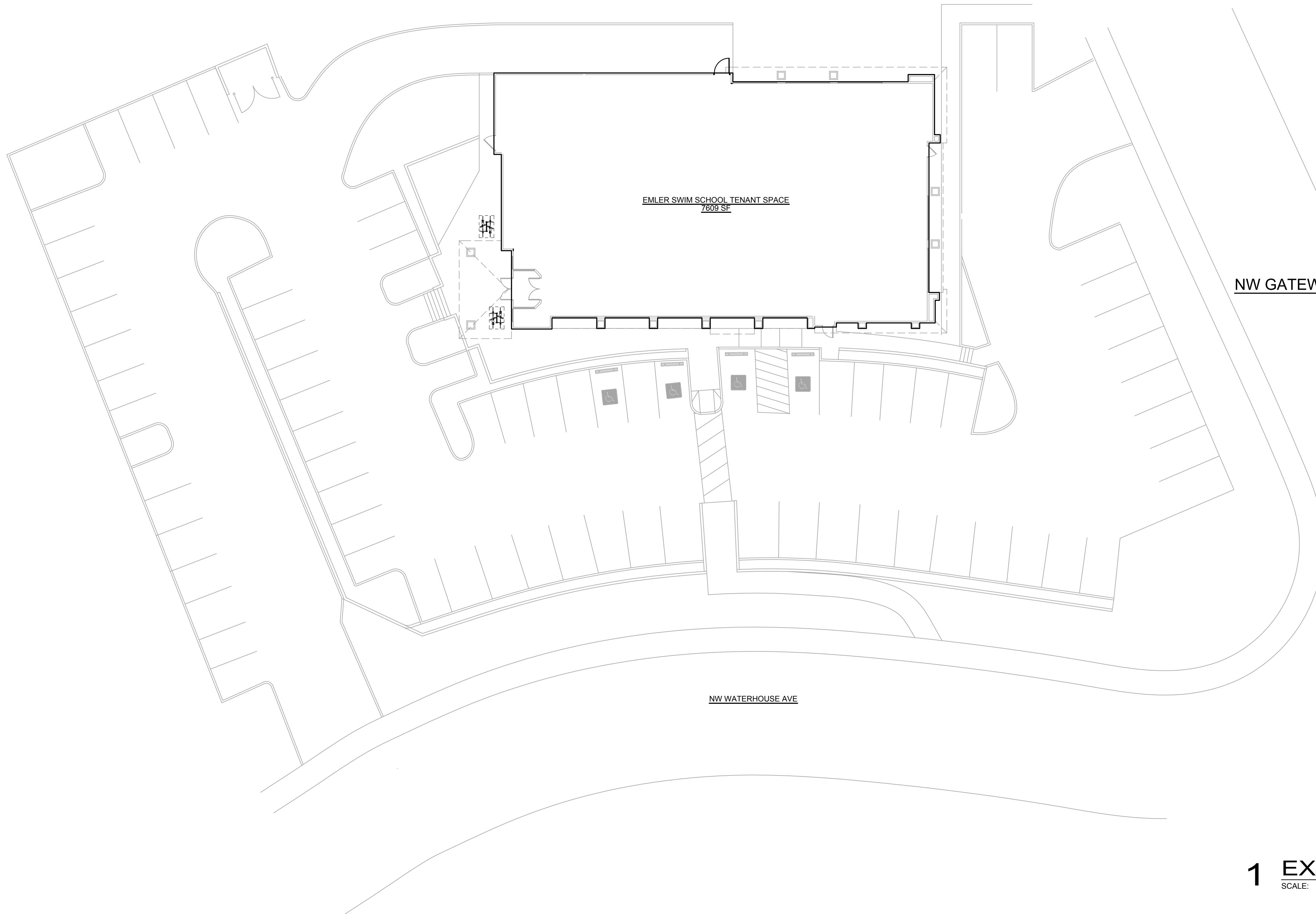
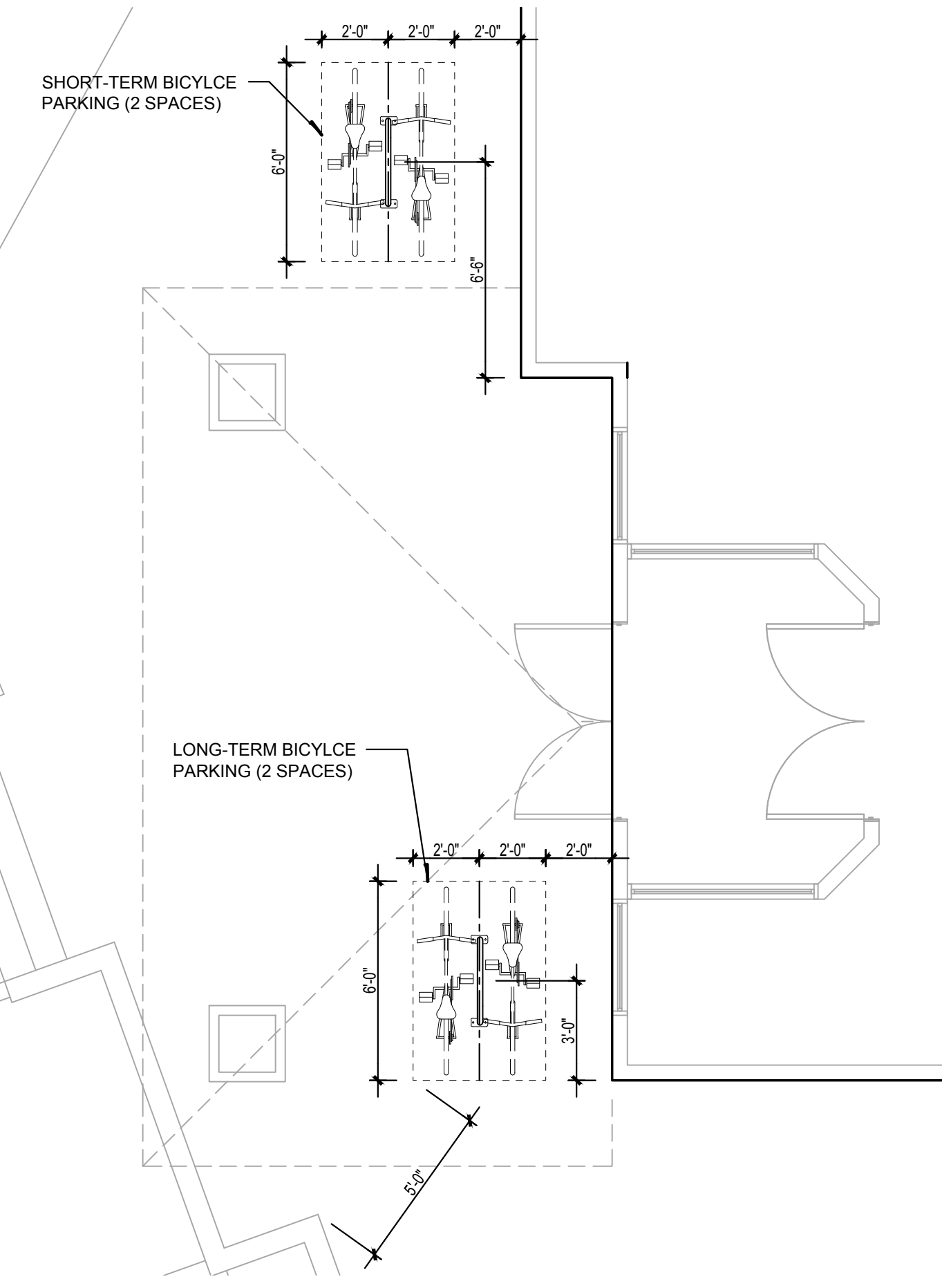


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Planning Division
10/27/2023

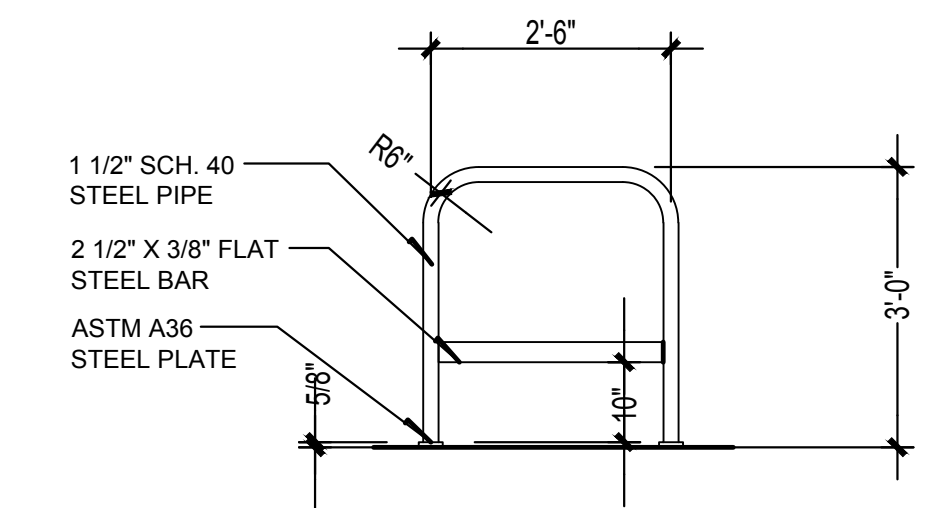
Exhibit 3.7



1 EXISTING SITE PLAN
SCALE: 1/16" = 1'-0"



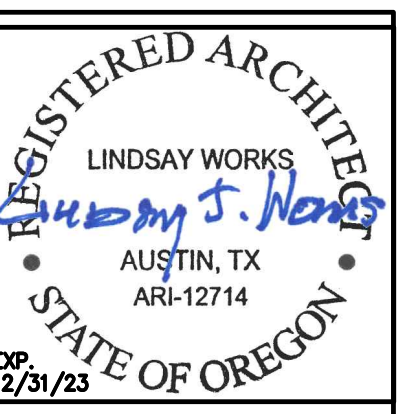
3 BICYCLE PARKING
SCALE: 1/4" = 1'-0"



2 BICYCLE RACK ELEVATION
SCALE: 1/2" = 1'-0"

EMLER SWIM SCHOOL
TANASBOURNE

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Date
06.23.2023

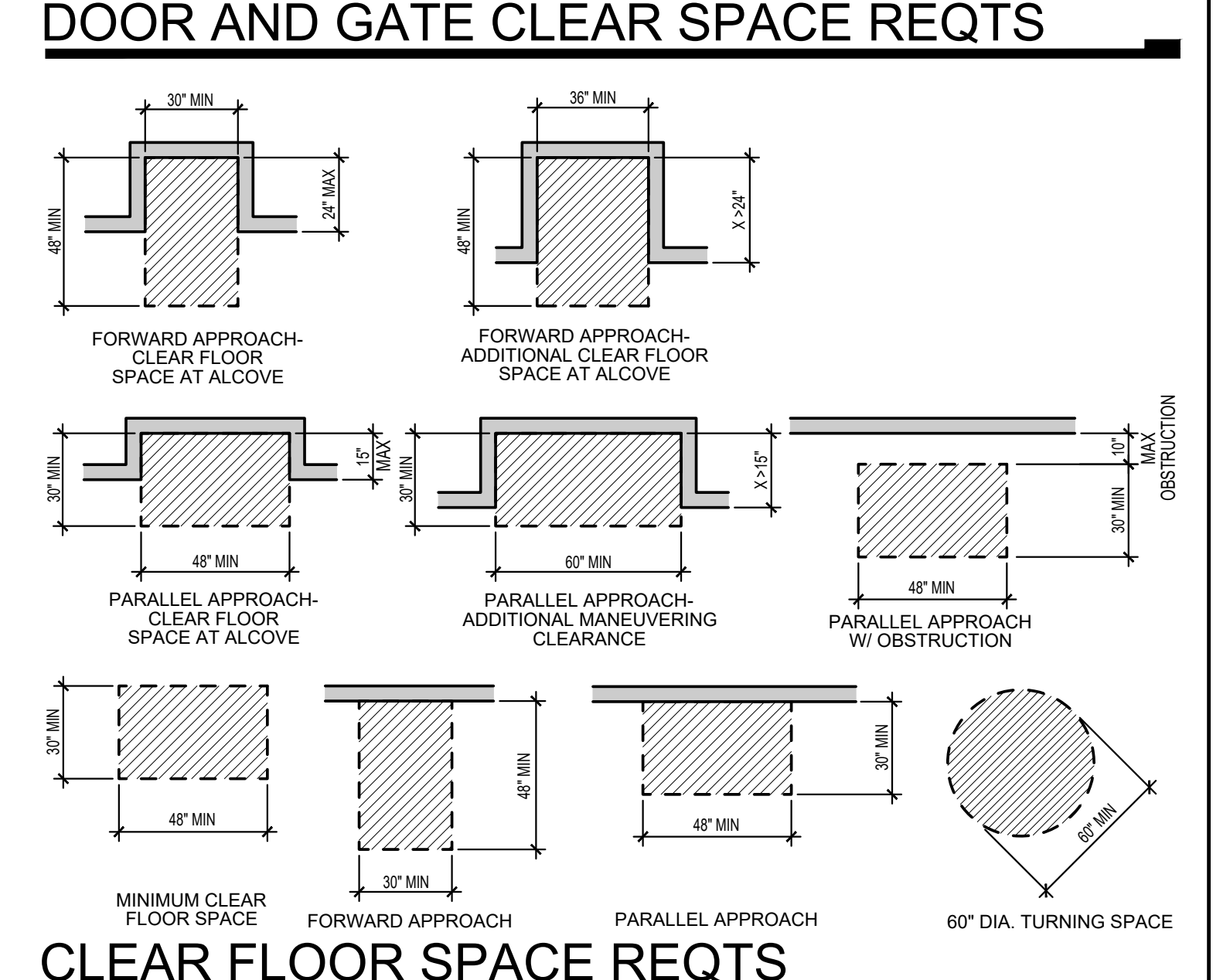
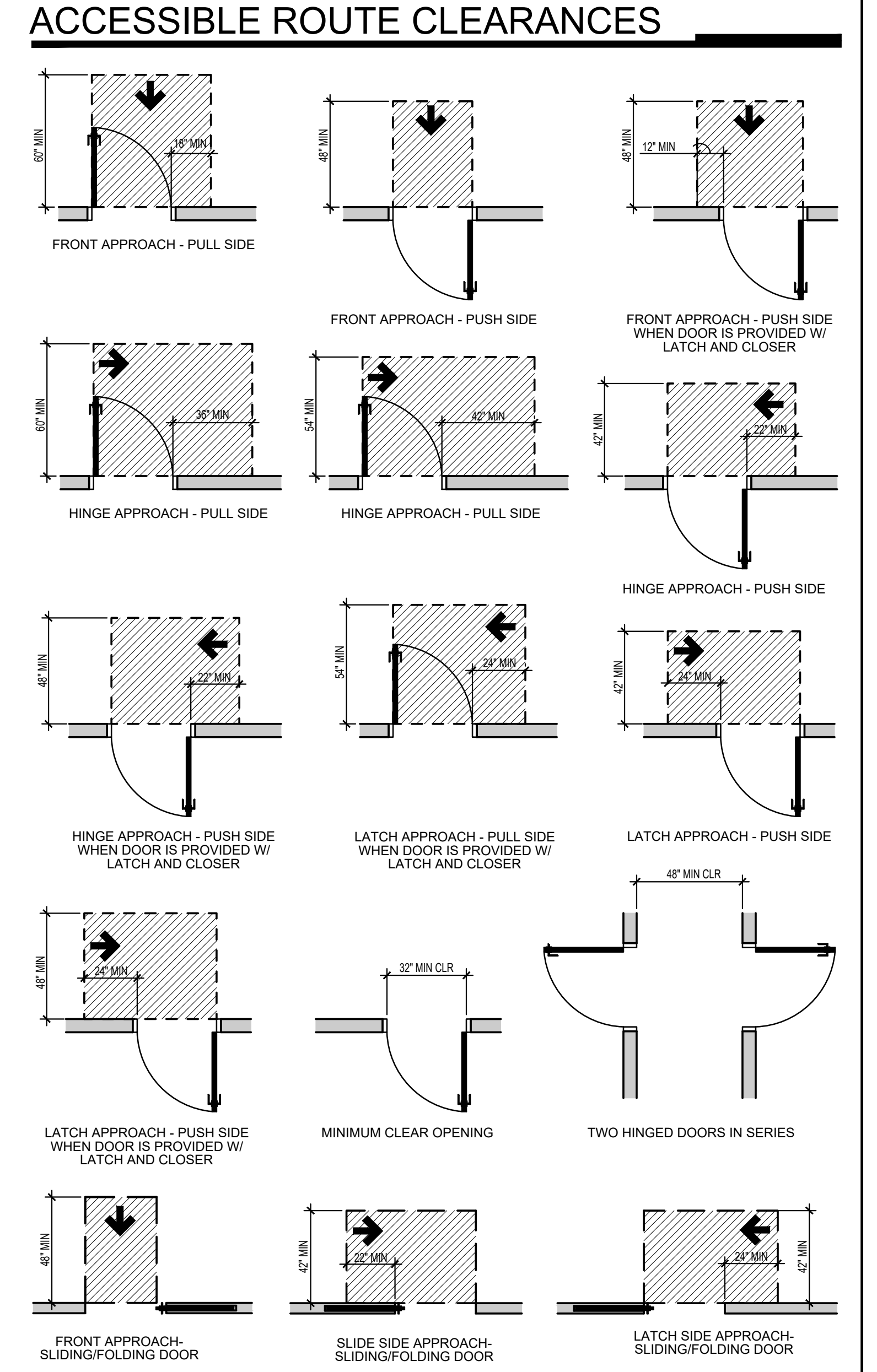
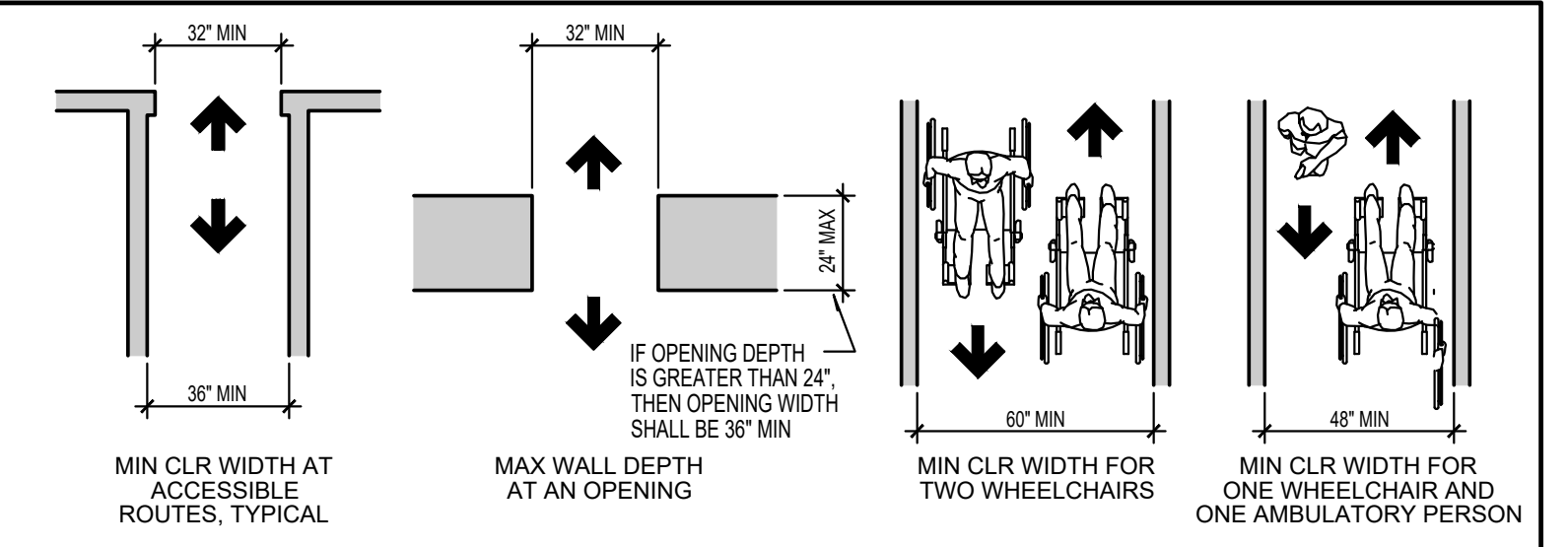
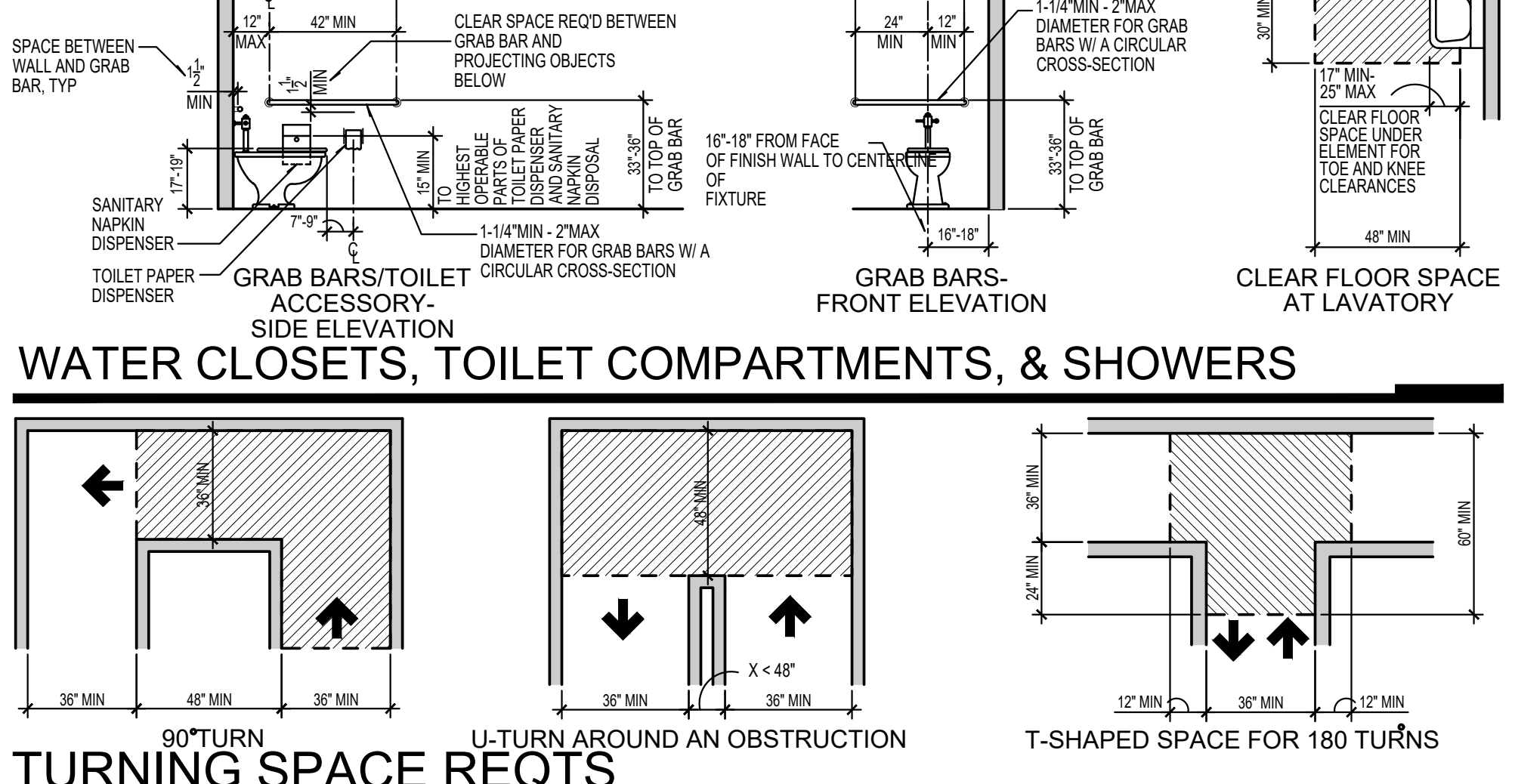
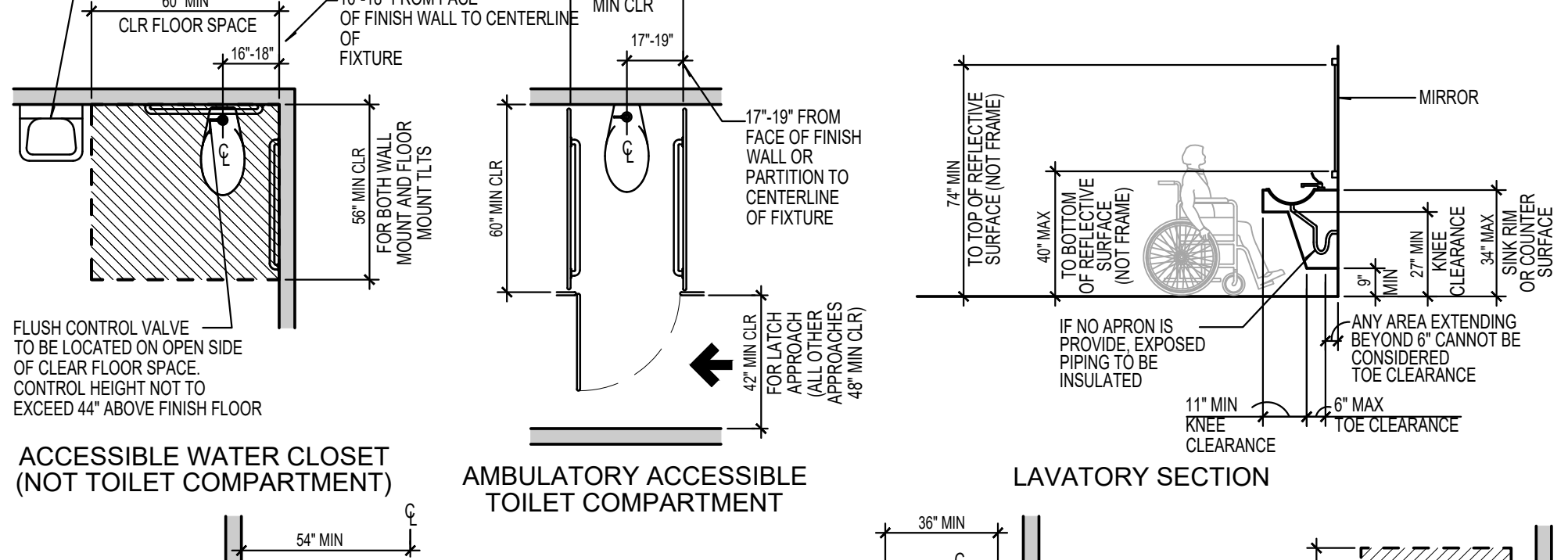
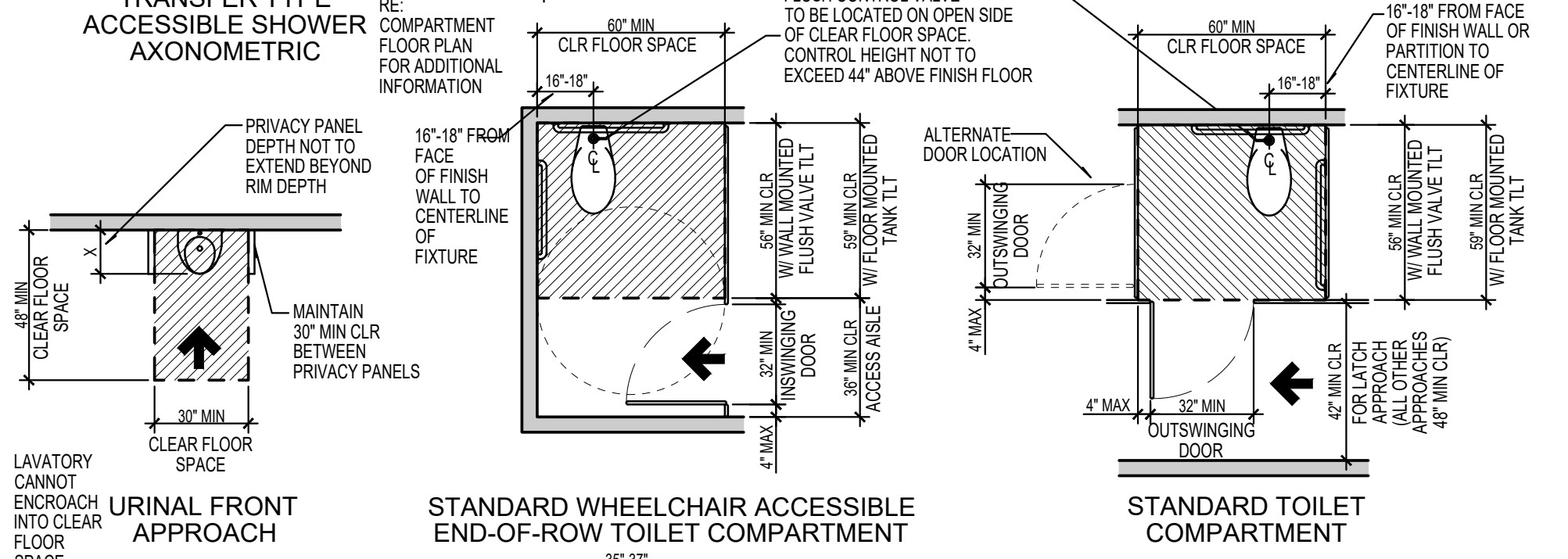
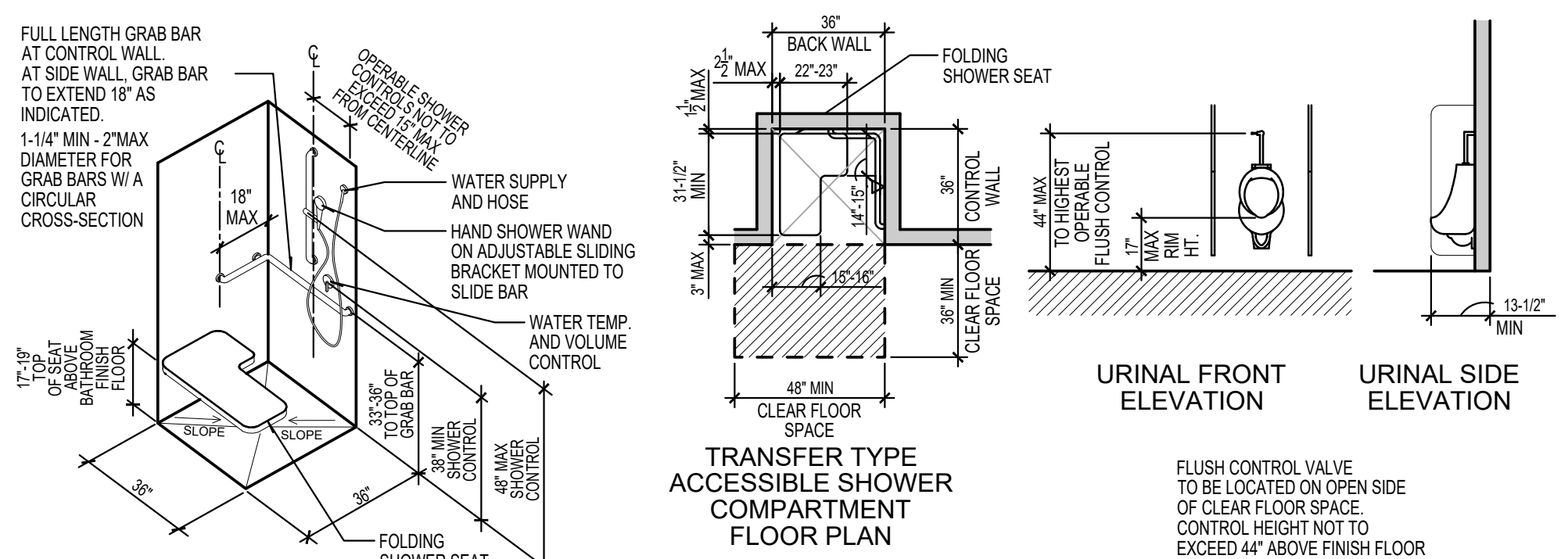
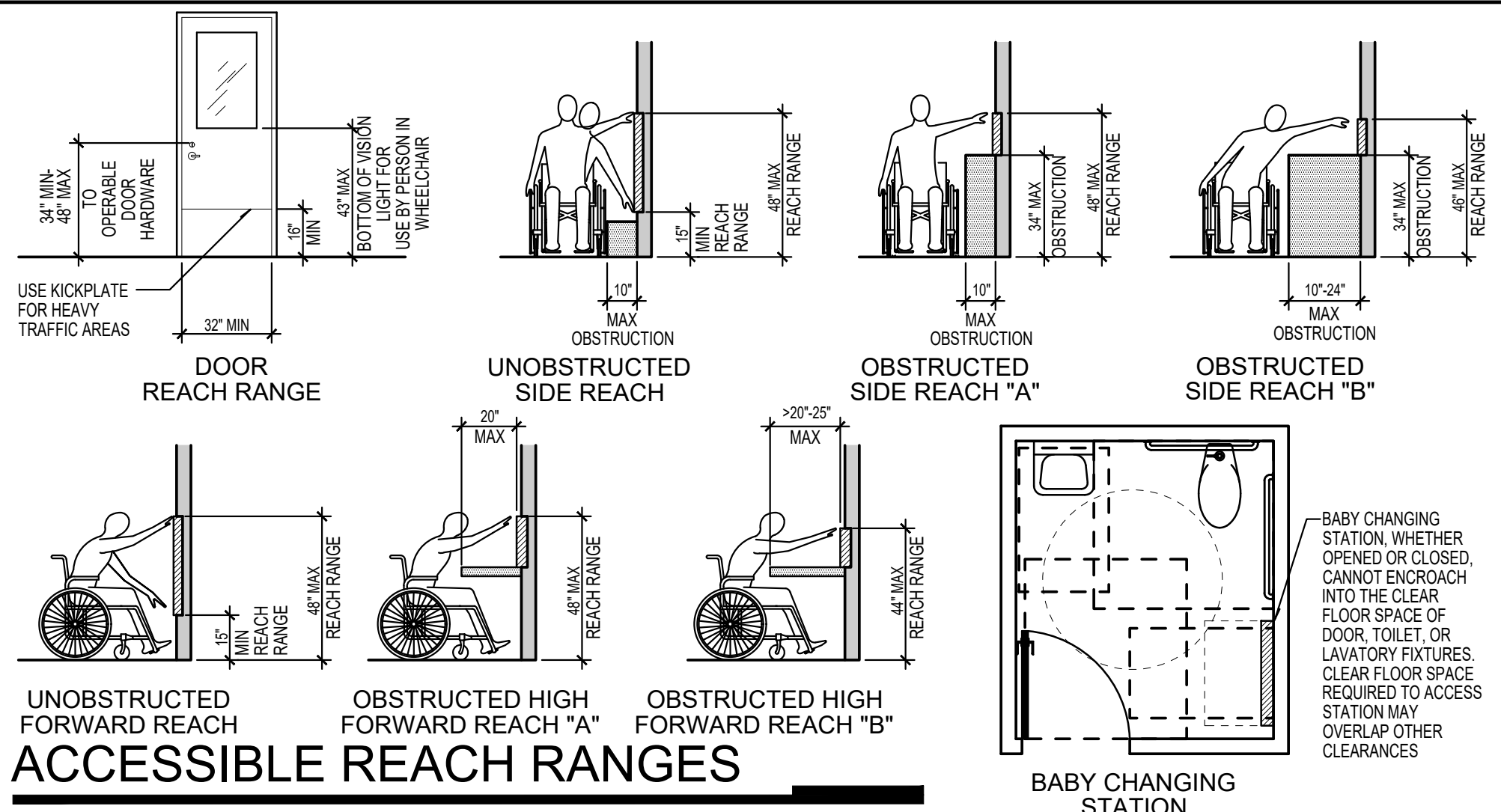
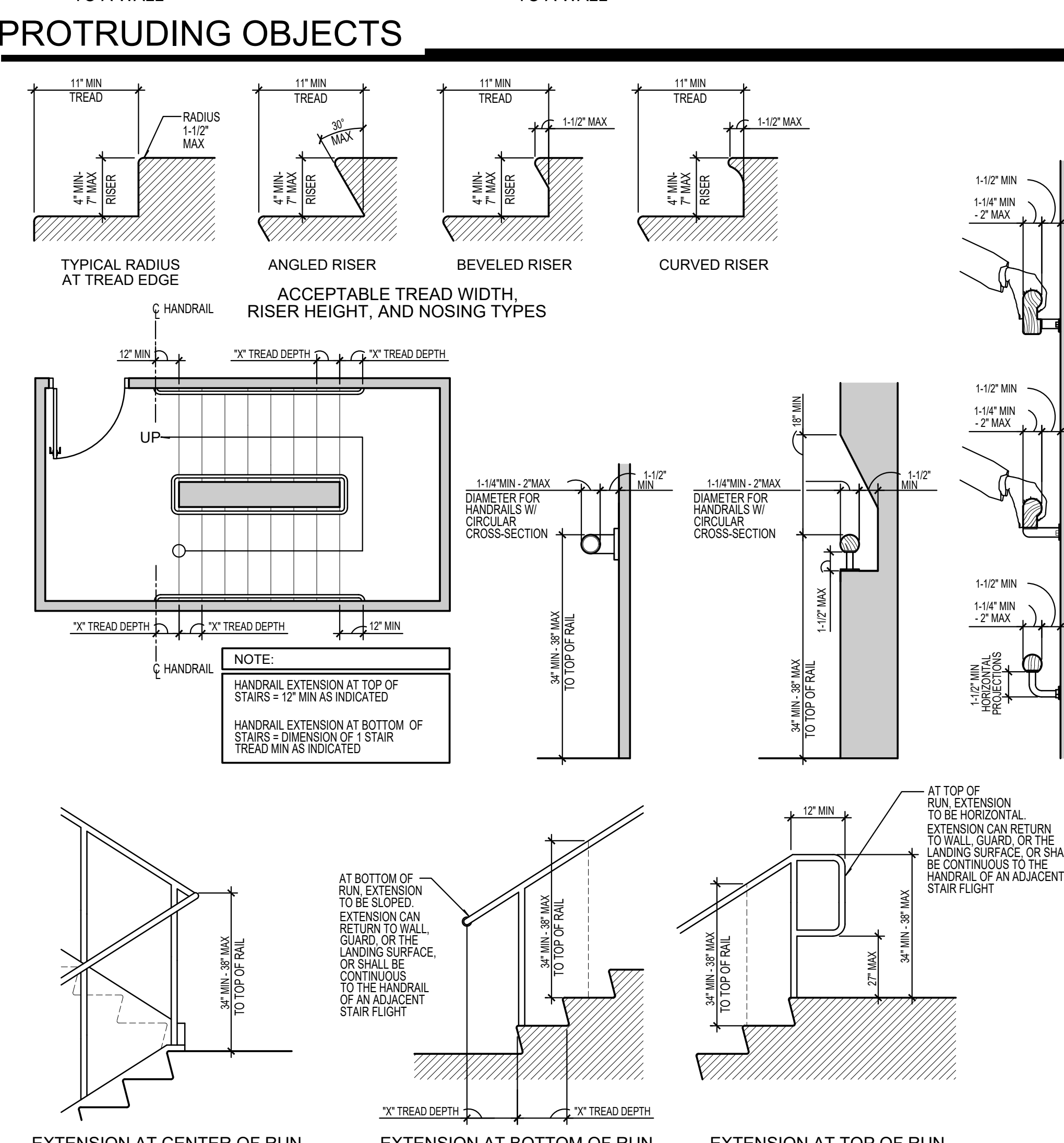
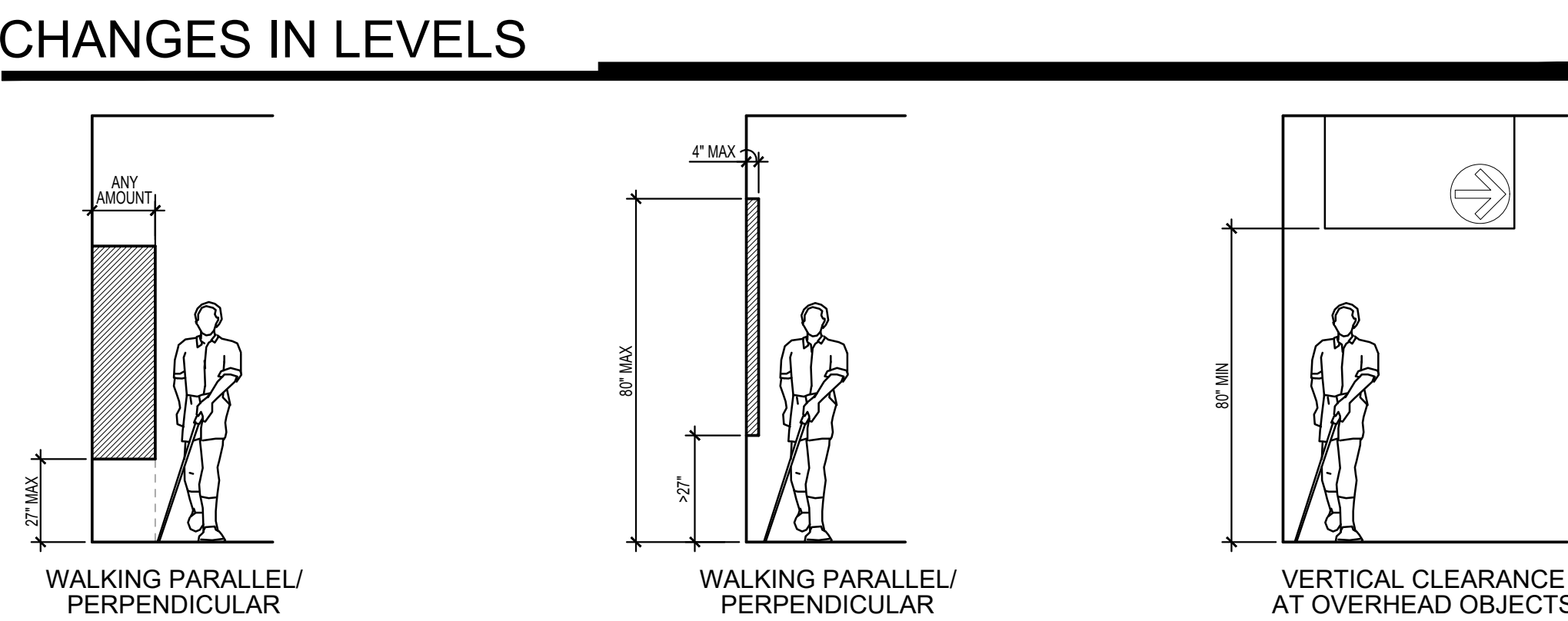
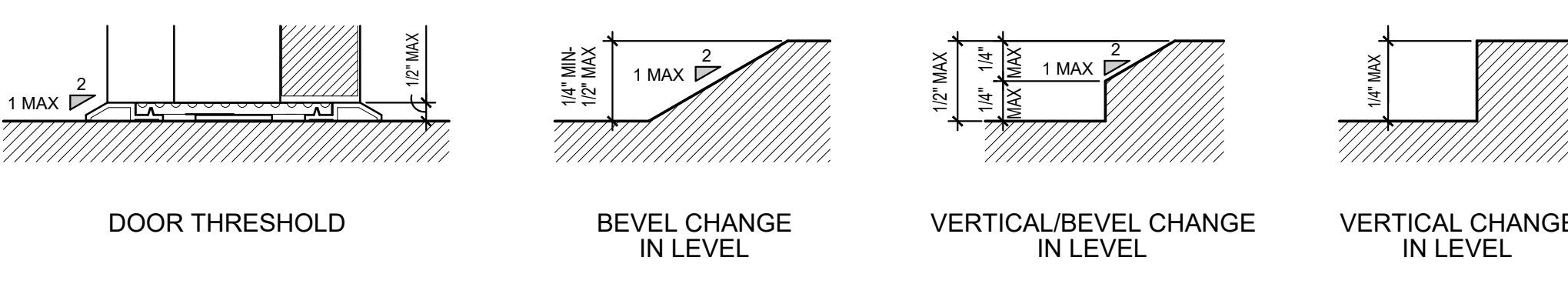
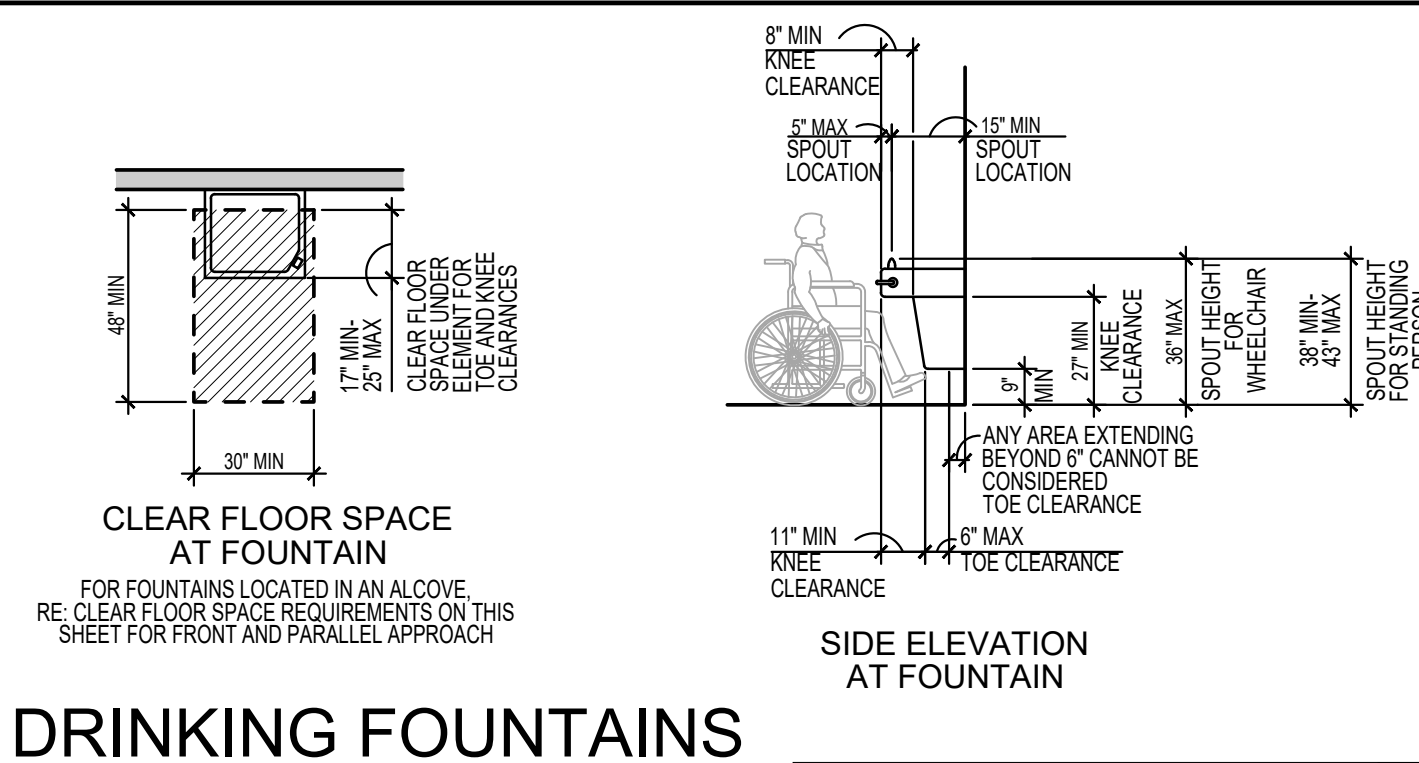
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Project No.
2301
 Sheet No.
A1.1
 Sheet Title
Architectural Site Plan

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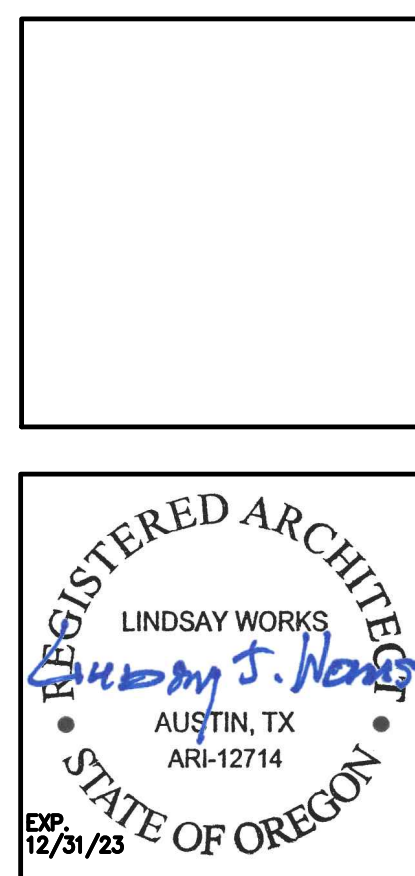
GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL VERIFY ALL REQUIRED CLEARANCE REQUIREMENTS ARE COMPLIED WITH AS PROJECT IS BEING LAYED OUT. PRIOR TO ORDERING MATERIALS OR COMMENCING CONSTRUCTION, REPORT DISCREPANCIES IMMEDIATELY TO THE ARCHITECT PRIOR TO COMMENCING CONSTRUCTION.
2. FOR TOILET ROOM ACCESSORY MOUNTING HEIGHTS, RE: A10-SERIES



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EMLER SWIM SCHOOL
TANASBOURNE



