

**APPENDIX A**  
**PROJECT PLANS**

# NOTES

- CONTRACTOR SHALL PRIOR TO COMMENCEMENT OF WORK, FIELD VERIFY ALL EXISTING PROJECT CONDITIONS, INCLUDING DIMENSIONS AND UTILITY LOCATIONS AND UTILITY SIZES.
- FIELD INFORMATION OF DISCREPANCIES SHALL BE RECORDED ON A REPRODUCIBLE DOCUMENT AND IMMEDIATELY TRANSMITTED TO THE DESIGNER FOR PROJECT RECORD, COORDINATION, AND NECESSARY RESOLUTION PRIOR TO CONTINUING WITH WORK.
- CONTRACTOR SHALL VERIFY, AND BE RESPONSIBLE FOR ALL WORK AND MATERIAL, INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED SIZES. DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES, PRIOR TO CONTINUING.
- ALL WORK SHALL CONFORM TO THE LATEST ADOPTED EDITIONS OF ALL APPLICABLE BUILDING CODES, THE AMERICANS WITH DISABILITIES ACT, AS WELL AS ALL OTHER LOCAL GOVERNING CODES AND ORDINANCES.
- ALL ELECTRICAL, MECHANICAL, AND PLUMBING WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL LEGALLY CONSTITUTED AUTHORITIES HAVING JURISDICTION.
- THE GENERAL BUILDING PERMITS SHALL BE PAID FOR BY THE OWNER AND SECURED BY THE GENERAL CONTRACTOR. ALL OTHER REQUIRED PERMITS SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR OR SUBCONTRACTOR DIRECTLY RESPONSIBLE.
- ALL REQUIRED CITY AND COUNTY LICENSES SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL TRADES.
- ALL CONTRACTORS SHALL HAVE VALID CERTIFICATES OF WORKMAN'S COMPENSATION ON FILE WITH THE APPLICABLE AGENCIES.
- CONTRACTOR SHALL ASSIST OWNER IN OBTAINING FINAL APPROVAL OF LOCAL HEALTH DEPARTMENT AND THE TEMPORARY AND FINAL CERTIFICATES OF OCCUPANCY.
- CONTRACTOR SHALL PROVIDE BACKING FOR SUPPORT OF ALL WALL, CEILING, AND PARTITION MOUNTED ITEMS SUCH AS LIGHT FIXTURES, SHELVING, EQUIPMENT, AND TELEVISIONS. COORDINATE LOCATIONS AND REQUIREMENTS WITH THE PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR(S) SHALL BEAR ALL EXPENSE FOR THE REPAIR OR REPLACEMENT OF UTILITIES AND ALL OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH EXECUTION OF WORK.
- CONTRACTOR SHALL PROVIDE PROTECTION IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES. CONTRACTOR SHALL PROVIDE REQUIRED PROTECTION INCLUDING, BUT NOT LIMITED TO SHORING, BRACING, AND ALL OTHER SUPPORTS (INCLUDING ENGINEERING OF SYSTEMS) NECESSARY TO MAINTAIN OVERALL STRUCTURAL INTEGRITY OF THE BUILDING.
- ALL DEMOLITION AND CUTTING SHALL BE PERFORMED IN A MANNER AND BY METHODS WHICH ENSURE AGAINST DAMAGE TO EXISTING WORK.
- INTERIOR WALL AND CEILING FINISHES SHALL NOT EXCEED FLAME SPREAD CLASSIFICATIONS DICTATED BY ALL APPLICABLE BUILDING CODES.
- GYPHUM BOARD AND SUSPENDED CEILING SYSTEMS SHALL CONFORM TO ALL LOCAL GOVERNING BUILDING CODES AND ORDINANCES.
- PIPES, CONDUITS, OR DUCTS EXCEEDING ONE THIRD OF THE SLAB OR MEMBER THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL DRAWINGS FOR LOCATION OF SLEEVES AND OTHER ACCESSORIES.
- CONTRACTOR SHALL REFER TO AND CONFORM WITH ALL FINDINGS AND RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
- THE DESIGNER ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THE FINDINGS IN THE SOILS REPORT, NOR FOR THE FINAL RECOMMENDATIONS. SHOULD ANY UNUSUAL CONDITIONS BECOME APPARENT DURING GRADING OR FOUNDATION CONSTRUCTION NOTIFY THE SOILS ENGINEER FOR INSTRUCTIONS PRIOR TO CONTINUING WORK.
- EXTERIOR OPENINGS SHALL COMPLY WITH ALL SECURITY REQUIREMENTS AS OUTLINED IN ALL LOCAL BUILDING CODES AND ORDINANCES.
- ACCURATE AS-BUILT DRAWINGS SHALL BE GENERATED BY CONTRACTOR DURING CONSTRUCTION AND SUBMITTED TO OWNER UPON COMPLETION OF FINAL PUNCH LIST, BUT PRIOR TO REQUEST FOR FINAL PAYMENT.
- ROOF OBSTRUCTIONS SUCH AS TELEVISIONS ANTENNA, SOLAR PANELS, AND GUY WIRES SHALL NOT BE LOCATED OR INSTALLED IN SUCH A WAY AS TO PREVENT FIRE DEPARTMENT ACCESS OR EGRESS IN THE EVENT OF A FIRE.
- SPECIAL INSPECTORS MUST BE QUALIFIED AND ABLE TO DEMONSTRATE COMPETENCE TO THE ENFORCING AGENCY IN THE DISCIPLINE IN WHICH THEY ARE INSPECTING.

## PROJECT DATA

PROJECT ADDRESS: 4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

OWNER: RIVERSIDE COUNTY  
REGIONAL PARK AND OPEN  
SPACE DISTRICT  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509  
951-955-6515  
www.RivCoParks.org

COUNTY: RIVERSIDE

A.P.N. 181-220-006

## UTILITIES

ELECTRIC: SOUTHERN CALIFORNIA EDISON COMPANY  
P.O. BOX 800, ROSEMead, CA. 91770  
CONTACT : 1 800 655 4555

WATER/  
SEWER: RUBIDOUX COMMUNITY SERVICES DISTRICT  
3590 RUBIDOUX BLVD., JURUPA VALLEY, CA. 92509  
CONTACT: 1 951 884 7580

TELEPHONE: JURUPA VALLEY SPECTRUM  
8012 LIMONITE AVE, RIVERSIDE, CA 92509  
CONTACT : 1 800 SPECTRUM

REFUSE: BURRTEC DISPOSAL  
1850 AQUA MANSARD., JURUPA VALLEY, CA. 92509  
CONTACT : 1 909 987 3717

GAS: SOUTHERN CALIFORNIA GAS COMPANY  
7000 INDIANA AVE., RIVERSIDE, CA. 92506  
CONTACT : 1 800 427 2200

## CONSULTANTS

CIVIL AND STRUCTURAL ENGINEER: DAVID BECKWITH AND ASSOCIATES, INC  
9431 HAVEN AVENUE, SUITE 232  
RANCHO CUCAMONGA, CA 91730  
PHONE: 714-349-7007  
CONTACT: DAVID M BECKWITH, PE, PLS

MECHANICAL/ PLUMBING AND  
ELECTRICAL ENGINEER: ASTRAL ENGINEERS  
PO BOX 190  
RANCHO CUCAMONGA, CA 91729  
PHONE: 951-542-1123  
CONTACT: RYAN SHAW, CPD

LANDSCAPE ARCHITECT: COMMUNITY WORKS DESIGN GROUP  
7111 INDIANA AVENUE, SUITE 300  
RIVERSIDE, CA 92504  
PHONE: 951-369-0700  
CONTACT: SCOTT RICE, RLA

NOTE:  
CONSTRUCTION FOR WORK FOR WHICH A PERMIT IS REQUIRED SHALL BE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL AND SUCH CONSTRUCTION OR WORK SHALL REMAIN ACCESSIBLE AND EXPOSED FOR INSPECTION PURPOSES UNTIL APPROVED. APPROVAL AS A RESULT OF AN INSPECTION SHALL NOT BE CONSTRUED TO BE AN APPROVAL OF A VIOLATION OF THE PROVISIONS OF THE JURISDICTION CODE OR OF OTHER ORDINANCES OF THE JURISDICTION. INSPECTIONS PRESUMING TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF THE JURISDICTION CODE OR OF OTHER ORDINANCES OF THE JURISDICTION SHALL NOT BE VALID. IT SHALL BE THE DUTY OF THE PERMIT APPLICANT TO CAUSE THE WORK TO REMAIN ACCESSIBLE AND EXPOSED FOR INSPECTION PURPOSES. NEITHER THE BUILDING OFFICIAL NOR THE JURISDICTION SHALL BE LIABLE FOR EXPENSE ENTAILLED IN THE REMOVAL OR REPLACEMENT OF ANY MATERIAL REQUIRED TO ALLOW INSPECTIONS.

# SARB MAINTENANCE FACILITY

## OCCUPANT AND PLUMBING LOAD ANALYSIS FOR NEW STORAGE MAINTENANCE BUILDING

### OCCUPANT LOAD

SPACE/ROOM NAME	AREA	LOAD FACTOR	OCCUPANTS
CUBICLE/OFFICE AREA	523	1 PER 100 SQ.FT.	
OFFICE 1	105	1 PER 100 SQ.FT.	
OFFICE 2	105	1 PER 100 SQ.FT.	
OFFICE 3	134.5	1 PER 100 SQ.FT.	
OFFICE 4	110.5	1 PER 100 SQ.FT.	
OFFICE 4	100	1 PER 100 SQ.FT.	
TOTAL	1,078	1 PER 100 SQ.FT.	11
STORAGE	1,273.50	1 PER 500 SQ.FT.	
MECHANICAL ROOM	50	1 PER 500 SQ.FT.	
TOTAL	1323.5	1 PER 500 SQ.FT.	3
TOTAL ALL	2,402		14

NOTE: ALL SQUATE FOOTAGES ARE INTERIOR BASED AND EXCLUDING WALL THICKNESS

### OCCUPANT LOAD FACTOR FOR PLUMBING FACILITIES (PER TABLE 422.1 OF THE 2022 CPC)

GROUP	REQUIRED	PROVIDED	
GROUP B	1,121	1 PER 200 SQ.FT.	6
GROUP S	1,490	1 PER 5,000 SQ.FT.	1
TOTAL OCCUPANT LOAD			7
PLUMBING FIXTURES			
GROUP B & S (4 MEN/4 WOMEN)	REQUIRED	PROVIDED	
WATER CLOSETS	1	1	
LAVATORIES	1	1	
URINALS	0	0	
WOMEN'S WATER CLOSETS	1	1	
WOMEN'S LAVATORIES	1	1	

## PROJECT DESCRIPTION

- INTERIOR REMODEL OF EXISTING BUILDING D MAINTENANCE BUILDING TO ADD NEW RESTROOM AND LOCKERS WITHIN EXISTING SPACE.
- ADD NEW 2,611 SQ.FT. DETACHED STORAGE BUILDING
- ADD NEW FENCING PER LANDSCAPING PLANS
- ADD 120 SQ.FT. COVERED HAZMAT AREA

## BUILDING ANALYSIS

BUILDING CODES: 2022 CBC, CEC, CPC, CMC, CFC, CGBSC, 2022 CALIFORNIA ENERGY STANDARDS

BUILDING D:  
CONSTRUCTION TYPE: V-B (NOT SPRINKLERED)  
OCCUPANCY TYPE: S-1  
FIRE SPRINKLERS: NO  
NUMBER OF STORIES: 1  
GROSS AREA: 610 SQ.FT.

NEW STORAGE BUILDING:  
CONSTRUCTION TYPE: V-B (NOT SPRINKLERED)  
OCCUPANCY TYPE: B & S-1  
REQUIRED SEPARATION: NONE REQUIRED  
FIRE SPRINKLERS: NO  
NUMBER OF STORIES: 1  
GROSS AREA: 2,611 SQ.FT.

## VICINITY MAP



# SHEET INDEX

CS.01	COVER SHEET/ TITLE SHEET
<b>ARCHITECTURAL</b>	
T.01	PLOT PLAN
T.02	ENLARGED PLOT PLAN
T.03	GENERAL NOTES
T.04	GENERAL NOTES
T.05	GENERAL NOTES
T.06	ARCHITECTURAL DETAILS/ NOTES
T.07	ARCHITECTURAL DETAILS/ NOTES
A.01	BUILDING D FLOOR PLANS
A.02	NEW STORAGE BUILDING FLOOR PLAN
A.03	BUILDING D ELEVATIONS
A.04	NEW STORAGE BUILDING ELEVATIONS
A.05	NEW STORAGE BUILDING ROOF PLAN
A.06	RESTROOM ENLARGEMENTS
A.07	RESTROOM ENLARGEMENTS
A.08	FINISH FLOOR PLAN
A.09	REFLECTED CEILING PLANS
A.10	HAZARDOUS AREA PLANS
A.11	BUILDING 'D' SECTION
A.12	NEW STORAGE BUILDING SECTIONS
A.13	DOOR/ WINDOW SCHEDULES
<b>CIVIL</b>	
C0.01	TITLE SHEET
C1.01	DEMOLITION PLAN
C2.01	PRECISE GRADING PLAN
C2.02	PRECISE GRADING PLAN
C3.01	WET UTILITY PLAN
C4.01	EROSION CONTROL PLAN
C5.01	DETAIL SHEET
C5.01	DETAIL SHEET
<b>LANDSCAPE</b>	
LI.01	IRRIGATION PLAN
LI.02	IRRIGATION DETAILS
LI.03	IRRIGATION DETAILS
LI.01	LANDSCAPE PLAN
LI.02	FENCE PLAN
LI.03	LANDSCAPE DETAILS
<b>MECHANICAL</b>	
M000	MECHANICAL COVER SHEET
M001	MECHANICAL SCHEDULES
M002	MECHANICAL TITLE 24 FORMS
M003	MECHANICAL TITLE 24 FORMS
M004	MECHANICAL TITLE 24 FORMS
M101	MECHANICAL SITE PLAN
M201	MECHANICAL MAINT. BLDG. FLOOR PLAN
M202	MECHANICAL BUILDING D FLOOR PLAN
M401	MECHANICAL DETAILS
M402	MECHANICAL DETAILS
<b>ELECTRICAL</b>	
E000	ELECTRICAL COVER SHEET
E001	ELECTRICAL SCHEDULES
E002	ELECTRICAL TITLE 24 FORMS
E003	ELECTRICAL TITLE 24 FORMS
E004	ELECTRICAL TITLE 24 FORMS
E101	ELECTRICAL SITE PLAN
E201	ELECTRICAL MAINT. BLDG. FLOOR PLAN
E202	ELECTRICAL BUILDING D FLOOR PLAN
E401	ELECTRICAL DETAILS
<b>PLUMBING</b>	
P000	PLUMBING COVER SHEET
P001	PLUMBING SCHEDULES
P002	PLUMBING MATERIAL LIST
P101	PLUMBING SITE PLAN
P201	PLUMBING MAINT. BLDG. FLOOR PLAN
P202	PLUMBING BUILDING D FLOOR PLAN
P401	PLUMBING DETAILS
P402	PLUMBING DETAILS
<b>TECHNOLOGY</b>	
T000	TECHNOLOGY COVER SHEET
T001	TECHNOLOGY SITE PLAN
T201	TECHNOLOGY MAINT. BLD. FLOOR PLAN
T401	TECHNOLOGY DETAILS
<b>STRUCTURAL</b>	
S1.01	FOUNDATION PLAN AND FRAMING PLAN
	HAZMAT COVER AND BLDG D
S1.02	FOUNDATION PLAN MAINT. BLDG.
S1.03	ROOF FRAMING PLAN MAINT. BLDG
S2.01	DETAILS
S2.02	DETAILS
S2.03	DETAILS
WSWH1	SIMPSON DETAILS
WSWH2	SIMPSON DETAILS

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4600 CRESTMORE ROAD  
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REVISIONS	DATE	BY



SHEET TITLE  
**COVER SHEET/  
TITLE SHEET**

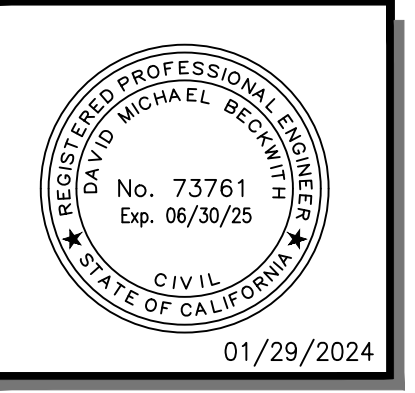
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DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**CS.01**

CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
 SARB MAINTENANCE FACILITY  
 PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

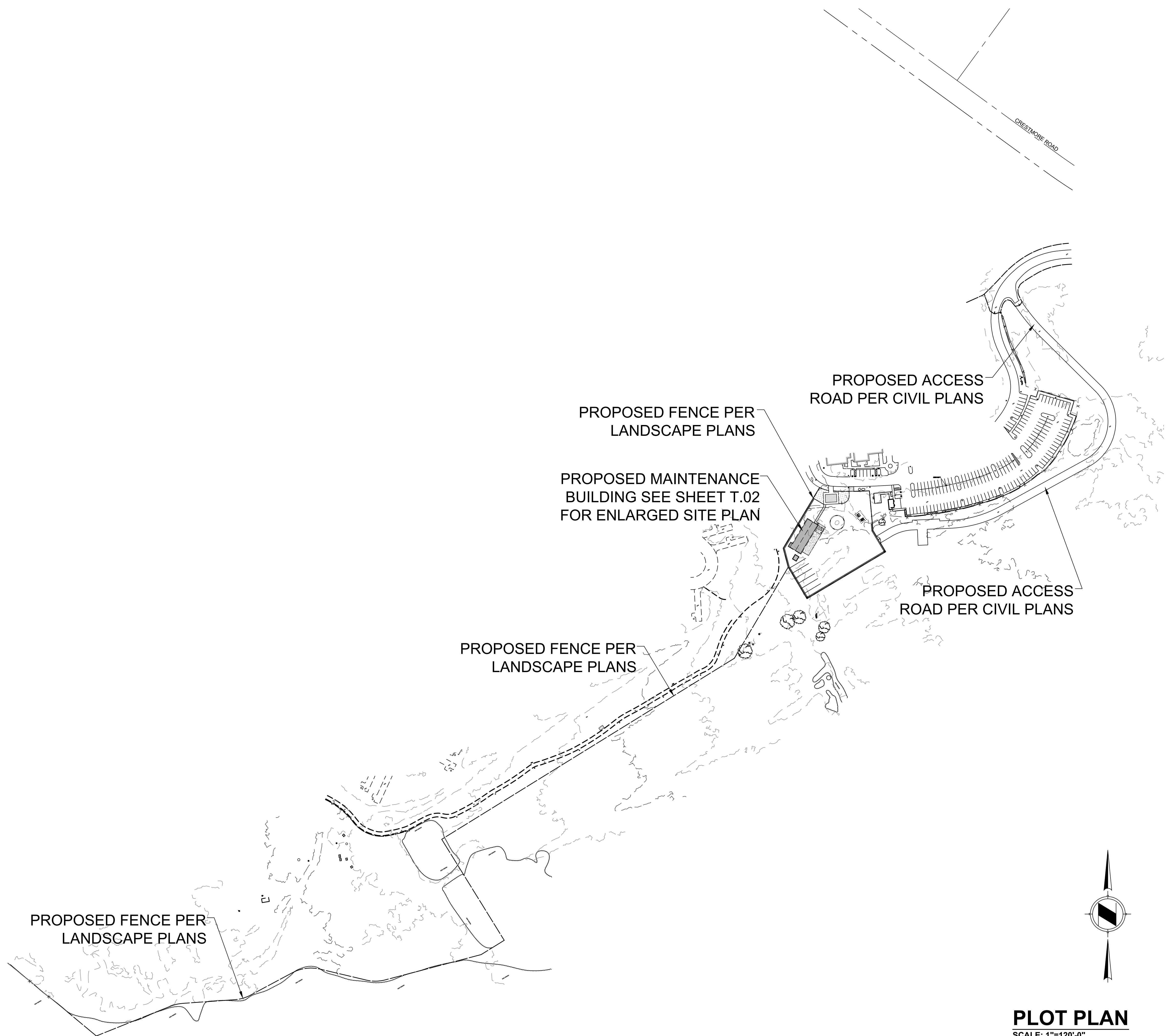
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SHEET TITLE  
**SITE PLAN**

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SCALE	PER PLAN
JOB NO.	2023-29

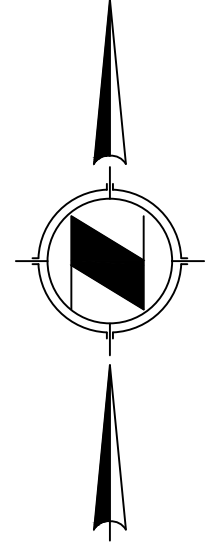
SHEET  
**T.01**



**GRAPHIC SCALE**



SCALE IN FEET  
 SCALE: 1"=120'-0"

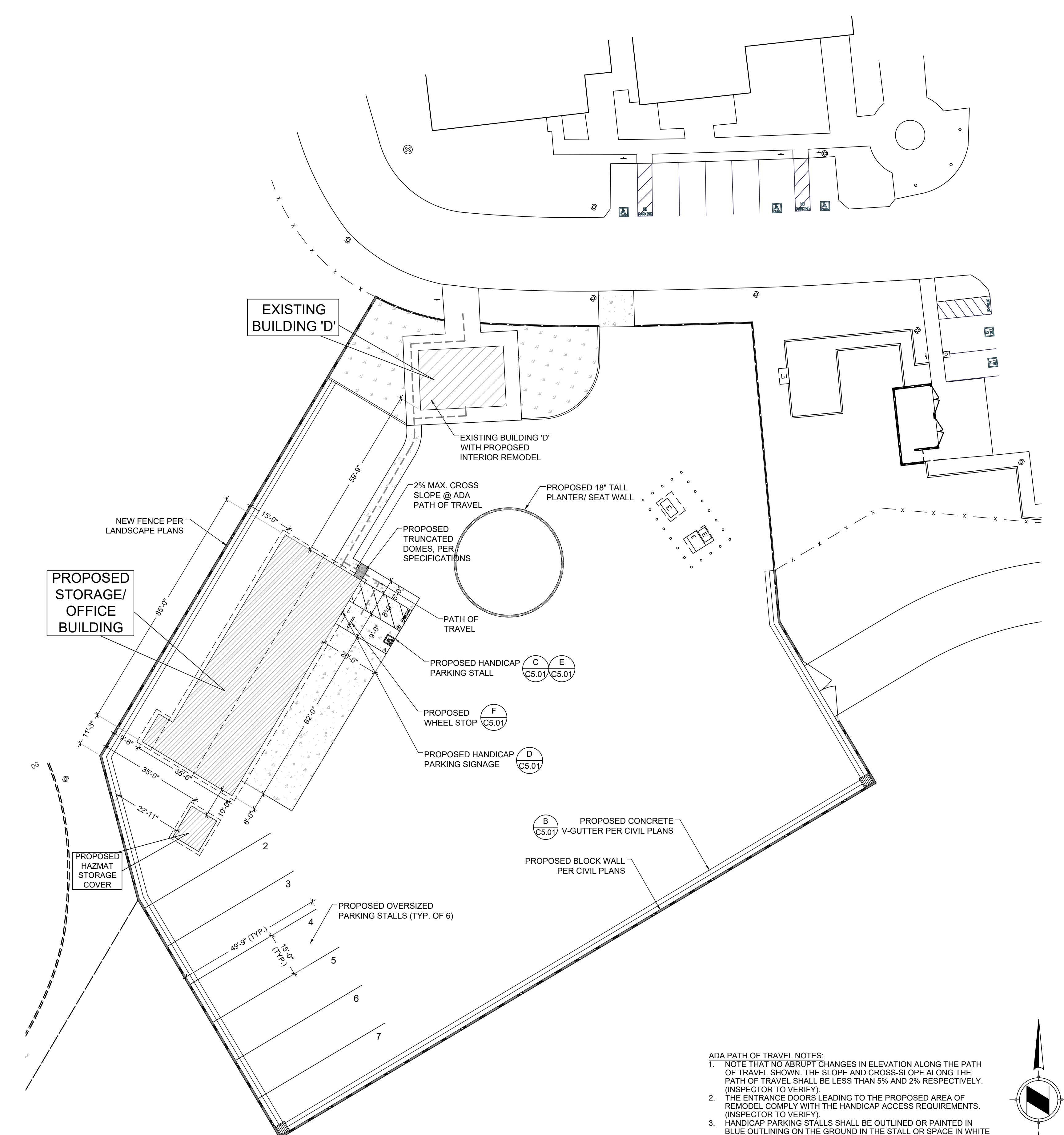


**PLOT PLAN**  
 SCALE: 1"=120'-0"

# NOTES

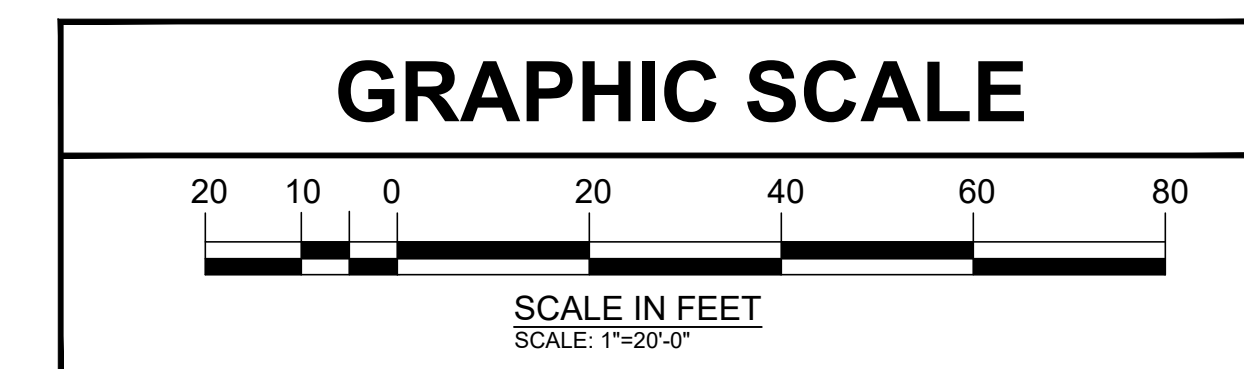
- GREEN BUILDING SITE NOTES:**
- OPERATION AND MAINTENANCE MANUAL. AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE ENFORCING AGENCY WHICH INCLUDES ALL OF THE FOLLOWING SHALL BE PLACED IN THE BUILDING:
    - DIRECTIONS TO THE OWNER OR OCCUPANT THAT THE MANUAL SHALL REMAIN WITH THE BUILDING THROUGHOUT THE LIFE CYCLE OF THE STRUCTURE.
    - OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE FOLLOWING
      - EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS, WATER-HEATING SYSTEMS AND OTHER, MAJOR APPLIANCES AND EQUIPMENT.
      - ROOF AND YARD DRAINAGE, INCLUDING GUTTERS AND DOWNSPOUTS.
      - SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS.
      - LANDSCAPE IRRIGATION SYSTEMS.
      - WATER REUSE SYSTEMS.
  - INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATION.
  - PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA.
  - EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF AN INTERIOR RELATIVE HUMIDITY BETWEEN 30-60 PERCENT AND WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE.
  - INFORMATION ABOUT WATER-CONSERVING LANDSCAPE AND IRRIGATION DESIGN AND CONTROLLERS WHICH CONSERVE WATER.
  - INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUTS AND THE IMPORTANCE OF DIVERTING WATER AT LEAST 5 FEET AWAY FROM THE FOUNDATION.
  - INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, INCLUDING, BUT NOT LIMITED TO, CAULKING, PAINTING, GRADING AROUND THE BUILDING, ETC.
  - INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVE PROGRAMS AVAILABLE.
  - A COPY OF ALL SPECIAL INSPECTIONS VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS CODE.
- DURING CONSTRUCTION, ENDS OF DUCT OPENINGS ARE TO BE SEALED, AND MECHANICAL EQUIPMENT IS TO BE COVERED.
  - THIRD PARTY VERIFICATION IS REQUIRED FOR MANDATORY CALGREEN MEASURES.
  - SEAL BUILDING ENVELOPE JOINTS AND OPENINGS ACCORDING TO CEC.
  - AUTOMATIC IRRIGATION SYSTEM CONTROLLERS INSTALLED AT THE TIME OF FINAL INSPECTION SHALL BE WEATHER OR SOIL MOISTURE-BASED.

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**ADA PATH OF TRAVEL NOTES:**

- NOTE THAT NO ABRUPT CHANGES IN ELEVATION ALONG THE PATH OF TRAVEL SHOWN. THE SLOPE AND CROSS-SLOPE ALONG THE PATH OF TRAVEL SHALL BE LESS THAN 5% AND 2% RESPECTIVELY. (INSPECTOR TO VERIFY).
- THE ENTRANCE DOORS LEADING TO THE PROPOSED AREA OF REMODEL COMPLY WITH THE HANDICAP ACCESS REQUIREMENTS. (INSPECTOR TO VERIFY).
- HANDICAP PARKING STALLS SHALL BE OUTLINED OR PAINTED IN BLUE OUTLINING ON THE GROUND IN THE STALL OR SPACE IN WHITE OR SUITABLE CONTRASTING COLOR A PROFILE VIEW DEPICTING A WHEELCHAIR WITH OCCUPANT IN WHITE BACKGROUND. THE PROFILE VIEW SHALL BE LOCATED SO THAT IT IS VISIBLE TO TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE SPACE AND SHALL BE 36 INCHES HIGH BY 36 INCHES WIDE.



**ENLARGED PLOT PLAN**  
SCALE: 1"=20'-0"

**DAVID BECKWITH AND ASSOCIATES INC**  
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PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

01/29/2024

SHEET TITLE  
**ENLARGED SITE PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**T.02**



2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)



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PROJECT:
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JURUPA VALLEY, CA 92509

Table with 3 columns: REVISIONS, DATE, BY

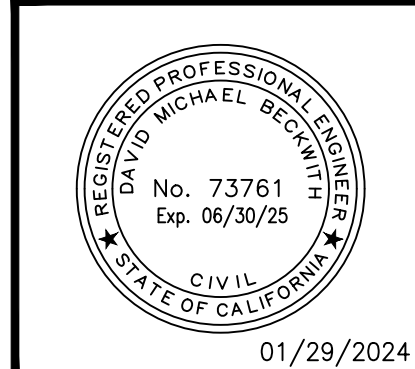


Table with 2 columns: SHEET TITLE, GENERAL NOTES

DESIGNED ---
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DATE 01/29/2024
SCALE PER PLAN
JOB NO. 2023-29

SHEET
T.03

Table with 2 columns: Y, N/A, RESPON. PARTY. Contains chapter and section headers.

Table with 2 columns: Y, N/A, RESPON. PARTY. Contains detailed text for sections 5.106.2 through 5.106.5.3.1.

Table with 2 columns: Y, N/A, RESPON. PARTY. Contains detailed text for sections 5.106.5.3.3 through 5.106.5.4.1.

Table with 2 columns: Y, N/A, RESPON. PARTY. Contains detailed text for sections 5.106.5.4.1 through 5.106.12.3.

TABLE 5.106.5.4.1 RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE [N]

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS





# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

## NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2023)

Y	NA	RESPON. PARTY	5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**5.504.4.1 Adhesives, sealants and caulks.** Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

- Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAGMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2.
- Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507.

**TABLE 5.504.4.1 - ADHESIVE VOC LIMIT<sub>1,2</sub>**

Less Water and Less Exempt Compounds in Grams per Liter	
ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
<b>SPECIALTY APPLICATIONS</b>	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
<b>SUBSTRATE SPECIFIC APPLICATIONS</b>	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

- IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
- FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168. [www.arb.ca.gov/DRDB/SC/CUR/HTML/R1168.PDF](http://www.arb.ca.gov/DRDB/SC/CUR/HTML/R1168.PDF)

**TABLE 5.504.4.2 - SEALANT VOC LIMIT**

Less Water and Less Exempt Compounds in Grams per Liter	
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
<b>SEALANT PRIMERS</b>	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

**5.504.4.3 Paints and coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 6 Rule 49.

**5.504.4.3.1 Aerosol paints and coatings.** Aerosol paints and coatings shall meet the PWWIR Limits for VOC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 6 Rule 49.

**TABLE 5.504.4.3 - CONT.**

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS	
COATING CATEGORY	CURRENT VOC LIMIT
<b>SPECIALTY COATINGS</b>	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	250
RECYCLED COATINGS	350
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

- GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS
- THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE
- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

**5.504.4.3.2 Verification.** Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

- Manufacturer's product specification
- Field verification of on-site product containers

**5.504.4.4 Carpet Systems.** All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEODD/EHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.4.1 Carpet cushion.** All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEODD/EHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.4.2 Carpet adhesive.** All carpet adhesive shall meet the requirements of Table 5.504.4.1.

**5.504.4.5 Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CFR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

**5.504.4.5.3 Documentation.** Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

- Product certifications and specifications.
- Chain of custody certifications.
- Product labeled and invoiced as meeting the Composite Wood Products regulation (see COR, Title 17, Section 93120, et seq.).
- Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian ASINZS 2269 or European 636 3S standards.
- Other methods acceptable to the enforcing agency.

**TABLE 5.504.4.5 - FORMALDEHYDE LIMITS:**

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION	
PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD:	0.13

- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
- THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

**5.504.4.6 Resilient flooring systems.** Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEODD/EHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.6.1 Verification of compliance.** Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

**5.504.4.7 Thermal insulation**  
Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEODD/EHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.7.1 Verification of compliance.**  
Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.

**5.504.4.8 Acoustical ceiling and wall panels.**  
Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs.

**5.504.4.8.1 Verification of compliance.** Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.

**5.504.5.3 Filters.** In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

**Exceptions:** Existing mechanical equipment.

**5.504.5.3.1 Labeling.** Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

**5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL.** Where outdoor areas are provided for smoking, prohibiting smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations, or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

**SECTION 5.505 INDOOR MOISTURE CONTROL**  
**5.505.1 INDOOR MOISTURE CONTROL.** Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

**SECTION 5.506 INDOOR AIR QUALITY**  
**5.506.1 OUTSIDE AIR DELIVERY.** For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

**5.506.2 CARBON DIOXIDE (CO<sub>2</sub>) MONITORING.** For buildings or additions equipped with demand control ventilation, CO<sub>2</sub> sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

**5.506.3 Carbon dioxide (CO<sub>2</sub>) monitoring in classrooms.**  
(DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements:

- The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and 6 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable windows.
- When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel.
- A monitor shall provide notification through a visual indicator on the monitor when the carbon dioxide levels in the classroom have exceeded 1,100ppm. A sensor integral to an EMCS shall provide notification to facility personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1,100ppm.
- The monitor or sensor shall measure carbon dioxide levels at minimum 15-minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration.
- The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000ppm or greater.
- The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

**SECTION 5.507 ENVIRONMENTAL COMFORT**  
**5.507.4 ACoustical CONTROL.** Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

**Exception:** Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

**Exception: [DSA-SS]** For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

**5.507.4.1 Exterior noise transmission, prescriptive method.** Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of not less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

- Within the 65 CNEL noise contour of an airport.
- Exceptions:**

- L<sub>w</sub> or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
  - L<sub>w</sub> or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.
- Within the 65 CNEL or L<sub>w</sub> noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

**5.507.4.1.1. Noise exposure where noise contours are not readily available.** Buildings exposed to a noise level of 65 dB L<sub>eq</sub>-1hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

**5.507.4.2 Performance Method.** For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (L<sub>eq</sub>-1hr) of 50 dBA in occupied areas during any hour of operation.

**5.507.4.2.1 Site Features.** Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

**5.507.4.2.2 Documentation of Compliance.** An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record.

**5.507.4.3 Interior sound transmission.** Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

**Note:** Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: [www.noisebase.org/PDF/CaseStudies/stc\\_ccc\\_ratings.pdf](http://www.noisebase.org/PDF/CaseStudies/stc_ccc_ratings.pdf).

**SECTION 5.508 OUTDOOR AIR QUALITY**  
**5.508.1 Ozone depletion and greenhouse gas reductions.** Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

**5.508.1.1 Chlorofluorocarbons (CFCs).** Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

**5.508.1.2 Halons.** Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

**5.508.2 Supermarket refrigerant leak reduction.** New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

**Exception:** Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonzone-depleting refrigerants that include ammonia, carbon dioxide (CO<sub>2</sub>), and potentially other refrigerants.

**5.508.2.1 Refrigerant piping.** Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

**5.508.2.1.1 Threaded pipe.** Threaded connections are permitted at the compressor rack.

**5.508.2.1.2 Copper pipe.** Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

**5.508.2.1.2.1 Anchorage.** One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

**5.508.2.1.3 Flared tubing connections.** Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

**Exception:** Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

**5.508.2.1.4 Elbows.** Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

**5.508.2.2 Valves.** Valves and fittings shall comply with the California Mechanical Code and as follows.

**5.508.2.2.1 Pressure relief valves.** For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

**5.508.2.2.1.1 Pressure detection.** A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

**5.508.2.2.2 Access valves.** Only Schrader access valves with a brass or steel body are permitted for use.

**5.508.2.2.2.1 Valve caps.** For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

**5.508.2.2.2.2 Seal caps.** If designed for it, the cap shall have a neoprene O-ring in place.

**Exception:** Valves with seal caps that are not removed from the valve during stem operation.

**5.508.2.3 Refrigerated service cases.** Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances.

**5.508.2.3.1 Coil coating.** Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

**5.508.2.4 Refrigerant receivers.** Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.

**5.508.2.5 Pressure testing.** The system shall be pressure tested during installation prior to evacuation and charging.

**5.508.2.5.1 Minimum pressure.** The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

**5.508.2.5.2 Leaks.** Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

**5.508.2.5.3 Allowable pressure change.** The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

**5.508.2.6 Evacuation.** The system shall be evacuated after pressure testing and prior to charging.

**5.508.2.6.1 First vacuum.** Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

**5.508.2.6.2 Second vacuum.** Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

**5.508.2.6.3 Third vacuum.** Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

### CHAPTER 7 INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS 702 QUALIFICATIONS 702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

- State certified apprenticeship programs.
- Public utility training programs.
- Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
- Programs sponsored by manufacturing organizations.
- Other programs acceptable to the enforcing agency.

**702.2 SPECIAL INSPECTION [HCD].** When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

- Certification by a national or regional green building program or standard publisher.
- Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
- Successful completion of a third party apprentice training program in the appropriate trade.
- Other programs acceptable to the enforcing agency.

**Notes:**

- Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
- HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

**[BSC-CG]** When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

**Note:** Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

**703 VERIFICATIONS  
703.1 DOCUMENTATION.** Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

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Land Surveying - Environmental Services

**MATERIAL CONSERVATION**

- Annular spaces around pipes, electric cables, conduits or other openings in bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar or equivalent methods acceptable to the Building Official.
- The Construction Waste Management Plan shall require that at least 65% of all nonhazardous construction waste generated by this project as identified in the following table is recycled and/or salvaged.

Waste Material Type	(A) Estimated weight of waste before any recycling or salvage (in tons)	(B) Estimated weight of recycled or salvaged waste (in tons)	(C) Projected Diversion Rate (in Percent)
Asphalt			Calculate the Projected Diversion Rate Percentage by using the following formula: $(B) \div (A) \times 100 = (C)$ NOTE: Total diversion rate shall not be less than 65%
Concrete			
Metal			
Wood			
Insulation			
Drywall			
Carpet and pad			
Cardboard and paper			
Plastics			
Glass			
Other:			
<b>TOTAL FOR ALL MATERIALS</b>			

- All subcontractors shall comply with the project's Construction Waste Management Plan.
- This project shall generate the least amount of waste possible by planning and ordering carefully, following all proper storage and handling procedures to reduce broken and damaged materials and reusing materials whenever possible. Waste materials shall be sorted on site prior to removal.
- All construction waste removed from the site shall be documented and said documentation shall be provided in an organized format to the enforcement agency in order to verify compliance with the Construction Waste Management Plan.

**NOTE:**

- THE ABOVE FORM WAS FILLED OUT BY THE HOMEOWNER/CONTRACTOR FOR THE PROJECT. THE CONTENT OF THE FORM IS NOT WITHIN THE DESIGN PROFESSIONAL SCOPE OF SERVICES.

**WASTE MATERIAL NOTES:**

- CONSTRUCTION AND DEMOLITION WASTE MATERIALS ARE TO BE DIVERTED FROM DISPOSAL BY RECYCLING.
- WASTE MATERIALS THAT WILL BE RECYCLED WILL BE SORTED ON SITE AND TAKEN TO WASTE MANAGEMENT DUMP SITE LOCATED AT: 1850 AGUA MANSA ROAD RIVERSIDE, CA 92509
- CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED REUSING SALVAGEABLE MATERIAL SUCH AS WINDOWS.

**GENERAL PLAN NOTES:**

- A SEPARATE PERMIT IS REQUIRED FOR SIGNS, ELECTRICAL WORK, MECHANICAL WORK, AND PLUMBING WORK.
- PEDESTRIANS SHALL BE PROTECTED DURING CONSTRUCTION, REMODELING, AND DEMOLITION ACTIVITIES AS REQUIRED BY COUNTY OF LOS ANGELES BUILDING CODE CHAPTER 33.
- ANY TIME A BUILDING OR PORTION OF A BUILDING IS OCCUPIED, THE MEANS OF EGRESS SERVING THE OCCUPIED PORTION SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THAN 1-FOOTCANDLE (11 LUX) AT THE WALKING SURFACE LEVEL.
- EXIT SIGNS SHALL BE INTERNALLY AND EXTERNALLY ILLUMINATED. INTERNALLY ILLUMINATED EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CHAPTER 27. EXTERNALLY INSTALLED EXIT SIGNS SHALL COMPLY WITH THE GRAPHICS AND POWER SOURCE REQUIREMENTS IN SECTION 1013.6.1 AND 1011.6.3, RESPECTIVELY. WHEN THE FACE OF AN EXIT SIGN IS ILLUMINATED FROM AN EXTERNAL SOURCE, IT SHALL HAVE AN INTENSITY OF NOT LESS THAN 5-FOOTCANDLES (54 LUX).
- AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATION EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY COLLECT IN THE SYSTEM.

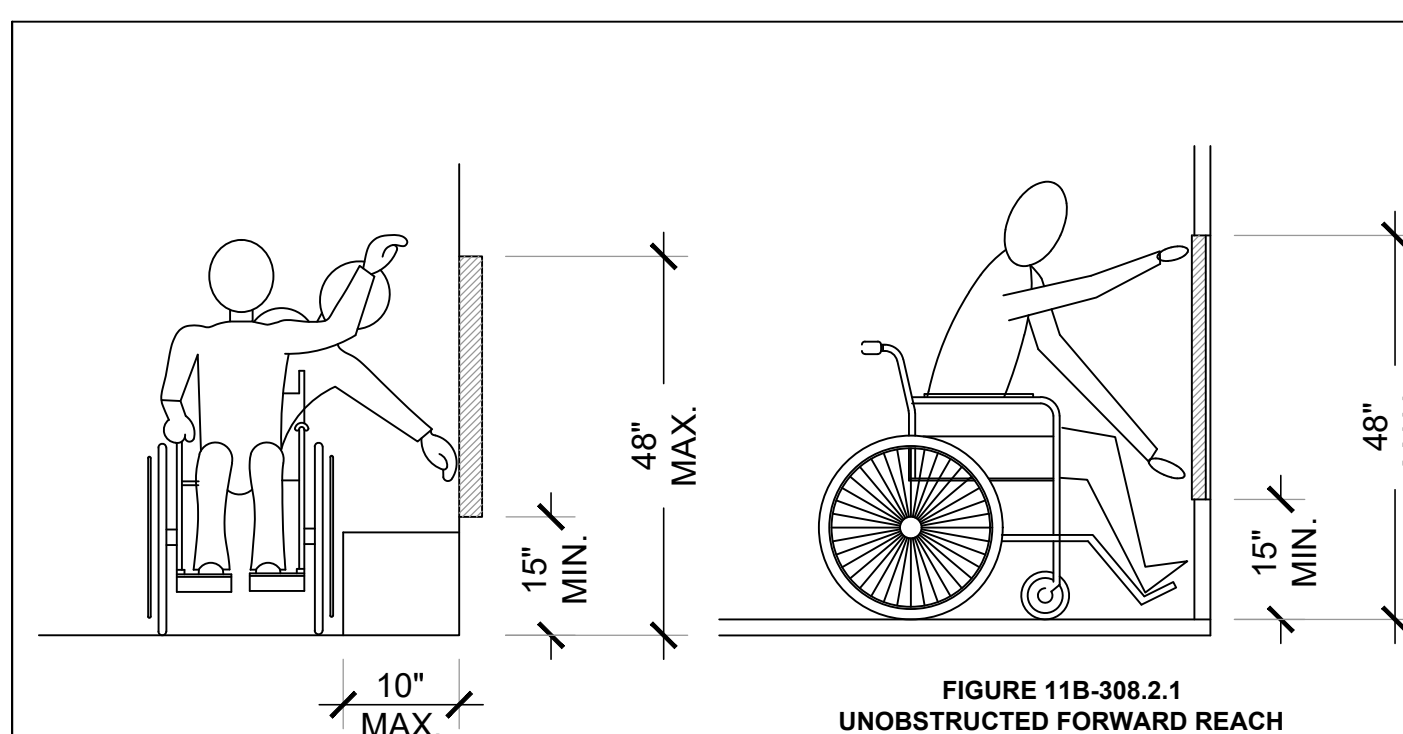
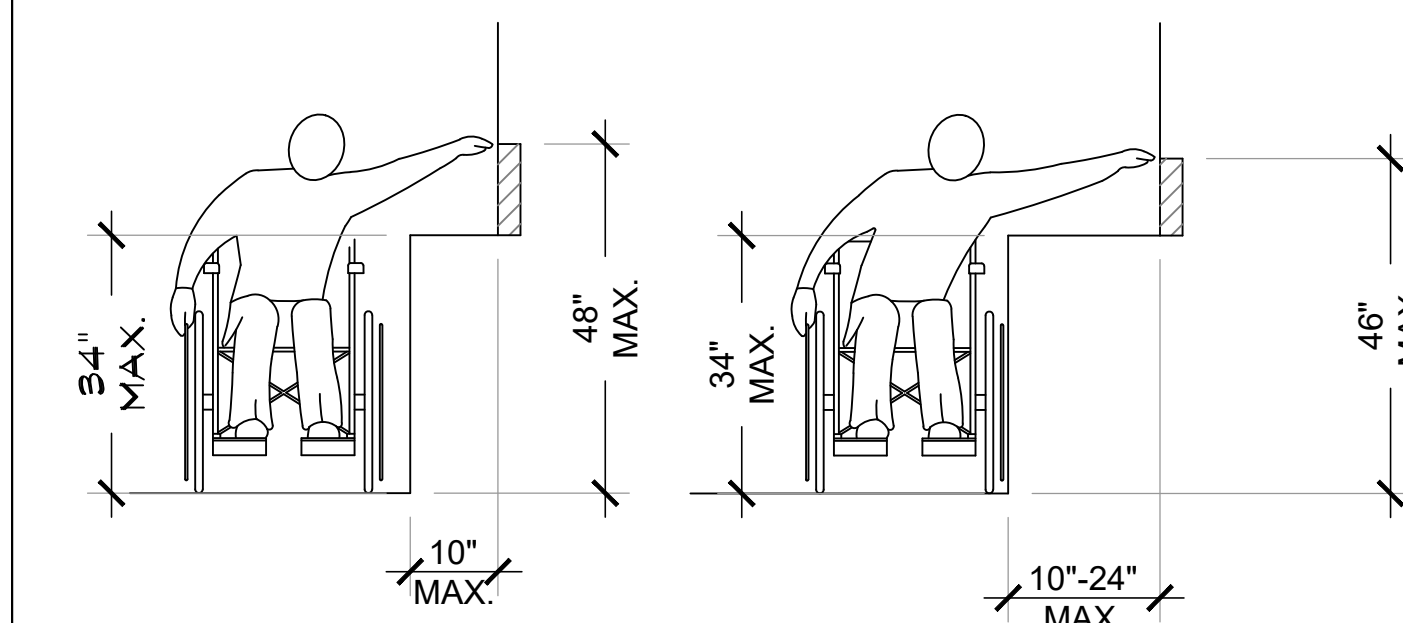
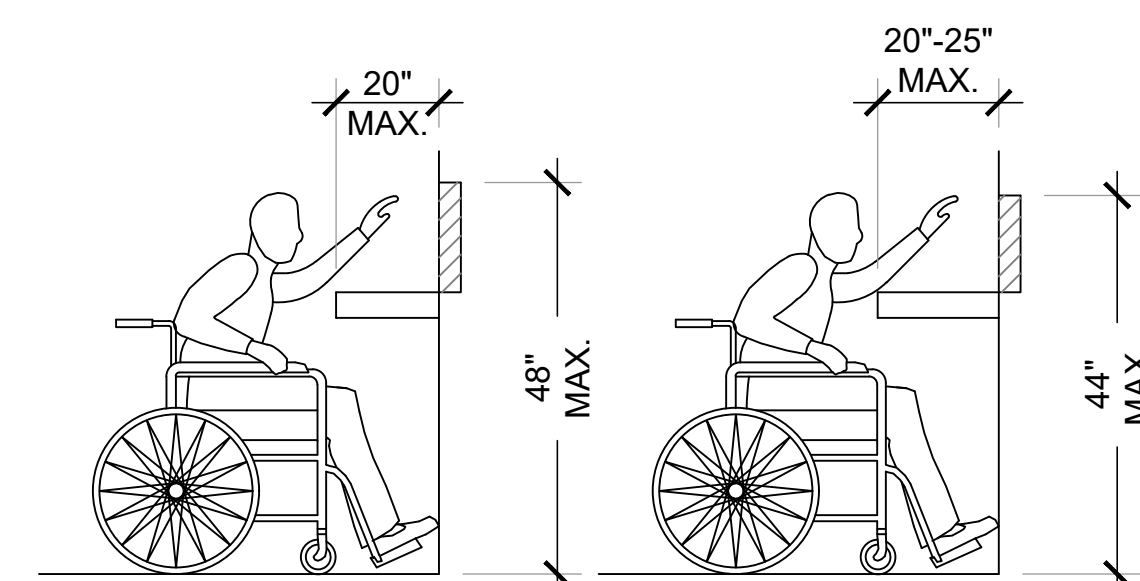


FIGURE 11B-308.3.1 UNOBSTRUCTED SIDE REACH

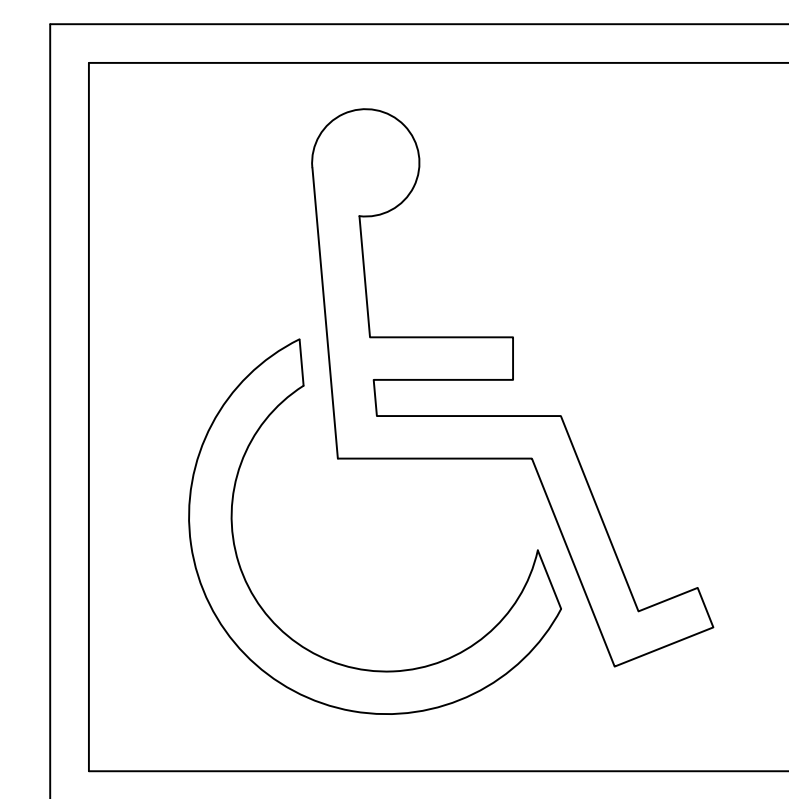
FIGURE 11B-308.2.1 UNOBSTRUCTED FORWARD REACH



11B-308.3.2 OBSTRUCTED HIGH REACH. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES (864 MM) MAXIMUM AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES (610 MM) MAXIMUM. THE HIGH SIDE REACH SHALL BE 48 INCHES (1219 MM) MAXIMUM FOR A REACH DEPTH OF 10 INCHES (254 MM) MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 10 INCHES (254 MM), THE HIGH SIDE REACH SHALL BE 46 INCHES (1168 MM) MAXIMUM FOR A REACH DEPTH OF 24 INCHES (610 MM) MAXIMUM.

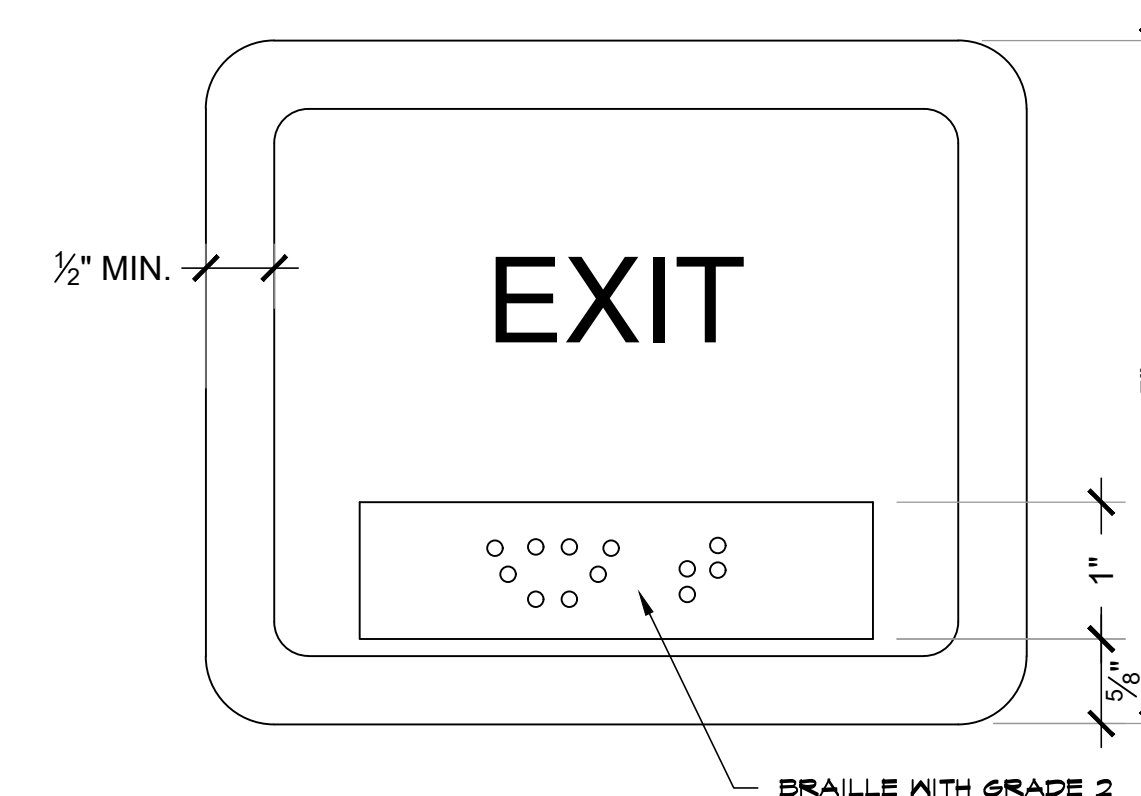


11B-308.2.2 OBSTRUCTED HIGH REACH. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN THE REQUIRED REACH DEPTH OVER THE OBSTRUCTION. THE HIGH FORWARD REACH SHALL BE 48 INCHES (1219 MM) MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES (508 MM) MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 20 INCHES (508 MM), THE HIGH FORWARD REACH SHALL BE 44 INCHES (1118 MM) MAXIMUM AND THE REACH DEPTH SHALL BE 25 INCHES (635 MM) MAXIMUM.



INTERNATIONAL ACCESSIBILITY SYMBOL

B



EXIT SIGN

A

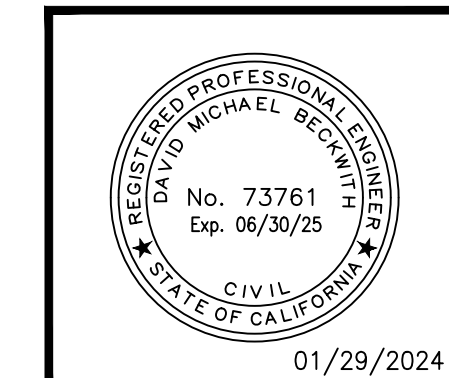
REACH RANGE

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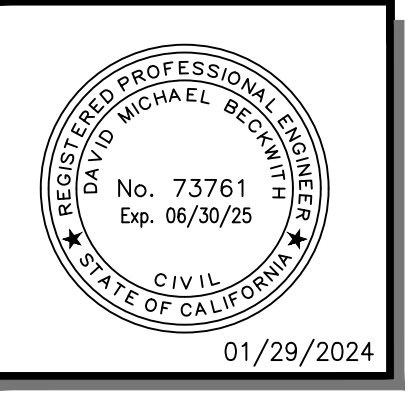
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SHEET TITLE  
**BUILDING D**  
**FLOOR PLANS**






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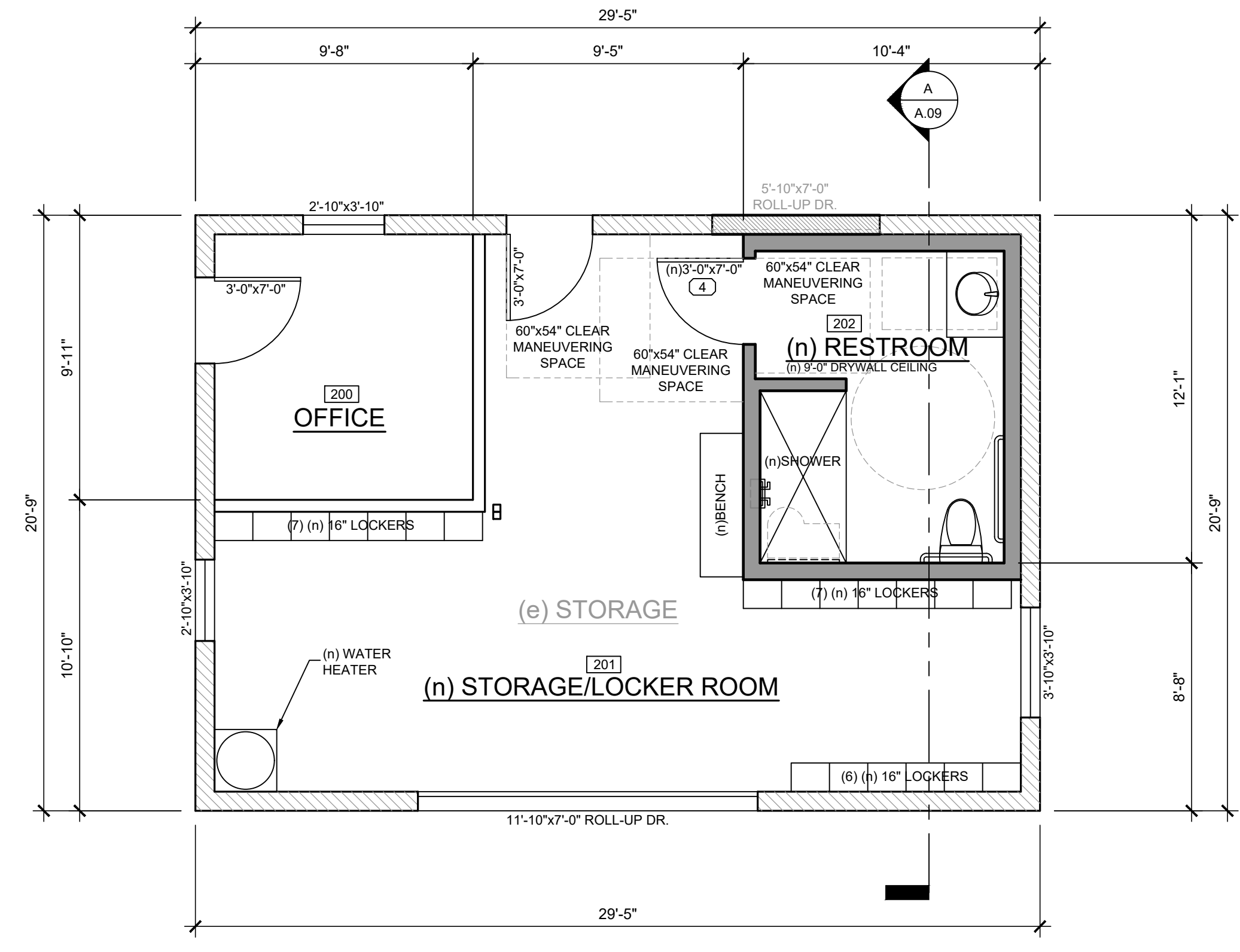
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**NOTES**

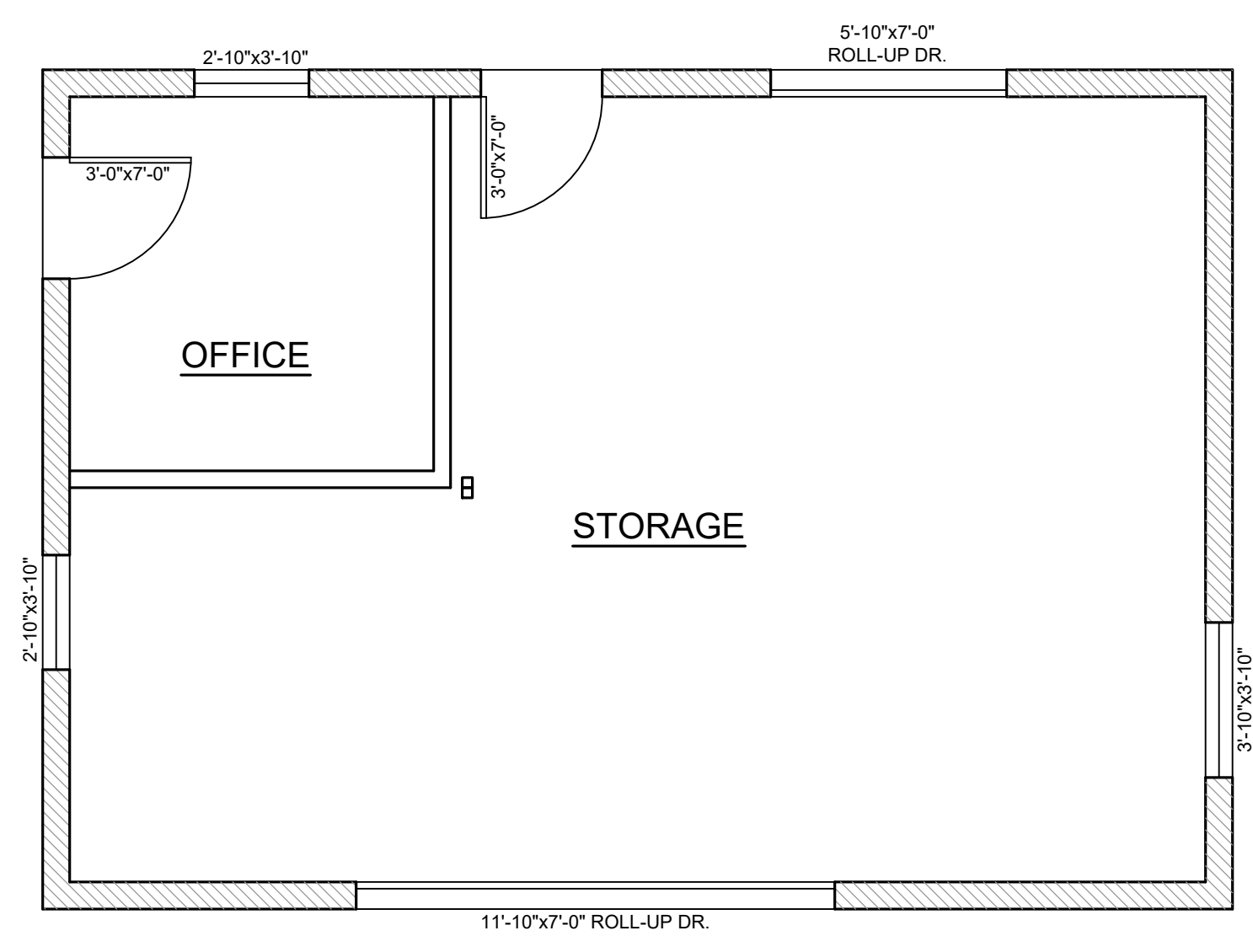
- GENERAL FLOOR PLAN NOTES:
- ALL EXTERIOR DOORS SHALL BE WEATHER STRIPPED.
  - ALL NEW GLAZING SHALL BE INSTALLED WITH A CERTIFYING LABEL ATTACHED SHOWING THE 'U' VALUE AND HAVE A LABEL ATTACHED CERTIFIED BY THE NATIONAL FENESTRATION RATING COUNCIL (NFR) SHOWING COMPLIANCE WITH THE ENERGY CALCULATIONS AND SHALL BE DUAL PANELED.
  - APPROVAL OF THESE PLANS BY THE BUILDING DEPARTMENT DOES NOT INCLUDE APPROVAL FOR ANY TYPE OF ALARM SYSTEM THAT MAY BE SHOWN OR REQUIRED. SEPARATE APPROVALS FOR ANY ALARM SYSTEMS MUST BE OBTAINED.
  - A MIN. OF 22"x30" ATTIC ACCESS MUST BE PROVIDED.
  - ALL WINDOWS AND GLASS DOORS SHALL HAVE A U-FACTOR AND SHGC PER ENERGY CALCULATIONS.
  - EACH PANE OF SAFETY GLAZING INSTALLED IN HAZARDOUS LOCATIONS SHALL BE IDENTIFIED BY A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, THE MANUFACTURER OR INSTALLER AND THE SAFETY-GLAZING STANDARD. THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PROPOSED SAFETY GLAZING. GLAZING IN:
    - GLAZING IN ALL FIXED AND OPERABLE PANELS OR SWINGING AND BI-FOLD DOORS.
    - FIXED OR OPERABLE PANELS ADJACENT TO DOOR WHERE THE NEAREST VERTICAL EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
    - FIXED OR OPERABLE PANEL WHICH MEETS ALL OF THE FOLLOWING CONDITIONS
      - EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ.FT.
      - EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR.
      - EXPOSED TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR.
      - ONE OR MORE WALKING SURFACES WITHIN 36 INCHES, MEASURES HORIZONTALLY IN A STRAIGHT LINE, OF THE PANE OF GLAZING.

**WALL LEGEND**

-  EXISTING CMU WALL TO REMAIN
-  NEW CMU WALL
-  EXISTING 2x WALL TO REMAIN
-  NEW 2x WALL
-  EXISTING WALL TO BE REMOVED

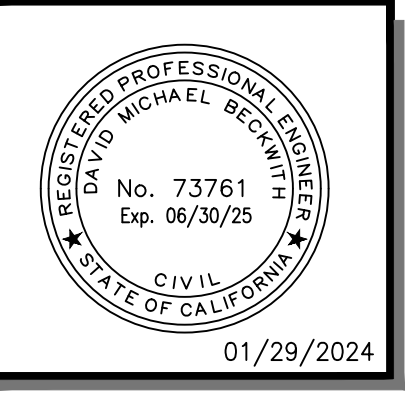


**PROPOSED FLOOR PLAN**  
 SCALE: 1/4"=1'-0"



**AS-BUILT FLOOR PLAN**  
 SCALE: 1/4"=1'-0"

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SHEET TITLE  
**PROPOSED BUILDING FLOOR PLANS**



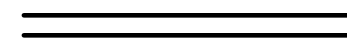


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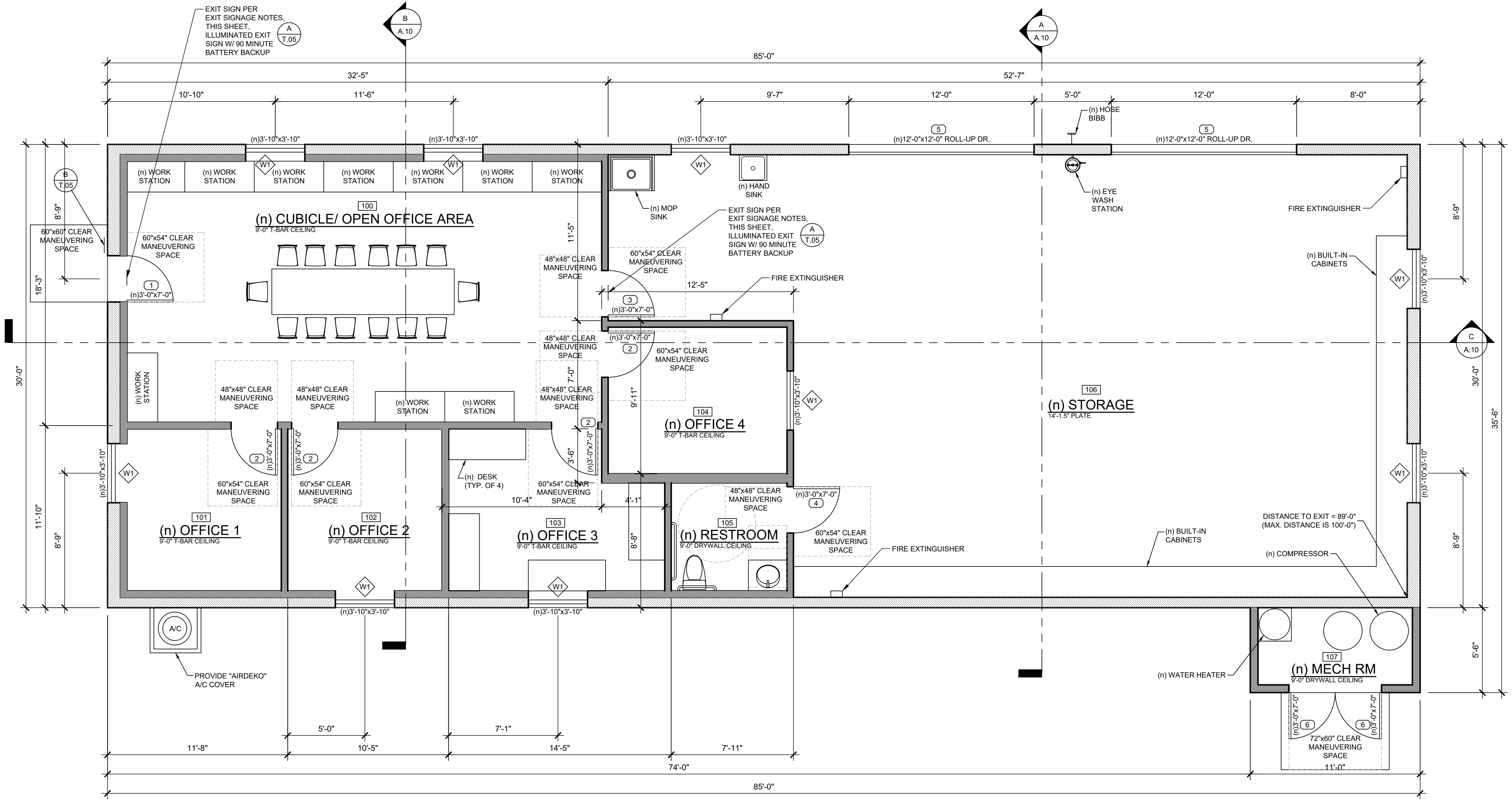
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**NOTES**

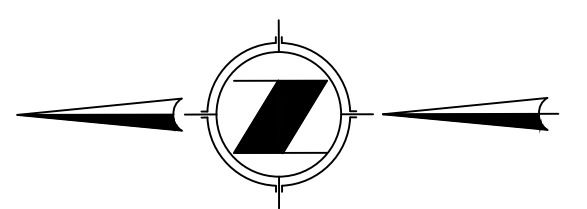
- GENERAL FLOOR PLAN NOTES:
- ALL EXTERIOR DOORS SHALL BE WEATHER STRIPPED.
  - ALL NEW GLAZING SHALL BE INSTALLED WITH A CERTIFYING LABEL ATTACHED SHOWING THE 'U' VALUE AND HAVE A LABEL ATTACHED CERTIFIED BY THE NATIONAL FENESTRATION RATING COUNCIL (NFRC) SHOWING COMPLIANCE WITH THE ENERGY CALCULATIONS AND SHALL BE DUAL PANELED.
  - APPROVAL OF THESE PLANS BY THE BUILDING DEPARTMENT DOES NOT INCLUDE APPROVAL FOR ANY TYPE OF ALARM SYSTEM THAT MAY BE SHOWN OR REQUIRED. SEPARATE APPROVALS FOR ANY ALARM SYSTEMS MUST BE OBTAINED.
  - A MIN. OF 22"x30" ATTIC ACCESS MUST BE PROVIDED.
  - ALL WINDOWS AND GLASS DOORS SHALL HAVE A U-FACTOR AND SHGC PER ENERGY CALCULATIONS.
  - EACH PANE OF SAFETY GLAZING INSTALLED IN HAZARDOUS LOCATIONS SHALL BE IDENTIFIED BY A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, THE MANUFACTURER OR INSTALLER AND THE SAFETY-GLAZING STANDARD. THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PROPOSED SAFETY GLAZING. GLAZING IN:
    - GLAZING IN ALL FIXED AND OPERABLE PANELS OR SWINGING AND BI-FOLD DOORS.
    - FIXED OR OPERABLE PANELS ADJACENT TO DOOR WHERE THE NEAREST VERTICAL EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
    - FIXED OR OPERABLE PANEL WHICH MEETS ALL OF THE FOLLOWING CONDITIONS
      - EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ.FT.
      - EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR.
      - EXPOSED TOP EDGE GREATER THAN 38 INCHES ABOVE THE FLOOR.
      - ONE OR MORE WALKING SURFACES WITHIN 36 INCHES, MEASURES HORIZONTALLY IN A STRAIGHT LINE, OF THE PANE OF GLAZING.

**WALL LEGEND**

-  EXISTING CMU WALL TO REMAIN
-  NEW CMU WALL
-  EXISTING 2x WALL TO REMAIN
-  NEW 2x WALL
-  EXISTING WALL TO BE REMOVED



**PROPOSED FLOOR PLAN**  
 SCALE: 1/4"=1'-0"



NOTES

1. EXTERIOR FINISH TO BE STUCCO, LAP SIDING, BOARD AND BATTEN SIDING OR HORIZONTAL RECLAIMED WOOD SIDING WHERE OCCURS (COLOR TO MATCH EXISTING BUILDING)
2. PROVIDE FLASHING AT ALL EXTERIOR DOOR, WINDOWS, AND OTHER EXTERIOR OPENINGS
3. ALL EXTERIOR DOORS AND SIDING RIM SHALL BE MATCH EXISTING BUILDING COLOR

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CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

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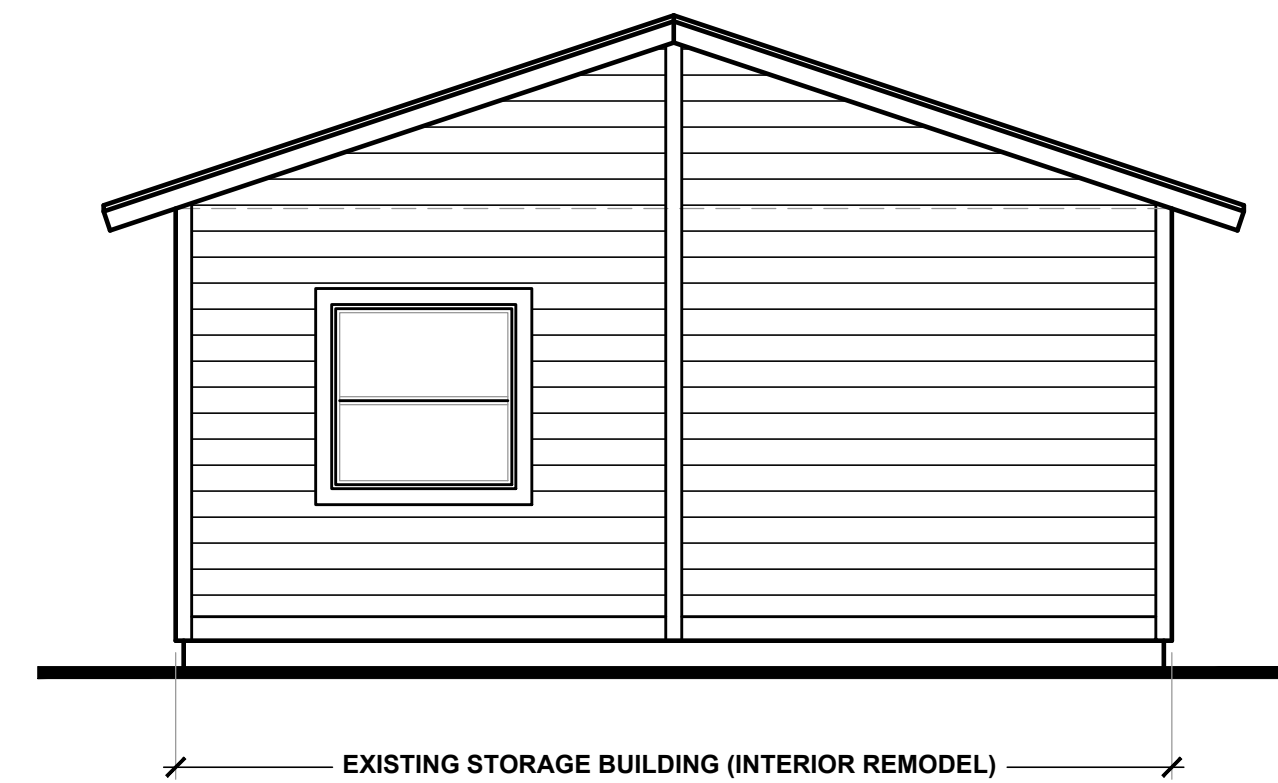


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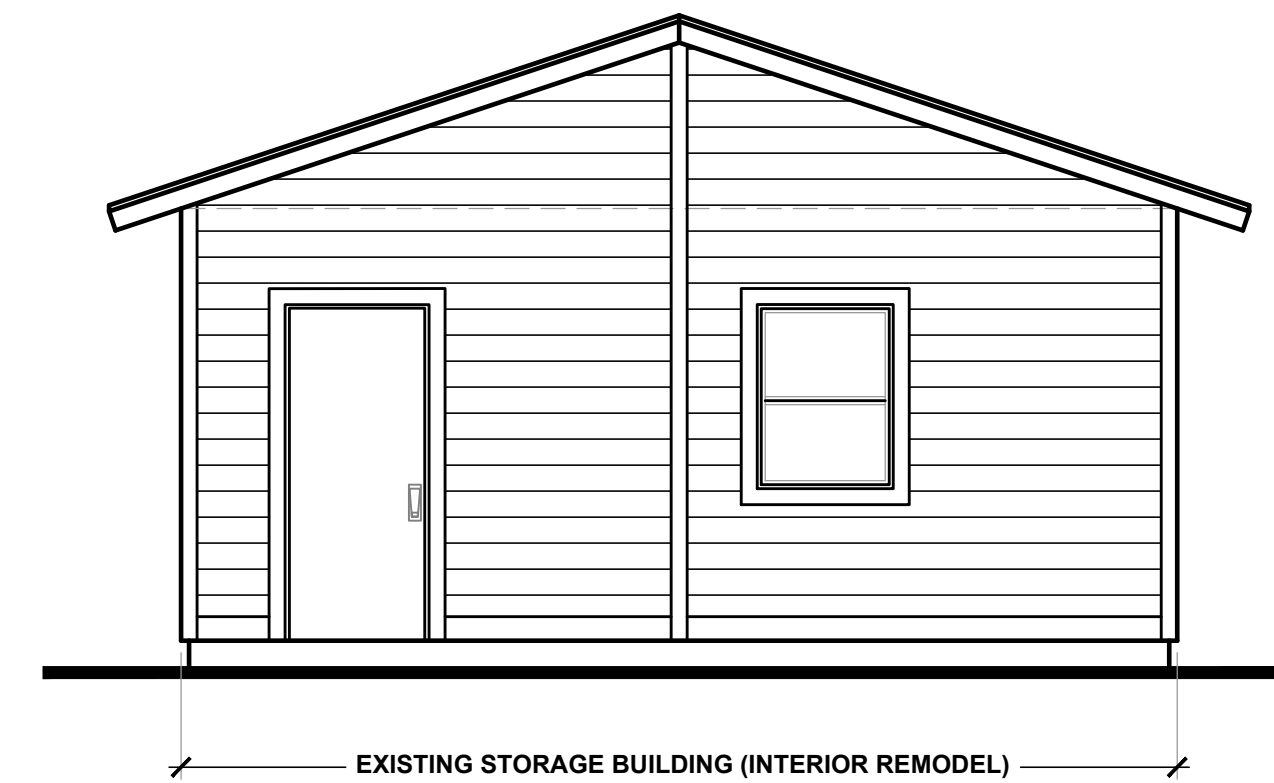
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JOB NO.	2023-29

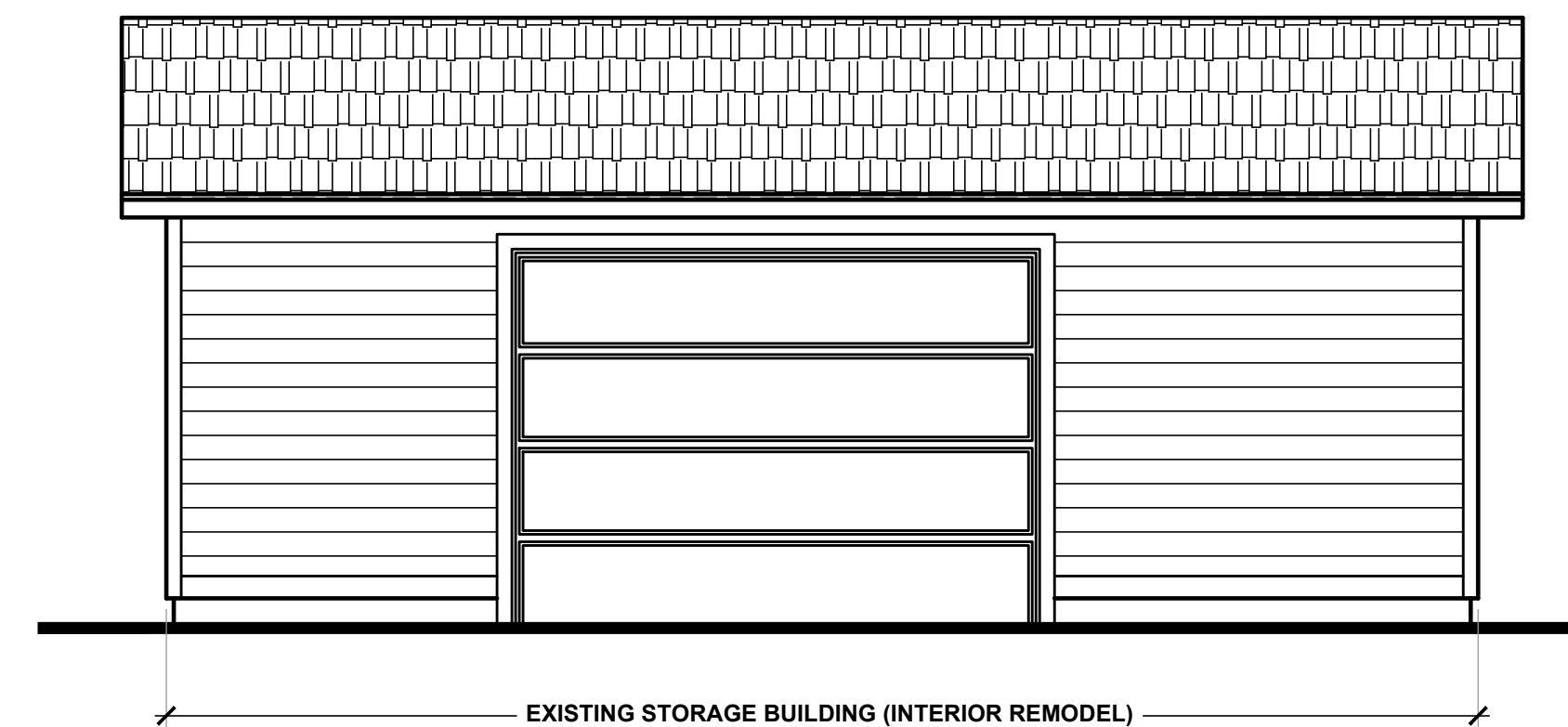
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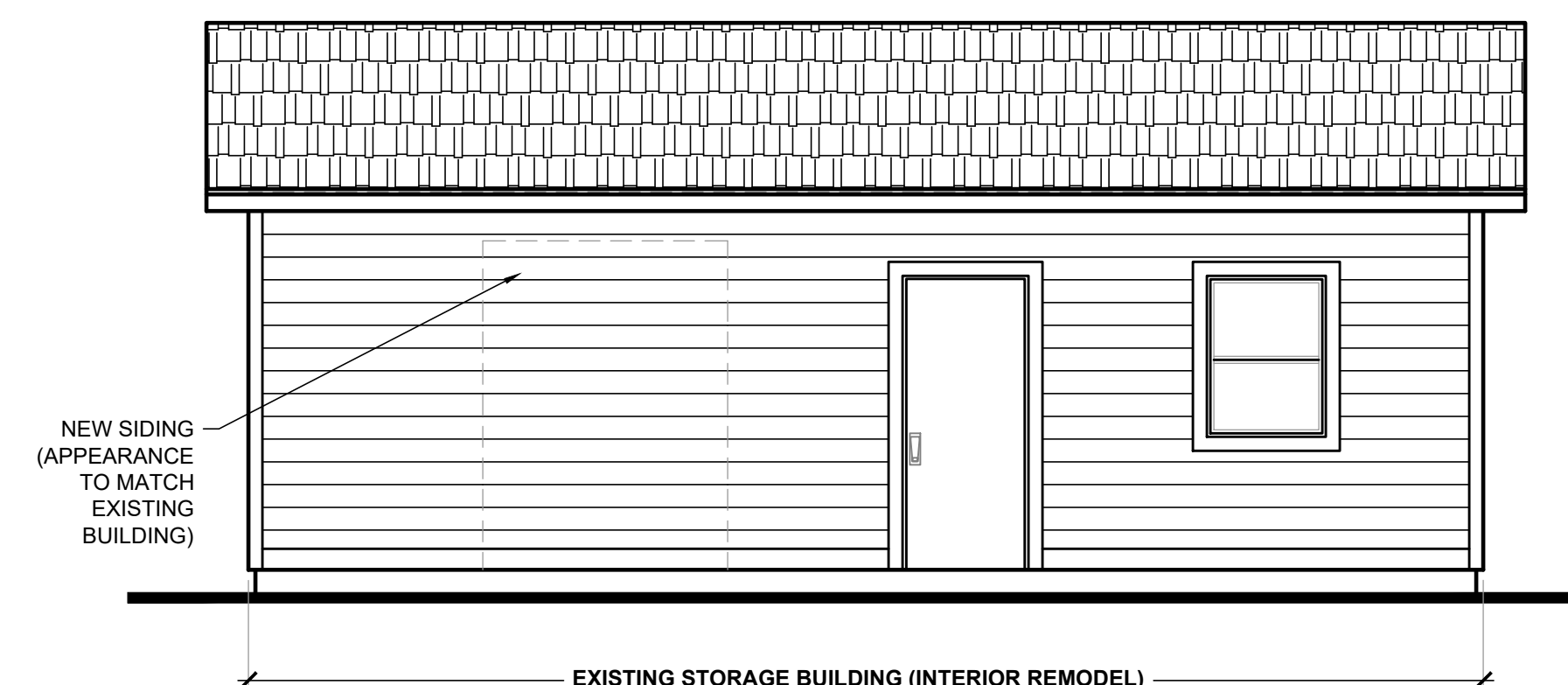
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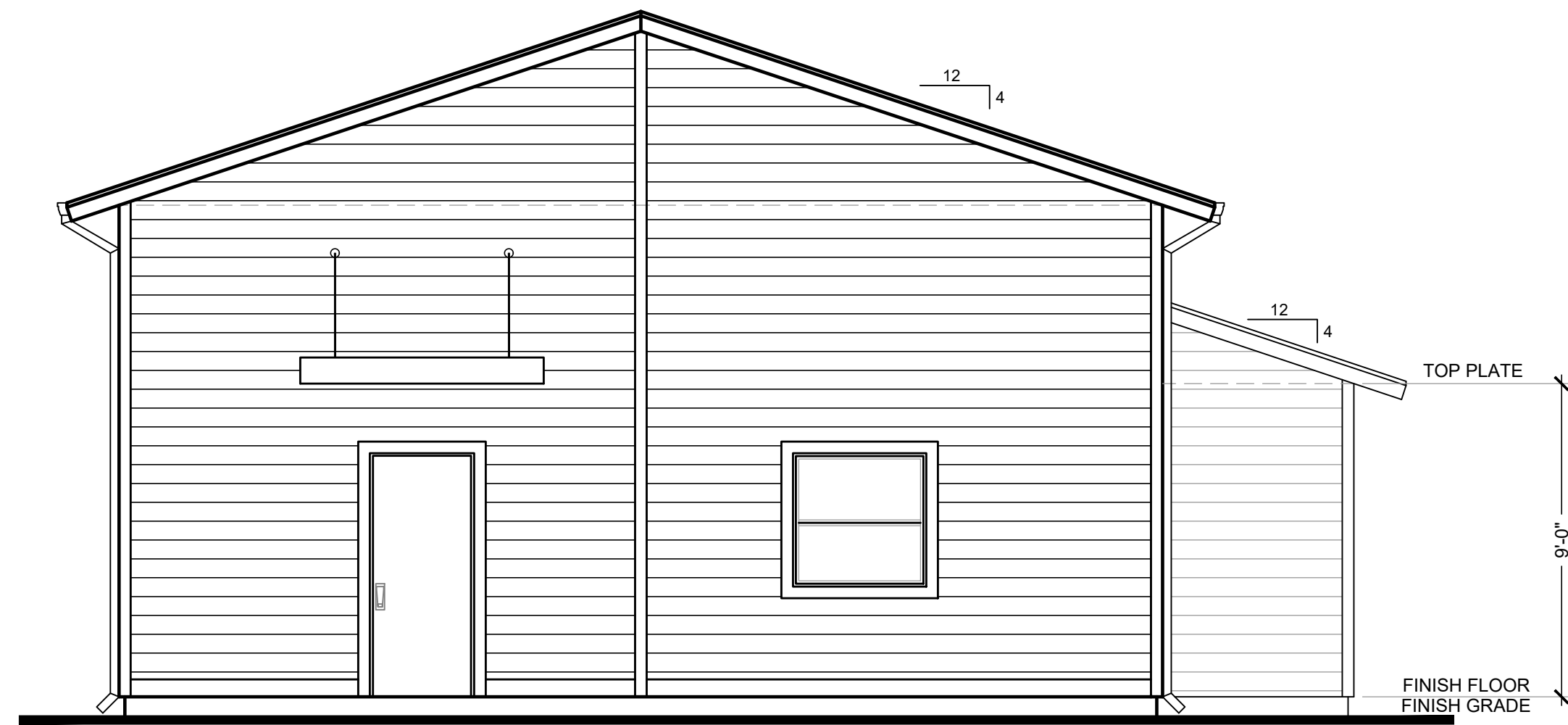
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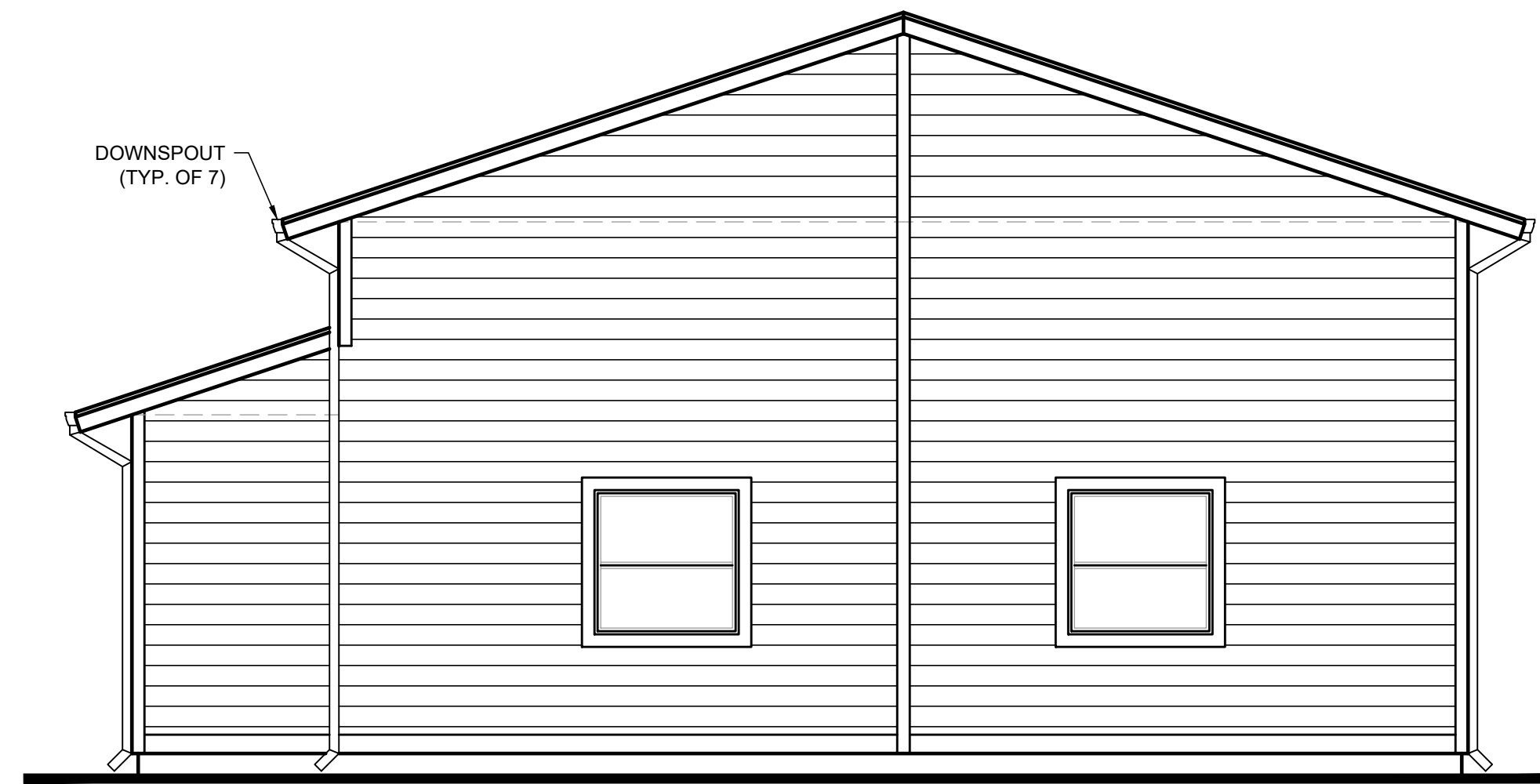
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**SOUTH ELEVATION**  
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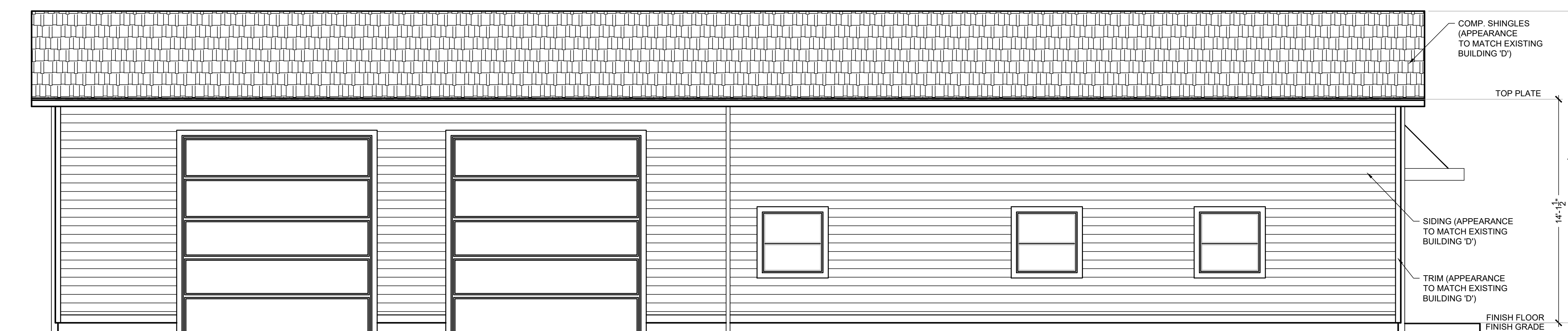
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SCALE: 1/4"=1'-0"



**SOUTHWEST ELEVATION**  
SCALE: 1/4"=1'-0"



**NORTHWEST ELEVATION**  
SCALE: 1/4"=1'-0"



**SOUTHEAST ELEVATION**  
SCALE: 1/4"=1'-0"

**NOTES**

1. EXTERIOR FINISH TO BE STUCCO, LAP SIDING, BOARD AND BATTEN SIDING OR HORIZONTAL RECLAIMED WOOD SIDING WHERE OCCURS (COLOR TO MATCH EXISTING BUILDING 'D')
2. PROVIDE FLASHING AT ALL EXTERIOR DOOR, WINDOWS, AND OTHER EXTERIOR OPENINGS
3. ALL EXTERIOR DOORS AND SIDING RIM SHALL BE MATCH EXISTING BUILDING 'D' COLORS

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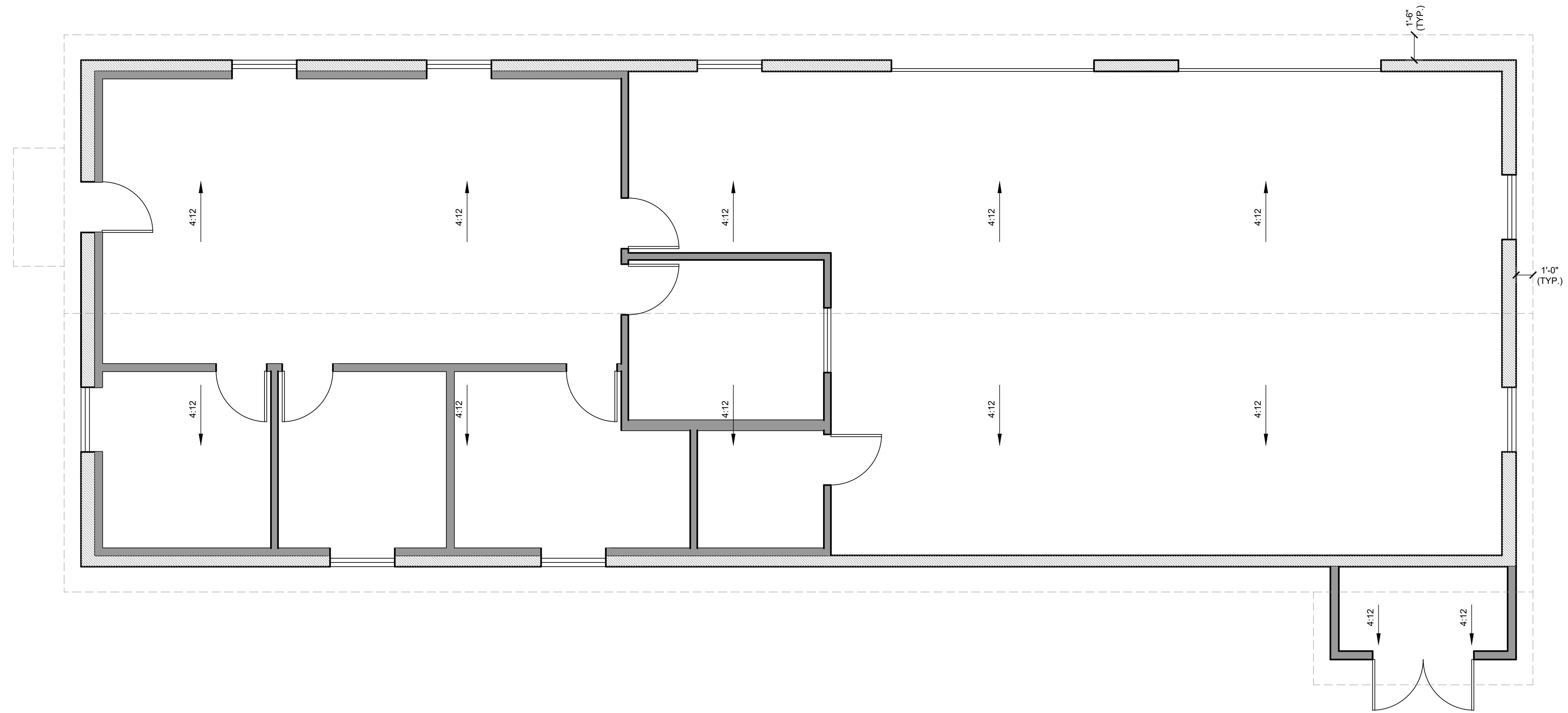
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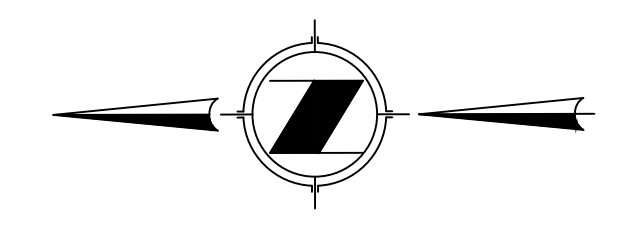
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**ROOF PLAN**  
SCALE: 1/4"=1'-0"



**NOTES**

1. ROOFING OVER HANG DIMENSIONS ARE FACE OF WALL TO FACE OF FASCIA TYP.
2. ROOF PENETRATIONS SHALL BE KEPT TO A MINIMUM. VERIFY LOCATIONS IN FIELD PRIOR TO INSTALLATION.
3. ALL VENT CAPS SHALL BE DECORATIVE. SEE MECHANICAL PLANS AND SPECIFICATIONS.

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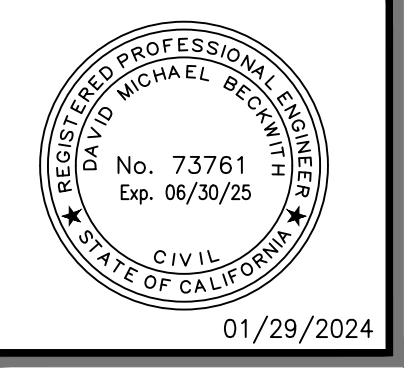
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SHEET TITLE  
**PROPOSED  
BUILDING ROOF  
PLAN**

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**RESTROOM ENLARGEMENTS**

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NOTE:  
 DOORWAYS LEADING TO SANITARY FACILITIES SHALL BE IDENTIFIED, PER SECTION 11B-703.7.2.6, AS FOLLOWS:  
 a. A 12" DIAMETER CIRCLE WITH A TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12" DIAMETER AT UNISEX REST ROOMS.  
 b. THE REQUIRED SYMBOLS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 58"-60".  
 c. BRAILLE SIGNAGE SHALL ALSO BE LOCATED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOORWAYS LEADING TO THE SANITARY FACILITIES.

GRAB BAR NOTES:

- GRAB BARS ARE INSTALLED IN A HORIZONTAL POSITION, 33" MIN. AND 36" MAX. ABOVE THE FINISH FLOOR, MEASURED TO THE TOP OF THE GRIPPING SURFACE, EXCEPT THAT AT WATER CLOSETS FOR CHILDREN'S USE, GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION 18" MIN. AND 27" MAX ABOVE THE FINISH FLOOR TO THE TOP OF THE GRIPPING SURFACE.
- DIAMETER OR WIDTH OF GRIPPING SURFACE IS REQUIRED TO BE 1-1/4" TO 1-1/2" WIDE, OR SHAPE IS TO AN EQUIVALENT GRIPPING SURFACE.
- THE SPACE BETWEEN WALL AND GRAB BARS IS TO BE 1-1/2".
- THE SPACE BETWEEN GRAB BARS AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 12" MIN.
- THE SPACE BETWEEN GRAB BARS AND PROJECTING OBJECTS ABOVE SHALL BE 12" MIN.
- THE SPACE BETWEEN THE GRAB BARS AND SHOWER CONTROLS, SHOWER FITTINGS, AND OTHER GRAB BARS ABOVE SHALL BE PERMITTED TO BE 1-1/2" MIN.
- FOR L-SHAPED AND U-SHAPED GRAB BARS, THE SPACE BETWEEN THE WALLS AND THE GRAB BAR SHALL BE 1-1/2" MIN. FOR A DISTANCE OF 6" ON EITHER SIDE OF THE INSIDE CORNER BETWEEN TWO ADJACENT WALL SURFACES.
- GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS. GRAB BARS AND ANY WALL OR OTHER SURFACES ADJACENT TO THE GRAB BARS IS FREE OF ANY SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.
- GRAB BARS SHALL BE INSTALLED IN ANY MANNER THAT PROVIDES A GRIPPING SURFACE AT THE SPECIFIED LOCATIONS AND THAT DOES NOT OBSTRUCT THE REQUIRED CLEAR FLOOR SPACE.
- ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250LBS. IS APPLIED TO ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.
- PROVIDE SOLID BLOCKING IN WALLS BEHIND ALL GRAB BAR FASTENERS.

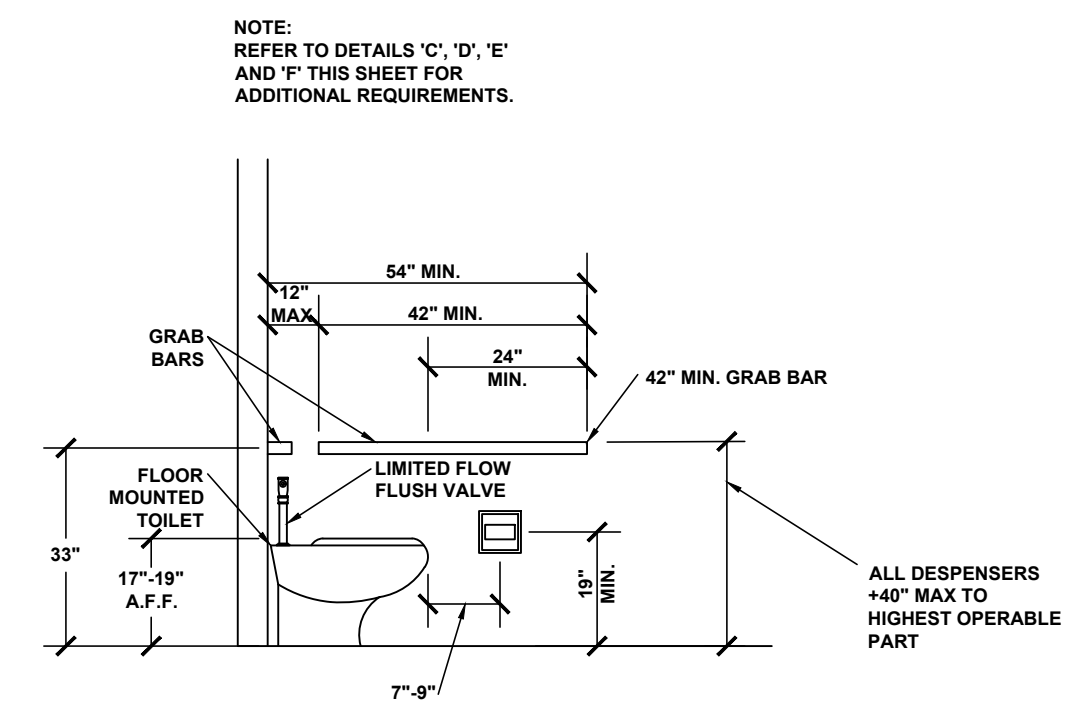
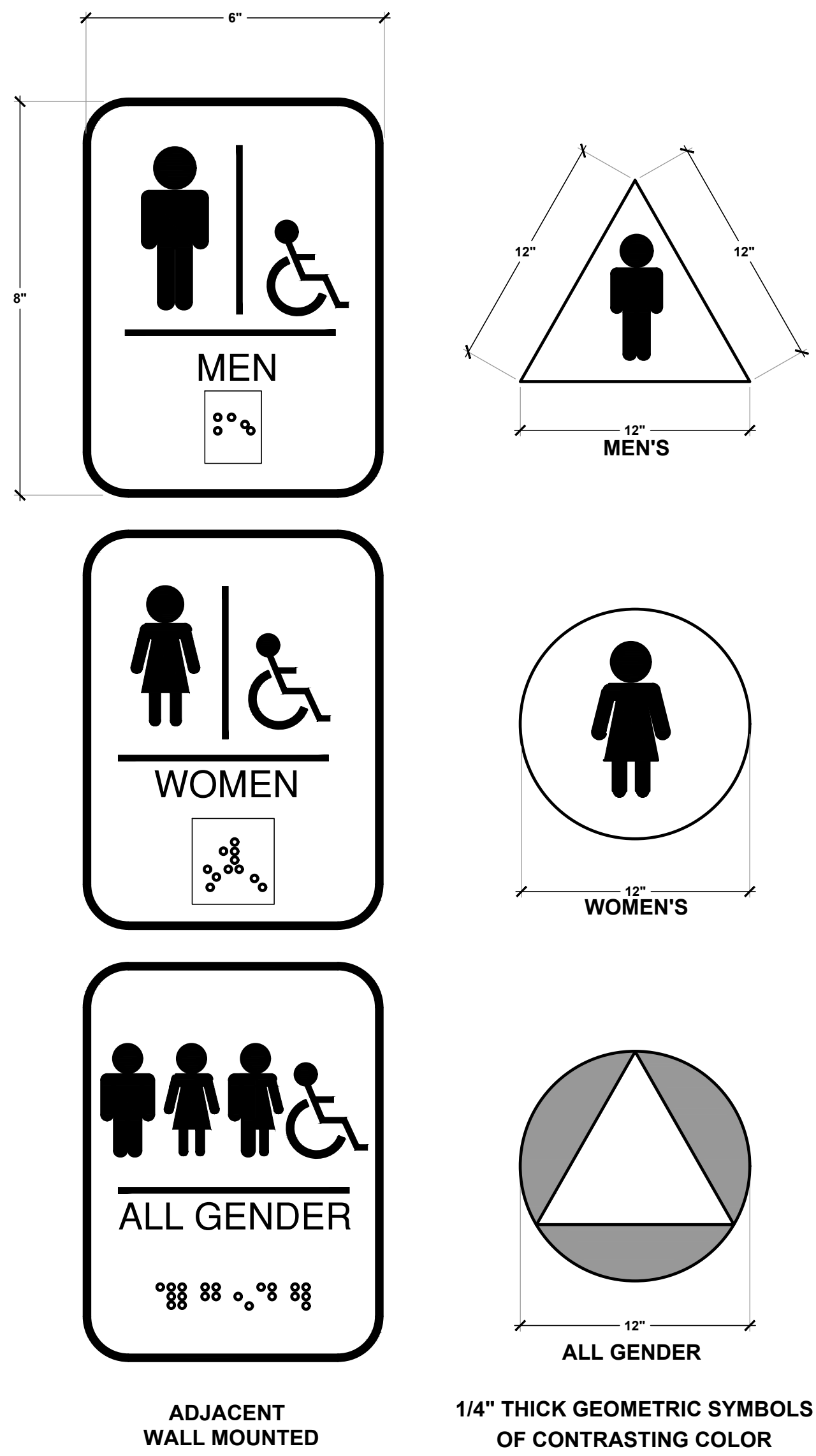
GENERAL NOTES:

- A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH SECTION 10 "CLEAR FLOOR OR GROUND SPACE", POSITIONED FOR FORWARD APPROACH, SHALL BE PROVIDED.
- FLUSH CONTROLS ARE HAND-OPERATED OR AUTOMATIC.
- HAND-OPERATED FLUSH CONTROLS ARE LOCATED 44" MAX. ABOVE THE FLOOR.
  - HAND-OPERATED CONTROLS ARE OPERABLE WITH ONE HAND AND NO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
  - 5lbs. MAX. FORCE IS REQUIRED TO OPERATE THE HAND-OPERATED FLUSH CONTROLS.
  - WHERE LAVATORIES ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE LAVATORY, SHALL BE ACCESSIBLE AND NOT BE LOCATED IN A TOILET COMPARTMENT.
  - WHERE SINKS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM SHALL BE ACCESSIBLE.
    - MOP SERVICE OR SCULLERY SINKS SHALL NOT BE REQUIRED TO COMPLY.
    - SCRUB SINKS, AS DEFINED IN CALIFORNIA PLUMBING CODE SECTION 221.0, SHALL NOT BE REQUIRED TO COMPLY.
- A CLEAR FLOOR SPACE COMPLYING WITH SECTION 10, "CLEAR FLOOR OR GROUND SPACE" POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCE, COMPLYING WITH SECTION 11, "KNEE AND TOE CLEARANCE", SHALL BE PROVIDED.
  - A PARALLEL APPROACH THAT COMPLIES WITH SECTION 10, "CLEAR FLOOR OR GROUND SPACE" SHALL BE PERMITTED TO A KITCHEN SINK IN A SPACE WHERE A COOK TOP OR CONVENTIONAL RANGE IS NOT PROVIDED AND TO WET BARS.
  - A KNEE CLEARANCE OF 24" MIN. ABOVE THE FINISH FLOOR OR GROUND SHALL BE PERMITTED IN LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN 6 THOUGH 12 YEARS WHERE THE RIM OR COUNTER SURFACE IS 31" MAX. ABOVE THE FINISH FLOOR OR GROUND.
  - THE DIP OF THE OVERFLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCES.
  - NO MORE THAN ONE BOWL OF A MULTI-BOWL SINK SHALL BE REQUIRED TO PROVIDE ACCESSIBLE KNEE AND TOE CLEARANCE.
  - LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34" MAX. ABOVE THE FINISH FLOOR OR GROUND.
  - HAND-OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MIN.
    - CONTROLS FOR FAUCETS ARE OPERABLE WITH ONE HAND AND DO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS IS NO GREATER THAN 5lbs. MAX. HAND-OPERATED CONTROLS FOR FAUCETS SHALL BE LOCATED WITHIN ACCESSIBLE REACH RANGES.
- WATER SUPPLY AND DRAIN PIPED UNDER LAVATORIES AND SINKS SHALL BE INSTALLED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

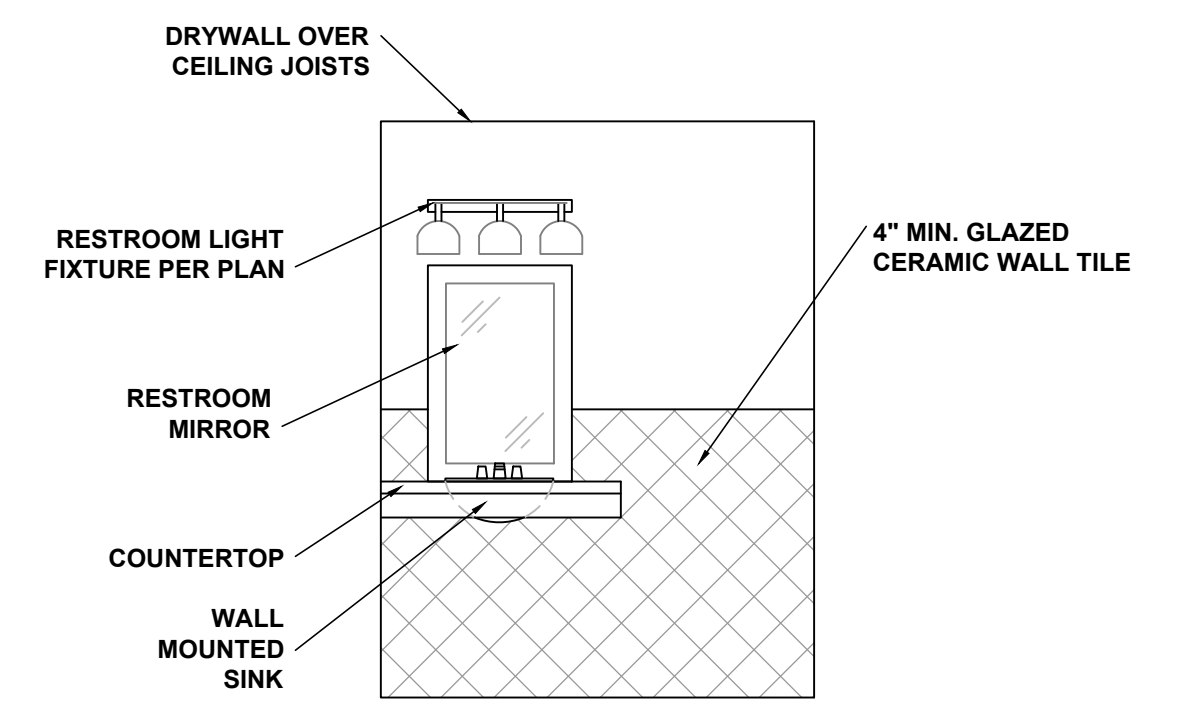
RESTROOMS:

- THE FLOORS, WALLS AND CEILINGS SHALL HAVE SURFACES THAT ARE SMOOTH, NONABSORBENT, AND EASILY CLEANABLE.
- HAND WASHING SINKS SHALL BE PROVIDED WITHIN THE TOILET ROOMS. THE HAND-WASHING SINKS SHALL BE PROVIDED WITH HOT AND COLD RUNNING WATER FROM A MIXING TYPE FAUCET. SOAP AND SANITARY TOWELS IN SINGLE-SERVICE, PERMANENTLY INSTALLED DISPENSERS, OR HOT AIR BLOWERS SHALL BE PROVIDED AT THE HAND WASHING SINKS.
- TOILET TISSUE SHALL BE PROVIDED IN A PERMANENTLY INSTALLED DISPENSER AT EACH TOILET.
- THE RESTROOMS SHALL BE PROVIDED WITH TIGHT-FITTING SELF-CLOSING DOORS.
- ALL TOILET ROOMS SHALL BE PROVIDED WITH VENTILATION APPROVED BY HEALTH DEPARTMENT (DEH). IF ADEQUATE VENTILATION CANNOT BE PROVIDED BY AN OPENABLE, SCREENED WINDOW, MECHANICAL VENTILATION WILL BE REQUIRED.

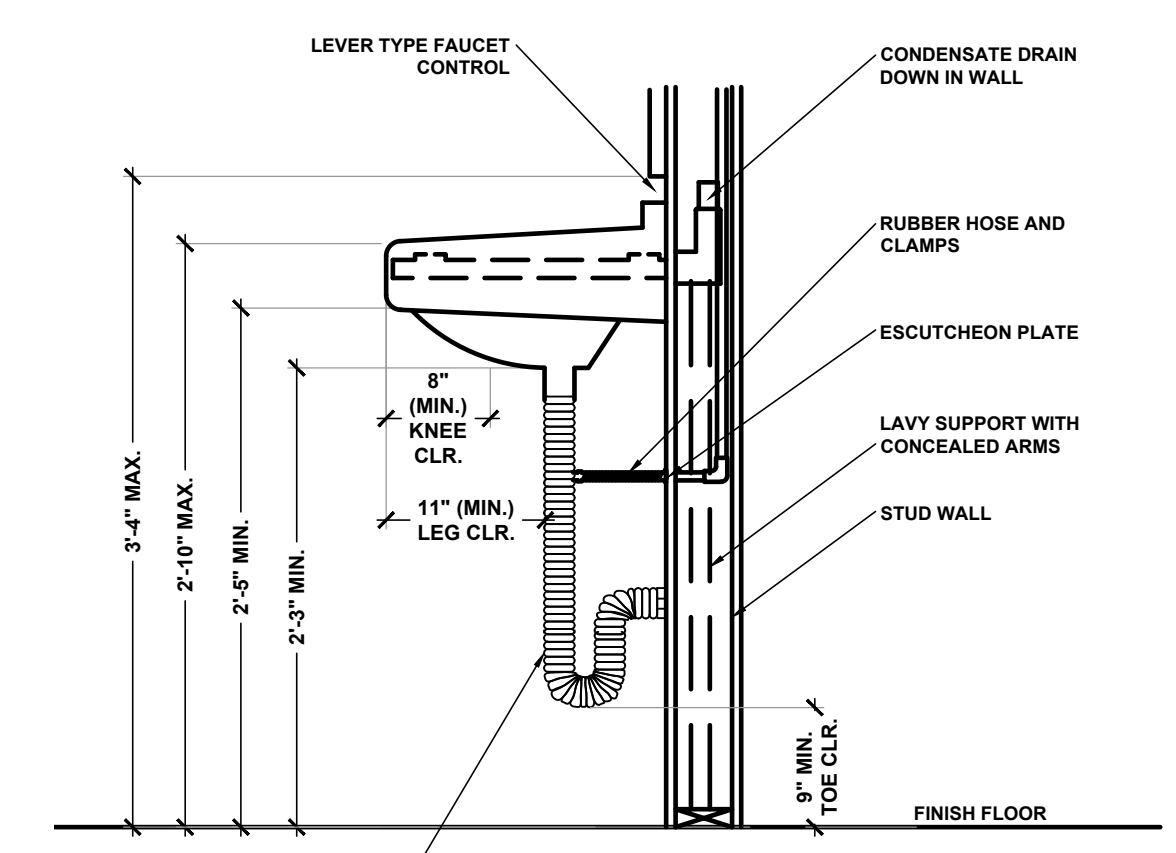
TOILET ROOM SIGNAGE NOTES:  
 1. SYMBOLS SHALL BE CENTERED ON THE DOOR AT 58"-60" ABOVE FINISH FLOOR, AND TO BE DISTINCTLY DIFFERENT FROM THE DOOR IN COLOR CONTRAST.  
 2. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.  
 3. CHARACTERS AND SYMBOLS TO BE CONTRASTING WITH THEIR BACKGROUND.  
 4. IDENTIFICATION PLATES TO BE 1/4" THICK AND 12" DIAMETER FOR THE WOMEN'S, AND 12" LONG ON 3-SIDES OF THE TRIANGLE FOR MEN'S. A 12" DIAMETER CIRCLE WITH A TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12" DIAMETER AT UNISEX RESTROOMS.  
 5. ADJACENT WALL MOUNTED SIGNS SHALL BE LOCATED ON THE LATCH SIDE OF THE DOOR CLEAR OF DOOR SWING. MOUNTED AT 60" TO CENTERLINE OF SIGN FROM FLOOR.  
 6. SIGNAGE HEIGHT LETTERING TO BE 5/8" INCH MINIMUM TO 2 INCHES MAXIMUM IN HEIGHT.  
 7. BRAILLE SIGNAGE SHALL ALSO BE LOCATED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOORWAYS LEADING TO THE SANITARY FACILITIES.



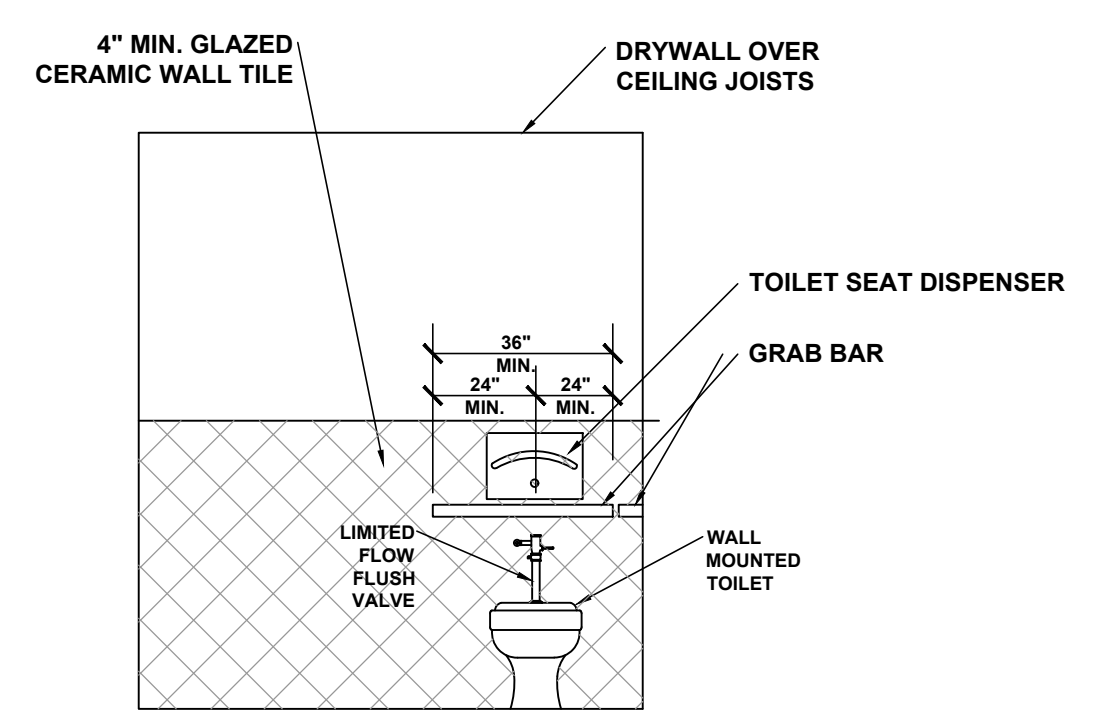
**TOILET ELEVATION**  
 SCALE: NONE



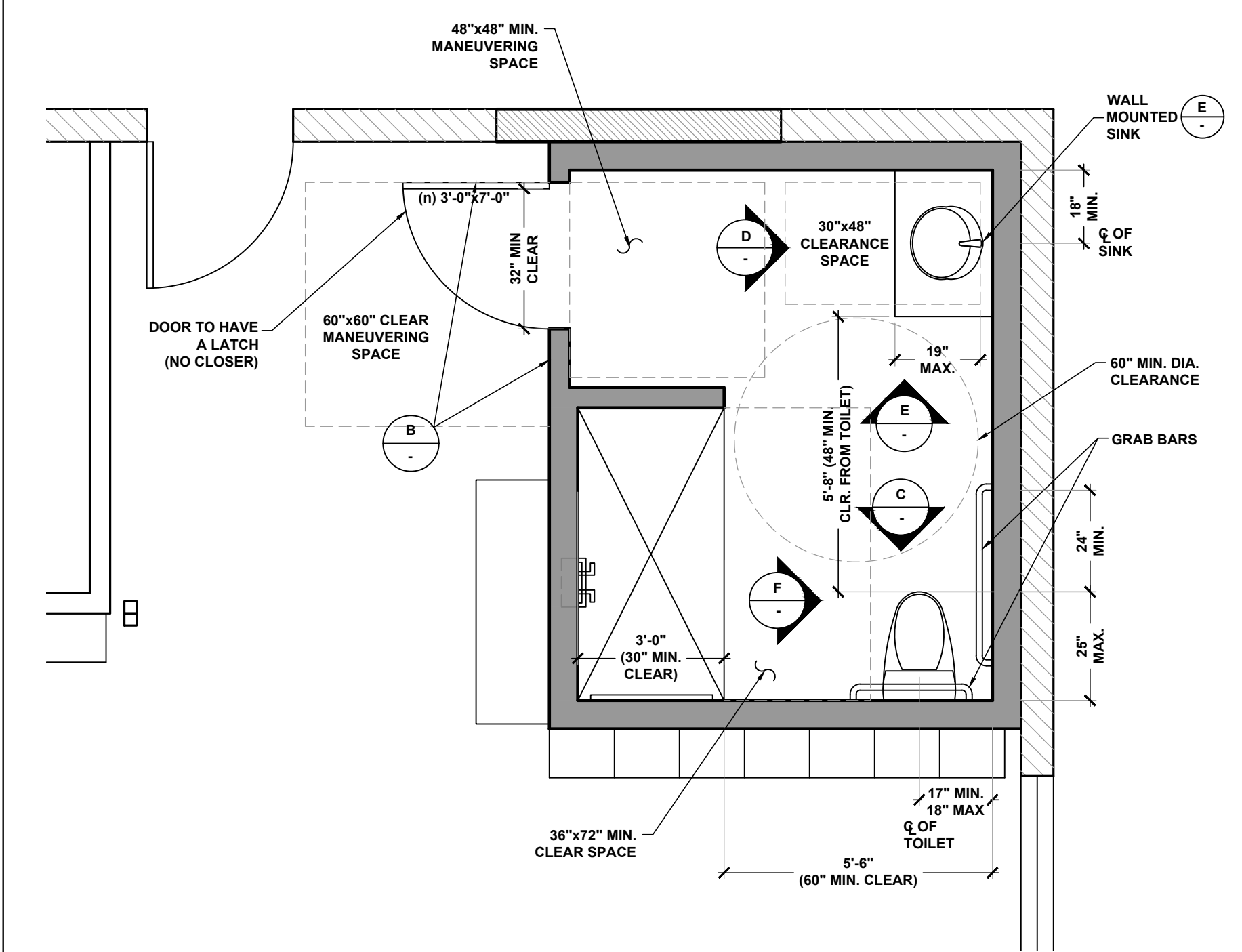
**SINK ELEVATION**  
 SCALE: NONE



**SINK ELEVATION**  
 SCALE: NONE



**TOILET ELEVATION**  
 SCALE: NONE



**BUILDING 'D' ENLARGED RESTROOM PLAN**  
 SCALE: 3/8"=1'-0"

F

D

E

C

B

A

REVISIONS	DATE	BY



SHEET TITLE  
**PROPOSED BUILDING RESTROOM PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**A.07**

NOTE:  
 DOORWAYS LEADING TO SANITARY FACILITIES SHALL BE IDENTIFIED, PER SECTION 11B-703.7.2.6, AS FOLLOWS:  
 a. A 12" DIAMETER CIRCLE WITH A TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12" DIAMETER AT UNISEX REST ROOMS.  
 b. THE REQUIRED SYMBOLS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 58"-60".  
 c. BRAILLE SIGNAGE SHALL ALSO BE LOCATED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOORWAYS LEADING TO THE SANITARY FACILITIES.

**GRAB BAR NOTES:**

- GRAB BARS ARE INSTALLED IN A HORIZONTAL POSITION, 33" MIN. AND 36" MAX. ABOVE THE FINISH FLOOR, MEASURED TO THE TOP OF THE GRIPPING SURFACE, EXCEPT THAT AT WATER CLOSETS FOR CHILDREN'S USE, GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION 18" MIN. AND 27" MAX ABOVE THE FINISH FLOOR TO THE TOP OF THE GRIPPING SURFACE.
- DIAMETER OR WIDTH OF GRIPPING SURFACE IS REQUIRED TO BE 1-1/4" TO 1-1/2" WIDE, OR SHAPE IS TO AN EQUIVALENT GRIPPING SURFACE.
- THE SPACE BETWEEN WALL AND GRAB BARS IS TO BE 1-1/2".
- THE SPACE BETWEEN GRAB BARS AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 12" MIN.
- THE SPACE BETWEEN GRAB BARS AND PROJECTING OBJECTS ABOVE SHALL BE 12" MIN.
1. THE SPACE BETWEEN THE GRAB BARS AND SHOWER CONTROLS, SHOWER FITTINGS, AND OTHER GRAB BARS ABOVE SHALL BE PERMITTED TO BE 1-1/2" MIN.
2. FOR L-SHAPED AND U-SHAPED GRAB BARS, THE SPACE BETWEEN THE WALLS AND THE GRAB BAR SHALL BE 1-1/2" MIN. FOR A DISTANCE OF 6" ON EITHER SIDE OF THE INSIDE CORNER BETWEEN TWO ADJACENT WALL SURFACES.
- GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS. GRAB BARS AND ANY WALL OR OTHER SURFACES ADJACENT TO THE GRAB BARS IS FREE OF ANY SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.
- GRAB BARS SHALL BE INSTALLED IN ANY MANNER THAT PROVIDES A GRIPPING SURFACE AT THE SPECIFIED LOCATIONS AND THAT DOES NOT OBSTRUCT THE REQUIRED CLEAR FLOOR SPACE.
- ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250LBS. IS APPLIED TO ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.
- PROVIDE SOLID BLOCKING IN WALLS BEHIND ALL GRAB BAR FASTENERS.

