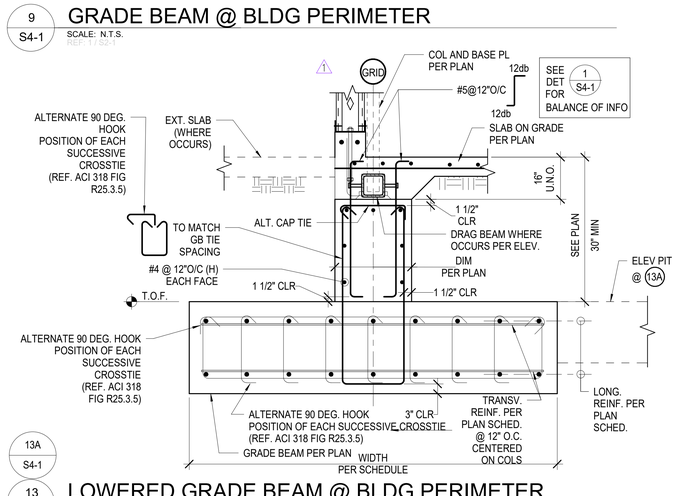
12 S4-1 **MTL STUD WALL UNDER STAIR**
SCALE: N.T.S.



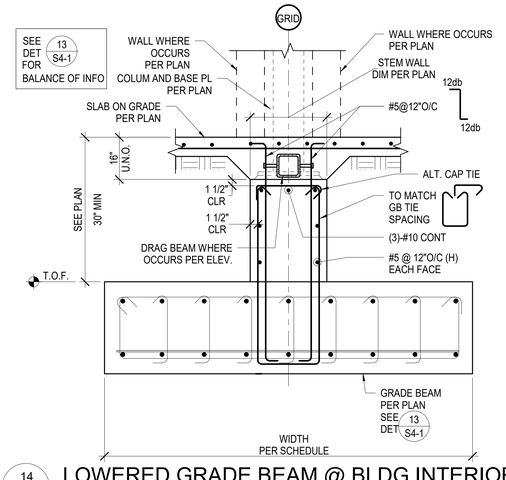
9 S4-1 **GRADE BEAM @ BLDG PERIMETER**
SCALE: N.T.S.



11 S4-1 **STRINGER TO SLAB (SLOTTED)**
SCALE: N.T.S.



13A S4-1
13 S4-1 **LOWERED GRADE BEAM @ BLDG PERIMETER**
SCALE: N.T.S.



14 S4-1 **LOWERED GRADE BEAM @ BLDG INTERIOR**
SCALE: N.T.S.

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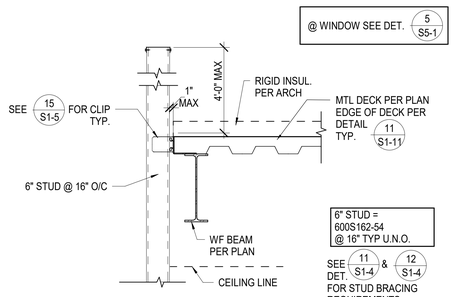
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No.	Rev. Date	Description
1	03/19/2025	ADDENDUM 1
2	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
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DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

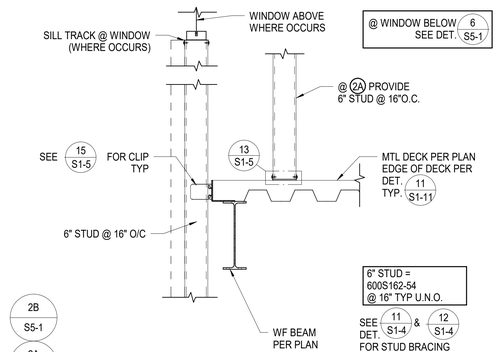
SHEET DESCRIPTION:
FOUNDATION DETAILS

SHEET NO:
S4-1



1 S5-1 **FULL HEIGHT STUD WALL @ ROOF**

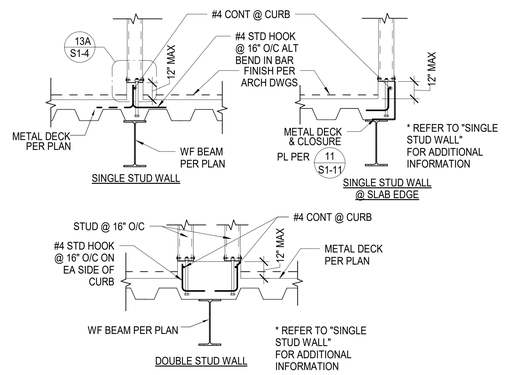
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2B S5-1
2A S5-1

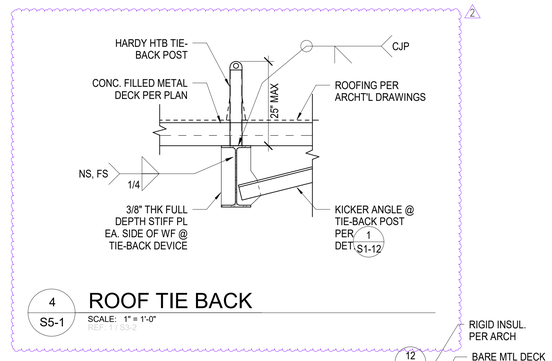
2 S5-1 **FULL HEIGHT STUD WALL @ FLOOR**

SCALE: N.T.S.



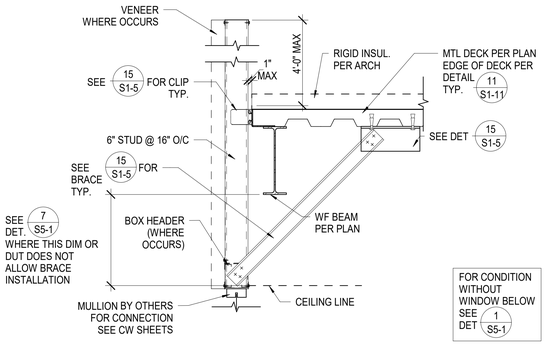
3 S5-1 **STUD WALL @ METAL DECK W/ CURB**

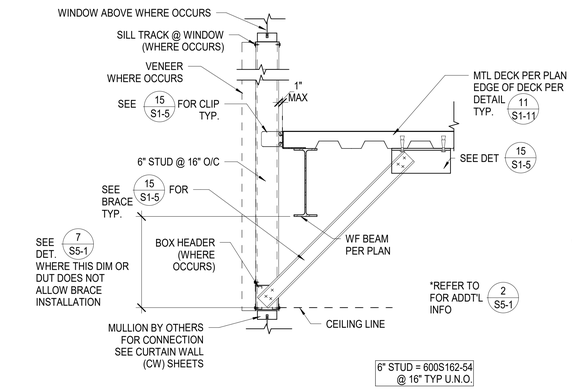
SCALE: N.T.S.

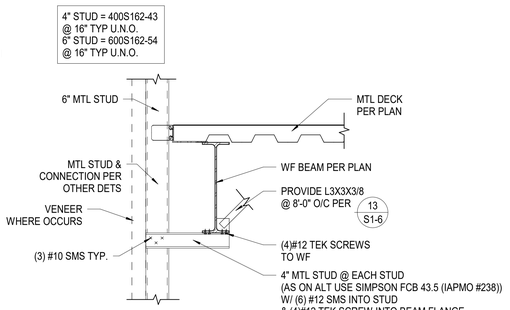


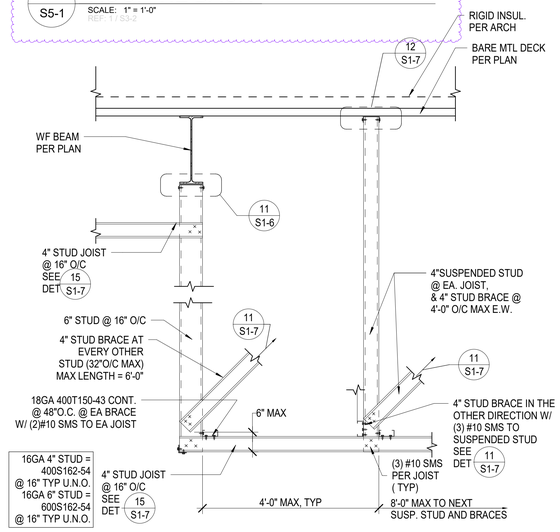
4 S5-1 **ROOF TIE BACK**

SCALE: 1" = 1'-0"



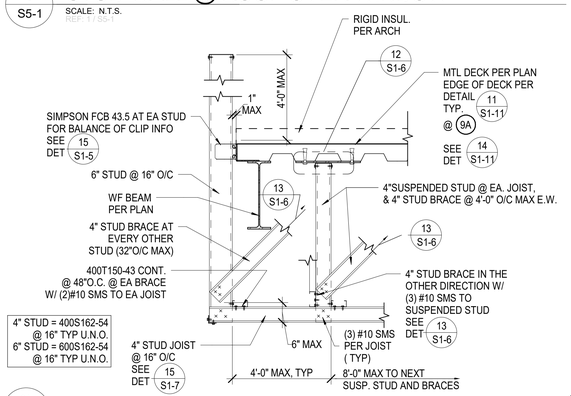






5 S5-1 **STUD WALL @ ROOF OVER WINDOW**

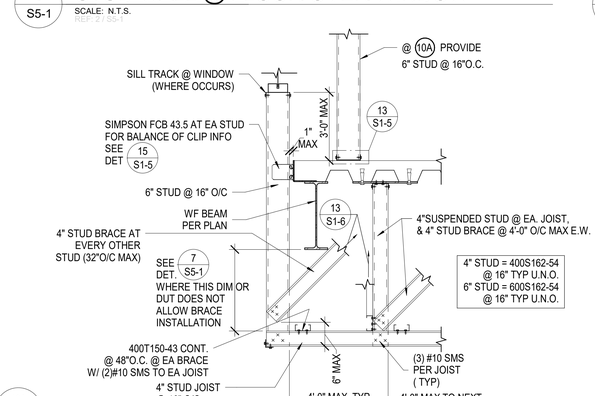
SCALE: N.T.S.



9A S5-1

9 S5-1 **STUD WALL @ ROOF W/SOFFIT**

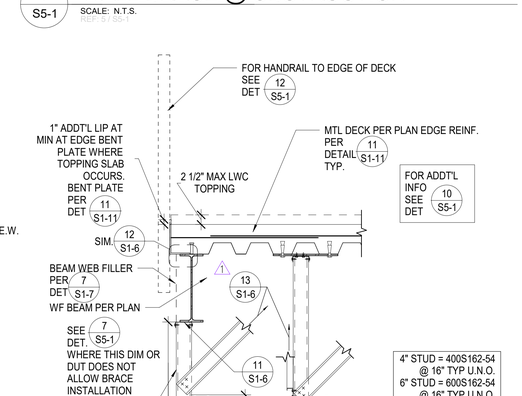
SCALE: N.T.S.



10A S5-1

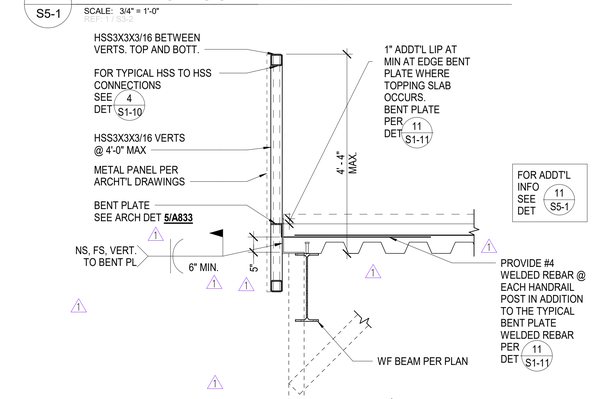
10 S5-1 **STUD WALL @ FLOOR UNDER WINDOW W/ SOFFIT**

SCALE: N.T.S.



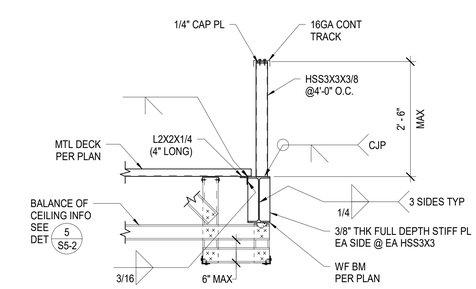
11 S5-1 **SUSPENDED STUD WALL @ BALCONY**

SCALE: N.T.S.



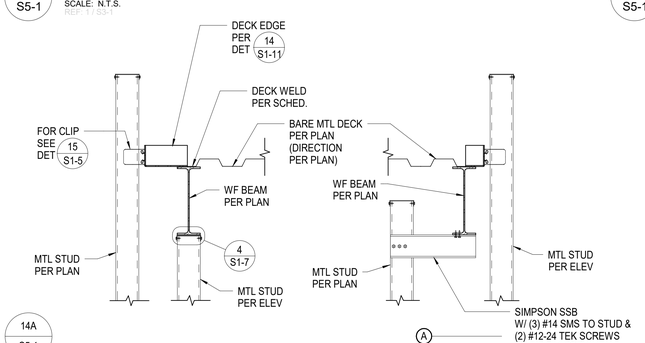
12 S5-1 **HANDRAIL AT 2ND FLOOR**

SCALE: N.T.S.



13 S5-1 **FRAMING @ CANOPY**

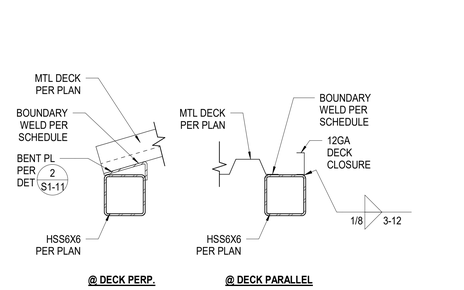
SCALE: N.T.S.



14A S5-1

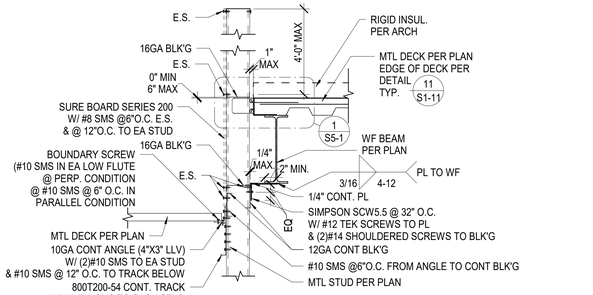
14 S5-1 **DECK TO WALL @ CANOPY**

SCALE: N.T.S.



15 S5-1 **HSS @ CANOPY EDGE**

SCALE: N.T.S.



16 S5-1 **EXTERIOR WALL @ CANOPY**

SCALE: N.T.S.

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
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Fax. 949.679.9370
Project No.: J908

PROJECT NAME:

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NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

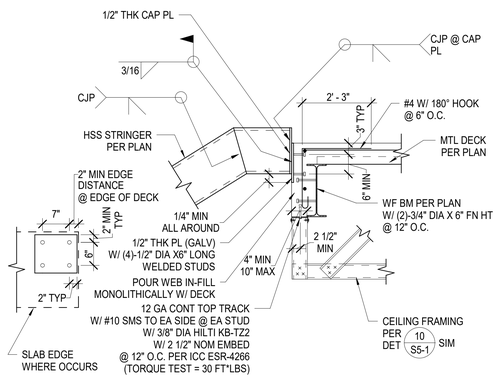
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
	03/19/2025	ADDENDUM 1
	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FRAMING DETAILS

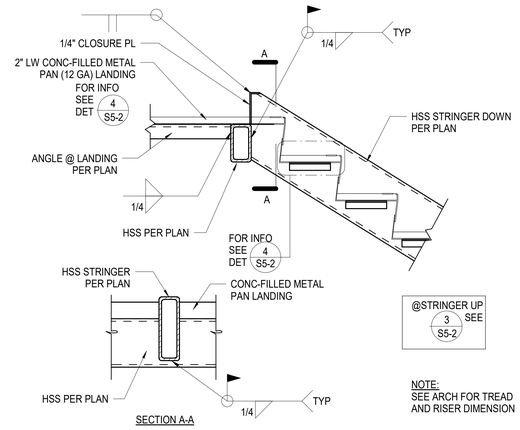
SHEET NO:
S5-1



1 S5-2 STRINGER TO MTL DECK

SCALE: N.T.S.

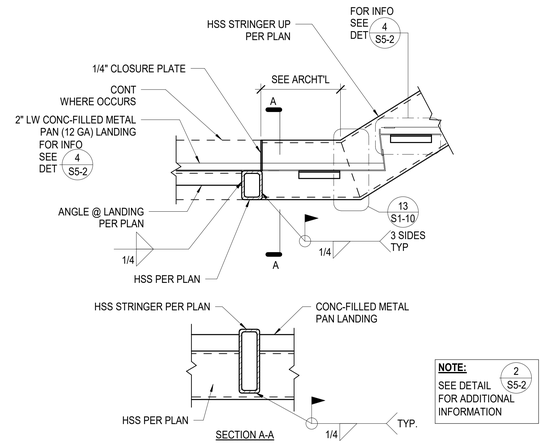
REF: 1 / S3-1



2 S5-2 STAIR @ INTERMEDIATE LANDING (STRINGER DN)

SCALE: N.T.S.

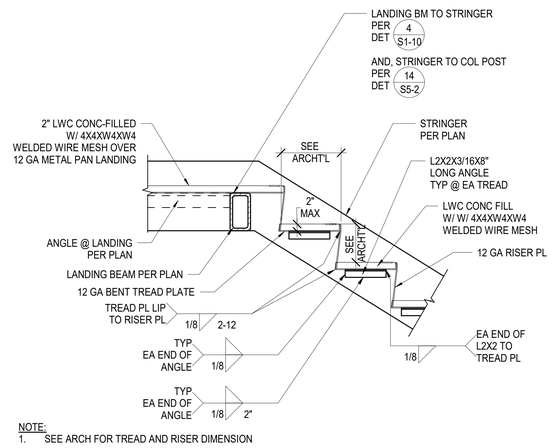
REF: 1 / S3-1



3 S5-2 STAIR @ INTERMEDIATE LANDING (STRINGER UP)

SCALE: N.T.S.

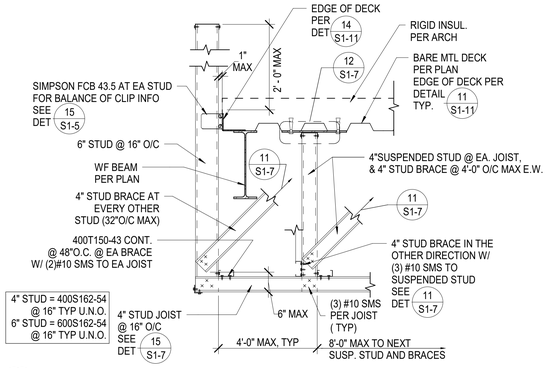
REF: 1 / S3-1



4 S5-2 TYP STAIR THREAD AND LANDING DETAIL

SCALE: N.T.S.

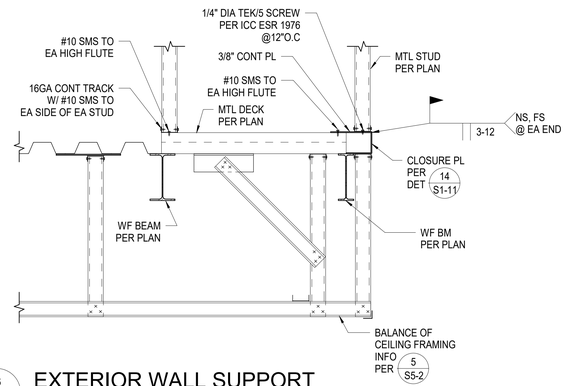
REF: 2 / S5-2



5 S5-2 STUD WALL @ ROOF W/SOFFIT @ BARE DECK

SCALE: N.T.S.

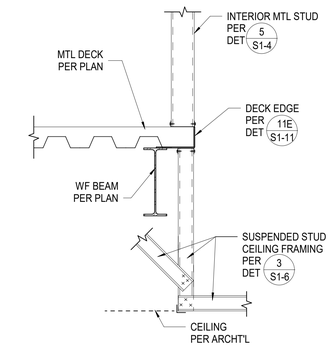
REF: 1 / S3-2



6 S5-2 EXTERIOR WALL SUPPORT

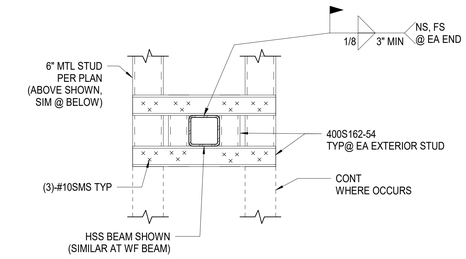
SCALE: N.T.S.

REF: 1 / S3-2



7 S5-2 SHAFT WALL AT 2ND FLOOR

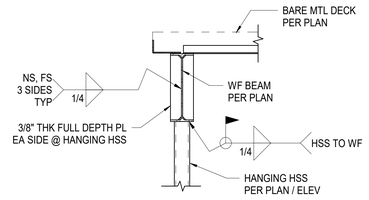
SCALE: N.T.S.



8 S5-2 MTL STUD BRACING DETAIL @ HSS

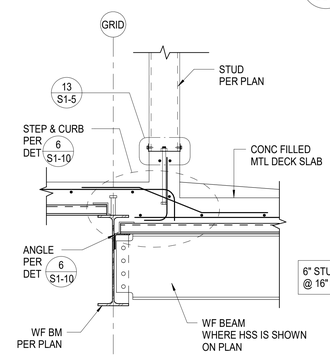
SCALE: N.T.S.

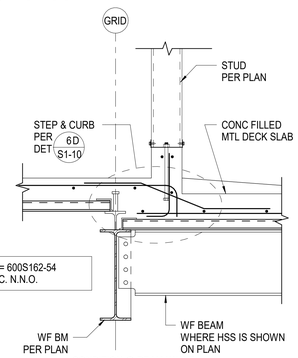
REF: 12 / S5-2



9 S5-2 HANGING HSS @ BARE DECK

SCALE: N.T.S.





10 S5-2 STEP @ EXT WALL

SCALE: N.T.S.

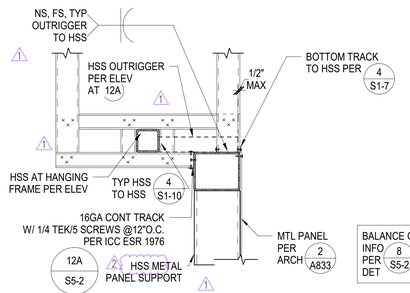
REF: 1 / S3-1



11 S5-2 SLAB AT GUSSET W/ LOWERED BM

SCALE: N.T.S.

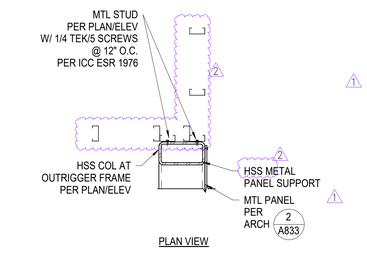
REF: 1 / S3-1



12 S5-2 MTL PANEL SUPPORT

SCALE: 3/4" = 1'-0"

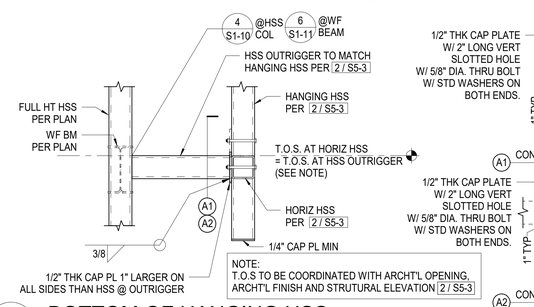
REF: 11 / S5-3



17 S5-2 MTL PANEL SUPPORT

SCALE: 3/4" = 1'-0"

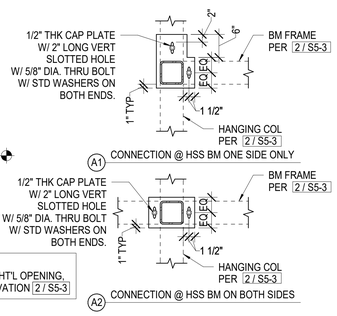
REF: 12 / S5-3

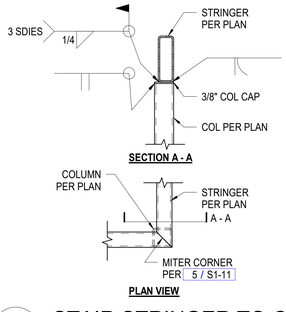


13 S5-2 BOTTOM OF HANGING HSS

SCALE: N.T.S.

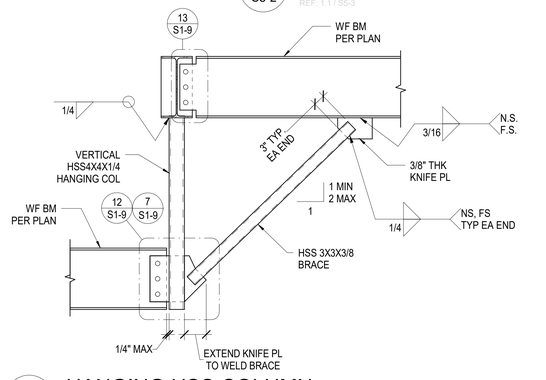
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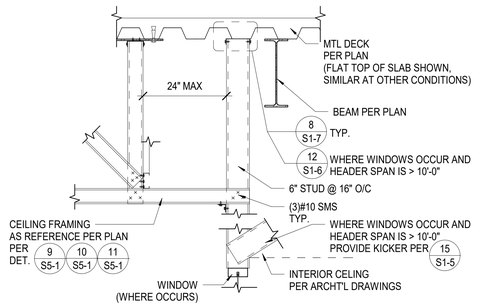
14 S5-2 STAIR STRINGER TO COL

SCALE: N.T.S.



15 S5-2 HANGING HSS COLUMN

SCALE: N.T.S.



16 S5-2 UPPER CONNECTION AT EXTERIOR PLATFORM FRAMED WALL

SCALE: N.T.S.

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
VCA ENGINEERS INC
CIVIL • STRUCTURAL
2151 Michelson Dr. #240
Irvine, CA 92612
Tel. 949.679.0870
Fax. 949.679.9370
Project No.: J908

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

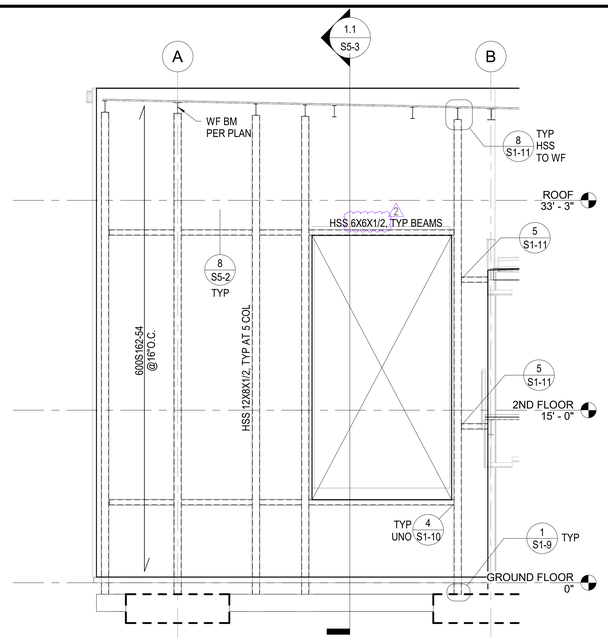
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
	03/19/2025	ADDENDUM 1
	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

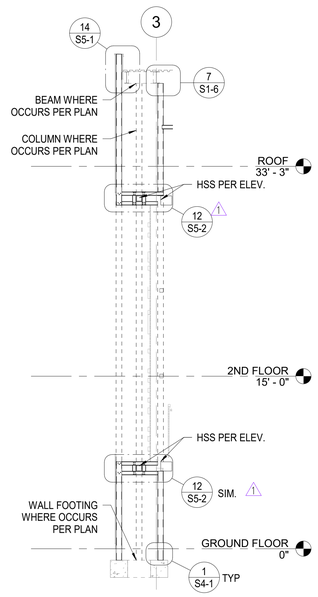
SHEET DESCRIPTION:
FRAMING DETAILS

SHEET NO:
S5-2



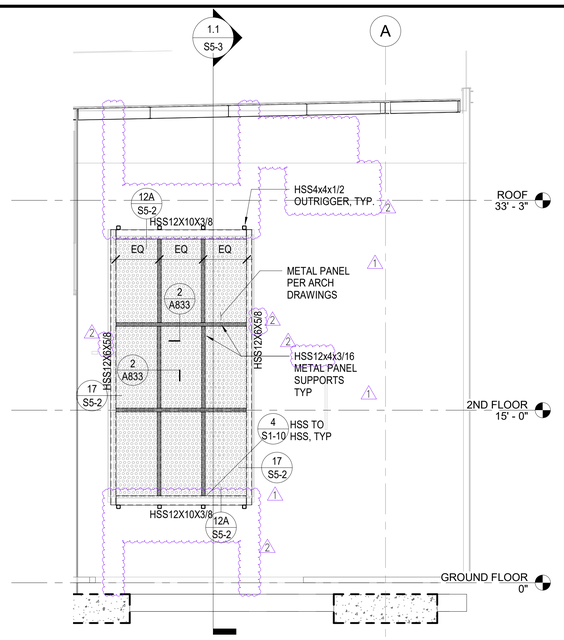
1 S5-3 EXTERIOR WALL ELEVATION

SCALE: 3/16" = 1'-0"
REF DET:1 S2-1



1.1 S5-3 EXTERIOR WALL SECTION

SCALE: 3/16" = 1'-0"
REF DET:1 S2-1



1.2 S5-3 METAL PANEL FRAME ELEV

SCALE: 3/16" = 1'-0"
REF DET:1 S2-1

2 S5-3 EXTERIOR WALL ELEV (HANGING FRAME)

SCALE: 3/16" = 1'-0"
REF DET:1 S2-1

2.1 S5-3 EXTERIOR WALL SECTION

SCALE: 3/16" = 1'-0"
REF DET:1 S3-1

2.2 S5-3 OUTRIGGER FRAME ELEV

SCALE: 3/16" = 1'-0"
REF DET:1 S2-1

3 S5-3 EXTERIOR WALL ELEVATION

SCALE: 3/16" = 1'-0"
REF DET:1 S3-2

3.1 S5-3 EXTERIOR WALL SECTION

SCALE: 3/16" = 1'-0"
REF DET:1 S3-2

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
VCA ENGINEERS INC
CIVIL • STRUCTURAL
2151 Michelson Dr. #240
Irvine, CA 92612
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CLIENT:

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LAWNDALE, CA 90260

No.	Rev. Date	Description
	03/19/2025	ADDENDUM 1
	03/27/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/20/2024
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FRAMING DETAILS

SHEET NO:

S5-3

AIR DISTRIBUTION SCHEDULE - PLAQUE SUPPLY DIFFUSER

SYMBOL					
CFM RANGE	0 – 120	121 – 240	241 – 380	381 – 550	551–750
TYPE	PLAQUE	PLAQUE	PLAQUE	PLAQUE	PLAQUE
NECK SIZE	6"	8"	10"	12"	14"
MAX NC LEVEL	15	22	22	22	22
PANEL SIZE (T–BAR)	24" X 24"	24" X 24"	24" X 24"	24" X 24"	24" X 24"
MANUFACTURER/MODEL	KRUEGER/5PLQ 24X24	KRUEGER/5PLQ 24X24	KRUEGER/5PLQ 24X24	KRUEGER/5PLQ 24X24	KRUEGER/5PLQ 24X24

REMARKS
1– FOR FRAME STYLE COORDINATE WITH ARCHITECTURAL CEILING REQUIREMENTS.
2– PROVIDE 12" MINIMUM ACOUSTICALLY LINED PLENUM. SEE DETAIL 9/M021 FOR ADDITIONAL INFORMATION.