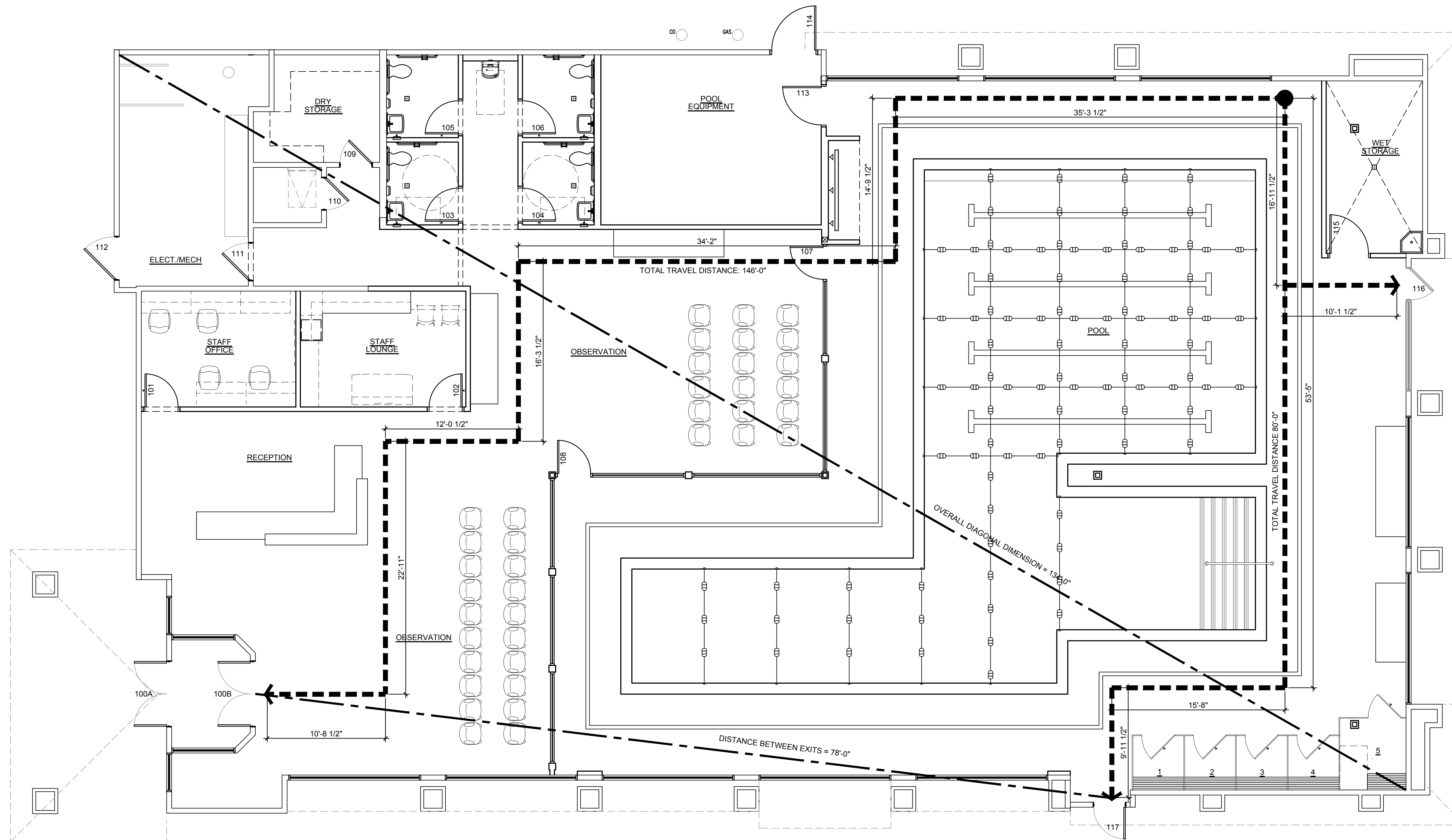
Date
06.23.2023

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Project No.
2301
Sheet No.
A0.2
Sheet Title
ADA Requirements

BEAVERTON, OREGON 97223

1225 WATERHOUSE AVE



1 LIFE SAFETY PLAN

SCALE: 3/16" = 1'-0"



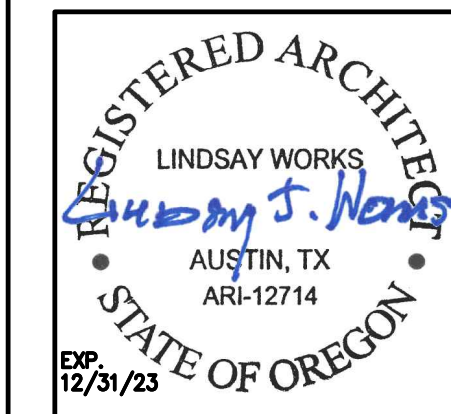
| CONSTRUCTION AND CODE INFORMATION | |
|---|-----------------------|
| PROJECT TITLE: EMLER SWIM SCHOOL - TANASBOURNE PROJECT ADDRESS: 1225 NW WATERHOUSE AVE. BEAVERTON, OR 97006 | |
| APPLICABLE CODES: 2022 OREGON STRUCTURAL SPECIALTY CODE 2021 OREGON MECHANICAL SPECIALTY CODE 2021 OREGON PLUMBING SPECIALTY CODE 2021 OREGON ELECTRICAL SPECIALTY CODE 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE NFPA 13 and 72 | |
| OCCUPANCY: | ASSEMBLY A-3 |
| CONSTRUCTION TYPE: | TYPE V-B |
| NUMBER OF FLOORS: | ONE, FULL SPRINKLERED |
| SCOPE OF WORK: | 6709 SQ. FT. |

| OCCUPANT LOAD CALCULATIONS | |
|---|--|
| TOTAL OCCUPANCY LOAD: 246 OCCUPANTS | |
| SWIMMING POOL (1509 SQ. FT.) = 31 OCCUPANTS OCCUPANT LOAD FACTOR: 50 SQ FT/PERSON | |
| POOL DECK (2342 SQ. FT.) = 156 OCCUPANTS OCCUPANT LOAD FACTOR: 15 SQ FT/PERSON | |
| STORAGE (800 SQ. FT.) = 2 OCCUPANTS OCCUPANT LOAD FACTOR: 300 SQ FT/PERSON | |
| ASSEMBLY (CONCENTRATED) (294 SQ. FT.) = 42 OCCUPANTS OCCUPANT LOAD FACTOR: 7 SQ FT/PERSON | |
| - NO FIXED SPECTATOR SEATING PROVIDED - | |
| BUSINESS (2318 SQ. FT.) = 15 OCCUPANTS OCCUPANT LOAD FACTOR: 150 SQ FT/PERSON | |
| TOTAL OCCUPANCY LOAD: 246 OCCUPANTS | |
| MAXIMUM TRAVEL DISTANCE ALLOWED FROM ANY POINT = 250'-0" PER NFPA | |
| - EMERG. EXITS REQUIRED: 2 EMERG. EXITS PROVIDED: 3 MAXIMUM COMMON PATH OF TRAVEL DISTANCE = 250 FEET | |
| - MINIMUM DISTANCE BETWEEN SPACES REQUIRING 2 EXITS = 1/2 OF DIAGONAL FOR FULLY SPRINKLERED BUILDING (OCCUPANCY > 49) | |

| PLUMBING FIXTURE COUNTS | | |
|--------------------------|--------------------------|---------------------|
| OCCUPANTS:246 | MALE:123 | FEMALE:123 |
| WATER CLOSETS | | |
| REQUIRED | 1 PER 125 | 1 PER 65 |
| PROVIDED | =.984 REQUIRED 2 | =1.89 REQUIRED 2 |
| LAVATORIES | | |
| REQUIRED | 1 PER 200 | 1 PER 200 |
| PROVIDED | =.615 REQUIRED 2 | =.615 2 |
| SERVICE SINK | | |
| REQUIRED | 1 | |
| PROVIDED | 1 | |
| DRINKING FOUNTAIN | | |
| REQUIRED | 1 PER 500 | |
| PROVIDED | =1 REQUIRED 1 (1 ADA) | |

| LEGEND | |
|--------|--|
| | PATH OF TRAVEL |
| | EMERGENCY EGRESS EXIT TO BUILDING EXTERIOR |
| | FIRE EXTINGUISHER CABINET |

EMLER SWIM SCHOOL
TANASBOURNE



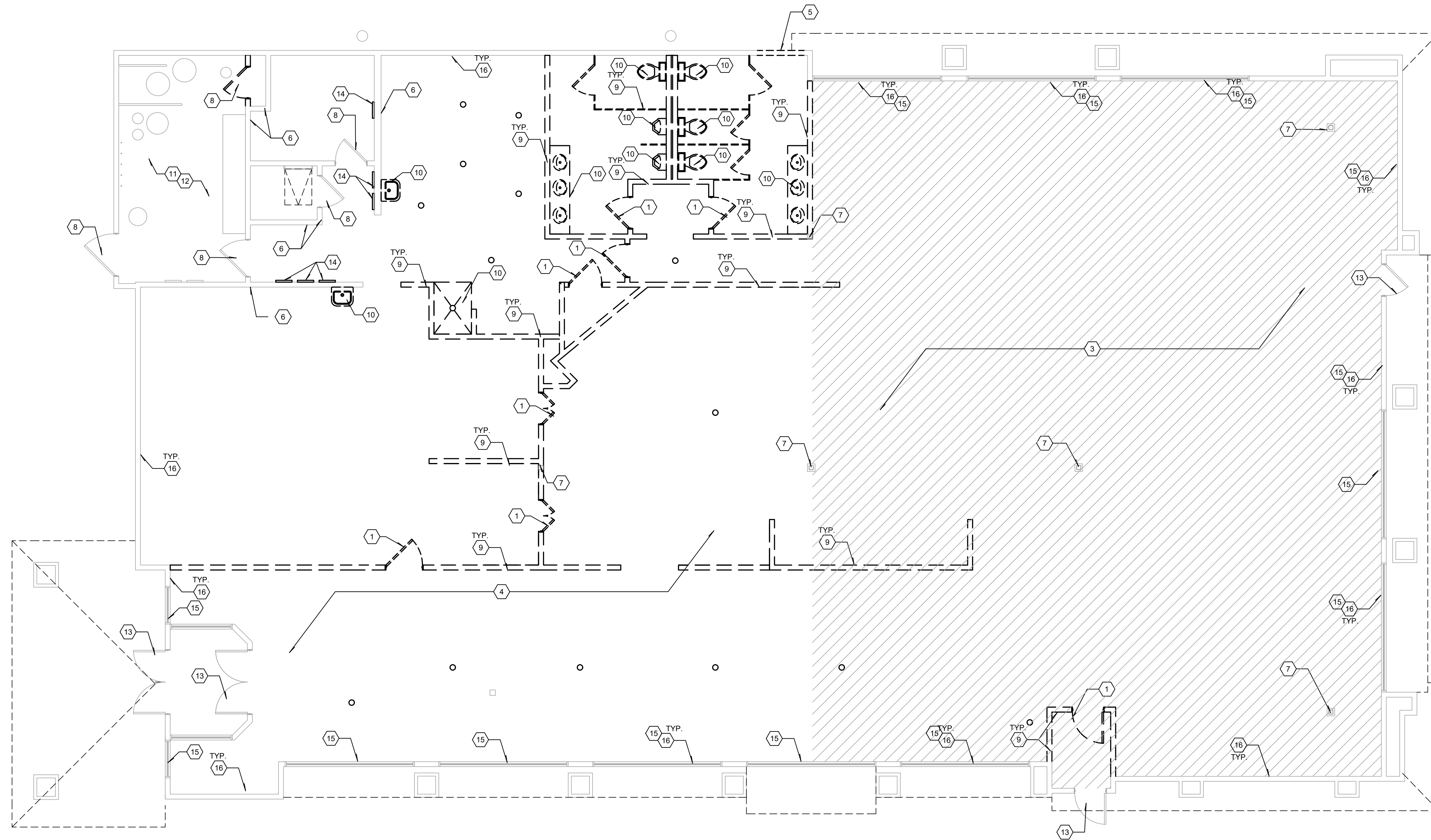
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Project No.
2301
Sheet No.
A0.3
Sheet Title
Life Safety Plan

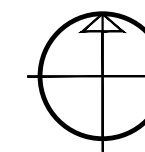
BEAVERTON, OREGON 97223

1225 WATERHOUSE AVE



1 DEMOLITION PLAN

SCALE: 3/16" = 1'-0"



GENERAL NOTES

- GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ARCHITECT OF ANY CONFLICTS, DISCREPANCIES, OR OMISSIONS PRIOR TO COMMENCEMENT OF CONTRACTED WORK.
- PREPARE EXISTING CONDITIONS FOR NEW WORK IN ENTIRE PROJECT AREA. REMOVE ALL REMAINING FINISHES AND EQUIPMENT. PREP AND TRENCH EXISTING SLAB FOR UNDERGROUND UTILITIES PER MEP.
- CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY PROTECTION AND SHALL SECURE ADJACENT AREA FROM DUST AND DEBRIS.
- ALL SUB-FLOORS, WALLS, CEILING, ETC. SHALL BE PATCHED AND REPAIRED AS REQUIRED TO MATCH ADJACENT SURFACES DUE TO DAMAGE FROM REMOVAL OF EXISTING CONSTRUCTION FOR NEW WORK.
- CONTRACTOR SHALL PATCH AND LEVEL ANY UNEVENNESS IN CONCRETE SUB-FLOOR CAUSED BY DEMOLITION.
- ALL PREVIOUS CORE DRILL SHALL BE SEALED TO PROVIDE A FLUSH AND LEVEL CONCRETE SUB-FLOOR.
- MAINTAIN FIRE SEPARATION OF ANY OPENINGS WITH APPROVED FIRE-STOPPING METHODS.
- REMOVE ALL WALL MOUNTED/FREESTANDING EQUIPMENT AND APPLIANCES THROUGHOUT THE PROJECT AREA.
- REMOVE EXISTING CEILINGS, INCLUDING BUT NOT LIMITED TO ALL CEILING GRIDS, SUPPORT SYSTEM, CEILING TILE, ELECTRICAL FIXTURES, AND GPDW TO BE REMOVED UNLESS NOTED OTHERWISE.
- CAP AND ABANDON ALL EXISTING UNUSED POWER/DATA RECEPTACLES THROUGHOUT.
- EXISTING PLUMBING FIXTURES, EQUIPMENT, AND OVERHEAD LINES TO BE DEMOLISHED. CAP AND ABANDON BELOW SLAB. INFILL AS REQUIRED TO MATCH ADJACENT CONSTRUCTION.
- EXISTING FIRE PROTECTION SPRINKLER HEADS, AND BRANCH LINES TO BE REMOVED WHERE REQ. AND REUSED WHERE POSSIBLE THROUGHOUT PROJECT AREA.
- GC TO PROVIDE EXAMINATION AND REPORT OF EXISTING ROOF AND EXTERIOR WALL INSULATION CONDITION TO ARCHITECT. ARCHITECT MAY SPECIFY REPLACEMENT OF EXISTING INSULATION WITH INSULATION TO MEET LOCAL R-VALUE REQUIREMENTS.
- EXISTING FLOOR FINISHES TO BE REMOVED. PREPARE EXISTING SLAB TO RECEIVE NEW FLOOR FINISHES.

KEYED NOTES

- DEMO EXISTING INTERIOR DOOR AND FRAME.
- G.C. TO REMOVE ANY EXISTING GYP. BD. WALL SURFACE IN POOL AREA AND PREP FOR NEW MOISTURE RESISTANT GYP. BD. AND VAPOR RETARDER. GC TO INSPECT EXISTING STUDS, INSULATION, AND STRUCTURE FOR MOISTURE DAMAGE. REPAIR AND REPLACE AS REQUIRED.
- REMOVE ALL CONCRETE SLAB AS REQUIRED FOR INSTALLATION OF POOL AND DRAINAGE SYSTEMS. REPOUR CONCRETE SLAB AS REQUIRED FOR PROPER DRAINAGE. SLOPE FLOORS TO DRAIN WITH MAXIMUM FALL. (2% MAX)
- REMOVE EXISTING FLOOR FINISHES (CARPET, TILE, ETC.). EXPOSE EXISTING CONCRETE SLAB FOR NEW FINISH. SLAB IS TO BE FLAT AND FREE OF DEFECTS. GRIND DOWN/ PROVIDE SKIM COAT IF REQUIRED.
- DEMO EXISTING SECTION OF WALL IN PREPARATION FOR NEW DOOR. PREPARE EXISTING EXTERIOR GRADING TO MEET NEW DOOR.
- EXISTING INTERIOR PARTITION TO REMAIN.
- EXISTING COLUMN AND STRUCTURAL FOOTING TO REMAIN. DO NOT DISTURB AND PROTECT FROM DEMOLITION.
- EXISTING DOOR AND FRAME TO REMAIN. PREP TO RECEIVE NEW FINISH.
- DEMO EXISTING INTERIOR PARTITION, FURRING, DRYWALL, STUDS, TRACKS, ANCHORS, BRACING, AND ASSOCIATED DOORS AND FRAMES IN THEIR ENTIRETY AS REQUIRED FOR INSTALLATION OF NEW WORK.
- DEMOLISH EXISTING PLUMBING FIXTURES, BUILT-INS, PLUMBING LINES, TOILET PARTITIONS, ETC.
- DEMOLISH EXISTING CO2 TANKS AND ASSOCIATED PLUMBING LINES, WATER HEATERS, WATER SOFTENERS, AND ELECTRIC UNIT HEATER.
- EXISTING FIRE RISER, DOMESTIC WATER METER AND ASSOCIATED PLUMBING, AND EXISTING ELECTRICAL METER BASE TO REMAIN.
- PREP STOREFRONT DOOR AND FRAME TO RECEIVE NEW HARDWARE.
- REMOVE EXISTING ELECTRICAL PANELS AND SUB-PANELS. MAKE SAFE AND DISCONNECT ALL ELECTRICAL PRIOR TO REMOVAL.
- REMOVE EXISTING WOOD SILL AT INTERIOR SIDE OF EXISTING EXTERIOR WINDOWS. PREP TO RECEIVE NEW SOLID SURFACE SILL.
- REMOVE EXISTING WOOD SIDING AT EXTERIOR WALLS. PREP TO RECEIVE NEW PAINT (GYP.) FINISH. REPLACE GYP. SUBSTRATE AS REQUIRED.

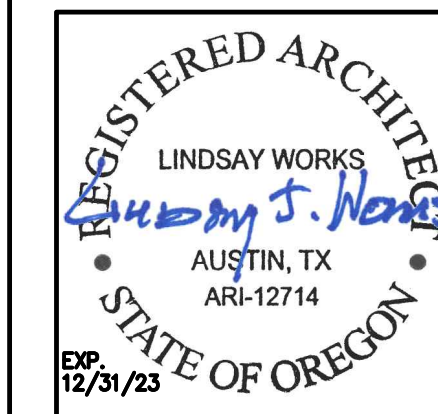
DEMOLITION PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- ==== DEMOLISHED PARTITION

EMLER SWIM SCHOOL
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06.23.2023

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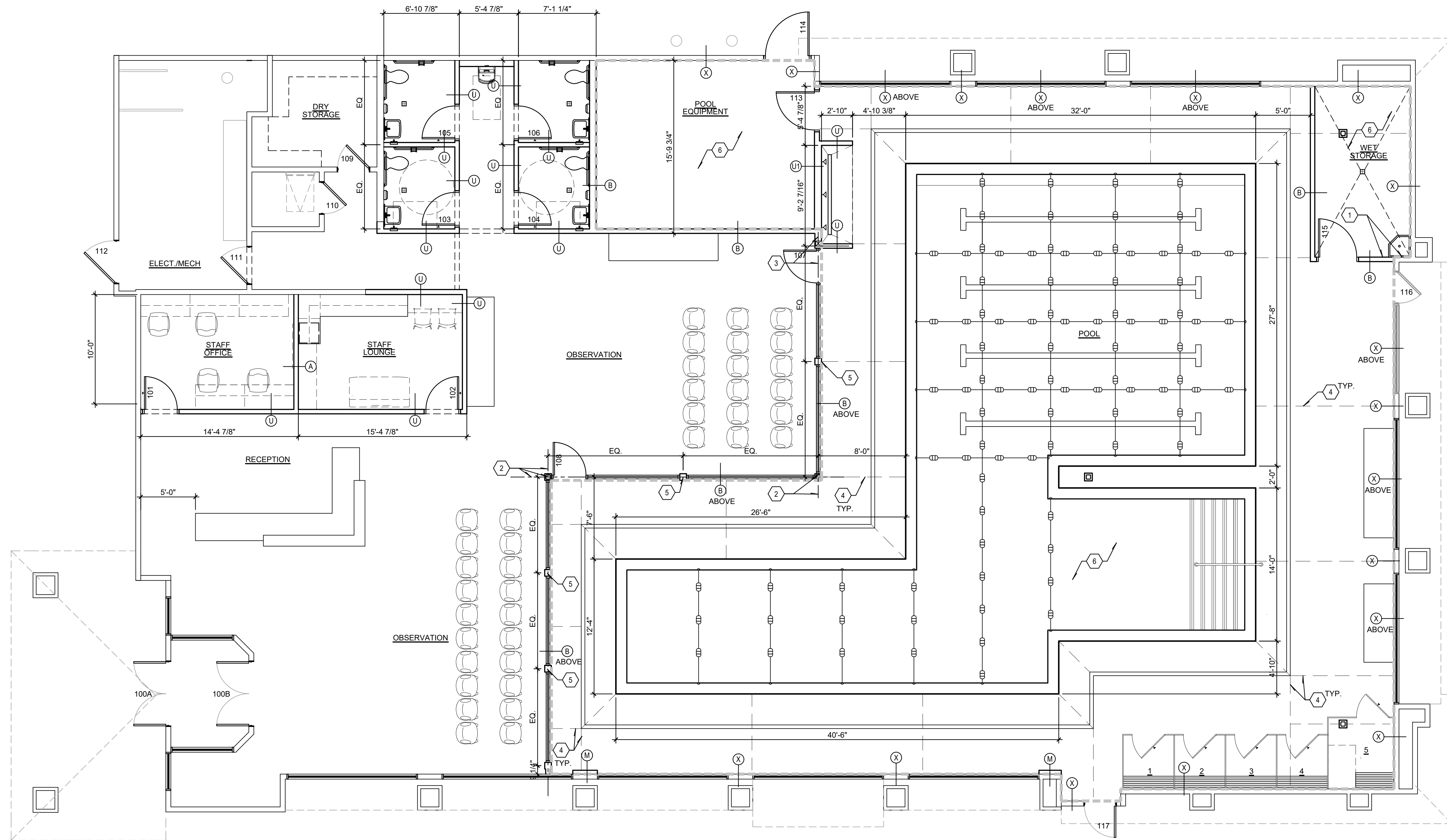
Project No.
2301

Sheet No.

A2.1

Sheet Title

Demolition Plan



1 DIMENSIONED FLOOR PLAN PLAN NORTH

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. NOTIFY THE ARCHITECT AND/OR OWNER OF ANY DISCREPANCIES AND/OR OMISSIONS, PRIOR TO THE START OF WORK. WITHOUT NOTIFICATION, THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL EXISTING CONDITIONS.
2. ALL FINISHED CONSTRUCTION MUST MEET ADA ACCESSIBILITY REQUIREMENTS.
3. DIMENSIONS ARE TO GRID LINE, FACE OF DRYWALL, FACE OF MASONRY, FACE OF CONCRETE AND CENTER OF DOOR AND WINDOW OPENINGS UNLESS NOTED OTHERWISE.
4. PROVIDE 16 GA. METAL STUDS IN LIEU OF 20/18 GA. METAL STUDS AT WALLS WITH ANY WALL HUNG TYPE ATTACHMENTS AND/OR SUPPORTING ATTACHMENTS SUCH AS WALL SINKS, GRAB BARS, WALL CABINETS AND OTHER MISCELLANEOUS EQUIPMENT.
5. ALL TILED WALLS IN POOL ROOM TO HAVE DUROROCK TILE BACKER BOARD APPLIED TO HEIGHT OF TILE UNLESS SPECIFIED OTHERWISE. RE: A15.1 DETAILS AND SPECIFICATIONS
6. ALL WALLS IN POOL AREA TO HAVE 5/8" TYPE "X" FIBEROCK PANELS IN LIEU OF 5/8" (REGULAR) GYP. BOARD PANELS. RE: A15.1 DETAILS, AND SPECIFICATIONS
7. REFER TO AQUATICS DRAWINGS FOR POOL INFORMATION

KEYED NOTES

- 1 ALIGN FINISHED FACE OF NEW PARTITION WITH FINISHED FACE OF EXISTING PARTITION.
- 2 CENTERLINE OF NEW STOREFRONT TO LINE UP WITH CENTERLINE OF EXISTING COLUMN.
- 3 CENTERLINE OF NEW PARTITION WALL TO LINE UP WITH CENTERLINE OF STOREFRONT.
- 4 CONCRETE CONTROL JOINT
- 5 CFMF BOX STUD COLUMN TO DECK
- 6 NEW MOISTURE-RESISTANT GYP. BD. AND R-19 BATT INSULATION TO REPLACE EXISTING UP TO DECK.

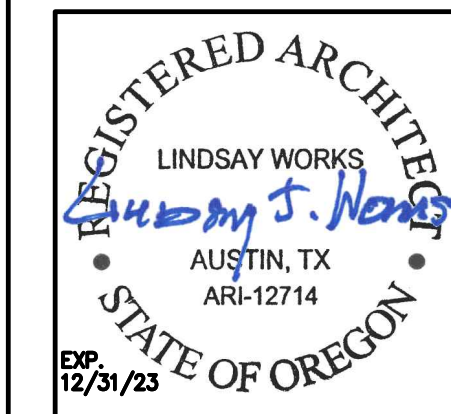
PARTITION LEGEND

- NEW PARTITION
- 1 HOUR FIRE RATED BARRIER
- EXISTING PARTITION
- INDICATES CONTINUOUS VAPOR BARRIER AT WALL AND (GYP. BD) CEILINGS ABOVE. EXTEND GYP. BD, INSULATION, AND VAPOR BARRIER TO DECK ABOVE. TYP.
- EXIT TO BUILDING EXTERIOR

EMLER SWIM SCHOOL
TANASBOURNE

1225 WATERHOUSE AVE

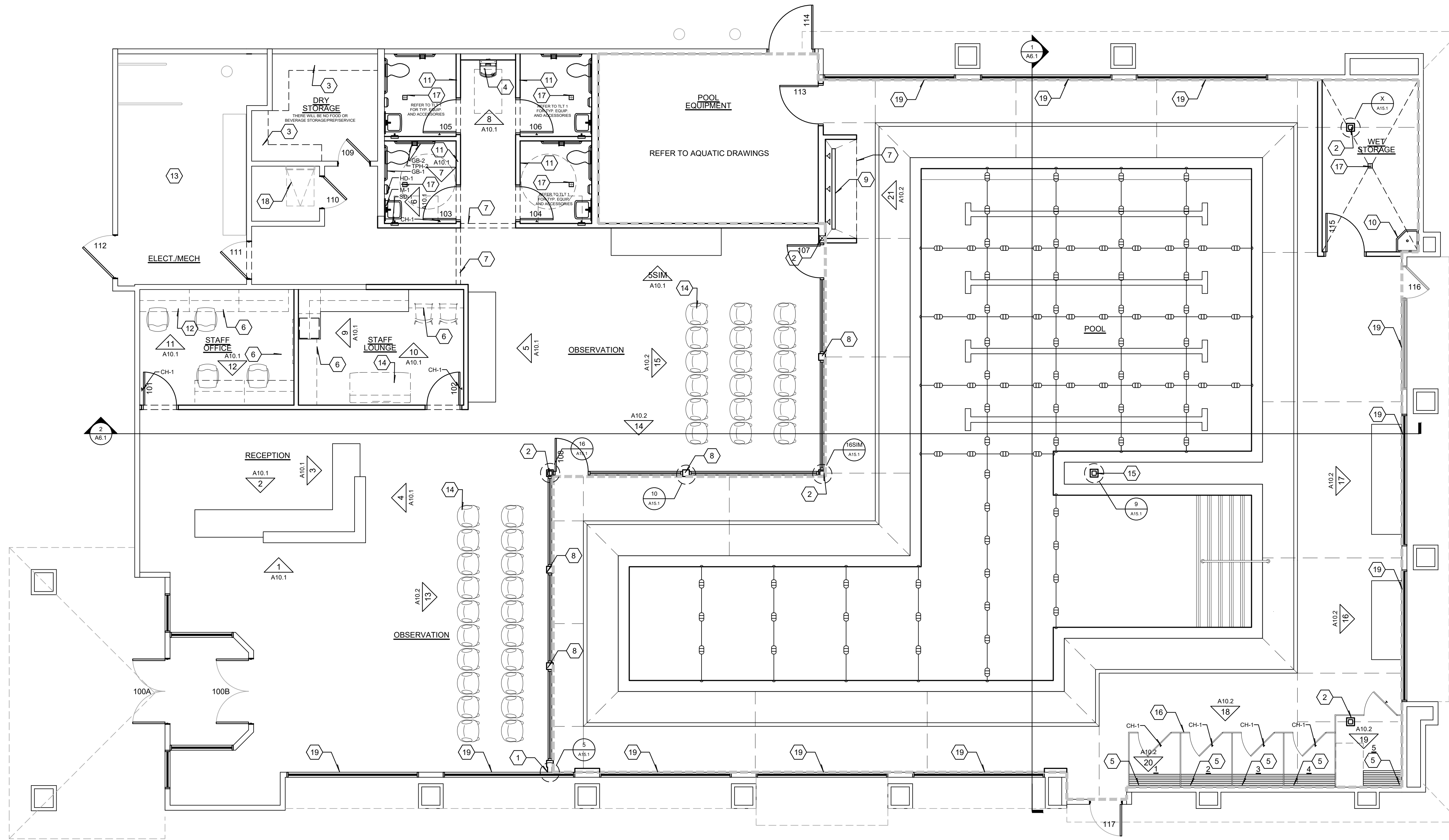
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06.23.2023

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Project No.
2301
Sheet No.
A3.1
Sheet Title
Dimensioned Floor Plan



1 ENLARGED FLOOR PLAN PLAN NORTH

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. NOTIFY THE ARCHITECT AND/OR OWNER OF ANY DISCREPANCIES AND/OR OMISSIONS, PRIOR TO THE START OF WORK. WITHOUT NOTIFICATION, THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL EXISTING CONDITIONS.
2. ALL FINISHED CONSTRUCTION MUST MEET ADA ACCESSIBILITY REQUIREMENTS.
3. DIMENSIONS ARE TO GRID LINE, FACE OF FINISH MATERIAL, FACE OF MASONRY, FACE OF CONCRETE AND CENTER OF DOOR AND WINDOW OPENINGS UNLESS NOTED OTHERWISE.
4. PROVIDE IN-WALL BLOCKING WITH ANY WALL HUNG TYPE ATTACHMENTS AND/OR SUPPORTING ATTACHMENTS SUCH AS WALL SINKS, GRAB BARS, WALL CABINETS AND OTHER MISCELLANEOUS EQUIPMENT.
5. ALL TILED WALLS IN POOL ROOM TO HAVE CEMENT TILE BACKER BOARD APPLIED TO HEIGHT OF TILE UNLESS SPECIFIED OTHERWISE. RE: A15.1 DETAILS AND SPECIFICATIONS
6. ALL WALLS IN POOL AREA (NEW AND EXISTING) TO HAVE 5/8" MOISTURE RESISTANT GYP. BD. IN LIEU OF 5/8" (STANDARD) GYP. BOARD PANELS. RE: A15.1 DETAILS, AND SPECS.
7. REFER TO 16/A15.1 FOR CONCRETE SLAB REPLACEMENT AT NEW PLUMBING LINES.
8. REFER TO AQUATICS DRAWINGS FOR POOL INFORMATION.
9. WATERPROOFING MEMBRANE SHALL BE APPLIED BEHIND ALL TILE SURFACES IN POOL ROOM.
10. NEW CONCRETE SLAB IN POOL ROOM TO BE REINFORCED WITH 6 X 6 X 2.1 X 2.1 W/M PLACED AT 1/2 DEPTH OF CONCRETE. RE: 10/A15.1 FOR REINFORCING WHERE NEW CONCRETE MEETS EXISTING.

KEYED NOTES

1. PROVIDE FAUX MULLION WALL CLOSURE AT EXISTING STOREFRONT GLAZING. RE: X15.1
2. EXISTING STRUCTURAL COLUMN. RE: STRUCTURAL
3. OWNER-PROVIDED WIRE SHELF UNITS FOR STORAGE.
4. SINGLE UNIT DRINKING FOUNTAIN, ADA COMPLIANT.
5. PROVIDE IN-WALL BLOCKING AS REQ. FOR NEW KOALA KB102 CHILD PROTECTION SEAT AT LOCATION SHOWN.
6. OWNER PROVIDED WALL HUNG CASEWORK. PROVIDE IN-WALL BLOCKING.
7. LINE OF CEILING OR SOFFIT OVERHEAD.
8. PROVIDE CFM METAL BOX STUD COLUMN. REFER TO A3.1 FOR SPACING DIMENSIONS.
9. TRENCH DRAIN. RE: PLUMBING
10. MOP SINK. RE: PLUMBING
11. PROVIDE IN-WALL BLOCKING THIS LOCATION FOR NEW KOALA KB101 BABY CHANGING STATION.
12. OFCI FLOOR SAFE TO BE FLOOR MOUNTED.
13. FIRE RETARDANT PLYWOOD AT NEW IT EQUIPMENT. COORDINATE WITH IT VENDOR.
14. FURNITURE (OFOI)
15. EXISTING COLUMN ON NEW CONCRETE FOOTING. RE: STRUCTURAL.
16. PRE-FAB CHANGING PARTITIONS (CFCI)
17. FLOOR DRAIN. RE: PLUMBING
18. EXISTING ROOF HATCH
19. PROVIDE NEW 1/2" X (V.I.F.) SOLID SURFACE SILL (WHITE) WITH BULLNOSE EDGE AT EXISTING EXTERIOR WINDOW.

TLT ACCESSORIES & SPECIALTIES LEGEND

1. RE: A.D.A. ACCESSIBLE SHEET A0.2 FOR PLACEMENT OF GRAB BARS.
2. THE CENTERLINES OF ALL WATER CLOSETS ARE 18" FROM FINISHED WALL.
3. THE CENTERLINES OF ALL SINKS/LAVATORIES ARE 15" MIN. FROM FINISHED WALL.
4. REFER TO A.D.A. ACCESSIBLE SHEET A0.2 FOR ALL MOUNTING HEIGHTS
5. ALL RECESSED PAPER TOWEL DISPENSER LOCATIONS TO BE CLEAR OF MEP AND STRUCTURAL OBSTRUCTIONS.
6. VERIFY TOILET ACCESSORY LOCATIONS. DO NOT OBSTRUCT PLUMBING FIXTURES (SINK FAUCETS ETC.) PRIOR TO INSTALLATION.

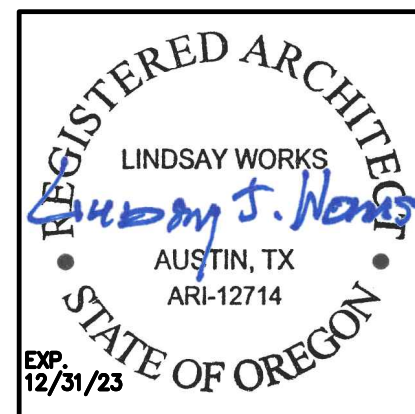
| TOILET ACCESSORIES & SPECIALTIES SCHEDULE | | | | |
|---|-----------------------------------|----------------------------------|------------------|-------|
| KEY | MODEL | FINISH | MOUNTING HEIGHT | RESP. |
| FEC-1 | ALLIANCE AMBASSADOR STYLE 8100710 | PAIN'T FRAME TO MATCH WALL COLOR | 48" MAX | C/C |
| GB-1 | BOBRICK B-680X36 | S STEEL | 36" | C/C |
| GB-2 | BOBRICK B-680X42 | S STEEL | 36" | C/C |
| M-1 | BRADLEY MODEL 780 24x36 | S STEEL | SEE ELEVATION | C/C |
| HD-1 | ASI 0165 | WHITE | SEE ELEVATION | C/C |
| SD-1 | ALPINE 426 - WHI | WHITE | SEE ELEVATION | C/C |
| TPH-1 | TORK 5555200 | WHITE | 19"MIN TO CENTER | C/C |
| CH-1 | BOBRICK B-6727 | S STEEL | 48" MAX | C/C |

PARTITION LEGEND

- NEW PARTITION
- 1 HOUR FIRE RATED BARRIER
- EXISTING PARTITION
- INDICATES CONTINUOUS VAPOR BARRIER AT WALL AND (GYP. BD) CEILINGS ABOVE, EXTEND GYP. BD, INSULATION, AND VAPOR BARRIER TO DECK ABOVE. TYP.
- EXIT TO BUILDING EXTERIOR

EMLER SWIM SCHOOL
TANASBOURNE

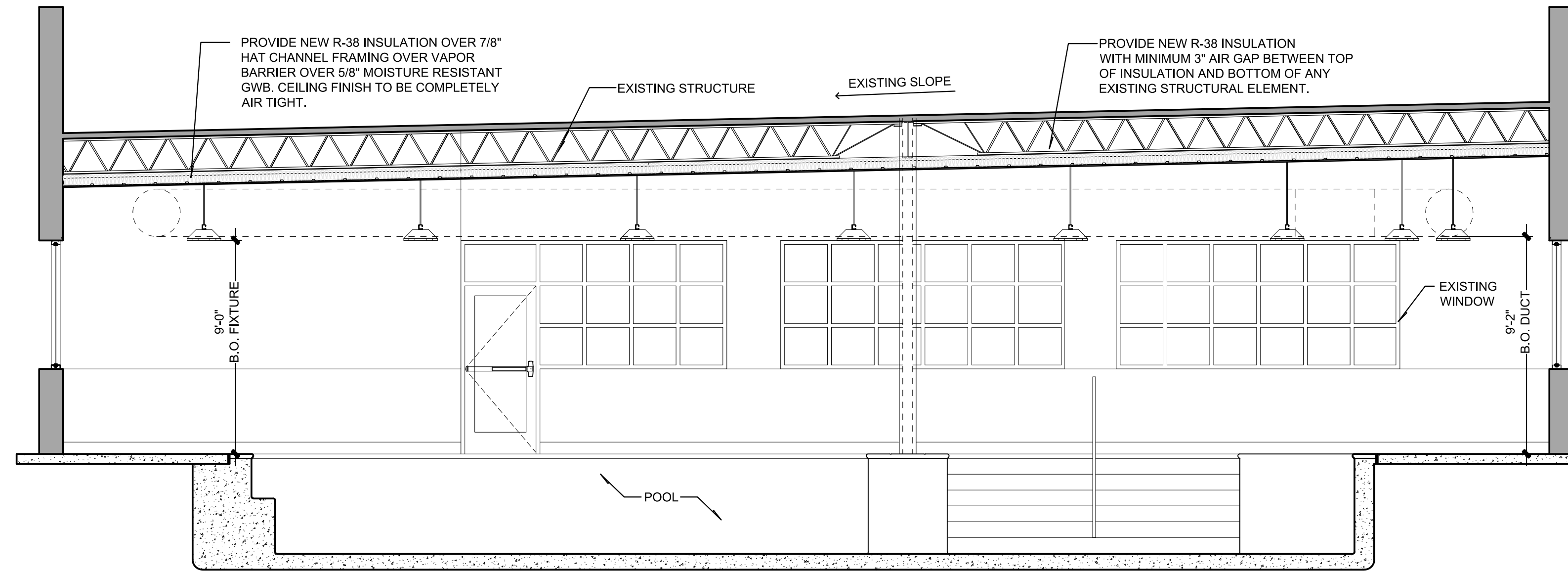
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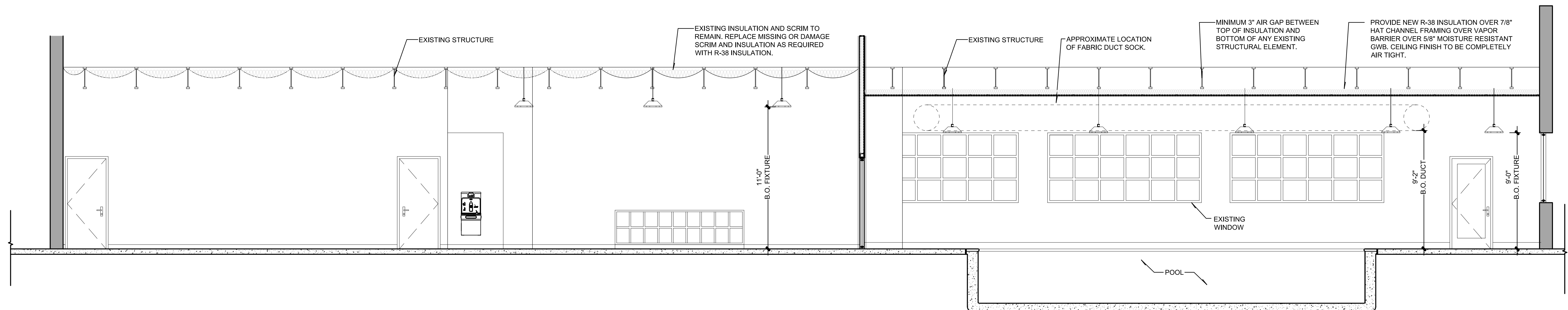
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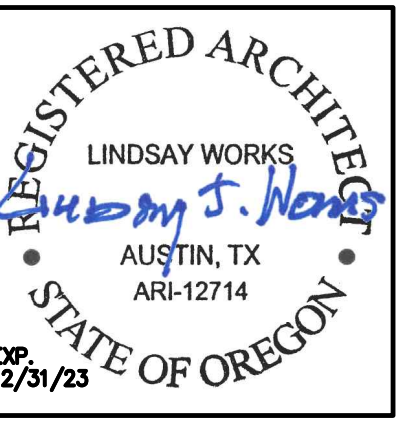
Project No.
2301
Sheet No.
A4.1
Sheet Title
Enlarged Floor Plan



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



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



Date

06.23.2023

Project No.

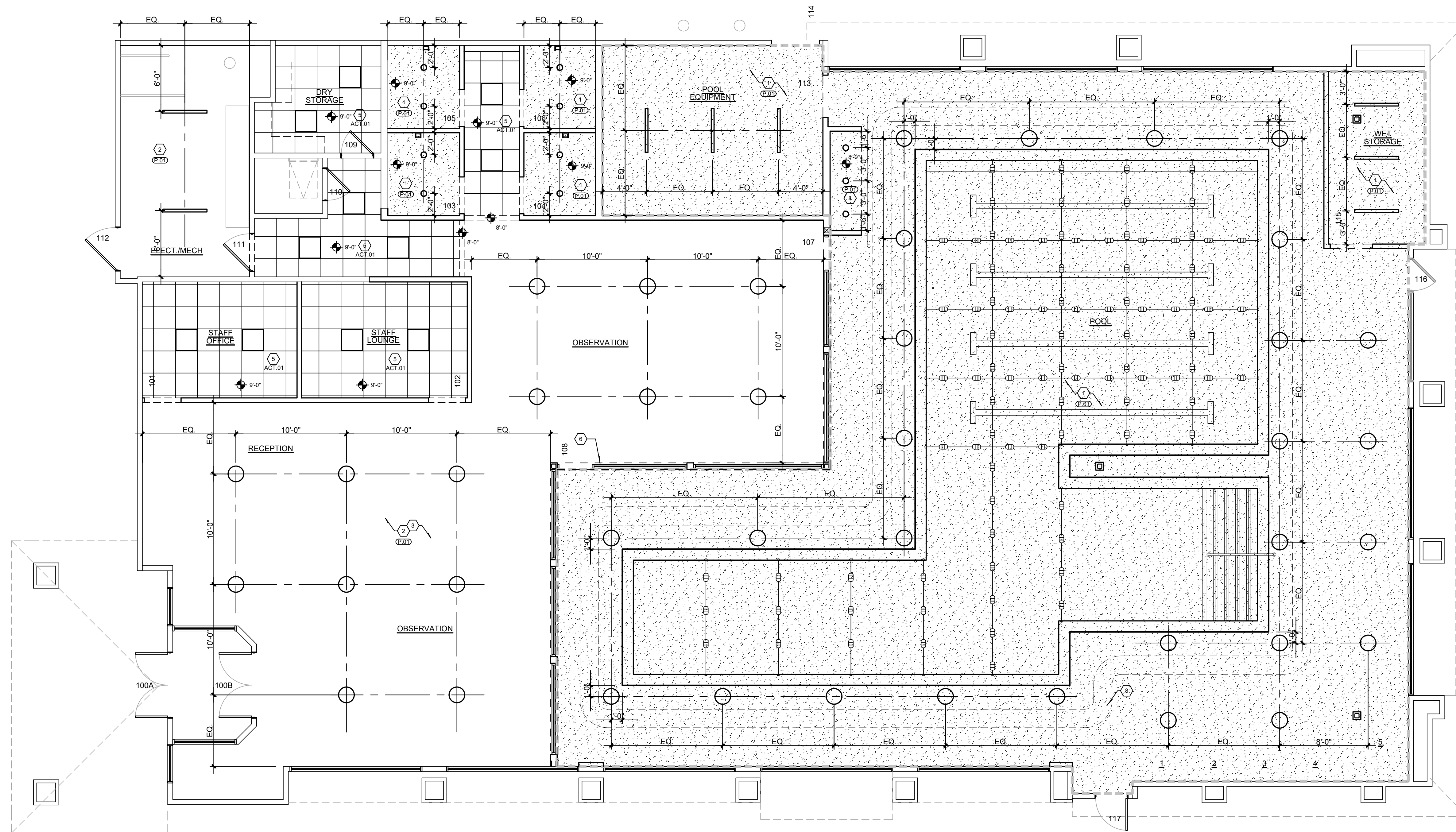
2301

Sheet No.

A6.1

Sheet Title

Building Sections



GENERAL NOTES

1. NOTIFY THE ARCHITECT AND/OR OWNER OF ANY DISCREPANCIES AND/OR OMISSIONS, PRIOR TO THE START OF WORK. WITHOUT NOTIFICATION, THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL EXISTING CONDITIONS.
2. ALL FINISHED CONSTRUCTION MUST MEET ADA ACCESSIBILITY REQUIREMENTS.
3. REPAIR ALL DAMAGE CAUSED BY DEMOLITION AND/OR NEW CONSTRUCTION. REPAIR SURFACES TO MATCH ADJACENT FINISHES.
4. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.
5. REFER TO MECHANICAL DRAWINGS FOR HVAC DEVICES.
6. COORDINATE SPRINKLER HEAD INSTALLATION WITH ARCHITECT PRIOR TO INSTALLATION.
7. LIGHTS, DIFFUSERS, EXIT SIGNS, SMOKE DETECTORS, SPEAKERS, STROBES, AND MISCELLANEOUS DEVICES SHALL BE CENTERED IN THE CEILING UNLESS INDICATED OTHERWISE.
8. REFER TO A16.1 FOR CEILING TILE DESIGNATIONS.
9. ALL CEILINGS ARE TO BE 9'-0" AFF U.N.O.
10. CLEAN, SAND/SCRAPE, PREP, AND PAINT EXPOSED CEILING DECK AS REQUIRED.
11. AT EXPOSED CEILING AREAS, ALL NEW WIRING, CONDUIT, AND MECHANICAL DUCT TO BE INSTALLED IN A CLEAN AND NEAT MANNER.

KEYED NOTES

- 1 GYP. BD. CEILING, REFER TO HEIGHT GIVEN.
- 2 NO CEILING/ EXPOSED STRUCTURE - CEILING HT. VARIES. PAINT ALL EXPOSED JOISTS, DECK, BEAMS, CONDUIT, OVERHEAD PIPING, METALLIC DUCTWORK AND MISC. ASSOCIATED ITEMS.
- 3 ENCAPSULATE EXISTING ROOF INSULATION BETWEEN THE JOISTS WITH POLYETHYLENE VAPOR RETARDER SCRIM. REPLACE DAMAGED OR MISSING INSULATION WITH NEW INSULATION PER LOCAL BUILDING CODES.
- 4 GYP. BOARD FUR DOWN, REFER TO HEIGHT GIVEN.
- 5 ACOUSTICAL LAY-IN CEILING TILES, REFER TO HEIGHT GIVEN. REFER TO ACT.01 ON A16.1 FOR SPECIFICATIONS
- 6 LINE OF GYP. BD. HEADER ABOVE
- 7 APPROXIMATE LOCATION OF NEW FABRIC DUCT. RE: MECH

LEGEND

| | |
|--|--|
| | EXIT SIGNS |
| | 2x2 FLUORESCENT LIGHT FIXTURE, EMERGENCY BACK UP, RE: ELECT. |
| | 2x2 LED LIGHT FIXTURE, RE: ELECT. |
| | WALL MOUNTED SCONCE, RE: ELECT. |
| | RECESSED LIGHT FIXTURE, RE: ELECT. |
| | PENDANT STRIP LIGHT, RE: ELECT. |
| | PENDANT LIGHT FIXTURE, RE: ELECT. |
| | MECHANICAL SUPPLY DIFFUSER, RE: MECH. |
| | MECHANICAL RETURN DIFFUSER, RE: MECH. |
| | NEW LAY-IN 2x2 SUSPEND. ACCOUS. CEILING SYSTEM |
| | NEW GYP. BOARD CEILING |

CEILING PAINT SPECIFICATIONS

MFG: SHERWIN WILLIAMS

STANDARD WALL CEILING FINISH: PRO MAR 200 ZERO VOC INTERIOR LATEX ENAMEL, EG-SHEL.