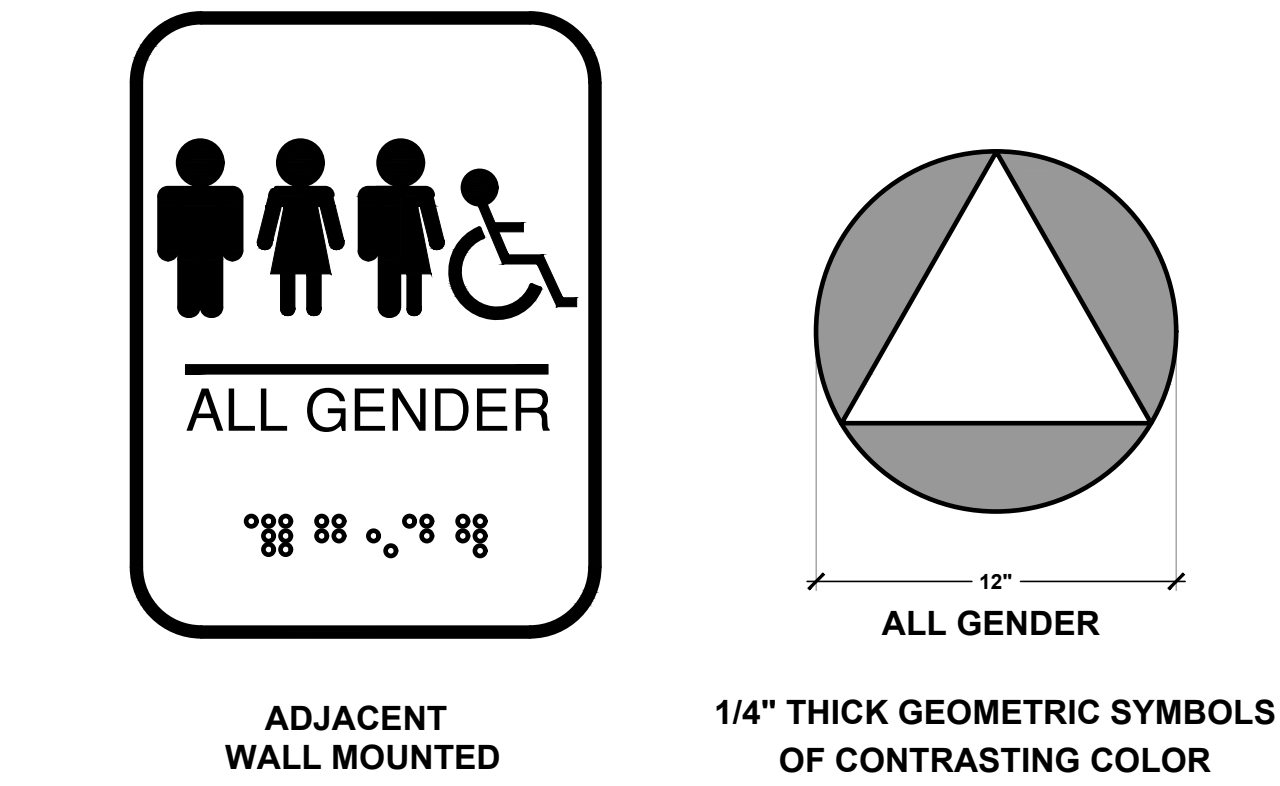
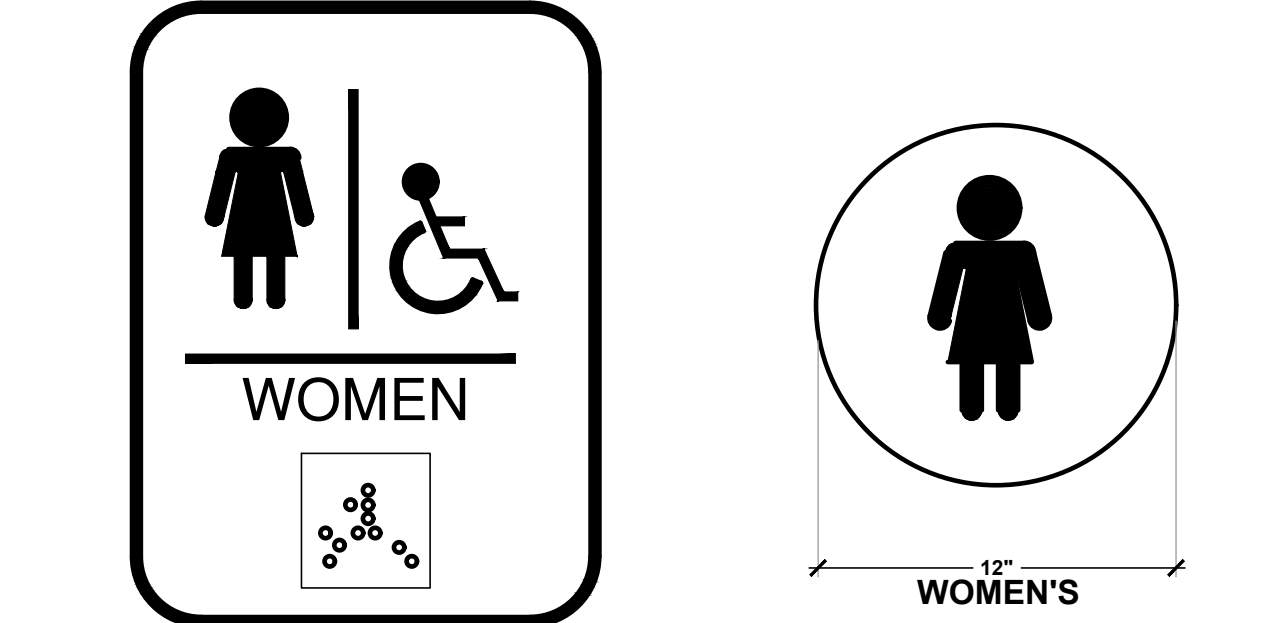
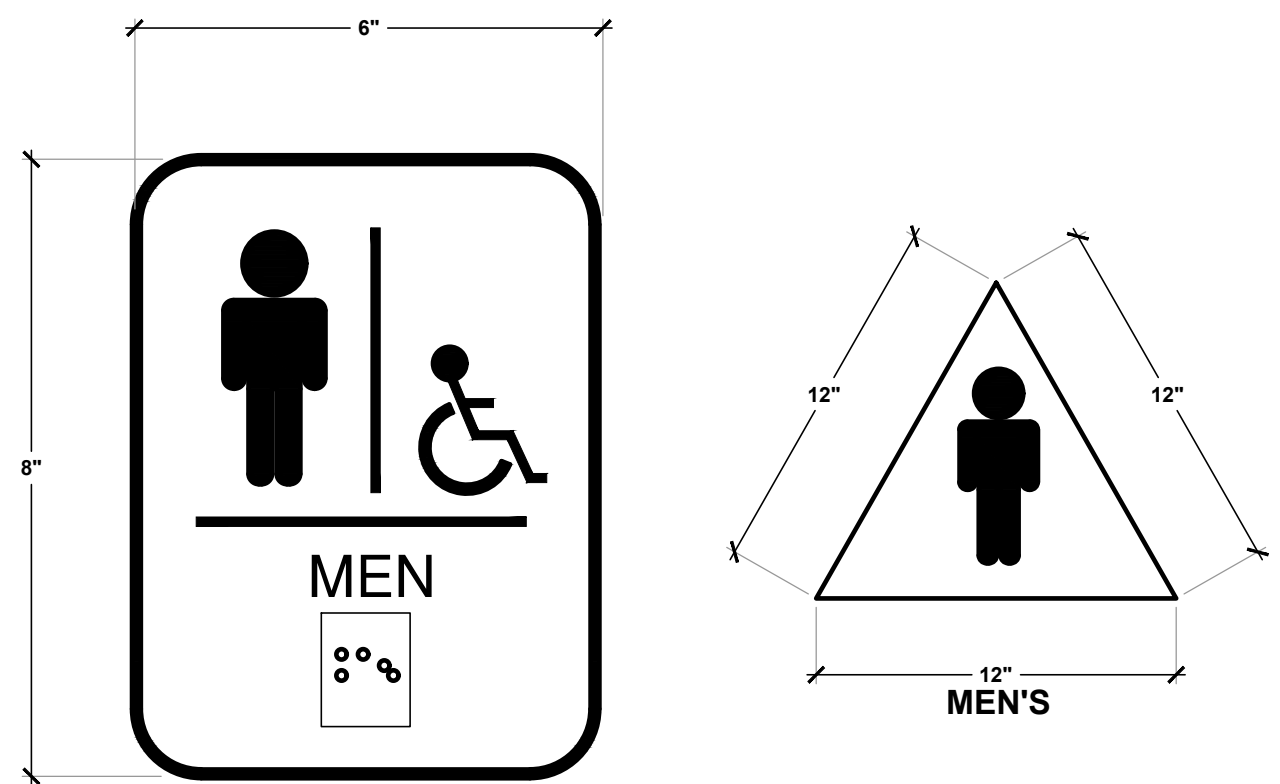
**GENERAL NOTES:**

- A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH SECTION 10 "CLEAR FLOOR OR GROUND SPACE", POSITIONED FOR FORWARD APPROACH, SHALL BE PROVIDED.
- FLUSH CONTROLS ARE HAND-OPERATED OR AUTOMATIC.
- HAND-OPERATED FLUSH CONTROLS ARE LOCATED 44" MAX. ABOVE THE FLOOR.
  - HAND-OPERATED CONTROLS ARE OPERABLE WITH ONE HAND AND NO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
  - 5lbs. MAX. FORCE IS REQUIRED TO OPERATE THE HAND-OPERATED FLUSH CONTROLS.
  - WHERE LAVATORIES ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE LAVATORY, SHALL BE ACCESSIBLE AND NOT BE LOCATED IN A TOILET COMPARTMENT.
  - WHERE SINKS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM SHALL BE ACCESSIBLE.
    - MOP SERVICE OR SCULLERY SINKS SHALL NOT BE REQUIRED TO COMPLY.
    - SCRUB SINKS, AS DEFINED IN CALIFORNIA PLUMBING CODE SECTION 221.0, SHALL NOT BE REQUIRED TO COMPLY.
- A CLEAR FLOOR SPACE COMPLYING WITH SECTION 10, "CLEAR FLOOR OR GROUND SPACE" POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCE, COMPLYING WITH SECTION 11, "KNEE AND TOE CLEARANCE", SHALL BE PROVIDED.
  - A PARALLEL APPROACH THAT COMPLIES WITH SECTION 10, "CLEAR FLOOR OR GROUND SPACE" SHALL BE PERMITTED TO A KITCHEN SINK IN A SPACE WHERE A COOK TOP OR CONVENTIONAL RANGE IS NOT PROVIDED AND TO WET BARS.
  - A KNEE CLEARANCE OF 24" MIN. ABOVE THE FINISH FLOOR OR GROUND SHALL BE PERMITTED IN LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN 6 THOUGH 12 YEARS WHERE THE RIM OR COUNTER SURFACE IS 31" MAX. ABOVE THE FINISH FLOOR OR GROUND.
  - THE DIP OF THE OVERFLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCES.
  - NO MORE THAN ONE BOWL OF A MULTI-BOWL SINK SHALL BE REQUIRED TO PROVIDE ACCESSIBLE KNEE AND TOE CLEARANCE.
  - LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34" MAX. ABOVE THE FINISH FLOOR OR GROUND.
  - HAND-OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MIN.
    - CONTROLS FOR FAUCETS ARE OPERABLE WITH ONE HAND AND DO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS IS NO GREATER THAN 5lbs. MAX. HAND-OPERATED CONTROLS FOR FAUCETS SHALL BE LOCATED WITHIN ACCESSIBLE REACH RANGES.
- WATER SUPPLY AND DRAIN PIPED UNDER LAVATORIES AND SINKS SHALL BE INSTALLED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

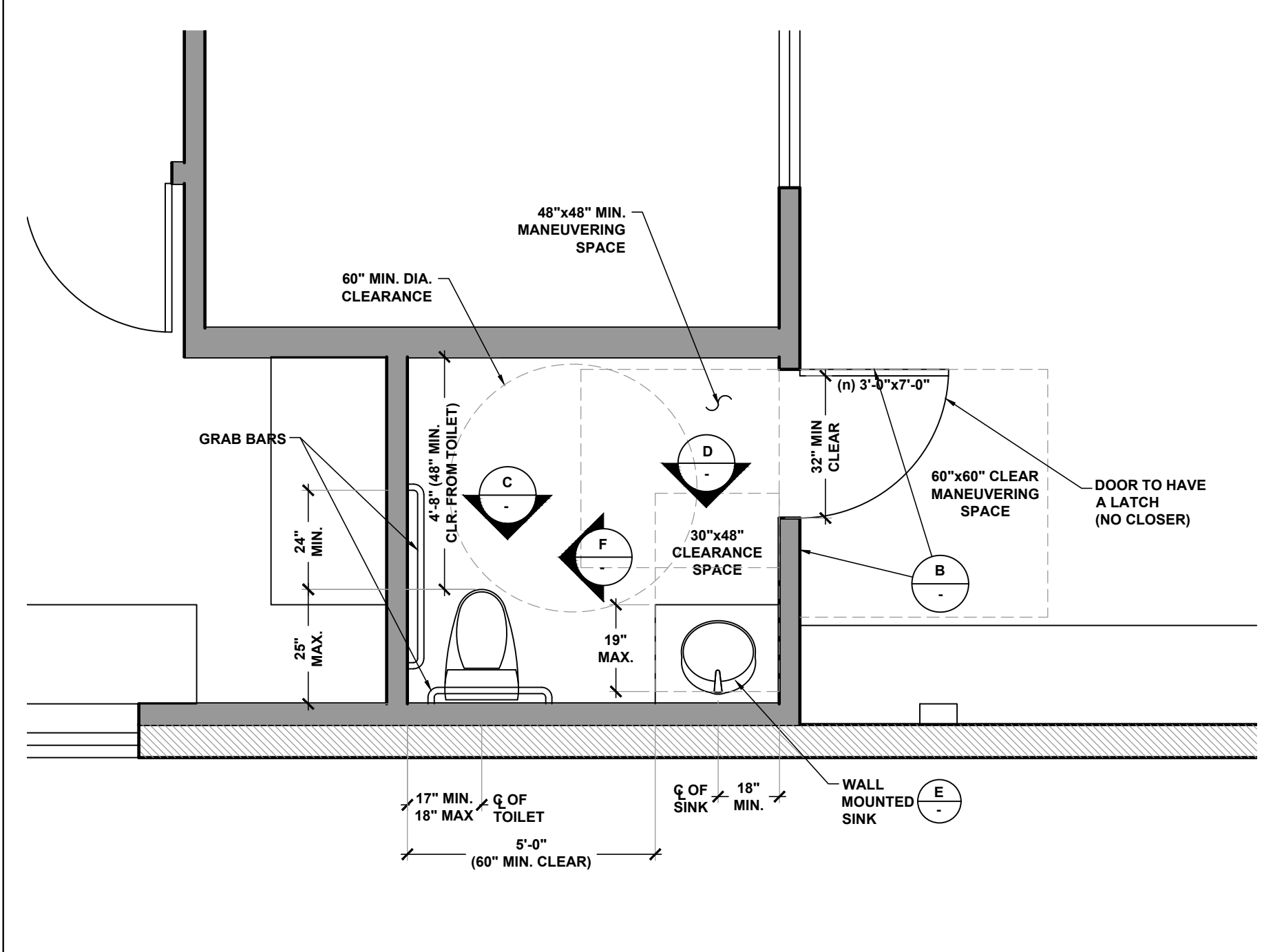
**RESTROOMS:**

- THE FLOORS, WALLS AND CEILINGS SHALL HAVE SURFACES THAT ARE SMOOTH, NONABSORBENT, AND EASILY CLEANABLE.
- HAND WASHING SINKS SHALL BE PROVIDED WITHIN THE TOILET ROOMS. THE HAND-WASHING SINKS SHALL BE PROVIDED WITH HOT AND COLD RUNNING WATER FROM A MIXING TYPE FAUCET. SOAP AND SANITARY TOWELS IN SINGLE-SERVICE, PERMANENTLY INSTALLED DISPENSERS, OR HOT AIR BLOWERS SHALL BE PROVIDED AT THE HAND WASHING SINKS.
- TOILET TISSUE SHALL BE PROVIDED IN A PERMANENTLY INSTALLED DISPENSER AT EACH TOILET.
- THE RESTROOMS SHALL BE PROVIDED WITH TIGHT-FITTING SELF-CLOSING DOORS.
- ALL TOILET ROOMS SHALL BE PROVIDED WITH VENTILATION APPROVED BY HEALTH DEPARTMENT (DEH). IF ADEQUATE VENTILATION CANNOT BE PROVIDED BY AN OPENABLE, SCREENED WINDOW, MECHANICAL VENTILATION WILL BE REQUIRED.

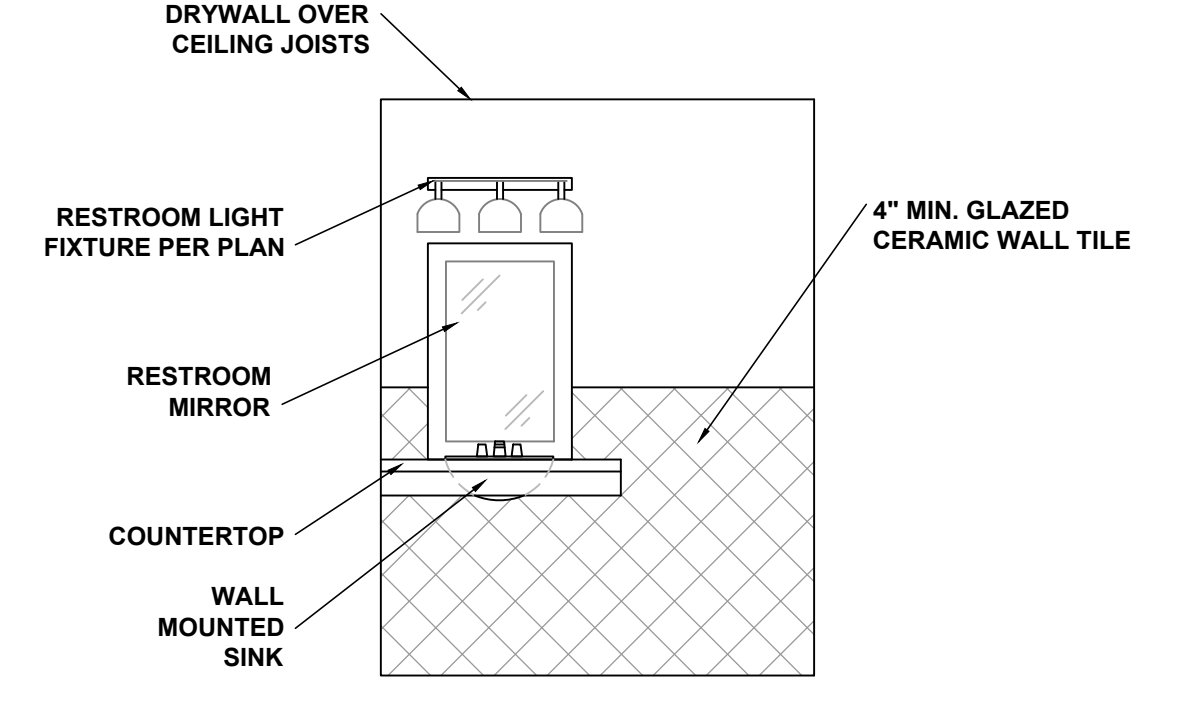
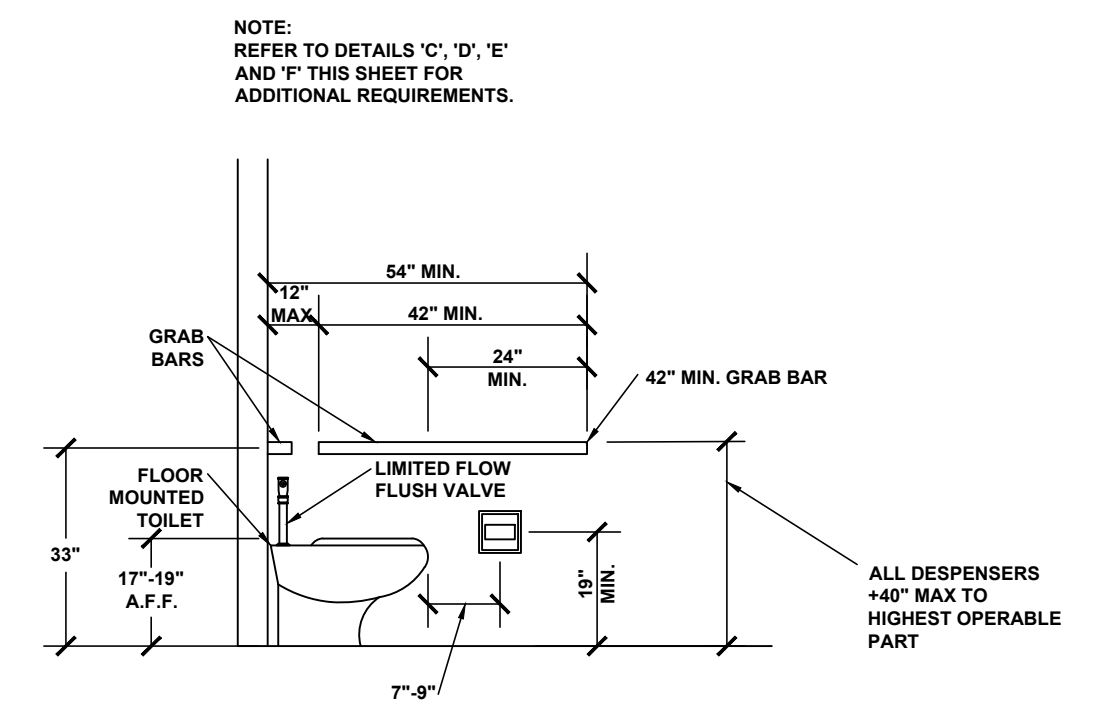
- TOILET ROOM SIGNAGE NOTES:**
- SYMBOLS SHALL BE CENTERED ON THE DOOR AT 58"-60" ABOVE FINISH FLOOR, AND TO BE DISTINCTLY DIFFERENT FROM THE DOOR IN COLOR CONTRAST.
  - MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.
  - CHARACTERS AND SYMBOLS TO BE CONTRASTING WITH THEIR BACKGROUND.
  - IDENTIFICATION PLATES TO BE 1/4" THICK AND 12" DIAMETER FOR THE WOMEN'S, AND 12" LONG ON 3-SIDES OF THE TRIANGLE FOR MEN'S. A 12" DIAMETER CIRCLE WITH A TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12" DIAMETER AT UNISEX RESTROOMS.
  - ADJACENT WALL MOUNTED SIGNS SHALL BE LOCATED ON THE LATCH SIDE OF THE DOOR CLEAR OF DOOR SWING. MOUNTED AT 60" TO CENTERLINE OF SIGN FROM FLOOR.
  - SIGNAGE HEIGHT LETTERING TO BE 5/8" INCH MINIMUM TO 2 INCHES MAXIMUM IN HEIGHT.
  - BRAILLE SIGNAGE SHALL ALSO BE LOCATED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOORWAYS LEADING TO THE SANITARY FACILITIES.



ADJACENT WALL MOUNTED  
 1/4" THICK GEOMETRIC SYMBOLS OF CONTRASTING COLOR

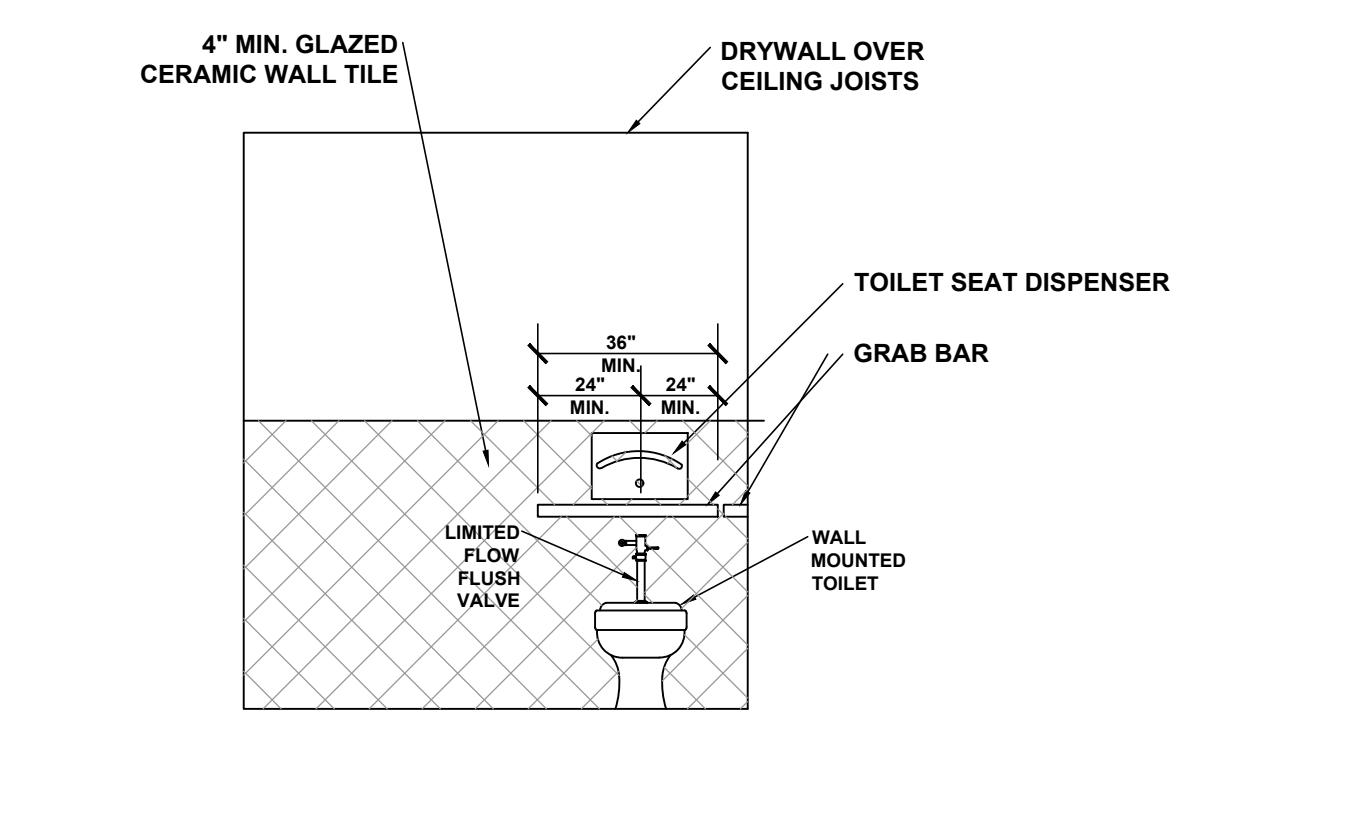
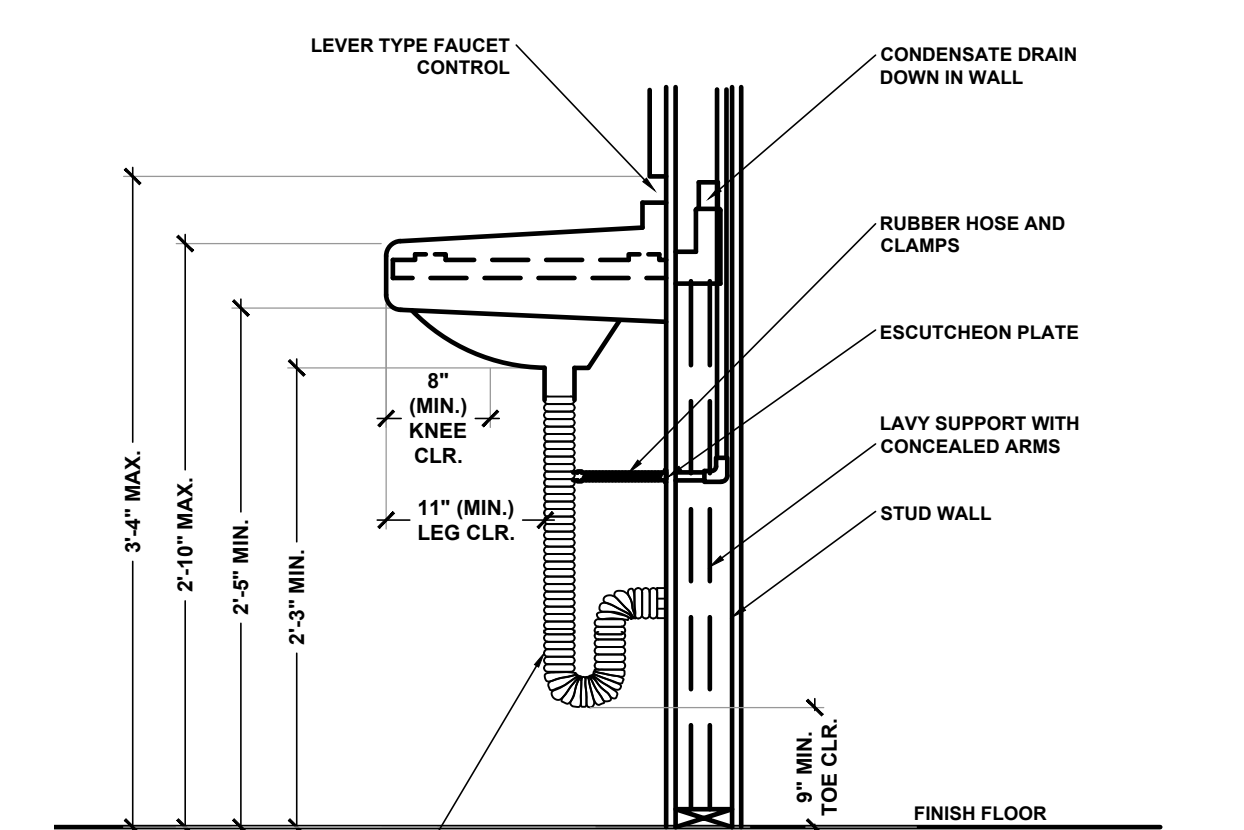


SCALE: 3/8"=1'-0"



**TOILET ELEVATION**  
 SCALE: NONE

**SINK ELEVATION**  
 SCALE: NONE

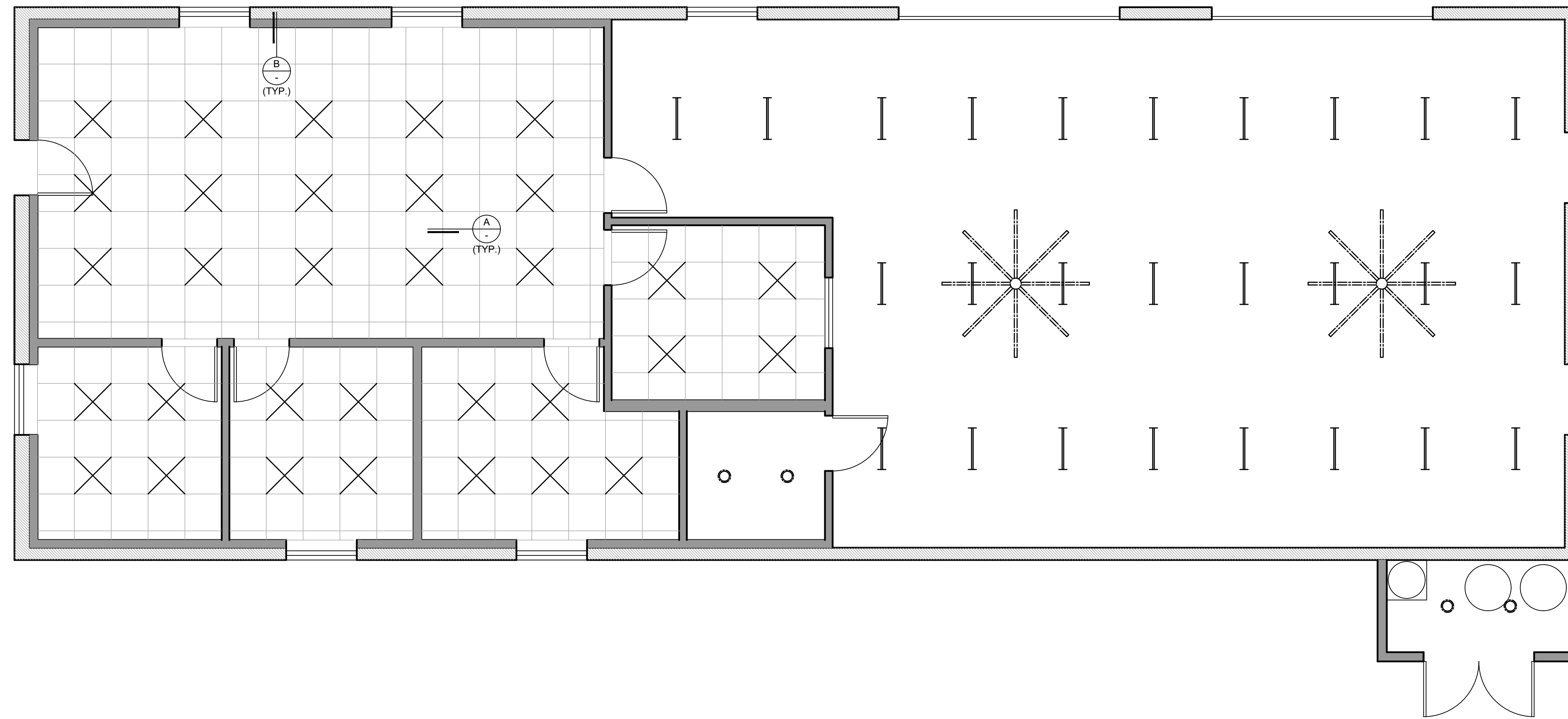


**SINK ELEVATION**  
 SCALE: NONE

**TOILET ELEVATION**  
 SCALE: NONE

**SIGNAGE**  
 SCALE: NONE

**ENLARGED RESTROOM PLAN**  
 SCALE: 3/8"=1'-0"

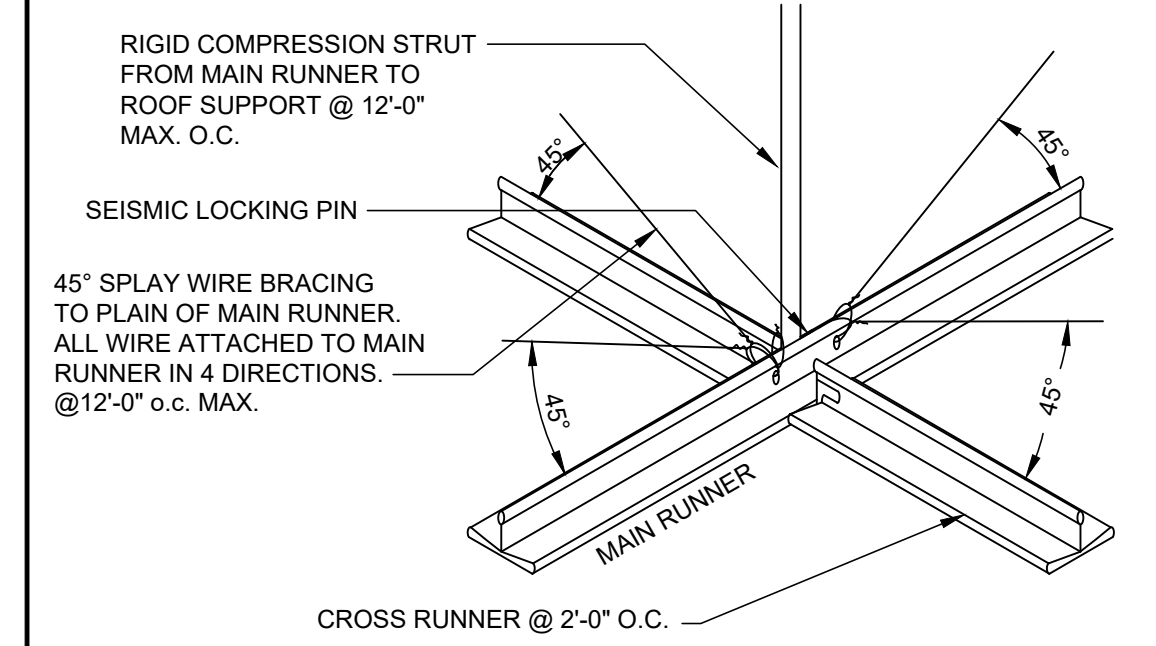


**PROPOSED BUILDING REFLECTED CEILING PLAN**  
SCALE: 1/4"=1'-0"

**LEGEND**

	EXHAUST FAN
	CEILING MOUNT FIXT.
	RECESSED FIXT.
	WALL MOUNT FIXT.
	FLUORESCENT
	WP/GFI OUTLET TYP.
	T.V.
	DUPLEX OUTLET
	PHONE JACK
	220 OUTLET
	SWITCH
	SPOT LIGHT
	DIRECTIONAL SPOT LIGHT
	GROUND FAULT INTERRUPTER
	SMOKE DETECTOR HARD WIRED WITH BATTERY BACK-UP
	FAN/VTR
	RECESSED INCANDESCENT LIGHT FIXTURE DIMMERS ON SWITCHES
	RECESSED LIGHT FIXTURE
	FLUORESCENT 2'x4' LIGHT FIXTURE IN CEILING GRID
	FLUORESCENT 2'x2' LIGHT FIXTURE IN CEILING GRID
	8' CEILING FAN
	CAMERA
	ODOR CONTROL TOWER

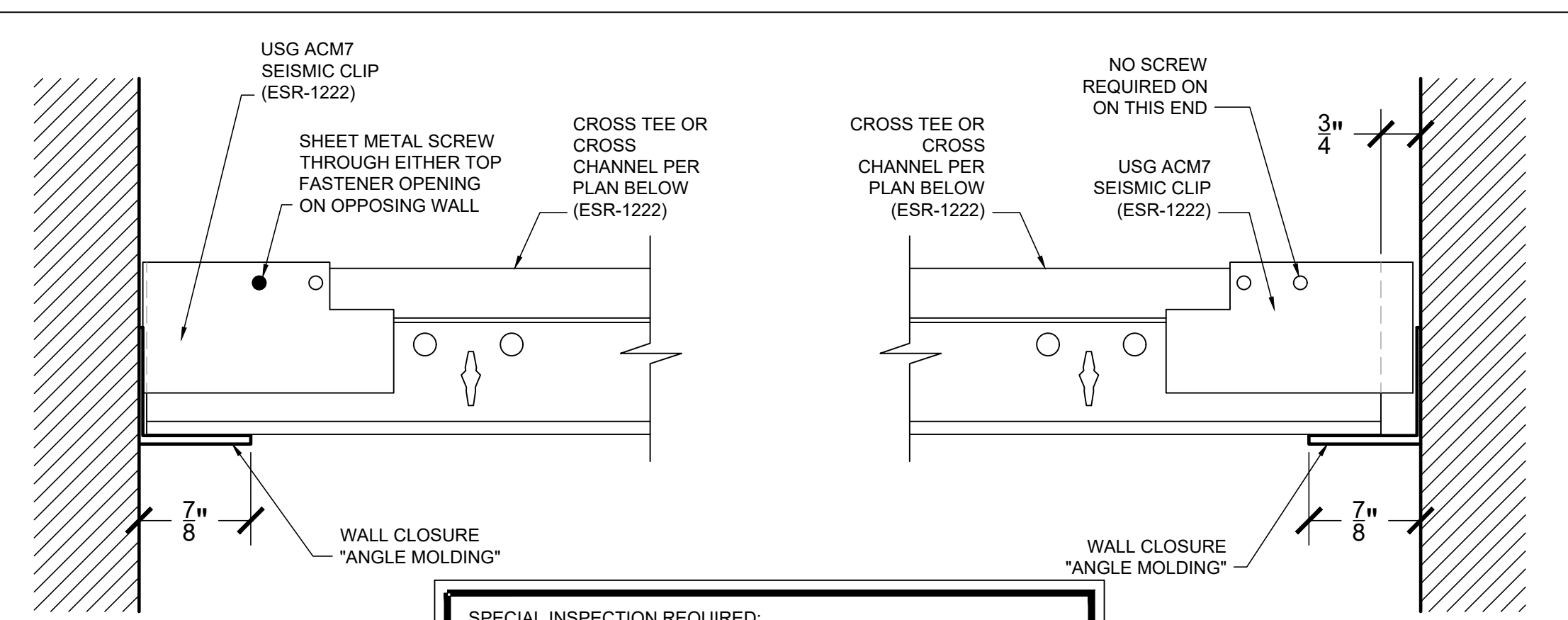
NOTE: METAL SUSPENSION SYSTEM FOR ACOUSTICAL TILE AND FOR LAY-IN PANEL CEILINGS SHALL BE INSTALLED IN ACCORDANCE W/ 2022 CBC.



**SPECIAL INSPECTION REQUIRED:**  
SPECIAL INSPECTIONS, BY OWNER HIRED THIRD-PARTY INSPECTORS (SUCH AS TESTING LABS AND DEPUTY INSPECTORS) ARE REQUIRED FOR THE FOLLOWING ITEMS:  
1) SUSPENDED CEILING SYSTEMS AND THEIR ANCHORAGE.

ESR-1222 NOTE: T-BAR GRID SYSTEM MUST BE "HEAVY DUTY" RATED.

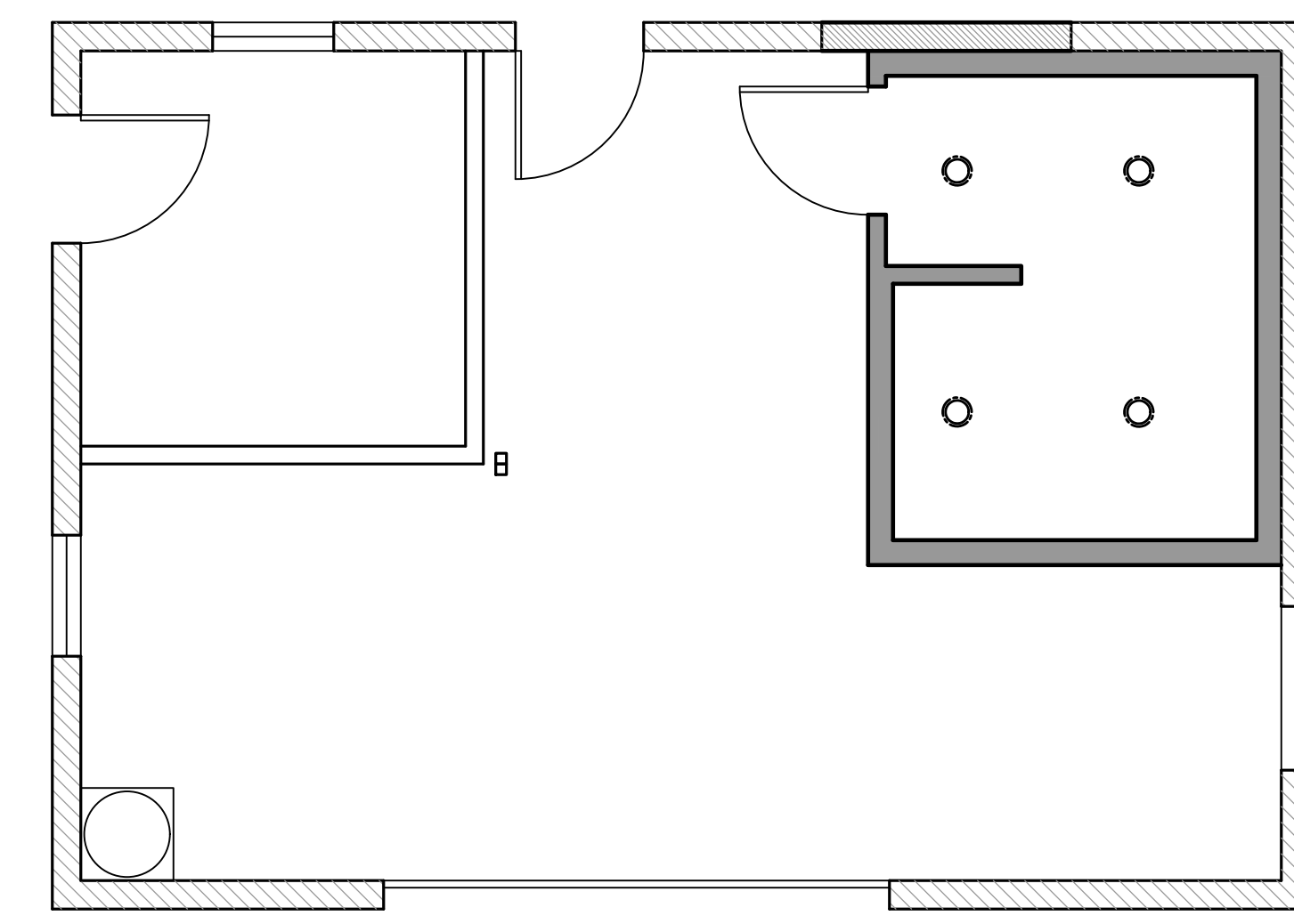
**T-BAR CEILING**



**SPECIAL INSPECTION REQUIRED:**  
SPECIAL INSPECTIONS, BY OWNER HIRED THIRD-PARTY INSPECTORS (SUCH AS TESTING LABS AND DEPUTY INSPECTORS) ARE REQUIRED FOR THE FOLLOWING ITEMS:  
1) SUSPENDED CEILING SYSTEMS AND THEIR ANCHORAGE.

ESR-1222 NOTE: T-BAR GRID SYSTEM MUST BE "HEAVY DUTY" RATED.

**T-BAR ATTACHMENT**



**BUILDING 'D' REFLECTED CEILING PLAN**  
SCALE: 1/4"=1'-0"

**NOTES**

**DAVID BECKWITH AND ASSOCIATES INC.**  
Civil & Structural Engineering  
Land Surveying - Environmental Services

9431 Haven Avenue, Suite 232  
Rancho Cucamonga, CA 91730  
(T) 714.349.7007 (F) 714.948.4471  
www.davidbeckwithandassociates.com

CLIENT:  
**COUNTY OF RIVERSIDE**  
REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
PROJECT No. PK-ARPA009

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

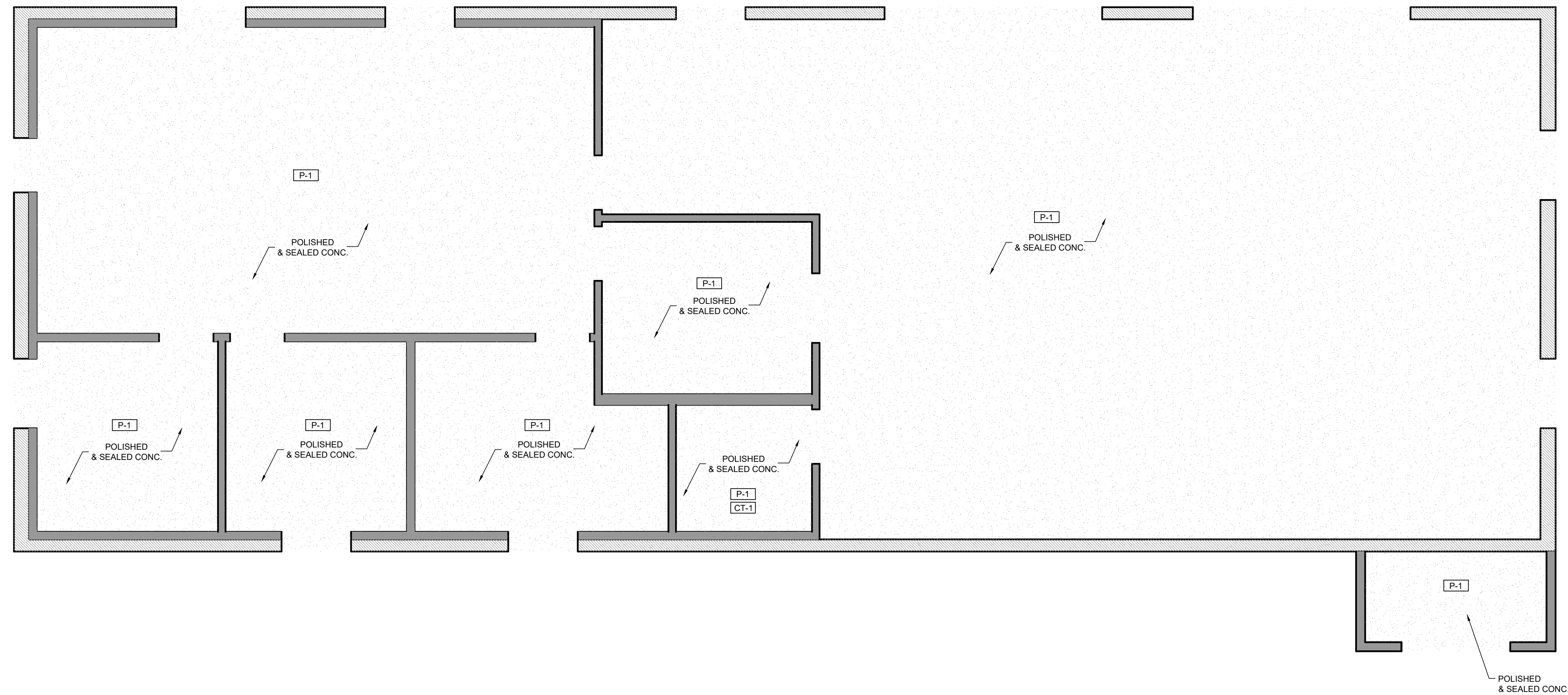
01/29/2024

SHEET TITLE

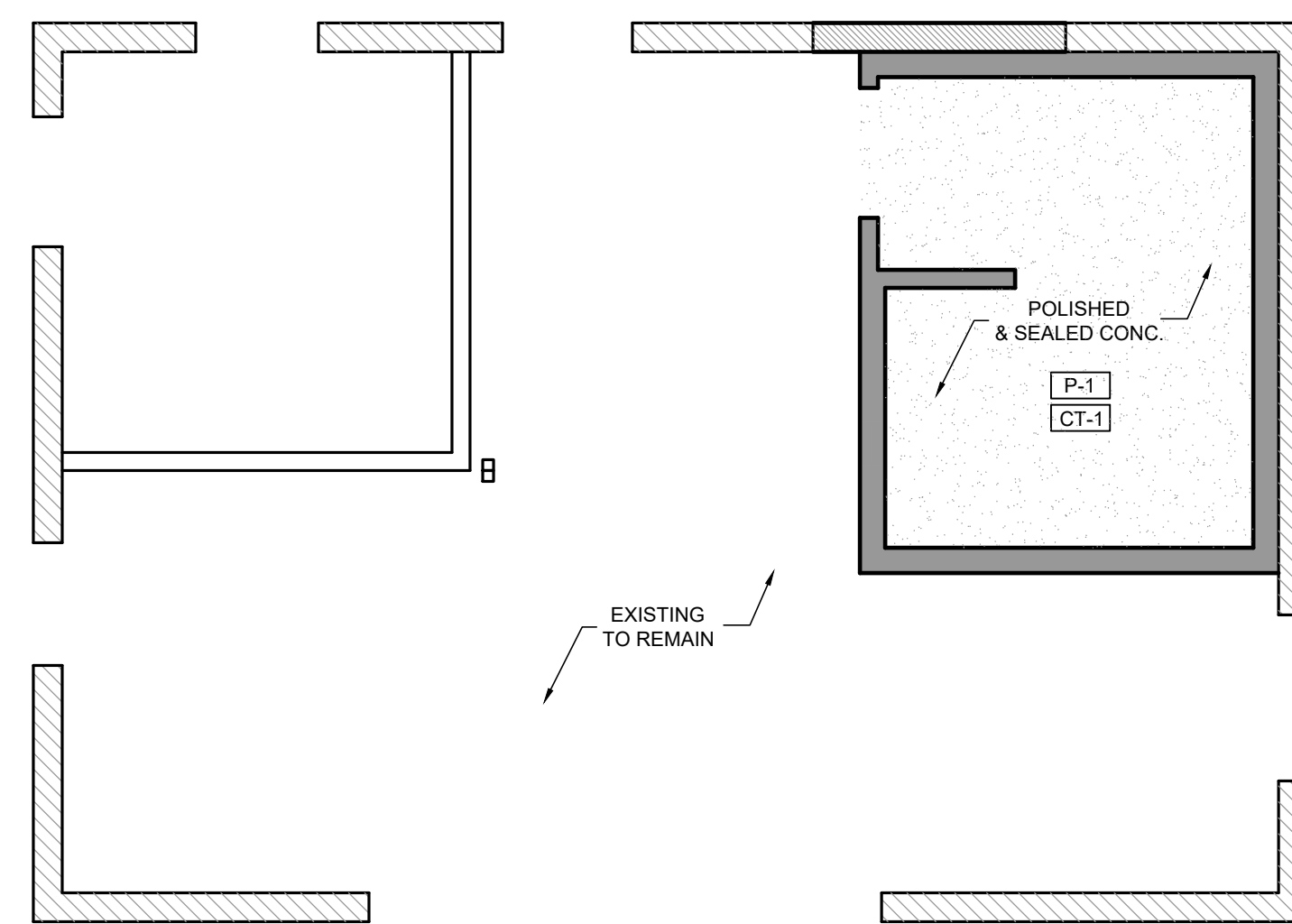
DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**A.08**





**PROPOSED BUILDING FINISH FLOOR PLAN**  
SCALE: 1/4"=1'-0"



**BUILDING 'D' FINISH FLOOR PLAN**  
SCALE: 1/4"=1'-0"

NOTES

**FINISH SCHEDULE**

- PC-1 DUNN EDWARDS PAINT COLOR TBD
- CT-1 CERAMIC TILE - TBD

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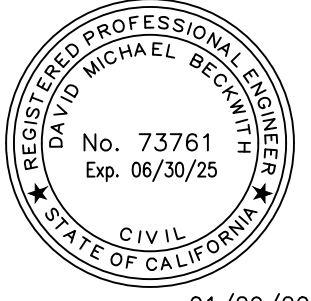
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SHEET TITLE  
**PROPOSED BUILDING FINISH FLOOR PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**A.09**

NOTES

WALL LEGEND

-  EXISTING CMU WALL TO REMAIN
-  NEW CMU WALL
-  EXISTING 2x WALL TO REMAIN
-  NEW 2x WALL
-  EXISTING WALL TO BE REMOVED

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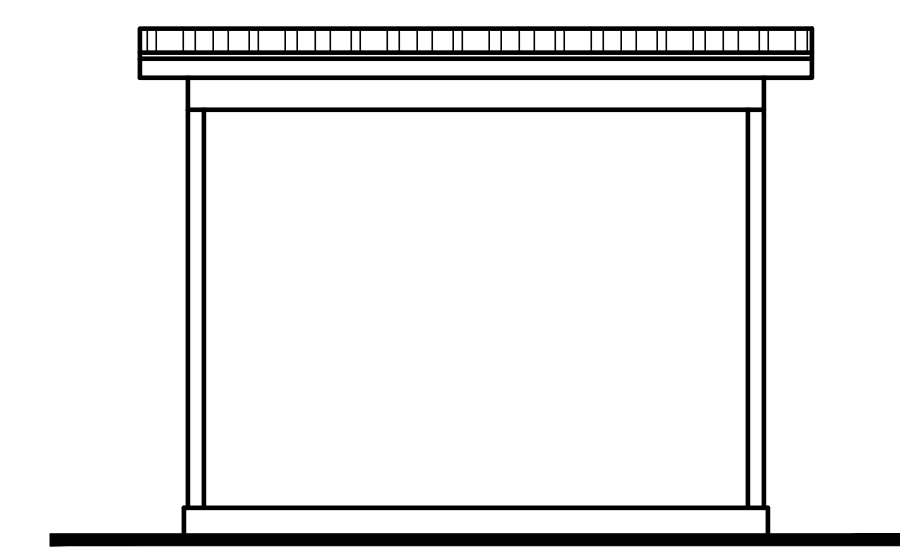


01/29/2024

SHEET TITLE  
**HAZMAT COVER PLANS**

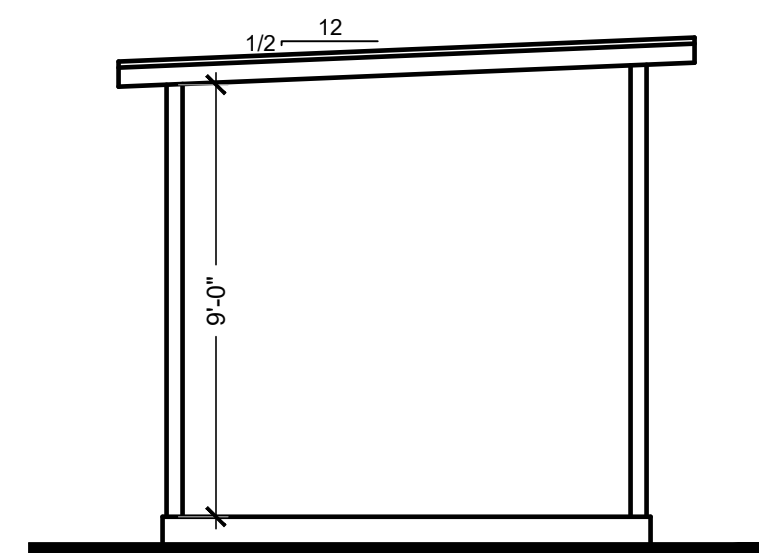
DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**A.10**



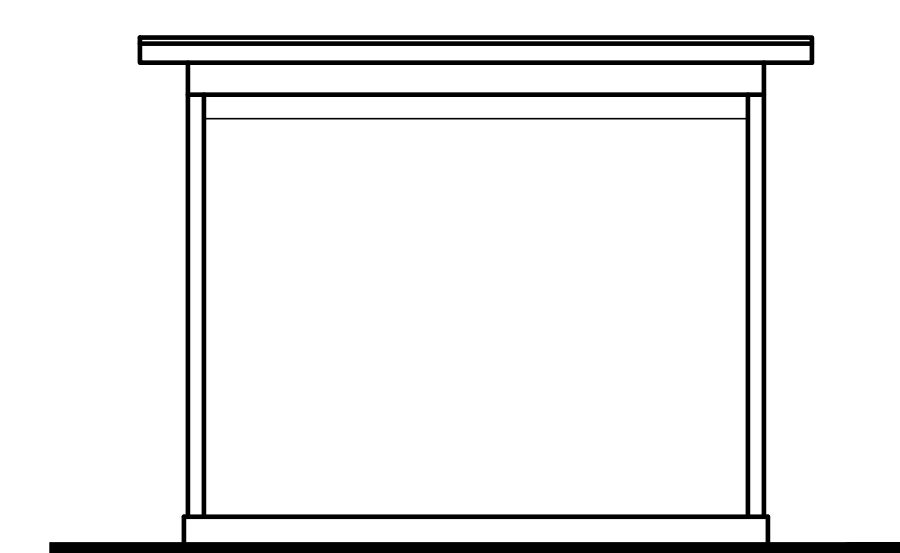
**PROPOSED HAZMAT WEST ELEVATION**

SCALE: 1/4"=1'-0"



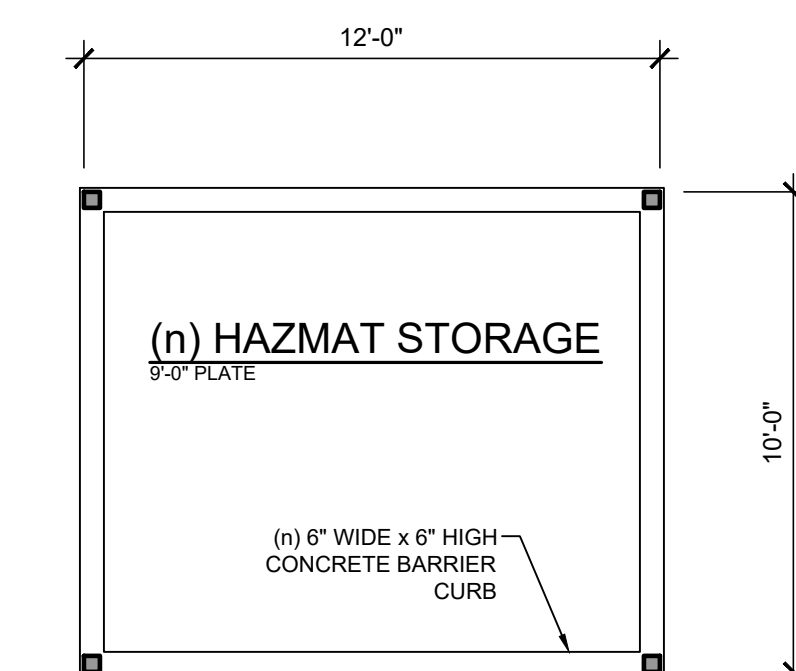
**PROPOSED HAZMAT NORTH/SOUTH ELEVATION**

SCALE: 1/4"=1'-0"



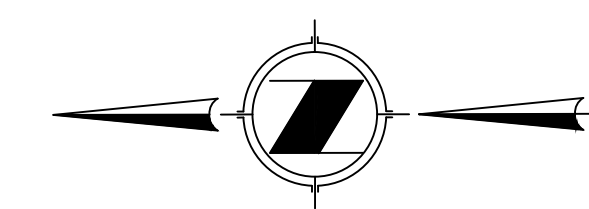
**PROPOSED HAZMAT EAST ELEVATION**

SCALE: 1/4"=1'-0"

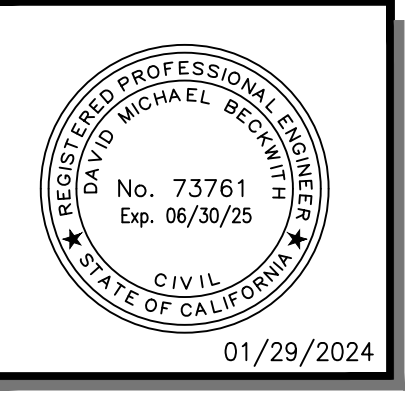


**PROPOSED HAZMAT PLAN LAYOUT**

SCALE: 1/4"=1'-0"



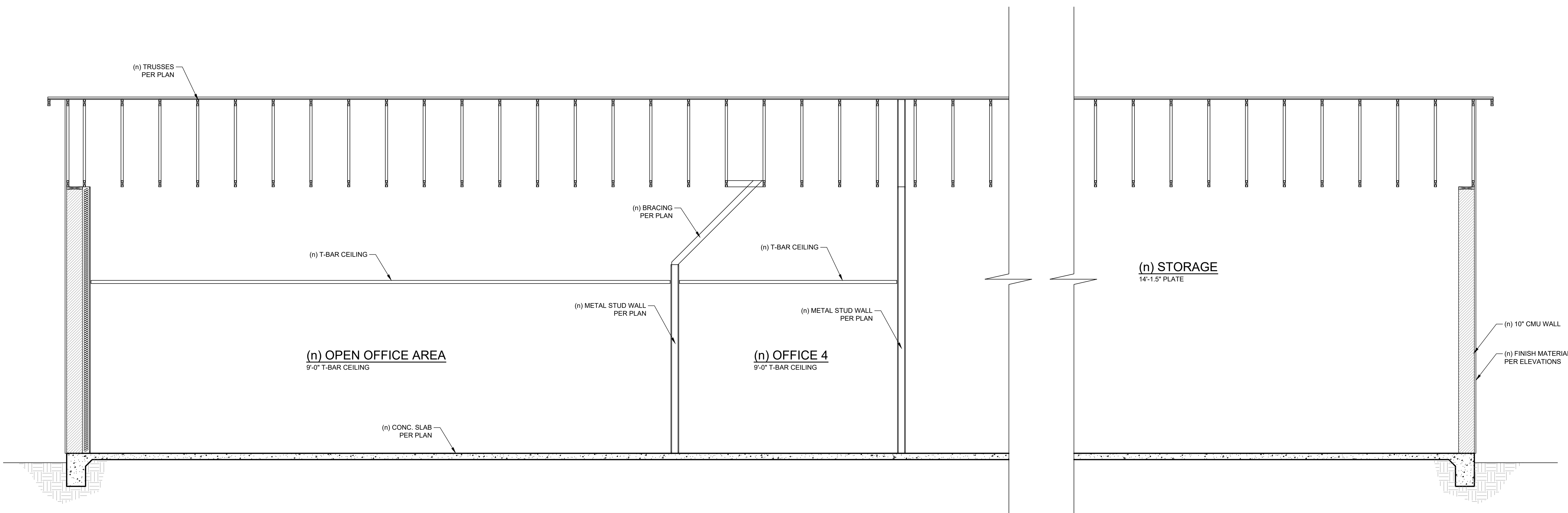
REVISIONS	DATE	BY



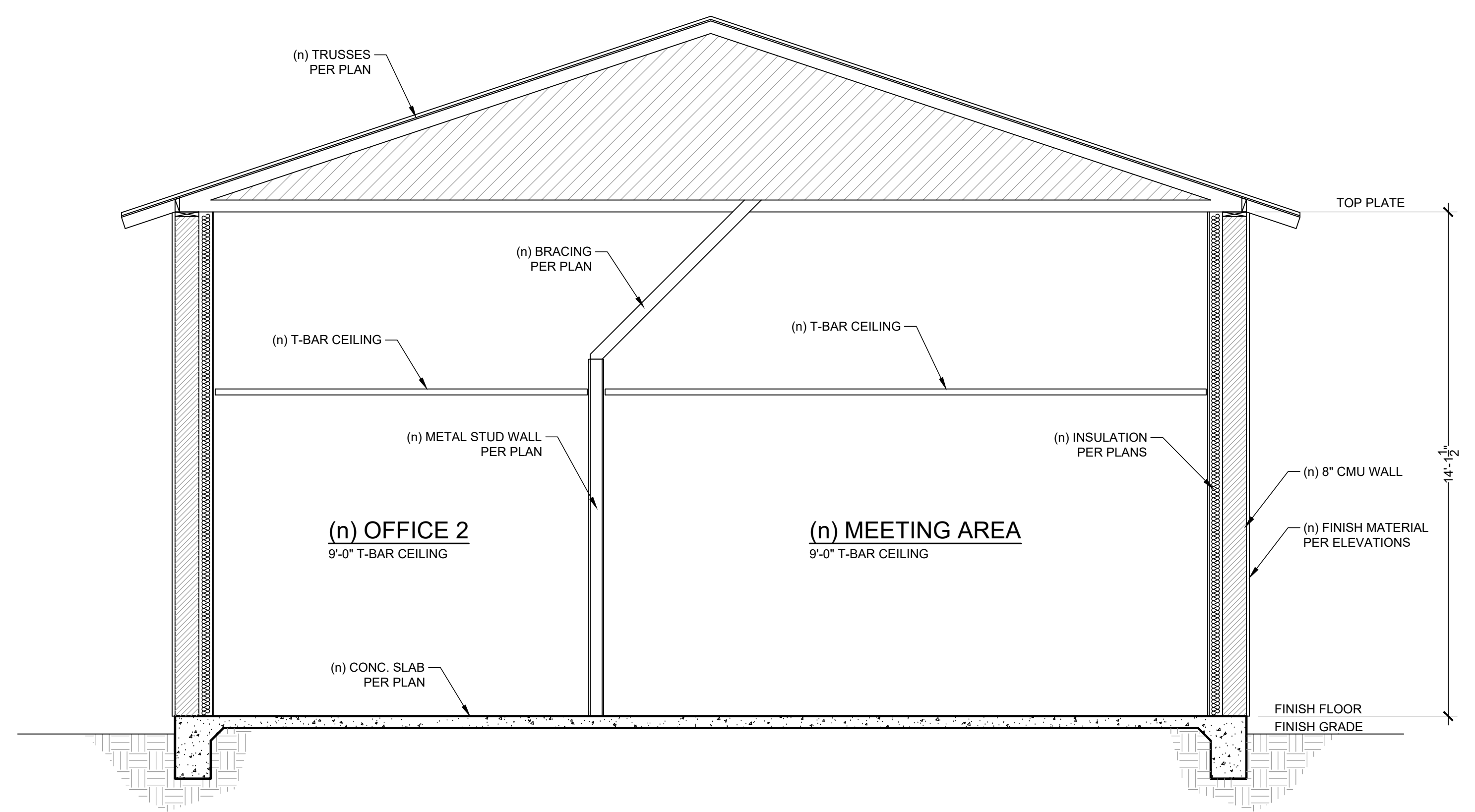
SHEET TITLE  
**PROPOSED BUILDING SECTIONS**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

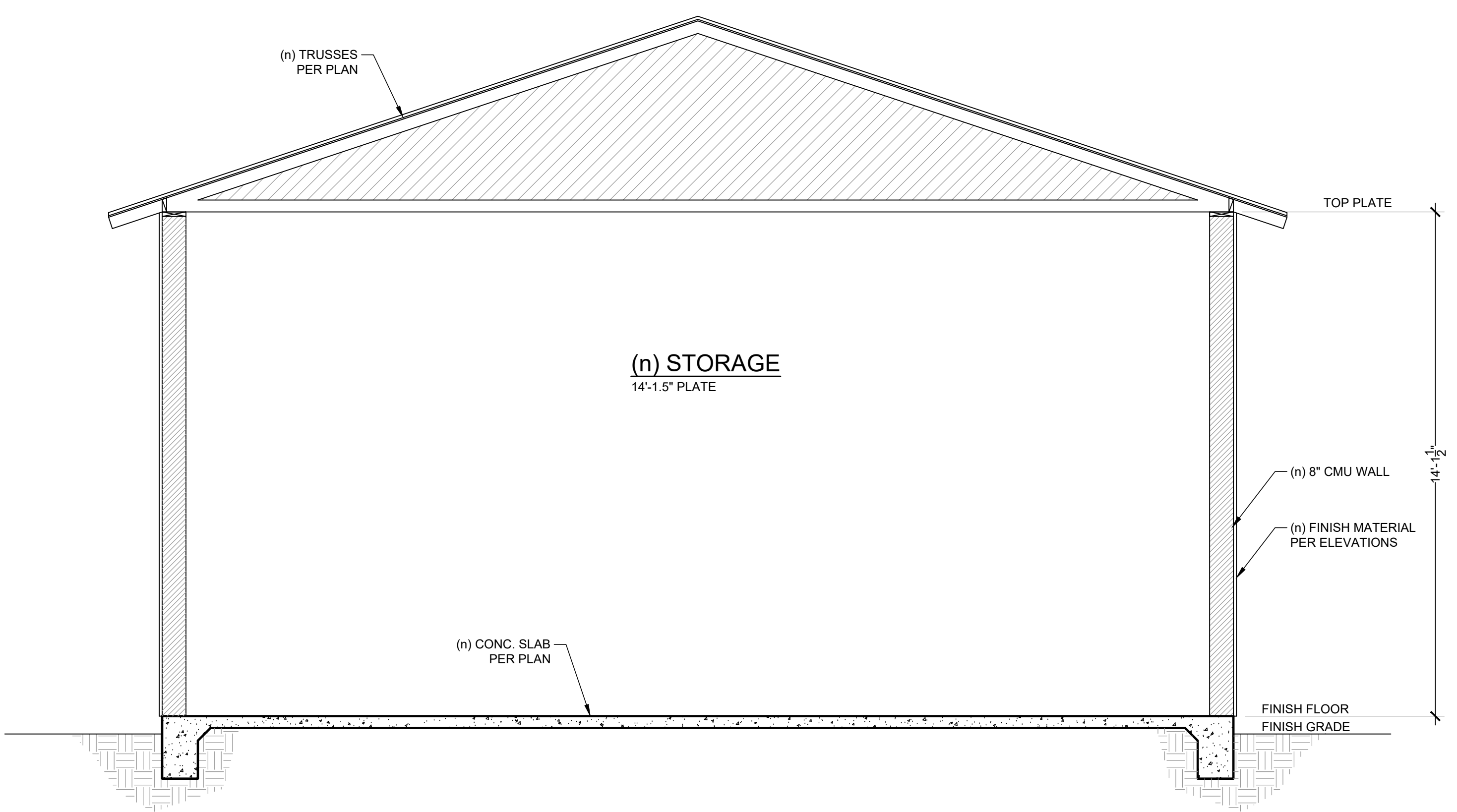
SHEET  
**A.11**



**C SECTION**  
 SCALE: 3/8"=1'-0"



**B SECTION**  
 SCALE: 3/8"=1'-0"

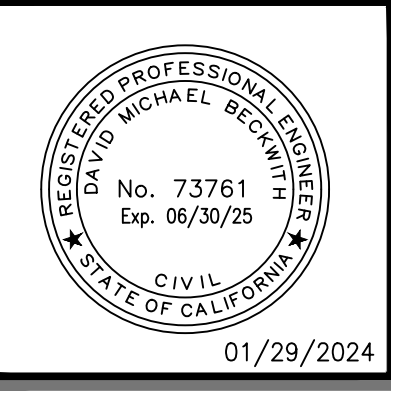


**A SECTION**  
 SCALE: 3/8"=1'-0"

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 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
 SARB MAINTENANCE FACILITY  
 PROJECT No. PK-ARPA009  
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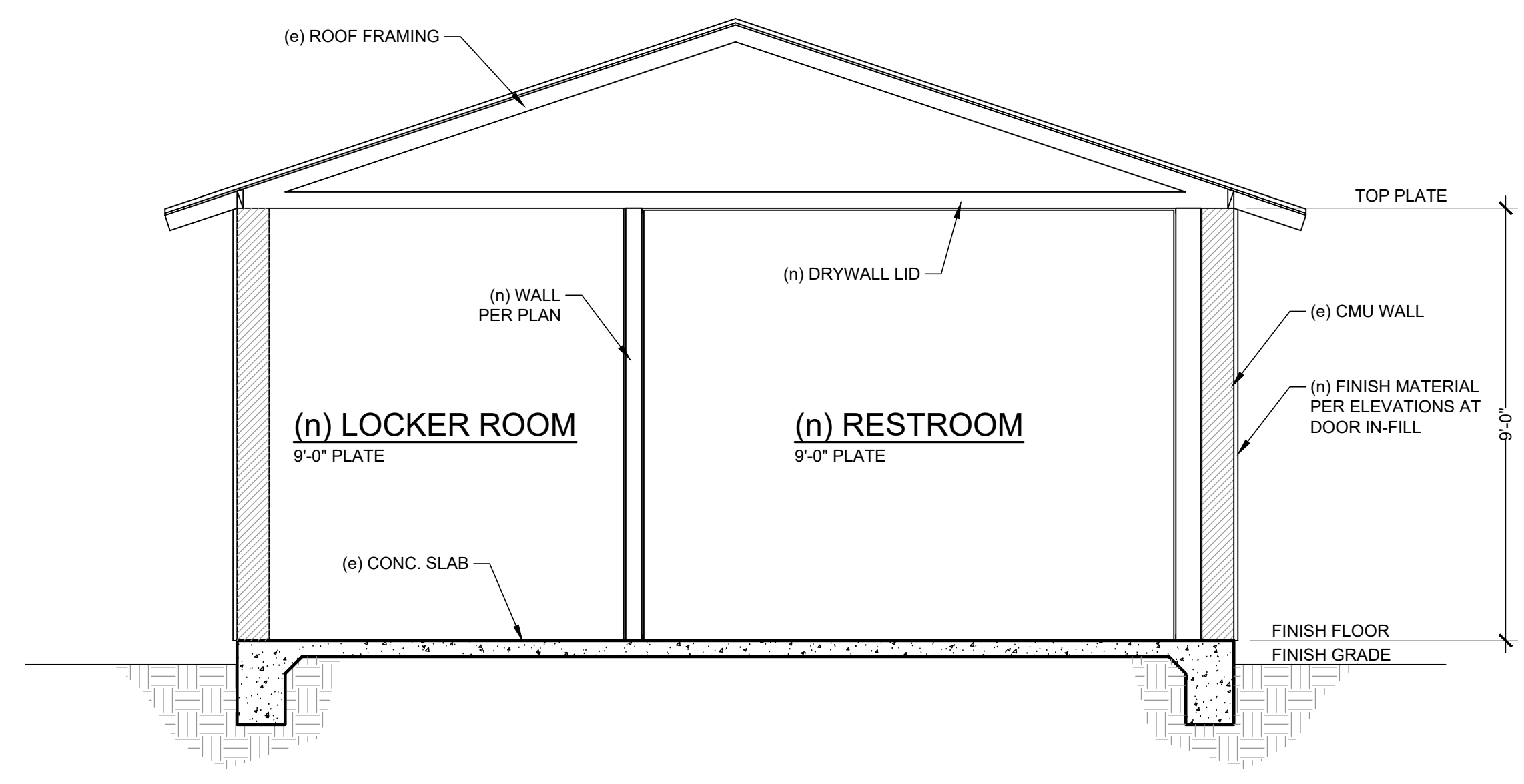
REVISIONS	DATE	BY



SHEET TITLE  
**BUILDING 'D'  
 SECTION**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**A.12**



**A SECTION**  
 SCALE: 3/8"=1'-0"

WINDOW SCHEDULE									
ROOM NUMBER	ROOM NAME	WINDOW NUMBER	QUANTITY	SIZE (WxH)	WINDOW TYPE	TEMPERED (Y/N)	GLAZING	FRAME	FIRE RATING
100	CUBICLE/ OPEN OFFICE AREA	W1	2	3'-10"x3'-10"	FIXED	N	CLEAR	WOOD	NONE
101	OFFICE 1	W1	1	3'-10"x3'-10"	FIXED	N	CLEAR	WOOD	NONE
102	OFFICE 2	W1	1	3'-10"x3'-10"	FIXED	N	CLEAR	WOOD	NONE
103	OFFICE 3	W1	1	3'-10"x3'-10"	FIXED	N	CLEAR	WOOD	NONE
104	OFFICE 4	W1	1	3'-10"x3'-10"	FIXED	N	CLEAR	WOOD	NONE
106	STORAGE	W1	2	3'-10"x3'-10"	FIXED	N	CLEAR	WOOD	NONE

DOOR SCHEDULE								
ROOM NUMBER	ROOM NAME	DOOR NUMBER	SIZE (WxH)	DOOR TYPE	EXTERIOR/ INTERIOR	DOOR MATERIAL	FIRE RATING	DOOR HARDWARE
100	CUBICLE/ OPEN OFFICE AREA	1	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	EXTERIOR	WOOD	NONE	SET 1
101	OFFICE 1	2	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2
102	OFFICE 2	2	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2
103	OFFICE 3	2	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2
104	OFFICE 4	2	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2
105	RESTROOM	4	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2
106	STORAGE	3	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2
106	STORAGE	5	12'-0"x12'-0"	OVERHEAD ROLL-UP DOOR	EXTERIOR	STEEL	NONE	SET 3
107	MECHANICAL ROOM	6	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	EXTERIOR	WOOD	NONE	SET 1
202	RESTROOM	4	3'-0"x7'-0"	SIDE HINGED SWINGING DOOR	INTERIOR	WOOD	NONE	SET 2

NOTES

- DOOR NOTES:
- GENERAL CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS AND TO MEET THE FOLLOWING MINIMUM HARDWARE REQUIREMENTS.
- ALL EXIT DOORS SHALL BE EQUIPPED WITH LEVER TYPE HARDWARE, PANIC BARS, PUSH-UP ACTIVATING BARS DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
  - EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
  - EXITS SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED, WITH LIGHT AT AN INTENSITY OF NOT LESS THAN ONE FOOT-CANDLE AT FLOOR LEVEL.
  - ALL DOORS SHALL HAVE HARDWARE WHICH COMPLIES W/ STATE & NATIONAL ADA REQUIREMENTS.
  - A READILY VISIBLE, DURABLE SIGN SHALL BE POSTED ON THE INTERIOR (EGRESS) SIDE OF (OR ADJACENT TO) THE MAIN EXIT DOOR STATING "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED". THE SIGN SHALL BE IN LETTERS ONE INCH (1") HIGH ON A CONTRASTING BACKGROUND.
  - DOOR LEVERS AND HANDLES SHALL BE MOUNTED AT 34" - 44" A.F.F.
  - SLIDING DOOR SHALL HAVE A DOOR STOP MECHANISM TO ALLOW THE DOOR HANDLE TO BE GRASPED WITH THE DOOR IN THE FULLY OPEN POSITION. DOOR TO MEET ALL ADA REQUIREMENTS.
  - ALL EXTERIOR DOORS SHALL HAVE A 5-POUNDS MAXIMUM OPENING FORCE. CBC 11B-404.2.9.
  - DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.
  - EACH GRADE-LEVEL EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE "EXIT" SIGN ON THE INTERIOR (EGRESS) SIDE OF DOOR ON THE WALL, OR NEAREST ADJACENT WALL, TO THE RIGHT AT 60" ABOVE FLOOR FINISH.
  - EACH ENTRANCE DOOR OF THIS BUILDING SHALL BE IDENTIFIED WITH A MINIMUM OF ONE INTERNATIONAL SYMBOL OF ACCESSIBILITY ON THE WALL, OR NEAREST ADJACENT WALL, TO THE RIGHT AT 60" A.F.F.

DAVID BECKWITH AND ASSOCIATES INC  
Civil & Structural Engineering  
Land Surveying - Environmental Services



9431 Haven Avenue, Suite 232  
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(714) 714.345.7007 (F) 714.948.4471  
www.davidbeckwithandassociates.com


CLIENT: COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT: SARB MAINTENANCE FACILITY  
PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



01/29/2024

SHEET TITLE  
DOOR AND WINDOW SCHEDULES

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
A.13

DOOR HARDWARE

HARDWARE SET 01  
EACH ASSEMBLY TO HAVE:

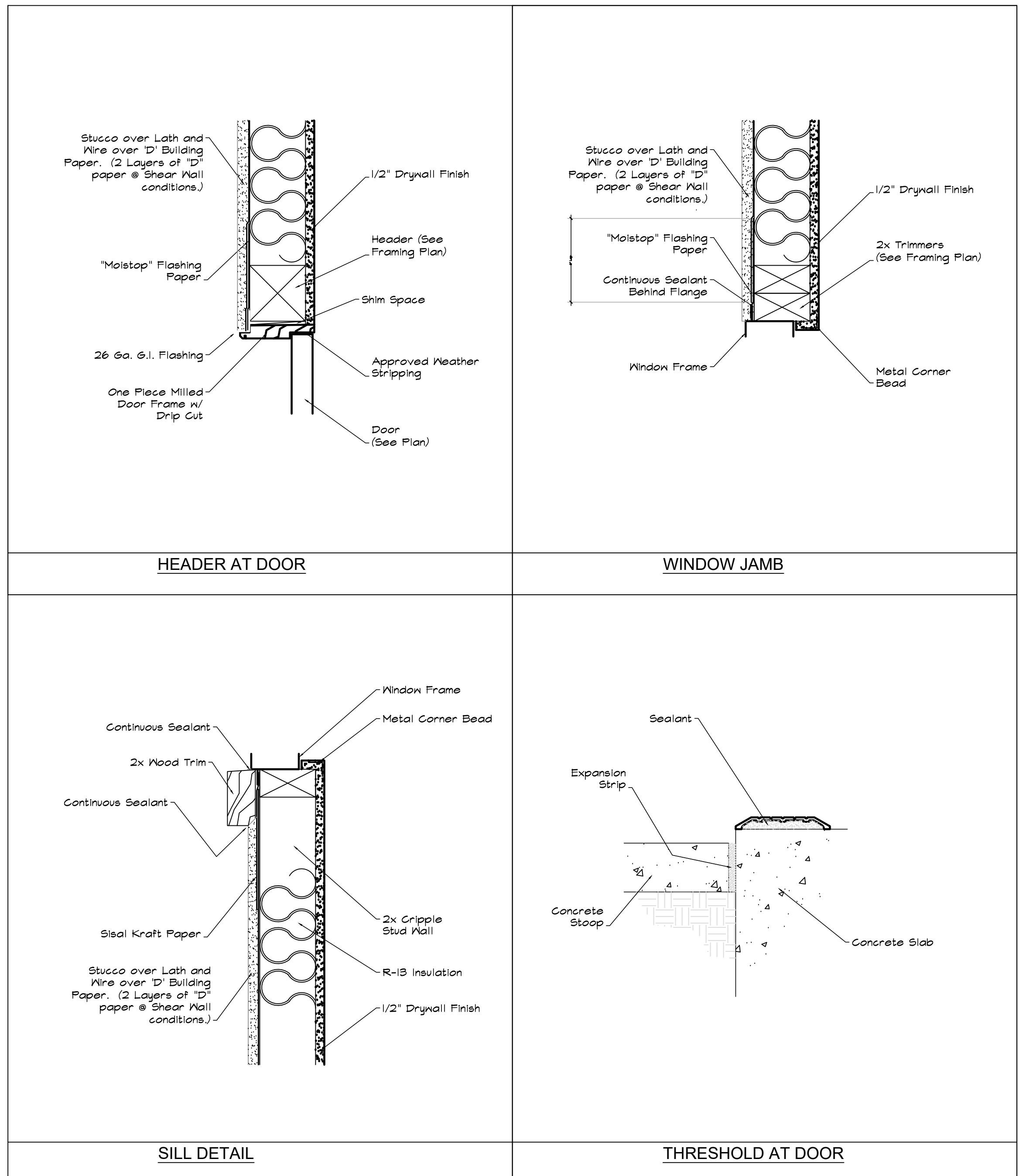
3	EA	HW HINGE	5BB1HW 4.5 X 4.5	613	IVE
1	EA	ENTRANCE w/ DEAD BOLT	L9453T 17A L583-363	613	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA	695	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	613	IVE
1	EA	FLOOR STOP	FS441	613	IVE
1	SET	SEALS	88S	BLK	ZER
1	EA	DOOR SWEEP	39D	D	ZER
1	EA	THRESHOLD	102A-MSLA-10	A	ZER

HARDWARE SET 02  
EACH ASSEMBLY TO HAVE:

3	EA	HW HINGE	5BB1HW 4.5 X 4.5	613	IVE
1	EA	CLASSROOM LOCK	AL70HD NEP	613	SCH
1	EA	PRIMUS K-L CYLINDER	20-728	626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA	695	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	613	IVE
1	EA	MOP PLATE	8400 6" X 1" LDW B-CS	613	IVE
1	EA	FLOOR STOP	FS18S	BLK	ZER
1	SET	SEALS	188S	BLK	ZER
1	EA	DOOR SWEEP	111A	A	ZER
1	EA	THRESHOLD	102A-MSLA-10	A	ZER

HARDWARE SET 03  
BY ROLL-UP DOOR MANUFACTURER

TYPICAL DOOR AND WINDOW DETAILS



**GENERAL GRADING NOTES**

- ALL GRADING SHALL CONFORM TO THE CURRENT CALIFORNIA BUILDING CODE (CBC) CHAPTERS 17, 18, & APPENDIX-J AS AMENDED BY ORDINANCE 457.
- ALL PROPERTY CORNERS, GRADING BOUNDARIES AND ALL CONSERVATION AREAS/LEAST SENSITIVE AREA (LSA) DETERMINED BY THE ENVIRONMENTAL PROGRAMS DEPARTMENT (EPD) SHALL BE CLEARLY DELINEATED AND STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION/GRADING.
- ALL WORK UNDER THIS PERMIT SHALL BE LIMITED TO WORK WITHIN THE PROPERTY LINES. ALL WORK WITHIN THE ROAD RIGHT-OF-WAY WILL REQUIRE SEPARATE PLANS AND A SEPARATE REVIEW-APPROVAL (PERMIT) FROM THE TRANSPORTATION DEPARTMENT.
- ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A SOILS ENGINEER IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION PREPARED BY CONVERSE CONSULTANTS DATED 11/16/2023.
- COMPACTED FILL TO SUPPORT ANY STRUCTURES SHALL COMPLY WITH SECTION 1803.5.8. PROJECTS WITHOUT A PRELIMINARY SOILS REPORT SHALL INCLUDE DETAILED SPECIFICATIONS IN ACCORDANCE WITH SECTIONS 1803.2 AND 1803.5 PREPARED BY THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL NOTIFY THE BUILDING AND SAFETY DEPARTMENT AT LEAST 24 HOURS IN ADVANCE TO REQUEST FINISH LOT GRADE AND DRAINAGE INSPECTION. THIS INSPECTION MUST BE APPROVED PRIOR TO BUILDING PERMIT FINAL INSPECTION FOR EACH LOT.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT, TWO DAYS BEFORE DIGGING AT 1-800-422-4133.
- PRIOR TO GRADING, A MEETING SHALL BE SCHEDULED WITH A RIVERSIDE COUNTY ENVIRONMENTAL COMPLIANCE INSPECTOR PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.

**CUT/FILL**

- MAXIMUM CUT AND FILL SLOPE = 2:1 (HORIZONTAL TO VERTICAL).
- NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, TOPSOIL AND OTHER DELETERIOUS MATERIAL. FILLS SHOULD BE PLACED IN THIN LIFTS (8-INCH MAX OR AS RECOMMENDED IN THE SOILS REPORT), COMPACTED AND TESTED THROUGHOUT THE GRADING PROCESS UNTIL FINAL GRADES ARE ATTAINED. ALL FILLS ON SLOPES STEEPER THAN 5 TO 1 (HORIZONTAL TO VERTICAL) AND A HEIGHT GREATER THAN 5 FEET SHALL BE KEYPED AND BENCHED INTO FIRM NATURAL SOIL FOR FULL SUPPORT. THE BENCH UNDER THE TOE MUST BE 10 FEET WIDE MINIMUM.
- THE SLOPE STABILITY FOR CUT AND FILL SLOPES OVER 30 FEET IN VERTICAL HEIGHT, OR CUT SLOPES STEEPER THAN 2:1 HAVE BEEN VERIFIED WITH A FACTOR OF SAFETY OF AT LEAST 1.5.
- NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 12 INCHES SHALL BE BURIED OR PLACED IN FILLS CLOSER THAN 10 FEET TO THE FINISHED GRADE.

**DRAINAGE, EROSION/DUST CONTROL**

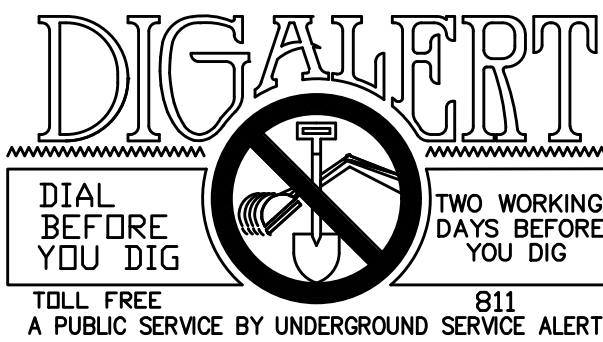
- DRAINAGE ACROSS PROPERTY LINES SHALL NOT EXCEED THAT WHICH EXISTED PRIOR TO GRADING. EXCESS OR CONCENTRATED DRAINAGE SHALL BE CONTAINED ON SITE OR DIRECTED TO AN APPROVED DRAINAGE FACILITY. EROSION OF THE GROUND IN THE AREA OF DISCHARGE SHALL BE PREVENTED BY INSTALLATION OF NON-EROSIVE DOWN DRAINS OR OTHER DEVICES.
- PROVIDE A PAVED SLOPE INTERCEPTOR DRAIN ALONG THE TOP OF CUT SLOPES WHERE THE DRAINAGE PATH IS GREATER THAN 40 FEET TOWARDS THE CUT SLOPE.
- PROVIDE 5' WIDE BY 1' HIGH BERM ALONG THE TOP OF ALL FILL SLOPES STEEPER THAN 3:1 (HORIZONTAL TO VERTICAL).
- THE GROUND SURFACE IMMEDIATELY ADJACENT TO THE BUILDING FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL (5-PERCENT SLOPE) FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE FOUNDATION.
- NO OBSTRUCTION OF NATURAL WATER COURSES SHALL BE PERMITTED.
- DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL (BEST MANAGEMENT PRACTICES, BMPs) SHALL BE PROVIDED TO PREVENT PONDING WATER AND DRAINAGE TO ADJACENT PROPERTIES.
- DUST CONTROL SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.
- FUGITIVE DUST CONTROL: CONSTRUCTION SITES SUBJECT TO PM10 FUGITIVE DUST MITIGATION SHALL COMPLY WITH AQMD RULE 403.1.
- ALL EXISTING DRAINAGE COURSES AND STORM DRAIN FACILITIES SHALL CONTINUE TO FUNCTION. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING OPERATIONS.
- FOR ALL SLOPES STEEPER THAN 4 TO 1 (H/V): ALL SLOPES EQUAL TO OR GREATER THAN 3' IN VERTICAL HEIGHT ARE REQUIRED TO BE PLANTED WITH AN APPROVED DROUGHT-TOLERANT GROUND COVER AT A MINIMUM SPACING OF 12" ON CENTER OR AS APPROVED BY THE ENGINEER OF RECORD OR THE REGISTERED LANDSCAPE ARCHITECT AND DROUGHT-TOLERANT SHRUBS SPACED AT NO MORE THAN 10' ON CENTER. SLOPES EXCEEDING 15' IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED SHRUBS NOT TO EXCEED 10' ON CENTER, OR TREES SPACED NOT TO EXCEED 20' ON CENTER, OR A COMBINATION OF SHRUBS AND TREES NOT TO EXCEED 15' IN ADDITION TO THE GRASS OR GROUND COVER. SLOPES THAT REQUIRE PLANTING SHALL BE PROVIDED WITH AN IN-GROUND IRRIGATION SYSTEM EQUIPPED WITH AN APPROPRIATE BACKFLOW DEVICE PER C.P.C. CHAPTER 6. THE SLOPE PLANTING AND IRRIGATION SYSTEM SHALL BE INSTALLED AS SOON AS POSSIBLE UPON COMPLETION OF ROUGH GRADING. ALL PERMANENT SLOPE PLANTING SHALL BE ESTABLISHED AND IN GOOD CONDITION PRIOR TO SCHEDULING PRECISE GRADE INSPECTION.

**COMPLETION OF WORK (ROUGH GRADE AND PRECISE GRADE)**

- DEPARTMENT OF BUILDING AND SAFETY FOR REVIEW AND APPROVAL. THE REPORT SHALL INCLUDE BUILDING FOUNDATION DESIGN PARAMETERS (ALLOWABLE SOIL PRESSURES, ETC.), EXPANSION INDEX (AND DESIGN ALTERNATIVES IF EI > 20), WATER SOLUBLE SULFATE CONTENT, CORROSIVITY AND REMEDIAL MEASURES IF NECESSARY.
- EXCEPT FOR NON-TRACT SINGLE RESIDENTIAL LOT GRADING, THE COMPACTION REPORT SHALL INCLUDE THE SPECIAL INSPECTION VERIFICATIONS LISTED ON TABLE 1705.6 OF 2016 CBC.
- THE COUNTY OF RIVERSIDE REQUIRES A LICENSED PROFESSIONAL ENGINEER TO SUBMIT A WET SIGNED AND STAMPED ROUGH GRADING CERTIFICATION WHICH INCLUDES PAD ELEVATIONS PRIOR TO REQUESTING INSPECTION AND ISSUANCE OF THE BUILDING PERMIT.
- ROUGH GRADE ONLY PERMITS: IN ADDITION TO OBTAINING ALL REQUIRED INSPECTIONS AND APPROVAL OF ALL FINAL REPORTS, ALL SITES PERMITTED FOR ROUGH GRADE ONLY SHALL PROVIDE VEGETATIVE COVERAGE (100 PERCENT) OR OTHER MEANS OF SITE STABILIZATION APPROVED BY ENVIRONMENTAL COMPLIANCE DIVISION, PRIOR TO RECEIVING A ROUGH GRADE PERMIT FINAL.
- A REGISTERED CIVIL ENGINEER SHALL SUBMIT TO THE BUILDING AND SAFETY DEPARTMENT WRITTEN FINAL CERTIFICATION OF COMPLETION OF GRADING IN ACCORDANCE WITH THE APPROVED GRADING PLAN PRIOR TO THE REQUEST OF PRECISE GRADING INSPECTION.

**LEGEND**

---	(E)	---	EXISTING UNDERGROUND ELECTRICAL	FF	FINISHED FLOOR		PROPOSED AC PAVEMENT
---	(OH)	---	EXISTING OVERHEAD ELECTRICAL	FG	FINISHED GROUND		PROPOSED PCC PAVEMENT
---	(G)	---	EXISTING GAS	FL	FLOWLINE		PROPOSED DG SURFACE
---	(SS)	---	EXISTING SANITARY SEWER	FS	FINISHED SURFACE		
---	(SD)	---	EXISTING STORM DRAIN	GB	GRADE BREAK		
---	(W)	---	EXISTING WATER	HP	HIGH POINT		
---	x	x	EXISTING CHAIN LINK FENCE	INV	INVERT	SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
---	(1020)	---	EXISTING CONTOUR	LP	LOW POINT	SPPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
				NAP	NOT A PART		
				PIP	PROTECT IN PLACE		
				R	RIDGE		
				RIM	TOP OF CLEANOUT		
				TC	TOP OF CURB		
				TC	TOP OF GRATE		
				TW	TOP OF WALL		



WDID/APP ID \_\_\_\_\_

**PRECISE GRADING PLAN  
FOR  
SARB MAINTENANCE FACILITY**

**RivCoParks  
PROJECT No. PK-ARPA009**

**GENERAL NPDES NOTES**

- CONSTRUCTION SITE BEST MANAGEMENT PRACTICES (BMPs) FOR THE MANAGEMENT OF STORM WATER AND NON-STORMWATER DISCHARGES SHALL BE DOCUMENTED ON THE GRADING PLAN. ARRANGEMENTS SHALL BE MADE BY THE DEVELOPER TO RETAIN THE SWPPP ON THE JOBSITE THROUGHOUT THE TIME OF CONSTRUCTION. THE IMPLEMENTATION AND MAINTENANCE OF THE SITE BMPs IS REQUIRED TO MINIMIZE JOBSITE EROSION AND SEDIMENTATION. ARRANGEMENTS SHALL BE MADE BY THE DEVELOPER TO MAINTAIN THOSE BMPs THROUGHOUT THE TIME OF CONSTRUCTION.
- EROSION CONTROL BMPs SHALL BE IMPLEMENTED AND MAINTAINED TO PREVENT AND/OR MINIMIZE THE ENTRAINMENT OF SOIL IN RUNOFF FROM DISTURBED SOIL AREAS ON CONSTRUCTION SITES.
- SEDIMENT CONTROL BMPs SHALL BE IMPLEMENTED AND MAINTAINED TO PREVENT AND/OR MINIMIZE THE TRANSPORT OF SOIL FROM THE CONSTRUCTION SITE.
- GRADING SHALL BE PHASED TO LIMIT THE AMOUNT OF DISTURBED AREA EXPOSED TO THE EXTENT FEASIBLE.
- AREAS THAT ARE CLEARED AND GRADED SHALL BE LIMITED TO ONLY THE PORTION OF THE SITE THAT IS NECESSARY FOR CONSTRUCTION. THE CONSTRUCTION SITE SHALL BE MANAGED TO MINIMIZE THE EXPOSURE TIME OF DISTURBED SOIL AREAS THROUGH PHASING AND SCHEDULING OF GRADING AND THE USE OF TEMPORARY AND PERMANENT SOIL STABILIZATION.
- ONCE DISTURBED, SLOPES (TEMPORARY OR PERMANENT) SHALL BE STABILIZED IF THEY WILL NOT BE WORKED WITHIN 21 DAYS. DURING STORM SEASON, ALL SLOPES SHALL BE STABILIZED PRIOR TO PREDICTED STORM EVENT. CONSTRUCTION SITES SHALL BE REVEGETATED AS EARLY AS FEASIBLE AFTER SOIL DISTURBANCE.
- STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO ELIMINATE OR REDUCE SEDIMENT TRANSPORT FROM THE SITE OR STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
- CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT A STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OTHER THAN STORMWATER (NON-STORMWATER DISCHARGES) ARE PROHIBITED, EXCEPT AS AUTHORIZED BY AN INDIVIDUAL NPDES PERMIT. THE STATEWIDE GENERAL PERMIT-CONSTRUCTION ACTIVITY. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, SOLVENTS, DETERGENTS, GLUES, LIME, PESTICIDES, HERBICIDES, FERTILIZERS, WOOD PRESERVATIVES, AND ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS, FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS, CONCRETE AND RELATED CUTTING OR CURING RESIDUES; FLOATABLE WASTES; WASTES FROM ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DREGREASING; WASTES FROM STREET CLEANING; AND SUPER-CHLORINATED POTABLE WATER FROM LINE FLUSHING AND TESTING. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATE FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
- RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITE AND MUST NOT BE DISCHARGED TO RECEIVING WATERS OR LOCAL STORM DRAIN SYSTEM.
- APPROPRIATE BMPs FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED TO ELIMINATE OR REDUCE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
- ALL CONSTRUCTION CONTRACTORS AND SUBCONTRACTOR PERSONNEL ARE TO BE TRAINED IN THE IMPLEMENTATION AND USE OF THE REQUIRED BMPs AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS AND ALL TRAINING DOCUMENTATION SHALL BE MAINTAINED IN THE SWPPP.
- DISCHARGING CONTAMINATED GROUNDWATER PRODUCED BY DETERMINING GROUNDWATER THAT HAS INFILTRATED INTO THE CONSTRUCTION SITE IS PROHIBITED. DISCHARGING OF CONTAMINATED SOILS VIA SURFACE EROSION IS ALSO PROHIBITED. DISCHARGING NON-CONTAMINATED GROUNDWATER PRODUCED BY DETERMINING ACTIVITIES MAY REQUIRE A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE REGIONAL WATER QUALITY CONTROL BOARD.
- BMPs SHALL BE MAINTAINED AT ALL TIMES. IN ADDITION, BMPs SHALL BE INSPECTED PRIOR TO PREDICTED STORM EVENTS AND FOLLOWING STORM EVENTS.
- AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY, ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED OF IN TRASH OR RECYCLE BINS.

**PRIVATE ENGINEER'S NOTICE TO CONTRACTOR**

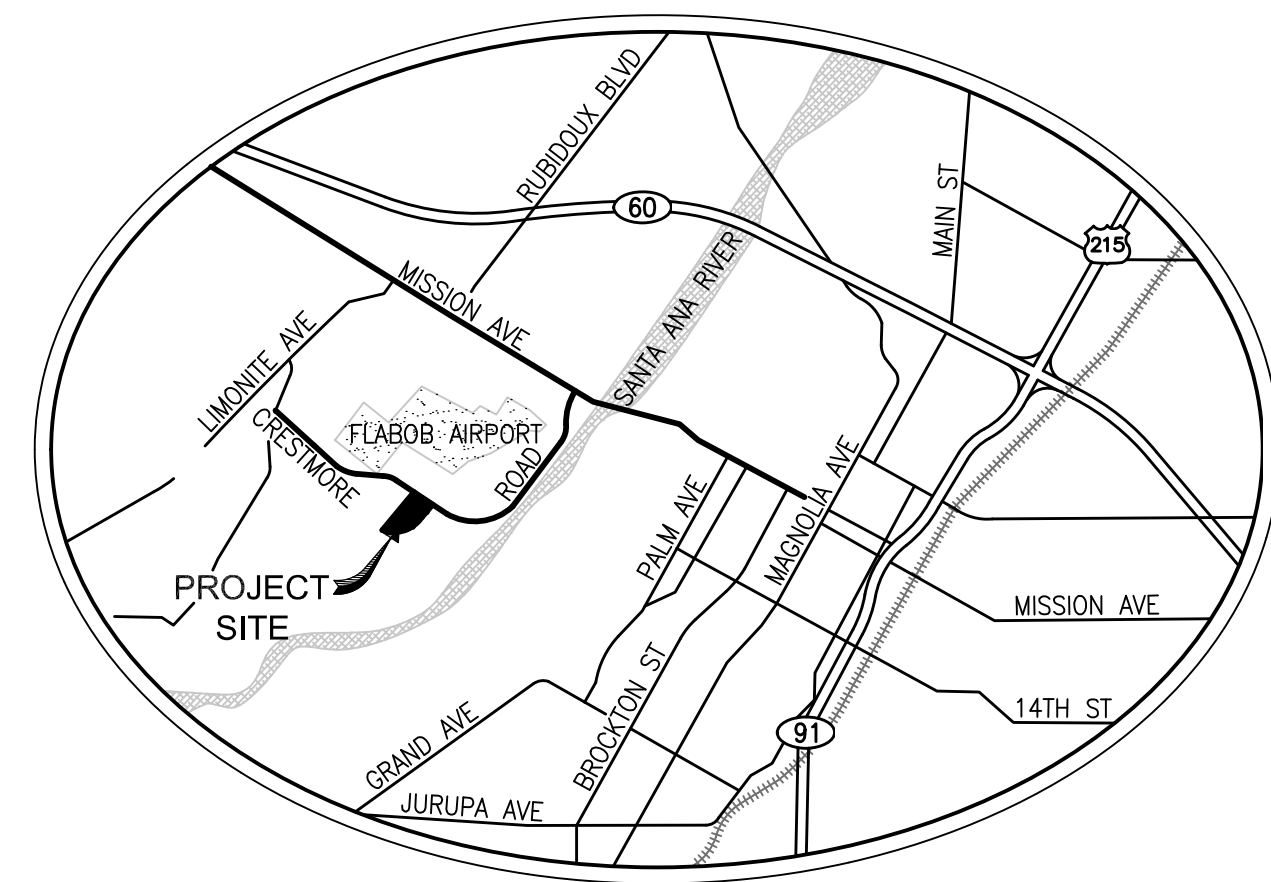
- ALL AVAILABLE RECORDS FROM THE OWNER AND UTILITY COMPANIES HAVE BEEN INVESTIGATED AND ALL KNOWN UTILITY CONDUITS AND SUBSTRUCTURES ARE SHOWN HEREON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UTILITY CONDUITS AND SUBSTRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS BY "POT HOLING" PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR AND/OR REPLACEMENT OF SAID UTILITY CONDUITS AND SUBSTRUCTURES DAMAGED BY HIS OPERATION IN CONNECTION WITH THE LIMITS OF THIS PROJECT. CONTRACTOR TO POT HOLE AND VERIFY EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITY CROSSING PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THE PROJECT DRAWINGS. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN BY THE CONTRACTOR.
- EXISTING UTILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. RELOCATION OR REMOVAL OF ANY EXISTING UTILITIES NOT COVERED BY THESE PLANS SHALL BE PERFORMED BY OR UNDER THE DIRECTION OF THE RESPECTIVE UTILITY OWNERS AT THE EXPENSE OF THE DEVELOPER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL, IF ANY, EXISTING SURVEY MONUMENTS.
- THE CONTRACTOR SHALL POSSESS A VALID STATE CONTRACTOR'S LICENSE AND SHALL BE REQUIRED TO POSSESS A VALID CITY BUSINESS LICENSE WHILE PERFORMING WORK ON THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF ANY WORK COVERED BY THESE PLANS.
- THE CONTRACTOR(S) AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.
- THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER OF RECORD HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER AND/OR THE ENGINEER OF RECORD.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN HEREON AT THE JOB SITE PRIOR TO ANY CONSTRUCTION. THE ENGINEER OF RECORD SHALL BE NOTIFIED OF ANY DISCREPANCIES. REVISIONS TO THE PLAN SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO IMPLEMENTATION.
- UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

**CONSTRUCTION NOTES AND QUANTITIES**

SEE SHEET C2.02 FOR CONSTRUCTION NOTES AND QUANTITIES

<b>EARTHWORK QUANTITIES</b>		<b>TOTAL DISTURBED AREA</b>	
TOTAL CUT:	300 CY	1.82-ACRES (79,095 SF)	
TOTAL FILL:	1,705 CY		
TOTAL IMPORT/EXPORT:	1,405 CY		

EARTHWORK QUANTITIES ARE FOR PLAN CHECKING PURPOSES ONLY. CONTRACTOR TO PERFORM THEIR OWN TAKE-OFFS FOR CONSTRUCTION. ENGINEER MAKES NO WARRANTIES TO THE ACCURACY OF SAID QUANTITIES.



**VICINITY MAP**

**SHEET INDEX**

TITLE SHEET	C0.01
DEMOLITION PLAN	C1.01
PRECISE GRADING PLAN	C2.01
PRECISE GRADING PLAN	C2.02
WET UTILITY PLAN	C3.01
EROSION CONTROL PLAN	C4.01
DETAIL SHEET	C5.01
DETAIL SHEET	C5.02

**OWNER**

RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509  
PHONE: 951.955.2966  
CONTACT: ANTHONY MILLER

**CIVIL ENGINEER/SURVEYOR**

DAVID BECKWITH AND ASSOCIATES, INC  
9431 HAVEN AVENUE, SUITE 232  
RANCHO CUCAMONGA, CA 91730  
PHONE: 714.349.7007  
CONTACT: DAVID M. BECKWITH, PE, PLS

**LANDSCAPE ARCHITECT**

COMMUNITY WORKS DESIGN GROUP  
7111 INDIANA AVENUE, SUITE 300  
RIVERSIDE, CA 92504  
PHONE: 951.369.0700  
CONTACT: SCOTT RICE, RLA

**GEOTECHNICAL ENGINEER**

CONVERSE CONSULTANTS  
2021 RANCHO DRIVE, SUITE 1  
REDLANDS, CA 92373  
PHONE: 909.769.0544  
CONTACT: HASHMI QUAZI, PhD, PE, GE  
PROJECT NO: 23-81-234-01, DATED 11/16/2023

**BENCHMARK**

BENCHMARK: POINT #100

SET MAIL NAIL AND WASHER FLUSH IN PAVEMENT IN PARKING LOT STRIPING INTERSECTION APPROX. 130' EAST AND 24' NORTH OF THE ELECTRIC VEHICLE CHARGING STATION. SET AS TEMPORARY BENCH FOR PROJECT.

ELEVATION: 755.955

**BASIS OF BEARINGS**

THE COORDINATES SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 6, (2010.00 EPOCH) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819; SAID COORDINATES ARE BASED LOCALLY UPON FIELD-OBSERVED TIES TO THE FOLLOWING NATIONAL GEODETIC SURVEY NETWORK, CONTINUALLY OPERATING REFERENCE STATIONS (CORS), OR EQUIVALENT STATIONS:

STATION	NORTHING	EASTING
GISA	2334086.16	6268420.41
P584	2269135.98	6348737.97

**SURVEYOR'S NOTES**

- THIS MAP IS NOT A BOUNDARY SURVEY. NO PROPERTY CORNERS HAVE BEEN SET AS PART OF THIS WORK.
- SURVEY MONUMENTS FOUND IN THE COURSE OF THIS MAPPING HAVE BEEN SET BY OTHERS, AND USED ONLY AS REFERENCE FOR PURPOSES OF TOPOGRAPHIC MAPPING, WITHOUT THE VERIFICATION OF ITS AGREEMENT WITH APPLICABLE LEGAL DESCRIPTIONS AND SENIORITY OF DEEDS.
- RELATION OF TOPOGRAPHIC FEATURES (FENCES, WALLS, TREES, POWER POLES, ETC.) TO PROPERTY LINES SHOWN ON THIS MAP IS SUBJECT TO THE ADJUSTMENTS TO ANY BOUNDARY SURVEY THAT IS TO BE DONE ON THE PROPERTY.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS, IF ANY, ARE NOT SHOWN.
- SURVEY MONUMENTS THAT EXIST AS SHOWN ON RECORDED MAPS, HIGHWAY MAPS, OR POINTS THAT PROVIDE SURVEY CONTROL WITHIN THE CONSTRUCTION AREAS, SHALL BE LOCATED AND REFERENCED BY A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER (AUTHORIZED TO PRACTICE LAND SURVEYING). BEFORE THE START OF CONSTRUCTION, CORNER RECORDS SHALL BE FILED WITH THE COUNTY SURVEYOR. THESE CORNER RECORDS SHALL DESCRIBE THE MONUMENTS FOUND WITH THE DISTANCES TO REFERENCE POINTS FOR THE RESETTING OF SURVEY MONUMENTS. WHEN CONSTRUCTION IS COMPLETED, ANY DISTURBED MONUMENTS SHALL BE REPLACED AND CORNER RECORDS SHALL BE FILED WITH THE COUNTY SURVEYOR SHOWING THE NEW MONUMENTS.

**ENGINEER OF RECORD LID COMPLIANCE STATEMENT**

AS THE ENGINEER OF THE PROJECT, I HAVE REVIEWED THE LOW IMPACT DEVELOPMENT (LID) STANDARDS MANUAL BY THE COUNTY OF RIVERSIDE, AND HAVE PROPOSED THE IMPLEMENTATION OF THE PERMANENT BEST MANAGEMENT PRACTICES (BMPs) APPLICABLE TO EFFECTIVELY MINIMIZE THE NEGATIVE IMPACTS OF THE PROJECT'S STORMWATER RUNOFF. THE SELECTED BMPs WILL BE INSTALLED PER THE APPROVED PLANS AND AS RECOMMENDED BY THE MANUFACTURER AS APPLICABLE.

DAVID M. BECKWITH, PE, PLS, QSD, QSP, QISP \_\_\_\_\_ XX/XX/2024 \_\_\_\_\_  
NAME OF SIGNER SIGNATURE OF SIGNER DATE

**SITE LID INFORMATION**

PRE-CONSTRUCTION CONDITION (79,095 SF TOTAL AREA)			
PERVIOUS		IMPERVIOUS	
AREA (SF)	PERCENTAGE (%)	AREA (SF)	PERCENTAGE (%)
77,598.1	98.1	1,496.9	1.9
POST CONSTRUCTION CONDITION (79,095 SF TOTAL AREA)			
PERVIOUS		IMPERVIOUS	
AREA (SF)	PERCENTAGE (%)	AREA (SF)	PERCENTAGE (%)
72,774.9	92.0	6,320.1	8.0
AREA OF TOTAL IMPERVIOUS AREA BEING R&R'd		IMPERVIOUS AREAS BEING ADDED TO TOTAL SITE	
AREA (SF)	PERCENTAGE (%)	AREA (SF)	PERCENTAGE (%)
23.7	1.6	4,823.2	6.1

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www.davidbeckwithandassociates.com

CLIENT: COUNTY OF RIVERSIDE REGIONAL PARK & OPEN-SPACE DISTRICT  
4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

PROJECT: SARB MAINTENANCE FACILITY PROJECT No. PK-ARPA009  
4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

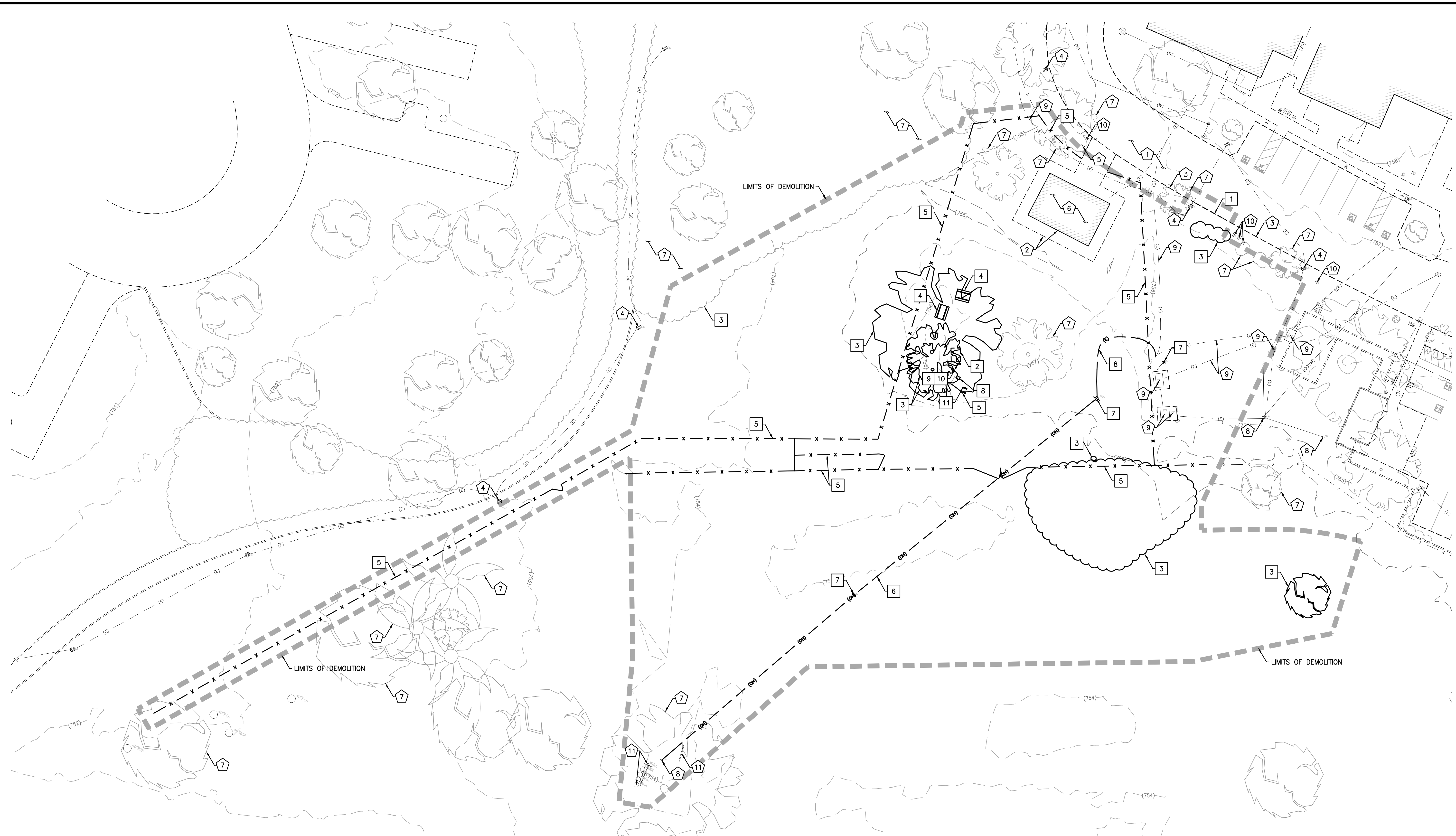
REVISIONS	DATE	BY

xx/xx/2024

SHEET TITLE  
**TITLE SHEET**

DESIGNED ---  
DRAWN ---  
CHECKED DMB  
DATE 01/29/2024  
SCALE PER PLAN  
JOB No. 2023-29

SHEET  
**C0.01**



**DEMOLITION NOTES**

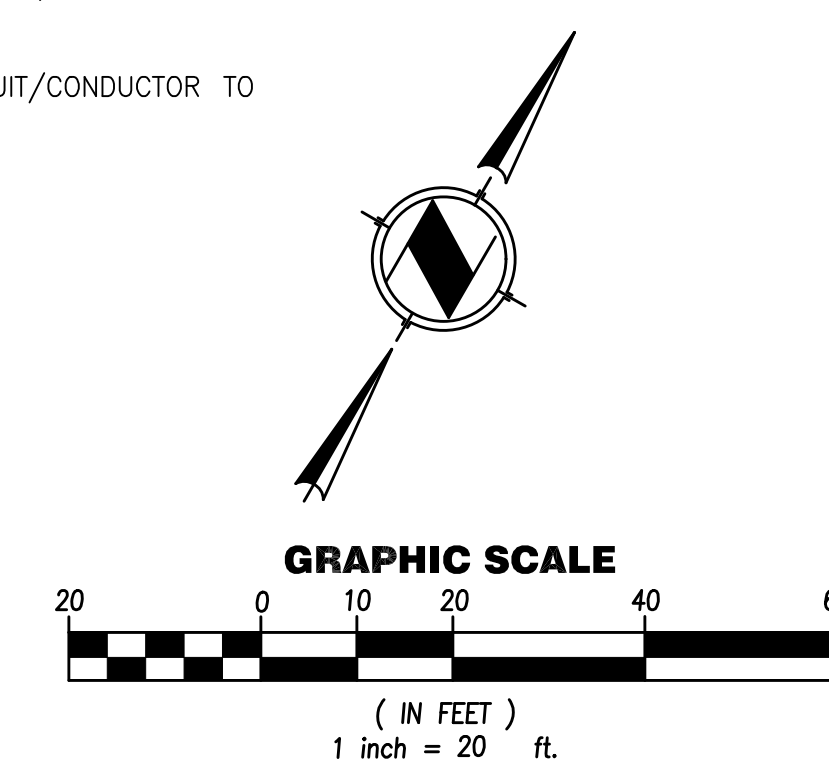
- 1 PROTECT IN PLACE EXISTING AC PAVEMENT
- 2 PROTECT IN PLACE EXISTING PCC PAVEMENT
- 3 PROTECT IN PLACE EXISTING CURB
- 4 PROTECT IN PLACE EXISTING SITE LIGHT
- 5 PROTECT IN PLACE EXISTING SIGN
- 6 PROTECT IN PLACE EXISTING BUILDING
- 7 PROTECT IN PLACE EXISTING TREE/VEGETATION
- 8 PROTECT IN PLACE EXISTING POWER POLE, GUY WIRE, AND ASSOCIATED APPURTENANCES
- 9 PROTECT IN PLACE EXISTING ELECTRICAL GEAR/Vault, UNDERGROUND CONDUIT, AND CONDUCTORS
- 10 PROTECT IN PLACE EXISTING IRRIGATION CONTROL VALVE, WIRING, AND PIPING
- 11 PROTECT IN PLACE EXISTING WELL, ELECTRICAL PANEL, PLUMBING, AND ASSOCIATED APPURTENANCES

- 1 REMOVE AND DISPOSE OF EXISTING CURB
- 2 REMOVE AND DISPOSE OF EXISTING CONCRETE PAD
- 3 REMOVE AND DISPOSE OF EXISTING TREE/SHRUB IN FULL INCLUDING ALL PORTIONS OF TRUNK AND ROOT MASS INCLUDING MAIN OBLIQUE AND LATERALS ROOTS TO A DEPTH OF 3'
- 4 REMOVE AND DISPOSE OF EXISTING PICNIC TABLE
- 5 REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE, GATES, POSTS, AND ASSOCIATED APPURTENANCES
- 6 REMOVE AND DISPOSE OF EXISTING OVERHEAD POWER LINES
- 7 REMOVE AND DISPOSE OF EXISTING POWER POLE
- 8 REMOVE AND DISPOSE OF EXISTING UNDERGROUND ELECTRICAL CONDUIT AND CONDUCTORS
- 9 REMOVE AND DISPOSE OF EXISTING NATURAL GAS CONNECTION, UNDERGROUND PIPING, AND CAP AT PROJECT LIMITS

- 10 REMOVE AND DISPOSE OF EXISTING WATER CONNECTION, UNDERGROUND PIPING, AND CAP AT PROJECT LIMITS
- 11 REMOVE AND DISPOSE OF EXISTING CABLE CONNECTION, UNDERGROUND CONDUIT/CONDUCTOR TO PROJECT LIMITS



WDID/APP ID \_\_\_\_\_



REVISIONS	DATE	BY



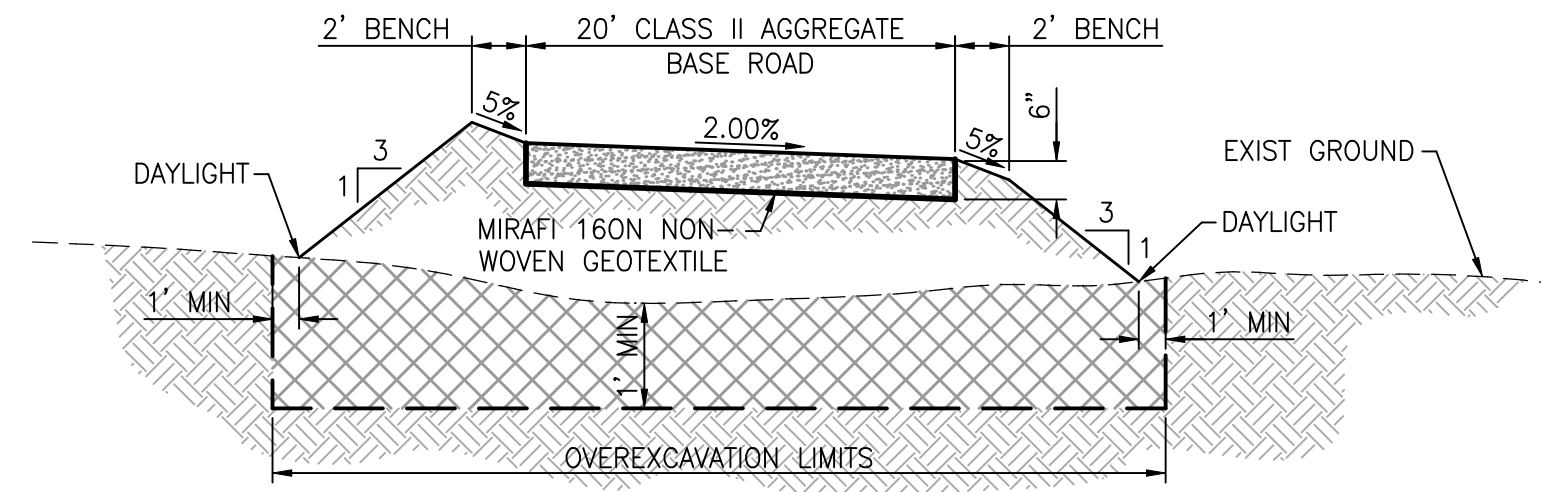
SHEET TITLE  
**DEMOLITION PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
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JOB NO.	2023-29

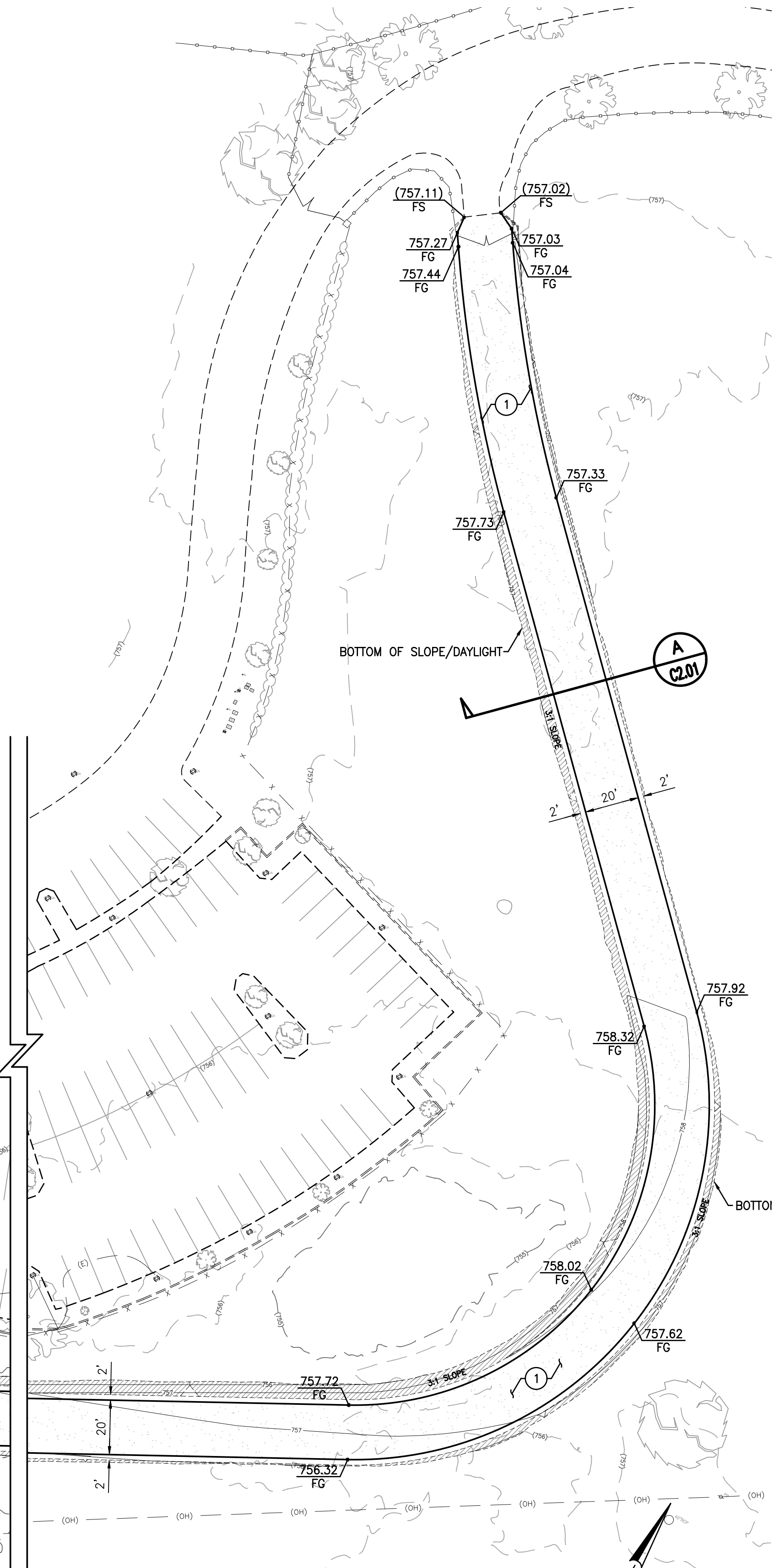
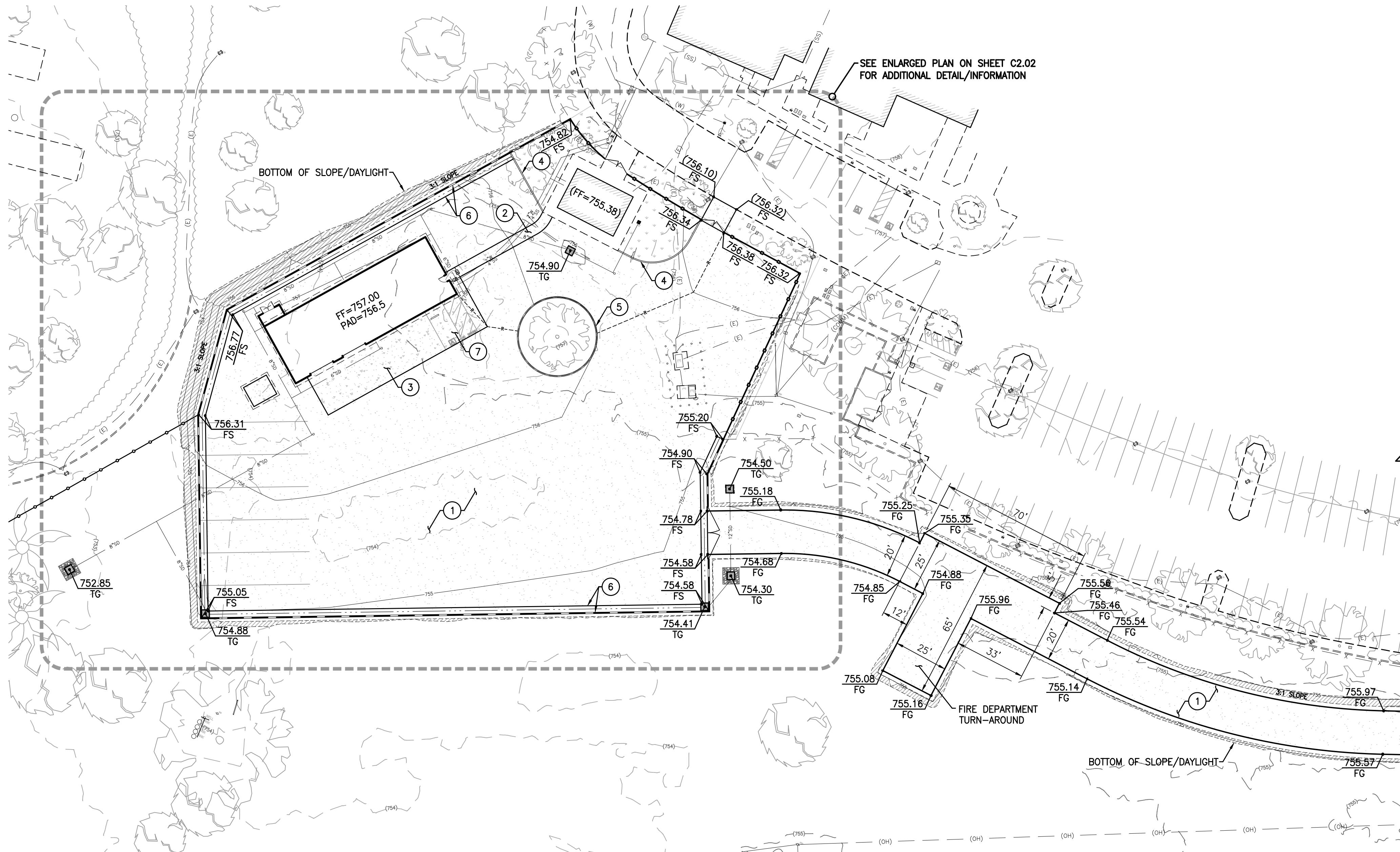
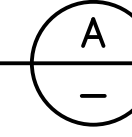
SHEET  
**C1.01**

**CONSTRUCTION NOTES**

1. CONSTRUCT 6" THICK CLASS II AGGREGATE BASE SURFACE (COMPACTED TO 90% RELATIVE COMPACTION) OVER 12" OF SCARIFIED AND RECOMPACTED NATIVE (PER GEOTECHNICAL REPORT)
2. CONSTRUCT 4" THICK PCC PAVEMENT (520-A-2500) OVER COMPACTED NATIVE (JOINTS, COLOR, AND FINISH PER PROJECT SPECIFICATIONS)
3. CONSTRUCT 6" THICK PCC PAVEMENT (520-A-2500) OVER COMPACTED NATIVE (JOINTS, COLOR, AND FINISH PER PROJECT SPECIFICATIONS)
4. CONSTRUCT 0" MOW CURB PER DETAIL A/C5.01
5. CONSTRUCT 18" TALL KEYSTONE RETAINING WALL AROUND TREE
6. CONSTRUCT 36" WIDE PCC V-GUTTER PER DETAIL B/C5.01
23. INSTALL 36"x36" OLDCASTLE PRECAST CONCRETE DRAINAGE INLET (PART #3636-CB-WB) W/ GALVANIZED STEEL TRAFFIC GRATE (CORE INLET FOR PIPE CONNECTION, DO NOT BREAK OUT CONNECTION)
24. PLACE RIP-RAP BED AROUND BUBBLER OUTLET PER DETAIL J/C5.02



**TYPICAL SECTION**  
NOT TO SCALE



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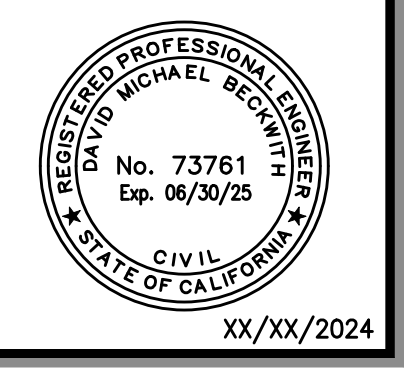
CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
PROJECT NO. PK-ARPA009

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JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



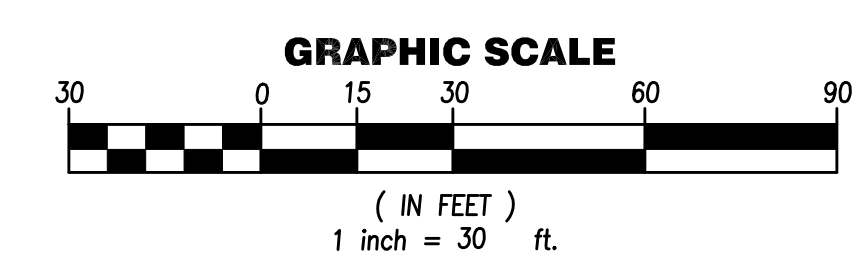
SHEET TITLE  
**PRECISE GRADING PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**C2.01**

**DIGALERT**  
DIAL BEFORE YOU DIG  
TWO WORKING DAYS BEFORE YOU DIG  
TOLL FREE 811  
A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

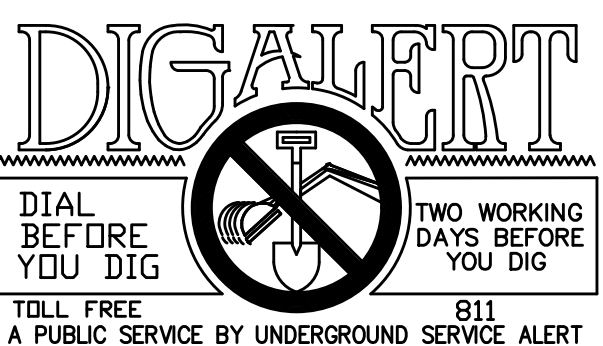
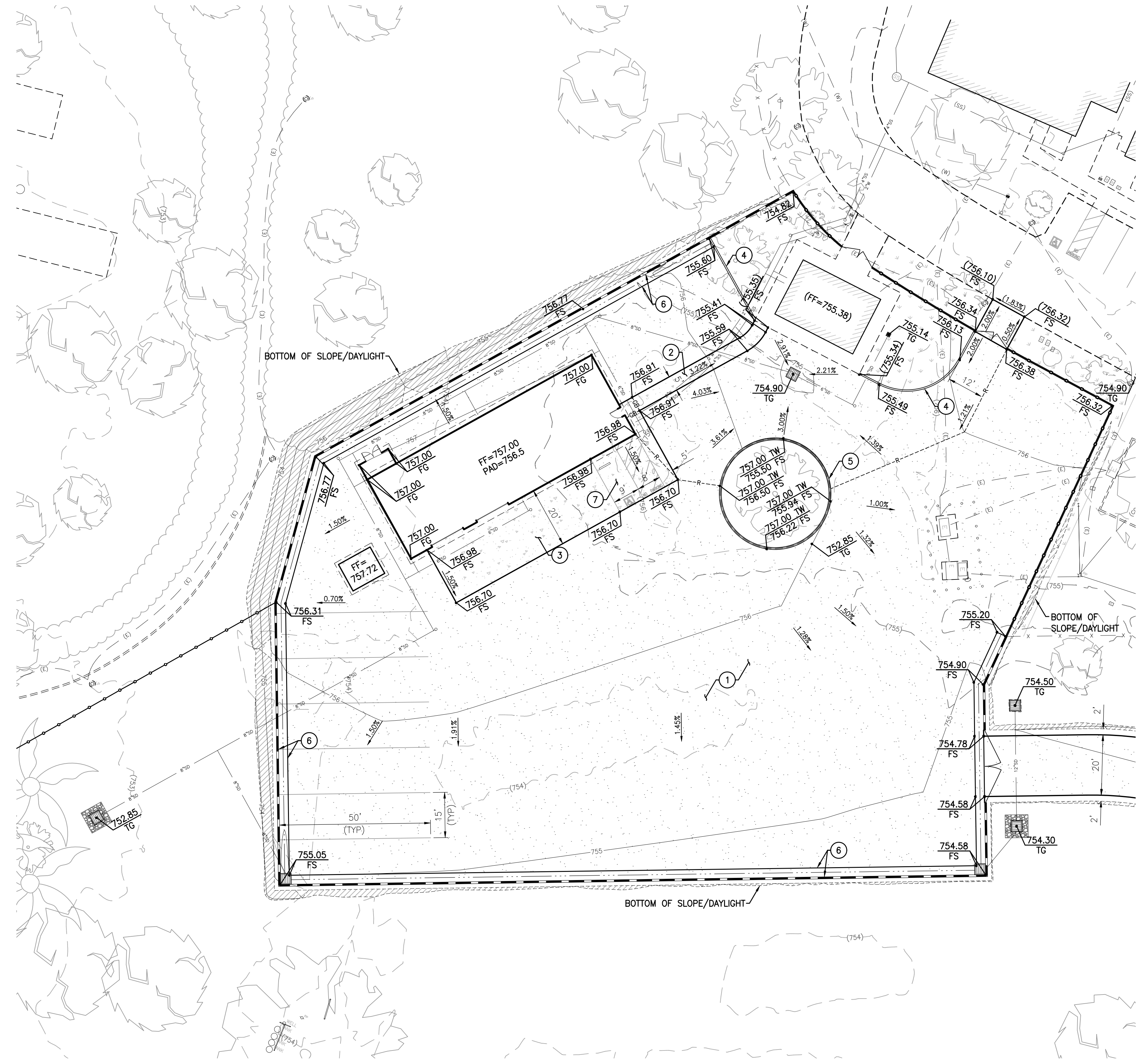
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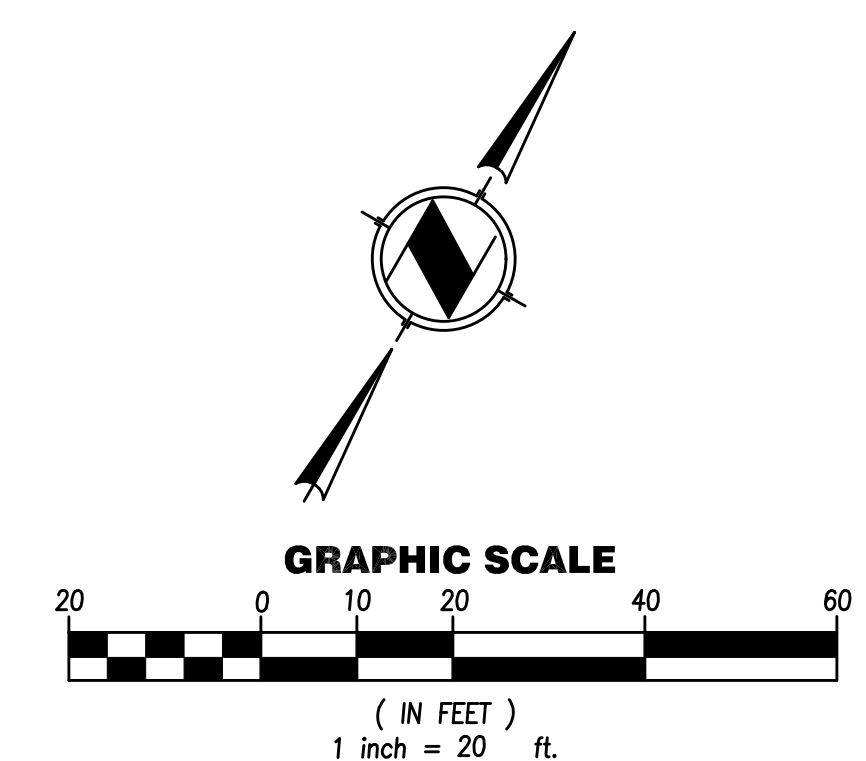