AIR DISTRIBUTION SCHEDULE - CONSTANT AIR VOLUME - RETURN / EXHAUST / TRANSFER

SYMBOL					
CFM RANGE	0 – 150	151 – 300	301 – 450	451 – 700	701–900
TYPE	EGGCRATE	EGGCRATE	EGGCRATE	EGGCRATE	EGGCRATE
NECK SIZE	8 X 8	12" X 12"	14" X 14"	16" X 16"	18" X 18"
MAX NC LEVEL	–	–	–	13	14
FRAME SIZE (T–BAR)	24" X 24"	24" X 24"	24" X 24"	24" X 24"	24" X 24"
FRAME SIZE (HARD LID)	10" X 10"	14" X 14"	16" X 16"	18" X 18"	20" X 20"
MANUFACTURER/MODEL	KRUEGER/EGC5	KRUEGER/EGC5	KRUEGER/EGC5	KRUEGER/EGC5	KRUEGER/EGC5

REMARKS
1– FOR BORDER TYPE AND FINISH COLOR, CONTRACTOR TO COORDINATE WITH ARCHITECT.
2– PROVIDE 12" MINIMUM ACOUSTICALLY LINED PLENUM. SEE DETAILS 9/M021 FOR ADDITIONAL INFORMATION.

AIR DISTRIBUTION SCHEDULE - SUPPLY AIR AND RETURN AIR

SYMBOL	
CFM RANGE	SEE FLOOR PLAN
TYPE	SIDEWALL
NECK SIZE	SEE FLOOR PLAN
MAX NC LEVEL	35
MANUFACTURER/MODEL	KRUEGER/S–5480

REMARKS

SPLIT AIR CONDITIONER SCHEDULE

UNIT SYMBOL			SAC–1	SAC–2	SAC–3	SAC–4
MANUFACTURER			TOSHIBA CARRIER	TOSHIBA CARRIER	TOSHIBA CARRIER	TOSHIBA CARRIER
TYPE			HIGH WALL	HIGH WALL	HIGH WALL	HIGH WALL
INDOOR UNIT	MODEL		RAV–SM122KRTP–UL	RAV–SM242KRTP–UL	RAV–SM362KRTP–UL	RAV–SM122KRTP–UL
	LOCATION		ELECTRICAL 104	IDF 117	ELEVATOR EQUIPMENT ROOM 119	ELECTRICAL 204
	BLOWER – CFM		477 / 355 / 250	706 / 530 / 353	970 / 910 / 735	477 / 355 / 250
	COOLING	RATED CAPACITY – MBH	12.0	24.0	36.0	12.0
		EER2 / SEER2	15.70 / 25.20	11.80 / 22.70	10.50 / 22.00	15.70 / 25.20
	HEATING	RATED CAPACITY (47°F)–MBH	14.0	34.0	47.0	14.0
		HSPF2	11.10	10.30	8.90	11.10
		COP2 (47°F)	3.90	3.20	3.00	3.90
	DIMENSIONS (H"xW"xD")		13" x 42" x 10"	13" x 42" x 10"	14" x 48" x 11"	13" x 42" x 10"
	WEIGHT – LBS		33	33	44	33
OUTDOOR UNIT	MODEL		RAV–SP122AT2P–UL	RAV–SP242AT2P–UL	RAV–SP362AT2P–UL	RAV–SP122AT2P–UL
	LOCATION		ROOF	ROOF	ROOF	ROOF
	REFRIGERANT TYPE		R410A	R410A	R410A	R410A
	MCA / MOCP		14 / 25	17 / 25	30 / 40	14 / 25
	VOLTS / PHASE		208–230 / 1	208–230 / 1	208–230 / 1	208–230 / 1
	DIMENSIONS (H"xW"xD")		22" x 31" x 12"	35" x 36" x 13"	53" x 36" x 13"	22" x 31" x 12"
	WEIGHT – LBS		106	152	232	106
DETAIL REFERENCE			2,3,4/M021	2,3,4/M021	2,3,4/M021	2,3,4/M021
REMARKS			1 2 3	1 2 3	1 2 3	1 2 3

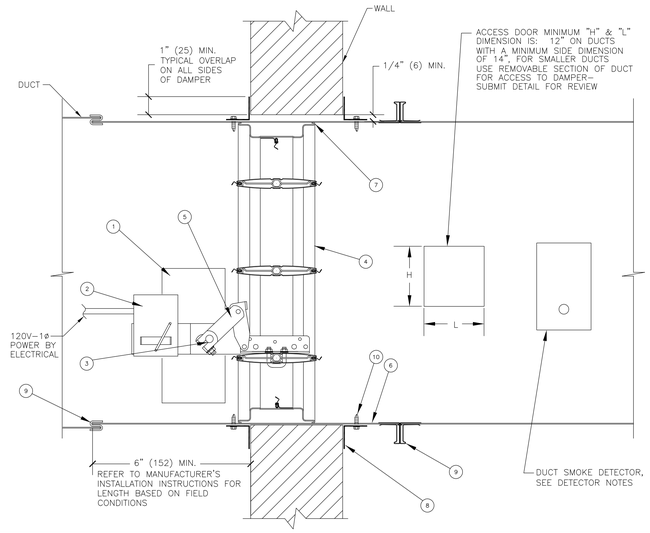
REMARKS
1– INDOOR UNIT POWERED FROM OUTDOOR UNIT.
2– REFRIGERANT AND SUCTION LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATION BASED ON ACTUAL DISTANCE BETWEEN INDOOR AND OUTDOOR UNITS.
3– PROVIDE WIRED THERMOSTAT.

EXHAUST FAN SCHEDULE

UNIT SYMBOL	EF–1	EF–2	EF–3
LOCATION	ROOF	ROOF	CEILING
SERVICE	BOYS 109/ GIRLS 110	BOYS 209/ GIRLS 210	KILN 103
TYPE	ROOF MOUNTED	ROOF MOUNTED	IN–LINE
MANUFACTURER	COOK	COOK	COOK
MODEL	150 ACEB	135 ACEB	120SQN17D
FAN – CFM	1250	1050	700
EXTERNAL S.P. – "WG	.625	.375	.750
DRIVE TYPE	BELT	BELT	BELT
FAN MOTOR – HP	0.25	0.167	.292
FAN MOTOR – RPM	995	944	1725
OUTLET VELOCITY – FPM	848	880	465
TIP SPEED – FPM	3907	3336	5419
SONES	7.7	5.8	13.0
DISCHARGE LOCATION	DOWNBLAST	DOWNBLAST	SIDE
WHEEL TYPE	BACKWARD INCLINED	BACKWARD INCLINED	FORWARD CURVE
VOLTAGE / PHASE	115 / 1	115 / 1	115 / 1
CURB TYPE	RCG	RCG	N/A
OPERATING WEIGHT – LBS	95	85	85
DETAIL REFERENCE	1/M021	1/M021	3/M023
INTERLOCK	2	2	6
REMARKS	1 3 4	1 3 4	4 5

REMARKS
1– UNIT COMPLETE WITH BACKDRAFT DAMPER, BIRDSCREEN, AND MANUFACTURER'S PREFABRICATED GALVANIZED ROOF CURB.
2– INTERLOCK FAN OPERATION WITH LIGHT SWITCH/LIGHTING CONTROL.
3– PROVIDE UNIT WITH TIME DELAY SET FOR 5 MINUTES TO KEEP THE EXHAUST FAN ON AFTER LIGHTS TURN OFF.
4– PROVIDE UNIT WITH FAN SPEED CONTROLLER.
5– PROVIDE WITH BACKDRAFT DAMPER AND ORIFICE PLATE. 2
6– INTERLOCK FAN OPERATION WITH WALL SWITCH.

2



KEYNOTED ITEMS
1– ACTUATOR (LOCATION MAY VARY). DAMPER MAY BE SUPPLIED WITHOUT ACTUATOR INSTALLED. MANUFACTURER'S UL LISTED FIRE DAMPER ACTUATORS MAY BE FIELD INSTALLED IF PROPERLY LABELED. SEE MANUFACTURER'S ACTUATOR INSTALLATION INSTRUCTIONS FOR FIELD MOUNTING OF DAMPER ACTUATORS.
2– OPTIONAL FIRESTAT OR SP100(RUSKIN)
3– AUXILIARY OPERATING JACK SHAFT
4– DAMPER
5– OVER CENTER LOCK
6– SLEEVE–GAGE OF SLEEVE PER UL LISTING, SFM LISTING, AND MANUFACTURER'S INSTALLATION INSTRUCTION.
7– APPROVED CAULKING MATERIAL. SEE MANUFACTURER'S INSTALLATION INSTRUCTION FOR APPLICATION OF CAULKING.
8– PFMA OR CONVENTIONAL MOUNTING ANGLES
9– S–JOINT/DUCT MATE, SLEEVE TO DUCT
10– #8 SHEET METAL SCREWS @ 12" O.C. TO DUCT. NO SCREWS TO WALL (TYPICAL)

DETECTOR NOTES:
1– WHEN A TOTAL COVERAGE SMOKE–DETECTION SYSTEM IS PROVIDED WITH AREAS SERVED BY AN HVAC SYSTEM, DAMPERS SHALL BE CONTROLLED BY THE SMOKE–DETECTION SYSTEM. NO DUCT SMOKE DETECTOR IS REQUIRED. ALL SMOKE DAMPER ACTUATION SHALL COMPLY WITH 2022 CBC SECTION 717.3.3.2.
2– REFER TO CBC ARTICLE 717 FOR ADDITIONAL INFORMATION.

ANGLE TABLE	
WALL OPENING	ANGLE SIZE
UP TO 30"	1" x 1" x 1/8"
31" TO 54"	1–1/2"x1–1/2"x1/8"
55" TO 84"	3" x 2" x 3/16"

LISTING NOTES:
1– INSTALL COMBINATION FIRE AND SMOKE DAMPER AS MANUFACTURED BY RUSKIN MODEL FSD36 OR EQUAL RATING FOR 1–½ HOURS UL555 RATED, UL555S LEAKAGE CLASS 2.
2– UL CLASSIFIED, UL555 LISTING R5531, UL555S LISTING R5531
3– NFPA STANDARDS 90A, 92A, 92B AND 101
4– CSFM CALIFORNIA STATE FIRE MARSHAL LISTING #3235–0245:0124.

GENERAL NOTES:
1– COMBINATION SMOKE/FIRE DAMPER TO BE U.L. LABELED, N.F.P.A. 90 A & STATE FIRE MARSHAL APPROVED.
2– N.F.P.A. APPROVED INSTALLATION DETAILS TO BE PART OF SUBMISSION OF FIRE DAMPER FOR APPROVAL, WHICH SHALL MEET N.F.P.A. STANDARD 90 A.
3– DETAILS SHOWN ARE FOR FIRE DAMPERS IN HORIZONTAL DUCTWORK.
4– ACCESS DOOR IS SHOWN IN SIDE OF DUCT, IF FUSIBLE LINK IS MORE ACCESSIBLE FROM BOTTOM OF DUCT RELOCATE ACCESS DOOR.
5– LABEL ACCESS DOOR WITH 1/2" LETTERS "FIRE DAMPER".
6– SMOKE FIRE DAMPERS SHALL BE STATE FIRE MARSHAL APPROVED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'S INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITY. DETAILS SHOWN ARE FOR REFERENCE ONLY.

PROVIDE COMBINATION FIRE SMOKE DAMPER AS REQUIRED FOR EACH APPLICATION. THIS DETAIL IS FOR REFERENCE ONLY. THE ABOVE DETAIL SHOWS VERTICAL MOUNT DAMPER ONLY.

NOT TO SCALE

COMBINATION SMOKE/FIRE DAMPER DETAIL

1

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REGISTERED PROFESSIONAL ENGINEER — TIMOTHY M. JETTER — No. M 29925 — Exp. 06–30–2026

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2–STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

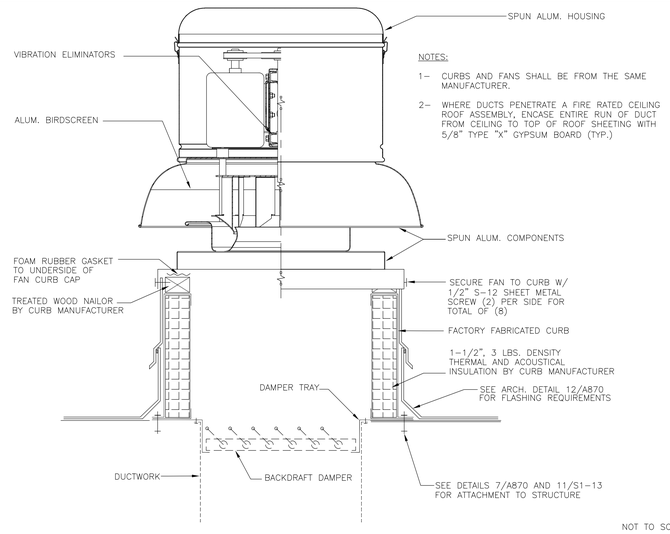
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No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 02/27/2024
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CHECK: -
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
MECHANICAL SCHEDULES

SHEET NO:
M011



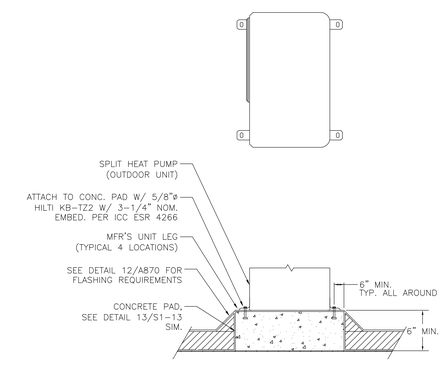
NOTES:

1- CURBS AND FANS SHALL BE FROM THE SAME MANUFACTURER.

2- WHERE DUCTS PENETRATE A FIRE RATED CEILING ROOF ASSEMBLY, ENCASE ENTIRE RUN OF DUCT FROM CEILING TO TOP OF ROOF SHEETING WITH 5/8" TYPE "X" GYPSUM BOARD (TYP.)

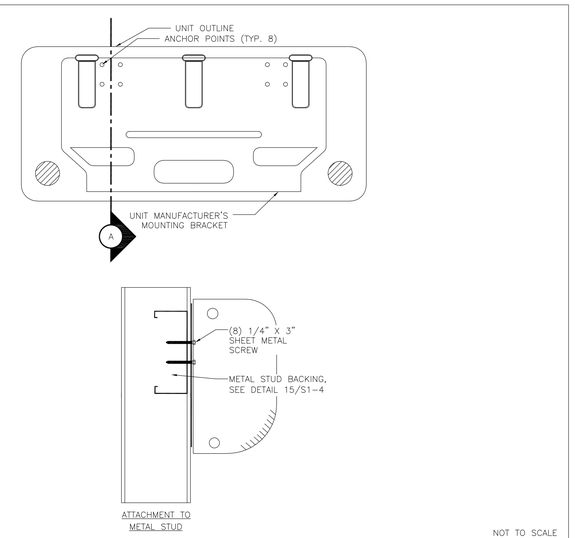
NOT TO SCALE

EXHAUST FAN DETAIL 1



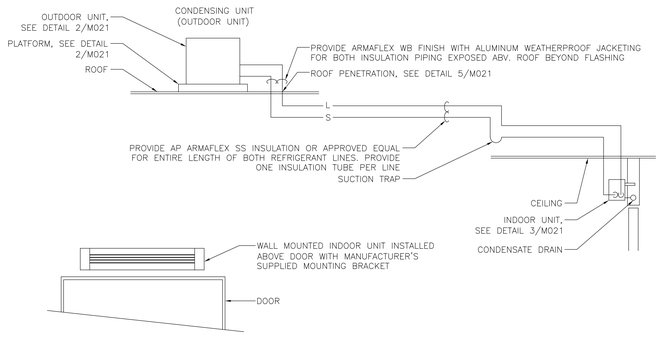
NOT TO SCALE

SPLIT AIR CONDITIONER-OUTDOOR UNIT INSTALLATION 2



NOT TO SCALE

SPLIT AIR CONDITIONER - INDOOR UNIT INSTALLATION 3



NOTES:

1- ALL LIQUID AND SUCTION LINES IN THE CEILING SPACE AND INSIDE THE WALL SHALL BE FULLY INSULATED.

2- ALL REFRIGERANT LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATION BASED ON ACTUAL DISTANCE BETWEEN THE INDOOR AND OUTDOOR UNITS.

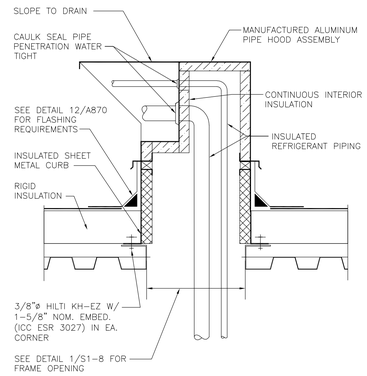
3- RUN ALL REFRIGERANT, SUCTION AND CONDENSATE DRAIN PIPES OUTSIDE OF THE ELECTRICAL ROOM, DATA ROOM OR ELEVATOR MECHANICAL ROOM.

4- PROVIDE CONDENSATE PUMP WHERE THE CONDENSATE CANNOT BE HANDLED BY GRAVITY. CONDENSATE PUMP SHALL BE EQUAL TO LITTLE GIANT VCC20 SERIES. SHP MANUFACTURER'S CONDENSATE PUMP IS NOT ACCEPTABLE.

5- PROVIDE CONDUIT FOR COMMUNICATION WIRING BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED.

NOT TO SCALE

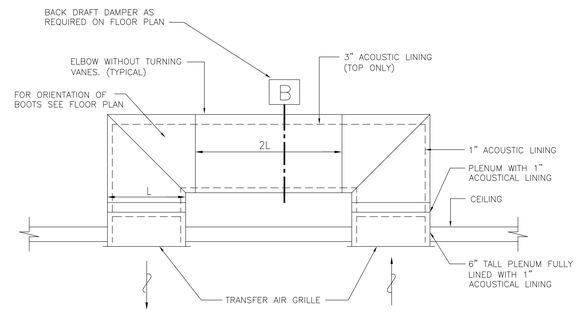
SPLIT AIR CONDITIONER - INSTALLATION DETAIL 4



AT STEEL FRAMING

NOT TO SCALE

REFRIGERANT PIPING THRU ROOF DETAIL 5



NOT TO SCALE

TRANSFER AIR DUCT DETAIL 6

NOTES:

1- DO NOT USE REDUCER COOKIE CUTTER FOR CONNECTION OF FLEX DUCT TO THE SHEET METAL DUCT.

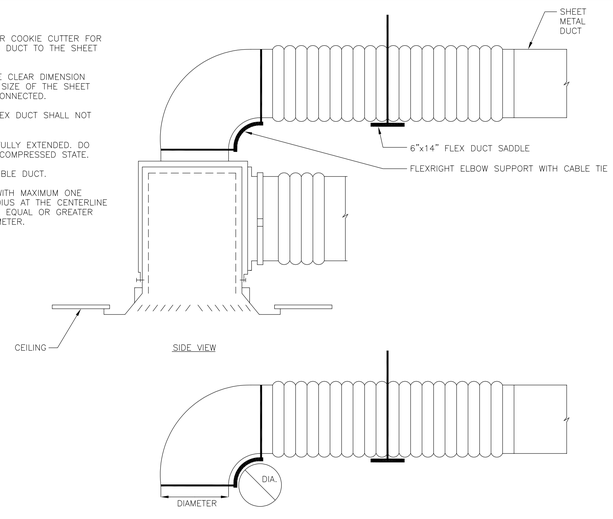
2- FLEXIBLE DUCT INSIDE CLEAR DIMENSION SHALL BE THE SAME SIZE OF THE SHEET METAL DUCT BEING CONNECTED.

3- TOTAL LENGTH OF FLEX DUCT SHALL NOT EXCEED 5'-0".

4- INSTALL FLEX DUCT FULLY EXTENDED. DO NOT INSTALL IN THE COMPRESSED STATE.

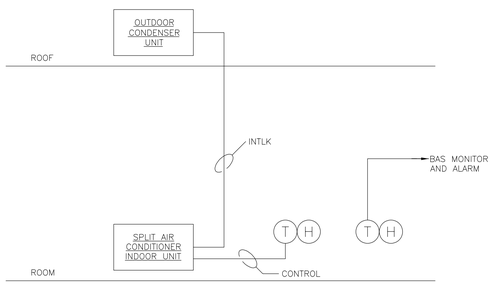
5- DO NOT CRUSH FLEXIBLE DUCT.

6- INSTALL FLEX DUCT WITH MAXIMUM ONE BEND. THE BEND RADIUS AT THE CENTERLINE OF FLEX DUCT SHALL EQUAL OR GREATER THAN ONE DUCT DIAMETER.



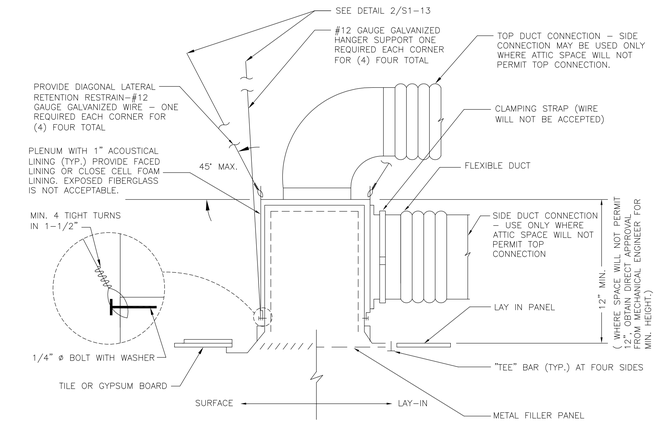
NOT TO SCALE

FLEXIBLE DUCTWORK INSTALLATION DETAIL 7



NOT TO SCALE

SPLIT AIR CONDITIONER CONTROL DETAIL 8



NOTE:
FOR GRILLES/DIFFUSERS IN LOCATIONS WHERE THERE ARE HARD LID CEILINGS, FLEXIBLE DUCT CONNECTIONS ARE NOT ACCEPTABLE.

NOT TO SCALE

SUPPLY/RETURN/EXHAUST DIFFUSER/GRILLE DETAIL 9

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REGISTERED PROFESSIONAL ENGINEER
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PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
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LAWNDALE, CA 90260

No.	Rev. Date	Description
2	03/28/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/27/2024
DRAWN: -
CHECK: -
ARCHITECT: PDW
ENGINEER:

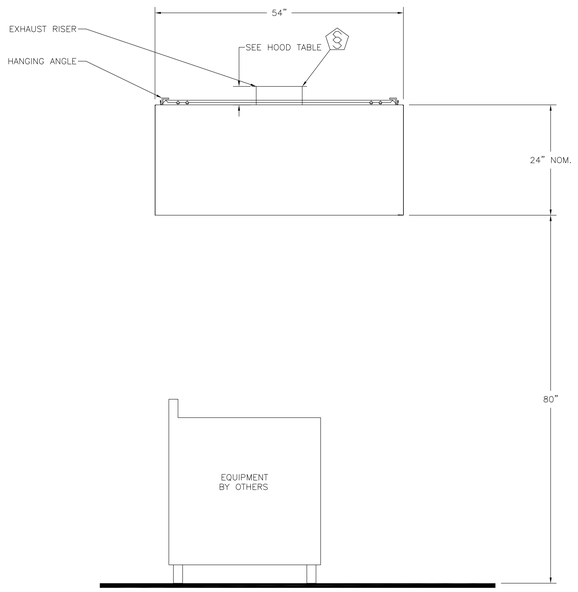
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MECHANICAL DETAILS

SHEET NO:
M021

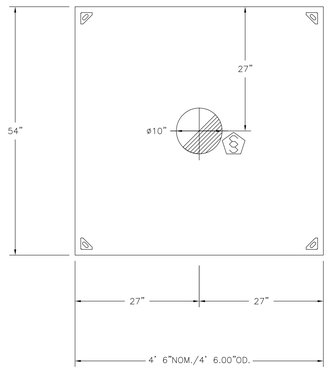
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HOOD INFORMATION – JOB #7417701

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX. COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW	HOOD HANGING WEIGHT
1		5424 VHB	CAPTIVEAIRE	4' 6"	700 DEG	II	N/A	156	700			4"	10"	700	1283	-0.123"	430 SS 100%	ALONE	ALONE	174 LBS



SECTION VIEW – MODEL 5424VHB
HOOD – #1



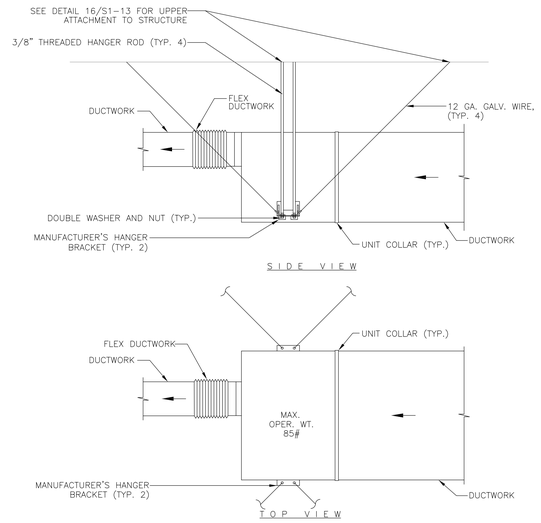
PLAN VIEW – HOOD #1
4' 6.00" LONG 5424VHB

NOTES:
1. FOR ANCHORAGE OF KILN HOOD TO STRUCTURE, SEE DETAIL 9/S1-13.

NOT TO SCALE

KILN HOOD DETAIL

5



NOT TO SCALE

IN-LINE EXHAUST FAN DETAIL

3

NOT TO SCALE

6

NOT TO SCALE

7

NOT TO SCALE

8

NOT TO SCALE

9

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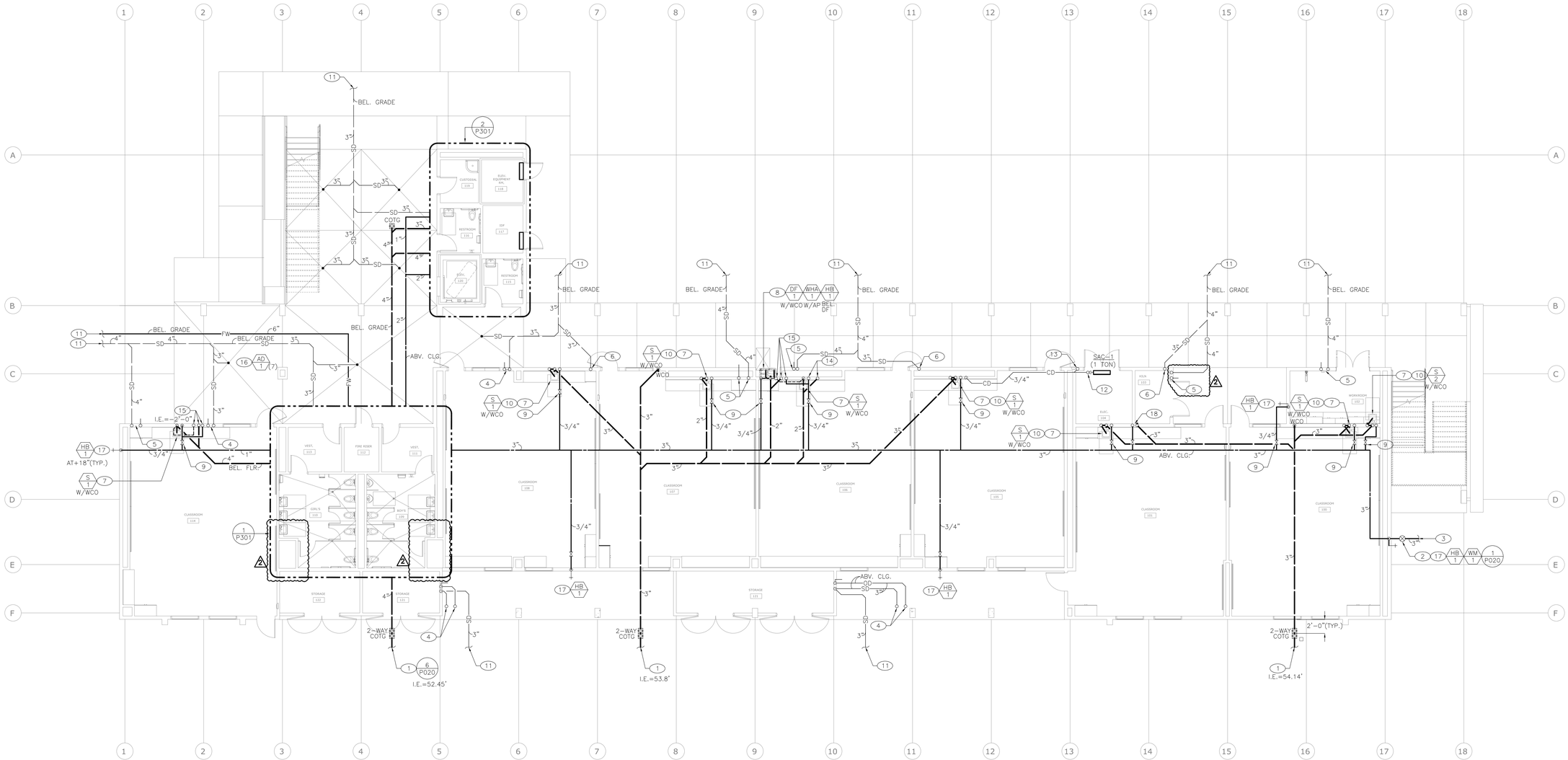
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ENGINEER:

SHEET DESCRIPTION:
MECHANICAL
DETAILS

SHEET NO:
M023 2



PLUMBING FIRST FLOOR PLAN

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

PLAN NOTES

11.– FOR CONTINUATION, SEE PLUMBING SITE PLAN SHEET P030.

12.– 3/4" CD COMPLETE WITH TRAP AND VENT. EXTEND SERVICE AS INDICATED. 3/4" CD DN. IN WALL AND CONNECT TO SINK TAILPIECE.

13.– 3/4" CD UP IN WALL TO SECOND FLR.

14.– 2" WASTE AND 3/4" CW UP IN WALL TO DRINKING FOUNTAIN ON SECOND FLR.

15.– 2" WASTE, 1–1/2" VENT AND 3/4" CW UP IN WALL TO SECOND FLR.

16.– PROVIDE 3" SD.

17.– PROVIDE 3/4" CW.

18.– 3" WASTE (W/WCO) AND 1" CW UP TO SERVICE SINK AND ELECTRIC WATER HEATER ON SECOND FLR.

1.– 4" SANITARY SEWER, FOR CONTINUATION AND CONSTRUCTION OF SITE SEWER, SEE CIVIL SITE PLAN SHEET C–4.0.

2.– 3" CW COMPLETE WITH SHUT–OFF VALVE IN YARDBOX.

3.– FOR CONTINUATION AND CONSTRUCTION OF SITE WATER, SEE CIVIL SITE PLAN SHEET C–4.0.

4.– 3" SD AND OD UP TO SECOND FLR. WITH 3" SD & OD DN. IN WALL. DAYLIGHT 3" OD THRU FACE OF WALL AT +6". 3" SD DN. TO BEL. GRADE. PAINT EXPOSED PIPING TO MATCH WALL FINISH.

5.– 4" SD AND OD UP TO SECOND FLR. WITH 4" SD & OD DN. IN WALL. DAYLIGHT 4" OD THRU FACE OF WALL AT +6". 4" SD DN. TO BEL. GRADE. PAINT EXPOSED PIPING TO MATCH WALL FINISH.

6.– 3" SD UP TO SECOND FLR. WITH 3" SD DN. IN WALL TO BEL. GRADE.

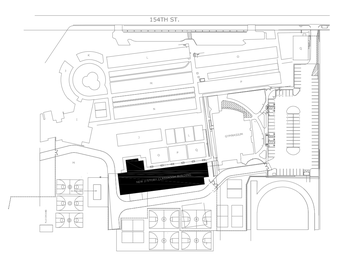
7.– PROVIDE 2" WASTE, 1–1/2" VENT AND 3/4" CW TO EACH PAIR OF STACKED SINKS.