SCRUBABLE WALL FINISH (-S): SCRUBABLE PRO CLASSIC WATERBOURNE INTERIOR ACRYLIC SEMI-GLOSS ENAMEL *PROVIDED IN ALL RESTROOMS*

STRUCTURAL EXPOSED STEEL & DECKING:
 1-COAT SW MACROPOXY 846 EPOXY PRIMER (WHITE)
 2-COATS PRO INDUSTRIAL WATERBASED CATALYZED EPOXY B73 SERIES GLOSS

EXPOSED WOOD STRUCTURE:
 1 COAT PRO BLOCK LATEX (HAVE ANTI-MICROBIAL ATTRIBUTES)
 2 COATS PRO INDUSTRIAL WATER BASED EPOXY

DRYWALL CEILINGS IN POOL AREA:
 1-COAT B28W02600 - PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER
 2-COATS INDUSTRIAL WATERBASED CATALYZED EPOXY B73 SERIES, EG-SHEL.

PAINTING SUBCONTRACTOR TO PROVIDE 3" X 3" SAMPLE OF EACH COLOR ON SITE FOR DESIGNER'S APPROVAL.

P.01 ALABSTER, SW7008
 P.02 REQUISITE GREY, SW7023
 P.03 KILMONG VIOLET, SW6839

PARTITION LEGEND

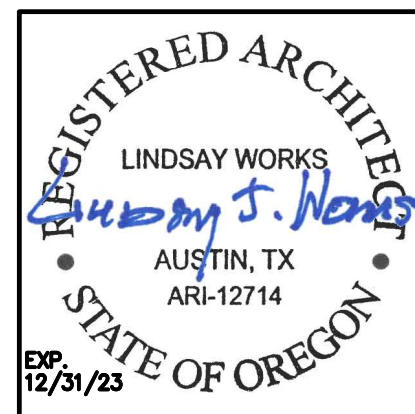
| | |
|--|--------------------|
| | EXISTING TO REMAIN |
| | NEW PARTITION |

1 REFLECTED CEILING PLAN PLAN NORTH

SCALE: 3/16" = 1'-0"

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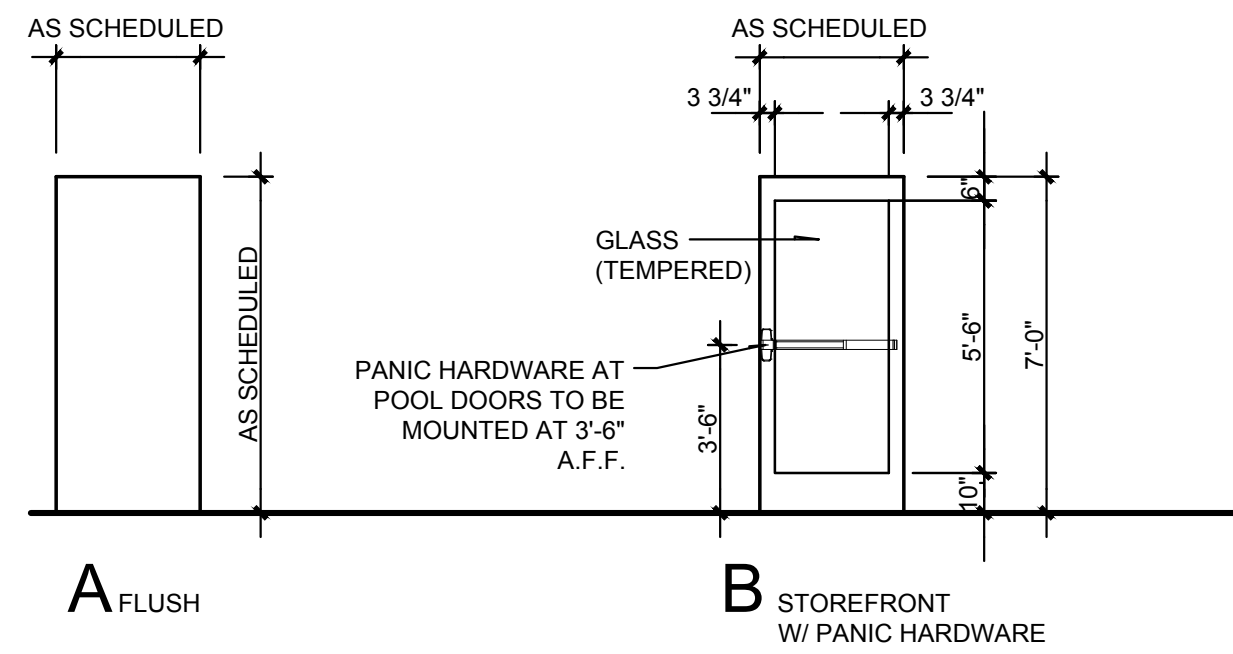
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Date
06.23.2023

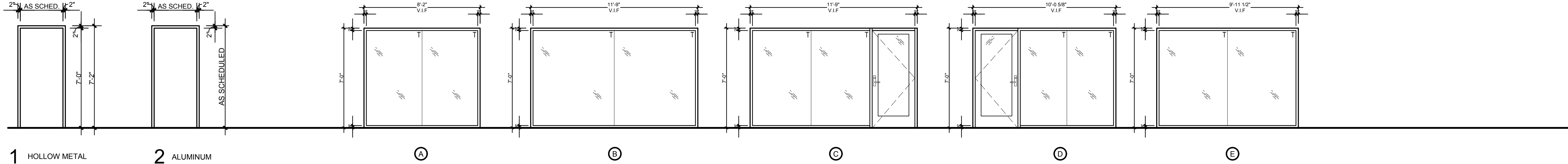
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Project No.
2301
Sheet No.
A8.1
Sheet Title
Reflected Ceiling Plan



DOOR TYPES

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



DOOR FRAME AND WINDOW TYPES

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

NOTE: ALL BUTT-GLAZING SHALL BE 3/8" TEMPERED GLASS

| DOOR SCHEDULE | | | | | | | | | | |
|---------------|---------------------|-------|------|-------|----------|-------|------|---|--|--|
| DOOR NO. | DOOR | | | FRAME | | LABEL | HDW. | REMARKS | | |
| | SIZE | MATL. | TYPE | GLZ. | MATL. | | | | | |
| 100A | PAIR 3'-0"X7'-0" | | | | EXISTING | | | PROVIDE LOCK BOX. MOUNTING LOCATION TO BE DETERMINED. | | |
| 100B | PAIR 3'-0"X7'-0" | | | | EXISTING | | | EXISTING | | |
| 101 | 3'-0"X7'-0" | SCW | A | - | AL | 2 | - | PASSAGE SET | | |
| 102 | 3'-0"X7'-0" | SCW | A | - | AL | 2 | - | PASSAGE SET | | |
| 103 | 3'-0"X7'-0" | SCW | A | - | AL | 2 | - | PRIVACY LOCKSET | | |
| 104 | 3'-0"X7'-0" | SCW | A | - | AL | 2 | - | PRIVACY LOCKSET | | |
| 105 | 3'-0"X7'-0" | SCW | A | - | AL | 2 | - | PRIVACY LOCKSET | | |
| 106 | 3'-0"X7'-0" | SCW | A | - | AL | 2 | - | PRIVACY LOCKSET | | |
| 107 | 3'-0"X7'-0" | PL | A | - | AL | 2 | - | PROVIDE SELF-LATCHING PANIC HARDWARE. PROVIDE CLOSER. PANIC HARDWARE TO BE MOUNTED AT 42" A.F.F. PER HEALTH CODE REQUIREMENTS. LOCKABLE. CLASSROOM LOCKSET | | |
| 108 | 3'-0"X7'-0" | PL | A | - | AL | 2 | - | PROVIDE SELF-LATCHING PANIC HARDWARE. PROVIDE CLOSER. PANIC HARDWARE TO BE MOUNTED AT 42" A.F.F. PER HEALTH CODE REQUIREMENTS. LOCKABLE. CLASSROOM LOCKSET | | |
| 109 | 3'-0"X7'-0" | | | | EXISTING | | | PAINT EXISTING DOOR LEAF (ALL SIDES) IN P.03 FINISH, PAINT EXISTING FRAME IN P.05 FINISH. EXISTING HARDWARE TO REMAIN. | | |
| 110 | 3'-0"X7'-0" | | | | EXISTING | | | PAINT EXISTING DOOR LEAF (ALL SIDES) IN P.03 FINISH, PAINT EXISTING FRAME IN P.05 FINISH. EXISTING HARDWARE TO REMAIN. | | |
| 111 | 3'-0"X7'-0" | | | | EXISTING | | | PAINT EXISTING DOOR LEAF (ALL SIDES) IN P.03 FINISH, PAINT EXISTING FRAME IN P.05 FINISH. EXISTING HARDWARE TO REMAIN. | | |
| 112 | 3'-6"X7'-0" | | | | EXISTING | | | PAINT EXISTING DOOR LEAF (INT. SIDE) IN P.03 FINISH, PAINT EXISTING FRAME IN P.05 FINISH. EXISTING PANIC HARDWARE TO REMAIN. PROVIDE NEW KEYPAD LOCKSET ON EXTERIOR SIDE. PROVIDE STOREROOM LOCKSET | | |
| 113 | 3'-6"X7'-0" | G/A | B | TEMP | AL | 2 | - | PROVIDE STOREROOM LOCKSET | | |
| 114 | 4'-0"X7'-0" | HM | A | - | HM | 1 | - | STOREROOM LOCKSET AND CLOSER. PAINT EXTERIOR SIDE OF DOOR TO MATCH EXISTING EXTERIOR DOOR COLOR. PAINT INT. FACE OF DOOR LEAF IN P.02. PAINT INTERIOR FRAME IN P.05. PROVIDE STOREROOM LOCKSET | | |
| 115 | 3'-6"X7'-0" | G/A | B | TEMP | AL | 2 | - | PROVIDE STOREROOM LOCKSET | | |
| 116 | 3'-0"X7'-0" | | | | EXISTING | | | MODIFY DOOR, FRAME, AND EXISTING HARDWARE AS REQUIRED TO HAVE NO ENTRY HARDWARE. MODIFY EXISTING DOOR, FRAME, HARDWARE TO REMOUNT EXISTING PANIC BAR AT 42" A.F.F. | | |
| 117 | 3'-0"X7'-0" | | | | EXISTING | | | MODIFY DOOR, FRAME, AND EXISTING HARDWARE AS REQUIRED TO HAVE NO ENTRY HARDWARE. MODIFY EXISTING DOOR, FRAME, HARDWARE TO REMOUNT EXISTING PANIC BAR AT 42" A.F.F. | | |

| GLAZING SCHEDULE | | | | |
|------------------|--------------------|-------|------|--|
| WINDOW NO. | WINDOW | | | REMARKS |
| | SIZE | MATL. | GLZ. | |
| A | RE: PLAN/ELEVATION | G/A | TEMP | 3/8" SINGLE GLAZING. SILICONE JOINT NO GREATER THAN 1/4" |
| B | RE: PLAN/ELEVATION | G/A | TEMP | 3/8" SINGLE GLAZING. SILICONE JOINT NO GREATER THAN 1/4" |
| C | RE: PLAN/ELEVATION | G/A | TEMP | 3/8" SINGLE GLAZING. SILICONE JOINT NO GREATER THAN 1/4" |
| D | RE: PLAN/ELEVATION | G/A | TEMP | 3/8" SINGLE GLAZING. SILICONE JOINT NO GREATER THAN 1/4" |
| E | RE: PLAN/ELEVATION | G/A | TEMP | 3/8" SINGLE GLAZING. SILICONE JOINT NO GREATER THAN 1/4" |

| DOOR AND WINDOW ABBREVIATIONS | | | |
|-------------------------------|------------------|------|-------------------------------------|
| AL | ALUMINUM | KD | KNOCK DOWN FRAME |
| DTL | DETAIL | PR | PAIR |
| G | GLASS | MATL | MATERIAL |
| G/A | GLASS & ALUMINUM | SCW | SOLID CORE WOOD - VENEER FINISH |
| G/W | GLASS & WOOD | TEMP | TEMPERED, 1/4" THK. |
| HDW | HARDWARE SET | PL | SOLID CORE WOOD - PLASTIC LAM. FIN. |
| HM | HOLLOW METAL | WD | WOOD |

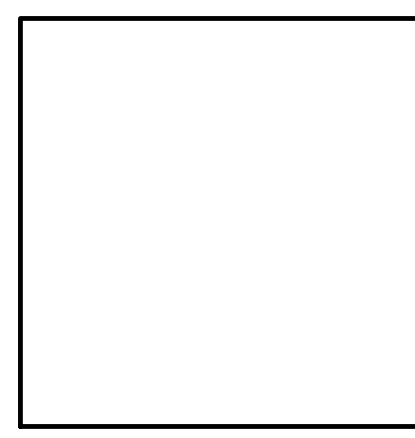
| DOOR AND WINDOW ABBREVIATIONS | | | |
|-------------------------------|------------------|------|-------------------------------------|
| AL | ALUMINUM | KD | KNOCK DOWN FRAME |
| DTL | DETAIL | PR | PAIR |
| G | GLASS | MATL | MATERIAL |
| G/A | GLASS & ALUMINUM | SCW | SOLID CORE WOOD - VENEER FINISH |
| G/W | GLASS & WOOD | TEMP | TEMPERED, 1/4" THK. |
| HDW | HARDWARE SET | PL | SOLID CORE WOOD - PLASTIC LAM. FIN. |
| HM | HOLLOW METAL | WD | WOOD |

NOTES:
 1. REFER TO A16.1 PRODUCT LIST FOR PLASTIC LAMINATE INFORMATION.
 2. REFER TO SPEC. SECTION FOR HARDWARE INFORMATION.
 3. ALL FINISHES TO MATCH EXISTING SPEC'S.
 4. ALL DOOR FINISHES AND HARDWARE FINISHES IN WET AREA TO BE CORROSIVE RESISTANT.

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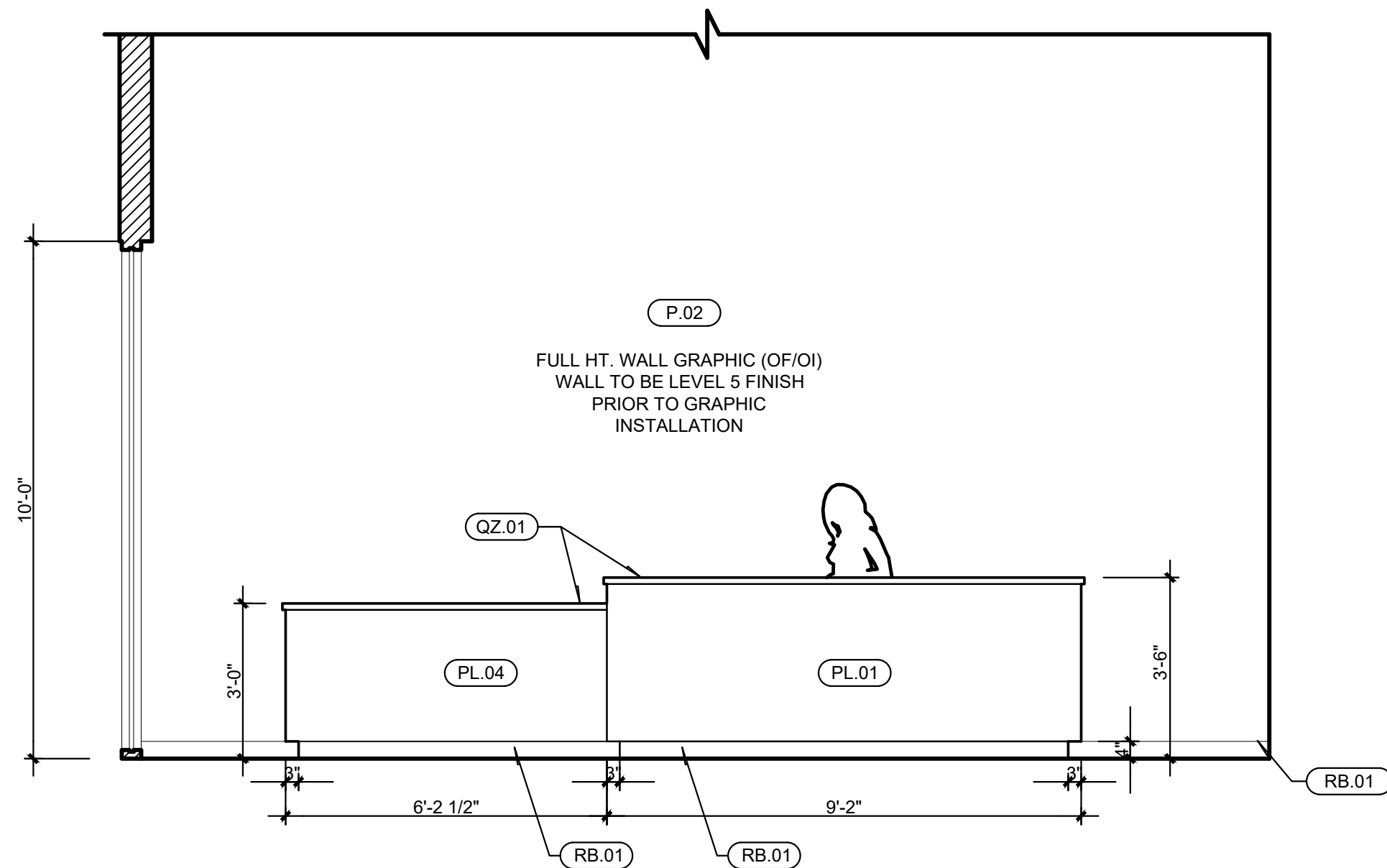


REGISTERED ARCHITECT
LINDSAY WORKS
Lindsay J. Works
AUSTIN, TX
ARI-12714
12/31/23
STATE OF OREGON

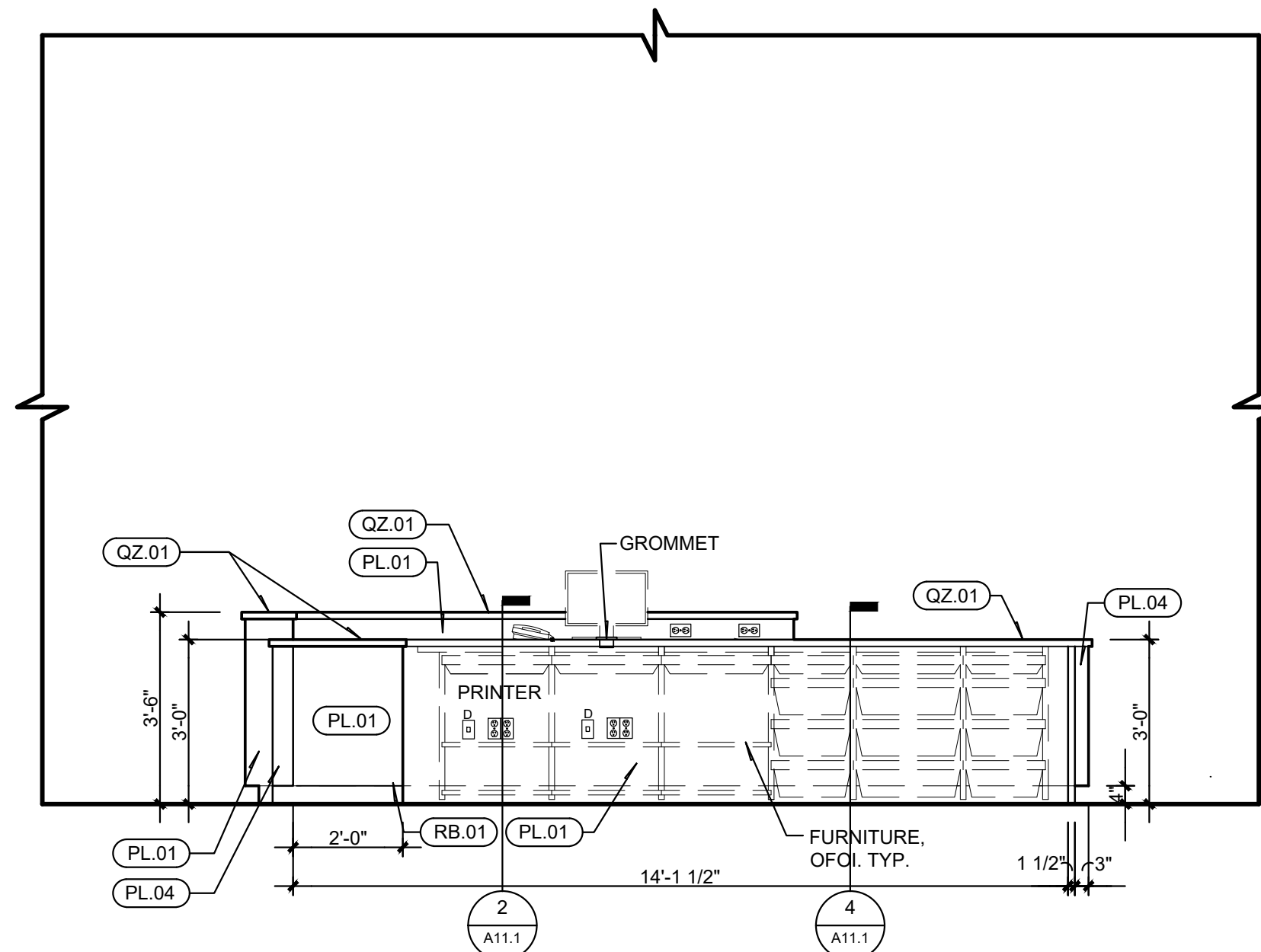
Date
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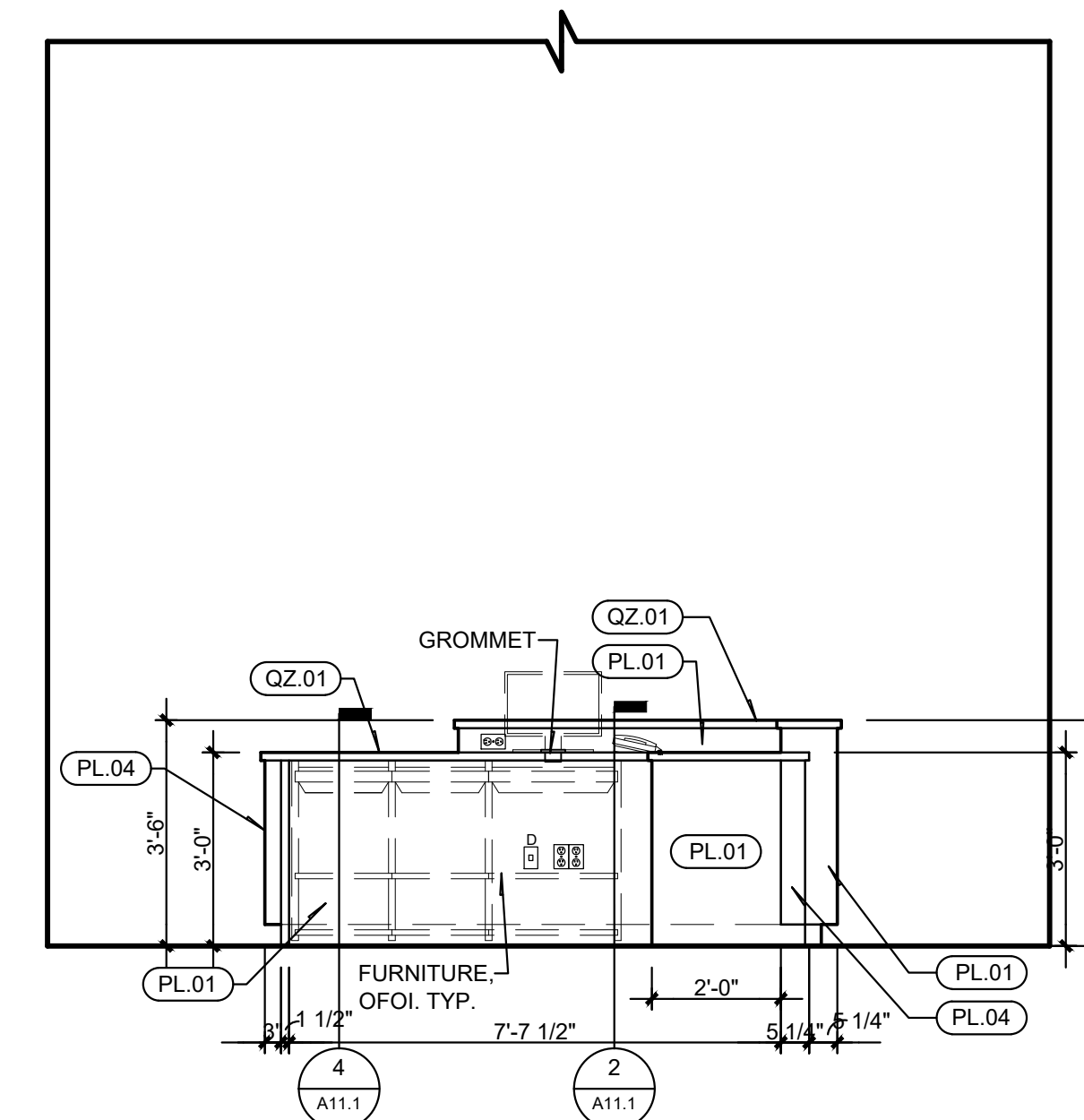
Project No.
2301
Sheet No.
A9.1
Sheet Title
Door and Window Schedule



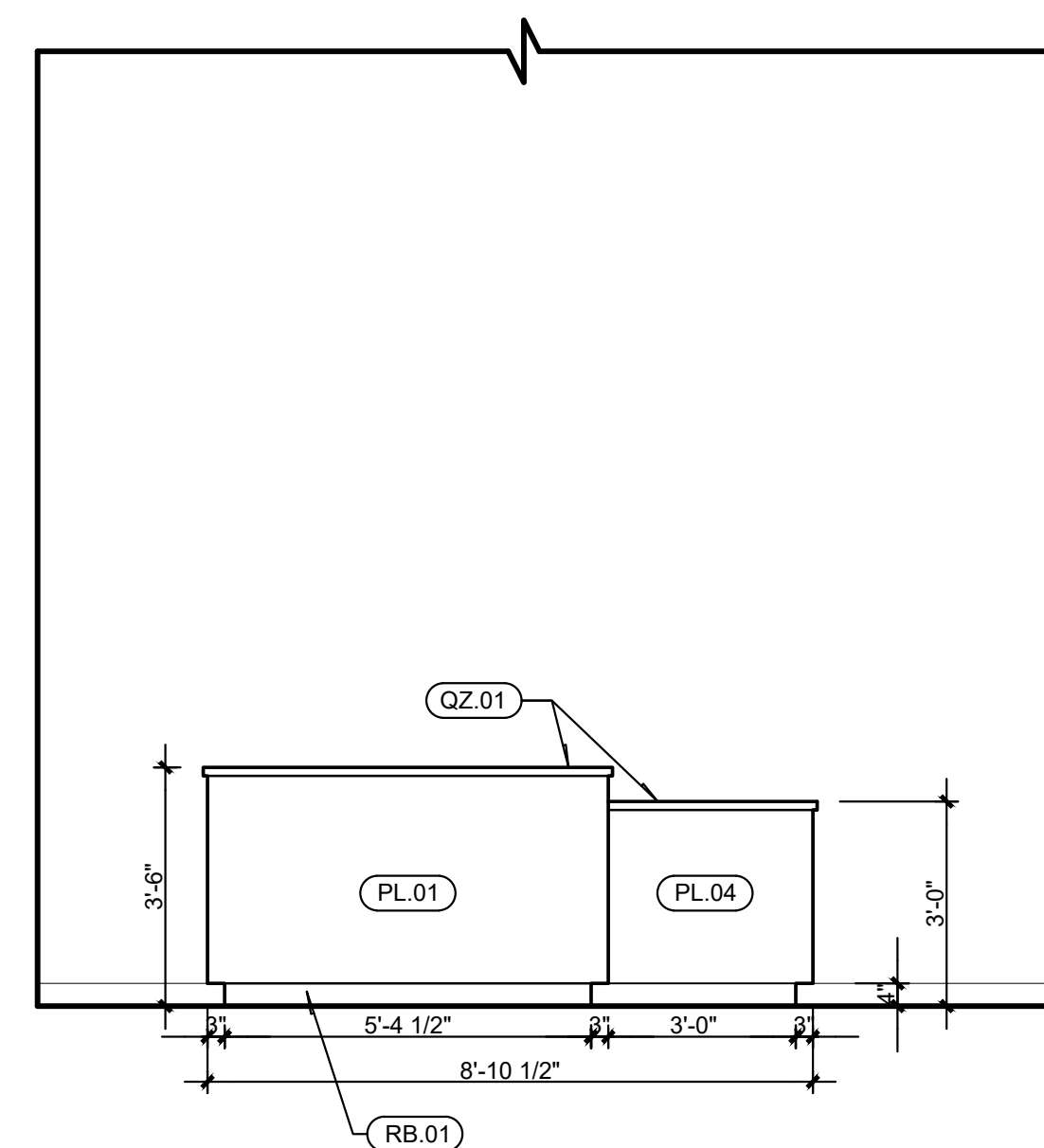
1 RECEPTION DESK
SCALE: 3/8" = 1'-0"



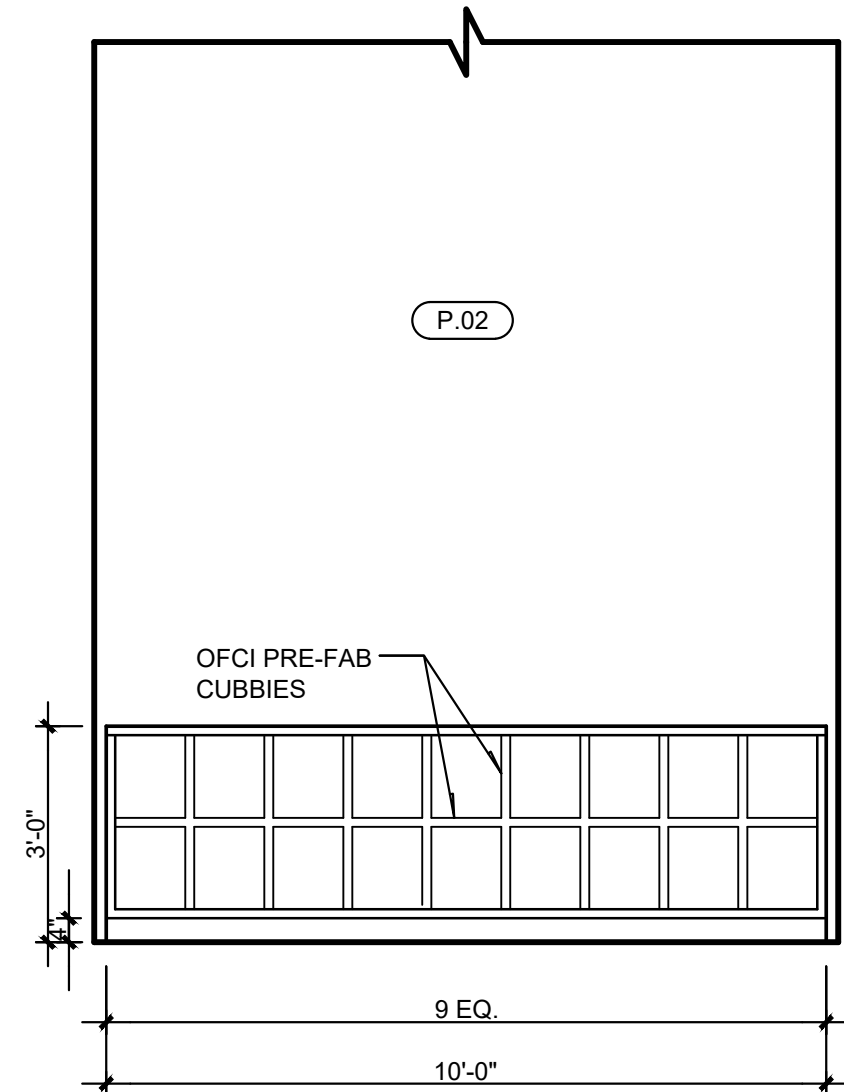
2 RECEPTION DESK
SCALE: 3/8" = 1'-0"



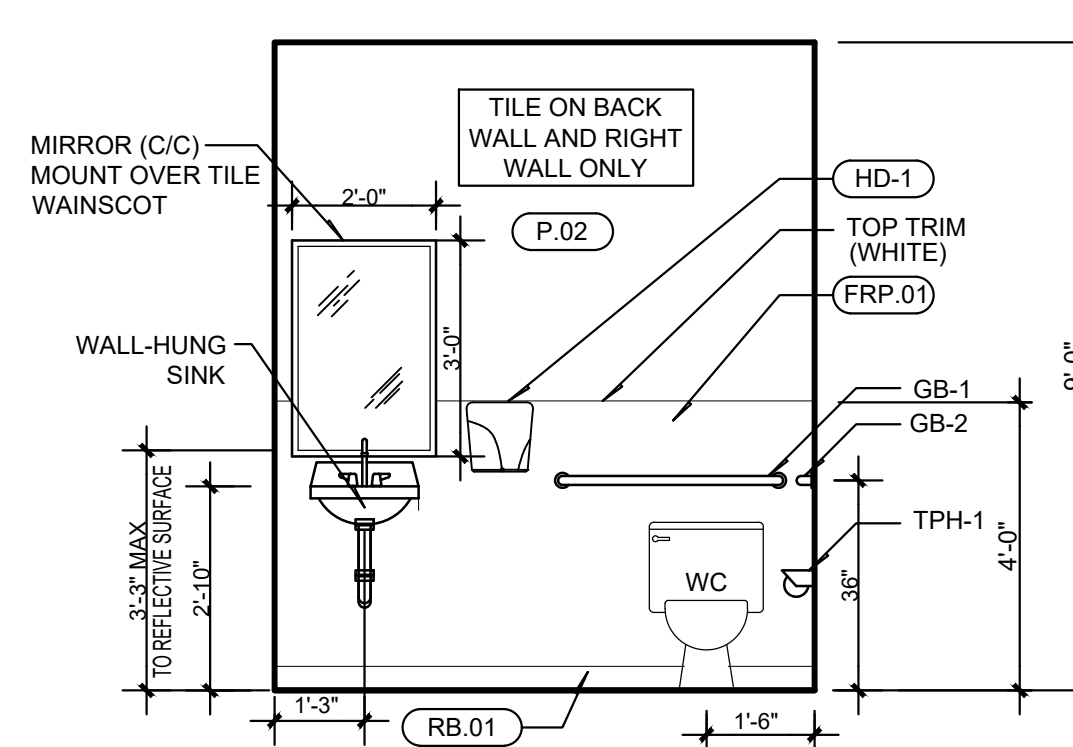
3 RECEPTION DESK
SCALE: 3/8" = 1'-0"



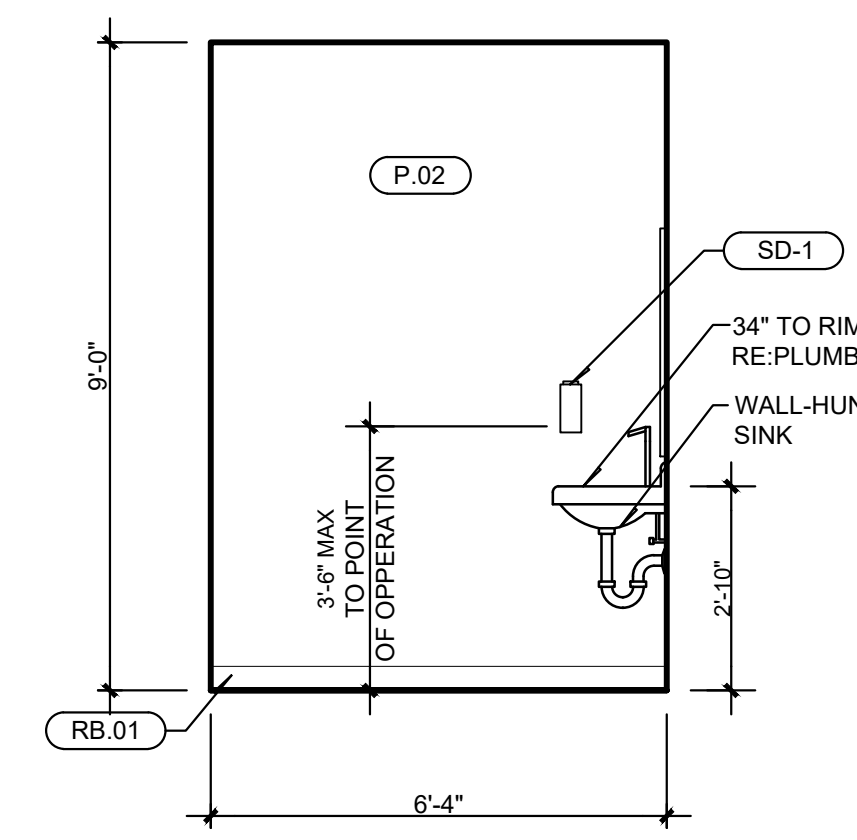
4 RECEPTION END
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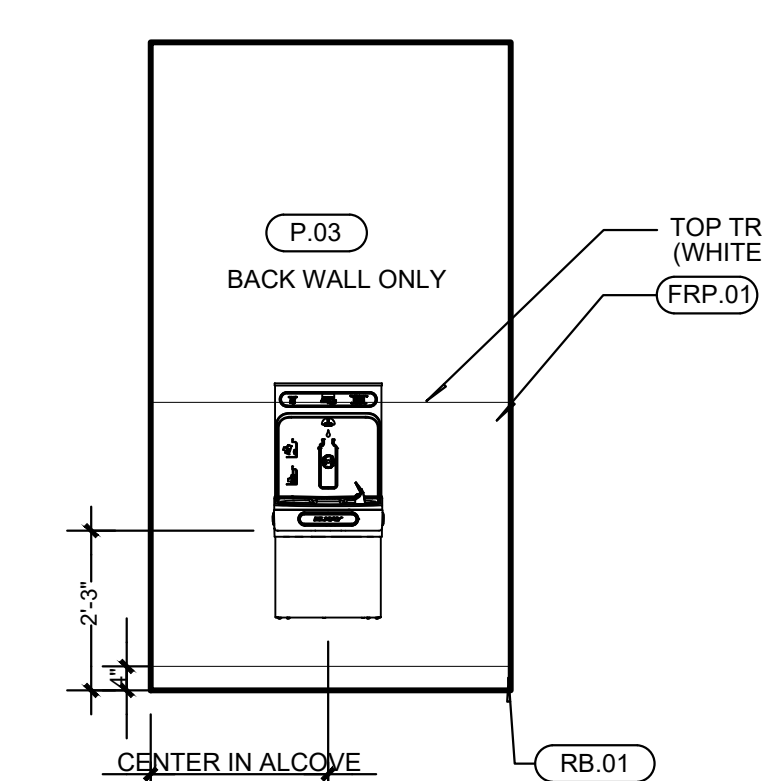
5 CHANGING COUNTER
SCALE: 3/8" = 1'-0"



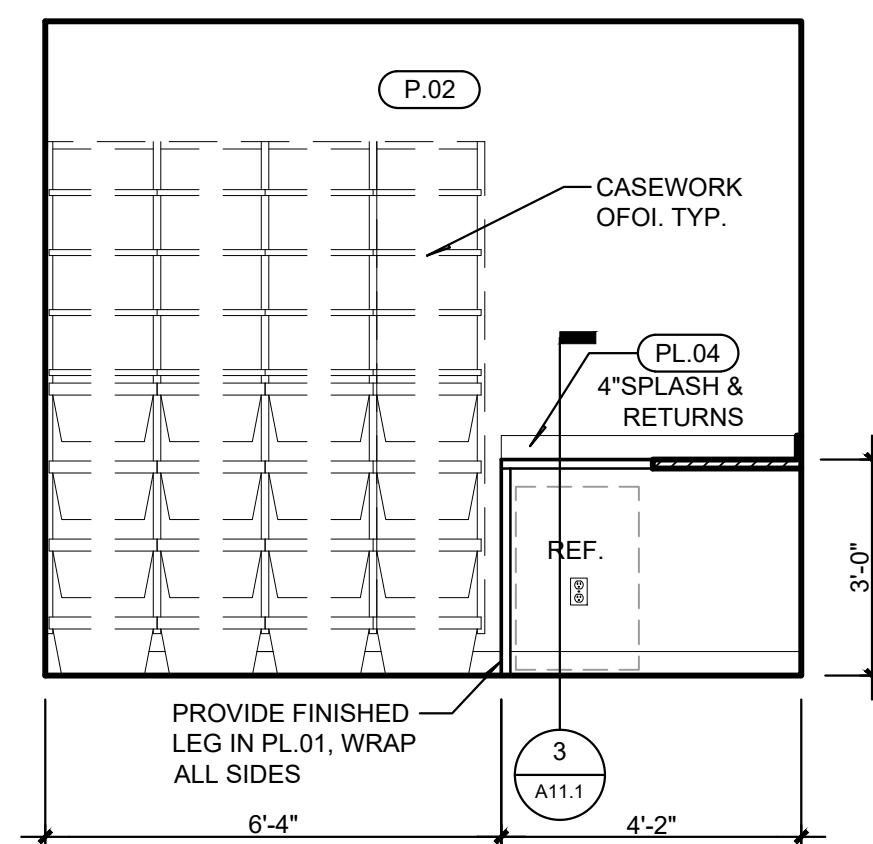
6 PUBLIC TOILET
SCALE: 3/8" = 1'-0"



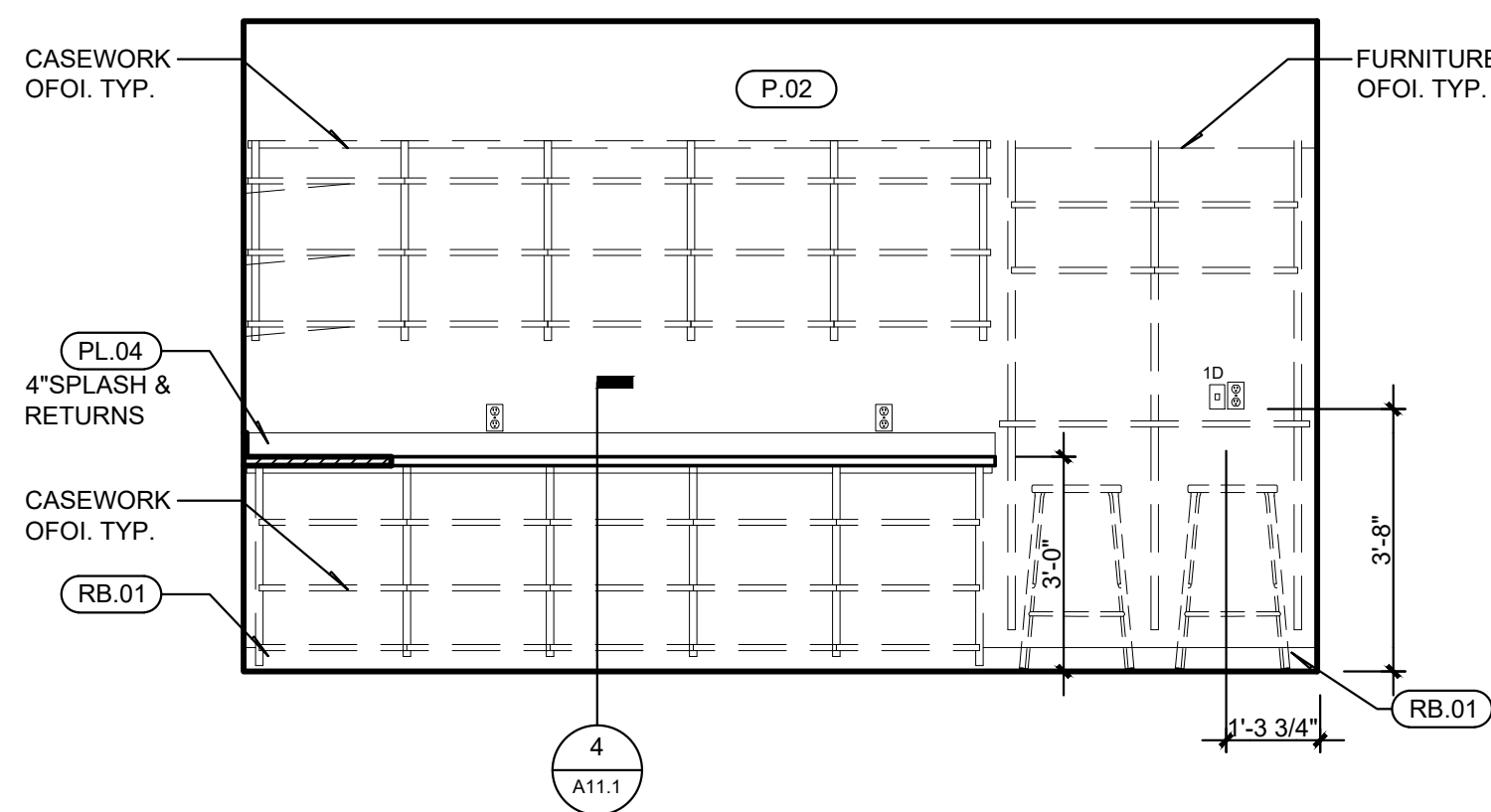
7 PUBLIC TOILET
SCALE: 3/8" = 1'-0"



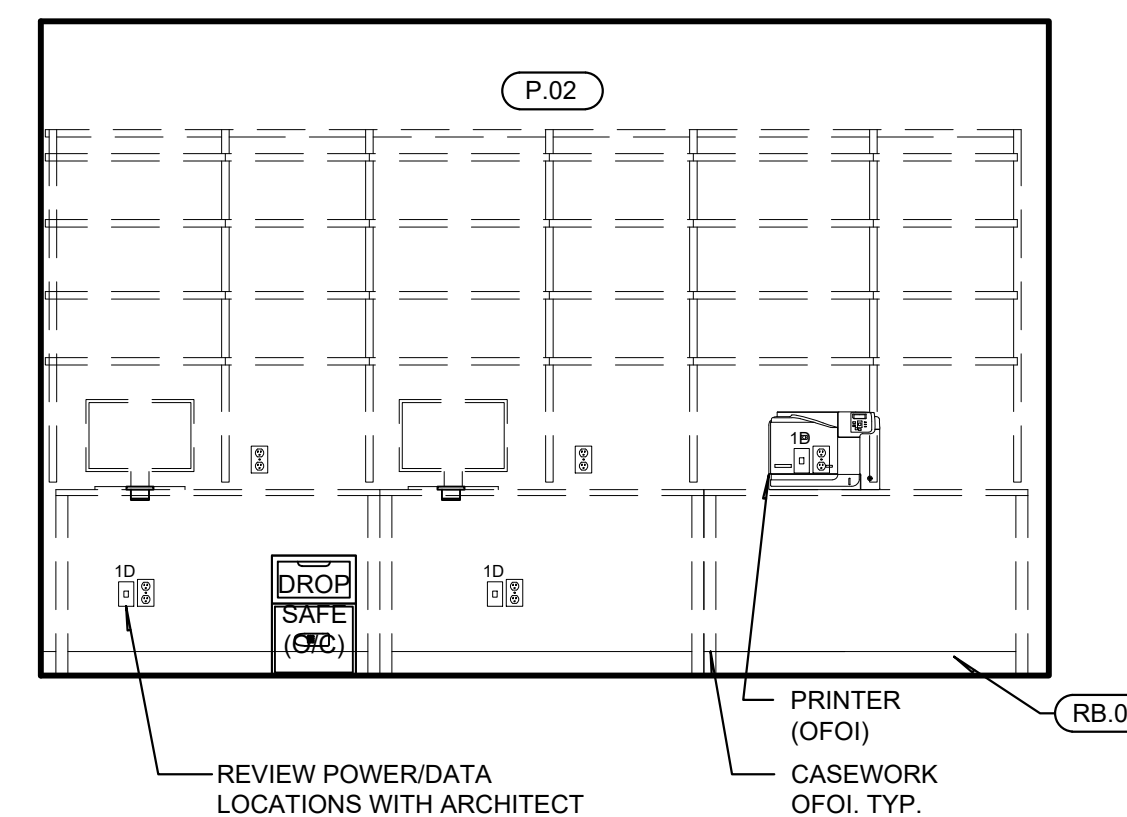
8 DRINKING FOUNTAINS
SCALE: 3/8" = 1'-0"