**DEMOLITION and CONSTRUCTION NOTES**

	QTY
1 REMOVE AND DISPOSE OF EXISTING CURB	12 LF
2 REMOVE AND DISPOSE OF EXISTING CONCRETE PAD	25 SF
3 REMOVE AND DISPOSE OF EXISTING TREE/SHRUB IN FULL INCLUDING ALL PORTIONS OF TRUNK AND ROOT MASS INCLUDING MAIN OBLIQUE AND LATERALS ROOTS TO A DEPTH OF 3'	7 EA
4 REMOVE AND DISPOSE OF EXISTING PICNIC TABLE	2 EA
5 REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE, GATES, POSTS, AND ASSOCIATED APPURTENANCES	990 LF
6 REMOVE AND DISPOSE OF EXISTING OVERHEAD POWER LINES	245 LF
7 REMOVE AND DISPOSE OF EXISTING POWER POLE	3 EA
8 REMOVE AND DISPOSE OF EXISTING UNDERGROUND ELECTRICAL CONDUIT AND CONDUCTORS	55 LF
9 REMOVE AND DISPOSE OF EXISTING NATURAL GAS CONNECTION, UNDERGROUND PIPING, AND CAP AT PROJECT LIMITS	1 EA
10 REMOVE AND DISPOSE OF EXISTING WATER CONNECTION, UNDERGROUND PIPING, AND CAP AT PROJECT LIMITS	1 EA
11 REMOVE AND DISPOSE OF EXISTING CABLE CONNECTION, UNDERGROUND CONDUIT/CONDUCTOR TO PROJECT LIMITS	1 EA
1 CONSTRUCT 6" THICK CLASS II AGGREGATE BASE SURFACE (COMPACTED TO 90% RELATIVE COMPACTION) OVER 12" OF SCARIFIED AND RECOMPACTED NATIVE (PER GEOTECHNICAL REPORT)	54,015 SF
2 CONSTRUCT 4" THICK PCC PAVEMENT (520-A-2500) OVER COMPACTED NATIVE (JOINTS, COLOR, AND FINISH PER PROJECT SPECIFICATIONS)	1,860 SF
3 CONSTRUCT 6" THICK PCC PAVEMENT (520-A-2500) OVER COMPACTED NATIVE (JOINTS, COLOR, AND FINISH PER PROJECT SPECIFICATIONS)	275 SF
4 CONSTRUCT 0" MOW CURB PER DETAIL A/C5.01	270 LF
5 CONSTRUCT 18" TALL KEYSTONE RETAINING WALL AROUND TREE	120 LF
6 CONSTRUCT 36" WIDE PCC V-GUTTER PER DETAIL PER DETAIL B/C5.01	590 LF
7 INSTALL ACCESSIBLE PARKING STRIPING PER DETAIL C/C5.01	1 EA
11 INSTALL 6" ADS N-12WT IB HDPE STORM DRAIN PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01	140 LF
12 INSTALL 8" ADS N-12WT IB HDPE STORM DRAIN PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01	405 LF
13 INSTALL 12" ADS N-12WT IB HDPE STORM DRAIN PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01	70 LF
14 INSTALL 12" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #1294WT)	1 LF
15 INSTALL 6"x4"x6" ADS INJECTION MOLDED WATERTIGHT 45° REDUCING WYE (PART #0680WT) W/ 4" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0494WT) AND CONNECT TO ROOF DOWNSPOUT PER DETAIL K/C5.02	4 EA
16 INSTALL 8"x4"x8" ADS INJECTION MOLDED WATERTIGHT 45° REDUCING WYE (PART #0880WT) W/ 4" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0494WT) AND CONNECT TO ROOF DOWNSPOUT PER DETAIL K/C5.02	3 EA
17 INSTALL 8"x6"x8" ADS INJECTION MOLDED WATERTIGHT 45° REDUCING WYE (PART #0881WT) W/ 6" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0694WT)	2 EA
18 INSTALL 6" ADS INJECTION MOLDED WATERTIGHT 45° WYE (PART #0681WT) W/ 6" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0694WT)	1 EA
19 INSTALL 8" ADS INJECTION MOLDED WATERTIGHT 45° WYE (PART #0882WT) W/ 8" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0894WT)	3 EA
20 INSTALL 8" ADS INJECTION MOLDED WATERTIGHT 45° WYE (PART #0882WT)	1 EA
21 INSTALL STORM DRAIN CLEANOUT PER DETAIL H/C5.01	6 EA
22 INSTALL 12" NDS ATRIUM DRAIN BASIN PER DETAIL I/C5.02	1 EA
23 INSTALL 36"x36" OLDCASTLE PRECAST CONCRETE DRAINAGE INLET (PART #3636-CB-WB) W/ GALVANIZED STEEL TRAFFIC GRATE (CORE INLET FOR PIPE CONNECTION, DO NOT BREAK OUT CONNECTION)	6 EA
24 PLACE RIP-RAP BED AROUND BUBBLER OUTLET PER DETAIL J/C5.02	90 SF
31 INSTALL 4" JM EAGLE RING-TITE GASKETED JOINT SDR-35 SEWER PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01	160 LF
32 INSTALL 4" HARCO SDR-35 GASKETED 45° WYE (PART #35-010404) W/ 4" HARCO SDR-35 GASKETED 45° ELBOW (PART #35-2204)	1 EA
33 INSTALL 4" HARCO SDR-35 GASKETED 45° WYE (PART #35-010404)	2 EA
34 INSTALL 6"x4" HARCO SDR-35 GASKETED SADDLE WYE (PART #35-35-550604) W/ 4" HARCO SDR-35 GASKETED 45° ELBOW (PART #35-2204) AND CONNECT TO EXISTING SEWER	1 EA
35 INSTALL SEWER CLEANOUT PER DETAIL L/C5.02	2 EA
36 CONNECT TO BUILDING SANITARY SEWER SYSTEM PER BUILDING PLUMBING PLANS	1 EA
41 INSTALL 2" TYPE K COPPER DOMESTIC WATER PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01	135 LF
42 INSTALL 2" TYPE K COPPER PRESS-FIT 45° ELBOW	2 EA
43 INSTALL 2" TYPE K COPPER PRESS-FIT TEE	1 EA
44 CONNECT TO EXISTING 10" C900 WATER SUPPLY	1 EA
45 CONNECT TO BUILDING DOMESTIC WATER SYSTEM PER BUILDING PLUMBING PLANS	1 EA



WDID/APP ID \_\_\_\_\_



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CLIENT:  
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4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



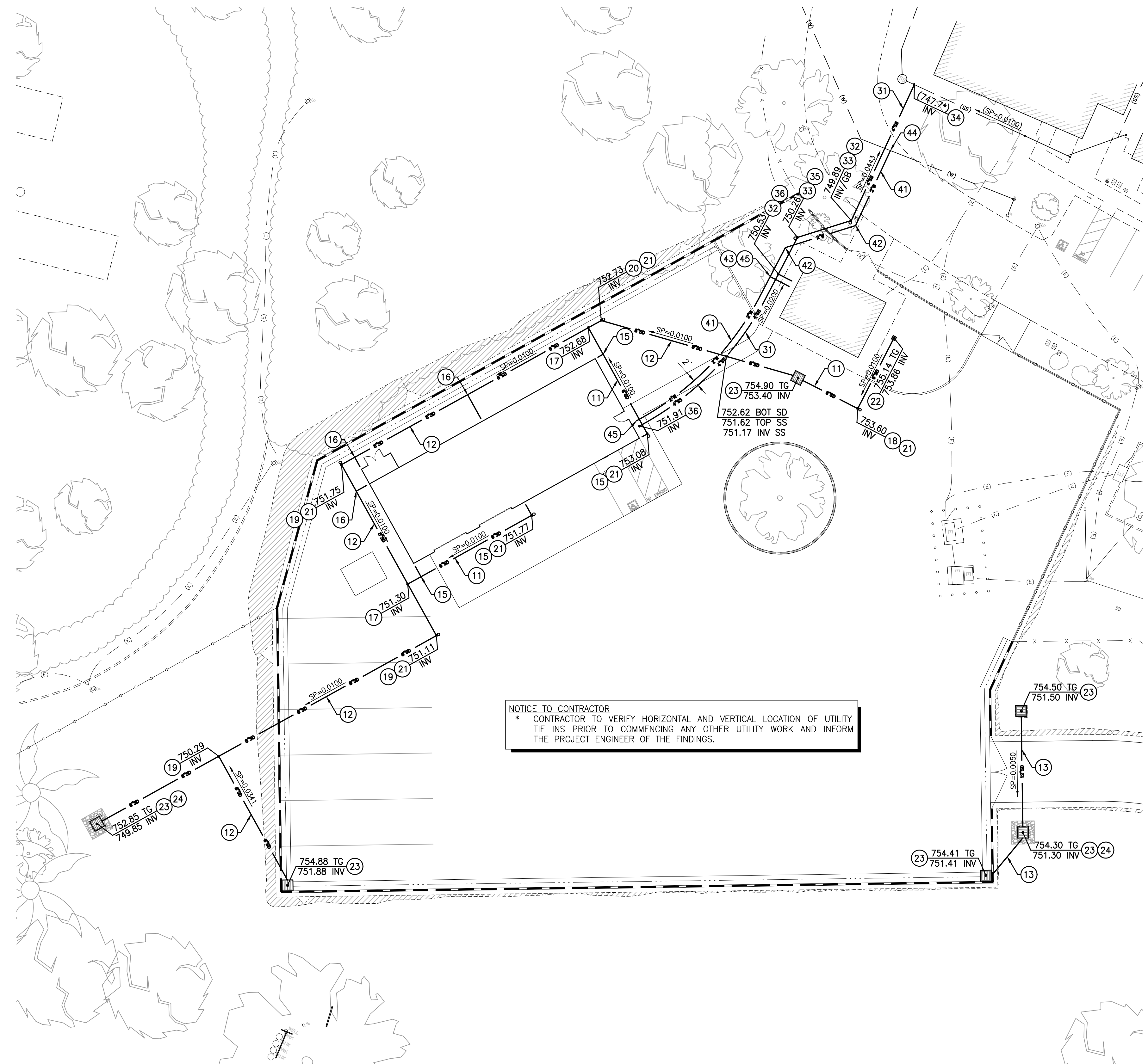
SHEET TITLE  
**PRECISE GRADING PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

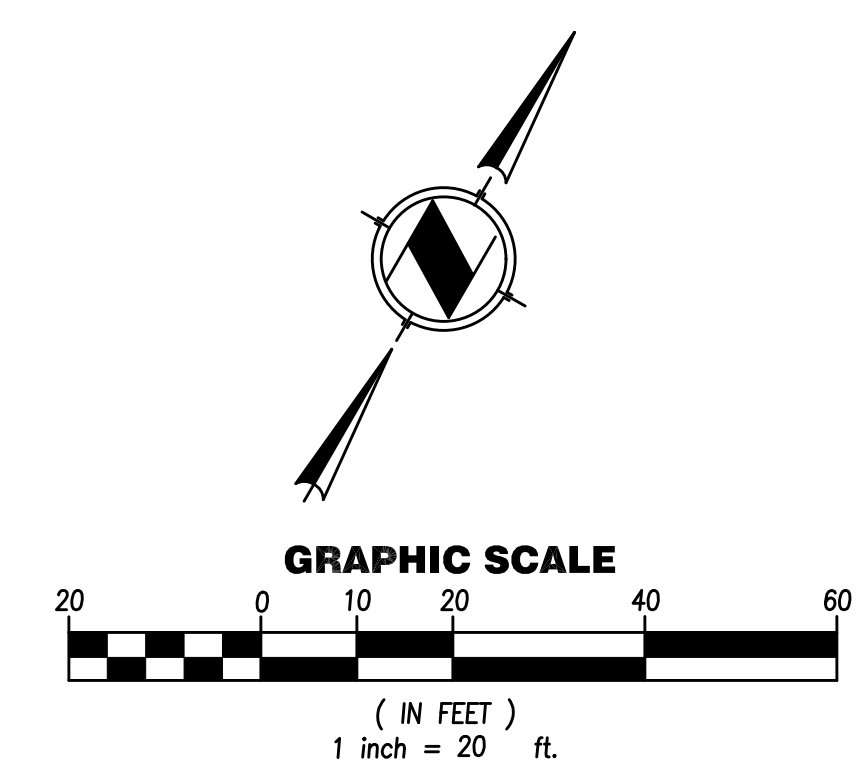
SHEET  
**C2.02**

**CONSTRUCTION NOTES**

- 11 INSTALL 6" ADS N-12WT IB HDPE STORM DRAIN PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01
- 12 INSTALL 8" ADS N-12WT IB HDPE STORM DRAIN PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01
- 13 INSTALL 12" ADS N-12WT IB HDPE STORM DRAIN PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01
- 14 INSTALL 12" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #1294WT)
- 15 INSTALL 6"x4"x6" ADS INJECTION MOLDED WATERTIGHT 45° REDUCING WYE (PART #0680WT) W/ 4" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0494WT) AND CONNECT TO ROOF DOWNSPOUT PER DETAIL K/C5.02
- 16 INSTALL 8"x4"x8" ADS INJECTION MOLDED WATERTIGHT 45° REDUCING WYE (PART #0880WT) W/ 4" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0494WT) AND CONNECT TO ROOF DOWNSPOUT PER DETAIL K/C5.02
- 17 INSTALL 8"x6"x8" ADS INJECTION MOLDED WATERTIGHT 45° REDUCING WYE (PART #0881WT) W/ 6" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0694WT)
- 18 INSTALL 6" ADS INJECTION MOLDED WATERTIGHT 45° WYE (PART #0681WT) W/ 6" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0694WT)
- 19 INSTALL 8" ADS INJECTION MOLDED WATERTIGHT 45° WYE (PART #0882WT) W/ 8" ADS INJECTION MOLDED WATERTIGHT 45° ELBOW (PART #0894WT)
- 20 INSTALL 8" ADS INJECTION MOLDED WATERTIGHT 45° WYE (PART #0882WT)
- 21 INSTALL STORM DRAIN CLEANOUT PER DETAIL H/C5.01
- 22 INSTALL 12" NDS ATRIUM DRAIN BASIN PER DETAIL I/C5.02
- 23 INSTALL 36"x36" OLDCASTLE PRECAST CONCRETE DRAINAGE INLET (PART #3636-CB-WB) W/ GALVANIZED STEEL TRAFFIC GRATE (CORE INLET FOR PIPE CONNECTION, DO NOT BREAK OUT CONNECTION)
- 24 PLACE RIP-RAP BED AROUND BUBBLER OUTLET PER DETAIL J/C5.02
- 31 INSTALL 4" JM EAGLE RING-TITE GASKETED JOINT SDR-35 SEWER PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01
- 32 INSTALL 4" HARCO SDR-35 GASKETED 45° WYE (PART #35-010404) W/ 4" HARCO SDR-35 GASKETED 45° ELBOW (PART #35-2204)
- 33 INSTALL 4" HARCO SDR-35 GASKETED 45° WYE (PART #35-010404)
- 34 INSTALL 6"x4" HARCO SDR-35 GASKETED SADDLE WYE (PART #35-35-550604) W/ 4" HARCO SDR-35 GASKETED 45° ELBOW (PART #35-2204) AND CONNECT TO EXISTING SEWER
- 35 INSTALL SEWER CLEANOUT PER DETAIL L/C5.02
- 36 CONNECT TO BUILDING SANITARY SEWER SYSTEM PER BUILDING PLUMBING PLANS
- 41 INSTALL 2" TYPE K COPPER DOMESTIC WATER PIPE W/ WARNING TAPE AND TRACER WIRE PER DETAIL G/C5.01
- 42 INSTALL 2" TYPE K COPPER PRESS-FIT 45° ELBOW
- 43 INSTALL 2" TYPE K COPPER PRESS-FIT TEE
- 44 CONNECT TO EXISTING 10" C900 WATER SUPPLY
- 45 CONNECT TO BUILDING DOMESTIC WATER SYSTEM PER BUILDING PLUMBING PLANS



WDID/APP ID \_\_\_\_\_



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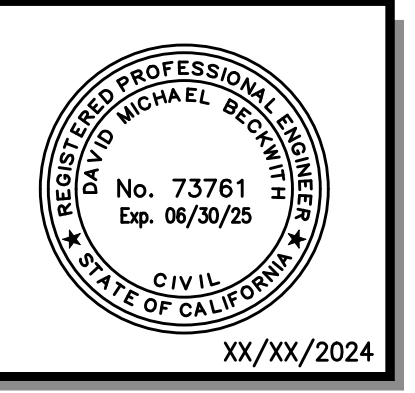
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 JURUPA VALLEY, CA 92509

PROJECT:  
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 PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



SHEET TITLE  
**WET UTILITY PLAN**

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**C3.01**

**CONSTRUCTION NOTES**

- 1 PROVIDE SOIL PREPARATION (ROUGHENING) PER EC-15 THEN INSTALL HYDRAULIC MULCH, HYDROSEED, SOIL BINDER, STRAW MULCH, OR WOOD MULCH AS NEEDED PER EC-3 THROUGH EC-8, RESPECTIVELY
- 2 INSTALL SILT FENCE SEDIMENT CONTROL PER SE-1
- 3 INSTALL GRAVEL BAG SEDIMENT CONTROL PER SE-4 AND SE-6
- 4 INSTALL FIBER ROLL SEDIMENT CONTROL PER SE-5
- 5 PROVIDE STREET SWEEPING SEDIMENT CONTROL PER SE-7
- 6 INSTALL STORM DRAIN INLET PROTECTION SEDIMENT CONTROL PER SE-10
- 7 INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT TRACKING CONTROL PER TC-1
- 8 PROVIDE VEHICLE EQUIPMENT AND FUELING, VEHICLE AND EQUIPMENT MAINTENANCE, MATERIAL DELIVERY AND STORAGE, MATERIAL USE, SPILL PREVENTION AND CONTROL, SOLID WASTE MANAGEMENT, CONCRETE WASHOUT, AND SEPTIC WASTE MANAGEMENT, PER NONS-STORMWATER CONTROLS NS-9, NS-10, AND WASTE MANAGEMENT CONTROLS WM-1, WM-2, WM-4, WM-5, WM-8, AND WM-9, RESPECTIVELY (TO BE PROVIDED ACROSS THE ENTIRETY OF THE SITE ENSURING COMPLIANCE IN ALL LOCATIONS WITH THE PROJECT SWPPP)

**QTY**

- 7,300 SF
- 3,055 LF
- 585 LF
- LF
- 1 LS
- 7 EA
- 1 EA
- 1 LS

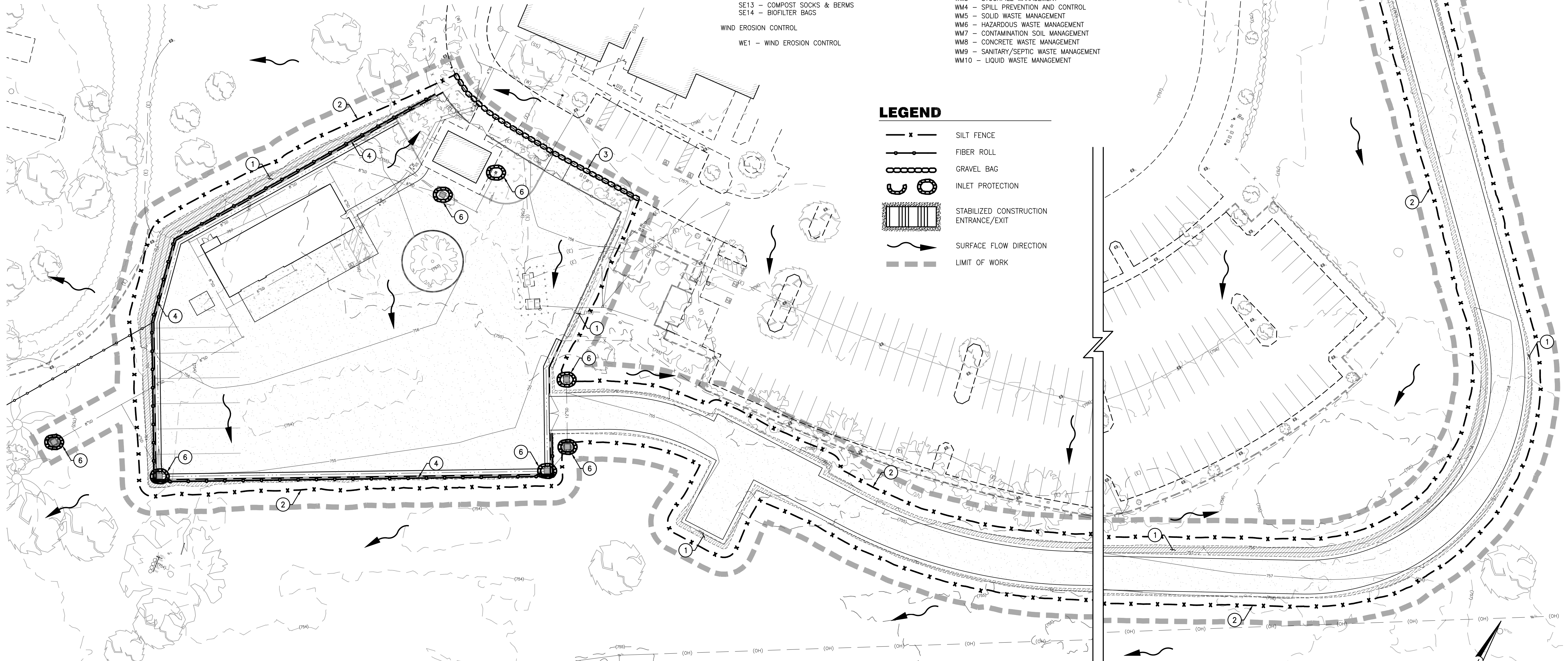
**BEST MANAGEMENT PRACTICES (BMPs) STANDARDS**

THE FOLLOWING BMPs FROM THE "CASQA CONSTRUCTION BMP ONLINE HANDBOOK" MUST BE IMPLEMENTED FOR ALL CONSTRUCTION ACTIVITIES AS APPLICABLE. AS AN ALTERNATE, DETAILS FROM "CALTRANS STORMWATER QUALITY HANDBOOKS, CONSTRUCTION SITE BEST MANAGEMENT PRACTICES (BMP) MANUAL" MAY BE USED. ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE BUILDING OFFICIAL.

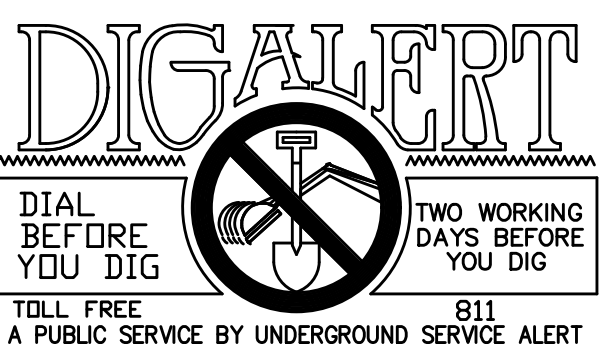
- EROSION CONTROL**
- EC1 - SCHEDULING
  - EC2 - PRESERVATION OF EXISTING VEGETATION
  - EC3 - HYDRAULIC MULCH
  - EC4 - HYDROSEEDING
  - EC5 - SOIL BINDERS
  - EC6 - STRAW MULCH
  - EC7 - GEOTEXTILES & MATS
  - EC8 - WOOD MULCHING
  - EC9 - EARTH DIKES AND DRAINAGE SWALES
  - EC10 - VELOCITY DISSIPATION DEVICES
  - EC11 - SLOPE DRAINS
  - EC13 - RESERVED
  - EC14 - COMPOST BLANKETS
  - EC15 - SOIL PREPARATION/ROUGHENING
  - EC16 - NON-VEGETATED STABILIZATION
- TEMPORARY SEDIMENT CONTROL**
- SE1 - SILT FENCE
  - SE2 - SEDIMENT BASIN
  - SE3 - SEDIMENT TRAP
  - SE4 - CHECK DAM
  - SE5 - FIBER ROLLS
  - SE6 - GRAVEL BAG BERM
  - SE7 - STREET SWEEPING AND VACUUMING
  - SE8 - SANDBAG BARRIER
  - SE9 - STRAW BALE BARRIER
  - SE10 - STORM DRAIN INLET PROTECTION
  - SE12 - TEMPORARY SILT DIKE
  - SE13 - COMPOST SOCKS & BERMS
  - SE14 - BIOFILTER BAGS
- WIND EROSION CONTROL**
- WE1 - WIND EROSION CONTROL
- EQUIPMENT TRACKING CONTROL**
- TC1 - STABILIZED CONSTRUCTION ENTRANCE EXIT
  - TC2 - STABILIZED CONSTRUCTION ROADWAY
  - TC3 - ENTRANCE/OUTLET TIRE WASH
- NON-STORMWATER MANAGEMENT**
- NS1 - WATER CONSERVATION PRACTICES
  - NS2 - DEWATERING OPERATIONS
  - NS3 - PAVING AND GRINDING OPERATIONS
  - NS5 - CLEAR WATER DIVERSION
  - NS6 - ILLICIT CONNECTION/DISCHARGE
  - NS7 - POTABLE WATER/IRRIGATION
  - NS8 - VEHICLE AND EQUIPMENT CLEANING
  - NS9 - VEHICLE AND EQUIPMENT FUELING
  - NS10 - VEHICLE AND EQUIPMENT MAINTENANCE
  - NS11 - PILE DRIVING OPERATIONS
  - NS12 - CONCRETE CURING
  - NS13 - CONCRETE FINISHING
  - NS14 - MATERIAL AND EQUIPMENT USE
- WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL**
- WM1 - MATERIAL DELIVERY AND STORAGE
  - WM2 - MATERIAL USE
  - WM3 - STOCKPILE MANAGEMENT
  - WM4 - SPILL PREVENTION AND CONTROL
  - WM5 - SOLID WASTE MANAGEMENT
  - WM6 - HAZARDOUS WASTE MANAGEMENT
  - WM7 - CONTAMINATION SOIL MANAGEMENT
  - WM8 - CONCRETE WASTE MANAGEMENT
  - WM9 - SANITARY/SEPTIC WASTE MANAGEMENT
  - WM10 - LIQUID WASTE MANAGEMENT

**LEGEND**

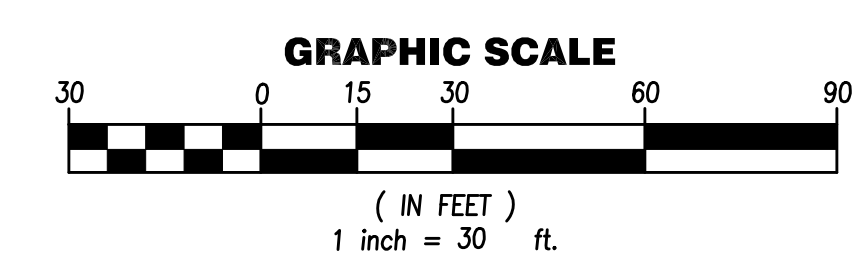
- SILT FENCE
- FIBER ROLL
- GRAVEL BAG
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- SURFACE FLOW DIRECTION
- LIMIT OF WORK



**NOTE:**  
 BMP STOCKPILE TO BE LOCATED IN MATERIAL STORAGE/LAYDOWN AREA  
 SPILL KIT TO BE LOCATED NEXT TO JOBSITE TRAILER IN MARKED CONTAINER  
 EROSION CONTROL PLAN MUST BE REVISED AND APPROVED PRIOR TO EACH RAINY SEASON THROUGHOUT THE SITE GRADING OPERATIONS



WDID/APP ID \_\_\_\_\_

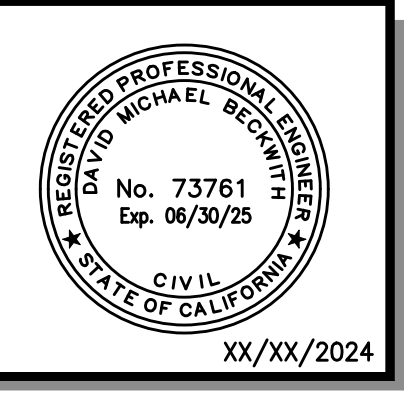


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 www.davidbeckwithandassociates.com

CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
 SARB MAINTENANCE FACILITY  
 PROJECT NO. PK-ARPA009  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

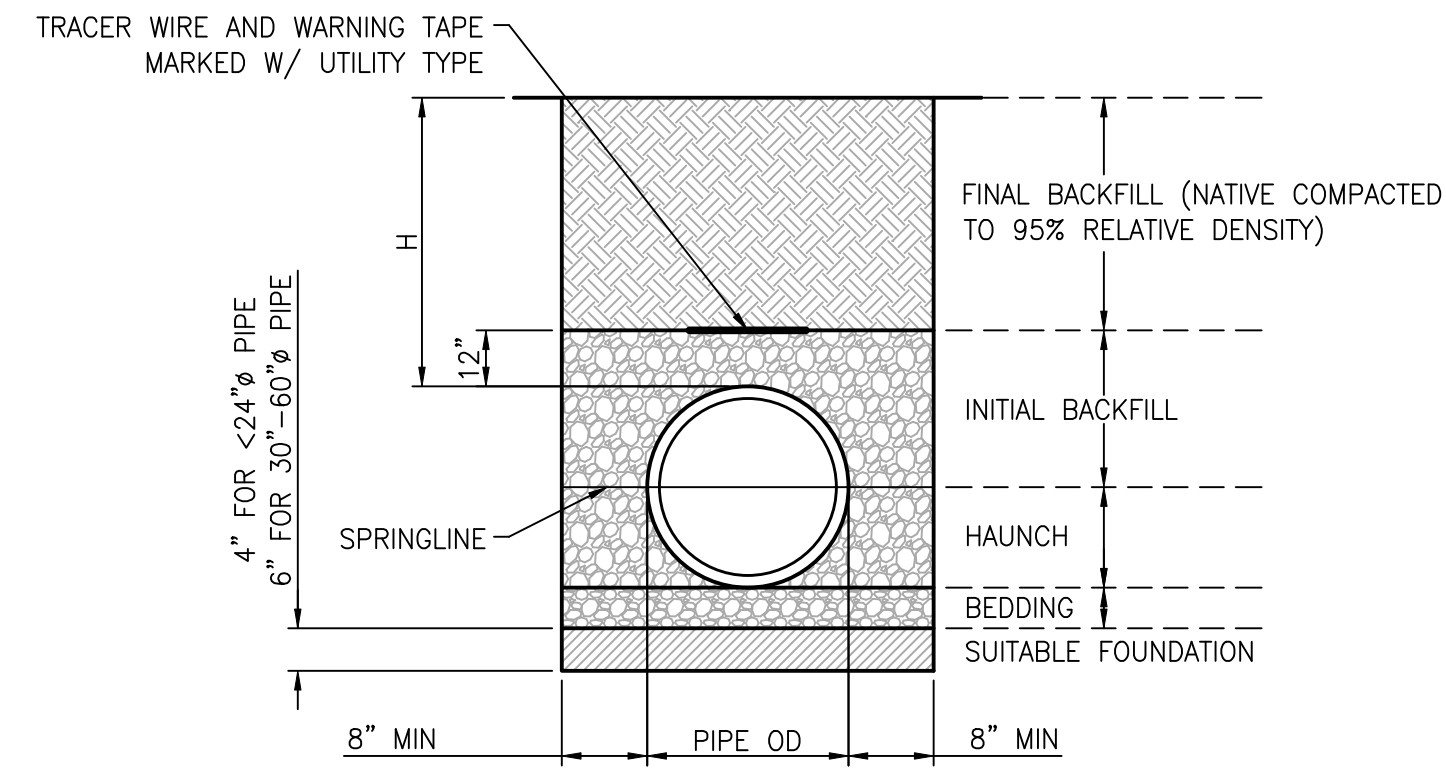
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SHEET TITLE  
**EROSION CONTROL PLAN**

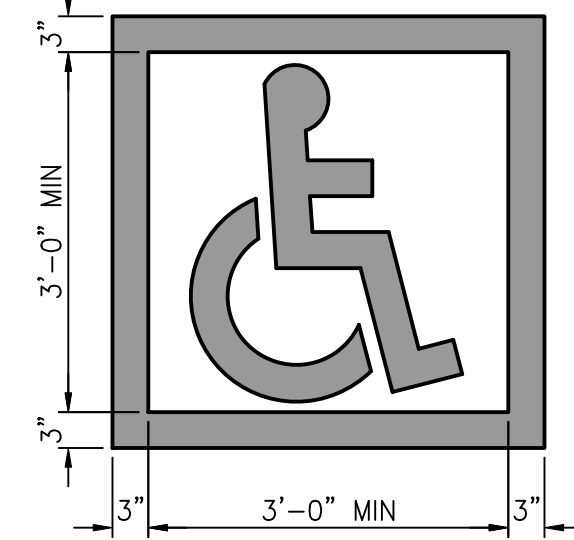
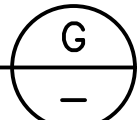
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DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**C4.01**



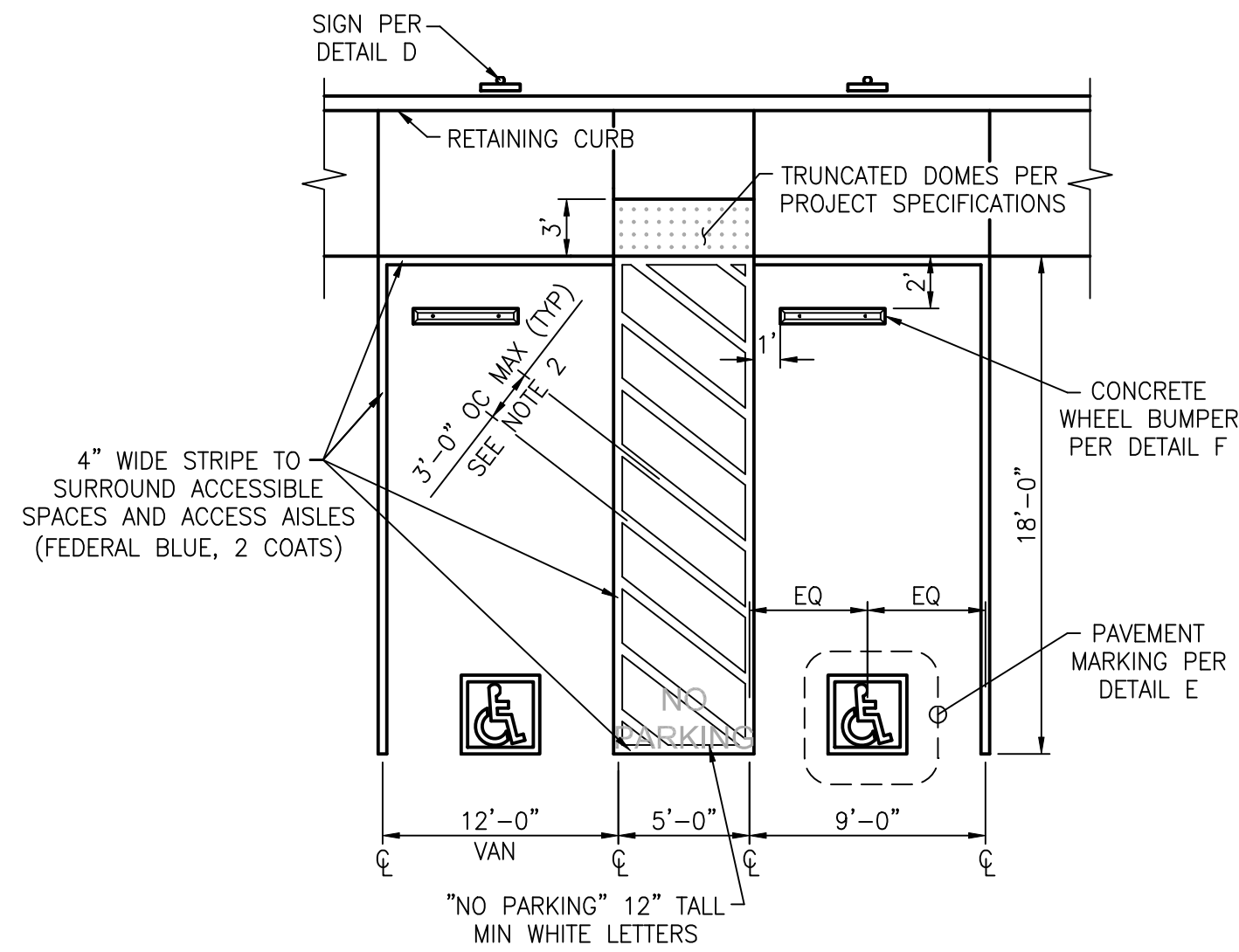
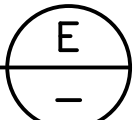
- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
  - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL.
  - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR <math><24\></math> PIPE; 6" FOR 30-60" PIPE.
  - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 12" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
  - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" PIPE AND 24" OF COVER FOR 54"-60" PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

**PIPE BEDDING**  
NOT TO SCALE



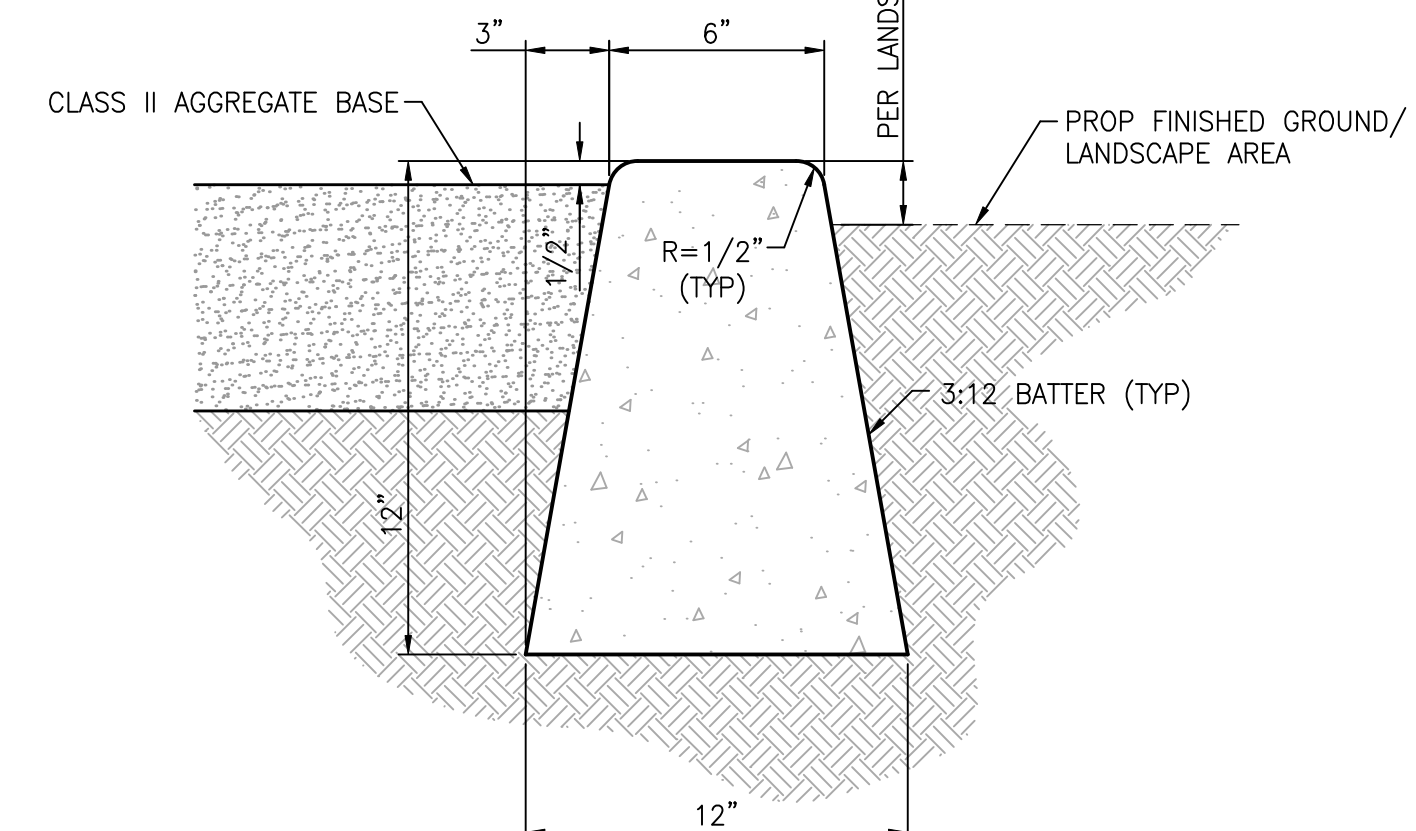
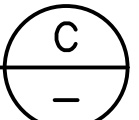
- NOTES:**
- ALL STROKES TO BE 3" WIDE.
  - PROVIDE TWO COATES OF PAINT.
  - BLUE BACKGROUND MATCHING COLOR NO 15090 IN FEDERAL STD 595C WITH WHITE SYMBOL.
  - LOCATE SYMBOL AT CENTERLINE OF STALL AND ALIGNED TO THE STALL ENTRANCE.
  - ONE SYMBOL FOR EACH ACCESSIBLE PARKING SPACE.

**ACCESSIBLE PARKING PAVEMENT SYMBOL**  
NOT TO SCALE



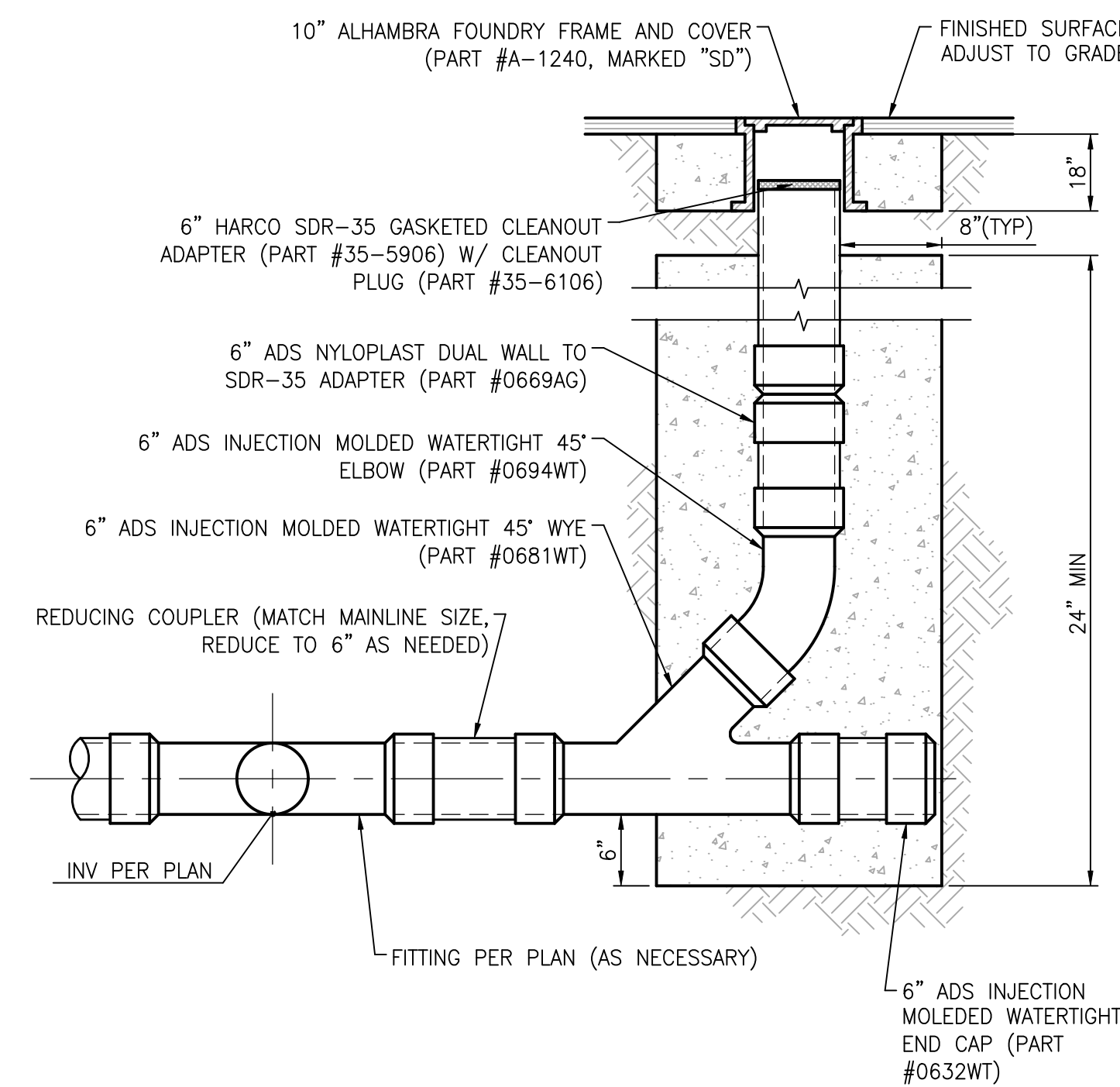
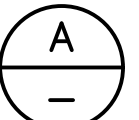
- NOTES:**
- ACCESSIBLE SPACES AND AISLES SHALL BE LEVEL AND ANY SURFACE SLOPE SHALL NOT EXCEED 2% IN ALL DIRECTIONS.
  - DIAGONAL STRIPES TO BE CONTRASTING COLOR TO PAVEMENT IT IS PAINTED ON. WHITE ON ASPHALT, BLUE ON LIGHT GRAY CONCRETE.
  - STRIPING SHALL BE BLUE MATCHING COLOR NO 15090 IN FEDERAL STD 595C (UNLESS INDICATED OTHERWISE).
  - VAN PARKING SHALL HAVE ACCESS AISLE LOCATED ON PASSENGER SIDE OF ACCESSIBLE PARKING SPACE (11B-502.3.4)

**ACCESSIBLE PARKING STALL STRIPING**  
NOT TO SCALE



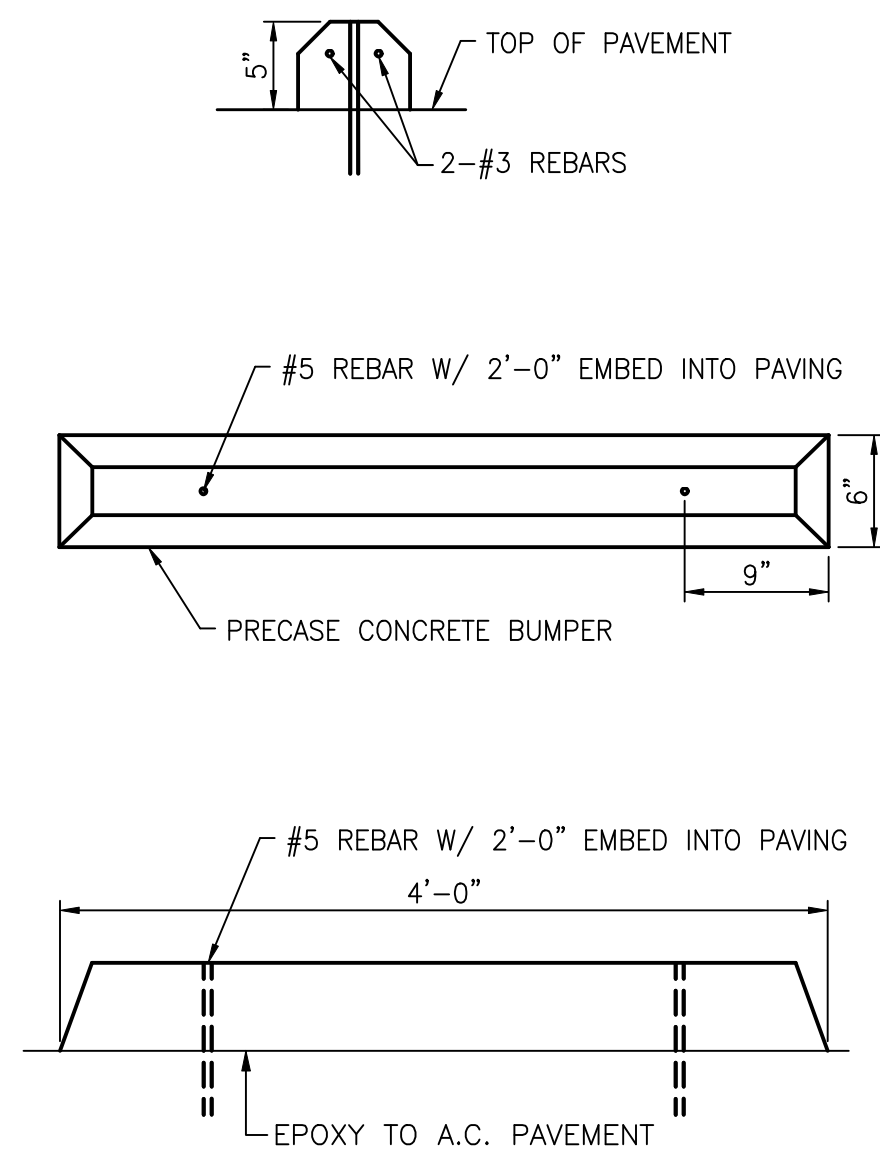
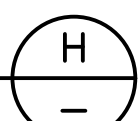
- NOTES:**
- ALL EXPOSED CORNERS SHALL BE ROUNDED WITH 1/2" RADIUS.
  - ALL CONCRETE SHALL BE CLASS 520-C-2500 PER SSPWC SECTION 201-1.1.2.
  - WEAKEND PLANE JOINTS SHALL BE USED FOR ALL JOINTS AND SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT TO EXCEED 20'.

**MOW CURB**  
NOT TO SCALE

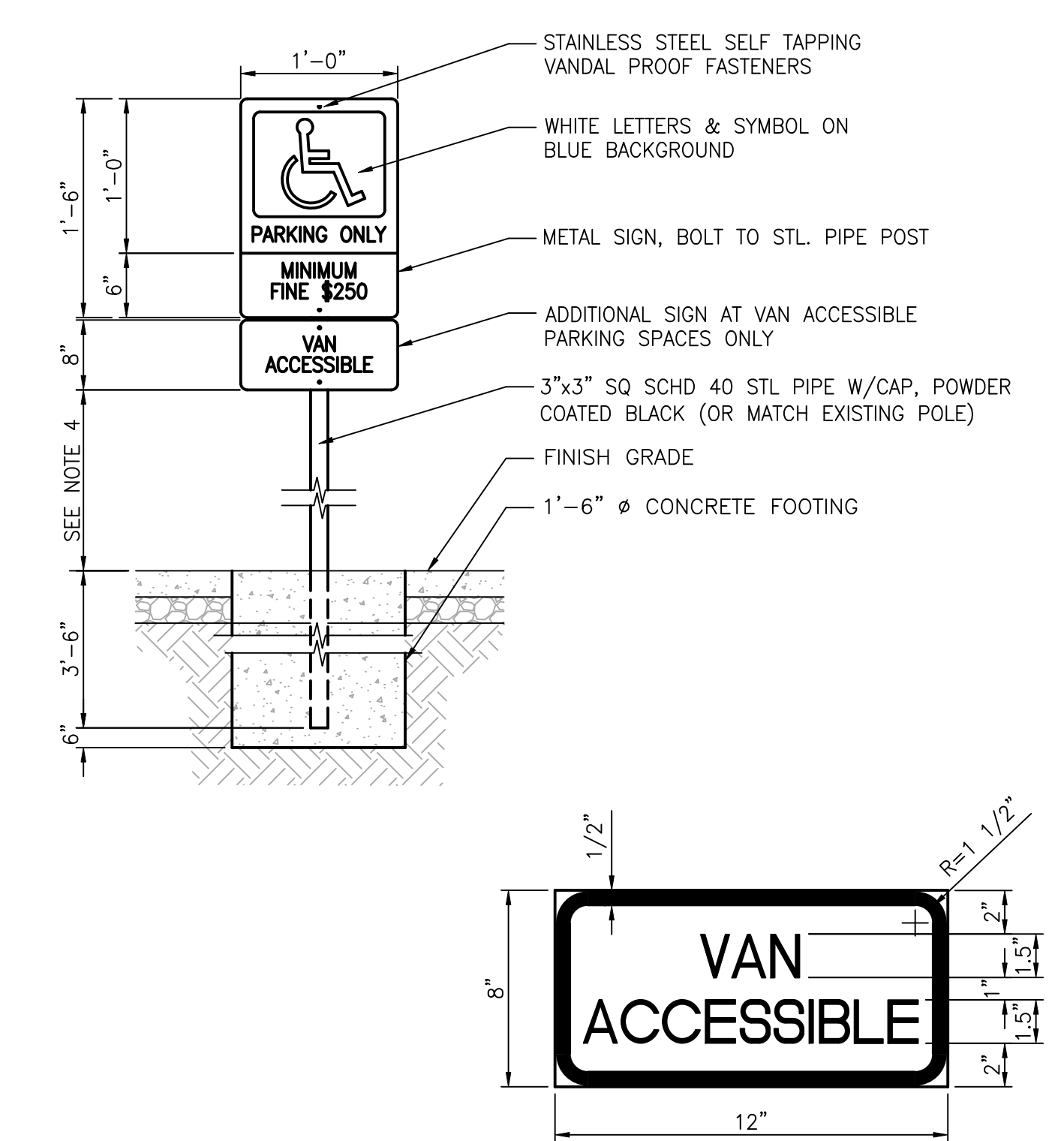
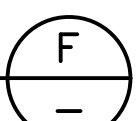


- NOTES:**
- SIZE OF VERTICAL RUN TO BE 6" MIN DIAMETER
  - PIPE AND FITTINGS, UNLESS OTHERWISE NOTED SHALL BE THE SAME MATERIALS AS THE MAINLINE.
  - PIPE AND FITTINGS SHALL BE BEDDED AND ENCASED IN PCC AS SHOWN. PCC SHALL BE CLASS 450-C-2000 PER SSPWC. JOIN AND ALIGN PIPE AND FITTINGS BEFORE PLACING CONCRETE. MAINTAIN ALIGNMENT WHILE PLACING AND ALLOWING PCC TO SET.

**STORM DRAIN CLEANOUT**  
NOT TO SCALE

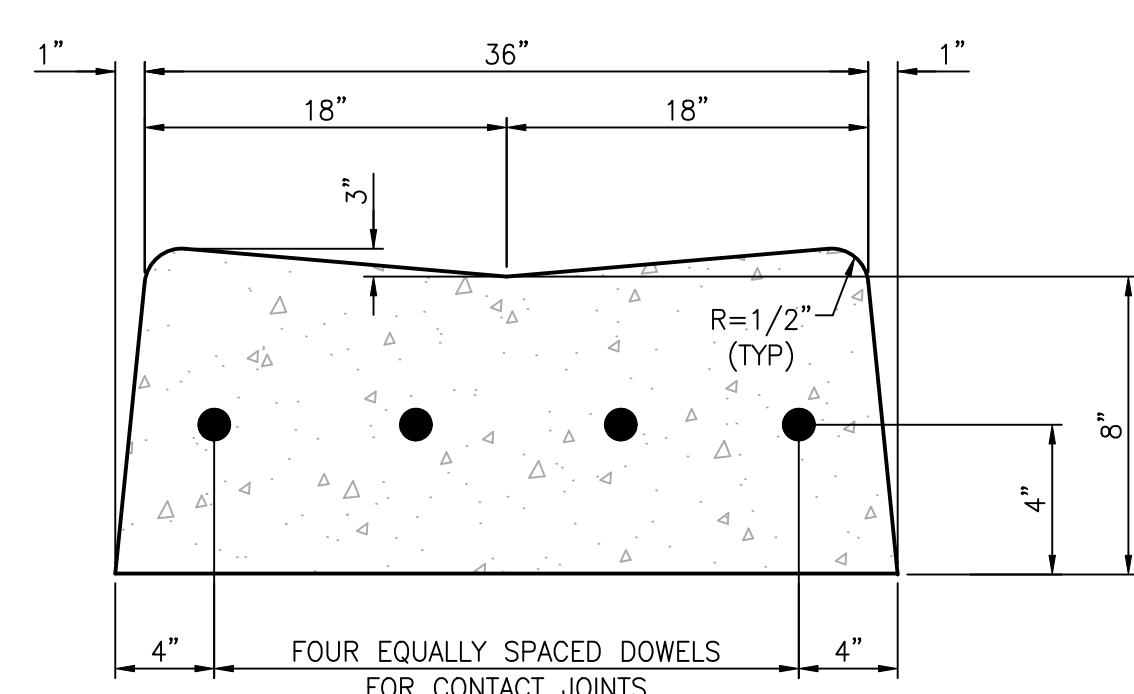
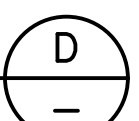


**WHEEL BUMPER**  
NOT TO SCALE



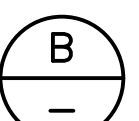
- NOTES:**
- PROVIDE SIGN AT EACH ACCESSIBLE PARKING STALL.
  - SIGNS SHALL BE REFLECTORIZED CONSTRUCTED OF PORCELAIN ON STEEL 1" HIGH BEADED TEXT.
  - TEXT SHALL BE WHITE ON BLUE BACKGROUND MATCHING COLOR NO 15090 IN FEDERAL STD 595C AND A PERMANENT PART OF THE SIGN.
  - 5'-0" MIN IN LANDSCAPED AREAS, 6'-8" MIN IN PAVED PEDESTRIAN WAYS.

**ACCESSIBLE PARKING SIGN**  
NOT TO SCALE



- NOTES:**
- WEAKEND-PLANE JOINTS SHALL BE PLASTIC CONTROL JOINTS OR 1-1/2" DEEP SAWCUTS. CONCRETE SAWING SHALL TAKE PLACE WITHIN 24-HOURS AFTER CONCRETE IS PLACED.
  - DOWELS FOR CONTACT JOINTS SHALL BE #4 BARS 18" LONG.
  - ALL EXPOSED CORNERS SHALL BE ROUND WITH 1/2" RADIUS.
  - CONCRETE SHALL NOT BE INTEGRAL WITH CURB UNLESS OTHERWISE SPECIFIED.
  - CONCRETE SHALL BE TYPE 560-C-3250 PER SSPWC.

**36" WIDE PCC V-DITCH**  
NOT TO SCALE



REVISIONS	DATE	BY

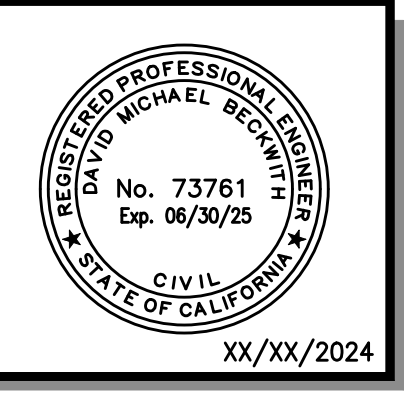


**SHEET TITLE**  
DETAIL SHEET

DESIGNED	---
DRAWN	---
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

**SHEET**  
C5.01

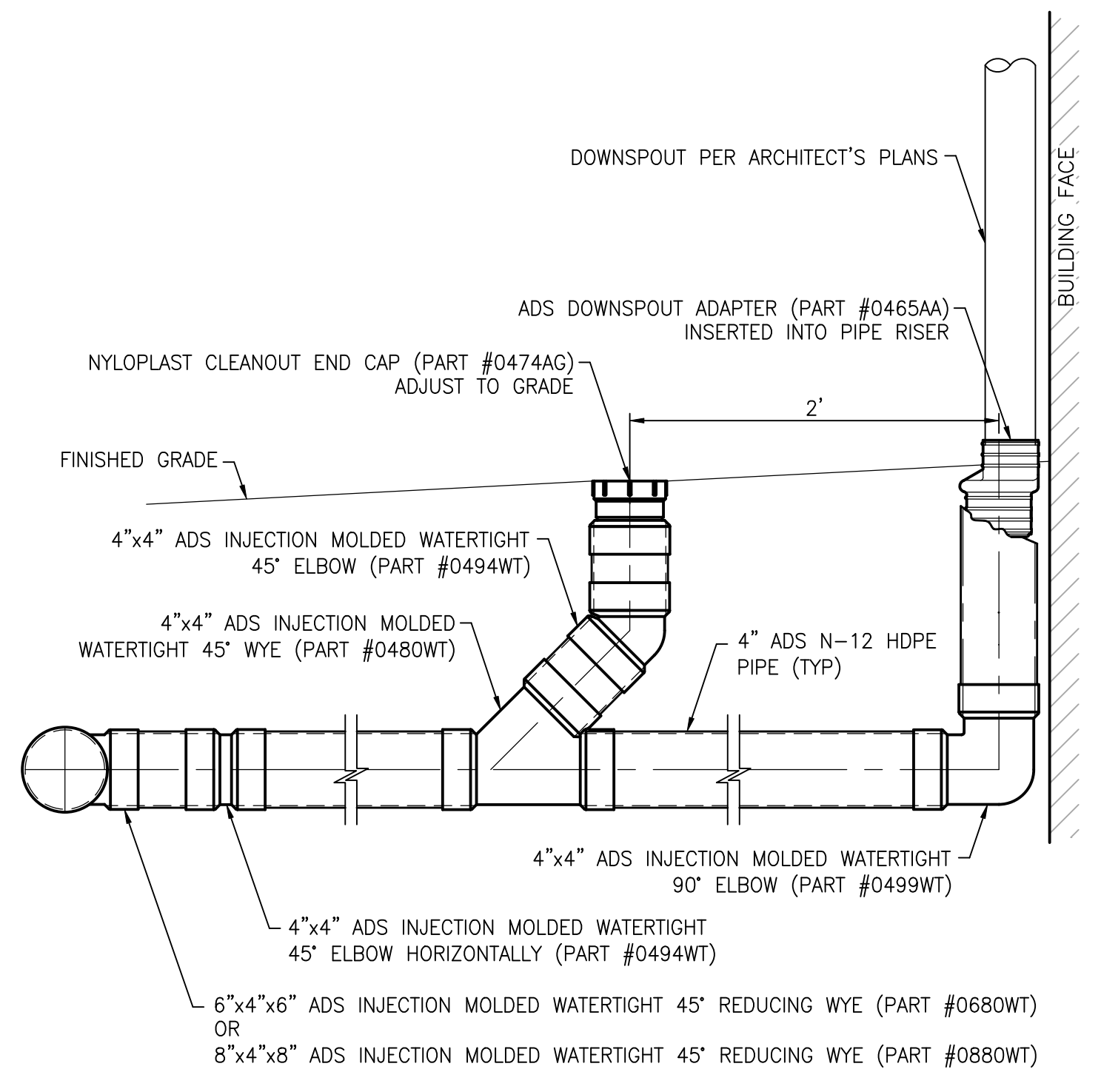
REVISIONS	DATE	BY



SHEET TITLE  
**DETAIL SHEET**

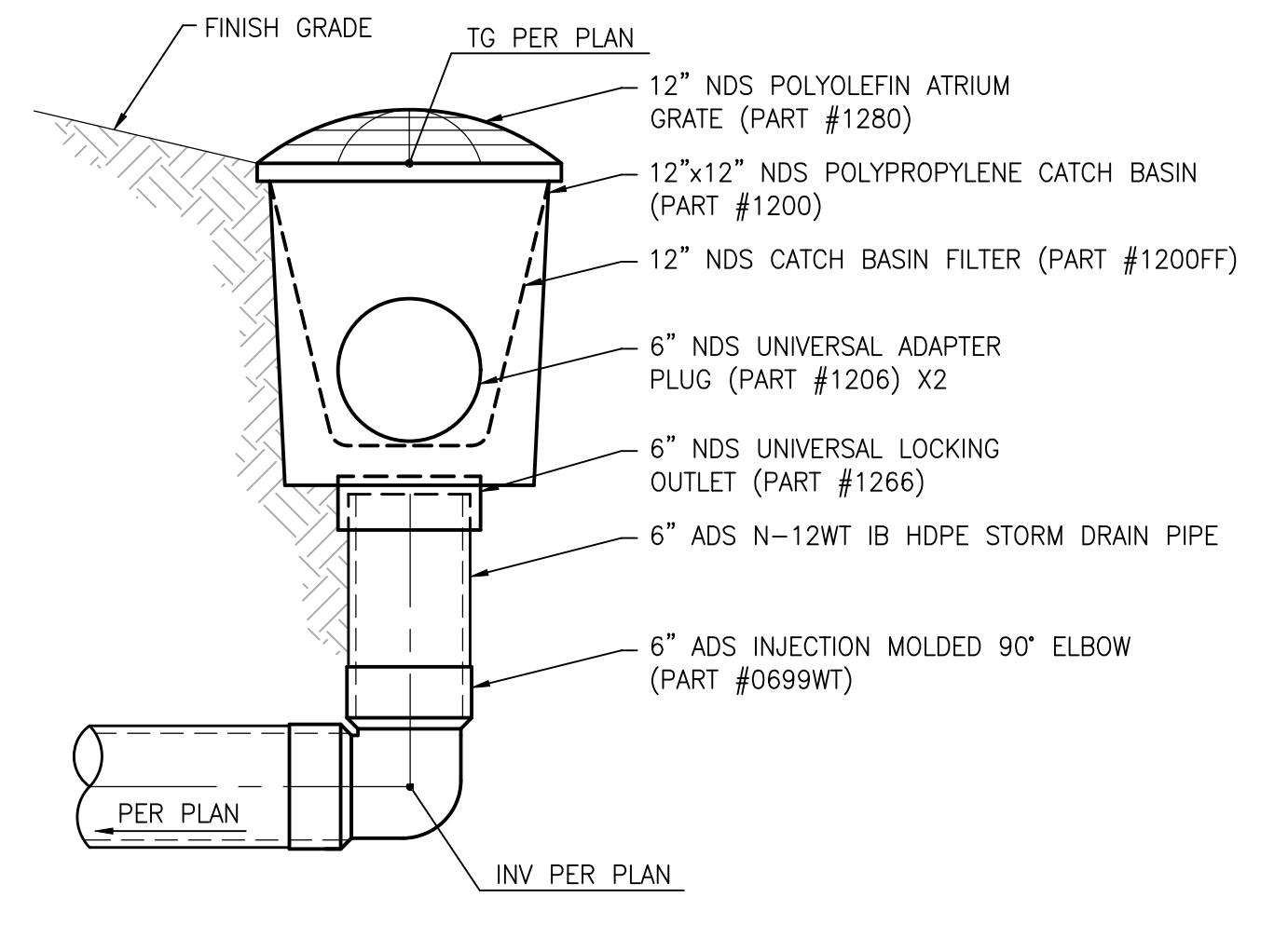
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SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**C5.02**



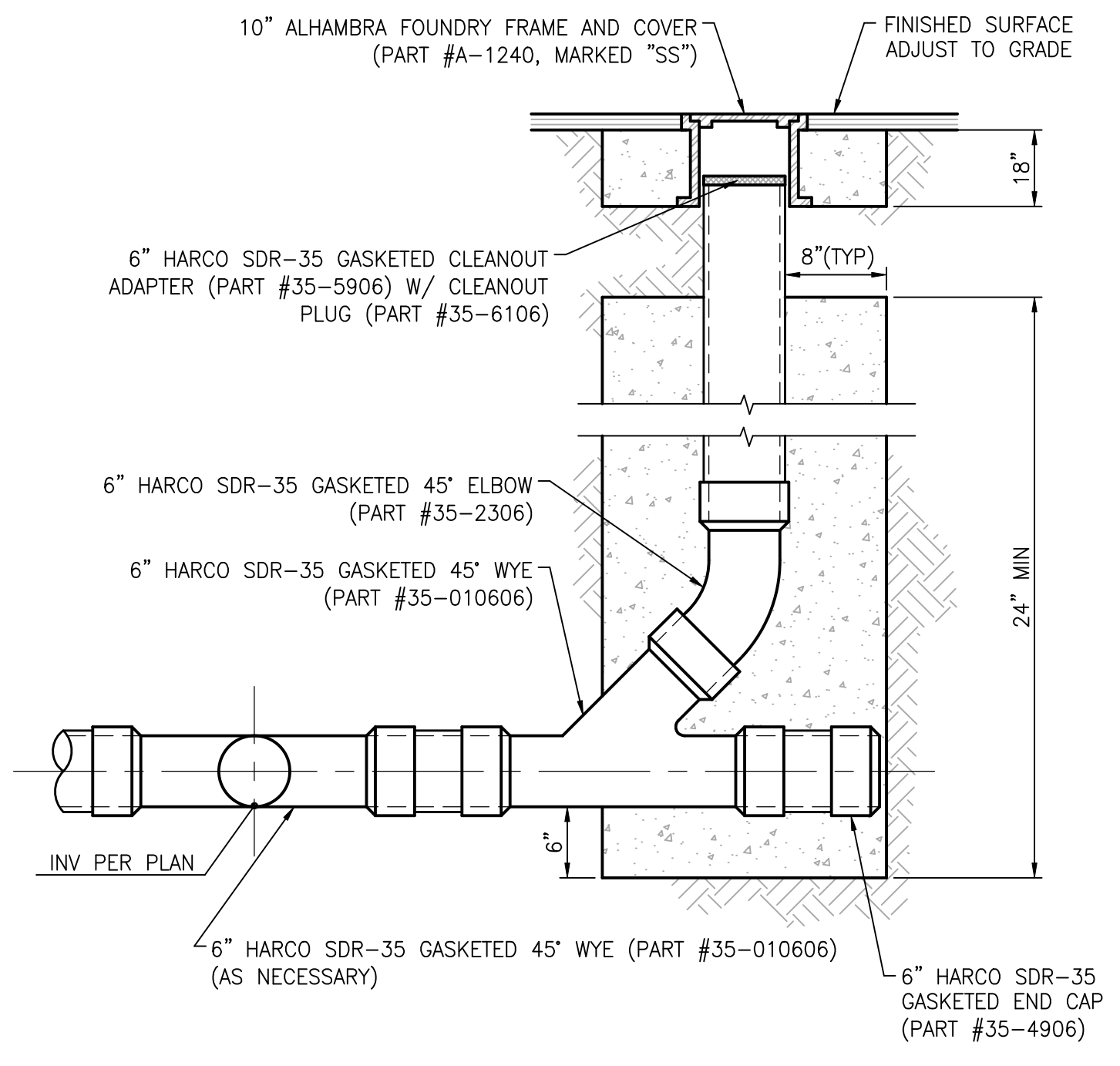
NOTES:  
1. ALL ROOF DRAIN TO BE CONNECTED TO AREA DRAIN SYSTEM

**DOWNSPOUT CONNECTION**  
NOT TO SCALE



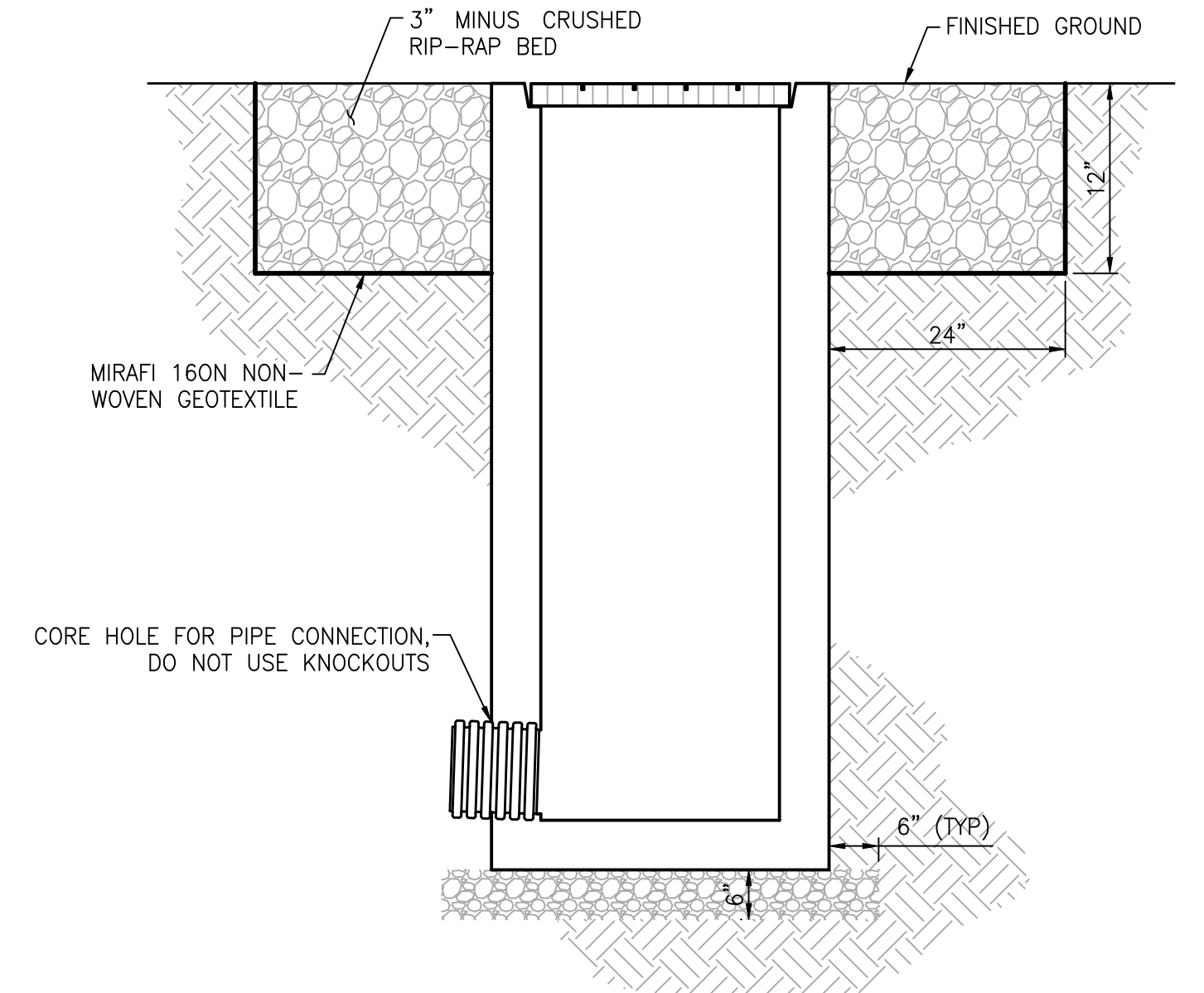
NOTES:  
1. GRATE TO BE ATTACHED TO CATCH BASIN AT TIME OF INSTALLATION WITH PROVIDED SCREWS.  
2. INSTALLATION TO BE COMPLETE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
3. JOINTS SHALL BE FIELD INSTALLED USING THE GUIDELINES OUTLINED IN ASTM D2855.

**NDS ATRIUM DRAIN CATCH BASIN**  
NOT TO SCALE



NOTES:  
1. SIZE OF VERTICAL RUN TO BE 6" MIN DIAMETER  
2. PIPE AND FITTINGS, UNLESS OTHERWISE NOTED SHALL BE THE SAME MATERIALS AS THE MAINLINE AND COMPLY WITH ASTM D1784.  
3. FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM F1336, ASTM D3034, AND SCA B182.2. GASKETS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM F477 OR ASTM F913. INSTALLATION IN ACCORDANCE WITH ASTM D2321.  
4. PIPE AND FITTINGS SHALL BE BEDDED AND ENCASED IN PCC AS SHOWN. PCC SHALL BE CLASS 450-C-2000 PER SSPWC. JOIN AND ALIGN PIPE AND FITTINGS BEFORE PLACING CONCRETE. MAINTAIN ALIGNMENT WHILE PLACING AND ALLOWING PCC TO SET.

**SEWER CLEANOUT**  
NOT TO SCALE



NOTES:  
1. GRAVEL IN RIP-RAP BED SHALL BE 3" MINUS CRUSHED ROCK.  
2. MIRAFATI 160N NON-WOVEN GEOTEXTILE FABRIC TO FULLY SURROUND RIP-RAP AND BE TRIMMED AT GROUND SURFACE.  
3. PLACE PRECAST CATCH BASIN ON A BASE OF 6" THICK COMPACTED AGGREGATE BASE EXTENDING 6" AROUND BASIN ON ALL SIDES.  
4. THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE WELL PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

**RIP-RAP BED**  
NOT TO SCALE

**NOT USED**  
NOT TO SCALE

**NOT USED**  
NOT TO SCALE

**NOT USED**  
NOT TO SCALE

**NOT USED**  
NOT TO SCALE

**P.O.C. INFORMATION**

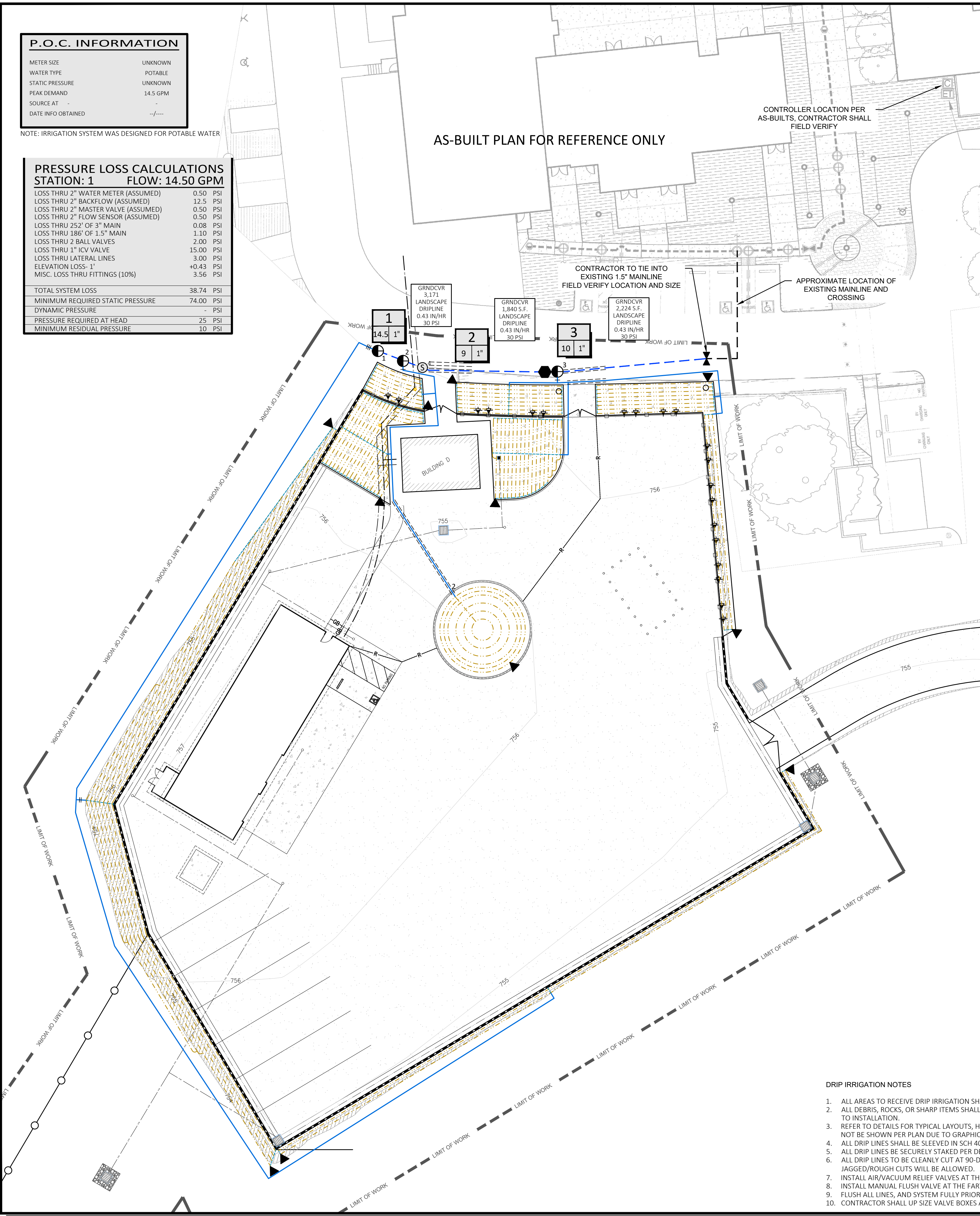
METER SIZE	UNKNOWN
WATER TYPE	POTABLE
STATIC PRESSURE	UNKNOWN
PEAK DEMAND	14.5 GPM
SOURCE AT	
DATE INFO OBTAINED	

NOTE: IRRIGATION SYSTEM WAS DESIGNED FOR POTABLE WATER

**PRESSURE LOSS CALCULATIONS**  
STATION: 1 FLOW: 14.50 GPM

LOSS THRU 2" WATER METER (ASSUMED)	0.50 PSI
LOSS THRU 2" BACKFLOW (ASSUMED)	12.5 PSI
LOSS THRU 2" MASTER VALVE (ASSUMED)	0.50 PSI
LOSS THRU 2" FLOW SENSOR (ASSUMED)	0.50 PSI
LOSS THRU 252' OF 3" MAIN	0.08 PSI
LOSS THRU 186' OF 1.5" MAIN	1.10 PSI
LOSS THRU 2 BALL VALVES	2.00 PSI
LOSS THRU 1" ICV VALVE	15.00 PSI
LOSS THRU LATERAL LINES	3.00 PSI
ELEVATION LOSS- 1'	+0.43 PSI
MISC. LOSS THRU FITTINGS (10%)	3.56 PSI
<b>TOTAL SYSTEM LOSS</b>	<b>38.74 PSI</b>
MINIMUM REQUIRED STATIC PRESSURE	74.00 PSI
DYNAMIC PRESSURE	- PSI
PRESSURE REQUIRED AT HEAD	25 PSI
MINIMUM RESIDUAL PRESSURE	10 PSI

**AS-BUILT PLAN FOR REFERENCE ONLY**



**EQUIPMENT LEGEND**

SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL	NOTES
	IRRIGATION METER - (NOT SHOWN) CONTRACTOR TO VERIFY LOCATION AND SIZE	-	N/A	-
	EXISTING HUNTER 'I-CORE' IC-600-PL CONTROLLER, EXPAND WITH ICM-600 STATION EXPANSION AS NEEDED.	12 STA.	N/A	-
	EXISTING BACKFLOW - (NOT SHOWN) CONTRACTOR TO VERIFY LOCATION AND SIZE	-	N/A	-
	NIBCO T-585 BRONZE BALL VALVE	LINE SIZE	'A', LI.02	-
	HUNTER HQ-44-LRC QUICK COUPLING VALVE	1"	'B', LI.02	-
	HUNTER ICZ-101-LF-25 DRIP CONTROL ZONE ASSEMBLY	PLAN SIZE	'C', LI.02	-
	SCH. 40 PVC IRRIGATION MAINLINE - 18" MIN. COVER	1.5"	'D', LI.02	-
	SCH. 40 PVC NON-PRESSURE LATERAL LINE - 12" MIN. COVER	SEE CHART	'D', LI.02	-
	SCH 40 PVC IRRIGATION PIPE / WIRE SLEEVE - 24" MIN. COVER	SEE CHART	'E', LI.02	-
	NOT SHOWN UF RATED CONTROL WIRE, 12 GA COMMON, 14 GA PILOT	12/14 GA	'F', LI.02	-
	EXISTING SPARE WIRES IN PULL BOX/ NUMBER DENOTES SIGNAL WIRES AVAILABLE	-	N/A	-
	HUNTER AFV075 AUTOMATIC FLUSH VALVE	3/4"	'F', LI.02	-
	HUNTER ECO-ID DRIP OPERATION INDICATOR	6"	'H', LI.02	-
	HUNTER HDL-06-18-1K-CV DRIPLINE WITH ROWS SPACED 18" APART	17mm	'I'-L, LI.02 'A'-B, LI.03	-
	SCH. 40 PVC DRIPLINE HEADER- SIZE SHALL MATCH LATERAL PIPE SIZE	PLAN SIZE	'K'-L, LI.02 'A'-B, LI.03	-

(1) LANDSCAPE CONTRACTOR TO COORDINATE ELECTRICAL POWER W/ ELECTRICAL CONTRACTOR \* = UNLESS OTHERWISE NOTED  
NOTE: REFERENCE INFORMATION MAY BE PRESENTED VIA LINE COLOR AND STYLE OR LINEWEIGHT SIZE STYLE. CWDG IS NOT RESPONSIBLE FOR PLANS REPRODUCED BY OTHERS OR PLANS PRINTED IN BLACK & WHITE OR MONOCHROME

**SPRINKLER LEGEND**

SYMBOL	MANUFACTURER/MODEL #	NOZZLE	RAD.	PSI	FLOW (GPM)							PRECIP RATE	DETAIL	NOTES
					Q	T	H	TT	TQ	F	Van			
	HUNTER HE-20-B DRIP EMITTER - VINE	F		30							2.00	0.36	'C', LI.03	(1-3)

(1) FLOW IS IN GALLONS PER HOUR (2) LOCATE EMITTER ON UPHILL SIDE OF ROOTBALL, 6" CLEAR OF PLANT BASE (3) EACH VINE TO RECEIVE TWO DRIP EMITTERS TIED INTO DRIP TUBING  
SITE SPECIFIC NOTES: PROJECT TO USE EXISTING P.O.C. CONTRACTOR TO TEST AND VERIFY OPERATING CONDITION AND EXISTING PRESSURE PRIOR TO START OF CONSTRUCTION.

**PIPE SIZING CHART**

3/4" PIPE
1" PIPE
1 1/4" PIPE
1 1/2" PIPE
2" PIPE
2 1/2" PIPE
3" PIPE
4" PIPE
6" PIPE
8" PIPE

STATION # / CONTROLLER	HYDROZONE AREA
FLOW (GPM)	IRRIGATION TYPE
VALVE SIZE	PRECIP RATE
	PRESSURE

**SCH 40 PVC SLEEVING CHART**

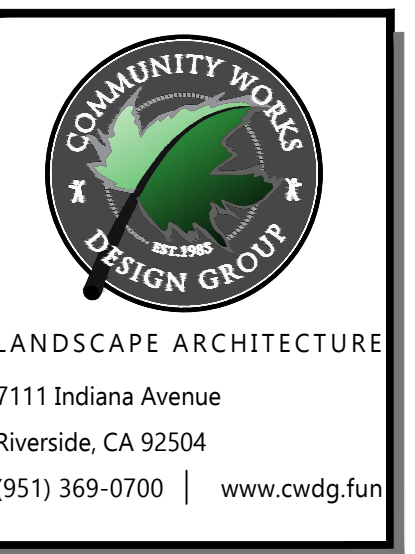
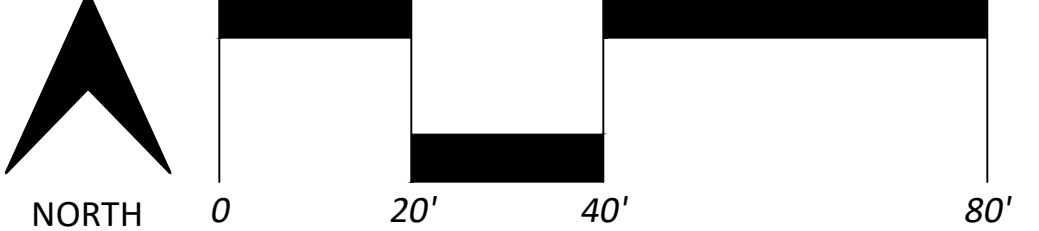
1 1/4" SLEEVE	1-4 WIRES	1/2" PIPE
1 1/2" SLEEVE	5-10 WIRES	3/4" PIPE
2" SLEEVE	11-20 WIRES	1" PIPE
2 1/2" SLEEVE	21-30 WIRES	1 1/4" PIPE
3" SLEEVE	31-40 WIRES	1 1/2" PIPE
4" SLEEVE	41-60 WIRES	2" PIPE
6" SLEEVE	61-99 WIRES	2 1/2"-3" PIPE
8" SLEEVE	100+ WIRES	4" PIPE
10" SLEEVE	N/A	6" PIPE

**GENERAL IRRIGATION NOTES**

- THE FOLLOWING PLANS, NOTES, AND DETAILS ARE PRESENTED IN A DIAGRAMMATIC METHOD TO CONVEY SYSTEM COMPONENTS, EQUIPMENT, AND LAYOUT. ITEMS MAY BE SHOWN IN AREAS WHERE NO IRRIGATION EQUIPMENT SHALL BE PLACED TO ONLY COMMUNICATE OVERALL DESIGN INTENT FOR CLARITY. THE CONTRACTOR SHALL NOT INSTALL ITEMS OFF PROPERTY, IN ROADWAYS, WALKS, OR BUILDINGS- IN ALL CASES ALL EQUIPMENT SHALL BE IN LANDSCAPE AREAS ONLY.
- ANY CONFLICTS WITH SITE FEATURES OR CONDITIONS, NOT KNOWN TO THE DESIGN TEAM AT THE TIME OF PLAN DEVELOPMENT SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IMMEDIATELY AND PRIOR TO BIDDING. THE CONTRACTOR SHALL INCLUDE IN THEIR BID AN ALLOWANCE FOR MINOR ADJUSTMENTS OF LOCATIONS, SPACING, AND ADDITIONAL HEADS OR DRIP MATERIAL FOR PROVIDING FULL COVERAGE TO ALL PLANTED MATERIAL.
- THE FOLLOWING DRAWINGS SHOW TYPICAL REPRESENTATIONS OF THE OVERALL SYSTEM AND THE REQUIRED INFORMATION FOR OVERALL HYDRAULIC DESIGN. THEY DO NOT ILLUSTRATE EVERY POSSIBLE CONDITION, APPLICATION, AND OR SITE CONSTRAINT. IT IS THE CONTRACTORS RESPONSIBILITY AS THE SUBJECT MATTER EXPERT TO SUPPLY THE APPROPRIATE MEANS AND METHODS INCLUDING ALL REQUIRED ACCESSORIES, MATERIALS, AND EQUIPMENT TO FURNISH A FULLY FUNCTIONING IRRIGATION SYSTEM.
- THE CONTRACTOR BID SHALL INCLUDE ALL ITEMS REQUIRED TO CONSTRUCT AND INSTALL A FULLY FUNCTIONAL SYSTEM TO MEET THE DEMANDS OF THE PLANTING PLANS. THE CONTRACTOR SHALL ASK, PURSUE, OR VERIFY ANY DESIGN CLARIFICATIONS DURING THE BIDDING PROCESS AS PART OF THEIR DUE DILIGENCE. FAILURE TO DO SO SHALL MAKE THE CONTRACTOR SOLELY RESPONSIBLE FOR ANY ADDITIONAL TIME, COSTS, OR WORK REQUIRED TO COMPLETE THE PROJECT WITH ALL REQUIRED ITEMS FOR A FULLY FUNCTIONAL AUTOMATIC IRRIGATION SYSTEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REQUIRED PERMITS, ENCROACHMENT REQUIREMENTS, INSPECTIONS, AND ANY OTHER ITEMS REQUIRED TO DO THE WORK SUCH AS TRAFFIC CONTROL, DUST CONTROL, OR SITE SAFETY AND SECURITY ITEMS.
- MAINLINE FEEDER FROM POINT OF CONNECTION TO BACKFLOW PREVENTER SHALL BE PER LOCAL PURVEYOR OR CODE REQUIREMENTS WHICH EVER IS MORE STRINGENT.
- THE FINAL LOCATION OF ALL MAJOR IRRIGATION EQUIPMENT SHALL BE APPROVED AND ADJUSTED AS NECESSARY PER SITE CONDITIONS PRIOR TO INSTALLATION. THE CONTRACTOR SHALL REQUEST INSPECTION FIELD REVIEW AND HAVE WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OR BE SOLELY RESPONSIBLE FOR ANY ADJUSTMENTS AS REQUIRED LATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SLEEVE INSTALLATIONS AS SHOWN PER PLAN AND ANY ADDITIONAL REQUIREMENTS BASED OF SITE CONSTRAINTS WITH OTHER TRADES PRIOR TO INSTALLATION OF HARDSCAPE, PAVING, WALLS OR FOUNDATIONS.
- THE CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS PER THE SPECIFICATIONS AND ANY REQUIRED BY THE GOVERNING BODY, NO WORK SHALL BE COVERED OR CLOSED PRIOR TO INSPECTION AND APPROVAL. FAILURE TO HAVE THE WORK INSPECTED SHALL RESULT IN THE CONTRACTOR BEING REQUIRED TO EXPOSE AND MAKE AVAILABLE THE WORK FOR INSPECTION AT THEIR OWN COST.
- THE IRRIGATION SYSTEM HAS BEEN DESIGNED PER SUPPLIED STATIC WATER PRESSURE BY OTHERS, THE CONTRACTOR SHALL VERIFY SITE WATER PRESSURE PRIOR TO START OF WORK AND FORWARD ANY FINDINGS IN WRITING TO THE LANDSCAPE ARCHITECT. FAILURE TO DO SO WILL RESULT IN ANY CORRECTIONS, ADJUSTMENTS, AND OR ADDITIONAL EQUIPMENT REQUIREMENTS TO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION FOR POWER SUPPLY AND ANY REQUIRED FIELD CONNECTIONS TO ALL CONTROLLERS, PUMPS, FERTIGATION SYSTEMS AS REQUIRED BY THE PLANS.
- COORDINATE MAINLINE AND LATERAL PIPING WITH TREE AND PLANTING LOCATIONS TO SEPARATE AND REMOVE ANY CONFLICTS.
- THE CONTRACTOR SHALL TEST THE STATIC PSI AT EACH VALVE AND ADJUST VALVE MOUNTED PRESSURE REGULATORS AS NEEDED FOR OPTIMAL PERFORMANCE.
- NO LOW HEAD DRAINAGE, SURFACE POOLING OF WATER, OVERSPRAY ON HARDSCAPE, STRUCTURES, OR EQUIPMENT WILL BE ALLOWED. CONTRACTOR TO INCLUDE IN THEIR BID FOR ANY ADDITIONAL CHECK VALVES OR EQUIPMENT REQUIRED TO MEET THE REQUIREMENT.
- CONTRACTOR REQUIRED TO SUPPLY ALL EQUIPMENT FOR TESTING, AND CONTRACT/SUPPLY 3RD PARTY WATER AUDITS AS REQUIRED BY LOCAL REGULATIONS AND CODES.
- THE CONTRACTOR SHALL FOLLOW AND UNDERSTAND ALL THE REQUIREMENTS OF THE SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.

**DRIP IRRIGATION NOTES**

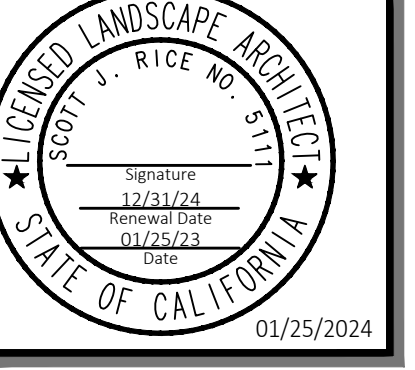
- ALL AREAS TO RECEIVE DRIP IRRIGATION SHALL BE AMENDED, GRADED, AND READY FOR PLANTING PRIOR TO INSTALLATION.
- ALL DEBRIS, ROCKS, OR SHARP ITEMS SHALL BE REMOVED IF THEY CAN CAUSE DAMAGE TO THE DRIP EQUIPMENT SUCH AS PUNCTURES, CUTS, OR GAUGING PRIOR TO INSTALLATION.
- REFER TO DETAILS FOR TYPICAL LAYOUTS, HEADER LOCATIONS, AND CONNECTION POINTS AS WELL AS FLUSH VALVE AND AIR RELIEF VALVE LOCATIONS WHICH MAY NOT BE SHOWN PER PLAN DUE TO GRAPHICAL ISSUES. ALL VALVES SHALL INCLUDE FLUSHING AND AIR RELIEF AS REQUIRED BY THE MANUFACTURER.
- ALL DRIP LINES SHALL BE SLEEVED IN SCH 40 PIPE FOR ANY CROSSINGS UNDER HARDSCAPE.
- ALL DRIP LINES TO BE SECURELY STAKED PER DETAILS WITH ADDITIONAL LINE TO ALLOW FOR EXPANSION AND CONTRACTION.
- ALL DRIP LINES TO BE CLEANLY CUT AT 90-DEGREE INTERVALS, NO SOLVENTS OR OTHER LIQUIDS SHALL BE USED WHICH MAY DEGRADE THE TUBING OR JAGGED/ROUGH CUTS WILL BE ALLOWED.
- INSTALL AIR/VACUUM RELIEF VALVES AT THE HIGHEST POINT OF THE HYDROZONE.
- INSTALL MANUAL FLUSH VALVE AT THE FARTHEST END OF EACH HYDROZONE.
- FLUSH ALL LINES, AND SYSTEM FULLY PRIOR TO CAPPING ALL ENDS TO REMOVE ANY INSTALLATION DEBRIS OR SEDIMENT.
- CONTRACTOR SHALL USE SIZE VALVE BOXES AS NEEDED FOR LARGER DRIP VALVE FILTERS TO ENSURE ACCESS FOR MAINTENANCE OF FILTERS.



COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT: **SARB MAINTENANCE FACILITY**  
PROJECT No. PK-ARPA009  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

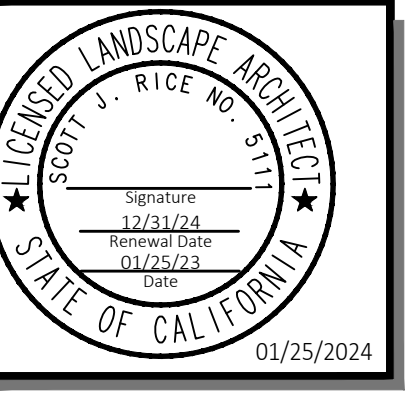
REVISIONS	DATE	BY



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JOB NO.	2023-29

SHEET  
**LI.01**

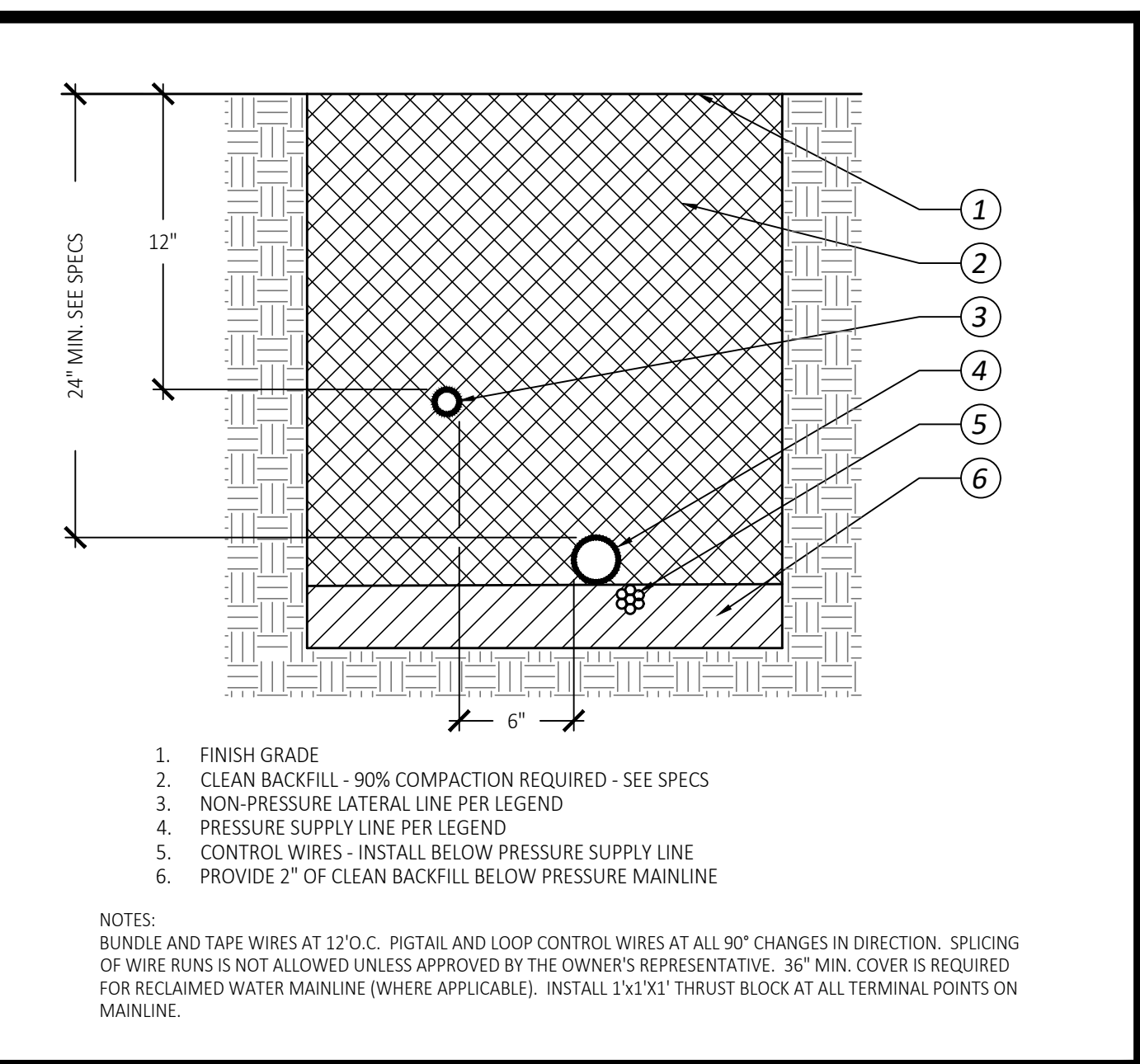
REVISIONS	DATE	BY



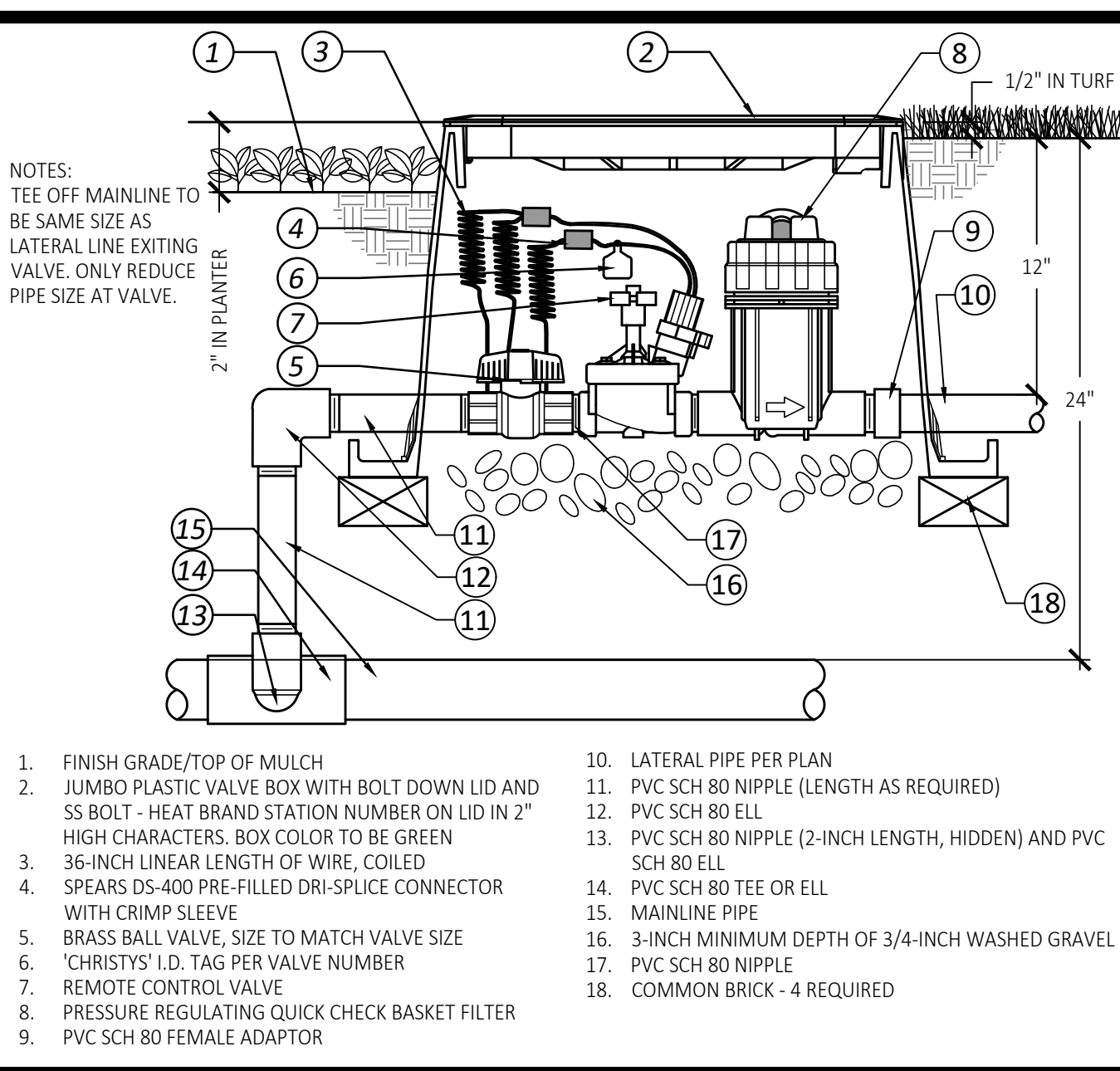
SHEET TITLE

**IRRIGATION DETAILS**

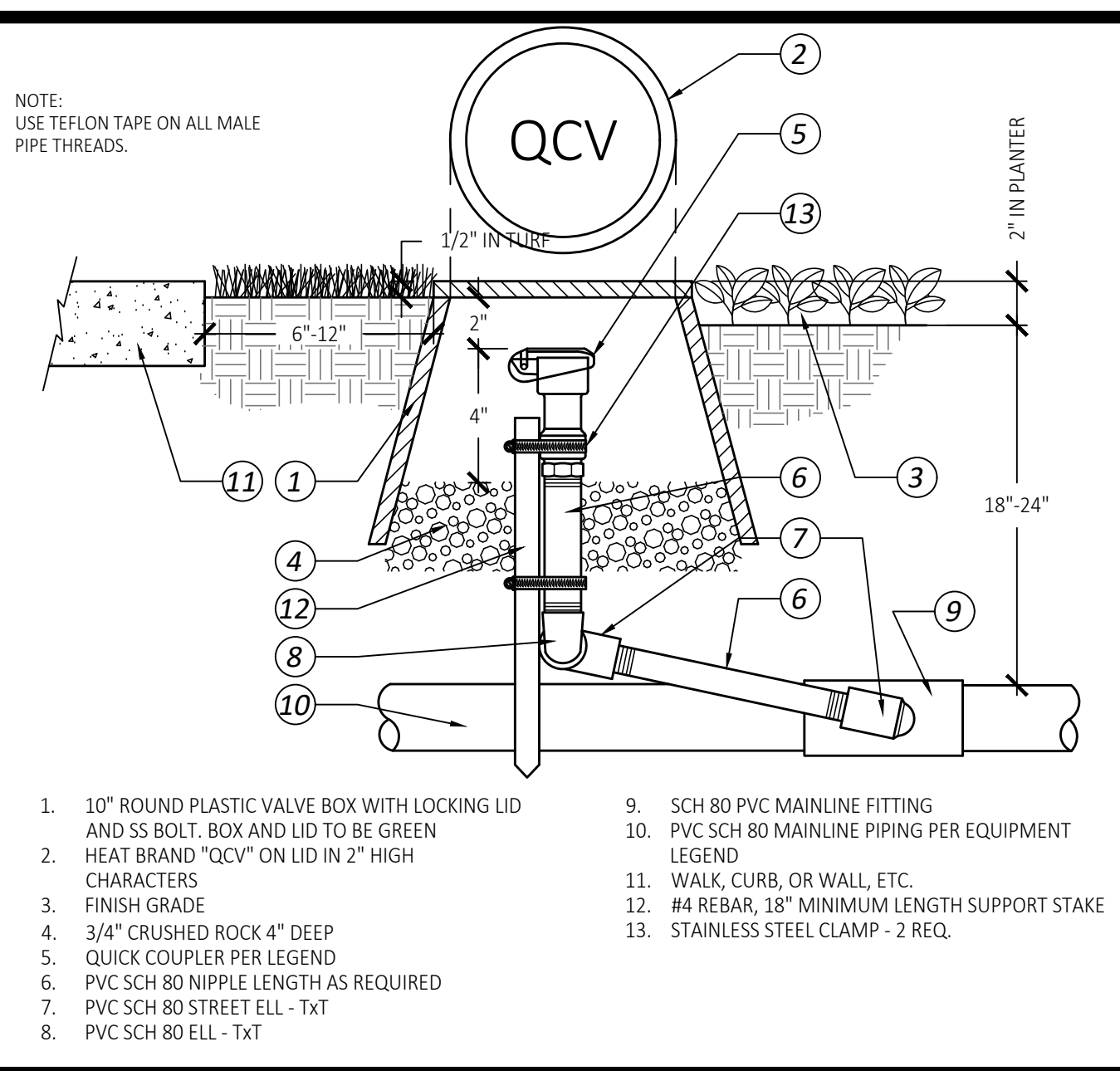
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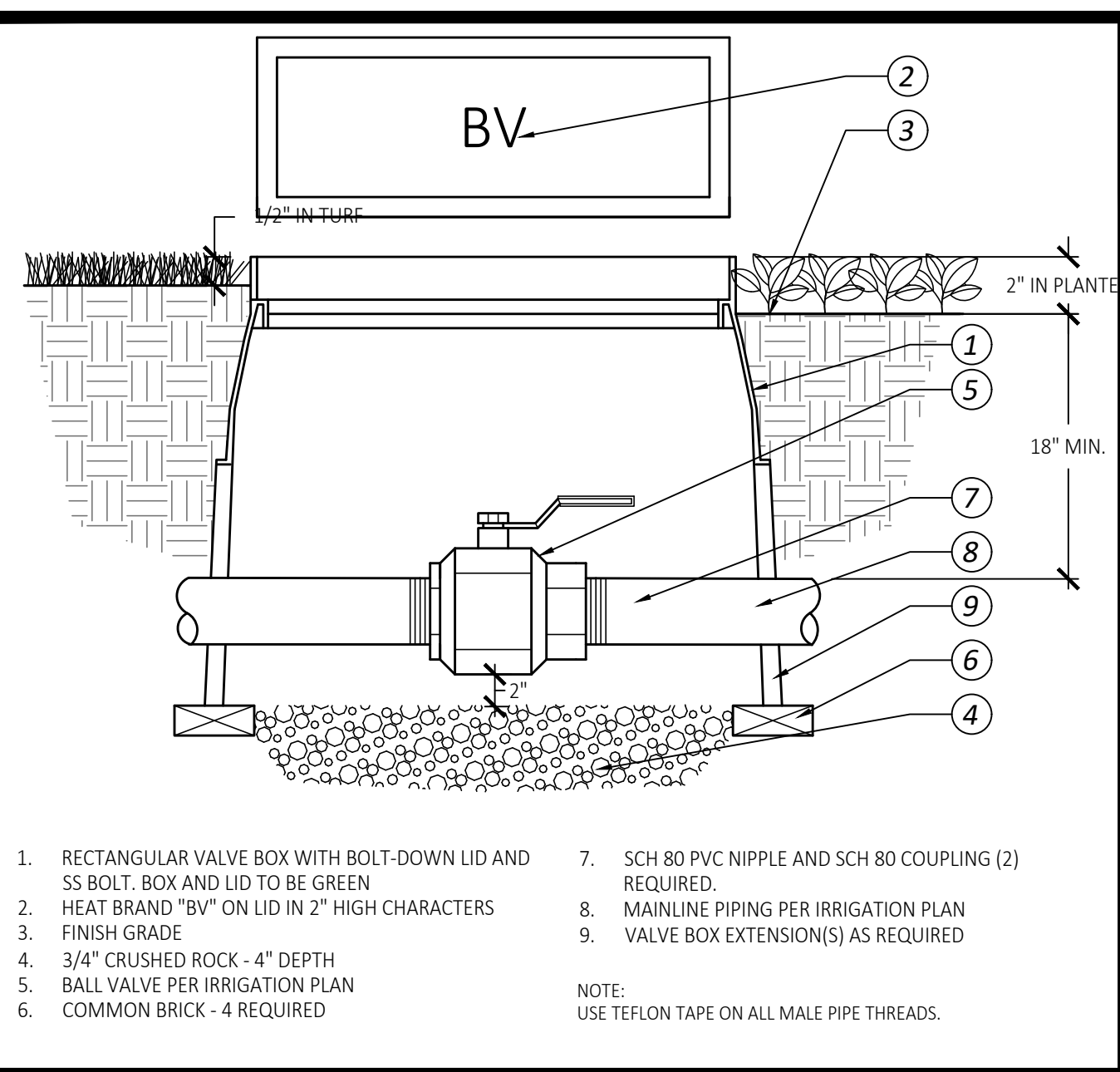
**D Trenching**



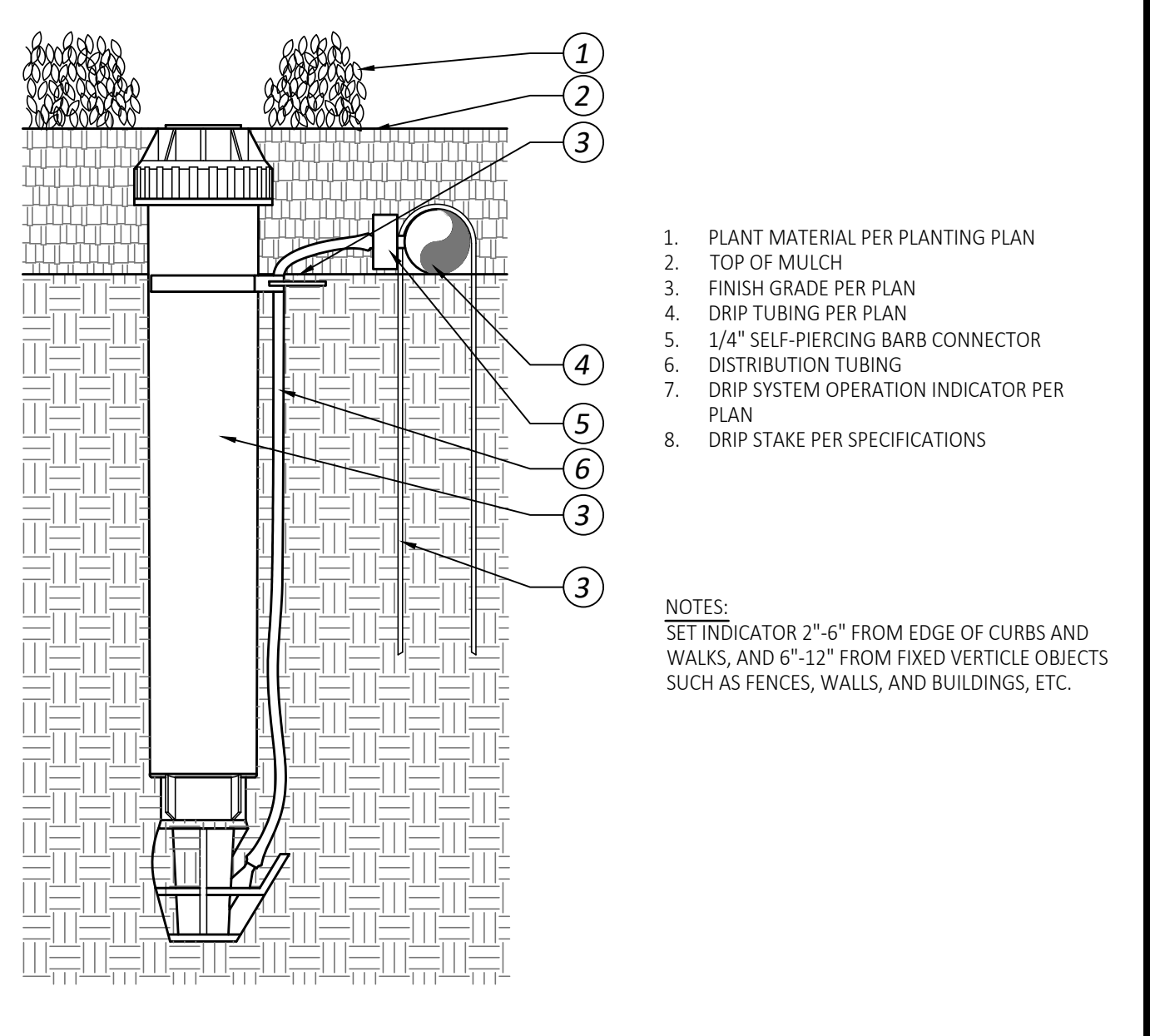
**C Drip Control Valve Assembly**



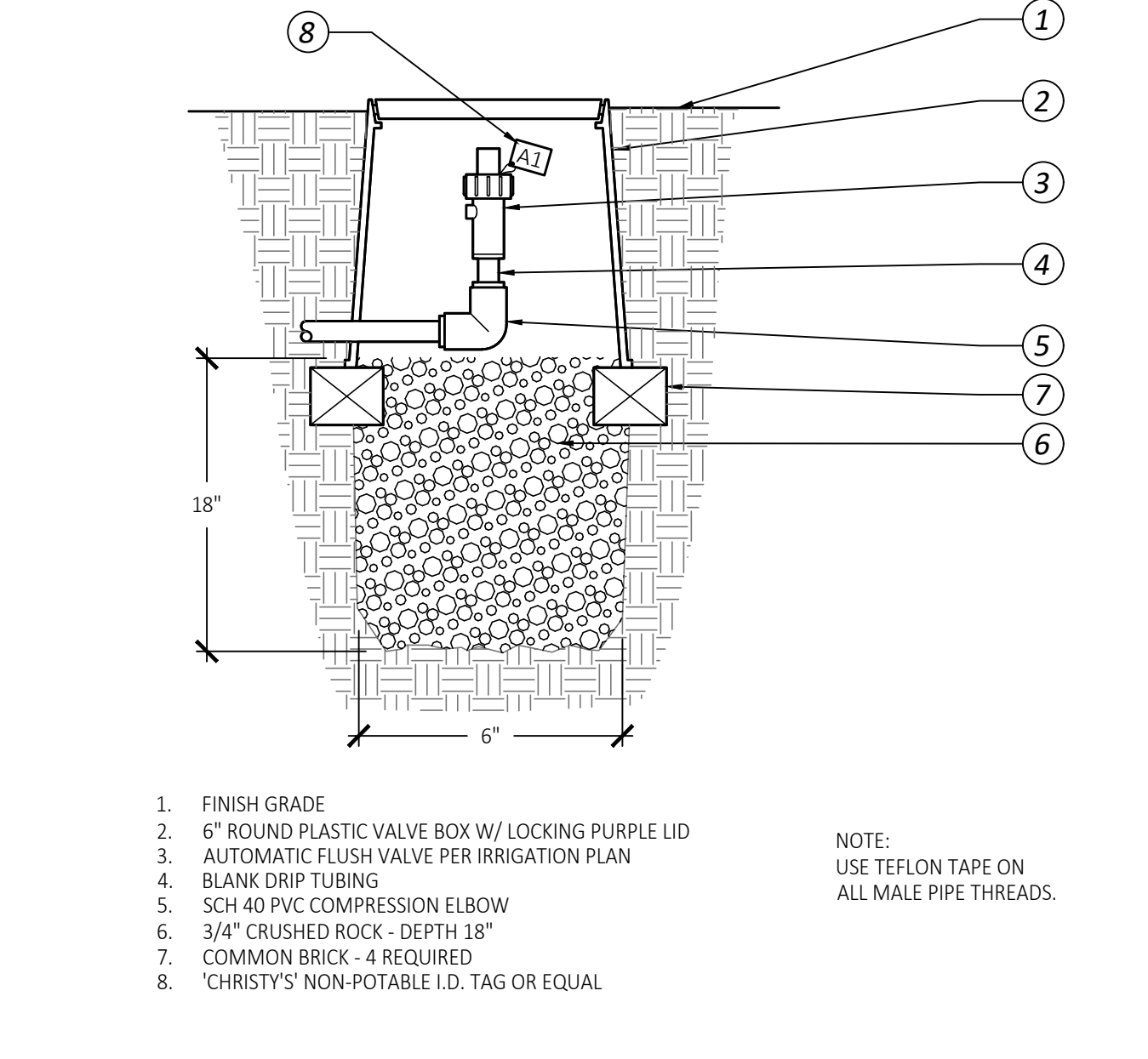
**B Quick Coupler Valve**



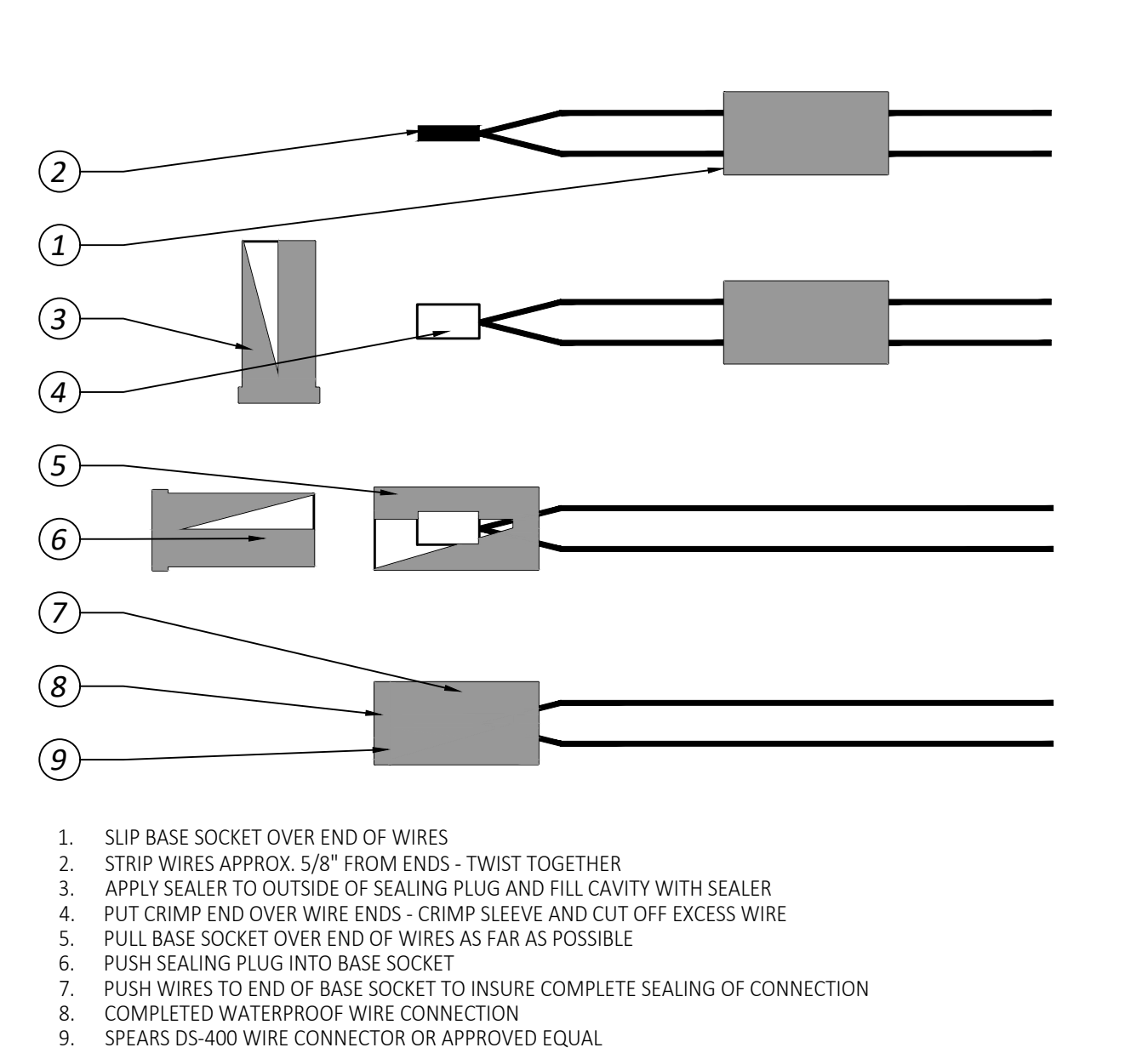
**A Ball Valve**



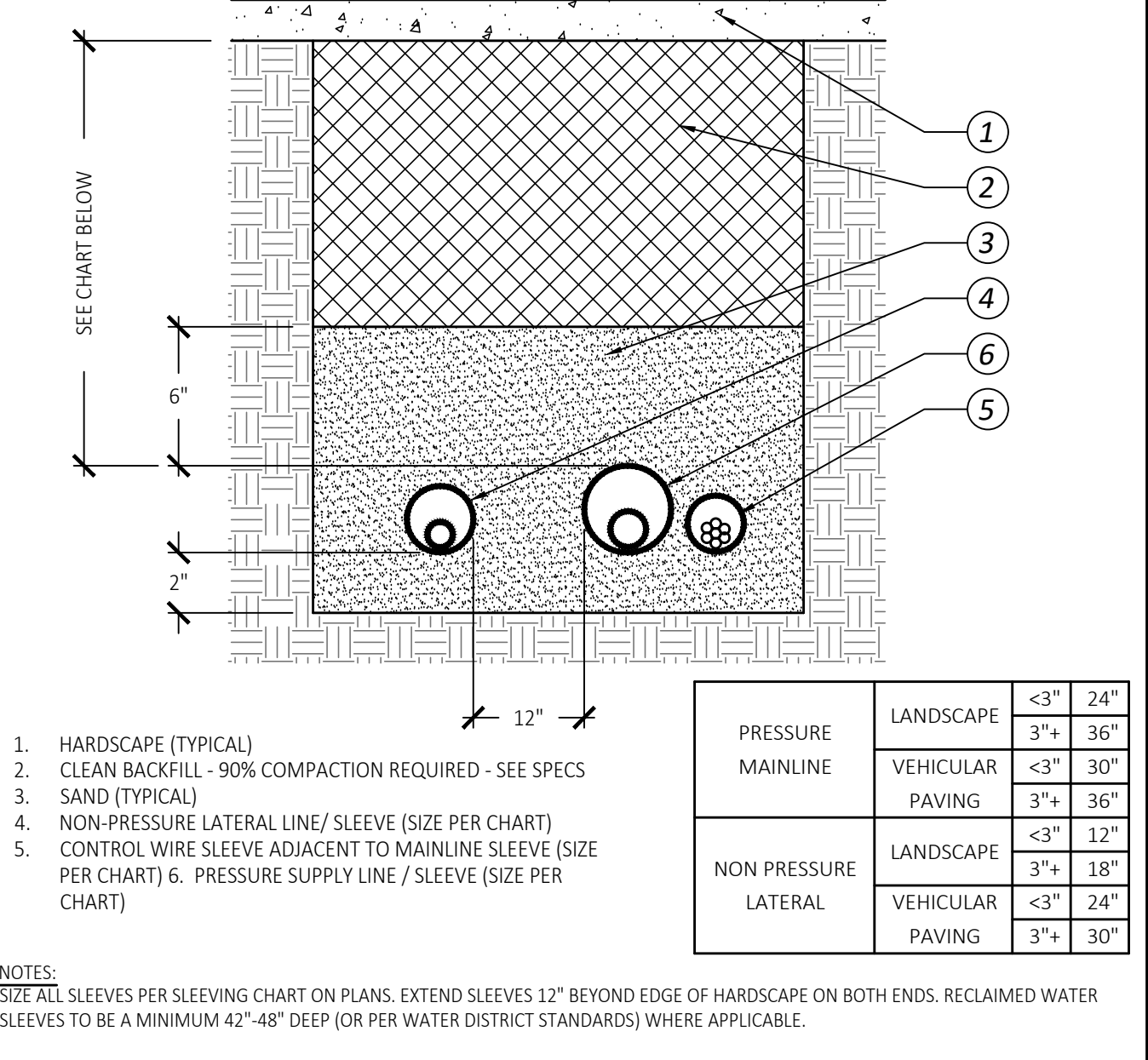
**H Drip Operation Indicator**



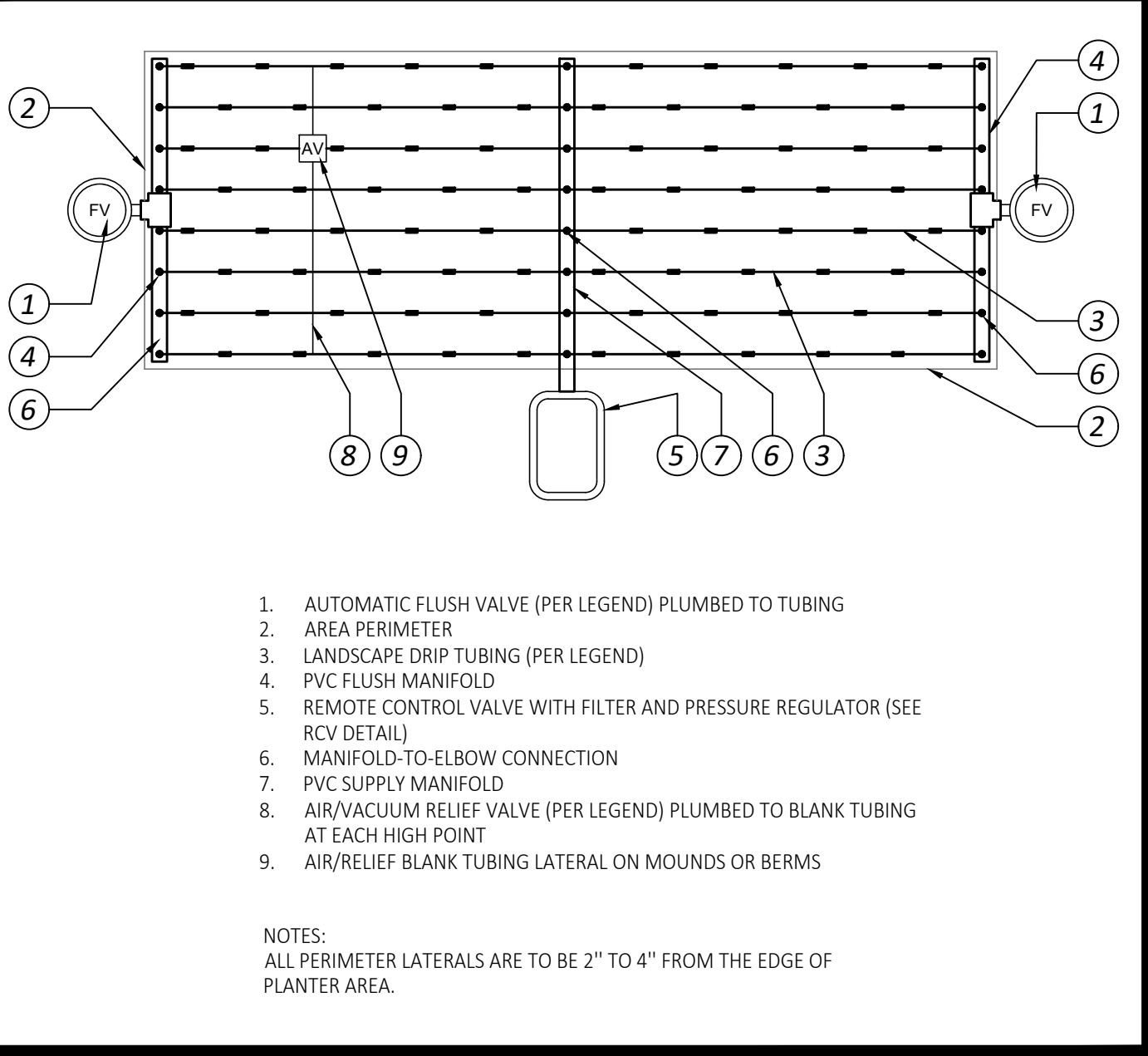
**G Automatic Flush Valve**



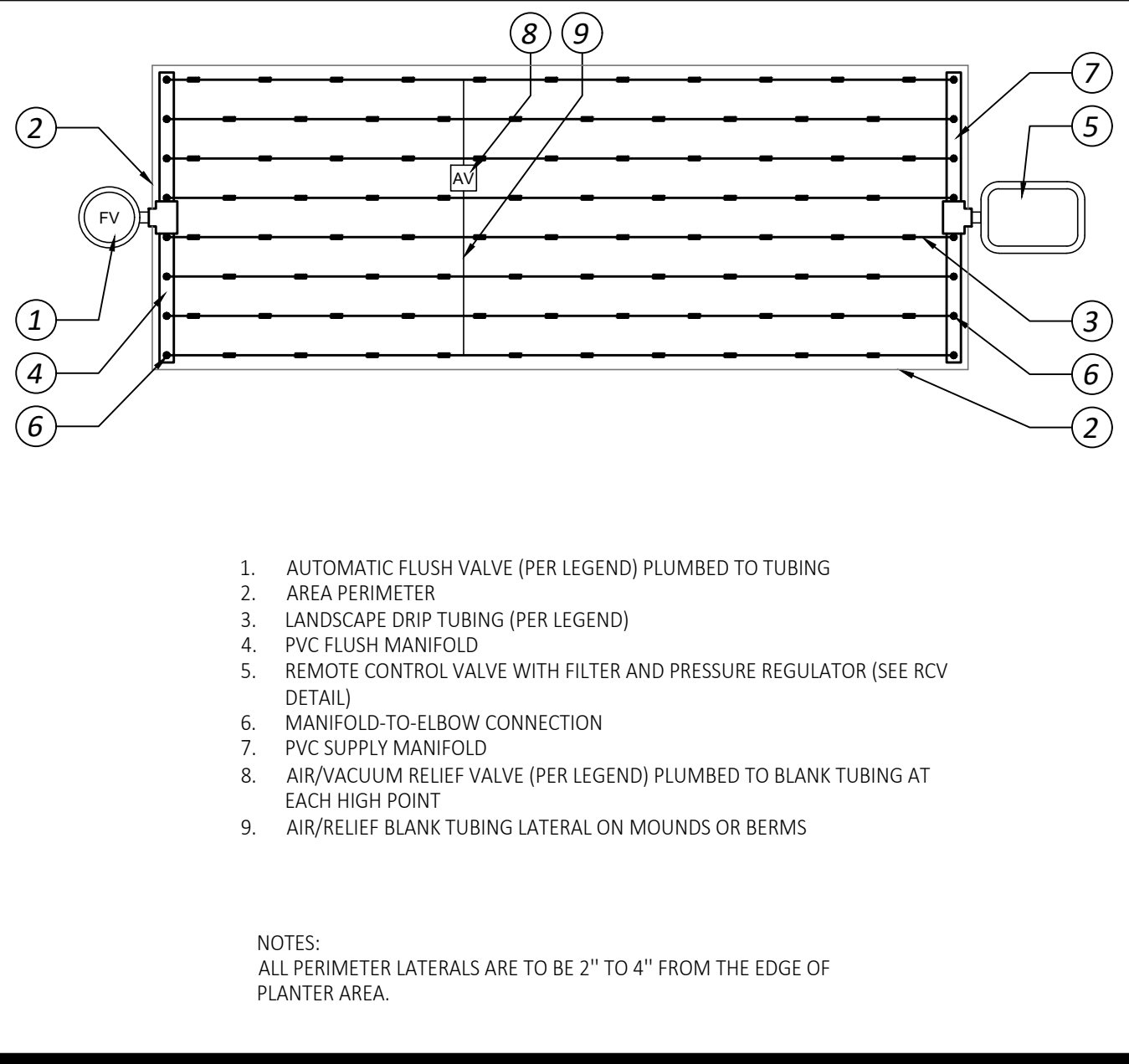
**F Wire Connections**



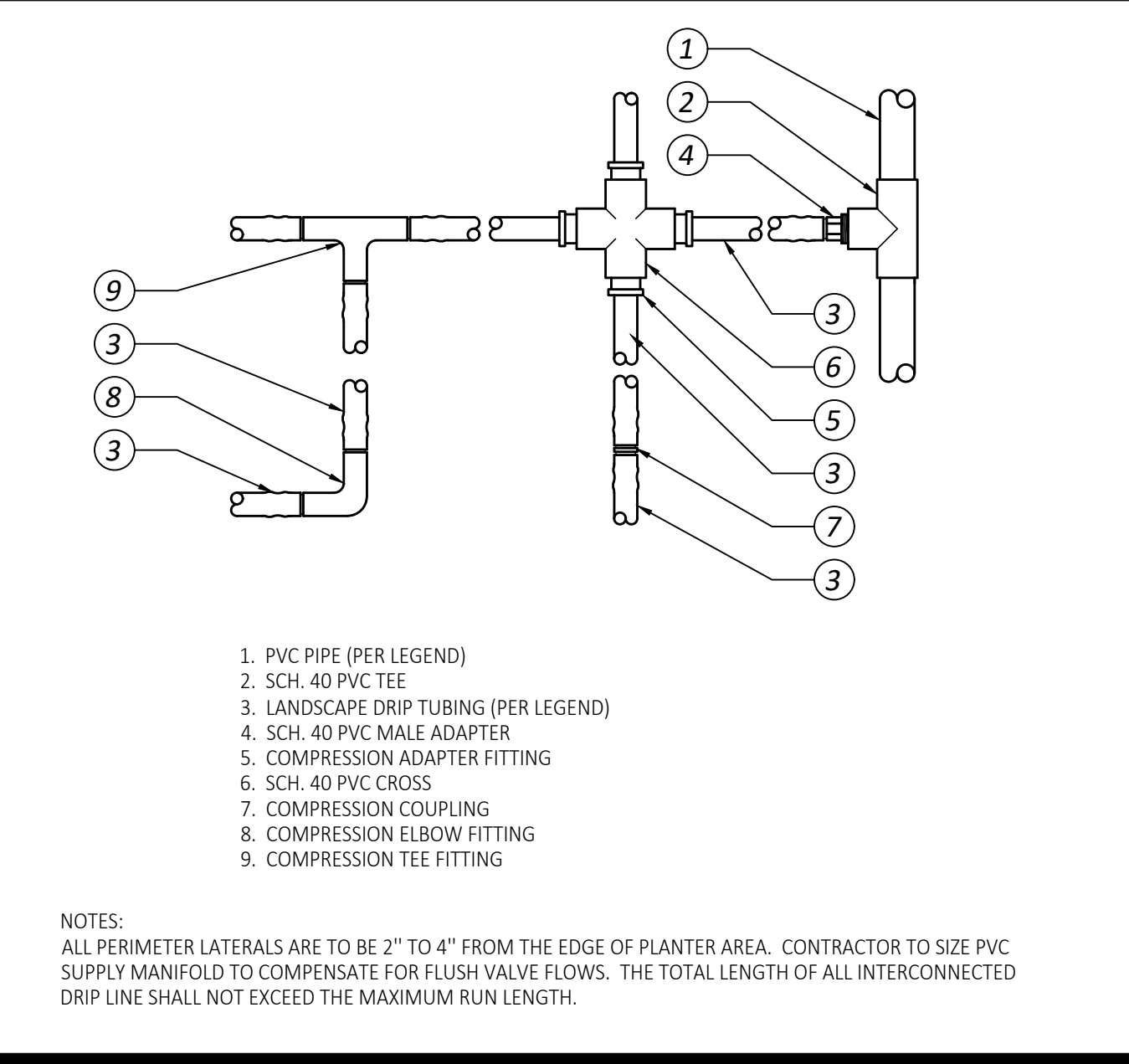
**E Sleeving**



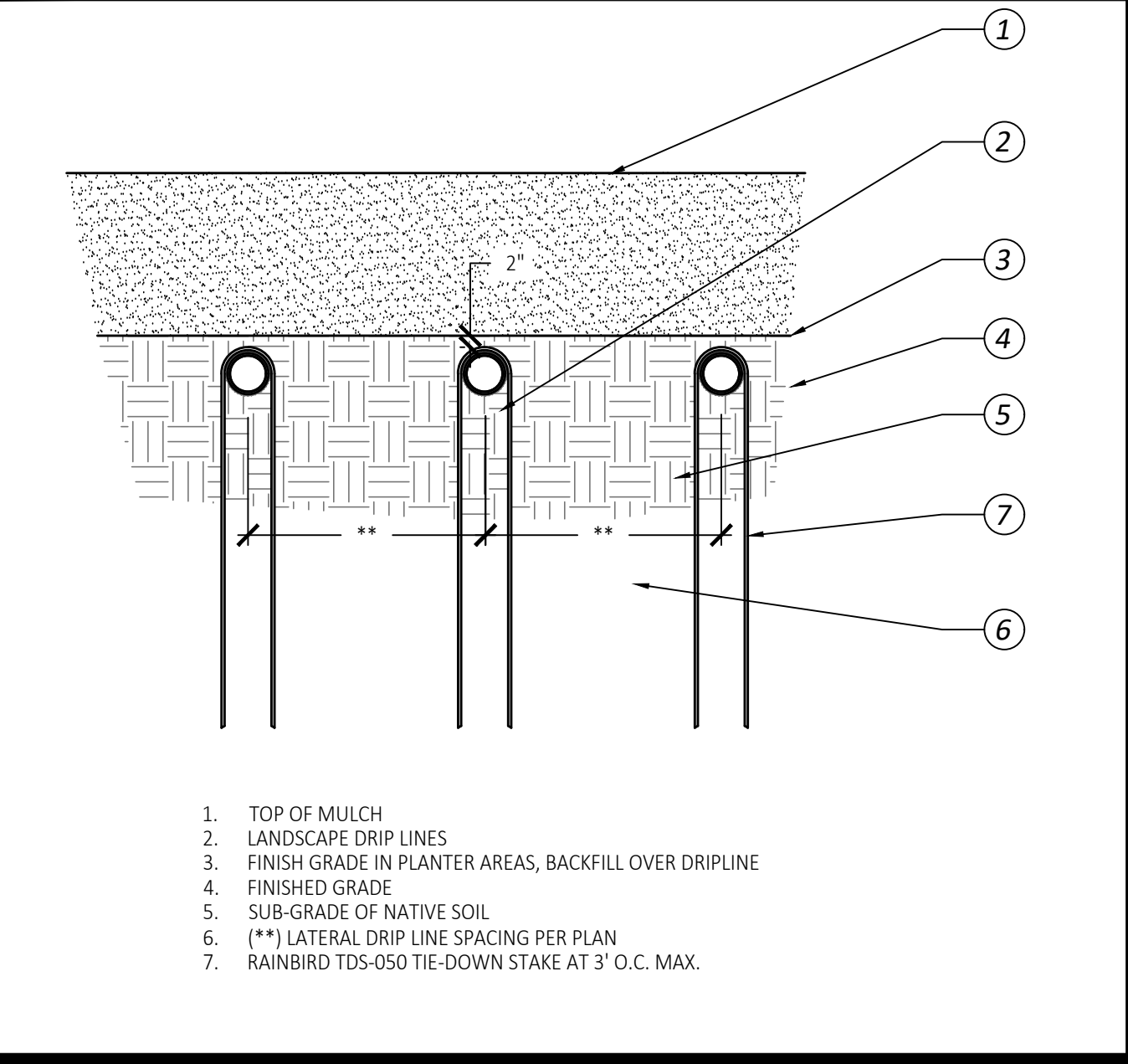
**L Dripline Center Connection**



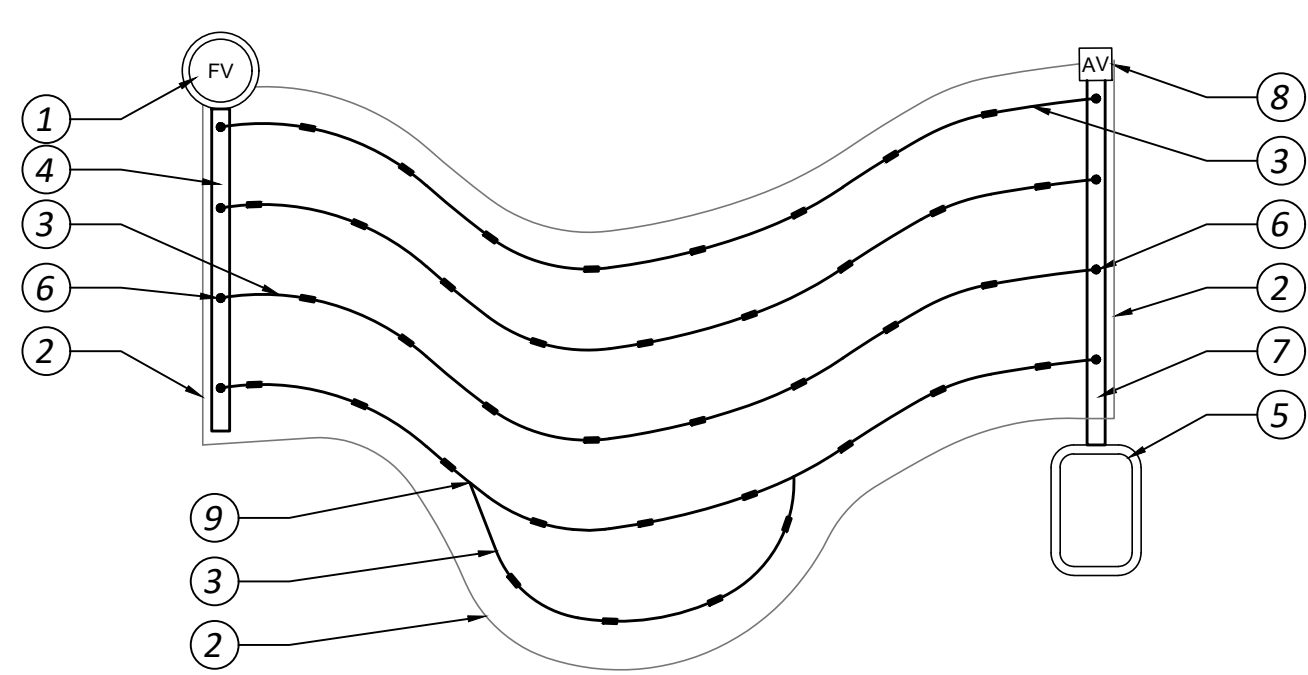
**K Dripline End Connection**



**J Dripline Fittings**

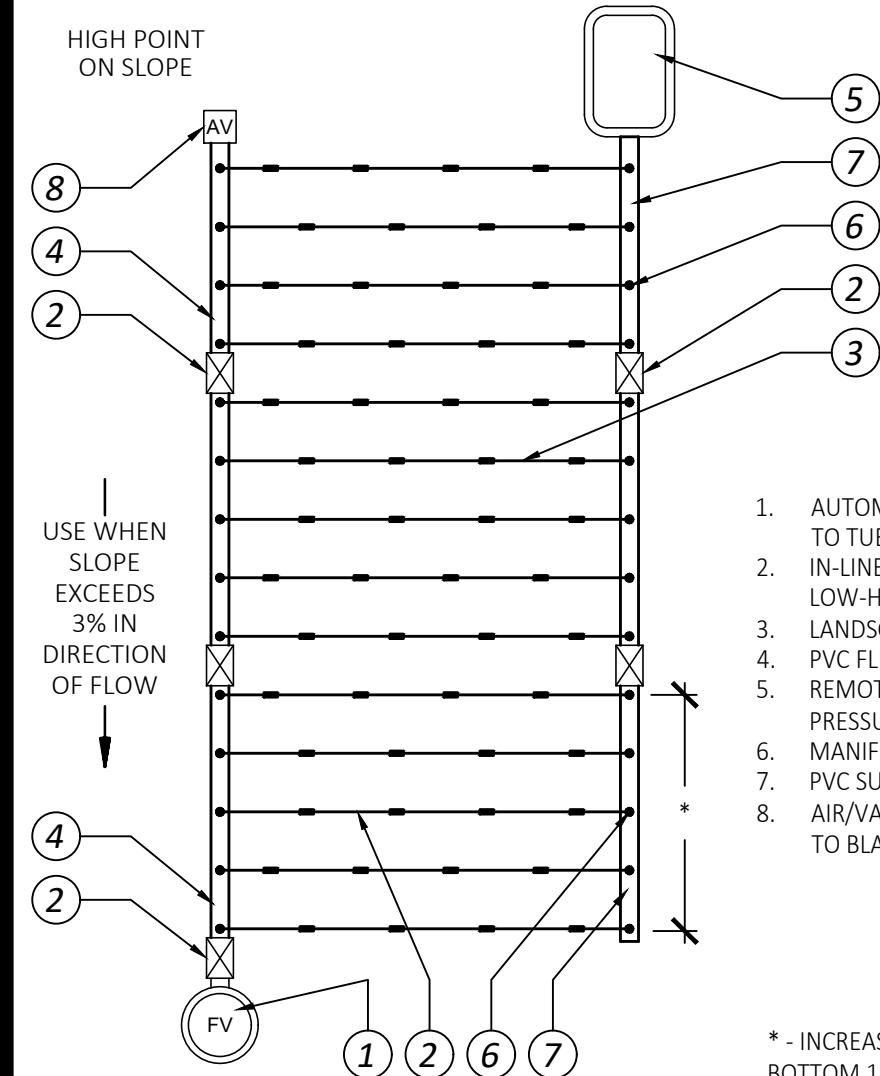


**I Dripline Burial**



1. AUTOMATIC FLUSH VALVE (PER LEGEND) PLUMBED TO TUBING
2. AREA PERIMETER
3. LANDSCAPE DRIP TUBING (PER LEGEND)
4. PVC FLUSH MANIFOLD
5. REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR (SEE RCV DETAIL)
6. MANIFOLD-TO-ELBOW CONNECTION
7. PVC SUPPLY MANIFOLD
8. AIR/VACUUM RELIEF VALVE (PER LEGEND) PLUMBED TO BLANK TUBING AT EACH HIGH POINT
9. COMPRESSION TEE FITTING

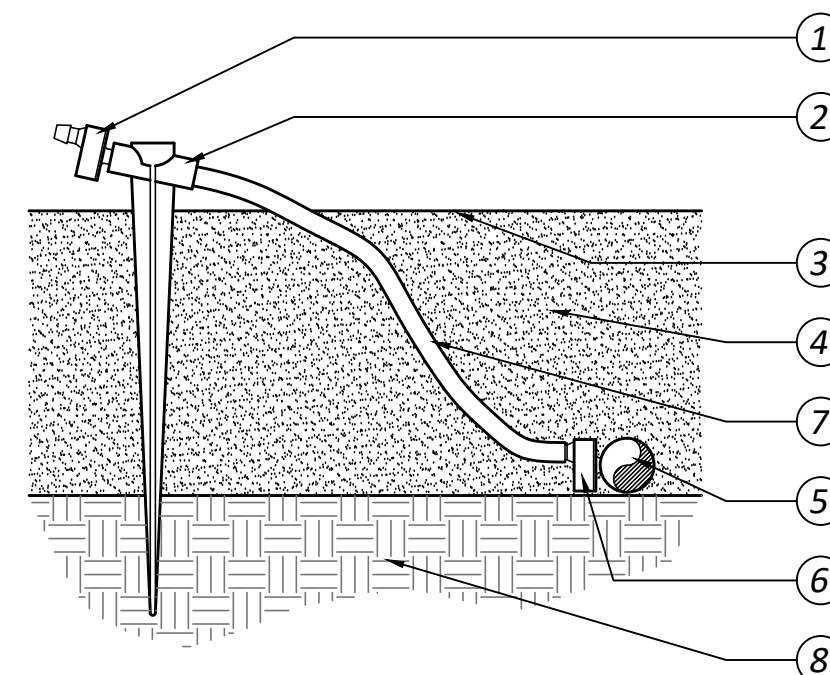
NOTES:  
ALL PERIMETER LATERALS ARE TO BE 2" TO 4" FROM THE EDGE OF PLANTER AREA. CONTRACTOR TO SIZE PVC SUPPLY MANIFOLD TO COMPENSATE FOR FLUSH VALVE FLOWS. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE SHALL NOT EXCEED THE MAXIMUM RUN LENGTH.