8.– PROVIDE 2" WASTE, 1–1/2" VENT AND 3/4" CW TO EACH PAIR OF DRINKING FOUNTAINS. EXTEND 3/4" CW TO HOSE BIBB.

9.– LINE SIZE SHUT–OFF VALVE ABV. 'T–BAR' CLG. PROVIDE ACCESS PANEL IF VALVE IS LOCATED ABV. HARD LID CLG. (TYP.)

10.– 2" WASTE DN. TO BEL. FLR. WITH W.C.O. 2" WASTE DN. FROM FIXTURE ABV. 1–1/2" VENT UP AND 3/4" CW UP AND DN. TO SERVE STACKED FIXTURES.

KEYMAP



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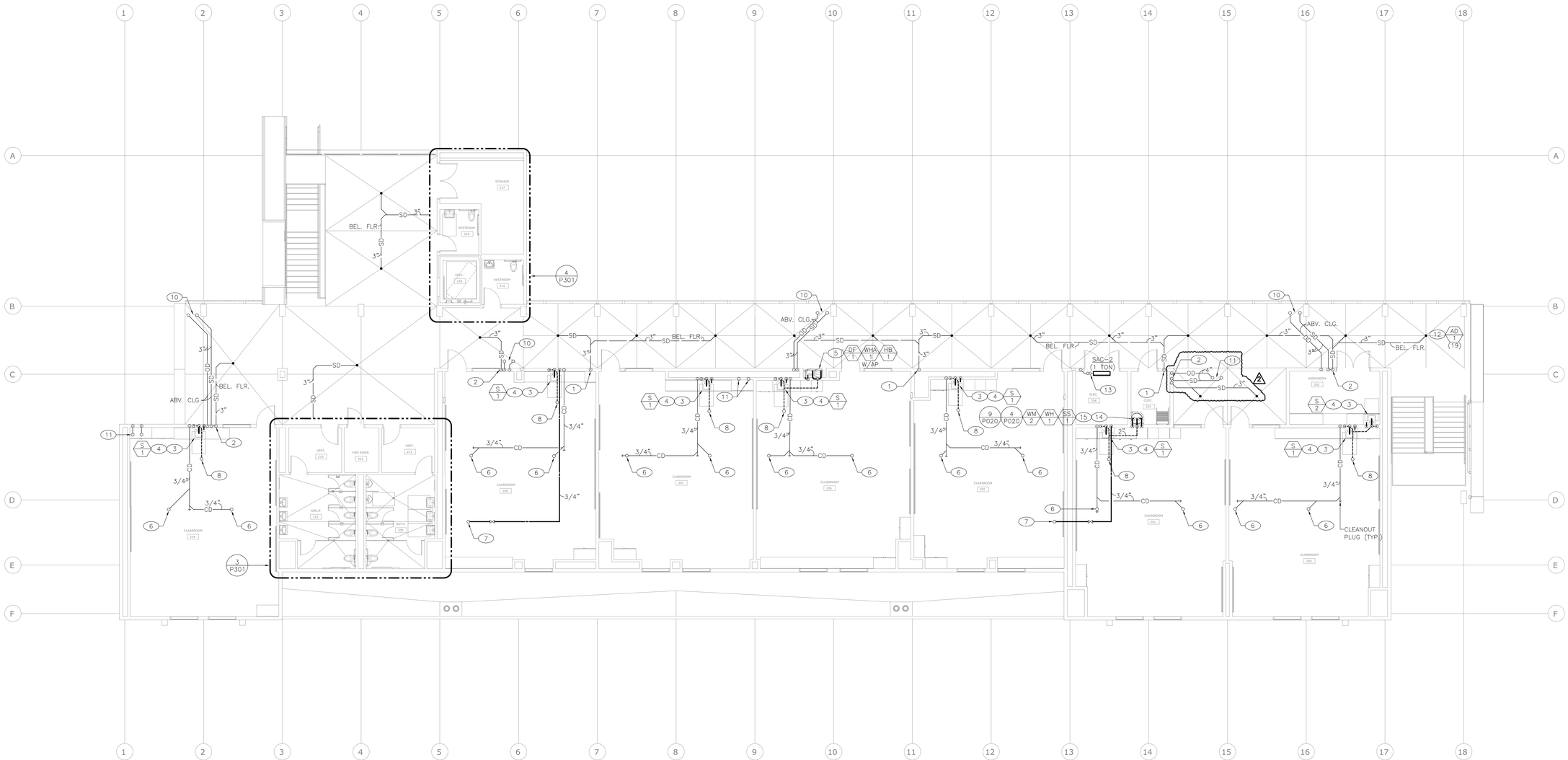
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ENGINEER:

SHEET DESCRIPTION:
PLUMBING
FIRST FLOOR PLAN

SHEET NO:
P101



PLUMBING SECOND FLOOR PLAN

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

PLAN NOTES

1.– 3" SD DN. TO FIRST FLR.

2.– 3" SD DN. AND CONNECT TO SD FROM ROOF DRAIN AS INDICATED.

3.– 3/4" CD DN. IN WALL. CONNECT TO SINK TAILPIECE.

4.– PROVIDE 2" WASTE, 1–1/2" VENT AND 3/4" CW TO EACH SINK. 2" WASTE AND 3/4" CW DN. TO FIRST FLR.

5.– PROVIDE 2" WASTE, 1–1/2" VENT AND 3/4" CW TO EACH PAIR OF DRINKING FOUNTAINS. EXTEND 3/4" CW TO HOSE BIBB.

6.– 3/4" CD UP TO A/C UNIT ON ROOF.

7.– 3/4" CW UP TO HOSE BIBB ON ROOF COMPLETE WITH SHUT–OFF VALVE.

8.– 2" VENT UP. FOR CONTINUATION SEE SHEET P201.

10.– 3" SD UP TO ROOF AND DN. IN WALL TO FIRST FLR.

11.– 4" SD UP TO ROOF AND DN. IN WALL TO FIRST FLR.

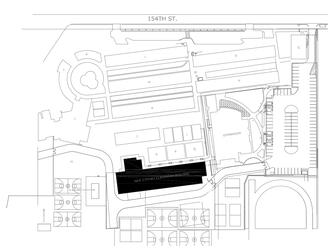
12.– PROVIDE 3" SD.

13.– 3/4" CD COMPLETE WITH TRAP AND VENT. EXTEND SERVICE AS INDICATED DN. IN WALL TO FIRST FLR.

14.– PROVIDE 3" WASTE, 2" VENT AND 3/4" HW & CW. 3" WASTE AND 1" CW DN. TO FIRST FLR.

15.– PROVIDE 3/4" CW AND HW TO ELECTRIC WATER HEATER. DISCHARGE DRAIN(S) INTO SERVICE SINK WITH LEGAL AIR–GAP

KEYMAP



P:\530\530-204_LESD_Will_Rogers_MS_2-Story_Classroom_Building\Drawings\Plumbing\P102 - Addendum 2.dwg Mar 27, 2025 - 6:05pm iggy

STATE:

ARCHITECT:

architecture
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PEI # 530.204

REGISTERED PROFESSIONAL ENGINEER — MATTHEW M. JITTERER — No. M 29925 Exp. 06–30–2026

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

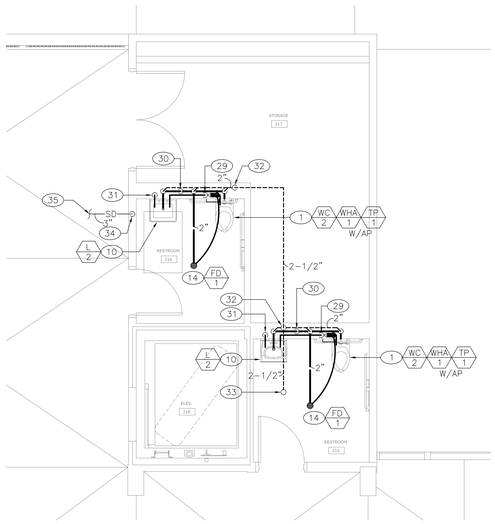
No.	Rev. Date	Description
2	03/28/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/27/2024
DRAWN: -
CHECK: -
ARCHITECT: PDW
ENGINEER:

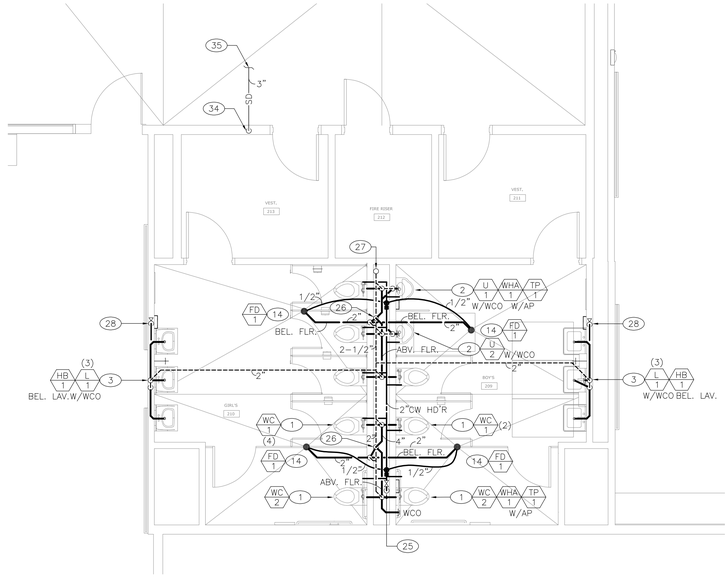
SHEET DESCRIPTION:
PLUMBING
SECOND FLOOR PLAN

SHEET NO:

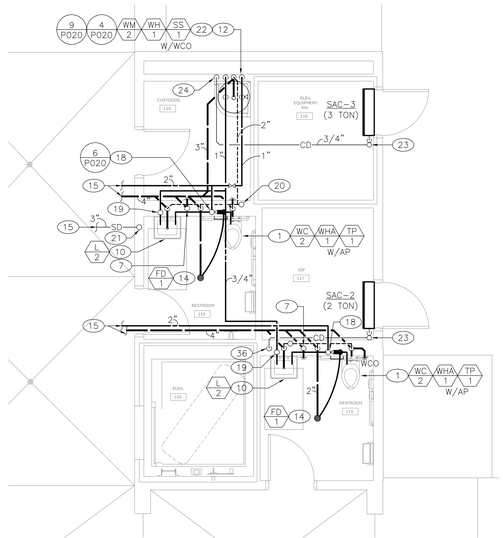
P102



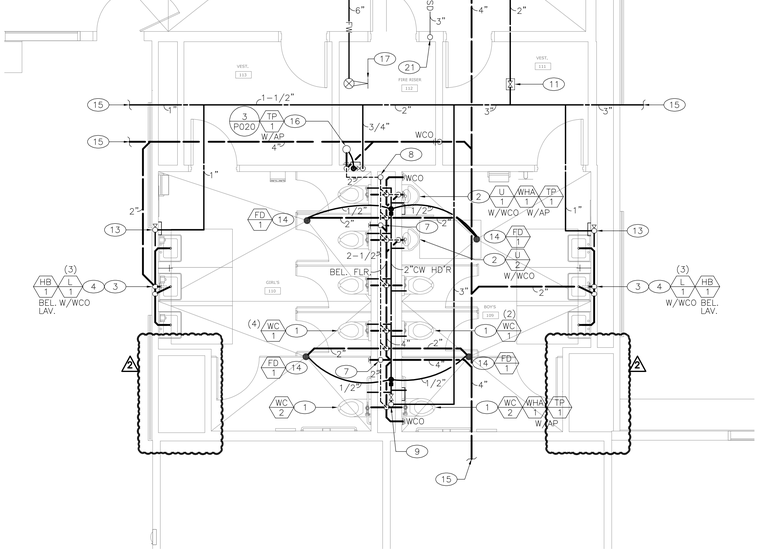
RESTROOMS 215 AND 216 ENLARGED TOILET PLAN SCALE: 1/4" = 1'-0" 4



BOY'S 209 AND GIRL'S 210 ENLARGED TOILET PLAN SCALE: 1/4" = 1'-0" 3



RESTROOMS 115 AND 116 ENLARGED TOILET PLAN SCALE: 1/4" = 1'-0" 2



BOY'S 109 AND GIRL'S 110 ENLARGED TOILET PLAN SCALE: 1/4" = 1'-0" 1

PLAN NOTES

28.– 1" CW UP IN WALL TO SECOND FLR.

29.– 1-1/2" CW DN. TO FIRST FLR. COMPLETE WITH SHUT-OFF VALVE BEHIND ACCESS PANEL.

30.– 4" WASTE DN. TO FIRST FLR.

31.– 3/4" HW DN. TO FIRST FLR.

32.– 2" VENT DN. TO FIRST FLR.

33.– 4" VENT THRU ROOF.

34.– 3" SD DN. TO FIRST FLR.

35.– FOR CONTINUATION SEE SHEET P102.

36.– 3/4" CD DN. IN WALL AND CONNECT TO LAVATORY TAILPIECE.

14.– PROVIDE 2" WASTE, 1-1/2" VENT AND 1/2" CW TRAP PRIMER LINE.

15.– FOR CONTINUATION SEE SHEET P101.

16.– 6"ø HUB DRAIN ASSEMBLY, TRANSITION TO 4" WASTE COMPLETE WITH W.C.O.

17.– FIRE RISER ASSEMBLY, SEE FIRE PROTECTION PLANS.

18.– 1-1/2" CW UP TO SECOND FLR.

19.– 3/4" HW UP TO SECOND FLR.

20.– 2" VENT UP TO SECOND FLR.

21.– 3" SD UP IN WALL AND DN. TO BEL. GRADE.

22.– PROVIDE 3/4" CW AND HW TO ELECTRIC WATER HEATER. DISCHARGE DRAIN(S) INTO SERVICE SINK WITH LEGAL AIR-GAP.

23.– 3/4" CD COMPLETE WITH TRAP AND VENT.

24.– 3/4" CD DN. IN WALL AND DISCHARGE INTO SERVICE SINK WITH LEGAL AIR-GAP.

25.– 2-1/2" CW DN. TO FIRST FLR.

26.– 4" WASTE DN. TO FIRST FLR.

27.– 4" VENT DN. TO FIRST FLR. AND 4" VENT UP THRU ROOF.

1.– PROVIDE 4" WASTE, 2" VENT AND 1" CW TO EACH WATER CLOSET.

2.– PROVIDE 2" WASTE WITH W.C.O., 1-1/2" VENT AND 3/4" CW TO EACH URINAL.

3.– PROVIDE 2" WASTE, 1-1/2" VENT AND 1/2" CW TO EACH LAVATORY. PROVIDE 3/4" CW TO HOSE BIBB.

4.– 2" WASTE UP TO SECOND FLR. AND DN. TO BEL. FLR. WITH W.C.O.

7.– 4" WASTE UP TO SECOND FLR. AND DN. TO BEL. FLR. WITH W.C.O.

8.– 4" VENT UP TO SECOND FLR.

9.– 2" CW DN. IN WALL COMPLETE WITH SOV BEHIND AP. 2-1/2" CW UP TO SECOND FLR.

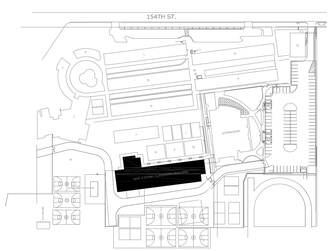
10.– PROVIDE 2" WASTE, 1-1/2" VENT, 1/2" CW AND HW TO EACH LAVATORY.

11.– LINE SIZE SHUT-OFF VALVE ABV. "T-BAR" CLG. PROVIDE ACCESS PANEL IF VALVE IS LOCATED ABV. HARD LID CLG. (TYP.).

12.– PROVIDE 3" WASTE, 2" VENT AND 3/4" HW & CW.

13.– 1" CW UP TO SECOND FLR. WITH 1" CW DN. IN WALL COMPLETE WITH SOV BEHIND AP. LOCATE AP BEL. LAV.

KEYMAP



P:\530\530-204_LESD_Will_Rogers_MS_2-Story_Classroom_Building\Drawings\Plumbing\P301 - Addendum 2.dwg Mar 27, 2025 - 6:36pm iggy

STATE:

ARCHITECT:

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PEI # 530.204

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY M. JETTER
No. M 29925
Exp. 06-30-2026

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

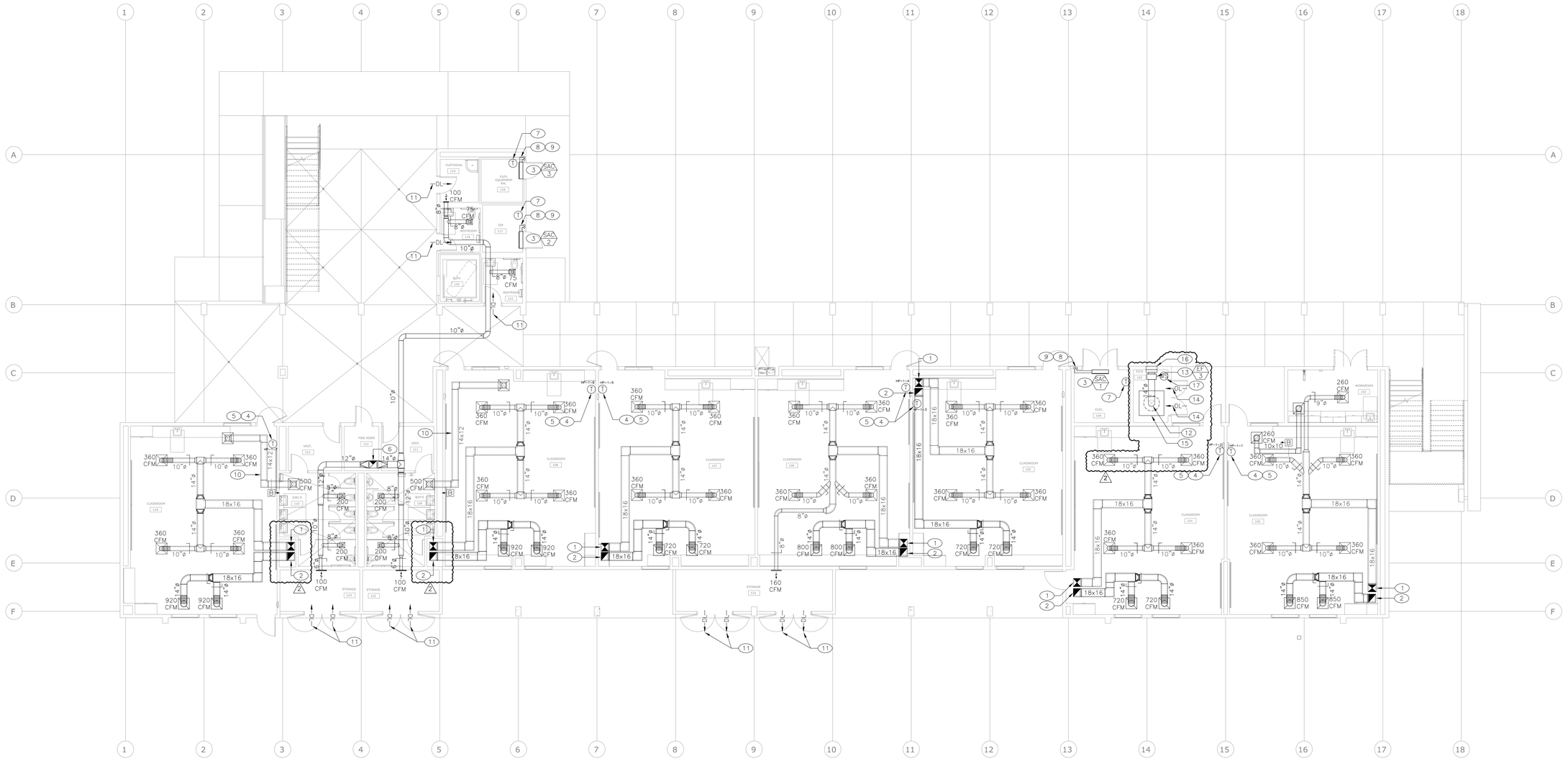
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
2	03/28/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/27/2024
DRAWN: -
CHECK: -
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
PLUMBING
ENLARGED TOILET PLANS

SHEET NO:
P301



DUCT LINING NOTE

ALL SUPPLY AND RETURN AIR DUCTWORK, DUCT FITTING, ELBOWS, TRANSITIONS, AND BRANCH DUCTS SHALL BE LINED WITH 1" ACOUSTICAL DUCT LINER IN THEIR ENTIRETY FROM THE POINT OF CONNECTION TO THE AC UNIT TO THE POINT OF CONNECTION TO THE SUPPLY/RETURN DIFFUSERS/GRILLES.

0' 4' 8' 16' 32'

NORTH

MECHANICAL FIRST FLOOR PLAN

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

PLAN NOTES

1.– 18x16 SUPPLY AIR DUCT UP INSIDE THE SHAFT TO FLOOR ABOVE. SEE SHEET M102 FOR CONTINUATION.

2.– 18x16 RETURN AIR DUCT UP INSIDE THE SHAFT TO FLOOR ABOVE. SEE SHEET M102 FOR CONTINUATION.

3.– INSTALL SPLIT AIR CONDITIONER INDOOR FAN UNIT ON MANUFACTURER'S MOUNTING BRACKET. SEE DETAIL 3/M021.

4.– PROVIDE CARRIER NO. 33CONNECTSTAT43FX TOUCHSCREEN THERMOSTAT (24 VAC), WI–FI COMPATIBLE, 2–HOUR OVERRIDE BUTTON AND CO2 SENSOR SENVA NO. W–ACAAAAD CO2 SENSOR (24 VAC) WITH ADJUSTMENT BUTTON. FOR MOUNTING HEIGHT SEE SHEET M001.

5.– COORDINATE THE FINAL LOCATION OF THERMOSTAT AND CO2 SENSOR WITH ROOM FURNITURE AND OBTAIN ARCHITECT / MECHANICAL ENGINEERS APPROVAL PRIOR TO INSTALLATION. SEE SHEET M001 "THERMOSTAT NOTES" FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

6.– 16x16 EXHAUST AIR DUCT UP INSIDE THE SHAFT TO FLOOR ABOVE. SEE SHEET M102 FOR CONTINUATION.

7.– MANUFACTURED PROVIDED THERMOSTAT FOR SPLIT AC UNIT. SEE SPLIT AC SCHEDULE ON SHEET M011 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

8.– REFRIGERATION AND SUCTION LINES SIZED PER MANUFACTURER'S RECOMMENDATIONS AND GUIDELINES BASED ON ACTUAL DISTANCE BETWEEN THE INDOOR AND OUTDOOR UNITS.

9.– REFRIGERATION AND SUCTION LINES UP IN WALL TO FLOOR ABOVE. SEE SHEET M102 FOR CONTINUATION.

10.– TRANSFER AIR DUCT. SEE DETAIL 6/M021 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

11.– NON–VISION, PAINTABLE FINISH DOOR LOUVER WITH MINIMUM 0.5 SQ. FT. OF FREE AREA. PROVIDE INSECT SCREEN. CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR INSTALLATION.

12.– CONNECT 14"ø FULLY WELDED 22 GAUGE 318 STAINLESS STEEL EA DUCT TO KILN HOOD EXHAUST AIR OPENING.

13.– IN–LINE EXHAUST FAN, SEE SCHEDULE ON SHEET M011 AND DETAIL 3/M023 FOR ADDITIONAL INFORMATION.

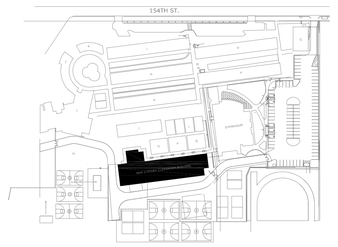
14.– PROVIDE PAINTABLE NON–VISION DOOR LOUVER WITH MIN. 18'–0" SQ. FT. OF FREE AREA AT EACH DOOR. LOUVER EFFICIENCY SHALL NOT BE LESS THAN 50%. PAINT LOUVER TO MATCH DOOR COLOR TO THE SATISFACTION OF THE OWNER/ARCHITECT.

15.– KILN HOOD, SEE DETAIL 5/M023 FOR ADDITIONAL INFORMATION.

16.– PAINTABLE WALL LOUVER 24"x24". PAINT LOUVER TO MATCH WALL COLOR TO THE SATISFACTION OF THE OWNER/ARCHITECT. PROVIDE 24"x24"x6" DEEP FULLY WELDED 22 GAUGE 318 STAINLESS STEEL PLENUM AT REAR OF WALL LOUVER AND CONNECT KILN HOOD EA DUCT.

17.– PROVIDE A COMMERCIAL GRADE HEAVY DUTY "ON"/"OFF" WALL SWITCH FOR THE KILN HOOD VENTILATION OPERATION. PROVIDE AN ENGRAVED 2"x4" PLATE ABOVE THE WALL SWITCH TO READ "KILN HOOD VENTILATION CONTROL".

KEYMAP



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PEI # 530.204

REGISTERED PROFESSIONAL ENGINEER
MATTHEW M. JEFFERY
No. M 29925
Exp. 06–30–2026

PROJECT NAME:

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LAWNDALE, CA 90260

CLIENT:

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No.	Rev. Date	Description
02	03/28/2025	ADDENDUM

JOB NO: 22029.01
DATE: 02/27/2024
DRAWN: -
CHECK: -
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
MECHANICAL
FIRST FLOOR PLAN

SHEET NO:

M101

LED LUMINAIRE SCHEDULE

(DESC) DOOR:	**DISTRIBUTION:**	**BEAMWIDTH:**	**(L/L) LENS/LOUVER:**
FA - FLAT...	II - ANSI/IES TYPE 2...	NSP - VERY NARRO...	A - .125" ACRYLIC
FS - FLAT STEEL	III - ANSI/IES TYPE 3...	SP - SPOT	B - BAFFLE/LOUVER
RA - REGRESSED...	IV - ANSI/IES TYPE 4...	MD - MEDIUM	C - CLEAR ALZAK
RS - REGRESSED...	V - ANSI/IES TYPE 5...	WD - WIDE	F - FROSTED ACRYLIC
FINISH:		VWD - VERY WIDE	G - TEMPERED GLASS
PAF - PAINT AFTER...		WW - WALL WASH	K - KSH12 .125"...
CFSA - COLOR-FINISH SELECTION BY...			

(MTG) MOUNTING:	RE - RECESSED	**(WATT)...**	FIX - FIXTURE, FT - FOOT, LAMP
CL - CEILING...	SP - SUSPENDED	**(TYPE) LED**	RGB - COLOR...
CV - COVE	SU - SURFACE	LED - LIGHT EMITTING...	RGBW - COLOR...
FR - FLANGED...	UC - UNDER CABINET	TLED - TUBULAR LED...	RGBA - COLOR...
P - PERIMETER	WL - WALL	OLED - ORGANIC LED	RLED - RETROFIT LED
PL - POLE	O - OTHER (SEE...	DLED - DYNAMIC...	WLED - WARM DIM LED

(TYPE) DRIVER:			
0-10V - 0-10V...	EB - ELECTRONIC	HL - HIGH/LOW...	MV - MULTI-VOLTAGE...
DALI - DIGITAL...	ELV - ELECTRONIC LO...	LINE - LINE VOLTAG...	REM - REMOTE
DMX - DIGITAL...	EM - EMERGENCY...	ML - MULTI-LEVEL...	O - OTHER (SEE...

CATALOG NUMBER SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.

VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH ARCHITECT AND INTERIOR DESIGNER...

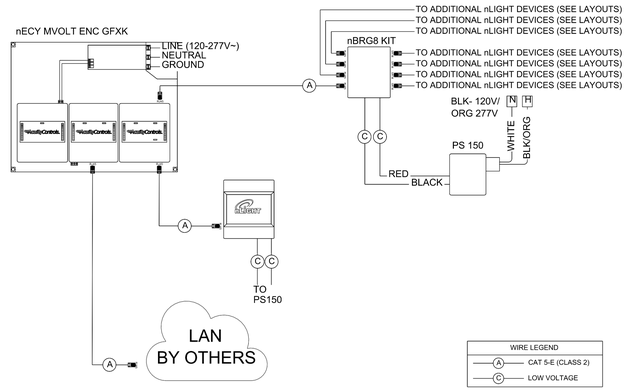
REFER TO SPECIFICATION SECTIONS [LED LIGHTING 26 51 19] [AND EMERGENCY LIGHTING INVERTER 26 52 15] FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
INTERIOR CORRELATED COLOR TEMPERATURE [2700, 3000, 3500, 4000/4100]K, COLOR RENDERING INDEX (CRI) AT OR ABOVE [80, 85, 90], UNLESS NOTED OTHERWISE....

ITEM	DESCRIPTION	WATT ANSI WATTS	LED TYPE	DRIVER VOLTS	MANUFACTURER AND MODEL
A	2' x 4' RECESSED LIGHTING FIXTURE	23 W	LED	277 V	LITHONIA LIGHTING ENVX-2X4-HRG-4000LM-80CRI-40K -MIN1-EZT -MVOLT
AE	2' x 4' RECESSED LIGHTING FIXTURE VIA CENTRAL INVERTER	23 W	LED	277 V	LITHONIA LIGHTING ENVX-2X4-HRG-4000LM-80CRI-40K -MIN1-EZT -MVOLT
B	LINEAR LED STIP LIGHTING FIXTURE	4 W	LED	277 V	ALIGHT DSXXLS40UHEGXD
B2	LINEAR LED STIP LIGHTING FIXTURE EXTERIOR RATED	4 W	LED	277 V	ALIGHT DSXXLS40UHEGXDQ
B2E	LINEAR LED STIP LIGHTING FIXTURE EXTERIOR RATED VIA CENTRAL INVERTER	4 W	LED	277 V	LITHONIA LIGHTING CLX-L48-3000LM-SEF-SBLW-WDL-WD-MVOLT-EDAB-80CRI-WH-E10W LCP
BE	LINEAR LED STIP LIGHTING FIXTURE VIA CENTRAL INVERTER	4 W	LED	277 V	LITHONIA LIGHTING CLX-L48-3000LM-SEF-SBLW-WDL-WD-MVOLT-EDAB-80CRI-WH-E10W LCP
C	LINEAR LED STIP LIGHTING FIXTURE	4 W	LED	277 V	LITHONIA LIGHTING CLX-L48-3000LM-SEF-SBLW-WDL-WD-MVOLT-EDAB-80CRI-WH
CE	LINEAR LED STIP LIGHTING FIXTURE VIA CENTRAL INVERTER	4 W	LED	277 V	LITHONIA LIGHTING CLX-L48-3000LM-SEF-SBLW-WDL-WD-MVOLT-EDAB-80CRI-WH-E10W LCP
D	LED DOWNLIGHT LIGHTING FIXTURE WET RATED	7 W	LED	277 V	ALPHABET LIGHTING NUE4-QD-SW-15LM-40K-90-60D-HE T-WH-WH-NC-UNV-DIM10
DE	LED DOWNLIGHT LIGHTING FIXTURE VIA CENTRAL INVERTER WET RATED	7 W	LED	277 V	ALPHABET LIGHTING NUE4-QD-SW-15LM-40K-90-60D-HE T-WH-WH-NC-UNV-DIM10
E	LEAD PIT LIGHTING WET RATED	11 W	LED	277 V	LITHONIA LIGHTING CVST L48 5000LM MVOLT 40K 80 CRI
EX1	WALL MONUTED LED LIGHTING FIXTURE	19 W	LED	277 V	LUMINIS LIGHTING L1L13-1346-K40-277V-BKT
EX2	WALL MONUTED LED LIGHTING FIXTURE	270 W	LED	277 V	LITHONIALIGHTING DSX2-LED-P4-40K-T4-MVOLT-WBA-XX
EX3	LED POLE MOUNTED LIGHT FIXTURE. 12FT. POLE.	46 W	LED	277 V	ANP LIGHTING AL262-1-R5-PO46LD4D-T5-40K FINISH BY ARCHITECT POLE: BD3STLS12-7 FINISH BY ARCHITECT
X	CEILING MOUNTED LED EXIT SIGN	5 W	LED	277 V	BEGHELL LIGHTING CYC-HT-LR-1-CLR-WCS-120SA
X1	CEILING MOUNTED LED EXIT SIGN DAMP RATED	5 W	LED	277 V	EZXTEU 2 G W

LIGHTING SEQUENCE OF OPERATION

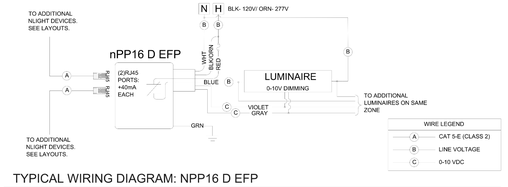
CLASSROOMS	CEILING OCCUPANCY SENSOR TO TURN ON LIGHTS WHEN OCCUPIED. DIM TO 50% AFTER 20 MINUTES OF VACANCY, FULL OFF AFTER 1 HOUR OF VACANCY. DAYLIGHT SENSOR TO DIM LIGHTS. MANUAL WALL DIMMER SWITCH CONTROL.
WORKROOM /BOYS & GIRLS RR	CEILING OCCUPANCY SENSOR TO TURN ON LIGHTS WHEN OCCUPIED. DIM TO 50% AFTER 20 MINUTES OF VACANCY, FULL OFF AFTER 1 HOUR OF VACANCY. WALL DIMMER SWITCH CONTROL.
FACULTY RR /STORAGE /CUSTODIAN /VESTIBULES	WALL OCCUPANCY SENSOR SWITCH TO TURN ON LIGHTS WHEN OCCUPIED. DIM TO 50% AFTER 20 MINUNTES OF VACANCY, FULL OFF AFTER 1 HOUR OF VACANCY. MANUAL ON/OFF PUSHBUTTON SWITCH.
ELECTRICAL RM /IDF RM / ELEV MACH. RM /FIRE RISER RM /ELEV PIT & SHAFT	TOGGLE SWITCH
EXTERIOR CANOPY /EXTERIOR BLDG PERIMETER /POLE LIGHTS	ASTRONOMICAL TIME CLOCK CONTROL WITH OVERRIDE SWITCH. TIME SCHEDULE TO BE COORDINATED WITH OWNER.
EMERGENCY ENABLED LIGHT FIXTURES /EXIT SIGNS	LIGHTING INVERTER SHALL PROVIDE MINIMUM 90 MINUTE BATTERY BACKUP IN THE EVENT OF NORMAL POWER FAILURE.