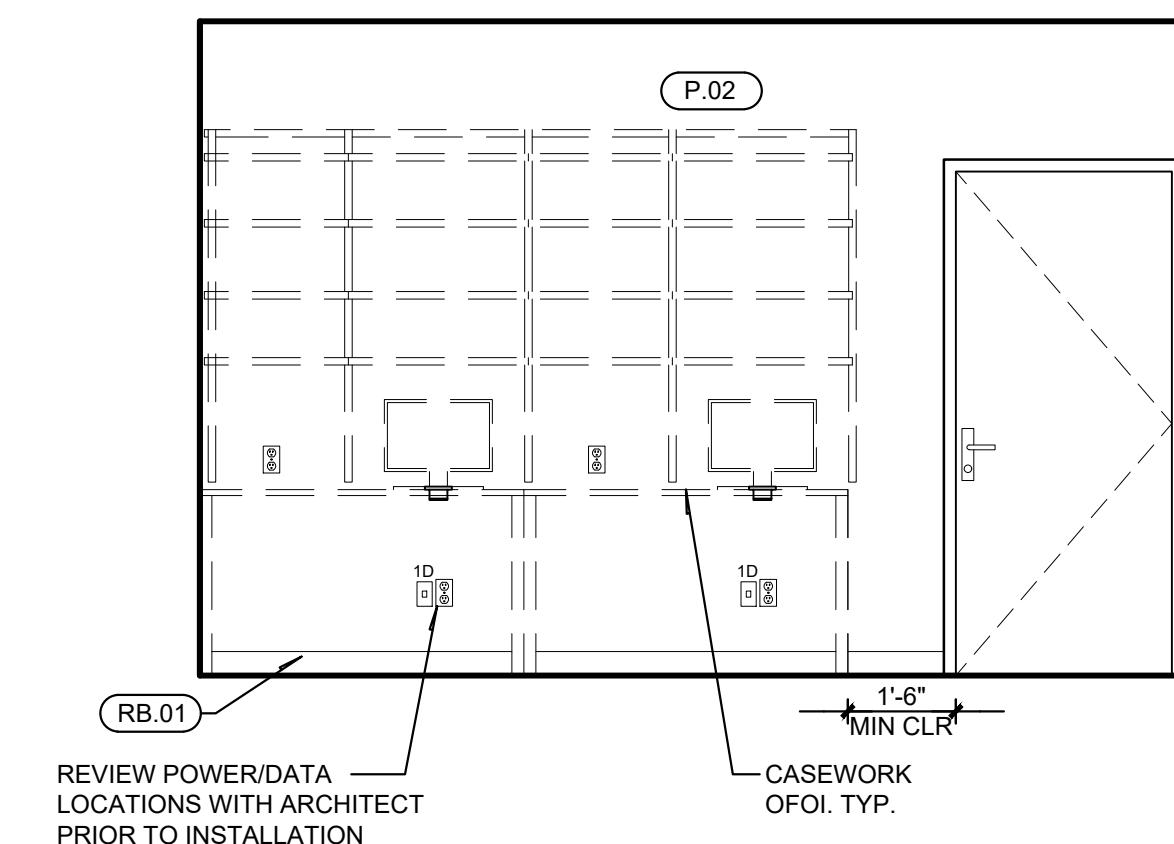
9 STAFF LOUNGE
SCALE: 3/8" = 1'-0"



10 STAFF LOUNGE
SCALE: 3/8" = 1'-0"



11 STAFF OFFICE
SCALE: 3/8" = 1'-0"



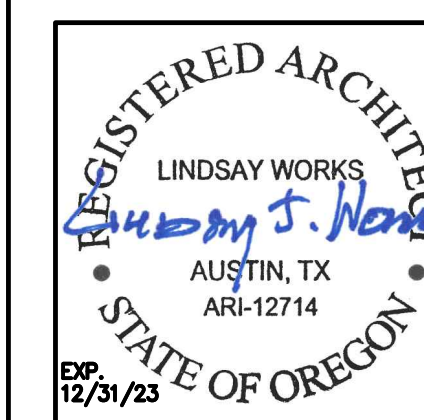
12 STAFF OFFICE
SCALE: 3/8" = 1'-0"

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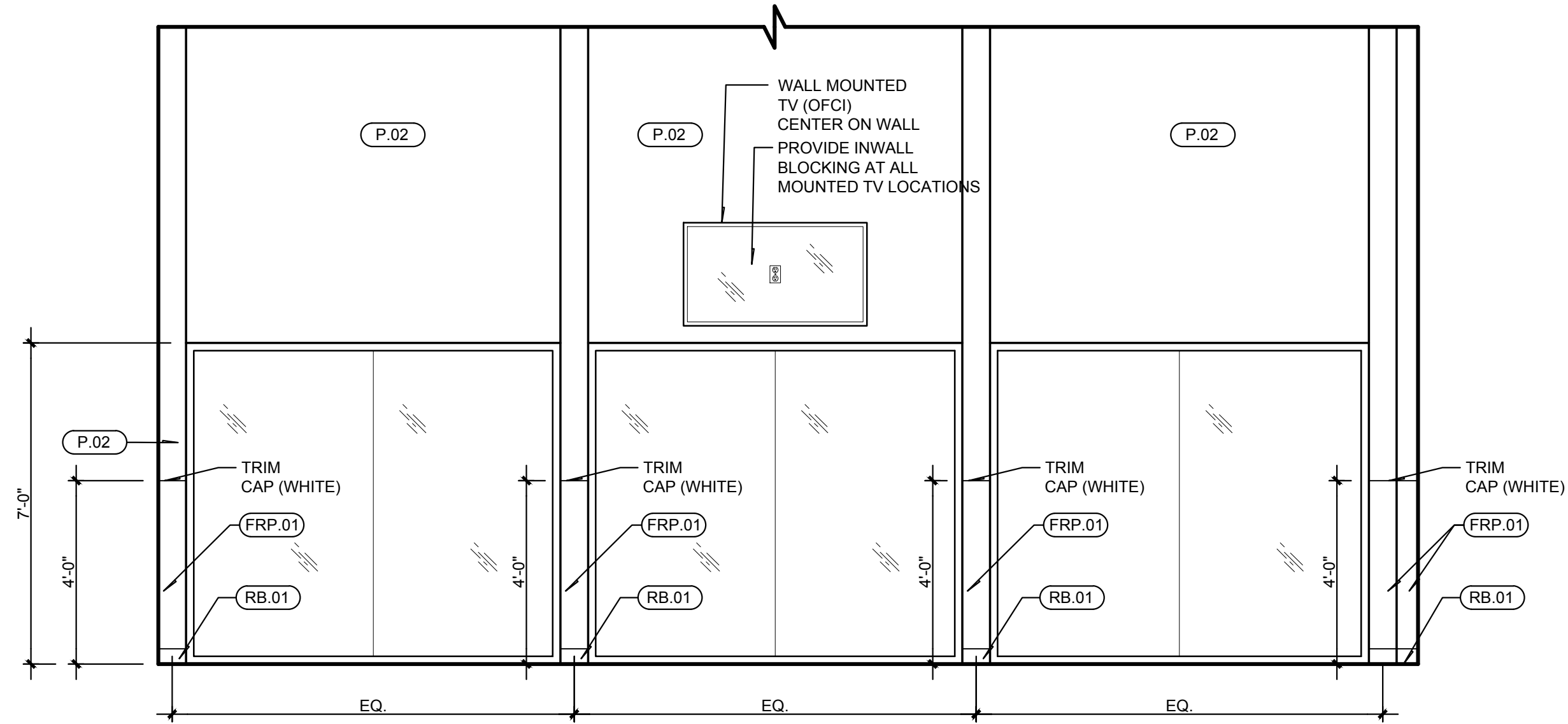
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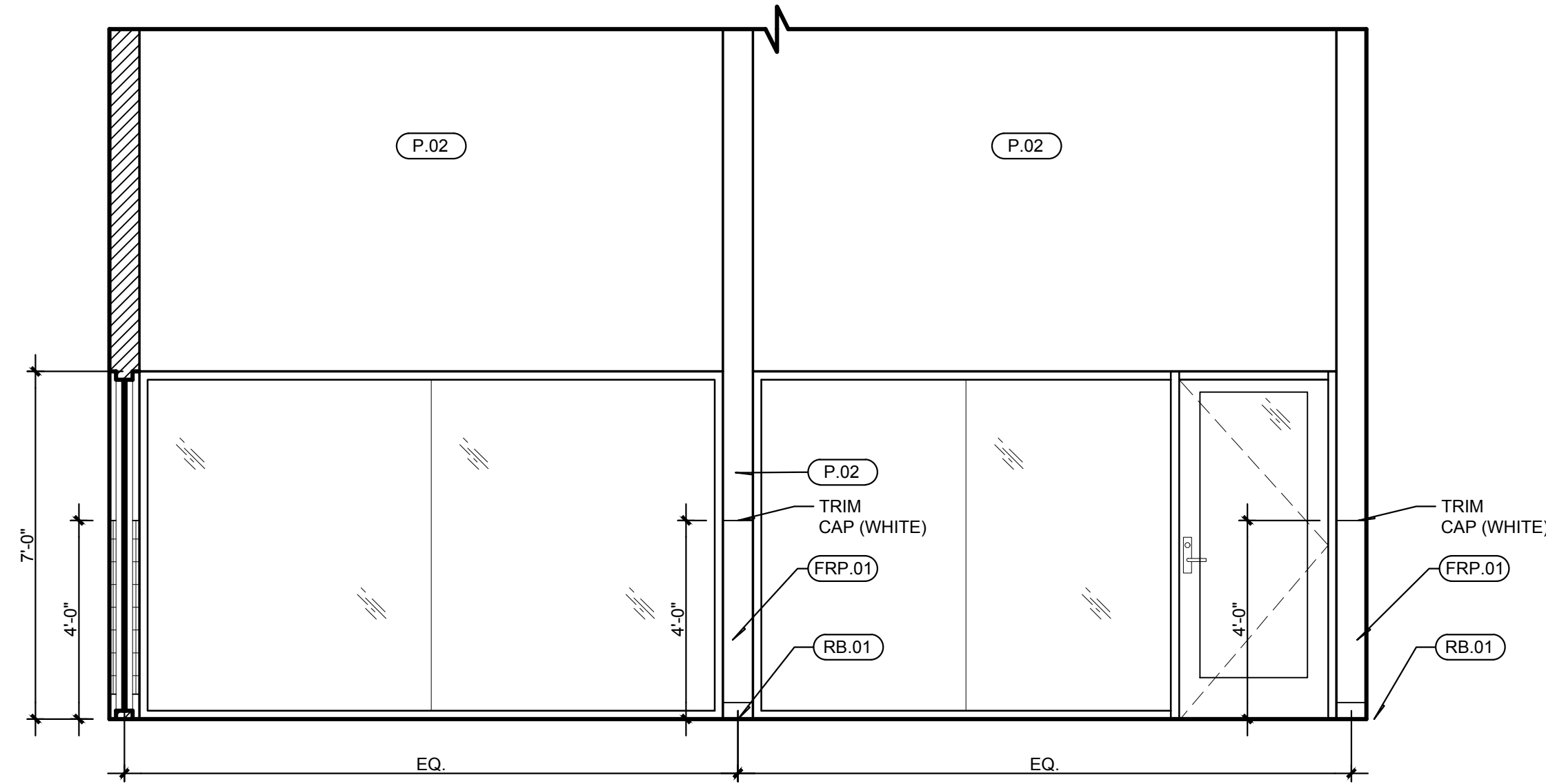
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Project No.
2301
Sheet No.
A10.1
Sheet Title
Interior Elevations

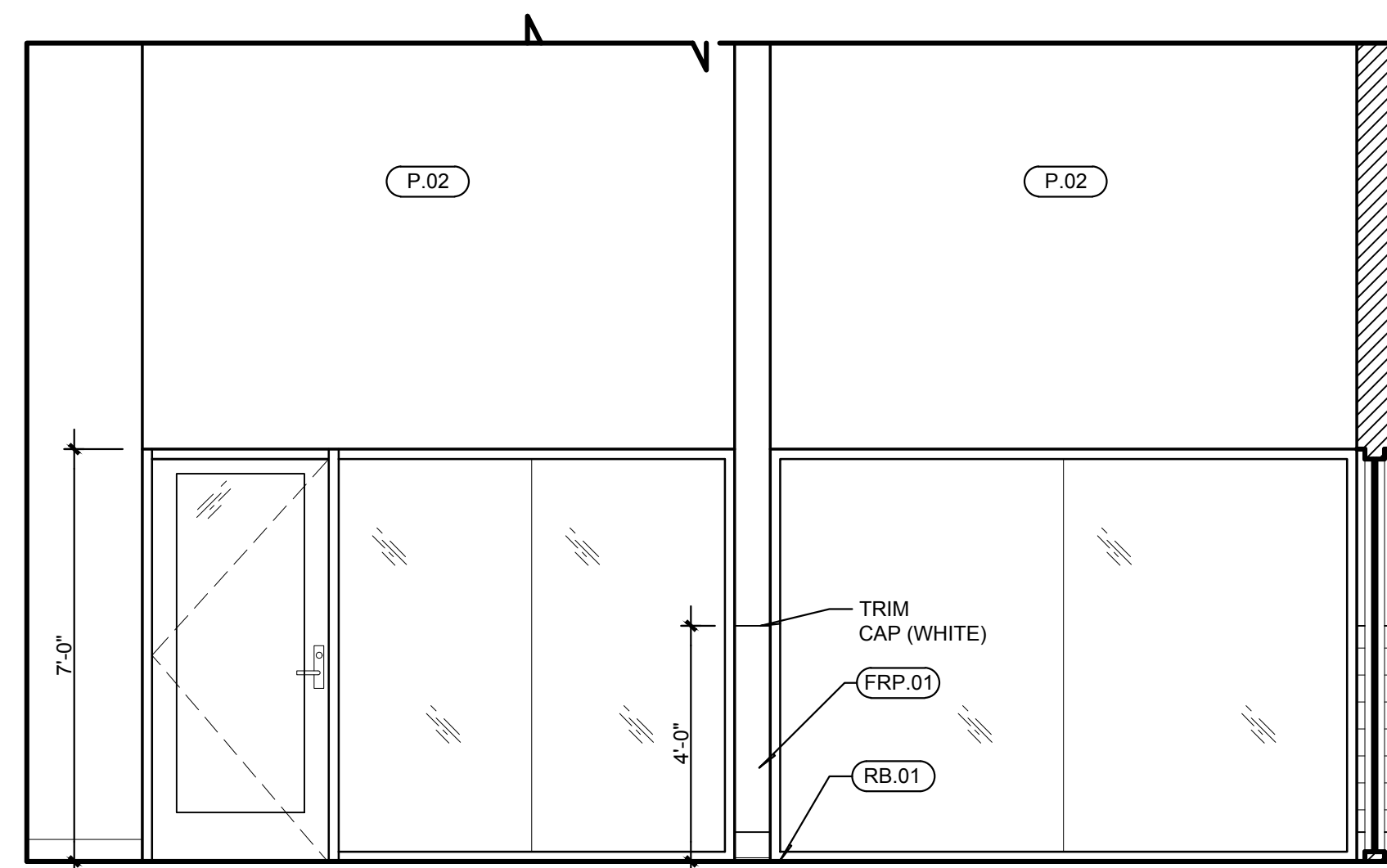


13 OBSERVATION AREA GLAZING
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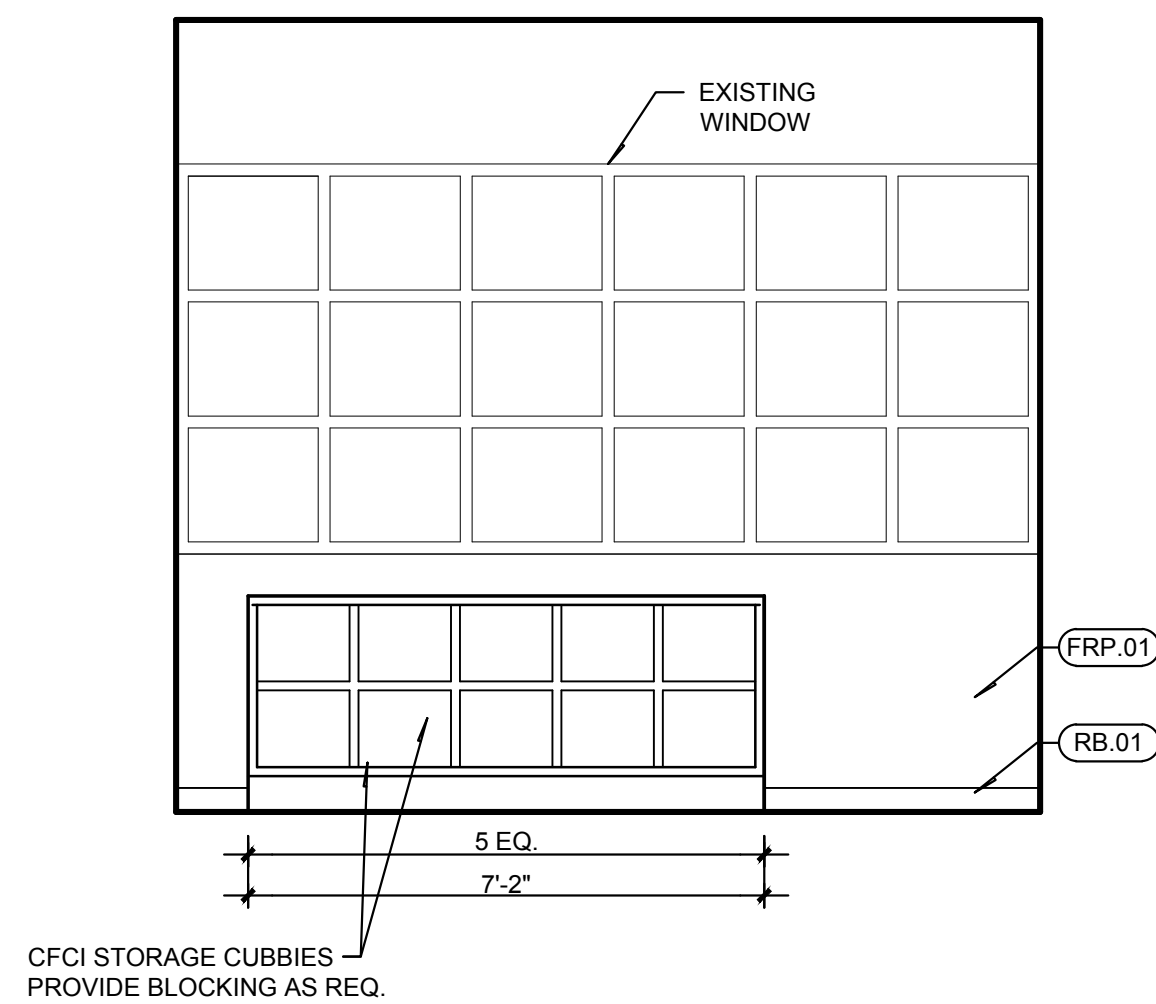


14 OBSERVATION GLAZING
SCALE: 3/8" = 1'-0"

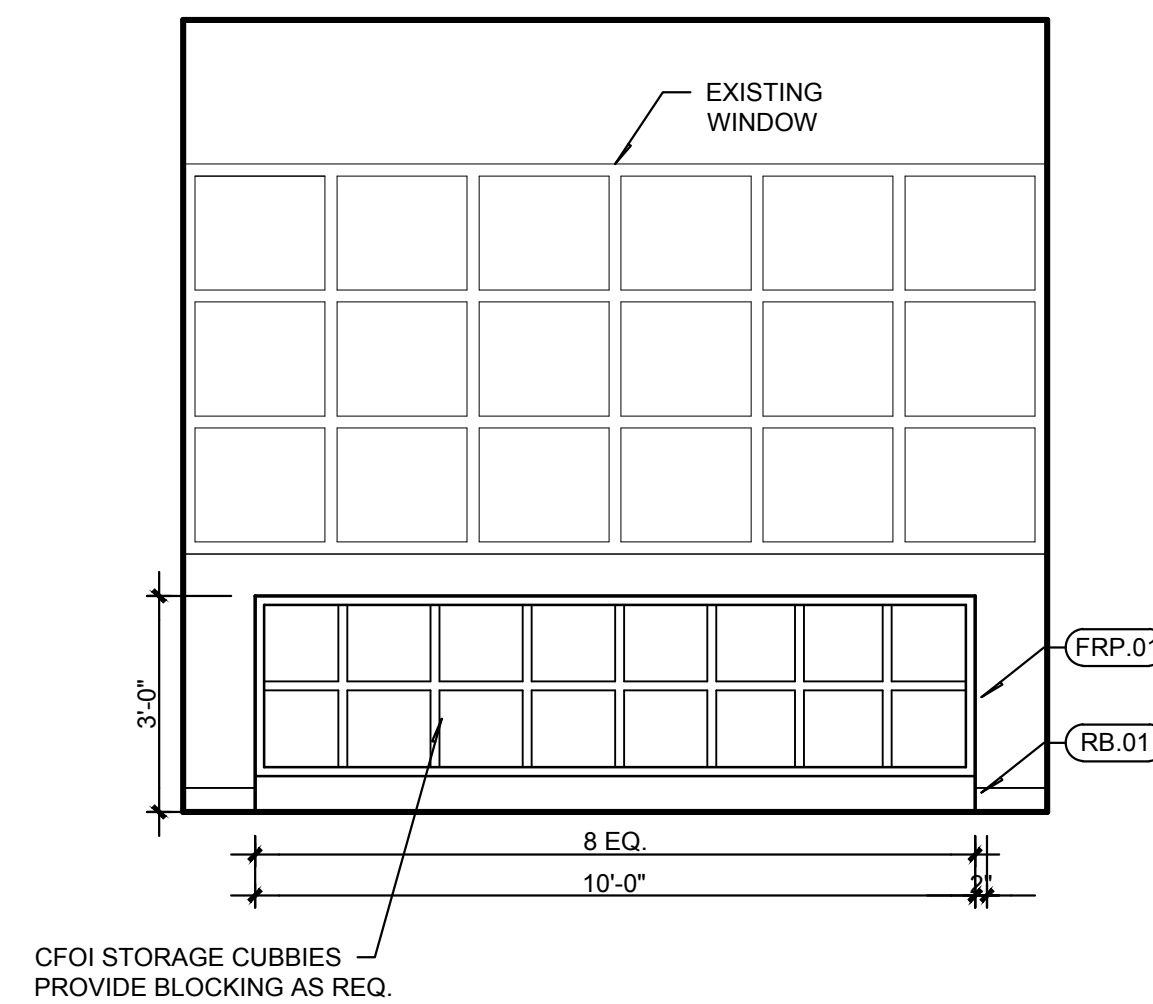
GENERAL NOTES:
PROVIDE SCHLUTER TRANSITION PIECES AT ALL TILE EDGES, OUTCORNERS, INCORNERS, AND COVE BASE TRANSITIONS. RE: 11/15.1 FOR ISOMETRIC OF TYPICAL DETAILING



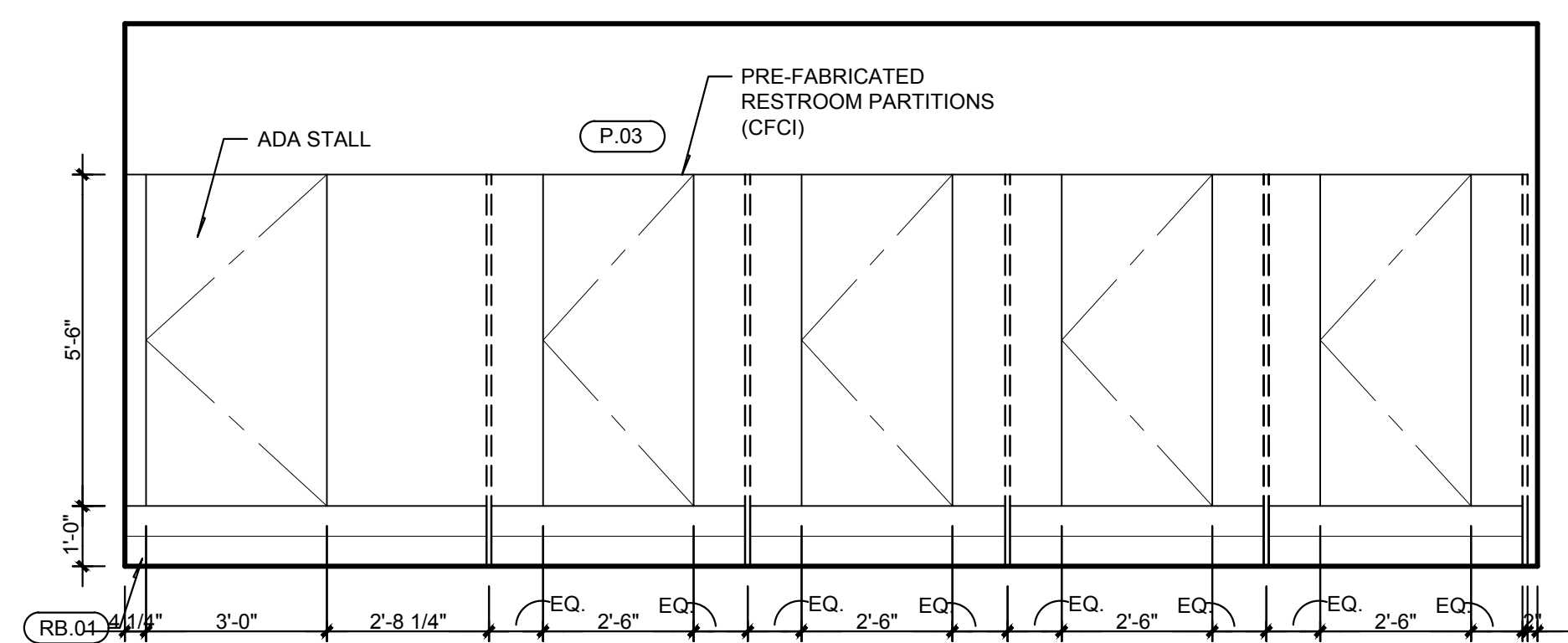
15 OBSERVATION GLAZING
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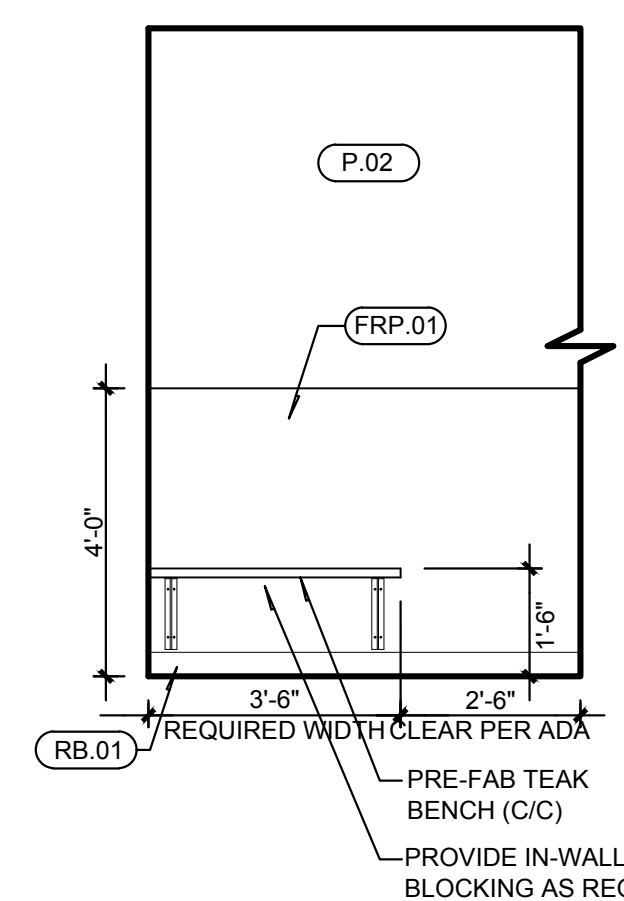
16 CHANGING COUNTER
SCALE: 3/8" = 1'-0"



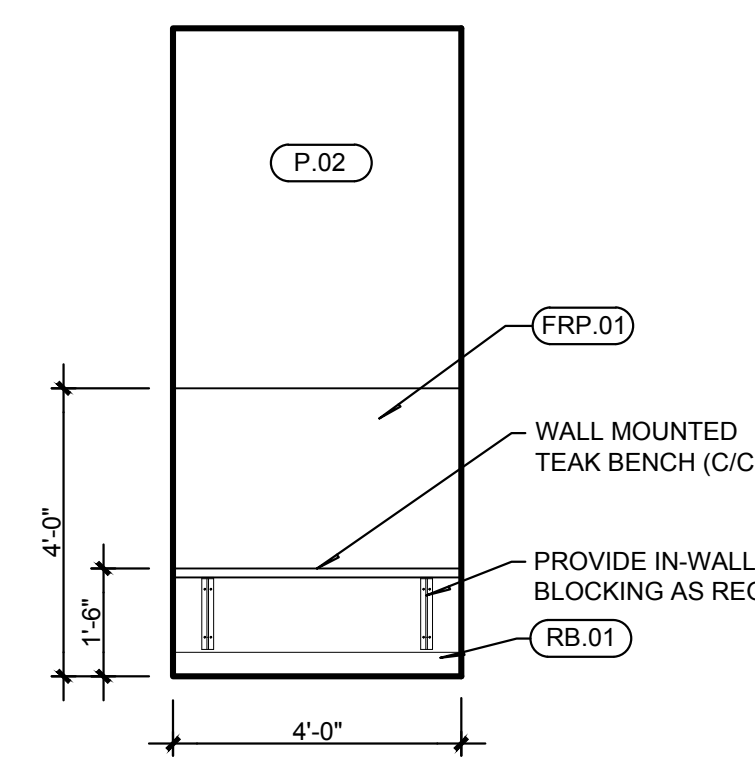
17 CHANGING COUNTER
SCALE: 3/8" = 1'-0"



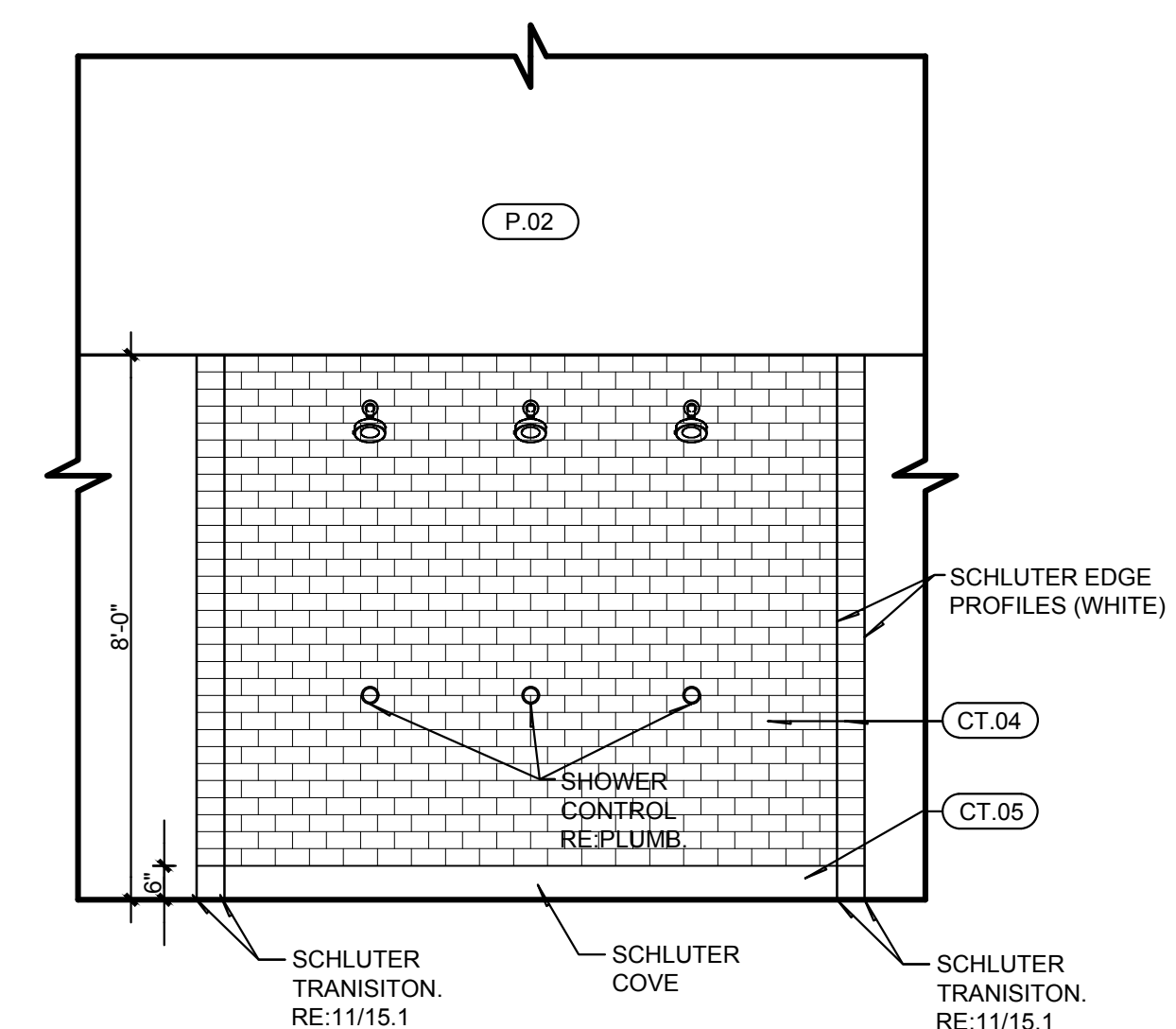
18 CHANGING STALLS
SCALE: 3/8" = 1'-0"



19 ADA STALL
SCALE: 3/8" = 1'-0"



20 REG. STALL
SCALE: 3/8" = 1'-0"



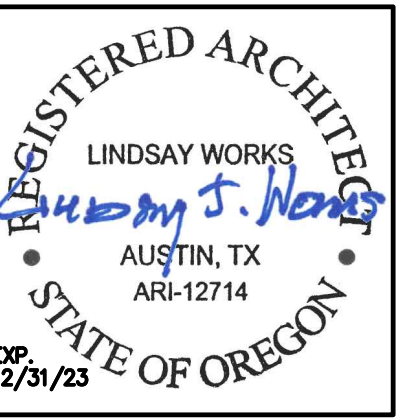
21 RINSE AREA
SCALE: 3/8" = 1'-0"

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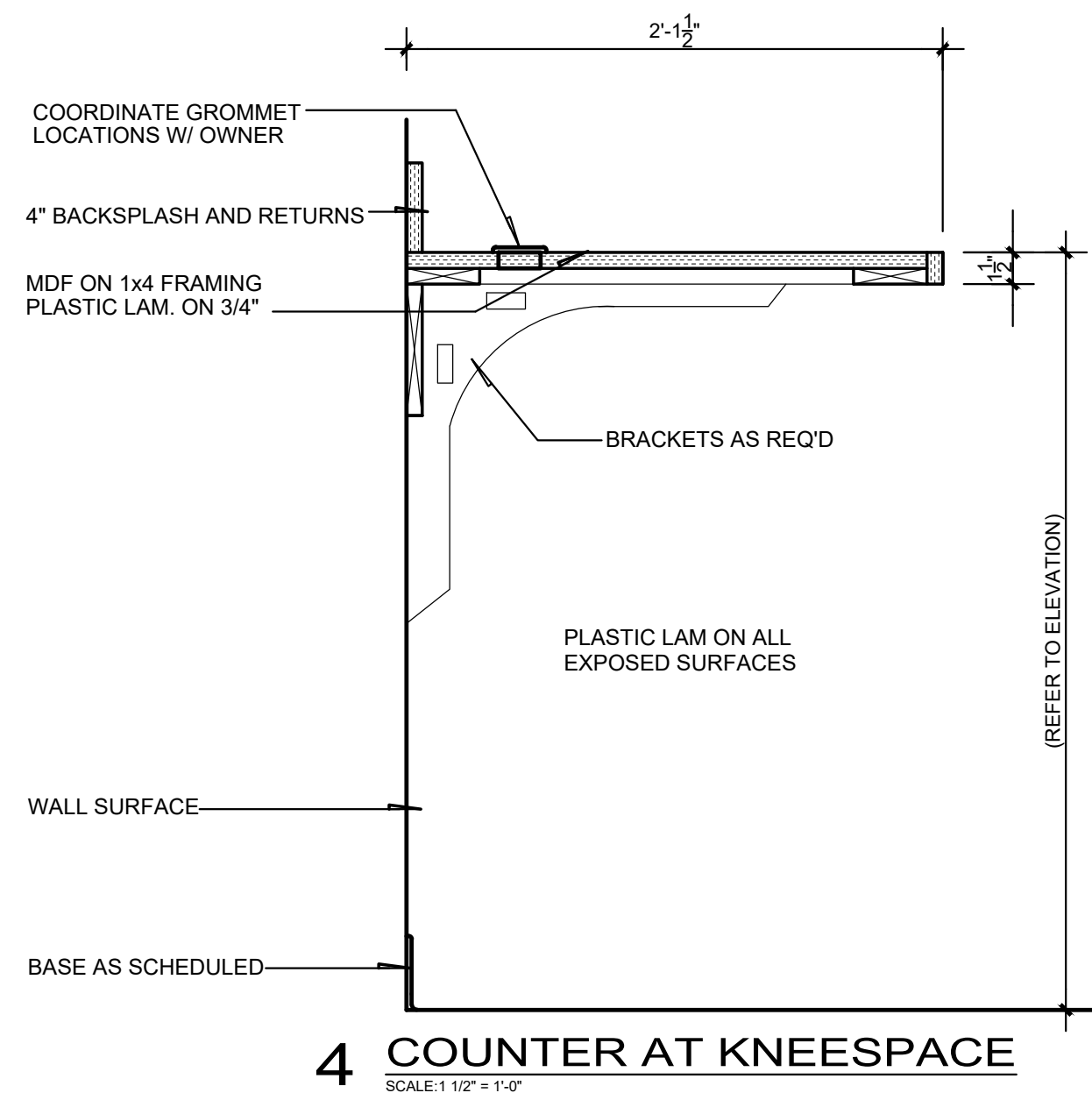
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2301

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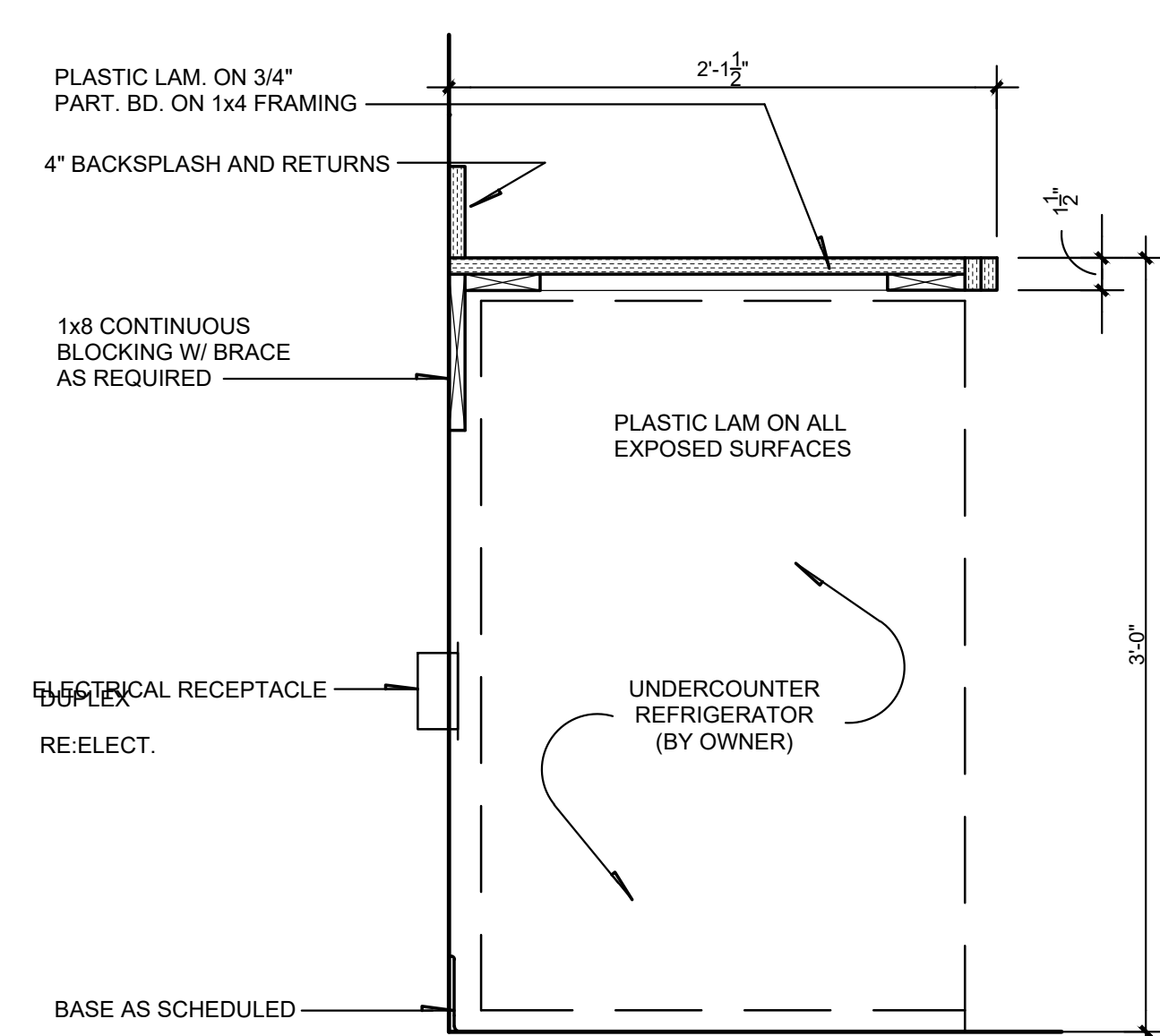
A10.2

Sheet Title

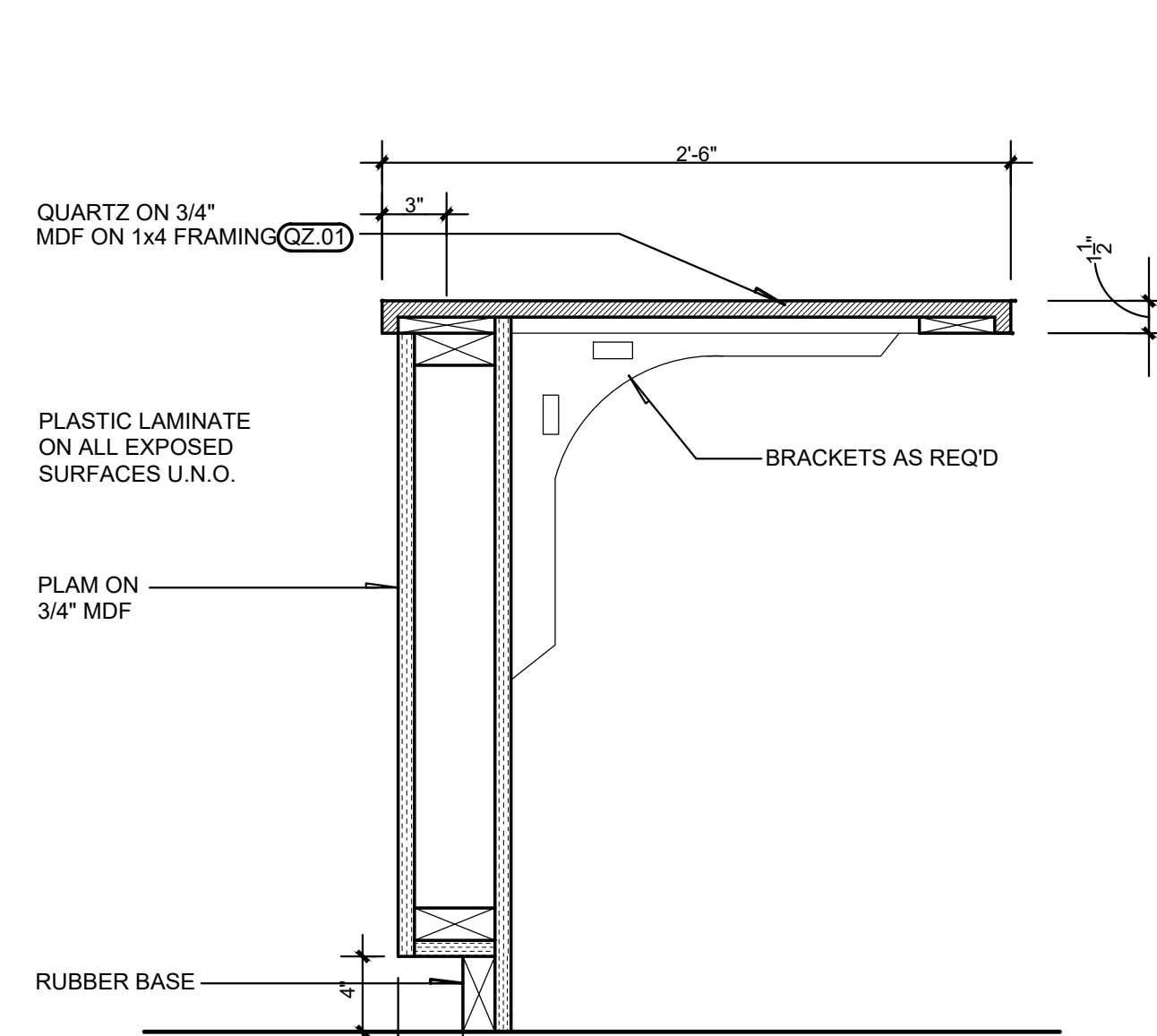
Interior Elevations



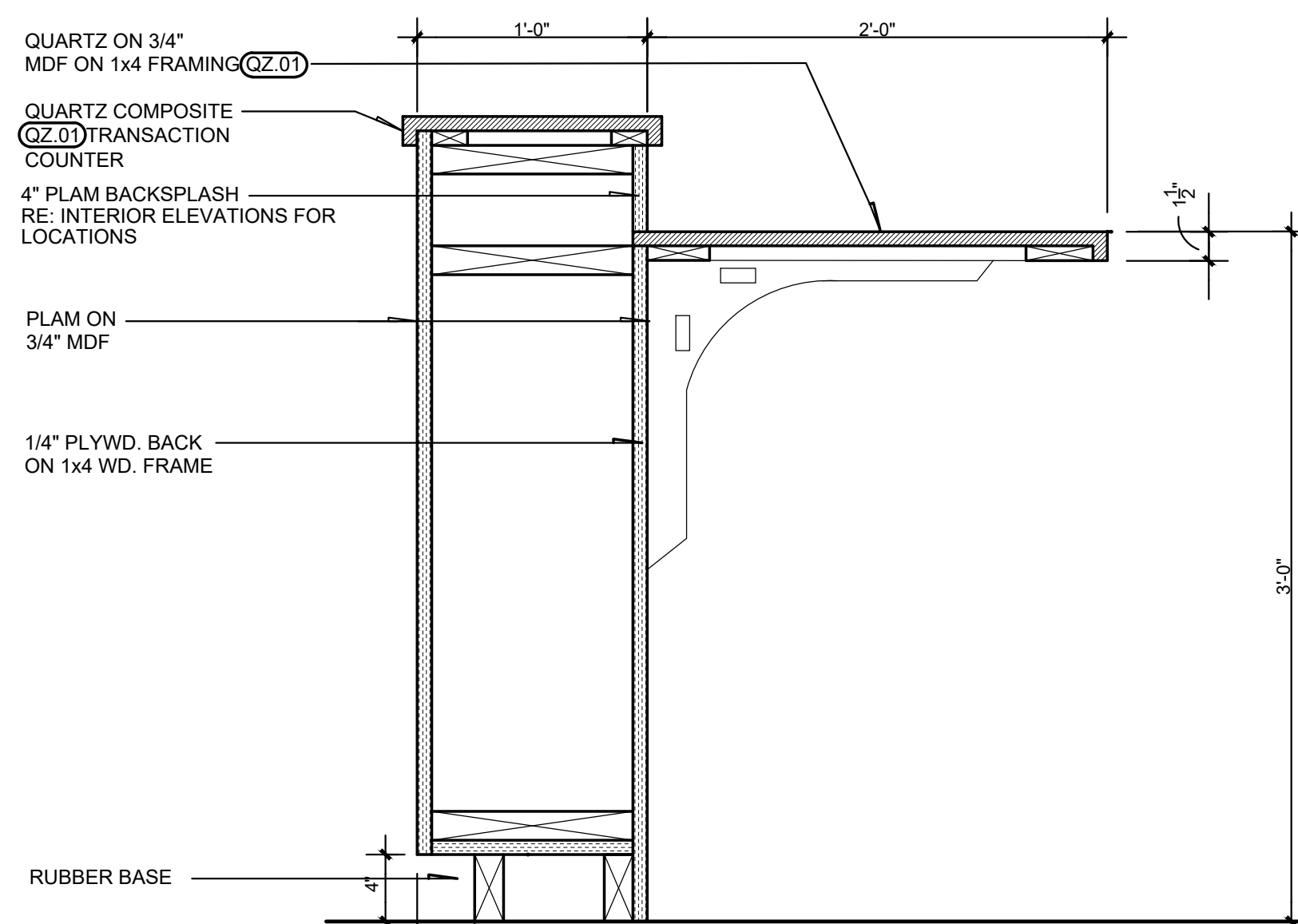
4 COUNTER AT KNEESPACE
SCALE: 1/12" = 1'-0"



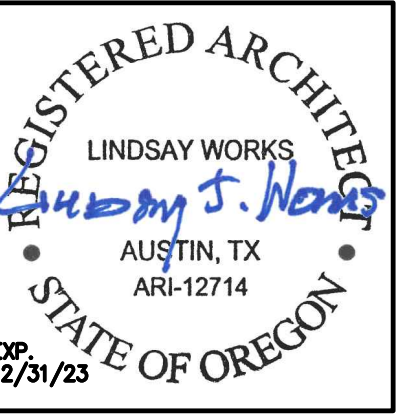
3 U/C FRIDGE CABINET
SCALE: 1/12" = 1'-0"



2 BASE CABINET
SCALE: 1/12" = 1'-0"



1 RECEPTION BASE CABINET DETAIL
SCALE: 1/12" = 1'-0"



Date
06.23.2023

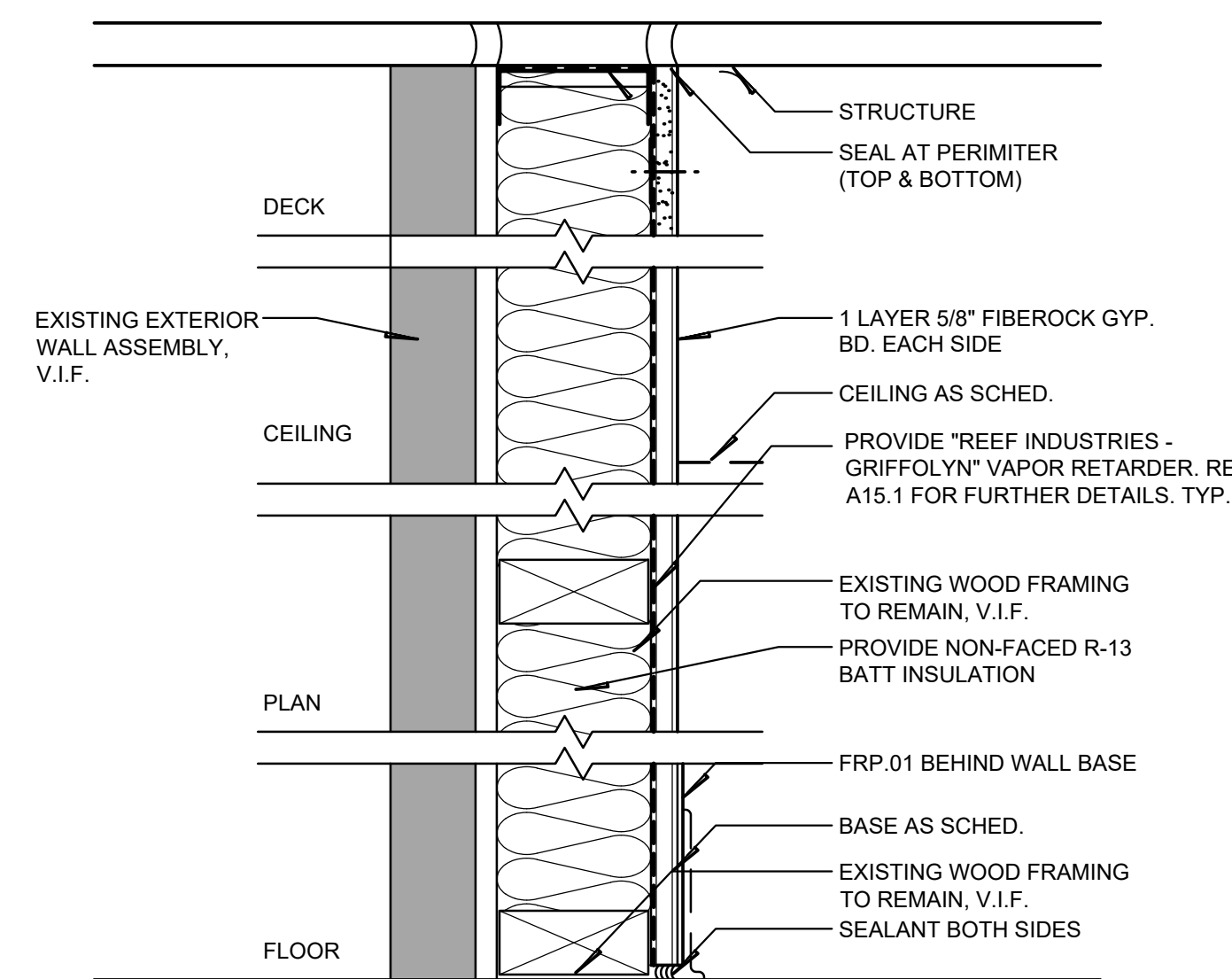
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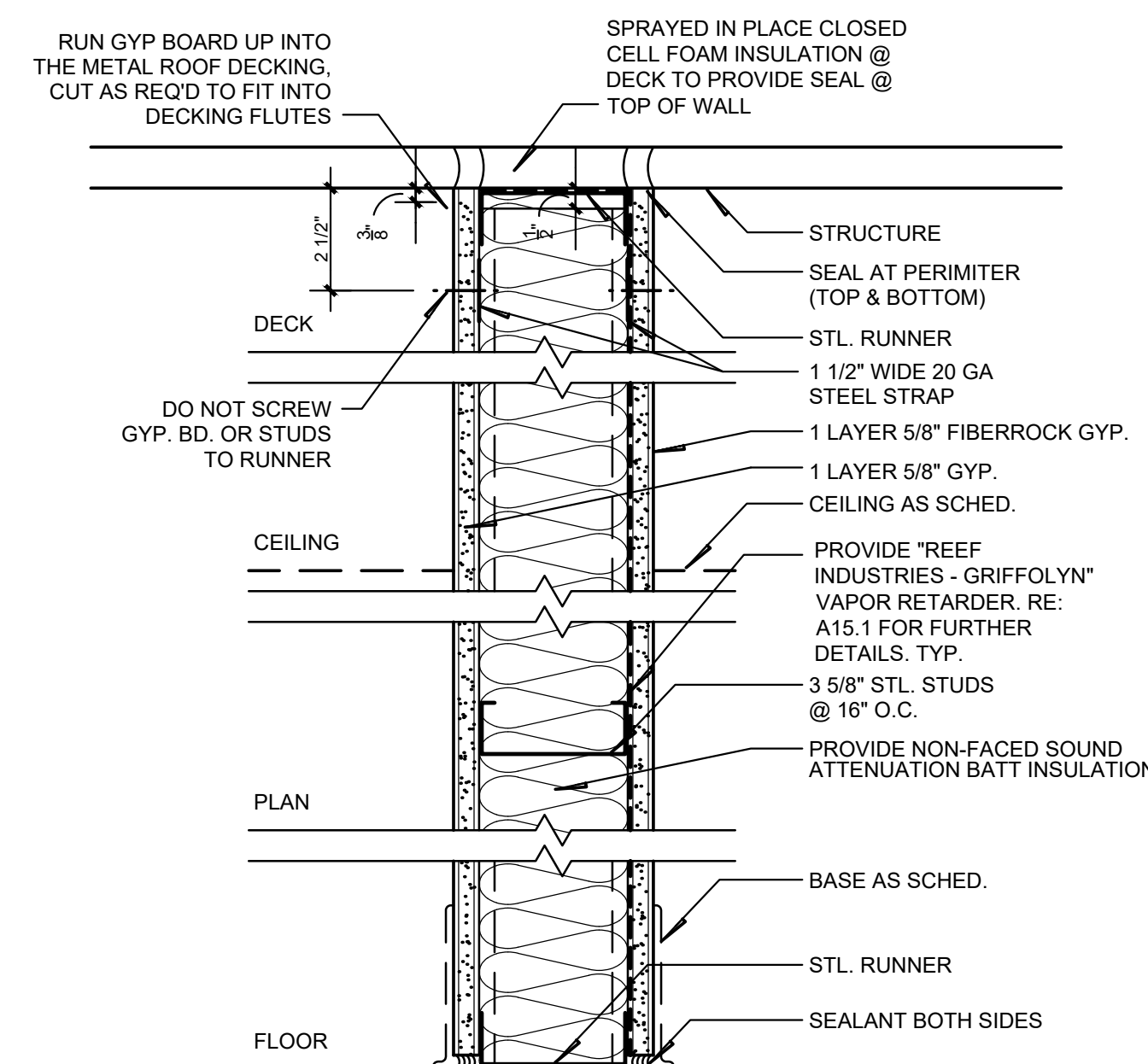
Sheet No.