1. AUTOMATIC FLUSH VALVE (PER LEGEND) PLUMBED TO TUBING
2. IN-LINE, SPRING CHECK VALVE TO HELP CONTROL LOW-HEAD DRAINAGE
3. LANDSCAPE DRIP TUBING (PER LEGEND)
4. PVC FLUSH MANIFOLD
5. REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR (SEE RCV DETAIL)
6. MANIFOLD-TO-ELBOW CONNECTION
7. PVC SUPPLY MANIFOLD
8. AIR/VACUUM RELIEF VALVE (PER LEGEND) PLUMBED TO BLANK TUBING AT EACH HIGH POINT

\* - INCREASE DRIPLINE SPACING BY 25% FOR BOTTOM 1/3 OF SLOPE

NOTES:  
ALL PERIMETER LATERALS ARE TO BE 2" TO 4" FROM THE EDGE OF PLANTER AREA.



1. BARBED DRIP EMITTER PER IRRIGATION PLAN
2. 1/4" TUBING STAKE (R.B. #15-025)
3. TOP OF MULCH LAYER
4. MULCH BED PER PLANTING PLAN
5. HUNTER HDL DRIPLINE
6. 1/4" BARBED CONNECTOR (R.B. #APB-025)
7. 1/4" VINYL DISTRIBUTION TUBING (R.B. #DT-025)
8. NATIVE SOIL

NOTES:  
USE RAINGUN (#EMA-BGX) TO INSERT CONNECTOR DIRECTLY INTO POLYETHYLENE TUBING.

**A Dripline In Odd Curves**

**B Dripline On Slopes**

**C Single Drip Emitter**

**Riverside County Ordinance 859 Landscape Water Use Calculations**  
Project Type **Commercial**  
**SARB MAINTENANCE FACILITY**  
0.45 ETo allowance

**1 Maximum Annual Water Allowance (MAWA)**

INPUT the total square footage of landscape =  S.F.  
INPUT the Hist. ETo for the area =   
MAWA =  cu ft / yr

**2 Estimated Annual Water Use (EAWU)**

Hydrozone #	Plant Factor	Plant Type	Water Use
Hydrozone # 1	0.5	Shrubs / Groundcover	Moderate
INPUT Square Foot Area of Hydrozone =	<input type="text" value="2,224"/>		
Hydrozone Irrigation Efficiency =	0.85	In-line Drip-Densely Planted	
EAWU =	<input type="text" value="6,269"/>		cu ft / yr
Hydrozone # 2	0.2	Shrubs / Groundcover	Low
INPUT square footage of hydrozone =	<input type="text" value="1,840"/>		
Hydrozone Irrigation Efficiency =	0.85	In-line Drip-Densely Planted	
EAWU =	<input type="text" value="2,075"/>		cu ft / yr
Hydrozone # 3	0.2	Shrubs / Groundcover	Low
INPUT square footage of hydrozone =	<input type="text" value="3,171"/>		
Hydrozone Irrigation Efficiency =	0.85	In-line Drip-Densely Planted	
EAWU =	<input type="text" value="3,575"/>		cu ft / yr
Hydrozone # 4	0	n/a	n/a
INPUT square footage of hydrozone =	<input type="text" value="0"/>		
Hydrozone Irrigation Efficiency =	0.85	Bubblers	
EAWU =	<input type="text" value="0"/>		cu ft / yr
Hydrozone # 5	0	n/a	n/a
INPUT square footage of hydrozone =	<input type="text" value="0"/>		
Hydrozone Irrigation Efficiency =	0.85	Bubblers	
EAWU =	<input type="text" value="0"/>		cu ft / yr

SubTotal EAWU =  cu ft / yr  
Input Irrigation System Operation Factor =   
**Total EAWU = 14,022**  
MAWA - EAWU =  cu ft / yr  
(this number must be positive)

PERCENTAGE OF WATER SAVED RELATIVE TO MAX. ALLOWED = 10%



LANDSCAPE ARCHITECTURE  
7111 Indiana Avenue  
Riverside, CA 92504  
(951) 369-0700 | www.cwdg.fun

CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

PROJECT:  
SARB MAINTENANCE FACILITY  
PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



SHEET TITLE  
**IRRIGATION DETAILS**

DESIGNED	LM
DRAWN	LM
CHECKED	RC
DATE	01/25/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**LI.03**



REVISIONS	DATE	BY



SHEET TITLE  
**LANDSCAPE PLAN**

DESIGNED	LM
DRAWN	LM
CHECKED	DB
DATE	01/25/2024
SCALE	PER PLAN
JOB NO.	2023-29

**PLANTING LEGEND:**

BOTANIC NAME	COMMON NAME	SIZE	WUCOLS	QTY.	DETAIL
<b>TREES</b>					
(Green Circle)	EXISTING TREE TO REMAIN, PROTECT IN PLACE				
<b>SHRUBS / VINES</b>					
(AP)	<i>Abutilon palmeri</i>	INDIAN MALLOW	1 GAL	LOW	4 'A', THIS SHEET
(CO)	<i>Cercis occidentalis (MULTI)</i>	WESTERN RED BUD	15 GAL	LOW	1 'A', THIS SHEET
(HA)	<i>Distictis buccinatoria</i>	BLOOD-RED TRUMPET VINE	5 GAL	LOW	10 'B', THIS SHEET
(HA)	<i>Heteromeles arbutifolia</i>	TOYON	5 GAL	LOW	2 'A', THIS SHEET
(LF)	<i>Leucophyllum frutescens 'Silver Cloud'</i>	SILVER CLOUD TEXAS SAGE	1 GAL	LOW	34 'A', THIS SHEET
(P)	<i>Penstemon barbatus 'Riding Hood Red'</i>	'RIDING HOOD RED' PENSTEMON	1 GAL	MOD	4 'A', THIS SHEET
(SC)	<i>Salvia clevelandii 'Winnifred Gilman'</i>	WINNIFRED GILMAN SAGE	5 GAL	LOW	9 'A', THIS SHEET
<b>GROUNDCOVERS</b>					
(BP)	<i>Baccharis pilularis 'Pigeon Point'</i>	PIGEON POINT COYOTE BRUSH	1 GAL	LOW	68 'A', THIS SHEET
(CM)	<i>Carissa macrocarpa 'Green Carpet'</i>	PROSTRATE NATAL PLUM	5 GAL	MOD	20 'A', THIS SHEET
(EF)	<i>Eriogonum fasciculatum 'Theodore Payne'</i>	THEODORE PAYNE BUCKWHEAT	5 GAL	V.LOW	10 'A', THIS SHEET
(MR)	<i>Muhlenbergia rigens</i>	DEER GRASS	1 GAL	MOD	27 'A', THIS SHEET
<b>CACTI/ SUCCULENTS</b>					
(CC)	<i>Cylindropuntia californica</i>	CALIFORNIA CHOLLA	1 GAL	V. LOW	43 'A', THIS SHEET
(HW)	<i>Hesperoyucca whipplei</i>	OUR LORD'S CANDLE	1 GAL	LOW	46 'A', THIS SHEET
(OL)	<i>Opuntia littoralis</i>	COAST PRICKLY PEAR	1 GAL	V. LOW	45 'A', THIS SHEET

- NOTES:
- ALL PLANTER AREAS TO RECEIVE A 3" MINIMUM DEPTH LAYER OF SHREDDED WOOD BARK MULCH
  - PLANT WATER USE VALUES ARE PER WUCOLS IV PLANT LIST
  - QUANTITIES SHOWN FOR CONVENIENCE ONLY, CONTRACTOR SHALL VERIFY QUANTITIES VIA SYMBOLS

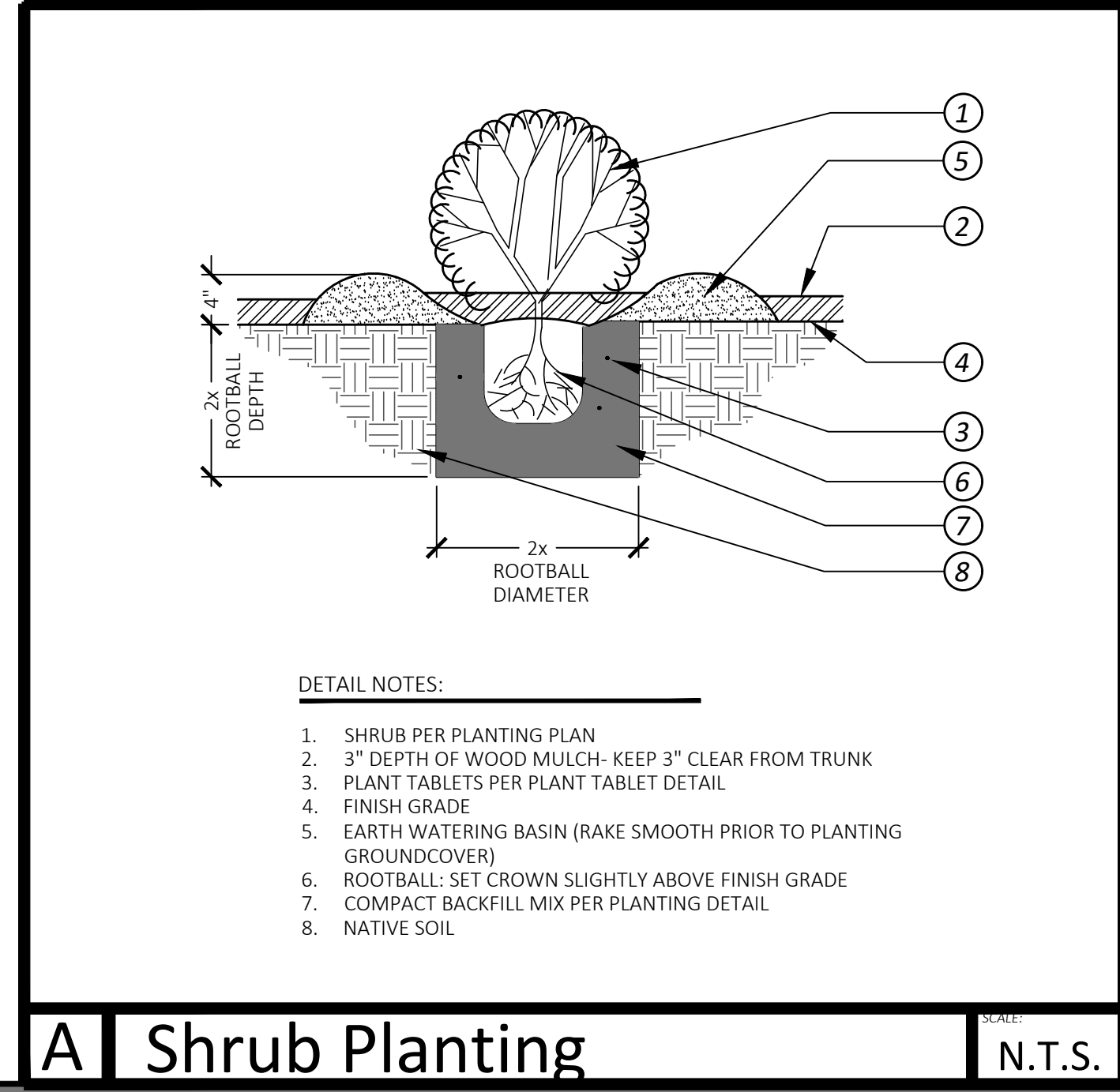
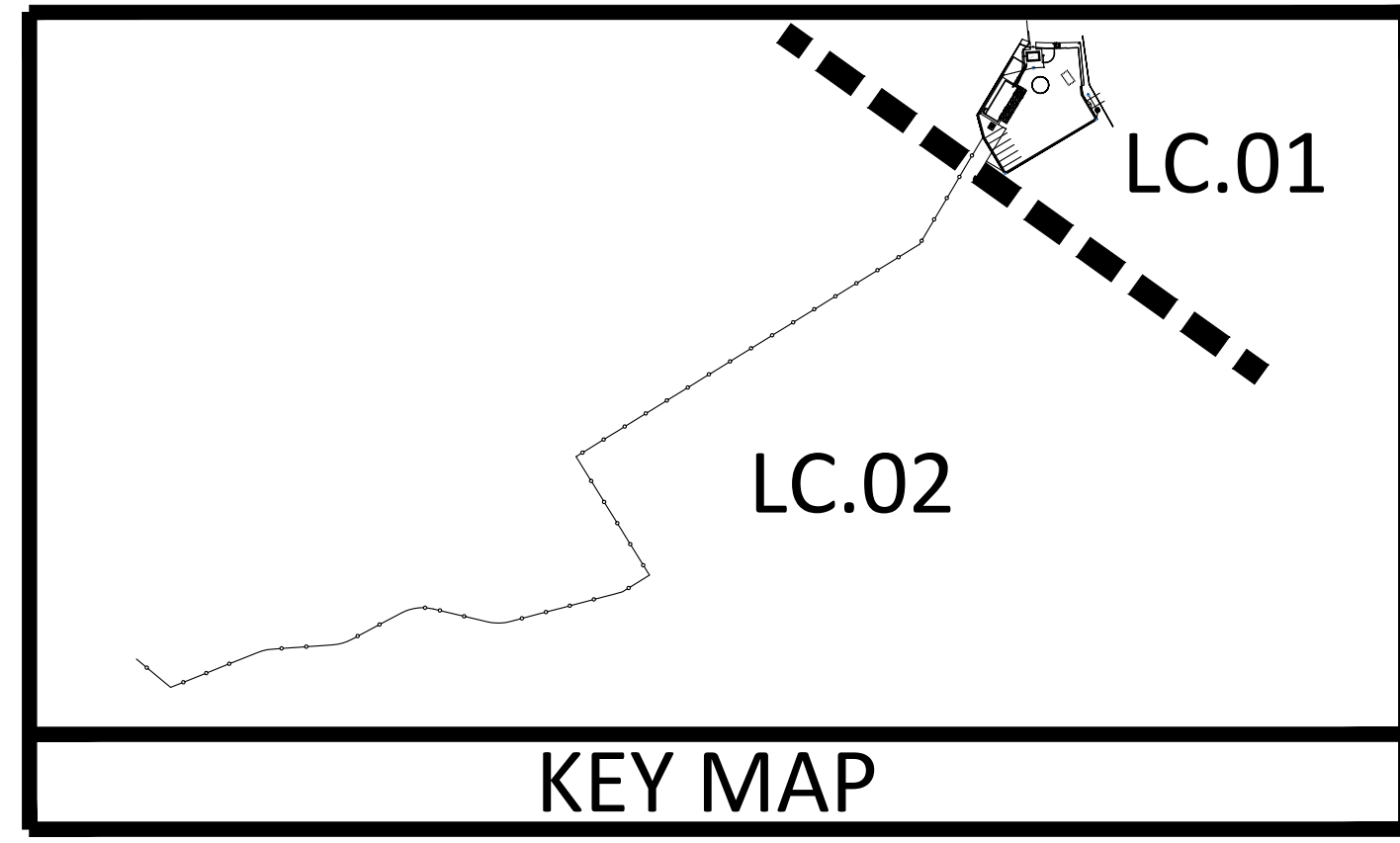
**CONSTRUCTION LEGEND:**

DESCRIPTION	QTY.	DETAIL
<b>FENCING &amp; WALLS</b>		
(FE-1) CONSTRUCT 6' TALL TUBULAR STEEL FENCE; COLOR SHALL BE BLACK	190 L.F.	DETAIL 'A', LC.03
(FE-2) CONSTRUCT 6' TALL CMU WALL	617 L.F.	DETAIL 'H/S2.02' ON CIVIL
(FE-3) INSTALL 6' TALL 24" WIDE DOUBLE SWING VEHICULAR ENTRY GATE; COLOR SHALL BE BLACK	1 EA	DETAIL 'B', LC.03
(FE-4) INSTALL 6' TALL 12" WIDE DOUBLE SWING VEHICULAR ENTRY GATE; COLOR SHALL BE BLACK	2 EA	DETAIL 'B', LC.03
(FE-5) INSTALL 6' TALL OMEGA FENCING; COLOR SHALL BE BLACK	2,651 L.F.	DETAIL 'C', LC.03

REFERENCE INFORMATION MAY BE PRESENTED VIA LINE COLOR AND STYLE OR LINEWEIGHT SIZE STYLE. CWDG IS NOT RESPONSIBLE FOR PLANS REPRODUCED BY OTHERS OR PLANS PRINTED IN BLACK & WHITE OR MONOCHROME

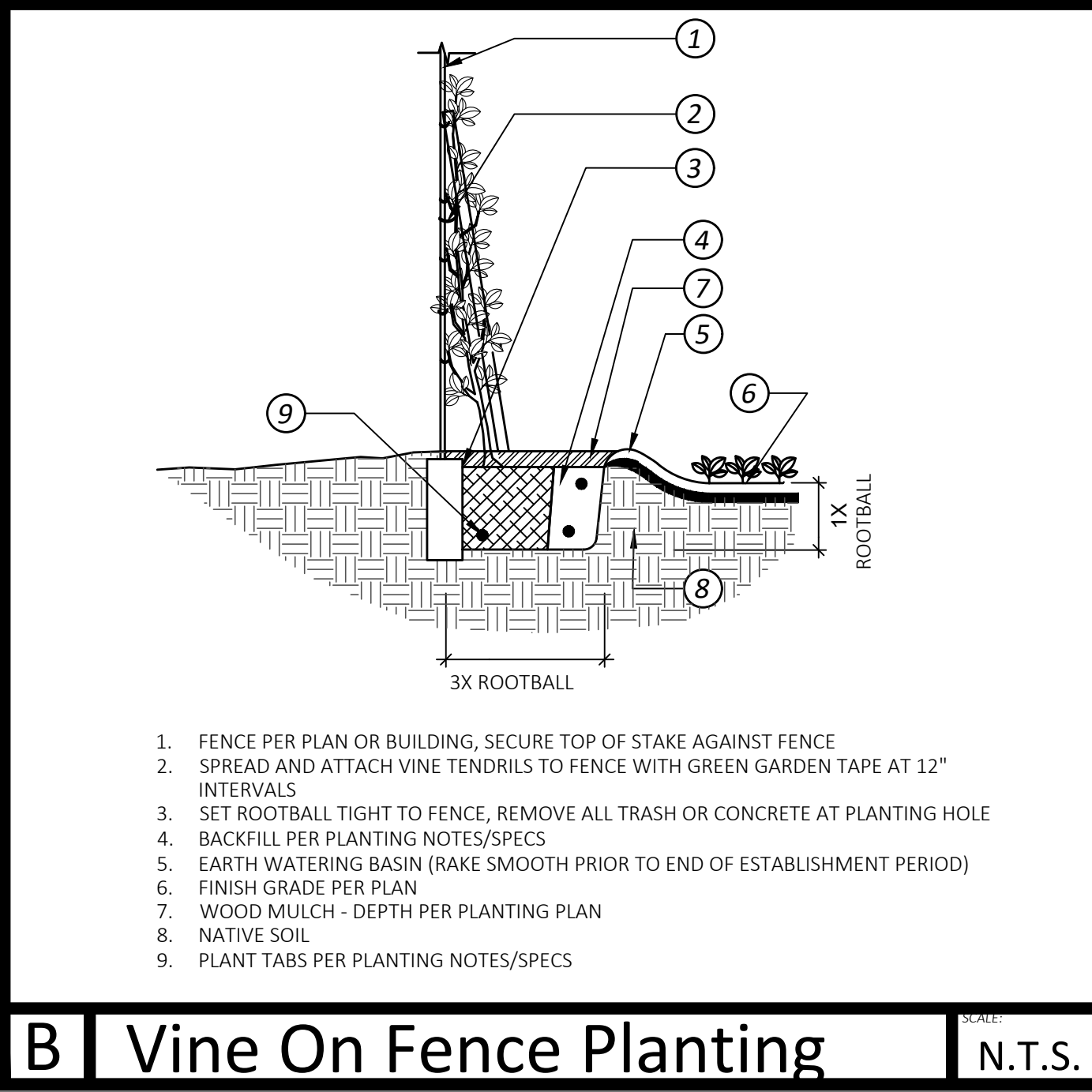


MATCHLINE, SEE SHEET LC.02



**A Shrub Planting**

SCALE: N.T.S.



**B Vine On Fence Planting**

SCALE: N.T.S.

**PLANTING MYCO PAK'S:**

CONTAIN BOTH ENDO (ARBUSCULAR) INOCULUM AND ECTOMYCORRHIZAL INOCULUM. BOTH MYCORRHIZAL GROUPS ARE KNOWN TO INCREASE NUTRIENT AND WATER AVAILABILITY TO COLONIZED PLANTS.

PACKS ARE TO NOT CONTAIN FERTILIZER.

**PLANTING TABLETS QUANTITIES:**

1 GALLON.....	1 PAK
5 GALLON.....	3 PAK
15 GALLON.....	8 PAK
24" BOX.....	12 PAK
36" BOX.....	18 PAK
48" BOX.....	22 PAK
60" BOX.....	26 PAK
72" BOX.....	32 PAK
84" BOX.....	40 PAK
96" BOX.....	46 PAK

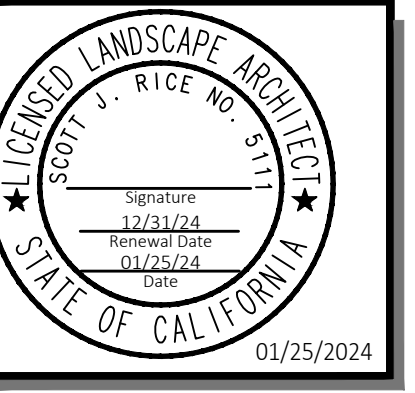
PLANT PACKS SHALL BE MYCO-PAK AVAILABLE BY TRI-C ENTERPRISES OR APPROVED EQUAL

**C Planting Mycorrhizal Packs**

SCALE: N/A



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**OMEGA FENCE ALIGNMENT**

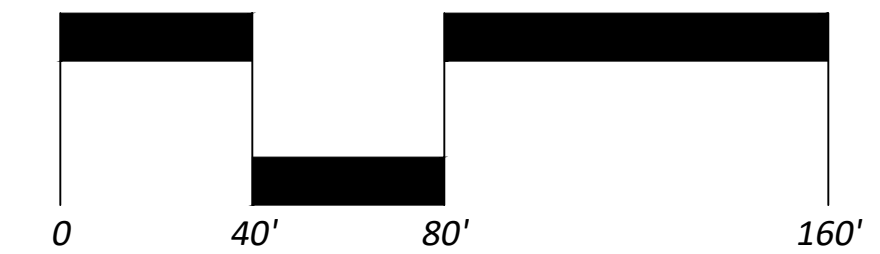
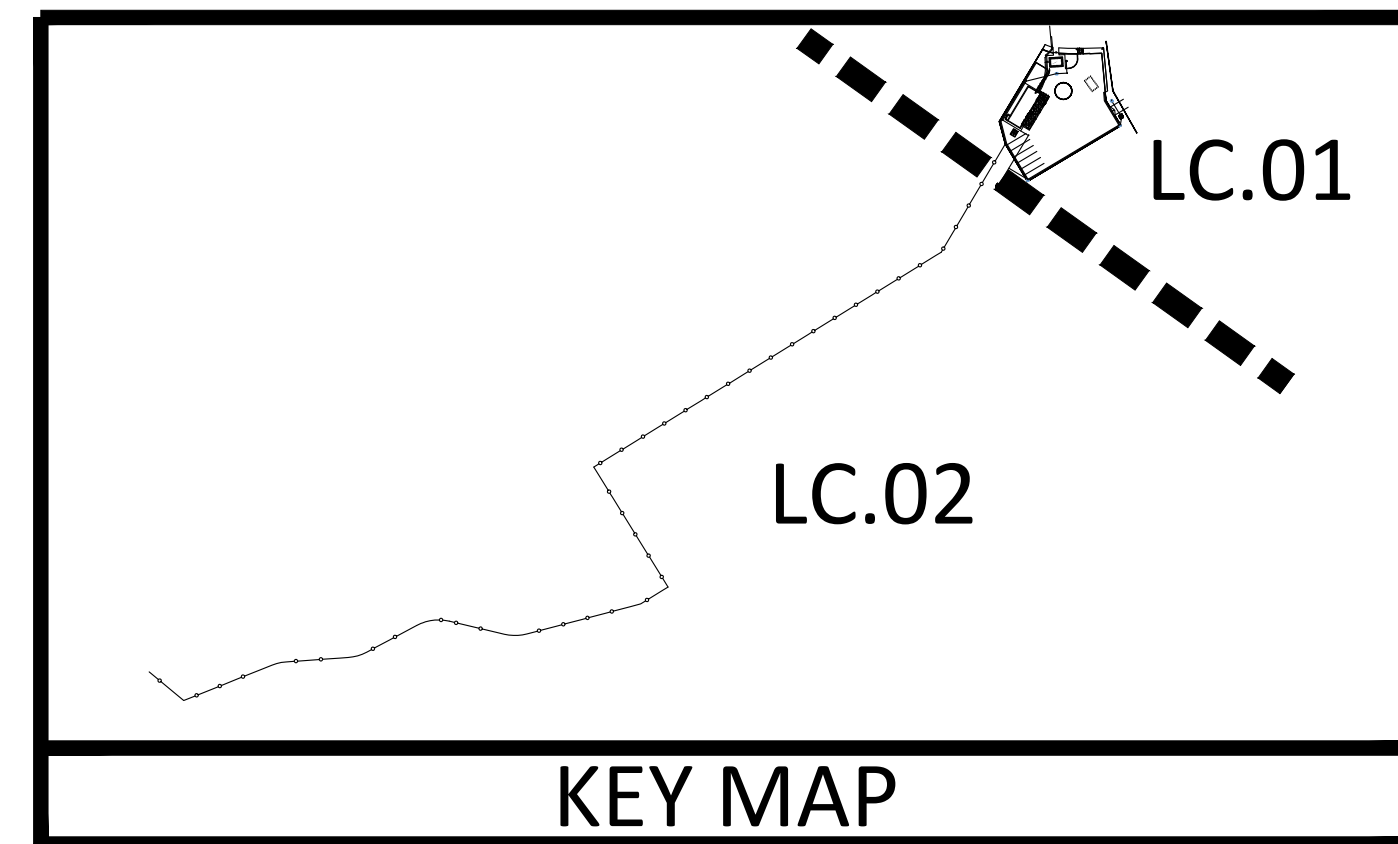


**NOTE:**  
 CIVIL SHALL FIELD LOCATE AND STAKE POINTS  
 AT FENCE CHANGES IN DIRECTION.

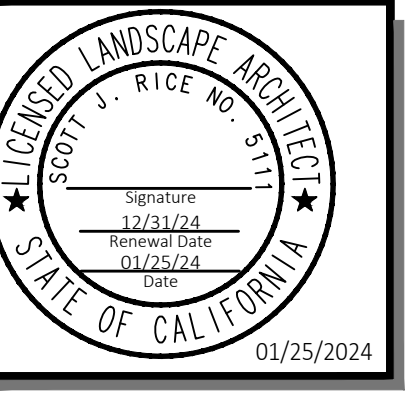
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<b>FE-4</b> INSTALL 6' TALL 12' WIDE DOUBLE SWING VEHICULAR ENTRY GATE; COLOR SHALL BE BLACK	2 EA	DETAIL 'B', LC.03
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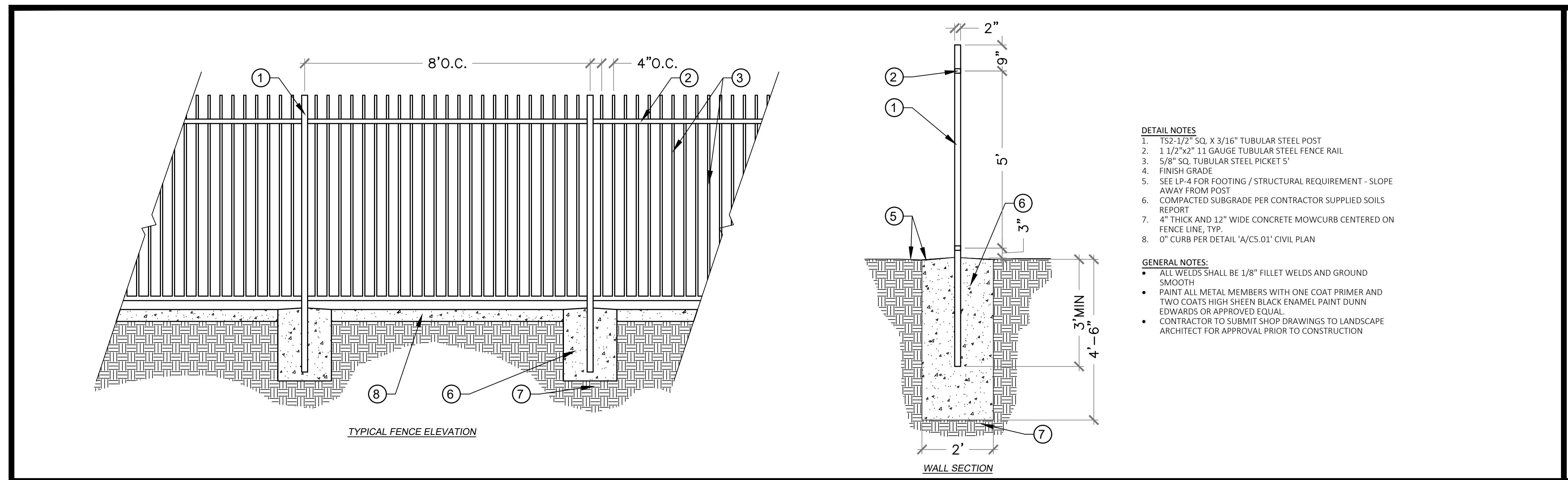


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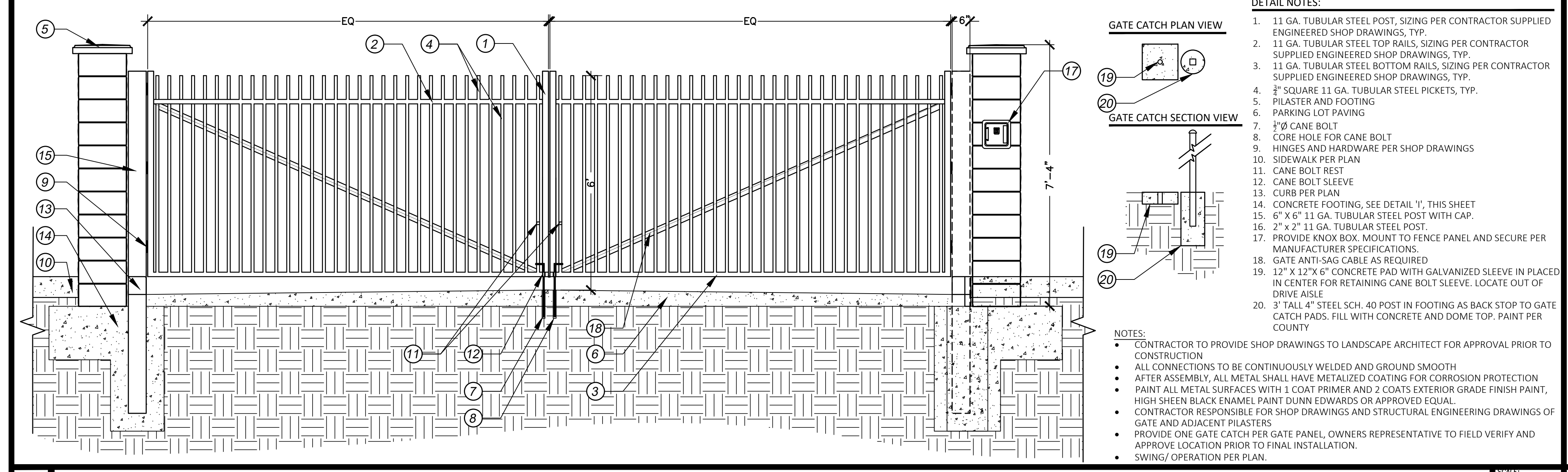
SHEET TITLE  
**LANDSCAPE DETAILS**

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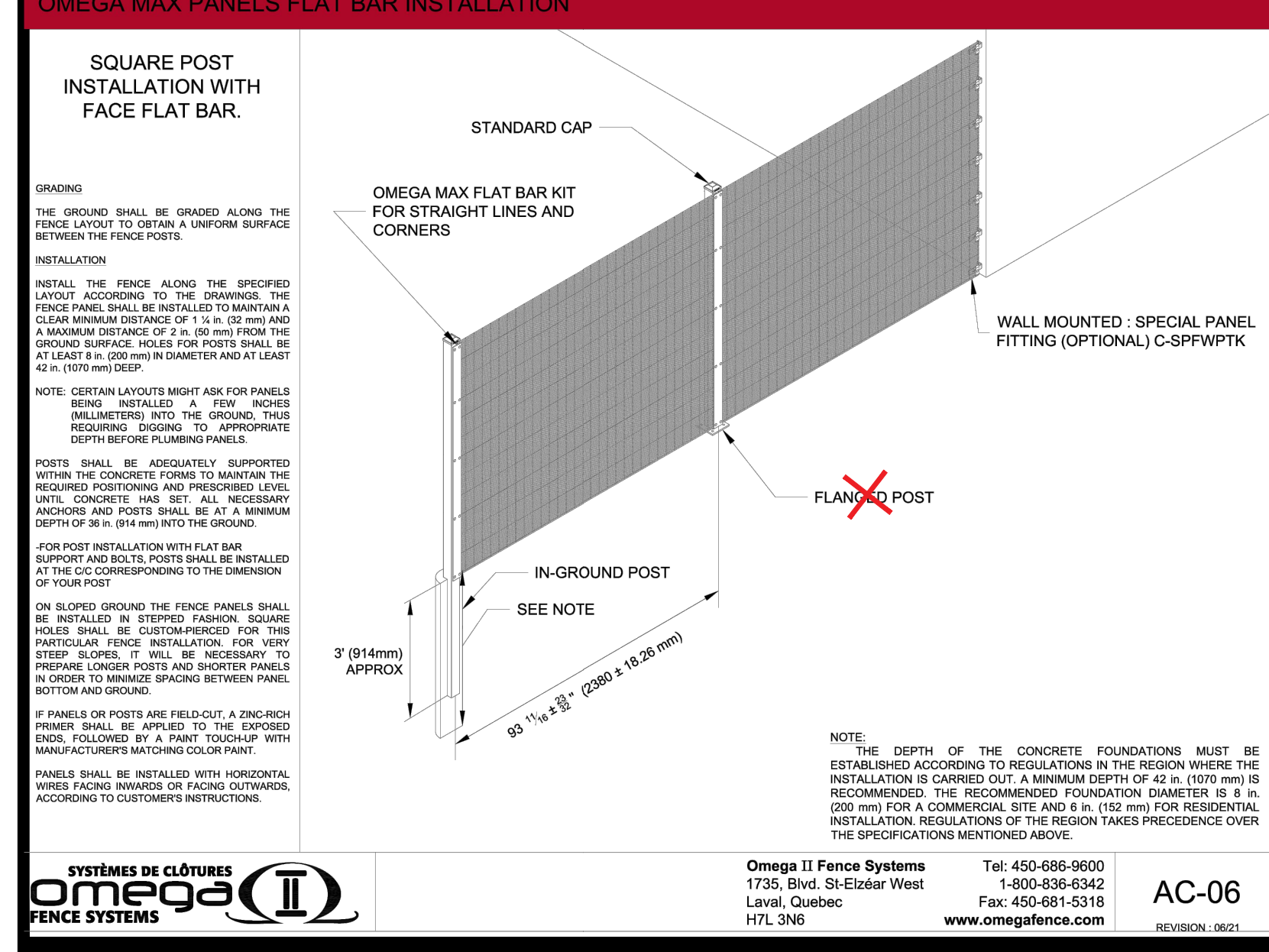


- DETAIL NOTES**
1. 1 1/2" x 2" SQ. X 3/16" TUBULAR STEEL POST
  2. 1 1/2" x 2" 11 GAUGE TUBULAR STEEL FENCE RAIL
  3. 5/8" SQ. TUBULAR STEEL PICKET 5'
  4. FINISH GRADE
  5. SEE LP-4 FOR FOOTING / STRUCTURAL REQUIREMENT - SLOPE AWAY FROM POST
  6. COMPACTED SUBGRADE PER CONTRACTOR SUPPLIED SOILS REPORT
  7. 4" THICK AND 12" WIDE CONCRETE MOWCURB CENTERED ON FENCE LINE, TYP.
  8. 0" CURB PER DETAIL 'A/C5.01' CIVIL PLAN
- GENERAL NOTES:**
- ALL WELDS SHALL BE 1/8" FILLET WELDS AND GROUND SMOOTH
  - PAINT ALL METAL MEMBERS WITH ONE COAT PRIMER AND TWO COATS HIGH SHEEN BLACK ENAMEL PAINT DUNN EDWARDS OR APPROVED EQUAL
  - CONTRACTOR TO SUBMIT SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION

**A Wrought Iron Fence** SCALE: 1/2"=1'



**B Tubular Steel Vehicle Gate** SCALE: 1/2"=1'



**C Omega Fence Panel**

**MECHANICAL SYMBOLS:**

LINETYPE/SYMBOL	DESCRIPTION
	SUPPLY AIR OR OUTSIDE AIR DUCT
	RETURN AIR DUCT
	EXHAUST AIR OR RELIEF AIR DUCT
	DUCT UP
	DUCT DOWN
	RECTANGULAR FOUR-WAY OUTLET, SUPPLY DIFFUSER
<b>TAG NAME</b> INLET (IN.) / CFM	DIFFUSER / GRILLE TAG
	DIRECTION OF AIRFLOW
DG-#x#	DOOR GRILLE OR LOUVER (# DENOTES SIZE IN INCHES)
UC-#	UNDERCUT DOOR (# DENOTES SIZE IN INCHES)
	THERMOSTAT
	OCCUPANCY SENSOR
	CARBON DIOXIDE SENSOR
	SPEED CONTROL
	ACCESS PANEL OR ROOF HATCH
	PIPE DOWN
	PIPE UP

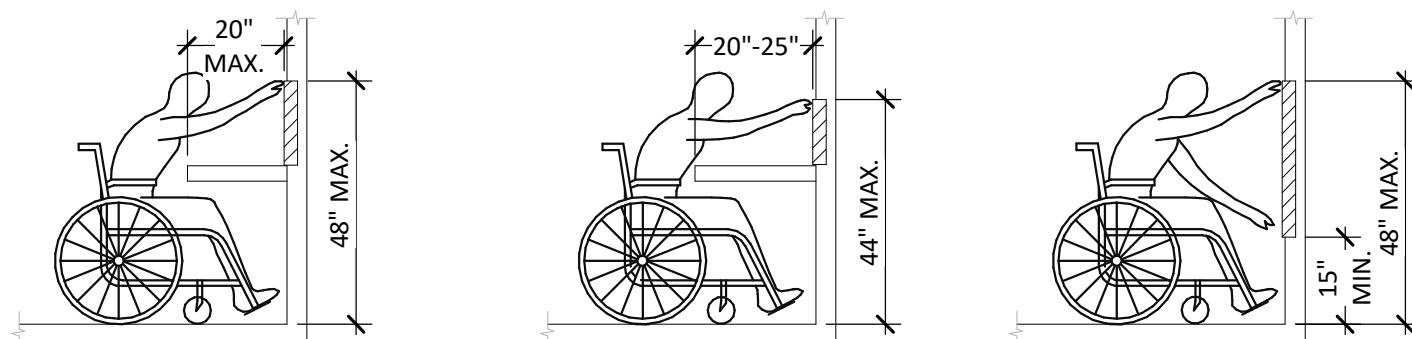
NOTES:  
 1. NOT ALL SYMBOLS MAY APPLY.  
 2. SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.

**CONTRACTOR ABBREVIATIONS:**

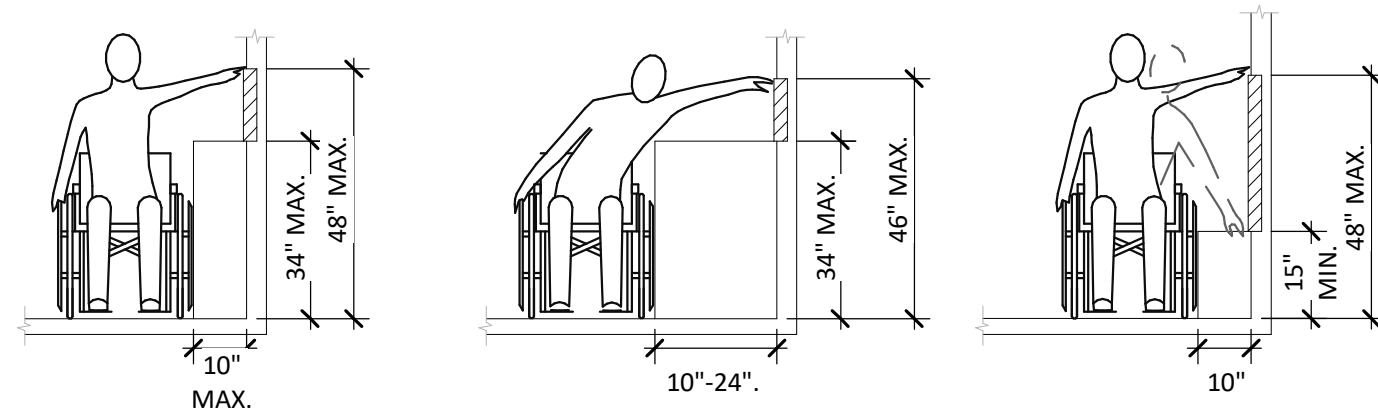
ABBREVIATION	DESCRIPTION
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.A.C.	FIRE ALARM CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROL CONTRACTOR

**MECHANICAL PIPING SYSTEMS:**

LINETYPE/SYMBOL	DESCRIPTION
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION



CBC/ADA GUIDELINES - FRONT ACCESS



CBC/ADA GUIDELINES - SIDE ACCESS

**MECHANICAL ABBREVIATIONS:**

ABBREVIATION	DESCRIPTION
EA	EXHAUST AIR OR RELIEF AIR
MA	MAKEUP AIR
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AMB	AMBIENT TEMPERATURE
BD	BACKDRAFT DAMPER
DB	DRY-BULB TEMPERATURE
DCV	DEMAND CONTROL VENTILATION
DIA, Ø	DIAMETER
DN	DOWN
DPT	DEW-POINT TEMPERATURE
DTR	DOWN THRU ROOF
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRONICALLY COMMUTATED MOTOR
ESP	EXTERNAL STATIC PRESSURE
FT, '	FOOT OR FEET
GA	GAGE OR GAUGE
GR	GRAINS
HD	HEAD (PRESSURE)
ID	DIAMETER, INSIDE
IN., "	INCH OR INCHES
LAT	LEAVING AIR TEMPERATURE
LF	LINEAR FOOT OR LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO., #	NUMBER
NTS	NOT TO SCALE
OD	DIAMETER, OUTSIDE
PD	PRESSURE DROP
PPM	PARTS PER MILLION
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SDE	EXISTING SUPPLY AIR DIFFUSER
SP	STATIC PRESSURE
SPEC	SPECIFICATION
TAB	TESTING, ADJUSTING, AND BALANCING
TG	TRANSFER GRILLE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UTR	UP THRU ROOF
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
WB	WET-BULB TEMPERATURE

NOTES:  
 1. NOT ALL ABBREVIATIONS MAY APPLY.  
 2. MECHANICAL SCHEDULES CONTAIN EQUIPMENT TAG ABBREVIATIONS THAT ARE HEREBY INCORPORATED INTO THE ABBREVIATION LIST.  
 3. SEE OTHER DISCIPLINE DRAWINGS WITHIN THE CONSTRUCTION DOCUMENTS FOR ABBREVIATIONS NOT DEFINED ABOVE OR IN MECHANICAL SCHEDULES.

**RENOVATION NOTES:**

- DEMOLITION WORK SHALL BE PERFORMED AS DESCRIBED WITHIN SPEC SECTION 23 0505 AND THE DRAWINGS.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMISSION TO VERIFY ALL FIELD CONDITIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - LOCATIONS OF EXISTING MECHANICAL SYSTEMS.
  - LOCATIONS OF ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING, TECHNOLOGY, FIRE PROTECTION, AND FIRE ALARM SYSTEMS.
  - EXISTING SURFACES WHICH REQUIRE ALTERING.
- NOTIFY OWNER OF REQUIRED SYSTEM SHUTDOWNS AT LEAST TWO WEEKS PRIOR TO SHUTDOWN. EXACT SHUTDOWN TIME AND PROCEDURE SHALL BE COORDINATED WITH OWNER AT LEAST 96 HOURS PRIOR TO SHUTDOWN.
- WHEN DUCTWORK, PIPING, CONTROLS, OR EQUIPMENT ARE NOTATED TO BE PERMANENTLY REMOVED THEIR ASSOCIATED COMPONENTS SHALL ALSO BE REMOVED INCLUDING HANGERS, SUPPORTS, AND ACCESSORIES.
- COORDINATE THE DISCONNECTION AND REMOVAL OF POWERED SYSTEMS WITH THE E.C. WHEN REMOVING POWERED MECHANICAL EQUIPMENT.
- REPAIR EXISTING FLOORS, WALLS, AND CEILINGS IN ALTERED AREAS TO MATCH EXISTING. SEE ARCHITECTURAL PLANS FOR FINISH DETAILS IN REMODEL AREAS.

**GENERAL NOTES:**

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND MANUFACTURER'S INSTALLATION REQUIREMENTS.
- REVIEW ALL PROJECT DOCUMENTS INCLUDING SPECS AND DRAWINGS PERTAINING TO ALL DISCIPLINES PRIOR TO SUBMITTING A BID. SUBMIT PRE-BID REQUEST FOR INFORMATION FOR ITEMS IN QUESTION AND/OR CONFLICTS FOUND.
- DRAWINGS SHOW THE DESIGN INTENT DIAGRAMMATICALLY. THEY DO NOT SHOW THE EXACT UTILITY ROUTING NOR EVERY ELBOW, OFFSET, ETC. WHERE REQUIRED, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THEIR SYSTEMS TO AVOID CONFLICT WITH THE STRUCTURE AND OTHER DISCIPLINES. THE COST FOR SUCH ADJUSTMENTS SHALL BE INCLUDED IN THE BID.
- OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR WORK PERFORMED.
- OBTAIN UTILITY PURVEYOR REQUIREMENTS PRIOR TO PURCHASING EQUIPMENT OR PERFORMING WORK.
- THE G.C. OR C.M. TEAM SHALL LEAD THE SUBCONTRACTORS IN PROVIDING A COORDINATED SET OF SHOP DRAWINGS. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- COORDINATE FRAMING REQUIREMENTS FOR ACCESS PANELS AND EQUIPMENT/PANEL SUPPORTS WITH G.C. OR C.M. PRIOR TO SUBMITTING BID.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CORRECTION OF CONSTRUCTION DEFICIENCIES LISTED ON THE JOB SITE OBSERVATION REPORT. RETURN THE JOB SITE OBSERVATION REPORT TO A/E WITH DEFICIENCIES SIGNED OFF. PROVIDE PHOTOGRAPHIC AND/OR VIDEO EVIDENCE OF CORRECTED DEFICIENCIES IF REQUESTED BY THE ENGINEER.
- PROVIDE CLOSEOUT DOCUMENTATION UPON COMPLETION OF PROJECT. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65% OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE. UTILIZE A WASTE MANAGEMENT COMPANY THAT CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH CODE. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.

**MECHANICAL NOTES:**

- MECHANICAL WORK SHALL BE CONSTRUCTED IN A PROFESSIONAL MANNER. COMPONENTS SHALL BE CLEANED PRIOR TO OWNER TURNOVER.
- THE SCHEDULED EQUIPMENT SHALL BE USED AS THE BASIS OF DESIGN. MODEL NUMBERS ARE PROVIDED FOR REFERENCE ONLY. EQUIPMENT SHALL MEET SPECIFIED PERFORMANCE. THE CONTRACTOR SHALL IDENTIFY ALL SELECTED OPTIONS IN THE SUBMITTAL.
- IF A CONTRACTOR PROVIDES EQUIPMENT OTHER THAN THE BASIS OF DESIGN, THAT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED AS A RESULT. THAT INCLUDES, BUT IS NOT LIMITED TO, AGENCY FEES FOR REVIEW OF CHANGES, STRUCTURAL MODIFICATIONS FOR INCREASED WEIGHT, AND ELECTRICAL EQUIPMENT, WIRING, CONDUIT, AND BREAKER CHANGES FOR DIFFERENT ELECTRICAL REQUIREMENTS.
- COORDINATE POWER REQUIREMENTS WITH THE E.C. PRIOR TO PROVIDING SUBMITTALS TO THE ENGINEER.
- PROVIDE CONCRETE EQUIPMENT PADS FOR FLOOR-MOUNTED EQUIPMENT, UNLESS OTHERWISE NOTED. SEE PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
- SEE SPEC SECTION 23 3100 FOR DUCT SYSTEM INSTALLATION, TESTING, AND CLEANING REQUIREMENTS.
- PAINT INTERIOR EXPOSED DUCTWORK/PIPING, VALVES, AND ASSOCIATED HANGERS/SUPPORTS LOCATED IN OCCUPIED SPACES TO MATCH THE SURROUNDING ARCHITECTURAL COLOR SCHEME. PAINT EXTERIOR PIPING, VALVES, AND ASSOCIATED HANGERS/SUPPORTS ADJACENT TO EXTERIOR WALL TO MATCH WALL COLOR. FINAL COLORS SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER. SEE SPEC SECTION 23 0500 FOR ADDITIONAL REQUIREMENTS.
- PROVIDE IDENTIFICATION FOR DUCTWORK, PIPING, AND EQUIPMENT PER SPEC SECTION 23 0553.
- INSULATION SHALL BE PROVIDED CONTINUOUS THROUGHOUT THE DUCTWORK AND PIPING SYSTEMS INCLUDING AT HANGERS/SUPPORTS, FITTINGS, VALVES, AND ACCESSORIES. OPENINGS SHALL BE PROVIDED TO ALLOW FOR VALVE HANDLE OPERATION AND ACCESS. INSULATION THICKNESS SHALL MEET THE LISTED ENERGY CODE MINIMUM REQUIREMENTS. SEE SPEC SECTIONS 23 0713 AND 23 8126.13 FOR SYSTEMS REQUIRING INSULATION AND ADDITIONAL INSTALLATION REQUIREMENTS.
- DAMPERS SHALL BE ACCESSIBLE. PROVIDE KEYS ACCESS PANELS WHERE DAMPERS HAVE BEEN LOCATED IN CONCEALED AREAS. ACCESS PANEL SIZE SHALL BE LARGE ENOUGH TO ACCESS EACH DAMPER AND FOR FULL DAMPER OPERATION.
- PROVIDE MANUAL VOLUME DAMPERS ON DUCT BRANCH TAKEOFFS TO FINAL DIFFUSER, GRILLE, OR REGISTER CONNECTION. DAMPER SHALL BE LOCATED AS CLOSE TO TAKEOFF AS POSSIBLE TO MINIMIZE NOISE.
- PROVIDE DCV FOR HIGH-DENSITY SPACES AS REQUIRED BY ENERGY CODE.
- NEW MECHANICAL EQUIPMENT SERVING REGULARLY OCCUPIED SPACES SHALL HAVE A MINIMUM OF MERV 13 FILTRATION FOR OUTSIDE AIR AND RETURN AIR. FILTERS SHALL BE CLEARLY LABELED BY THE MANUFACTURER INDICATING THE MERV RATING.
- TAB CONTRACTOR SHALL BALANCE MECHANICAL SYSTEMS TO VALUES SHOWN ON DRAWINGS. SUBMIT TAB REPORT TO A/E FOR REVIEW. SEE SPEC SECTION 23 0593 FOR ADDITIONAL INFORMATION.

**MECHANICAL SHEET INDEX:**

Sheet Number	Sheet Name
M000	MECHANICAL COVER SHEET
M001	MECHANICAL SCHEDULES
M002	MECHANICAL TITLE 24 FORMS
M003	MECHANICAL - BUILDING D FLOOR PLAN
M004	MECHANICAL TITLE 24 FORMS
M101	MECHANICAL SITE PLAN
M201	MECHANICAL - MAINT. BLDG. FLOOR PLAN
M202	MECHANICAL - BUILDING D FLOOR PLAN
M401	MECHANICAL DETAILS
M402	MECHANICAL DETAILS

**CODES AND STANDARDS:**

EDITION	REFERENCE CODE/STANDARD
2022	CALIFORNIA ADMINISTRATIVE CODE, (CCR, TITLE 24, PART 1)
2022	CALIFORNIA BUILDING CODE, (CCR, TITLE 24, PART 2)
2022	CALIFORNIA ELECTRICAL CODE, (CCR, TITLE 24, PART 3)
2022	CALIFORNIA MECHANICAL CODE, (CCR, TITLE 24, PART 4)
2022	CALIFORNIA PLUMBING CODE, (CCR, TITLE 24, PART 5)
2022	CALIFORNIA ENERGY CODE, (CCR, TITLE 24, PART 6)
2022	CALIFORNIA HISTORICAL BUILDING CODE, (CCR, TITLE 24, PART 8)
2022	CALIFORNIA FIRE CODE, (CCR, TITLE 24, PART 9)
2022	CALIFORNIA EXISTING BUILDING CODE, (CCR, TITLE 24, PART 10)
2022	CALIFORNIA GREEN BUILDING STANDARDS, (CCR, TITLE 24, PART 11)
2022	CALIFORNIA REFERENCED STANDARDS CODE, (CCR, TITLE 24, PART 12)
2022	STANDARD FOR INSTALLATION OF FIRE SPRINKLER SYSTEMS OF CALIFORNIA, (ADOPTS NFPA 13, 2022, WITH AMENDMENTS)
2018	NFPA 54-NATIONAL FUEL GAS CODE
2022	NFPA 72-NATIONAL FIRE ALARM AND SIGNALING CODE

CCR-CALIFORNIA CODE OF REGULATIONS  
 NFPA-NATIONAL FIRE PROTECTION AGENCY

**GENERAL LEGEND:**

SYMBOL	DESCRIPTION
	DETAIL CALL-OUT SYMBOL
	EQUIPMENT TAG
	KEYNOTE SYMBOL
	POINT OF CONNECTION OR DISCONNECTION
	SECTION CUT CALL-OUT SYMBOL
	ENLARGED PLAN CALL-OUT SYMBOL
LINETYPE	DESCRIPTION
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	NEW CONSTRUCTION
(E)	EXISTING TO REMAIN
(X)	EXISTING TO BE REMOVED

**ASTRAL ENGINEERS, PC**  
 PO BOX 150  
 RANCHO CUCAMONGA, CA 91729  
 909.903.0015  
 www.astraleng.com  
 PROJECT #: 230041.00

CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

01/29/2024

SHEET TITLE  
**MECHANICAL COVER SHEET**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**M000**



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 JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



SHEET TITLE

**MECHANICAL SCHEDULES**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**M001**

### SCHEDULE GENERAL NOTES

ABBREVIATION	DESCRIPTION
	PROVIDED BY
E.C.	ELECTRICAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
MFR	MANUFACTURER
DISCONNECT TYPE	
F	FUSED
NF	NON-FUSED
STARTER TYPE	
ECM	ELECTRONICALLY COMMUTATED MOTOR
FV	FULL VOLTAGE
MS	MANUAL STARTER
SS	SOFT STARTER
VFD	VARIABLE FREQUENCY DRIVE
VFD/B	VARIABLE FREQUENCY DRIVE WITH BYPASS

### DUCTWORK INSULATION SCHEDULE

NOTES:  
 1. SEE SPEC SECTION 23 0713 FOR ADDITIONAL INFORMATION ABOUT INSULATION TYPES.

DUCT APPLICATION	INSULATION TYPE (NOTE 1)	INSTALLED MIN R-VALUE			NOTES
		0	4.2	8	
INTERIOR	GLASS FIBER FLEXIBLE WRAP	NONE			
SUPPLY AIR	X		X		
RETURN AIR		X	X		
UNTEMPERED OUTSIDE AIR		X	X		
INTERIOR OR EXTERIOR					
GENERAL EXHAUST AIR	X	X			

### PIPE INSULATION SCHEDULE

NOTES:  
 1. SEE SPEC SECTION 23 81 26.13 FOR ADDITIONAL INFORMATION ABOUT INSULATION TYPE.

PIPE APPLICATION	NOMINAL PIPE DIAMETER (IN.)					NOTES
	<1	1 TO <1.5	1.5 TO <4	4 TO <8	8+	
PIPE CONVEYING FLUID 105°F TO 140°F	1"	1.5"	1.5"	1.5"	1.5"	1
PIPE CONVEYING FLUID 40°F TO 60°F	0.5"	0.5"	1"	1"	1"	1

### EXHAUST FAN SCHEDULE

NOTES:  
 1. SEE SPEC SECTION 23 34 23 FOR ADDITIONAL INFORMATION.  
 2. PROVIDE PRE-FABRICATED CURB AND ROOF CAP WITH ALUMINUM BIRDSCREEN.

TAG NAME	AREA SERVED	CFM	ESP (IN. W.C.)	DRIVE TYPE	ELECTRICAL					MAX NOISE (SONES)	MAX WEIGHT (LBS)	MANUFACTURER	MODEL	ANCHORAGE DETAIL	WIRING DIAGRAM DETAIL	NOTES
					VOLTAGE	PHASES	RPM	DISCONNECT BY (NOTE A)	STARTER TYPE (NOTE C)							
EF-1	RESTROOM	80	0.3	DIRECT	120	1	598	E.C.	ECM	2.5	18	GREENHECK	SP-B110ES	3/M401	4/M402	1,2
EF-2	RESTROOM	80	0.3	DIRECT	120	1	598	E.C.	ECM	2.5	18	GREENHECK	SP-B110ES	3/M401	4/M402	1,2

### SPLIT SYSTEM UNIT SCHEDULE

NOTES:  
 1. SEE SPEC SECTION 23 8126.13 FOR ADDITIONAL INFORMATION.  
 2. INDOOR UNIT POWERED BY OUTDOOR UNIT.

TAG NAME (INDOOR/OUTDOOR)	AREA SERVED	TYPE	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	SEER (EER)	C.O.P.	OUTSIDE AIR (CFM)	INDOOR UNIT				OUTDOOR UNIT										NOTES			
								CFM	FILTER RATING	MAX WEIGHT (LBS)	MODEL	ELECTRICAL					MAX WEIGHT (LBS)	MODEL	ANCHORAGE DETAIL	MANUFACTURER	WIRING DIAGRAM DETAIL				
												VOLTAGE	PHASES	MCA	MOCF	DISCONNECT BY (NOTE A)							STARTER BY (NOTE B)	STARTER BY (NOTE A)	
FC-1/CU-1	MEETING AREA & OFFICE SPACES	HORIZONTAL CONCEALED	33.0	37.0	15.0(12.5)	3.6	150	910	MERV 8	95	PEAD-A36AA8	1/M401	208	1	26.0	42	E.C.	NF	MFR	290	SUZ-KA36NAH2	2/M401	MITSUBISHI	3/M402	1,2

### HIGH VOLUME LOW SPEED FAN SCHEDULE

NOTES:  
 1. SEE SPEC SECTION 23 34 39 FOR ADDITIONAL INFORMATION. SEE O/S2.03 FOR ATTACHMENT TO STRUCTURE.

TAG NAME	AREA SERVED	FAN RPM	ELECTRICAL				MAX WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
			VOLTAGE	PHASE	DISCONNECT					
					BY (NOTE A)	TYPE (NOTE C)				
CF-1	WAREHOUSE	107	120	1	E.C.	MS	90	BIG ASS FANS	ESSENCE 10'	1
CF-2	WAREHOUSE	107	120	1	E.C.	MS	90	BIG ASS FANS	ESSENCE 10'	1

### GRILLE-REGISTER-DIFFUSER SCHEDULE

NOTES:  
 1. SEE SPEC 23 3700 FOR ADDITIONAL INFORMATION.  
 2. CONTRACTOR SHALL SELECT PROPER MOUNTING BASED ON INSTALLATION SURFACE TYPE.  
 3. SEE FLOOR PLANS FOR NECK SIZE.

TAG NAME	TYPE	FACE SIZE (IN.)	MATERIAL	FINISH	MANUFACTURER	MODEL	NOTES
RG-1	PERFORATED FACE	24x24	STEEL	WHITE	PRICE	PFRF	1, 2
SG-1	SQUARE PLAQUE	24x24	STEEL	WHITE	PRICE	SPD	1, 2, 3

### GRAVITY VENTILATOR SCHEDULE

NOTES:  
 1. SEE SPEC SECTION 23 3700 FOR ADDITIONAL INFORMATION.  
 2. PROVIDE ALUMINUM HOOD WITH ALUMINUM BIRDSCREEN.

TAG NAME	AREA SERVED	APPLICATION	CFM	MAX DIMENSIONS (IN.)				MAX WEIGHT (LBS)	MANUFACTURER	MODEL	ANCHORAGE DETAIL	NOTES
				THROAT SIZE	MAX HEIGHT (TOP OF CURB TO TOP OF HOOD)	LENGTH	WIDTH					
GV-1	MAINT. BLDG.	OUTSIDE AIR	150	8.25	7.5	19	19	10	GREENHECK	GRSI-8	7/M401	1,2

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD		NRCC-PRF-E	
Nonresidential Performance Compliance Method		(Page 1 of 17)	
Project Name:	SARB 230041.0	Date Prepared:	2024-01-08

A. General Information			
1	Project Name	SARB 230041.0	
2	Run Title		
3	Project Location	4600 CRESTMORE ROAD	
4	City	JURUPA VALLEY	Standards Version Compliance 2022
6	Zip code	92509	7 Compliance Software (version) CBECC 2022.3.0 SP1 (1318)
8	Climate Zone	10	9 Building Orientation (deg) 238
10	Building Type(s)	• Nonresidential	11 Weather File RIVERSIDE_STYP20.epw
12	Project Scope	• New complete scope	13 Number of Dwelling Units 0
14	Total Conditioned Floor Area in Scope (ft <sup>2</sup> )	1028.73	15 Total # of hotel/motel rooms 0
16	Total Unconditioned Floor Area (ft <sup>2</sup> )	0	17 Fuel Type None
18	Nonresidential Conditioned Floor Area	1028.73	19 Total # of Stories (Habitable Above Grade) 1
20	Residential Conditioned Floor Area	0	

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD		NRCC-PRF-E	
Nonresidential Performance Compliance Method		(Page 2 of 17)	

B. PROJECT SUMMARY					
Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.					
Building Components Complying via Performance			Building Components Complying Prescriptively		
Envelope (See Table G)	Nonres MultiFam	Performance Not Included	Solar Thermal Water Heating (See Table I3)	<input type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).
Mechanical (See Table H)	Nonres MultiFam	Performance Not Included	Covered Process: Commercial Kitchens (see Table J)	<input type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	Indoor Lighting (Unconditioned) 140.6 & 170.2(e) NRCC-LTI-E is required
Domestic Hot Water (See Table I)	Nonres MultiFam	Performance Not Included	Covered Process: Laboratory Exhaust (see Table J)	<input type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	Outdoor Lighting 140.7 & 170.2(e) NRCC-LTO-E is required
Lighting (Indoor Conditioned, see Table K)	Nonres MultiFam	Performance Not Included	Photovoltaics (see Table F)	<input type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	Sign Lighting 140.8 & 170.2(e) NRCC-LTS-E is required
			Battery (see Table F)	<input type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	<b>Building Components Complying with Mandatory Measures</b> Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.) Electrical Power Distribution 110.11 NRCC-ELC-E is required
					Commissioning 120.8 NRCC-CXR-E is required
					Solar and Battery 110.10 NRCC-SAB-E is required

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD		NRCC-PRF-E	
Nonresidential Performance Compliance Method		(Page 3 of 17)	

C1. COMPLIANCE SUMMARY			
	COMPLIES <sup>1</sup>		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency <sup>2</sup> (kBtu/ft <sup>2</sup> - yr)	Total <sup>2</sup> (kBtu/ft <sup>2</sup> - yr)	Total <sup>3</sup> (kBtu/ft <sup>2</sup> - yr)
Standard Design	283.73	283.73	23.15
Proposed Design	236.31	236.31	18.19
Compliance Margins	47.42	47.42	4.96
	Pass	Pass	Pass

<sup>1</sup> Efficiency measures include improvements like a better building envelope and more efficient equipment  
<sup>2</sup> Compliance totals include efficiency, photovoltaics and batteries  
<sup>3</sup> New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded  
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD		NRCC-PRF-E	
Nonresidential Performance Compliance Method		(Page 4 of 17)	

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft <sup>2</sup> - yr)			
COMPLIES <sup>1</sup>			
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) <sup>1</sup>
Space Heating	18.44	24.4	-5.96
Space Cooling	85.33	107.29	-21.96
Indoor Fans	143.96	68.62	75.34
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	0	0	0
Indoor Lighting	36	36	0
Flexibility	---	---	---
<b>EFFICIENCY COMPLIANCE TOTAL</b>	<b>283.73</b>	<b>236.31</b>	<b>47.42 (16.7%)</b>
Photovoltaics	---	---	---
Batteries	---	---	---
<b>TOTAL COMPLIANCE</b>	<b>283.73</b>	<b>236.31</b>	<b>47.42 (16.7%)</b>

<sup>1</sup> Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD		NRCC-PRF-E	
Nonresidential Performance Compliance Method		(Page 5 of 17)	

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>			
Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) <sup>1</sup>
Receptacle	101.53	101.53	---
Process	---	---	---
Other Ltg	---	---	---
Process Motors	---	---	---
<b>TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)</b>	<b>385.26</b>	<b>337.84</b>	<b>47.42 (12.3%)</b>

<sup>1</sup> Notes: This table is not used for Energy Code Compliance.

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD		NRCC-PRF-E	
Nonresidential Performance Compliance Method		(Page 6 of 17)	

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft <sup>2</sup> /yr)			
COMPLIES <sup>1</sup>			
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE) <sup>1</sup>
Space Heating	2.82	3.49	-0.67
Space Cooling	3.56	5.5	-1.94
Indoor Fans	14.05	6.48	7.57
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	0	0	0
Indoor Lighting	2.72	2.72	0
Flexibility	---	---	---
<b>EFFICIENCY COMPLIANCE TOTAL</b>	<b>23.15</b>	<b>18.19</b>	<b>4.96 (21.4%)</b>
Photovoltaics	---	---	---
Batteries	---	---	---
<b>TOTAL COMPLIANCE</b>	<b>23.15</b>	<b>18.19</b>	<b>4.96 (21.4%)</b>

<sup>1</sup> Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58



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PROJECT #:230041.00

CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT  
PROJECT:  
SARB MAINTENANCE FACILITY  
PROJECT No. PK-ARPA009  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
SARB MAINTENANCE FACILITY  
PROJECT No. PK-ARPA009  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



01/29/2024

SHEET TITLE  
**MECHANICAL  
TITLE 24 FORMS**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**M002**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 7 of 17)

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE) <sup>1</sup>
Receptacle	7.16	7.16	---
Process	---	---	---
Other Ltg	---	---	---
Process Motors	---	---	---
<b>TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)</b>	<b>30.31</b>	<b>25.35</b>	<b>4.96 (16.4%)</b>

<sup>1</sup> Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS	
<input type="checkbox"/> This project is pursuing CalGreen Tier 1	<input type="checkbox"/> This project is pursuing CalGreen Tier 2

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 8 of 17)

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.6	0.9	-0.3	---	---	---
Space Cooling	2.5	3	-0.5	---	---	---
Indoor Fans	5.2	2.5	2.7	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	---	---	---	---	---
Domestic Hot Water	---	---	---	---	---	---
Indoor Lighting	1.4	1.4	0	---	---	---
Flexibility	---	---	---	---	---	---
<b>EFFICIENCY TOTAL</b>	<b>9.7</b>	<b>7.8</b>	<b>1.9</b>	<b>0</b>	<b>0</b>	<b>0</b>
Photovoltaics	---	---	---	---	---	---
Batteries	---	---	---	---	---	---
<b>ENERGY USE SUBTOTAL</b>	<b>9.7</b>	<b>7.8</b>	<b>1.9</b>	<b>0</b>	<b>0</b>	<b>0</b>
Receptacle	4.2	4.2	0	---	---	---
Process	---	---	---	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
<b>ENERGY USE TOTAL</b>	<b>13.9</b>	<b>12</b>	<b>1.9</b>	<b>0</b>	<b>0</b>	<b>0</b>

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 9 of 17)

	Standard Design (kBTU/ft <sup>2</sup> / yr)	Proposed Design (kBTU/ft <sup>2</sup> / yr)	Margin (kBTU/ft <sup>2</sup> / yr)	Margin Percentage
GROSS EUI <sup>1</sup>	46.1	39.8	6.3	13.67
NET EUI <sup>1</sup>	46.1	39.8	6.3	13.67

<sup>1</sup> Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

- D1. EXCEPTIONAL CONDITIONS
- The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylight Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylight Zones is required.
  - The building does not include service water heating. Verify that service water heating is not required and is not included in the design.
  - The user model includes space(s) that are designed to be served by mechanical cooling systems, but the cooling systems were not included in the simulation model. A cooling system has been modeled for both the proposed and standard cases.
  - The user model includes space(s) without sufficient cooling equipment. Cooling equipment has been added to the model to meet cooling loads.
  - Project is claiming Exception 2 to Section 140.10(a): No PV system is required where the required PV system size is less than 4 kWdc.
  - Project is claiming Exception 2 to Section 140.10(b): No battery storage system is required in buildings with battery storage system requirements with less than 10 kWh rated capacity.
  - Project is claiming Exception 3 to Section 140.10(b): No battery storage system required for tenant spaces less than or equal to 5,000 ft<sup>2</sup>.

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)			
01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft <sup>2</sup> )	Total Fenestration Area (ft <sup>2</sup> )	Window to Wall Ratio (%)
North-Facing <sup>1</sup>	0	0	0

Notes  
<sup>1</sup>North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW).  
<sup>2</sup>East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE).  
<sup>3</sup>South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE).  
<sup>4</sup>West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW).

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 10 of 17)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft <sup>2</sup> )	Total Fenestration Area (ft <sup>2</sup> )	Window to Wall Ratio (%)
East-Facing <sup>2</sup>	506.3	25.4	5.02
South-Facing <sup>3</sup>	533	12.7	2.38
West-Facing <sup>4</sup>	452.6	25.4	5.61
<b>Total</b>	<b>1491.9</b>	<b>63.5</b>	<b>4.26</b>
Roof	1053.13	0	0

Notes  
<sup>1</sup>North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW).  
<sup>2</sup>East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE).  
<sup>3</sup>South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE).  
<sup>4</sup>West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW).

G4. NONRESIDENTIAL AIR BARRIER	
01	02
Building Story Name	Air Barrier
BuildingStory1	No air barrier

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 11 of 17)

01	02	03	04	05	06		07	08	09		10
Surface Name	Construction Type	Area (ft <sup>2</sup> )	Framing Type	Cavity R-Value	Continuous R-Value Interior	Continuous R-Value Exterior	Units	Value	Description of Assembly Layers		Status <sup>1</sup>
Exterior Wall Assem	Exterior Wall	1,491.9	N/A	0	N/A	2.93	U-factor	0.1639	Concrete - Part Grouted and Empty - 105 lb/ft <sup>3</sup> - 8 in. Cellular polyisocyanurate (unfaced) - 1/2 in. R2.9 Gypsum Board - 3/8 in.		N
Roof Assem	Roof	1,053.13	N/A	0	N/A	30	U-factor	0.0317	5 PSF Roof - 1/2 in. Hardwood - 3/4 in. Glass fiber batt - 8 1/4 in. R30C (CEC Default)		N
Partition	Interior Wall	568.2	N/A	0	N/A	11	U-factor	0.0733	Gypsum Board - 3/8 in. Hardwood - 3/4 in. Glass fiber batt - 3 1/2 in. R11 (CEC Default)		N
Floor Assem	Interior Floor	2,299.73	N/A	0	N/A	N/A	U-factor	0.3817	Concrete - 80 lb/ft <sup>3</sup> - 4 in.		N
Garage Wall	Exterior Wall	1,723.4	N/A	0	N/A	N/A	U-factor	0.3509	Concrete - Part Grouted and Empty - 105 lb/ft <sup>3</sup> - 8 in.		N

<sup>1</sup> Status: N - New, A - Altered, E - Existing

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)			
01	02	03	04
Assembly Name	Area (ft <sup>2</sup> )	Overall U-factor	Status <sup>1</sup>
DoorConstruction 1	21	0.7	N

<sup>1</sup> Status: N - New, A - Altered, E - Existing

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 12 of 17)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method <sup>1</sup>	Assembly Method	Area (ft <sup>2</sup> )	Overall U-factor	Overall SHGC	Overall VT	Status <sup>2</sup>
Window Assem	Vertical Fenestration Operable window	NFRC	Manufactured	63.5	0.46	0.22	0.32	N

<sup>1</sup> Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix N46 and are used in the analysis.  
<sup>2</sup> Status: N - New, A - Altered, E - Existing

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)													
Equipment Name	Equipment Type	Qty	Heating			Cooling			Economizer Type (if present)	Status <sup>1</sup>			
			Total Heating Output (kBTU/h)	Supp Heat Output (kBTU/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBTU/h)	Efficiency Unit			Efficiency		
FC-1	Single Zone Heat Pump (SZHP) Air System	1	40	0	COP HSPF	3.6	9	33	EER SEER	12.5	15	No Economizer	N

<sup>1</sup> Status: N - New, A - Altered, E - Existing

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2024-01-08 13:59:58



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 REGIONAL PARK & OPEN-SPACE DISTRICT  
 PROJECT:  
 SARB MAINTENANCE FACILITY  
 PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS

REVISIONS	DATE	BY



SHEET TITLE  
**MECHANICAL  
 TITLE 24 FORMS**

DESIGNED EMD  
 DRAWN AOH  
 CHECKED EMD  
 DATE 01/24/2024  
 SCALE PER PLAN  
 JOB NO. 2023-29

SHEET  
**M003**



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**CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E  
 Nonresidential Performance Compliance Method (Page 13 of 17)

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY												
01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status <sup>1</sup>
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
FC-1	1	146.44	1,201	0.4	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

<sup>1</sup> Status: N - New, A - Altered, E - Existing

H5. GENERAL EXHAUST FAN SUMMARY							
01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status <sup>1</sup>
Exhaust System	Office Zone	1	80	0.02	BHP	No	N

<sup>1</sup> Status: N - New, A - Altered, E - Existing

H8. SYSTEM SPECIAL FEATURES			
01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n) <sup>1</sup>	Other Special Features and Controls
FC-1	Single Zone Heat Pump (SZHP) Air System	No	Fixed Supply Air Temp.

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.  
<sup>1</sup> Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2024-01-08 13:59:58  
 Schema Version: rev 20220601

**CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E  
 Nonresidential Performance Compliance Method (Page 16 of 17)

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION	
Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online	
Building Component	Form/Title
Mechanical	NRCV-MCH-27 Indoor Air Quality & Mechanical Ventilation
Mechanical	NRCV-MCH-32 Local Mechanical Exhaust

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2024-01-08 13:59:58  
 Schema Version: rev 20220601

**CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E  
 Nonresidential Performance Compliance Method (Page 14 of 17)

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION						
01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation			Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both	
	Ventilation Function	# of People	Supply OA CFM			Exhaust CFM
Office Zone	Office - Office space Exhaust - Toilets, private	5.14	146.44	80	1028.73	N/A
Unconditioned Garage	NA	0	0	0	0	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY											
01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtu/h)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
TerminalUnit 1	Uncontrolled	1	N/A	N/A	1,201	N/A	0	N/A	N/A	N/A	<input type="checkbox"/>
PropNoClg-NonResZnSys	Single Zone Air Conditioner	1	0	31.07	1,013.29	N/A	N/A	0	W/cfm	Cycling	<input type="checkbox"/>

K1. INDOOR CONDITIONED LIGHTING GENERAL INFO					
01	02	03	04	05	
Occupancy Type <sup>1</sup>	Conditioned Floor Area <sup>2</sup> (ft <sup>2</sup> )	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance	
				Area Category Footnotes (Watts)	Area Category Footnotes (Watts)
Office ( 250 square feet)	522.3	313.38	0	0	0
Office ( 250 square feet)	453.98	295.09	0	0	0
Restroom	52.45	34.09	0	0	0
<b>Building Totals:</b>	<b>1028.73</b>	<b>642.56</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>1</sup> See Table 140.6-C  
<sup>2</sup> See NRCC-LTI-E for unconditioned spaces  
<sup>3</sup> Lighting information for existing spaces modeled is not included in this table

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2024-01-08 13:59:58  
 Schema Version: rev 20220601

**CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E  
 Nonresidential Performance Compliance Method (Page 17 of 17)

**Documentation Author's Declaration Statement**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Alexander Hunt  
 Company: Astral Engineers  
 Address: PO Box 190  
 City/State/Zip: Rancho Cucamonga, CA 91729  
 Phone: 951-381-2281

Documentation Author Signature:   
 Signature Date: 01/08/2023  
 CEA/HERS Certification Identification (if applicable):  
 Phone: 951-381-2281

**Responsible Person's Declaration Statement**

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
- I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: Eric DeSplinter  
 Company: Astral Engineers  
 Address: PO Box 190  
 City/State/Zip: Rancho Cucamonga, CA 91729  
 Phone: 909-566-0717

Responsible Designer Signature:   
 Date Signed: 01/08/2023  
 License #: 38688  
 Title: Principal Engineer  
 Scope: Mechanical

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**CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E  
 Nonresidential Performance Compliance Method (Page 15 of 17)

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROL	
See NRCC-LTI-E for mandatory controls	

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION	
Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online	
Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Indoor Lighting	NRCI-LTI-E - Indoor Lighting (for all buildings)

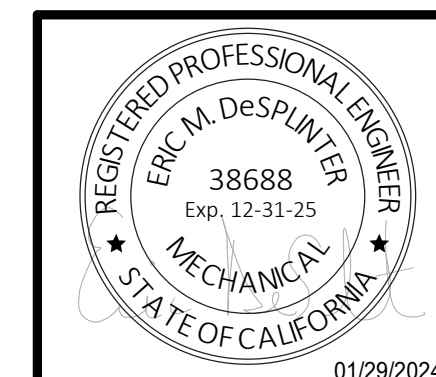
M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE	
Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).	
Building Component	Form/Title
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Indoor Lighting	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls.
Indoor Lighting	NRCA-LTI-03-A - Automatic Daylight Controls.
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to ) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.
Mechanical	NRCA-MCH-07-A Supply Fan Variable Flow Controls
Mechanical	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
Mechanical	NRCA-MCH-16-A Supply Air Temperature Reset Controls
Mechanical	NRCA-MCH-19-A Occupancy Sensor Controls

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CLIENT: COUNTY OF RIVERSIDE REGIONAL PARK & OPEN-SPACE DISTRICT  
 4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

PROJECT: SARB MAINTENANCE FACILITY PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



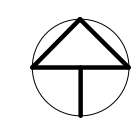
SHEET TITLE  
**MECHANICAL TITLE 24 FORMS**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**M004**





N  
 **1 MECHANICAL - SITE PLAN**  
 3/64" = 1'-0"

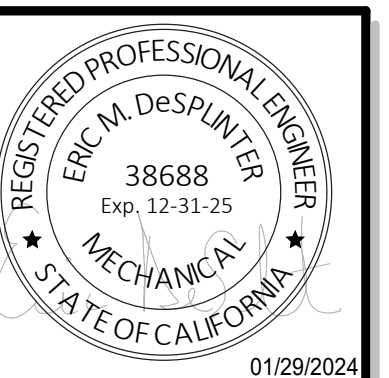


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 PROJECT #: 230041.00

CLIENT:  
**COUNTY OF RIVERSIDE**  
**REGIONAL PARK & OPEN-SPACE DISTRICT**  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
**PROJECT No. PK-ARPA009**  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



SHEET TITLE  
**MECHANICAL SITE PLAN**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**M101**

KEYNOTES-M201	
NUMBER	TEXT
1	BALANCE OA DAMPER TO PROVIDE MINIMUM SCHEDULED OA.
2	55 x 8 RA OPENING.
3	PROVIDE CONDUIT, CONDUCTORS, AND CONNECTION BETWEEN NEW FAN AT THIS LOCATION AND ASSOCIATED SURFACE-MOUNTED FAN CONTROLLER (WITH INTEGRAL DISCONNECT).

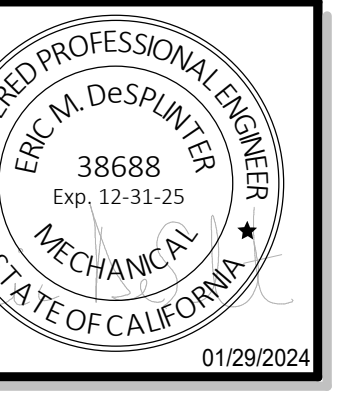


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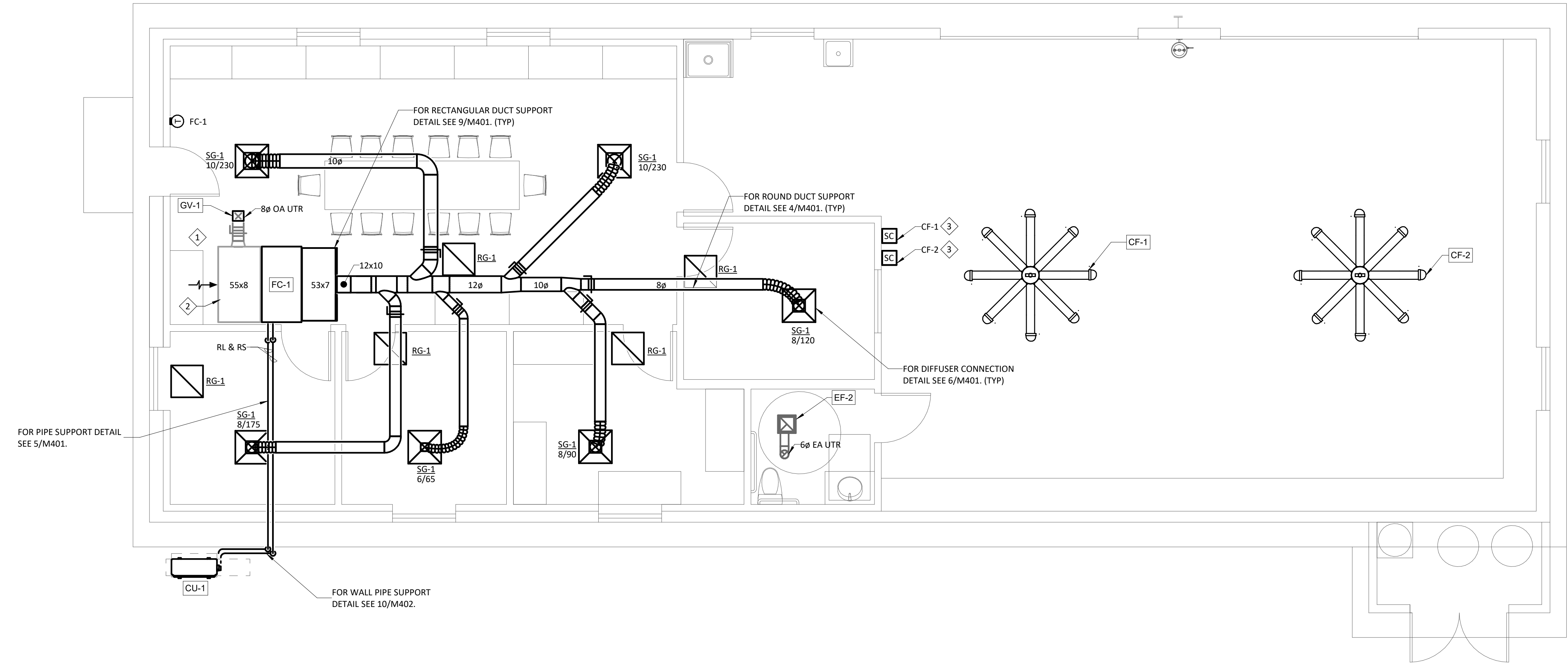
REVISIONS	DATE	BY



SHEET TITLE  
**MECHANICAL - MAINT. BLDG. FLOOR PLAN**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**M201**



**1 MECHANICAL - MAINTENANCE BUILDING FLOOR PLAN**  
 1/4" = 1'-0"

#	KEYNOTES-M202
NUMBER	TEXT
1	CAREFULLY REMOVE EXISTING EXHAUST FAN AND HOOD. STORE FOR REINSTALLATION. SEE 2/M202 FOR NEW LOCATION.
2	REINSTALL EXISTING AXHAUST FAN. SEE 8/M401 FOR AXIAL FAN THROUGH WALL DETAIL.



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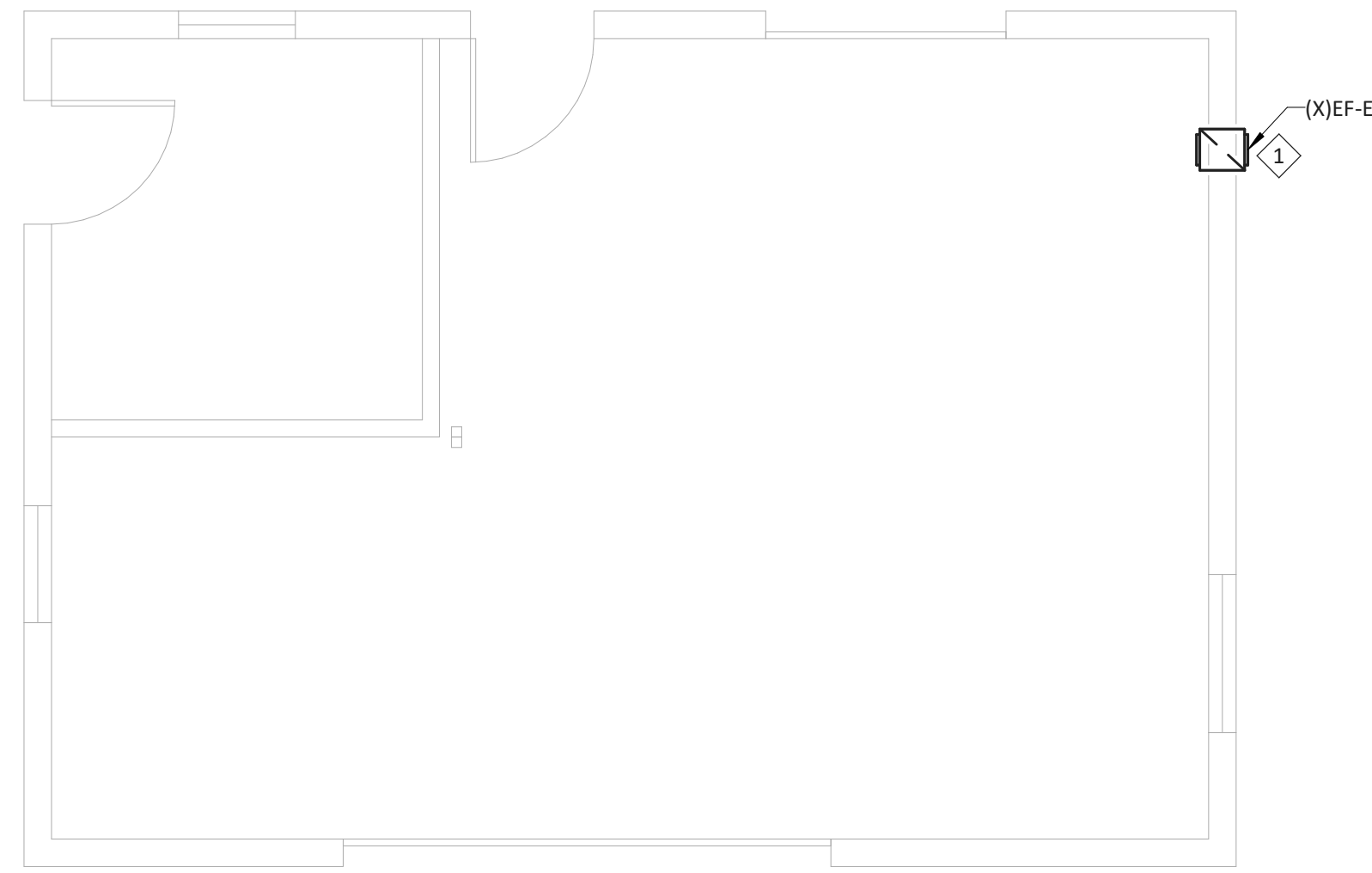
REVISIONS	DATE	BY



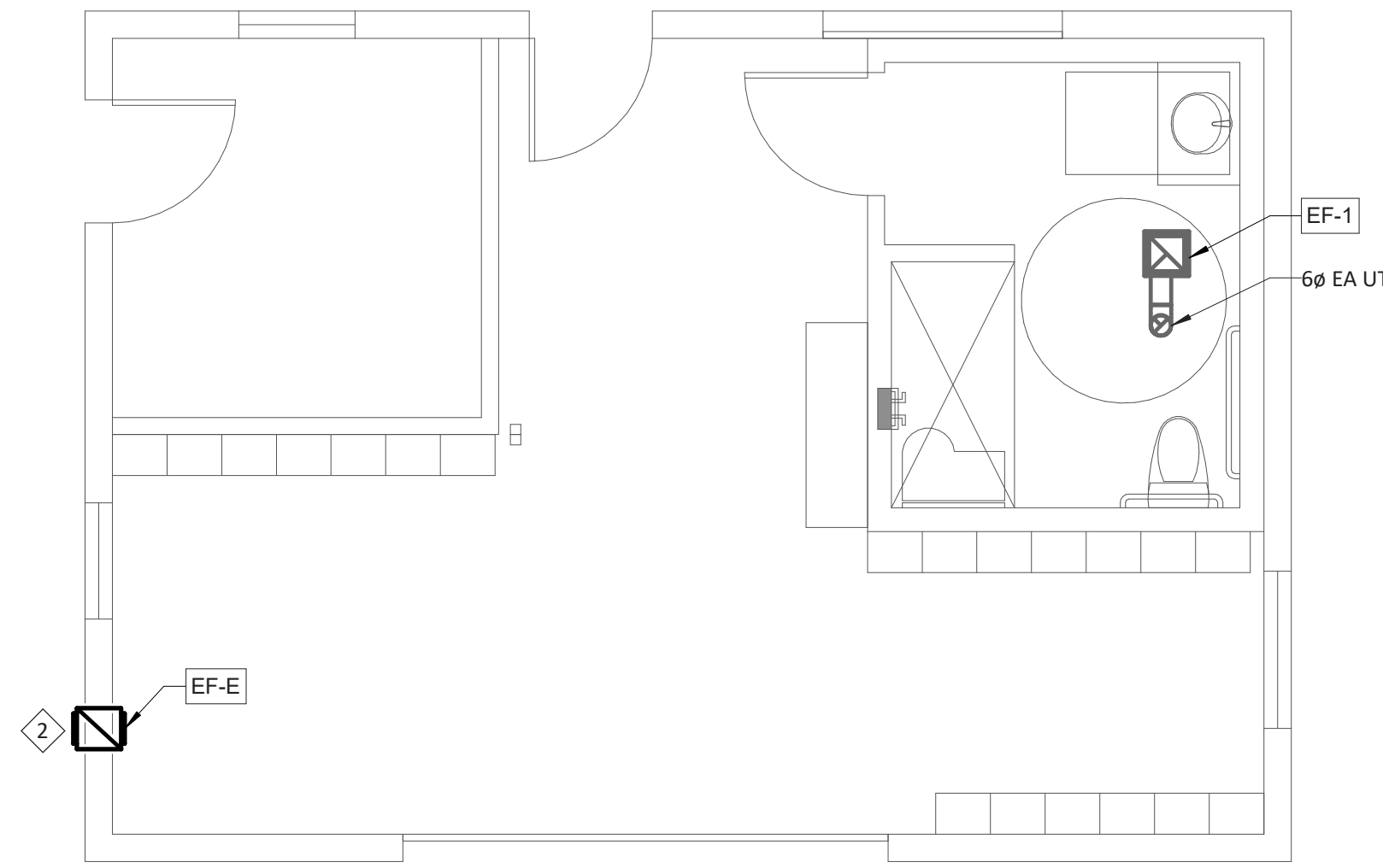
SHEET TITLE  
**MECHANICAL - BUILDING D FLOOR PLAN**

DESIGNED	EMD
DRAWN	AOH
CHECKED	EMD
DATE	01/24/2024
SCALE	PER PLAN
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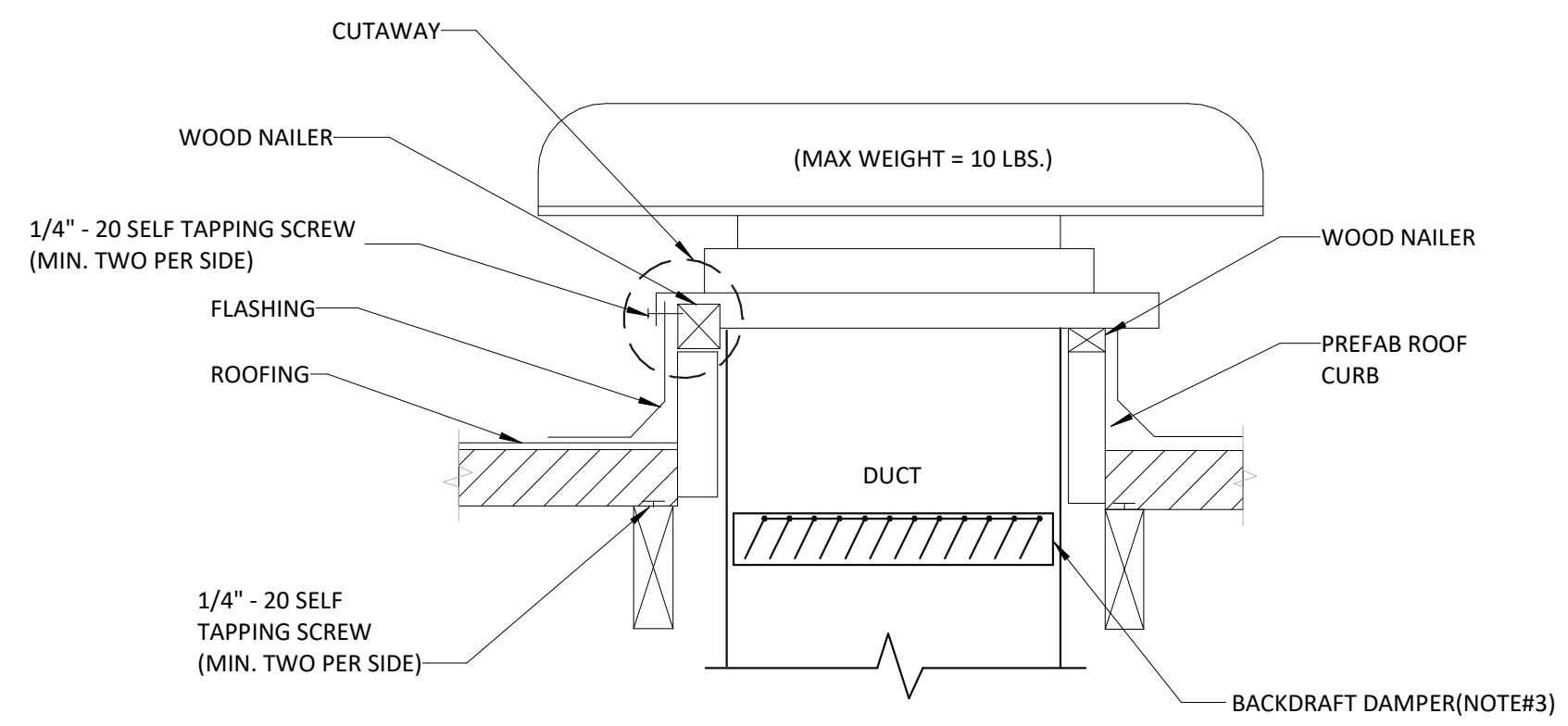
SHEET  
**M202**



**1** MECHANICAL - BUILDING D FLOOR PLAN - DEMOLITION  
 1/4" = 1'-0"

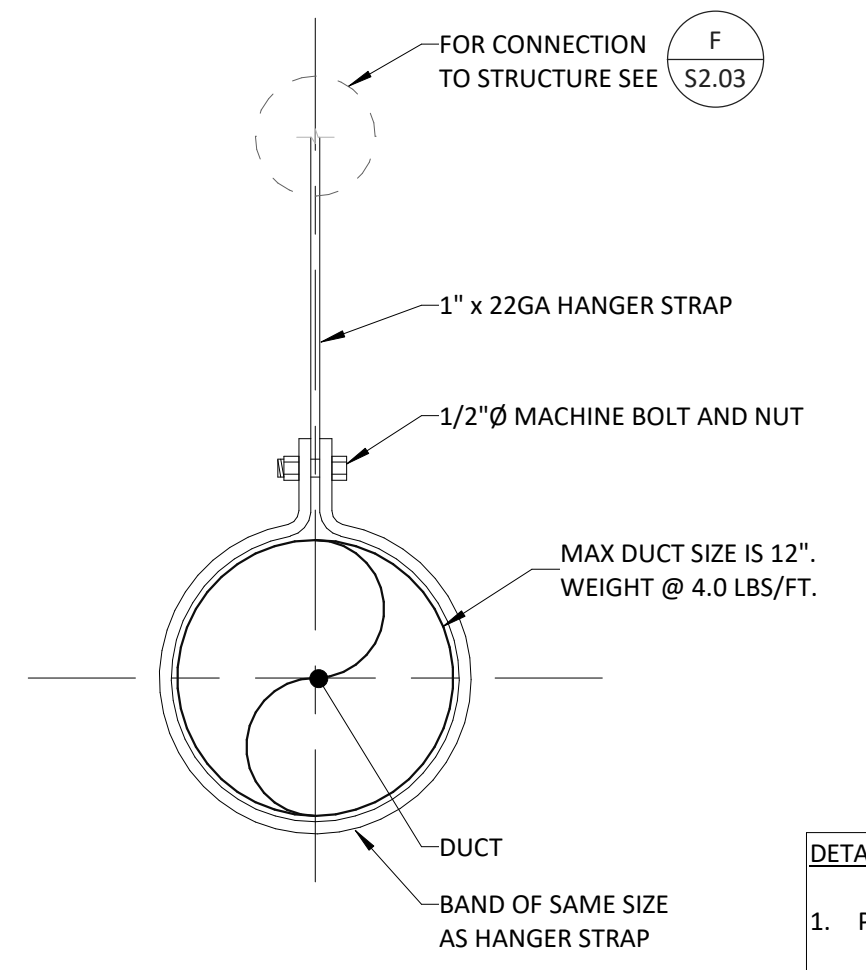


**2** MECHANICAL - BUILDING D FLOOR PLAN - REMODEL  
 1/4" = 1'-0"



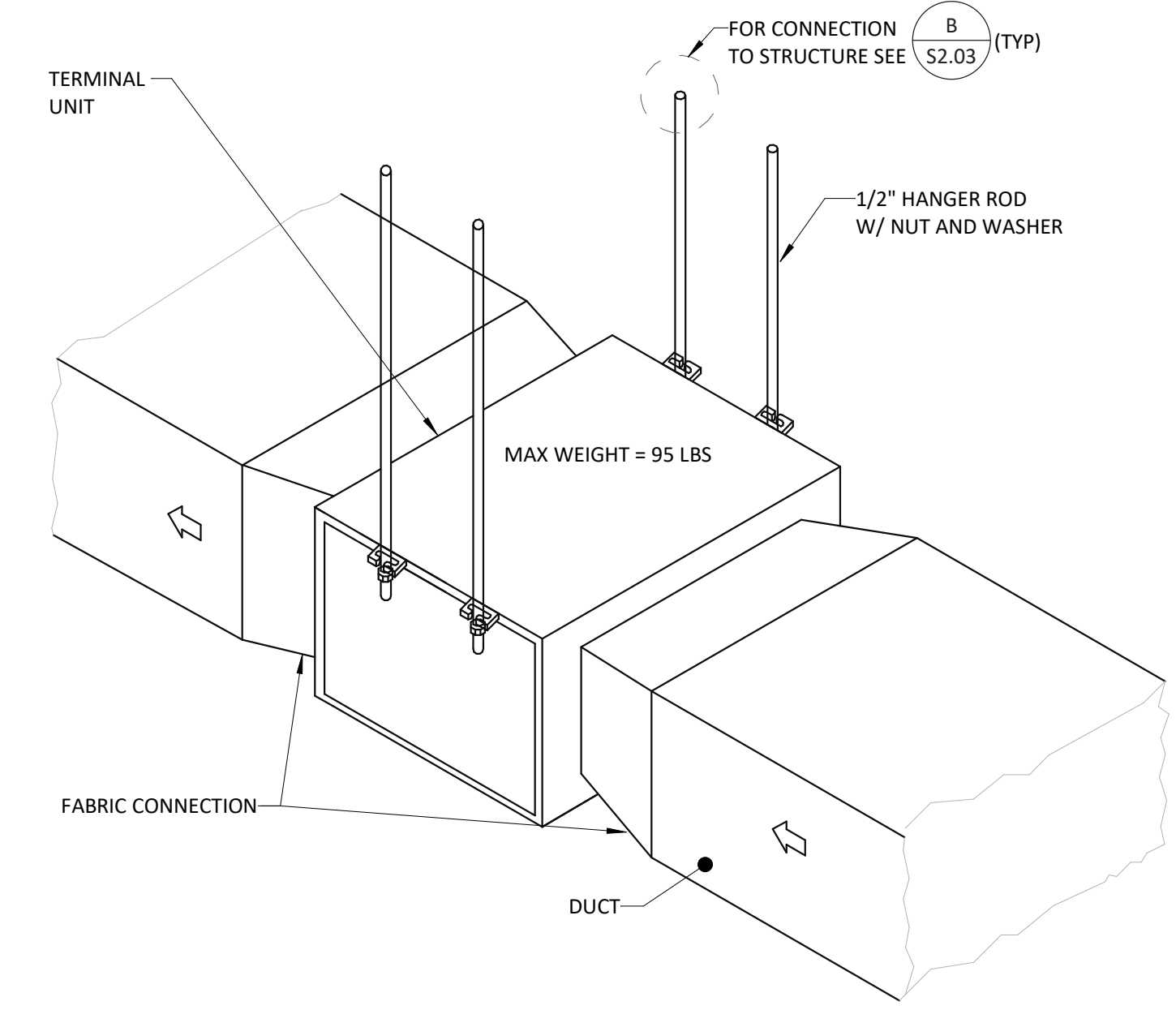
- DETAIL NOTES:**
1. ROOF OPENING SIZE SHALL BE AT LEAST 1-1/4" MORE THAN DUCT SIZE AND SHALL CONFORM TO MANUFACTURER'S CURB SIZE.
  2. EACH SIDE SHALL HAVE EQUALLY SPACED FASTENERS.
  3. GRAVITY BACKDRAFT DAMPERS SHALL BE INSTALLED AS SHOWN FOR GV-1
  4. GRAVITY BACKDRAFT DAMPER SHALL BE REVERSED AND INSTALLED TO REMAIN OPEN ONLY WHEN EF-1 IS IN OPERATION.

**DUCT ROOF CAP DETAIL** NTS 7

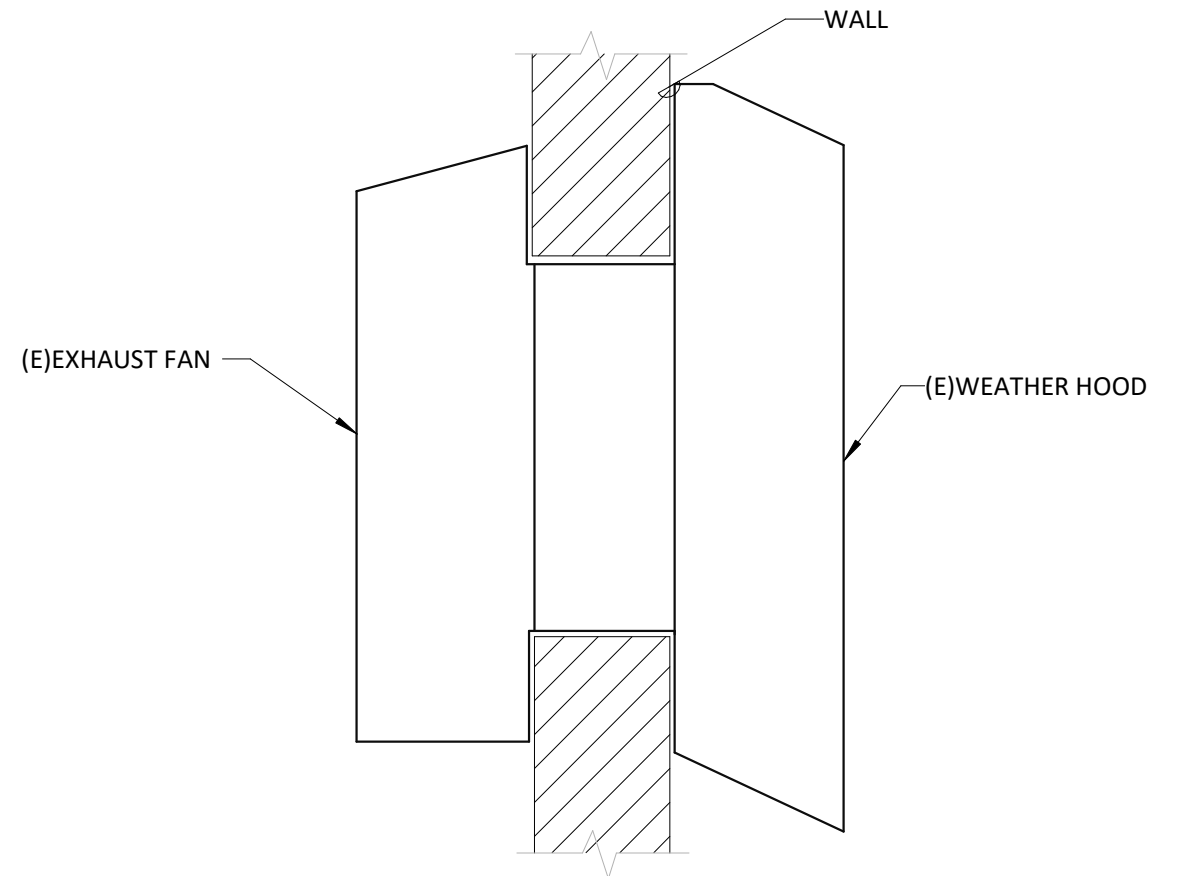


- DETAIL NOTES:**
1. PROVIDE HANGERS AT 12'-0" MAX SPACING.
  2. ALL DUCTWORK IS LESS THAN 6 SQUARE FEET IN CROSS SECTIONAL AREA AND IS THEREFORE EXEMPT FROM SEISMIC BRACING PER 2022 CBC SECTION 1617A.1.25.

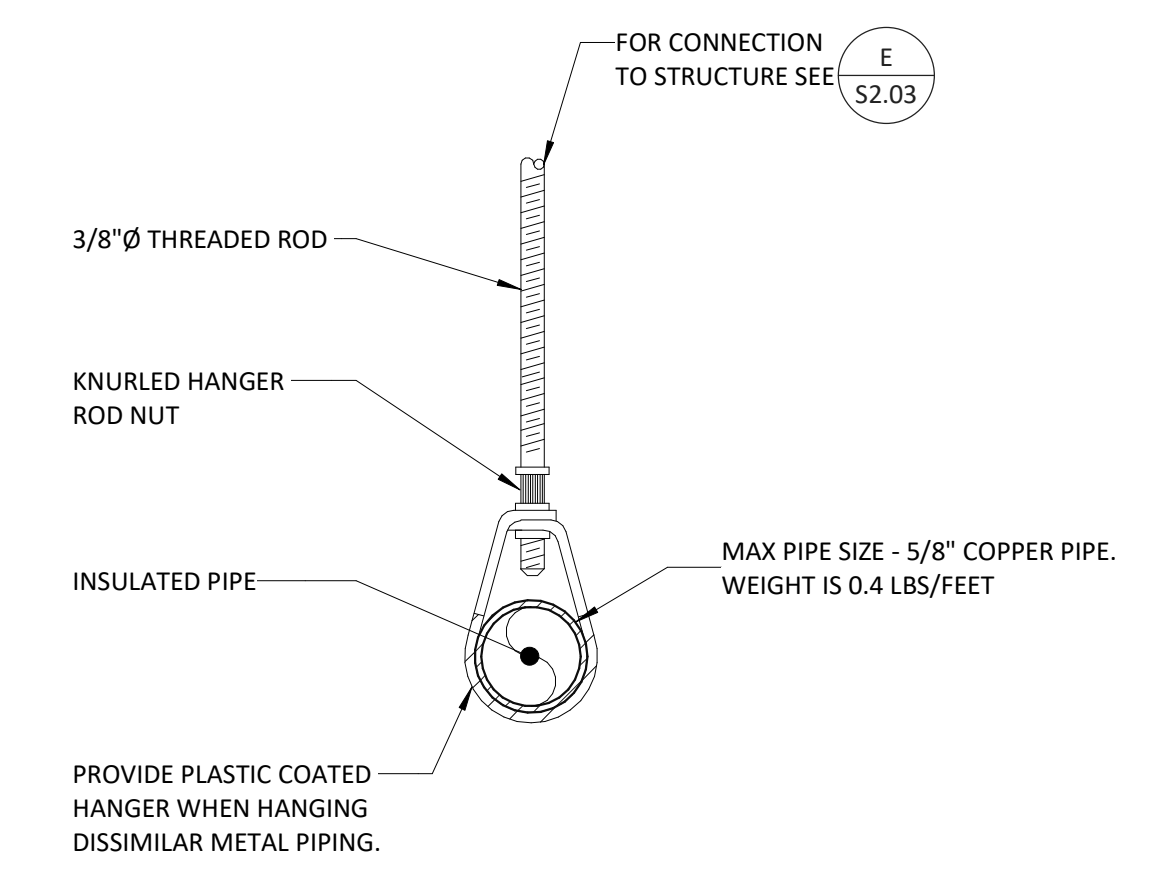
**ROUND DUCT SUPPORT DETAIL** NTS 4



**INDOOR FAN COIL UNIT MOUNTING DETAIL** NTS 1

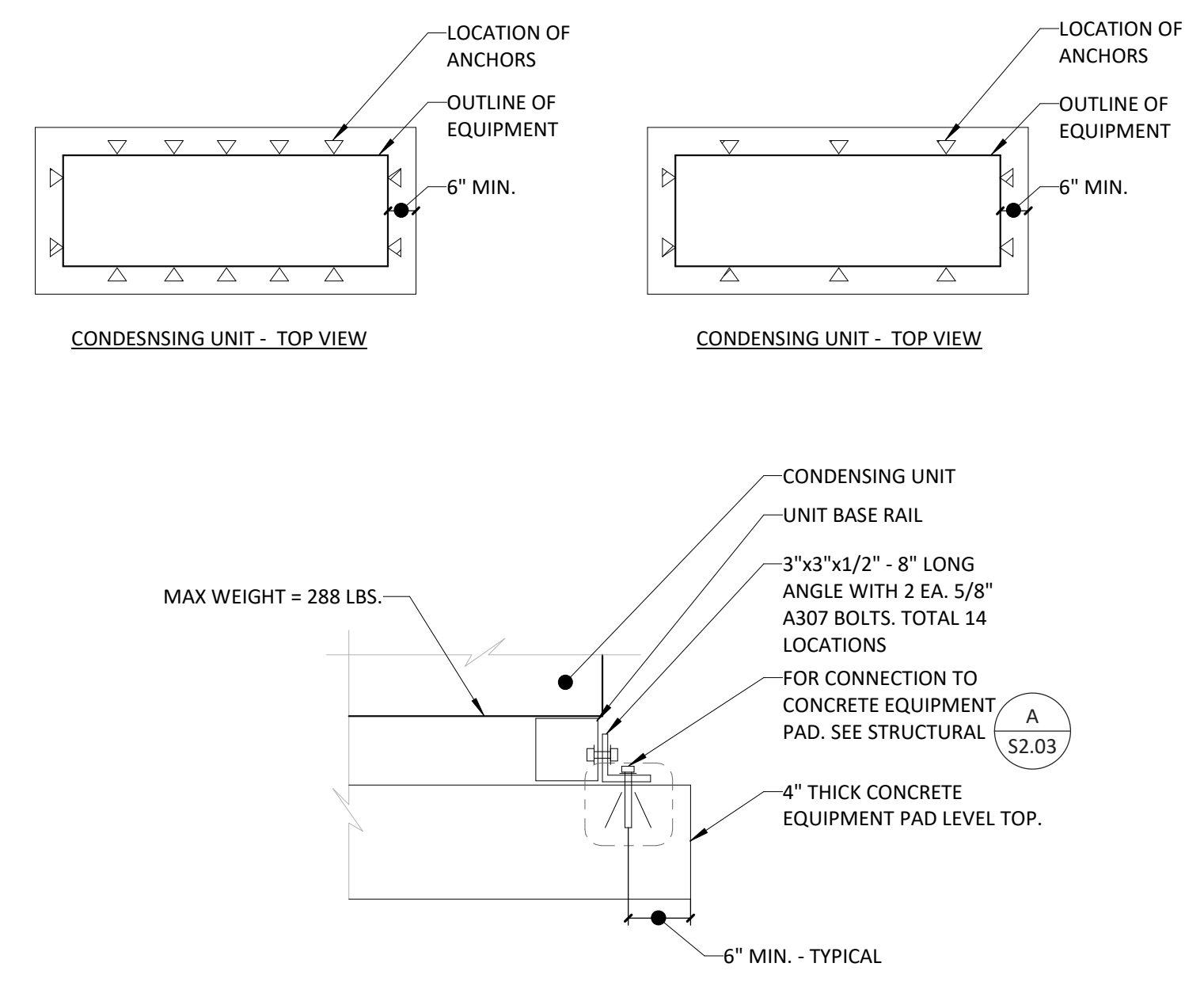


**AXIAL FAN THROUGH WALL DETAIL** NTS 8

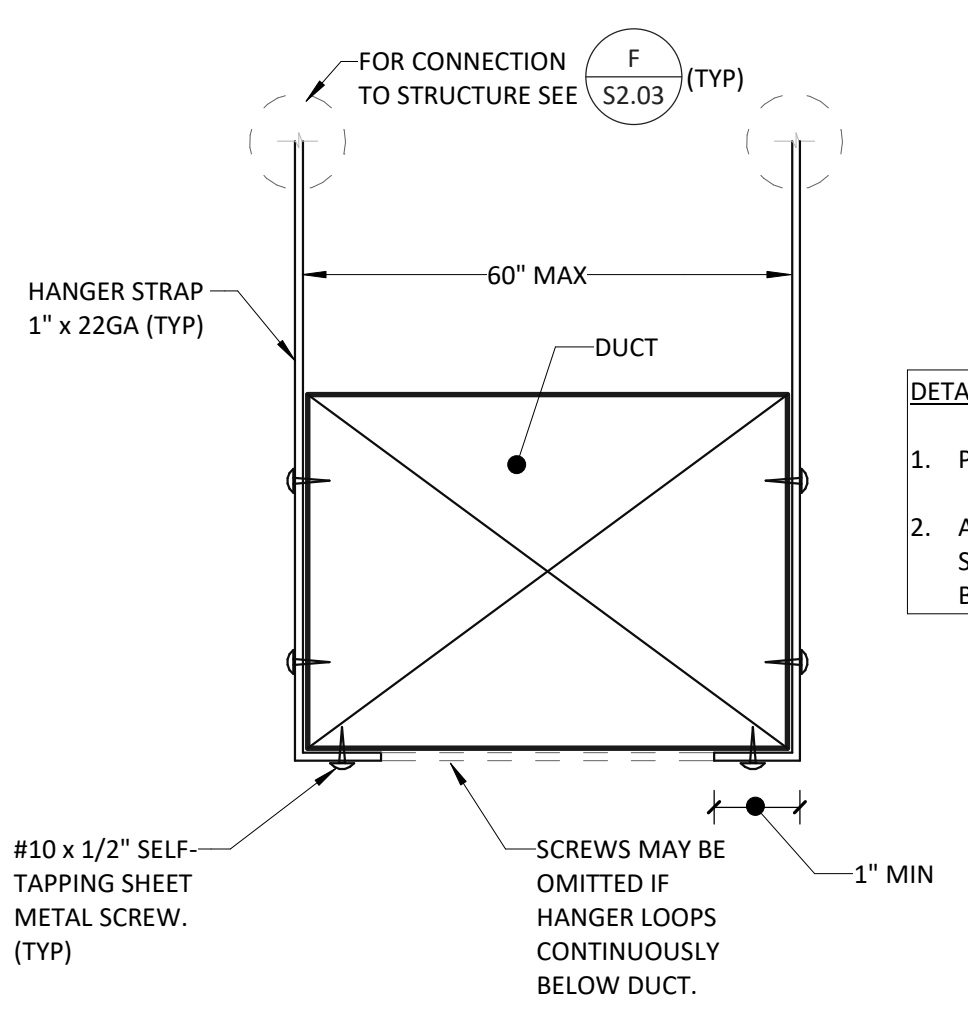


- DETAIL NOTES:**
1. SEE SPEC SECTION 23 0529 FOR HANGER SELECTION BASED ON PIPE MATERIAL AND PIPE SIZES.
  2. PROVIDE MINIMUM 1/2" SPACING BETWEEN FINISHED COVERING AND ADJACENT WORK.
  3. PROVIDE SUPPORTS AT 6' MAX SPACING.

**PIPE SUPPORT DETAIL** NTS 5

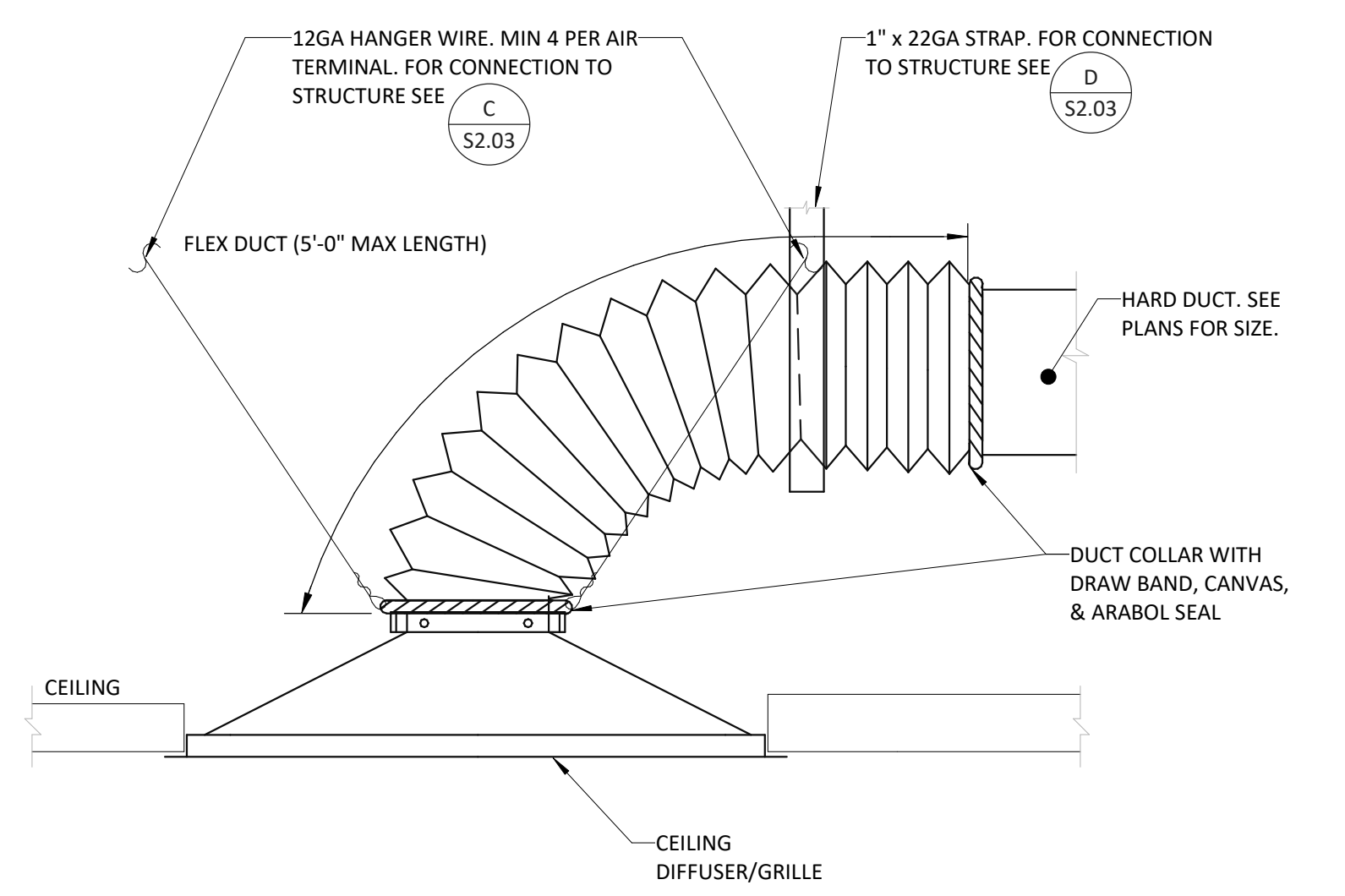


**CONDENSING UNIT MOUNTING DETAIL** NTS 2

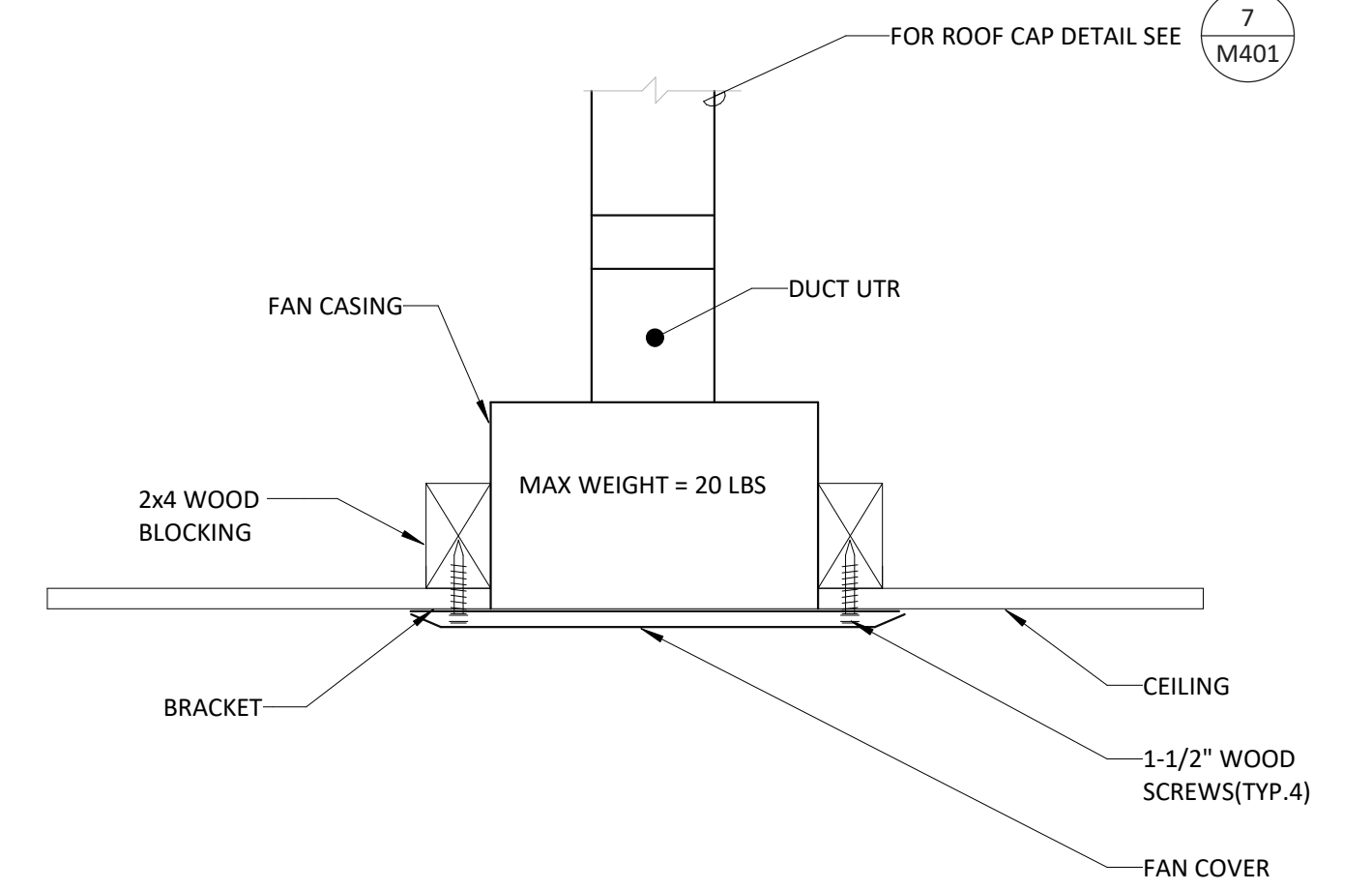


- DETAIL NOTES:**
1. PROVIDE HANGERS AT 10' MAX SPACING.
  2. ALL DUCTWORK IS LESS THAN 6 SQUARE FEET IN CROSS SECTIONAL AREA AND IS THEREFORE EXEMPT FROM SEISMIC BRACING PER 2022 CBC SECTION 1617A.1.25.