LIGHTING WIRING DIAGRAM



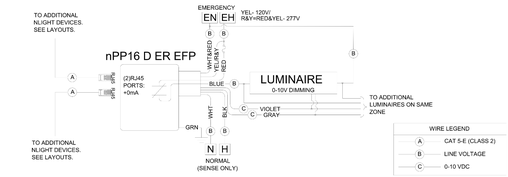
TYPICAL WIRING DIAGRAM: nECY MVOLT ENC GFXK

N.T.S.



TYPICAL WIRING DIAGRAM: NPP16 D EFP

N.T.S.



TYPICAL WIRING DIAGRAM: NPP16 D ER EFP

N.T.S.

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PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER NESTOR C. IGNACIO, JR. Lic. E16934 Exp. 6-30-2025 STATE OF CALIFORNIA

PROJECT NAME:

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4110 W. 154TH ST.
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No.	Rev. Date	Description
1	03/19/2025	Addendum 1

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
LIGHTING FIXTURE SCHEDULE

SHEET NO:

E004

(E) MAIN SWITCHBOARD- MS

ENCLOSURE: NEMA 1
FED FROM: 0 A/0P @
LOCATION:

SOLID NEUTRAL
GROUND BUS

MAIN: 1,600... MCCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 30.00 kA

NOTES:

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	4DB-R	262.34 kVA	3	800 A	800 A			(2) SETS OF 4#600 & 1#1/0 EGC EACH IN 3 1/2" C.	
2	TR-3	41.9 kVA	3	250 A	250 A			4#250 & 1#4 EGC IN 2 1/2" C.	
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	14.035 kVA	125.00%	17.543 kVA		
Other	7 kVA	100.00%	7 kVA	**TOTAL CONNECTED LOAD:**	304.24 kVA
Power	175.468 kVA	100.00%	175.468 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	270.845 kVA
Receptacles	67.86 kVA	57.37%	38.93 kVA	**TOTAL CONNECTED AMPS:**	365.95 A
Spare	39.88 kVA	80.00%	31.904 kVA	**TOTAL ESTIMATED DEMAND AMPS:**	325.8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

DISTR. BOARD 4DB-R

ENCLOSURE: NEMA 1
FED FROM: 800 A/3P @ MS
LOCATION: CLASSROOM 105

SOLID NEUTRAL
GROUND BUS

MAIN: 800 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA
ISC: 16.50 kA

NOTES: SEE SHEET E002, SINGLE LINE DIAGRAM FOR SPD CIRCUIT BREAKER AND WIRING SIZE.

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	4HVAC-1	159.17 kVA	3	400 A	400 A			4#600 & 1#5 EGC IN 3 1/2" C.	
2	4LT	13.79 kVA	3	150 A	100 A			4#3 & 1#8 EGC IN 1 1/4" C.	
3	TR-1	83.24 kVA	3	250 A	225 A			3#4/0 & 1#4 EGC IN 2" C.	
4	SPD	--	1	--	--	--	--	--	--
5	ELEVATOR...	5.9 kVA	3	100 A	90 A			3#2 & 1#8 EGC IN 1 1/4" C.	
6	ELECT-WORK ROOM-1ST & 2ND FLR	0.24 kVA	1	20 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
7									
8									
9									
10									
11									
12									

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	14.035 kVA	125.00%	17.543 kVA		
Other	7 kVA	100.00%	7 kVA	**TOTAL CONNECTED LOAD:**	304.24 kVA
Power	173.268 kVA	100.00%	173.268 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	236.885 kVA
Receptacles	67.86 kVA	57.37%	38.93 kVA	**TOTAL CONNECTED AMPS:**	315.55 A
Spare	0.18 kVA	80.00%	0.144 kVA	**TOTAL ESTIMATED DEMAND AMPS:**	284.9 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 4LT

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 100 A/3P @ 4DB-R
LOCATION: ELECTRICAL 204

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 100 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 12.56 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	VD %	A	B	C	VD %	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	OCPD P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CLASSROOM 100,101 -1ST-LTG	20 A	1	12	12	12	0.49	0.82	0.82		0.74	12	12	12	1	20 A	CLASSROOM 207,208 -2ND-LTG	2	
	3	CLASSROOM 105,106 -1ST-LTG	20 A	1	12	12	12	0.49			0.82	0.55	0.64	12	12	1	20 A	2ND FLR-RM 214,217,218,RESTROOM,	4	
	5	STOREAGE,WORKROOM,RM	20 A	1	12	12	12	0.24				0.12	0.24	0.43	12	12	1	20 A	2ND FLR-CANOPY LTG	6	
	7	CLASSROOM 107,109 -1ST-LTG	20 A	1	12	12	12	0.68	0.82	0.84				0.6	12	12	1	20 A	CLASSROOM 201,200 -2ND-LTG	8	
	9	ROOM 115,117,118,119, RM104	20 A	1	12	12	12	0.43			0.41	0.82		0.55	12	12	1	20 A	CLASSROOM 205,206 -2ND-LTG	10	
	11	RESTROOM- 109,VESTS, FIRE...	20 A	1	12	12	12	0.26					0.29	6.28	0.4	10	10	1	50 A	LIGHTING INVERTER	12	
--	13	SPACE	--	1	--	--	--	--		0.2					0.41	10	10	1	20 A	EXTERIOR POLE LTS	14	
--	15	SPACE	--	1	--	--	--	--				--	--			--	--	1	--	SPACE	16	--
--	17	SPACE	--	1	--	--	--	--						--	--	--	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--	--	--		--	--					--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--	--				--	--			--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--	--						--	--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--		--	--					--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--	--				--	--			--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--	--						--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--		--	--					--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--	--				--	--			--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--	--						--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--		--	--					--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--	--				--	--			--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--	--						--	--	--	--	1	--	SPACE	42	--
								Total Load:	4.27 kVA	2.60 kVA	6.93 kVA									
								Total Amps:	16.35	9.37	25.94									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	13.795 kVA	125.00%	17.243 kVA		
				TOTAL CONNECTED LOAD:	13.79 kVA
				TOTAL ESTIMATED DEMAND LOAD:	17.243 kVA
				TOTAL CONNECTED AMPS:	16.59 A
				TOTAL ESTIMATED DEMAND AMPS:	20.7 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 2HVAC

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 100 A/3P @ TR-2
LOCATION: ELECTRICAL 204

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 100 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 3.43 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	VD %	A	B	C	VD %	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	OCPD P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	SAC-4	30 A	2	10	--	10	0.69	1.46	1.46		0.75	10	--	10	2	30 A	SAC-1	2	
--	3	--	--	--	--	--	--	--			1.46	1.46	--	--	--	--	--	--	4	--
	5	SAC-2	30 A	2	10	--	10	2.72			1.77	3.12	2.79	10	--	10	2	40 A	SAC-3	6	
--	7	--	--	--	--	--	--	--	1.77	3.12		--	--	--	--	--	--	--	8	--
	9	Fan EF (2)	20 A	1	12	12	12	0.69			0.15	0.9	2.5	12	12	1	20 A	ROOF MOUNTED	10	
	11	WH-1	20 A	2	12	--	12	0.27				1.25	1.18	--	--	1	20 A	KILN EXHAUST FAN	12	
--	13	--	--	--	--	--	--	--	1.25										14	
	15																		16	--
	17																		18	--
	19																		20	
	21																		22	--
	23																		24	--
	25																		26	
	27																		28	--
	29																		30	--
	31																		32	
	33																		34	--
	35																		36	--
	37																		38	--
	39																		40	--
	41																		42	--
								Total Load:	9.05 kVA	3.96 kVA	7.31 kVA									
								Total Amps:	79.71	33.02	65.25									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	0 kVA	0.00%	0 kVA		
Other	7 kVA	100.00%	7 kVA	**TOTAL CONNECTED LOAD:**	20.33 kVA
Power	12.426 kVA	100.00%	12.426 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	20.326 kVA
Receptacles	0.9 kVA	100.00%	0.9 kVA	**TOTAL CONNECTED AMPS:**	56.42 A
				TOTAL ESTIMATED DEMAND AMPS:	56.4 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 4HVAC-1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 400 A/3P @ 4DB-R
LOCATION: ELECTRICAL 204

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 400 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 14.98 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	VD %	A	B	C	VD %	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	OCPD P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	TR-2	50 A	3	8	--	10	0.22	9.05	6.49		0.06	4	4/0	4/0	3	225 A	4HVAC-2	2	
--	3	--	--	--	--	--	--	--			3.96	6.49	--	--	--	--	--	--	4	--
	5	--	--	--	--	--	--	--			7.31	6.49	--	--	--	--	--	--	6	--
	7	HP-1-1	30 A	3	10	--	10	0.42	3.71	3.71		0.39	12	--	12	3	20 A	HP-1-2	8	
	9	--	--	--	--	--	--	--			3.71	3.71	--	--	--	--	--	--	10	--
	11	--	--	--	--	--	--	--					3.71	3.71	--	--	--	--	12	--
	13	HP-1-3	20 A	3	12	--	12	0.59	3.71	3.71		0.74	12	--	12	3	20 A	HP-1-4	14	
	15	--	--	--	--	--	--	--			3.71	3.71	--	--	--	--	--	--	16	--
	17	--	--	--	--	--	--	--					3.71	3.71	--	--	--	--	18	--
	19	HP-1-5	20 A	3	12	--	12	1.14	3.71	3.71		1.41	12	--	12	3	20 A	HP-1-6	20	
	21	--	--	--	--	--	--	--			3.71	3.71	--	--	--	--	--	--	22	--
	23	--	--	--	--	--	--	--					3.71	3.71	--	--	--	--	24	--
	25	HP-1-7	20 A	3	12	--	12	1.91	3.71	3.24		0.32	12	--	12	3	20 A	HP-2-3	26	
	27	--	--	--	--	--	--	--			3.71	3.24	--	--	--	--	--	--	28	--
	29	--	--	--	--	--	--	--					3.71	3.24	--	--	--	--	30	--
	31	HP-2-4	20 A	3	12	--	12	0.71	3.24	0.83		12	--	12	3	20 A	HP-2-5	32		
	33	--	--	--	--	--	--	--			3.24	0.83	--	--	--	--	--	--	34	--
	35	--	--	--	--	--	--	--			3.24	0.83	--	--	--	--	--	--	36	--
	37	HP-2-6	20 A	3	12	--	12	1.05	3.24	3.24		1.74	12	--	12	3	20 A	HP-2-7	38	
	39	--	--	--	--	--	--	--			3.24	3.24	--	--	--	--	--	--	40	--
	41	--	--	--	--	--	--	--			3.24	3.24	--	--	--	--	--	--	42	--
								Total Load:	55.33 kVA	50.24 kVA	53.59 kVA									
								Total Amps:	201.62	181.38	195.35									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	0 kVA	0.00%	0 kVA		
Other	7 kVA	100.00%	7 kVA	**TOTAL CONNECTED LOAD:**	159.17 kVA
Power	151.268 kVA	100.00%	151.268 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	159.168 kVA
Receptacles	0.9 kVA	100.00%	0.9 kVA	**TOTAL CONNECTED AMPS:**	191.45 A
				TOTAL ESTIMATED DEMAND AMPS:	191.4 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 4HVAC-2

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 225 A/3P @ 4HVAC-1
LOCATION: ELECTRICAL 204

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 225 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 14.03 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	VD %	A	B	C	VD %	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	OCPD P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	HP-2-2	30 A	3	10	--	10	0.32	3.24	3.25		0.37	10	--	10	3	30 A	HP-2-1	2	
	3	--	--	--	--	--	--	--			3.24	3.25	--	--	--	--	--	--	4	--
	5	--	--	--	--	--	--	--				3.24	3.25	--	--	--	--	--	6	--
	7																		8	
	9																		10	
	11																		12	
	13																		14	
	15																		16	
	17																		18	
	19																		20	
	21																		22	
	23																		24	
	25																		26	
	27																		28	
	29																		30	
	31																		32	
	33																		34	
	35																		36	
	37																		38	
	39																		40	
	41																		42	
								Total Load:	6.49 kVA	6.49 kVA	6.49 kVA									
								Total Amps:	23.44	23.44	23.44									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	19.482 kVA	100.00%	19.482 kVA		
				TOTAL CONNECTED LOAD:	19.48 kVA
				TOTAL ESTIMATED DEMAND LOAD:	19.482 kVA
				TOTAL CONNECTED AMPS:	23.43 A
				TOTAL ESTIMATED DEMAND AMPS:	23.4 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

LTG INVERTER

LTG-INV

ENCLOSURE: NEMA 1
FED FROM: 100A/4W @ 4LT
LOCATION: STORAGE 10304

SOLID NEUTRAL
GROUND BUS

MAIN: 50 A 100A MCB
VOLTS: 227/277 VOLTAGE
PHASE: 1
WIRE: 3
SCCR: 65 kA
ISC UNKNOWN 0.00 kA
10 KVA

NOTES:

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1									
2									
3	1ST FLR-CANOPY LTG	0.13 kVA	1	20 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
4	2ND-FLR-ROOM-EM-LTG	0.66 kVA	1	20 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
5	EXIT SIGN-1ST FLR-LTG	0.03 kVA	1	20 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
6	2ND FLR-CANOPY LTG	0.23 kVA	1	20 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
7	EXIT SIGN-2ST FLR-LTG	0.02 kVA	1	20 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
8	ELEVATOR ME ROOM LIGHT	0.04 kVA	1	20 A	20 A			2#1/0 & 1#4 EGC IN 1 1/4" C.	
9	1ST FL-WALLPACK	0.08 kVA	1	150 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
10	2ND FL-WALLPACK	2.72 kVA	1	150 A	20 A			2#12 & 1#12 EGC IN 3/4" C.	
11	PIT ELEV LTG	0.09 kVA	1	20 A	20 A				
12	SPACE	--	1	--	--	--	--	--	--
13	SPACE	--	1	--	--	--	--	--	--
14	SPACE	--	1	--	--	--	--	--	--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	4.013 kVA	125.00%	5.016 kVA		
				TOTAL CONNECTED LOAD:	4.01 kVA
				TOTAL ESTIMATED DEMAND LOAD:	5.016 kVA
				TOTAL CONNECTED AMPS:	4.83 A
				TOTAL ESTIMATED DEMAND AMPS:	6 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

STATE:

ARCHITECT:
architecture
westbergwhite
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

CONSULTANT:
IMEG
www.imegcorp.com
901 VIA PIEMONTE
SUITE 400
ONTARIO, CA 91764
P: 909.477.6915 F: 909.477.6916
PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER NESTOR C. IGNACIO, JR. Lic. E16934 Exp. 6-30-2025 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
	03/19/2025	Addendum 1
	03/26/25	Addendum 2

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
PANEL SCHEDULES

SHEET NO:

E005

DISTR. BOARD 2DB-R

ENCLOSURE: NEMA 1
FED FROM: 500 A/3P @ TR-1
LOCATION: ELECTRICAL 104

SOLID NEUTRAL
GROUND BUS

MAIN: 500 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 12.58 kA

NOTES:

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	2P1A	21.06 kVA	3	250 A	225 A			4#4/0 & 1#4 EGC IN 2 1/2" C.	
2	TVSS1	29.14 kVA	3	250 A	225 A			4#4/0 & 1#4 EGC IN 2 1/2" C.	
3	2P2A	16.2 kVA	3	250 A	225 A			4#4/0 & 1#4 EGC IN 2 1/2" C.	
4	TVSS2	6.84 kVA	3	250 A	225 A			4#4/0 & 1#4 EGC IN 2 1/2" C.	
5	KILN	10 kVA	2	50 A	50 A			2#6 & 1#10 EGC IN 1" C.	
6									
7									
8									
9									
10									
11									

2 (revision)

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS* 1	
Power	16.1 kVA	100.00%	16.1 kVA		
Receptacles	66.96 kVA	57.47%	38.48 kVA	TOTAL CONNECTED LOAD:	83.24 kVA
Spare	0.18 kVA	80.00%	0.144 kVA	TOTAL ESTIMATED DEMAND LOAD:	54.724 kVA
				TOTAL CONNECTED AMPS:	231.05 A
				TOTAL ESTIMATED DEMAND AMPS:	151.9 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 2P1A

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 225 A/3P @ 2DB-R
LOCATION: ELECTRICAL 104

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 225 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 10.95 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	VD %	A		B		C		VD %	WIRE SIZE G	N	H	OCPD P	AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	WORK ROOM 102 RECEPT	20 A	1	12	12	12	2.27	0.54	0.9					2.92	10	10	10	1	20 A	EXTERIOR RECEPT-1ST-FLR	2	
	3	ELEC, STORAGE-RECEPT	20 A	1	12	12	12	0.1			0.18	0.18							1	20 A	REC - DRINKING FOUNTAIN	4	
	5	FIRE RISER, VEST RECEPT	20 A	1	12	12	12	2.04					0.54	0.72	2.01	10	10	10	1	20 A	RESTROOM STORAGE RECEPT	6	
	7	115,116,118,119-RECEPT	20 A	1	10	10	10	2.09	0.54	1.08					2.92	12	12	12	1	20 A	STORAGE 121, EXTERIOR-RECEPT	8	
	9	HAND DRYER-109	20 A	1	8	8	8	2.51			1.5	0.36			1.47	12	12	12	1	20 A	IDF RECEPT	10	
	11	HAND DRYER-110	20 A	1	8	8	8	2.8					1.5	0.36	1.45	12	12	12	1	20 A	IDF RECEPT	12	
	13	ELEVATOR PIT RECEPT	20 A	1	12	12	12	0.77	0.18	0.36					1.45	12	12	12	1	20 A	IDF RECEPT	14	
	15	CLASSROOM 100-CONV-RECEPT	20 A	1	12	12	12	0.78			0.54	1.5							1	20 A	HAND DRYER-115	16	
	17	CLASSROOM 105-CONV-RECEPT	20 A	1	12	12	12	0.85					0.72	1.5					1	20 A	HAND DRYER-116	18	
	19	CLASSROOM 107-CONV-RECEPT	20 A	1	12	12	12	1.52	0.54	0.72					0.87	12	12	12	1	20 A	CLASSROOM 101-CONV-RECEPT	20	
	21	CLASSROOM 114-CONV-RECEPT	20 A	1	10	10	10	2.23			0.72	0.72			1.35	12	12	12	1	20 A	CLASSROOM 106-CONV-RECEPT	22	
	23	WH1	20 A	2	10	--	10	2.1					2.5	0.72	2.65	12	12	12	1	20 A	CLASSROOM 108-CONV-RECEPT	24	
--	25	--	--	--	--	--	--	--	0	0.18					0.71	12	12	12	1	20 A	REC - INTRUSION PANEL	26	
	27	WORK ROOM 102 COPY MACH	20 A	1							0.5	0.18				--	--	--	1	20 A	ELEC SHUNT TRIP	28	--
	29	ELEVATOR ME ROOMS RECEPT	20 A	1									0.36	0.36					1	20 A	FIRE ALARM BELL	30	1
	31	ELEVATOR PIT RECEPT	20 A	1					0.18	--						--	--	--	1	--	SPACE	32	--
	33	PUMP SUMP RECEPT	20 A	1							0.18	--				--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	42	--
								Total Load:	5.22 kVA		6.56 kVA		9.28 kVA										
								Total Amps:	43.50		56.38		79.05										

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	8.86 kVA	100.00%	8.86 kVA		
Receptacles	12.02 kVA	91.60%	11.01 kVA	TOTAL CONNECTED LOAD:	21.06 kVA
Spare	0.18 kVA	80.00%	0.144 kVA	TOTAL ESTIMATED DEMAND LOAD:	20.014 kVA
				TOTAL CONNECTED AMPS:	58.46 A
				TOTAL ESTIMATED DEMAND AMPS:	55.6 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: 1. PROVIDE LOCK-ON DEVICE AND MARK RED.

PANEL- TVSS1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 225 A/3P @ 2DB-R
LOCATION: ELECTRICAL 104

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 225 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 10.72 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	VD %	A		B		C		VD %	WIRE SIZE G	N	H	OCPD P	AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CLASSROOM 100-COMP-RECEPT	20 A	1	8	8	8	2.2	3	1.8					1.13	12	12	12	1	20 A	CLASSROOM 100-PROJECTOR	2	
	3	CLASSROOM 101-COMP-RECEPT	20 A	1	10	10	10	2.78			3	0.8			1.06	12	12	12	1	20 A	CLASSROOM 101-PROJECTOR	4	
	5	CLASSROOM 105-COMP-RECEPT	20 A	1	12	12	12	2.29					2	1.8	0.89	12	12	12	1	20 A	CLASSROOM 105-PROJECTOR	6	
	7	CLASSROOM 106-COMP-RECEPT	20 A	1	8	8	8	2.7	3	1.8					1.39	12	12	12	1	20 A	CLASSROOM 106-PROJECTOR	8	
	9	CLASSROOM 107-COMP-RECEPT	20 A	1	6	6	6	2.1			3	0.98			1.96	12	12	12	1	20 A	CLASSROOM 107-PROJECTOR	10	
	11	CLASSROOM 108-COMP-RECEPT	20 A	1	6	6	6	2.75					3	1.16	3	12	12	12	1	20 A	CLASSROOM 108-PROJECTOR	12	
	13	CLASSROOM 114-COMP-RECEPT	20 A	1	4	4	4	2.56	3	0.8					2.28	10	10	10	1	20 A	CLASSROOM 114-PROJECTOR	14	
--	15	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	16	--
--	17	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	42	--
								Total Load:	13.40 kVA		7.78 kVA		7.96 kVA										
								Total Amps:	111.90		64.83		66.56										

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Receptacles	29.14 kVA	67.16%	19.57 kVA		
				TOTAL CONNECTED LOAD:	29.14 kVA
				TOTAL ESTIMATED DEMAND LOAD:	19.57 kVA
				TOTAL CONNECTED AMPS:	80.88 A
				TOTAL ESTIMATED DEMAND AMPS:	54.3 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 2P2A

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 225 A/3P @ 2DB-R
LOCATION: ELECTRICAL 204

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 225 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 9.93 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	VD %	A		B		C		VD %	WIRE SIZE G	N	H	OCPD P	AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	WORK ROOM 202 RECEPT	20 A	1	12	12	12	1.39	0.72	0.72					1.65	12	12	12	1	20 A	EXTERIOR RECEPT-2ND-FLR	2	
	3	ELEC, STORAGE-RECEPT	20 A	1	12	12	12	0.07			0.36	0.9			2.11	10	10	10	1	20 A	RESTROOM, STORAGE,...	4	
	5	RESTROOM, FIRE RISER,VEST-...	20 A	1	10	10	10	2.16					1.08	0.36	1.08	12	12	12	1	20 A	EXTERIOR RECEPT-2ND-FLR	6	
	7	HAND DRYER-209	20 A	1	8	8	8	2.37	1.5	1.5					2.83	8	8	8	1	20 A	HAND DRYER-216	8	
	9	HAND DRYER-209	20 A	1	8	8	8	2.76			1.5	1.5			2.4	8	8	8	1	20 A	HAND DRYER-215	10	
	11	CLASSROOM 200-CONV-RECEPT	20 A	1	12	12	12	1.24					0.72	0.54	0.51	12	12	12	1	20 A	CLASSROOM 201-CONV-RECEPT	12	
	13	CLASSROOM 205-CONV-RECEPT	20 A	1	12	12	12	0.65	0.54	0.54					1.01	12	12	12	1	20 A	CLASSROOM 206-CONV-RECEPT	14	
	15	CLASSROOM 207-CONV-RECEPT	20 A	1	12	12	12	1.53			0.54	0.9			1.92	10	10	10	1	20 A	CLASSROOM 206-CONV-RECEPT	16	
	17	CLASSROOM 214-CONV-RECEPT	20 A	1	12	12	12	2.56					0.54	0.18					1	20 A	FIRE ALARM PANEL	18	1
	19	WORK ROOM 202 COPY MACH	20 A	1					0.5	0.36									1	20 A	FIRE ALARM BELL	20	1
--	21	SPACE	--	1	--	--	--				--	0.7							1	20 A	FIRE DAMPER	22	1
--	23	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	42	--
								Total Load:	6.38 kVA		6.40 kVA		3.42 kVA										
								Total Amps:	56.96		57.13		28.50										

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	7.24 kVA	100.00%	7.24 kVA		
Receptacles	8.96 kVA	100.00%	8.96 kVA	TOTAL CONNECTED LOAD:	16.20 kVA
				TOTAL ESTIMATED DEMAND LOAD:	16.2 kVA
				TOTAL CONNECTED AMPS:	44.97 A
				TOTAL ESTIMATED DEMAND AMPS:	45 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: 1. PROVIDE LOCK-ON DEVICE AND MARK RED.