Sheet Title

A11.1 Millwork Details

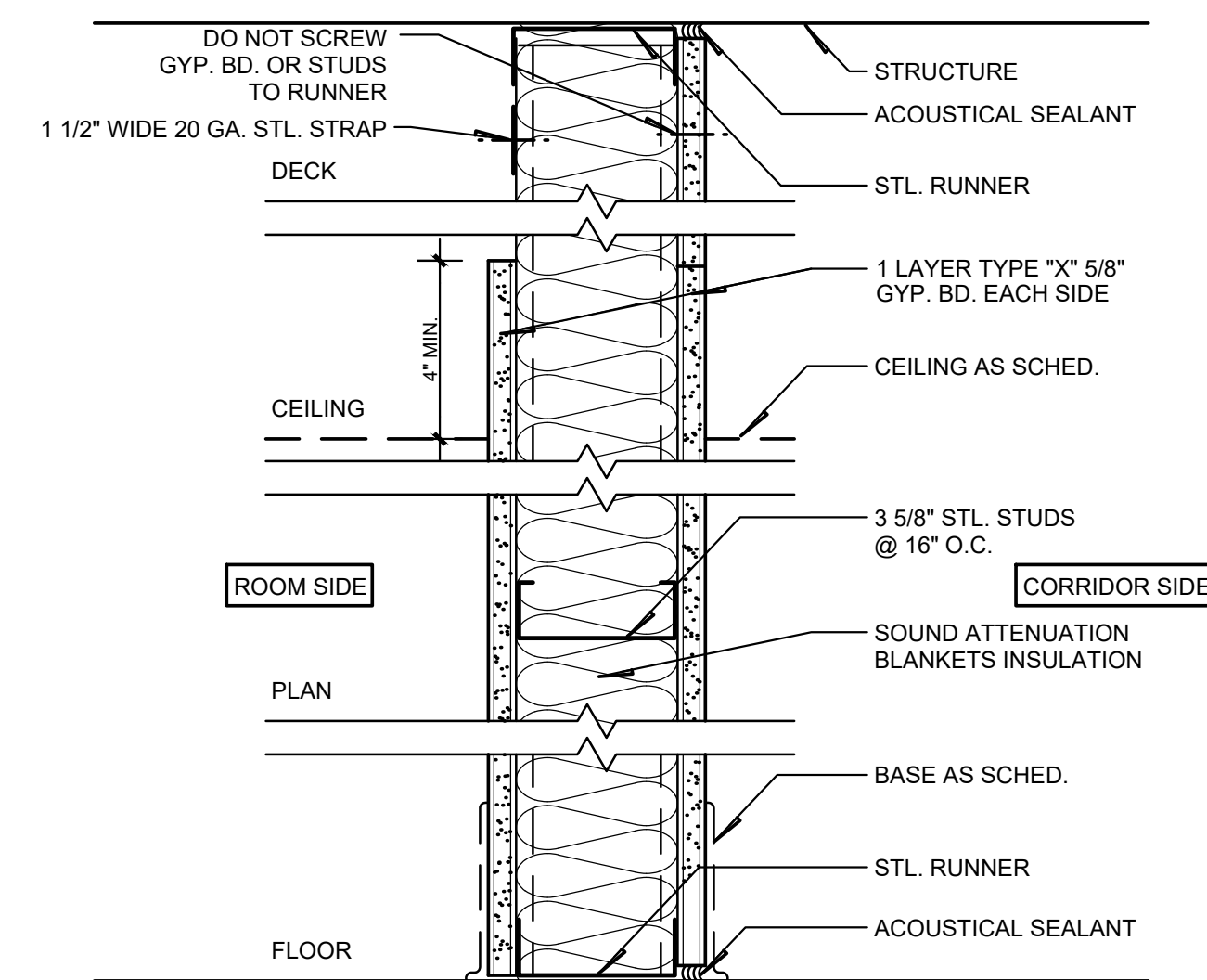


X PERIMETER WALL - NON RATED



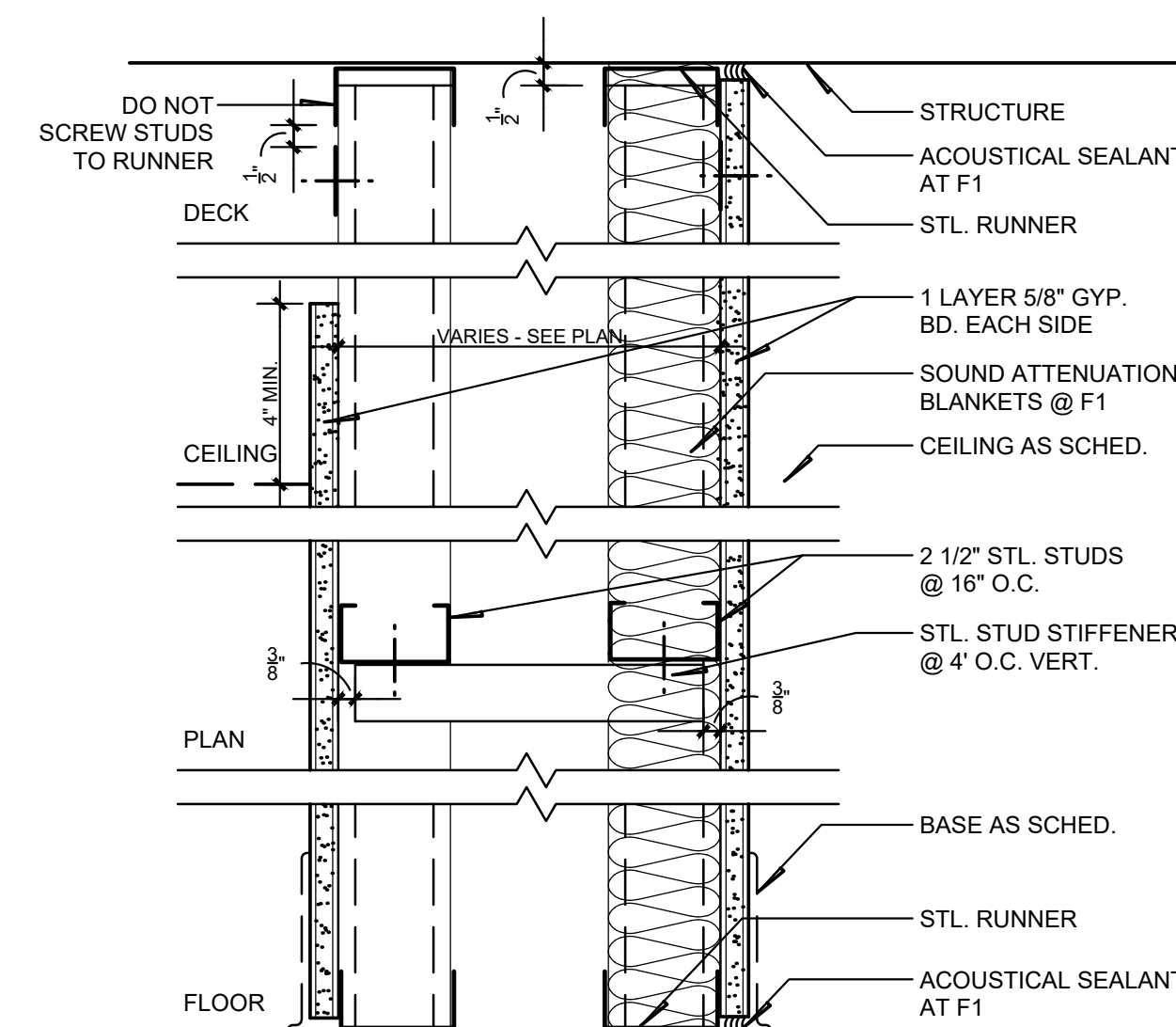
B AS DRAWN - NON-RATED

B1 AS DRAWN EXCEPT W/ 6" STL. STUDS. USE FURRING MEMBERS AS REQ'D. TO ALIGN FINISHED FACE WITH ADJACENT WALLS.
B2 AS DRAWN EXCEPT W/ OUT VAPOR RETARDER.



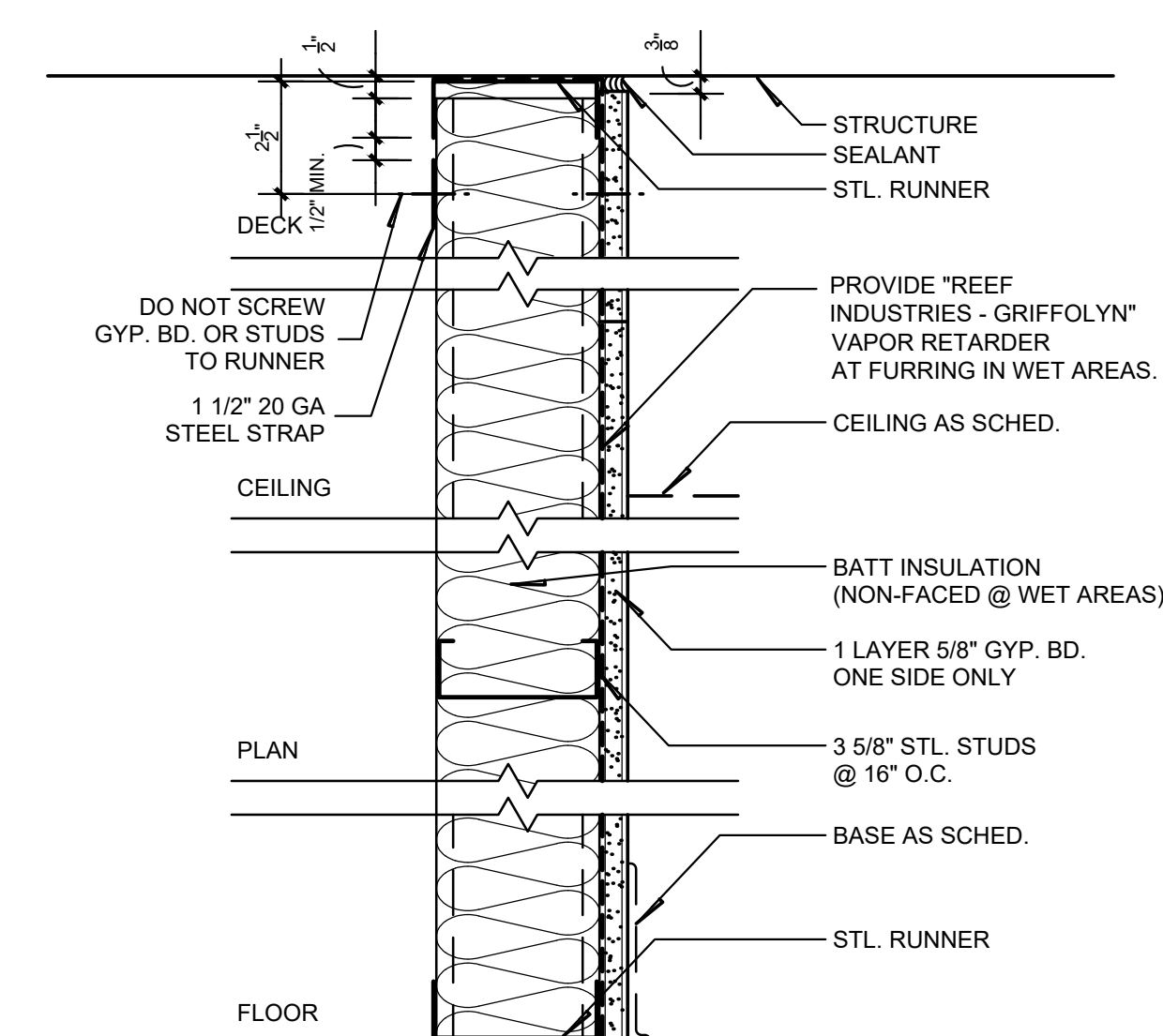
U ACOUSTICAL NON RATED

U1 AS DRAWN EXCEPT W/ 6" STL. STUDS
U2 AS DRAWN EXCEPT WITHOUT INSULATION



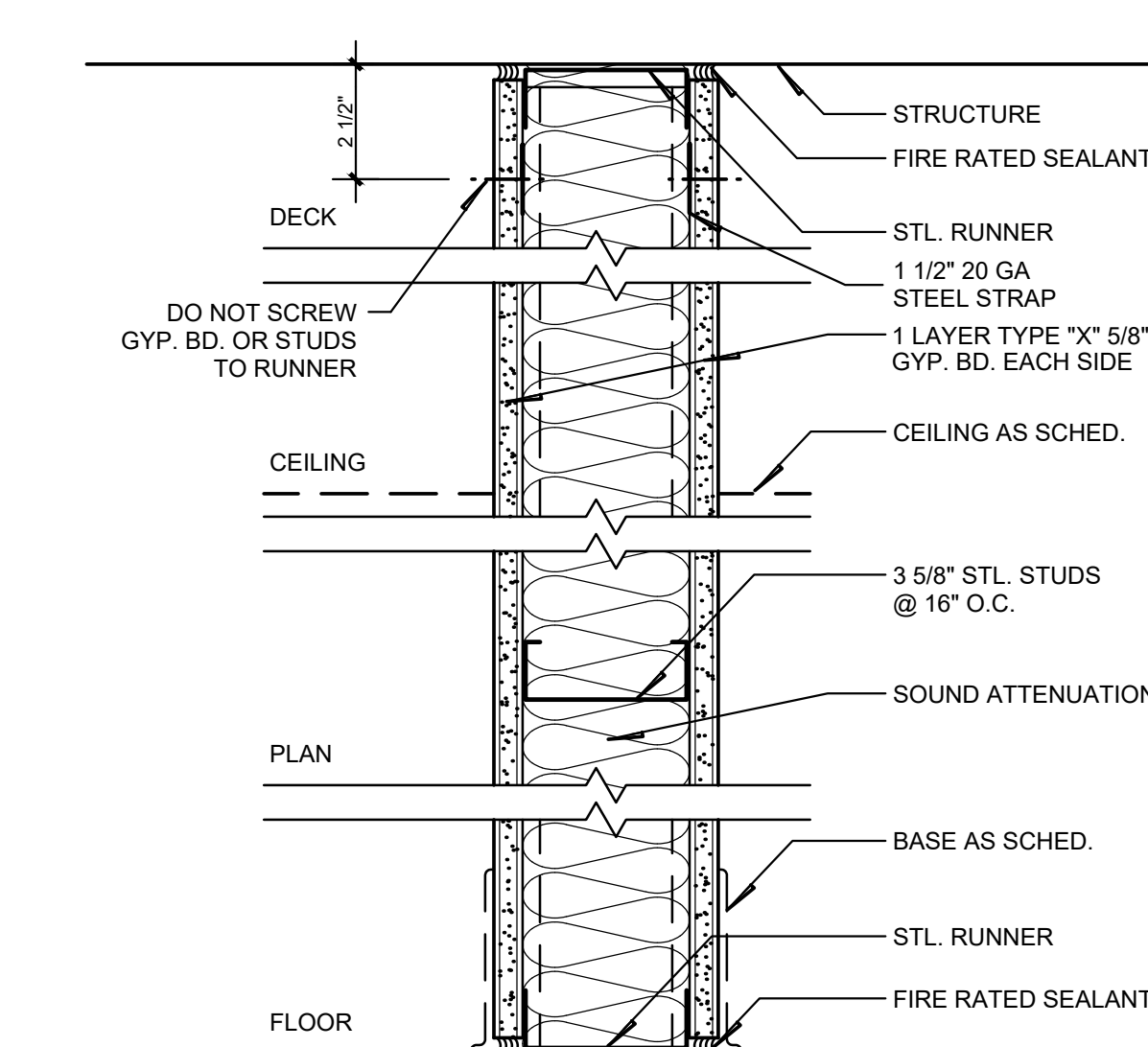
E2 CHASE WALL - NON-RATED

E3 AS DRAWN EXCEPT W/ 3 5/8" STUDS



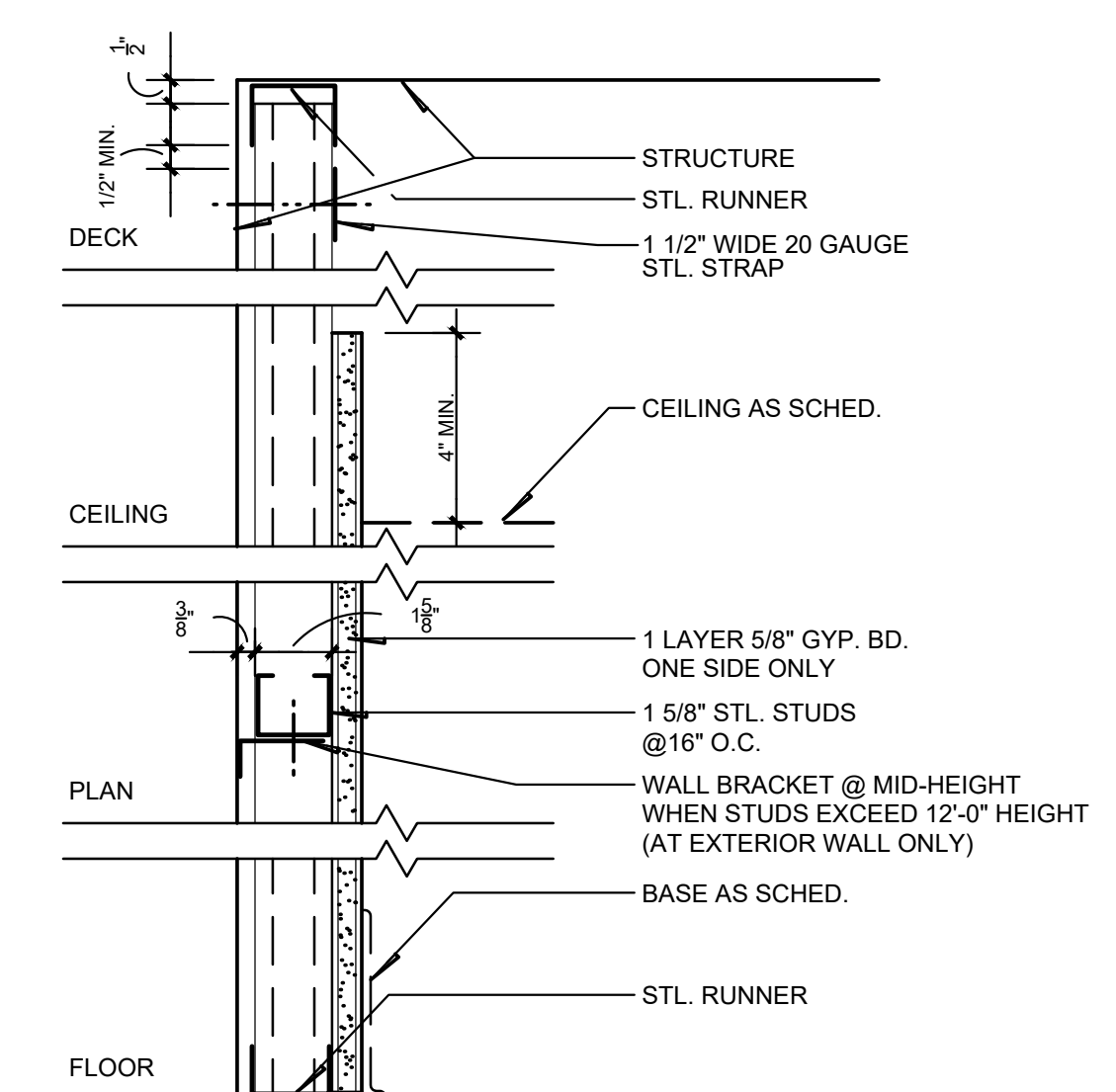
M AS DRAWN

M1 AS DRAWN EXCEPT W/ 1 5/8" STUDS
M2 AS DRAWN EXCEPT W/ 2 1/2" STUDS
M3 AS DRAWN EXCEPT W/ 6" STUDS



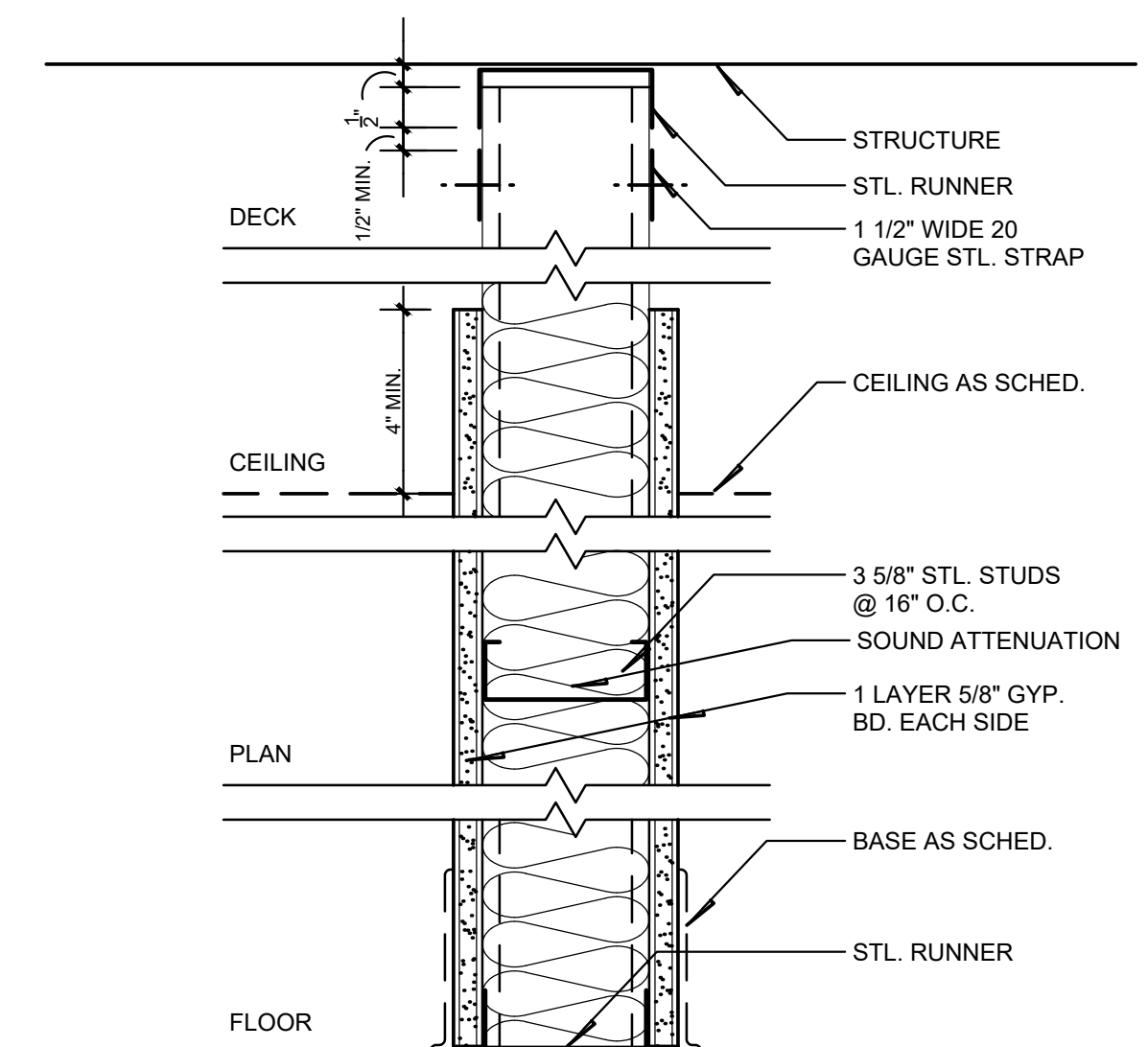
C 1 HOUR RATED

C1 AS DRAWN W/ 6" STL. STUDS @ 16" O.C.
C2 AS DRAWN EXCEPT W/ 6" STL. STUDS AND SOUND ATTENUATION BLANKETS



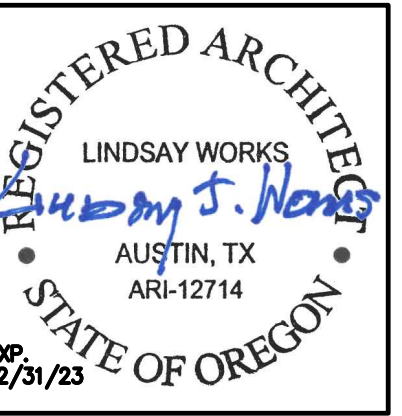
L FURRED WALL

L1 AS DRAWN EXCEPT W/ 2 1/2" STUDS
L2 AS DRAWN EXCEPT W/ 3 5/8" STUDS
L3 AS DRAWN EXCEPT W/ 6" STUDS



A AS DRAWN - NON RATED

A1 AS DRAWN W/ 6" STL. STUDS @ 16" O.C.

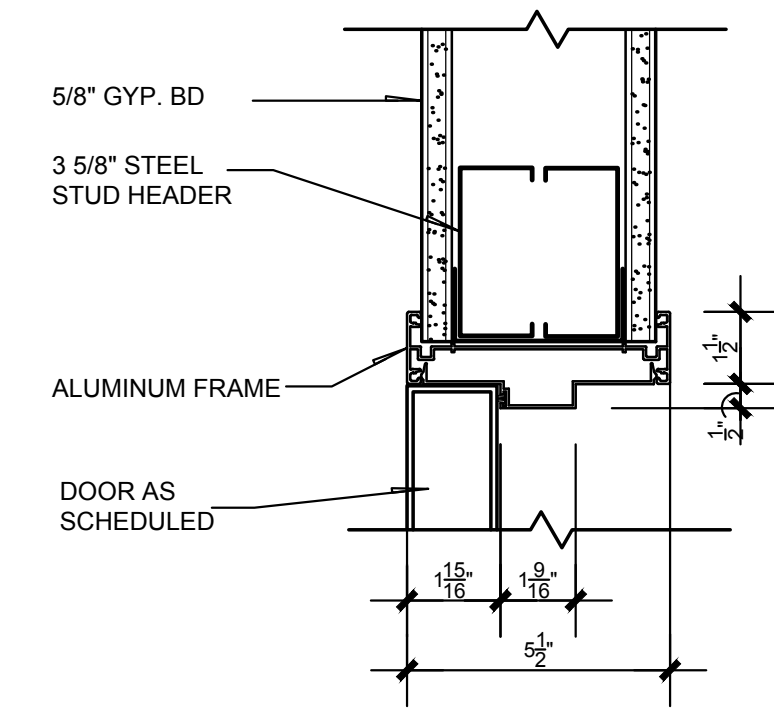


Date
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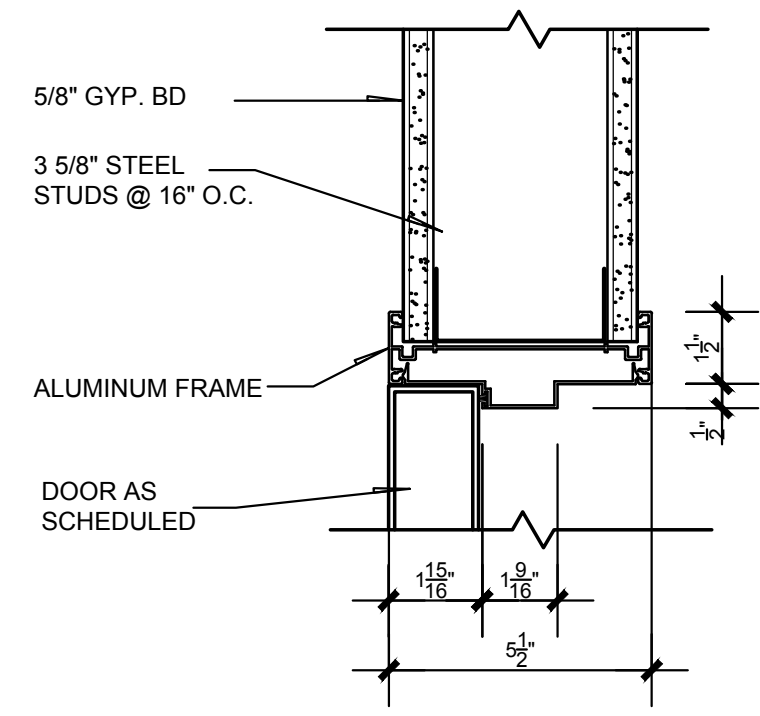
Project No.
2301
Sheet No.

A12.1
Sheet Title

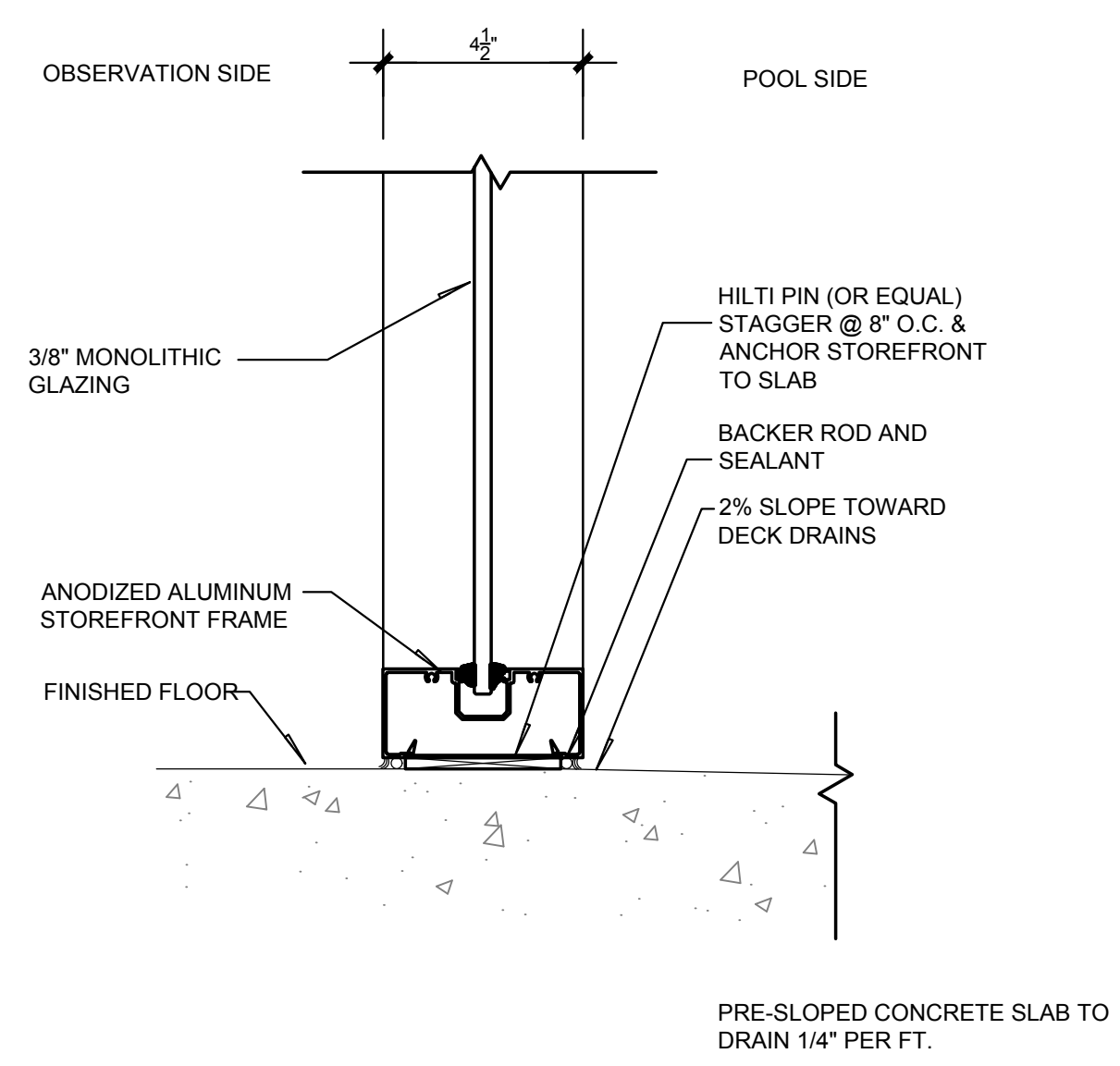
Partition Types



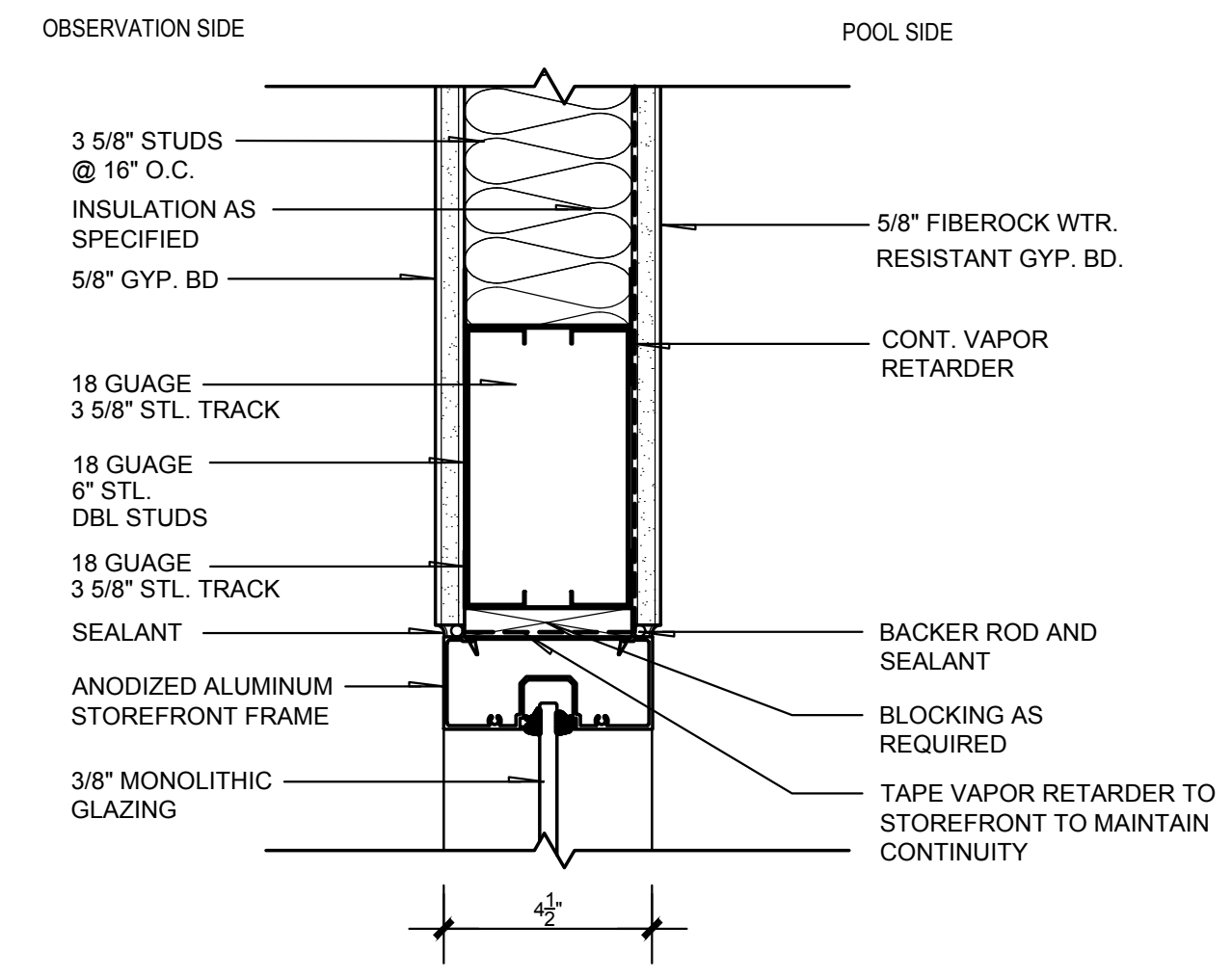
1 TYP. DOOR HEAD
SCALE: 3/8"=1'-0"



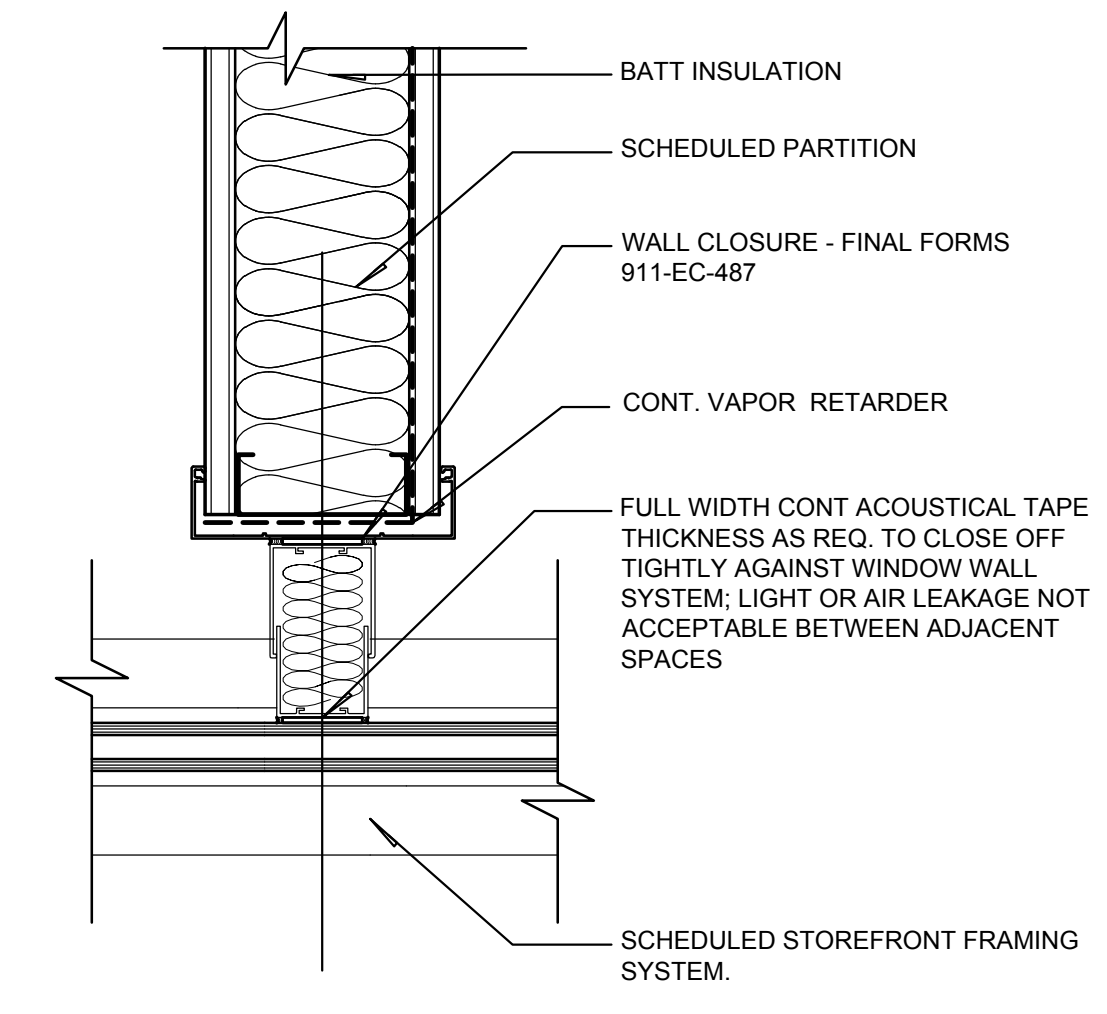
2 TYP. DOOR JAMB
SCALE: 3/8"=1'-0"



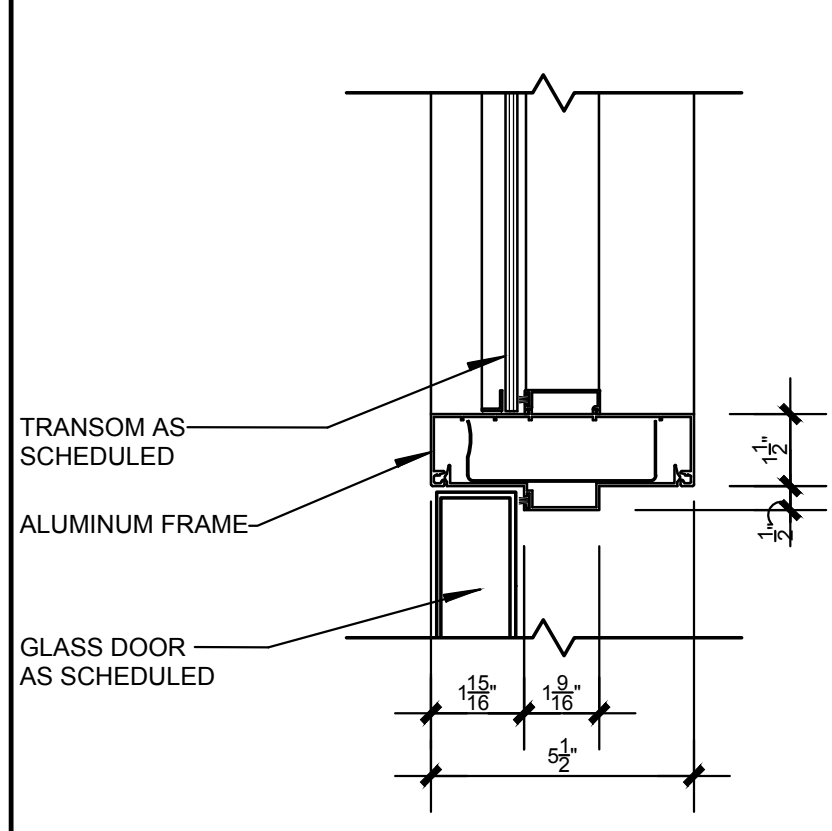
3 POOL WINDOW SILL
SCALE: 3/8"=1'-0"