**RECTANGULAR DUCT SUPPORT DETAIL** NTS 9



**DIFFUSER CONNECTION DETAIL** NTS 6



**EXHAUST FAN MOUNTING DETAIL** NTS 3

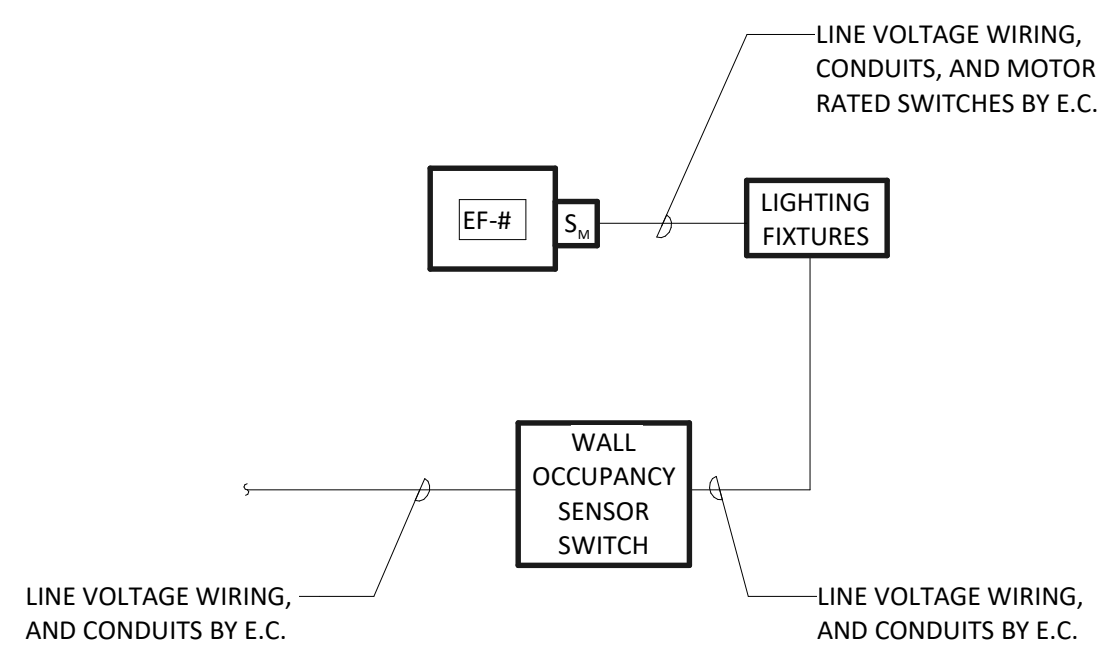
REVISIONS	DATE	BY



**SHEET TITLE**  
**MECHANICAL DETAILS**

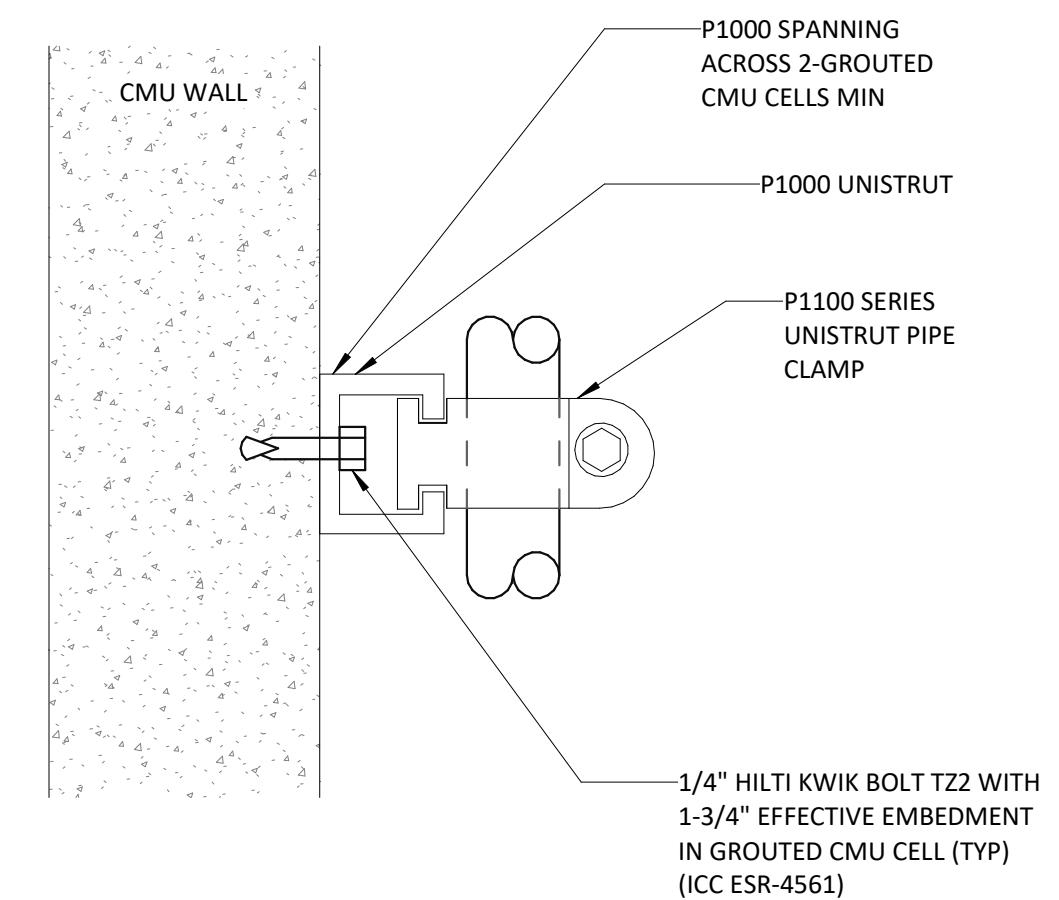
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**SHEET**  
**M401**



EXHAUST FAN WIRING DIAGRAM

NTS 4



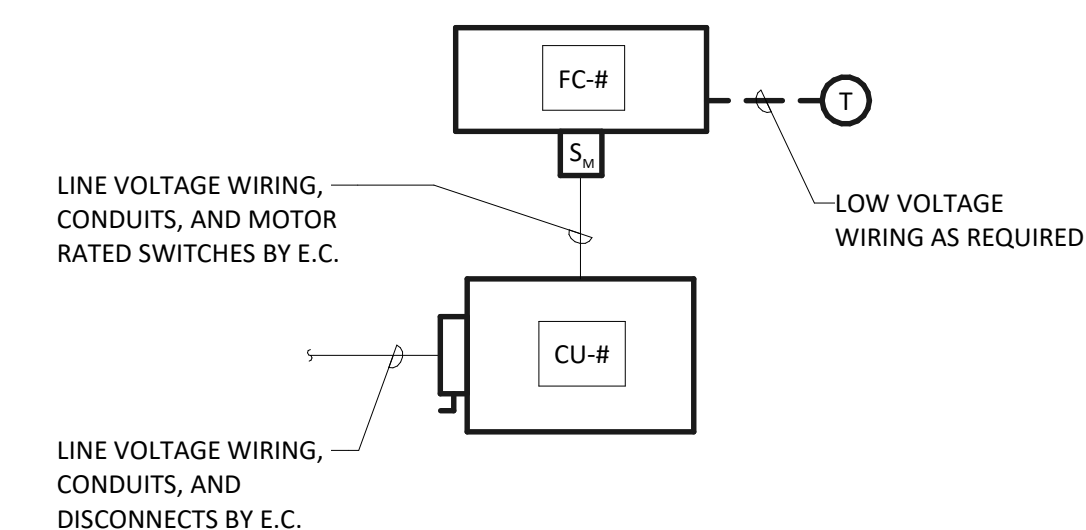
PIPE ATTACHMENT TO CMU WALL

NTS 1

- EQUIPMENT
- - - LOW VOLTAGE WIRING
- LINE VOLTAGE WIRING
- DISCONNECT SWITCH
- M.S. MAGNETIC STARTER
- CTRL CONTROLLER
- T THERMOSTAT
- C2 CARBON DIOXIDE SENSOR
- C RELAY/CONTACTOR
- ⊕ NORMALLY CLOSED CONTACTS
- S<sub>M</sub> MOTOR RATED SWITCH

WIRING SYMBOLS

NTS 2



SPLIT SYSTEM WIRING DIAGRAM

NTS 3



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SHEET TITLE  
**MECHANICAL DETAILS**

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SHEET  
**M402**

## ELECTRICAL SYMBOLS:

LINETYPE/SYMBOL	DESCRIPTION
	DUPLEX CONVENIENCE RECEPTACLE 20A, 125V
	QUAD CONVENIENCE RECEPTACLE 20A, 125V
	SPECIAL RECEPTACLE - TYPE NOTATION: A - INDICATES THE FOLLOWING "A" = __A__V__POLE, NEMA __ __
	JUNCTION BOX - FLUSH WALL MOUNT
	JUNCTION BOX - FLUSH CEILING MOUNT/IN CEILING SPACE
	JUNCTION BOX - FLUSH FLOOR MOUNT
	PULL BOX - SIZE AS INDICATED OR REQUIRED BY CODE
	ELECTRICAL DISTRIBUTION BOARD
	ELECTRICAL SURFACE MOUNT BRANCH CIRCUIT PANELBOARD
	ELECTRICAL RECESSED MOUNT BRANCH CIRCUIT PANELBOARD
	TRANSFORMER - SEE DRAWINGS FOR EXACT TYPE & SIZE
	DISCONNECT SWITCH - UNFUSED TYPE - SEE DRAWINGS FOR SIZE - (xxA) INDICATES AMPERAGE
	DISCONNECT SWITCH - FUSED TYPE - SEE DRAWINGS FOR SIZE - (yyAF) INDICATES FRAME SIZE - (xxAT) INDICATES TRIP SIZE
	MOTOR RATED SWITCH
	CORD REEL - SEE SPECS/FLOOR PLANS FOR EXACT TYPE
	FLUSH MOUNTED FLOOR BOX - POWER, DATA, A/V RECEPTACLES

- NOTES:
- NOT ALL SYMBOLS MAY APPLY.
  - SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.
  - STANDARD RECEPTACLE SHALL BE 20A, 125V OTHERWISE NEMA CONFIGURATION SHALL BE NOTED ON EACH OUTLET & RECEPTACLE.
  - ALL OUTLETS & RECEPTACLES SHALL BE FLUSH MOUNT UNLESS OTHERWISE NOTED ON EACH RECEPTACLE. S= SURFACE MOUNT.
  - # = CIRCUIT NUMBER PLACED NEXT TO EACH RECEPTACLE. WP = WEATHER PROOF PLACED NEXT TO EACH RECEPTACLE ACCORDINGLY.

"x" # "H" = CIRCUIT NUMBER DESIGNATION  
"x" = TYPE OF RECEPTACLE BASED ON ACRONYM

ACRONYMS:  
"C" = CONTROLLED VIA PLUG LOAD CONTROL TYPE  
"GFCI" = GROUND FAULT CIRCUIT INTERRUPTER TYPE  
"TP" = TAMPERPROOF TYPE  
"EG" = ELECTRONIC GRADE TYPE  
"AFCI" = ARC FAULT CIRCUIT INTERRUPTER TYPE

## RENOVATION NOTES:

- DEMOLITION WORK SHALL BE PERFORMED AS DESCRIBED WITHIN SPEC SECTION 26 0505 AND THE DRAWINGS.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMISSION TO VERIFY ALL FIELD CONDITIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - LOCATIONS OF EXISTING ELECTRICAL SYSTEMS.
  - LOCATIONS OF ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, TECHNOLOGY, FIRE PROTECTION, AND FIRE ALARM SYSTEMS.
  - EXISTING SURFACES WHICH REQUIRE ALTERING.
  - EXISTING MAIN SWITCHGEAR CONDITIONS.
- NOTIFY OWNER OF REQUIRED SYSTEM SHUTDOWNS AT LEAST TWO WEEKS PRIOR TO SHUTDOWN. EXACT SHUTDOWN TIME AND PROCEDURE SHALL BE COORDINATED WITH OWNER AT LEAST 96 HOURS PRIOR TO SHUTDOWN.
- WHEN ELECTRICAL CONDUIT OR EQUIPMENT ARE NOTATED TO BE PERMANENTLY REMOVED THEIR ASSOCIATED COMPONENTS SHALL ALSO BE REMOVED INCLUDING HANGERS, SUPPORTS, AND ACCESSORIES.
- COORDINATE THE DISCONNECTION AND REMOVAL OF THE POWERED SYSTEMS WITH THE M.C., P.C., T.C., F.A.C., AND F.P.C. WHEN REMOVING POWERED EQUIPMENT.
- REPAIR EXISTING FLOORS, WALLS, AND CEILINGS IN ALTERED AREAS TO MATCH EXISTING. SEE ARCHITECTURAL PLANS FOR FINISH DETAILS IN REMODEL AREAS.
- THE CONTRACTOR SHALL NEATLY SAW CUT SECTIONS OF THE CONCRETE TO ACCESS THE WORK BELOW GRADE, REMOVE PORTIONS OF DEMOLISHED CONCRETE FROM THE SITE. REPAIR THE EXISTING SLAB PER ELECTRICAL/STRUCTURAL DETAILS WITHIN THE DRAWING SET.
- E.C. SHALL CONFIRM THAT ONCE POWER IS RESTORED, (E) ELECTRICAL DEVICES DOWNSTREAM OF REPLACED DEVICES ARE OPERATIONAL WITH ADEQUATE ELECTRICAL CONTINUITY.

## ELECTRICAL SYMBOLS:

LINETYPE/SYMBOL	DESCRIPTION
	CONDUIT CONCEALED IN FINISHED AREAS OR EXPOSED IN UNFINISHED AREAS
	CONDUIT STUB - TERMINATE WITH CAP
	CONDUIT CONCEALED IN OR UNDER FLOOR SLAB
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	FLEXIBLE CONNECTION TO EQUIPMENT
	WIRE MOLD RACEWAY - SEE SPECS FOR EXACT TYPE
	HOMERUN TO PANELBOARD - CONDUCTORS QUANTITY, CONDUCTORS SIZE, AND CONDUIT SIZE INDICATED ON EACH HOMERUN
	MANHOLE - SEE FLOOR PLANS FOR TYPE AND DIMENSIONS
	HANDHOLE - SEE FLOOR PLANS FOR TYPE AND DIMENSIONS
	UNDERGROUND ELECTRICAL FEEDER
	UNDERGROUND TELEPHONE FEEDER
	ADJUSTABLE SPEED DRIVE
	RELAY - SEE DRAWINGS FOR TYPE, SIZE, AND RATINGS
	GROUND BUS
	LOW VOLTAGE LIGHT SWITCH
	LOW VOLTAGE SWITCH - DIMMER TYPE
	LIGHTING OCCUPANCY SENSOR - CEILING MOUNTED
	LIGHTING OCCUPANCY SENSOR - WALL MOUNTED
	LIGHTING ELECTRONIC TIMER WITH ASTRONOMICAL TIME CLOCK FEATURE - SEE SPECS & FLOOR PLANS FOR EXACT TYPE
	TROFFER - SEE FIXTURE SCHEDULE FOR EXACT TYPE
	WRAPAROUND - SEE FIXTURE SCHEDULE FOR EXACT TYPE
	DOWNLIGHT - SEE FIXTURE SCHEDULE FOR EXACT TYPE
	LINEAR STRIP - SEE FIXTURE SCHEDULE FOR EXACT TYPE
	EXIT SIGN - SEE FIXTURE SCHEDULE FOR EXACT TYPE - ARROWS, EXIT FACE, & HEIGHT AS INDICATED ON DRAWINGS
	RECESSED MOUNTED FIXTURE
	PENDANT MOUNTED FIXTURE
	WALL MOUNTED FIXTURE
	POLE - HEAD MOUNTED WITH ARM
	POLE - HEAD MOUNTED ON TOP

- NOTES:
- NOT ALL SYMBOLS MAY APPLY.
  - SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.
  - SEE LIGHTING CONTROL DIAGRAMS & SPECS FOR EXACT LIGHTING DEVICE TYPE.
  - LOWERCASE LETTER ABOVE LIGHT SYMBOL SHALL INDICATE SWITCH LEGS REQUIRED. THIS LETTER SHALL LINK LIGHT FIXTURES TO BE CONTROLLED WITH SWITCH.

a,b.. "a" = SWITCH LEG/SWITCH CONTROL  
"x" = TYPE OF SWITCH BASED ON ACRONYM

ACRONYMS:  
"O" = INTEGRAL OCCUPANCY SENSOR  
"H" = HORIZONTALLY MOUNTED, WITH ON POSITION TO THE LEFT  
"K" = KEY OPERATED  
"KP" = KEY OPERATED WITH PILOT LIGHT ON WHEN LIGHTS ARE ON

"T" = WITH TIMER  
"PROJ" = TO CONTROL PROJECTION SCREEN  
"G" = GLOWS IN OFF POSITION

"A" = STANDARD FIXTURE TYPE. REFER TO FIXTURE SCHEDULE  
"1" = CIRCUIT NUMBER  
"a" = SWITCH LEG/SWITCH CONTROL  
THIS LOWERCASE LETTER SHALL LINK LIGHT SWITCH CONTROLLING LIGHT FIXTURE.

"xx" = STANDARD FIXTURE MOUNTING HEIGHT  
SEE ARCHITECT DRAWINGS WHEN HEIGHT IS NOT SHOWN ON ELECTRICAL PLANS.

STANDARD LUMINAIRE PROVIDING EMERGENCY LIGHTING - FIXTURE POWERED WITH INTEGRAL BATTERY OR EXTERIOR EMERGENCY POWER SOURCE.

## PROPOSED DIVISION OF RESPONSIBILITY:

- CONTRACTOR SHALL FURNISH ALL SUPPORTING EQUIPMENT SUCH AS BACK-BOXES, CONDUIT, & SLEEVES AS REQUIRED FOR TECHNOLOGY EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECS FOR ADDITIONAL INFORMATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COST OF TECHNOLOGY ROUGH-IN IN THEIR BID.
- ALL CONDUIT FOR TECHNOLOGY SITE SERVICE SHALL BE PROVIDED BY E.C. INCLUDING, BUT IS NOT LIMITED TO, MANHOLES & HANDHOLES.
- ALL SLEEVES REQUIRED FOR TECHNOLOGY EQUIPMENT SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TECHNOLOGY CONTRACTOR FOR MATCHING TYPE & COLOR OF FACEPLATES. OBTAIN ARCHITECT AND OWNER APPROVAL ON TYPE AND COLOR PRIOR TO ORDERING FACEPLATES.

## CONTRACTOR ABBREVIATIONS:

ABBREVIATION	DESCRIPTION
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.A.C.	FIRE ALARM CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROL CONTRACTOR

## ELECTRICAL ABBREVIATIONS:

ABBREVIATION	DESCRIPTION
AFG	ABOVE FINISHED GRADE
CM	COUNTER MOUNTED
FBO	FURNISHED BY OTHERS
FF	FINISHED FLOOR
IG	ISOLATED GROUND
PED	PEDESTAL MOUNTED
UNO	UNLESS NOTED OTHERWISE
+XX	DIMENSIONED HEIGHT ABOVE FINISHED FLOOR
-XX	DIMENSIONED HEIGHT BELOW FINISHED FLOOR
1P	ONE POLE
1W	ONE WIRE
2P	TWO POLE
2W	TWO WIRE
3P	THREE POLE
3W	THREE WIRE
AC	ALTERNATING CURRENT
ADJ	ADJUSTABLE
AF	AMP FRAME
AFC	AVAILABLE FAULT CURRENT
AFCI	AVAILABLE FAULT CURRENT INTERRUPTER
AHU	AIR-HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
AT	AMP TRIP
C.O.	CONDUIT ONLY
CB	CIRCUIT BREAKER
CKT	CIRCUIT
D	DEDICATED DEVICE ON INDIVIDUAL BRANCH CIRCUIT. CIRCUIT CAN BE COMBINED WITH OTHER CIRCUITS FOR HOMERUNNING TO PANEL.
DISC	DISCONNECT
DN	DOWN
EM	EQUIPMENT POWERED WITH EMERGENCY SOURCE-INTERNAL OR EXTERNAL, UNLESS NOTED OTHERWISE
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FSD	FIRE SMOKE DAMPER
FT, '	FOOT OR FEET
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
IN, "	INCH OR INCHES
INV	EMERGENCY INVERTER
J-BOX	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILLS
KVA	KILOVOLT AMPERE
KW	KILOWATT
LTG	LIGHTING
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT NUMBER
NO., #	NUMBER
NTS	NOT TO SCALE
RTU	ROOFTOP UNIT
SD	SMOKE DAMPER SPECIFICATION
SPEC	TYPICAL
TYP	UNDERGROUND CONDUIT
U.C.	UP THRU ROOF
UTR	UP THRU ROOF
WP	WEATHERPROOF

- NOTES:
- NOT ALL ABBREVIATIONS MAY APPLY.
  - ELECTRICAL SCHEDULES CONTAIN EQUIPMENT TAG ABBREVIATIONS THAT ARE HEREBY INCORPORATED INTO THE ABBREVIATION LIST.
  - SEE OTHER DISCIPLINE DRAWINGS WITHIN THE CONSTRUCTION DOCUMENTS FOR ABBREVIATIONS NOT DEFINED ABOVE OR IN ELECTRICAL SCHEDULES.

## GENERAL NOTES:

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND MANUFACTURER'S INSTALLATION REQUIREMENTS.
- REVIEW ALL PROJECT DOCUMENTS INCLUDING SPECS AND DRAWINGS PERTAINING TO ALL DISCIPLINES PRIOR TO SUBMITTING A BID. SUBMIT PRE-BID REQUEST FOR INFORMATION FOR ITEMS IN QUESTION AND/OR CONFLICTS FOUND.
- DRAWINGS SHOW THE DESIGN INTENT DIAGRAMMATICALLY. THEY DO NOT SHOW THE EXACT UTILITY ROUTING NOR EVERY ELBOW, OFFSET, ETC. WHERE REQUIRED, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THEIR SYSTEMS TO AVOID CONFLICT WITH THE STRUCTURE AND OTHER DISCIPLINES. THE COST FOR SUCH ADJUSTMENTS SHALL BE INCLUDED IN THE BID.
- OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR WORK PERFORMED.
- OBTAIN UTILITY PURVEYOR REQUIREMENTS PRIOR TO PURCHASING EQUIPMENT OR PERFORMING WORK.
- THE G.C. OR C.M. TEAM SHALL LEAD THE SUBCONTRACTORS IN PROVIDING A COORDINATED SET OF SHOP DRAWINGS. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- PROVIDE FIRESTOPPING FOR ALL UTILITY PENETRATIONS THRU FIRE-RATED ASSEMBLIES.
- COORDINATE FRAMING REQUIREMENTS FOR ACCESS PANELS AND EQUIPMENT/PANEL SUPPORTS WITH G.C. OR C.M. PRIOR TO SUBMITTING BID.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CORRECTION OF CONSTRUCTION DEFICIENCIES LISTED ON THE JOB SITE OBSERVATION REPORT. RETURN THE JOB SITE OBSERVATION REPORT TO A/E WITH DEFICIENCIES SIGNED OFF. PROVIDE PHOTOGRAPHIC AND/OR VIDEO EVIDENCE OF CORRECTED DEFICIENCIES IF REQUESTED BY THE ENGINEER.
- PROVIDE CLOSEOUT DOCUMENTATION UPON COMPLETION OF PROJECT. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65% OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE. UTILIZE A WASTE MANAGEMENT COMPANY THAT CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH CODE. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.

## ELECTRICAL NOTES:

- ELECTRICAL WORK SHALL BE CONSTRUCTED IN A PROFESSIONAL MANNER. COMPONENTS SHALL BE CLEANED PRIOR TO OWNER TURNOVER.
- THE SCHEDULED EQUIPMENT SHALL BE USED AS THE BASIS OF DESIGN. MODEL NUMBERS ARE PROVIDED FOR REFERENCE ONLY. EQUIPMENT SHALL MEET SPECIFIED PERFORMANCE. THE CONTRACTOR SHALL IDENTIFY ALL SELECTED OPTIONS IN THE SUBMITTAL.
- IF A CONTRACTOR PROVIDES EQUIPMENT OTHER THAN THE BASIS OF DESIGN, THAT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED AS A RESULT. THAT INCLUDES, BUT IS NOT LIMITED TO, AGENCY FEES FOR REVIEW OF CHANGES, STRUCTURAL MODIFICATIONS FOR INCREASED WEIGHT AND, ELECTRICAL EQUIPMENT, WIRING, CONDUIT, AND BREAKER CHANGES FOR DIFFERENT ELECTRICAL REQUIREMENTS.
- PROVIDE CONCRETE EQUIPMENT PADS FOR FLOOR-MOUNTED EQUIPMENT UNLESS OTHERWISE NOTED. SEE PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
- SEE SPEC SECTIONS 26 0533 AND FOR CONDUIT/RACEWAY SYSTEM INSTALLATION AND CLEANING REQUIREMENTS.
- PROVIDE CONDUIT OR RACEWAY EXPANSION JOINT THAT ACCOMMODATES THE BUILDING MOVEMENT WHERE CONDUIT OR RACEWAY CROSSES BUILDING EXPANSION JOINT.
- PAINT INTERIOR EXPOSED CONDUIT/RACEWAYS, PULL BOXES, AND ASSOCIATED HANGERS/SUPPORTS LOCATED IN OCCUPIED SPACES TO MATCH THE SURROUNDING ARCHITECTURAL COLOR SCHEME. PAINT EXTERIOR CONDUIT/RACEWAYS, PULL BOXES, AND ASSOCIATED HANGERS/SUPPORTS ADJACENT TO EXTERIOR WALL TO MATCH WALL COLOR. FINAL COLORS SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER. SEE SPEC SECTION 26 0500 FOR ADDITIONAL REQUIREMENTS.
- PROVIDE IDENTIFICATION FOR CONDUIT/RACEWAYS, PULL BOXES, AND EQUIPMENT PER SPEC SECTION 26 0553.
- CONDUIT/RACEWAY SHALL NOT PASS THRU NOR UNDER DATA ROOMS, ELEVATOR MACHINE ROOMS, ELEVATOR HOISTWAYS, SKYLIGHTS, AND ROOF ACCESS HATCHES.
- PULL BOXES SHALL BE ACCESSIBLE. PROVIDE KEYED ACCESS PANELS WHERE PULL BOXES HAVE BEEN LOCATED IN CONCEALED AREAS. ACCESS PANEL SIZE SHALL BE LARGE ENOUGH TO ACCESS EACH PULL BOX.
- ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF LIGHTING FIXTURES AND LIGHTING DEVICES WITH MECHANICAL AND FIRE PROTECTION, AND FIRE ALARM DEVICES.
- E.C. SHALL VERIFY U.L. LISTING AND PROCEED WITH FINAL CONNECTION.
- ELECTRICAL OUTLETS INSTALLED ON OPPOSITE SIDES OF FIRE-RATED ASSEMBLIES SHALL BE SEPARATED BY 24". OPENINGS SHALL BE FIRESTOPPED WITH THE SPECIFIED MATERIAL.
- ALL CONDUIT SERVING ROOF-MOUNTED HVAC EQUIPMENT AND MAINTENANCE RECEPTACLES SHALL BE ROUTED IN CEILING SPACE. CONDUIT SHALL PENETRATE ROOF AT EQUIPMENT LOCATIONS ONLY. NO CONDUIT SHALL BE INSTALLED HORIZONTALLY ACROSS ROOF SURFACE.
- WHERE NEW CIRCUIT BREAKERS ARE TO BE ADDED TO EXISTING ELECTRICAL EQUIPMENT, THEY SHALL BE OF THE SAME MANUFACTURER AND DESIGN AS THE EXISTING BREAKERS AND SHALL BE OF THE SIZES INDICATED.

## ELECTRICAL SHEET INDEX:

Sheet Number	Sheet Name
E000	ELECTRICAL COVER SHEET
E001	ELECTRICAL SCHEDULES
E002	ELECTRICAL TITLE 24 FORMS
E003	ELECTRICAL TITLE 24 FORMS
E004	ELECTRICAL TITLE 24 FORMS
E101	ELECTRICAL SITE PLAN
E201	ELECTRICAL - MAINT. BLDG. FLOOR PLAN
E202	ELECTRICAL - BUILDING D FLOOR PLAN
E401	ELECTRICAL DETAILS

## CODES AND STANDARDS:

EDITION	REFERENCE CODE/STANDARD
2022	CALIFORNIA ADMINISTRATIVE CODE, (CCR, TITLE 24, PART 1)
2022	CALIFORNIA BUILDING CODE, (CCR, TITLE 24, PART 2)
2022	CALIFORNIA ELECTRICAL CODE, (CCR, TITLE 24, PART 3)
2022	CALIFORNIA MECHANICAL CODE, (CCR, TITLE 24, PART 4)
2022	CALIFORNIA PLUMBING CODE, (CCR, TITLE 24, PART 5)
2022	CALIFORNIA ENERGY CODE, (CCR, TITLE 24, PART 6)
2022	CALIFORNIA HISTORICAL BUILDING CODE, (CCR, TITLE 24, PART 8)
2022	CALIFORNIA FIRE CODE, (CCR, TITLE 24, PART 9)
2022	CALIFORNIA EXISTING BUILDING CODE, (CCR, TITLE 24, PART 10)
2022	CALIFORNIA GREEN BUILDING STANDARDS, (CCR, TITLE 24, PART 11)
2022	CALIFORNIA REFERENCED STANDARDS CODE, (CCR, TITLE 24, PART 12)
2022	STANDARD FOR INSTALLATION OF FIRE SPRINKLER SYSTEMS OF CALIFORNIA, (ADOPTS NFPA 13, 2022. WITH AMENDMENTS)
2018	NFPA 54-NATIONAL FUEL GAS CODE
2022	NFPA 72-NATIONAL FIRE ALARM AND SIGNALING CODE

CCR-CALIFORNIA CODE OF REGULATIONS  
NFPA-NATIONAL FIRE PROTECTION AGENCY

## GENERAL LEGEND:

SYMBOL	DESCRIPTION
	DETAIL CALL-OUT SYMBOL
	EQUIPMENT TAG
	KEYNOTE SYMBOL
	POINT OF CONNECTION OR DISCONNECTION
	SECTION CUT CALL-OUT SYMBOL
	ENLARGED PLAN CALL-OUT SYMBOL

LINETYPE	DESCRIPTION
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	NEW CONSTRUCTION
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED

## FIRE-RATED ASSEMBLY LEGEND:

LINETYPE/SYMBOL	DESCRIPTION
	ONE HOUR RATED ASSEMBLY
	TWO HOUR RATED ASSEMBLY

A = RATING TYPE: FIRE (F)/SMOKE (S)/FIRE-SMOKE (FS)  
B = ASSEMBLY TYPE: BARRIER (B)/PARTITION (P)/WALL (W)

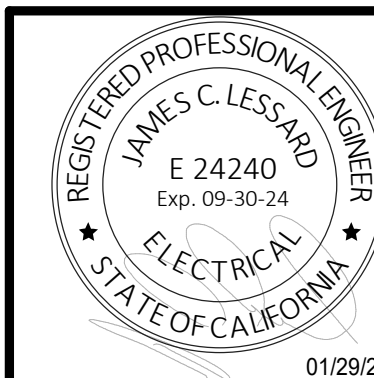


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PROJECT #230041.00

CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
SARB MAINTENANCE FACILITY  
PROJECT No. PK-ARPA009  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



01/29/2024

SHEET TITLE  
**ELECTRICAL COVER SHEET**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**E000**

New Branch Panel: A										
Location: NEW MAINTENANCE BUILDING				Volts: 208/120 Wye		A.I.C. Rating: 22K				
Supply From: MSB				Phases: 3		Mains Type: MCB				
Mounting: SURFACE				Wires: 4		Mains Rating: 225 A				
Enclosure: TYPE 1				MCB Rating: 225 A						
CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Lighting	20 A	1	400	722			1	20 A Lighting	2
3	Lighting	20 A	1		766	372		1	20 A SITE LIGHTING	4
5	Receptacle	20 A	1					1	20 A Receptacle	6
7	Receptacle	20 A	1	720	1080			1	20 A Receptacle	8
9	Receptacle	20 A	1		180	1000		1	20 A Receptacle	10
11	Receptacle	20 A	1			720	1000	2	20 A Receptacle	12
13	Receptacle	20 A	1	900	720			1	20 A Receptacle	14
15	Receptacle	20 A	1		1260	360		1	20 A Receptacle	16
17	Receptacle	20 A	1			900	500	1	20 A GARAGE OPENER	18
19	GARAGE OPENER	20 A	1	500	500			2	20 A Receptacle	20
21	CR	20 A	1		360	500				22
23										24
25	SPACE	--	3	--	--	--	--	3	--	26
27										28
29						2000	2000			30
31	EWB-2	35 A	3	2000	2000			3	20 A AC-1 (10 HP)	32
33					2000	2000				34
35	CU-1 & FC-1	40 A	2			2704	300	1	20 A AD-1	36
37				2704	6000			1	20 A CP-1	38
39	EF-2	20 A	1		600	1200		1	20 A CF-1	40
41	IDF	20 A	1			360	1200	1	20 A CF-2	42
Total Load:				18194 VA	10563 VA	12944 VA				
Total Amps:				155 A	88 A	111 A				
Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals						
HVAC	2400 VA	100.00%	2400 VA	Total Conn. Load: 41699 VA						
Lighting	1887 VA	125.00%	2359 VA	Total Est. Demand: 29568 VA						
Other	732 VA	100.00%	732 VA	Total Conn. Current: 116 A						
Power	1000 VA	100.00%	1000 VA	Total Est. Demand Current: 82 A						
Receptacle	35168 VA	64.22%	22584 VA							
Mechanical Equipment	600 VA	100.00%	600 VA							

Existing Branch Panel: D										
Location: MAIN SWITCHBOARD				Volts: 208/120 Wye		PROVIDE NEW TYPE-WRITTEN DIRECTORY CARD FOR PANEL				
Supply From: BUILDING D				Phases: 3		Mains Type: MCB				
Mounting: SURFACE				Wires: 4		Mains Rating: 100 A				
Enclosure: TYPE 1				MCB Rating: 100 A						
CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	MECH RM GFCI	20 A	1	0	0			1	20 A (E) GARAGE OPENER	2
3	SHOP GFCI	20 A	1		0	0		1	20 A (E) GARAGE OPENER	4
5	SHOP GFCI	20 A	1					1	20 A (E) THRU WALL A/C	6
7	SHOP GFCI	20 A	1	0	0	0	0	1	20 A (E) EXTERIOR LIGHTS	8
9	SHOP GFCI	20 A	1		0	0		1	20 A (E) SHOP LTS	10
11	SHOP GFCI	20 A	1			0	0	1	20 A (E) STORAGE LIGHTS	12
13	(E) LOAD	50 A	2	0	2000					14
15					0	2000				16
17	EF-E	20 A	1			600	2000	3	35 A EWB-1	18
19	EF-1	20 A	1	630	--			1	--	20
Total Load:				2630 VA	2000 VA	2600 VA				
Total Amps:				23 A	17 A	22 A				
Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals						
				Total Conn. Load: 7230 VA						
				Total Est. Demand: 7238 VA						
				Total Conn. Current: 20 A						
				Total Est. Demand Current: 20 A						

New Branch Panel: EVSE										
Location: NEW MAINTENANCE BUILDING				Volts: 208/120 Wye		A.I.C. Rating: 22,000				
Supply From: MSB				Phases: 3		Mains Type: MCB				
Mounting: SURFACE				Wires: 4		Mains Rating: 225 A				
Enclosure: TYPE 1				MCB Rating: 225 A						
CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	RESERVED FOR FUTURE EVCS	40 A	2	0	0			2	40 A RESERVED FOR FUTURE EVCS	2
3					0	0				4
5	RESERVED FOR FUTURE EVCS	40 A	2	0	0			2	40 A RESERVED FOR FUTURE EVCS	6
7					0	0				8
9	RESERVED FOR FUTURE EVCS	40 A	2	0	0			2	40 A RESERVED FOR FUTURE EVCS	10
11					0	0				12
13	RESERVED FOR FUTURE EVCS	40 A	2	0	0			2	40 A RESERVED FOR FUTURE EVCS	14
15					0	0				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:				0 VA	0 VA	0 VA				
Total Amps:				0 A	0 A	0 A				
Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals						
Power	0 VA	0.00%	0 VA	Total Conn. Load: 0 VA						
				Total Est. Demand: 0 VA						
				Total Conn. Current: 0 A						
				Total Est. Demand Current: 0 A						

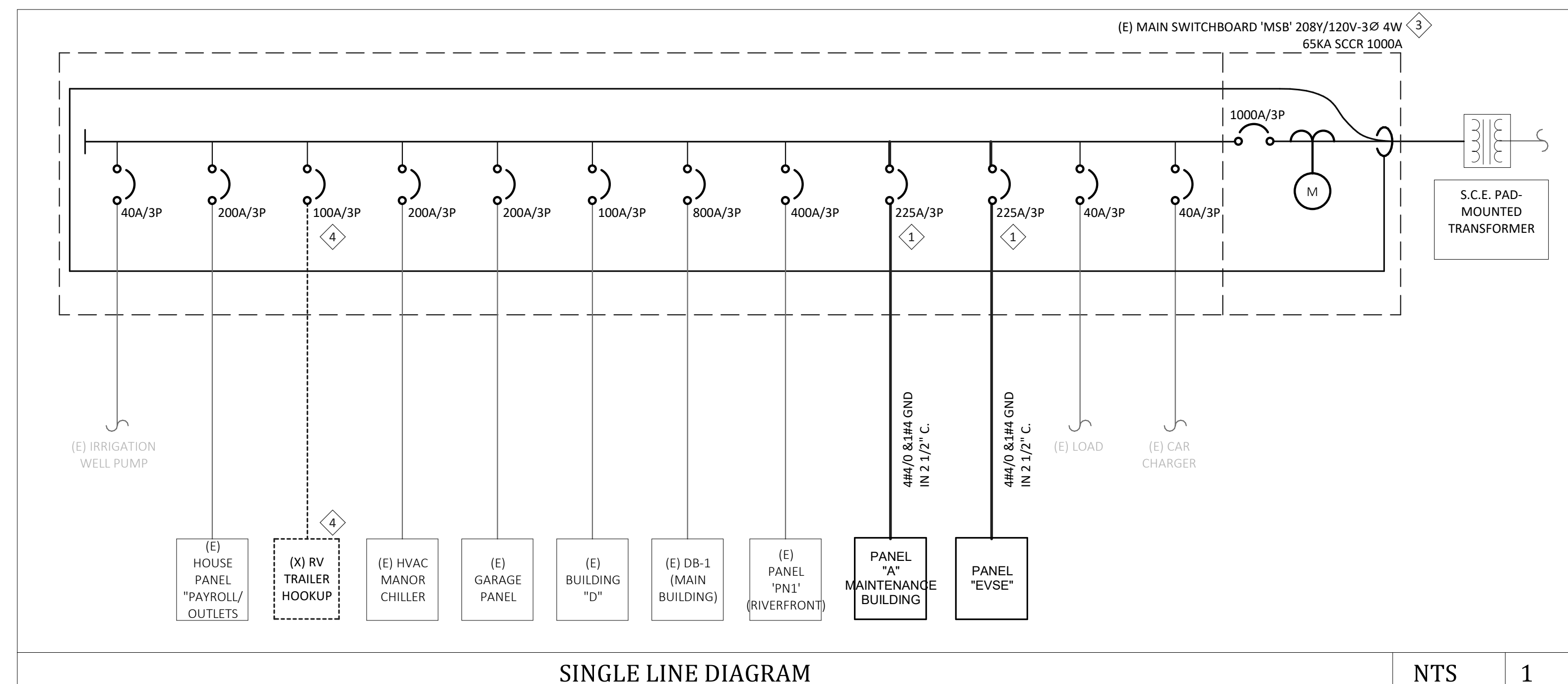
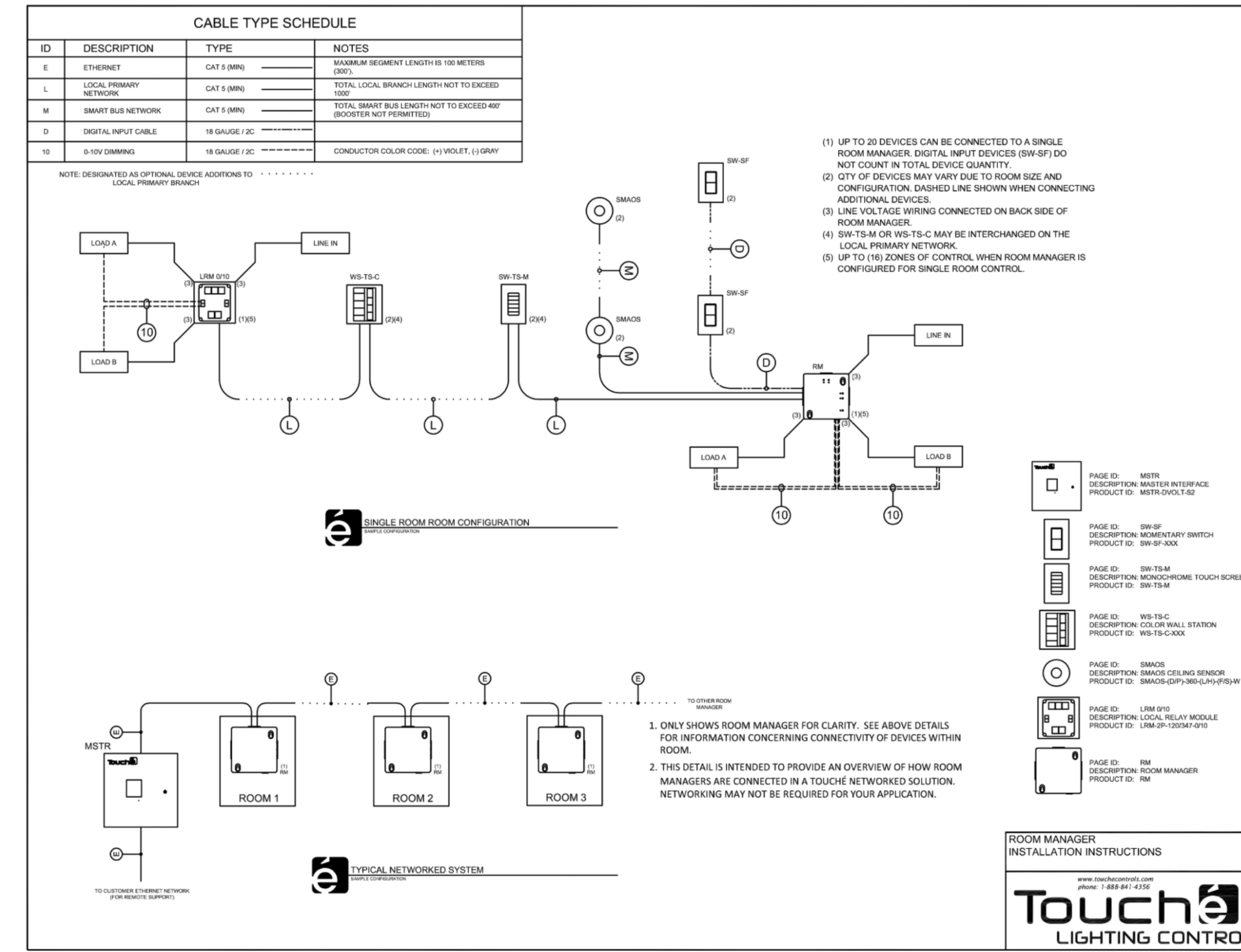
DISCONNECT SWITCH SCHEDULE								
TAG NAME	EQUIPMENT DESCRIPTION	SWITCH TYPE	VOLTAGE	NO OF POLES	DS SIZE	NEMA ENCLOSURE	APPROVED MANUFACTURERS	REMARKS
DS-60R	CU-1	NON FUSED	208	3	60AF/45AT	3R	ABB/GE	
DS-60	EWB-1	NON FUSED	208	3	60AF/35AT	1	ABB/GE	
DS-60	EWB-2	NON FUSED	208	3	60AF/35AT	1	ABB/GE	
DS-60	EWB-2	NON FUSED	208	3	60AF/35AT	1	ABB/GE	

LIGHTING CONTROL MATRIX						
AREA	CONTROL SYSTEM	DIMMING	AUTOMATIC CONTROLS - BUSINESS HOURS	AUTOMATIC CONTROLS - BUSINESS HOURS	DAYLIGHT CONTROL	MANUAL CONTROLS
ELECTRICAL ROOM	NA	NO	MANUAL/OFF	MANUAL/OFF	NO	DIMMER/ON-OFF SWITCH
STORAGE ROOM	TOUCHE LIGHTING	NO	OS	OS	NO	DIMMER/ON-OFF SWITCH
RESTROOMS	TOUCHE LIGHTING	YES	TC	OS	NO	DIMMER/ON-OFF SWITCH
CLASSROOM	TOUCHE LIGHTING	YES	TC	OS/PC	YES	DIMMER/ON-OFF SWITCH
OUTDOOR LIGHTING	TOUCHE LIGHTING	NO	TC	TC/PC	YES	WALL MOUNTED DIMMER/ON-OFF SWITCH

NOTE: TOUCHE LIGHTING IS THE BASIS OF DESIGN FOR LIGHTING CONTROLS. SUBMIT TOUCHE LIGHTING OR APPROVED EQUAL.

PC=PHOTOCELL OS=OCCUPANCY SENSOR-AUTO ON/AUTO OFF TC=TIME CLOCK

KEYNOTES - E001	
#	TEXT
1	PROVIDE NEW PANELBOARD FEEDER BREAKERS WITHIN EXISTING MAIN SWITCHBOARD 'MSB' AS INDICATED ON ONE-LINE. PROVIDE ALL REQUIRED HARDWARE AND ANCILLARY EQUIPMENT TO INSTALL NEW BREAKERS WITHIN EXISTING SWITCHBOARD.
2	PROVIDE NEW CIRCUIT BREAKER WITHIN EXISTING PANEL FOR CONNECTION TO NEW EXHAUST FAN, SIZED AS INDICATED. MATCH EXISTING TYPE AND AIC.
3	PROTECT IN PLACE EXISTING 1000A MAIN SWITCHBOARD FOR RE-USE.
4	DISCONNECT AND REMOVE EXISTING RV TRAILER HOOKUP RECEPTACLE BOX, FEEDER CONDUIT, AND CONDUCTORS BACK TO SWITCHBOARD 'MSB'. MARK BREAKER AS "SPARE". SEE ELECTRICAL SITE PLAN FOR LOCATION.



LIGHTING FIXTURE SCHEDULE													
TAG NAME	DESCRIPTION	LAMP:			BALLAST TYPE:			MOUNTING:					
		LAMP	BALLAST TYPE	MOUNTING	CL	FR	FLANGED RECESSED						
LENGTH	WIDTH	DEPTH	HEIGHT	DIAMETER	LAMP	BALLAST TYPE	VOLTAGE	VA	LUMENS	MOUNTING	DIST./MANUF.	MOD.NO.	DETAIL REFERENCE
EX1	EDGE LIT LED EXIT SIGN, UNIVERSAL MNT. 90 MIN. BATTERY BACKUP.					LED	EB	120	10 VA		ISOLITE	ELT-EM-G-XX-BA-SC-UC	SEE MANUFACTURER CUTSHEET
F1	5"x48" CABLE SUSPENDED LINEAR DIRECT WITH SYMMETRIC DISTRIBUTION, WHITE COLOR, ACRYLIC OPAL LENS. 90 MIN. BATTERY BACKUP WHERE INDICATED.	4' - 0"	0' - 4"	0' - 2"		LED	EB	120	26 VA	4000LM	SP	LITHONIA LIGHTING CLX L48 4000LM SEF L/LENS MVOLT 35K 80CRI	SEE DETAIL 1/E401
F2	WALL PACK LIGHT FIXTURES. 90 MIN. BATTERY BACKUP. MT. 9' AFG.					LED	EB	120	35 VA	4201 LM	WL	LITHONIA LIGHTING DSXW1-LED-20C-530 -40K-T4M-MVOLT-E2 0WC	SEE DETAIL 4/E401
F3	2X2 TROFFER	2' - 0"	2' - 0"	0' - 2"		LED	EB	120	27 VA	4000 LM	RE	LITHONIA LIGHTING 2BLT2 33L ADSM LP835	SEE DETAIL 8/E401
F4	4" DIA. RECESSED DOWNLIGHT. WET LOCATION LISTED.				0' - 2"	LED	EB	120	8 VA	1000 LM	RE	GOTHAM LIGHTING EVO4 35/07 AR MD LSS	SEE DETAIL 9/E401
F5	WALL PACK LIGHT FIXTURES. MT. 13' AFG.					LED	EB	120	71 VA	8,089 LM	WL	LITHONIA LIGHTING DSXW2-LED-30C-700 -40K-T4M-MVOLT-PI R1FC3V	SEE DETAIL 4/E401
S1	POLE MOUNT SITE LIGHT FIXTURE. 20' SQ. POLE ON ELEVATED BASE.					LED	EB	120	124 VA	16,272 LM	PL	LITHONIA LIGHTING DSX1-LED-P4-40K-80 CRI-T4M-PIR	SEE DETAIL 10/E401

**ASTRAL ENGINEERS, PC**  
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 PROJECT #230041.00

CLIENT: COUNTY OF RIVERSIDE REGIONAL PARK & OPEN SPACE DISTRICT  
 PROJECT: SARB MAINTENANCE FACILITY PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER  
 JAMES C. LESSARD  
 E 24240  
 Exp. 09-30-24  
 ELECTRICAL  
 STATE OF CALIFORNIA  
 01/29/2024

SHEET TITLE	
DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**E001**

Electrical Power Distribution CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with mandatory requirements in 130.5, for electrical systems in newly constructed nonresidential and hotel/motel occupancies and 160.6 and 160.9 for electrical systems in newly constructed multifamily occupancies...

Table with Project Name: SARB Maintenance Facility, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 1 of 4), Date Prepared: 2024-01-10T19:45:07-05:00

A. GENERAL INFORMATION

Table with Project Location (city) Jurupa Valley, Climate Zone 10, Occupancy Types Within Project Warehouse

B. PROJECT SCOPE

Table with columns 01-07 describing electrical systems, meter location, and demand response controls.

FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 169556-0124-0003

Electrical Power Distribution CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB Maintenance Facility, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 4 of 4), Date Prepared: 2024-01-10T19:45:07-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete. James Lessard, Astral Engineers, PC, P.O. Box 190, Rancho Cucamonga, CA 91729

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct.

Responsible Designer Name: James Lessard, Date Signed: 01/10/2024, License: E 24240, Phone: (314)476-0625

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 169556-0124-0003

Indoor Lighting CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB MAINTENANCE FACILITY, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 3 of 10), Date Prepared: 2024-01-10T06:15:40-05:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/hotel/motel room lighting, Multifamily dwelling unit and hotel/motel room lighting is documented in Table T.

Table with columns 01-10 listing fixture details like Name or Item Tag, Complete Luminaire Description, Watts per luminaire, etc.

FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)(4) / 170.2(e)(2) is adjusted to be 75% /80% of their rated wattage.

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 167509-0124-0005

Electrical Power Distribution CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB Maintenance Facility, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 2 of 4), Date Prepared: 2024-01-10T19:45:07-05:00

C. COMPLIANCE RESULTS

Table with columns 01-06 showing compliance results for Service Electrical Metering, Separation for Monitoring, Voltage Drop, Controlled Receptacles, Electric Ready, and Compliance Results.

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

H. VOLTAGE DROP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with 130.5(c)/160.6(c).

Table with columns 01-05 showing voltage drop calculations for Electrical Service Description, Combined Voltage Drop, Location of Voltage Drop, Sheet Number, and Field Inspector.

FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 169556-0124-0003

Indoor Lighting CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB MAINTENANCE FACILITY, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 1 of 10), Date Prepared: 2024-01-10T06:15:40-05:00

A. GENERAL INFORMATION

Table with columns 01-06 showing project location, climate zone, total conditioned floor area, unconditioned floor area, and occupancy types.

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)(2) / 180.2(b)(4) for alterations.

Table with columns 01-05 showing scope of work, calculation method, area category, and area for conditioned and unconditioned spaces.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 167509-0124-0005

Indoor Lighting CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB MAINTENANCE FACILITY, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 4 of 10), Date Prepared: 2024-01-10T06:15:40-05:00

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Table with columns 01-12 showing building level controls, area level controls, and field inspector status for various areas like Conference, Meeting, Office, Restroom, Storage, etc.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 167509-0124-0005

Electrical Power Distribution CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB Maintenance Facility, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 3 of 4), Date Prepared: 2024-01-10T19:45:07-05:00

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E.

There are no forms required for this project.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 169556-0124-0003

Indoor Lighting CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB MAINTENANCE FACILITY, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 2 of 10), Date Prepared: 2024-01-10T06:15:40-05:00

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D for guidance.

Table with columns 01-09 showing lighting power calculations for Allowed Lighting Power, Adjusted Lighting Power, and Compliance Results.

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Generated Date/Time: Documentation Software: Energy Code Ace Report Version: 2022.0.000 Compliance ID: 167509-0124-0005

Indoor Lighting CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in 130.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)(2) for indoor lighting systems...

Table with Project Name: SARB MAINTENANCE FACILITY, Project Address: 4600 Crestmore Road, Jurupa Valley, CA 92509, Report Page: (Page 5 of 10), Date Prepared: 2024-01-10T06:15:40-05:00

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

Plan Sheet Showing Daylit Zones: 13

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used.

Table with columns 01-06 showing lighting power allowance calculations for various areas like Conference, Meeting, Office, Restroom, Storage, etc.

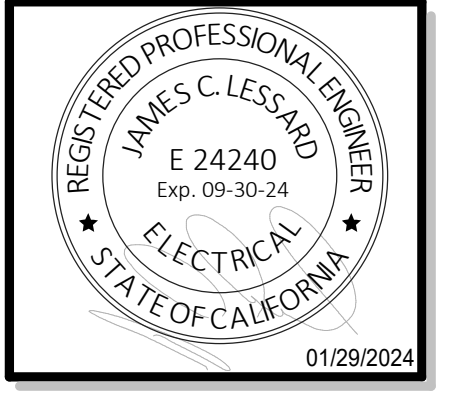
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CLIENT: COUNTY OF RIVERSIDE REGIONAL PARK & OPEN-SPACE DISTRICT PROJECT: SARB MAINTENANCE FACILITY PROJECT NO. PK-ARPA009

PROJECT: SARB MAINTENANCE FACILITY PROJECT NO. PK-ARPA009 4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

REVISIONS table with columns DATE and BY



SHEET TITLE ELECTRICAL TITLE 24 FORMS

DESIGNED: JCL DRAWN: RUM CHECKED: JCL DATE: 01/29/2024 SCALE: PER PLAN JOB NO.: 2023-29

SHEET E002



STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Indoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB MAINTENANCE FACILITY
Report Page: (Page 6 of 10)
Date Prepared: 2024-01-10T06:15:40-05:00

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

All areas indicated in Table J as using an additional allowance using the Area Category Method have been included in this table to calculate the additional allowance per Table 140.6-C / 170.2-M

Table with 10 columns: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10. Rows include CUBICLE / MEETING AREA, OFFICE 1, OFFICE 2, OFFICE 3.

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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Indoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB MAINTENANCE FACILITY
Report Page: (Page 10 of 10)
Date Prepared: 2024-01-10T06:15:40-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: James Lessard
Company: Astral Engineers, PC
Address: P.O. Box 190, Rancho Cucamonga, CA 91729
City/State/Zip: Rancho Cucamonga, CA 91729

Generated Date/Time: Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Outdoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB Maintenance Facility
Report Page: (Page 5 of 8)
Date Prepared: 2024-01-10T17:01:23-05:00

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below.

Table with 10 columns: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10. Rows include S1, F2, FS.

NOTES: Selections with a \* require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a fixture. EXCEPTION 2 or 130.2(b)
FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)

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Schema Version: rev 20220101
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Report Generated: 2024-01-10 14:01:26

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Indoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB MAINTENANCE FACILITY
Report Page: (Page 8 of 10)
Date Prepared: 2024-01-10T06:15:40-05:00

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE / SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Outdoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB Maintenance Facility
Report Page: (Page 1 of 8)
Date Prepared: 2024-01-10T17:01:23-05:00

A. GENERAL INFORMATION

Table with 4 columns: 01, 02, 03, 04. Rows include Project Location (city), Climate Zone, Outdoor Lighting Zone, LZ categories, and Occupancy Types.

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)(2) / 180.2(b)(4) for alterations.

Table with 2 columns: 01, 02. Rows include New Lighting System, Altered Lighting System, % of Existing Luminaires Being Altered, and Calculation Method.

Please proceed to Table F, Outdoor Lighting Fixture Schedule to define the project's luminaires.

FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.

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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
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Project Name: SARB Maintenance Facility
Report Page: (Page 4 of 8)
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G. SHIELDING REQUIREMENTS (BUG)

This table includes fixtures of >=6,200 initial lumens indicated on Table F as needing to comply with Shielding Requirements. Maximum lumens can be found in Title 24, Part 11, Section 5.106.8.

Table with 12 columns: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12. Rows include S1, F5.

FOOTNOTES: Mounting Height is labeled MH in this table.
Authority Having Jurisdiction may ask for Luminaire cut sheets or other documentation to confirm luminaire type, uplight ratings and glare ratings used for compliance per 130.2(b) / 160.5(c)

BUG ratings with a lower number than the 'Max Allowable' are compliant. Ex. If Max Allowable is Bug Rating 84, then 80, 81, 82 and 83 are all compliant.

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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Indoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB MAINTENANCE FACILITY
Report Page: (Page 9 of 10)
Date Prepared: 2024-01-10T06:15:40-05:00

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E.

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E.

Form/Title

NRCC-LTI-E - Must be submitted for all buildings

Form/Title

NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.

Form/Title

Systems/Spaces To Be Field Verified

Form/Title

CUBICLE / MEETING AREA; OFFICE 1; OFFICE 2; OFFICE 3; OFFICE 4; RESTROOM; STORAGE; MCH RM

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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
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Project Name: SARB Maintenance Facility
Report Page: (Page 2 of 8)
Date Prepared: 2024-01-10T17:01:23-05:00

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Table with 9 columns: 01, 02, 03, 04, 05, 06, 07, 08, 09. Rows include Calculations of Total Allowed Lighting Power (Watts) and Compliance Results.

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
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STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION
Outdoor Lighting
CERTIFICATE OF COMPLIANCE
Project Name: SARB Maintenance Facility
Report Page: (Page 5 of 8)
Date Prepared: 2024-01-10T17:01:23-05:00

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.

Table with 5 columns: 01, 02, 03, 04, 05. Rows include Area Description, Shut-Off, Auto-Schedule, Motion Sensor, and Field Inspector.

FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.

Authority having jurisdiction may ask for cut sheets or other documentation to confirm compliance of light source.

Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from III.

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Compliance ID: 169556-0124-0002
Report Generated: 2024-01-10 14:01:26

ASTRAL ENGINEERS, PC
PO BOX 190
RANCHO CUCAMONGA, CA 91729
909.903.0015
www.astraleng.com
PROJECT #: 230041.00

CLIENT: COUNTY OF RIVERSIDE REGIONAL PARK & OPEN-SPACE DISTRICT
PROJECT: SARB MAINTENANCE FACILITY PROJECT No. PK-ARPA009
4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

PROJECT: SARB MAINTENANCE FACILITY PROJECT No. PK-ARPA009
4600 CRESTMORE ROAD JURUPA VALLEY, CA 92509

Table with 3 columns: REVISIONS, DATE, BY.



SHEET TITLE
ELECTRICAL TITLE
24 FORMS

Table with 2 columns: DESIGNED, DRAWN, CHECKED, DATE, SCALE, JOB NO.

SHEET
E003

**I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))**  
 This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A/170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance. Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H, and are not included here. All other multifamily outdoor lighting is included here.

		01								
		"Use it or lose it" Allowance (select all that apply) (select all that apply)								
Area Description	General Hardscape Allowance Table I (below)	Per Application Table J		Sales Frontage Table K		Ornamental Table L		Per Specific Area Table M		
		Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel								
02	03	04	05	06	07	08	09			
Area Wattage Allowance (AWA)		Linear Wattage Allowance (LWA)		Total General AWA + LWA (Watts)						
Illuminated Area (ft <sup>2</sup> )	Allowed Density (W/ft <sup>2</sup> )	Area Allowance (Watts)	Perimeter Length (ft)	Allowed Density (W/ft)	Linear Allowance (Watts)					
Maintenance Yard	36314	0.019	689.97	963	0.15	144.45	834.42			
Initial Wattage Allowance for Entire Site (Watts):							200			
Instances of Initial Wattage Allowance (LZ 0 only):										
Total General Hardscape Allowance (Watts):							1034.42			

**J. LIGHTING ALLOWANCE: PER APPLICATION**  
 This section does not apply to this project.

**K. LIGHTING ALLOWANCE: SALES FRONTAGE**  
 This section does not apply to this project.

**L. LIGHTING ALLOWANCE: ORNAMENTAL**  
 This section does not apply to this project.

**M. LIGHTING ALLOWANCE: PER SPECIFIC AREA**  
 This section does not apply to this project.

**N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)**  
 This section does not apply to this project.

**O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**  
 Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

Form/Title
NRCC-LTO-E - Must be submitted for all buildings

**P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**  
 Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

Form/Title	Systems/Spaces To Be Field Verified
NRCC-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	Maintenance Yard: "S1"; Maintenance Yard: "F2"; Maintenance Yard: "F5"

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**  
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: James Lessard  
 Signature Date: 01/10/2024  
 Company: Astral Engineers, PC  
 Address: P.O. Box 190  
 City/State/Zip: Rancho Cucamonga, CA 91729  
 Phone: (314)476-0625

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**  
 I certify the following under penalty of perjury, under the laws of the State of California:  
 1. The information provided on this Certificate of Compliance is true and correct.  
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).  
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.  
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.  
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the building owner at occupancy.

Responsible Designer Name: James Lessard  
 Signature Date: 01/10/2024  
 Company: Astral Engineers, PC  
 Address: P.O. Box 190  
 City/State/Zip: Rancho Cucamonga, CA 91729  
 License: E 24240  
 Phone: (314)476-0625

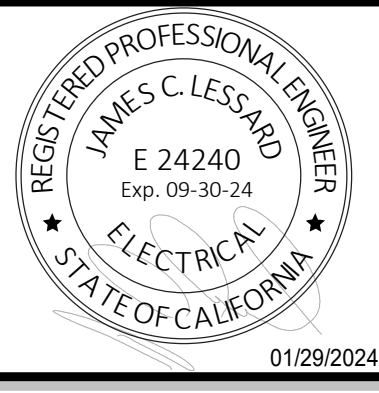


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 PROJECT #:230041.00

CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN SPACE DISTRICT  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT No. PK-ARPA009  
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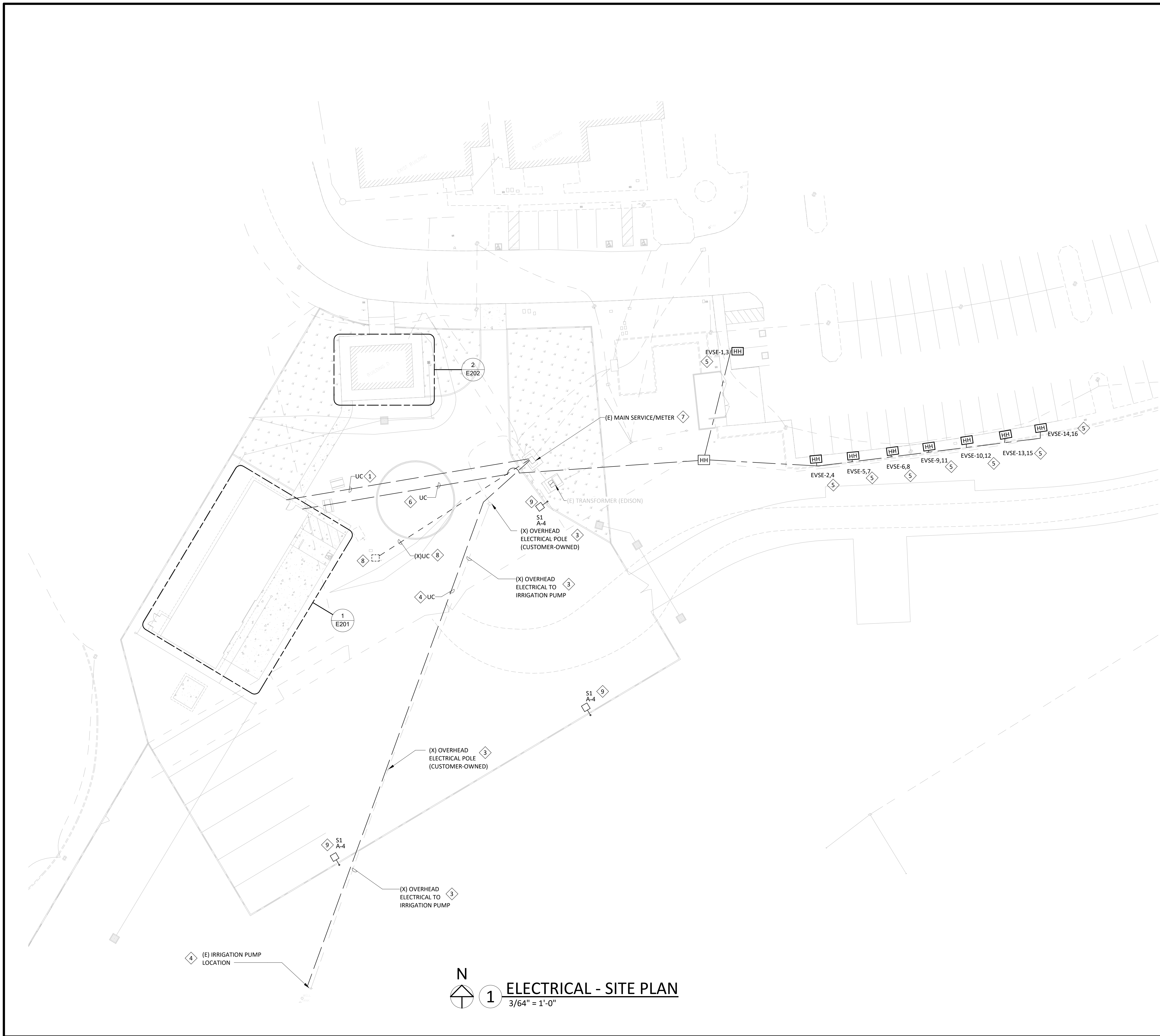
REVISIONS	DATE	BY



SHEET TITLE  
**ELECTRICAL TITLE  
 24 FORMS**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**E004**



GENERAL NOTES - E101	
NUMBER	TEXT
1	NEW SITE LIGHTING FIXTURES SHALL BE CONTROLLED TO PROVIDE ASTRONOMICAL DAY/NIGHT ON/OFF, AUTOMATIC SCHEDULING WITH LUMEN OUTPUT REDUCTION FOR A MIN. OF TWO NIGHTTIME PERIODS, IN COMPLIANCE WITH CALIFORNIA TITLE 24, 130.2 REQUIREMENTS.

KEYNOTES - E101	
NUMBER	TEXT
1	PROVIDE UNDERGROUND CONDUIT AND CONDUCTORS (4#500KCM & 1#3 GND IN 3.5" C.) FOR POWER CONNECTION BETWEEN EXISTING MAIN SWITCHBOARD AND NEW PANEL 'A' IN MAINTENANCE BUILDING.
1	PROVIDE UNDERGROUND CONDUIT AND CONDUCTORS ((2) SETS OF 4#250KCM & 1#3 GND EACH IN 2.5" C.) FOR POWER CONNECTION BETWEEN EXISTING MAIN SWITCHBOARD AND NEW PANEL 'A' AND NEW PANEL 'EVSC' IN MAINTENANCE BUILDING.
2	PROVIDE UNDERGROUND CONDUIT (1") FOR CABLES FOR CCTV. SEE DETAIL 5/E401 FOR UNDERGROUND CONDUIT INSTALLATION DETAILS.
3	DISCONNECT AND REMOVE EXISTING OVERHEAD CABLING, WOOD POLES, AND CONDUIT RISER TO IRRIGATION PUMP. PROTECT IN-PLACE EXISTING CIRCUIT BREAKER FOR RE-USE IN NEW WORK.
4	PROVIDE UNDERGROUND CONDUIT AND CONDUCTORS (3#6 & 1#10 GND IN 1" C.) TO RE-FEED EXISTING IRRIGATION PUMP FROM MAIN SWITCHBOARD. RE-USE EXISTING 40A/3P BREAKER. PROVIDE CONNECTION AT IRRIGATION PUMP.
5	PROVIDE HANDHOLE AT THIS ELECTRIC VEHICLE CAPABLE STALL. PROVIDE 1" EMPTY UNDERGROUND CONDUIT FOR POWER, WITH PULL STRING, BETWEEN HANDHOLE AND NEW PANEL 'EVSE', LOCATED IN THE MAINTENANCE BUILDING. PROVIDE ONE (1) SPARE 1" CONDUIT BETWEEN EACH CHARGING STATION AND CAPPED JUST INSIDE THE BUILDING FOR FUTURE USE BY OTHERS. SEE PANEL SCHEDULES AND DETAIL 6/E401. (TYPICAL 1 PER CHARGING STATION)
6	PROVIDE 1" EMPTY UNDERGROUND CONDUIT TO FEED ELECTRIC VEHICLE CAPABLE STALL, ONE CONDUIT PER ELECTRIC VEHICLE CAPABLE STALL, BACK TO NEW PANEL 'EVSE'. SEE PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
7	PROTECT IN PLACE EXISTING 1000A MAIN SWITCHBOARD FOR RE-USE. SEE ONE-LINE DIAGRAM FOR NEW PANEL FEEDERS AND OTHER REQUIREMENTS.
8	DISCONNECT AND REMOVE EXISTING RV TRAILER HOOKUP RECEPTACLE BOX, FEEDER CONDUIT, AND CONDUCTORS BACK TO SWITCHBOARD 'MSB'. MARK BREAKER AS "SPARE". SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
9	PROVIDE NEW LIGHT FIXTURE, LIGHT POLE, AND POLE BASE AT THIS LOCATION. SEE POLE BASE DETAIL 10/E401. SEE LIGHT FIXTURE SCHEDULE FOR MOUNTING HEIGHT AND FIXTURE TYPE.



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PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD  
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REVISIONS	DATE	BY



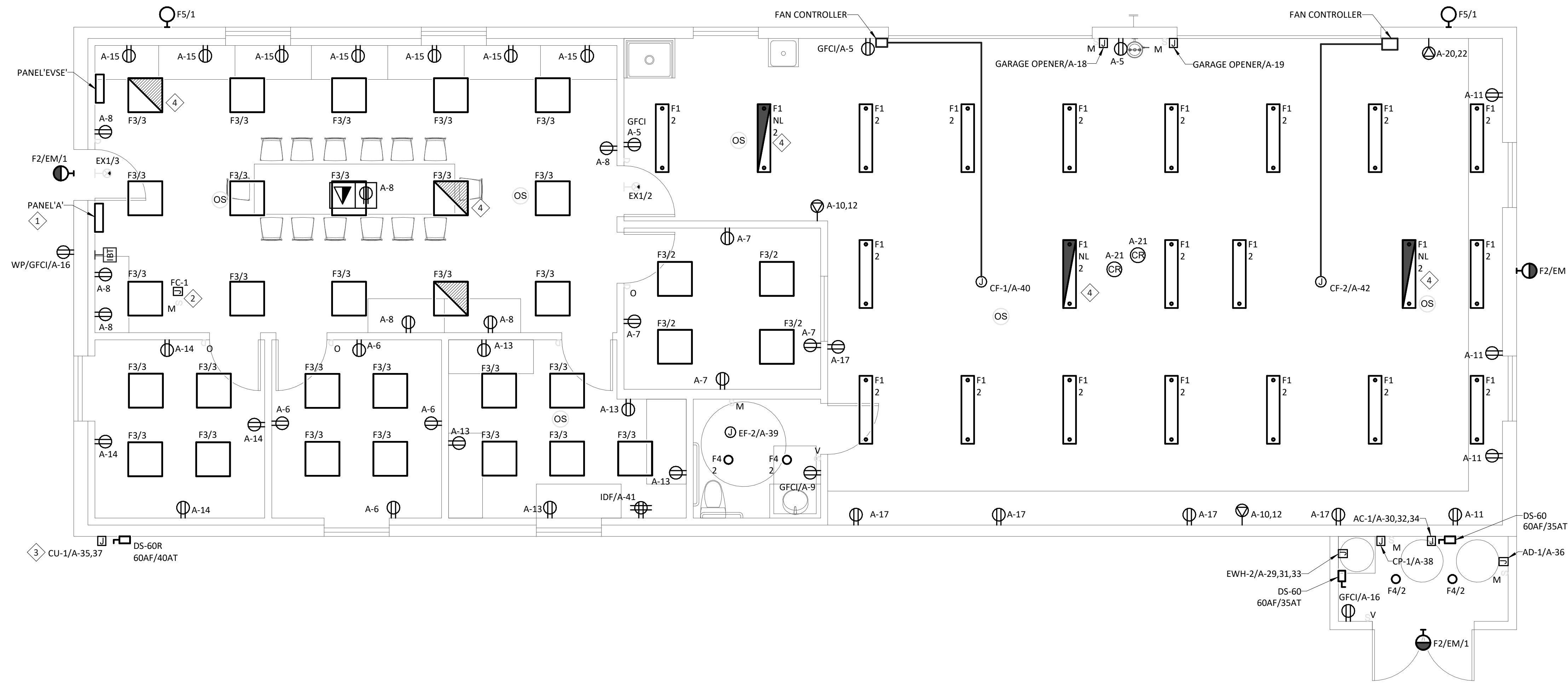
SHEET TITLE  
**ELECTRICAL SITE PLAN**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**E101**

**1 ELECTRICAL - SITE PLAN**  
 3/64" = 1'-0"

#	KEYNOTES - E201
NUMBER	TEXT
1	FOR PANELBOARD MOUNTING DETAIL SEE DETAIL 2/E401.
2	INDOOR UNIT IS POWERED BY OUTDOOR UNIT. COORDINATE WITH M.C. PROVIDE CONDUIT AND CONDUCTOR INTERCONNECTION BETWEEN OUTDOOR AND INDOOR UNIT PER MANUFACTURER INSTRUCTIONS.
3	ASSOCIATED INDOOR UNIT IS POWERED FROM THE OUTDOOR UNIT. COORDINATE WITH M.C. PROVIDE CONDUIT AND CONDUCTOR INTERCONNECTION BETWEEN OUTDOOR AND INDOOR UNIT PER MANUFACTURER INSTRUCTIONS.
4	PROVIDE UNSWITCH CIRCUIT FOR EMERGENCY FIXTURE WITH BATTERY BACKUP. ALL EMERGENCY LIGHTING SHALL BE POWERED WITH A DEDICATED NEUTRAL.



**1 ELECTRICAL - MAINTENANCE BUILDING FLOOR PLAN**  
 1/4" = 1'-0"

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PROJECT:  
**SARB MAINTENANCE FACILITY**  
 PROJECT No. PK-ARPA009  
 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



SHEET TITLE  
**ELECTRICAL - MAINT. BLDG. FLOOR PLAN**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**E201**

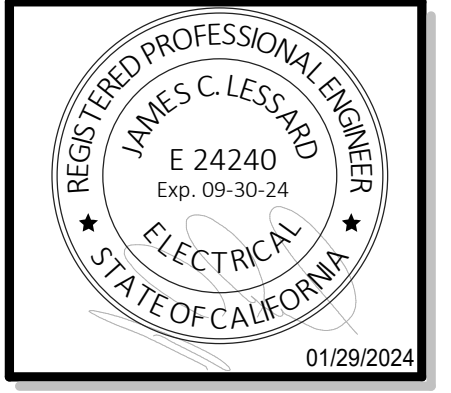
KEYNOTES - E202	
#	TEXT
1	DISCONNECT EXISTING LIGHTING FIXTURES IN THIS AREA AS INDICATED. PROTECT EXISTING LIGHTING BRANCH CIRCUITS FOR RE-USE. PROTECT REMOVED AND RECOATED LIGHTING FIXTURES DURING DEMOLITION.
2	NEW LOCATION OF RELOCATED LIGHTING FIXTURE. RE-CONNECT TO EXISTING CIRCUIT RETAINED FOR REUSE.
3	DISCONNECT AND REMOVE EXISTING DOOR OPENER. REMOVE BRANCH CIRCUIT BACK TO SOURCE PANEL.
4	EXISTING EXHAUST FAN TO BE REMOVED. REMOVE EXISTING BRANCH CIRCUIT SERVING THIS EXHAUST FAN BACK TO SOURCE PANEL AND UPDATE THE BREAKER POSITION AS SPARE.
5	EXHAUST FAN SHALL BE POWERED BY LIGHTING CIRCUIT AND CONTROLLED BY LIGHT SWITCH.

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 4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

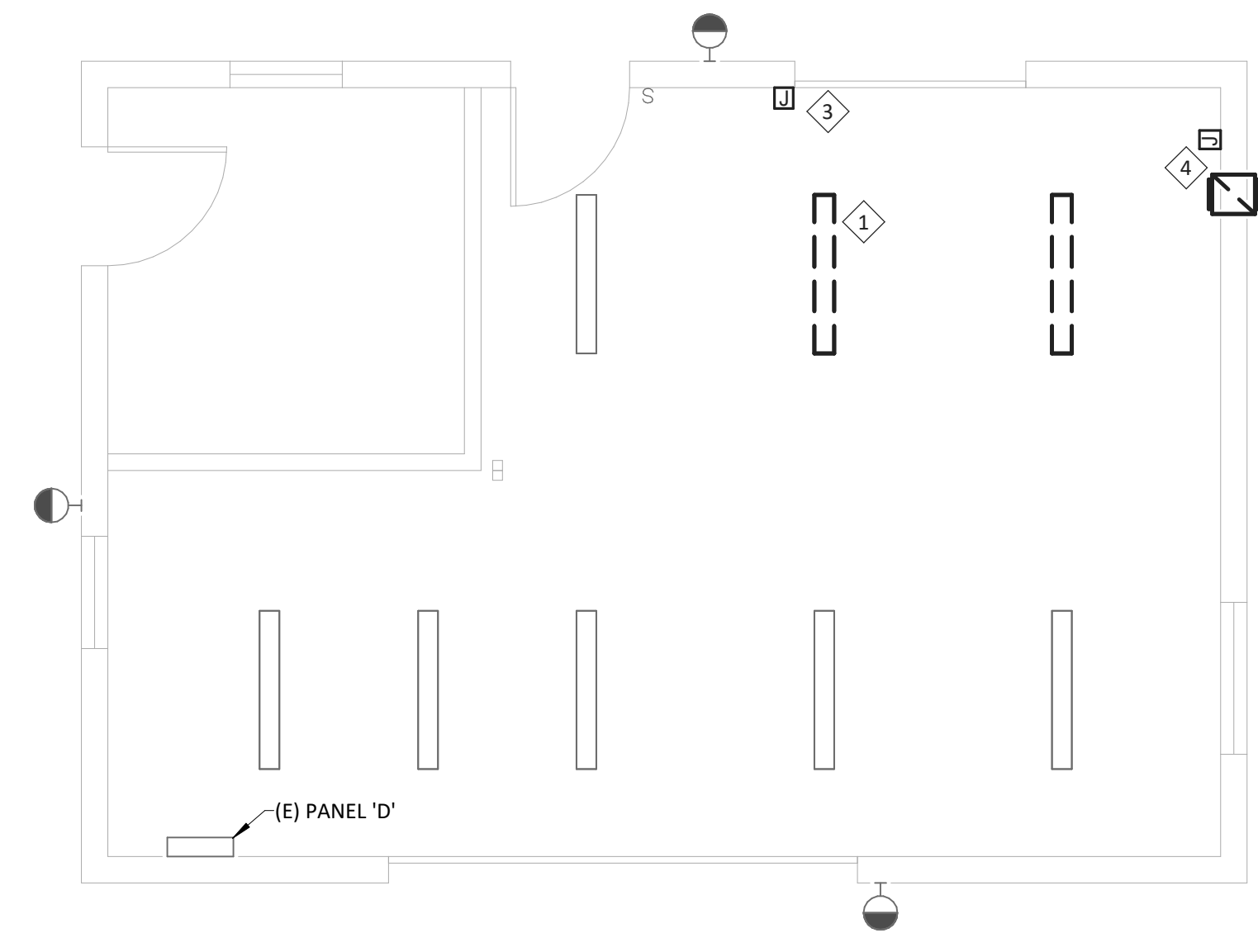
REVISIONS	DATE	BY



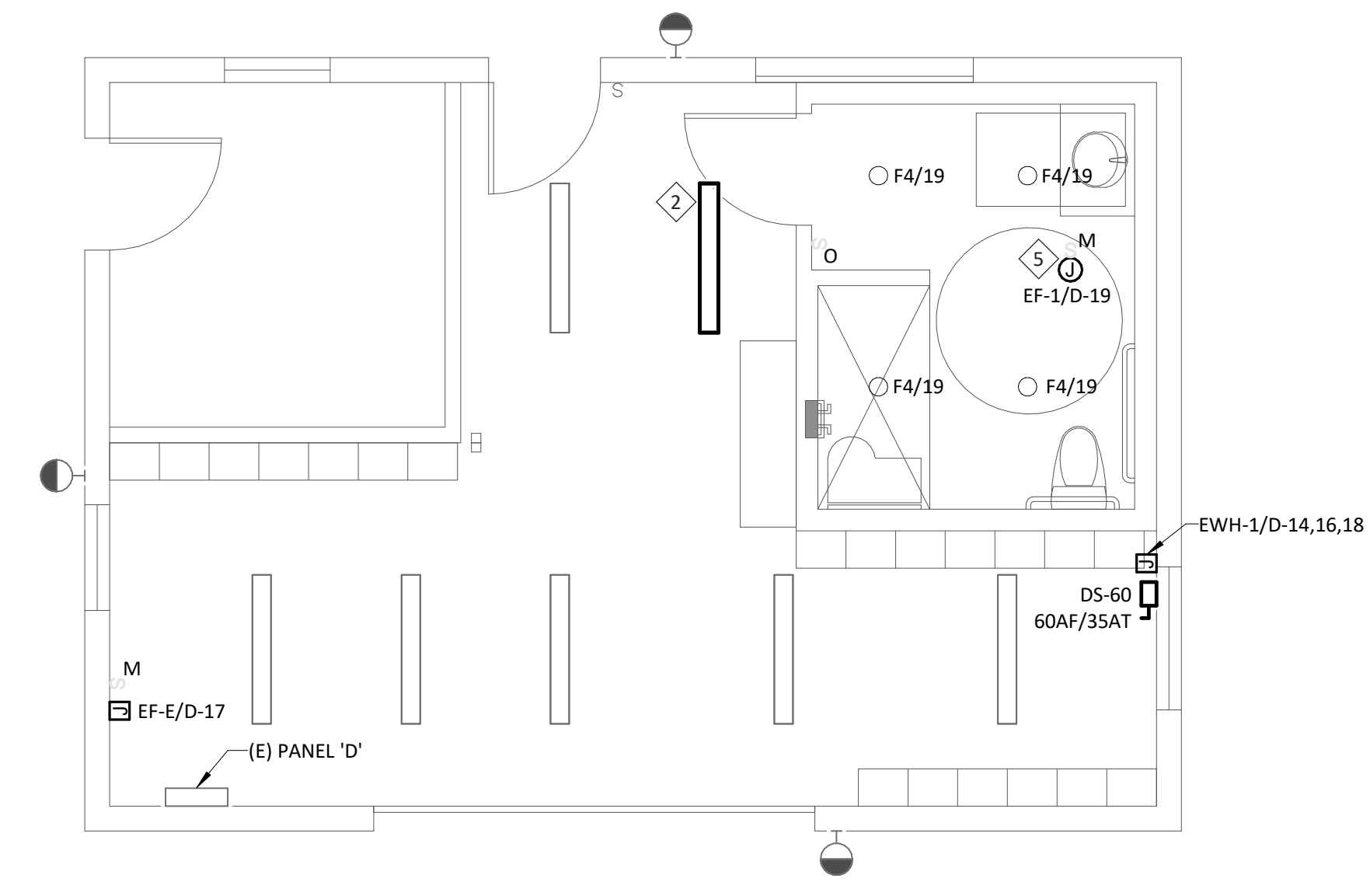
SHEET TITLE  
**ELECTRICAL - BUILDING D FLOOR PLAN**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

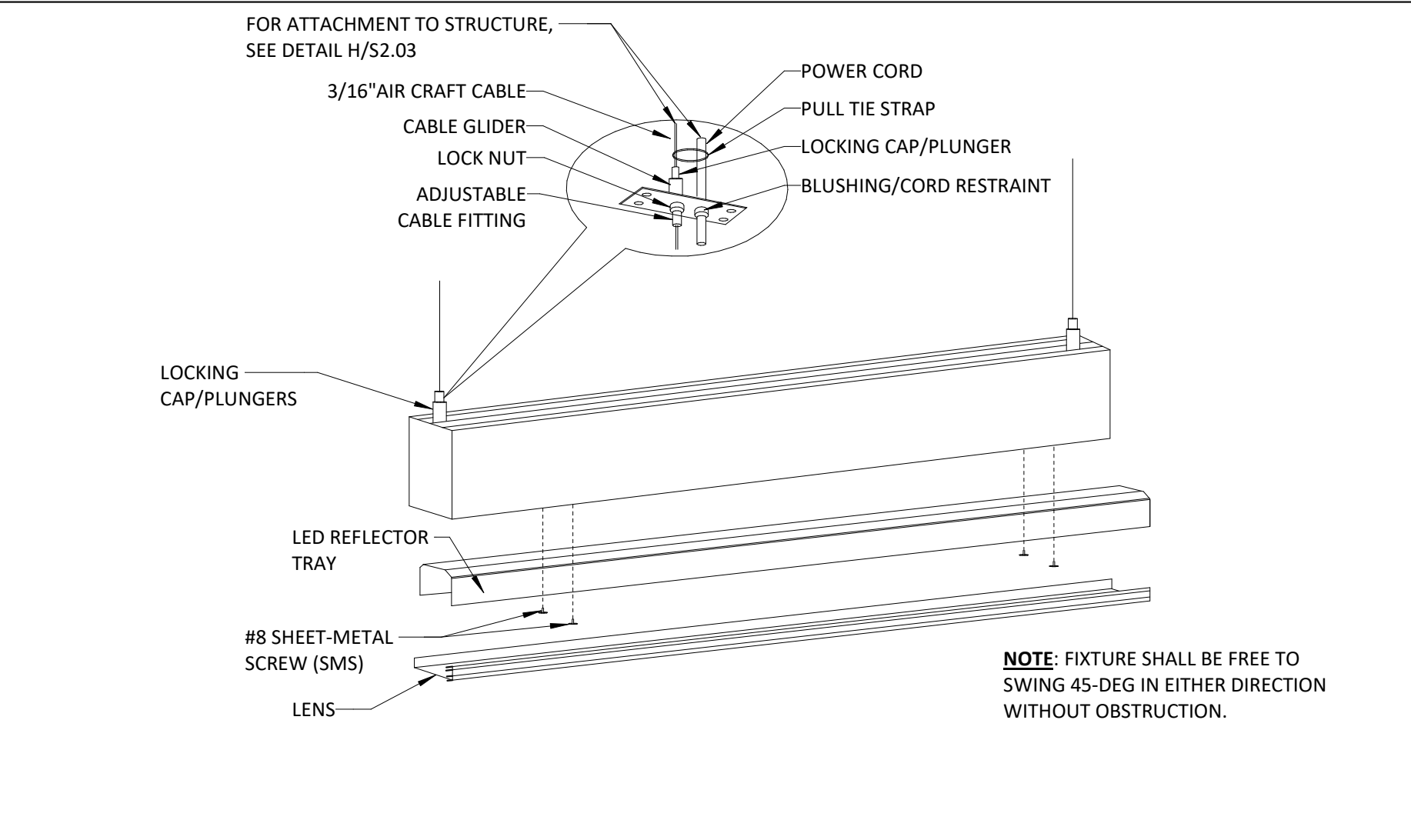
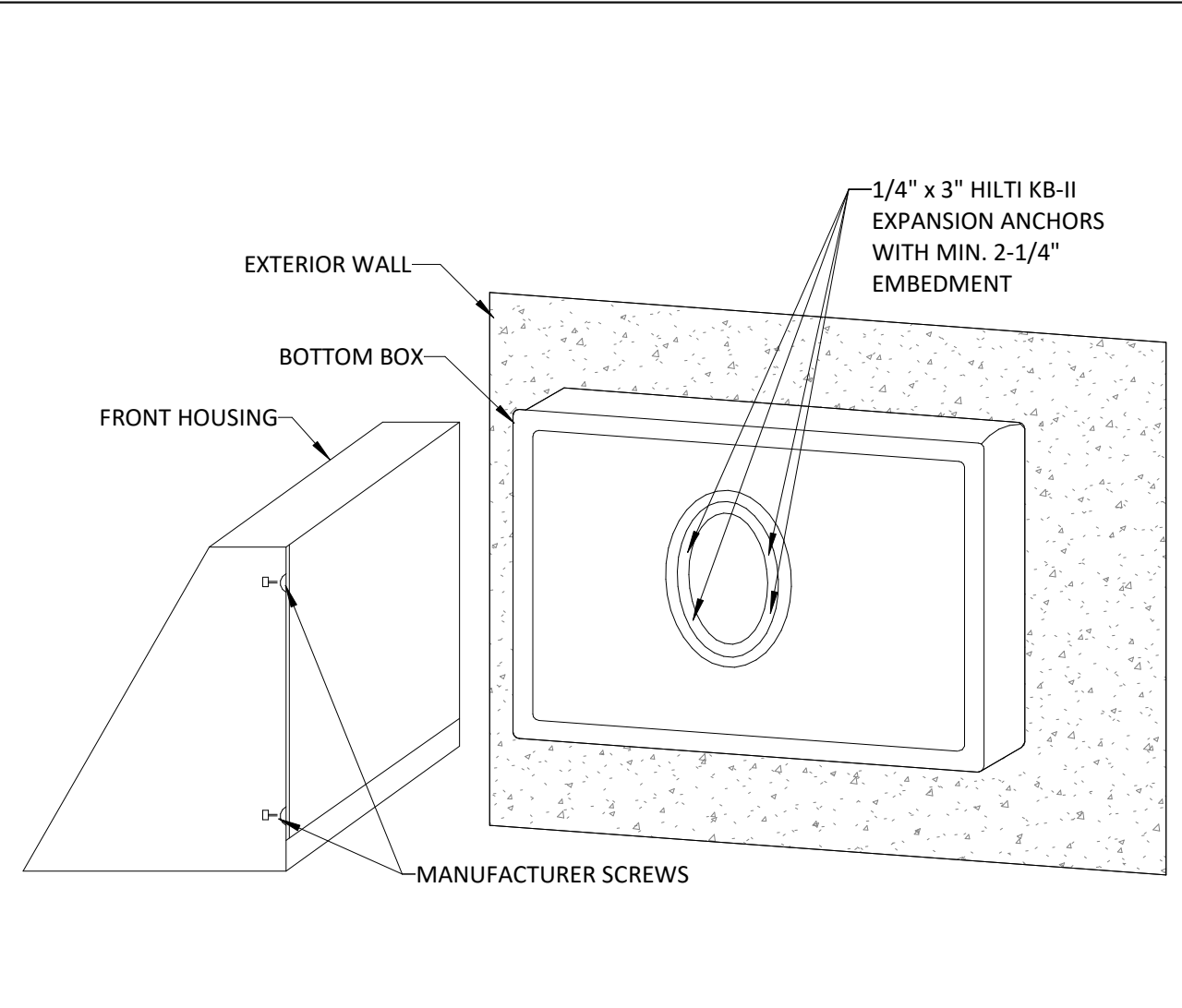
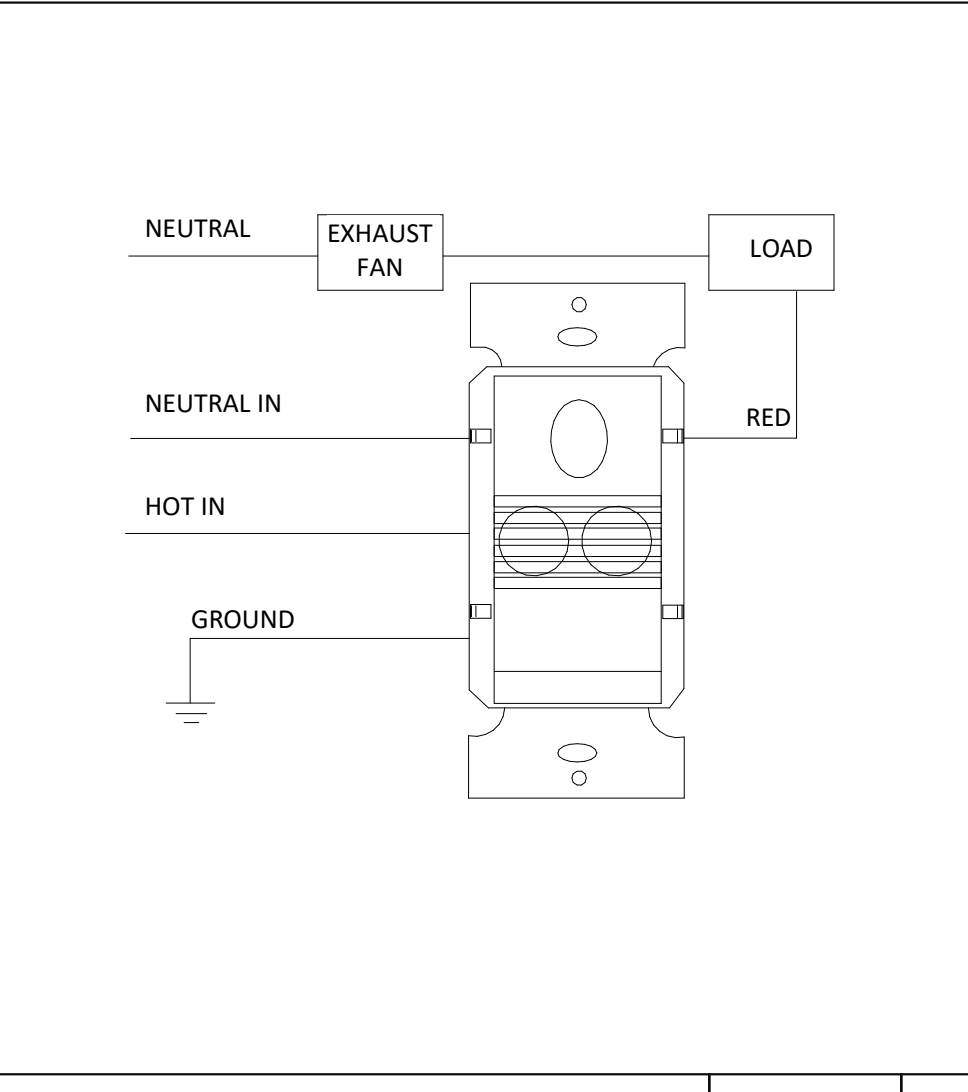
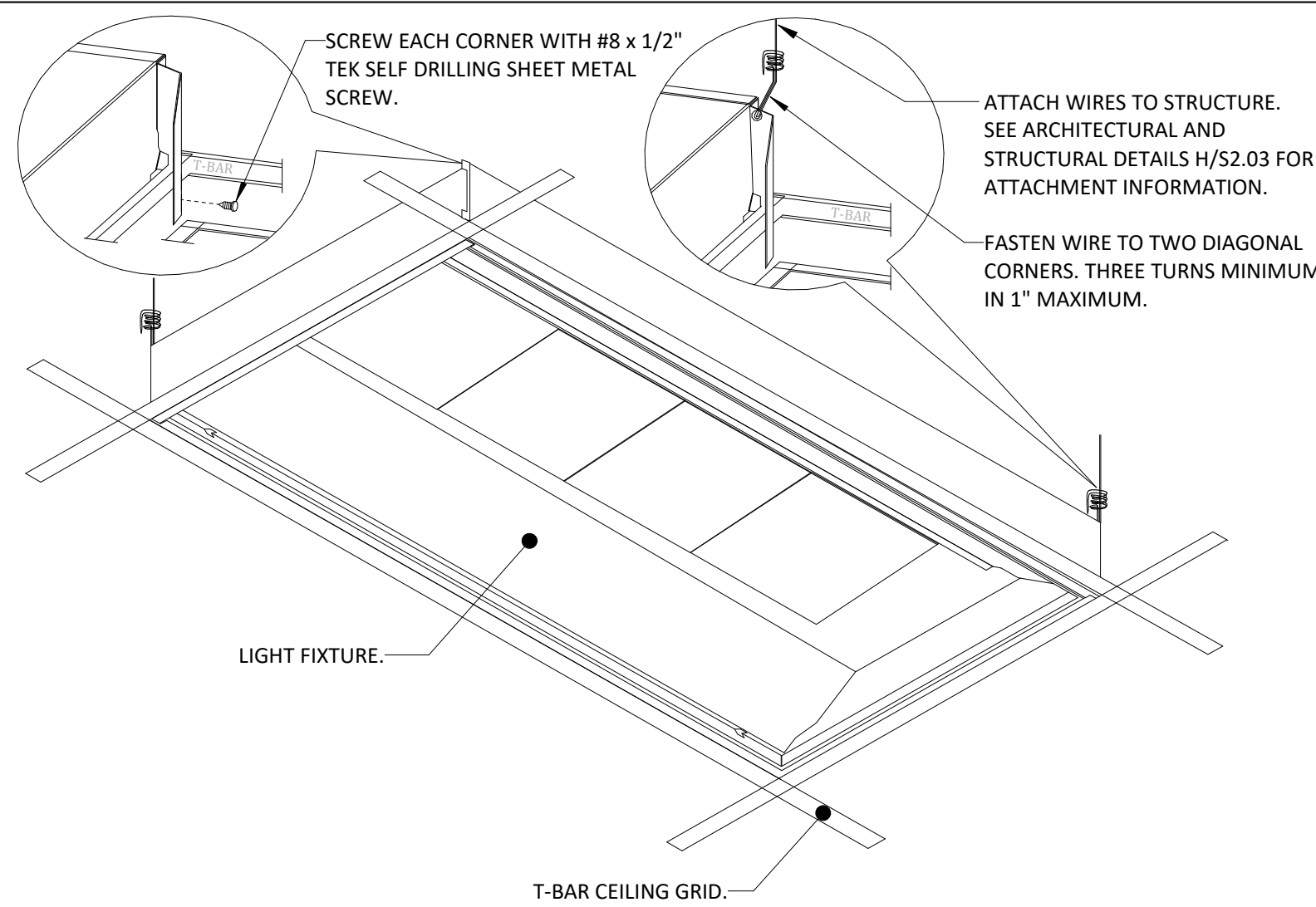
SHEET  
**E202**



**1** ELECTRICAL - BUILDING D FLOOR PLAN - DEMOLITION  
 1/4" = 1'-0"



**2** ELECTRICAL - BUILDING D FLOOR PLAN - REMODEL  
 1/4" = 1'-0"

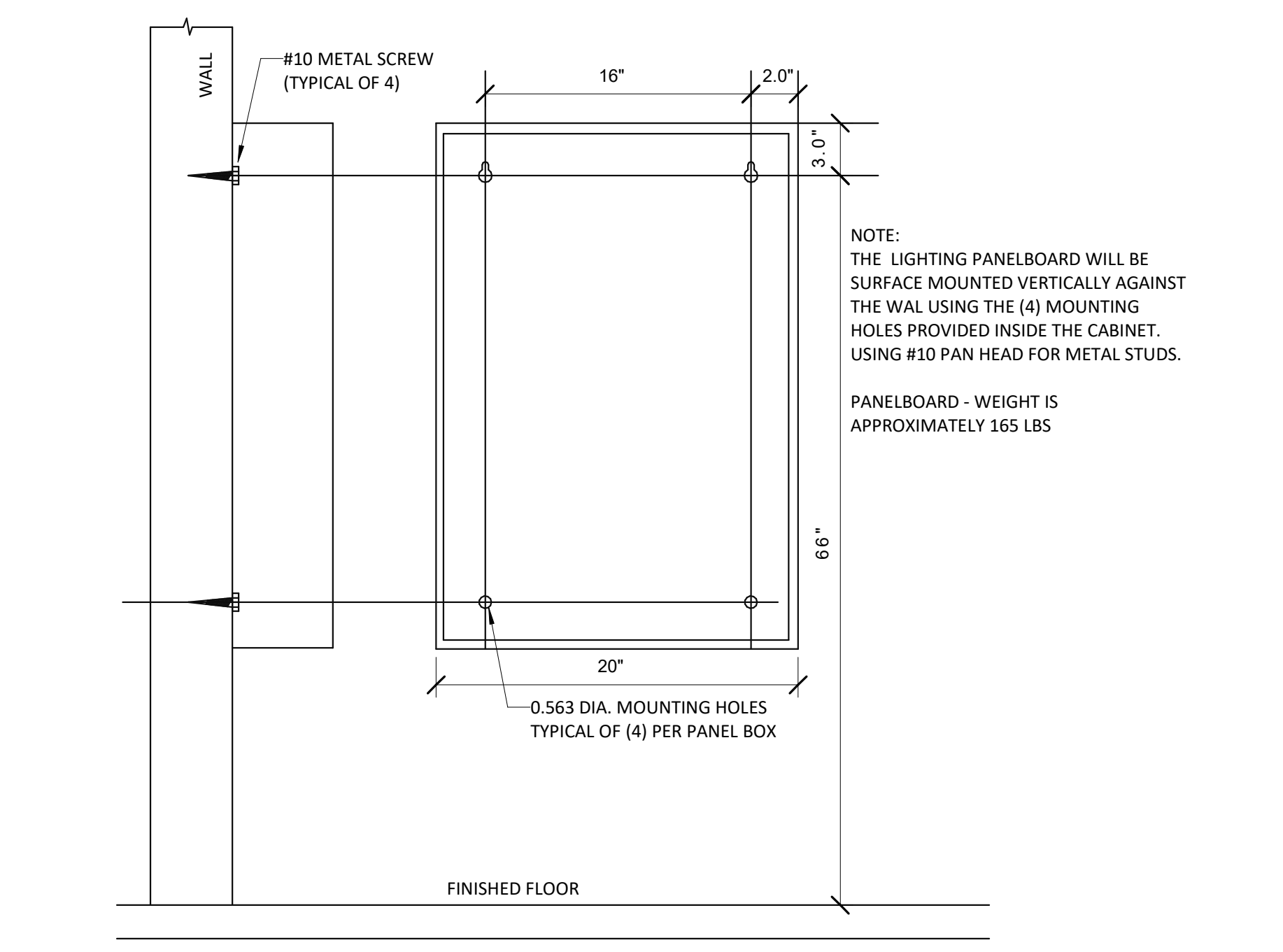
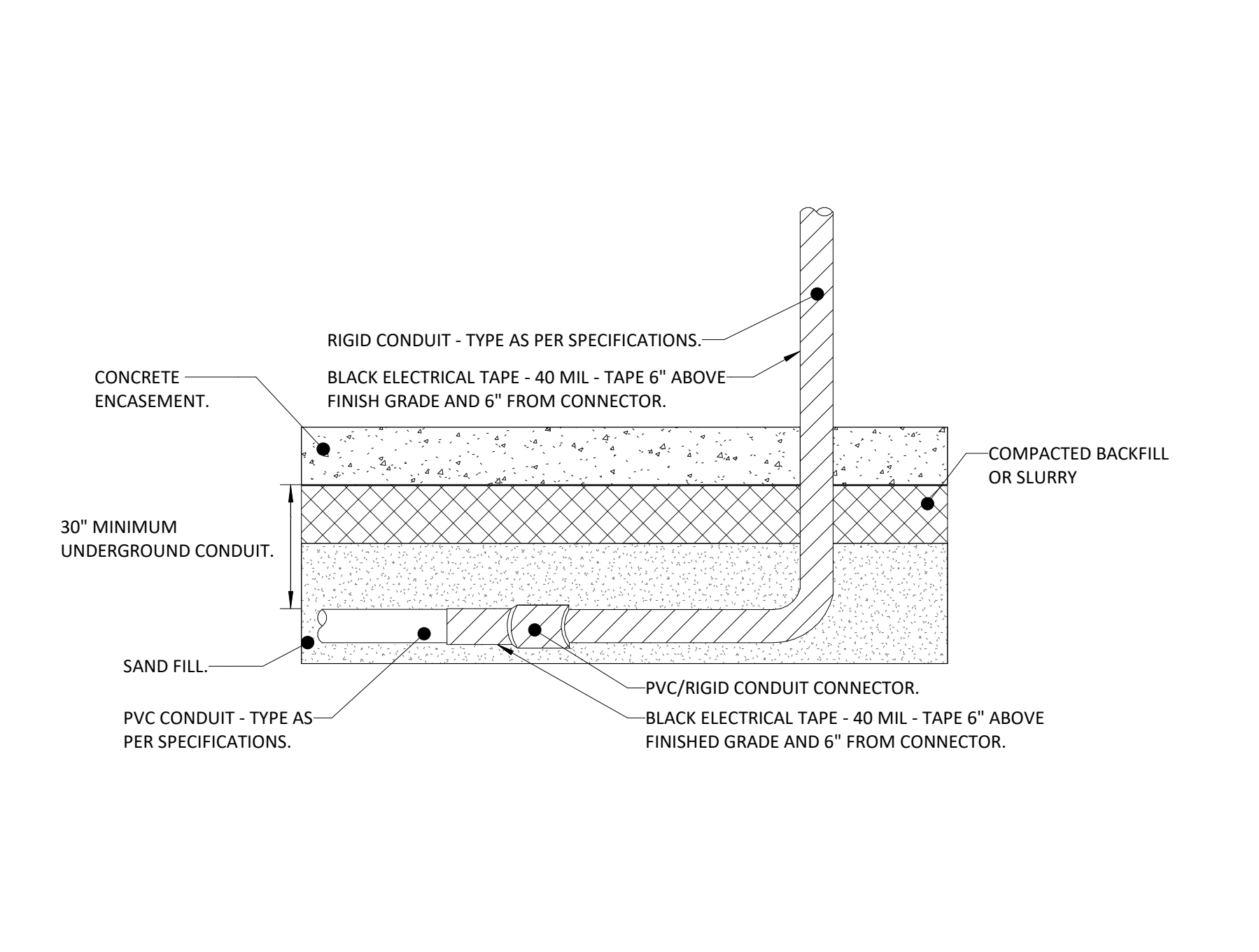
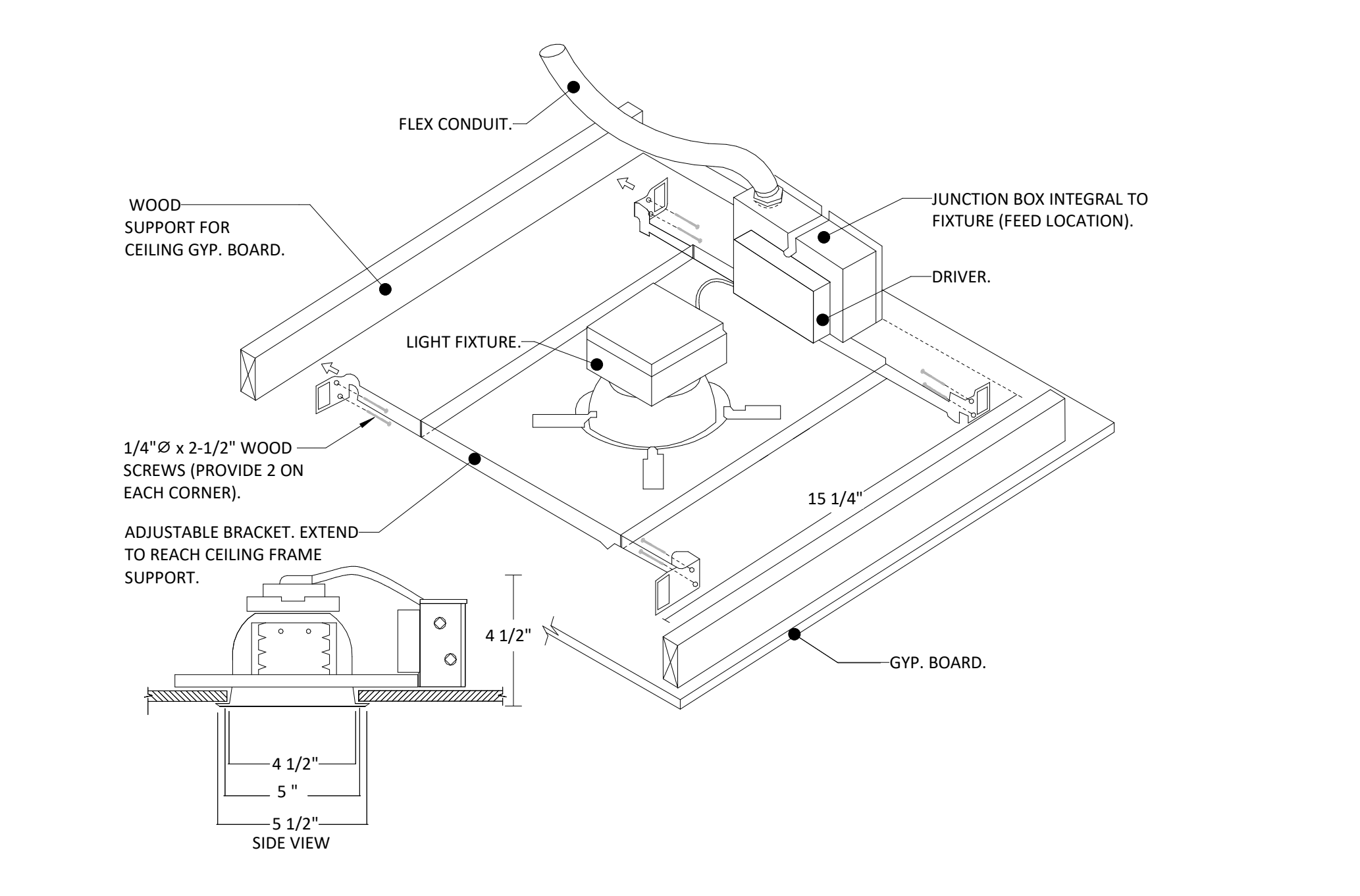


T-BAR MOUNTED TROFFER INSTALLATION T-BAR CEILING NTS 8

LIGHTING AND EXHAUST FAN CONTROL FOR REST ROOM NTS 7

EXTERIOR WALL PACK NTS 4

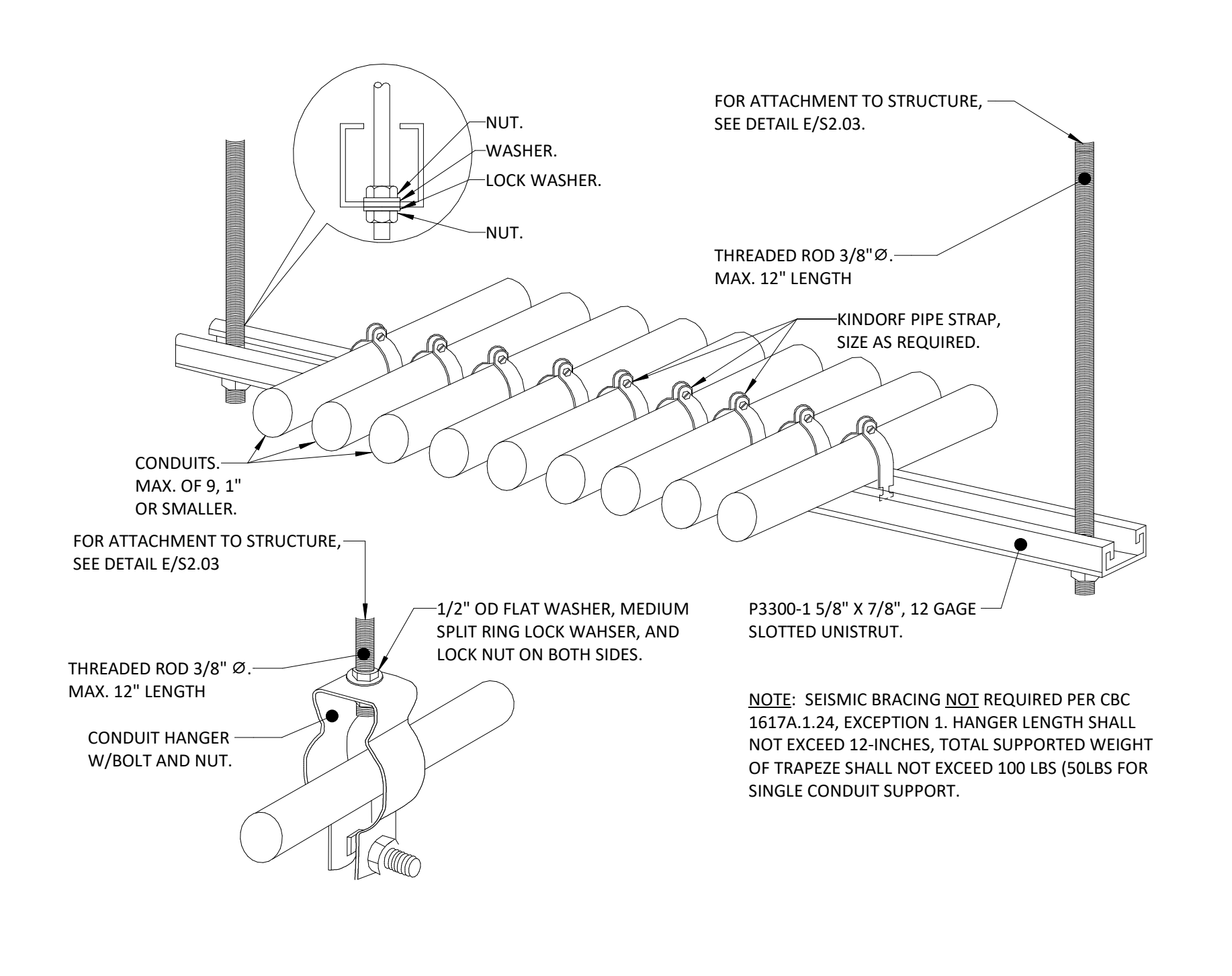
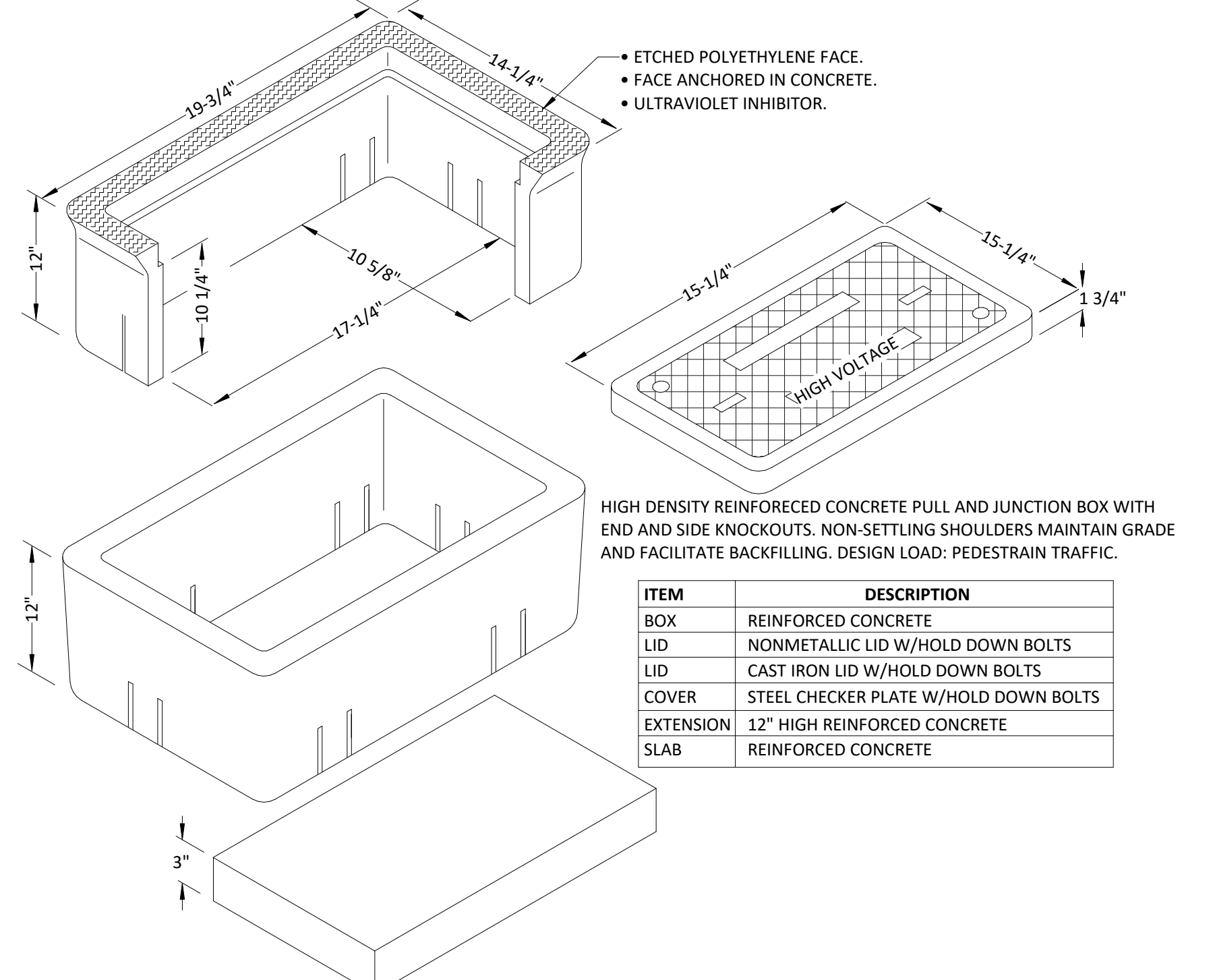
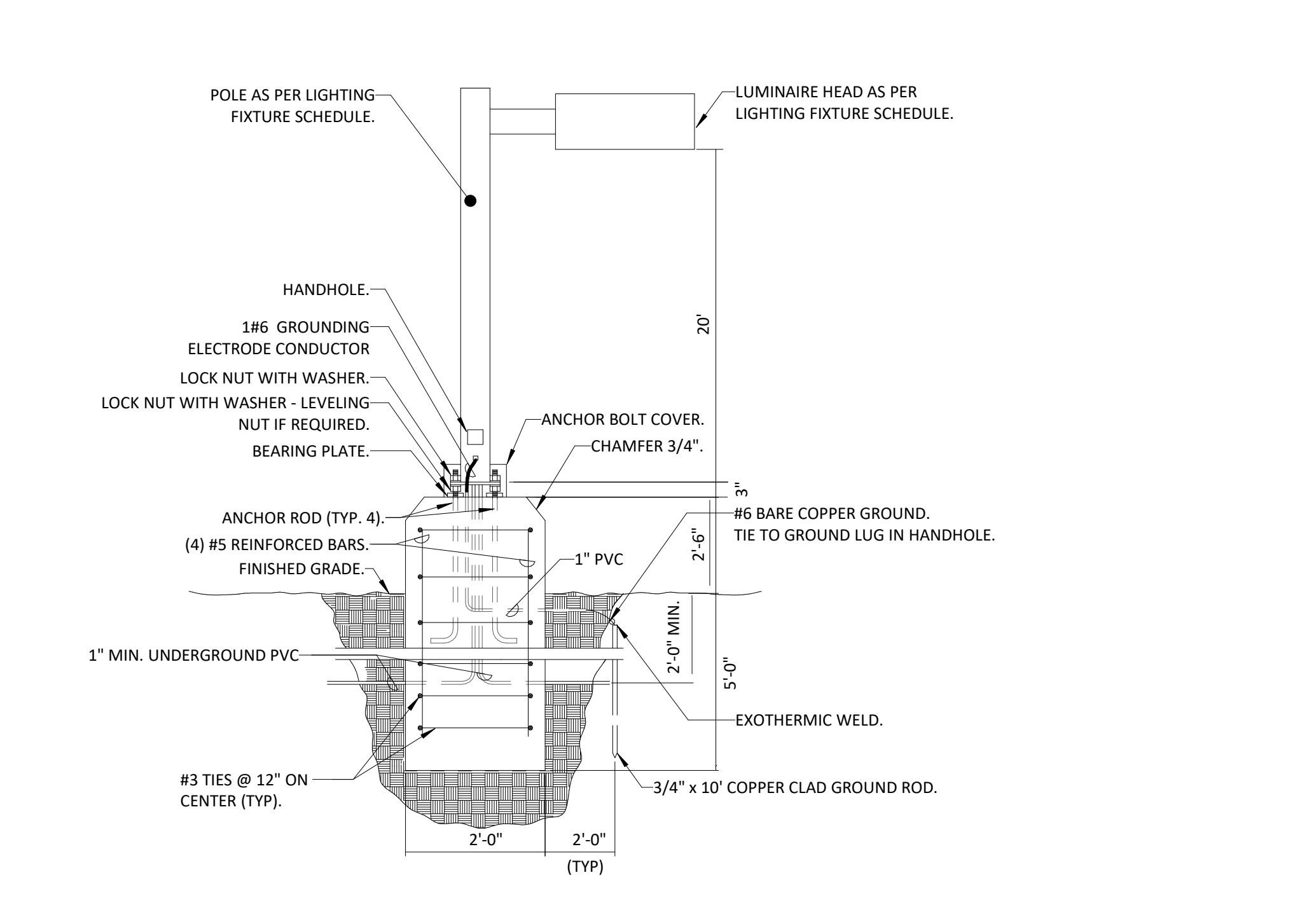
SUSPENDED LIGHTING FIXTURE NTS 1



RECESSED MOUNTED DOWNLIGHT INSTALLATION WOOD FRAMING NTS 9

UNDERGROUND CONDUIT INSTALLED INSIDE BUILDING NTS 5

PANELBOARD MOUNTING DETAIL (LTG./POWER) NTS 2

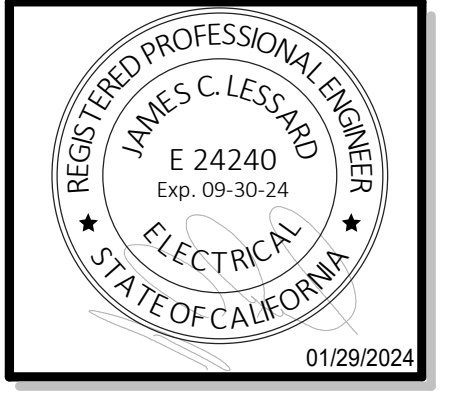


POLE MOUNTED SITE LIGHT DETAIL NTS 10

HANDHOLE DETAIL NTS 6

SINGLE CONDUIT / MULTIPLE CONDUITS SUPPORT DETAIL NTS 3

REVISIONS	DATE	BY



SHEET TITLE  
**ELECTRICAL DETAILS**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**E401**

## PLUMBING SYMBOLS:

LINETYPE/SYMBOL	DESCRIPTION
	PIPE DOWN
	PIPE UP
	BRANCH-TOP CONNECTION
	BRANCH-BOTTOM CONNECTION
	PIPE CAP
	PIPE REDUCER
	DIRECTION OF WATER/GAS FLOW
	CLEANOUT PLUG
	FLOOR CLEANOUT
	WALL CLEANOUT
	YARD CLEANOUT OR CLEANOUT TO GRADE
	ISOLATION VALVE, NORMALLY OPEN
	ISOLATION VALVE IN VERTICAL PIPE, NO
	PRESSURE-REDUCING VALVE
	CHECK VALVE
	TEMPERATURE-PRESSURE - RELIEF VALVE
	VALVE IN YARD BOX
	HOSE BIBB OR WALL HYDRANT
	RECESSED-BOX HOSE BIBB
	UNION
	STRAINER
	METER
	PRESSURE GAUGE WITH GAUGE COCK
	THERMOMETER
	AUTOMATIC AIR VENT
	FLOOR DRAIN
	FLOOR SINK
	PITCH DOWN - IN DIRECTION OF ARROW
	ACCESS PANEL OR ROOF HATCH

- NOTES:
- NOT ALL SYMBOLS MAY APPLY.
  - SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.

## CONTRACTOR ABBREVIATIONS:

ABBREVIATION	DESCRIPTION
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR

## PLUMBING ABBREVIATIONS:

ABBREVIATION	DESCRIPTION
CW	POTABLE COLD WATER
HW	POTABLE HOT WATER SUPPLY (120°F), UNLESS NOTED OTHERWISE
V	VENT
AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CU FT	CUBIC FEET
DIA, Ø	DIAMETER
DN	DOWN
DTR	DOWN THRU ROOF
EL	ELEVATION
FPS	FEET PER SECOND
FT, '	FOOT OR FEET
FT LB	FOOT-POUND
GA	GAGE OR GAUGE
GAL	GALLONS
HD	HEAD (PRESSURE)
HT	HEIGHT
ID	DIAMETER, INSIDE
IE	INVERT ELEVATION BELOW FINISHED FLOOR
IN., "	INCH OR INCHES
LF	LINEAR FOOT OR FEET
MAX	MAXIMUM
MIN	MINIMUM
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO., #	NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OD	DIAMETER, OUTSIDE
PDI	PLUMBING & DRAINAGE INSTITUTE
PML	PLUMBING MATERIAL LIST
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SCFM	CFM, STANDARD CONDITIONS
SPEC	SPECIFICATION
T	TON
UTR	UP THRU ROOF

- NOTES:
- NOT ALL ABBREVIATIONS MAY APPLY.
  - PLUMBING MATERIAL LIST/PLUMBING SCHEDULES CONTAIN EQUIPMENT TAG ABBREVIATIONS THAT ARE HEREBY INCORPORATED INTO THE ABBREVIATION LIST.
  - SEE OTHER DISCIPLINE DRAWINGS WITHIN THE CONSTRUCTION DOCUMENTS FOR ABBREVIATIONS NOT DEFINED ABOVE OR IN PLUMBING MATERIAL LIST/PLUMBING SCHEDULES.

## PLUMBING SYSTEMS:

LINETYPE/SYMBOL	DESCRIPTION
	CONDENSATE DRAIN
	INDIRECT DRAIN
	POTABLE COLD WATER
	POTABLE HOT WATER SUPPLY (120°F)A
	POTABLE TEMPERED HOT WATER (TEMP. °F)B
	POTABLE TEMPERED HOT WATER RECIRCULATING (TEMP. °F)B
	SOIL, WASTE, OR SANITARY SEWER
	STORM DRAIN
	SECONDARY STORM DRAIN
	VENT

- NOTES:
- NOT ALL SYMBOLS MAY APPLY.
  - SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.

## RENOVATION NOTES:

- DEMOLITION WORK SHALL BE PERFORMED AS DESCRIBED WITHIN SPEC SECTION 22 0505 AND THE DRAWINGS.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMISSION TO VERIFY ALL FIELD CONDITIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - LOCATIONS OF EXISTING PLUMBING SYSTEMS.
  - LOCATIONS OF ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, TECHNOLOGY, FIRE PROTECTION, AND FIRE ALARM SYSTEMS.
  - EXISTING SURFACES WHICH REQUIRE ALTERING.
  - INVERTS OF EXISTING DRAINAGE PIPING VIA CLEANOUT DEPTHS.
- NOTIFY OWNER OF REQUIRED SYSTEM SHUTDOWNS AT LEAST TWO WEEKS PRIOR TO SHUTDOWN. EXACT SHUTDOWN TIME AND PROCEDURE SHALL BE COORDINATED WITH OWNER AT LEAST 96 HOURS PRIOR TO SHUTDOWN.
- WHEN PIPING, EQUIPMENT, OR FIXTURES ARE NOTATED TO BE PERMANENTLY REMOVED THEIR ASSOCIATED COMPONENTS SHALL ALSO BE REMOVED INCLUDING HANGERS, SUPPORTS, AND ACCESSORIES.
- COORDINATE THE DISCONNECTION AND REMOVAL OF POWERED SYSTEMS WITH THE E.C. WHEN REMOVING POWERED PLUMBING EQUIPMENT.
- REPAIR EXISTING FLOORS, WALLS, AND CEILINGS IN ALTERED AREAS TO MATCH EXISTING. SEE ARCHITECTURAL PLANS FOR FINISH DETAILS IN REMODEL AREAS.
- THE CONTRACTOR SHALL NEATLY SAW CUT SECTIONS OF THE CONCRETE TO ACCESS THE WORK BELOW GRADE. REMOVE PORTIONS OF DEMOLISHED CONCRETE FROM THE SITE. REPAIR THE EXISTING SLAB PER PLUMBING/STRUCTURAL DETAILS WITHIN THE DRAWING SET.

## GENERAL NOTES:

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND MANUFACTURER'S INSTALLATION REQUIREMENTS.
- REVIEW ALL PROJECT DOCUMENTS INCLUDING SPECS AND DRAWINGS PERTAINING TO ALL DISCIPLINES PRIOR TO SUBMITTING A BID. SUBMIT PRE-BID REQUEST FOR INFORMATION FOR ITEMS IN QUESTION AND/OR CONFLICTS FOUND.
- DRAWINGS SHOW THE DESIGN INTENT DIAGRAMMATICALLY. THEY DO NOT SHOW THE EXACT UTILITY ROUTING NOR EVERY ELBOW, OFFSET, ETC. WHERE REQUIRED, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THEIR SYSTEMS TO AVOID CONFLICT WITH THE STRUCTURE AND OTHER DISCIPLINES. THE COST FOR SUCH ADJUSTMENTS SHALL BE INCLUDED IN THE BID.
- OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR WORK PERFORMED.
- OBTAIN UTILITY PURVEYOR REQUIREMENTS PRIOR TO PURCHASING EQUIPMENT OR PERFORMING WORK.
- THE G.C. OR C.M. TEAM SHALL LEAD THE SUBCONTRACTORS IN PROVIDING A COORDINATED SET OF SHOP DRAWINGS. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- COORDINATE FRAMING REQUIREMENTS FOR ACCESS PANELS AND EQUIPMENT/PANEL SUPPORTS WITH G.C. OR C.M. PRIOR TO SUBMITTING BID.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CORRECTION OF CONSTRUCTION DEFICIENCIES LISTED ON THE JOB SITE OBSERVATION REPORT. RETURN THE JOB SITE OBSERVATION REPORT TO A/E WITH DEFICIENCIES SIGNED OFF. PROVIDE PHOTOGRAPHIC AND/OR VIDEO EVIDENCE OF CORRECTED DEFICIENCIES IF REQUESTED BY THE ENGINEER.
- PROVIDE CLOSEOUT DOCUMENTATION UPON COMPLETION OF PROJECT. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65% OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE. UTILIZE A WASTE MANAGEMENT COMPANY THAT CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH CODE. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.

## PLUMBING NOTES:

- PLUMBING WORK SHALL BE CONSTRUCTED IN A PROFESSIONAL MANNER. ENSURE FIXTURES, EQUIPMENT, AND ASSOCIATED COMPONENTS ARE INSTALLED LEVEL AND PLUMB. SEALANT BETWEEN FIXTURES AND SURFACES SHALL BE EVEN AND NEAT. COMPONENTS SHALL BE CLEANED PRIOR TO OWNER TURNOVER.
- THE PLUMBING MATERIAL LIST SHALL BE USED AS THE BASIS OF DESIGN. MODEL NUMBERS ARE PROVIDED FOR REFERENCE ONLY. MATERIALS SHALL MEET DESCRIPTION OF SPECIFIED ITEMS. THE CONTRACTOR SHALL IDENTIFY ALL SELECTED OPTIONS IN THE SUBMITTAL.
- IF A CONTRACTOR PROVIDES EQUIPMENT OTHER THAN THE BASIS OF DESIGN, THAT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED AS A RESULT. THAT INCLUDES, BUT IS NOT LIMITED TO, AGENCY FEES FOR REVIEW OF CHANGES, STRUCTURAL MODIFICATIONS FOR INCREASED WEIGHT, AND ELECTRICAL EQUIPMENT, WIRING CONDUIT, AND BREAKER CHANGES FOR DIFFERENT ELECTRICAL REQUIREMENTS.
- COORDINATE POWER REQUIREMENTS WITH THE E.C. PRIOR TO PROVIDING SUBMITTALS TO THE ENGINEER.
- PROVIDE CONCRETE EQUIPMENT PADS FOR FLOOR-MOUNTED EQUIPMENT, UNLESS OTHERWISE NOTED. SEE PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
- PLUMBING FIXTURE HEIGHTS SHALL BE OBTAINED FROM ARCHITECTURAL ELEVATION DRAWINGS. PROVIDE ROUGH-INS ACCORDINGLY.
- SEE SPEC SECTION 22 1005, FOR PIPE SYSTEM INSTALLATION, TESTING, CLEANING, AND DISINFECTION REQUIREMENTS.
- PIPE, PIPE FITTINGS, FIXTURES, AND EQUIPMENT INTENDED TO DISPENSE WATER FOR HUMAN CONSUMPTION SHALL MEET CA AB1953, NSF 61 LEAD FREE REQUIREMENTS, A MAX OF .25 WEIGHTED AVERAGE OF LEAD CONTENT.
- PAINT INTERIOR EXPOSED PIPING, VALVES, AND ASSOCIATED HANGERS/SUPPORTS LOCATED IN OCCUPIED SPACES TO MATCH THE SURROUNDING ARCHITECTURAL COLOR SCHEME. PAINT EXTERIOR PIPING, VALVES, AND ASSOCIATED HANGERS/SUPPORTS ADJACENT TO EXTERIOR WALL TO MATCH WALL COLOR. PAINT ROOFTOP GAS PIPING AND VALVES TO MATCH ROOF COLOR. FINAL COLORS SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER. SEE SPEC SECTION 22 0500 FOR ADDITIONAL REQUIREMENTS.
- PROVIDE IDENTIFICATION FOR PIPING, VALVES, AND EQUIPMENT PER SPEC SECTION 22 0553.
- PIPING SHALL NOT PASS THRU NOR UNDER ELECTRICAL ROOMS, DATA ROOMS, ELEVATOR MACHINE ROOMS, ELEVATOR HOISTWAYS, SKYLIGHTS, AND ROOF ACCESS HATCHES.
- INSULATION SHALL BE PROVIDED CONTINUOUS THROUGHOUT THE PIPING SYSTEM INCLUDING AT HANGERS/SUPPORTS, PIPE FITTINGS, VALVES, AND ACCESSORIES. OPENINGS SHALL BE PROVIDED TO ALLOW FOR VALVE HANDLE OPERATION AND ACCESS. INSULATION THICKNESS SHALL MEET THE LISTED ENERGY CODE MINIMUM REQUIREMENTS. SEE SPEC SECTION 22 0719 FOR SYSTEMS REQUIRING INSULATION AND ADDITIONAL INSTALLATION REQUIREMENTS.
- VALVES SHALL BE ACCESSIBLE. PROVIDE KEYED ACCESS PANELS WHERE VALVES HAVE BEEN LOCATED IN CONCEALED AREAS. ACCESS PANEL SIZE SHALL BE LARGE ENOUGH TO ACCESS EACH VALVE AND FOR FULL VALVE OPERATION.
- CLEANOUTS SHALL BE PROVIDED PER PLUMBING CODE REQUIREMENTS. IN ADDITION, PROVIDE CLEANOUTS AT LAVATORIES, SINKS, AND URINALS. CLEANOUTS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS.
- WATER HAMMER ARRESTORS SHALL BE PROVIDED AT QUICK-CLOSING VALVES INCLUDING FLUSH VALVES, EQUIPMENT, AND AUTOMATIC FAUCETS. PROVIDE ACCESS PANELS WHERE ARRESTORS HAVE BEEN INSTALLED IN CONCEALED SPACES. SEE DETAILS AND PLUMBING MATERIAL LIST FOR ADDITIONAL REQUIREMENTS.
- TRAP PRIMERS AND SUPPLY LINES SHALL BE PROVIDED AT EQUIPMENT AND FIXTURE DRAINS NOT RECEIVING REGULAR DISCHARGE. PROVIDE ACCESS PANELS WHERE PRIMERS HAVE BEEN INSTALLED IN CONCEALED SPACES. SEE DETAILS AND PLUMBING MATERIAL LIST FOR ADDITIONAL REQUIREMENTS.