PANEL- TVSS2

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 225 A/3P @ 2DB-R
LOCATION: ELECTRICAL 204

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 225 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC: 9.79 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	VD %	A		B		C		VD %	WIRE SIZE G	N	H	OCPD P	AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CLASSROOM 200-COMP-RECEPT	20 A	1	12	12	12	0.88	0.54	0.36					0.49	12	12	12	1	20 A	CLASSROOM 200-PROJECTOR	2	
	3	CLASSROOM 201-COMP-RECEPT	20 A	1	12	12	12	0.86			0.54	0.36			0.46	12	12	12	1	20 A	CLASSROOM 201-PROJECTOR	4	
	5	CLASSROOM 205-COMP-RECEPT	20 A	1	12	12	12	0.49					0.54	0.54	0.39	12	12	12	1	20 A	CLASSROOM 205-PROJECTOR	6	
	7	CLASSROOM 206-COMP-RECEPT	20 A	1	12	12	12	0.89	0.54	0.54					0.62	12	12	12	1	20 A	CLASSROOM 206-PROJECTOR	8	
	9	CLASSROOM 207-COMP-RECEPT	20 A	1	12	12	12	1.47			0.54	0.54			1.12	12	12	12	1	20 A	CLASSROOM 207-PROJECTOR	10	
	11	CLASSROOM 208-COMP-RECEPT	20 A	1	12	12	12	1.93					0.54	0.36	1.15	12	12	12	1	20 A	CLASSROOM 208-PROJECTOR	12	
	13	CLASSROOM 214-COMP-RECEPT	20 A	1	12	12	12	2.69	0.54	0.36					1.69	12	12	12	1	20 A	CLASSROOM 214-PROJECTOR	14	
--	15	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	16	--
--	17	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	42	--
								Total Load:	2.88 kVA		1.98 kVA		1.98 kVA										
								Total Amps:	24.00		16.50		16.50										

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Receptacles	6.84 kVA	100.00%	6.84 kVA		
				TOTAL CONNECTED LOAD:	6.84 kVA
				TOTAL ESTIMATED DEMAND LOAD:	6.84 kVA
				TOTAL CONNECTED AMPS:	18.99 A
				TOTAL ESTIMATED DEMAND AMPS:	19 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

(E) MAIN SWITCHBOARD- MSB

ENCLOSURE: NEMA 3
FED FROM: 800 A/3P @
LOCATION:

SOLID NEUTRAL
GROUND BUS

MAIN: 800 A MCCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA
ISC: 30.00 kA

NOTES:

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1									
2									
3									
4									
5	EVP-1	32 kVA	3	400 A	20 A				
6									
7									
8									
9									
10									
11									
12									

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	32 kVA	100.00%	32 kVA		
				TOTAL CONNECTED LOAD:	32.00 kVA
				TOTAL ESTIMATED DEMAND LOAD:	32 kVA
				TOTAL CONNECTED AMPS:	88.82 A
				TOTAL ESTIMATED DEMAND AMPS:	88.8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL EVP-1

1 (revision)

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 20 A/3P @ MSB
LOCATION:

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 400 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA
ISC UNKNOWN 0.00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	VD %	A		B		C		VD %	WIRE SIZE G	N	H	OCPD P	AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	EVCS	40 A	2	3	--	4	2.56	8	8						10	--	8	2	40 A	EVCS	2	
--	3	--	--	--	--	--	--	--			0	0			--	--	--	--	--	--	--	4	--
	5	EVCS	40 A	2	3	--	4	2.53					8	8		10	--	8	2	40 A	EVCS	6	
--	7	--	--	--	--	--	--	--	0	0					--	--	--	--	--	--	--	8	--
--	9	SPARE	40 A	1	--	--	--				0	0				--	--	--	1	40 A	SPARE	10	--
--	11	SPARE	40 A	1	--	--	--						0	0		--	--	--	1	40 A	SPARE	12	--
--	13	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	14	--
--	15	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	16	--
--	17	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	42	--
								Total Load:	16.00 kVA		0.00 kVA		16.00 kVA										
								Total Amps:	153.85		0.00		153.85										

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	32 kVA	100.00%	32 kVA		
				TOTAL CONNECTED LOAD:	32.00 kVA
				TOTAL ESTIMATED DEMAND LOAD:	32 kVA
				TOTAL CONNECTED AMPS:	88.82 A
				TOTAL ESTIMATED DEMAND AMPS:	88.8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL- 2PEVC

MOUNTING: RECESSED
ENCLOSURE: NEMA 1
FED FROM: 400 A/3P @ TR-3
LOCATION: WORKROOM 102

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 400 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 22 kA
ISC: 10.95 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	VD %	A		B		C		VD %	WIRE SIZE G	N	H	OCPD P	AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	IRRIGATION PUMP	20 A	3					0.73	0.1						--	--	--	1	20 A	IRRIGATION CONTROL	2	--
--	3	--	--	--	--	--	--	--			0.73	1.8				--	--	--	1	20 A	SPARE	4	--
--	5	--	--	--	--	--	--	--					0.73	1.8		--	--	--	1	20 A	SPARE	6	--
--	7	SPARE	20 A	1	--	--	--		1.8	1.8						--	--	--	1	20 A	SPARE	8	--
--	9	SPARE	20 A	1	--	--	--				1.8	1.8				--	--	--	1	20 A	SPARE	10	--
--	11	SPARE	20 A	1	--	--	--						1.8	1.8		--	--	--	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	--	--	--		1.8	1.8						--	--	--	1	20 A	SPARE	14	--
--	15	SPARE	20 A	1	--	--	--				1.8	1.8				--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--						1.8	1.8		--	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--		1.8	1.8						--	--	--	1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--				1.8	1.8				--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--						1.8	1.8		--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--		1.8	1.8						--	--	--	1	20 A	SPARE	26	--
--	27	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--		--	--						--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--				--	--				--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--						--	--		--	--	--	1	--	SPACE	42	--
								Total Load:	15.23 kVA		13.33 kVA		13.33 kVA										
								Total Amps:	126.94		111.11		111.11										

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	2.2 kVA	100.00%	2.2 kVA		
Spare	39.7 kVA	80.00%	31.76 kVA	TOTAL CONNECTED LOAD:	41.90 kVA
				TOTAL ESTIMATED DEMAND LOAD:	33.96 kVA
				TOTAL CONNECTED AMPS:	116.30 A
				TOTAL ESTIMATED DEMAND AMPS:	94.3 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

STATE:

ARCHITECT:
westbergwhite architecture
7700 IRVINE CENTER DR # 100
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CONSULTANT:
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PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER
NESTOR C. IGNACIO, JR.
Lic. E16934
Exp. 6-30-2025
ELECTRICAL
STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL

4110 W. 154TH ST.
LAWNDALE, CA 90260

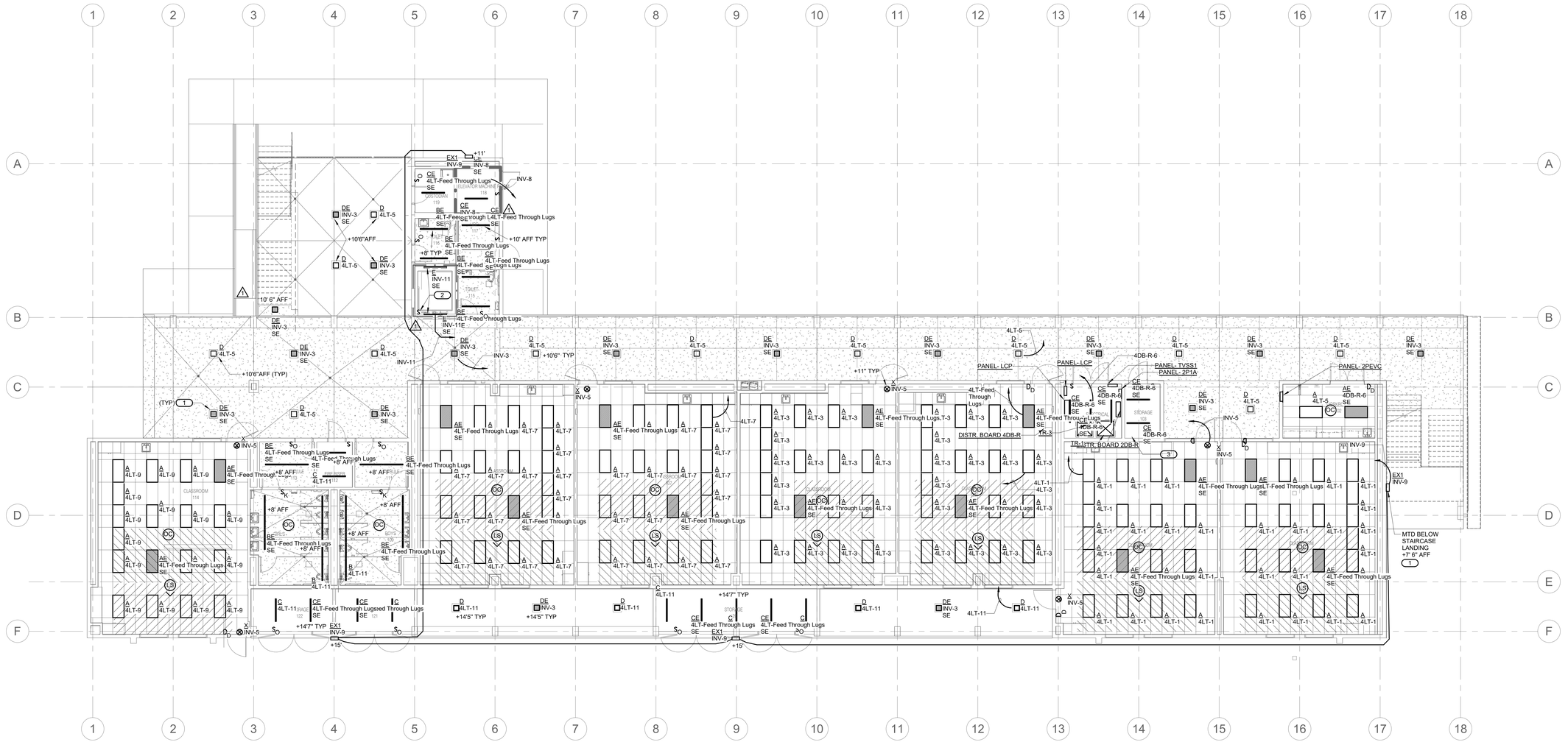
No.	Rev. Date	Description
	03/19/2025	Addendum 1
	03/26/25	Addendum 2

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
PANEL SCHEDULES

SHEET NO:

E006



1 FIRST FLOOR PLAN - LIGHTING

1/8" = 1'-0"

NORTH

GENERAL NOTES:

PRIMARY DAYLIGHT ZONE

SECONDARY DAYLIGHT ZONE

A. COORDINATE EXACT LOCATION OF EACH LIGHT FIXTURE WITH MECHANICAL PIPING, CONDUIT, HVAC GRILLES, ETC. FIELD ADJUST ANY LIGHT TO AVOID CONFLICT

B. ALL ELECTRICAL CONTROL DEVICES SHALL BE MOUNTED AT A HEIGHT THAT IS ACCESSIBLE TO THE DISABLED IN ACCORDANCE WITH THE CALIFORNIA ACCESSIBILITY CODE.

C. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT TYPE AND HEIGHT OF CEILING IN EACH ROOM. COORDINATE WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN OF ANY FIXTURES. COORDINATE ALL CONTROL JOINTS LOCATIONS WITH LIGHT FIXTURES PRIOR TO ANY ROUGH-IN OF FIXTURES.

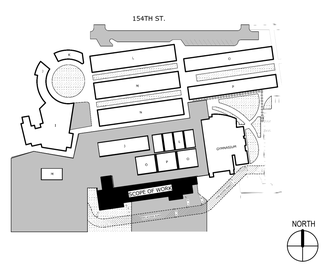
D. PROVIDE CONDUIT AND WIRING AS REQUIRED TO MEET CIRCUITING SHOWN TO CONFORM TO NEC REQUIREMENTS. PROVIDE EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS.

E. REFER TO ELECTRICAL DETAIL DRAWINGS FOR MOUNTING HEIGHTS OF ALL WALL MOUNTED ELECTRICAL DEVICES.

F. ALL 2x4 LIGHT FIXTURE, OCCUPANCY SENSOR, AND DAYLIGHT SENSOR ARE IN CLASSROOM LOCATION SHALL BE LOCATED AS +11' AFF, OTHEWISES WILL BE NOTED.

KEYNOTES: (#)

1. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL.
2. DEVICES ARE IN THE ELEVATOR PIT LOCATION.
3. 10 KVA LIGHTING INVERTER IPS.



KEYMAP

STATE:

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PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER NESTOR C. IGNACIO, JR. Lic. E16934 Exp. 6-30-2025 OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

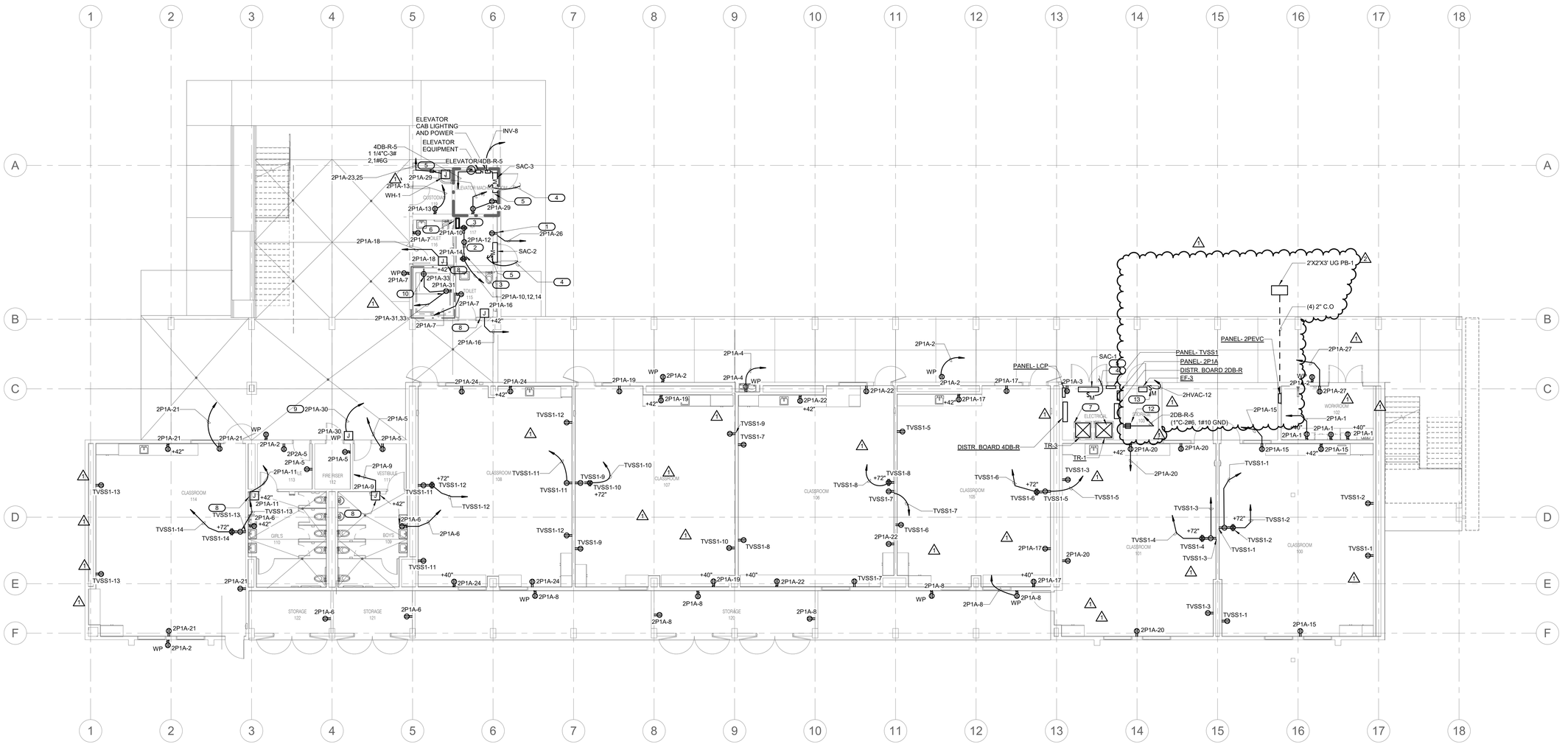
No.	Rev. Date	Description
1	03/19/2025	Addendum 1

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FIRST FLOOR PLAN - LIGHTING

SHEET NO:

E201



FIRST FLOOR PLAN - POWER

1/8" = 1'-0"

GENERAL NOTES:

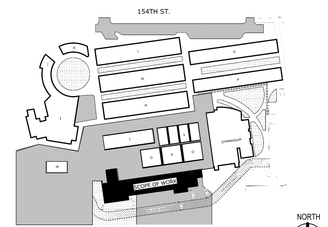
A. ALL RECEPTACLE OUTLETS IN CLASSROOM AND BATHROOMS SHALL BE TAMPER RESISTANT ROOF RECEPTACLE TYPE.

B. ALL RECEPTACLE SHALL BE MOUNTED AT 18" AFF TO THE TOP OF THE OUTLET BOX TO MEET ADA SECTION 4.27. 3. OTHERWISE WILL BE NOTED ON THE PLAN.

C. ALL EXTERIOR RECEPTACLE, OR RECEPTACLE IN RESTROOM, WET LOCATION SHALL BE GFCI, TAMPER RESISTANT, WEATHER PROOF RECEPTACLE TYPE.

KEY NOTES: (#)

1. SINGLE DATA OUTLET AT FUTURE OFOI INTRUSION PANEL. REFER TO 1/T301 FOR EXACT LOCATION REQUIRED.
2. PROVIDE (1) L6-30R RECEPTACLE FOR OFOI RACK ELECTRONICS. REFER TO 3/T301 FOR EXACT LOCATION REQUIRED.
3. PROVIDE 5-30R RECEPTACLE FOR OFOI RACK ELECTRONICS. REFER TO 3/T301 FOR EXACT LOCATION REQUIRED.
4. CONTINUATION TO OUTDOOR SPLIT UNIT RESPECTIVELY ON THE ROOF. REFER TO ROOF PLAN E203 FOR WIRING DIAGRAM.
5. PROVIDE 240V, 20A, 2P MECHANICAL TOGGLE SWITCH.
6. 1" C LONG WALL-MOUNTED GROUND BAR AT +24". RUN 1"C 1#6 GND TO DISTRIBUTIONBOARD-DBS.
7. PROVIDE HOUSEKEEPING PAD. REFER TO 6/E501.
8. HAND DRYER, REFER TO A601 FOR ELEVATION MOUNTING DETAIL.
9. PROVIDE 'LOCK-ON' DEVICE TO BREAKER AND RED LABEL 'FIRE ALARM BELL' TO CIRCUIT ID.
10. (1) GFI RECEPTACLES IN THE PIT LOCATION. (1) 120V/20A SIMPLEX RECEPTACLE FOR SUM PUMP.
11. PROVIDE 240V/30AF/20AFU DISCONNECT SWITCH NEMA 3R FOR WH-1
12. PROVIDE HIGH TEMPERATURE RATED (1) 6-50R RECEPTACLE FOR KILN. COORDINATE EXACT LOCATION WITH INSTALLER.
13. PROVIDE MOTOR RATED SWITCH FOR EXHAUST FAN. PROVIDE HIGH TEMPERATURE RATED SWITCH.



KEYMAP

STATE:

ARCHITECT:
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PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER NESTOR C. IGNACIO, JR. Lic. E16934 Exp. 6-30-2025 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

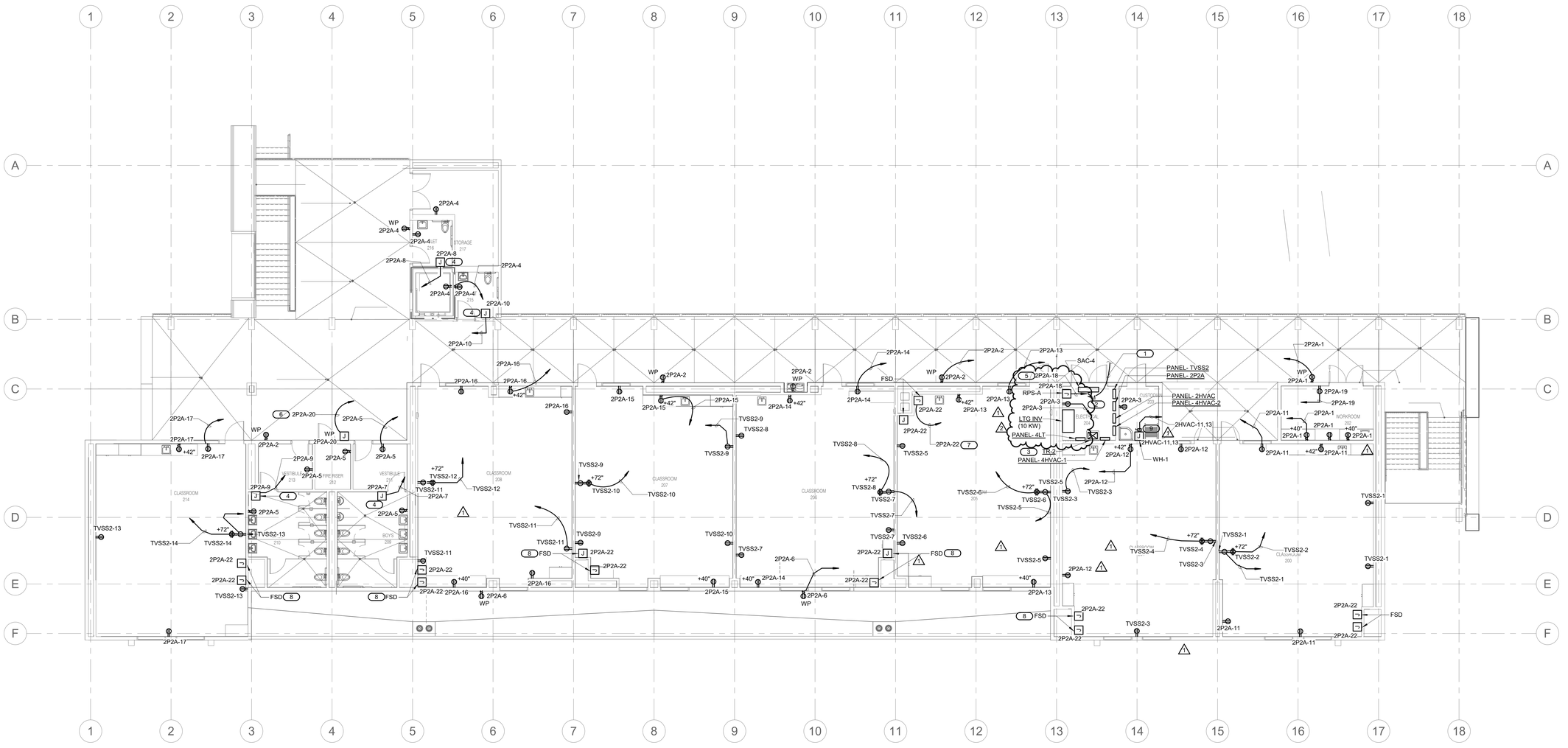
WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
	03/19/2025	Addendum 1
	03/26/25	Addendum 2

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FIRST FLOOR PLAN - POWER

SHEET NO:
E301



NORTH

1 **SECOND FLOOR PLAN - POWER**

1/8" = 1'-0"

GENERAL NOTES:

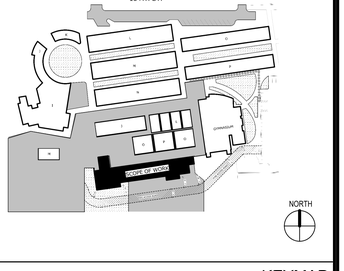
A. ALL RECEPTACLE OUTLETS IN CLASSROOM AND BATHROOMS SHALL BE TAMPER RESISTANT ROOF RECEPTACLE TYPE.

B. ALL RECEPTACLE SHALL BE MOUNTED AT 18" AFF TO THE TOP OF THE OUTLET BOX TO MEET ADA SECTION 4.27. 3. OTHERWISE WILL BE NOTED ON THE PLAN.

C. ALL EXTERIOR RECEPTACLE, OR RECEPTACLE IN RESTROOM, WET LOCATION SHALL BE GFCI, TAMPER RESISTANT, WEATHER PROOF RECEPTACLE TYPE.

KEY NOTES: (#)

1. CONTINUATION TO OUTDOOR SPLIT UNIT RESPECTIVELY ON THE ROOF. REFER TO ROOF PLAN E203 FOR WIRING DIAGRAM.
2. PROVIDE 240V, 20A, 2P MECHANICAL TOGGLE SWITCH.
3. PROVIDE HOUSEKEEPING PAD. REFER TO 6/E501.
4. HAND DRYER, REFER TO A601 FOR ELEVATION MOUNTING DETAIL.
5. PROVIDE 'LOCK-ON' DEVICE TO BREAKER AND RED LABEL 'FIRE ALARM PANEL' TO CIRCUIT ID.
6. PROVIDE 'LOCK-ON' DEVICE TO BREAKER AND RED LABEL 'FIRE ALARM BELL' TO CIRCUIT ID.
7. PROVIDE 'LOCK-ON' DEVICE TO BREAKER AND RED LABEL 'FIRE DAMPER' TO CIRCUIT ID.
8. PROVIDE 1P MOTOR RATED SWITCH AT EACH FIRE SMOKE DAMPER FOR POWER DISCONNECT.
9. PROVIDE 240V/30AF/20AFU DISCONNECT SWITCH NEMA 3R FOR WH-1



KEYMAP

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ARCHITECT:
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PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER
NESTOR C. IGNACIO, JR.
Lic. E16934
Exp. 6-30-2025
STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL

4110 W. 154TH ST.
LAWNDALE, CA 90260

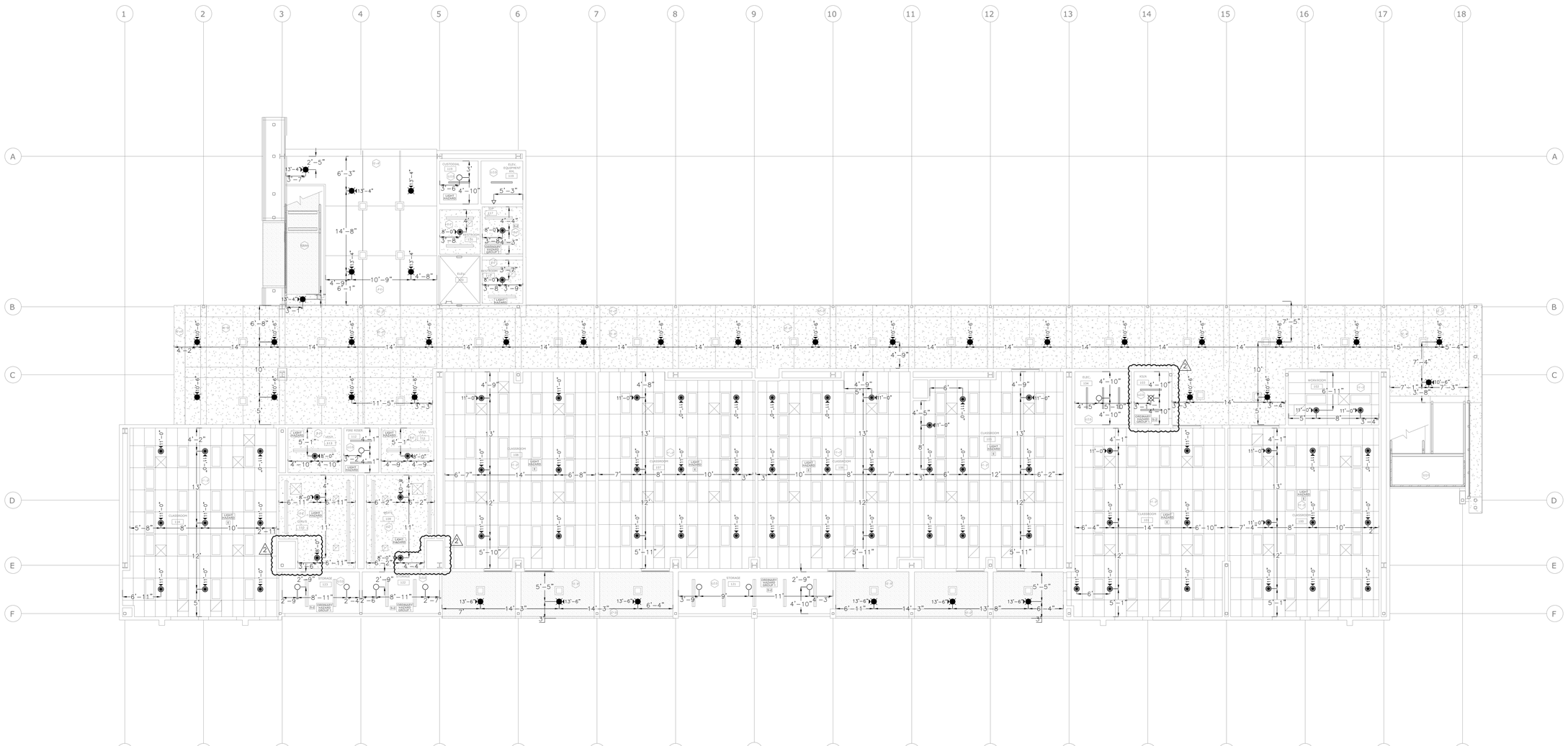
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1	03/19/2025	Addendum 1
2	03/26/25	Addendum 2

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
SECOND FLOOR PLAN - POWER

SHEET NO:

E302



LEGEND

A.F.F.: ABOVE FINISH FLOOR
BFP: BACKFLOW PREVENTER
BOP: BOTTOM OF PIPE
DSP: DRY STANDPIPE
(E): EXISTING
GPM: GALLONS PER MINUTE
FDC: FIRE DEPARTMENT CONNECTION
FH: FIRE HYDRANT
FHC: FIRE HOSE CABINET
L.F.: LINEAR FEET
N.I.C.: NOT IN CONTRACT
PSI: POUNDS PER SQUARE INCH
PVC: POLYVINYL CHLORIDE
(R): RELOCATED
SQ. FT.: SQUARE FEET
TYP.: TYPICAL
WSP: WET STANDPIPE

- REPRESENTS DETAIL NUMBER / REPRESENTS FIRE PROTECTION SHEET
- REPRESENTS WATER SUPPLY NODE NOTED ON HYDRAULIC CALCULATIONS
- REPRESENTS NODE NOTED ON HYDRAULIC CALCULATIONS
- REPRESENTS HEAD ELEVATION
- REPRESENTS PIPE ELEVATION
- REPRESENTS PIPE HANGAR
- REPRESENTS END LINE RESTRAINT
- REPRESENTS 4-WAY BRACE WHERE OCCURS
- REPRESENTS LATERAL OR LONGITUDINAL SWAY BRACE WHERE OCCURS
- REPRESENTS PIPE SIZE
- REPRESENTS PIPE LENGTH
- REPRESENTS PIPE SLOPE DIRECTION
- REPRESENTS PIPE END CAP
- REPRESENTS PIPE RISE
- REPRESENTS PIPE DROP
- REPRESENTS EXISTING PIPING
- REPRESENTS POINT OF CONNECTION

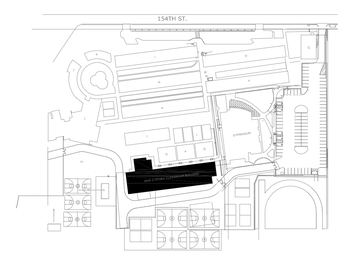
SYMBOLS AND ABBREVIATIONS ARE SHOWN FOR REFERENCE; NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED

SPRINKLER LEGEND

SYMBOL	SIN/MODEL	QUANTITY	K-FACTOR	TYPE	ORIFICE	FINISH	TEMP.	NOTES
○	TY 3131	14	5.6	UPRIGHT	1/2"	BRASS	155°F	EXPOSED**
◉	TY 3531	69	5.6	PENDENT	1/2"	CUSTOM*	155°F	CONCEALED****
●	TY 3531	36	5.6	PENDENT	1/2"	CUSTOM*/***	155°F	CONCEALED****
◁	TY 3331	1	5.6	SIDEWALL	1/2"	BRASS	155°F	EXPOSED
⊠	TY 3191	2	5.6	UPRIGHT	1/2"	BRASS	400°F	EXPOSED**
		TOTAL = 122						

2

* : CUSTOM COVER PLATE FINISH FROM MANUFACTURER TO BE SELECTED BY OWNER/ARCHITECT. NO FIELD PAINTING ALLOWED.
** : INSTALL APPROVED TYPE PROTECTIVE METAL BASKET HEAD GUARDS AT ALL EXPOSED HEADS.
*** : PROVIDE WITH CORROSION-RESISTANT COATING FROM MANUFACTURER.
**** : PROVIDE WITH OVERSIZED SEISMIC ESCUTCHEON PLATE.



NORTH

FIRE PROTECTION FIRST FLOOR REFLECTED CEILING PLAN — SCALE: 1/8"=1'-0" — 1 — KEYMAP

P:\530\530-204_LESD_Will_Rogers_MS_2-Story_Classroom_Building\Drawings\Fire Protection\FP001 - Addendum 2.DWG Mar 27, 2025 - 6:38pm iggy

STATE:

ARCHITECT:

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Exp. 06-30-2026
CIVIL

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

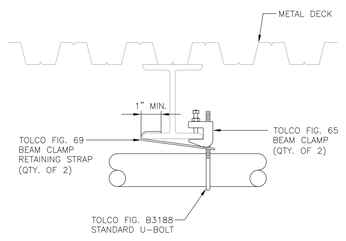
No.	Rev. Date	Description
2	03/28/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/27/2024
DRAWN: -
CHECK: -
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FIRE PROTECTION
FIRST FLOOR
REFLECTED CEILING PLAN

SHEET NO:

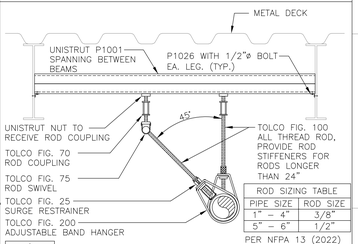
FP101



BEAM CLAMP AND U-BOLT

(ALTERNATE/SECONDARY HANGER)

#2 PLAN SYMB



ROD SIZING TABLE	
PIPE SIZE	ROD SIZE
1" – 4"	3/8"
5" – 6"	1/2"

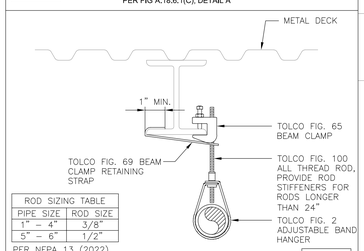
PER NFPA 13 (2022)
TABLE 17.2.1.1

(PRIMARY METHOD)

END OF LINE RESTRAINT

(NFPA 13, 2022 ED, 18.6.1)
PER FIG A.18.6.1(C), DETAIL A

PLAN SYMB



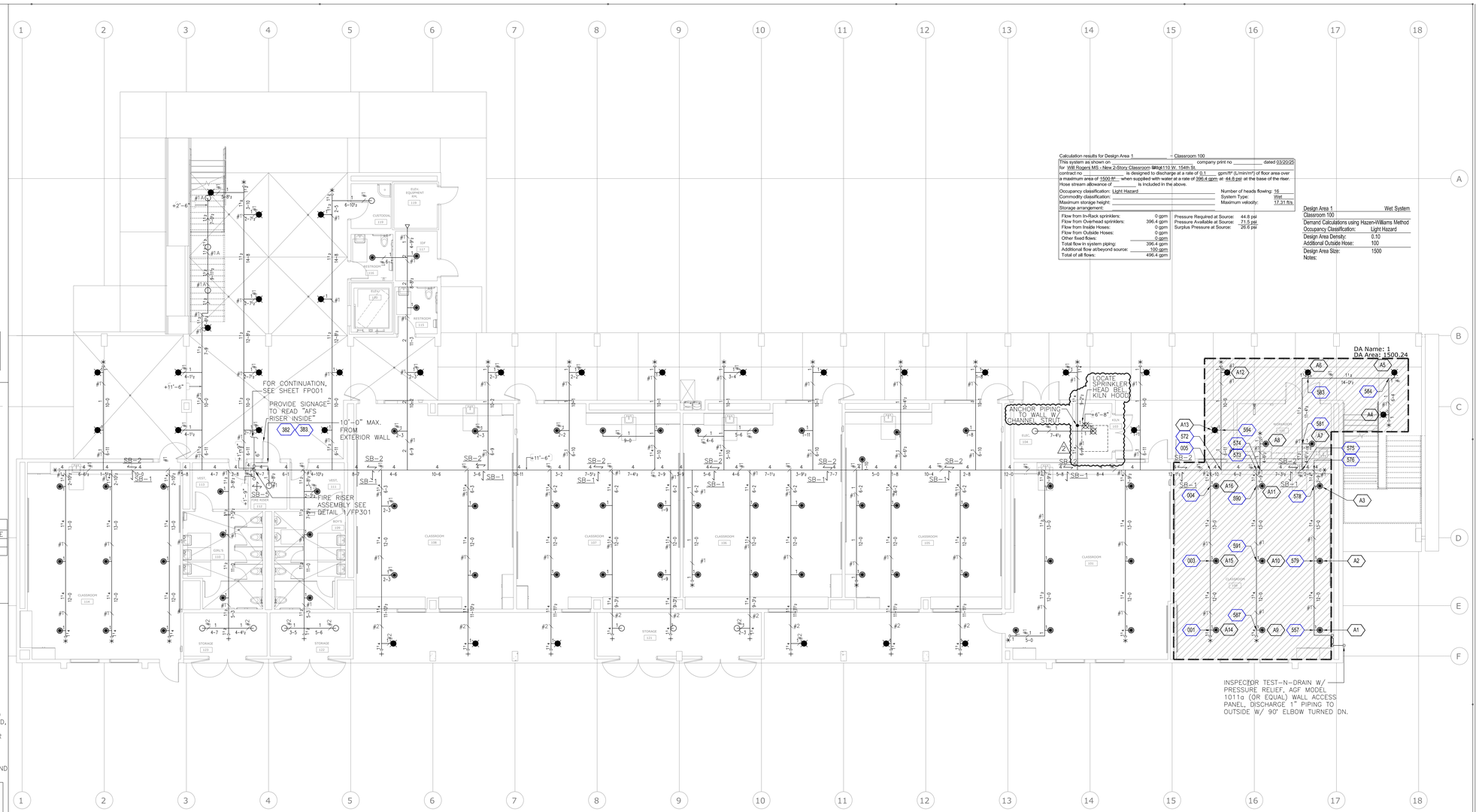
ROD SIZING TABLE	
PIPE SIZE	ROD SIZE
1" – 4"	3/8"
5" – 6"	1/2"

PER NFPA 13 (2022)
TABLE 17.2.1.1

BEAM CLAMP, ROD, AND RING

(ALTERNATE/SECONDARY HANGER)

#2 PLAN SYMB



Calculation results for Design Area 1 – Classroom 100
This system as shown on company print no dated 03/20/25
for Will Rogers MS - New 2-Story Classroom Bldg 4110 W. 154th St.
contract no is designed to discharge at a rate of 0.1 gpm/ft² (L/min/m²) of floor area over a maximum area of 1500 ft² when supplied with water at a rate of 396.4 gpm at 44.8 psi at the base of the riser. Hose stream allowance of is included in the above.