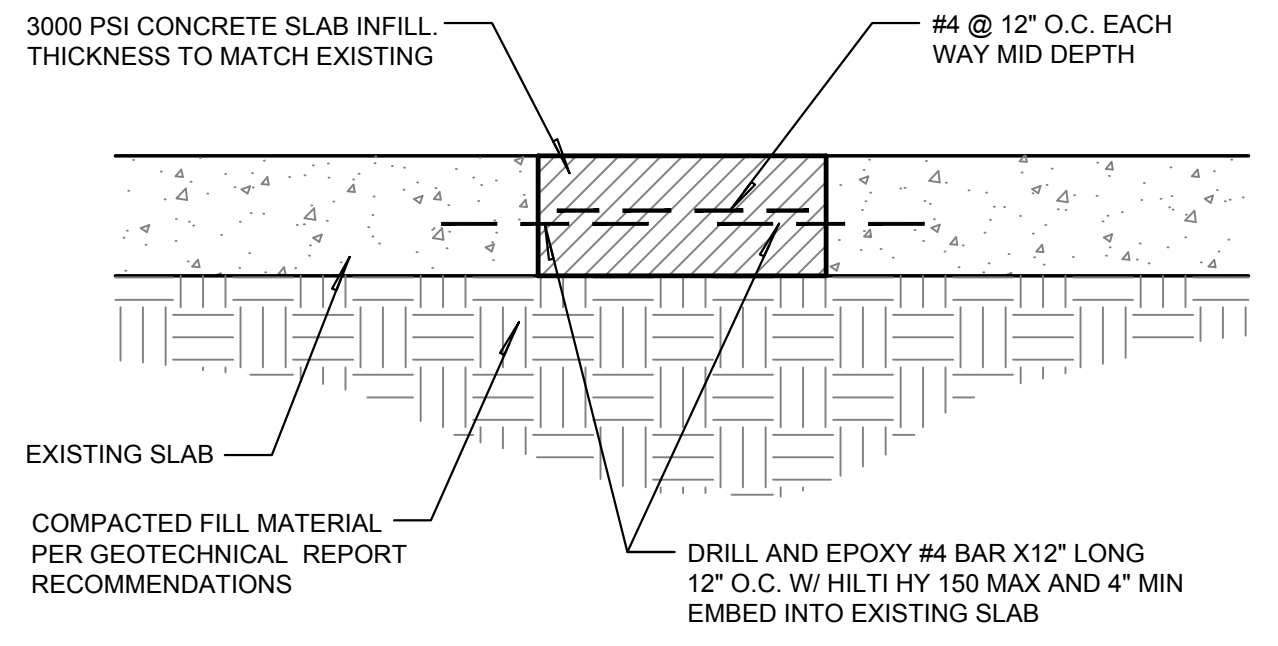
4 POOL WINDOW HEAD
SCALE: 3/8"=1'-0"



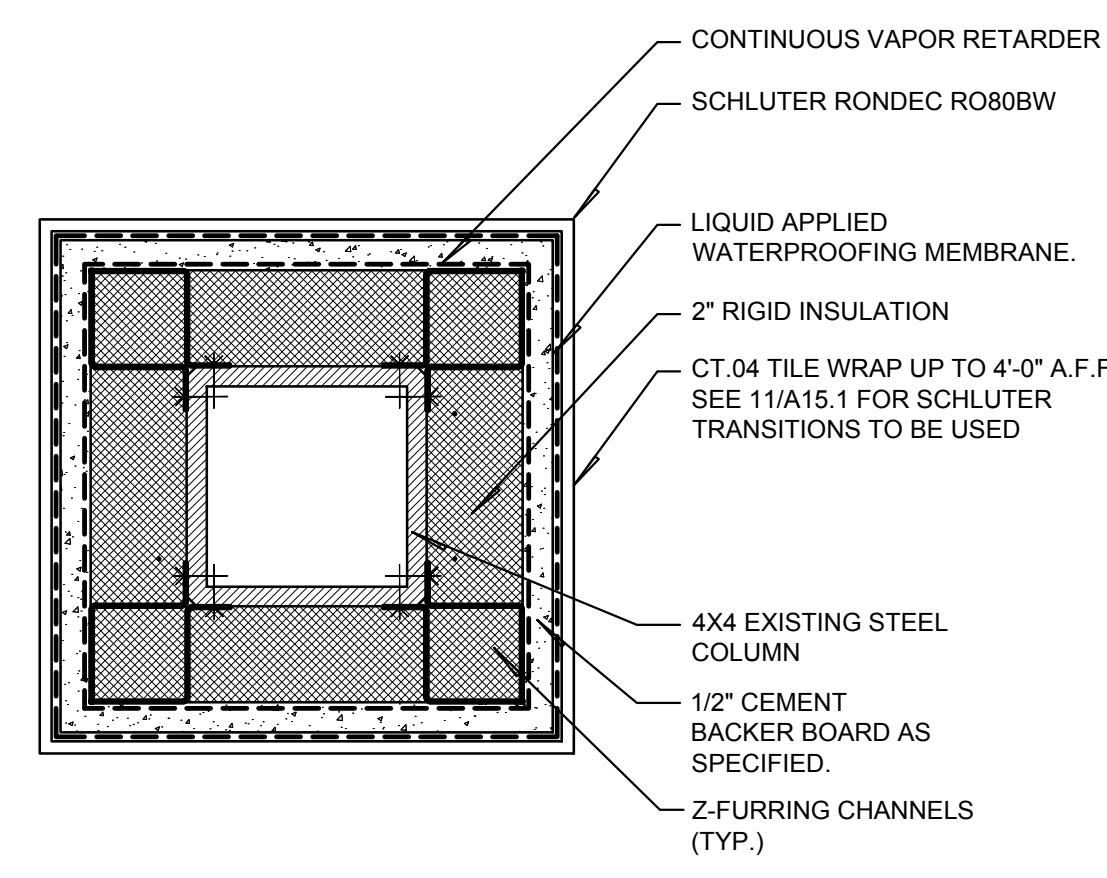
5 DETAIL @ WINDOW MULL
SCALE: 3/8"=1'-0"



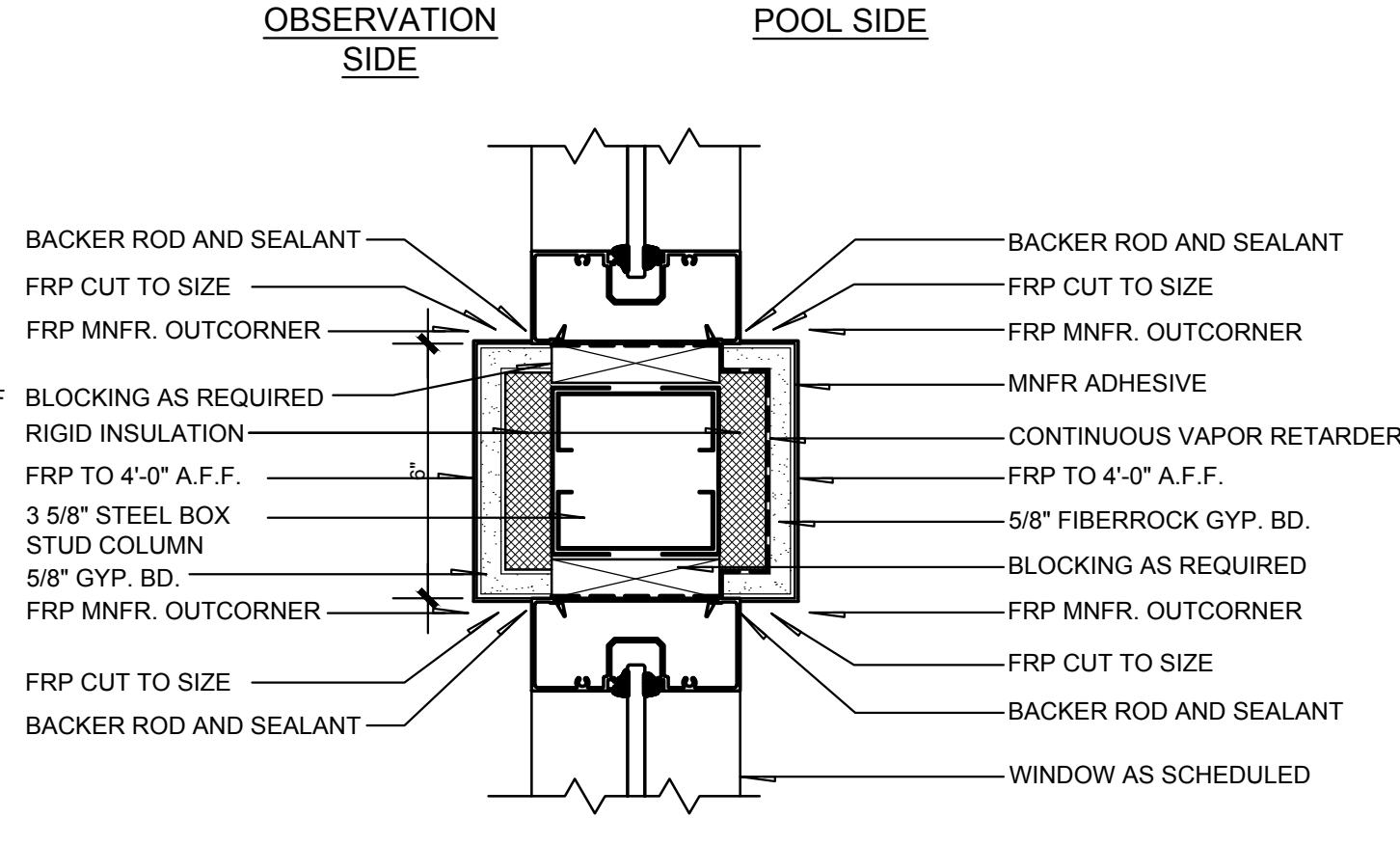
7 POOL DOOR HEAD
SCALE: 3/8"=1'-0"



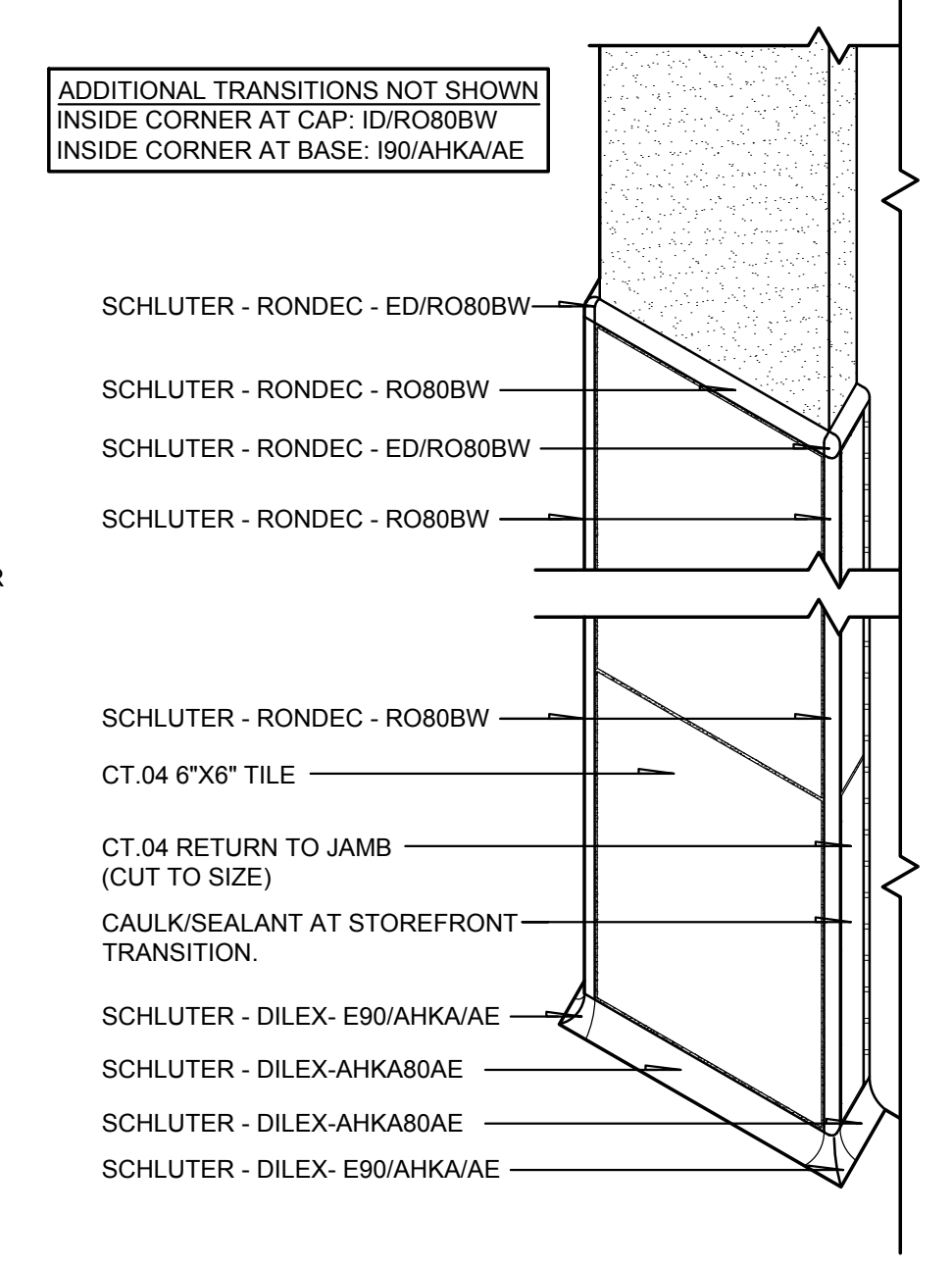
8 TYP SLAB INFILL
SCALE: 1 1/2"=1'-0"



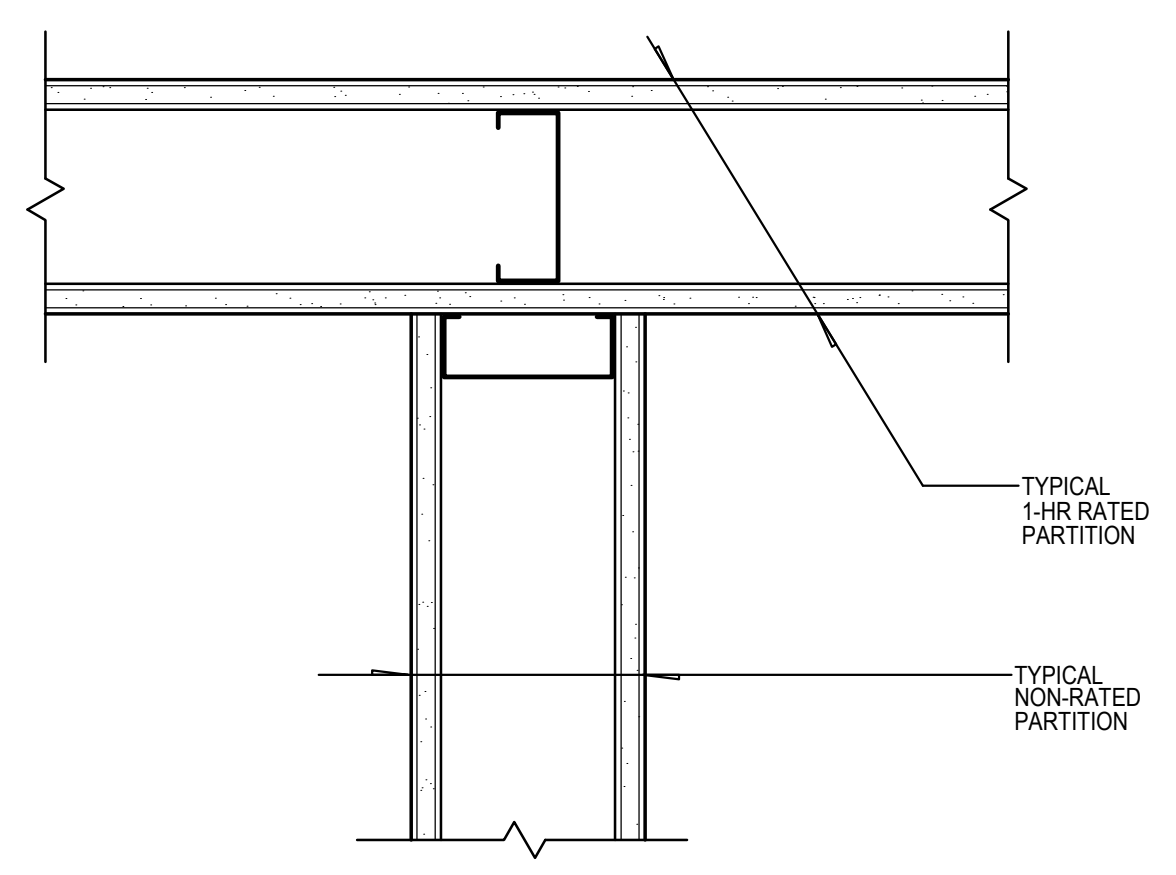
9 COLUMN FURRING
SCALE: 3/8"=1'-0"



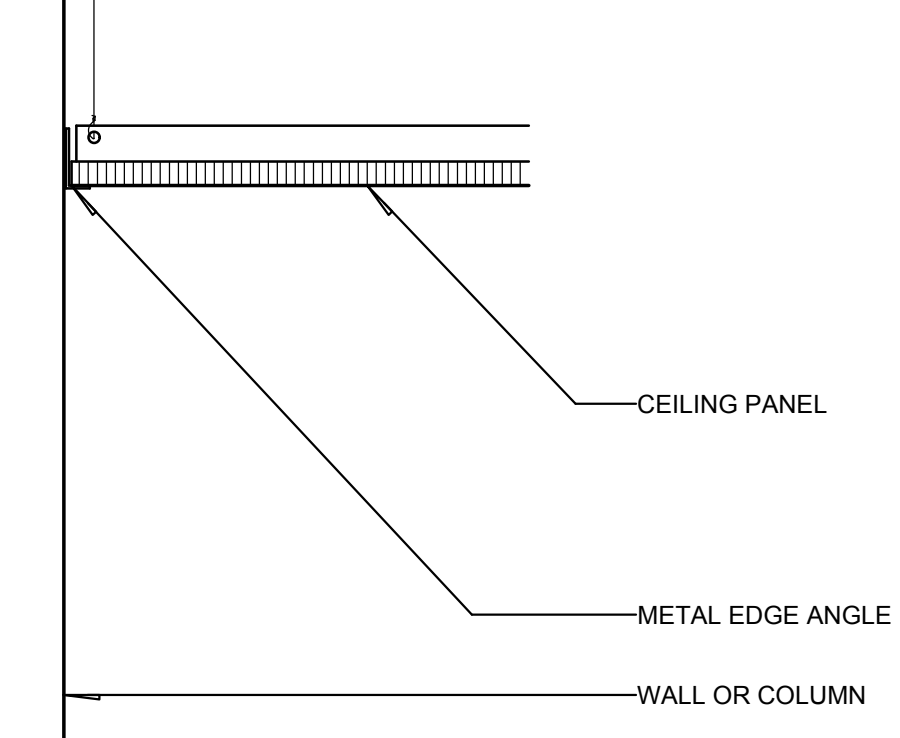
10 BOX STUD COLUMN
SCALE: 3/8"=1'-0"



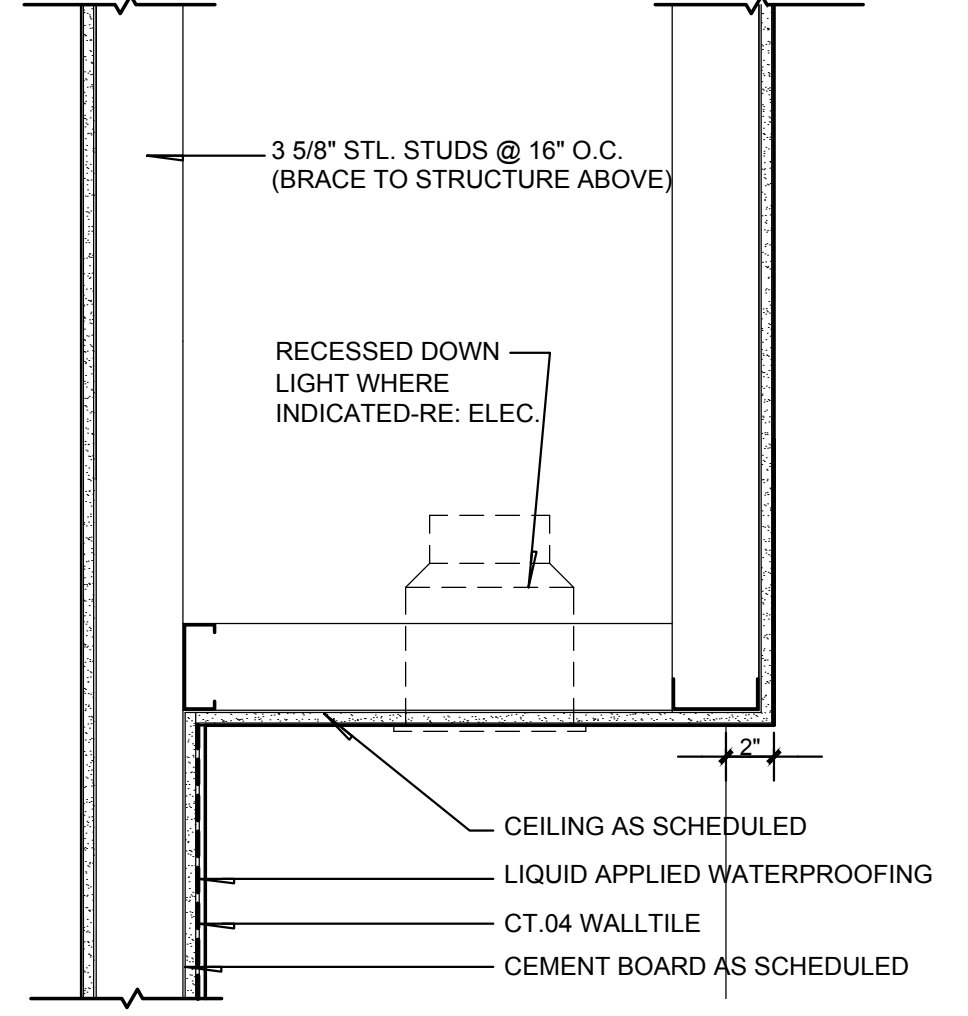
11 SHOWER TILE WRAP
SCALE: 3/8"=1'-0"



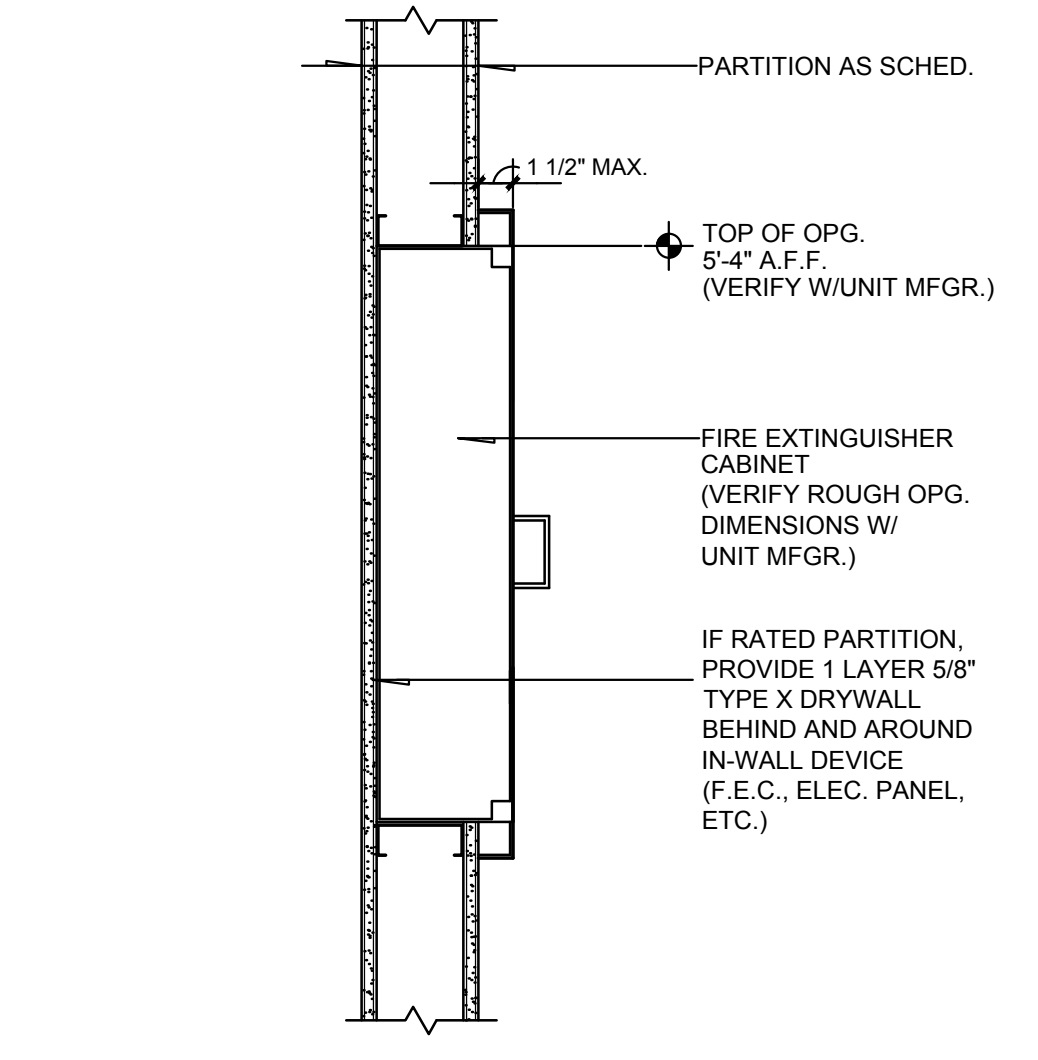
12 PARTITION INTERSECTION
SCALE: 3/8"=1'-0"



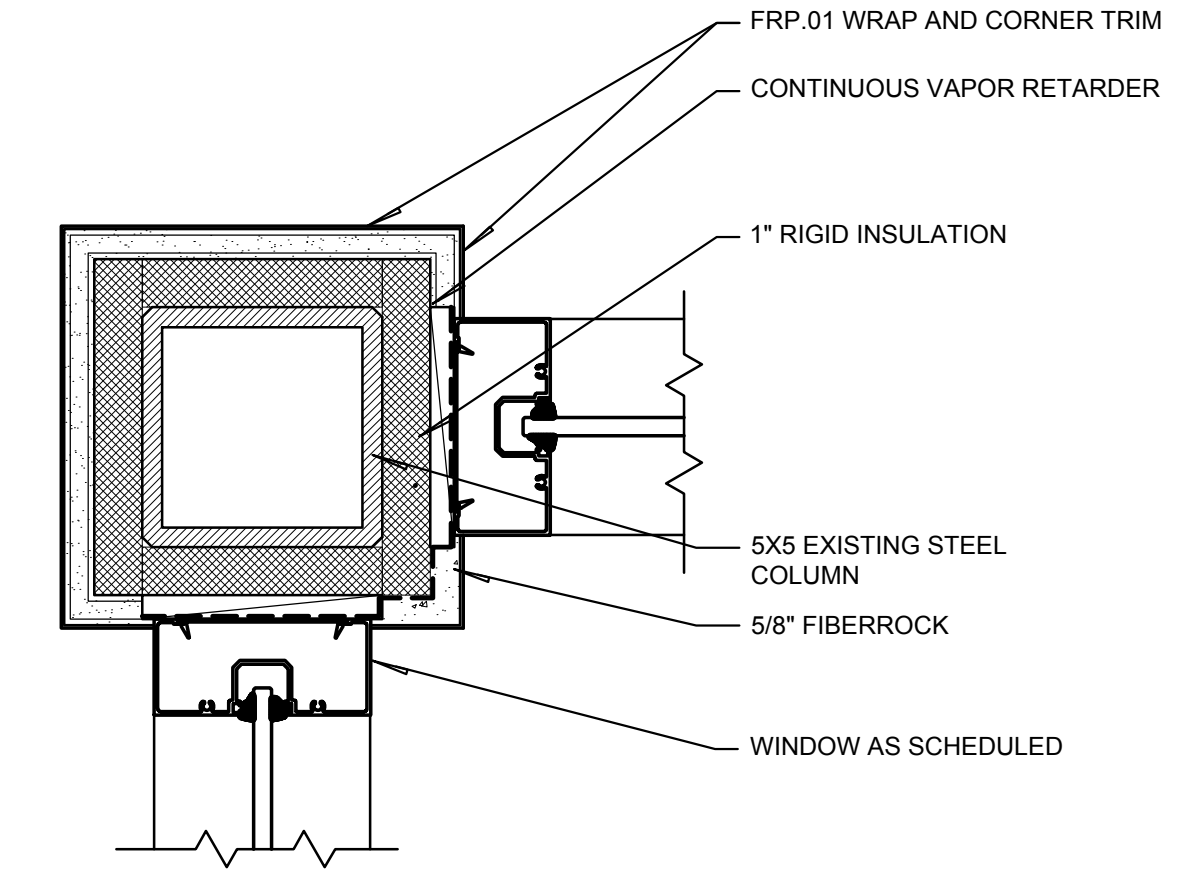
13 SUSPENDED ACT DETAIL
SCALE: 1 1/2"=1'-0"



14 SOFFIT DETAIL
SCALE: 1 1/2"=1'-0"



15 DETAIL @ FIRE EXTINGUISHER CAB.
SCALE: 1 1/2"=1'-0"

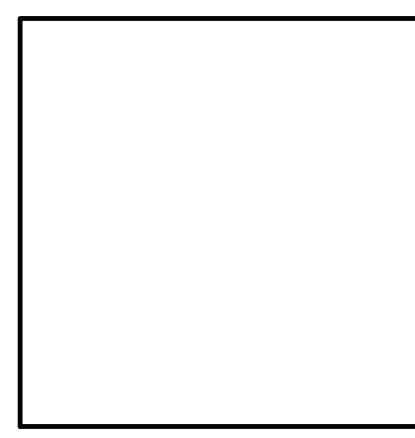


16 POOL DOOR JAMB
SCALE: 3/8"=1'-0"

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EMLER SWIM SCHOOL
TANASBOURNE

1225 WATERHOUSE AVE
BEAVERTON, OREGON 97223



Date
06.23.2023

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248 ADDIE ROY ROAD, SUITE B-301 AUSTIN TX 78746
VOICE 512.327.4404 EMAIL pg@pgarchitects.com

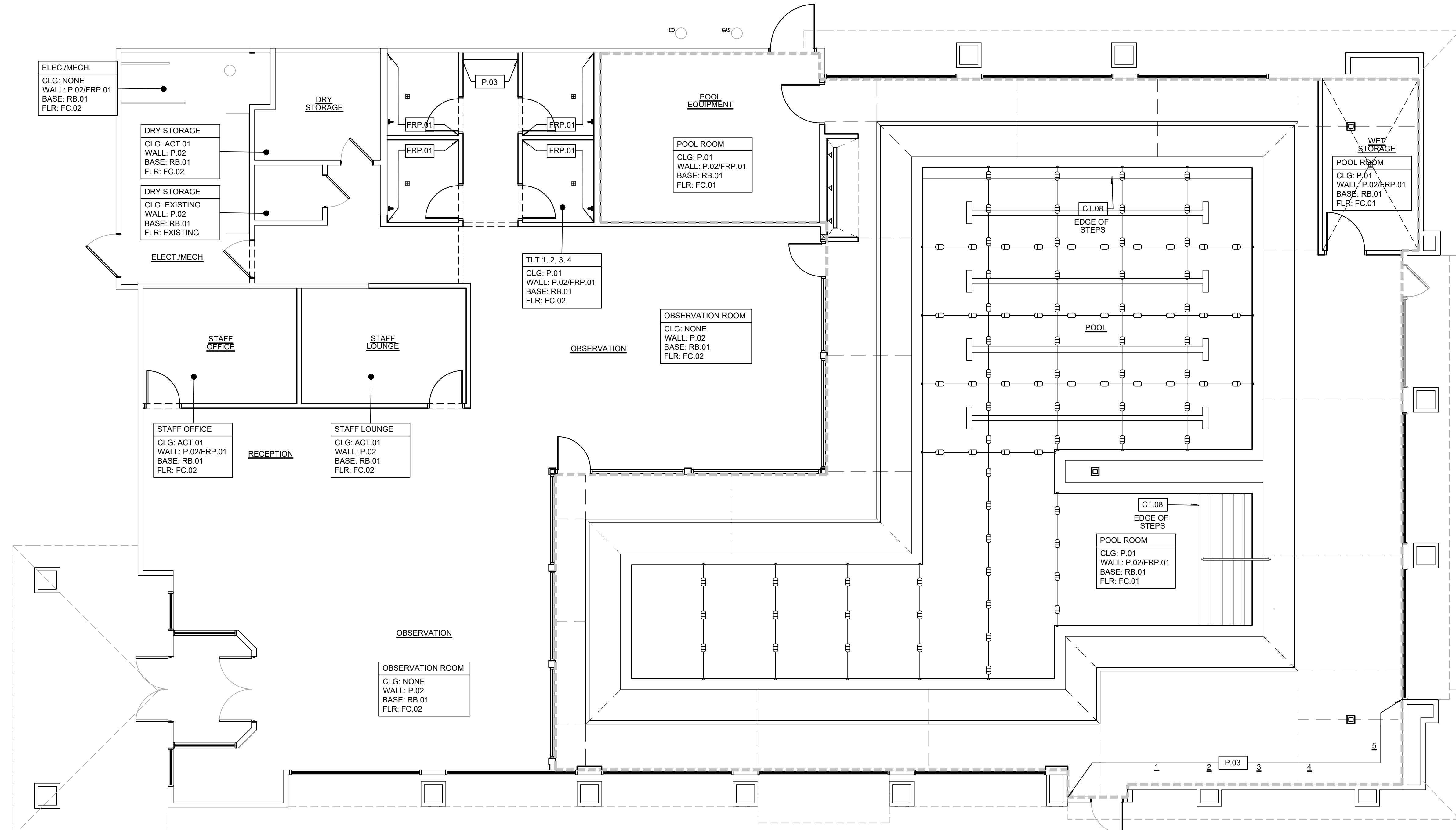
Project No.
2301
Sheet No.
A15.1
Sheet Title
Miscellaneous Details

**PRODUCT LIST
FINISH SPECIFICATIONS**

| CERAMIC TILE | GROUT | PLASTIC LAMINATE | SCHLUTER TRIM | PAINT |
|--|---|--|--|---|
| <p>CT.04 LOCATION: WALL TILE IN CHANGING AREA AND RESTROOMS MFG: AMERICAN OLEAN STYLE: BRIGHT AND MATTE PROFILES, 3X6 FLAT FIELD TILE COLOR: ICE WHITE 0025 GROUT: GR.01</p> <p>CT.05 LOCATION: WALL TILE IN WET ROOM MFG: AMERICAN OLEAN STYLE: BRIGHT WALL TILE COLOR: ICE WHITE 0025 SIZE: 6" X 6"</p> <p>CT.07 LOCATION: POOL WATERLINE TILE MFG: AMERICAN OLEAN STYLE: BRIGHT WALL TILE COLOR: PEACOCK BLUE Q084 SIZE: 3" X 6"</p> <p>CT.08 LOCATION: POOL TOE TILE (STEPS & LANE MARKERS) MFG: AMERICAN OLEAN STYLE: UNGLAZED COLOR: A22 STORM GREY SIZE: 2" X 2" MOSAIC (TOTAL WIDTH OF 6")</p> <p>CP.01 LOCATION: POOL COPING MFG: FEDERAL STONE STYLE: PRECAST PROFILE: AQ (SAFETY EDGE) COLOR: 4000 (GREY) SIZE: 12" X 24" X 2.75"</p> | <p>GR.01 MFG: LATICRETE COLOR: 89 SMOKE GREY TYPE: PERMACOLOR.</p> <p>RUBBER BASE RB.01 MFG: JOHNSONITE STYLE: STANDARD 4" COVE BASE COLOR: PEBBLE 32 SIZE: 4"</p> <p>ACOUSTICAL CEILING TILES ACT.01 LOCATION: STAFF OFFICE, STAFF LOUNGE, DRY STORAGE, CORRIDOR MFG: ARMSTRONG STYLE: EQUINE, SQUARE LAY-IN SIZE: 2X2 COLOR: 1772 WHITE</p> <p>WALL PROTECTION FRP.01 LOCATION: 48" A.F.F. POOL ROOM, MISC. AREAS MFG: MARLITE PATTERN: PEBBLED FRP COLOR: S 100 WHITE PROVIDE TRIM AT TOP, INCORNER, OUTCORNERS PROVIDE RUBBER BASE OVER TOP AT WALL BASE</p> | <p>PL.04 LOCATION: BREAK/OFFICE COUNTERS MFG: ARBORITE COLOR: P-381 CA SILVER TWILL FINE VELVET FINISH</p> <p>QUARTZ QZ.01 LOCATION: RECEPTION DESK LOWER COUNTER, RESTROOM COUNTERTOPS MFG: WILSONART COLOR: ARASHI Q4011</p> <p>CONCRETE FC.01 NEW SEALED CONCRETE W/ LIGHT BROOM FINISH FC.02 LIGHT BROOM FINISHED CONCRETE AT EXISTING - GRIND / PREPARE FLOOR PER MNFR GUIDELINES FOR NEW AND OLD CONCRETE - REMOVE ALL ADHESIVES / FLOOR PATCHING DOWN TO CONCRETE SLAB WHERE EXISTING - PATCH AND REPAIR FLOOR TO SMOOTH SURFACE - PROVIDE CONCRETE RESURFACER AND LIGHT BROOM FINISH</p> | <p>MFG: SCHLUTER SYSTEMS TYPE: RONDEC PROFILE - ALUMINUM COLOR: ALUMINUM - BRIGHT WHITE LOCATION: VERTICAL AND HORIZONTAL TILE EDGES UNLESS SPECIFIED OTHERWISE. SIZE: CONTRACTOR TO ORDER SCHLUTER SIZED PER ASSOCIATED TILE THICKNESS, RE: MFG SPECIFICATIONS.</p> <p>MFG: SCHLUTER SYSTEMS TYPE: RONDEC INSIDE AND OUTSIDE CORNERS - ALUMINUM COLOR: MATCH COLOR TO CORRESPONDING VERTICAL/HORIZONTAL TRIM COLOR LOCATION: ALL INSIDE AND OUTSIDE CORNER TRANSITIONS UNLESS NOTED OTHERWISE SIZE: CONTRACTOR TO ORDER SCHLUTER SIZED PER ASSOCIATED TILE THICKNESS, RE: MFG SPECIFICATIONS.</p> | <p>MFG: SHERWIN WILLIAMS STANDARD WALL FINISH: PRO MAR 200 ZERO VOC INTERIOR LATEX ENAMEL, EG-SHEL.</p> <p>SCRUBABLE WALL FINISH (-S): SCRUBABLE PRO CLASSIC WATERBOURNE INTERIOR ACRYLIC SEMI-GLOSS ENAMEL *PROVIDED IN ALL RESTROOMS*</p> <p>STRUCTURAL EXPOSED STEEL & DECKING: 1-COAT SW MACROPOXY 640 EPOXY PRIMER 2-COATS PRO INDUSTRIAL WATERBASED CATALYZED EPOXY B73 SERIES GLOSS</p> <p>DRYWALL IN POOL AREA: 1-COAT B28W02600 - PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER 2-COATS INDUSTRIAL WATERBASED CATALYZED EPOXY B73 SERIES, EG-SHEL.</p> <p>PAINTING SUBCONTRACTOR TO PROVIDE 3' X 3' SAMPLE OF EACH COLOR ON SITE FOR DESIGNER'S APPROVAL.</p> <p>P.01 ALABASTER, SW7008 P.02 REQUISITE GREY, SW7023 P.03 KILMONO VIOLET, SW6839 P.04 MARINER, SW6766 P.05 GAUNTLET GRAY SW7019</p> |

GENERAL NOTES

- USE SCHLUTER TRIM AT TOP OF ALL TILE WAINSCOT.
- SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL ON ALL INTERIOR FINISHES.
- SUBMIT SEAMING DIAGRAM FOR ARCHITECT'S APPROVAL BEFORE ORDERING AND PRIOR TO INSTALLING MATERIAL.
- ALL FLOOR FINISH TRANSITIONS SHALL OCCUR AT CENTER OF DOOR FRAME, U.N.O.
- SEE FINISH SCHEDULE, DETAILS, RCP & INTERIOR ELEVATIONS FOR CLARIFICATION OF EXTENT OF FINISH MATERIALS.
- ALL MILLWORK FINISHES CLARIFIED ON INTERIOR ELEVATIONS & SECTIONS.
- PROVIDE FINISH SUBMITTALS ON ALL FINISHES FOR REVIEW PRIOR TO PURCHASE.



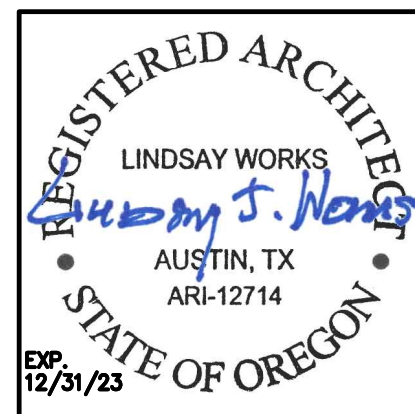
1 FINISH FLOOR PLAN
SCALE: 1/8" = 1'-0"

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**EMLER SWIM SCHOOL
TANASBOURNE**

1225 WATERHOUSE AVE

BEAVERTON, OREGON 97223



Date
06.23.2023

Polkington Group Architects, Inc.
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Project No.
2301
Sheet No.
A16.1
Sheet Title
Finish Floor Plan & Product List

STRUCTURAL - GENERAL NOTES

General Requirements

GOVERNING CODE: The design and construction of this project is governed by the "Oregon Structural Specialty Code (OSSC)", 2019 Edition, hereafter referred to as the OSSC, as adopted and modified by the City of Beaverton, OR understood to be the Authority Having Jurisdiction (AHJ).

REFERENCE STANDARDS: Refer to Chapter 35 of 2021 OSSC. Where other Standards are noted in the drawings, use the latest edition of the standard unless a specific date is indicated. Reference to a specific section in a code does not relieve the contractor from compliance with the entire standard.

DEFINITIONS: The following definitions cover the meanings of certain terms used in these notes:

- "Architect/Engineer"** – The Architect of Record and the Structural Engineer of Record.
- "Structural Engineer of Record" (SER)** – The structural engineer who is licensed to stamp & sign the structural documents for the project. The SER is responsible for the design of the Primary Structural System.
- "Submit for review"** – Submit to the Architect/SER for review prior to fabrication or construction.
- "Per Plan"** – Indicates references to the structural plans, elevations and structural general notes.

SPECIFICATIONS: Refer to the project specifications issued as part of the contract documents for information supplemental to these drawings.

OTHER DRAWINGS: Refer to the architectural, mechanical, electrical, civil, and plumbing drawings for additional information including but not limited to dimensions, slopes, door and window openings, non-bearing walls, stairs, finishes, drains, waterproofing, railings, mechanical unit locations, and other nonstructural items.

COORDINATION: The Contractor is responsible for coordinating details and accuracy of the work; for confirming and correlating all quantities and dimensions; for selecting fabrication processes; for techniques of assembly; and for performing work in a safe and secure manner.

EXISTING CONDITIONS: Information shown on the drawings related to existing conditions represent the present knowledge, but without guarantee of accuracy. Report conditions that conflict with contract documents to the architect or SER. Do not deviate from the contract documents without written direction from the architect and/or SER. All existing dimensions and information shall be field verified prior to fabrication as required to coordinate with new construction.

MEANS, METHODS and SAFETY REQUIREMENTS: The contractor is responsible for the means and methods of construction and all job-related safety standards such as OSHA and DOSH (Department of Occupational Safety and Health). The contractor is responsible for means and methods of construction related to the intermediate structural conditions (i.e., movement of the structure due to moisture and thermal effects; construction sequence; temporary bracing, etc.).

CHANGES IN LOADING: The contractor has the responsibility to notify the SER of any architectural, mechanical, electrical, or plumbing load imposed onto the structure that differs from, or that is not documented on the original Contract Documents (architectural / mechanical / electrical or plumbing drawings). Provide documentation of location, load, size and anchorage of all undocumented loads in excess of 400 pounds. Provide marked-up structural plan indicating locations of any new equipment or loads. Submit plans to the Architect/Engineer for review prior to installation.

SITE VERIFICATION: The contractor shall verify all dimensions and conditions at the site. Conflicts between the drawings and actual site conditions shall be brought to the attention of the Architect/Engineer before proceeding with the work.

ADJACENT UTILITIES: The contractor shall determine the location of all adjacent underground utilities prior to earthwork, foundations, shoring, and excavation. Any utility information shown on the drawings and details is approximate and not necessarily complete.

Design Criteria and Loads

| | | |
|-------------------|--|----|
| OCCUPANCY: | Risk Category of Building per 2021 OSSC Table 1604.5 = | II |
|-------------------|--|----|

| | | |
|----------------|--|--------------------------------|
| SEISMIC | Seismic Design Category: | SDC = D |
| | Seismic Importance Factor per ASCE 7-16 Table 1.5-2 | Ie = 1.0 |
| | Spectral Response Acceleration (Short Period) | S_s = 0.99 g |
| | Spectral Response Acceleration (1-Second Period) | S₁ = 0.38 g |
| | Spectral Design Response Coefficient (Short Period) | S_{DS} = 0.81 g |
| | Spectral Design Response Coefficient (1-Second Period) | S_{DI} = 0.55 g |

| | | | |
|-----------------------|---|------------------|----------------|
| SNOW LOAD: (1) | Flat Roof Snow Load, (PSF) | p _s = | 25 (2) |
| | Snow Drift Loading required by Authority Having Jurisdiction? | | Yes, No |
| | Snow Load Importance Factor | I _s = | 1.0 (3) |
| | Ground Snow Load, (PSF) | p _g = | 20 |
| | Snow Exposure Factor | C _e = | B |
| | Thermal Factor | C _t = | 1.0 |
| | See Roof Plan for Drift Loading | | |

- Snow Load is un-reducible and includes 5 psf rain-on-snow surcharge where ground snow load is greater than zero and 20 psf or less per ASCE 7-16 Section 7.10.
- Snow Load based on ASCE Fig 7.1-1.
- Snow Load Importance Factor per ASCE 7-16 Table 1.5-2.

Submittals

SUBMIT FOR REVIEW: SUBMITTALS of shop drawings, and product data are required for items noted in the individual materials sections and for *bidder designed* elements.

SUBMITTAL REVIEW PERIOD: Submittals shall be made in time to provide a minimum of TWO WEEKS or 10 WORKING DAYS for review by the Architect/Engineer prior to the onset of fabrication.

GENERAL CONTRACTOR'S PRIOR REVIEW: Prior to submission to the Architect/Engineer, the Contractor shall review the submittal for completeness. Dimensions and quantities are not reviewed by the SER, and therefore, must be verified by the General Contractor. Contractor shall provide any necessary dimensional details requested by the Detailer and provide the Contractor's review stamp and signature before forwarding to the Architect/Engineer.

INSPECTIONS, QUALITY ASSURANCE VERIFICATIONS AND TEST REQUIREMENTS

INSPECTIONS: Foundations, footings, under slab systems and framing are subject to inspection by the Building Official in accordance with OSSC 110.3. Contractor shall coordinate all required inspections with the Building Official.

SPECIAL INSPECTIONS, VERIFICATIONS and TESTS: Special Inspections, Verifications and Testing shall be done in accordance with OSSC Chapter 17, the STATEMENT AND SCHEDULES OF SPECIAL INSPECTIONS listed in these drawings, and the AHJ STATEMENT OF SPECIAL INSPECTION.

STRUCTURAL OBSERVATION:

Structural Observation for this project is not required per OSSC Section 1704.6.

CONTRACTOR RESPONSIBILITY: Prior to issuance of the building permit, the Contractor is required to provide the Authority Having Jurisdiction a signed, written acknowledgement of the Contractor's responsibilities associated with the above Statement of Special Inspections addressing the requirements listed in OSSC Section 1704.4. Contractor is referred to OSSC Sections 1705.12.5 and 1705.12.6 for architectural and MEP building systems that may be subject to additional inspections (based on the building's designated Seismic Design Category listed in the CRITERIA), including anchorage of HVAC ductwork containing hazardous materials, piping systems and mechanical units containing flammable, combustible or highly toxic materials, electrical equipment used for emergency or standby power, exterior wall panels and suspended ceiling systems.

Soils and Foundation

REFERENCE STANDARDS: Conform to OSSC Chapter 18 "Soils and Foundations."

DESIGN SOIL VALUES:

| | | |
|---------------------------------------|------|-----------------|
| Safety Factor per Soils Report | 1.5 | |
| Allowable Foundation Bearing Pressure | 1500 | PSF – (Assumed) |

Cast-in-Place Concrete

REFERENCE STANDARDS: Conform to:

- ACI 301-20 "Specifications for Structural Concrete"
- OSSC Chapter 19 "Concrete"
- ACI 318-19 "Building Code Requirements for Structural Concrete"
- ACI 117-10 "Specifications for Tolerances for Concrete Construction and Materials"

FIELD REFERENCE: The contractor shall keep a copy of ACI Field Reference manual, SP-15, "Standard Specifications for Structural Concrete (ACI 301)" with Selected ACI and ASTM References."

CONCRETE MIXTURES: Conform to ACI 301 Section 4 "Concrete Mixtures" and OSSC Section 1904.1.

MATERIALS: Conform to ACI 301 Section 4.2.1 "Materials" for requirements for cementitious materials, aggregates, mixing water and admixtures.

SUBMITTALS:

- Provide all submittals required by ACI 301 Section 4.1.2. Submit mix designs for each mix in the table below. Substantiating strength results from past tests shall not be older than 24 months per ACI 318 Section 26.4.3.1 (b).