## PLUMBING SHEET INDEX:

Sheet Number	Sheet Name
P000	PLUMBING COVER SHEET
P001	PLUMBING SCHEDULES
P002	PLUMBING MATERIAL LIST
P101	PLUMBING SITE PLAN
P201	PLUMBING - MAINT. BLDG. FLOOR PLAN
P202	PLUMBING - BUILDING D FLOOR PLAN
P401	PLUMBING DETAILS
P402	PLUMBING DETAILS

## CODES AND STANDARDS:

EDITION	REFERENCE CODE/STANDARD
2022	CALIFORNIA ADMINISTRATIVE CODE, (CCR, TITLE 24, PART 1)
2022	CALIFORNIA BUILDING CODE, (CCR, TITLE 24, PART 2)
2022	CALIFORNIA ELECTRICAL CODE, (CCR, TITLE 24, PART 3)
2022	CALIFORNIA MECHANICAL CODE, (CCR, TITLE 24, PART 4)
2022	CALIFORNIA PLUMBING CODE, (CCR, TITLE 24, PART 5)
2022	CALIFORNIA ENERGY CODE, (CCR, TITLE 24, PART 6)
2022	CALIFORNIA HISTORICAL BUILDING CODE, (CCR, TITLE 24, PART 8)
2022	CALIFORNIA FIRE CODE, (CCR, TITLE 24, PART 9)
2022	CALIFORNIA EXISTING BUILDING CODE, (CCR, TITLE 24, PART 10)
2022	CALIFORNIA GREEN BUILDING STANDARDS, (CCR, TITLE 24, PART 11)
2022	CALIFORNIA REFERENCED STANDARDS CODE, (CCR, TITLE 24, PART 12)
2022	STANDARD FOR INSTALLATION OF FIRE SPRINKLER SYSTEMS OF CALIFORNIA, (ADOPTS NFPA 13, 2022. WITH AMENDMENTS)
2018	NFPA 54-NATIONAL FUEL GAS CODE
2022	NFPA 72-NATIONAL FIRE ALARM AND SIGNALING CODE

CCR-CALIFORNIA CODE OF REGULATIONS  
NFPA-NATIONAL FIRE PROTECTION AGENCY

## GENERAL LEGEND:

SYMBOL	DESCRIPTION
	DETAIL CALL-OUT SYMBOL
	EQUIPMENT TAG
	KEYNOTE SYMBOL
	POINT OF CONNECTION OR DISCONNECTION
	SECTION CUT CALL-OUT SYMBOL
	ENLARGED PLAN CALL-OUT SYMBOL
LINETYPE	DESCRIPTION
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	NEW CONSTRUCTION
(E)	EXISTING TO REMAIN
(X)	EXISTING TO BE REMOVED



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PROJECT #230041.00

CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
SARB MAINTENANCE FACILITY  
PROJECT No. PK-ARPA009

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY



01/29/2024

SHEET TITLE  
**PLUMBING COVER SHEET**

DESIGNED	RSS
DRAWN	PSK
CHECKED	RSS
DATE	01/08/2023
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**P000**

AVAILABLE WATER PRESSURE CALCULATION	
TABLE BASED ON 2022 CPC, APPENDIX A, A104 - A104.4.	
AVAILABLE STATIC PRESSURE AT HYDRANT: 100 PSI	
METER LOSS: 3 PSI	
BACKFLOW PREVENTER LOSS: 5 PSI	
ELEVATION LOSS: 3 FT X .433 = 1.3 PSI	
FIXTURE LOSS: FLUSH VALVE - 25 PSI	
PRESSURE REGULATOR LOSS: 3 PSI SET AT 65 PSI	
OTHER LOSS: N/A	
'RP' REMAINING PRESSURE: AVAILABLE 65 PSI - TOTAL LOSSES 37.3 PSI = 27.7 PSI	
'TDL' TOTAL DEVELOPED LENGTH: MEASURED LENGTH 190' X 1.50 = 285 FT	
AVERAGE PERMISSIBLE PRESSURE LOSS PER 100': 'RP' 27.7 PSI / 'TDL' 285 FT X 100 = 9.71 PSI	
PIPES SHALL BE SIZED ON 3 PSI / 100-FT. REFER TO SIZE TABLE INCLUDED.	

COLD WATER PIPE SIZING:			
TABLE BASED ON 2022 CPC, APPENDIX A, A105.1(1) - COPPER TUBING.			
3 PSI PER 100-FOOT AVAILABLE PRESSURE. 6 FT/SEC MAX VELOCITY.			
PIPE SIZE	GPM	FLUSH TANK FIXTURE UNITS	FLUSH VALVE FIXTURE UNITS
1/2"	1	1	N/A
3/4"	4	4	N/A
1"	9	12	N/A
1 1/4"	17	24	N/A
1 1/2"	27	46	10
2"	56	155	63
2 1/2"	84	294	168
NOTE: TYPE 'K' SERVICE MAINS SHALL BE SIZED AT 90% CAPACITY FOR SIZES 1/2" THRU 1".			

HOT WATER PIPE SIZING:			
TABLE BASED ON 2022 CPC, APPENDIX A, A105.1(1) - COPPER TUBING.			
3 PSI PER 100-FOOT AVAILABLE PRESSURE. 4 FT/SEC MAX VELOCITY.			
PIPE SIZE	GPM	FLUSH TANK FIXTURE UNITS	FLUSH VALVE FIXTURE UNITS
1/2"	1	1	N/A
3/4"	4	4	N/A
1"	9	12	N/A
1 1/4"	17	24	N/A
1 1/2"	27	46	N/A
2"	37	74	N/A

SANITARY DRAINAGE FIXTURE UNITS				
TABLE BASED ON 2022 CPC, CHAPTER 7, TABLE 702.1.				
BUILDING D				
FIXTURE	QTY		PUBLIC	TOTAL FU
WATER CLOSET	1		4	4
LAVATORY	1		1	1
FLOOR DRAIN	1		2	2
SHOWER DRAIN	1		2	2
BUILDING D SEWER TOTAL				9

WATER SUPPLY FIXTURE UNITS				
TABLE BASED ON 2022 CPC, APPENDIX A, TABLE A103.1.				
BUILDING D				
FIXTURE	QTY		PUBLIC	TOTAL FU
WATER CLOSET	1		5	5
LAVATORY	1		1	1
HOSE BIBB	1		1.5 + (QTY x 1)	2.5
SHOWER	1		2	2
BUILDING D SERVICE MAIN TOTAL				10.5

SANITARY DRAINAGE FIXTURE UNITS				
TABLE BASED ON 2022 CPC, CHAPTER 7, TABLE 702.1.				
MAINTENANCE BUILDING				
FIXTURE	QTY		PUBLIC	TOTAL FU
WATER CLOSET	1		4	4
LAVATORY	1		1	1
SINK	1		2	2
MOP SINK	1		3	3
EMERGENCY EYE WASH	1		6	6
FLOOR DRAIN	1		2	2
FLOOR SINK	1		2	2
MAINTENANCE BUILDING SEWER TOTAL				20

WATER SUPPLY FIXTURE UNITS				
TABLE BASED ON 2022 CPC, APPENDIX A, TABLE A103.1.				
MAINTENANCE BUILDING				
FIXTURE	QTY		PUBLIC	TOTAL FU
WATER CLOSET	1		5	5
LAVATORY	1		1	1
SINK	1		1.5	1.5
MOP SINK	1		3	3
HOSE BIBB	4		1.5 + (QTY x 1)	5.5
EMERGENCY EYE WASH	1		6	6
MAINTENANCE BUILDING SERVICE MAIN TOTAL				22

## PLUMBING FIXTURE ROUGH IN SCHEDULE

NOTES:						
1. DOMESTIC CW, HW, AND SANITARY DRAIN SIZES APPLY TO THE FIXTURE ROUGH-IN, VERTICAL RISER, AND HORIZONTAL BRANCH LINE CONNECTION TO THE SYSTEM MAIN OR TO WHERE THE BRANCH LINE COMBINES WITH ANOTHER FIXTURE. SEE FLOOR PLANS FOR COMBINED LINE SIZES.						
2. VENT LINE SIZES APPLY TO THE VERTICAL RISER, SEE FLOOR PLANS FOR HORIZONTAL BRANCH LINE SIZES.						
3. WHERE SIZES CONFLICT BETWEEN THE ROUGH-IN SCHEDULE AND FLOOR PLANS, FLOOR PLAN SIZES SHALL OVERRIDE.						
4. TRAP PRIMER CONNECTIONS SIZES APPLY WHERE TRAP PRIMER LINES ARE SHOWN ON THE FLOOR PLANS.						
PLUMBING FIXTURE:	DOMESTIC CW:	DOMESTIC HW:	SANITARY DRAIN:	TRAP/TRAP ARM:	VENT:	NOTES
SHOWER	1/2"	1/2"	NA	NA	NA	1, 3
HOSE BIBB	1/2"	NA	NA	NA	NA	1, 3
FLOOR DRAIN	1/2" TP	NA	2"	2"	2"	1, 2, 3, 4
FLOOR SINK	1/2" TP	NA	2"	2"	2"	1, 2, 3, 4
LAVATORY	1/2"	1/2"	2"	1-1/4"/1-1/2"	1-1/2"	1, 2, 3
MOP SINK	3/4"	3/4"	3"	3"	2"	1, 2, 3
SINK	1/2"	1/2"	2"	1-1/2"	1-1/2"	1, 2, 3
WATER CLOSET, FLUSH VALVE	1"	NA	4"	INTEGRAL	2"	1, 2, 3

## PIPE INSULATION SCHEDULE

NOTES:							
1. SEE SPEC SECTION 22 0719 FOR ADDITIONAL INFORMATION ABOUT INSULATION TYPES.							
2. WHERE MULTIPLE INSULATION TYPES ARE LISTED, THE CONTRACTOR MAY CHOOSE FROM THE ACCEPTABLE OPTIONS.							
PIPE APPLICATION	ALLOWABLE TYPES (NOTES...)	NOMINAL PIPE DIAMETER (IN.)					NOTES
		<1	1 TO <1.5	1.5 TO <4	4 TO <8	8+	
PIPE CONVEYING FLUID 105°F TO 140°F	A, B, C, E	1"	1.5"	1.5"	1.5"	1.5"	1, 2
PIPE CONVEYING FLUID 40°F TO 60°F	A, B, C, E	0.5"	0.5"	1"	1"	1"	1, 2

## MINIMUM ALL THREAD ROD SIZE TABLE

ANSI/MSS SP-69 & SP-58		
PIPE SIZE	HORIZONTAL STEEL, DUCTILE IRON, & CAST-IRON PIPE	HORIZONTAL COPPER, GLASS, & PLASTIC PIPE
	ATR SIZE	ATR SIZE
1/2"	3/8"	3/8"
3/4"	3/8"	3/8"
1"	3/8"	3/8"
1 1/4"	3/8"	3/8"
1 1/2"	3/8"	3/8"
2"	3/8"	3/8"
2 1/2"	1/2"	1/2"

## PIPE HANGER AND SUPPORT SPACING SCHEDULE

NOTES:				
1. SUPPORTS FOR HORIZONTAL PIPING SHALL BE ADJACENT TO JOINT, NOT TO EXCEED 18".				
2. HORIZONTAL PIPE BRACES SHALL NOT EXCEED 40' INTERVALS TO PREVENT HORIZONTAL MOVEMENT.				
3. HORIZONTAL PIPING SHALL BE SUPPORTED AT EACH HORIZONTAL BRANCH CONNECTION.				
4. HORIZONTAL PIPE HANGERS SHALL NOT BE PLACED ON THE COUPLING.				
PIPE MATERIAL	PIPE SIZES	MAX HORIZONTAL SPACING	MAX VERTICAL SPACING	NOTES
CAST-IRON HUB-LESS PIPE	ALL SIZES	EVERY OTHER JOINT, UNLESS OVER 4' THEN SUPPORT EACH JOINT.	BASE AND AT EACH FLOOR NOT TO EXCEED 15'.	1, 2, 3, 4
	≤ 1-1/2"	6'	EACH FLOOR, NOT TO EXCEED 10'.	
2" - 2 1/2"	8'			
≥ 3"	10'			
COPPER AND COPPER ALLOY PIPE	1/2"	6'	6'	
	3/4" - 1"	8'	8'	
	≥ 1-1/4"	10'	EVERY FLOOR LEVEL.	



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REVISIONS	DATE	BY



01/29/2024

SHEET TITLE

**PLUMBING SCHEDULES**

DESIGNED	RSS
DRAWN	PSK
CHECKED	RSS
DATE	01/08/2023
SCALE	PER PLAN
JOB NO.	2023-29

SHEET

**P001**



PLUMBING MATERIAL LIST		
SYMBOL	DESCRIPTION	MANUFACTURER AND MODEL
AC-1	AIR COMPRESSOR: 10 HP 2-STAGE SPLASH LUBRICATED RECIPROCATING PISTON AIR COMPRESSOR MOUNTED TO 120 GALLON VERTICAL STORAGE TANK.  DIMENSIONS: 30"Ø x 178"H, 950 LBS.  AVAILABLE FLOW (CAPACITY): 30 ACFM @125 PSIG  ELECTRICAL REQUIREMENTS: 208V-60HZ-3PH, 10HP.	MANUFACTURER AND MODEL: QUINCY MODEL 'QTS 10' OR EQUAL
AD-1	AIR DRYER: TANK MOUNTED REFRIGERATED NON-CYCLING DRYER WITH TWO-STAGE HEAT EXCHANGER, INTEGRATED MOISTER SEPARATOR, DIGITAL DEW POINT DISPLAY, ENVIRONMENTALLY SAFE REFRIGERANT, AND ZERO LOSS ELECTRONIC DRAIN.  DIMENSIONS: 19.4" x 13.8" x 17.7", 71 LBS.  AVAILABLE FLOW (CAPACITY): 42 CFM @100 PSIG @ 39°F DEWPOINT.  ELECTRICAL REQUIREMENTS: 120V-60HZ-1PH, .3KW.	MANUFACTURER AND MODEL: QUINCY MODEL 'QPNC-42' OR EQUAL
RT-1	RECEIVER TANK: 60 GALLON VERTICAL STORAGE DRY AIR RECEIVER CONSTRUCTED OF GALVANIZED STEEL WITH PRESSURE RELIEF VALVE, GAUGE KIT, AND AIR DRYER SHELF MOUNT SYSTEM.  DIMENSIONS: 20" x 20" x 48", 148 LBS  MAX PRESSURE: 200 PSIG.	MANUFACTURER AND MODEL: QUINCY MODEL 'T60V-200' OR EQUAL
AR-1	AIR REEL: PLATINUM SERIES PREMIUM DOUBLE-ARM HOSE REEL ASSEMBLY MARKED FOR AIR SERVICE AND WITH 50' OF 1/2" DELIVERY HOSE #TIM-4208-50F/QUICK CONNECT, CONNECTING HOSE BALL STOP #TIM-131-4, AND WITH HOSE END ANALOG CONTROL HANDLE.	AMERICAN LUBRICATION COMPANY MODEL TIM-3108-75P OR EQUAL
CP-1	CIRCULATING PUMP: CLOSE COUPLED PERMANENTLY LUBRICATED INLINE PUMP, LEAD-FREE BRONZE FACE PLATE, GLASS FILLED PPS IMPELLER, STAINLESS STEEL SHAFT, MECHANICAL, CARBON ON SILICON CARBIDE SEAL, EPDM ELASTOMERS, SEALED PRECISIONS STEEL BALL BEARING, ODP PERMANENTLY LUBRICATED MOTOR.  ELECTRICAL CHARACTERISTICS: 1/12 HP, 120 VOLTS, 1.4 AMPS, 2650 RPM.  PERFORMANCE: 5 FT. HD., 1 GPM.	BELL & GOSSET PL-30B, TACO, OR EQUAL.
EW-1	ELECTRIC WATER HEATER: MEDIUM DUTY ELECTRIC POWERED VERTICAL STORAGE WATER HEATER, FOAM INSULATED GLASS-LINED STEEL 40 GALLON TANK, WITH ZINC PLATTED COPPER SHEATHED HEATING ELEMENTS, INTEGRATED ELECTRONIC CONTROL, CSA CERTIFIED ASME RATED TEMPERATURE AND RELIEF VALVE, AND TANK DRAIN VALVE. 160 PSI MAXIMUM WORKING PRESSURE. MEETS ASHRAE/IES 90.1 ENERGY REQUIREMENTS. UL LISTED.  RECOVERY: 25 GPH @ 70°F ΔT.  ELECTRICAL REQUIREMENTS: 208V - 60 HZ - THREE PHASE, SIMULTANEOUS OPERATION, 6 KW, 25 AMPS.  EQUIPMENT DIMENSION / WEIGHT: 45-1/8"H x 20-1/2"Ø, 495 LBS.	AO SMITH DEN-40, LOCHINVAR, BRADFORD-WHITE, OR EQUAL
EW-2	ELECTRIC WATER HEATER: MEDIUM DUTY ELECTRIC POWERED VERTICAL STORAGE WATER HEATER, FOAM INSULATED GLASS-LINED STEEL 40 GALLON TANK, WITH ZINC PLATTED COPPER SHEATHED HEATING ELEMENTS, INTEGRATED ELECTRONIC CONTROL, CSA CERTIFIED ASME RATED TEMPERATURE AND RELIEF VALVE, AND TANK DRAIN VALVE. 160 PSI MAXIMUM WORKING PRESSURE. MEETS ASHRAE/IES 90.1 ENERGY REQUIREMENTS. UL LISTED.  RECOVERY: 40 GPH @ 70°F ΔT.  ELECTRICAL REQUIREMENTS: 208V - 60 HZ - THREE PHASE, SIMULTANEOUS OPERATION, 6 KW, 25 AMPS.  EQUIPMENT DIMENSION / WEIGHT: 45-1/8"H x 20-1/2"Ø, 495 LBS.	AO SMITH DEN-40, LOCHINVAR, BRADFORD-WHITE, OR EQUAL
EW-3	EMERGENCY WASH STATION - FACE/EYE WASH: ACCESSIBLE FLOOR PEDESTAL MOUNTED, SCH. 40 GALVANIZED STEEL WITH POLYETHYLENE COATED PIPING, STAINLESS STEEL BOWL WITH POLYPROPYLENE SPRAY HEADS AND FLIP TOP DUST COVERS, INTERNAL STRAINERS, 1/2" STAINLESS STEEL (EYE/FACEWASH) VALVE, COMPLETE WITH ANSI COMPLIANT SIGNAGE. AZ358.1-2014 AND UPC LISTED. 85F TEPIED WATER INLET = 1/2" TOP OR SIDE CONNECTION. SANITARY OUTLET = 1 1/4" SIDE CONNECTION.  THERMOSTATIC MIXING VALVE: LEAD-FREE BRASS, WITH HOT/COLD-WATER SUPPLY LOCKABLE SHUTOFF VALVES, INTERNAL CHECK VALVES, STAINLESS STEEL BASKET FILTERS, OUTLET TEMPERATURE GAUGE, AND STAINLESS STEEL MOUNTING BRACKET. FACTORY PRESET TO DELIVER 85F TEPIED WATER WITH A HIGH TEMPERATURE LIMIT STOP AT 90F. 13 GPM MAX FLOW CAPACITY AT 30 PSI PRESSURE DROP. 125 PSI MAXIMUM SUPPLY PRESSURE. ANSI/ASSE 1071 LISTED.	EMERGENCY WASH STATION: GUARDIAN GBF17049, ACORN 50340-BF, BRADLEY 19214.  THERMOSTATIC MIXING VALVE: GUARDIAN GG024, ACORN ET711-1-BVS-OTG, BRADLEY S19-2000.
ET-1	THERMAL EXPANSION TANK: ASME STAMPED STEEL SHELL, HEAVY DUTY BUTYL DIAPHRAGM/BLADDER WITH ANTIMICROBIAL LINER, STAINLESS STEEL CONNECTIONS, AND SCHRADER AIR VALVE WITH EPDM SEATS. FACTORY PRECHARGED TO 55 PSIG. MAX OPERATING TEMPERATURE: 200F. MAX WORKING PRESSURE: 125 PSIG. ONE YEAR LIMITED WARRANTY.  TANK DIMENSIONS: 18"H x 12"DIA., 44 LBS	AMTROL ST-12C-DD, WATTS DELTA SERIES, OR EQUAL.
FCO-1	FLOOR CLEANOUT: ROUND FINISHED FLOOR CLEANOUT WITH CAST IRON BODY, FLASHING FLANGE WHERE APPLICABLE, ADJUSTABLE NICKEL BRONZE VANDAL TOP, AND GASKET SEALED OR TAPER THREADED BRONZE PLUG. PROVIDE CARPET CLAMPS IN CARPETED AREAS. AVAILABLE IN 2", 3", 4" OR 5" NO-HUB OUTLET AND 6" AND 8" SPIGOT TYPE OUTLETS.	JR SMITH 40215-U, 40235-U, ZURN Z1400-VP, OR EQUAL.
FD-1	FLOOR DRAIN: 9" CAST IRON BODY WITH FLASHING COLLAR, 6" ADJUSTABLE ROUND NICKLE BRONZE STRAINER HEAD, COMPLETE WITH TRAP PRIMER CONNECTION AND VANDAL PROOF SCREWS. 2" OUTLET.	JR SMITH 2005Y-A-P050-PB-U, ZURN Z415B-ZN-P-VP, OR EQUAL.
FS-1	FLOOR SINK: 12" SQUARE 8" DEEP CAST IRON FLANGED RECEPTOR WITH SEEPAGE HOLES, ACID RESISTANT COATED INTERIOR, LOOSE SET ACID RESISTANT COATED CAST IRON GRATE, AND ALUMINUM DOME BOTTOM STRAINER. LESS GRATE.	JR SMITH 3430Y-10, ZURN Z1901, OR EQUAL.

PLUMBING MATERIAL LIST		
SYMBOL	DESCRIPTION	MANUFACTURER AND MODEL
HB-1	HOSE BIBB: CONCEALED INTERIOR/EXTERIOR WALL LOCATIONS NOT SUBJECT TO FREEZING. STAINLESS STEEL WALL BOX, CAST LUMALLOY DOOR AND FRAME, CAST BRASS FINISH VALVE, STOP BODY, AND LOCKSHIELD BONNET WITH CHROME PLATING ON EXPOSED PARTS, COMPLETE WITH REMOVABLE LOOSE KEY WHEEL HANDLE, SCREWDRIWER STOP, REPLACEABLE CARTRIDGE, AND VACUUM BREAKER ASSE 1011 LISTED.  3/4" NPTI INLET, 3/4" NPSH OUTLET.	ACORN 8104, WOODFORD 224, OR EQUAL.
L-1	LAVATORY: ACCESSIBLE COUNTER MOUNT SELF-RIMMING OVAL BASIN, WHITE VITREOUS CHINA WITH FRONT OVERFLOW DRAIN, GRID DRAIN, TRIPLE FAUCET PUNCH ON 4" CENTERS. SEAL BETWEEN FIXTURE AND SURFACE. REFER TO ARCHITECTURAL ELEVATIONS FOR COUNTER HEIGHTS. ASME A112.119.2 / CSA B45.1 LISTED.  FAUCET, ANGLE STOPS, AND SUPPLIES: 0.5 GPM ACCESSIBLE DECK MOUNTED FAUCET, LOW LEAD CAST BRASS WITH CHROME PLATED FINISH, LEVER HANDLE, DUAL INLET, VANDAL PROOF PRESSURE COMPENSATING NON-AERATED LAMINAR SPRAY, THREE PUNCH ON 4" CENTERED ROUGH-INS. ASME A112.18.1 / CSA B125.1, ADA ANSI/ICC A117.1, AND NSF/ANSI 61, 372 LISTED. LEAD FREE COMMERCIAL GRADE ANGLE STOPS AND SUPPLIES, CHROME PLATED CAST BRASS WITH COMPRESSION VALVE AND VANDAL PROOF LOOSE KEY STOPS.  THERMOSTATIC MIXING VALVE: POINT OF USE VALVE, LEAD FREE BRASS BODY, CORROSION RESISTANT, FACTORY PRESET AT 105°F WITH ADJUSTABLE TEMPERATURE LOCKNUT, 125°F MAX OPERATING TEMPERATURE, 120°F - 180°F INCOMING HOT WATER TEMPERATURE RANGE, 40°F - 80°F INCOMING COLD WATER TEMPERATURE RANGE. ASSE 1070 AND CUPC LISTED.  MINIMUM FLOW = .25 GPM. MAXIMUM FLOW = 2.2 GPM AT 25 PSI.  TRAP AND SANITARY ROUGH-IN: LA PATTERN P-TRAP, 17 GAUGE BRASS WITH ROUGH BRASS FINISH, BRASS NUTS, AND RUBBER GASKETS. PROVIDE OFFSETS AS REQUIRED. SANITARY ROUGH-IN HEIGHT SHALL ACCOMMODATE WALL CLEANOUT BELOW.  ACCESSIBLE INSULATION WRAP: PROVIDE ADA COMPLIANT, FLAME AND SMOKE SAFETY LISTED (ASTM E 84-07) INSULATION WRAP AT WATER SUPPLIES AND SANITARY TRAP FITTINGS BELOW FIXTURE.	BASIN: AS 0476228, KOHLER K-2196-4, OR EQUAL.  DRAIN: AS AS 2411.015, KOHLER K-7129, OR EQUAL.  FAUCET: CHICAGO 2200-4E2805ABCP OR EQUAL.  MIXING VALVE: POWERS LFG480 OR EQUAL.  ANGLE STOPS AND SUPPLIES: CHICAGO ABCP LEAD FREE SERIES OR EQUAL.  TRAP: DEARBORN BRASS H751-3 OR EQUAL.  ACCESSIBLE INSULATION WRAP: PLUMBEREX HANDY-SHIELD MAXX 2000 SERIES OR EQUAL.
MS-1	MOP SINK: FLOOR MOUNT CORNER BASIN, WHITE ENAMELED CAST IRON WITH REMOVABLE VINYL RIM GUARD AND FLAT GRID DRAIN. SEAL BASIN TO FLOOR AND WALL. ASME A112.19.1 LISTED.  FAUCET: WALL MOUNTED FAUCET WITH PRE RINSE FITTING AND SPRAY VALVE, CHROME PLATED, FLEXIBLE STAINLESS STEEL HOSE, COMPLETE WITH DUAL INLETS, THREADED OUTLET, VACUUM BREAKER, AND TOP BRACE/HANGER. LISTINGS: ASME A112.18.1, CSA B 125, AND ANSI A117.1.	BOWL: AS 7745.811, KOHLER K-6710, OR CECO 871.  RIM GUARD: AS 7745.811, KOHLER K-8940, OR CECO 872.  DRAIN: AS 7721.038, KOHLER K-9146, OR EQUAL.  FAUCET: CHICAGO 512-GC90LABCP OR EQUAL.
PRV-1	PRESSURE REGULATING VALVE: 2" LOW LEAD CAST BRONZE ASTM B 584 MAIN VALVE BODY, ACCESS COVERS, STEM, & PLUNGER. 300 SERIES STAINLESS STEEL FASTENERS. BUNA NITRILE ELASTOMERS. NATURAL VULCANIZED FIBRE ACETAL CAP GASKETS. OIL TEMPERED WIRE, ASTM A 229 SPRINGS. 300 PSI MAXIMUM WORKING PRESSURE. SET TO OPERATE AT 65 PSI. ASME 1003, IAPMO, AND CSA LISTED. APPROVED BY CITY OF LA. MEETS REQUIREMENTS OF NSF/ANSI/CAN 61.	ZURN/WILKINS MODEL 500XLSBR-HLR-G OR EQUAL.
S-1	SINK: ACCESSIBLE WALL HUNG BASIN, WHITE VITREOUS CHINA WITH FRONT OVERFLOW DRAIN, SELF DRAINING DECK, GRID DRAIN, TRIPLE FAUCET PUNCH ON 4" CENTERS, WALL HANGER, AND CONCEALED ARM SUPPORT. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS. ASME A112.119.2 / CSA B45.1 LISTED.  FAUCET, ANGLE STOPS, AND SUPPLIES: 1.5 GPM ACCESSIBLE DECK MOUNTED FAUCET, LOW LEAD CAST BRASS WITH CHROME PLATED FINISH, LEVER HANDLE, DUAL INLET, VANDAL PROOF PRESSURE COMPENSATING NON-AERATED LAMINAR FLOW, THREE PUNCH ON 4" CENTERED ROUGH-INS. ASME A112.18.1 / CSA B125.1, ADA ANSI/ICC A117.1, AND NSF/ANSI 61, 372 LISTED. LEAD FREE COMMERCIAL GRADE ANGLE STOPS AND SUPPLIES, CHROME PLATED CAST BRASS WITH COMPRESSION VALVE AND VANDAL PROOF LOOSE KEY STOPS.  TRAP AND SANITARY ROUGH-IN: LA PATTERN P-TRAP, 17 GAUGE BRASS WITH ROUGH BRASS FINISH, BRASS NUTS, AND RUBBER GASKETS. PROVIDE OFFSETS AS REQUIRED. SANITARY ROUGH-IN HEIGHT SHALL ACCOMMODATE WALL CLEANOUT BELOW.  ACCESSIBLE INSULATION WRAP: PROVIDE ADA COMPLIANT, FLAME AND SMOKE SAFETY LISTED (ASTM E 84-07) INSULATION WRAP AT WATER SUPPLIES AND SANITARY TRAP FITTINGS BELOW FIXTURE.	BASIN: AS 0355.012, KOHLER K-2005, OR EQUAL.  DRAIN: AS AS 2411.015, KOHLER K-7129, OR EQUAL.  FAUCET: CHICAGO 2200-4E37ABCP OR EQUAL.  ANGLE STOPS AND SUPPLIES: CHICAGO ABCP LEAD FREE SERIES OR EQUAL.  TRAP: DEARBORN BRASS H751-3 OR EQUAL.  ACCESSIBLE INSULATION WRAP: PLUMBEREX HANDY-SHIELD MAXX 2000 SERIES OR EQUAL.  CARRIER: MANUFACTURER'S WALL HANGER/PLATE OR JAY R SMITH COMMERCIAL CARRIER.
SH-1	SHOWER: ACCESSIBLE SHOWER ASSEMBLY, COMPLETE WITH 1.5 GPM HAND HELD SPRAY HEAD, 1.5 GPM SHOWER HEAD, BRASS BODY PRESSURE BALANCING VALVE, DUAL OUTLET DIVERTER VALVE, DUAL CHECKS, ADJUSTABLE STOP SCREW, LEVER HANDLES, 36" SHOWER GRAB BAR, 60" FLEXIBLE HOSE, AND VANDAL RESISTANT MOUNTING FASTENERS. ALL COMPONENTS SHALL BE CONSTRUCTED OF BRASS OR STEEL WITH CHROME FINISH. ASME A112.18.1/CSA B125.1 LISTED.	SHOWER ASSEMBLY: SYMMONS 9605-PLR-B-11-1.5 OR EQUAL.
TP-1	TRAP PRIMER: NON-POWERED AUTOMATIC TRAP PRIMER, LEAD FREE BRASS BODY, EPDM O-RINGS WITH SILICONE SEALANT, STAINLESS-STEEL MESH SCREEN AND ADJUSTMENT SCREW. 20 - 80 PSI SYSTEM OPERATING RANGE, REQUIRING 10 PSI PRESSURE DROP ACROSS SYSTEM TO ACTIVATE.  P2-500 SERVES UP TO TWO DRAINS WITH DU-4/DU-U DISTRIBUTION UNIT. P1-500 SERVES UP TO FOUR DRAINS WITH DU-4/DU-U DISTRIBUTION UNIT.	PRIMER: PPP P1/P2-500 SERIES, SIOX CHIEF, OR EQUAL.  DISTRIBUTION UNIT: PPP DU-4/DU-U, OR EQUAL.
WC-1	WATER CLOSET: ACCESSIBLE FLOOR MOUNTED SINGLE PIECE ELONGATED BOWL, WHITE VITREOUS CHINA. ACCOMMODATES 1.1 - 1.6 GPF FLUSH VALVES. 10" OR 12" ROUGH-IN OPTIONS. 17"-19" SEAT HEIGHT. ASME A112.19.2 / CSA B45.1 LISTED.  FLUSH VALVE: CHROME PLATED BRASS BODY, TOP SPUD CONNECTION, AUTOMATIC SENSOR OPERATION, BATTERY POWERED DIAPHRAGM VALVE WITH VACUUM BREAKER, 1" IPS SCREWDRIWER BACK CHECK, AND VANDAL RESISTANT STOP CAP. 1.28 GPF. PROVIDE OFFSET TUBE WHERE THERE IS A GRAB BAR OBSTRUCTION.  SEAT: WHITE ELONGATED HEAVY DUTY OPEN FRONT SEAT WITH SELF-SUSTAINING HINGE AND ANTI MICROBIAL SURFACE, SOLID POLYPROPYLENE.	BOWL: AS 3043.001, KOHLER K-96057, OR EQUAL.  FLUSH VALVE: SLOAN 8111-1.28, AS 6065.121.002, ZURN ZTR6200-EV.  SEAT: AS 5901.1005S, KOHLER K-4679-CA, BEMIS 1955S5TFR.  NOTE: AMERICAN STANDARD AND KOHLER SEATS ARE LIMITED TO THEIR CHINA BOWLS. BEMIS IS AN ACCEPTABLE ALTERNATE FOR EITHER.

PLUMBING MATERIAL LIST		
SYMBOL	DESCRIPTION	MANUFACTURER AND MODEL
WHA-1	WATER HAMMER ARRESTOR: VERTICAL PISTON STYLE ARRESTOR, BARREL-FABRICATED TYPE 'L' HARD DRAWN COPPER BODY, COPPER CAP, COMPOSITE PISTON, MACHINED BRASS THREADED ADAPTER, EPDM SEALS, DESIGNED FOR 250 PSI MAX STATIC PRESSURE, AND 400 PSI MAX SPIKE PRESSURE. NSF/ANSI 61 CERTIFIED.  SIZE PER MANUFACTURER PDI SIZING TABLE. ARRESTOR SHALL BE PLACED NEAR TO THE SOURCE OF SHOCK, IN-LINE WITH THE UNOBSTRUCTED SHOCK PATH. VERTICAL AND HORIZONTAL INSTALLATIONS ARE ACCEPTABLE BUT HORIZONTAL INSTALLATIONS PROVIDE THE GREATEST SHOCK PROTECTION.	PPP SC-500A/SC2000F, SIOUX CHIEF 650 SERIES, OR EQUAL.
WCO-1	WALL CLEANOUT: TEE TYPE WALL CLEANOUT WITH CAST IRON BODY, GASKET SEALED OR TAPER THREADED BRONZE PLUG, AND POLISHED BRONZE ACCESS COVER. AVAILABLE IN 2", 3", 4", 5" NO-HUB OUTLET SIZES.	JR SMITH 4531S, 4532S, ZURN Z1445, OR EQUAL.



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CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
PROJECT No. PK-ARPA009

4600 CRESTMORE ROAD  
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REVISIONS	DATE	BY

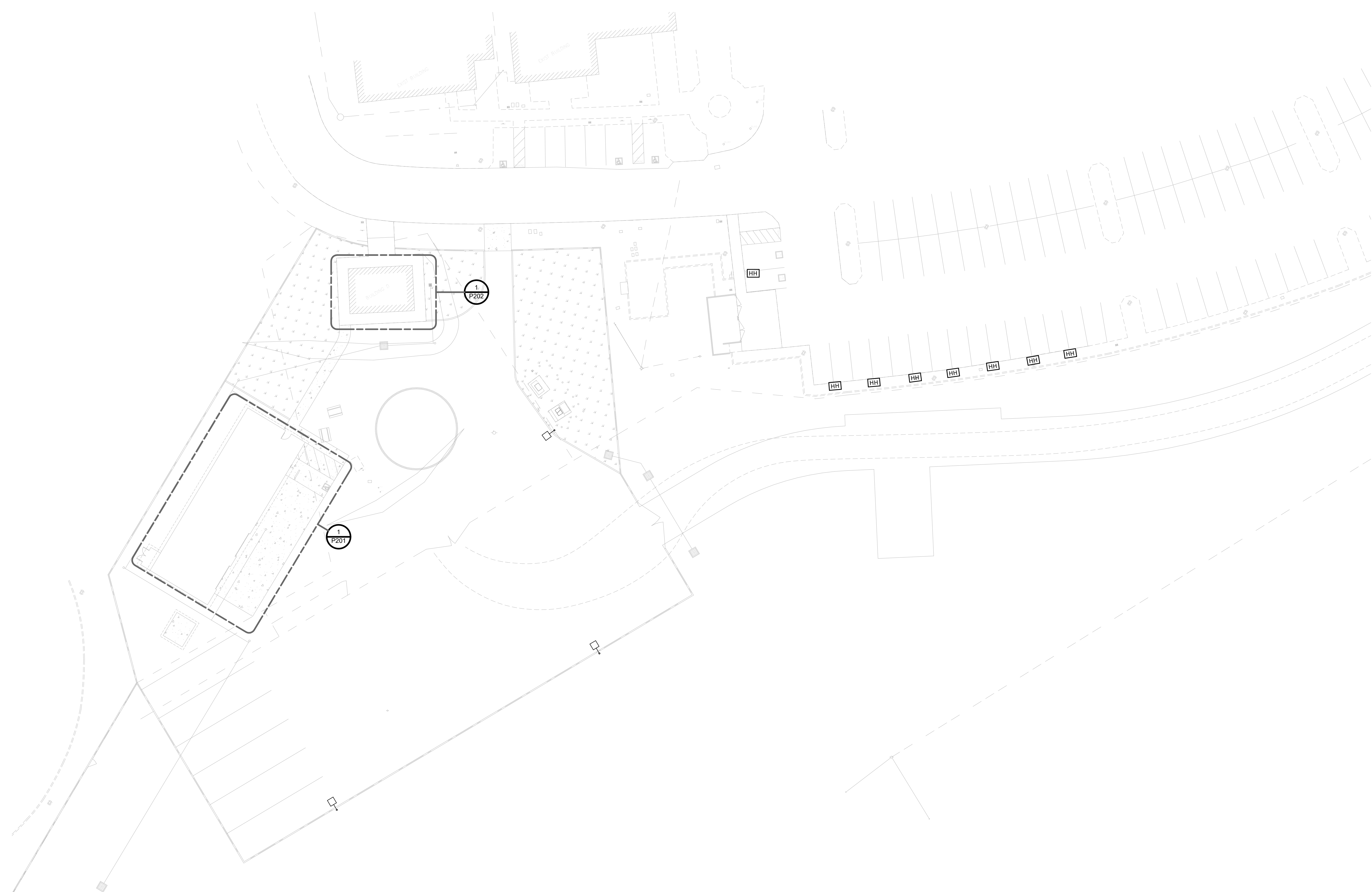


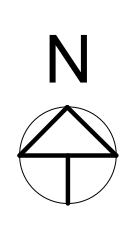
01/29/2024

SHEET TITLE  
**PLUMBING MATERIAL LIST**

DESIGNED	RSS
DRAWN	PSK
CHECKED	RSS
DATE	01/08/2023
SCALE	PER PLAN
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SHEET  
**P002**




**1** PLUMBING - SITE PLAN  
 3/64" = 1'-0"



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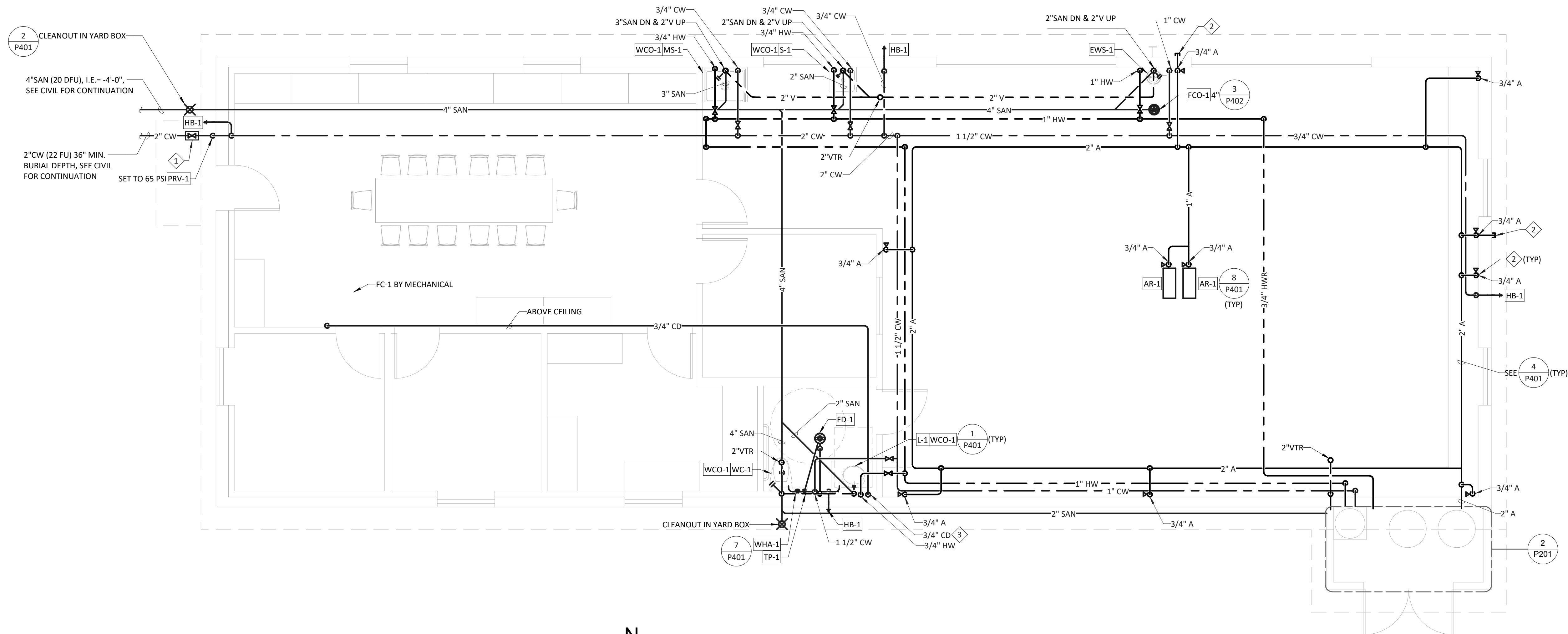


SHEET TITLE  
**PLUMBING SITE PLAN**

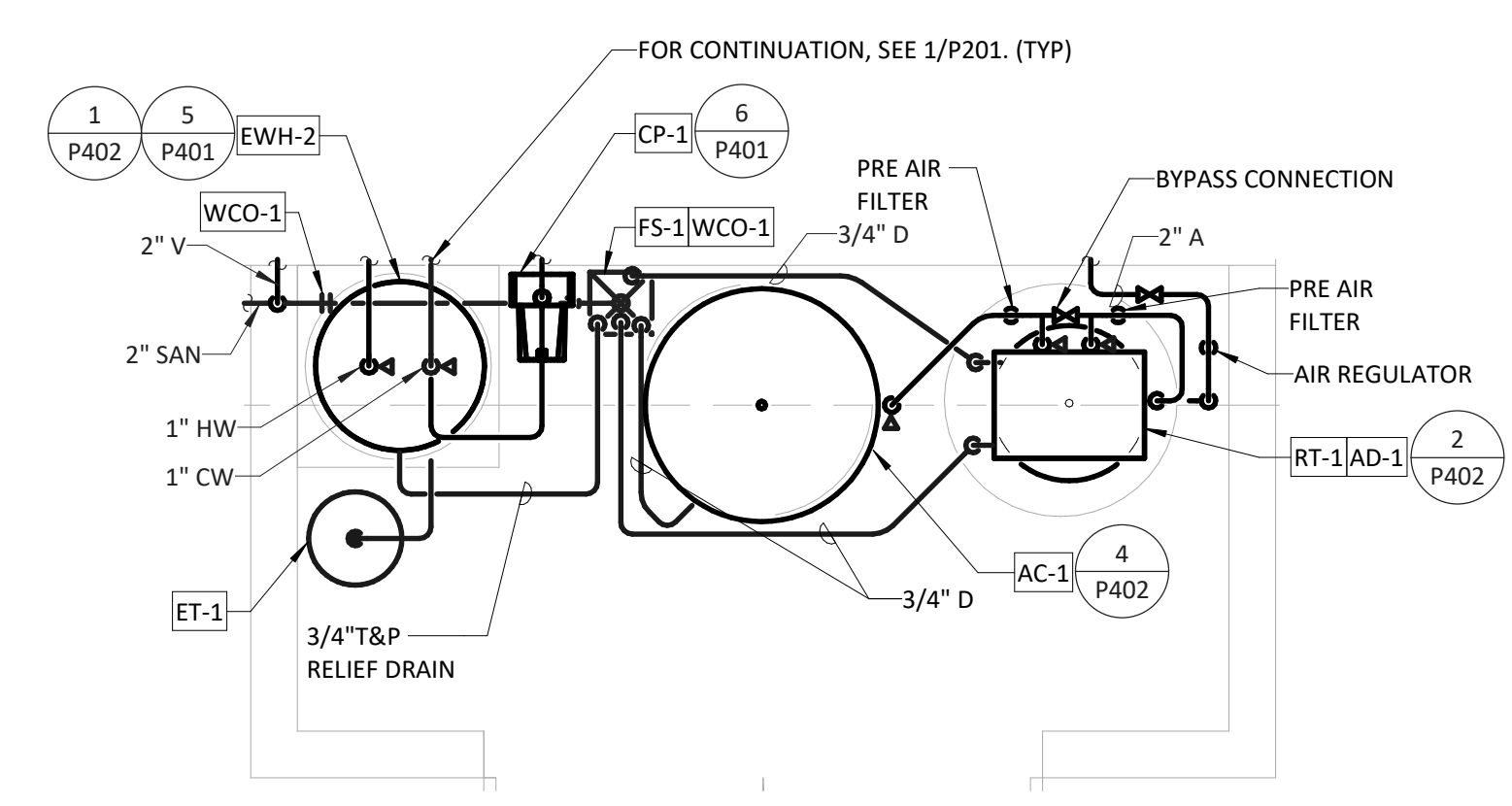
DESIGNED	RSS
DRAWN	PSK
CHECKED	RSS
DATE	01/08/2023
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**P101**

#	KEYNOTES - P201
NUMBER	TEXT
1	SOV IN YARD BOX, SEE DETAIL 3/P401.
2	AIR DN. TO QUICK DISCONNECT AT 48" AFF.
3	3/4" CD DOWN IN WALL CONNECT IT TO LAVATORY TAIL PIECE.



**1 PLUMBING - MAINTENANCE BUILDING FLOOR PLAN**  
 1/4" = 1'-0"



**2 PLUMBING - ENLARGED ROOM**  
 1/2" = 1'-0"



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REVISIONS	DATE	BY



SHEET TITLE  
**PLUMBING - MAINT. BLDG. FLOOR PLAN**

DESIGNED	RSS
DRAWN	PSK
CHECKED	RSS
DATE	01/08/2023
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**P201**

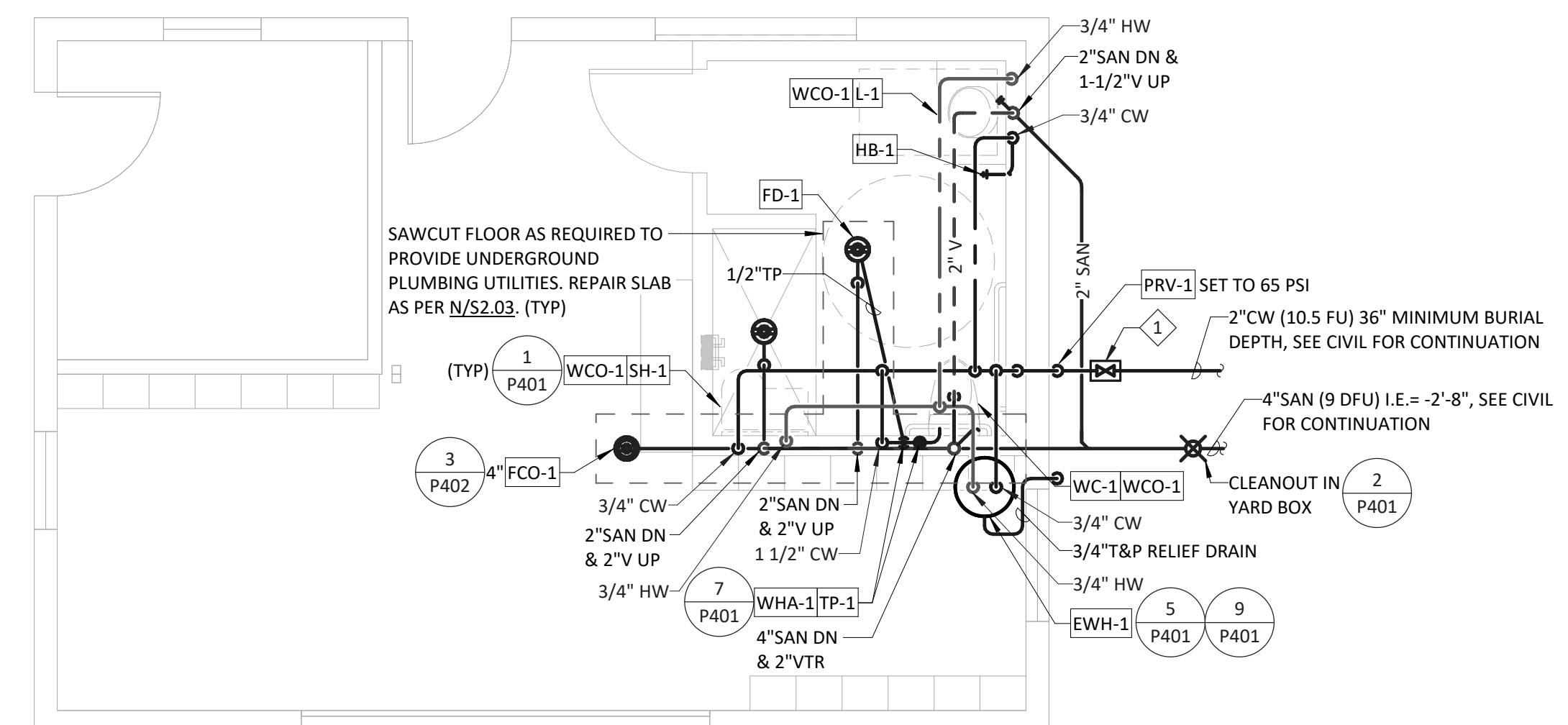
#	KEYNOTES - P202
NUMBER	TEXT
1	SOV IN YARD BOX, SEE DETAIL 3/P401.



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**1 PLUMBING - BUILDING D FLOOR PLAN**  
 1/4" = 1'-0"

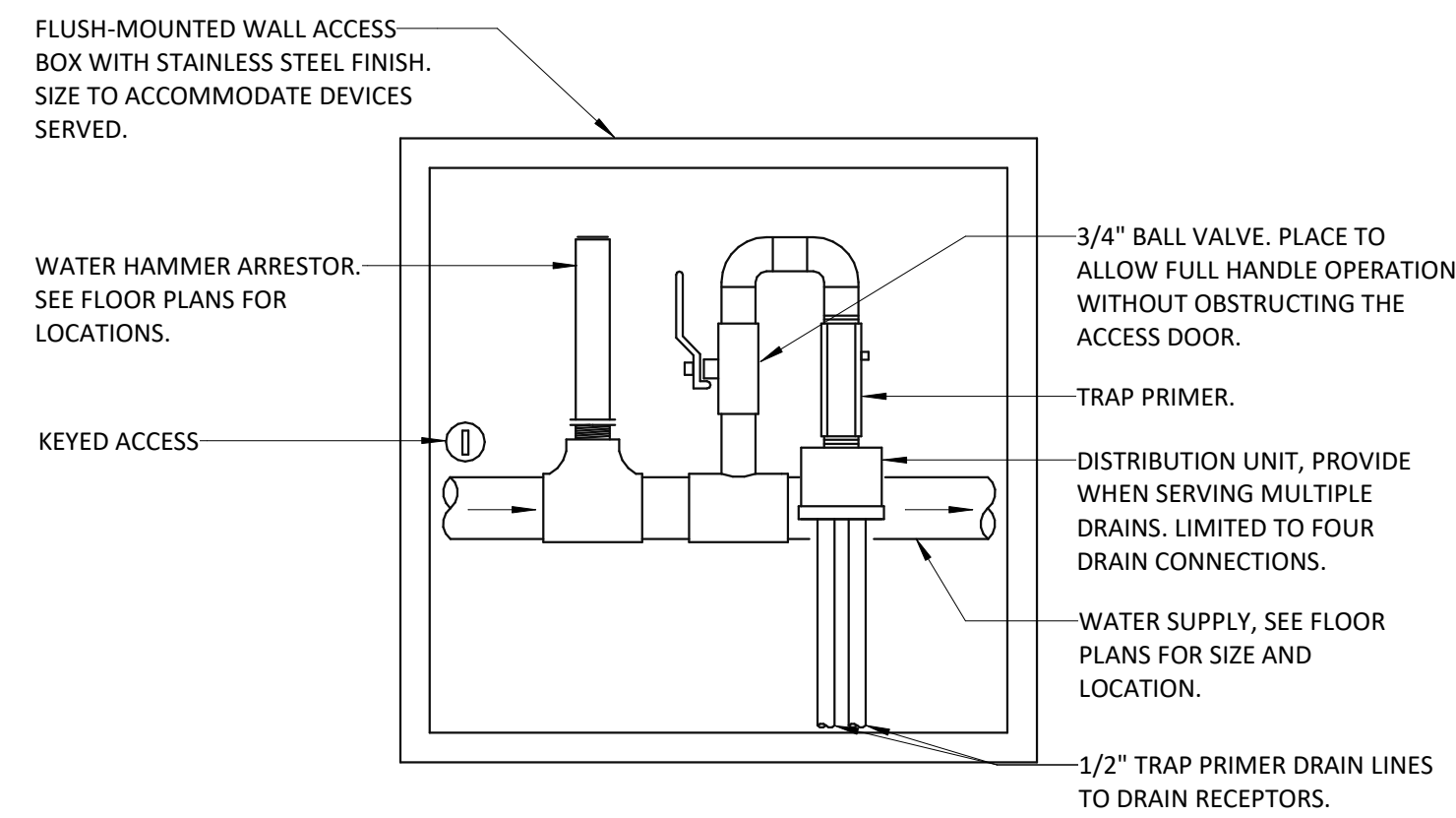
REVISIONS	DATE	BY



SHEET TITLE  
**PLUMBING - BUILDING D FLOOR PLAN**

DESIGNED	RSS
DRAWN	PSK
CHECKED	RSS
DATE	01/08/2023
SCALE	PER PLAN
JOB NO.	2023-29

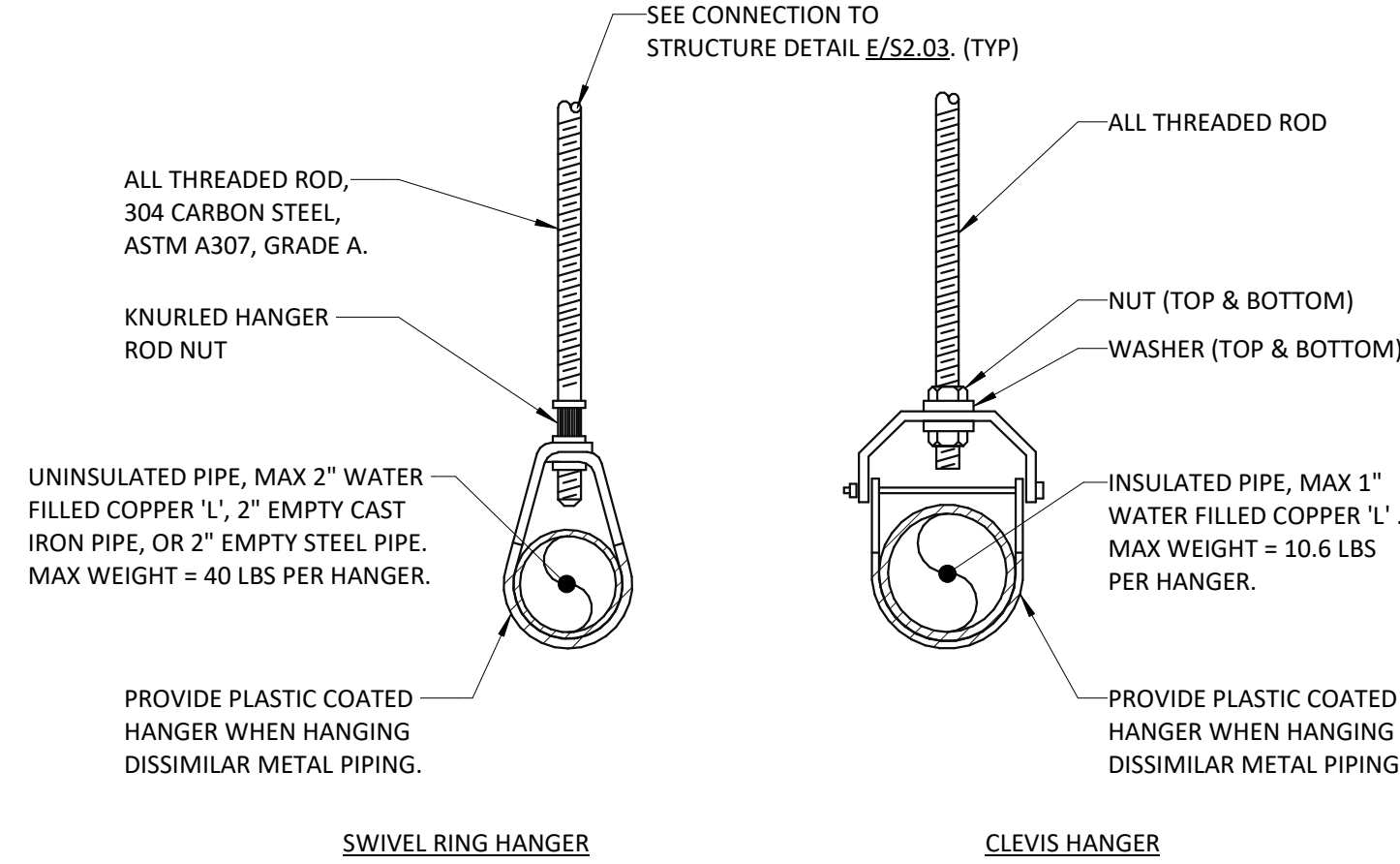
SHEET  
**P202**



- DETAIL NOTES:**
1. PROVIDE TRAP PRIMER AND WATER HAMMER ARRESTOR PER 'PML' AND SPEC SECTION 22 1006.
  2. SIZE ARRESTOR PER PDI STANDARD.
  3. PROVIDE ACCESS PANEL AS DESCRIBED ABOVE AND PER DIVISION 8.
  4. ENSURE DRAIN BODIES ARE BEING PRIMED. REPLACE FAULTY TRAP PRIMERS PRIOR TO OWNER TURNOVER.

**WATER HAMMER ARRESTOR & PRESSURE ACTIVATED TRAP PRIMER (1-4 RECEPTORS)**

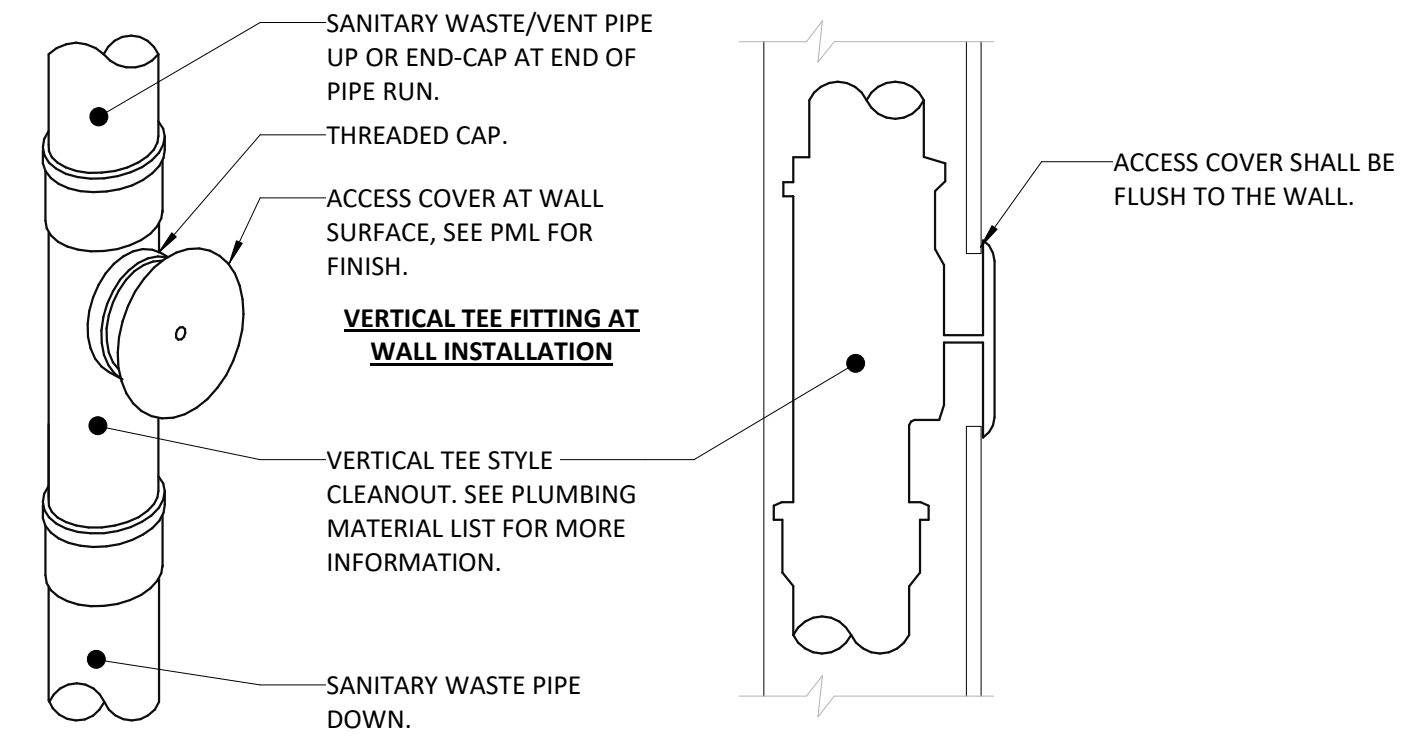
NTS 7



- DETAIL NOTES:**
1. PROVIDE ALL THREAD ROD BY ANVIL, B-LINE/EATON, OR TOLCO/NIBCO, TYPE 304 CARBON STEEL, ASTM A307, GRADE A.
  2. PROVIDE MINIMUM 1/2\"/>

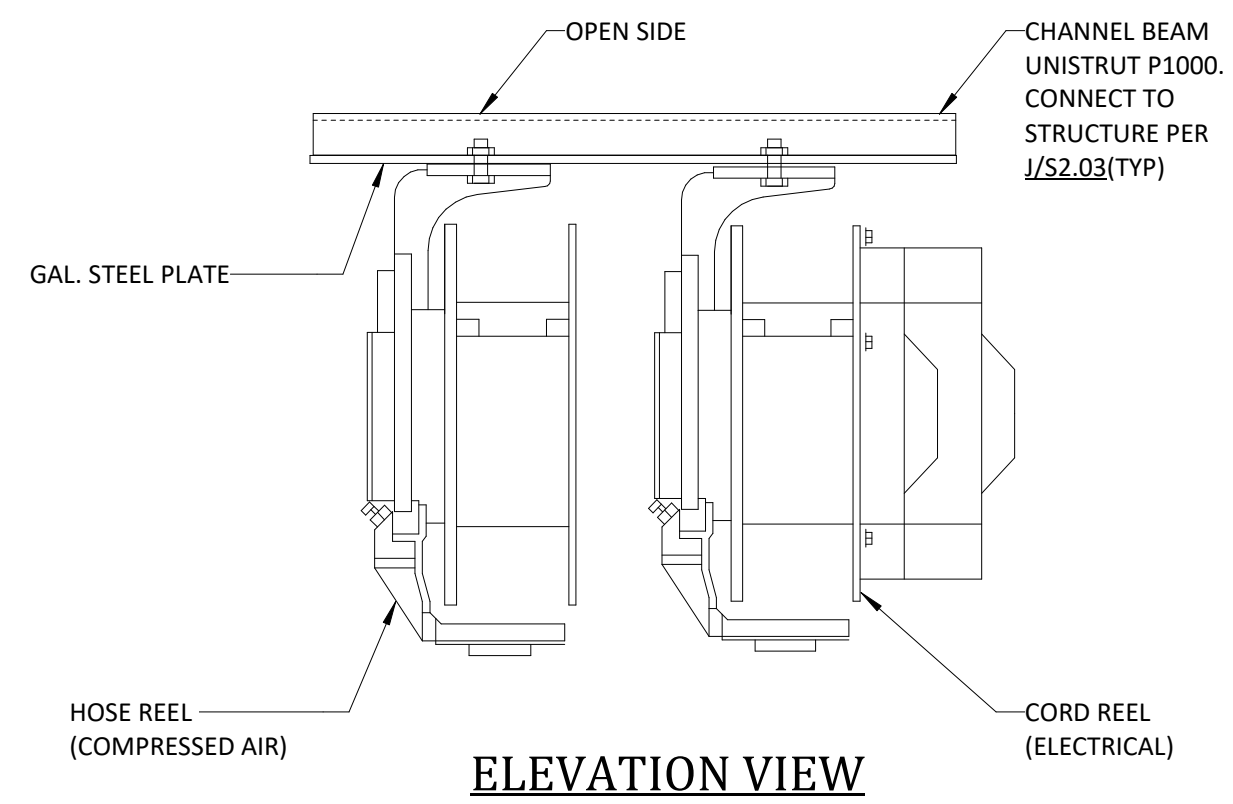
**PIPE HANGER**

NTS 4



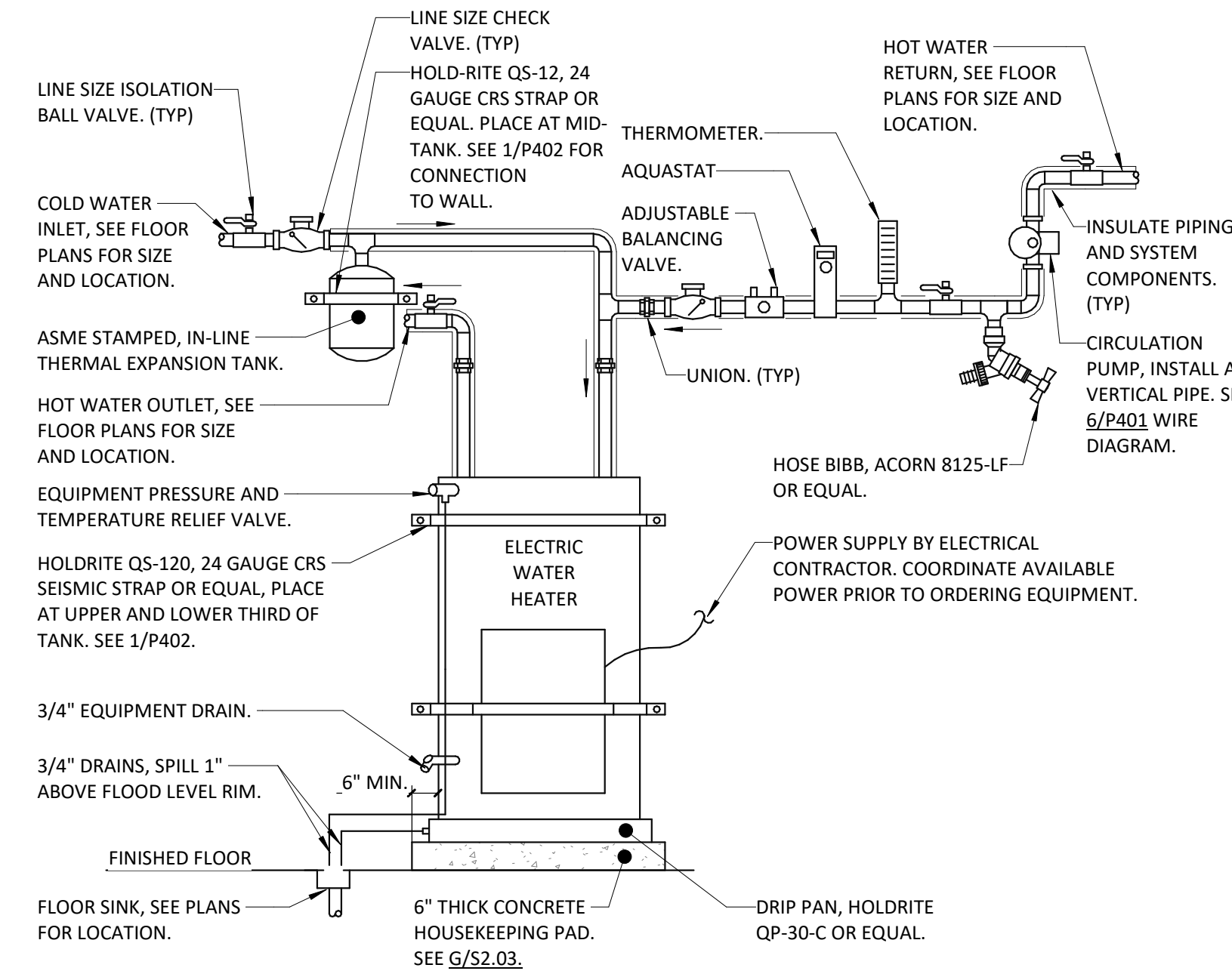
**WALL CLEANOUT**

NTS 1



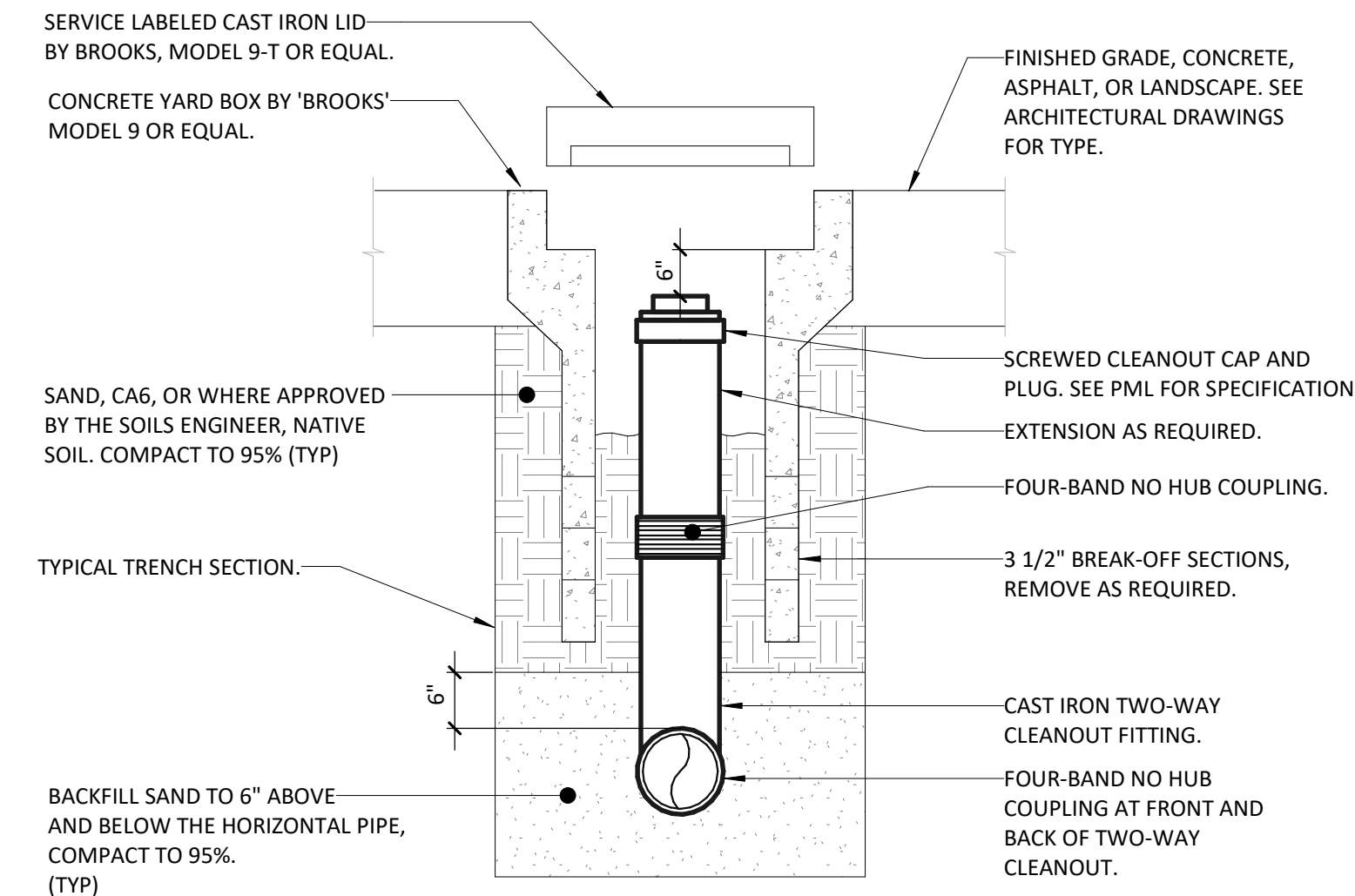
**CORD REEL (ELECTRICAL) AND HOSE REEL (COMPRESSED AIR) MOUNTING DETAIL**

NTS 8



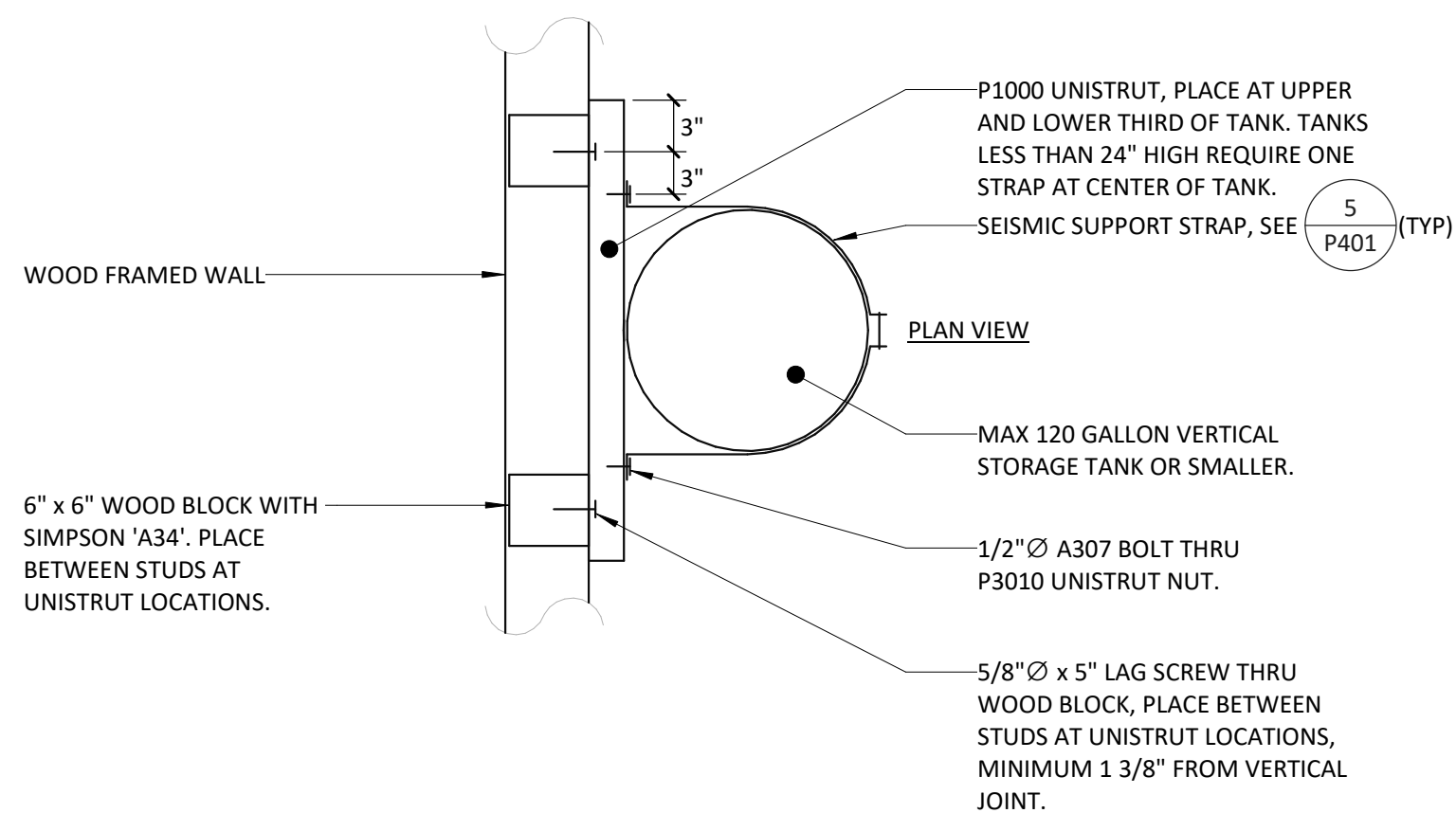
**ELECTRIC WATER HEATER**

NTS 5



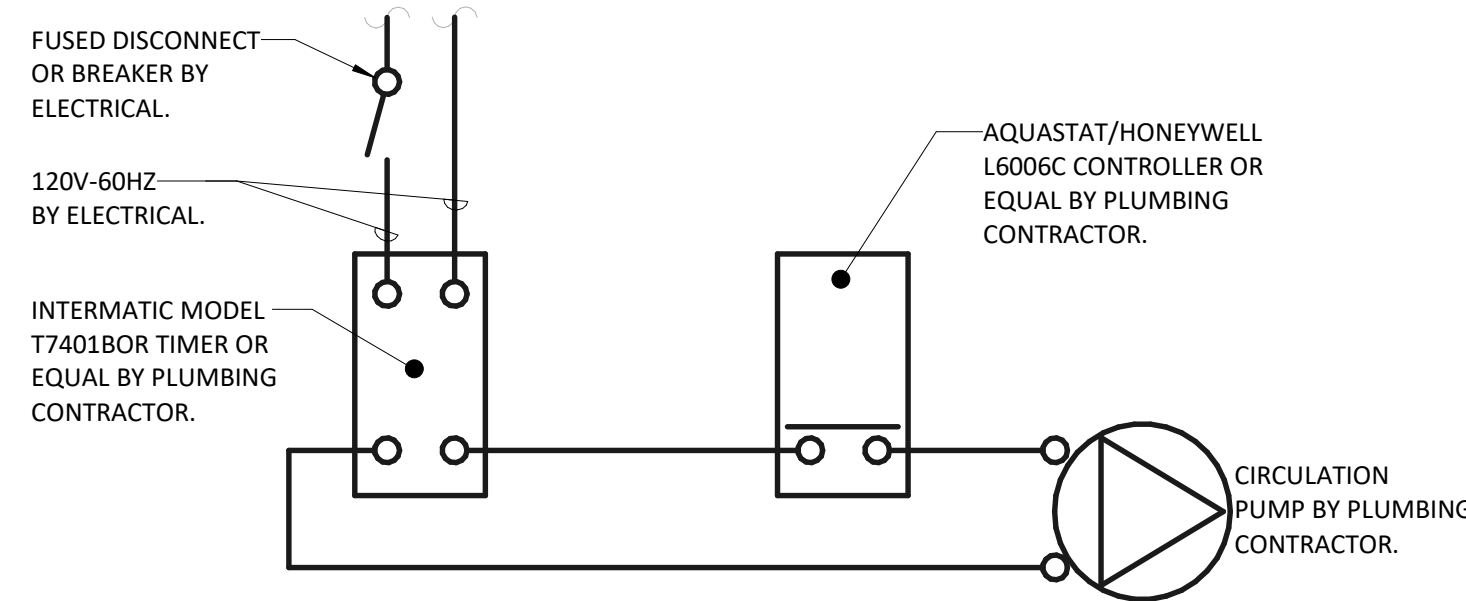
**EXTERIOR CLEANOUT IN YARD BOX**

NTS 2



**VERTICAL STORAGE TANK SUPPORT**

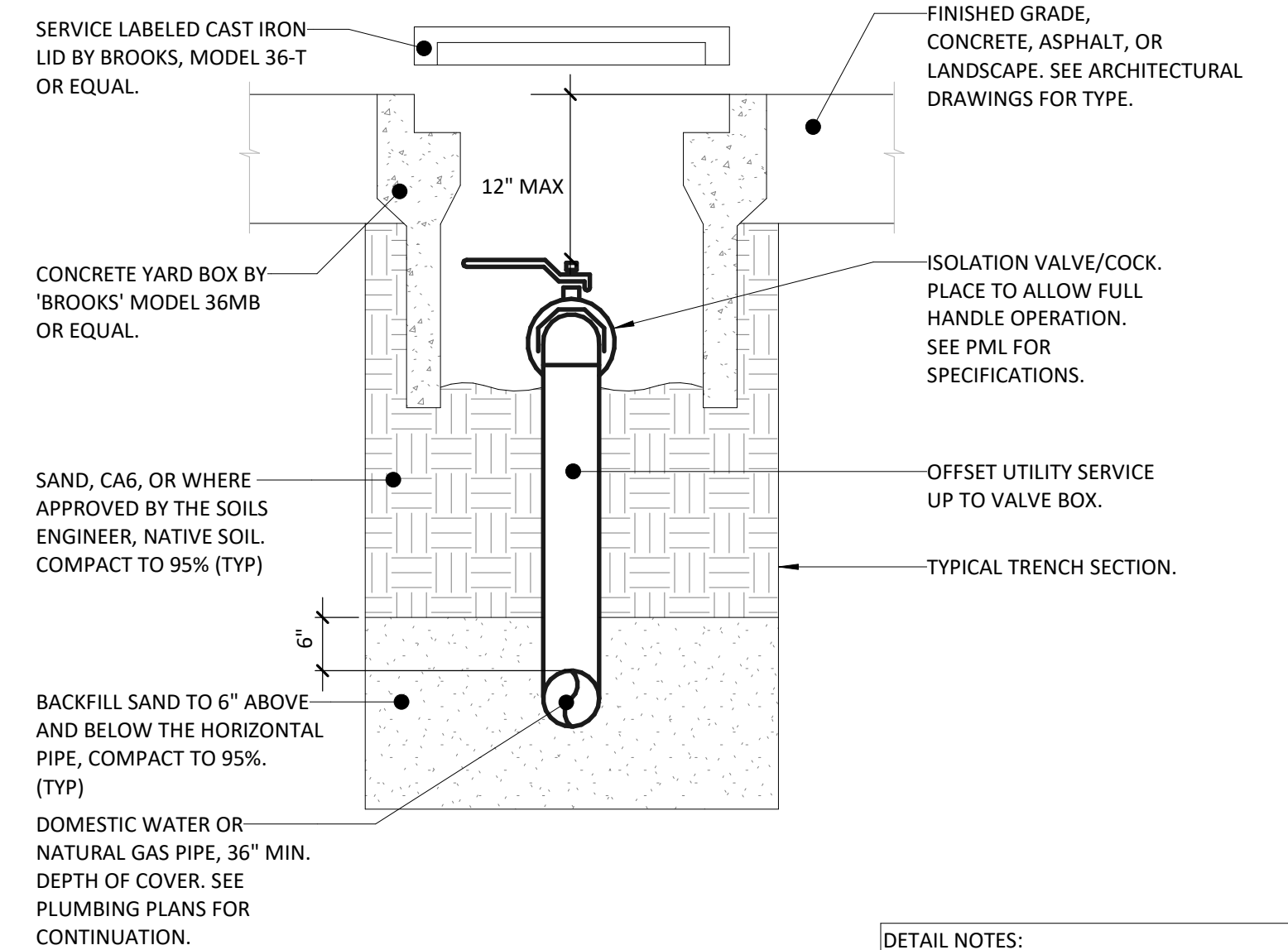
NTS 9



- DETAIL NOTES:**
1. TEMPERATURE CONTROLLER SHALL OPERATE FROM 65°F - 200°F WITH AN ADJUSTABLE DIFFERENTIAL OF 5°F - 30°F.
  2. SET AQUASTAT TO ENERGIZE CIRCULATION PUMP AT 110°F AND DE-ENERGIZE AT 120°F.

**CIRCULATING PUMP ELECTRIC FLOW DIAGRAM**

NTS 6



**EXTERIOR ISOLATION VALVE IN YARD BOX**

NTS 3



**ASTRAL ENGINEERS, PC**  
PO BOX 190  
RANCHO CUCAMONGA, CA 91729  
909.903.0015  
www.astraleng.com  
PROJECT #: 230041.00

CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
**SARB MAINTENANCE FACILITY**  
PROJECT No. PK-ARPA009  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

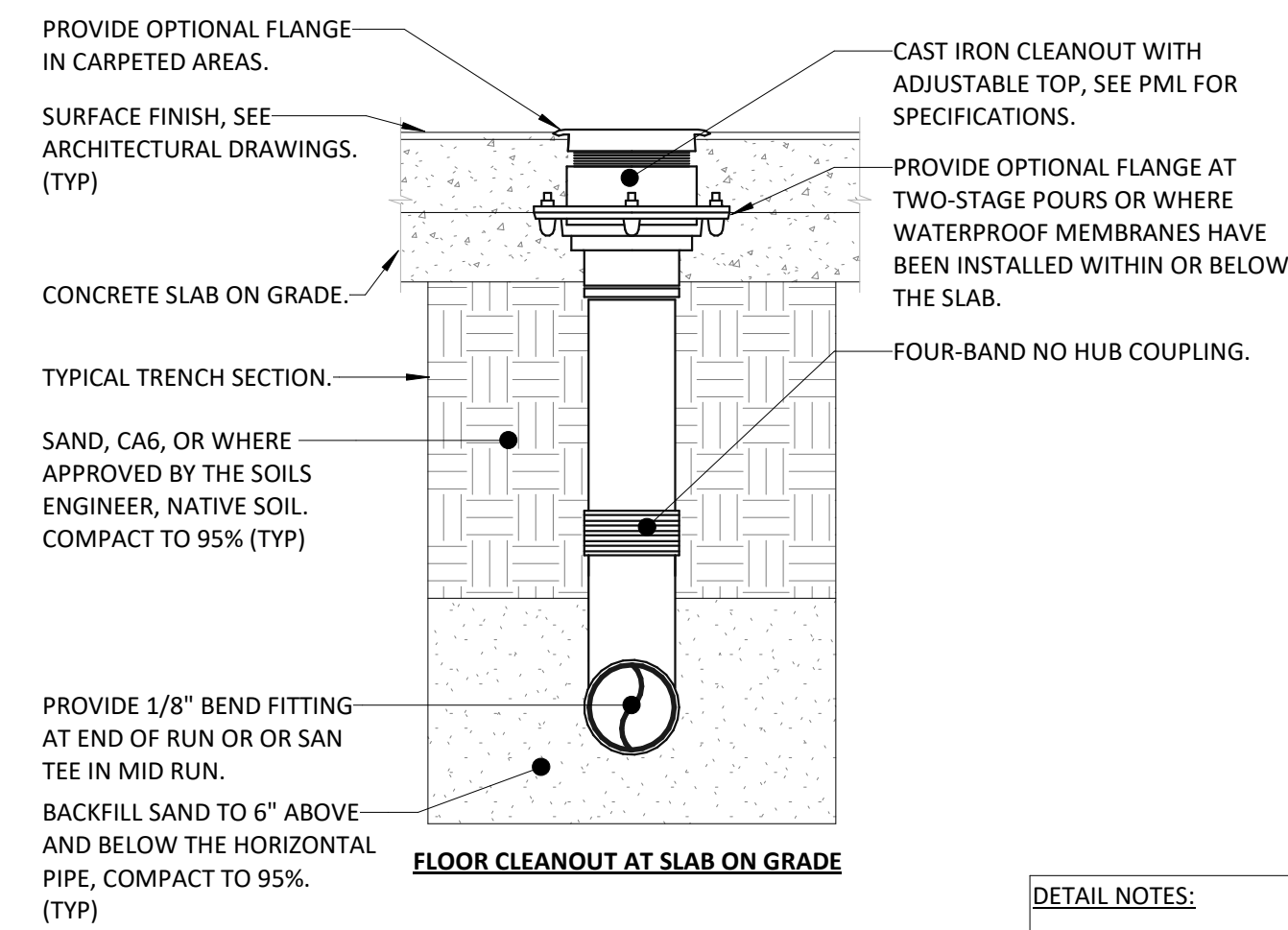


SHEET TITLE

**PLUMBING DETAILS**

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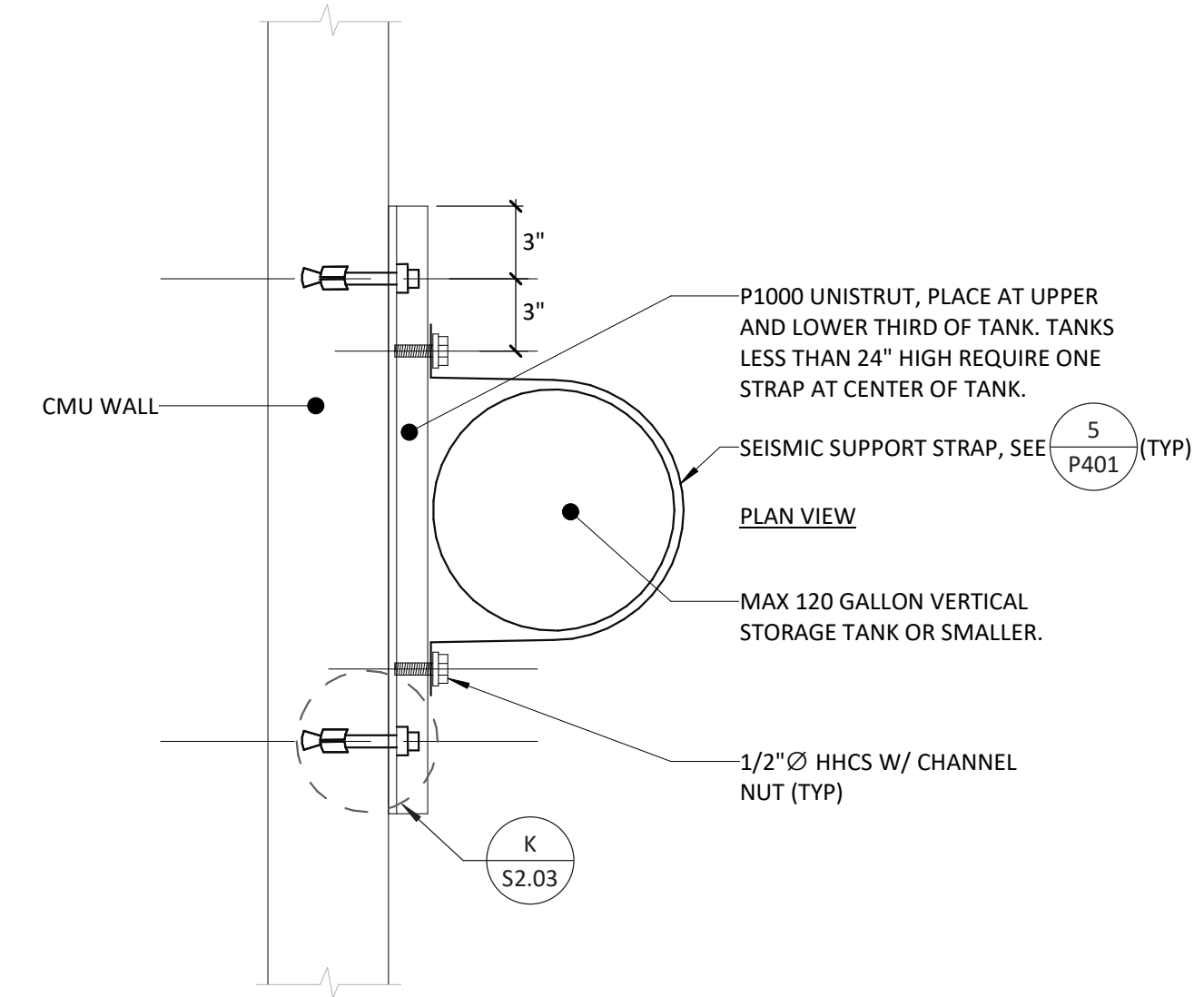
SHEET  
**P401**



- DETAIL NOTES:**
1. FIRE SEAL SLAB PENETRATIONS AT FLOORS NOT SET ON GRADE. FIRE RATING SHALL MATCH FLOOR RATING.
  2. SEE SPEC SECTION 220500 FOR ADDITIONAL TRENCHING REQUIREMENTS.

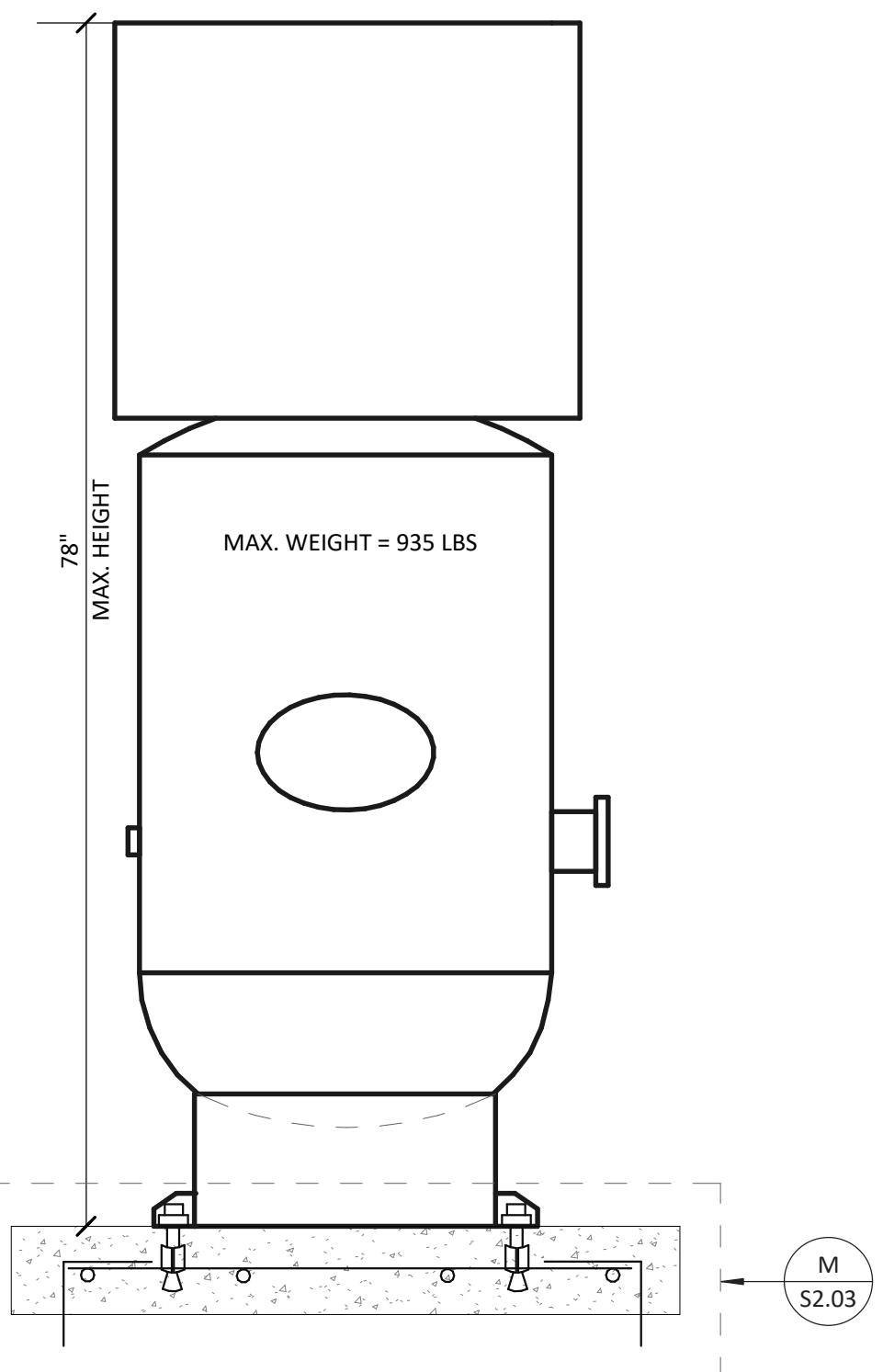
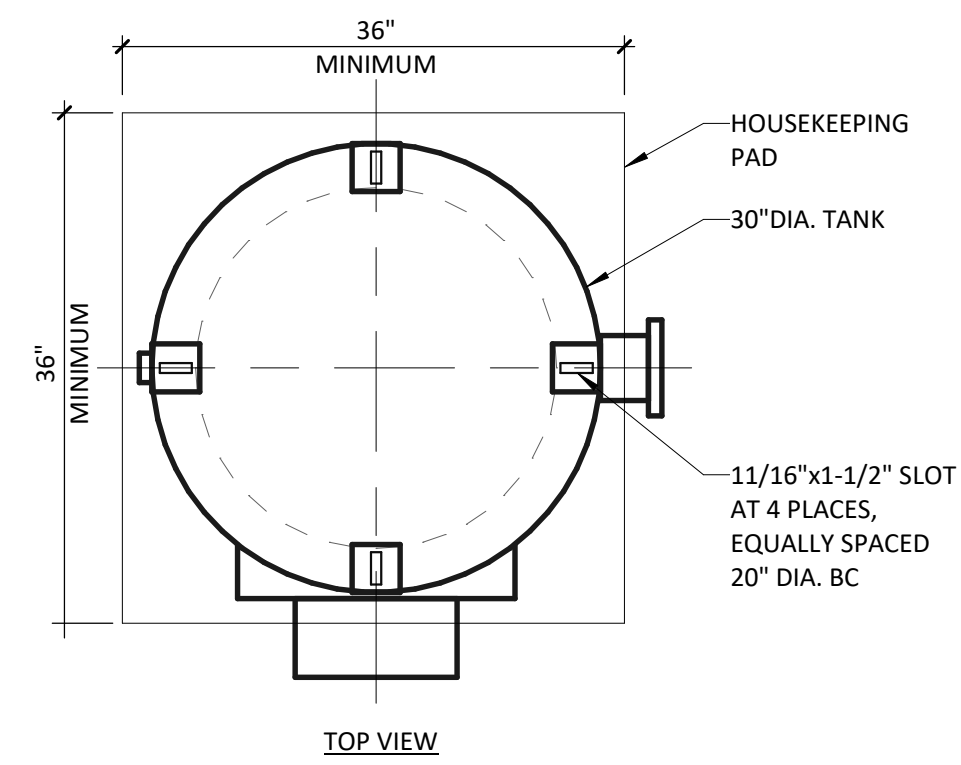
INTERIOR FLOOR CLEANOUT

NTS 3



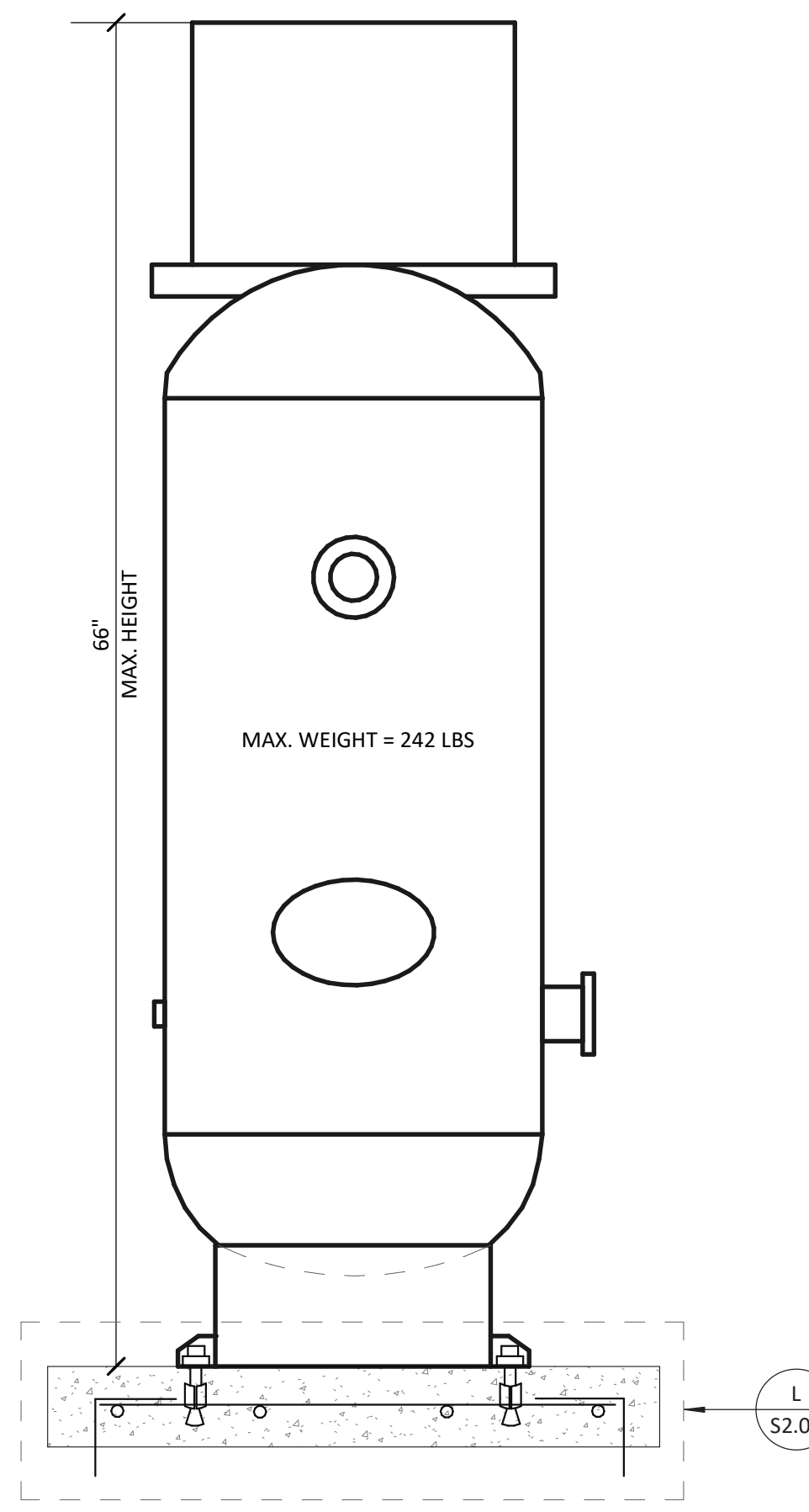
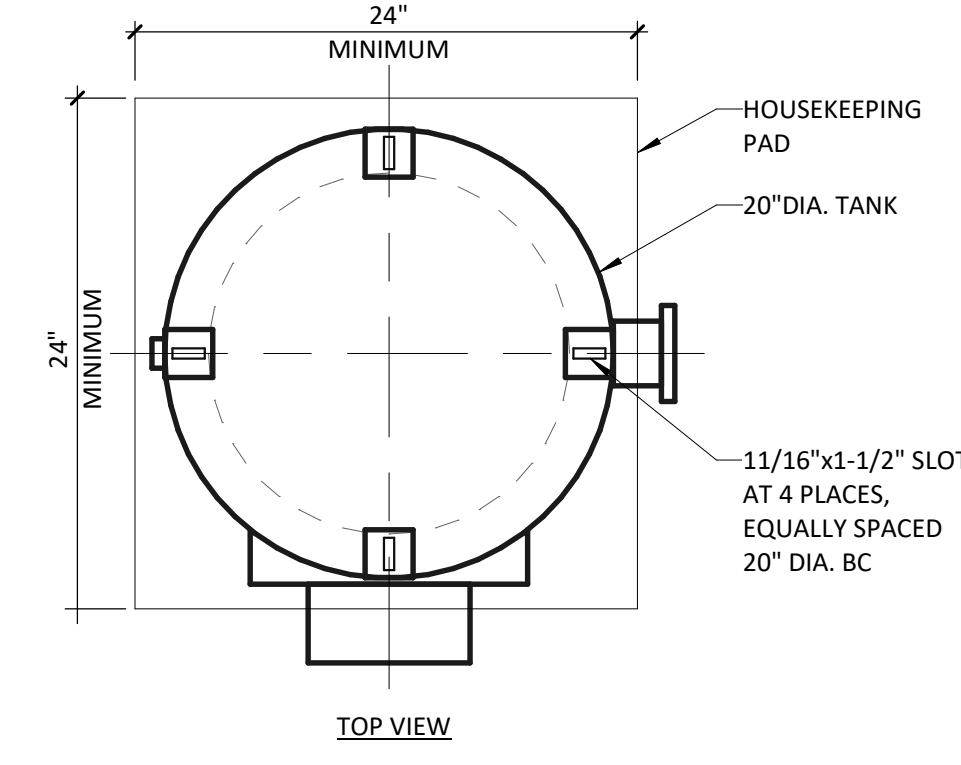
VERTICAL STORAGE TANK SUPPORT

NTS 1



AC-1 MOUNTING DETAIL

NTS 4



AD-1 & RT-1 MOUNTING DETAIL

NTS 2



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SHEET TITLE  
**PLUMBING**  
**DETAILS**

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SHEET  
**P402**

## TECHNOLOGY-WIRE SYMBOLS:

LINETYPE/SYMBOL	DESCRIPTION
	CONDUIT CONCEALED IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS
	CONDUIT SLEEVE
	CONDUIT STUB - TERMINATE WITH CAP
	CONDUIT CONCEALED IN OR UNDER FLOOR SLAB
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	FLEXIBLE CONNECTION TO EQUIPMENT

NOTES:  
 1. NOT ALL SYMBOLS MAY APPLY.  
 2. SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.

## TECHNOLOGY WIRE SCHEDULE:

ABBREVIATION	DESCRIPTION
C5	CATS (DATA)
C6	CAT6 (DATA)
F2	25M FIBER OPTIC CABLE
F24	24MM/125M FIBER OPTIC CABLE
SEC	SECURITY INDOOR CABLE-WEST PENN 240
SEC-U	SECURITY OUTDOOR CABLE WEST PENN AQC 240
TC5	CAT5 (TELEPHONE)
TC6	CAT6 (TELEPHONE)
TV	CATV-RG-6
TV-U	CATV-RG-11

## RENOVATION NOTES:

- DEMOLITION WORK SHALL BE PERFORMED AS DESCRIBED WITHIN SPEC SECTION 27 0505 AND THE DRAWINGS.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMISSION TO VERIFY ALL FIELD CONDITIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - LOCATIONS OF EXISTING TECHNOLOGY SYSTEMS.
  - LOCATIONS OF ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, AND FIRE ALARM SYSTEMS.
  - EXISTING SURFACES WHICH REQUIRE ALTERING.
  - EXISTING MDF EQUIPMENT CONDITIONS.
- NOTIFY OWNER OF REQUIRED SYSTEM SHUTDOWNS AT LEAST TWO WEEKS PRIOR TO SHUTDOWN. EXACT SHUTDOWN TIME AND PROCEDURE SHALL BE COORDINATED WITH OWNER AT LEAST 96 HOURS PRIOR TO SHUTDOWN.
- WHEN ELECTRICAL CONDUIT/RACEWAY SYSTEMS OR EQUIPMENT ARE NOTATED TO BE PERMANENTLY REMOVED THEIR ASSOCIATED COMPONENTS SHALL ALSO BE REMOVED INCLUDING HANGERS, SUPPORTS, AND ACCESSORIES.
- COORDINATE THE DISCONNECTION AND REMOVAL OF POWERED SYSTEMS WITH THE E.C. WHEN REMOVING POWERED TECHNOLOGY EQUIPMENT.
- REPAIR EXISTING FLOORS, WALLS AND CEILINGS IN ALTERED AREAS TO MATCH EXISTING. SEE ARCHITECTURAL PLANS FOR FINISH DETAILS IN REMODEL AREAS.

## TECHNOLOGY DATA SYMBOLS:

LINETYPE/SYMBOL	DESCRIPTION
	DATA OUTLET ROUGH-IN - WALL MOUNTED - INCLUDING BACKBOX AND 3/4" C. TO ABOVE ACCESSIBLE CEILING.
	DATA OUTLET ROUGH-IN - FLOOR MOUNTED - INCLUDING FLOOR BOX AND 3/4" C. TO ABOVE ACCESSIBLE CEILING.
	CCTV CAMERA ROUGH-IN - WALL MOUNTED - INCLUDING BACK-BOX AND 3/4" C TO ABOVE ACCESSIBLE CEILING.

NOTES:  
 1. NOT ALL SYMBOLS MAY APPLY.  
 2. SEE SPECS AND DRAWINGS FOR SPECIFIC COMPONENT REQUIREMENTS.

## CONTRACTOR ABBREVIATIONS:

ABBREVIATION	DESCRIPTION
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.A.C.	FIRE ALARM CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROL CONTRACTOR

## TECHNOLOGY ABBREVIATIONS:

ABBREVIATION	DESCRIPTION
AFG	ABOVE FINISHED GRADE
CM	COUNTER MOUNTED
FBO	FURNISHED BY OTHERS
FF	FINISHED FLOOR
IG	ISOLATED GROUND
INV	EMERGENCY INVERTER
PED	PEDESTAL MOUNTED
UNO	UNLESS NOTED OTHERWISE
+XX	DIMENSIONED HEIGHT ABOVE FINISHED FLOOR
-XX	DIMENSIONED HEIGHT BELOW FINISHED FLOOR
1W	ONE WIRE
2W	TWO WIRE
3W	THREE WIRE
APA	AUTONOMOUS PUBLIC ADDRESS
C	CONDUIT
CAM	CAMERA
CATV	CABLE TELEVISION
C.O.	CONDUIT ONLY
EM	EQUIPMENT POWERED WITH EMERGENCY SOURCE INTERNAL OR EXTERNAL, UNLESS NOTED OTHERWISE
FT, '	FOOT OR FEET
IN., "	INCH OR INCHES
IC	INTERCOMMUNICATION
J-BOX	JUNCTION BOX
MAX	MAXIMUM
MIN	MINIMUM
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO., #	NUMBER
NTS	NOT TO SCALE
SIG	SIGNAL
SPEC	SPECIFICATION
SPKR	SPEAKER
SR	DEVICE INSTALLED IN SURFACE RACEWAY BOXES
STP	SHIELDED TWISTED PAIR
TCI	TELECOMMUNICATIONS CABLING INSTALLER
TEL/DATA	TELEPHONE DATA
TERM	TERMINAL(S)
TV	TELEVISION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SOURCE
UTIL	UTILITY
UTP	UNSHIELDED TWISTED PAIR
UTR	UP THRU ROOF
U.C.	UNDERGROUND CONDUIT
W	WIRES
WP	WEATHERPROOF

NOTES:  
 1. NOT ALL ABBREVIATIONS MAY APPLY.  
 2. TECHNOLOGY SCHEDULES CONTAIN EQUIPMENT TAG ABBREVIATIONS THAT ARE HEREBY INCORPORATED INTO THE ABBREVIATION LIST.  
 3. SEE OTHER DISCIPLINE DRAWINGS WITHIN THE CONSTRUCTION DOCUMENTS FOR ABBREVIATIONS NOT DEFINED ABOVE OR IN TECHNOLOGY SCHEDULES.

## GENERAL NOTES:

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND MANUFACTURER'S INSTALLATION REQUIREMENTS.
- REVIEW ALL PROJECT DOCUMENTS INCLUDING SPECS AND DRAWINGS PERTAINING TO ALL DISCIPLINES PRIOR TO SUBMITTING A BID. SUBMIT PRE-BID REQUEST FOR INFORMATION FOR ITEMS IN QUESTION AND/OR CONFLICTS FOUND.
- DRAWINGS SHOW THE DESIGN INTENT DIAGRAMMATICALLY. THEY DO NOT SHOW THE EXACT UTILITY ROUTING NOR EVERY ELBOW, OFFSET, ETC. WHERE REQUIRED, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THEIR SYSTEMS TO AVOID CONFLICT WITH THE STRUCTURE AND OTHER DISCIPLINES. THE COST FOR SUCH ADJUSTMENTS SHALL BE INCLUDED IN THE BID.
- OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR WORK PERFORMED.
- OBTAIN UTILITY PURVEYOR REQUIREMENTS PRIOR TO PURCHASING EQUIPMENT OR PERFORMING WORK.
- THE G.C. OR C.M. TEAM SHALL LEAD THE SUBCONTRACTORS IN PROVIDING A COORDINATED SET OF SHOP DRAWINGS. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- PROVIDE FIRESTOPPING FOR ALL UTILITY PENETRATIONS THRU FIRE-RATED ASSEMBLIES.
- COORDINATE FRAMING REQUIREMENTS FOR ACCESS PANELS AND EQUIPMENT/PANEL SUPPORTS WITH G.C. OR C.M. PRIOR TO SUBMITTING BID.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CORRECTION OF CONSTRUCTION DEFICIENCIES LISTED ON THE JOB SITE OBSERVATION REPORT. RETURN THE JOB SITE OBSERVATION REPORT TO A/E WITH DEFICIENCIES SIGNED OFF. PROVIDE PHOTOGRAPHIC AND/OR VIDEO EVIDENCE OF CORRECTED DEFICIENCIES IF REQUESTED BY THE ENGINEER.
- PROVIDE CLOSEOUT DOCUMENTATION UPON COMPLETION OF PROJECT. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.
- RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65% OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE. UTILIZE A WASTE MANAGEMENT COMPANY THAT CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH CODE. SEE GENERAL REQUIREMENTS SPEC FOR ADDITIONAL INFORMATION.

## TECHNOLOGY NOTES:

- TECHNOLOGY WORK SHALL BE CONSTRUCTED IN A PROFESSIONAL MANNER. COMPONENTS SHALL BE CLEANED PRIOR TO OWNER TURNOVER.
- THE SCHEDULED EQUIPMENT SHALL BE USED AS THE BASIS OF DESIGN. MODEL NUMBERS ARE PROVIDED FOR REFERENCE ONLY. EQUIPMENT SHALL MEET SPECIFIED PERFORMANCE. THE CONTRACTOR SHALL IDENTIFY ALL SELECTED OPTIONS IN THE SUBMITTAL.
- IF A CONTRACTOR PROVIDES EQUIPMENT OTHER THAN THE BASIS OF DESIGN, THAT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED AS A RESULT. THAT INCLUDES, BUT IS NOT LIMITED TO, AGENCY FEES FOR REVIEW OF CHANGES, STRUCTURAL MODIFICATIONS FOR INCREASED WEIGHT, AND DATA EQUIPMENT, WIRING, CONDUIT, AND BREAKER CHANGES FOR DIFFERENT ELECTRICAL REQUIREMENTS.
- COORDINATE POWER REQUIREMENTS WITH THE E.C. PRIOR TO PROVIDING SUBMITTALS TO THE ENGINEER.
- SEE SPEC SECTIONS 26 0533.13 FOR CONDUIT/RACEWAY SYSTEM INSTALLATION AND CLEANING REQUIREMENTS.
- PROVIDE CONDUIT OR RACEWAY EXPANSION JOINT THAT ACCOMMODATES THE BUILDING MOVEMENT WHERE CONDUIT OR RACEWAY CROSSES BUILDING EXPANSION JOINT.
- PAINT INTERIOR EXPOSED CONDUIT/RACEWAY, PULL BOXES, AND ASSOCIATED HANGERS/SUPPORTS LOCATED IN OCCUPIED SPACES TO MATCH THE SURROUNDING ARCHITECTURAL COLOR SCHEME. PAINT EXTERIOR CONDUIT/RACEWAY, PULL BOXES, AND ASSOCIATED HANGERS/SUPPORTS ADJACENT TO EXTERIOR WALL TO MATCH WALL COLOR. FINAL COLORS SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER. SEE SPEC SECTION 27 0500 FOR ADDITIONAL REQUIREMENTS.
- PROVIDE IDENTIFICATION FOR CONDUIT, PULL BOXES, AND EQUIPMENT PER SPEC SECTION 26 0553.
- CONDUIT/RACEWAY SHALL NOT PASS THRU NOR UNDER ELECTRICAL ROOMS, ELEVATOR MACHINE ROOMS, ELEVATOR HOISTWAYS, SKYLIGHTS, AND ROOF ACCESS HATCHES.
- PULL BOXES SHALL BE ACCESSIBLE. PROVIDE KEYED ACCESS PANELS WHERE PULL BOXES HAVE BEEN LOCATED IN CONCEALED AREAS. ACCESS PANEL SIZE SHALL BE LARGE ENOUGH TO ACCESS EACH PULL BOX.
- A COMPLETE TEST FOR EACH SYSTEM SHALL BE PERFORMED BEFORE PROJECT IS READY FOR FINAL PUNCH WALK. THIS SHALL BE DONE IN ORDER TO VERIFY FULL FUNCTIONALITY OF EACH TECHNOLOGY SYSTEM
- ALL SECURITY ROUGH-IN, IF REQUIRED, SHALL BE COORDINATED WITH SECURITY VENDOR PRIOR TO ROUGH-IN. PROGRAMMING AND TERMINATIONS SHALL BE PROVIDED BY THE SECURITY VENDOR, WHERE REQUIRED.
- PROVIDE 200LB PULL STRING FOR EMPTY RACEWAYS.

## TECHNOLOGY SHEET INDEX:

Sheet Number	Sheet Name
T000	TECHNOLOGY COVER SHEET
T101	TECHNOLOGY SITE PLAN
T201	TECHNOLOGY - MAINT. BLDG. FLOOR PLAN
T401	TECHNOLOGY DETAILS

## CODES AND STANDARDS:

EDITION	REFERENCE CODE/STANDARD
2022	CALIFORNIA ADMINISTRATIVE CODE, (CCR, TITLE 24, PART 1)
2022	CALIFORNIA BUILDING CODE, (CCR, TITLE 24, PART 2)
2022	CALIFORNIA ELECTRICAL CODE, (CCR, TITLE 24, PART 3)
2022	CALIFORNIA MECHANICAL CODE, (CCR, TITLE 24, PART 4)
2022	CALIFORNIA PLUMBING CODE, (CCR, TITLE 24, PART 5)
2022	CALIFORNIA ENERGY CODE, (CCR, TITLE 24, PART 6)
2022	CALIFORNIA HISTORICAL BUILDING CODE, (CCR, TITLE 24, PART 8)
2022	CALIFORNIA FIRE CODE, (CCR, TITLE 24, PART 9)
2022	CALIFORNIA EXISTING BUILDING CODE, (CCR, TITLE 24, PART 10)
2022	CALIFORNIA GREEN BUILDING STANDARDS, (CCR, TITLE 24, PART 11)
2022	CALIFORNIA REFERENCED STANDARDS CODE, (CCR, TITLE 24, PART 12)
2022	STANDARD FOR INSTALLATION OF FIRE SPRINKLER SYSTEMS OF CALIFORNIA, (ADOPTS NFPA 13, 2022. WITH AMENDMENTS)
2018	NFPA 54-NATIONAL FUEL GAS CODE
2022	NFPA 72-NATIONAL FIRE ALARM AND SIGNALING CODE

CCR-CALIFORNIA CODE OF REGULATIONS  
 NFPA-NATIONAL FIRE PROTECTION AGENCY

## GENERAL LEGEND:

SYMBOL	DESCRIPTION
	DETAIL CALL-OUT SYMBOL
	EQUIPMENT TAG
	KEYNOTE SYMBOL
	POINT OF CONNECTION OR DISCONNECTION
	SECTION CUT CALL-OUT SYMBOL
	ENLARGED PLAN CALL-OUT SYMBOL
LINETYPE	DESCRIPTION
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	NEW CONSTRUCTION
(E)	EXISTING TO REMAIN
(X)	EXISTING TO BE REMOVED



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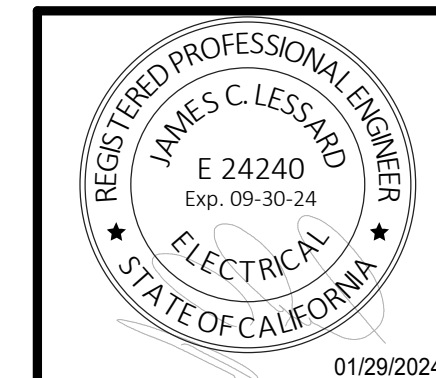
CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
 SARB MAINTENANCE FACILITY  
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4600 CRESTMORE ROAD  
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SHEET TITLE  
**TECHNOLOGY COVER SHEET**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
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SHEET  
**T000**

#	KEYNOTES - T101
NUMBER	TEXT
1	PROVIDE 1" UNDERGROUND SPARE CONDUIT, WITH PULL STRING, BETWEEN MAINTENANCE BUILDING FUTURE IDF LOCATION AND EXISTING MDF IN HEADQUARTERS BUILDING FOR FUTURE USE BY OTHERS (FIBER OPTIC CABLING).
2	PROVIDE FIRE-RATED BACK BOARD FOR FUTURE USE BY OTHERS (INSTALLATION OF WALL-MOUNT IDF RACK). SEE TECHNOLOGY FLOOR PLAN T201 FOR LOCATION AND DETAILS ON SHEET T401 FOR SPECIFIC REQUIREMENTS.

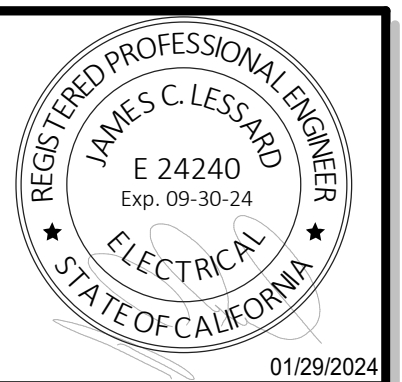


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SHEET TITLE  
**TECHNOLOGY  
 SITE PLAN**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
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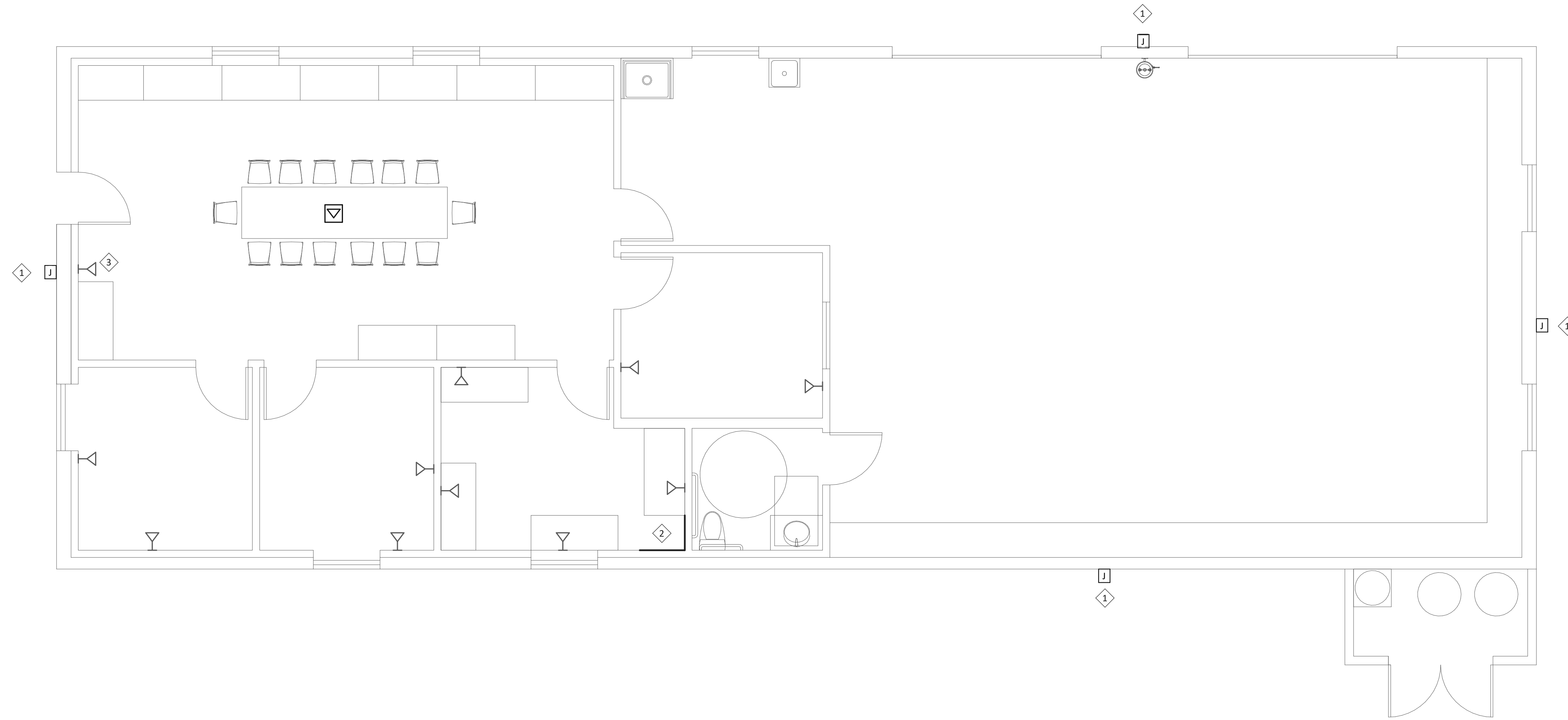
SHEET  
**T101**



N  
 1 **TECHANOLOGY - SITE PLAN**  
 3/64" = 1'-0"



#	KEYNOTES - T201
NUMBER	TEXT
1	PROVIDE ROUGH-IN FOR FUTURE CCTV CAMERA INSTALLATION (BY OTHERS) AT THIS LOCATION. COORDINATE ROUGH-IN ELEVATION WITH OWNER PRIOR TO COMMENCEMENT OF WORK. PROVIDE 3/4" CONDUIT, WITH PULL STRING, BETWEEN BACKBOX AND ABOVE NEAREST ACCESSIBLE CEILING.
2	PROVIDE NEW FIRE-RATED BACK BOARD AT THIS LOCATION FOR FUTURE USE BY OTHERS (INSTALLATION OF WALL-MOUNT IDF CABINET). PROVIDE IBT GROUND BAR AT THIS LOCATION. SEE DETAILS ON SHEET T401 FOR ADDITIONAL REQUIREMENTS.
3	PROVIDE DATA OUTLET ROUGH-IN FOR FIRE ALARM CONTROL PANEL AT THIS LOCATION. COORDINATE ROUGH-IN LOCATION WITH FIRE ALARM CONTRACTOR. CABLING AND TERMINATION BY OTHERS.



N  
**1** TECHNOLOGY - MAINTENANCE BUILDING FLOOR PLAN  
 1/4" = 1'-0"



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REVISIONS	DATE	BY



SHEET TITLE  
**TECHNOLOGY - MAINT. BLDG. FLOOR PLAN**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**T201**

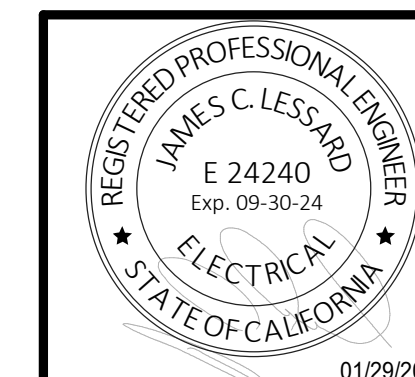


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 JURUPA VALLEY, CA 92509

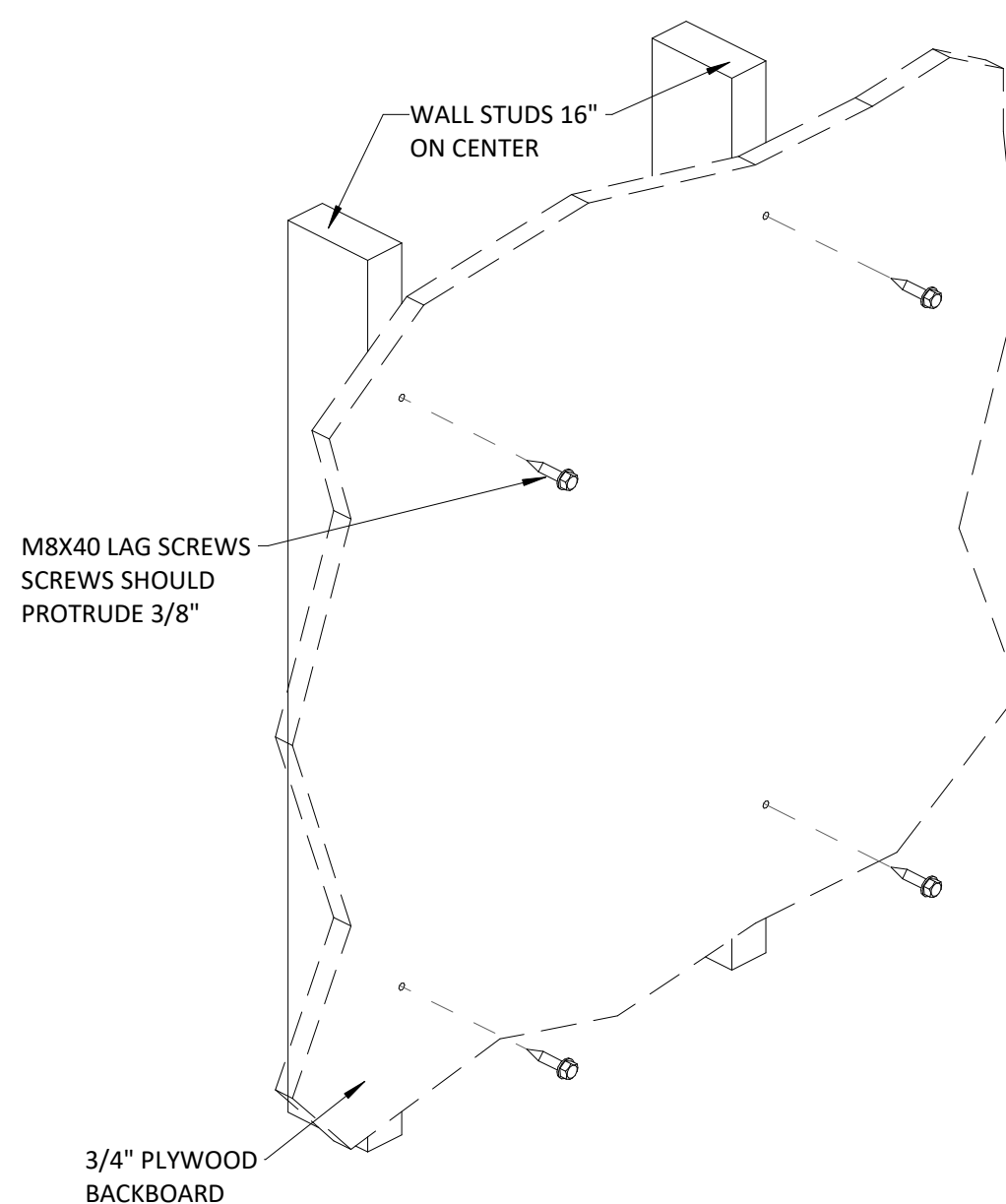
REVISIONS	DATE	BY



SHEET TITLE  
**TECHNOLOGY  
 DETAILS**

DESIGNED	JCL
DRAWN	RUM
CHECKED	JCL
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

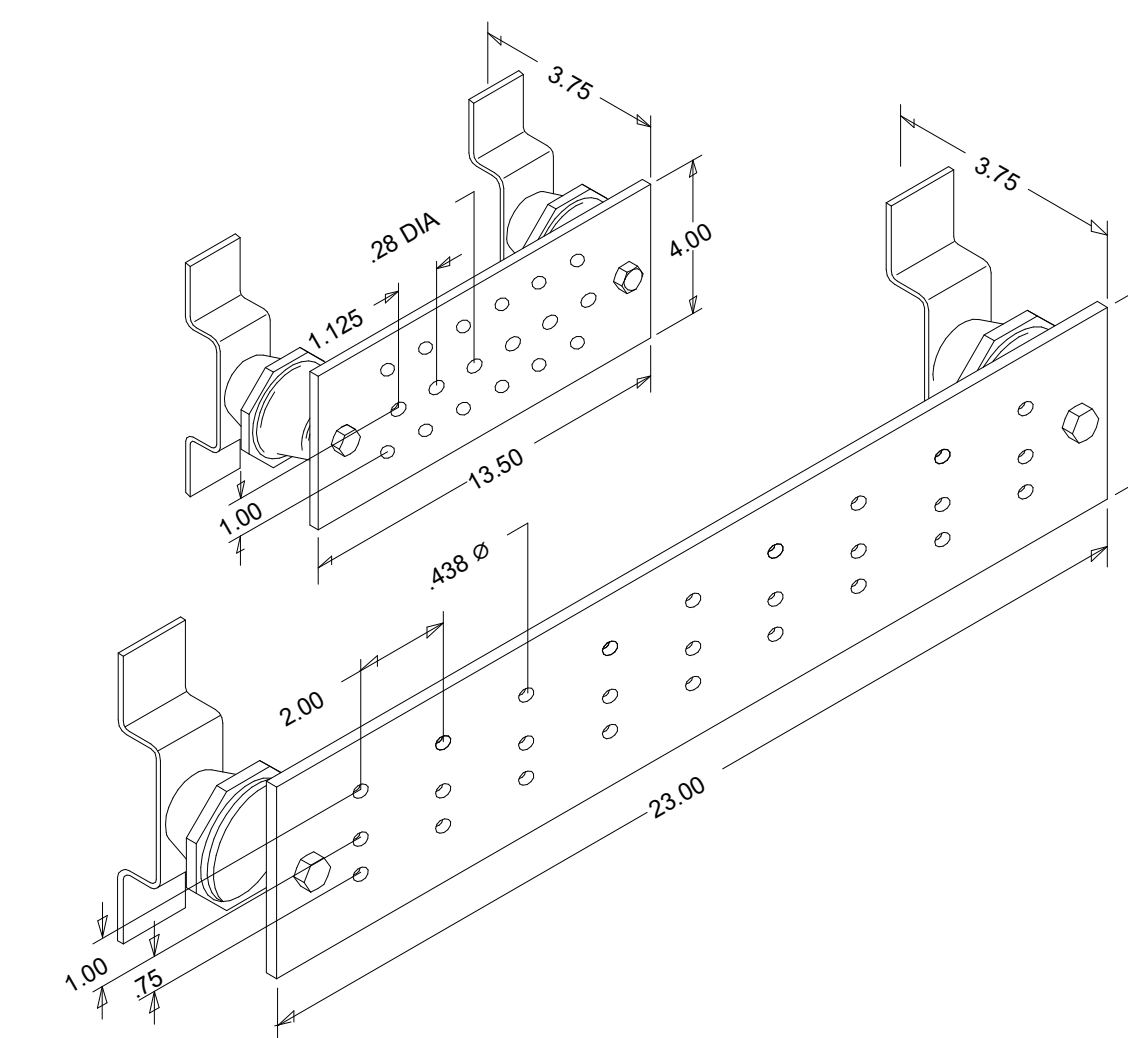
SHEET  
**T401**



- NOTE:
- LAG SCREWS ARE INTENDED TO GO THROUGH 3/4" PLYWOOD.
  - PROVIDE FIRE-RATED BACKBOARD PLYWOOD IN THE LOCATION AS INDICATED PER PLAN, FOR FUTURE USE BY OTHERS (INSTALLATION OF WALL-MOUNT IDF CABINET).