Occupancy classification: Light Hazard
Commodity classification:
Maximum storage height:
Storage arrangement:
Number of heads flowing: 16
System Type: Wet
Maximum velocity: 17.31 ft/s

Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	396.4 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	396.4 gpm
Additional flow at/beyond source:	100 gpm
Total of all flows:	496.4 gpm

Pressure Required at Source:	44.8 psi
Pressure Available at Source:	71.5 psi
Surplus Pressure at Source:	26.6 psi

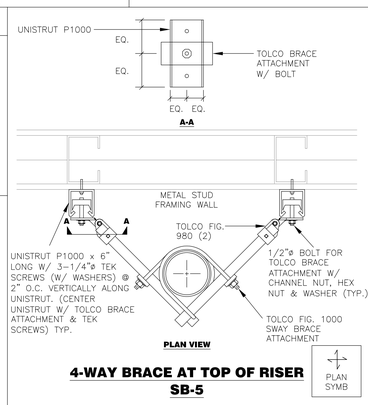
Design Area 1	Wet System
Classroom 100	
Demand Calculations using Hazen-Williams Method	
Occupancy Classification:	Light Hazard
Design Area Density:	0.10
Additional Outside Hose:	100
Design Area Size:	1500
Notes:	

LEGEND

A.F.F.: ABOVE FINISH FLOOR
BFP: BACKFLOW PREVENTER
BOP: BOTTOM OF PIPE
DSP: DRY STANDPIPE
(E): EXISTING
GPM: GALLONS PER MINUTE
FDC: FIRE DEPARTMENT CONNECTION
FH: FIRE HYDRANT
FHC: FIRE HOSE CABINET
L.F.: LINEAR FEET
N.I.C.: NOT IN CONTRACT
PSI: POUNDS PER SQUARE INCH
PVC: POLYVINYL CHLORIDE
(R): RELOCATED
SQ. FT.: SQUARE FEET
TYP.: TYPICAL
WSP: WET STANDPIPE

- REPRESENTS DETAIL NUMBER
- REPRESENTS FIRE PROTECTION SHEET
- W1 REPRESENTS WATER SUPPLY NODE NOTED ON HYDRAULIC CALCULATIONS
- # REPRESENTS NODE NOTED ON HYDRAULIC CALCULATIONS
- #'-#' REPRESENTS HEAD ELEVATION
- +#'-#" REPRESENTS PIPE ELEVATION
- #2 #1 REPRESENTS PIPE HANGAR
- REPRESENTS END LINE RESTRAINT
- REPRESENTS 4-WAY BRACE WHERE OCCURS
- REPRESENTS LATERAL OR LONGITUDINAL SWAY BRACE WHERE OCCURS
- 3 REPRESENTS PIPE SIZE
- 1'-0 REPRESENTS PIPE LENGTH
- REPRESENTS PIPE SLOPE DIRECTION
- REPRESENTS PIPE END CAP
- REPRESENTS PIPE RISE
- REPRESENTS PIPE DROP
- REPRESENTS EXISTING PIPING
- REPRESENTS POINT OF CONNECTION

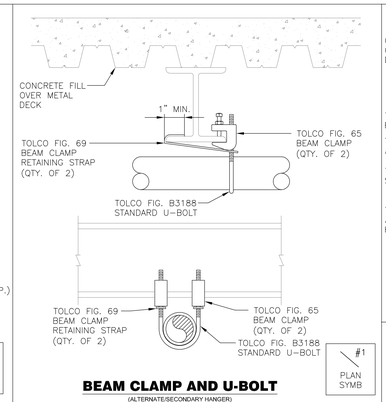
SYMBOLS AND ABBREVIATIONS ARE SHOWN FOR REFERENCE; NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED



PLAN VIEW

4-WAY BRACE AT TOP OF RISER
SB-5

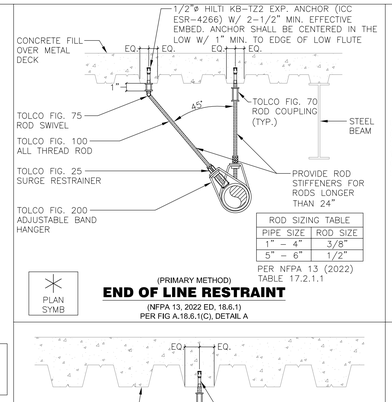
PLAN SYMB



BEAM CLAMP AND U-BOLT

(ALTERNATE/SECONDARY HANGER)

#1 PLAN SYMB



ROD SIZING TABLE	
PIPE SIZE	ROD SIZE
1" – 4"	3/8"
5" – 6"	1/2"

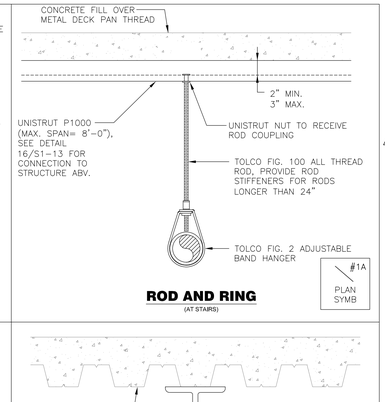
PER NFPA 13 (2022)
TABLE 17.2.1.1

(PRIMARY METHOD)

END OF LINE RESTRAINT

(NFPA 13, 2022 ED, 18.6.1)
PER FIG A.18.6.1(C), DETAIL A

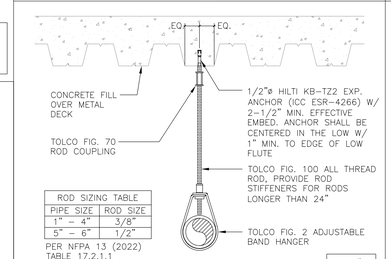
PLAN SYMB



ROD AND RING

(AT STAIRS)

#1A PLAN SYMB



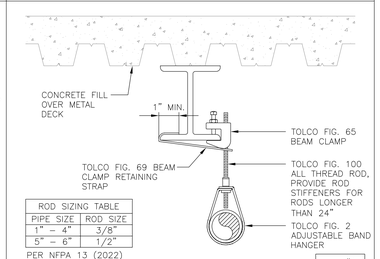
ROD SIZING TABLE	
PIPE SIZE	ROD SIZE
1" – 4"	3/8"
5" – 6"	1/2"

PER NFPA 13 (2022)
TABLE 17.2.1.1

ROD AND RING

(PRIMARY HANGER)

#1 PLAN SYMB



ROD SIZING TABLE	
PIPE SIZE	ROD SIZE
1" – 4"	3/8"
5" – 6"	1/2"

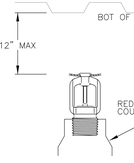
PER NFPA 13 (2022)
TABLE 17.2.1.1

BEAM CLAMP, ROD, AND RING

(ALTERNATE/SECONDARY HANGER)

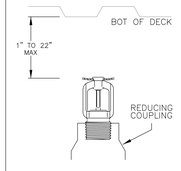
#1 PLAN SYMB

UNOBSTRUCTED CONSTRUCTION

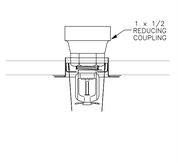


TYCO
MODEL TY - FRB
UPRIGHT TY 3131

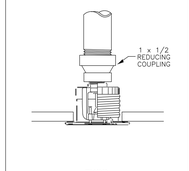
OBSTRUCTED CONSTRUCTION



TYCO
MODEL TY - FRB
UPRIGHT TY 3131



TYCO
MODEL TY - FRB
SEMI-RECESSED
PENDENT TY 3231



TYCO
MODEL RF- II (ROYAL FLUSH)
(WHITE CONCEALED ESCUTCHEON)
TY 3531

SPRINKLER LEGEND

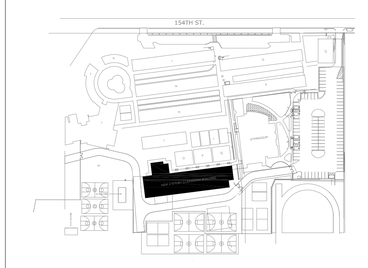
SYMBOL	SIN/MODEL	QUANTITY	K-FACTOR	TYPE	ORIFICE	FINISH	TEMP.	NOTES
○	TY 3131	14	5.6	UPRIGHT	1/2"	BRASS	155°F	EXPOSED**
◉	TY 3531	69	5.6	PENDENT	1/2"	CUSTOM*	155°F	CONCEALED****
●	TY 3531	36	5.6	PENDENT	1/2"	CUSTOM*/***	155°F	CONCEALED****
◁	TY 3331	1	5.6	SIDEWALL	1/2"	BRASS	155°F	EXPOSED
⊠	TY 3191	2	5.6	UPRIGHT	1/2"	BRASS	400°F	EXPOSED**
		TOTAL = 122						

* : CUSTOM COVER PLATE FINISH FROM MANUFACTURER TO BE SELECTED BY OWNER/ARCHITECT. NO FIELD PAINTING ALLOWED.
** : INSTALL APPROVED TYPE PROTECTIVE METAL BASKET HEAD GUARDS AT ALL EXPOSED HEADS.
*** : PROVIDE WITH CORROSION-RESISTANT COATING FROM MANUFACTURER.
**** : PROVIDE WITH OVERSIZED SEISMIC ESCUTCHEON PLATE.

COORDINATE W/ FIRE ALARM FOR ALL FLOW & TAMPER SWITCHES (TYP.)

FOR SB-1 AND SB-2 SWAY BRACE DETAILS, SEE SHEET FP301

NOTE:
EXPOSED PIPING THROUGHOUT BUILDING TO BE PAINTED TO MATCH UNDERSIDE FINISH.



NORTH

KEYMAP

FIRE PROTECTION FIRST FLOOR PIPING PLAN SCALE: 1/8"=1'-0" 1

P:\530\530-204_LESD_Will_Rogers_MS_2-Story_Classroom_Building\Drawings\Fire Protection\FP001 - Addendum 2.DWG Mar 27, 2025 - 6:39pm iggy

STATE:

ARCHITECT:

westbergwhite architecture
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

CONSULTANT:

1920 E. Warner Ave., Suite 3-H
Santa Ana, CA 92705
Telephone (714) 884-3803
Fax (714) 884-3834
PEI # 530.204

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY M. JEFFERY
No. M 29925
Exp. 06-30-2026

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

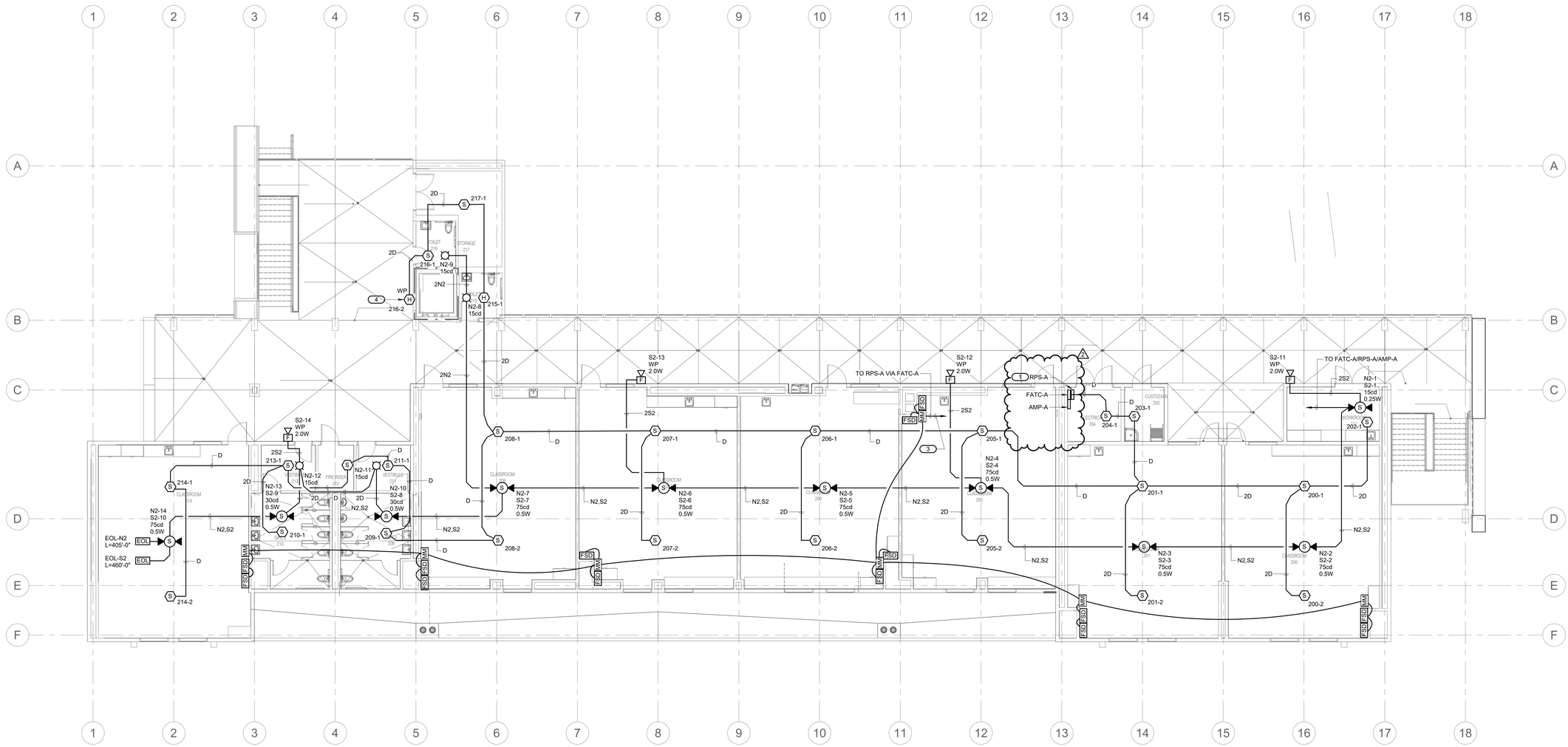
No.	Rev. Date	Description
2	03/28/2025	ADDENDUM 2

JOB NO: 22029.01
DATE: 02/27/2024
DRAWN: -
CHECK: -
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
FIRE PROTECTION
FIRST FLOOR
PIPING PLAN

SHEET NO:

FP201



SECOND FLOOR PLAN - FIRE ALARM

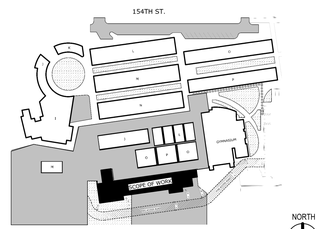
1/8" = 1'-0"

GENERAL NOTES:

A. THE BUILDING IS NON-COMBUSTIBLE, THEREFORE, NO ATTIC HEAT DETECTOR ARE PROVIDED INSIDE CEILING SPACE.

KEY NOTES: (#)

1. TO A DEDICATED 120V CIRCUIT. PROVIDE 'LOCK-ON' DEVICE TO BREAKER AND RED LABEL 'FIRE ALARM PANEL' TO CIRCUIT ID.
2. NOT USED.
3. TO A DEDICATED 120V CIRCUIT. PROVIDE 'LOCK-ON' DEVICE TO BREAKER AND RED LABEL 'FIRE DAMPER' TO CIRCUIT ID.
4. WEAHERPROOF HEAT DETECTOR FOR ELEVATOR RECALL.



KEYMAP

3/26/2025 6:47:45 PM Autodesk Docs://22003237.00 - LESD-Lawndale- CA-Will Rogers MS CR ADD/ET22_22003237.00_LESD-Lawndale- CA-Will Rogers MS CR ADD_C.rvt

STATE:

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR # 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

CONSULTANT:

IMEG
www.imegcorp.com
901 VIA PIEMONTE
SUITE 400
ONTARIO, CA 91764
P: 909.477.6915 F: 909.477.6916
PROJECT #22003237.00

REGISTERED PROFESSIONAL ENGINEER NESTOR C. IGNACIO, JR. Lic. E16934 Exp. 6-30-2025 STATE OF CALIFORNIA

PROJECT NAME:

WILL ROGERS MIDDLE SCHOOL
NEW 2-STORY CLASSROOM BUILDING
4110 W. 154TH ST.
LAWNDALE, CA 90260

CLIENT:

WILL ROGERS MIDDLE SCHOOL
4110 W. 154TH ST.
LAWNDALE, CA 90260

No.	Rev. Date	Description
1	03/19/2025	Addendum 1
2	03/26/25	Addendum 2

JOB NO: 22029.01
DATE: -
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
SECOND FLOOR PLAN - FIRE ALARM

SHEET NO:

FA202

VCA ENGINEERS, INC.

Project: WILL ROGERS Job No. J908 Sheet: A02-1
Subject: ADDENDUM 02 By. Date :

A02-1

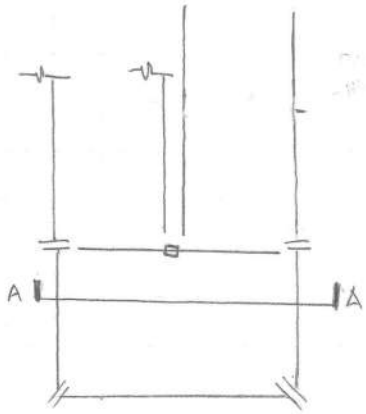
STAIR BM & COL DESIGN



VCA ENGINEERS, INC.

Project: _____ Job No. _____ Sheet: _____
Subject: _____ By. _____ Date : _____

STAIR BEAM & COLUMN DESIGN



DL = 40 PSF

LL = 100 PSF

TRIB = 6'/2 = 3'

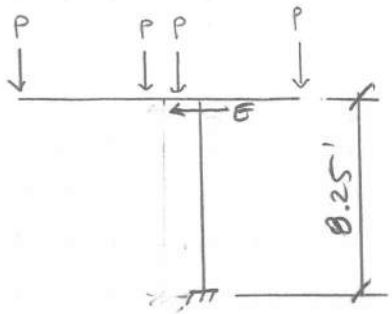
LOAD STAIR FRAMING ON RISA 3D FOR ANALYSIS & DESIGN.

SEISMIC LOAD:

$F_p/W_p = 0.4 S_{DS} a_p (1+2z/h)/(R_p/I_p)$
$= 0.4 \times 1.199 \times 1(1+2\times0.5)(2.5/1.5)$
$= 0.58$

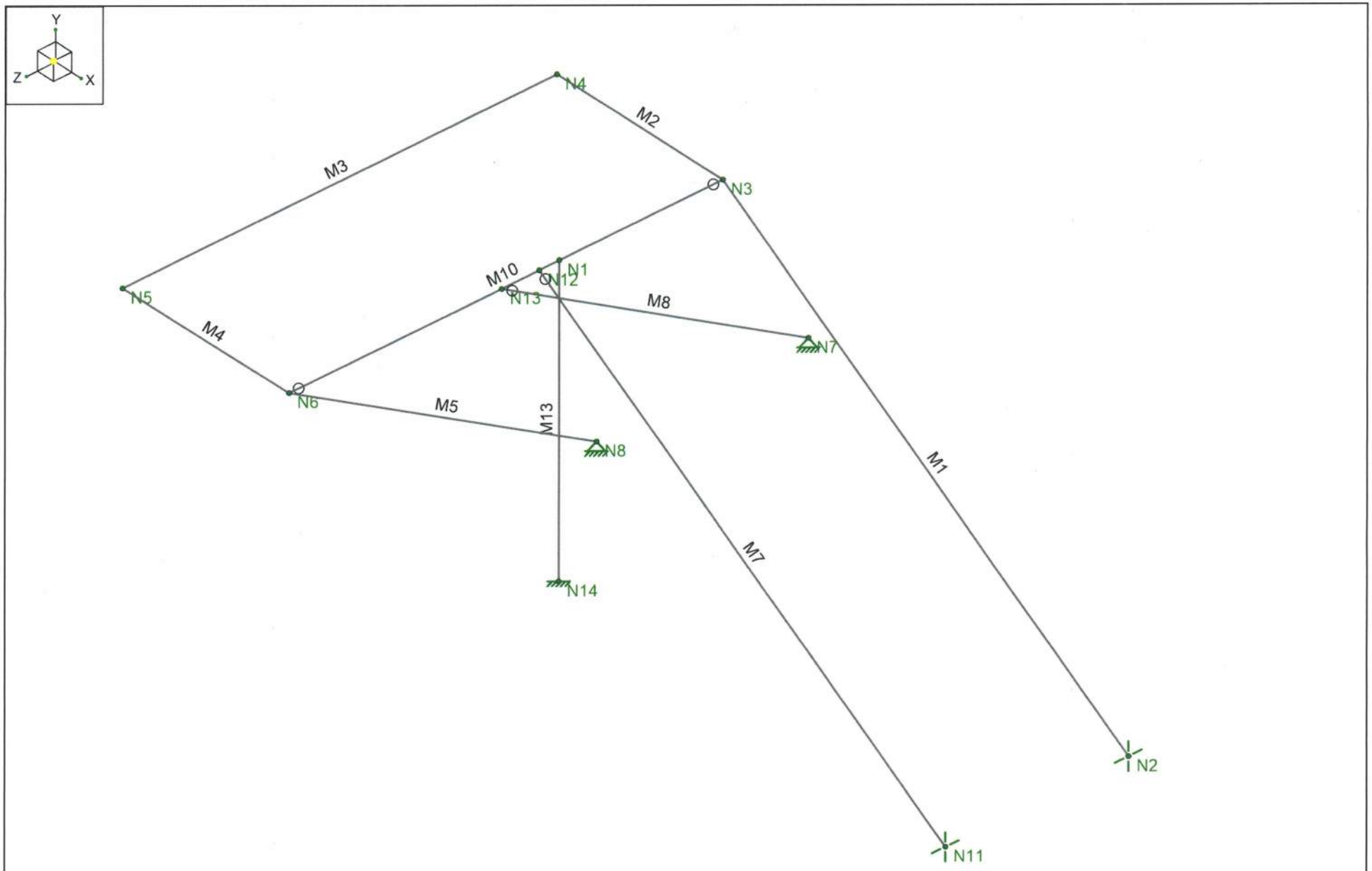
W_p = CENTRAL COL DL REACTION FROM RISA 3D = 10.2 k

$F_p = 0.58 \times 10.2^k = 6^k$

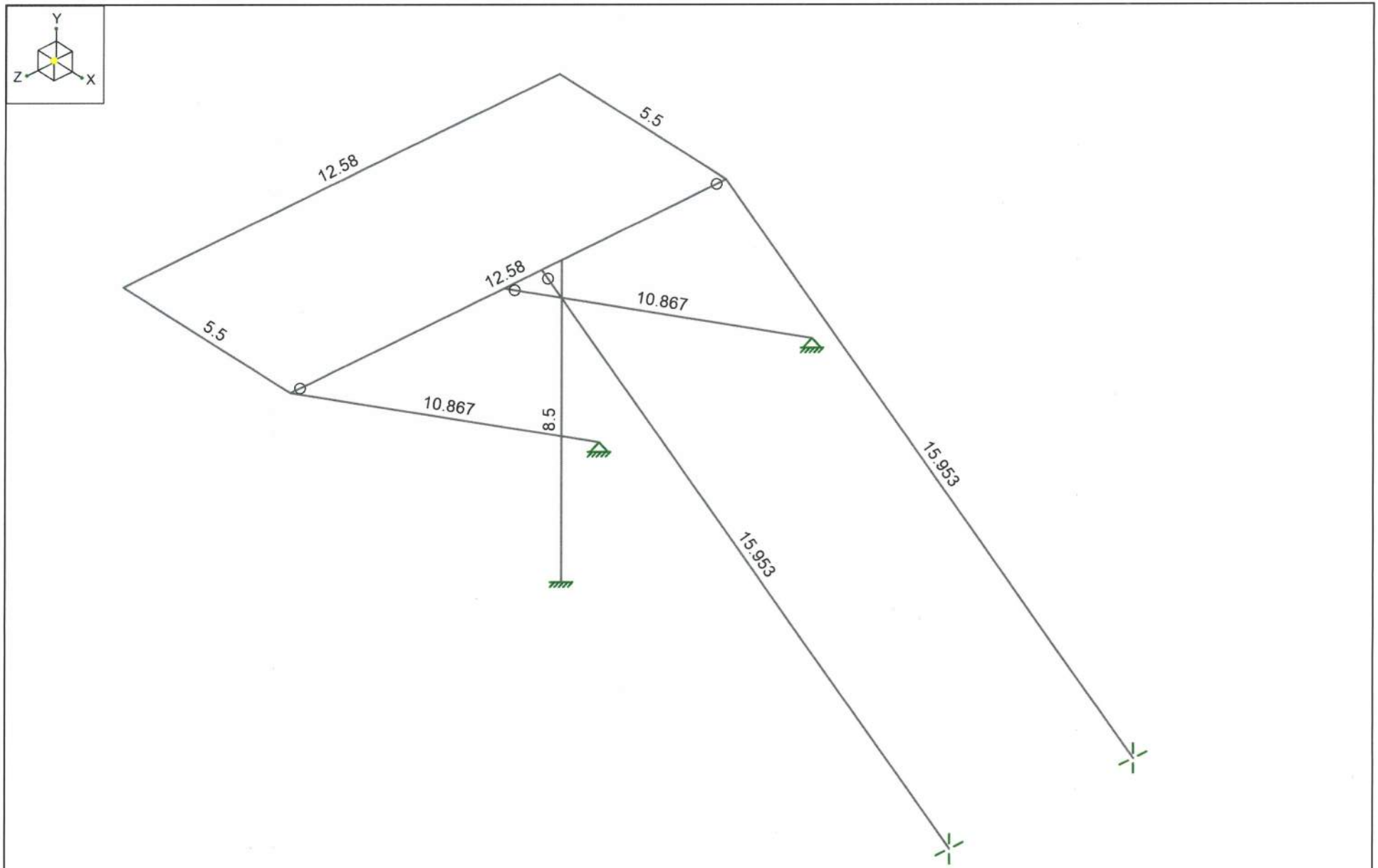


A-A (CASE I)

PROVIDE : STRINGERS = HSS12x4x1/4
LANDING BM = HSS 8x8x5/8
COL = HSS8x8x5/8

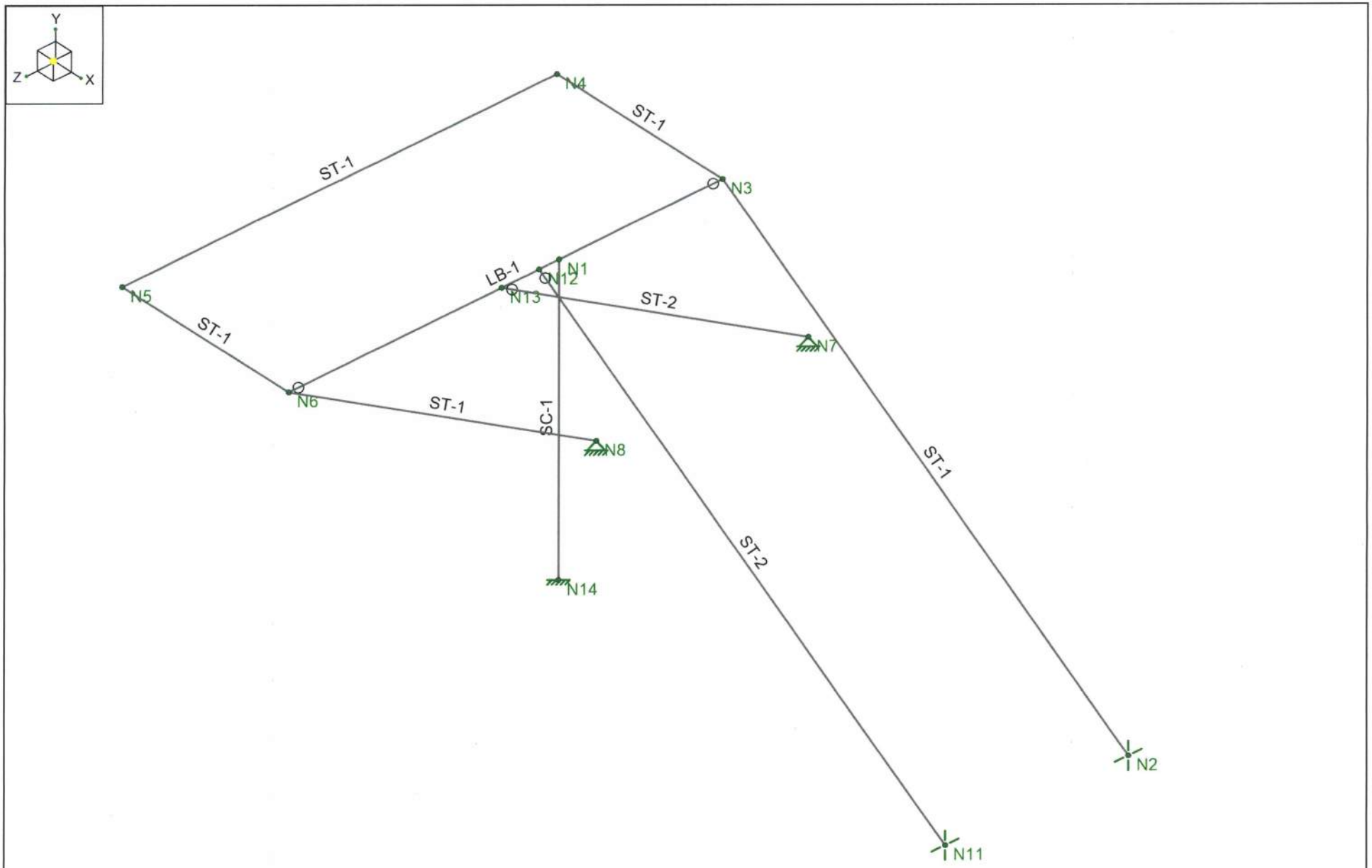


IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-6
	aquinonez		Mar 26, 2025 at 02:53 PM
			Switchback Stair.r3d