TABLE OF MIX DESIGN REQUIREMENTS

| Member Type/Location | Strength f _c (psi) | Test Age (days) | Nominal Maximum Aggregate | Exposure Class | Max W/C Ratio | Air Content (%) | Notes (1 to 10 Typical UNO) |
|---------------------------|-------------------------------|-----------------|---------------------------|----------------|---------------|-----------------|-----------------------------|
| Foundations (Residential) | 3000 | 28 | 1" | - | - | - | [15] |

Table of Mix Design Requirements Notes:

- W/C Ratio:** Water-cementitious material ratios shall be based on the total weight of cementitious materials. Maximum ratios are controlled by strength noted in the Table of Mix Design Requirements and durability requirements given in ACI 318 Section 19.3. W/C ratios may be exceeded with approval of SER as long as potential shrinkage impacts are accounted for.
- Cementitious Materials:**
 - DCI encourages the reduction of cement content and/or the use of alternate cementitious materials. Where requirements of this section prohibit inclusion of any of these mixes, contact DCI for further coordination.
 - Cementitious materials shall conform to the relevant ASTM standards listed in ACI 318 Section 26.4.1.1(a).
 - The use of fly ash, other pozzolans, silica fume, or slag shall conform to ACI 318 Sections 19.3.2 and 26.4.2.2. Supplemental cementitious material (SCM) quantities shall meet requirements outlined in the table below. Approaching maximum cement replacement limits may affect concrete setting time and strength gain. Contractor and supplier shall coordinate on mix designs with regard to schedule, workability, shrinkage and finishability requirements. Where SCM quantities do not meet the following requirements, submit for SER approval. Concerns by the construction team with the mix design provided herein shall be brought to the SER's attention in the mix design submittal prior to pouring concrete.
- Aggregates shall conform to ASTM C33.
- Slump: Conform to ACI 301 Section 4.2.2.1. Slump shall be determined at point of placement.
- Chloride Content: Conform to ACI 318 Table 19.3.2.1.
- Non-chloride accelerator: Non-chloride accelerating admixture may be used in concrete placed at ambient temperatures below 50°F at the contractor's option.

Concrete Reinforcement

REFERENCE STANDARDS: Conform to:

- ACI 301-20 "Standard Specifications for Structural Concrete", Section 3 "Reinforcement and Reinforcement Supports."
- ACI SP-66(04) "ACI Detailing Manual"
- CRSI MSP-09, 28" Edition, "Manual of Standard Practice."
- ANSI/AWS D1.4: 2005, "Structural Welding Code - Reinforcing Steel."
- OSSC Chapter 19-Concrete.
- ACI 318-19 "Building Code Requirements for Structural Concrete."
- ACI 117-10 "Specifications for Tolerances for Concrete Construction and Materials"

SUBMITTALS:

- Conform to ACI 301 Section 3.1.2 "Submittals." Submit placing drawings showing fabrication dimensions and placement locations of reinforcement and reinforcement supports.

MATERIALS:

Reinforcing BarsASTM A615, Grade 60, deformed bars.
ASTM A706, Grade 60, deformed bars.

FABRICATION: Conform to ACI 301, Section 3.2.2. "Fabrication", and ACI SP-66 "ACI Detailing Manual."

WELDING: Bars shall not be welded unless authorized. When authorized, conform to ACI 301, Section 3.2.2.2. "Welding", AWS D1.4, and provide ASTM A706, grade 60 reinforcement.

PLACING: Conform to ACI 301, Section 3.3.2 "Placing." Placing tolerances shall conform to ACI 117.

CONCRETE COVER: Conform to the following cover requirements unless noted otherwise in the drawings.

| | |
|--------------------------------------|--------|
| Concrete cast against earth | 3" |
| Concrete exposed to earth or weather | 2" |
| Ties in columns and beams | 1-1/2" |
| Bars in slabs | 3/4" |
| Bars in walls | 3/4" |
| Exterior bars in Tilt-up Panels | 1" |

FIELD BENDING: Conform to ACI 301 Section 3.3.2.8. "Field Bending or Straightening." Bar sizes #3 through #5 may be field bent cold the first time. Subsequent bends and other bar sizes require preheating. Do not twist bars. Bars shall not be bent past 45 degrees.

Post-Installed Anchors into Concrete

REFERENCE STANDARDS: Conform to:

- OSSC Chapter 19 "Concrete"
- ACI 318-19 "Building Code Requirements for Structural Concrete"
- OSSC Chapter 21 "Masonry"
- TMS 402-16 "Building Code Requirements for Masonry Structures"

POST-INSTALLED ANCHORS: Install only where specifically shown in the details or allowed by SER. All post-installed anchors types and locations shall be approved by the SER and shall have a current ICC-Evaluation Service Report that provides relevant design values necessary to validate the available strength exceeds the required strength. Submit current manufacturer's data and ICC ESR report to SER for approval regardless of whether or not it is a pre-approved anchor. Anchors shall be installed in strict accordance with ICC-ESR and the manufacturer's printed installation instructions (MPII) in conjunction with edge distance, spacing and embedment depth as indicated on the drawings. The contractor shall arrange for a manufacturer's field representative to provide installation training for all products to be used, prior to the commencement of work. Only trained installer shall perform post-installed anchor installation. A record of training shall be kept on site and be made available to the SER as requested. Adhesive anchors installed in horizontally or upwardly inclined orientation shall be performed by a certified adhesive anchor installer (AAI) as certified through ACI/CRSI or approved equivalent. Proof of current certification shall be submitted to the engineer for approval prior to commencement of installation. No reinforcing bars shall be damaged during installation of post-installed anchors. Special inspection shall be per the TESTS and INSPECTIONS section. Anchor type, diameter and embedment shall be as indicated on drawings.

(1) **ADHESIVE ANCHORS:** The following Adhesive-type anchoring systems have been used in the design and shall be used for anchorage to CONCRETE, as applicable and in accordance with corresponding current ICC ESR report. Reference the corresponding ICC ESR report for required minimum age of concrete, concrete temperature range, moisture condition, light weight concrete, and hole drilling and preparation requirements. Drilled-in-anchor embedment lengths shall be as shown on drawings, or not less than 7 times the anchor nominal diameter (7D). Adhesive anchors are to be installed in concrete aged a minimum of 21 days, unless otherwise specified in the ICC ESR report.

- HILTI "HIT-HY 200" – ICC ESR-3187 for anchorage to CONCRETE
- SIMPSON "SET-XP" – ICC ESR 2508 for anchorage to CONCRETE
- [DEWALT "AC100+ GOLD" – ICC ESR-2582 for anchorage to CONCRETE

(2) **SCREW ANCHORS:** The following Screw type anchor is pre-approved for anchorage to CONCRETE or MASONRY in accordance with corresponding current ICC ESR report:

- SIMPSON "TITEN HD" – ICC ESR-2713 for CARBON STEEL to CONCRETE
- HILTI "KH-EZ" – ICC ESR-3027 for anchorage to CONCRETE
- DEWALT "SNAKE" – ICC ESR-2272 for anchorage to CONCRETE

Wood Framing

REFERENCE STANDARDS: Conform to:

- OSSC Chapter 23 "WOOD"
- ANSI/AWC NDS - 2018: "National Design Specification (NDS) for Wood Construction - with 2018 NDS Supplement"
- ANSI/AWC – SDPWS-2021: Special Design Provisions for Wind and Seismic
- APA PDS - 20: "Panel Design Specification"
- TPI 1-2014 "National Design Standard for Metal-Plate-Connected Wood Truss Construction"
- BCSI B1 "Guide to Good Practice for Handling, Installing, Restraining & Bracing of Trusses"
- DSB-89 "Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses"
- APA Report TT-045B "Minimum Nail Penetration for Wood Structural Panel Connections Subject to Lateral Loads"
- APA Report TT-061C "1-5/16 Inch-Thick Joist Flanges and Diaphragm Nail Penetration"

SUBMITTALS:

- Submit shop drawings to the Architect/Engineer for review. Shop drawings shall include member size, spacing, camber, material type, grade, shop and field assembly details and connections, types and location of bolts and other fasteners. Supply shop drawings for the following:
 - Glued laminated members
 - PSL members
 - LVL members
 - LSL members
 - Tapered & Parallel Wood Joists (Solid web-wood joists)
 - Panelized wood walls & connection details
 - Wood Tie-Down Systems

MATERIALS:

- Sawn Lumber:** Conform to grading rules of WWPA, WCLUB or NLGA and Table below. Finger jointed studs acceptable at interior walls only.

TABLE OF SOLID SAWN LUMBER

| Member Use | Size | Species | Grade |
|--------------------------------|--------------------|-------------------|-------|
| Wall Stud/ Top & Bottom Plates | 2x4, 3x4, 2x6, 3x6 | Doug Fir Larch | No. 2 |
| Sill Plate (at concrete) | 2x4, 3x4, 2x6, 3x6 | PT Doug Fir Larch | No. 2 |
| Post | 4x4, 4x6, 4x8 | Doug Fir Larch | No. 2 |
| Floor or Roof Joist | 2x6 through 2x12 | Doug Fir Larch | No. 2 |
| Beam | 4x8 through 4x12 | Doug Fir Larch | No. 2 |
| Beam | 6x8 through 6x12 | Doug Fir Larch | No. 1 |
| Post or Timber | 6x6, 8x8 | Doug-Fir Larch | No. 1 |

(2) **Glued Laminated Timber:** Conform to ANSI 117-2020 "Standard Specifications for Structural Glued Laminated Timber of Softwood Species, Manufacturing and Design" and ANSI A190.1 "Structural Glued Laminated Timber." Camber all glued laminated beams, except cantilevered and continuous beams, to 3000' radius, unless shown otherwise on the plans. Fabricate cantilevered and continuous beams flat, unless shown otherwise on plans.

TABLE OF GLULAM and GRADE

| Member | Sizes | Species | Comb. Symbol | Uses |
|--------|-------|---------|--------------|--------------|
| Beams | All | DF/DF | 24F-V4 | Simple Spans |

NAILING REQUIREMENTS: Conform to OSSC Section 2304.10 "Connectors and fasteners." Unless noted on plans, nail per Table 2304.10.2. Nailing for roof/floor diaphragms/shear walls shall be per drawings. Nails shall be driven flush and shall not fracture the surface of sheathing. Alternate nails may be used but are subject to review and approval by the Structural Engineer. Substitution of staples for the nailing of rated sheathing is subject to review by the structural engineer prior to construction.

STANDARD LIGHT-FRAME CONSTRUCTION: Unless noted on the plans, construction shall conform to OSSC Section 2308 "Conventional Light-Frame Construction."

WOOD SHRINKAGE AND EXPANSION: Wood materials will expand, or contract based on relative changes in moisture. The contractor is responsible for means and methods of construction related to mitigating and managing the effects of changes in moisture.

MOISTURE CONTENT: The contractor shall make provisions during handling and construction to prevent the structural wood members from exceeding the appropriate moisture content limits. The moisture content for solid sawn wood material used for this project shall not exceed 19%. The moisture content for engineered wood products, laminated lumber and sheathing shall not exceed the limits required by the manufacturer or 12%, whichever is less. The moisture content limits may be more stringent for particular product requirements (e.g., finishes, cladding, insulation systems, etc.). The contractor shall refer to the Architect's drawings, project specifications, or installer/product requirements for additional requirements.

SHRINKAGE COMPENSATION FOR MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS: MEP systems, including ductwork, pipes, and other elements that run continuously between levels shall be installed/designated in such a manner to accommodate shrinkage in the wood framing. Wood shrinkage amounts will vary depending on the construction process and materials used. The anticipated shrinkage under typical conditions is expected to range between 1/8" and 1/4" per foot.

SPECIAL INSPECTIONS

The following Statement and Schedules of Inspections are those Special Inspections and Tests that shall be performed for this project. Special Inspectors shall reference these plans and OSSC Chapter 17 for all special inspection requirements.

The owner shall retain an "approved agency" per OSSC 1703 to provide special inspections for this project. Special Inspectors shall be qualified persons per OSSC 1704.2.1. Special inspection reports shall be provided on a weekly basis. Submit copies of all inspection reports to the Architect/Engineer and the Authority Having Jurisdiction for review. In addition to special inspection reports and tests, submit reports and certificates noted in OSSC 1704.5 to the Authority Having Jurisdiction. Final special inspection reports will be required by each special inspection firm per OSSC 1704.2.4.

STATEMENT OF SPECIAL INSPECTIONS:

This statement of Special Inspections has been written with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors
- Monitor the special inspection activity on the project site to assure that Special Inspectors are qualified and performing their duty as state within this statement.
- Review all Special Inspection Reports submitted to them by the Special Inspector
- Perform inspections as required by OSSC Section 110.3.

POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY: shall comply with OSSC Section 1703. Inspections shall be in accordance with the requirements set forth in the approved ICC Evaluation Report and as indicated by the design requirements specified on the drawings. Refer to the POST INSTALLED ANCHORS section of these notes for anchors that are the basis of the design. Special inspector shall verify anchors are as specified in the POST INSTALLED ANCHORS section of these notes or as otherwise specified on the drawings. Substitutions require approval by the SER and require substantiating calculations and current 2021 OSSC recognized ICC Evaluation Services (ES) Report. Special Inspector shall document in their Special Inspection Report compliance with each of the elements required within the applicable ICC Evaluation Services (ES) Report.

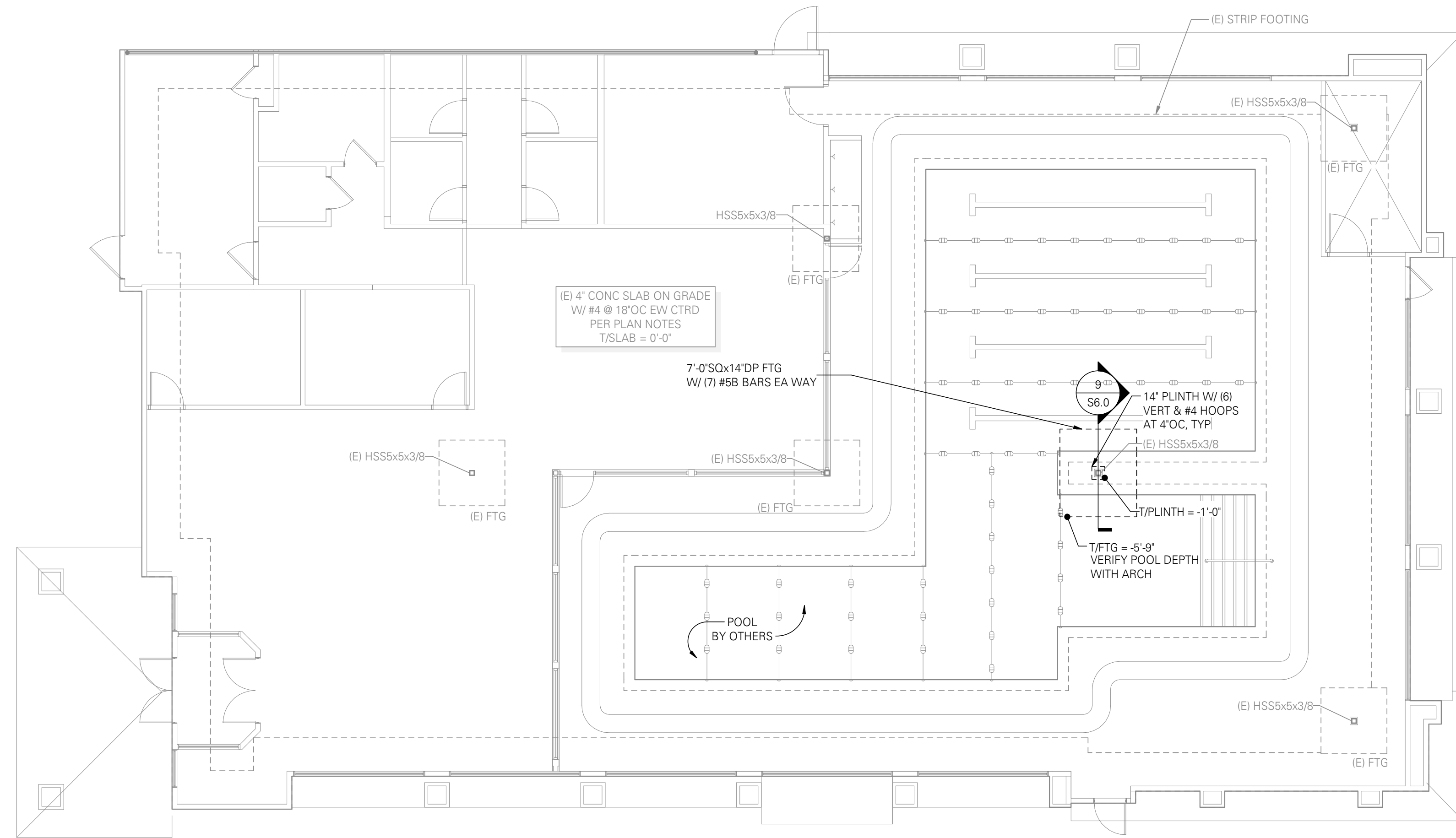
PREFABRICATED CONSTRUCTION: All prefabricated construction shall conform to OSSC Section 1703.

DRAWING LEGEND

| MARK | DESCRIPTION | MARK | DESCRIPTION |
|---------------|--|-----------|--|
| F2.0 | FOOTING SYMBOL (REFER TO SPREAD FOOTING SCHEDULE) | I | INDICATES WIDE FLANGE COLUMN |
| (PT) | PILE CAP SYMBOL (REFER TO PILE CAP SCHEDULE) | □ | INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR TUBE STEEL (TS) COLUMN |
| ① | TILT-UP/PRECAST CONCRETE WALL CONNECTION SYMBOL (REFER TO CONNECTION DETAIL) | ○ | INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR STEEL PIPE COLUMN |
| 2W4 | SHEAR WALL SYMBOL (REFER TO SHEAR WALL SCHEDULE) | ⊗ | INDICATES WOOD POST |
| △ RFI 00 | REVISION TRIANGLE | ■ | INDICATES BUNDLED STUDS |
| 1 | TILT-UP/PRECAST CONCRETE WALL PANEL NUMBER (REFER TO TILT-UP/PRECAST CONCRETE WALL ELEVATIONS) | [Pattern] | INDICATES CONCRETE COLUMN |
| ◇ | CMU WALL REINFORCING SYMBOL (REFER TO CMU WALL REINFORCING SCHEDULE) | [Pattern] | INDICATES PRECAST CONCRETE COLUMN |
| 8" | CONTINUITY PLATE LENGTH (REFER TO TYPICAL DETAIL) | ← | INDICATES MOMENT FRAME CONNECTION |
| DS | INDICATES DOUBLE SHEAR CONNECTION (REFER TO THE DOUBLE SHEAR PLATE CONNECTIONS DETAIL) | ← | INDICATES CANTILEVER CONNECTION |
| DOTB | INDICATES REINFORCING TYPE (REFER TO THE REINFORCING SCHEDULE) | — | INDICATES DRAG CONNECTION |
| SR | INDICATES NUMBER OF STUD RAIL REQUIRED AT COLUMN (REFER TO STUD RAIL DETAILS) | --- --- | INDICATES A LEDGER |
| 1 | ROOF/FLOOR DIAPHRAGM NAILING SYMBOL (REFER TO DIAPHRAGM NAILING SCHEDULE) | [Pattern] | INDICATES WOOD OR STEEL STUD BEARING WALL LINE PER KEY ON SHEET |
| C1 | STEEL/CONCRETE COLUMN SYMBOL (REFER TO STEEL COLUMN SCHEDULE) | [Pattern] | INDICATES WOOD OR STEEL STUD SHEAR WALL LINE AND HOLD-DOWNS PER KEY ON SHEET |
| T/FTG = X'-X" | ELEVATION SYMBOL (T REFERS TO COMPONENT THAT THE ELEVATION REFERENCES) | [Pattern] | INDICATES MASONRY/CMU WALL |
| 3 | STUD BUBBLE INDICATES NUMBER OF STUDS REQUIRED IF EXCEEDS NUMBER SPECIFIED IN PLAN NOTE) | [Pattern] | INDICATES CONCRETE/TILT-UP CONCRETE WALL |
| ○ | INDICATES STEP IN FOOTING (REFER TO TYPICAL STEP IN FOOTING DETAIL) | ⋈ | INDICATES BEARING WALL BELOW |
| X/SX X | DETAILS OR SECTION CUT (DETAIL NUMBER/SHEET NUMBER) | ← | INDICATES EXISTING WALL |
| 00/S0.0 | DETAILS OR SECTION CUT IN PLAN VIEW (DETAIL NUMBER/SHEET NUMBER) | ← | POST-TENSION DEAD END (PLAN) |
| XX/SX.XX | INDICATES LOCATION OF CONCRETE WALLS, SHEAR WALLS OR BRACED FRAME ELEVATIONS | ← | POST-TENSION STRESSING END (PLAN) |
| 3 | STRUCTURAL EXTENT SYMBOL SINGLE ARROW - END OF EXTENT DOUBLE ARROW - CONTINUOUS EXTENT ALONG THE ELEMENT LINE UNTIL THE ELEMENT IS INTERRUPTED | ← | POST-TENSION PROFILE (PLAN) (IN INCHES) |
| ← | INDICATES DIRECTION OF DECK SPAN | ← | INTERMEDIATE STRESSING (PLAN) |

ABBREVIATIONS

| | | | | | |
|--------------|---------------------|---------|-------------------------------|--------|---------------------------|
| L | Angle | FB | Factory-Built | PJP | Partial Joint Penetration |
| AB | Anchor Bolt | FD | Floor Drain | PREFAB | Prefabricated |
| ADDD | Additional | FDN | Foundation | PSF | Pounds per Square Foot |
| ADH | Adhesive | FIN | Finish | PSI | Pounds Per Square Inch |
| ALT | Alternate | FLR | Floor | PSL | Parallel Strand Lumber |
| ARCH | Architectural | FRP | Fiberglass Reinforced Plastic | P-T | Post-Tensioned |
| B or BOT | Bottom | FRT | Fire Retardant Treated | PT | Pressure Treated |
| BF | Bottom Of | FTG | Footing | R | Radius |
| BLDG | Building | F/F | Face of | RD | Roof Drain |
| BLKG | Blocking | G/A | Gage | REF | Refer/Reference |
| BMU | Brick Masonry Unit | GA/V | Galvanized | REF | Reinforcing |
| BP | Braced | GEOTECH | Geotechnical | REQD | Required |
| BRBF | Buckling Restrained | GL | Glue Laminated Timber | RET | Retaining |
| Braced Frame | GWB | | | | |



FOUNDATION PLAN NOTES:

- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S1.0
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
- CONTRACTOR SHALL LOCATE AND VERIFY THE FOLLOWING WITH OTHERS PRIOR TO POURING CONCRETE: ALL DOOR OPENINGS IN FOUNDATION WALLS; DRAINS AND SLOPES; BLOCKOUTS FOR POOLS, SPAS, PLUMBING, SPRINKLERS AND HVAC. ALL DUCTS, CHASES AND PIPES PER MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS. STAIR DETAILS AND GUARDRAILS PER ARCHITECTURAL DRAWINGS.
- TOP OF SLAB (T/SLAB) ELEVATION ASSUMED 0'-0". FOR ACTUAL T/SLAB ELEVATION REFER TO CIVIL AND ARCHITECTURAL DRAWINGS. PROVIDE 6 MIL VAPOR BARRIER BELOW SLAB AT INTERIOR SPACES. PROVIDE FREE-DRAINING GRANULAR FILL PER GEOTECH REPORT.
- ALL FOOTINGS AND SLABS TO BEAR ON COMPETENT NATIVE SOIL AND/OR STRUCTURAL FILL. SUBGRADE PREPARATION, STRUCTURAL FILL, FOOTING DRAINS, AND OTHER REQUIREMENTS PER GEOTECH REPORT AS NOTED IN THE STRUCTURAL GENERAL NOTES.
ALL WOOD EXPOSED TO CONCRETE, WEATHER, OR WITHIN 8' OF FINISHED GRADE SHALL BE PRESSURE-TREATED.
- TYPICAL DETAILS PER:
4/S6.0 TYPICAL LAP SPLICE SCHEDULE
8/S6.0 STANDARD HOOKS AND BAR BENDS

STUD AND SHEAR WALL PLAN NOTES:

- LUMBER GRADE PER STRUCTURAL GENERAL NOTES.
- ALL INTERIOR NON-BEARING, NON-STRUCTURAL WALL STUD REQUIREMENTS PER STRUCTURAL GENERAL NOTES.
- HEADERS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (1) TRIMMER AND (1) KING STUD MINIMUM. UNO, WHERE MORE THAN (1) TRIMMER IS REQUIRED, THE NUMBER OF TRIMMER STUDS SHALL BE NOTED THUS: ■(2). TRIMMERS TO BE CONTINUOUS TO THE FOUNDATION. (POST-TENSIONED SLAB) BLOCK SOLID AT FLOOR FRAMING.
- SHEAR WALL AND NAILING REQUIREMENTS PER SHEAR WALL SCHEDULE 7/S6.0
- ALL EXTERIOR WALLS REQUIRING WOOD SHEATHING PER THE ARCHITECT SHALL BE SHEAR WALL TYPE W6 UNO.
TYPICAL DETAILS PER:
11/S6.0 TYPICAL SHEAR WALL ELEVATION
12/S6.0 TYPICAL STUD WALL OPENING (HEADER) DETAIL
9/S6.0 TYPICAL HOLES AND NOTCHES IN WOOD STUDS

PREPARED BY:

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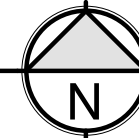
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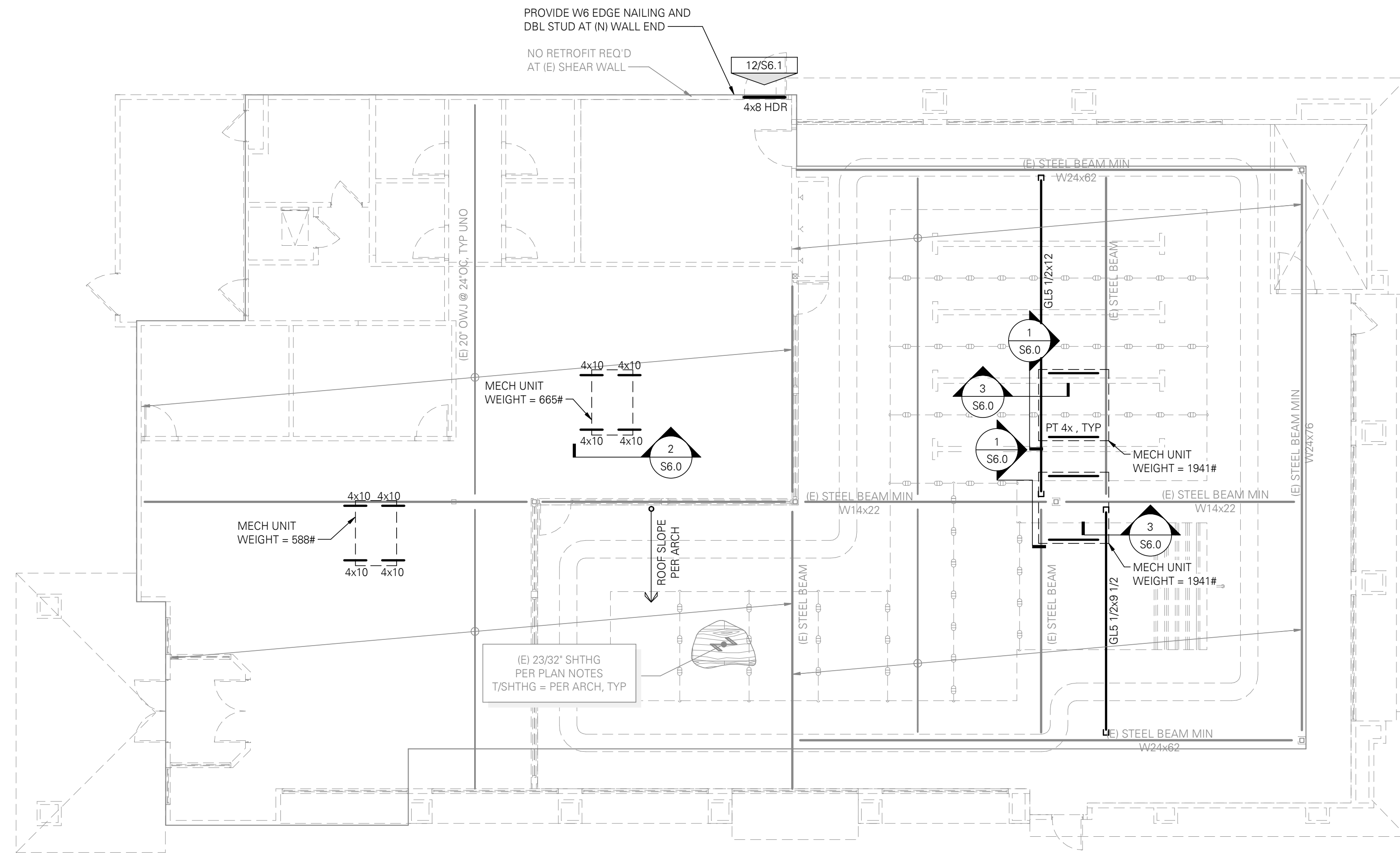
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| APPROVALS: | Job No.: | 2303-0030 |
|----------------|----------|-----------|
| Proj. Manager: | IP | |
| Drawn: | MKA | |
| Reviewed: | SC | |
| Dwg. Chk.: | IP | |
| Date: | 05/19/23 | |
| Scale: | AS NOTED | |

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|----------------|--|
| PROJECT TITLE: | EMLER SWIM SCHOOL TANASBOURNE |
| ADDRESS: | 1225 WATERHOUSE AVE BEAVERTON, OREGON 97223 |

| | |
|--------------|---------------------------------|
| SHEET TITLE: | STRUCTURAL - FOUNDATION PLAN |
| SHEET NO.: | S2.0 |





ROOF FRAMING PLAN NOTES:

- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S1.0 AND S1.1
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
- ALL DUCTS, CHASES AND PIPES SHALL BE PER MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS. STAIR DETAILS AND GUARDRAILS PER ARCHITECTURAL DRAWINGS.
- GLULAM, PARALLAM AND MICROLLAM HANGERS ARE AS SPECIFIED ON PLAN.
- ALL ROOF I-JOISTS TO BE TAPERED PER ARCHITECTURAL DRAWING.
- ROOF JOISTS SHALL BE DESIGNED FOR ADDITIONAL LOADS FROM MECHANICAL UNITS, ROOF PATIO AREAS, LANDSCAPING, AND PIPING. CONTRACTOR TO PROVIDE LOCATION AND LOADS AND SUPPORT CONDITIONS FOR ALL MECHANICAL UNITS, ELECTRICAL, PLUMBING, AND SPRINKLER LOADS.
- HEADERS SHOWN BUT NOT SPECIFIED ARE TO BE 2x8 MINIMUM. HEADERS SUPPORTS PER STUD AND SHEAR WALL ON FLOOR BELOW
- TYPICAL DETAILS PER:
12/S6.0 TYPICAL HEADER

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SIGNATURE:

REGISTERED PROFESSIONAL ENGINEER
OREGON
Shirley
EXPIRES: 12-31-23

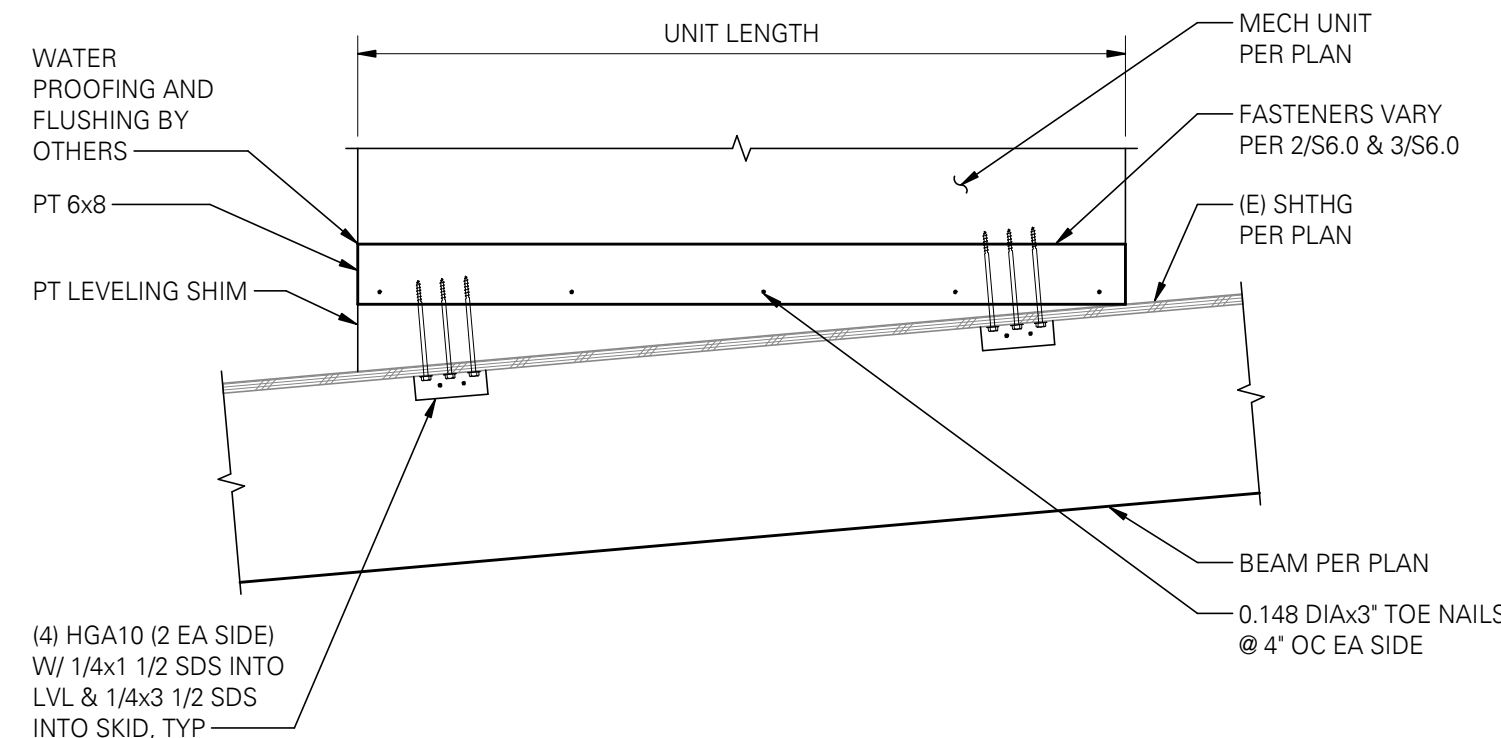
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| APPROVALS: | Job No.: | 2303-0030 |
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| Proj. Manager: | IP | |
| Drawn: | MKA | |
| Reviewed: | SC | |
| Dwg. Chk.: | IP | |
| Date: | 05/19/23 | |
| Scale: | AS NOTED | |

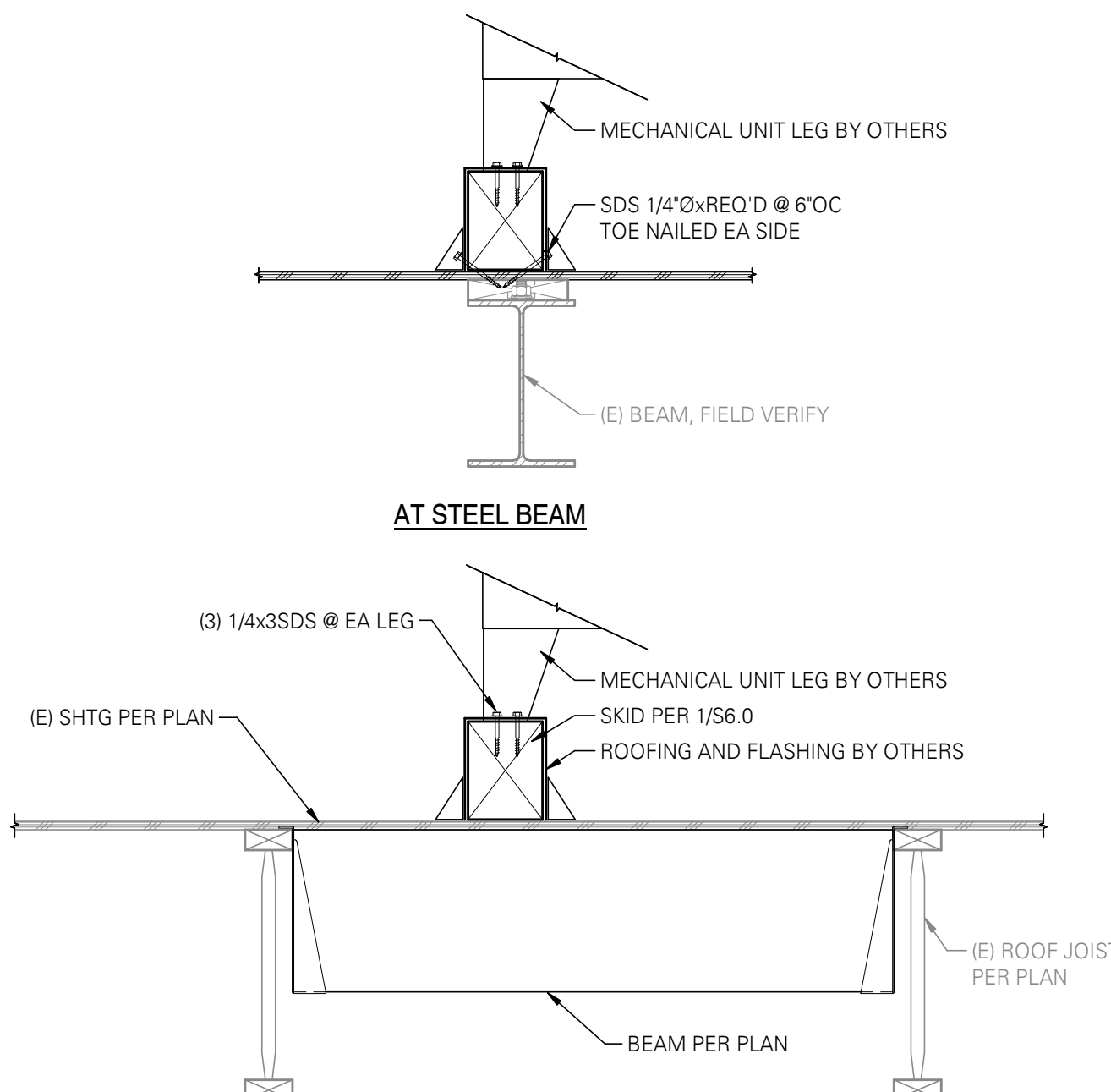
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| | 1225 WATERHOUSE AVE BEAVERTON, OREGON 97223 |

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| SHEET NO.: | S2.1 |

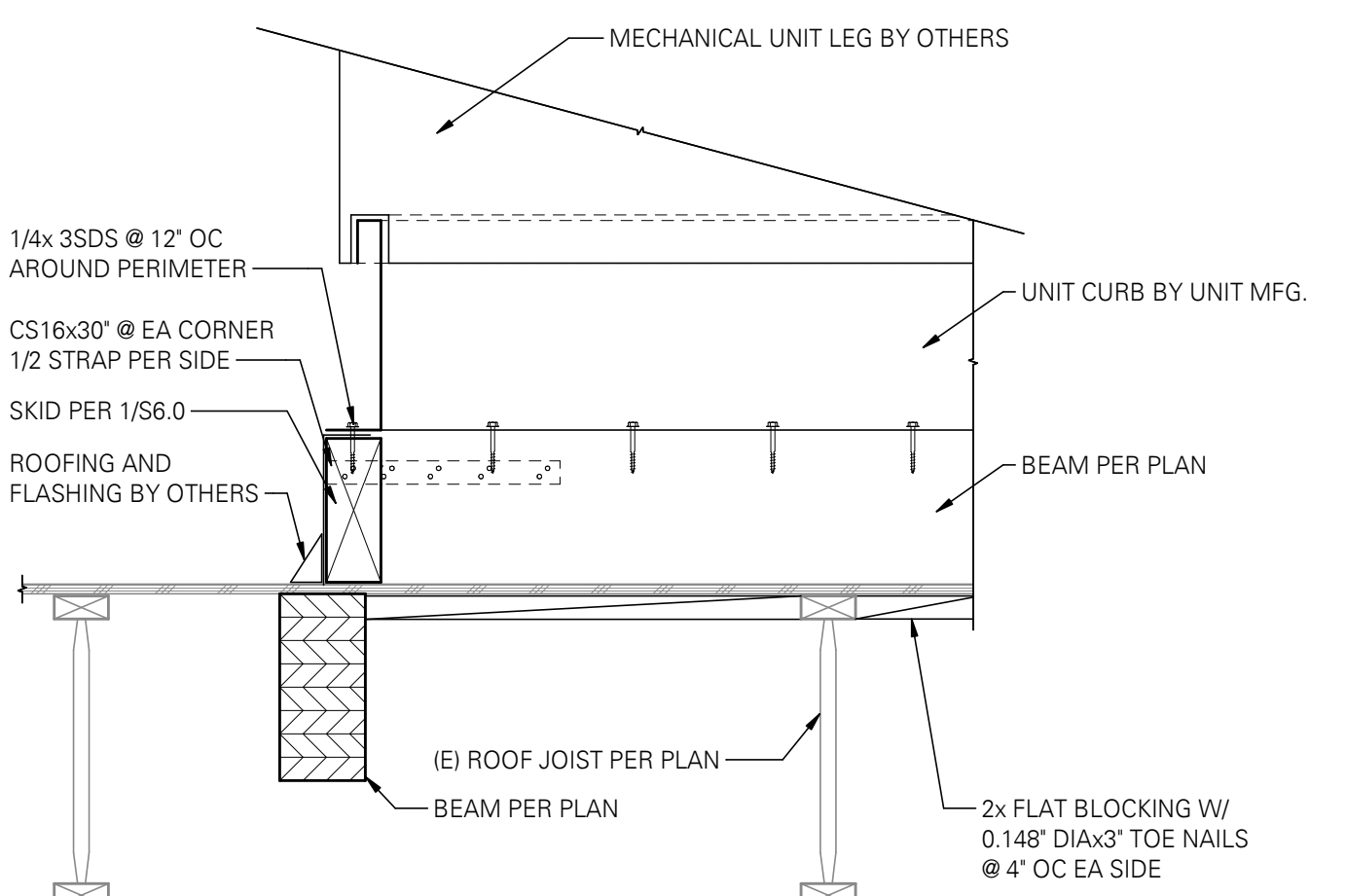
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1 SKID TO BEAM
SCALE: 1" = 1'-0"



2 MECHANICAL EQUIPMENT SKID
SCALE: 1" = 1'-0"

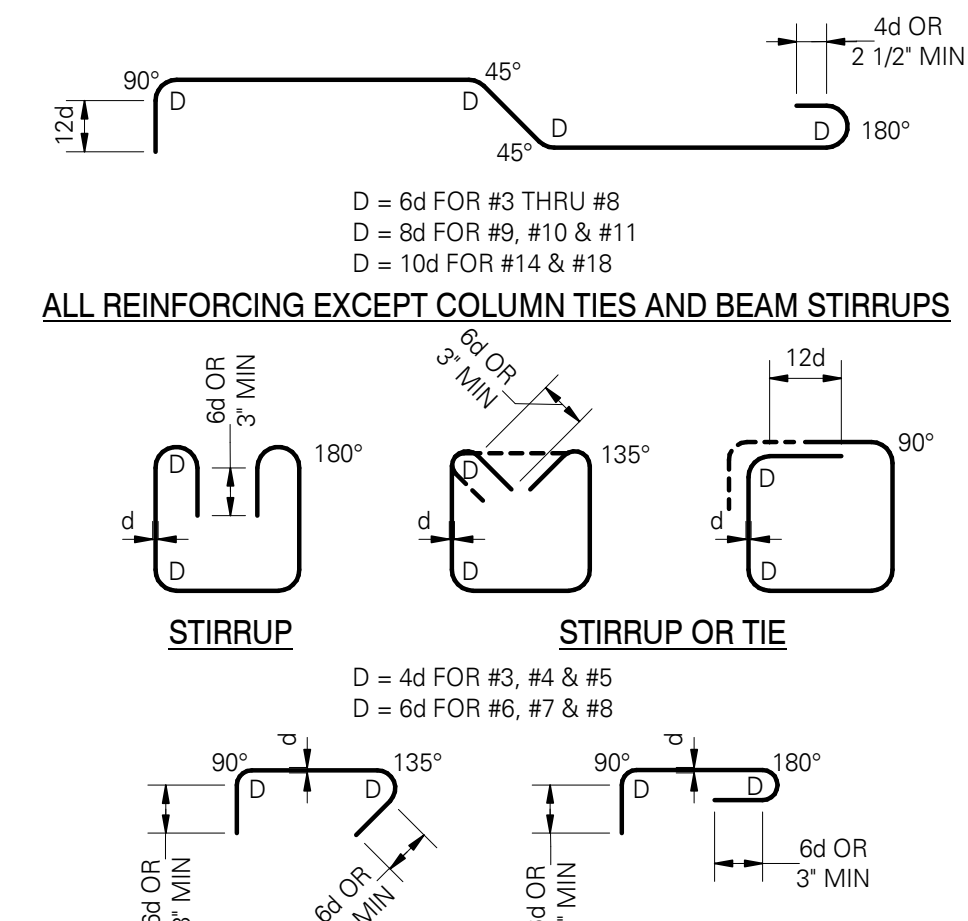


3 MECHANICAL EQUIPMENT CURB
SCALE: 1" = 1'-0"

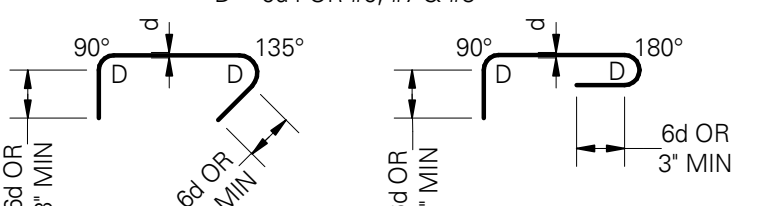
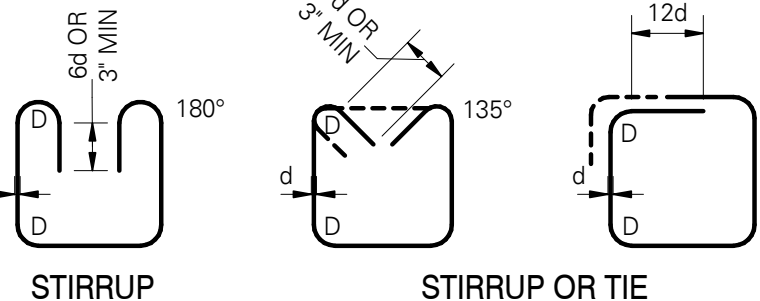
| BAR SIZE | MISCELLANEOUS BARS | | TOP BARS (see note #5) | | HOOKED BARS |
|----------|--------------------|--------|------------------------|--------|-------------|
| | Ld | Splice | Ld | Splice | |
| #3 | 15 | 19 | 19 | 25 | 8 |
| #4 | 19 | 25 | 25 | 33 | 10 |
| #5 | 24 | 31 | 31 | 41 | 12 |
| #6 | 29 | 37 | 37 | 49 | 15 |

- NOTES:**
- ALL TABULATED VALUES ARE IN INCHES.
 - VALUES FOR UNCOATED REINFORCING AND NORMAL WEIGHT CONCRETE WITH CLEAR SPACING > db, CLEAR COVER > db AND MINIMUM STIRRUPS OR TIES THROUGHOUT Ld OR CLEAR SPACING > 2db AND CLEAR COVER > db.
 - DEVELOP ALL REINFORCING IN STRUCTURAL SLABS WITH MINIMUM DEVELOPMENT LENGTH Ld.
 - Ldh = DEVELOPMENT LENGTH OF BAR WITH STANDARD HOOK.
 - TOP BAR = HORIZONTAL BAR WITH MORE THAN 12" OF FRESH CONCRETE BELOW OR AS NOTED ON DOCUMENTS AS "TOP BAR".
 - LAP SPLICE OF DIFFERENT SIZED BARS TO BE THE LARGER OF Ld OF THE LARGER BAR OR SPLICE LENGTH OF THE SMALLER BAR.
 - LAP SPLICE OF #14 AND #18 BARS IS NOT PERMITTED. LAP SPLICE OF SMALLER TO #14 AND #18 BARS IS NOT PERMITTED.
 - LAP SPLICE OF DIFFERENT GRADES OF REINFORCING TO BE THE LARGER OF Ld OF THE HIGHER GRADE BAR OR SPLICE LENGTH OF THE LOWER GRADE BAR.
 - COLUMN VERTICAL REINFORCING LAP SPLICE SCHEDULE PER [01401].
 - SHEAR WALL REINFORCING LAP SPLICE SCHEDULE PER [01404].
 - MOMENT FRAME REINFORCING LAP SPLICE SCHEDULE PER [01405].