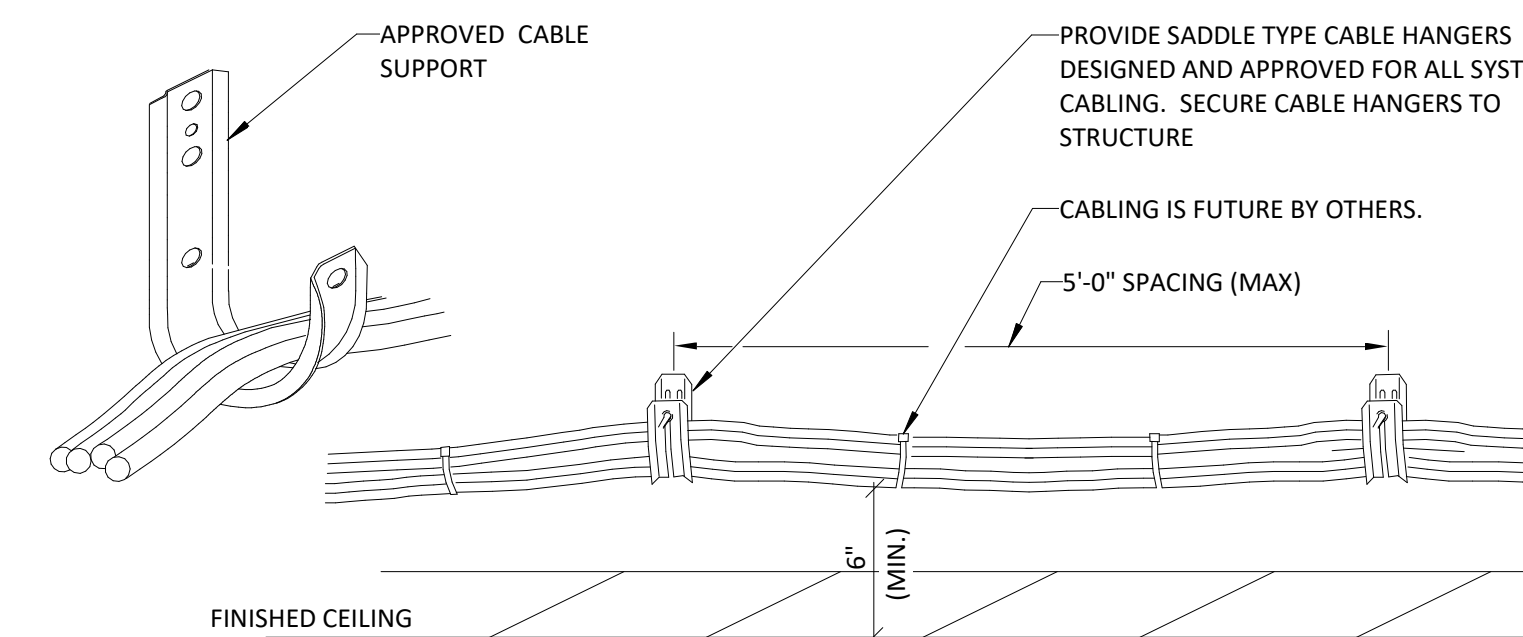
**WALL MOUNT BACKBOARD (WOOD FRAME)**

NTS 4



**IBT GROUND BUS**

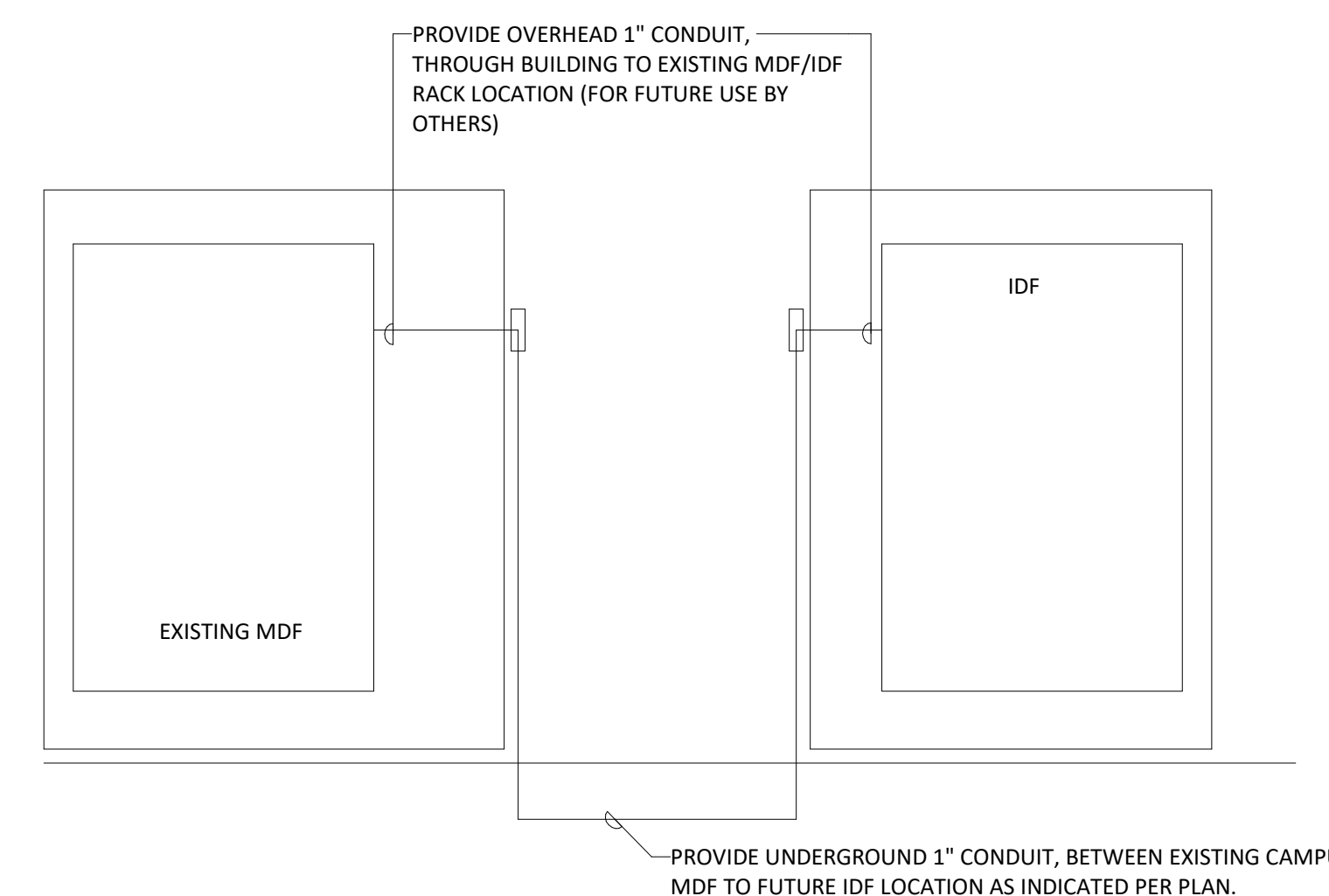
NTS 1



- INSTALLATION NOTES:
- PROVIDE J-HOOK PATHWAYS BETWEEN DATA ROUGH-IN LOCATIONS, INDICATED ON PLAN, AND FUTURE IDF RACK LOCATION. SPACING SHALL NOT EXCEED 5'-0" BETWEEN SUPPORTS.
  - SUBMIT FOR APPROVAL PLANNED J-HOOK PATHWAY ROUTING PRIOR TO INSTALLATION.

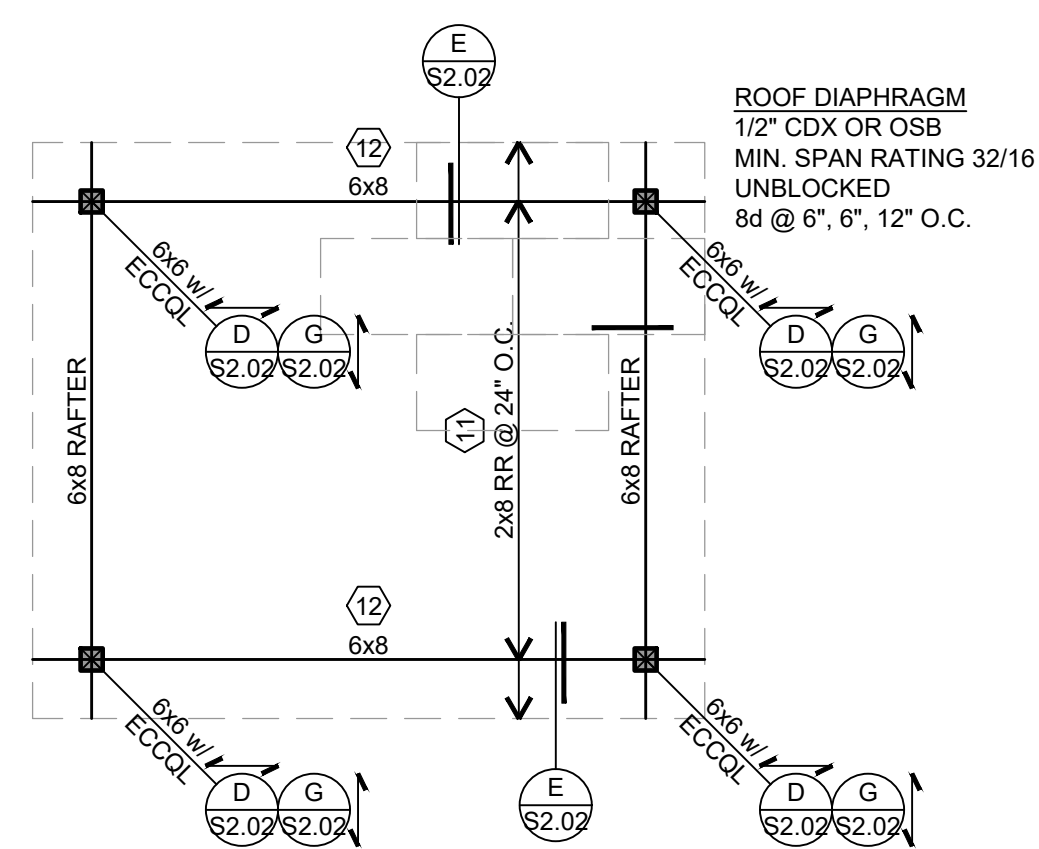
**LOW VOLTAGE CABLING INSATLLATION WITH CABLE HANGERS**

NTS 2



**CONDUIT RISER DIAGRAM**

NTS 3

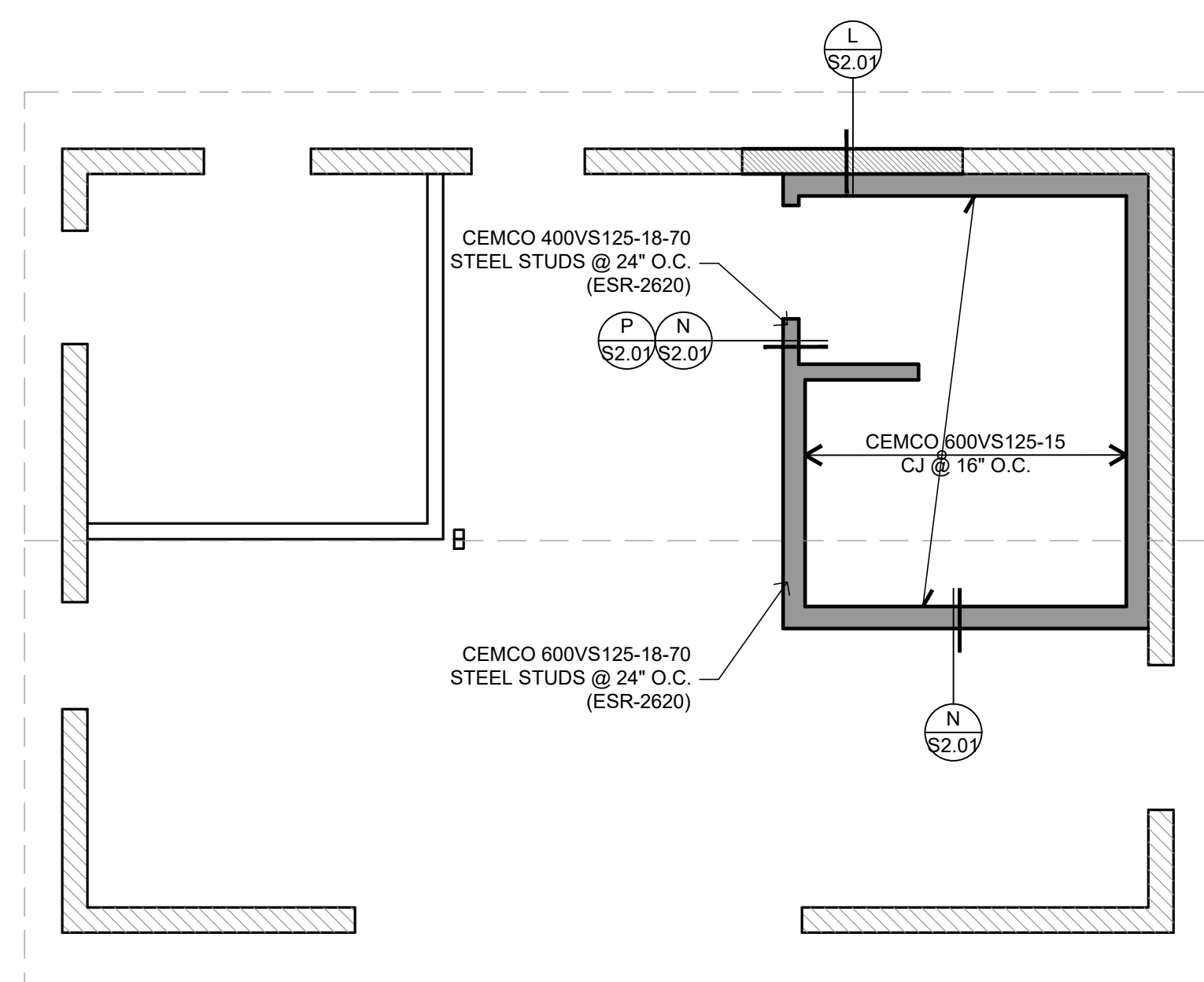


### ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

#### WALL LEGEND

	EXISTING CMU WALL TO REMAIN
	NEW CMU WALL
	EXISTING 2x WALL TO REMAIN
	NEW 2x WALL
	EXISTING WALL TO BE REMOVED

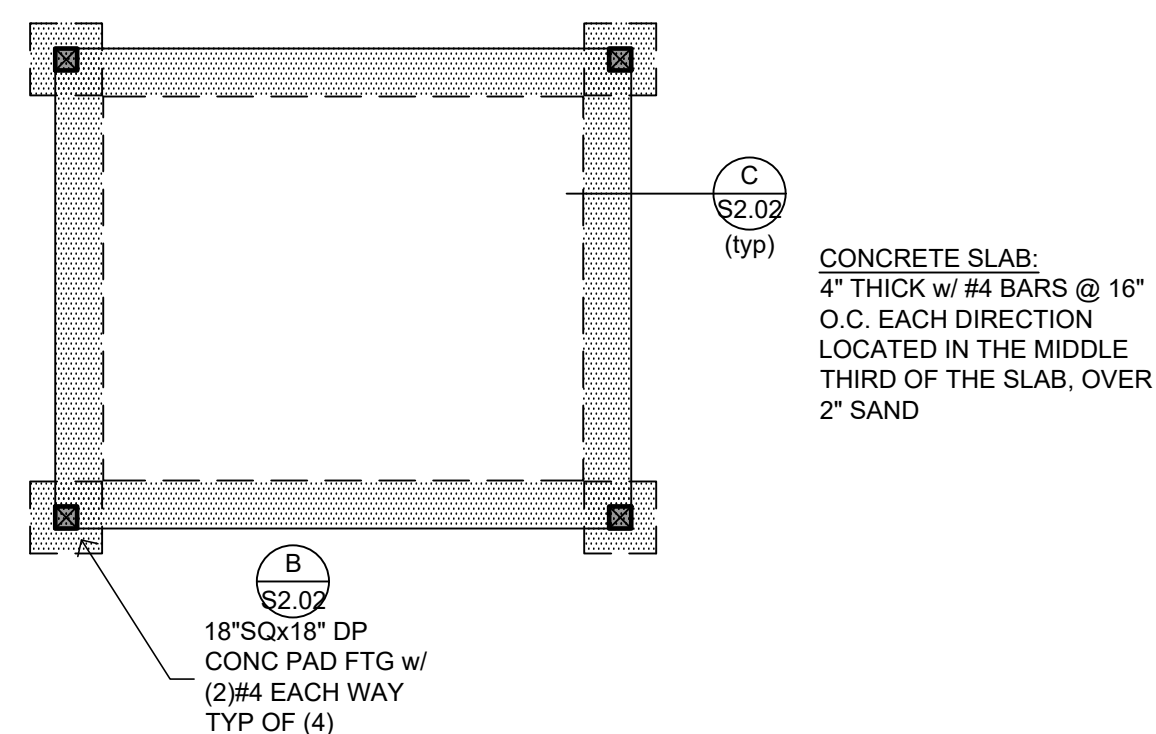


### ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

#### WALL LEGEND

	EXISTING CMU WALL TO REMAIN
	NEW CMU WALL
	EXISTING 2x WALL TO REMAIN
	NEW 2x WALL
	EXISTING WALL TO BE REMOVED



### FOUNDATION PLAN

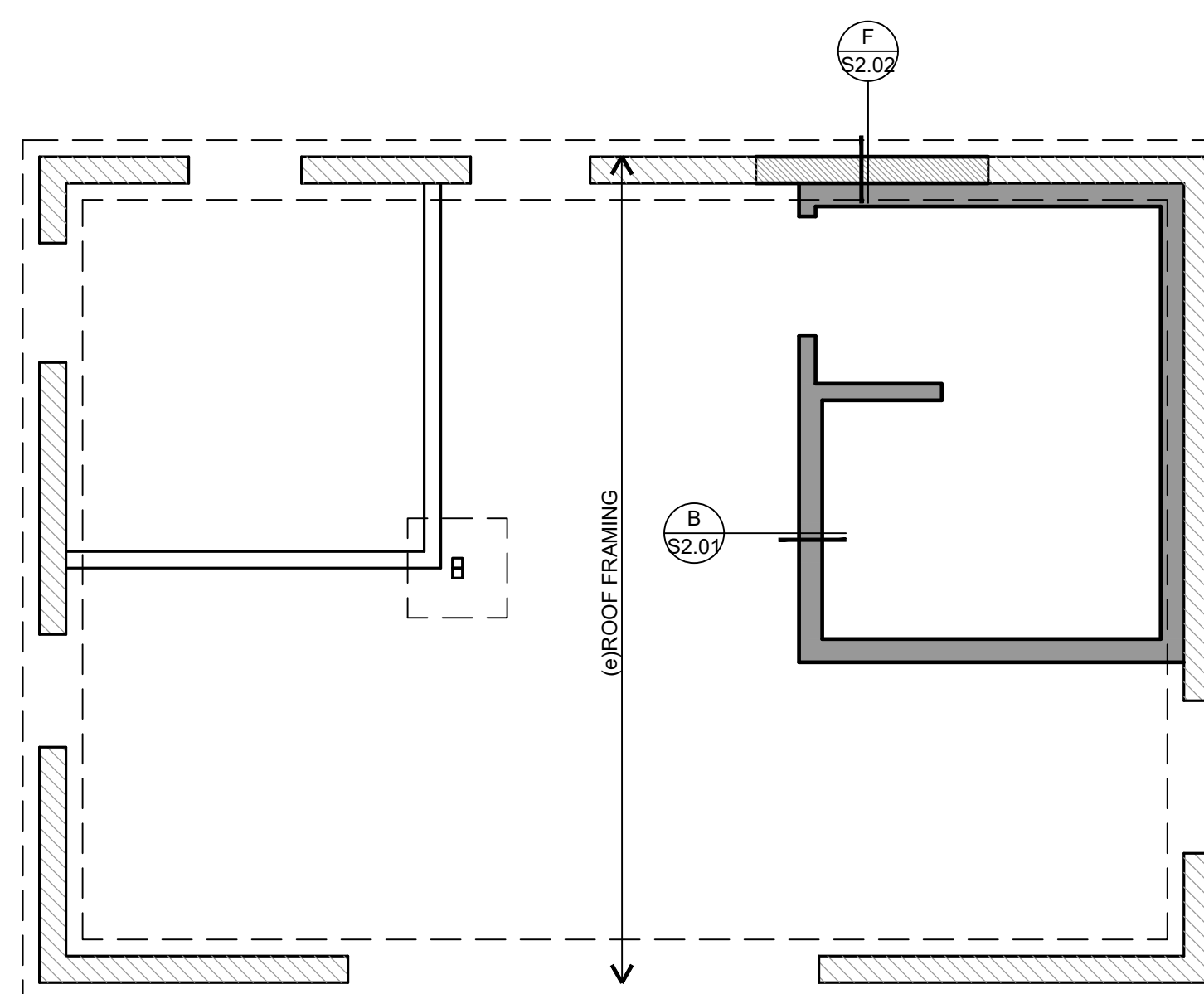
SCALE: 1/4"=1'-0"

#### WALL LEGEND

	EXISTING CMU WALL TO REMAIN
	NEW CMU WALL
	EXISTING 2x WALL TO REMAIN
	NEW 2x WALL
	EXISTING WALL TO BE REMOVED

#### FOOTING LEGEND

	EXISTING FOUNDATION
	NEW FOUNDATION



### FOUNDATION PLAN

SCALE: 1/4"=1'-0"

#### WALL LEGEND

	EXISTING CMU WALL TO REMAIN
	NEW CMU WALL
	EXISTING 2x WALL TO REMAIN
	NEW 2x WALL
	EXISTING WALL TO BE REMOVED

#### FOOTING LEGEND

	EXISTING FOUNDATION
	NEW FOUNDATION

### NOTES

**FOUNDATION NOTES:**  
1. REFER TO S1.02 FOR FOUNDATION NOTES.

**FRAMING NOTES:**  
1. REFER TO S1.03 FOR FRAMING NOTES.

### DESIGN CRITERIA

2022 CBC

**GRAVITY LOADS**  
ROOF LIVE LOAD: 20 psf  
FLOOR LIVE LOAD: 40 psf  
SNOW LIVE LOAD: 0 psf

**SOIL BEARING:** 1500 psf  
SOIL PASSIVE: 100 pcf

**WIND LOADS/FACTORS**  
V = 100 MPH  
I = 1.0  
EXPOSURE CATEGORY: C  
h = 15, 20  
λ = 1.21 (h=15), 1.29 (h=20)  
K<sub>zt</sub> = 1.0  
P<sub>s0</sub> = 22.0  
P<sub>s</sub> = 15.97 (h=15), 17.03 (h=20)

**SEISMIC LOADS/FACTORS**  
SITE CLASS: D (stiff soil)  
OCCUPANCY CATEGORY: II  
I = 1.0  
S<sub>s</sub> = 1.50  
F<sub>a</sub> = 1.0  
S<sub>0.5</sub> = 1.00  
S<sub>1</sub> = 0.60  
F<sub>v</sub> = 1.02  
S<sub>0.1</sub> = 1.02  
SEISMIC DESIGN CATEGORY: D  
F = n/a  
R = 5, 1.5  
ρ = 1.3  
C<sub>s</sub> = 0.200 (R=5), 0.667 (R=1.5)  
V = 0.186W (R=5), 0.619 (R=1.5)

### \*\*EXISTING FRAMING\*\*

EXISTING FRAMING SHOWN (SPANS AND DIRECTIONS) ARE ASSUMED BASED ON AVAILABLE INFORMATION PRIOR TO CONSTRUCTION BEGINNING. IF DURING DEMOLITION IT IS FOUND THAT THE EXISTING FRAMING DIFFERS FROM WHAT IS SHOWN ON THE PLANS, CONTACT ENGINEER OR RECORD.

### SYMBOLS LEGEND

#	DENOTES BEAM NUMBER IN STRUCTURAL CALC'S
L	DENOTES PANEL TYPE & LENGTH (SEE SHEAR PANEL SCHEDULE FOR PANEL DEFINITIONS)
PSL	PARALLAM (BY TRUS JOIST), OR APPROVED EQUAL, E=2.2E, Fb=2,900, PSI, Fv= 290 PSI (ESR=1387)
LVL	MICROLLAM (BY TRUS JOIST), OR APPROVED EQUAL, E= 2.0E, Fb= 2,600 PSI, Fv= 285 PSI (ESR=1387)
GLB	GLU-LAM BEAM, 24F-V4 TYP., 24F-V8 FOR CANTILEVERS
TJI	MANUFACTURED I-JOIST (BY TRUS JOIST, ESR-1153), OR APPROVED EQUAL
RR	ROOF RAFTER
CJ	CEILING JOIST
FJ	FLOOR JOIST
EN	EDGE/END NAILING
DF	DOUGLAS-FIR
DF #1	DOUGLAS-FIR #1
DF #2	DOUGLAS-FIR #2
DFSS	DOUGLAS-FIR SELECT STRUCTURAL

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CLIENT:  
COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:  
SARB MAINTENANCE FACILITY  
PROJECT NO. PK-ARPA009  
4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

01/29/2024

SHEET TITLE  
**HAZMAT COVER AND BLDG 'D' FOUNDATION AND ROOF FRAMING**

DESIGNED	JRM
DRAWN	JRM
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**S1.01**

REVISIONS	DATE	BY



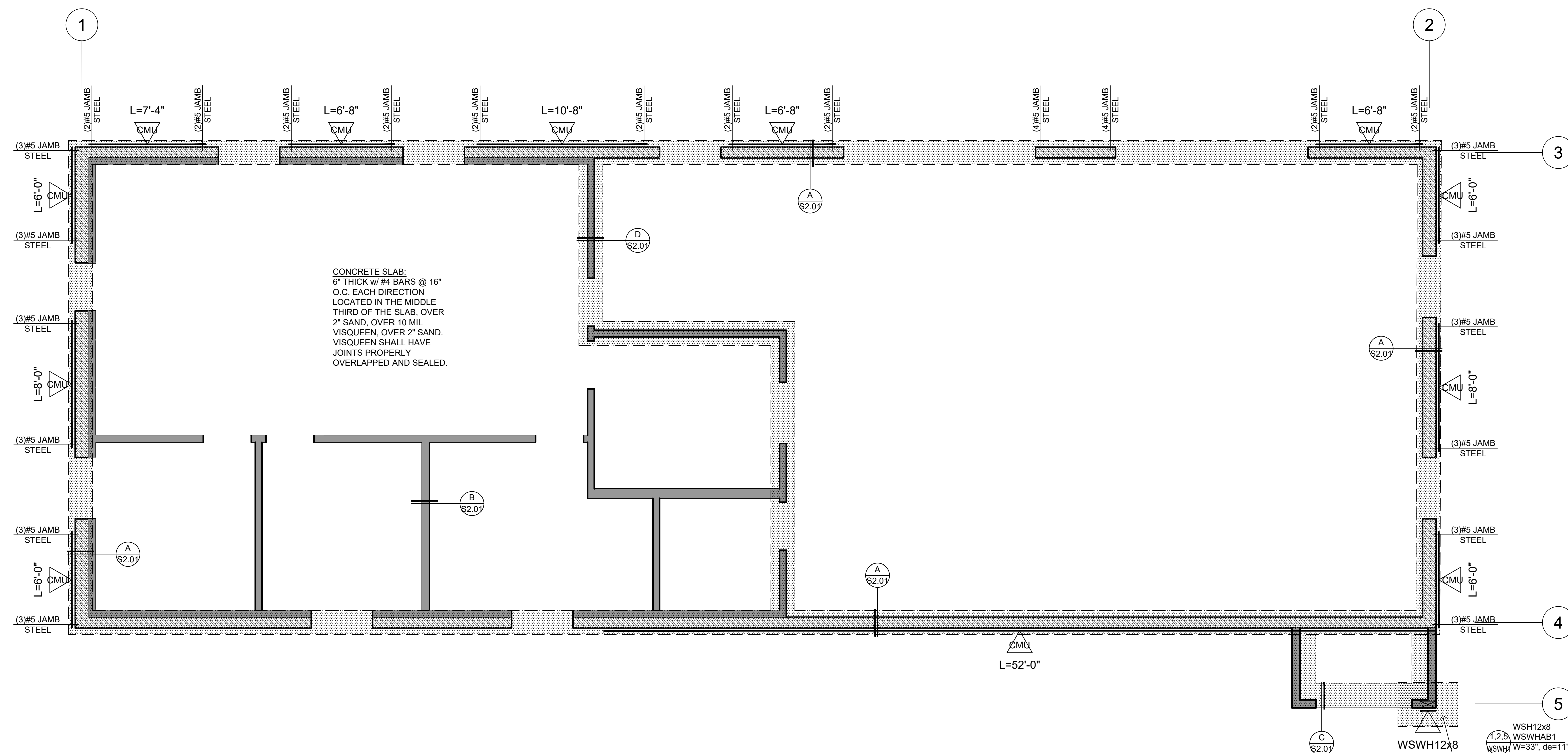
SHEET TITLE  
**MAINTENANCE BLDG FOUNDATION**

DESIGNED	JRM
DRAWN	JRM
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**S1.02**

**NOTES**

- FOUNDATION NOTES:**
- CONCRETE SHALL ATTAIN 2500 PSI MINIMUM IN 28 DAYS, BE OF TYPE V CEMENT, AND HAVE A MINIMUM OF 5 SACKS CEMENT PER CUBIC YARD, UNO PER A SOILS REPORT.
  - ANCHOR BOLTS SHALL BE 5/8" DIA. x 10" LONG MIN. W/ 7" MIN. EMBEDMENT W/ 3"x3"x0.229" WASHER PLATES, 2 MIN. PER SILL PLATE, 12" MAX. FROM EACH END AND 72" MAX. O.C. UNO.
  - THE HOLE IN THE WASHER PLATES IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.
  - BOTTOM PLATES SHALL BE TREATED D.F.
  - ALL HOLD DOWN HARDWARE SHALL BE SECURED IN PLACE BY TEMPLATE PRIOR TO FOUNDATION INSPECTION. HOLD DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
  - LANDINGS SHALL NOT BE MORE THAN 1-1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY AND MAY BE 7-3/4" MAX. LOWER THAN THE THRESHOLD WHEN THE DOOR DOES NO SWING OVER THE LANDING. EXTERIOR LANDINGS SHALL BE 36"x36" MIN. WITH A MIN. SLOPE OF 1/4" PER FOOT FOR DRAINAGE.
  - FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL: SUCH AS ANCHOR BOLTS, LAG SCREWS AND NAILS.
  - REBAR SHALL BE GRADE 60 DEFORMED, PER A-615.
  - SEE SHEAR PANEL SCHEDULE FOR ANCHOR BOLT SPACING AT SHEAR PANELS SHOWN ON PLAN.
  - CMU SHALL CONFORM TO ASTM C-90, GRADE-N, SOLID GROUTED, AND  $f'_{m}=1500$  PSI.
  - GROUT SHALL BE 2000 PSI MINIMUM, MORTAR SHALL BE TYPE 'M' OR 'S'.
  - ALL FOOTING BARS SHALL HAVE 3" MINIMUM CLEAR TO SOIL.
  - REBAR MAY BE LAPPED 32" FOR ERECTION CONVENIENCE.



**FOUNDATION PLAN**

SCALE: 1/4"=1'-0"

**WALL LEGEND**

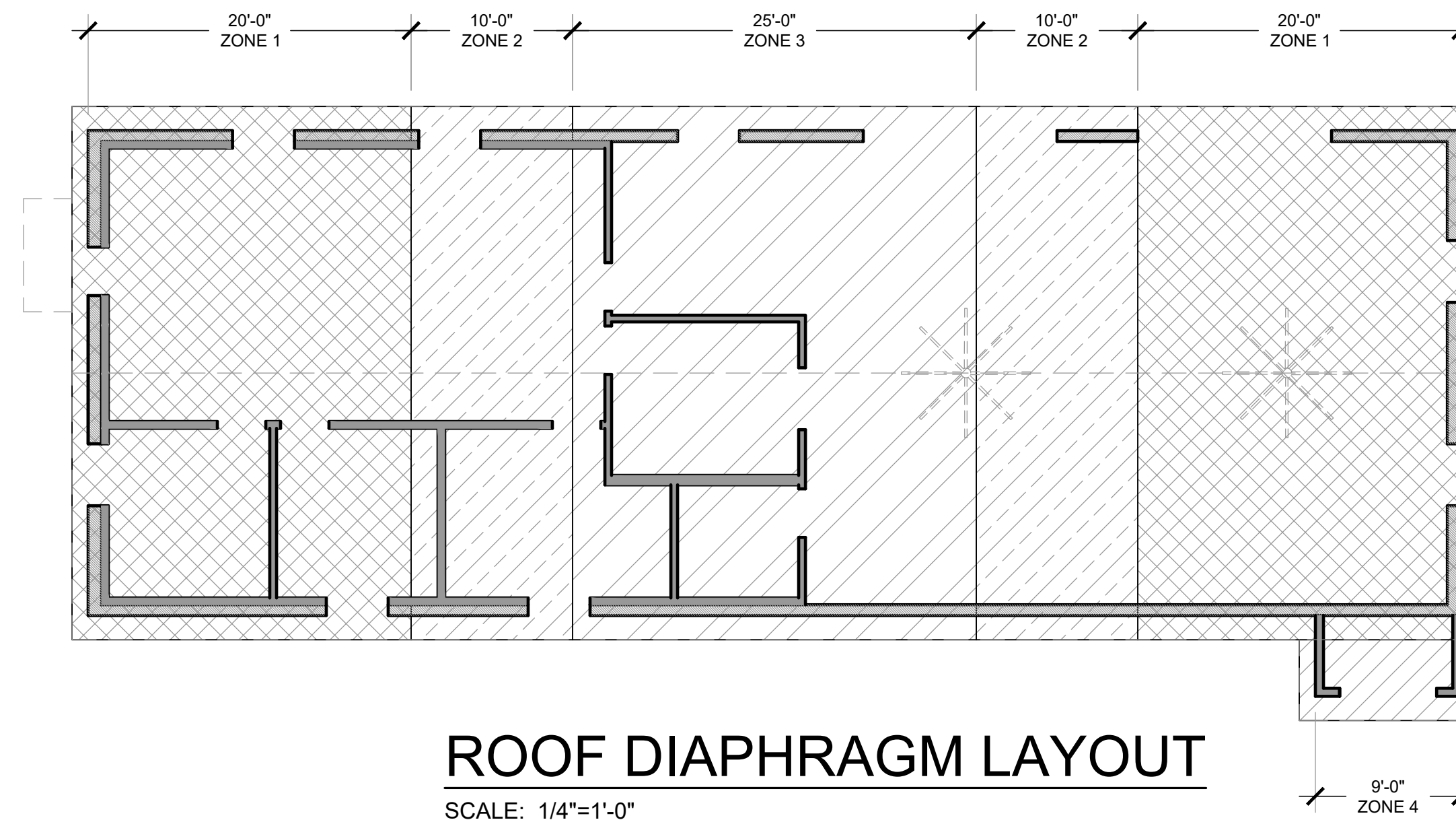
- EXISTING WALL (e)
- REMOVED WALL
- NEW WALL (n)

**SYMBOLS LEGEND**

- # DENOTES BEAM NUMBER IN STRUCTURAL CALC'S
- L# DENOTES PANEL TYPE & LENGTH (SEE SHEAR PANEL SCHEDULE FOR PANEL DEFINITIONS)
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- LVL MICROLLAM (BY TRUS JOIST), OR APPROVED EQUAL, E= 2.0E, Fb= 2,600 PSI, Fv= 285 PSI (ESR=1387)
- GLB GLU-LAM BEAM, 24F-V4 TYP., 24F-V8 FOR CANTILEVERS
- TJI MANUFACTURED I-JOIST (BY TRUS JOIST, ESR-1153), OR APPROVED EQUAL
- RR ROOF RAFTER
- CJ CEILING JOIST
- FJ FLOOR JOIST
- EN EDGE/END NAILING
- DF DOUGLAS-FIR
- DF #1 DOUGLAS-FIR #1
- DF #2 DOUGLAS-FIR #2
- DFSS DOUGLAS-FIR SELECT STRUCTURAL

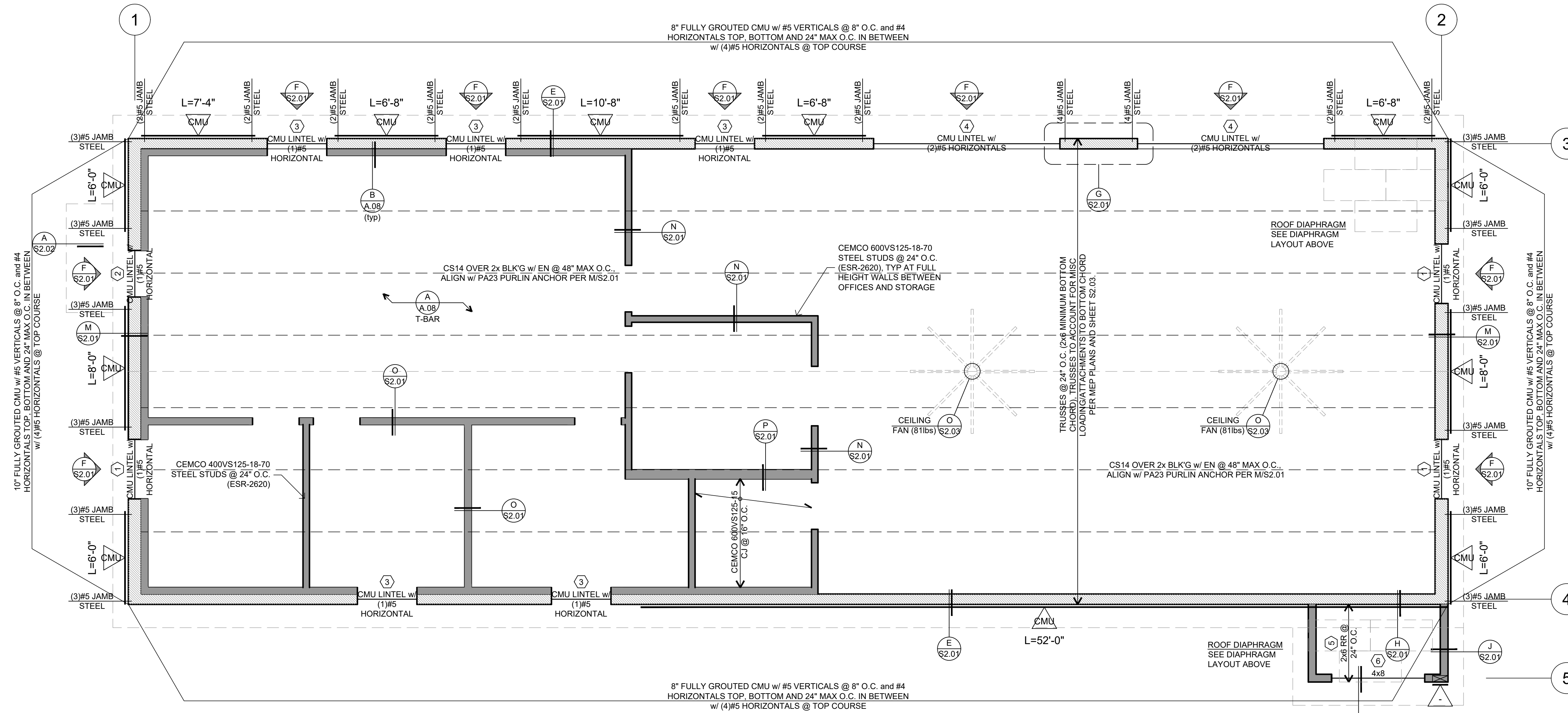
### ROOF DIAPHRAGM LEGEND

- ZONE 1:**
  - 1/2" STRUCT 1 CDX PLYWOOD
  - MIN SPAN RATING 32/16
  - BLOCKED
  - 3x NOM WIDTH FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES
  - TWO ROWS OF NAILS (ROWS STAGGERED, 1/2" APART FROM EACH OTHER AND 3/8" MIN FROM PANEL EDGE)
  - 10d @ 2'-1/2", 3", 12" O.C.
- ZONE 2:**
  - 1/2" STRUCT 1 CDX PLYWOOD
  - MIN SPAN RATING 32/16
  - BLOCKED
  - 10d @ 2', 3", 12" O.C.
- ZONE 3:**
  - 1/2" STRUCT 1 CDX PLYWOOD
  - MIN SPAN RATING 32/16
  - BLOCKED
  - 10d @ 4", 6", 12" O.C.
- ZONE 4:**
  - 1/2" STRUCT 1 CDX PLYWOOD
  - MIN SPAN RATING 32/16
  - BLOCKED
  - 10d @ 4", 6", 12" O.C.



### NOTES

- FRAMING NOTES:**
- ALL SAWN LUMBER SHALL COMPLY w/ DOC PS 20.
  - ALL 2x JOISTS/BEAMS/LUMBER TO BE D.F. #2 OR BETTER, UNO AND GRADE MARKED.
  - ALL 4x AND LARGER BEAMS/HEADERS TO BE D.F. #1 OR BETTER, UNO AND GRADE MARKED.
  - WHERE TRUSSES ARE USED, TRUSSES SHALL NOT BEAR ON INTERIOR WALL UNLESS INDICATED OTHERWISE.
  - NAILS AND STAPLES SHALL COMPLY w/ ASTM F1667.
  - ALL HARDWARE SHALL BE OF APPROVED TYPE.
  - ALL ROOF OPENINGS SHALL HAVE FLASHING.
  - ALL EXTERIOR WALLS SHALL BE 2x4 STUDS @ 16" o.c., UNO. ALL PLUMBING WALLS SHALL BE 2x6 STUDS @ 16" o.c. ANY WALL ABOVE 10'-0" IN HEIGHT SHALL BE 2x6 STUDS @ 16" o.c. UNO. INTERIOR WALLS SHALL BE 2x4 STUDS @ 16" o.c.
  - WOOD PANELS (PLYWOOD OR OSB) SHALL COMPLY w/ DOC PS1 and/or DOC PS2. SEE PLAN FOR THICKNESS. ALL PANELS TO BE GRADE MARKED.
  - ALL EXPOSED PLYWOOD SHALL BE CCX.
  - TWO LAYERS OF GRADE 'D' PAPER SHALL BE APPLIED OVER ALL WOOD BASE SHEATHING.
  - WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTLY IN AN EXTERIOR WALL OR INTERIOR LOAD-BEARING WALL, NECESSITATING CUTTING, DRILLING OR NOTCHING OF THE TOP PLATE BY MORE THAN 50 PERCENT OF ITS WIDTH, A GALVANIZED METAL TIE NOT LESS THAN 0.054 INCHES THICK AND 1-1/2 INCHES WIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING WITH NOT LESS THAN EIGHT 10d NAILS HAVING A MINIMUM LENGTH OF 1-1/2" AT EACH SIDE OR EQUIVALENT. THE METAL TIE MUST EXTEND A MINIMUM OF 6 INCHES PAST THE OPENING. EXCEPTION: WHEN THE ENTIRE SIDE OF THE WALL WITH THE NOTCH OR CUT IS COVERED BY WOOD STRUCTURAL PANEL SHEATHING.
  - FASTENERS FOR SOLE PLATE NAILING, AND WOOD STRUCTURAL PANEL SHEATHING ON SHEAR WALLS AND DIAPHRAGMS SHALL BE COMMON NAILS WITH FULL HEADS.
  - HOLD-DOWN CONNECTOR BOLTS IN WOOD FRAMING REQUIRE APPROVED PLATE WASHERS AND HOLD-DOWNS SHALL BE TIGHTENED TO FINGER TIGHT PLUS ONE-HALF WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING.
  - JOISTS UNDER AND PARALLEL TO BEARING WALLS SHALL BE DOUBLED.
  - WHERE PREFABRICATED WOOD 1" FLOOR JOISTS ARE USED, DRAG JOISTS, BLOCKING, AND RIM JOISTS SHALL BE 1-3/4" x FJ DEPTH TIMBERSTRAND, UNO.
  - PROVIDE FULL BEARING STUDS AT ALL GIRDER TRUSS BEARING POINTS.
  - FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL, SUCH AS ANCHOR BOLTS, LAG SCREWS AND NAILS.
  - WHEN TRUSSES ARE USED, TRUSS LAYOUT AND CALCULATIONS SHALL BE APPROVED BY ENGINEER AND BUILDING OFFICIAL PRIOR TO FABRICATION.
  - STEEL TUBE TO BE 46 KSI, W SECTIONS A992 GRADE 50 STEEL TO BE PROVIDED BY LICENSED FABRICATOR. WELDING TO BE PERFORMED BY CERTIFIED WELDER W/ CONTINUOUS DEPUTY INSPECTION.
  - SHEAR PANEL SHEATHING MAY BE ON EITHER SIDE OF WALL.
  - PRESERVATIVE TREATED WOOD SHALL COMPLY w/ AWPA STANDARD U1 AND M4. ALL PRESERVATIVE TREATED WOOD SHALL BEAR THE QUALITY MARK OF THE INSPECTION AGENCY. THE QUALITY MARK SHALL BE ON A STAMP OR LABEL AFFIXED TO THE WOOD AND SHALL INCLUDE THE FOLLOWING INFORMATION: IDENTIFICATION OF TREATING MANUFACTURER, TYPE OF PRESERVATIVE USED, MINIMUM PRESERVATIVE RETENTION (pcf), END USE FOR WHICH THE PRODUCT IS TREATED, AWPA STANDARD TO WHICH THE PRODUCT WAS TREATED, AND IDENTITY OF THE ACCREDITED INSPECTION AGENCY.
  - PROVIDE LEAD HOLE 40% TO 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
  - ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. STRENGTH AXIS OF WOOD STRUCTURAL PANEL SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR DIAPHRAGMS SHALL BE TONGUE AND GROOVE OR HAVE BLOCKED PANEL EDGES.
  - MECHANICALLY DRIVEN NAILS USED IN WOOD STRUCTURAL PANEL SHEAR WALLS SHALL MEET THE SAME DIMENSIONS AS THAT REQUIRED FOR HAND-DRIVEN NAILS, INCLUDING DIAMETER, MINIMUM LENGTH AND MINIMUM HEAR DIAMETER. CLIPPED HEAD OR BOX NAILS ARE NOT ACCEPTABLE.
  - MOISTURE CONTENT OF PRESERVATIVE-TREATED WOOD SHALL BE 19% OR LESS BEFORE BEING COVERED WITH INSULATION, INTERIOR WALL FINISH, AND FLOOR COVERING OF OTHER MATERIALS.
  - SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTORS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.
  - ENGINEERED WOOD PRODUCTS SUCH AS PREFABRICATED I-JOISTS, STRUCTURAL CLUED-LAMINATED TIMBER, STRUCTURAL COMPOSITE LUMBER AND DESIGN TRUSSES SHALL NOT BE NOTCHED OR DRILLED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATIONS OR WHERE THE EFFECTS OF SUCH ALTERATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER BY A REGISTERED DESIGN PROFESSIONAL IN DRILLED HOLE IN PRESERVATIVE WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4.
  - FASTENERS FOR ROOF COVERING SHALL BE CORROSION RESISTANT SUCH AS COPPER, BRASS, STAINLESS STEEL OR GALVANIZED.
  - ROOF DIAPHRAGM NAILING SHALL BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. THE FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.8(1).
  - TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT APPROVAL OF PROFESSIONAL. ALTERATION RESULTING IN THE ADDITION OF LOAD THAT EXCEED THE DESIGN LOAD FOR THE TRUSS SHALL NOT BE PERMITTED WITHOUT VERIFICATION THAT THE TRUSS IS CAPABLE OF SUPPORTING THE ADDITIONAL LOADING.



### ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

### WALL LEGEND

- EXISTING CMU WALL TO REMAIN
- NEW CMU WALL
- EXISTING 2x WALL TO REMAIN
- NEW 2x WALL
- EXISTING WALL TO BE REMOVED

### SYMBOLS LEGEND

- # DENOTES BEAM NUMBER IN STRUCTURAL CALC'S
- L# DENOTES PANEL TYPE & LENGTH (SEE SHEAR PANEL SCHEDULE FOR PANEL DEFINITIONS)
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COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

CLIENT:

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

SARB MAINTENANCE FACILITY  
PROJECT NO. PK-ARPA009

PROJECT:

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER  
DAVID MICHAEL BECKWITH  
No. 73761  
Exp. 06/30/25  
CIVIL  
STATE OF CALIFORNIA

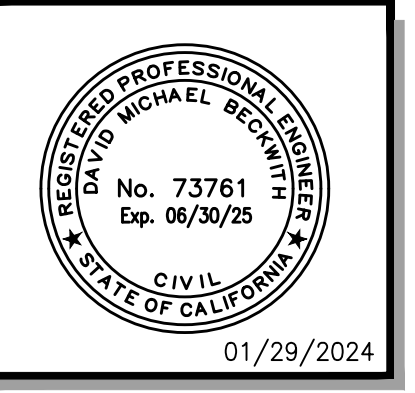
01/29/2024

SHEET TITLE  
**MAINTENANCE BLDG ROOF FRAMING**

DESIGNED	JRM
DRAWN	JRM
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**S1.03**

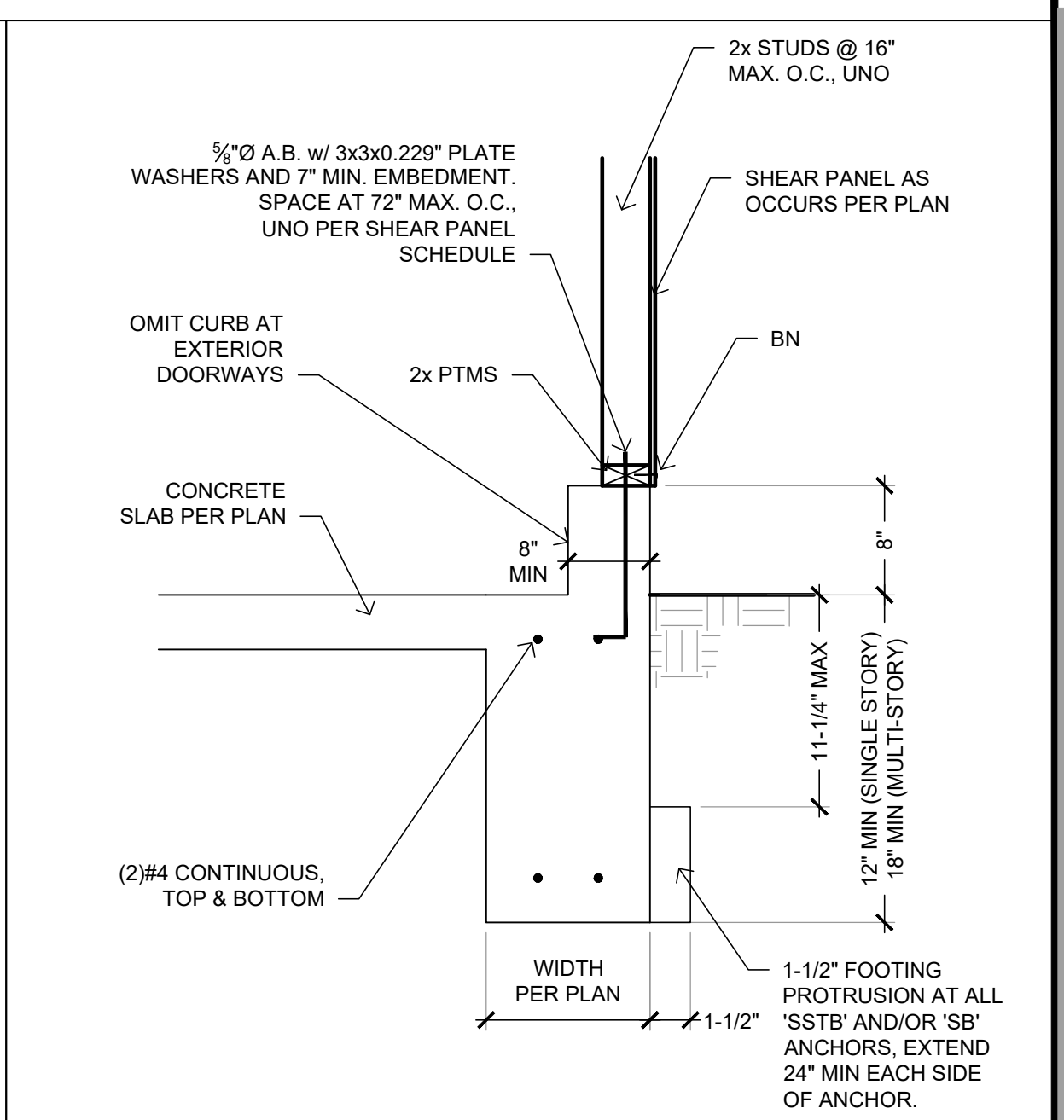
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 DRAWN: JRM  
 CHECKED: DMB  
 DATE: 01/29/2024  
 SCALE: PER PLAN  
 JOB NO.: 2023-29



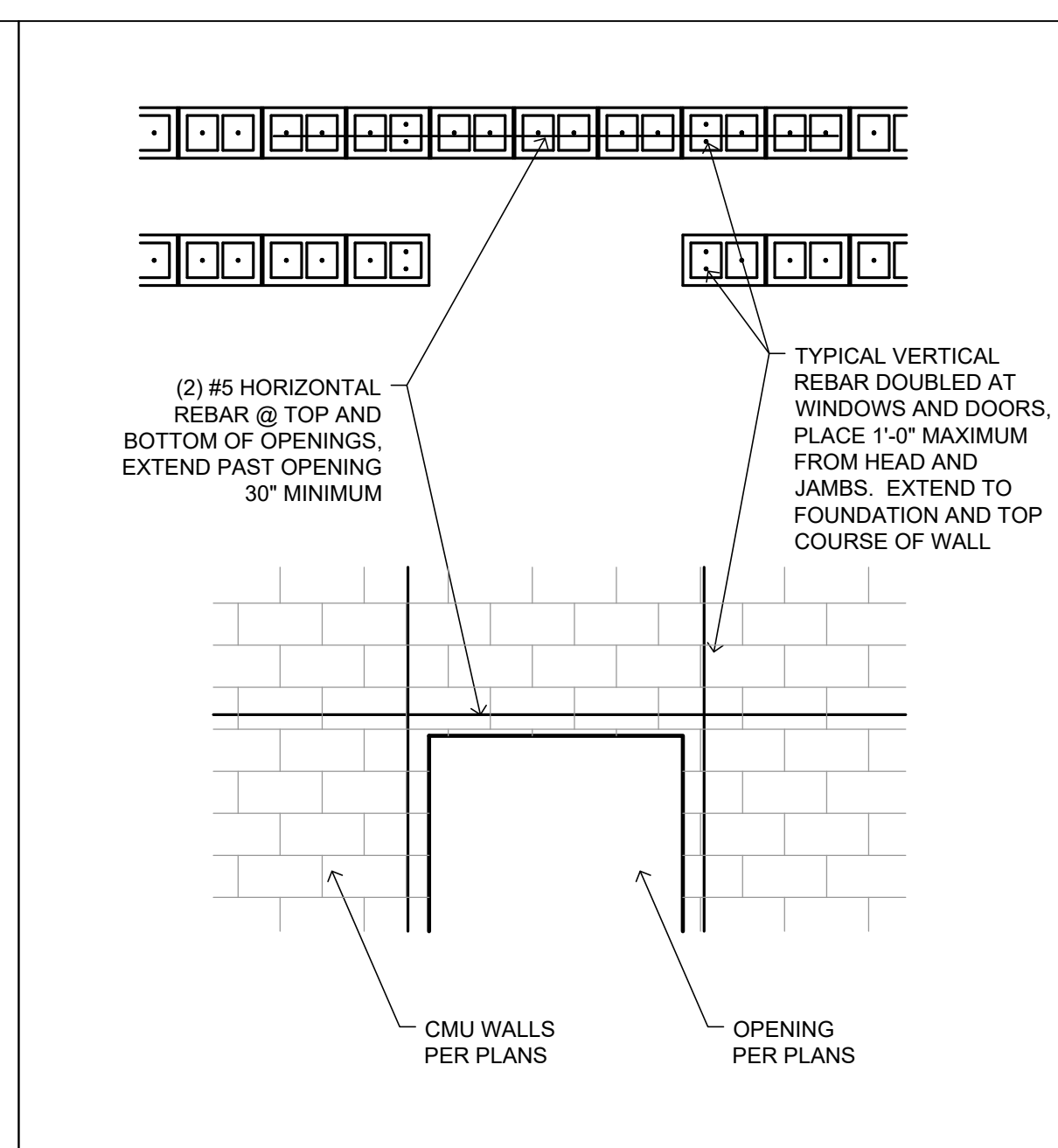
SHEET TITLE  
**DETAILS**

DESIGNED: JRM  
 DRAWN: JRM  
 CHECKED: DMB  
 DATE: 01/29/2024  
 SCALE: PER PLAN  
 JOB NO.: 2023-29

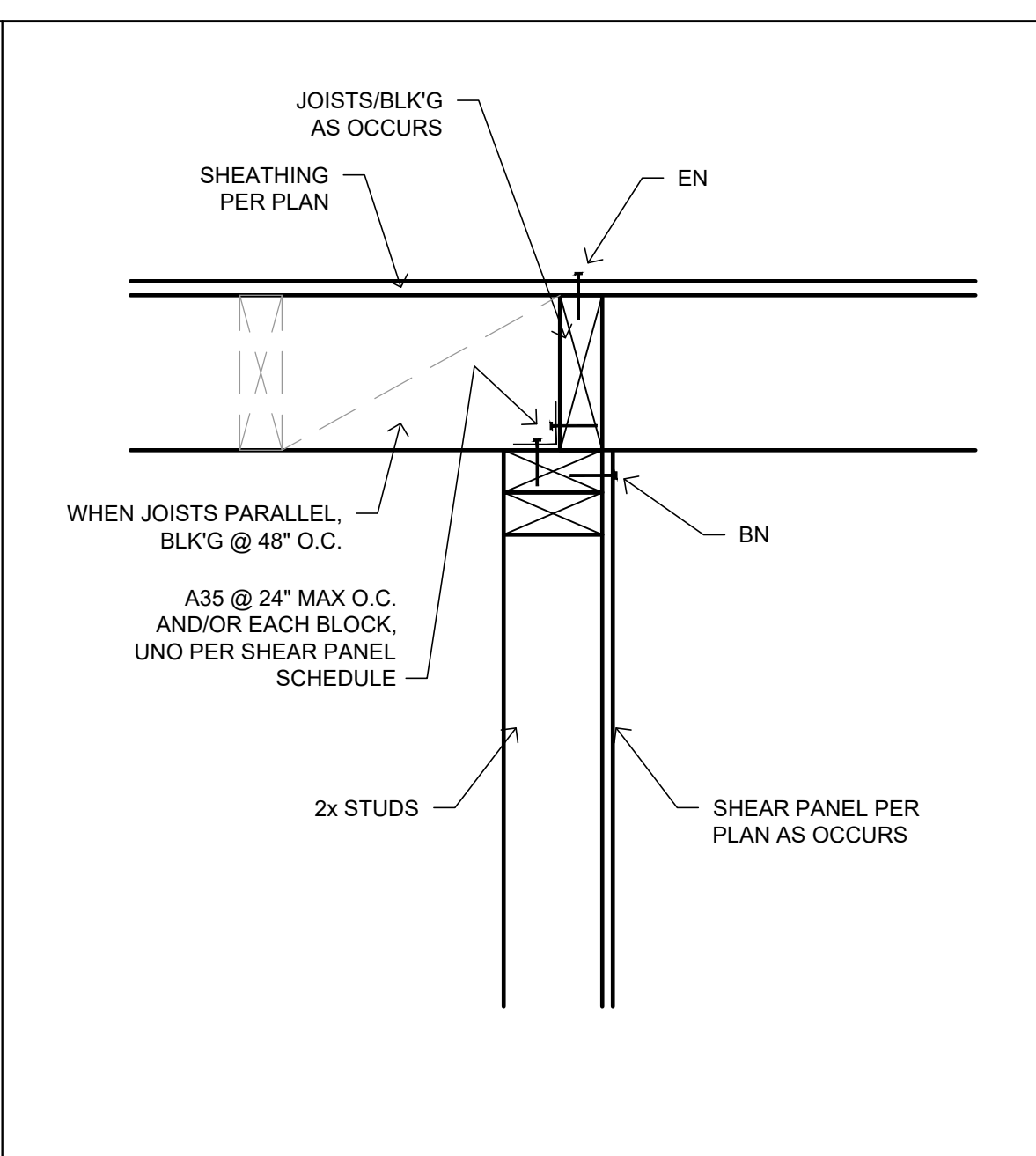
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**S2.01**



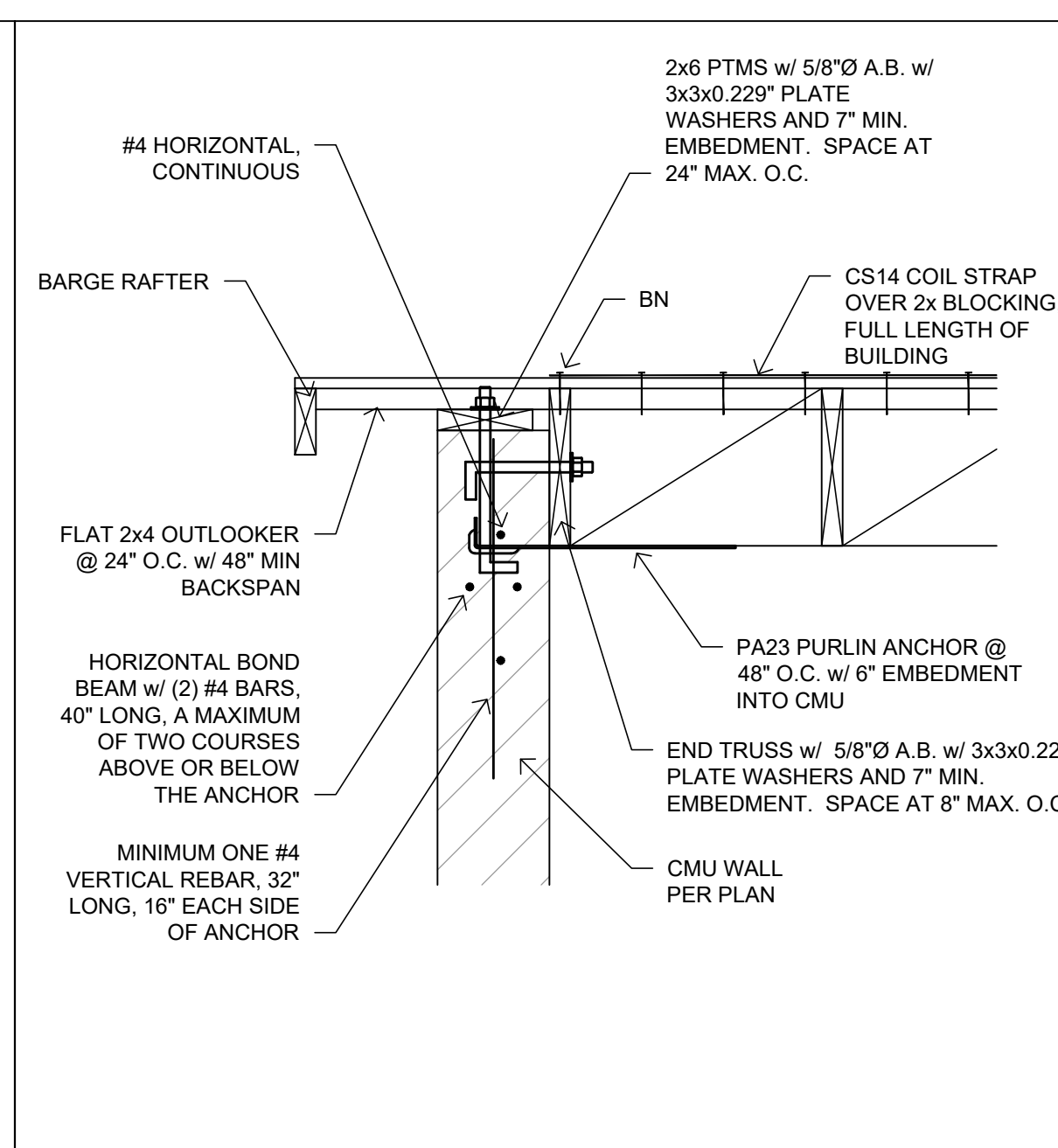
**STRIP FOOTING** (C)  
 SCALE: NONE



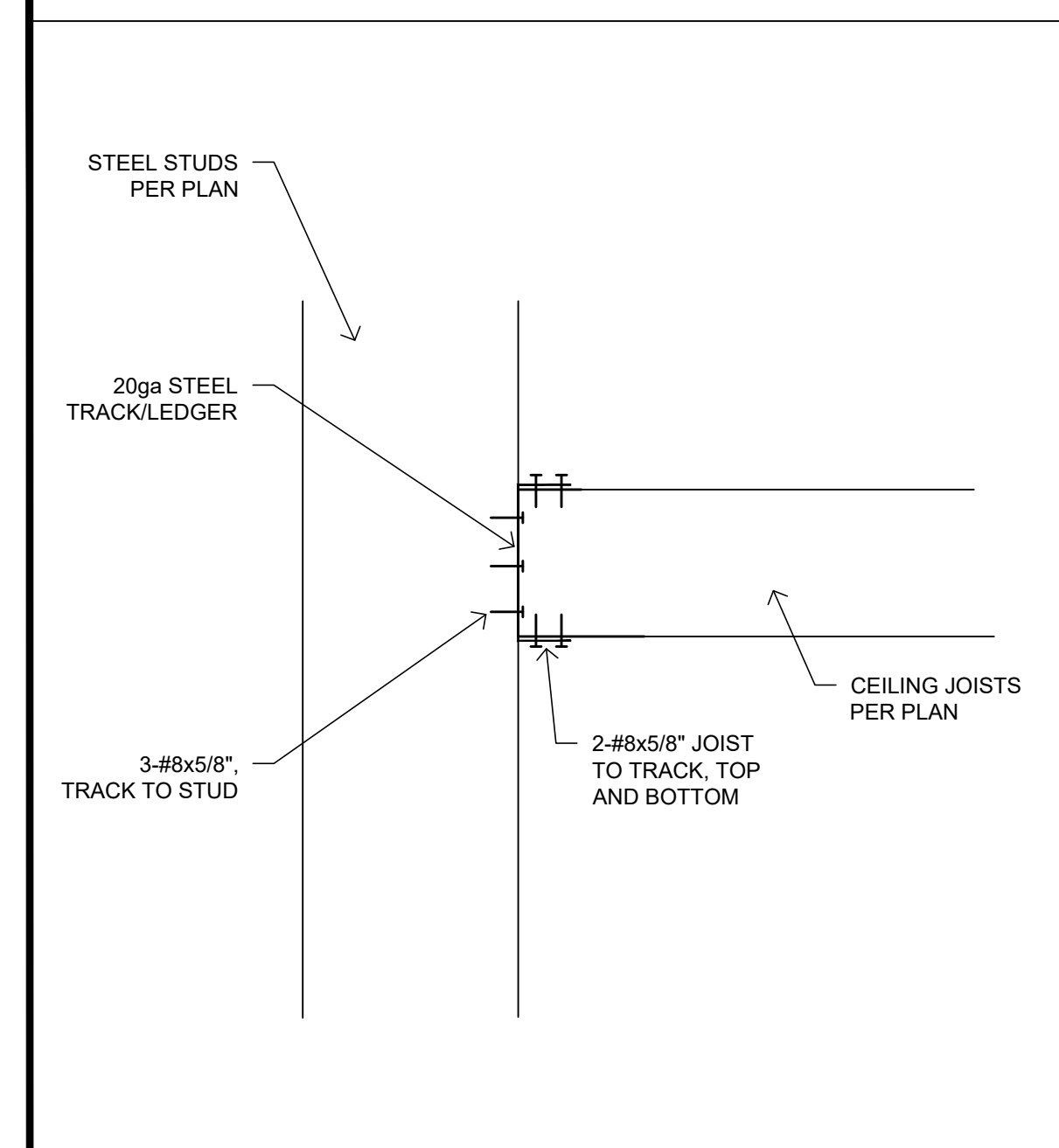
**LINTEL HEADER** (F)  
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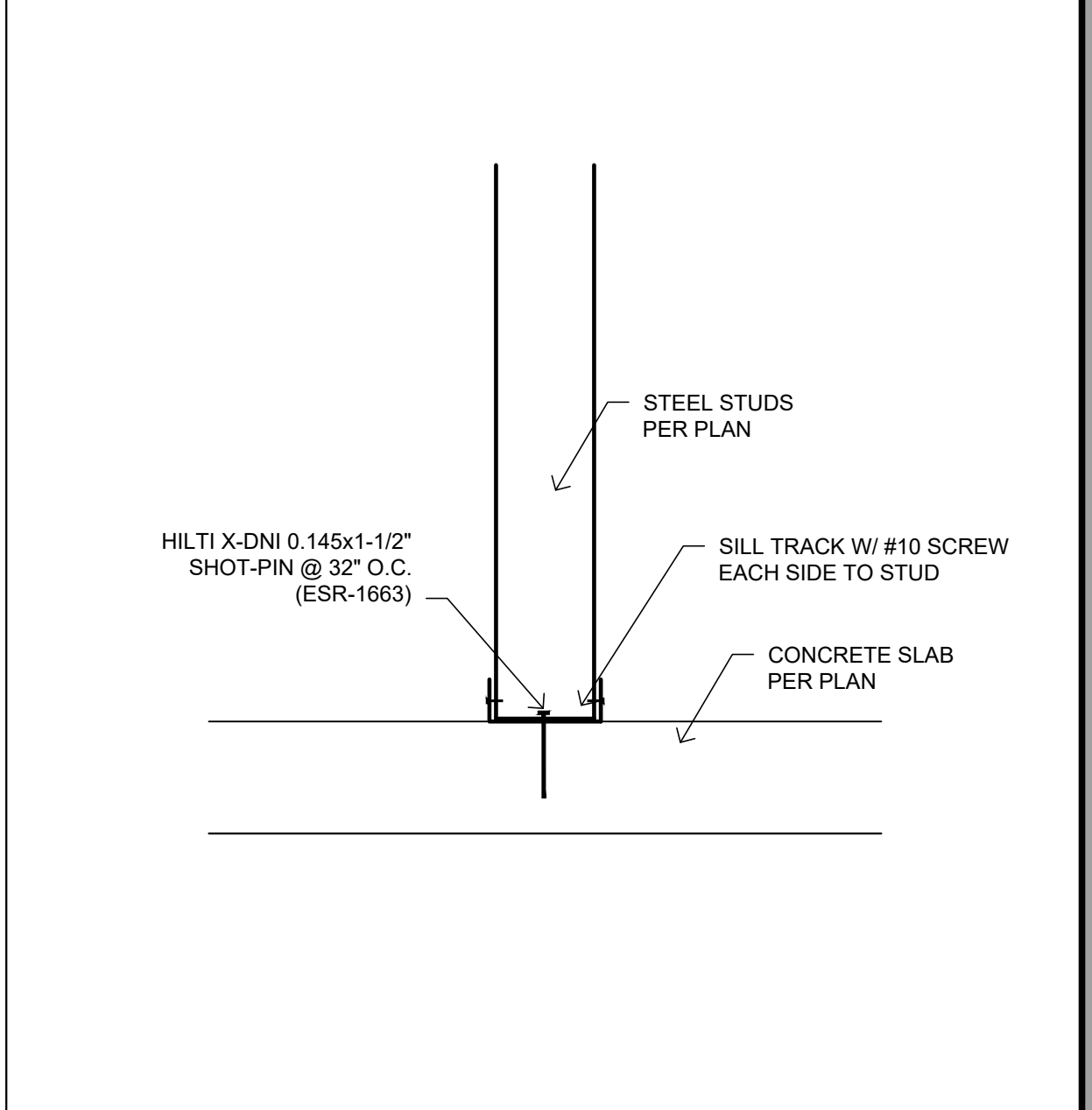
**SHEAR TRANSFER** (J)  
 SCALE: NONE



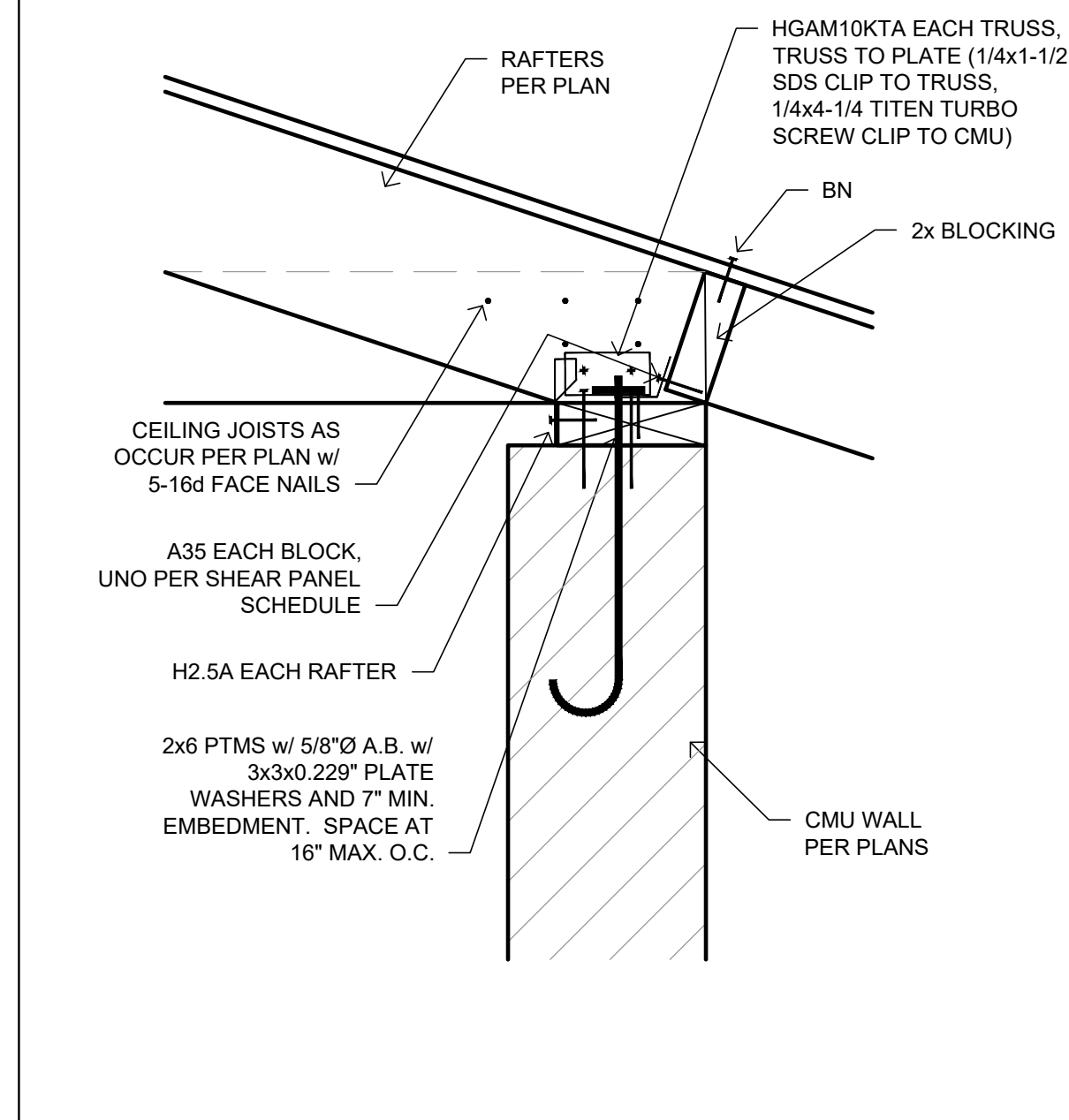
**ROOF TIE / BLK'G** (M)  
 SCALE: NONE



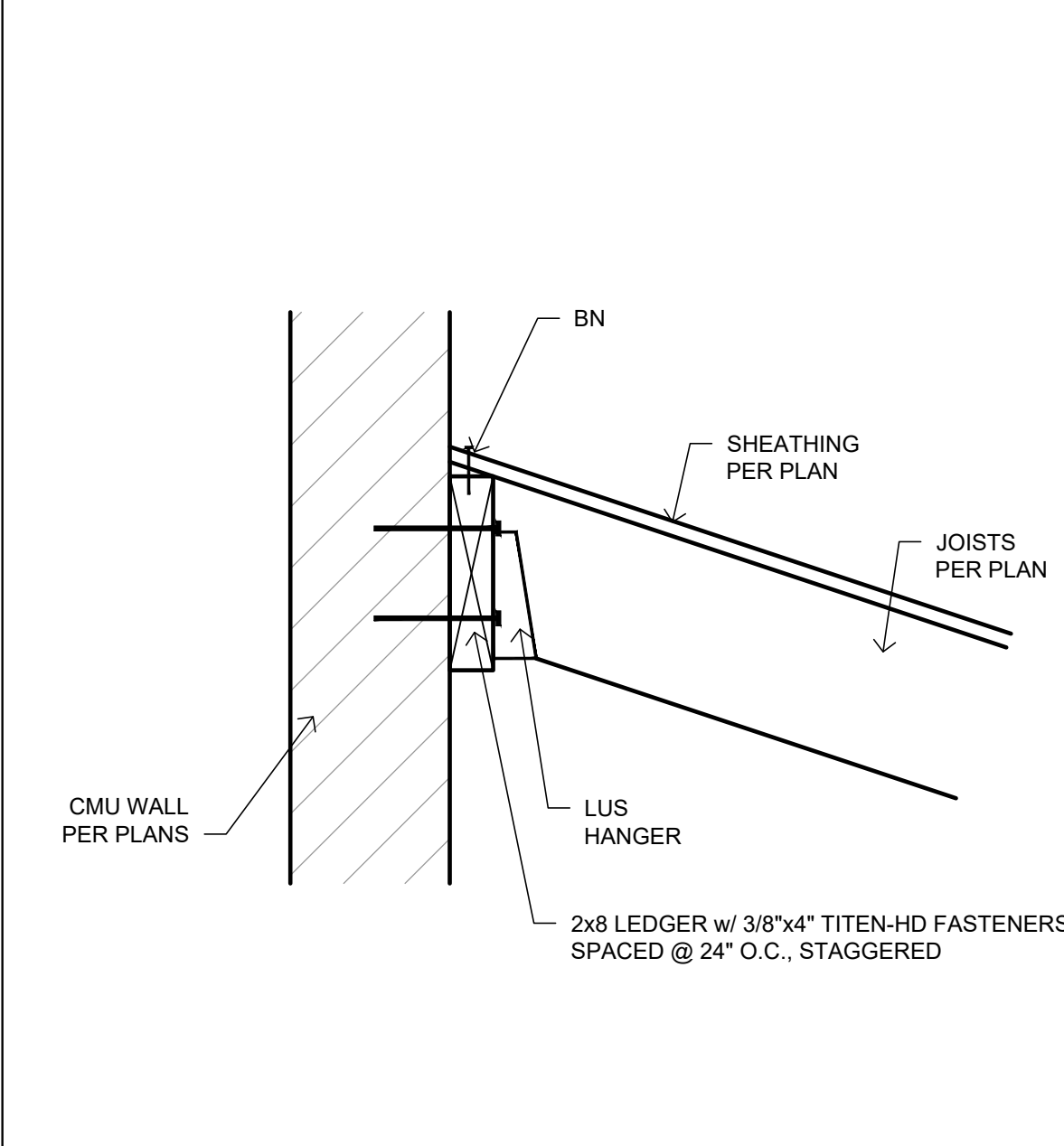
**LEDGER** (P)  
 SCALE: NONE



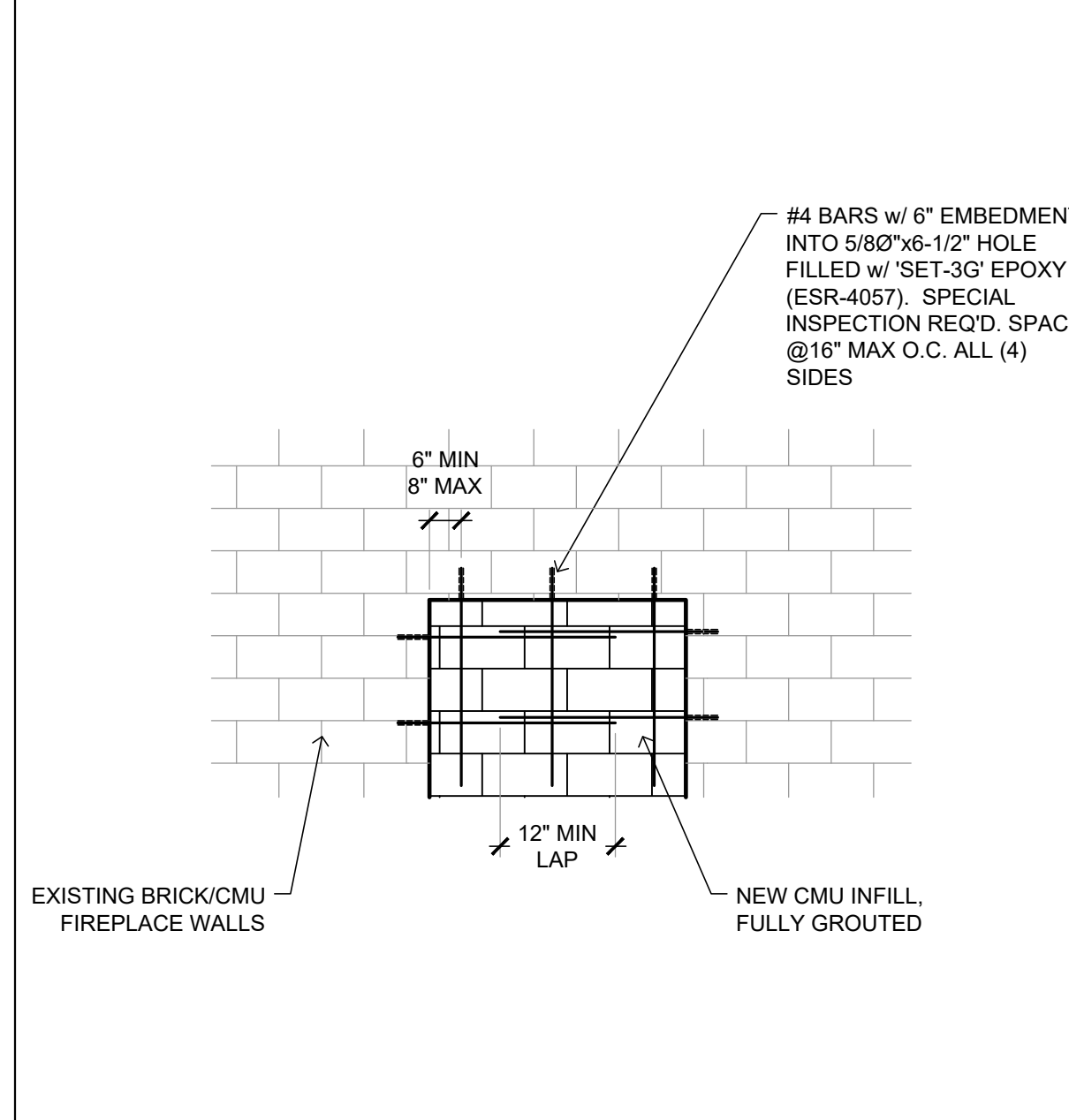
**STEEL STUD** (B)  
 SCALE: NONE



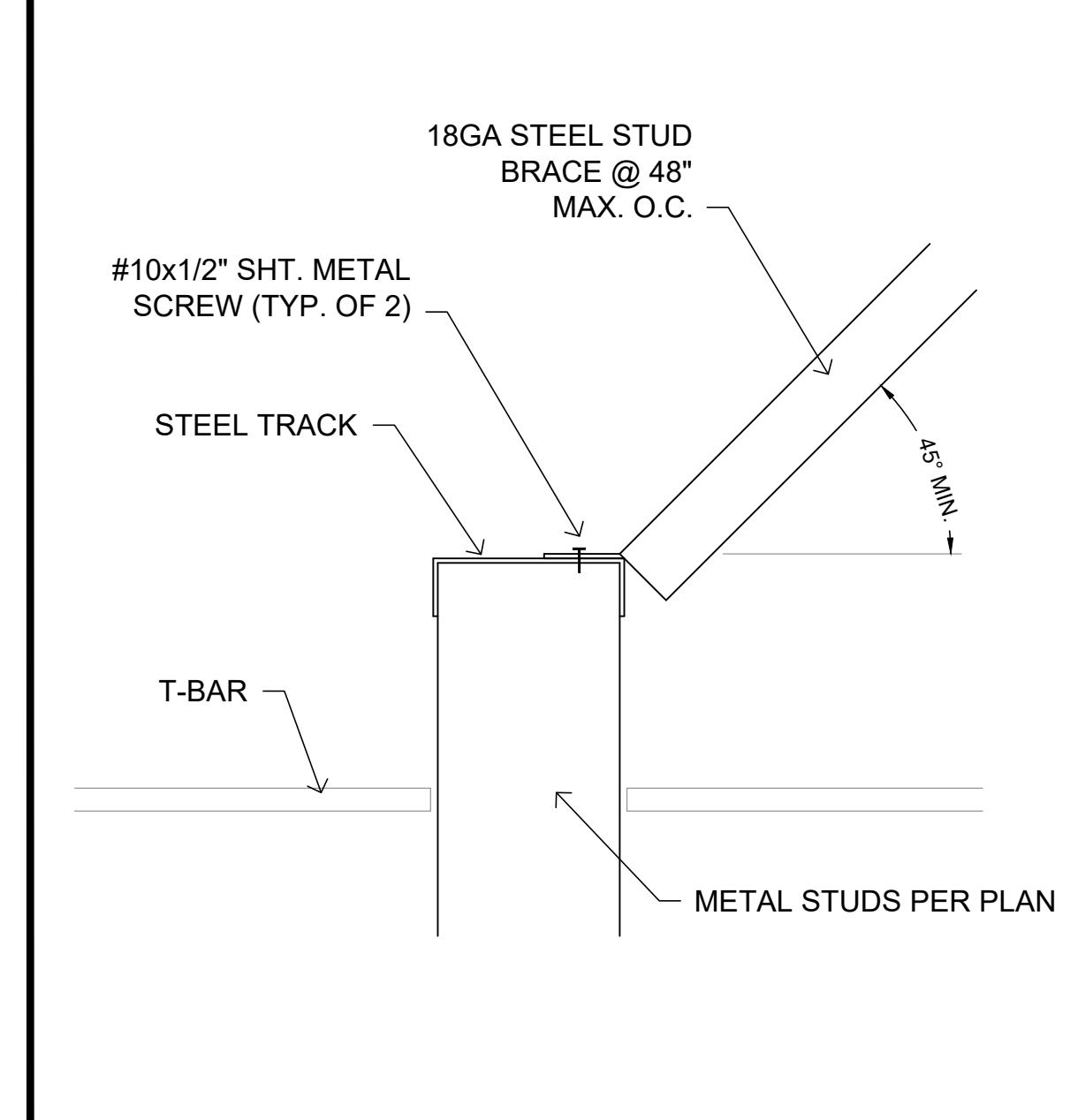
**SHEAR TRANSFER** (E)  
 SCALE: NONE



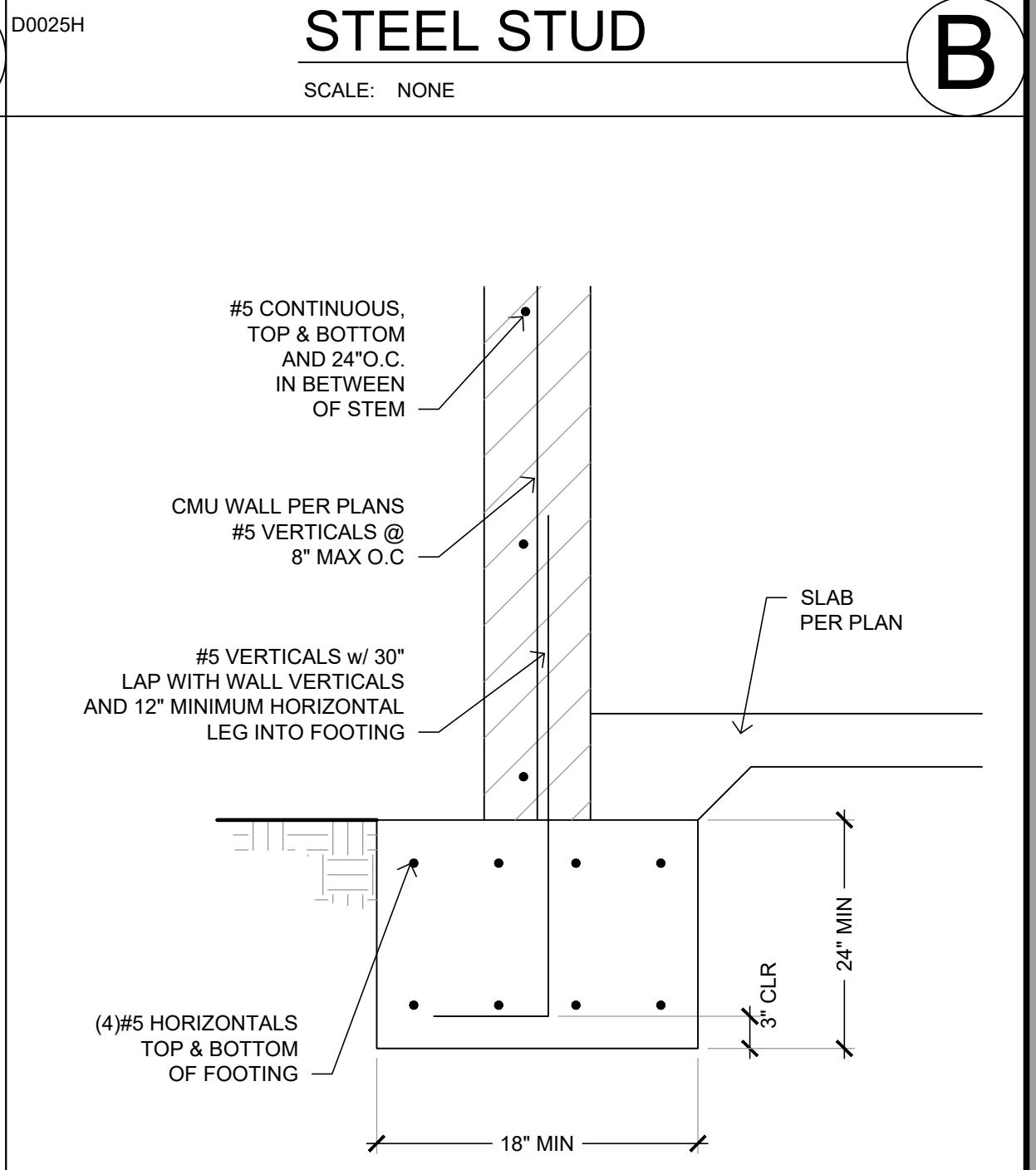
**LEDGER** (H)  
 SCALE: NONE



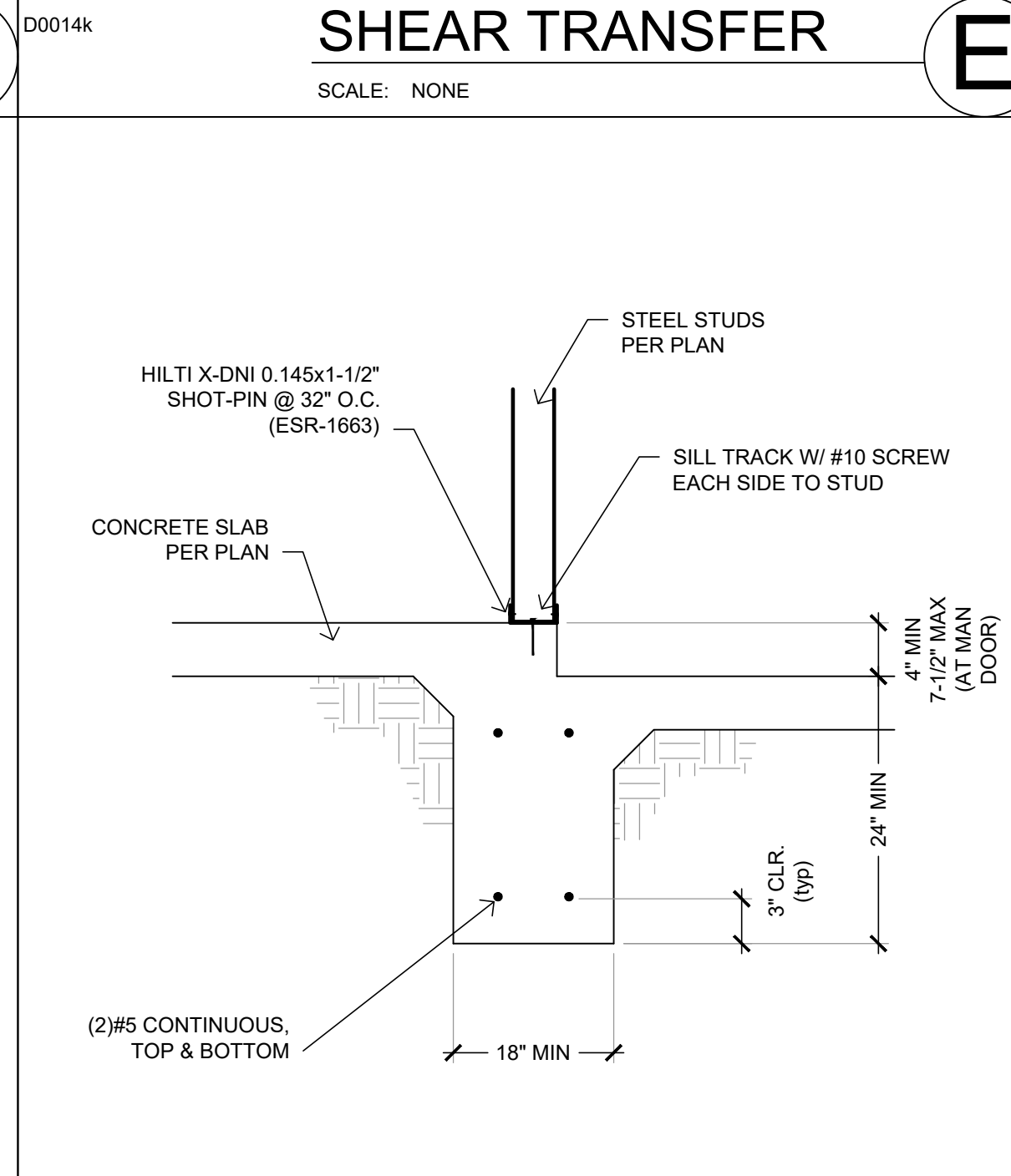
**CMU INFILL** (L)  
 SCALE: NONE



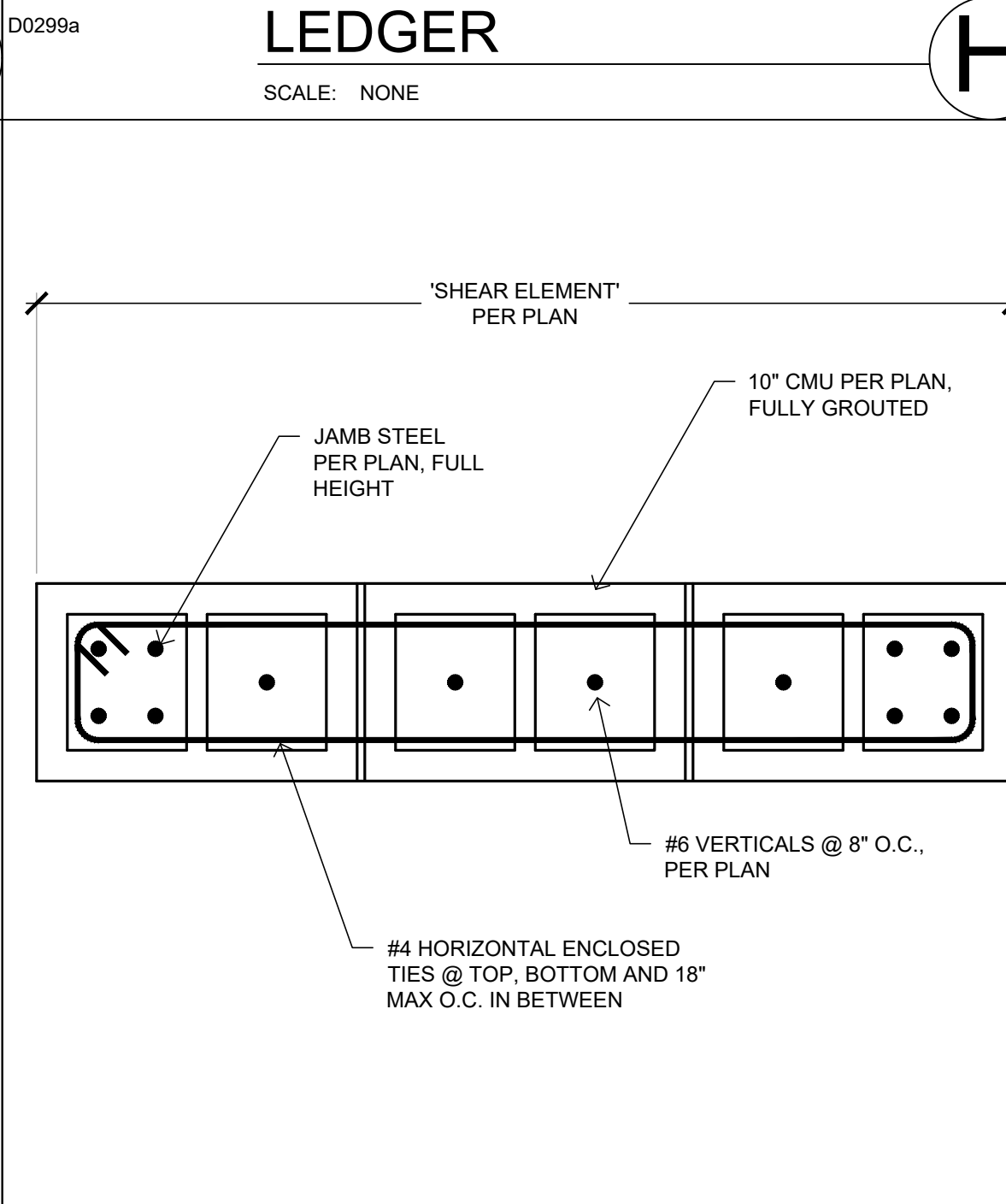
**KICKER TO JOIST** (O)  
 SCALE: NONE



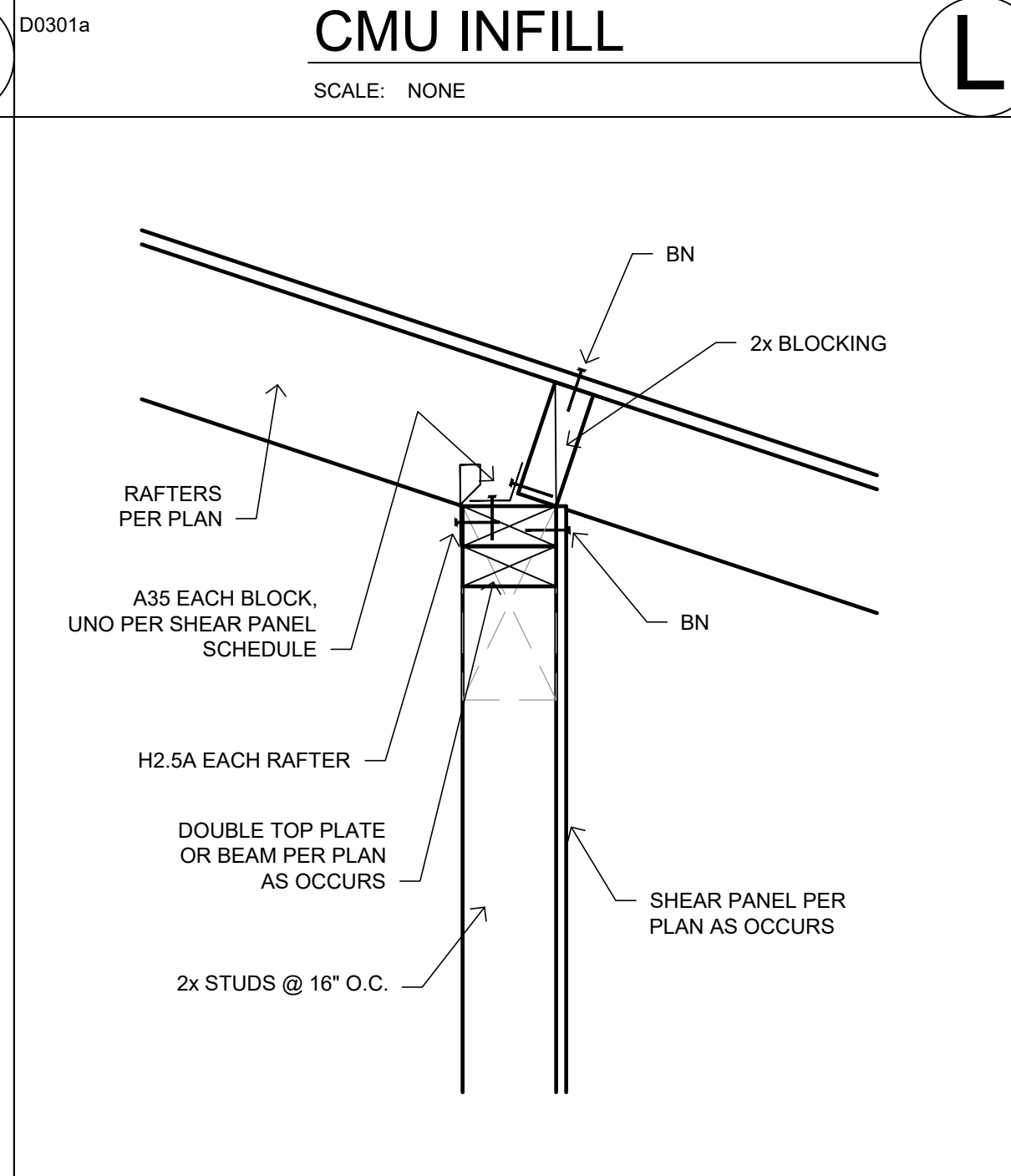
**STRIP FOOTING** (A)  
 SCALE: NONE



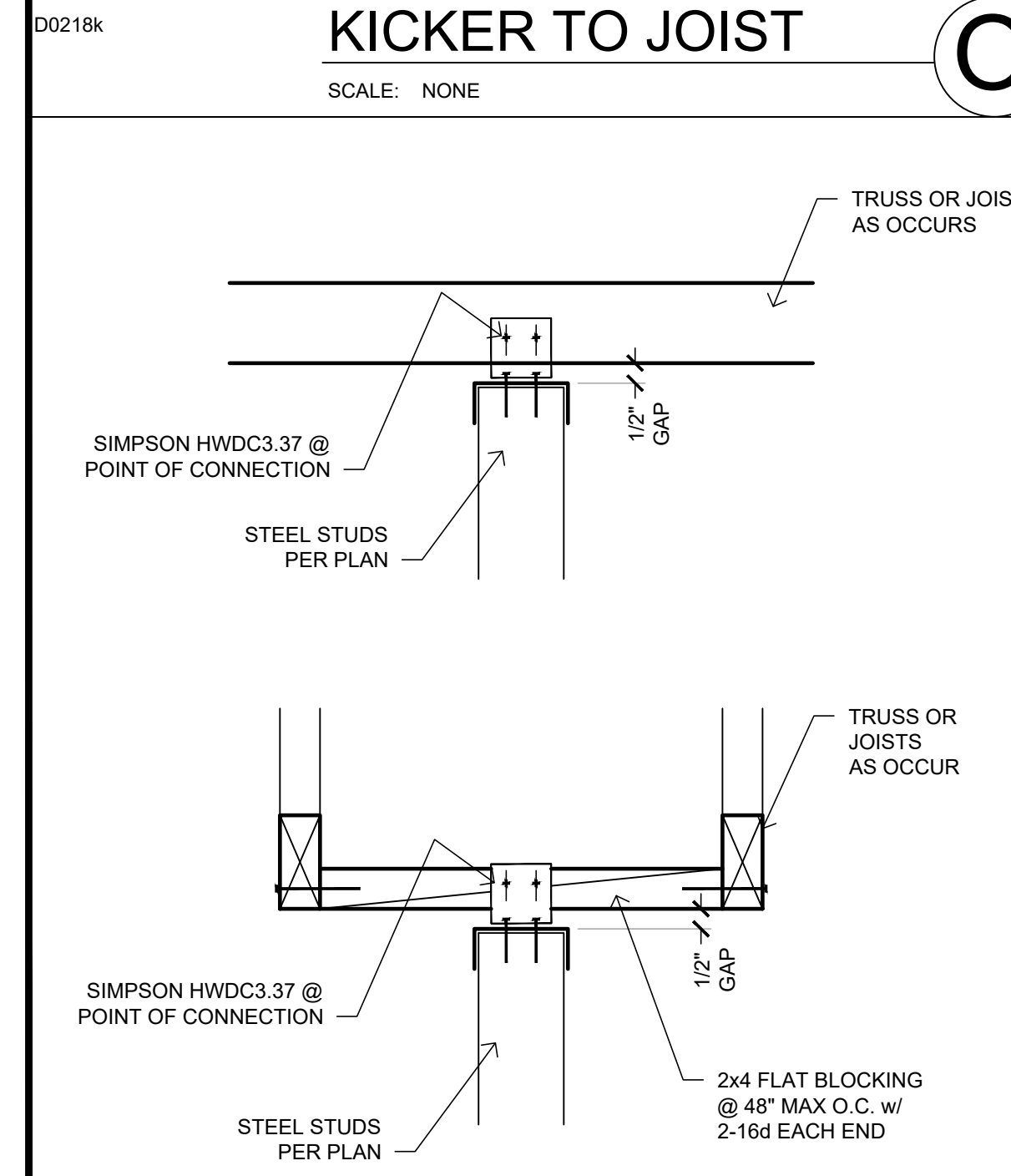
**INT GARAGE FTG** (D)  
 SCALE: NONE



**HORIZ REINF'G** (G)  
 SCALE: NONE



**SHEAR TRANSFER** (K)  
 SCALE: NONE



**TRUSS TO WALL** (M)  
 SCALE: NONE

## GEOTECHNICAL NOTES

ALL RECOMMENDATIONS FOUND IN GEOTECHNICAL REPORT, #23-81-234-01 PERFORMED BY "CONVERSE CONSULTANTS" DATED NOVEMBER 16, 2023 SHALL BE FOLLOWED.

SOILS ENGINEER TO REVIEW AND APPROVE FOUNDATION PLAN AND DETAILS..

## SPECIAL INSPECTIONS

SPECIAL INSPECTIONS, BY OWNER HIRED THIRD-PARTY INSPECTORS (SUCH AS TESTING LABS AND DEPUTY INSPECTORS) ARE REQUIRED FOR THE FOLLOWING ITEMS:

1. ALL POST INSTALLED ANCHORS (MECHANICAL OR EPOXY INTO EXISTING CONCRETE). DEPUTY INSPECTOR TO OBSERVE HOLE DIAMETER, DEPTH, CLEANLINESS, PRODUCT, EMBEDMENT MATERIAL, PHYSICAL SIZE, AND WITNESS INSTALLATION.
2. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR PANELS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER COMPONENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM WHERE THE FASTENER SPACING OF THE SHEATHING IS 4" O.C. OR LESS.

CMU SPECIAL INSPECTIONS REQUIRED:

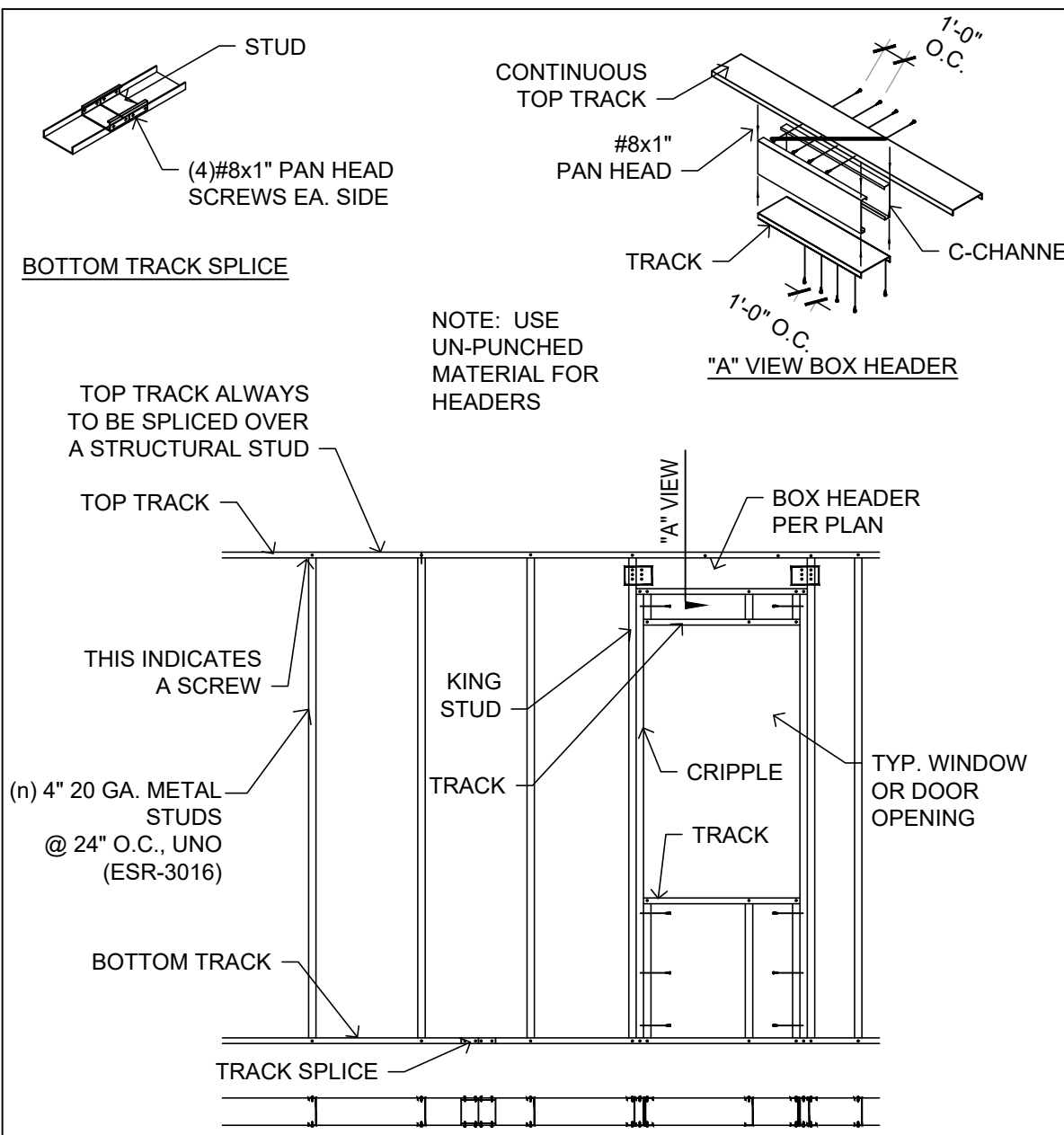
SPECIAL INSPECTIONS, BY OWNER HIRED THIRD-PARTY INSPECTORS (SUCH AS TESTING LABS AND DEPUTY INSPECTORS) ARE REQUIRED FOR THE FOLLOWING ITEMS:

1. AFTER FOUNDATION EXCAVATION AND REBAR AND HARDWARE PLACEMENT, BUT BEFORE POUR.
2. AFTER CMU & REBAR PLACEMENT, BUT BEFORE GROUTING.
3. AFTER CONCRETE AND GROUT IS PLACED, PRIOR TO ANY DECORATIVE CAP/COVERING INSTALLATION.
4. SEE TABLES BELOW FOR ADDITIONAL INFORMATION
5. CMU SHALL CONFORM TO ASTM C-90, GRADE-N, SOLID GROUTED, AND  $f_m=1500$  PSI.
6. GROUT SHALL BE 2000 PSI MINIMUM, MORTAR SHALL BE TYPE 'M' OR 'S'.

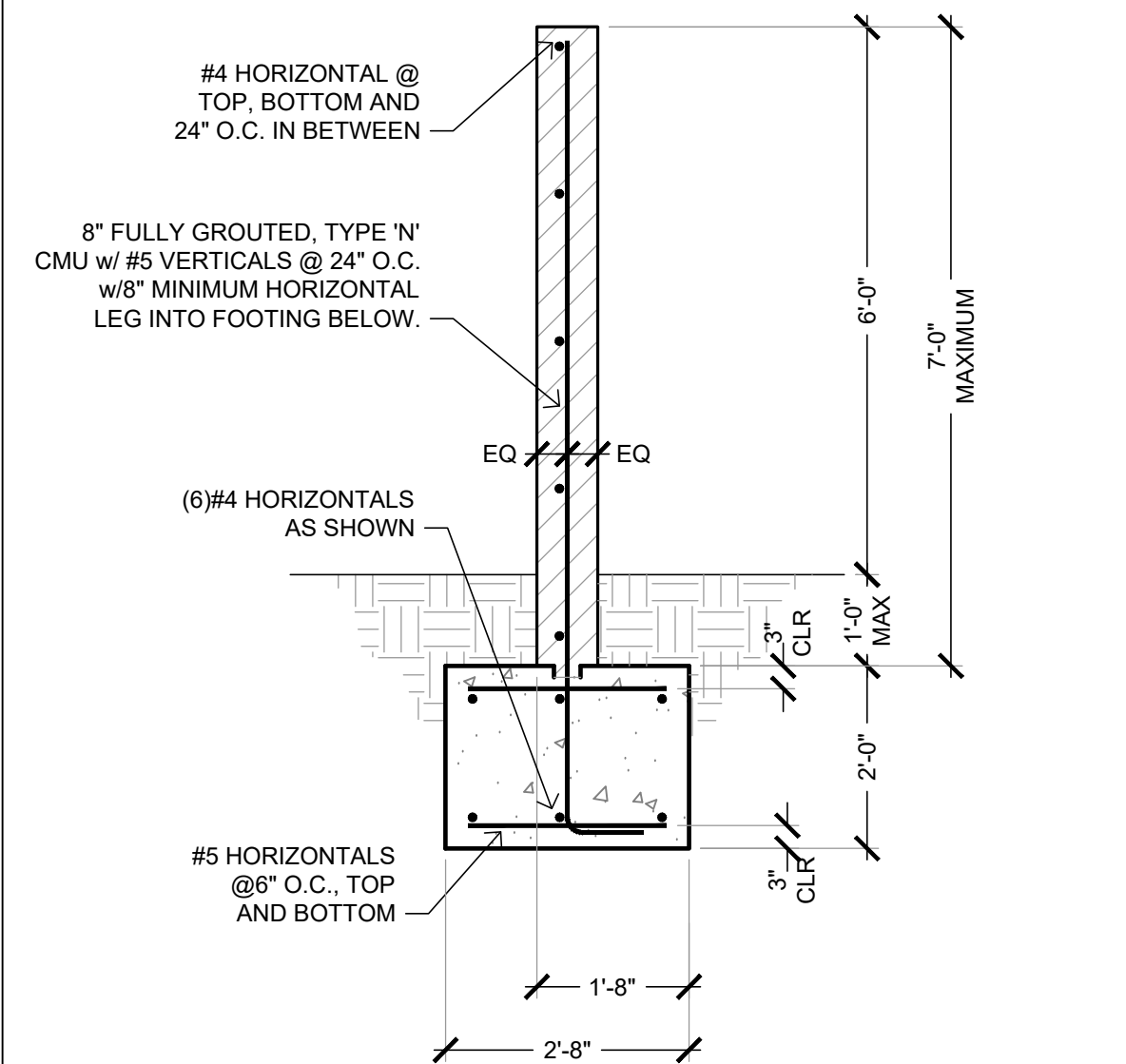
Table 3.1.2 — Level B Quality Assurance

MINIMUM TESTS			
Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5 B.1.b.3 for self-consolidating grout			
Verification of $f_m$ and $f_{asc}$ in accordance with Specification Article 1.4 B prior to construction, except where specifically exempted by this Code			
MINIMUM SPECIAL INSPECTION			
Inspection Task	Frequency (a)		Reference for Criteria
	Continuous	Periodic	
1. Verify compliance with the approved submittals		X	Art. 1.5
2. As masonry construction begins, verify that the following are in compliance:			
a. Proportions of site-prepared mortar		X	Art. 2.1, 2.6 A
b. Construction of mortar joints		X	Art. 3.3 B
c. Grade and size of prestressing tendons and anchorages		X	Art. 2.4 B, 2.4 H
d. Location of reinforcement, connectors, and prestressing tendons and anchorages		X	Art. 3.4, 3.6 A
e. Prestressing technique		X	Art. 3.6 B
f. Properties of thin-bed mortar for AAC masonry	X <sup>(b)</sup>	X <sup>(c)</sup>	Art. 2.1 C
3. Prior to grouting, verify that the following are in compliance:			
a. Grout space		X	Art. 3.2 D, 3.2 F
b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		X	Sec. 6.1 Art. 2.4, 3.4
c. Placement of reinforcement, connectors, and prestressing tendons and anchorages		X	Sec. 6.1, 6.2.1, 6.2.6, 6.2.7 Art. 3.2 E, 3.4, 3.6 A
d. Proportions of site-prepared grout and prestressing grout for bonded tendons		X	Art. 2.6 B, 2.4 G.1.b
e. Construction of mortar joints		X	Art. 3.3 B
4. Verify during construction:			
a. Size and location of structural elements		X	Art. 3.3 F
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction		X	Sec. 1.2.1(e), 6.1.4.3, 6.2.1
c. Welding of reinforcement	X		Sec. 8.1.6.7.2, 9.3.3.4 (c), 11.3.3.4(b)
d. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (4.4°C)) or hot weather (temperature above 90°F (32.2°C))		X	Art. 1.8 C, 1.8 D
e. Application and measurement of prestressing force	X		Art. 3.6 B
f. Placement of grout and prestressing grout for bonded tendons is in compliance	X		Art. 3.5, 3.6 C
g. Placement of AAC masonry units and construction of thin-bed mortar joints	X <sup>(b)</sup>	X <sup>(c)</sup>	Art. 3.3 B.9, 3.3 F.1.b
5. Observe preparation of grout specimens, mortar specimens, and/or prisms		X	Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

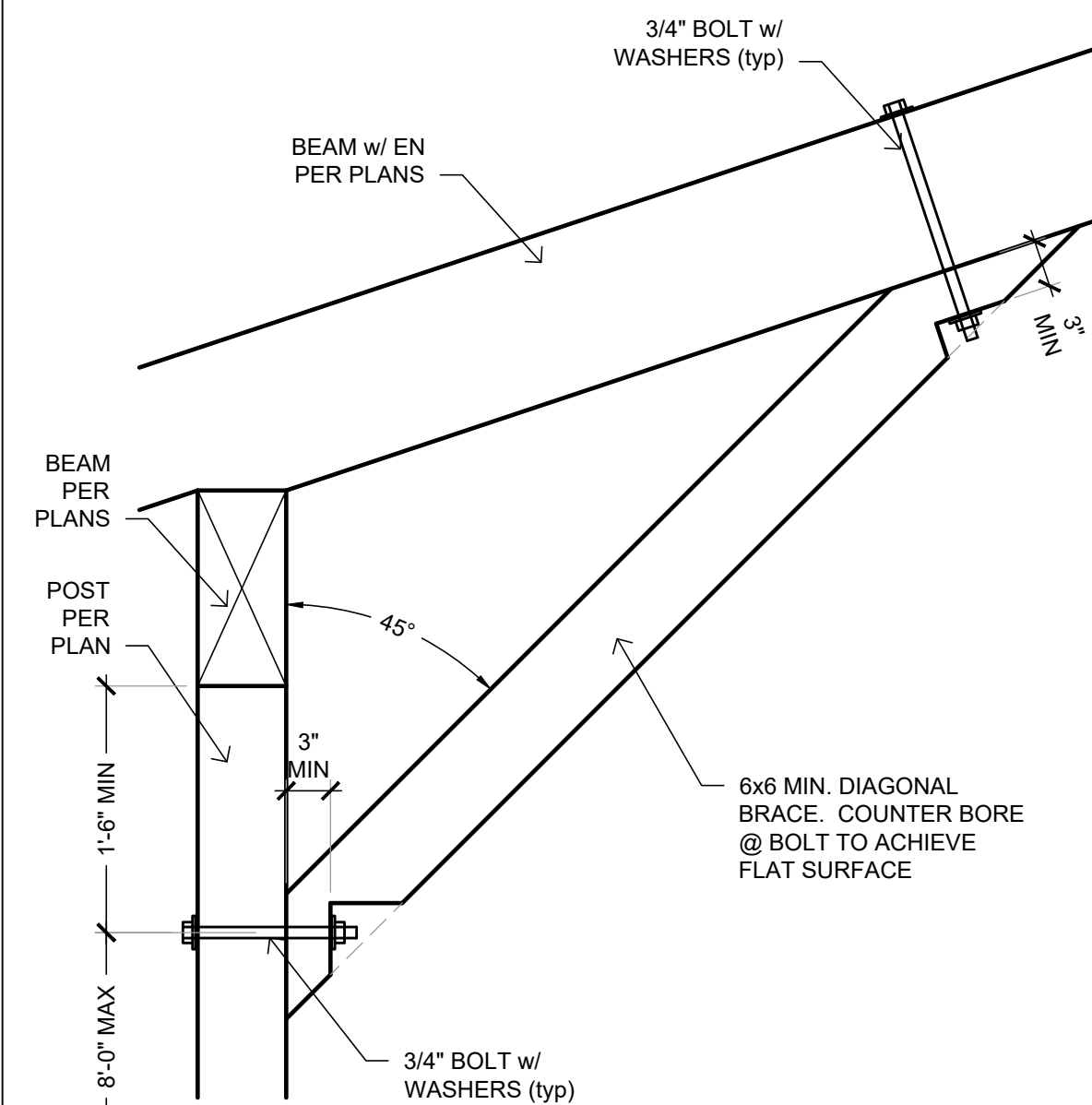
(a) Frequency refers to the frequency of Special Inspection, which may be continuous during the task, listed or periodic during the listed task, as defined in the table.  
 (b) Required for the first 5000 square feet (465 square meters) of AAC masonry.  
 (c) Required after the first 5000 square feet (465 square meters) of AAC masonry.