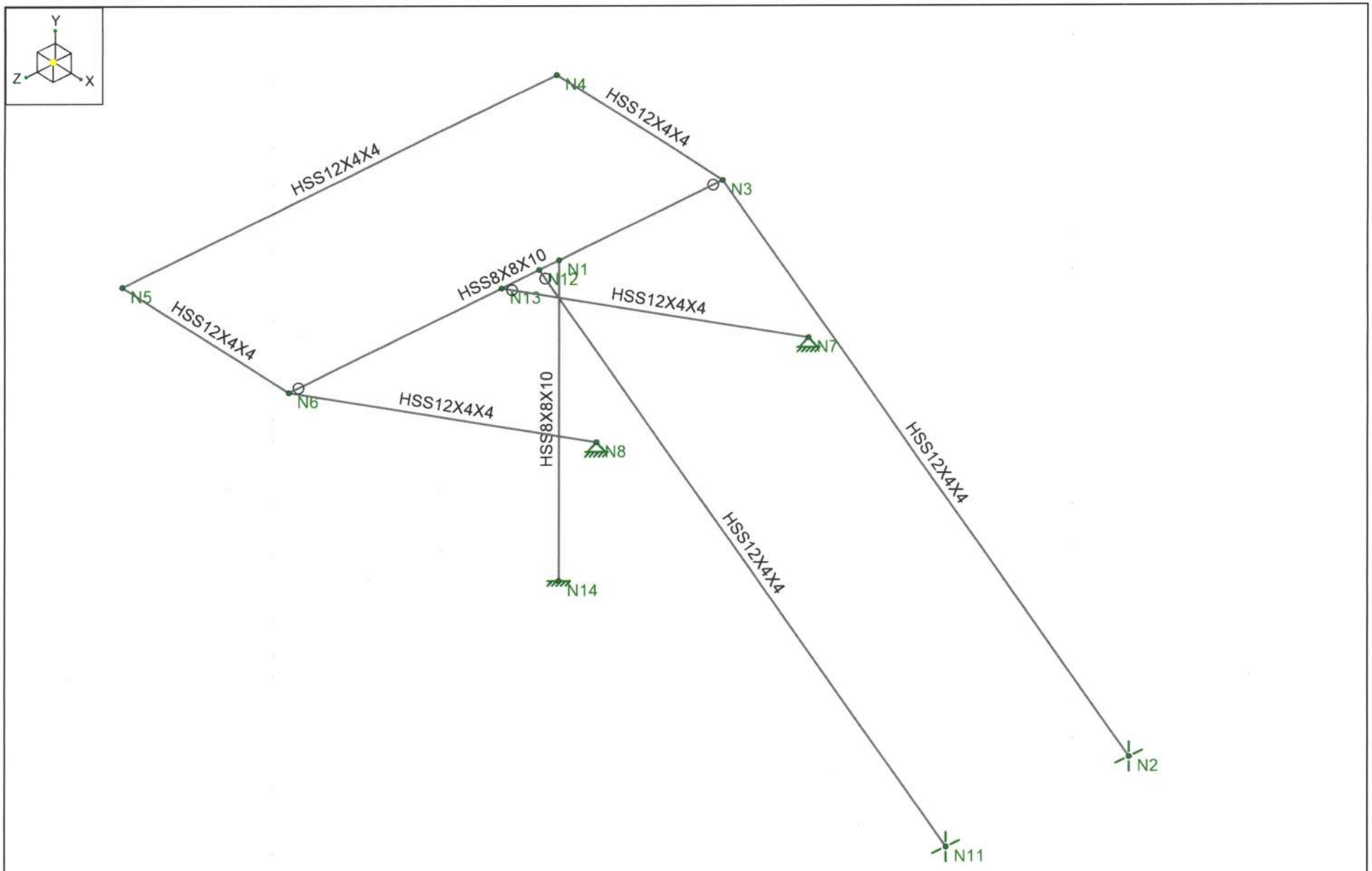


Member Length (ft) Displayed

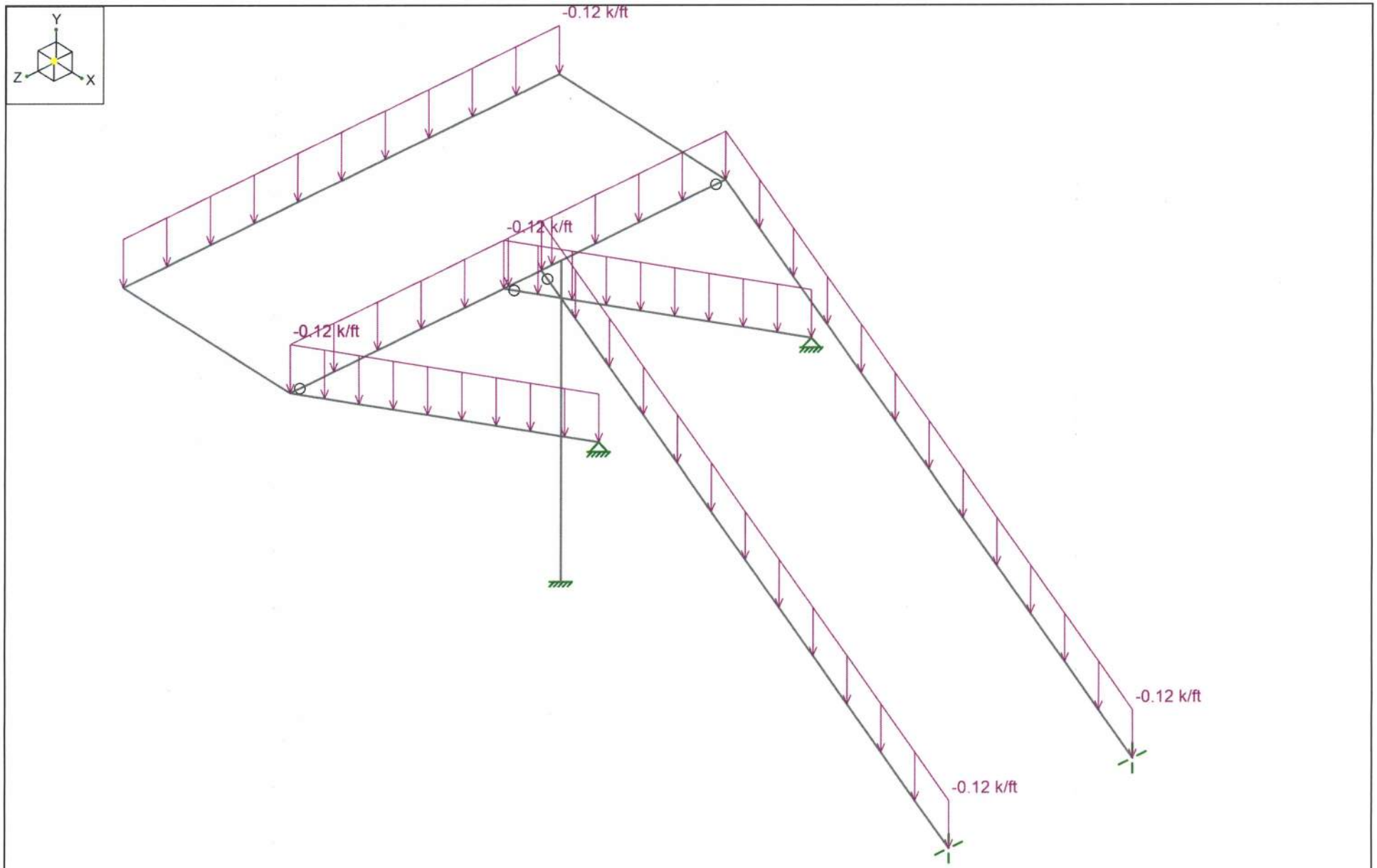
RISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-9
	aquinonez		Mar 26, 2025 at 02:55 PM
			Switchback Stair.r3d



IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-7
	aquinonez		Mar 26, 2025 at 02:54 PM
			Switchback Stair.r3d

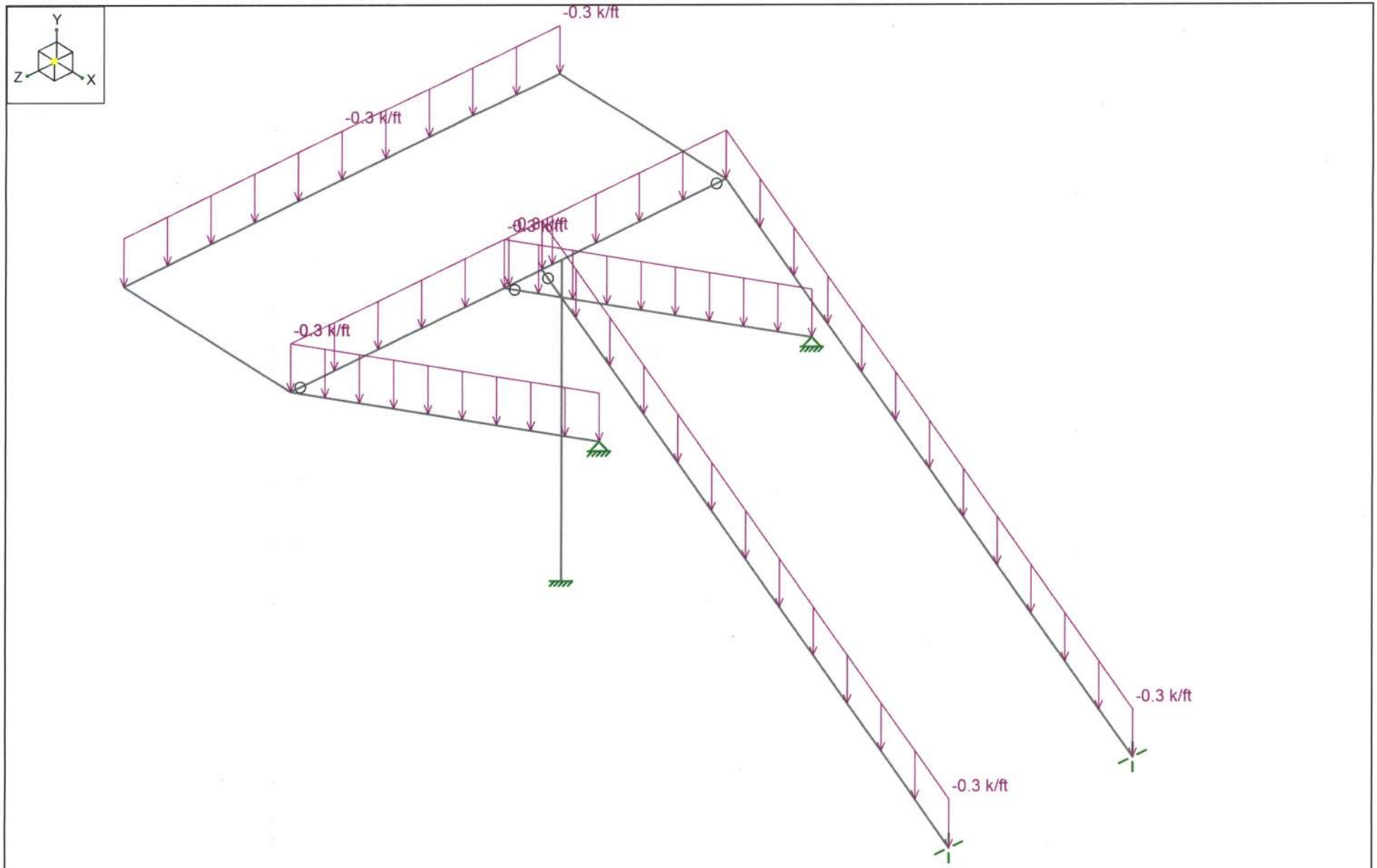


IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-8
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			Switchback Stair.r3d



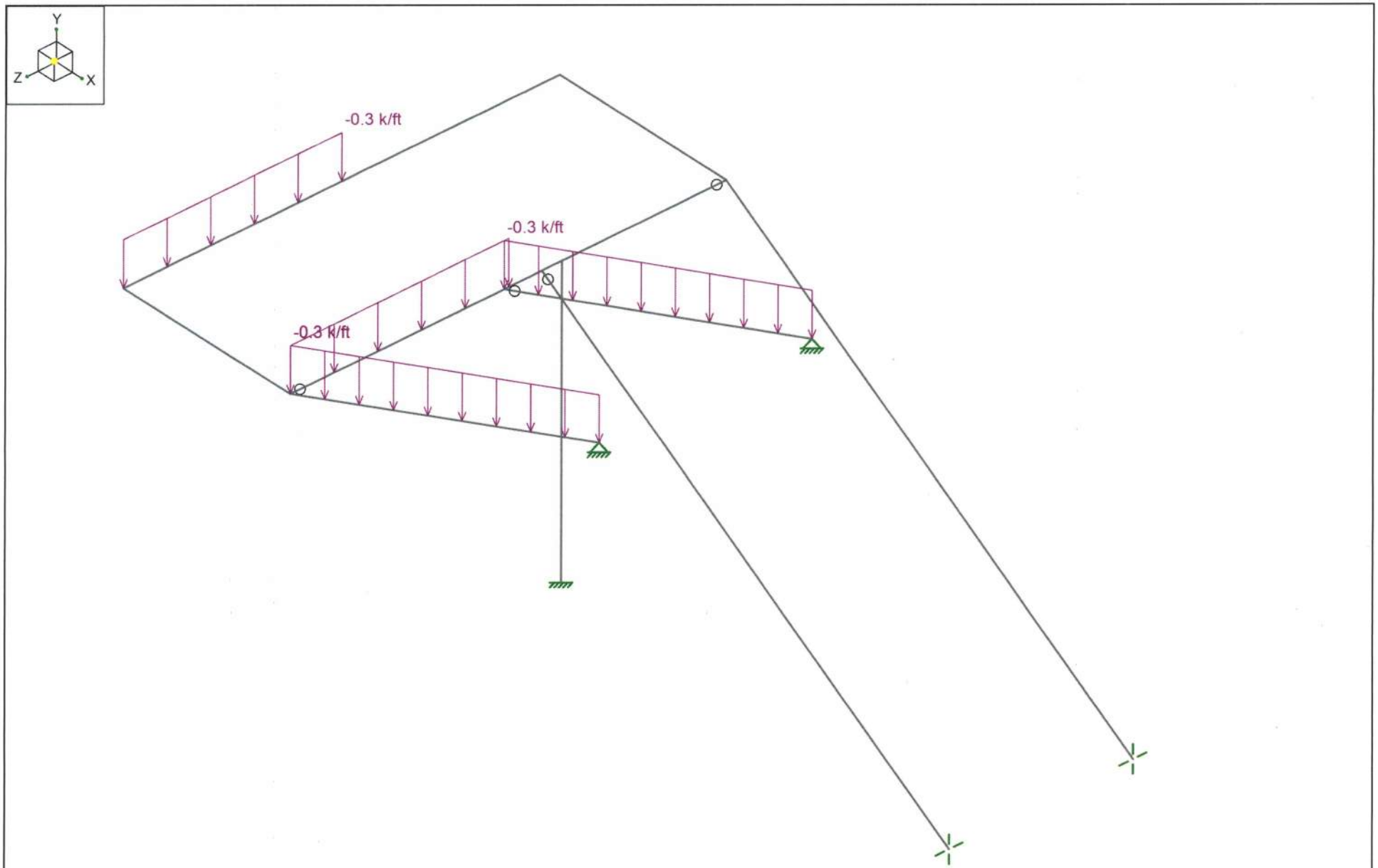
Loads: BLC 1, D

IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-10
	aquinonez		Mar 26, 2025 at 02:55 PM
			Switchback Stair.r3d



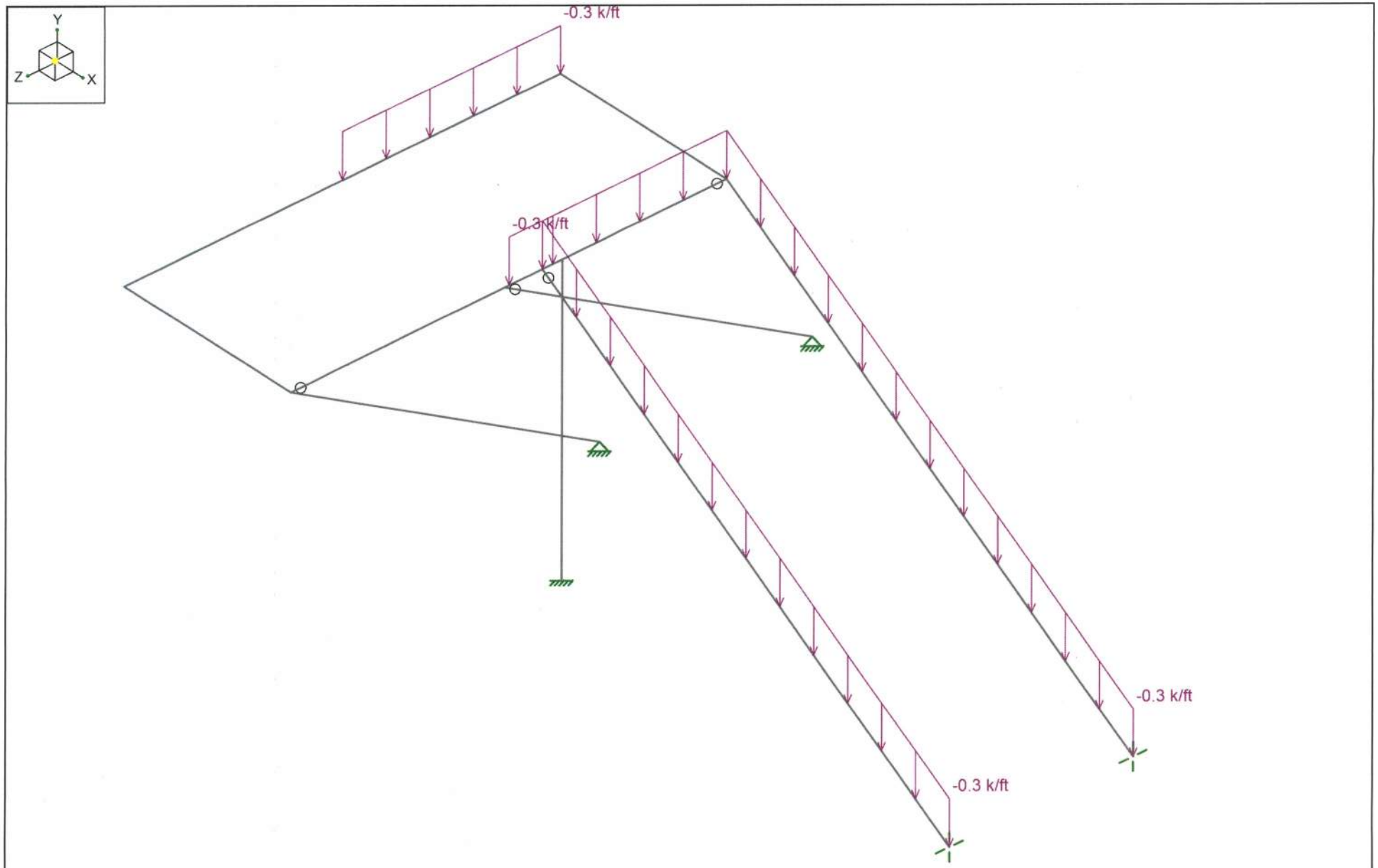
Loads: LL - Live Load

IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-11
	aquinonez		Mar 26, 2025 at 02:55 PM
			Switchback Stair.r3d



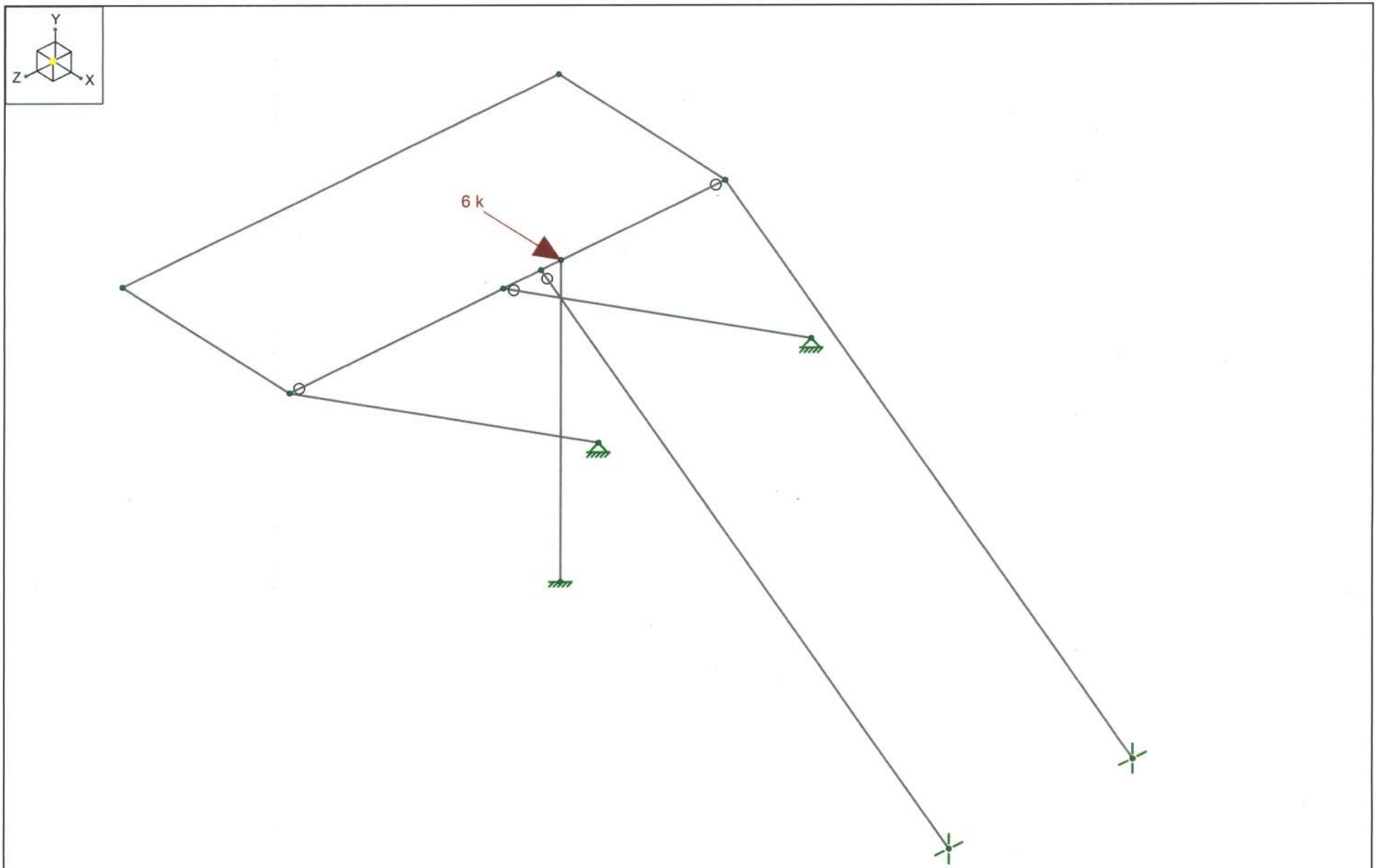
Loads: BLC 2, L1

RISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-12
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			Switchback Stair.r3d



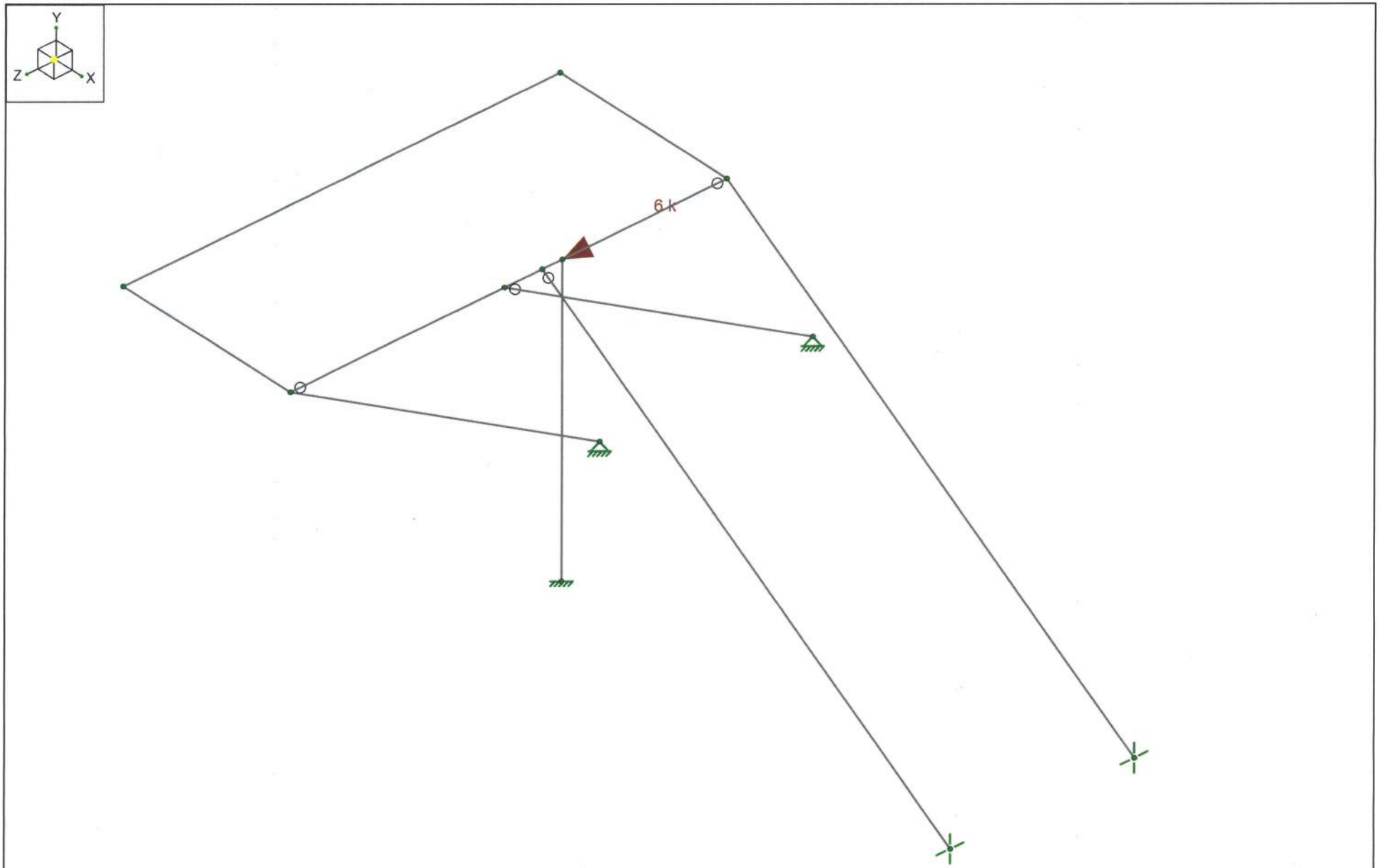
Loads: BLC 5, L2

IRISA A NEMETSCHEK COMPANY	<Licensed Company>	SK-13
	aquinonez	Mar 26, 2025 at 02:55 PM
		Switchback Stair.r3d



Loads: BLC 3, Ex

RISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-14
	aquinonez		Mar 26, 2025 at 02:56 PM
			Switchback Stair.r3d



Loads: BLC 4, Ez

RISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-15
	aquinonez		Mar 26, 2025 at 02:56 PM
			Switchback Stair.r3d

RISA A NEMETSCHEK COMPANY

Company : <Licensed Company>
Designer : aquinonez
Job Number :
Model Name :

3/26/2025
2:57:11 PM
Checked By : _____

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	N1	5.5	8.5	4.75	
2	N2	19	0	0	
3	N3	5.5	8.5	0	
4	N4	0	8.5	0	
5	N5	0	8.5	12.58	
6	N6	5.5	8.5	12.58	
7	N7	15.67	12.33	6.42	
8	N8	15.67	12.33	12.58	
9	N11	19	0	5.33	
10	N12	5.5	8.5	5.33	
11	N13	5.5	8.5	6.42	
12	N14	5.5	0	4.75	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N14	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N11		Reaction	Reaction			
3	N2		Reaction	Reaction			
4	N8	Reaction	Reaction	Reaction			
5	N7	Reaction	Reaction	Reaction			

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	ST-1	HSS12X4X4	Beam	Tube	A500 Gr.C RECT	Typical	7.1	21	119	59.8
2	ST-2	HSS12X4X4	Beam	Tube	A500 Gr.C RECT	Typical	7.1	21	119	59.8
3	LB-1	HSS8X8X10	Beam	Tube	A500 Gr.C RECT	Typical	16.4	146	146	244
4	SC-1	HSS8X8X10	Beam	Tube	A500 Gr.C RECT	Typical	16.4	146	146	244

Node Loads and Enforced Displacements (BLC 3 : Ex)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N1	L	X	6

Node Loads and Enforced Displacements (BLC 4 : Ez)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N1	L	Z	6

Member Area Loads

No Data to Print...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Distributed
1	D	DL		-1			6
2	L1	LL					4
3	Ex	ELX	0.151			1	
4	Ez	ELZ			0.151	1	
5	L2	LL					4

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	D	Yes	Y	DL	1						
2	Deflection 1	Yes	Y	DL	1						
3	Deflection 2	Yes	Y	LL	1						
4	Deflection 2.1	Yes	Y	2	1						
5	Deflection 2.2	Yes	Y	5	1						
6	Deflection 3	Yes	Y	DL	1	LL	1				
7	Deflection 3.1	Yes	Y	DL	1	2	1				
8	Deflection 3.2	Yes	Y	DL	1	5	1				
9	ELx	Yes	Y	ELX	1						
10	ELz	Yes	Y	ELZ	1						
11	IBC 21/ASCE Strength 1	Yes	Y	DL	1.4						
12	IBC 21/ASCE Strength 2	Yes	Y	DL	1.2	LL	1.6				
13	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	1	LL	0.5
14	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	1	2	0.5
15	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	1	5	0.5
16	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	1	LL	0.5
17	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	1	2	0.5
18	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	1	5	0.5
19	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	-1	LL	0.5
20	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	-1	2	0.5
21	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELX	-1	5	0.5
22	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	-1	LL	0.5
23	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	-1	2	0.5
24	IBC 21/ASCE Strength 6	Yes	Y	DL	1.2	Sds*DL	0.2	ELZ	-1	5	0.5

Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
0	M1	HSS12X4X4	0.438	15.953	12	0.044	15.953	y	12	129.127	319.5	32.588	96	2.777	H1-1b
1	M2	HSS12X4X4	0.399	0	12	0.084	0	y	12	246.082	319.5	32.588	96	1.578	H1-1b
2	M3	HSS12X4X4	0.14	7.338	12	0.084	0	y	12	175.011	319.5	32.588	96	1.151	H1-1b
3	M4	HSS12X4X4	0.257	5.5	12	0.046	0	z	17	246.082	319.5	32.588	96	1.836	H1-1b
4	M5	HSS12X4X4	0.234	0	17	0.024	10.867	y	12	194.958	319.5	32.588	96	1.182	H1-1b
5	M7	HSS12X4X4	0.184	7.81	12	0.031	15.953	y	12	129.127	319.5	32.588	96	1.136	H1-1b
6	M8	HSS12X4X4	0.097	5.434	12	0.023	10.867	y	12	194.958	319.5	32.588	96	1.136	H1-1b
7	M10	HSS8X8X10	0.562	7.731	12	0.243	7.731	y	12	612.026	738	167.625	167.625	1.612	H1-1b
8	M13	HSS8X8X10	0.413	0	17	0.107	0	y	17	677.557	738	167.625	167.625	1.552	H1-1b