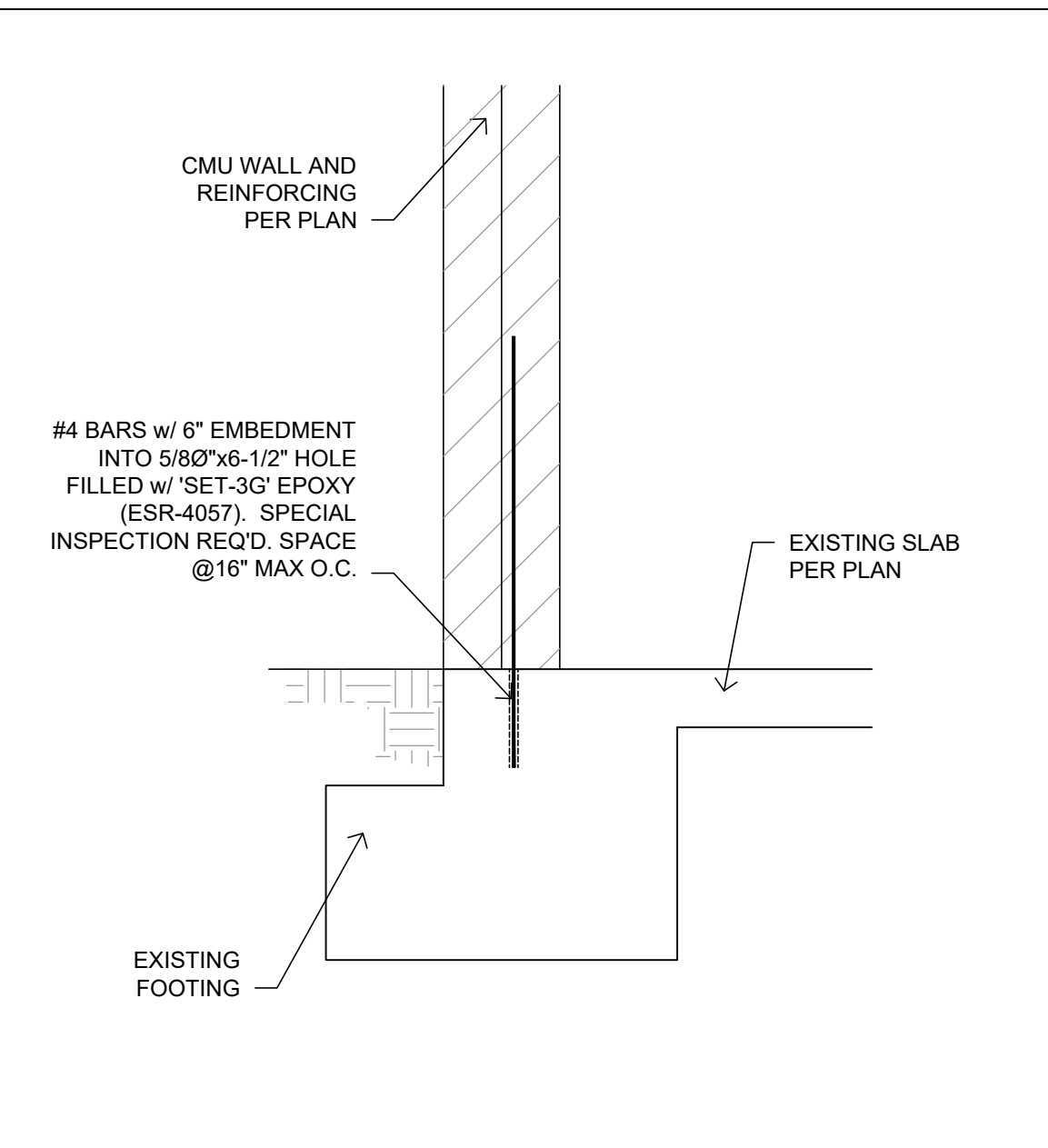
**WALL FRAMING**  
SCALE: NONE



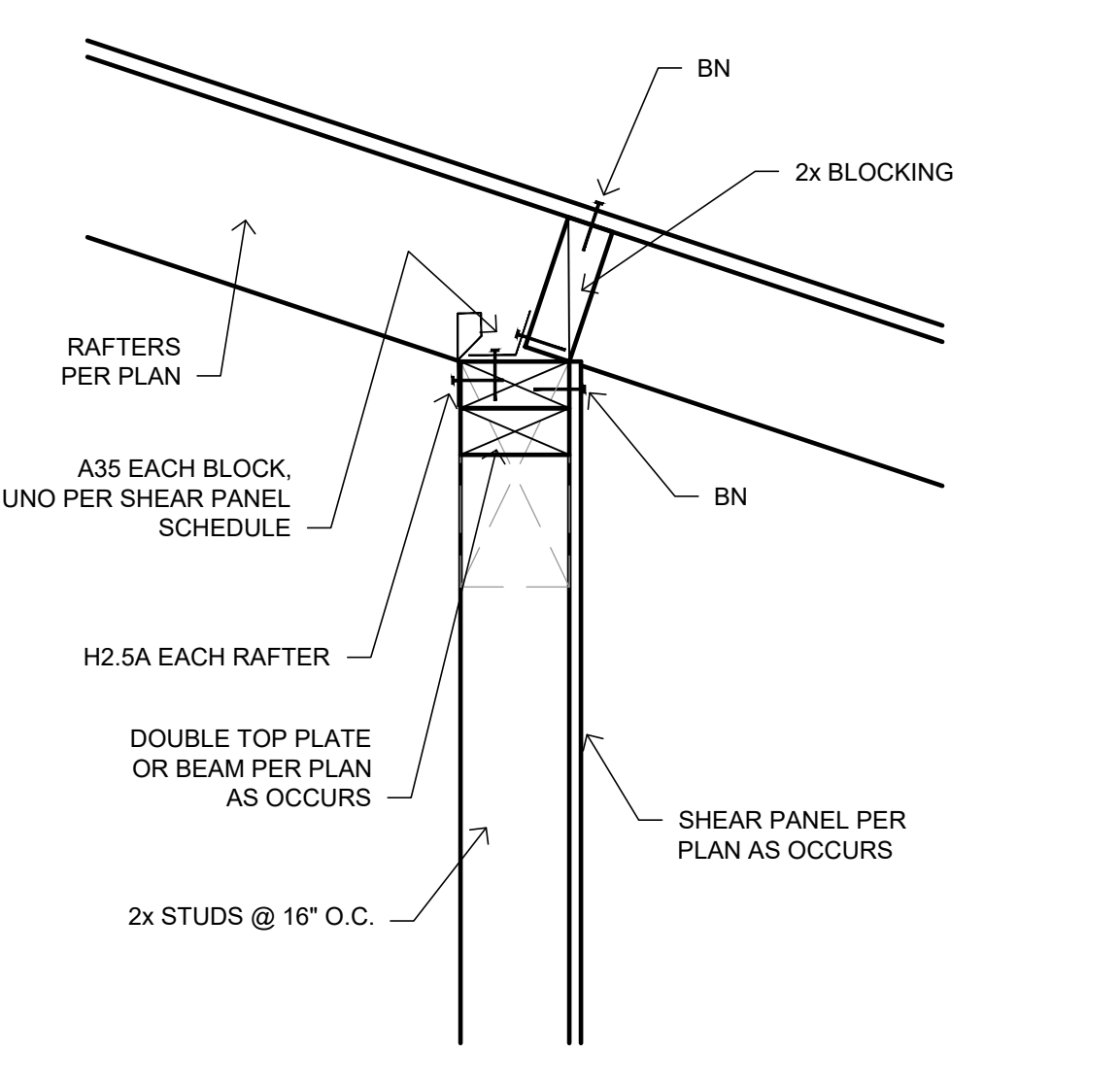
**RET'G WALL/FENCE**  
SCALE: NONE



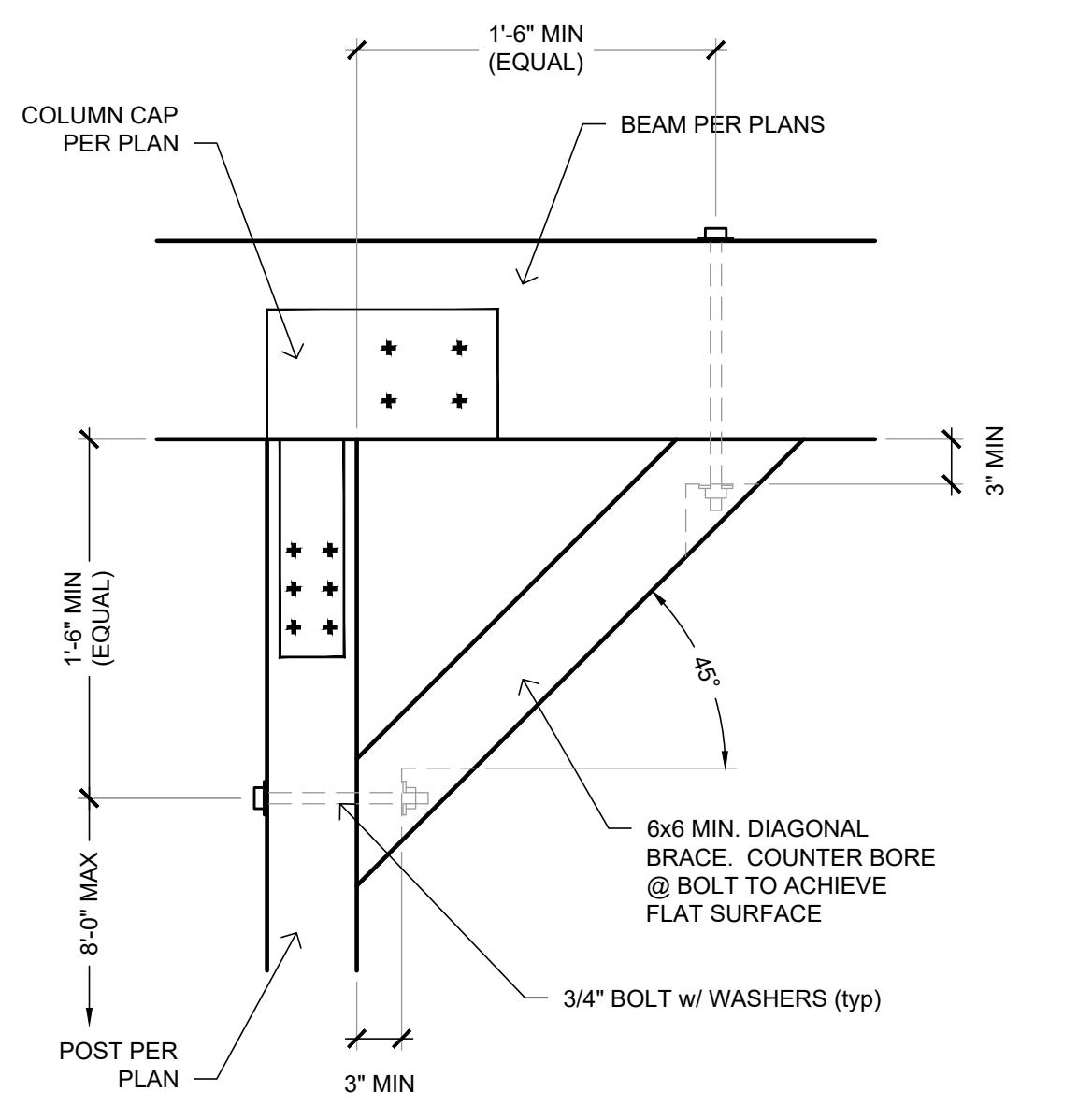
**BRACE DETAIL**  
SCALE: NONE



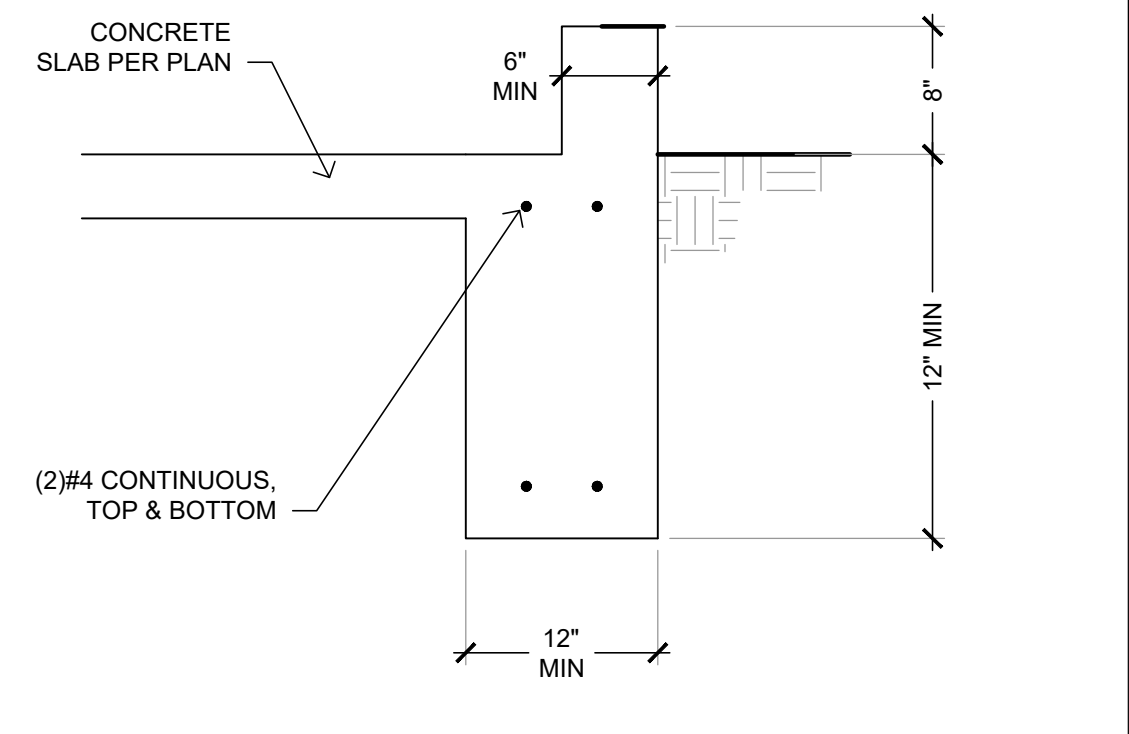
**CMU INFILL**  
SCALE: NONE



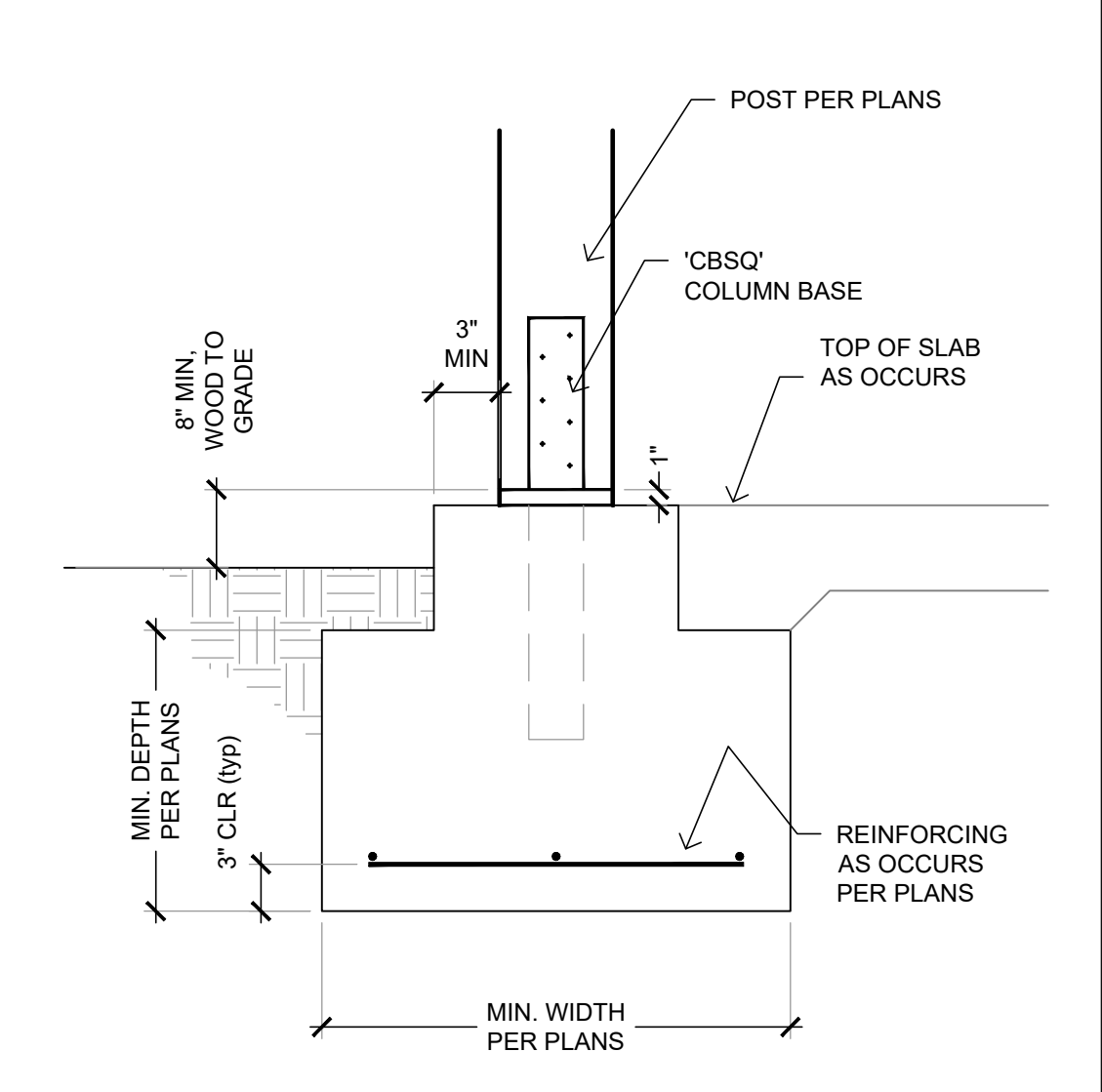
**SHEAR TRANSFER**  
SCALE: NONE



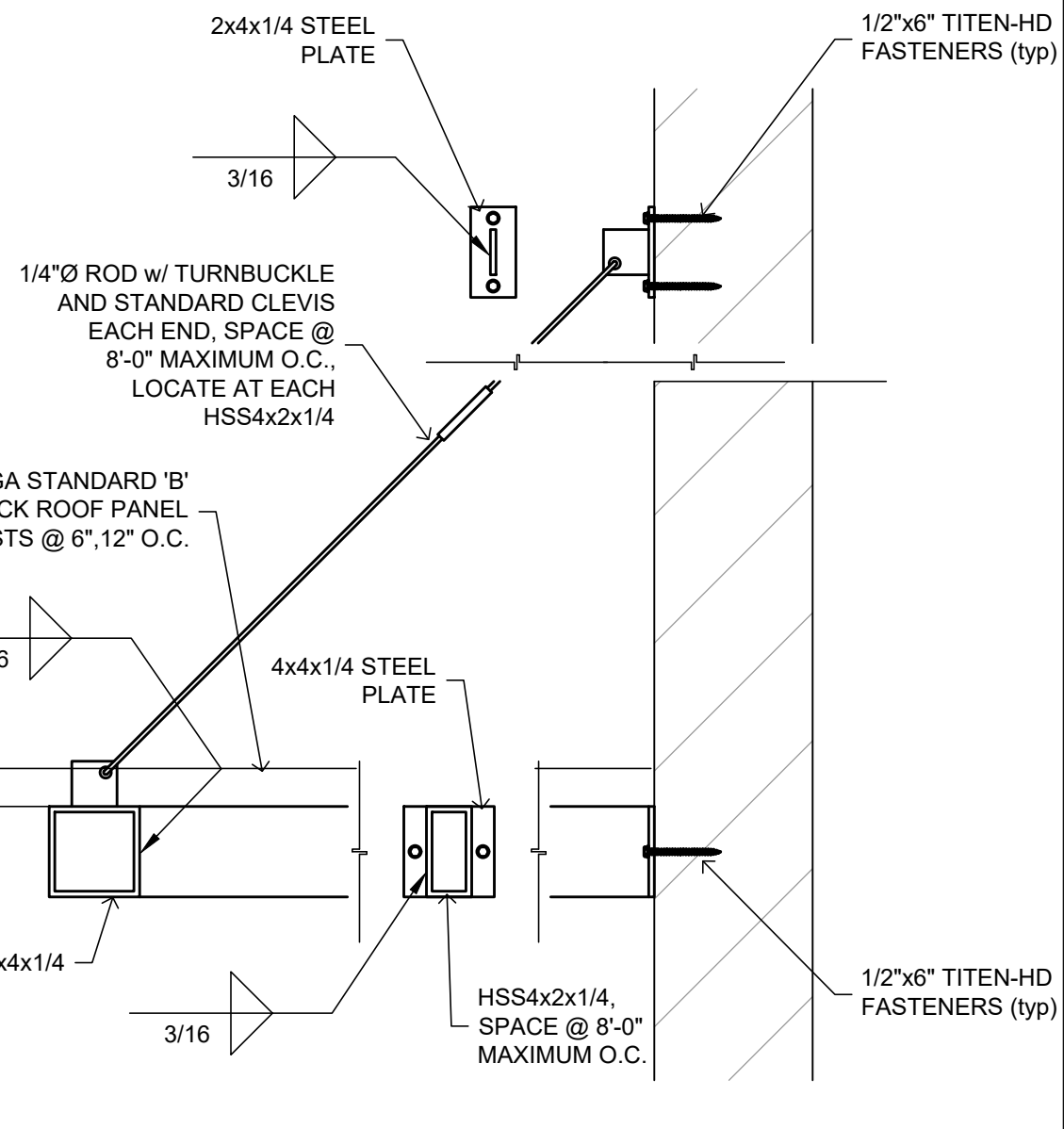
**BRACE DETAIL**  
SCALE: NONE



**STRIP FOOTING**  
SCALE: NONE



**PAD FOOTING**  
SCALE: NONE



**CABLE SUPPORTS**  
SCALE: NONE

**DAVID BECKWITH AND ASSOCIATES INC.**  
Civil & Structural Engineering  
Land Surveying - Environmental Services

9431 Haven Avenue, Suite 232  
Rancho Cucamonga, CA 91730  
(714) 714.349.7007 (F) 714.948.4471  
www.davidbeckwithandassociates.com

COUNTY OF RIVERSIDE  
REGIONAL PARK & OPEN-SPACE DISTRICT

CLIENT:

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

PROJECT:

**SARB MAINTENANCE FACILITY**  
PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

01/29/2024

SHEET TITLE

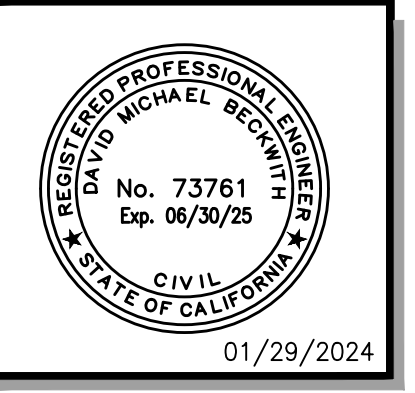
**DETAILS**

DESIGNED	JRM
DRAWN	JRM
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET

**S2.02**

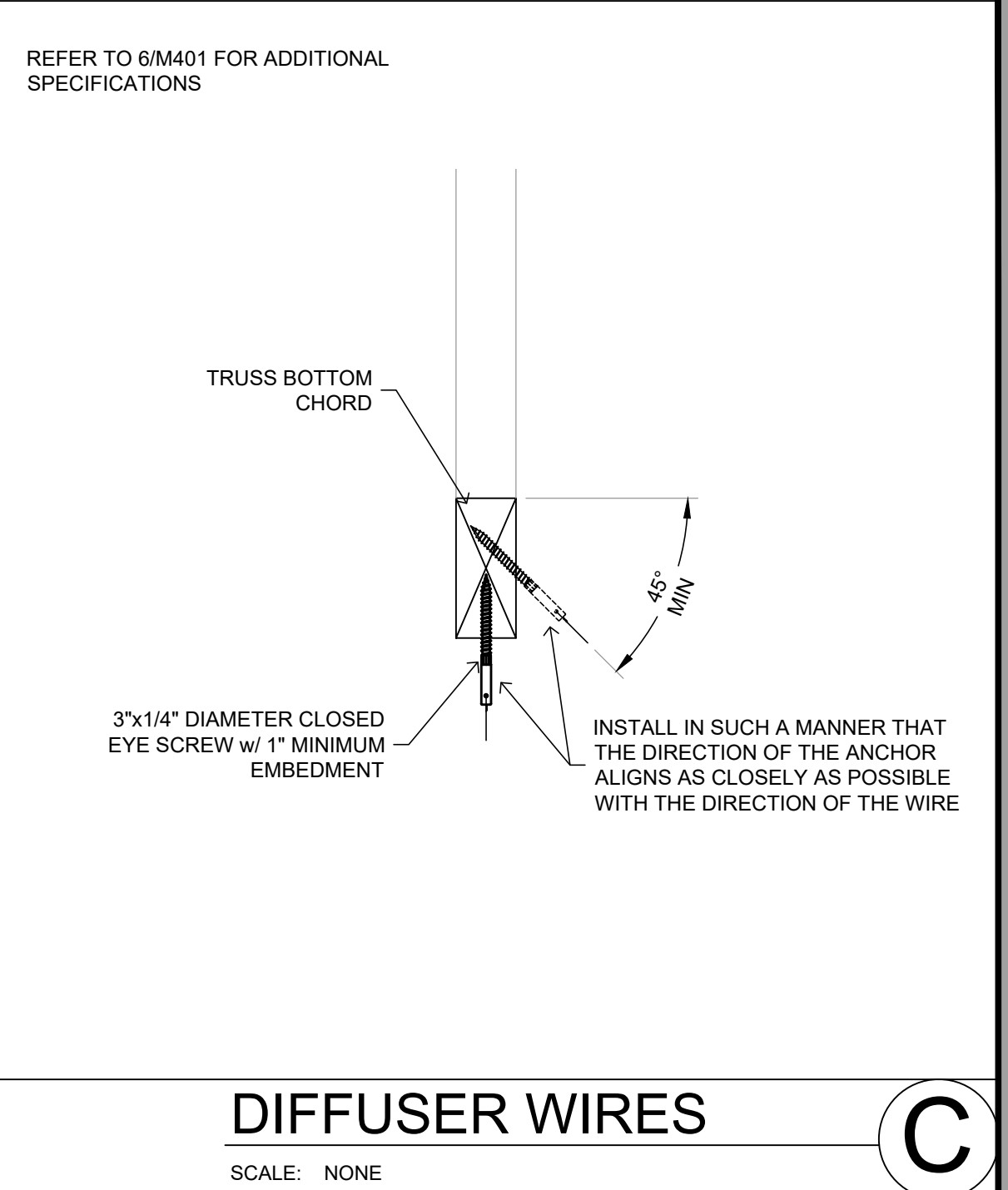
REVISIONS	DATE	BY



SHEET TITLE  
**DETAILS**

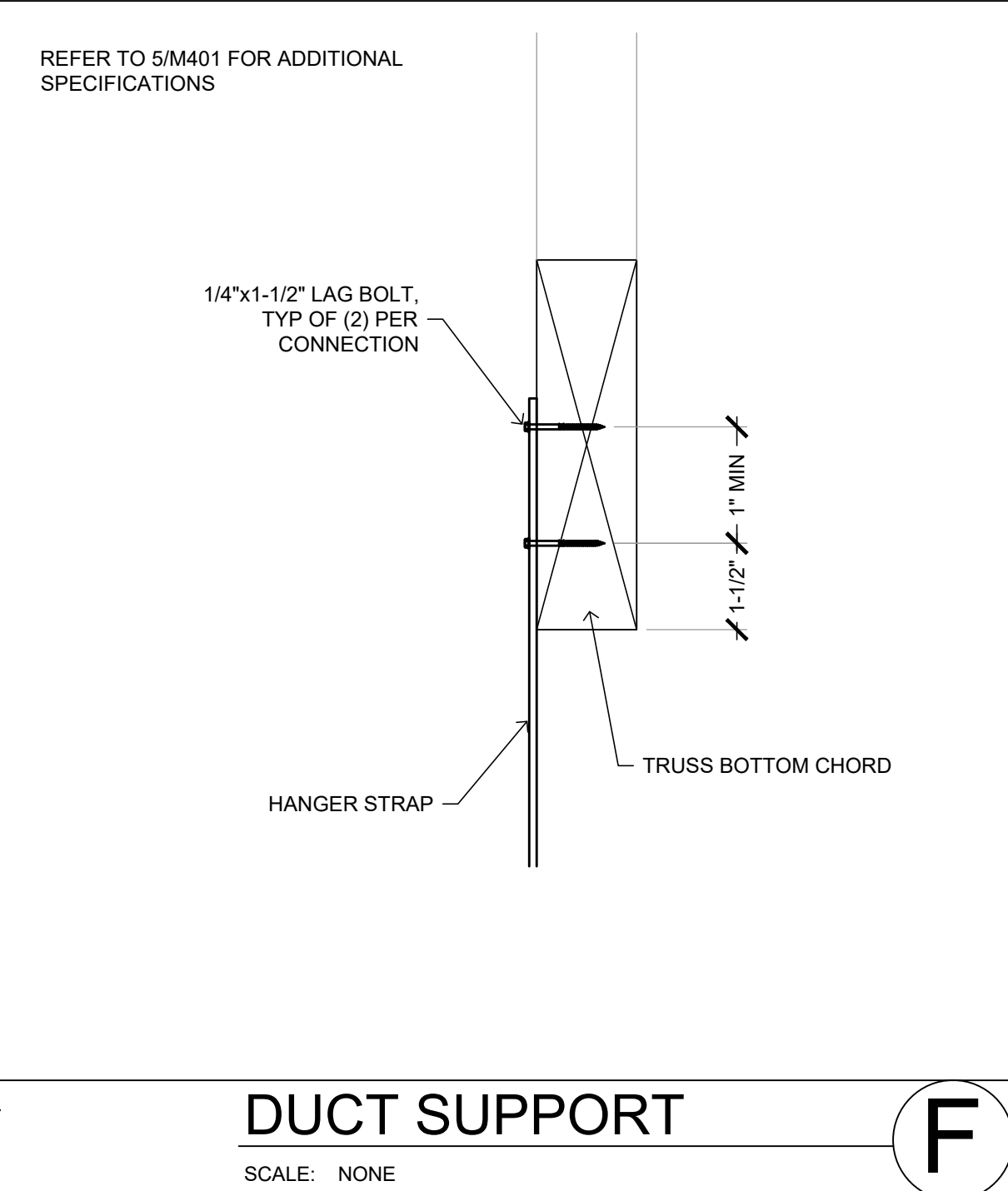
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DRAWN	JRM
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**S2.03**



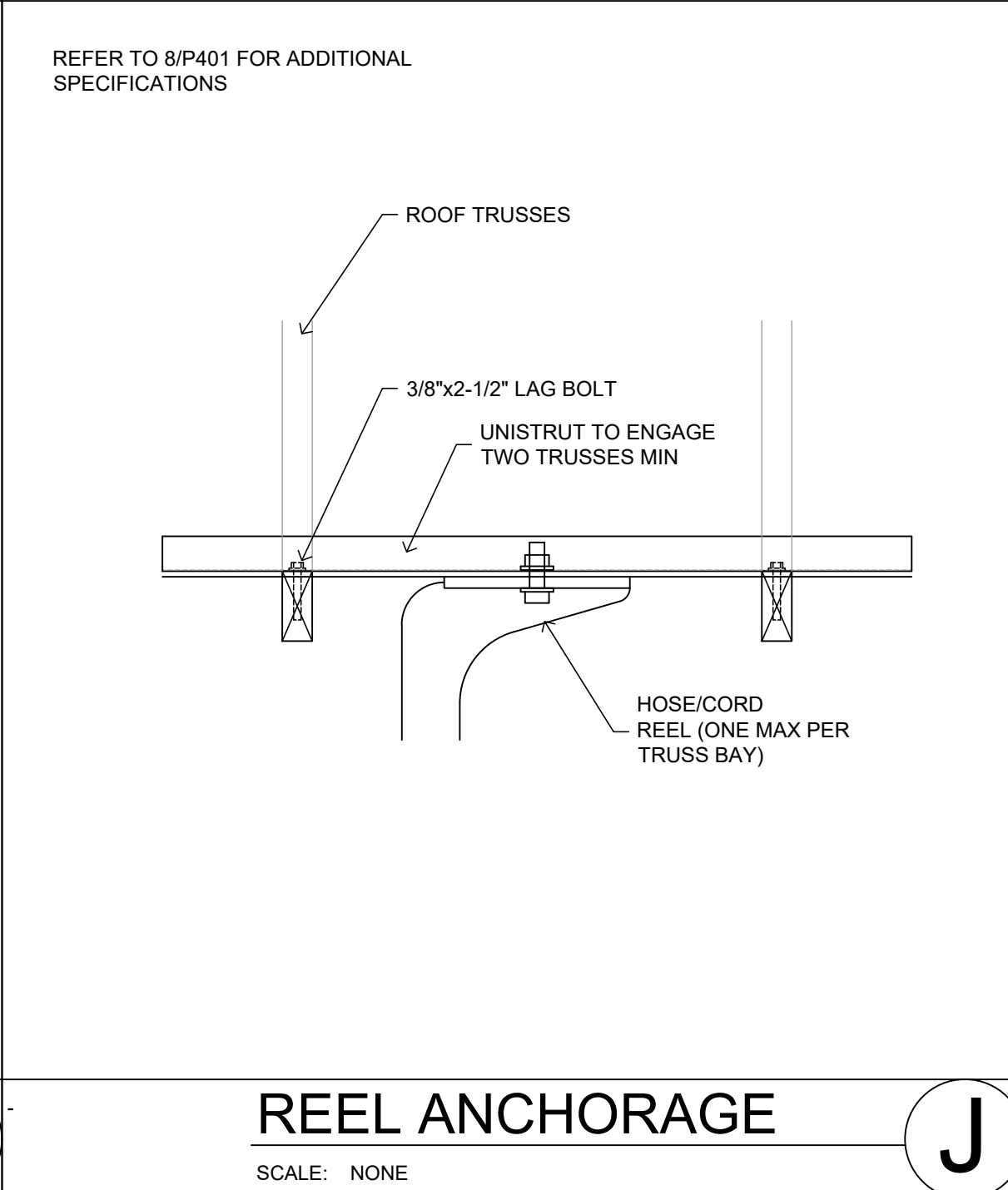
**DIFFUSER WIRES**

SCALE: NONE



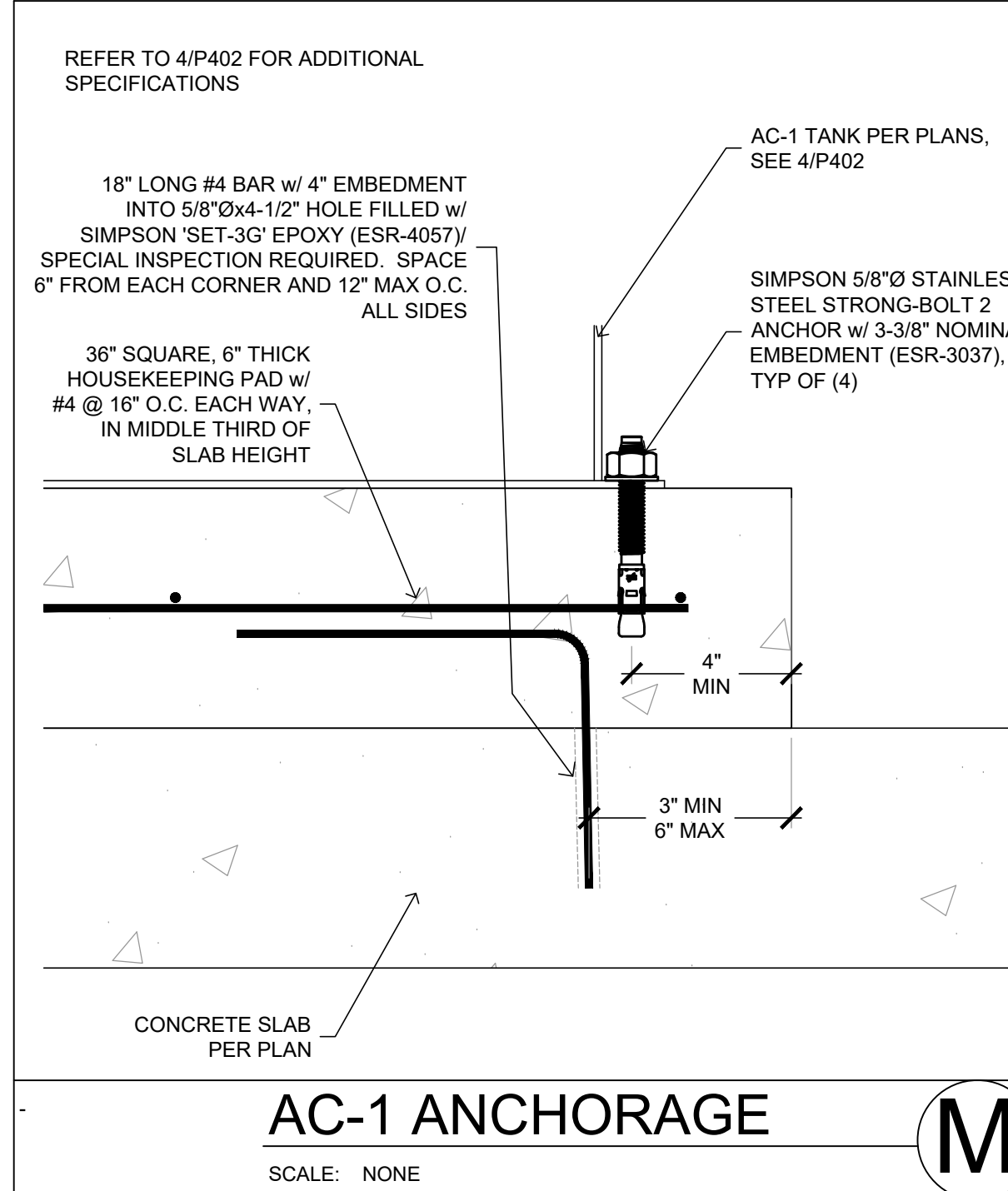
**DUCT SUPPORT**

SCALE: NONE



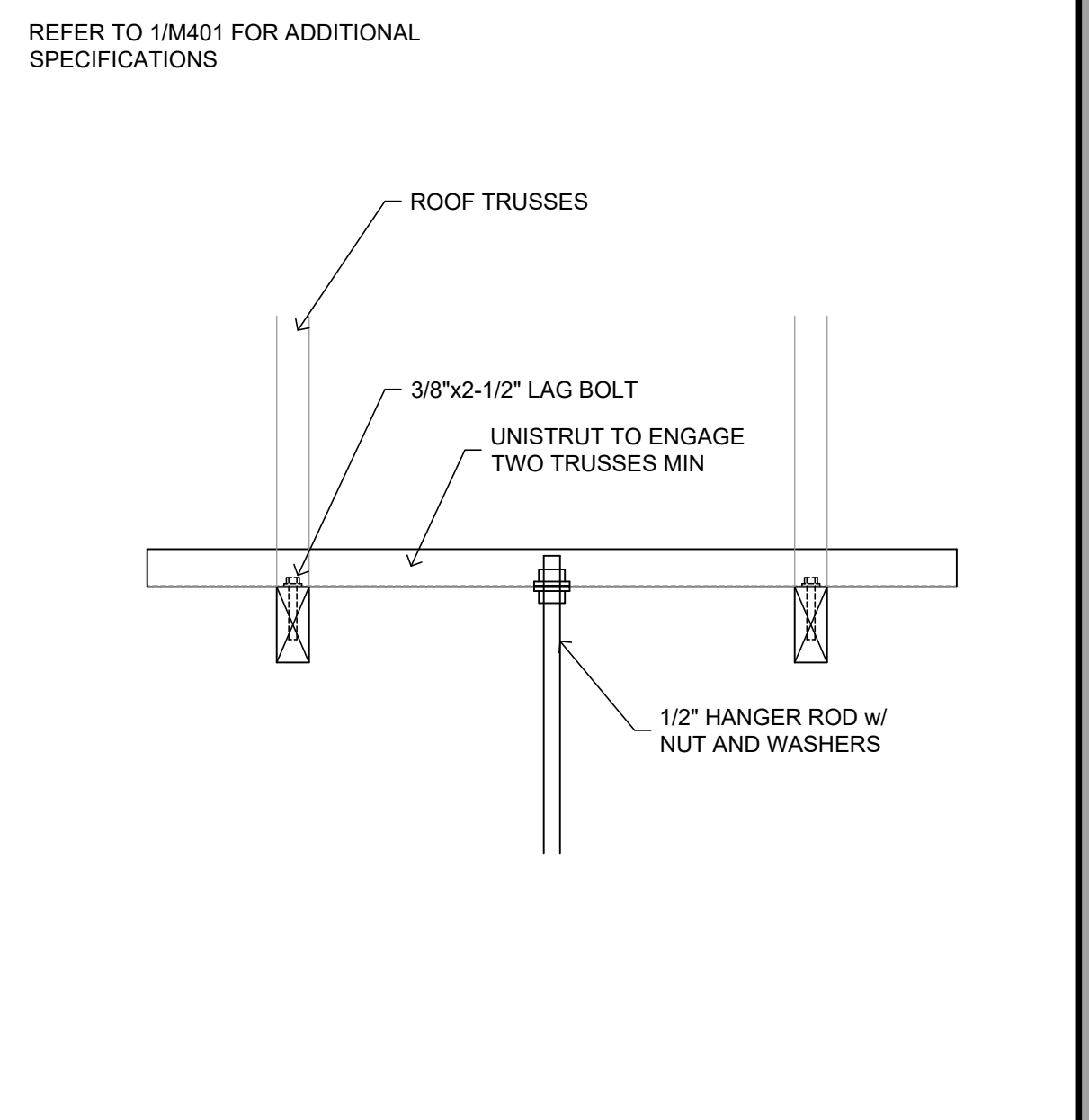
**REEL ANCHORAGE**

SCALE: NONE



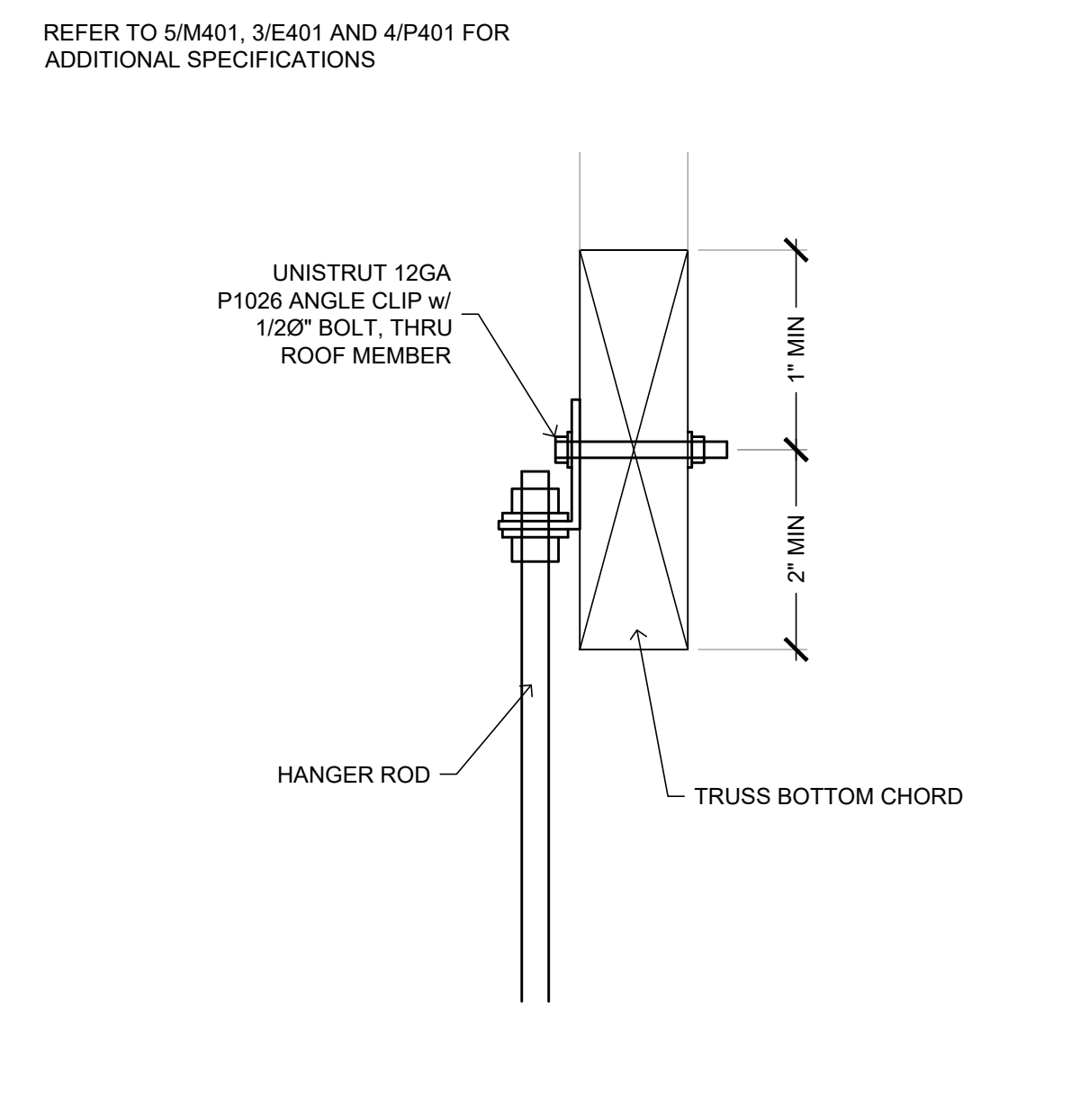
**AC-1 ANCHORAGE**

SCALE: NONE



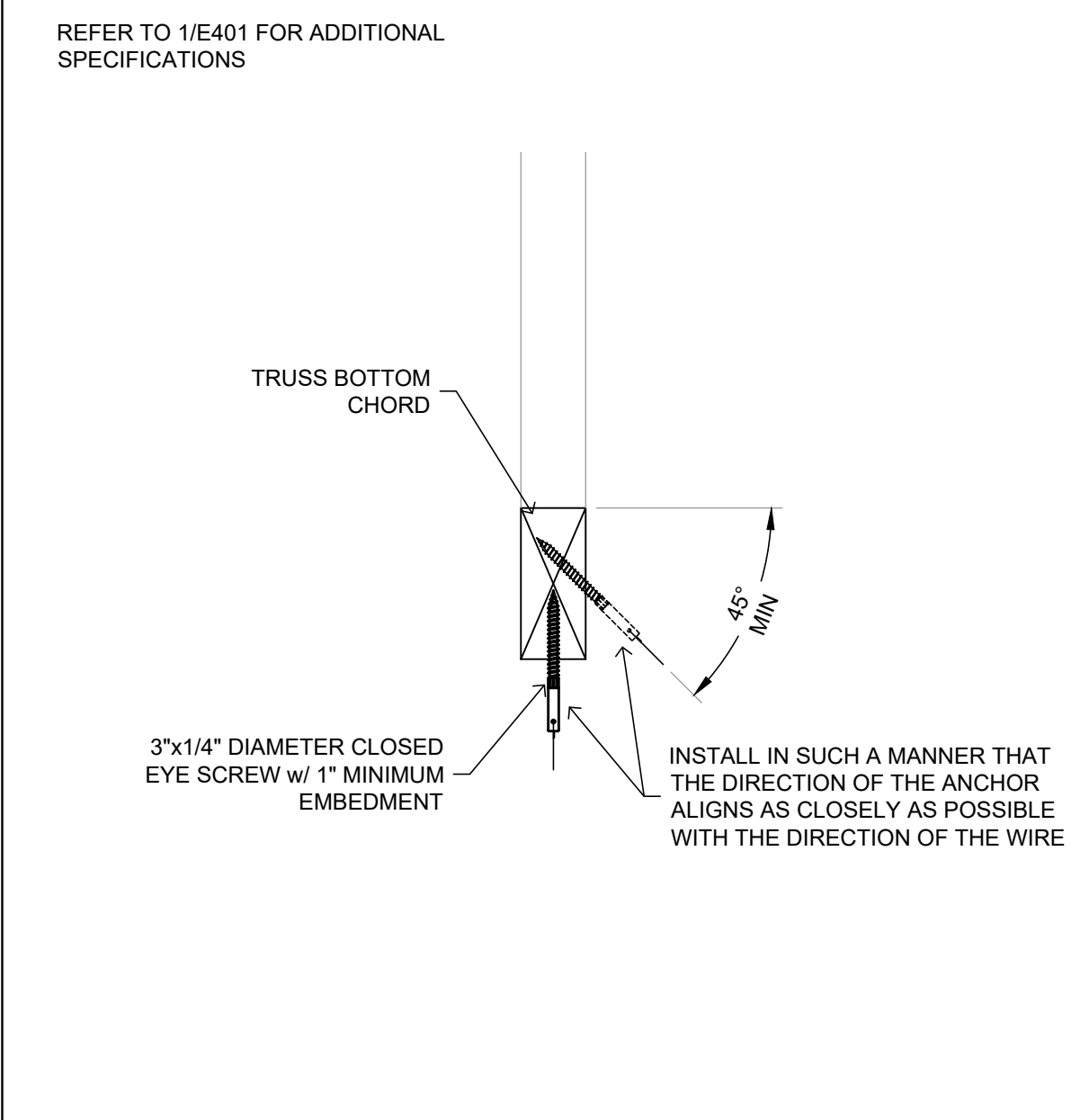
**FAN COIL MOUNTING**

SCALE: NONE



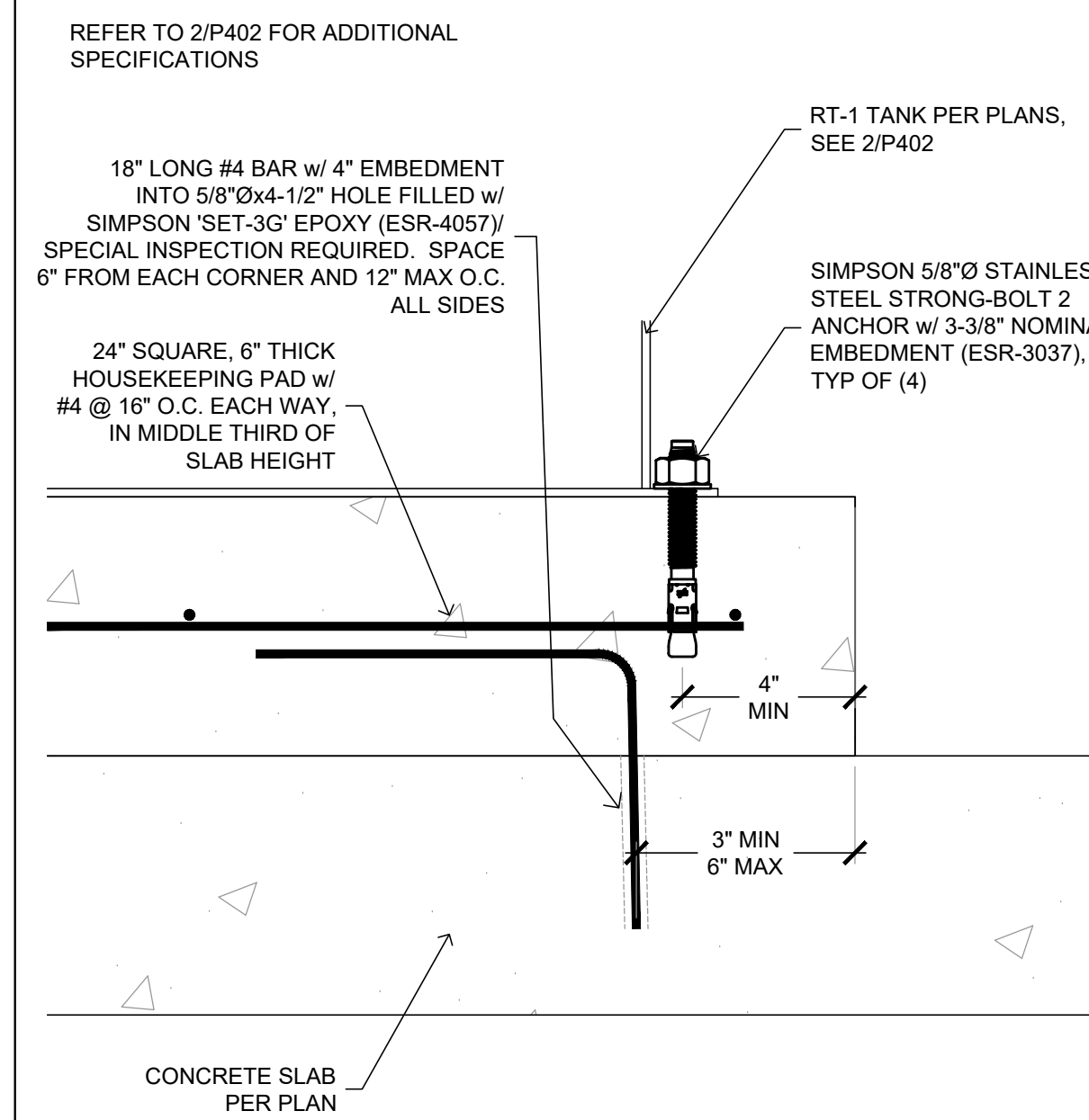
**PIPE SUPPORT**

SCALE: NONE



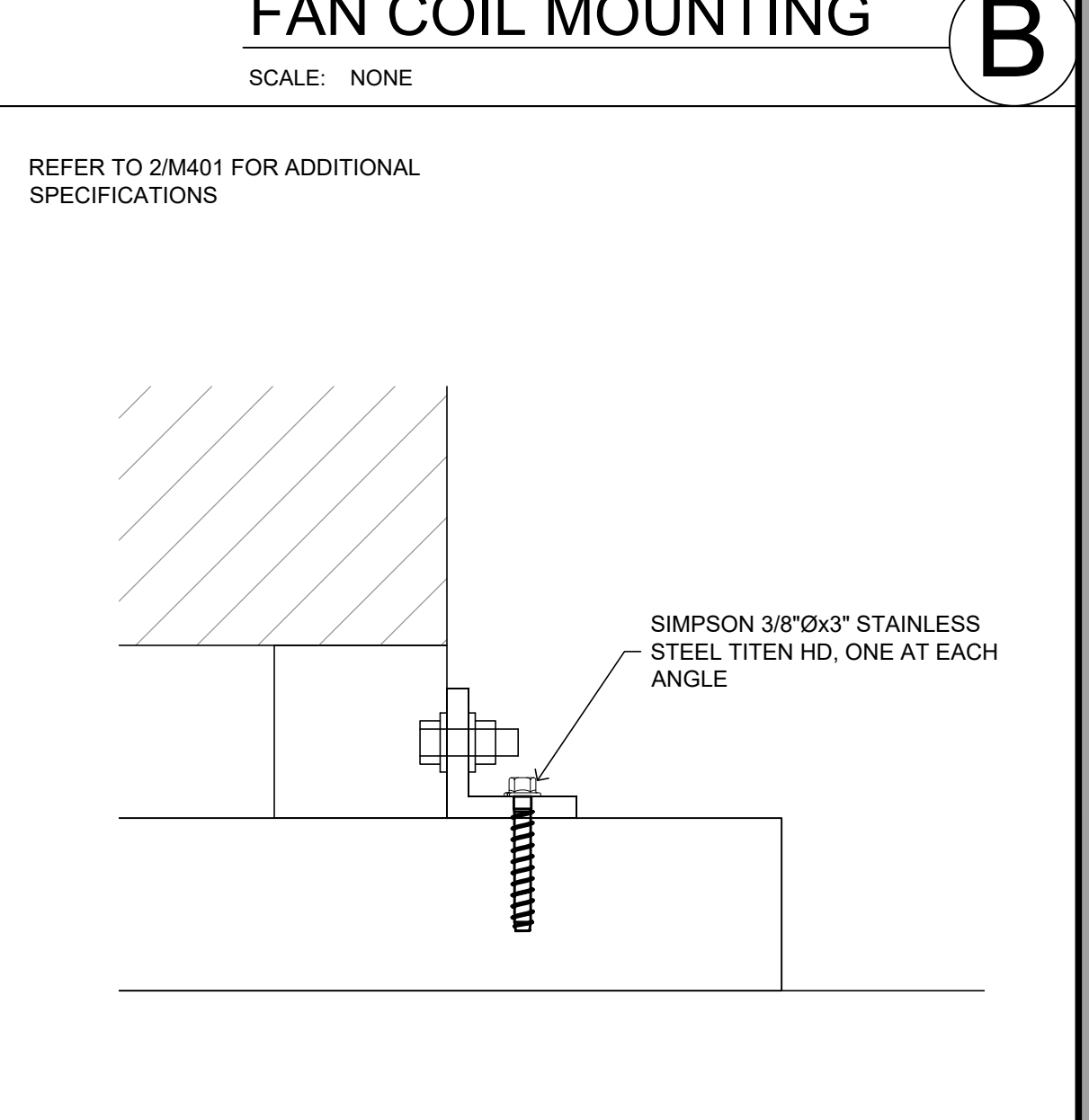
**LIGHT SUPPORTS**

SCALE: NONE



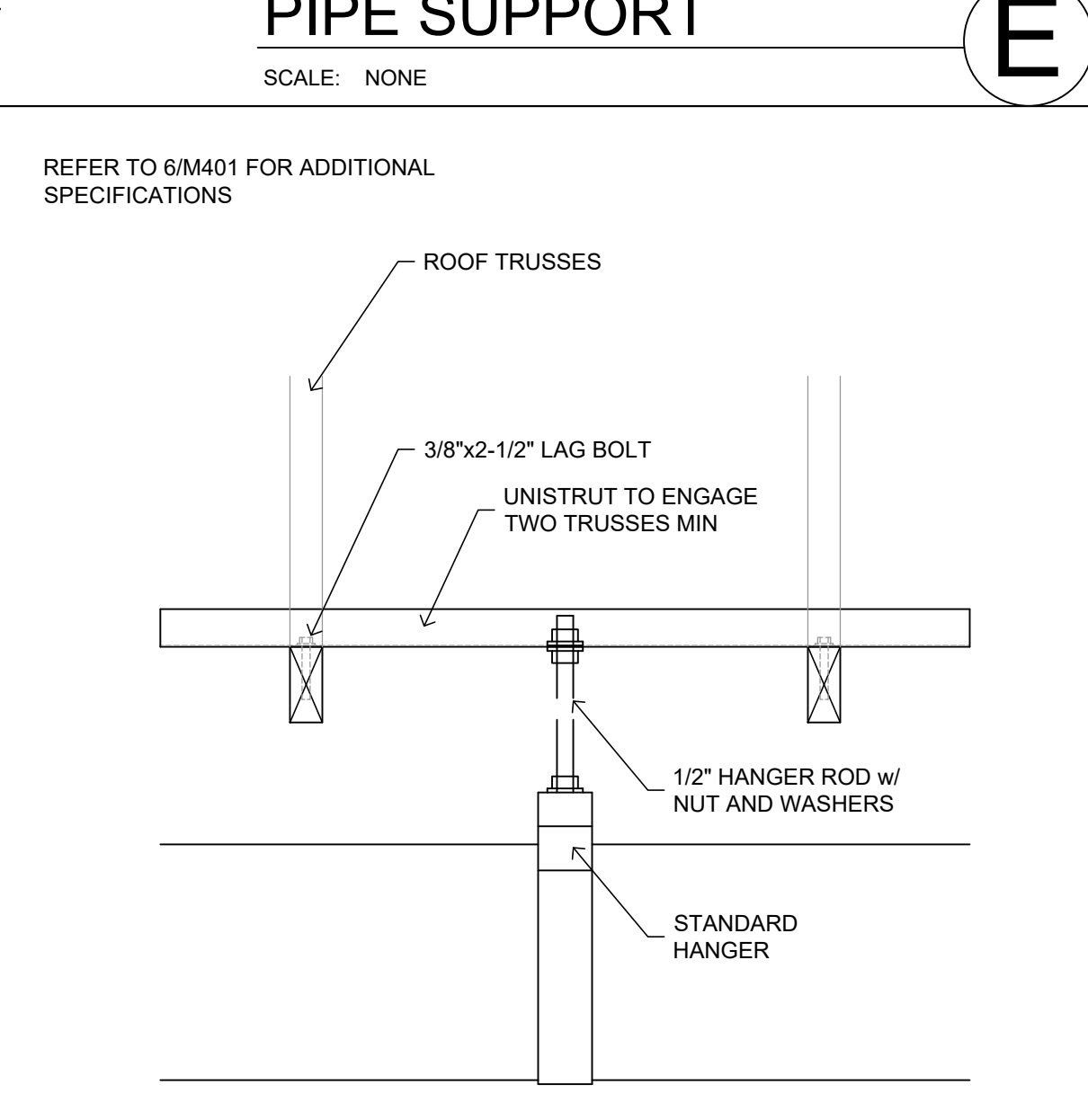
**RT-1 ANCHORAGE**

SCALE: NONE



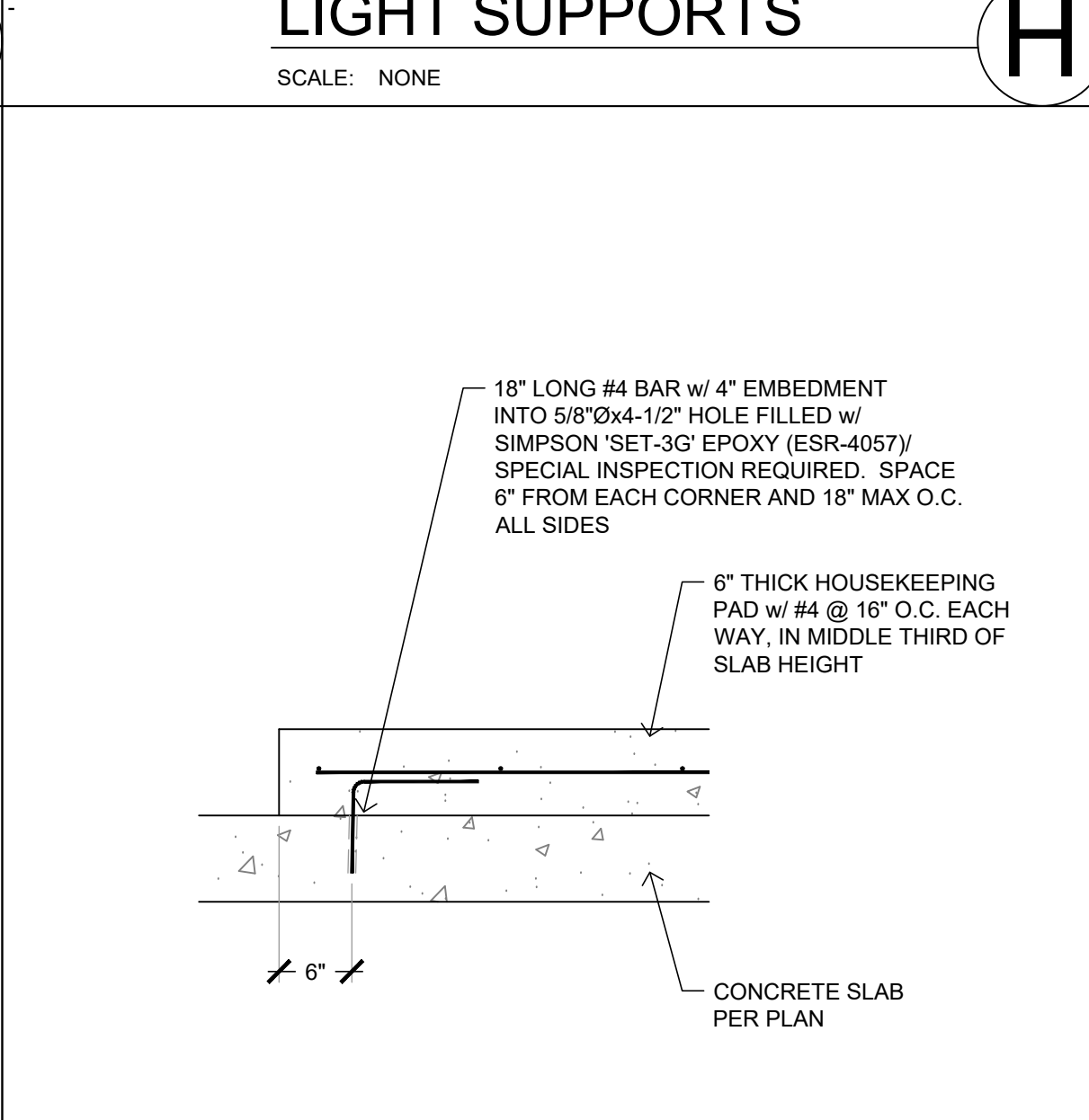
**CONDENSING UNIT**

SCALE: NONE



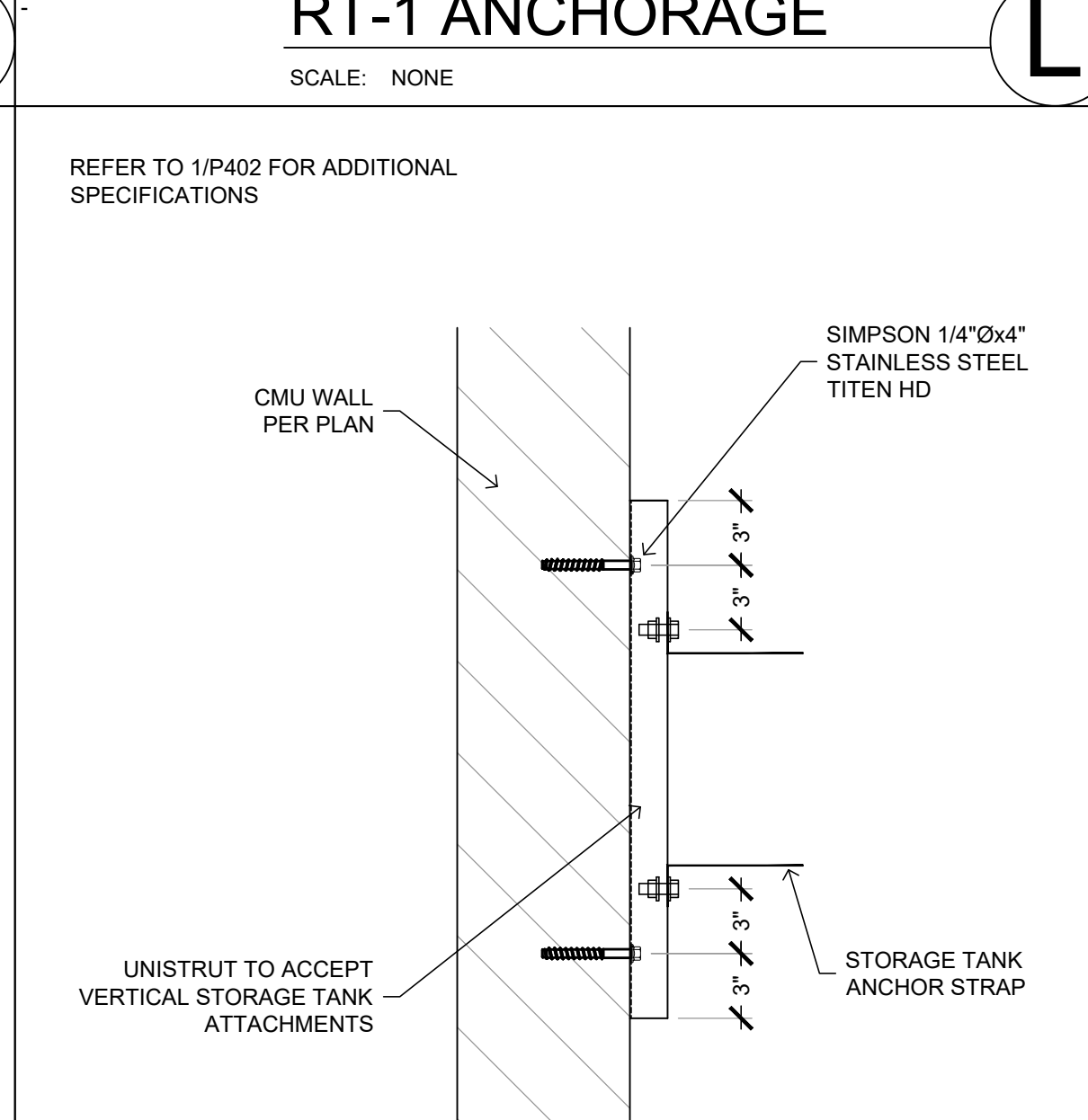
**DIFFUSER HANGER**

SCALE: NONE



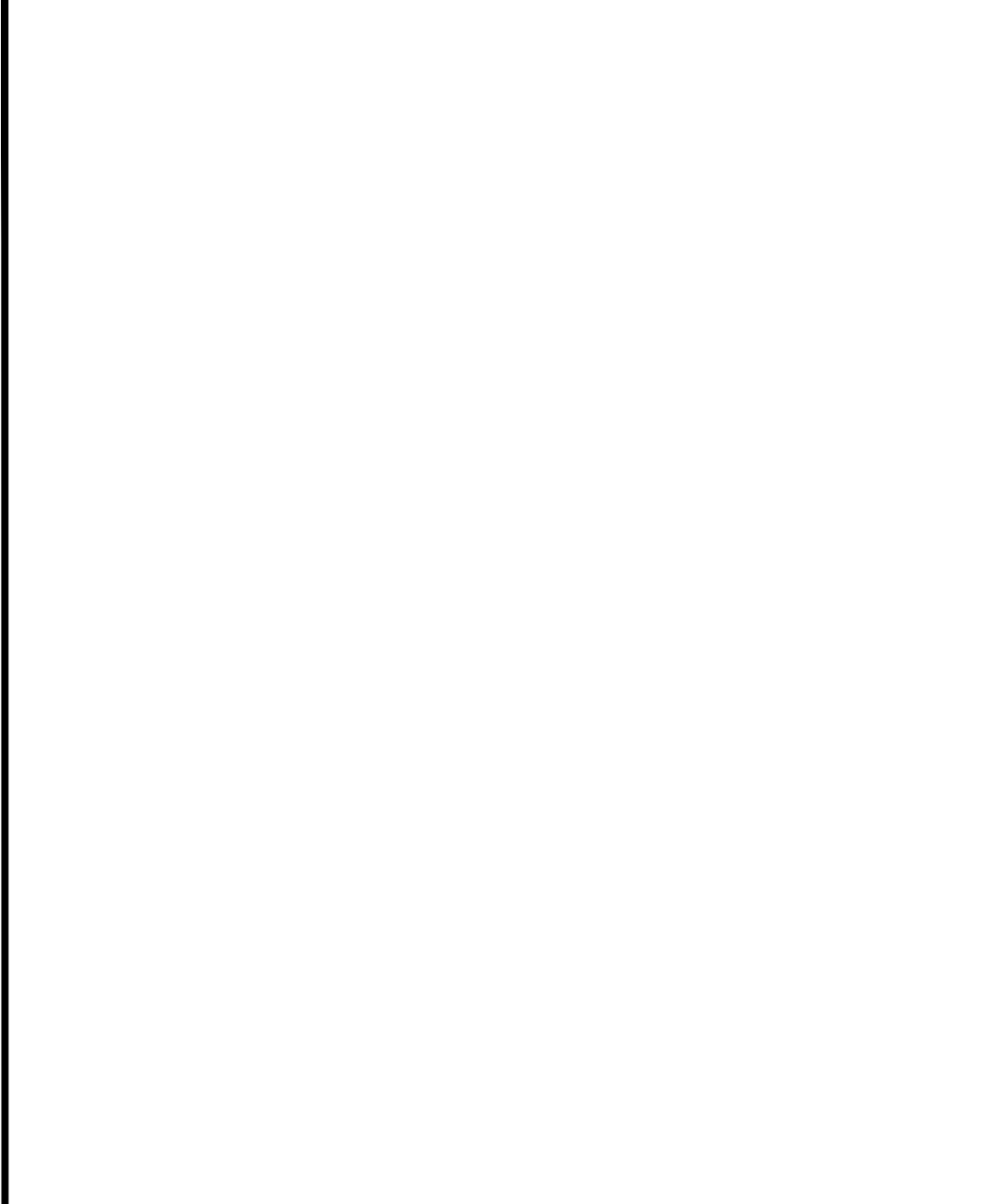
**HOUSE KEEPING PAD**

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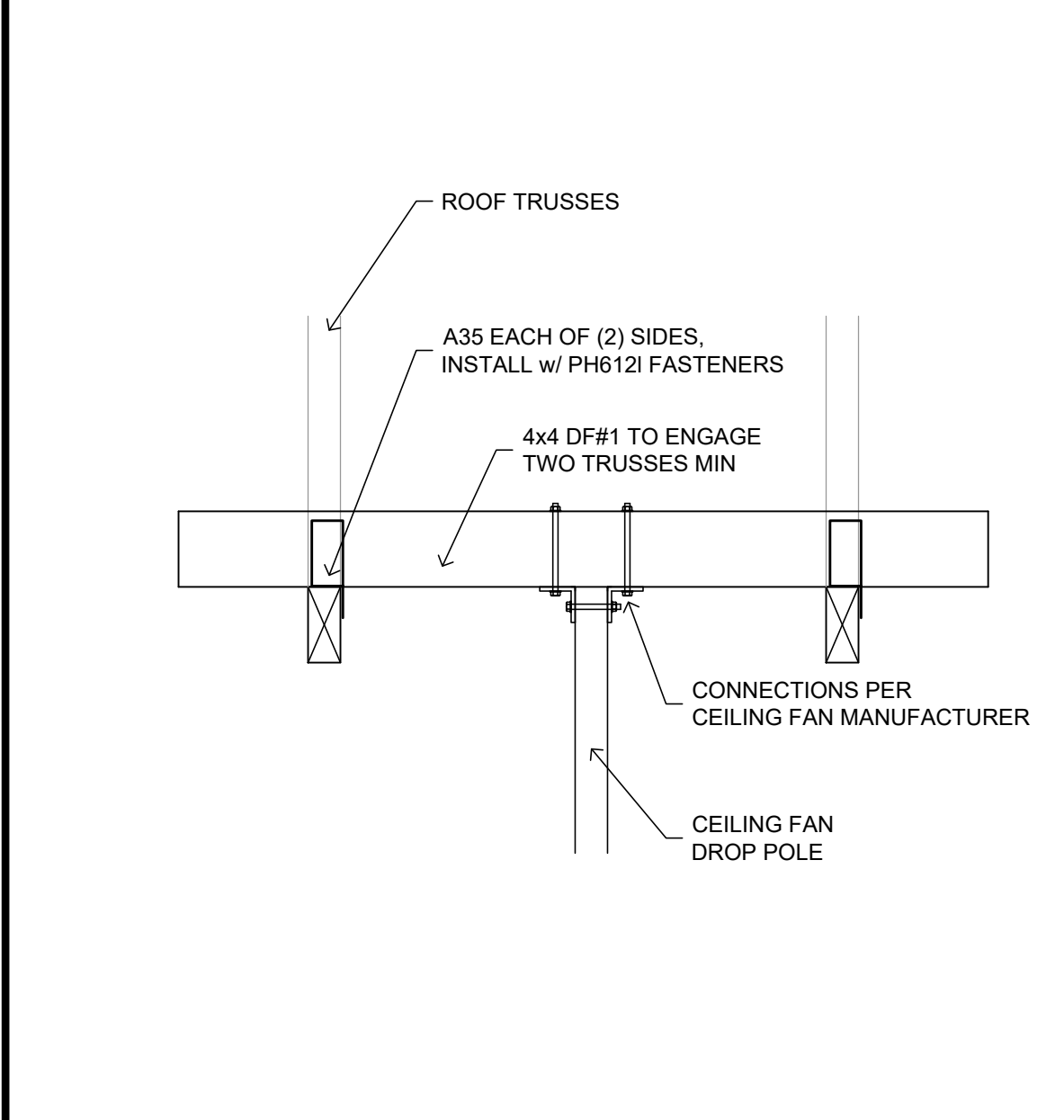
**TANK ANCHORAGE**

SCALE: NONE



**CEILING FAN SUPPORT**

SCALE: NONE

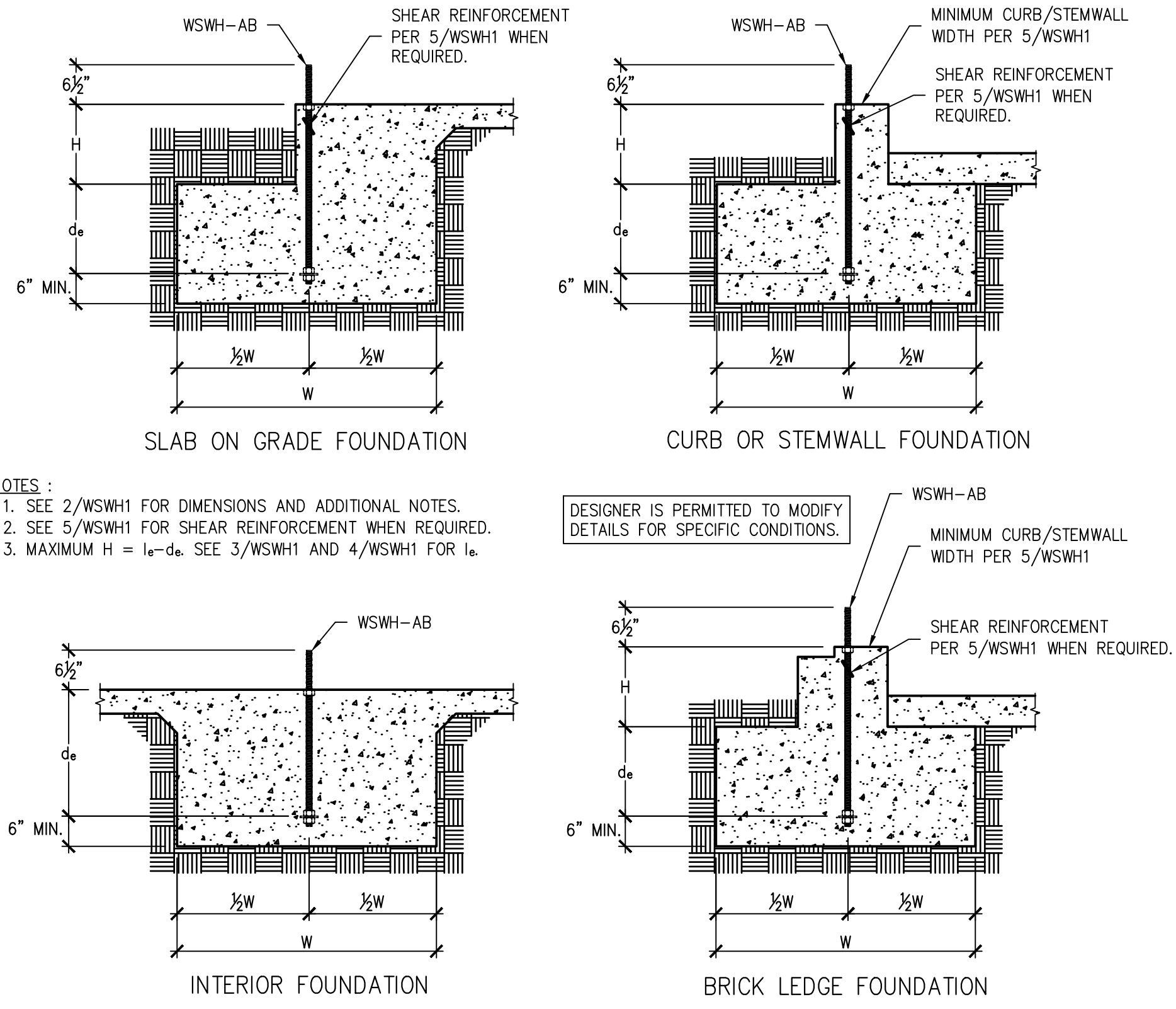


**SLAB REPAIR**

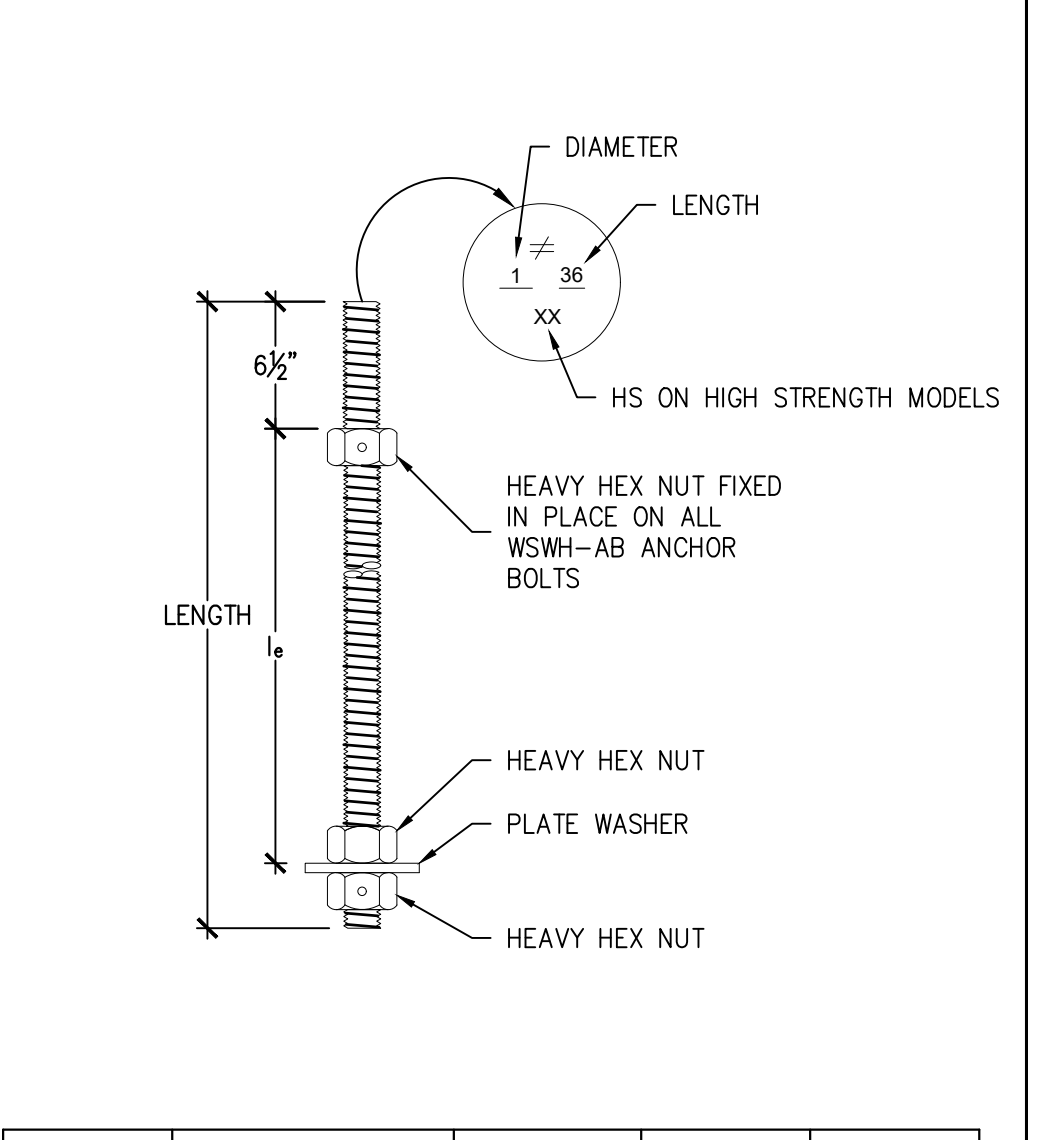
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000102t

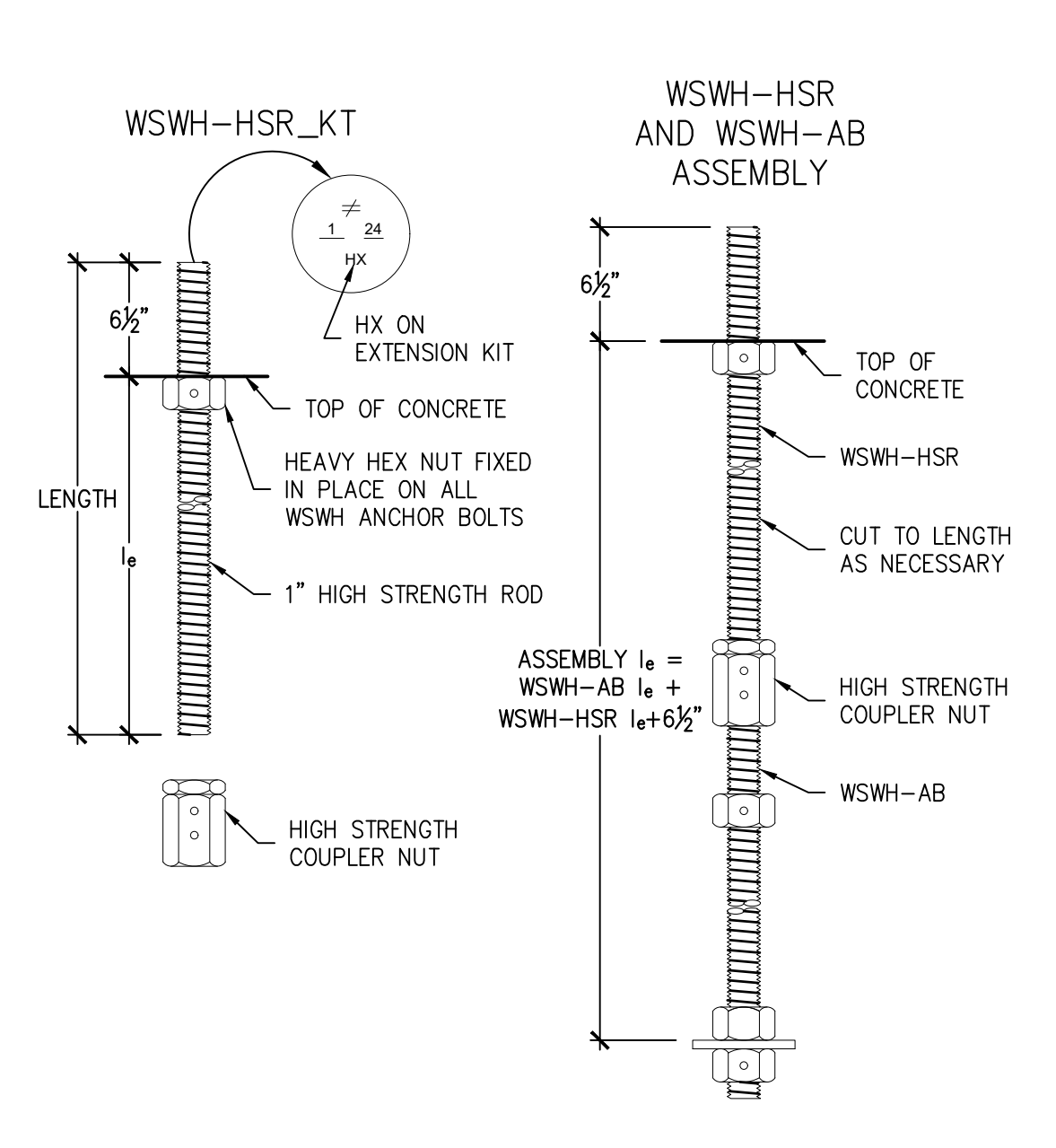




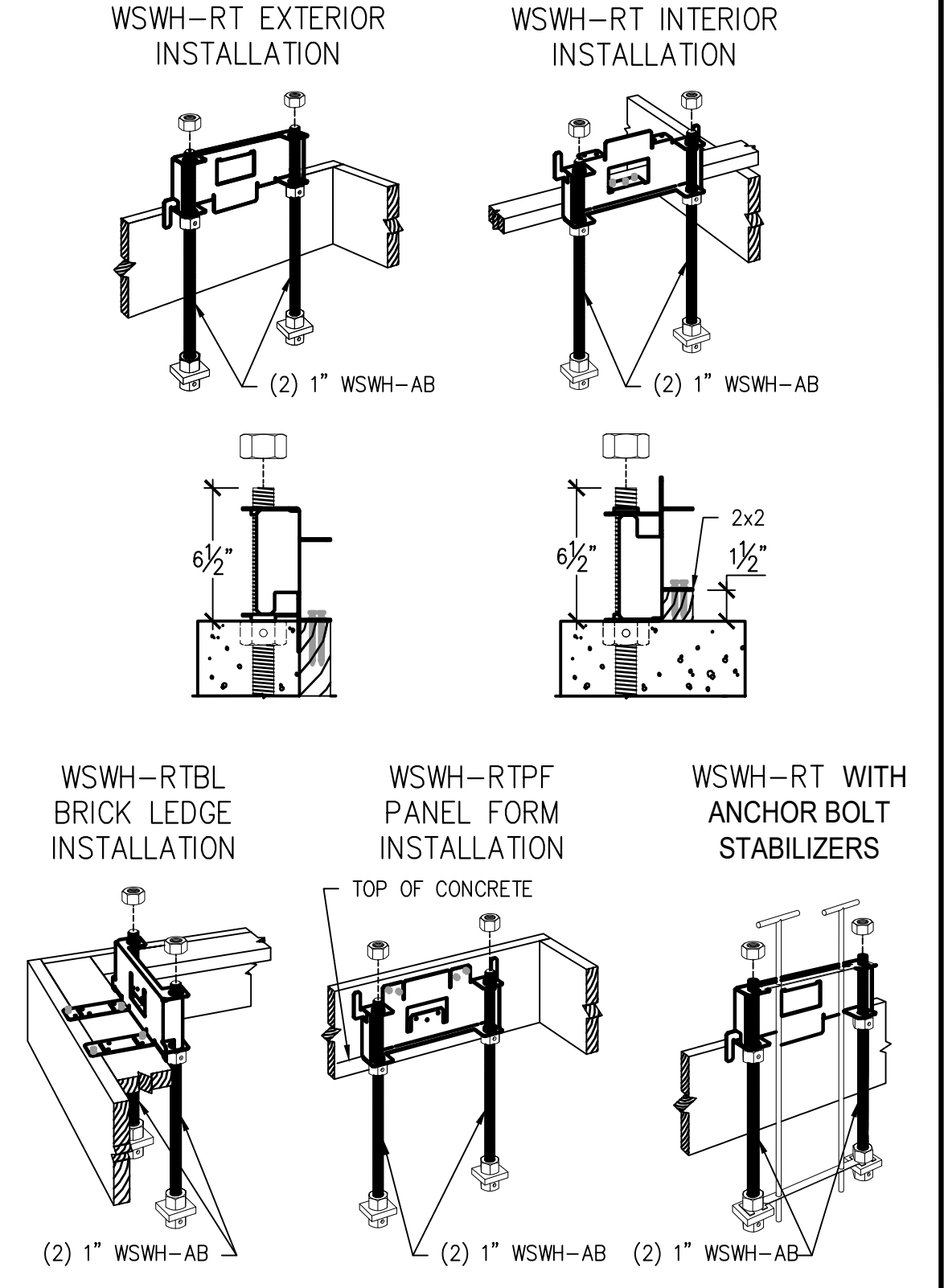
NOTES:  
 1. SEE 2/WSWH1 FOR DIMENSIONS AND ADDITIONAL NOTES.  
 2. SEE 5/WSWH1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.  
 3. MAXIMUM H =  $l_e - d_a$ . SEE 3/WSWH1 AND 4/WSWH1 FOR  $l_e$ .



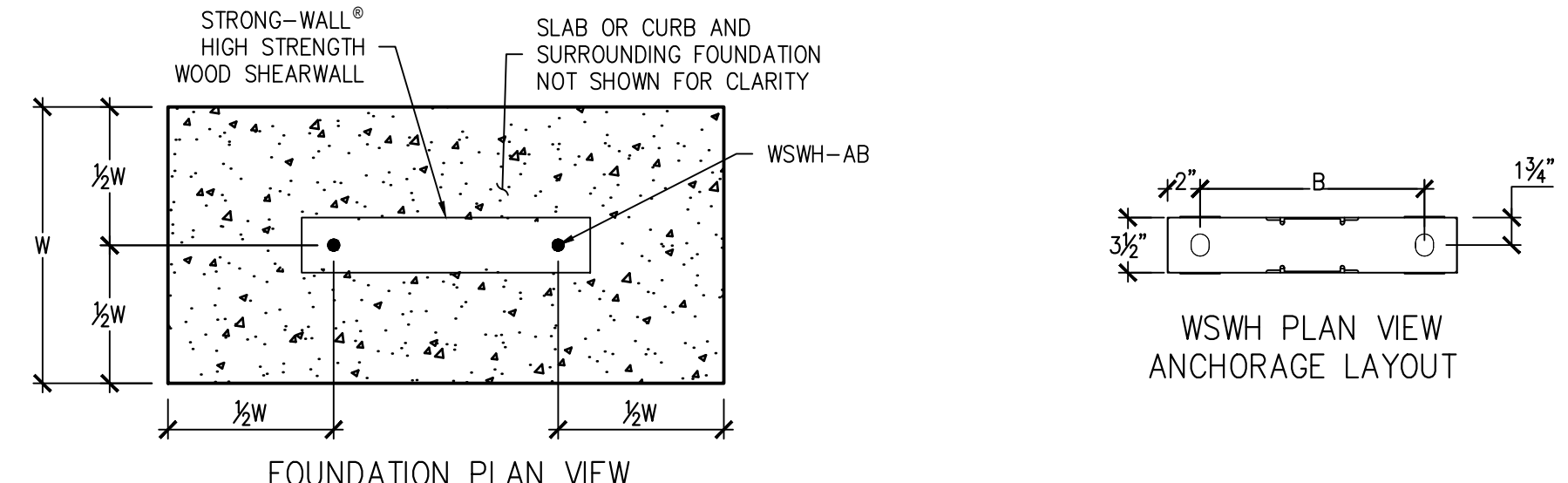
WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	$l_e$
WSWH12, WSWH18 AND WSWH24	WSWH-AB1x24	1"	24"	15 1/2"
	WSWH-AB1x24HS	1"	24"	15 1/2"
	WSWH-AB1x30	1"	30"	21 1/2"
	WSWH-AB1x30HS	1"	30"	21 1/2"
	WSWH-AB1x36	1"	36"	27 1/2"
WSWH-AB1x36HS	1"	36"	27 1/2"	



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	$l_e$
WSWH12, WSWH18 AND WSWH24	WSWH-HSR1x24KT	1"	24"	17 1/2"
	WSWH-HSR1x36KT	1"	36"	29 1/2"

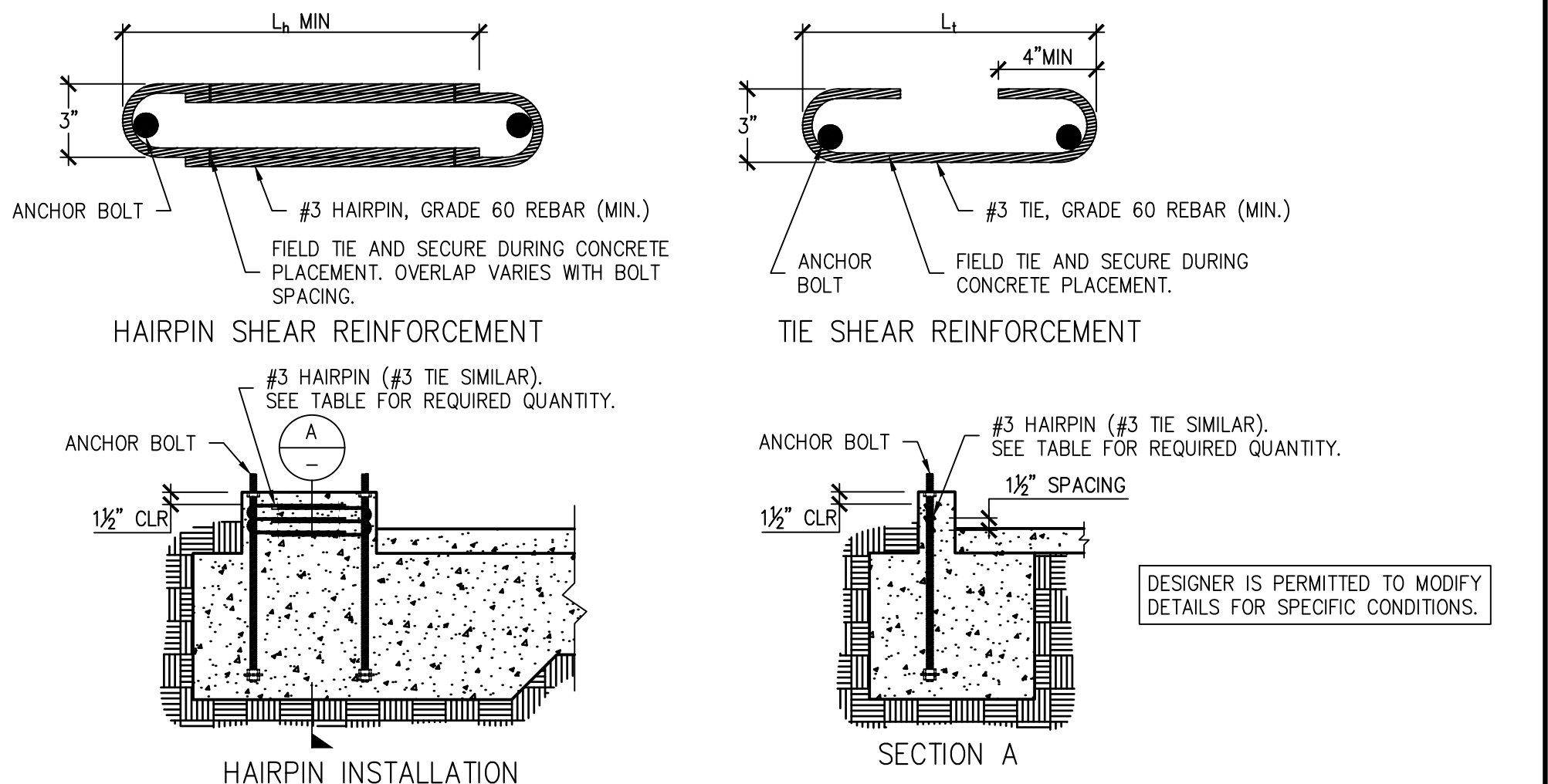


STRONG-WALL® WSWH ANCHORAGE – TYPICAL SECTIONS 1 | WSWH ANCHOR BOLTS 3 | WSWH ANCHOR BOLT EXTENSION 4 | WSWH ANCHOR BOLT TEMPLATES 6



ANCHOR BOLT LAYOUT	
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODEL NO.	DISTANCE FROM CENTER-TO-CENTER OF WSWH-AB, B (in)
WSWH12	8 1/2
WSWH18	14
WSWH24	20

NOTES:  
 1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D, ACI 318-14 CHAPTER 17 AND ACI 318-19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.  
 2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).  
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C-F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-19 SECTION 17.10.5.3.  
 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.  
 5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.  
 6. REFER TO 1/WSWH1 FOR  $d_a$ .



DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	$d_a$ (in)
SEISMIC	CRACKED	STANDARD	16,000	33	11
		HIGH STRENGTH	17,100	35	12
		HIGH STRENGTH	34,100	52	18
	UNCRAKED	STANDARD	15,700	28	10
		HIGH STRENGTH	17,100	30	10
		HIGH STRENGTH	33,500	45	15
WIND	CRACKED	STANDARD	6,200	14	6
		HIGH STRENGTH	17,100	32	11
		HIGH STRENGTH	21,100	36	12
	UNCRAKED	STANDARD	6,400	14	6
		HIGH STRENGTH	12,500	22	8
		HIGH STRENGTH	17,100	28	10

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	$d_a$ (in)
SEISMIC	CRACKED	STANDARD	16,000	31	11
		HIGH STRENGTH	17,100	33	11
		HIGH STRENGTH	33,900	49	17
	UNCRAKED	STANDARD	15,700	27	9
		HIGH STRENGTH	17,100	28	10
		HIGH STRENGTH	33,900	43	15
WIND	CRACKED	STANDARD	6,600	14	6
		HIGH STRENGTH	17,100	30	10
		HIGH STRENGTH	20,000	33	11
	UNCRAKED	STANDARD	6,200	13	6
		HIGH STRENGTH	12,800	21	7
		HIGH STRENGTH	17,100	26	9

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	$d_a$ (in)
SEISMIC	CRACKED	STANDARD	16,000	27	9
		HIGH STRENGTH	17,100	29	10
		HIGH STRENGTH	34,700	44	15
	UNCRAKED	STANDARD	15,700	23	8
		HIGH STRENGTH	17,100	25	9
		HIGH STRENGTH	33,900	38	13
WIND	CRACKED	STANDARD	6,800	14	6
		HIGH STRENGTH	11,600	20	7
		HIGH STRENGTH	17,100	26	9
	UNCRAKED	STANDARD	21,400	30	10
		HIGH STRENGTH	28,400	36	12
		HIGH STRENGTH	32,400	39	13

MODEL	STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SHEAR ANCHORAGE						
	L <sub>1</sub> OR L <sub>2</sub> (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)	
						UNCRAKED	CRACKED
WSWH12	10 1/4	(1) #3 TIE	6	SEE NOTE 7	6	1,080	770
WSWH18	15	(2) #3 HAIRPINS <sup>5,6</sup>	6	(1) #3 HAIRPIN	6	HAIRPIN REINF. ACHIEVES MAX. ALLOW SHEAR LOAD OF THE WSWH	
WSWH24	19	(2) #3 HAIRPINS <sup>5</sup>	6	(2) #3 HAIRPINS <sup>5</sup>	6		

NOTES:  
 1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-19, ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.  
 2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.  
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318-19, SECTION 17.10.6.3, ACI 318-14, SECTION 17.2.3.5.3  
 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.  
 5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.  
 6. USE (1) #3 HAIRPIN FOR WSWH12 WHEN STANDARD STRENGTH ANCHOR IS USED.  
 7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.  
 8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH12 SHEAR ANCHORAGE SOLUTIONS.  
 9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-19 SECTION 17.9.2, ACI 318-14 SECTION 17.7.2 AND ACI 318-11 SECTION D.8.2.  
 10. THE DESIGNER MAY SPECIFY ALTERNATE SHEAR ANCHORAGE.

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI 2 | STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS 5

NO.	DATE	REVISIONS
0	02-26-2021	FIRST RELEASE - 2018 BIC
1	09-16-2021	2021 BIC REVISIONS

**SIMPSON Strong-Tie Co. Inc.**  
 9555 W. Las Positas Blvd.  
 Pleasanton, CA 94588  
 Tel: (925) 999-5099  
 Website: www.strongtie.com

**STRONG-WALL® WSWH**  
 ANCHORAGE DETAILS  
 ENGINEERED DESIGNS

NAME	DATE
WSWH1	03-26-2021

**DAVID BECKWITH AND ASSOCIATES INC.**  
 Civil & Structural Engineering  
 Land Surveying - Environmental Services

9431 Haven Avenue, Suite 232  
 Rancho Cucamonga, CA 91730  
 (714) 714-3497 (F) 714-948-4471  
 www.davidbeckwithandassociates.com

CLIENT:  
 COUNTY OF RIVERSIDE  
 REGIONAL PARK & OPEN-SPACE DISTRICT

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

PROJECT:  
 SARB MAINTENANCE FACILITY  
 PROJECT NO. PK-ARPA009

4600 CRESTMORE ROAD  
 JURUPA VALLEY, CA 92509

REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER  
 DAVID MICHAEL BECKWITH  
 No. 73761  
 Exp. 06/30/25  
 CIVIL  
 STATE OF CALIFORNIA

01/29/2024

SHEET TITLE	
DESIGNED	JRM
DRAWN	JRM
CHECKED	DMB
DATE	01/29/2024
SCALE	PER PLAN
JOB NO.	2023-29

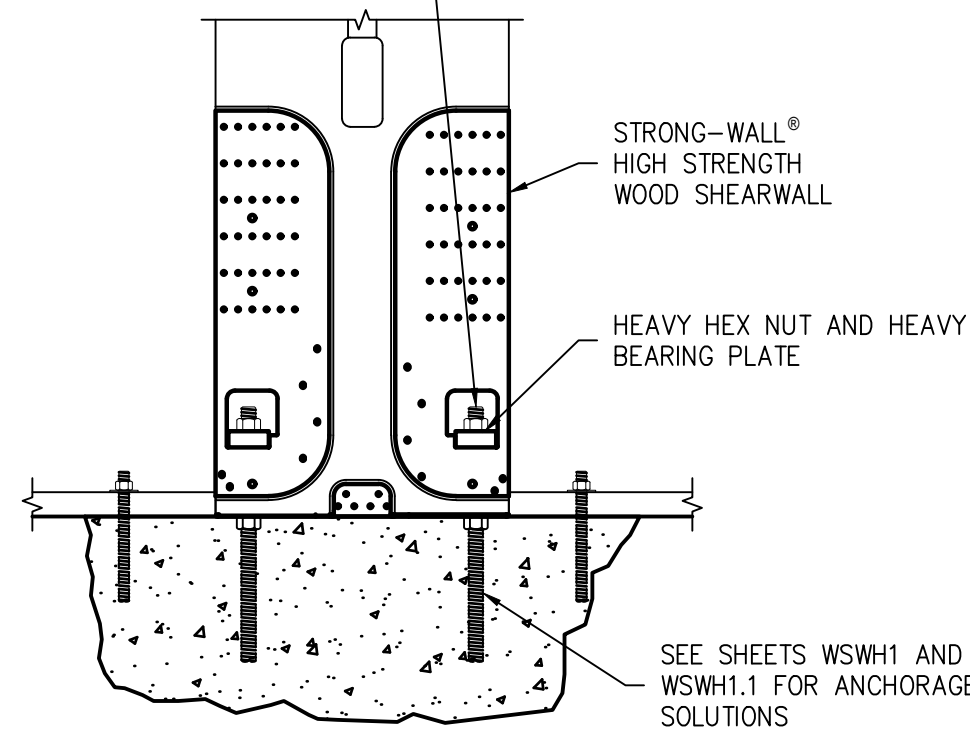
SHEET  
**WSWH1**

**STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS**

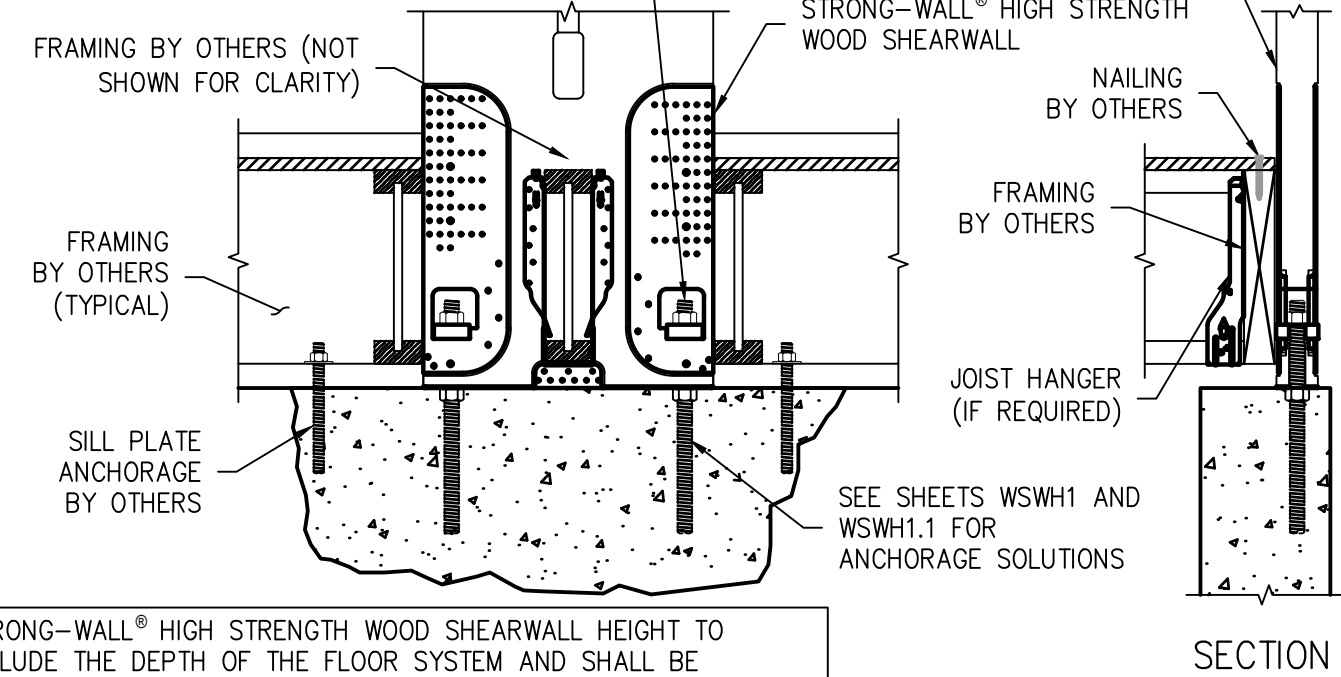
MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	135
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH24x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

- NOTES:**
- FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 1/2".
  - ALL PANELS COME WITH PRE-ATTACHED HOLD-DOWNS, TWO HEAVY HEX NUTS, TWO HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED FASTENERS AND INSTALLATION INSTRUCTIONS.
  - ALL PANELS ARE 3/4" THICK.

PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1 1/2" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + 1/2" TURN.

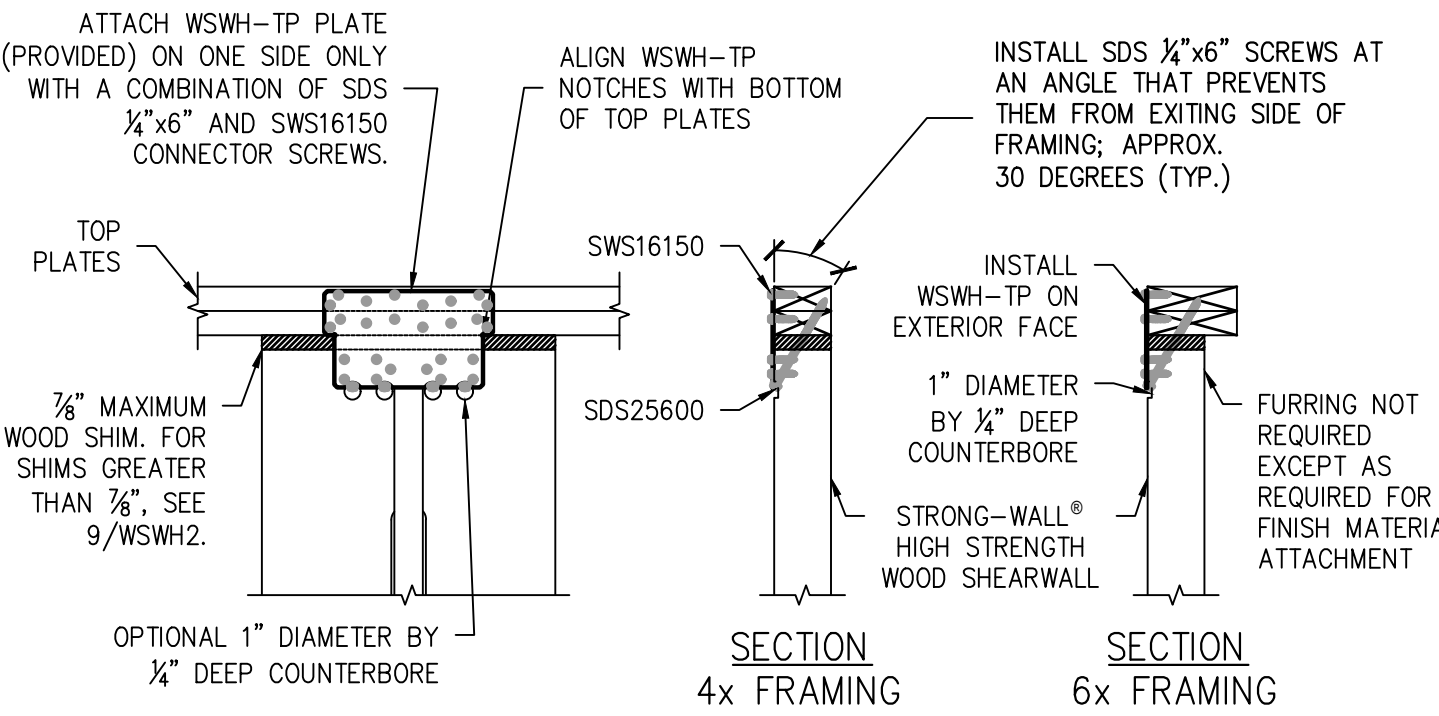


PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1 1/2" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + 1/2" TURN.

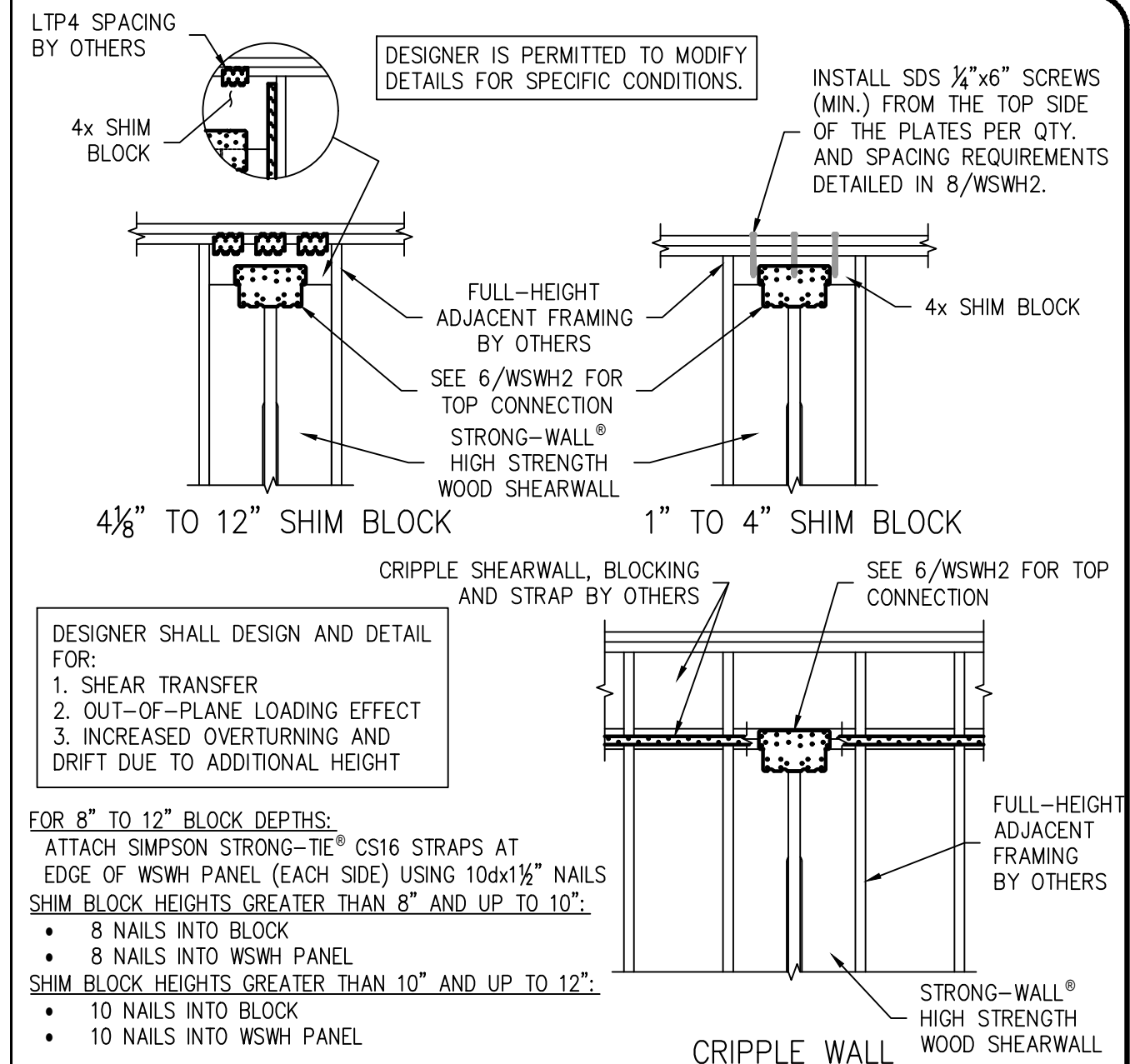
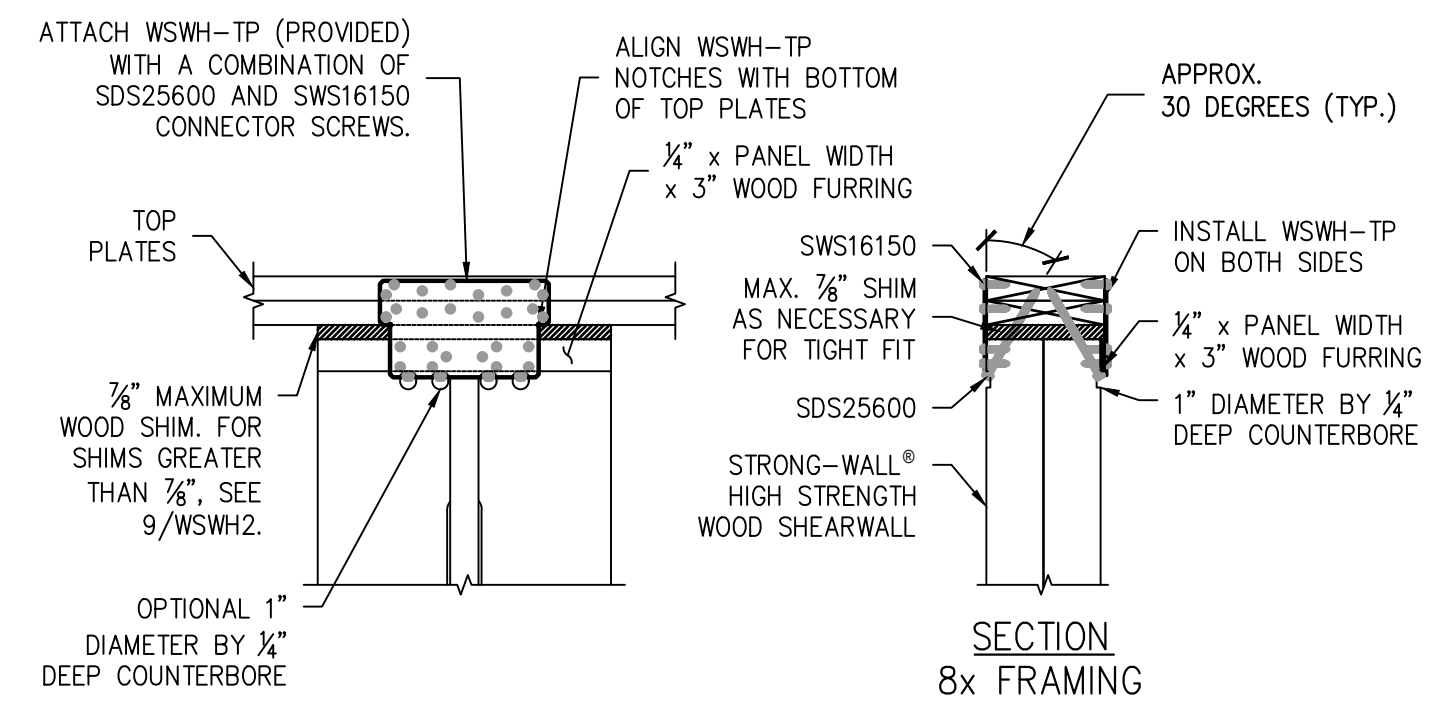


STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

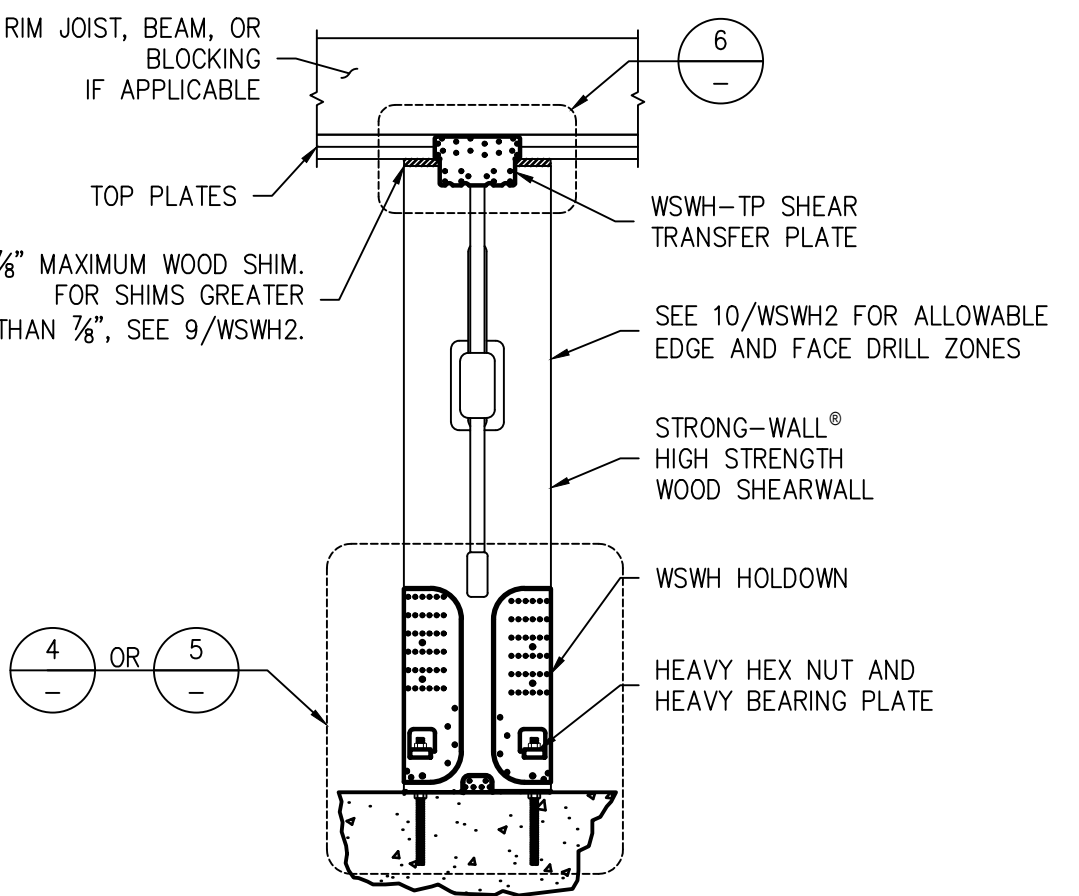
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	14	2
WSWH-TP18	26	4
WSWH-TP24	46	8



MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	28	4
WSWH-TP18	52	8
WSWH-TP24	92	16

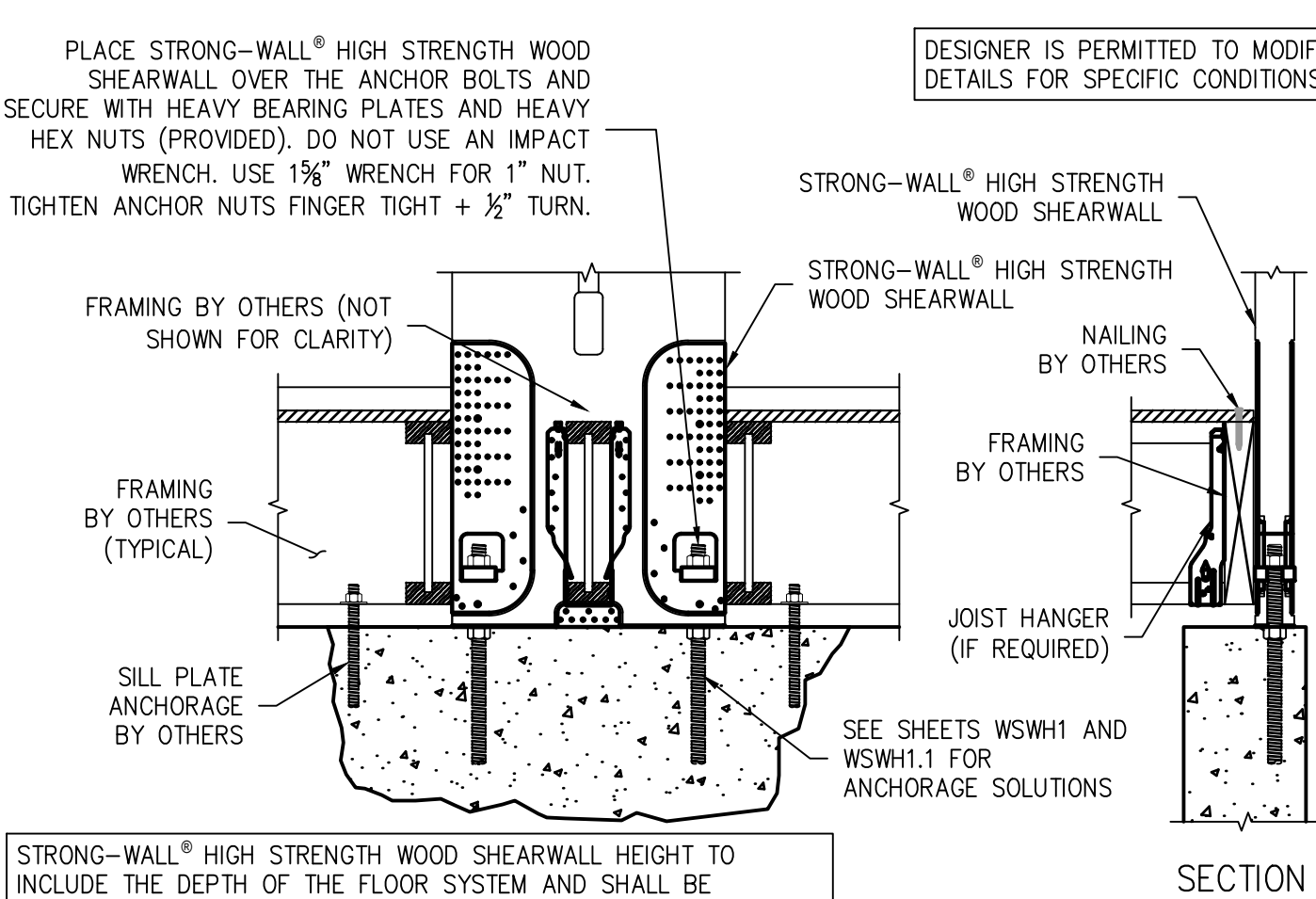


**STRONG-WALL® WSWH MODELS**



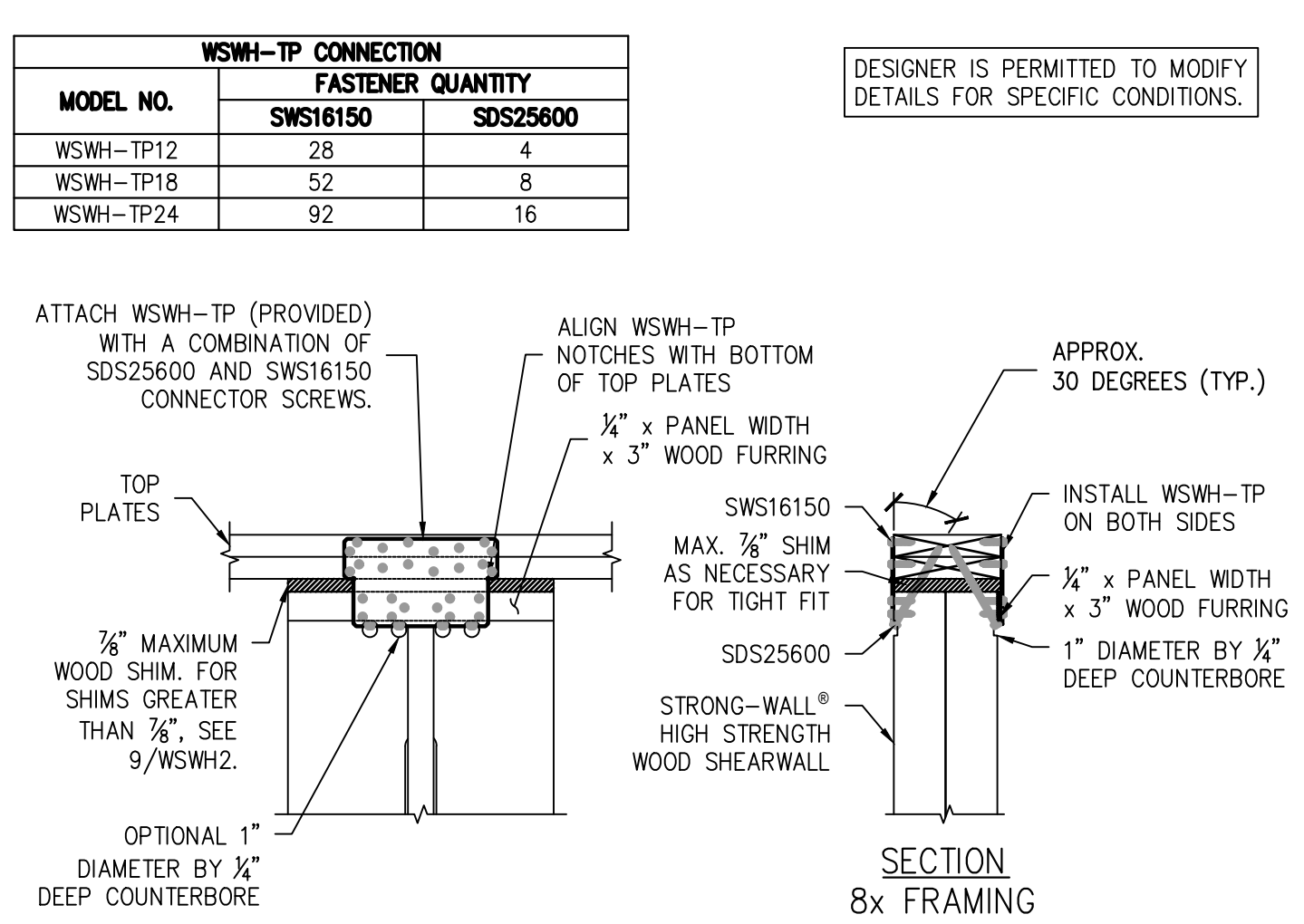
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS. ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

**STANDARD INSTALLATION BASE CONNECTION**

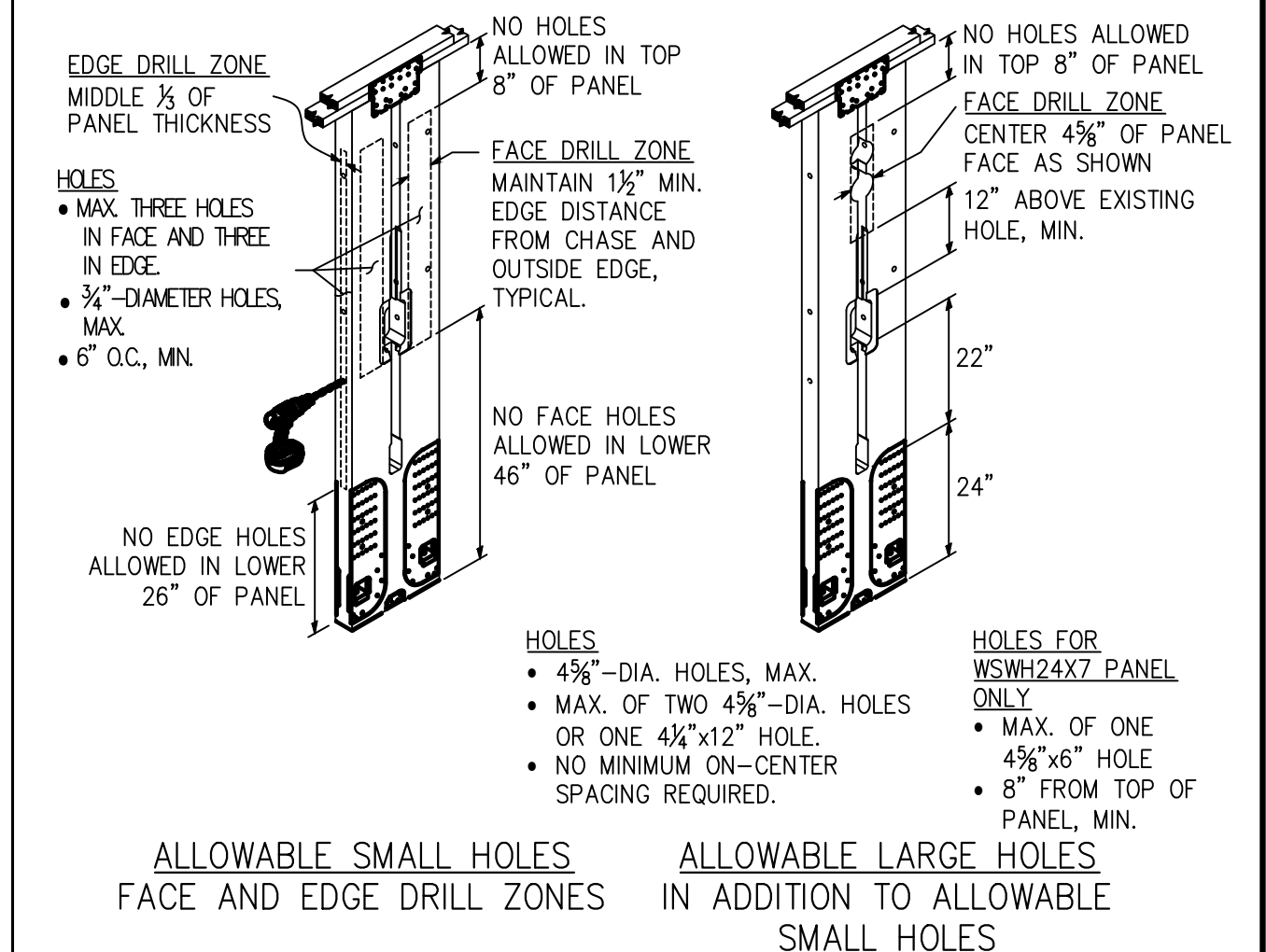


STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

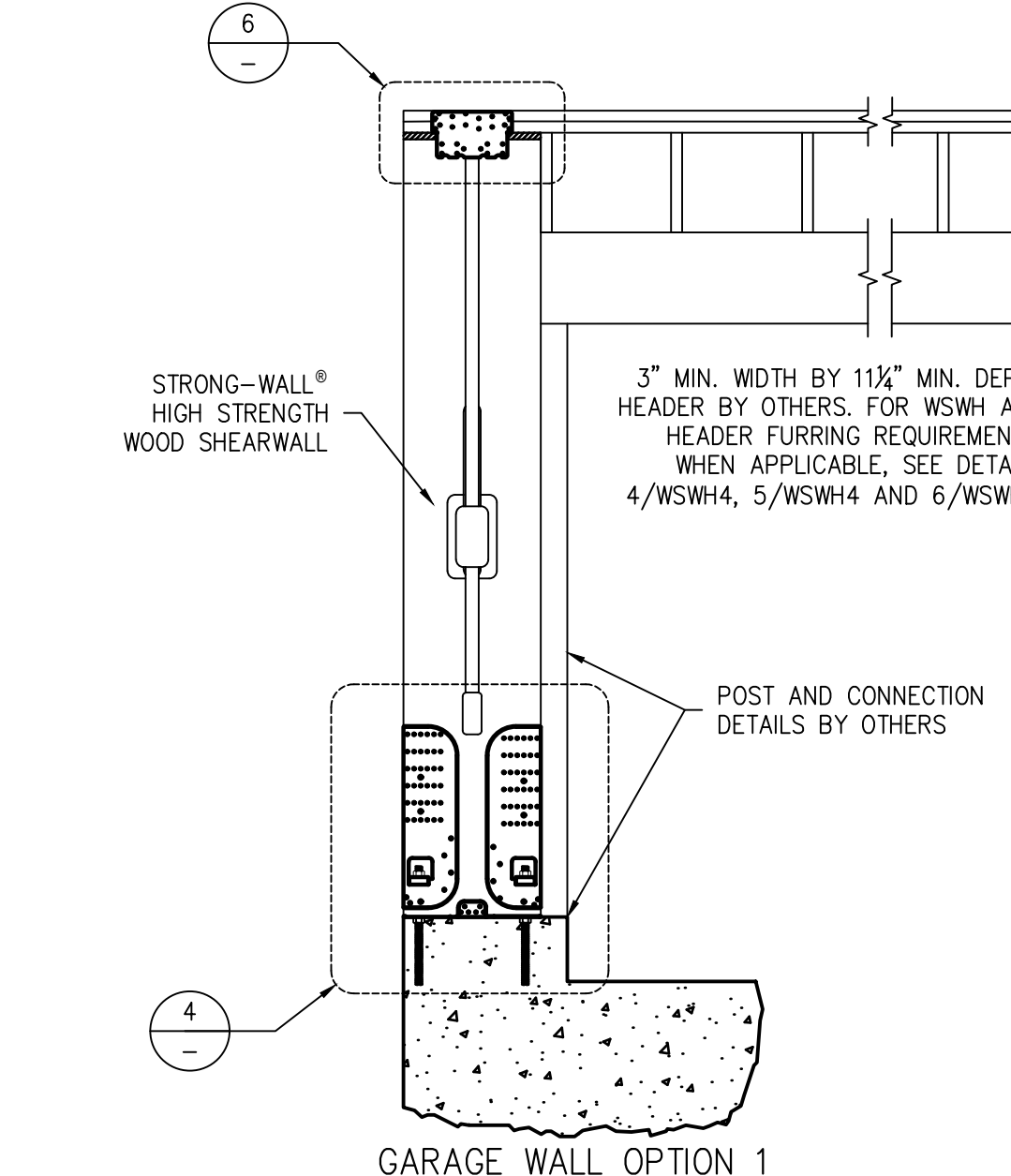
**TOP CONNECTION**



**TOP OF WALL HEIGHT ADJUSTMENTS**

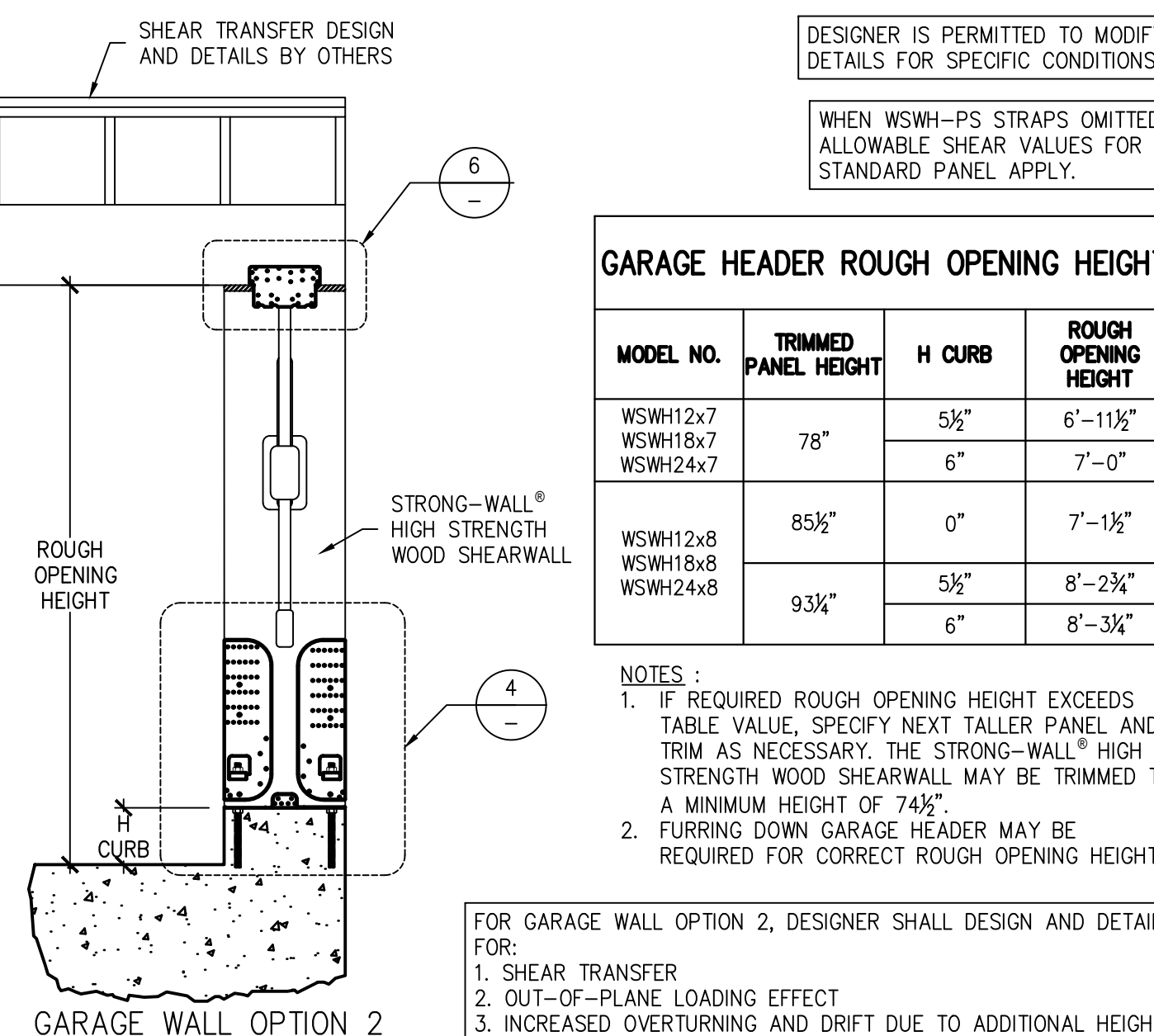


**SINGLE STORY WSWH ON CONCRETE**



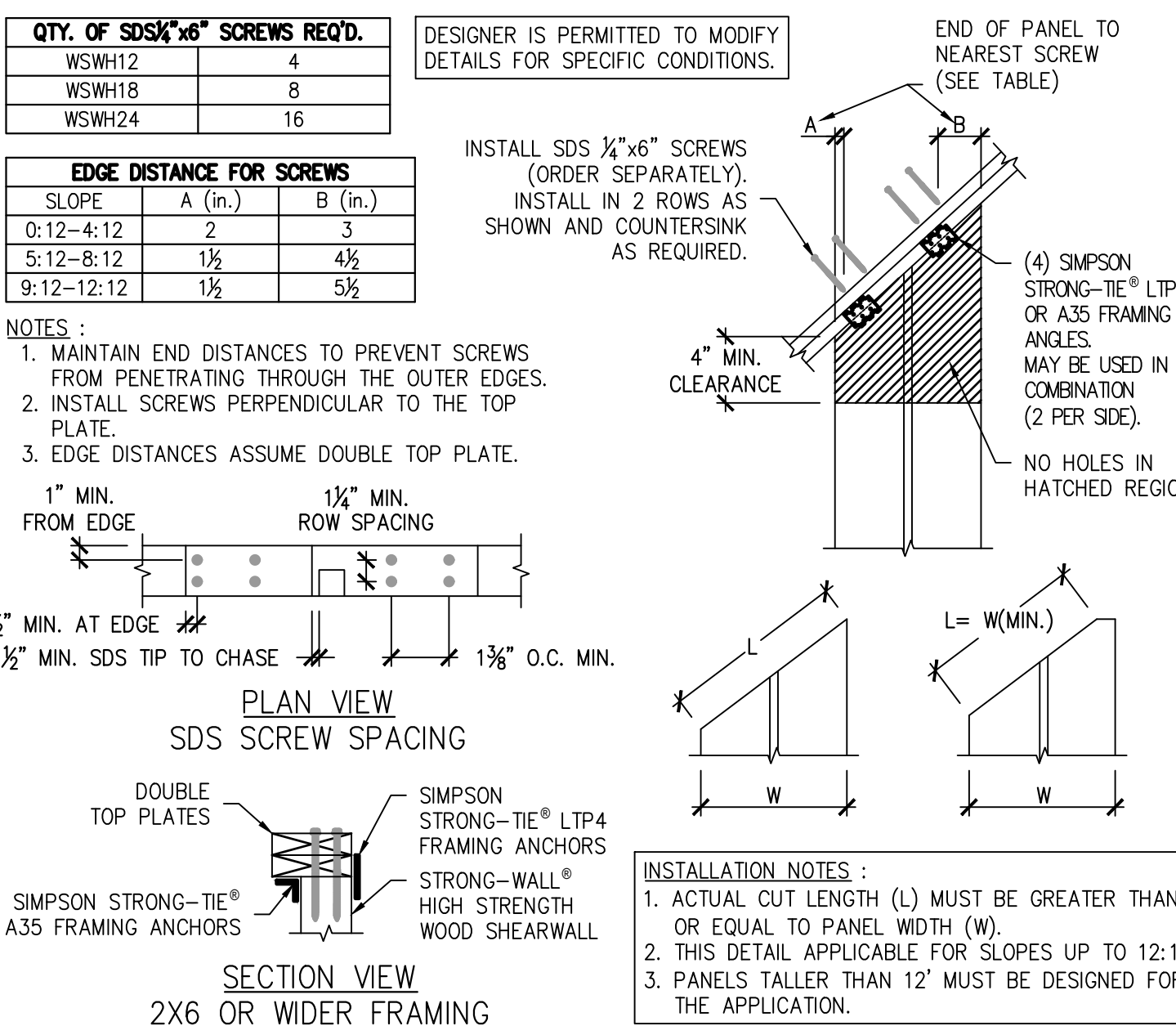
**ALTERNATE WSWH GARAGE FRONT OPTIONS**

**WOOD FLOOR SYSTEM BASE CONNECTION**



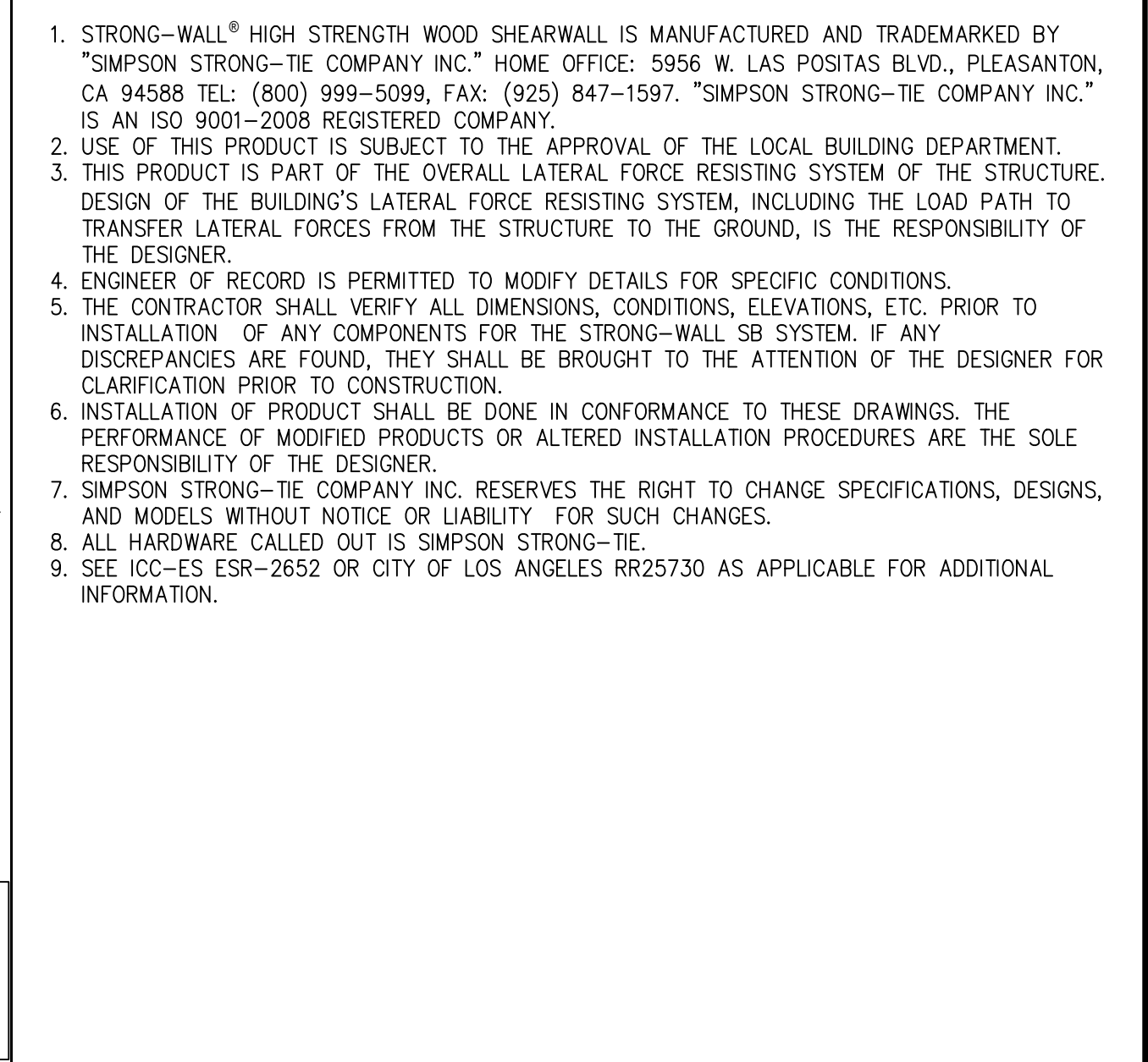
FOR GARAGE WALL OPTION 2, DESIGNER SHALL DESIGN AND DETAIL FOR:  
1. SHEAR TRANSFER  
2. OUT-OF-PLANE LOADING EFFECT  
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

**BACK-TO-BACK TOP CONNECTION**



**RAKE WALL**

**TRIM ZONE AND ALLOWABLE HOLES**



**NOTES**

NO.	DATE	REVISIONS
0	11/20/2020	FIRST RELEASE-2018 IBC
1	03/15/2021	2021 IBC REVISIONS

**SIMPSON Strong-Tie, Co. Inc.**  
9566 W. Las Positas Blvd.  
Pleasanton, CA 94588  
Tel: (800) 999-5099 • Website: www.strongtie.com

**STRONG-WALL® WSWH**  
FRAMING DETAILS  
ENGINEERED DESIGNS

**SIMPSON Strong-Tie**  
THERE IS NO EQUAL

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	WSWH2
OF SHEETS	
JOB NO.	

**DAVID BECKWITH AND ASSOCIATES INC.**  
Civil & Structural Engineering  
Land Surveying - Environmental Services

**COUNTY OF RIVERSIDE**  
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STATE OF CALIFORNIA

**STRONG-WALL DETAILS**

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DRAWN	JRM
CHECKED	DMB
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SCALE	PER PLAN
JOB NO.	2023-29

SHEET  
**WSWH2**