Node Reactions

	LC	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
0	1	N14	-0.727	9	-0.023	-5.223	-2.752	1.615
1	1	N11	0	1.164	0	0	0	0
2	1	N2	0	0.676	0.067	0	0	0
3	1	N8	0.326	0.943	-0.044	0	0	0
4	1	N7	0.401	0.944	0	0	0	0
5	1	Totals:	0	12.728	0			
6	1	COG (ft):	X: 8.382	Y: 7.252	Z: 5.702			
7	2	N14	-0.727	9	-0.023	-5.223	-2.752	1.615
8	2	N11	0	1.164	0	0	0	0
9	2	N2	0	0.676	0.067	0	0	0
10	2	N8	0.326	0.943	-0.044	0	0	0
11	2	N7	0.401	0.944	0	0	0	0
12	2	Totals:	0	12.728	0			

Node Reactions (Continued)

	LC	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
13	2	COG (ft):	X: 8.382	Y: 7.252	Z: 5.702			
14	3	N14	-1.31	16.021	-0.045	-9.551	-5.058	2.887
15	3	N11	0	2.393	0	0	0	0
16	3	N2	0	1.455	0.125	0	0	0
17	3	N8	0.612	1.877	-0.079	0	0	0
18	3	N7	0.698	1.893	-0.001	0	0	0
19	3	Totals:	0	23.64	0			
20	3	COG (ft):	X: 8.758	Y: 7.307	Z: 5.708			
21	4	N14	-1.395	6.505	0.019	-20.109	-6.738	3.656
22	4	N11	0	0	0	0	0	0
23	4	N2	0	-0.641	0.182	0	0	0
24	4	N8	0.791	2.572	-0.199	0	0	0
25	4	N7	0.604	1.859	-0.002	0	0	0
26	4	Totals:	0	10.294	0			
27	4	COG (ft):	X: 7.713	Y: 9.713	Z: 9.476			
28	5	N14	0.089	9.514	-0.062	10.757	1.702	-0.78
29	5	N11	0	2.393	0	0	0	0
30	5	N2	0	2.097	-0.057	0	0	0
31	5	N8	-0.181	-0.693	0.119	0	0	0
32	5	N7	0.092	0.035	0	0	0	0
33	5	Totals:	0	13.346	0			
34	5	COG (ft):	X: 9.564	Y: 5.452	Z: 2.801			
35	6	N14	-2.04	25.014	-0.066	-14.938	-7.819	4.508
36	6	N11	0	3.557	0	0	0	0
37	6	N2	0	2.13	0.192	0	0	0
38	6	N8	0.938	2.827	-0.124	0	0	0
39	6	N7	1.102	2.84	-0.002	0	0	0
40	6	Totals:	0	36.368	0			
41	6	COG (ft):	X: 8.626	Y: 7.288	Z: 5.706			
42	7	N14	-2.124	15.497	0	-25.529	-9.499	5.278
43	7	N11	0	1.164	0	0	0	0
44	7	N2	0	0.032	0.249	0	0	0
45	7	N8	1.116	3.524	-0.245	0	0	0
46	7	N7	1.008	2.805	-0.004	0	0	0
47	7	Totals:	0	23.022	0			
48	7	COG (ft):	X: 8.083	Y: 8.352	Z: 7.39			
49	8	N14	-0.639	18.516	-0.087	5.57	-1.05	0.834
50	8	N11	0	3.557	0	0	0	0
51	8	N2	0	2.774	0.01	0	0	0
52	8	N8	0.145	0.247	0.076	0	0	0
53	8	N7	0.494	0.979	0	0	0	0
54	8	Totals:	0	26.074	0			
55	8	COG (ft):	X: 8.987	Y: 6.33	Z: 4.217			
56	9	N14	-0.505	2.192	0.029	-0.521	2.317	2.959
57	9	N11	0	-0.02	0	0	0	0
58	9	N2	0	0.017	-0.008	0	0	0
59	9	N8	1.119	0.48	-0.022	0	0	0
60	9	N7	-7.107	-2.669	0.001	0	0	0
61	9	Totals:	-6.494	0	0			
62	9	COG (ft):	NC	NC	NC			
63	10	N14	-0.562	-0.593	-6.289	-43.215	-3.412	2.107
64	10	N11	0	0	-0.031	0	0	0
65	10	N2	0	-0.358	0.061	0	0	0
66	10	N8	0.23	0.826	-0.212	0	0	0
67	10	N7	0.332	0.125	-0.023	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
68	10	Totals:	0	0	-6.494			
69	10	COG (ft):	NC	NC	NC			
70	11	N14	-1.018	12.599	-0.032	-7.337	-3.854	2.262
71	11	N11	0	1.63	0	0	0	0
72	11	N2	0	0.946	0.094	0	0	0
73	11	N8	0.456	1.321	-0.061	0	0	0
74	11	N7	0.561	1.322	-0.001	0	0	0
75	11	Totals:	0	17.819	0			
76	11	COG (ft):	X: 8.382	Y: 7.252	Z: 5.702			
77	12	N14	-2.978	36.414	-0.092	-22.022	-11.422	6.573
78	12	N11	0	5.226	0	0	0	0
79	12	N2	0	3.135	0.28	0	0	0
80	12	N8	1.369	4.154	-0.183	0	0	0
81	12	N7	1.609	4.169	-0.005	0	0	0
82	12	Totals:	0	53.098	0			
83	12	COG (ft):	X: 8.65	Y: 7.291	Z: 5.706			
84	13	N14	-2.175	22.799	-0.034	-12.803	-4.067	6.673
85	13	N11	0	2.807	0	0	0	0
86	13	N2	0	1.69	0.149	0	0	0
87	13	N8	1.881	2.752	-0.126	0	0	0
88	13	N7	-6.2	-0.409	0.012	0	0	0
89	13	Totals:	-6.494	29.639	0			
90	13	COG (ft):	X: 8.532	Y: 7.274	Z: 5.704			
91	14	N14	-2.219	18.041	-0.006	-18.162	-4.912	7.061
92	14	N11	0	1.611	0	0	0	0
93	14	N2	0	0.641	0.177	0	0	0
94	14	N8	1.97	3.102	-0.188	0	0	0
95	14	N7	-6.246	-0.428	0.017	0	0	0
96	14	Totals:	-6.494	22.966	0			
97	14	COG (ft):	X: 8.232	Y: 7.803	Z: 6.548			
98	15	N14	-1.475	19.55	-0.036	-2.502	-0.684	4.833
99	15	N11	0	2.807	0	0	0	0
100	15	N2	0	2.013	0.058	0	0	0
101	15	N8	1.485	1.457	-0.024	0	0	0
102	15	N7	-6.504	-1.334	0.002	0	0	0
103	15	Totals:	-6.494	24.492	0			
104	15	COG (ft):	X: 8.704	Y: 6.761	Z: 4.911			
105	16	N14	-2.24	20.001	-6.331	-55.937	-9.833	5.84
106	16	N11	0	2.827	-0.031	0	0	0
107	16	N2	0	1.309	0.217	0	0	0
108	16	N8	0.993	3.105	-0.32	0	0	0
109	16	N7	1.247	2.398	-0.028	0	0	0
110	16	Totals:	0	29.639	-6.494			
111	16	COG (ft):	X: 8.532	Y: 7.274	Z: 5.704			
112	17	N14	-2.281	15.243	-6.298	-61.085	-10.661	6.218
113	17	N11	0	1.63	-0.031	0	0	0
114	17	N2	0	0.261	0.245	0	0	0
115	17	N8	1.081	3.451	-0.381	0	0	0
116	17	N7	1.2	2.38	-0.029	0	0	0
117	17	Totals:	0	22.966	-6.494			
118	17	COG (ft):	X: 8.232	Y: 7.803	Z: 6.548			
119	18	N14	-1.54	16.756	-6.347	-45.673	-6.453	4.004
120	18	N11	0	2.827	-0.031	0	0	0
121	18	N2	0	1.632	0.127	0	0	0
122	18	N8	0.598	1.81	-0.217	0	0	0

Node Reactions (Continued)

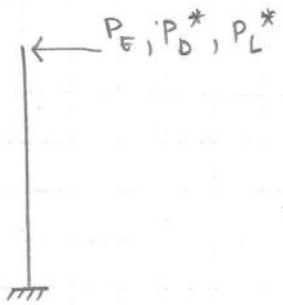
	LC	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
123	18	N7	0.942	1.467	-0.025	0	0	0
124	18	Totals:	0	24.492	-6.494			
125	18	COG (ft):	X: 8.704	Y: 6.761	Z: 4.911			
126	19	N14	-1.173	18.415	-0.074	-11.589	-8.709	0.745
127	19	N11	0	2.846	0	0	0	0
128	19	N2	0	1.656	0.165	0	0	0
129	19	N8	-0.356	1.774	-0.077	0	0	0
130	19	N7	8.024	4.948	-0.014	0	0	0
131	19	Totals:	6.494	29.639	0			
132	19	COG (ft):	X: 8.532	Y: 7.274	Z: 5.704			
133	20	N14	-1.214	13.656	-0.037	-16.869	-9.549	1.131
134	20	N11	0	1.65	0	0	0	0
135	20	N2	0	0.608	0.193	0	0	0
136	20	N8	-0.267	2.12	-0.136	0	0	0
137	20	N7	7.975	4.932	-0.02	0	0	0
138	20	Totals:	6.494	22.966	0			
139	20	COG (ft):	X: 8.232	Y: 7.803	Z: 6.548			
140	21	N14	-0.473	15.166	-0.094	-1.443	-5.328	-1.087
141	21	N11	0	2.846	0	0	0	0
142	21	N2	0	1.978	0.074	0	0	0
143	21	N8	-0.752	0.489	0.021	0	0	0
144	21	N7	7.719	4.012	-0.001	0	0	0
145	21	Totals:	6.494	24.492	0			
146	21	COG (ft):	X: 8.704	Y: 6.761	Z: 4.911			
147	22	N14	-1.107	21.21	6.231	31.671	-2.928	1.57
148	22	N11	0	2.827	0.031	0	0	0
149	22	N2	0	2.037	0.095	0	0	0
150	22	N8	0.529	1.422	0.114	0	0	0
151	22	N7	0.578	2.143	0.023	0	0	0
152	22	Totals:	0	29.639	6.494			
153	22	COG (ft):	X: 8.532	Y: 7.274	Z: 5.704			
154	23	N14	-1.151	16.45	6.263	26.178	-3.786	1.965
155	23	N11	0	1.63	0.031	0	0	0
156	23	N2	0	0.987	0.124	0	0	0
157	23	N8	0.62	1.772	0.054	0	0	0
158	23	N7	0.531	2.126	0.022	0	0	0
159	23	Totals:	0	22.966	6.494			
160	23	COG (ft):	X: 8.232	Y: 7.803	Z: 6.548			
161	24	N14	-0.407	17.956	6.226	41.853	0.455	-0.265
162	24	N11	0	2.827	0.031	0	0	0
163	24	N2	0	2.358	0.003	0	0	0
164	24	N8	0.132	0.136	0.211	0	0	0
165	24	N7	0.275	1.214	0.022	0	0	0
166	24	Totals:	0	24.492	6.494			
167	24	COG (ft):	X: 8.704	Y: 6.761	Z: 4.911			

VCA ENGINEERS, INC.

Project: _____ Job No. _____ Sheet: _____
Subject: _____ By. _____ Date : _____

POLE FTG CHECK

$P_E = 6^k$
$M_D = 5.2^{1k} \Rightarrow P_D^* @ 8.25' = 0.63^k$
$M_L = 20.1^{1k} \Rightarrow P_L^* @ 8.25' = 2.44^k$
↑ TURN MOMENT TO LAT LOAD TO INPUT TO ENERCALC

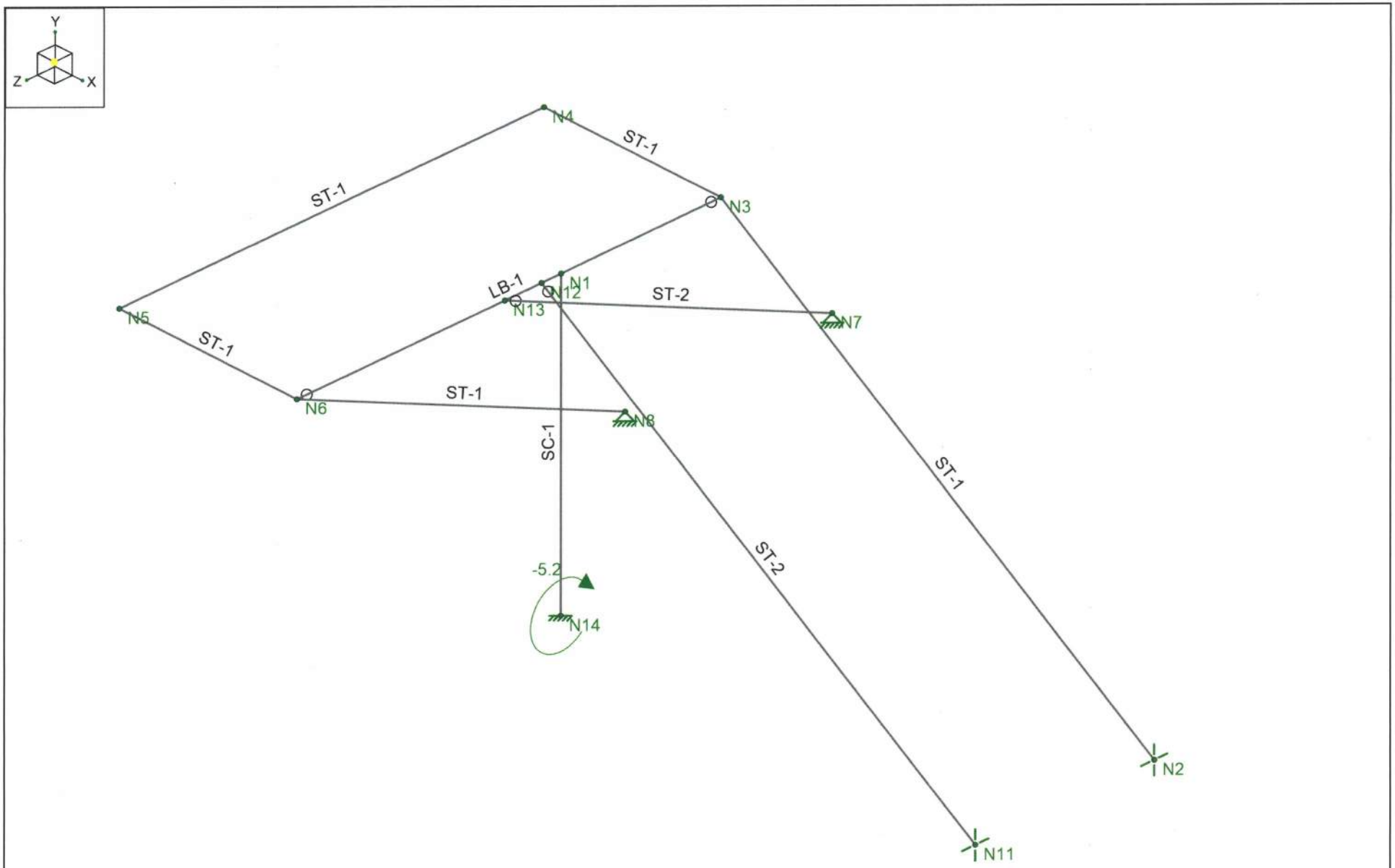


PASSIVE PRESS. = 200 PSF/FT W/ 1.33 INCR FOR SEISMIC.

FOR LAT. LOAD USE 10' DEEP x 30" ϕ POLE FTG

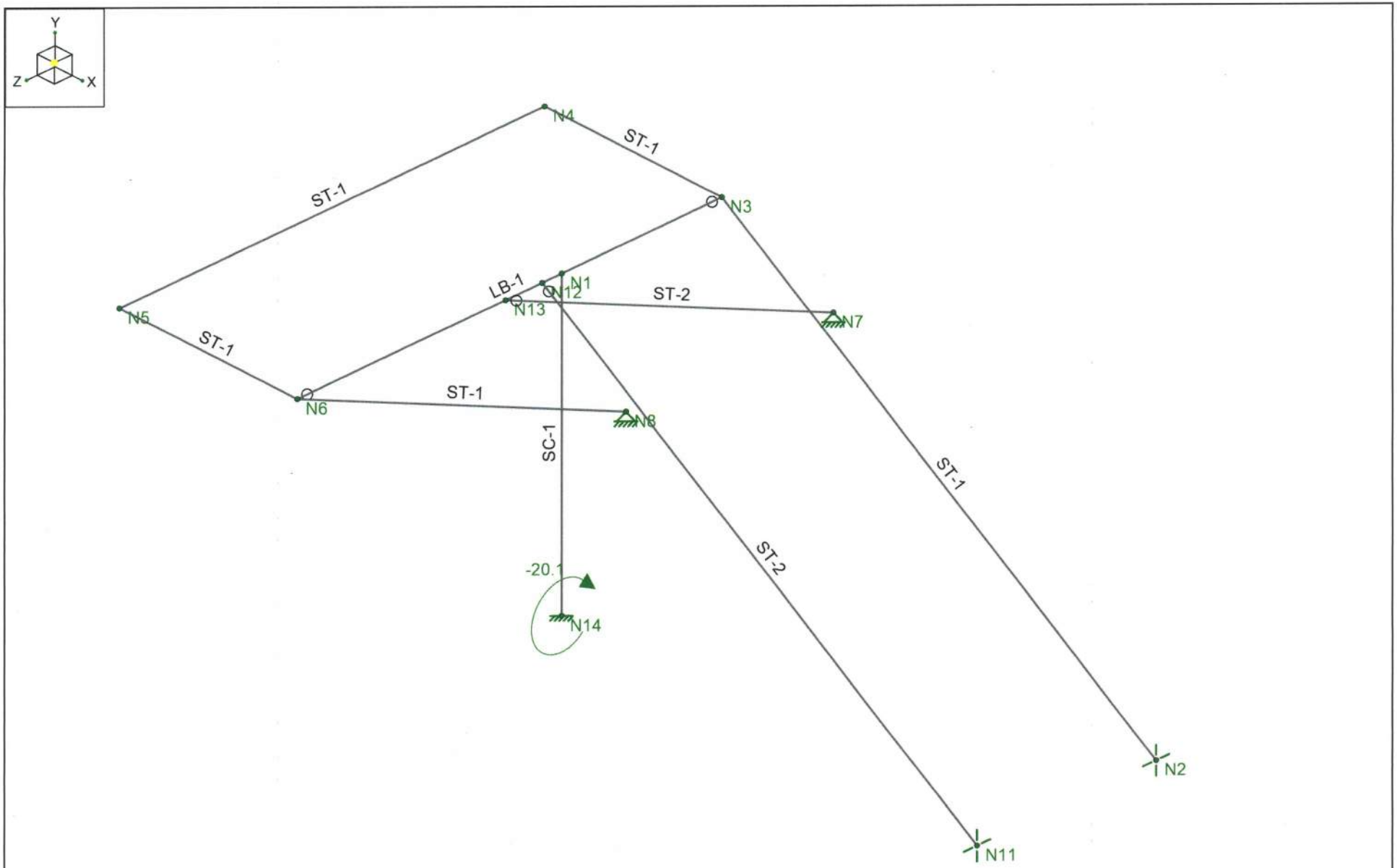
$P_D = 9^k$
$P_L = 16^k$

$P_a = 9 + 16 = 25^k$, 25/2 KSF = 12.5 SF, USE 5F-5 FTG ✓



Results for LC 1, D
X-moment Reaction Units are kips and kip-ft

RISA A NEMETSCHEK COMPANY	<Licensed Company>	SK-2
	aquinonez	Mar 26, 2025 at 02:41 PM
		Switchback Stair.r3d



Results for LC 4, Deflection 2.1
X-moment Reaction Units are kips and kip-ft

IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-3
	aquinonez		Mar 26, 2025 at 02:42 PM
			Switchback Stair.r3d

Pole Footing Embedded in Soil

Project File: Will Rogers ES.ec6

LIC# : KW-06015753, Build:20.24.12.02 VCA ENGINEERS INC (c) ENERCALC, LLC 1982-2025

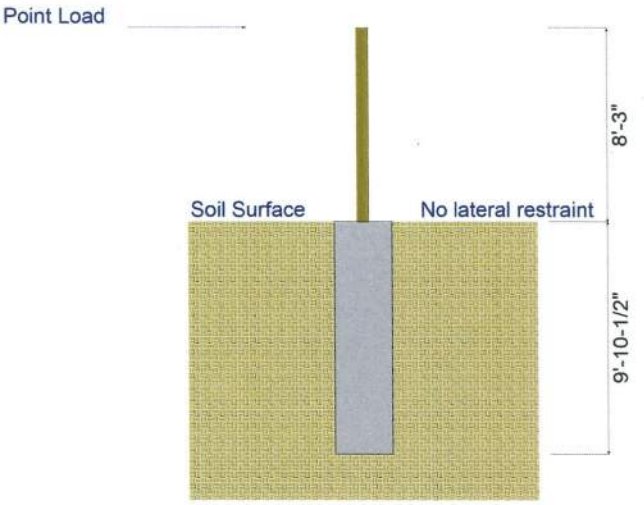
DESCRIPTION: Switch Back Stair Pole Footing

Code References

Calculations per IBC 2021 1807.3
Load Combinations Used : ASCE 7-22 / IBC 2024 (L<=100psf)

General Information

Pole Footing Shape	Circular
Pole Footing Diameter	30.0 in
Calculate Min. Depth for Allowable Pressures	
No Lateral Restraint at Ground Surface	
Allow Passive	200.0 pcf
Max Passive	2,000.0 psf



Controlling Values

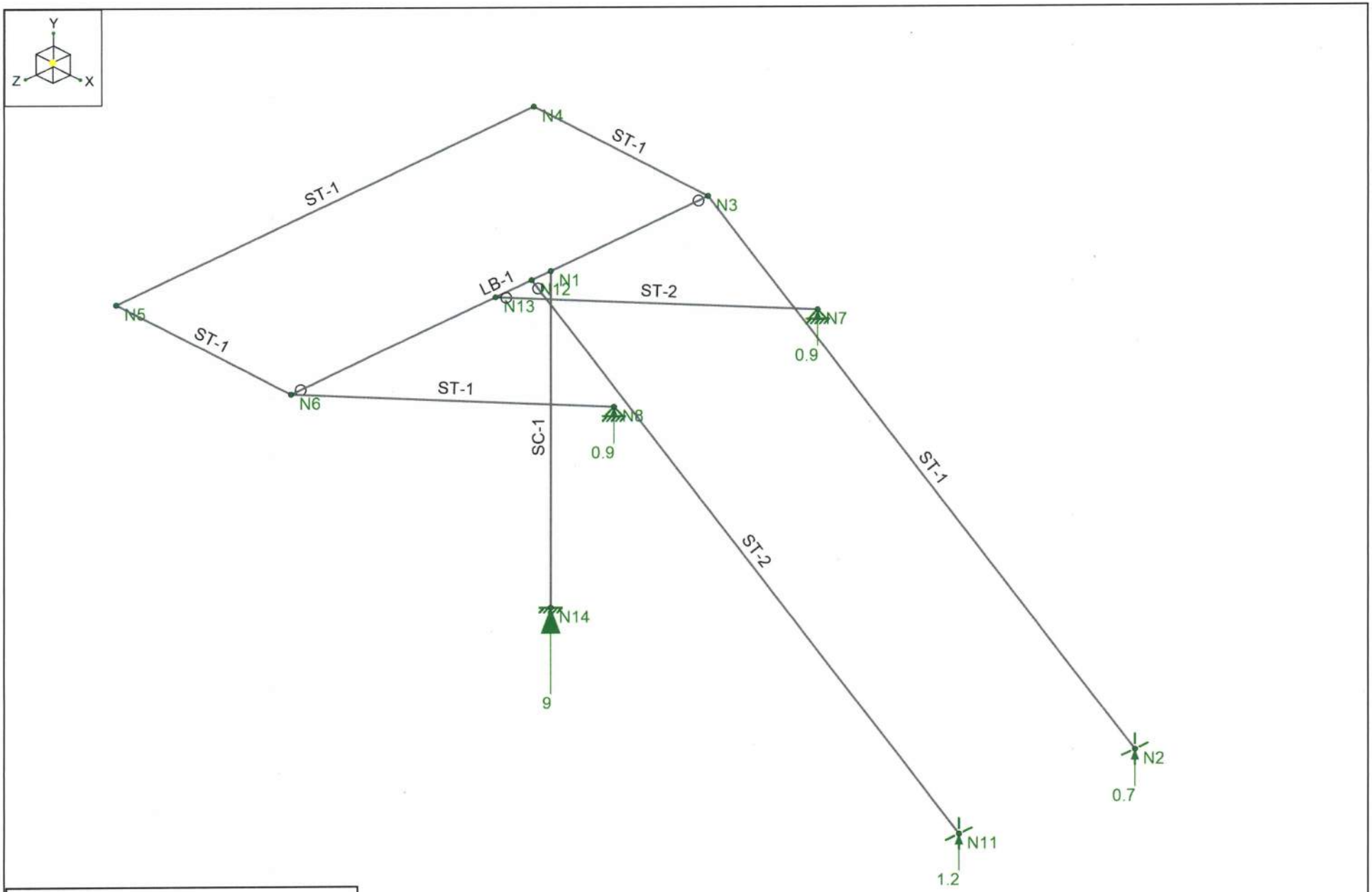
Governing Load Combinatio	D+0.70E
Lateral Load	4.830 k
Moment	39.848 k-ft
NO Ground Surface Restraint	
Pressures at 1/3 Depth	
Actual	**874.75** psf
Allowable	**875.55** psf
Minimum Required Depth	**9.875 ft**
Footing Base Area	4.909 ft^2
Maximum Soil Pressure	0.0 ksf

Applied Loads

	Lateral Concentrated Load (k)	Lateral Distributed Loads (k		Vertical Load (k)
D : Dead Load	0.630 k		k/ft	k
Lr : Roof Live	2.440 k		k/ft	k
L : Live	k		k/ft	k
S : Snow	k		k/ft	k
W : Wind	k		k/ft	k
E : Earthquake	6.0 k	0.0	k/ft	k
H : Lateral Earth	k		k/ft	k
Load distance above ground surface	8.250 ft	TOP of Load above ground surface 8.250	ft	
		BOTTOM of Load above ground surface	ft	

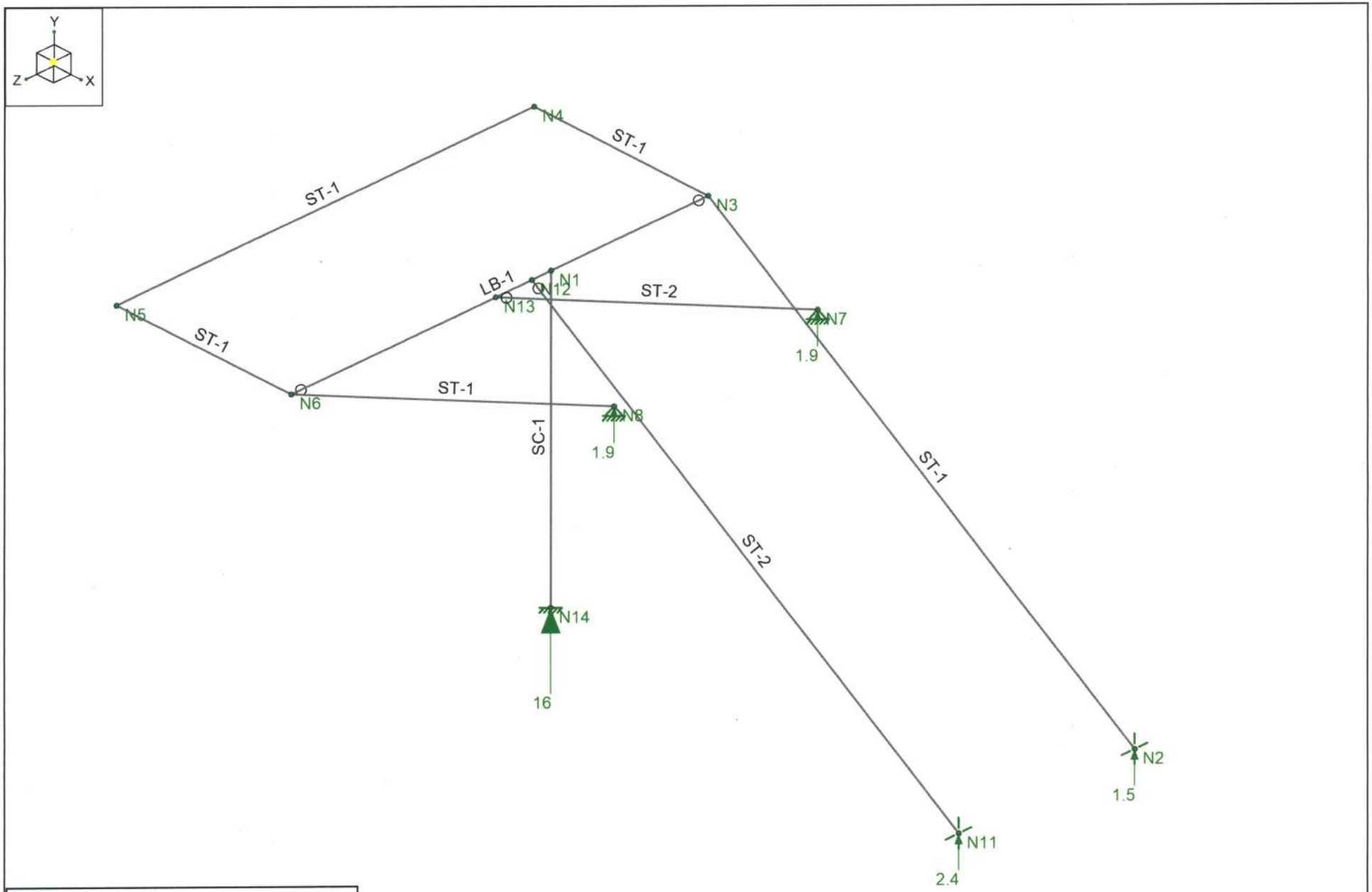
Load Combination Results

Load Combination	Forces @ Ground Surface Loads - (k)	Moments - (ft-k)	Required Depth - (ft)	Pressure at 1/3 Depth Actual - (psf)	Allow - (psf)	Soil Increase Factor
D Only	0.630	5.198	5.00	331.1	332.7	1.000
+D+Lr	3.070	25.328	9.25	614.7	615.3	1.000
+D+0.750Lr	2.460	20.295	8.50	562.6	563.3	1.000
+0.60D	0.378	3.119	4.13	274.1	274.2	1.000
+D+0.70E	4.830	39.848	9.88	874.8	875.6	1.330
+D+0.5250E	3.780	31.185	9.00	792.6	793.5	1.330
+0.60D+0.70E	4.578	37.769	9.75	855.2	857.4	1.330



Results for LC 1, D
Y-direction Reaction Units are kips and kip-ft

IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-4
	aquinonez		Mar 26, 2025 at 02:46 PM
			Switchback Stair.r3d



Results for LC 3, Deflection 2
Y-direction Reaction Units are kips and kip-ft

IRISA A NEMETSCHEK COMPANY	<Licensed Company>		SK-5
	aquinonez		Mar 26, 2025 at 02:47 PM
			Switchback Stair.r3d