4 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE
SCALE: 3/4" = 1'-0" (01400M)

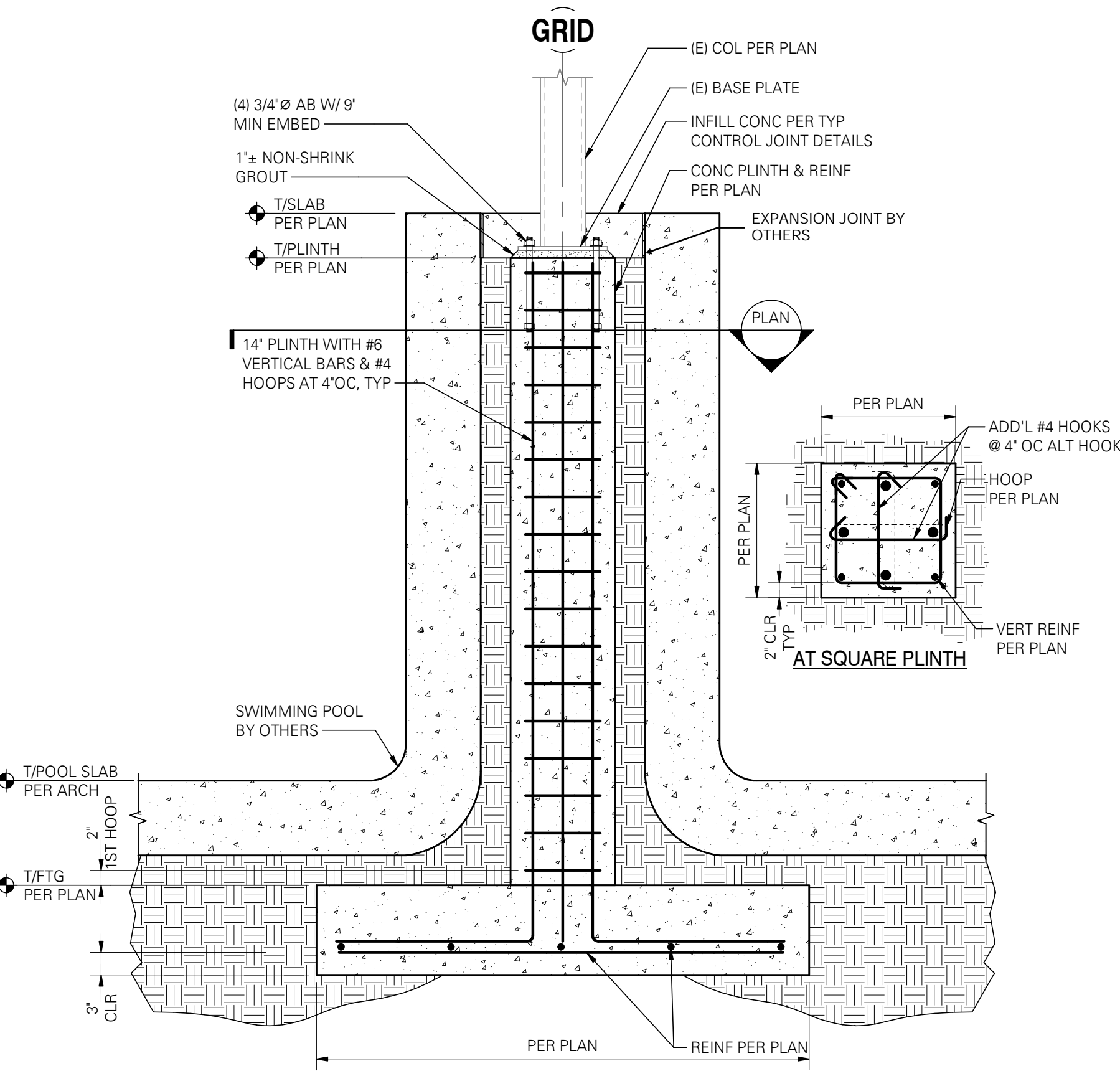


ALL REINFORCING EXCEPT COLUMN TIES AND BEAM STIRRUPS



NOTE:
TIES AND CROSSTIES FOR SHEAR WALL BOUNDARY ELEMENTS SHALL BE DETAILED AS COLUMN TIES/CROSSTIES.

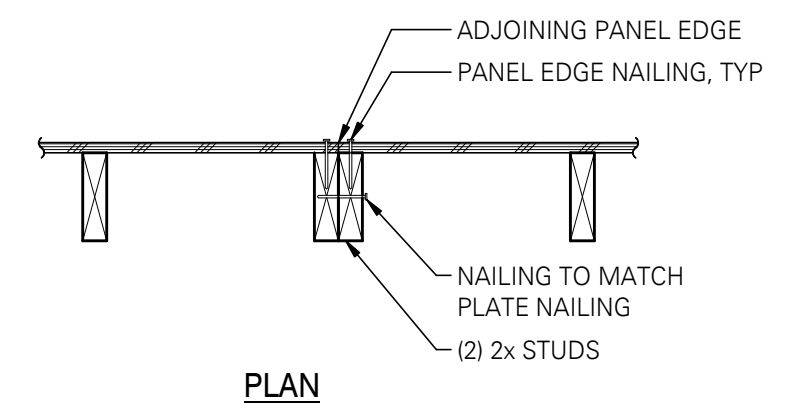
8 STANDARD HOOKS AND BENDS
SCALE: 3/4" = 1'-0" (03400)



9 INTERIOR SPREAD FOOTING AT STEEL COLUMN (BELOW GRADE)
SCALE: 3/4" = 1'-0"

| WALL TYPE | WALL SHEATHING APA-RATED [1, 2, 12, 13] | NAIL SIZE & SPACING AT ALL PANEL EDGES [4, 5] | BLOCKING & STUD SIZE AT ADJOINING PANEL EDGES [3, 6, 14] | RIM JOIST OR BLOCKING CONN TO TOP PLATE BELOW [7, 8] | 2x PLATE ATTACHMENT | | SILL PLATE ATTACHMENT | | SHEAR CAPACITY LBS/FT |
|-----------|---|---|--|--|---|------------------------------------|-------------------------------|-----|-----------------------|
| | | | | | NAILING TO WOOD RIM JOIST OR BLOCKING BELOW | ANCHOR BOLT TO CONCRETE BELOW [10] | SILL PLATE AT FOUNDATION [11] | | |
| W6 | 15/32" | 0.131"Øx2 1/2" @ 6"OC | 2x | CLIP @ 16"OC | 0.148"Øx3 1/4" @ 8"OC | 5/8"Ø @ 48"OC | 2x | 260 | |

- NOTES:**
- INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY.
 - WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON THE OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUD.
 - BLOCKING IS REQUIRED AT ALL PANEL EDGES.
 - PROVIDE SHEAR WALL SHEATHING AND NAILING FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLD-DOWN REQUIREMENTS PER PLANS. (ALTERNATE NOTE: WALLS SHOWN WITH HORIZONTAL STRAPS BELOW AND/OR ABOVE OPENINGS REQUIRE SHEATHING, SHEAR WALL NAILING, ETC ABOVE AND BELOW ALL OPENINGS).
 - SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLD-DOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLD-DOWN POSTS. ADDITIONAL INFORMATION PER HOLD-DOWN DETAILS.
 - INTERMEDIATE FRAMING TO BE 2x MINIMUM MEMBERS. ATTACH SHEATHING TO INTERMEDIATE FRAMING WITH 0.131"Øx2 1/2" NAILS AT 12"OC WHERE STUDS ARE SPACED AT 16"OC AND 0.131"Øx2 1/2" NAILS AT 6"OC WHERE STUDS ARE SPACED AT 24"OC.
 - BASED ON 0.131"Øx1 1/2" NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131"Øx2 1/2" NAILS WHERE INSTALLED OVER SHEATHING.
 - FRAMING CLIPS: A35 OR LTP6 OR APPROVED EQUIVALENT.
 - WHERE BOTTOM PLATE ATTACHMENT SPECIFIES (2) ROWS OF NAILS OR SCREWS, PROVIDE DOUBLE JOIST, RIM JOIST OR EQUAL BELOW. STAGGER NAILS/SCREWS IN ROWS 1 1/2" APART MINIMUM.
 - ANCHOR BOLTS SHALL BE PROVIDED WITH HOT-DIPPED GALVANIZED STEEL PLATE WASHERS 0.229"x3"x3" MINIMUM. THE HOLE IN THE PLATE WASHER MAY BE DIAGONALLY SLOTTED 13/16"x1 3/4" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. PLATE WASHER TO EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDE(S) WITH SHEATHING. AT 2x6 WALLS WITH SHEATHING ON BOTH SIDES USE PLATE WASHER 0.229"x4 1/2"x4 1/2" MINIMUM. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.
 - PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED (ELECTRO-PLATING IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANGLES, ETC) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS. ADDITIONAL INFORMATION PER STRUCTURAL GENERAL NOTES.
 - 7/16" APA-RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" SHEATHING PROVIDED THAT ALL STUDS ARE SPACED AT 16"OC MAXIMUM.
 - WHERE WOOD SHEATHING (W) IS APPLIED OVER GYPSUM SHEATHING (G), CONTACT THE ENGINEER OF RECORD FOR ALTERNATE NAILING REQUIREMENTS.
 - AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN PLACE OF SINGLE 3x STUD. DOUBLE 2x STUDS SHALL BE CONNECTED TOGETHER BY NAILING THE STUDS TOGETHER WITH 3" LONG NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING, PER SECTION.
 - CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR ADHESIVE OR EXPANSION BOLT ALTERNATIVES TO CAST-IN-PLACE ANCHOR BOLTS. SPECIAL INSPECTION MAY BE REQUIRED.
 - NAIL STUDS TO 3x SILL PLATES WITH EITHER (2) 0.148"Øx4" END NAILS OR (4) 0.131"Øx2 1/2" TOENAILS.
 - WX WHERE "W" INDICATES WOOD SHEATHING AND "X" INDICATES EDGE NAIL SPACING.
 - EDGE NAILS SHALL BE LOCATED 3/8" FROM PANEL EDGES.



10 SHEAR WALL SCHEDULE - DOUG-FIR LARCH
SCALE: 1" = 1'-0" (01430M)

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SIGNATURE:
Justin Chy
REGISTERED PROFESSIONAL ENGINEER
OREGON
No. 12345
SHIRLEY
EXPIRES: 12-31-23

| REVISIONS NO. | DATE | DESCRIPTION |
|---------------|--------|-------------|
| 1 | Date 1 | Revision 1 |

APPROVALS:

| | |
|----------------|-----------|
| Job No.: | 2303-0030 |
| Proj. Manager: | IP |
| Drawn: | MKA |
| Reviewed: | SC |
| Dwg. Chk.: | IP |
| Date: | 05/19/23 |
| Scale: | AS NOTED |

PROJECT TITLE:
**EMLER SWIM SCHOOL
TANASBOURNE**
1225 WATERHOUSE AVE
BEAVERTON, OREGON 97223

SHEET TITLE:
**STRUCTURAL -
DETAILS**

SHEET NO.
S6.0

| REVISIONS: | NO. | DATE | DESCRIPTION |
|------------|-----|------|-------------|
| | | | |

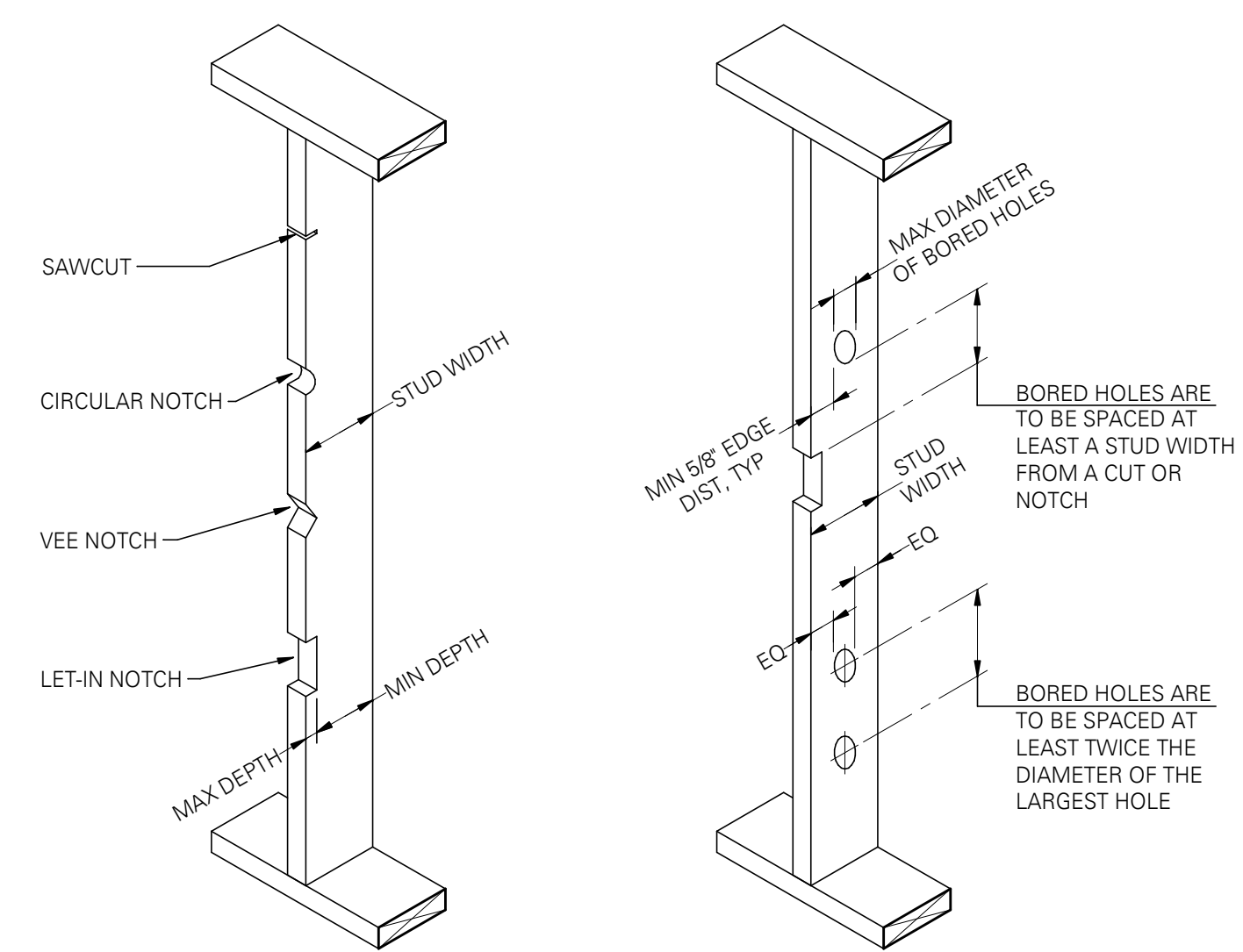
APPROVALS:

| | |
|----------------|-----------|
| Job No.: | 2303-0030 |
| Proj. Manager: | Designer |
| Drawn: | Author |
| Reviewed: | Approver |
| Dwg. Chk.: | Checker |
| Date: | 06/23/23 |
| Scale: | AS NOTED |

PROJECT TITLE:
**EMLER SWIM SCHOOL
 TANASBOURNE**
 1225 WATERHOUSE AVE
 BEAVERTON, OREGON 97223

SHEET TITLE:
**STRUCTURAL -
 DETAILS**

SHEET NO.
S6.1



| BEARING WALL STUDS | | | |
|--------------------|--------------------------------|--|--|
| STUD SIZE | MAX DEPTH OF EDGE CUT OR NOTCH | MIN DEPTH REMAINING AFTER CUT OR NOTCH | |
| 2x4 | 7/8" | 2 5/8" | |
| 2x6 | 1 3/8" | 4 1/8" | |

| BEARING WALL STUDS | | | |
|--------------------|----------------------------|--------------------------------------|--|
| STUD SIZE | MAX DIAMETER OF BORED HOLE | MIN DEPTH REMAINING AFTER BORED HOLE | |
| 2x4 | 1 3/8" | 5/8" EA SIDE OF HOLE | |
| 2x6 | 2 3/16" | 5/8" EA SIDE OF HOLE | |

NOTE:
 STUDS MAY NOT BE BORED IN EXCESS OF 40% OF THE STUD. IF STUDS ARE DOUBLED, BORINGS MAY BE INCREASED TO 60% OF STUD WIDTH PROVIDED NOT MORE THAN (2) SUCCESSIVE STUDS ARE BORED. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

| NON-BEARING WALL STUDS | | | |
|------------------------|--------------------------------|--|--|
| STUD SIZE | MAX DEPTH OF EDGE CUT OR NOTCH | MIN DEPTH REMAINING AFTER CUT OR NOTCH | |
| 2x4 | 1 3/8" | 2 1/8" | |
| 2x6 | 2 3/16" | 3 3/8" | |

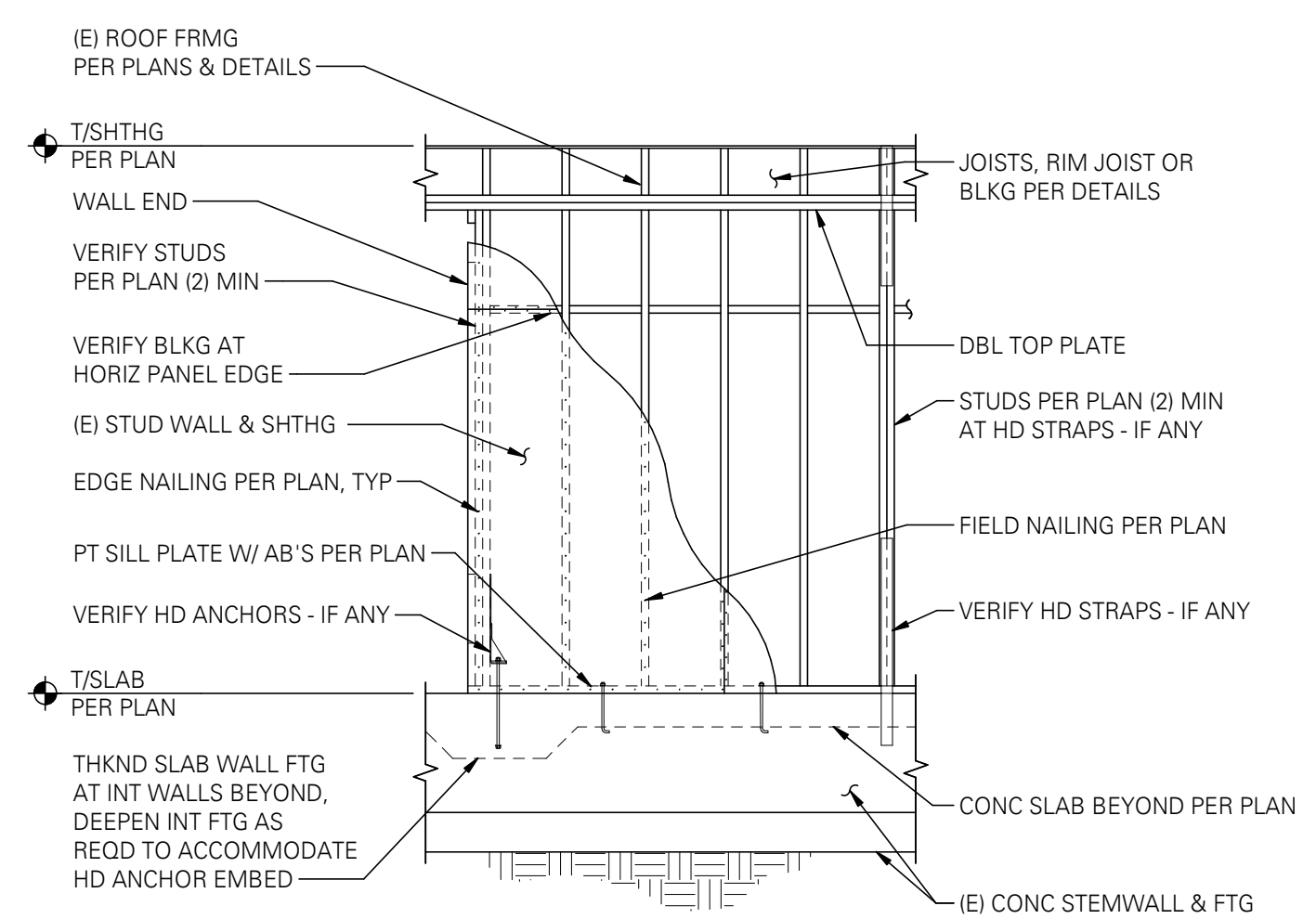
| NON-BEARING WALL STUDS | | | |
|------------------------|----------------------------|--------------------------------------|--|
| STUD SIZE | MAX DIAMETER OF BORED HOLE | MIN DEPTH REMAINING AFTER BORED HOLE | |
| 2x4 | 2 1/16" | 5/8" EA SIDE OF HOLE | |
| 2x6 | 3 1/4" | 5/8" EA SIDE OF HOLE | |

NOTE:
 STUDS MAY NOT BE BORED IN EXCESS OF 60% OF THE STUD. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

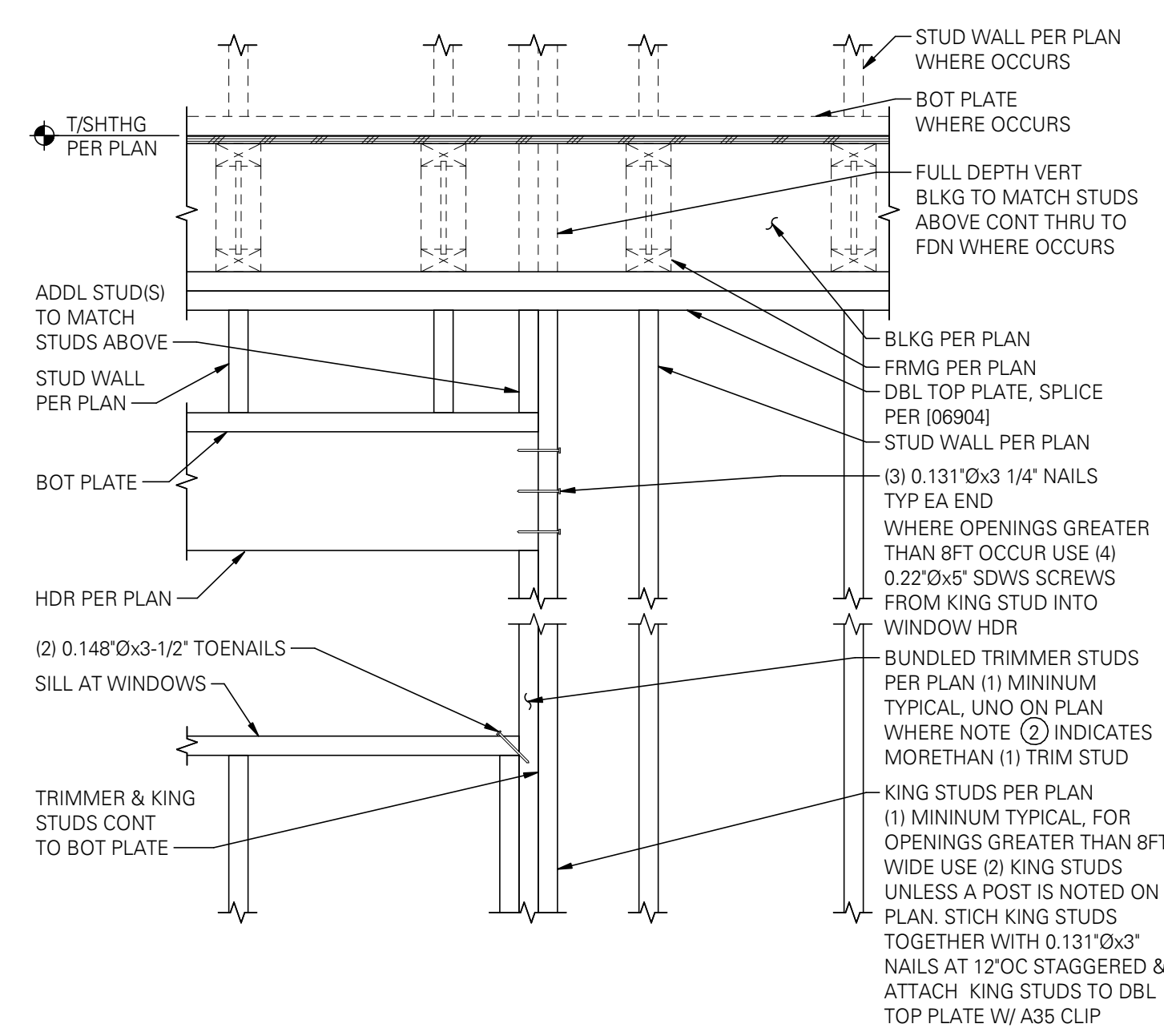
CUTTING AND NOTCHING WOOD STUDS
 NOTE:
 DO NOT NOTCH MORE THAN THREE ADJACENT STUDS WITHOUT REVIEW BY ENGINEER.

BORED HOLES IN WOOD STUDS
 NOTE:
 BORED HOLE NOT PERMITTED IN MORE THAN THREE ADJACENT STUDS WITHOUT REVIEW BY ENGINEER.

10 TYPICAL HOLES & NOTCHES IN WOOD STUDS
 SCALE: 1" = 1'-0" (06908)



11 TYPICAL SHEAR WALL ELEVATION
 SCALE: 1" = 1'-0" (06909M)



12 TYPICAL HEADER
 SCALE: 1" = 1'-0" (SF-06211)

CEILING GENERAL NOTES:

GOVERNING CODE: THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE "OREGON STRUCTURAL SPECIALTY CODE" (OSSC), 2019 EDITION, HEREAFTER REFERRED TO AS THE IBC, AS ADOPTED AND MODIFIED BY THE CITY OF VANCOUVER, WA UNDERSTOOD TO BE THE AUTHORITY HAVING JURISDICTION (AHJ).

REFERENCE DRAWINGS:
ELMER SWIM SCHOOL TANASBOURNE DATED 05.03.2023

TYPICAL DETAILS: THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT AND ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK.

COORDINATION: THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DETAILS AND ACCURACY OF THE WORK, FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY, AND FOR PERFORMING WORK IN A SAFE AND SECURE MANNER.

MEANS, METHODS AND SAFETY REQUIREMENTS: THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA.

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN THESE GENERAL REQUIREMENTS, THE ENGINEER OF RECORD GENERAL REQUIREMENTS, SPECIFICATIONS, OR THE ENCLOSED PLANS AND DETAILS THE ENGINEER SHALL DETERMINE WHICH SHALL GOVERN. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

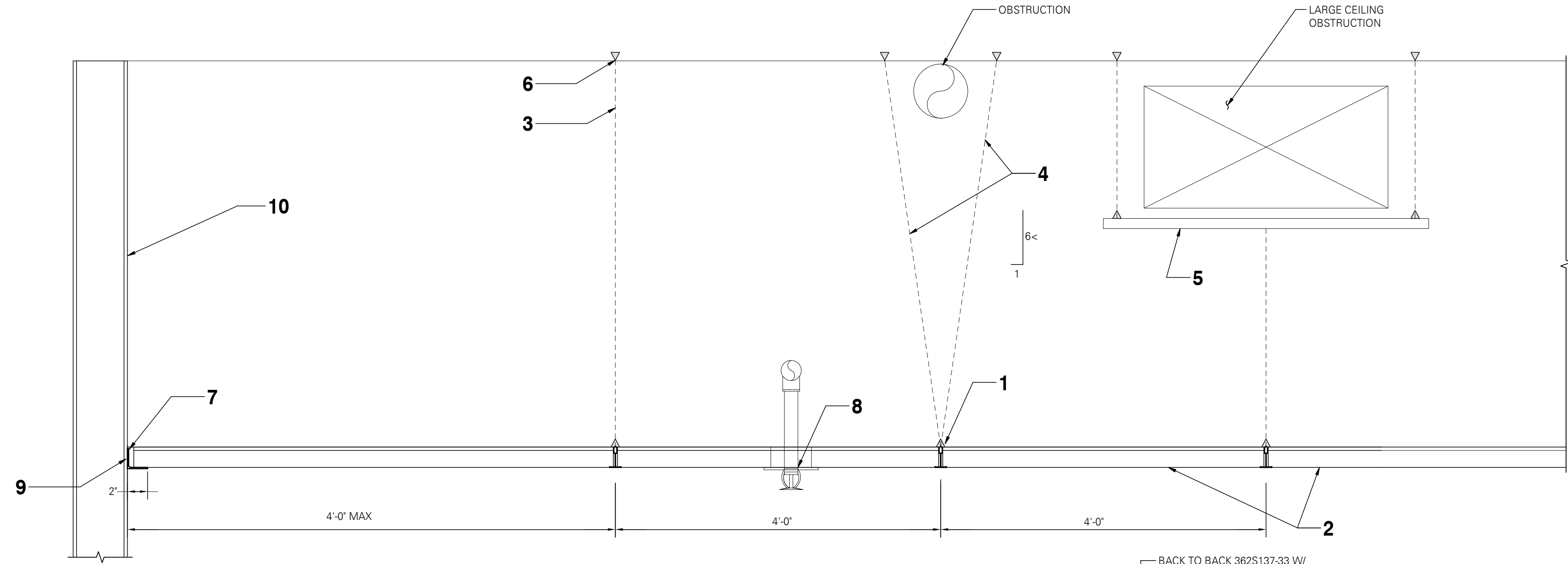
SITE VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PRECEDING WITH THE WORK.

DESIGN LOADS:

SEISMIC
DESIGN COMPONENT IMPORTANT FACTOR, IP = 1.5
COMPONENT AMPLIFICATION FACTOR, AP = 1.0
COMPONENT RESPONSE MODIFICATION FACTOR, RP = 2.5
DESIGN SPECTRAL RESPONSE ACCELERATION (SHORT PERIOD), SDS = 0.81

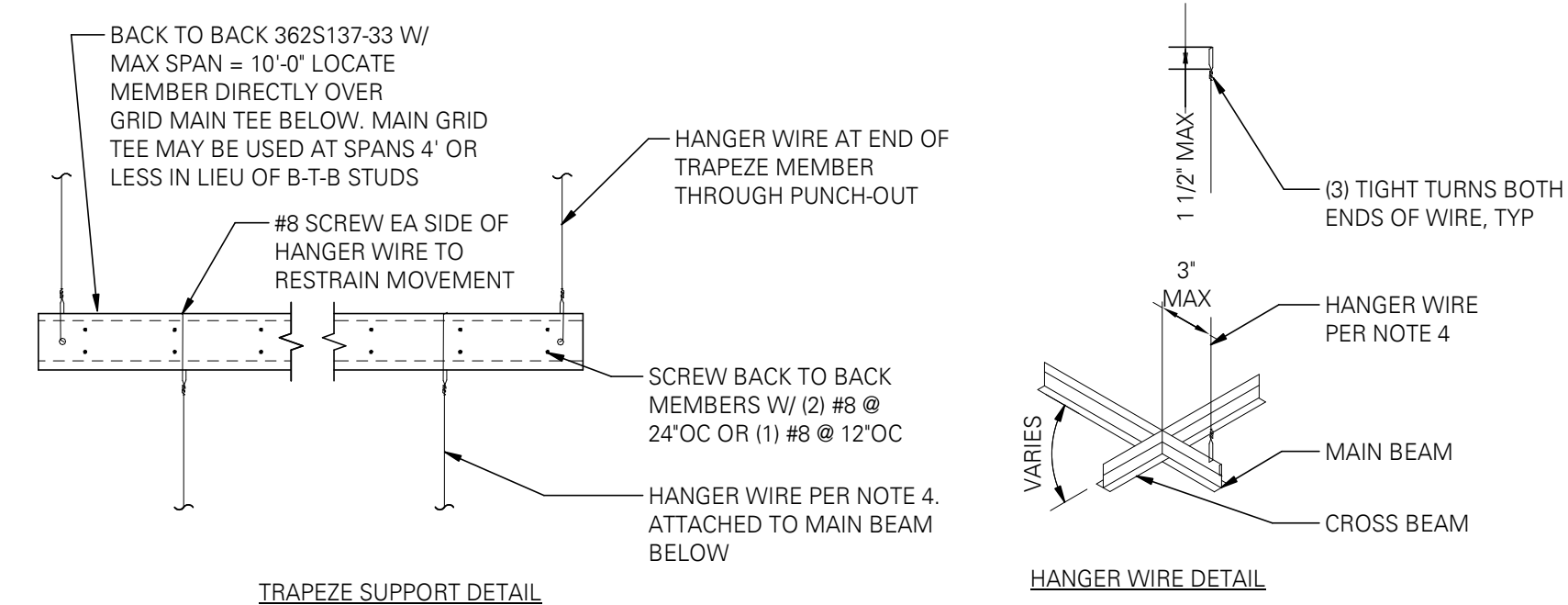
SUSPENDED GYP CEILING CONSTRUCTION

1. THE SUSPENDED CEILING SHALL BE INSTALLED PER ASTM C635, ASTM C645, ASTM C754 AND ASTM C840.
2. SUSPENDED GYP CEILING SHALL BE ENCLOSED ON ALL SIDES BY EITHER A SOFFIT DROP LATERALLY BRACED TO STRUCTURE ABOVE OR WALL PENETRATING THROUGH THE GRID AND LATERALLY BRACED TO THE STRUCTURE ABOVE. THE BEAMS/TEES SHALL BE ATTACHED TO THE CLOSURE ANGLE ON ALL SIDES WITH POSITIVE CONNECTION
3. EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS, SPRINKLER HEADS AND OTHER PENETRATIONS SHALL HAVE A 2 INCH (50MM) OVERSIZED RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1 INCH IN ALL HORIZONTAL DIRECTIONS. ALTERNATIVELY A SWING JOINT THAT CAN ACCOMMODATE 1 INCH (25MM) OF CEILING MOVEMENT IN ALL HORIZONTAL DIRECTIONS IS PERMITTED TO BE PROVIDED AT THE TOP OF THE SPRINKLER HEAD EXTENSION
4. CABLE TRAYS AND ELECTRICAL CONDUIT SHALL BE SUPPORTED INDEPENDENTLY FROM THE CEILING.
5. MAIN BEAM AND CROSS TEE SHALL BE HEAVY DUTY FROM AN APPROVED MANUFACTURER. INTERCONNECT GRID MEMBERS PER MANUFACTURER'S SPECIFICATIONS.
A. ARMSTRONG DRYWALL GRID SYSTEM - ICC ESR 1289
B. CERTAINTED DRYWALL SUSPENSION SYSTEM - ICC ESR 3336
6. FOR SPANS LESS THAN 8'-6" AND A SINGLE LAYER OF 5/8" GYP MAIN GRID SHALL BE ATTACHED TO CLOSURE ANGLE AT 2'-0" OC. CROSS TIES AND WIRES MAY BE OMITTED.
7. GYP SHALL BE ATTACHED TO BEAMS/TEES WITH #6 SCREWS @ 16" OC IN THE FIELD AND 12" OC AT PERIMETER EDGES.
8. TYPICAL PLENUM SPACES HAVE A WIDE VARIETY OF FIELD CONDITIONS THAT MAY REQUIRE ADJUSTMENT OF WIRE SPACING. SEE TYPICAL HANGER WIRE INSTALLATION FOR EACH CONDITION
9. POWER ACTUATED FASTENERS (PAF) SHALL BE FASTENED TO CONCRETE WITH A 3/4" EMBEDMENT. ANCHOR LOAD MAY NOT EXCEED 90LBS. EMBEDMENT DEPTH INTO STEEL PER MANUFACTURER. PAF APPROVED FOR USE ARE:
A. HILTI "X-CALXAL22" - ICC ESR-2184
B. RAMSET "SP" - ICC ESR-1789
C. AEROSMITH "5000 SERIES" - ICC ESR-2453
10. HANGER WIRE SHALL BE 12GA PER ASTM A641 WITH A MIN BREAKING STRENGTH OF 275 LBS.
11. POST INSTALLED ANCHORS INTO CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND CURRENT ESR REPORT. ANCHORS APPROVED FOR USE ARE:
A. HILTI KH-EZ 3/8" x 1-7/8" SCREW ANCHOR - ICC ESR-3027
B. DEWALT "MINI-UNDERCUT+" - ICC ESR-3912

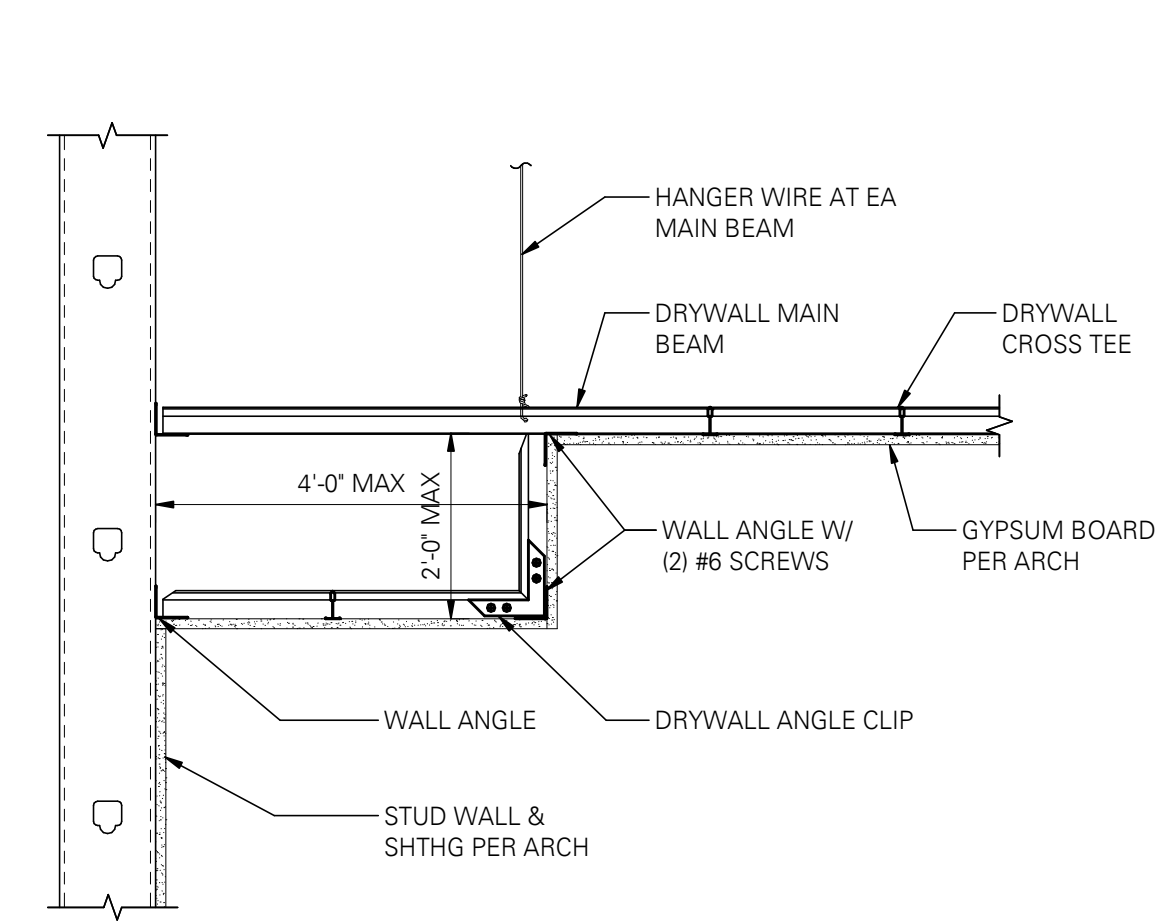


1. MAIN BEAMS: SUPPORTED WITH WIRE PER NOTE 3. ATTACH TO CLOSURE ANGLE AT EACH END PER NOTE 2 ON SUSPENDED GYP CEILING CONSTRUCTION NOTES. SPACE 4'-0" OC MAX.
2. CROSS TEES: SUPPORTED BY MAIN BEAMS AND SPACED NO MORE THAN 24" OC. A TIGHTER SPACING MAY BE REQUIRED FOR THIN SHEATHING. CONNECT TO MAIN BEAM PER MANUF INSTRUCTIONS.
3. HANGER WIRES PER NOTE 10 ON SUSPENDED GYP CEILING CONSTRUCTION. SEE INSET. SPACE ALONG MAIN BEAM PER SCHEDULE. NO MORE THAN 48" OC. VERTICAL HANGER WIRES TO BE NOT MORE THAN 1/8" OUT OF PLUMB. ALL WIRES SHALL BE MINIMUM 6" FROM ALL UNBRACED PIPES AND DUCTS. SPLICING OF WIRES IS NOT PERMITTED.
4. SYSTEM HANGER WIRES MORE THEN 1/8" OUT OF PLUMB, PROVIDE COUNTER SLOPE HANGER.
5. WHERE HANGER WIRES ARE NOT POSSIBLE DUE TO OBSTRUCTIONS, PROVIDE TRAPEZE PER INSET.
6. HANGER WIRES ATTACHED TO CONCRETE, STEEL, OR CONCRETE OVER METAL DECK WITH PAF'S PER NOTE 9 ON SUSPENDED GYP CEILING CONSTRUCTION NOTES.
7. WALL ANGLE 1-1/4"x1-1/4" MIN AT PERIMETER OF SUSPENDED GYP CEILING W/ #6 SMS TO WALL SUPPORT. ATTACH BEAMS/TEES TO CLOSURE ANGLE PER NOTE 2 OF SUSPENDED GYP CEILING CONSTRUCTION NOTES.
8. FOR GYP CEILING PROVIDE 2" GAP AROUND ALL GRID PENETRATIONS, INCLUDING SPRINKLERS. PER NOTE 3 OF THE SUSPENDED GYP CEILING CONSTRUCTION NOTES. EXCEPTION: 2" GAP NOT REQUIRED IF SPRINKLERS ARE ATTACHED TO GRID WITH FLEX LINE
9. CONNECT WALL ANGLE TO STRUCTURAL ELEMENT W/ #8 SCREWS AT EA STUD.
10. WALL STUD OR SOFFIT PER ARCH.

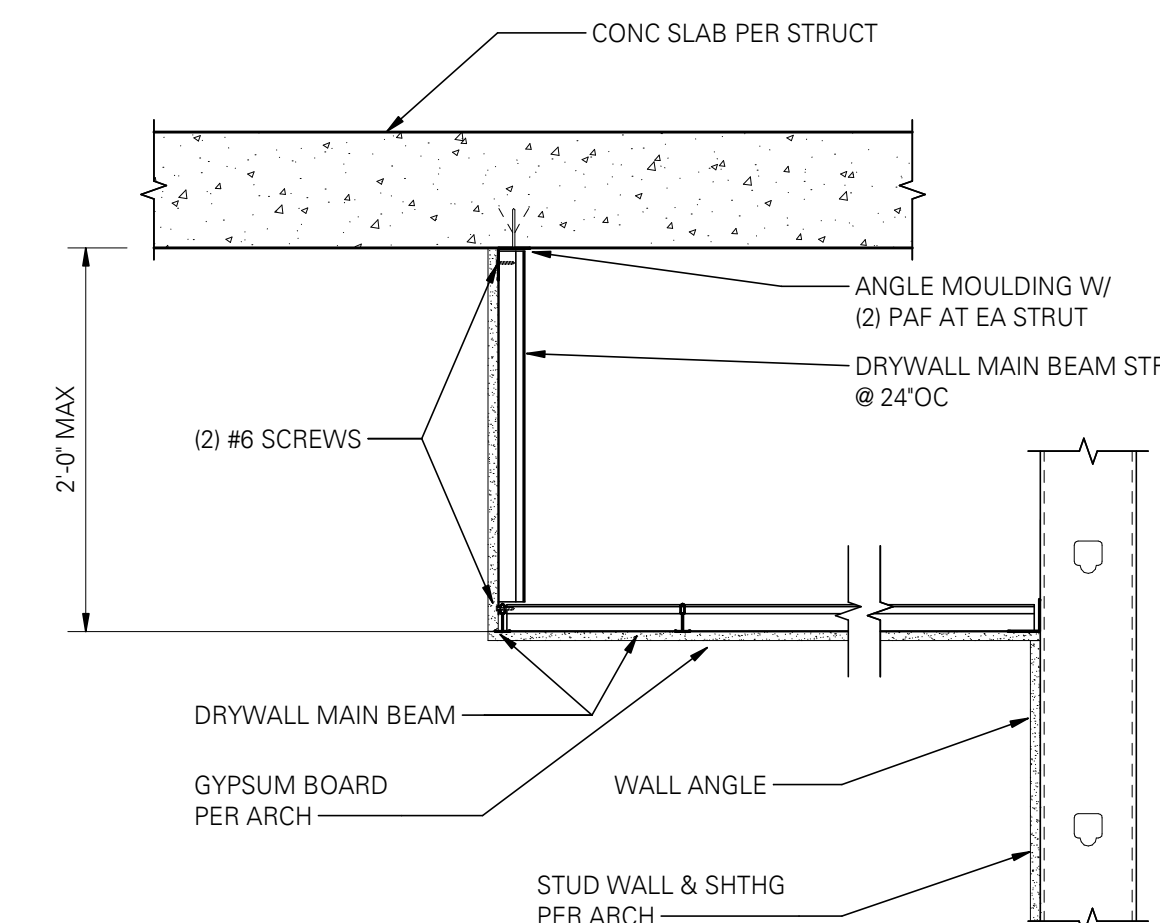
| HANGER WIRE SCHEDULE | | | |
|----------------------|-------------------------------|---------|--------------------|
| MAX CEILING WEIGHT | EQUIVALENT LAYERS 5/8" GYPSUM | SPACING | LOAD ON WIRE (LBS) |
| 2.4 PSF | 1 | 48" | 38.4 |
| 4.8 PSF | 2 | 48" | 76.8 |
| 7.2 PSF | 3 | 24" | 57.6 |
| 9.6 PSF | 4 | 24" | 76.8 |



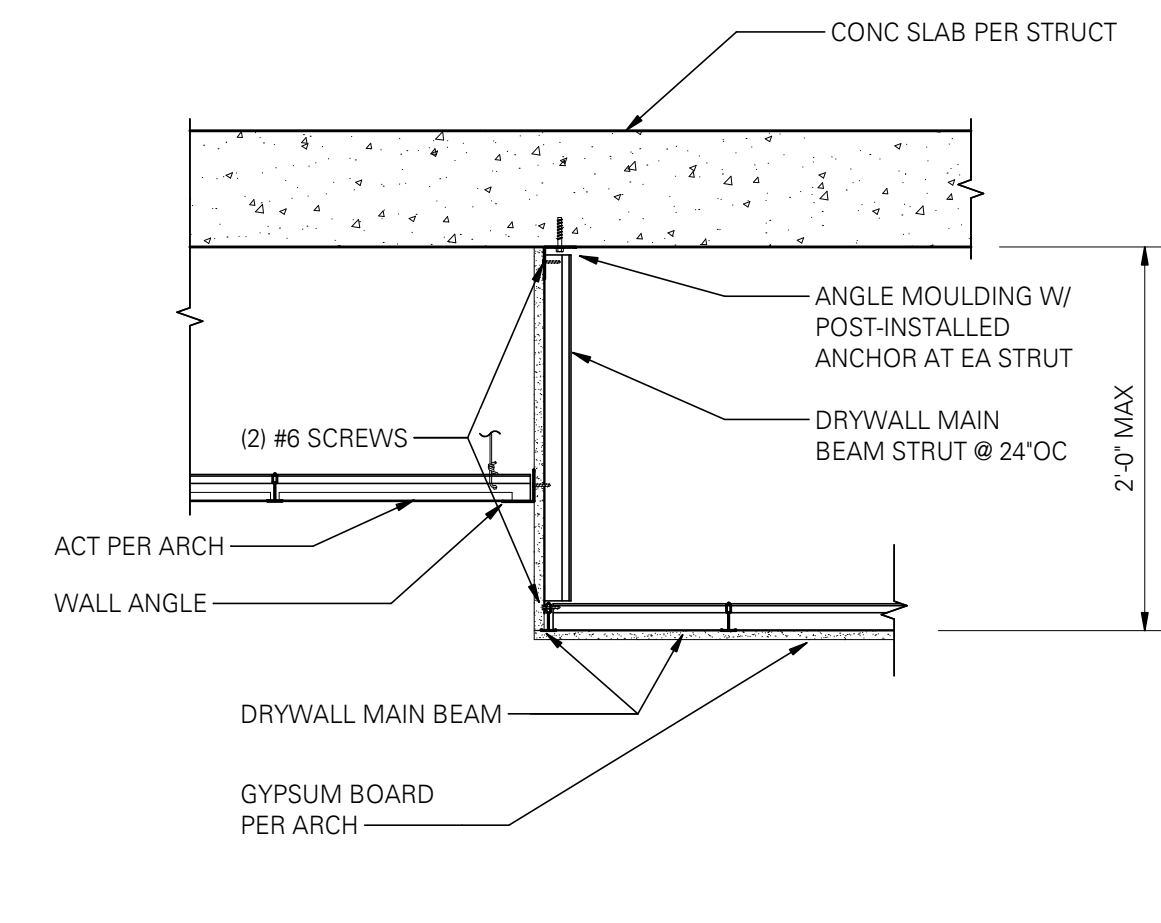
6 TYPICAL SUSPENDED CEILING GRID INSTALLATION
SCALE: 1" = 1'-0"



10 DRYWALL CEILING SOFFIT DETAIL
SCALE: 1" = 1'-0"



11 DRYWALL CEILING TO EXPOSED STRUCTURE SOFFIT
SCALE: 1" = 1'-0"



12 ACT TO GYP CEILING TRANSITION
SCALE: 1" = 1'-0"

PREPARED BY: **DDCI ENGINEERS**
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The Engineer shall not be responsible for the design of any structure or component thereof which is not shown on the drawings or which is not specifically mentioned in the specifications.

SIGNATURE: *Justin D. Dyer*
REGISTERED PROFESSIONAL ENGINEER
OREGON
NO. 12345
EXPIRES: 12-31-23

REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

APPROVALS:

| | |
|----------------|------------|
| Job No.: | 23031-0030 |
| Proj. Manager: | IP |
| Drawn: | MKA |
| Reviewed: | SC |
| Dwg. Chk.: | IP |
| Date: | 05/19/23 |
| Scale: | AS NOTED |

PROJECT TITLE:
**EMLER SWIM SCHOOL
TANASBOURNE**
1225 WATERHOUSE AVE
BEAVERTON, OREGON 97223

SHEET TITLE:
**STRUCTURAL - GYP
CEILING FRAMING**

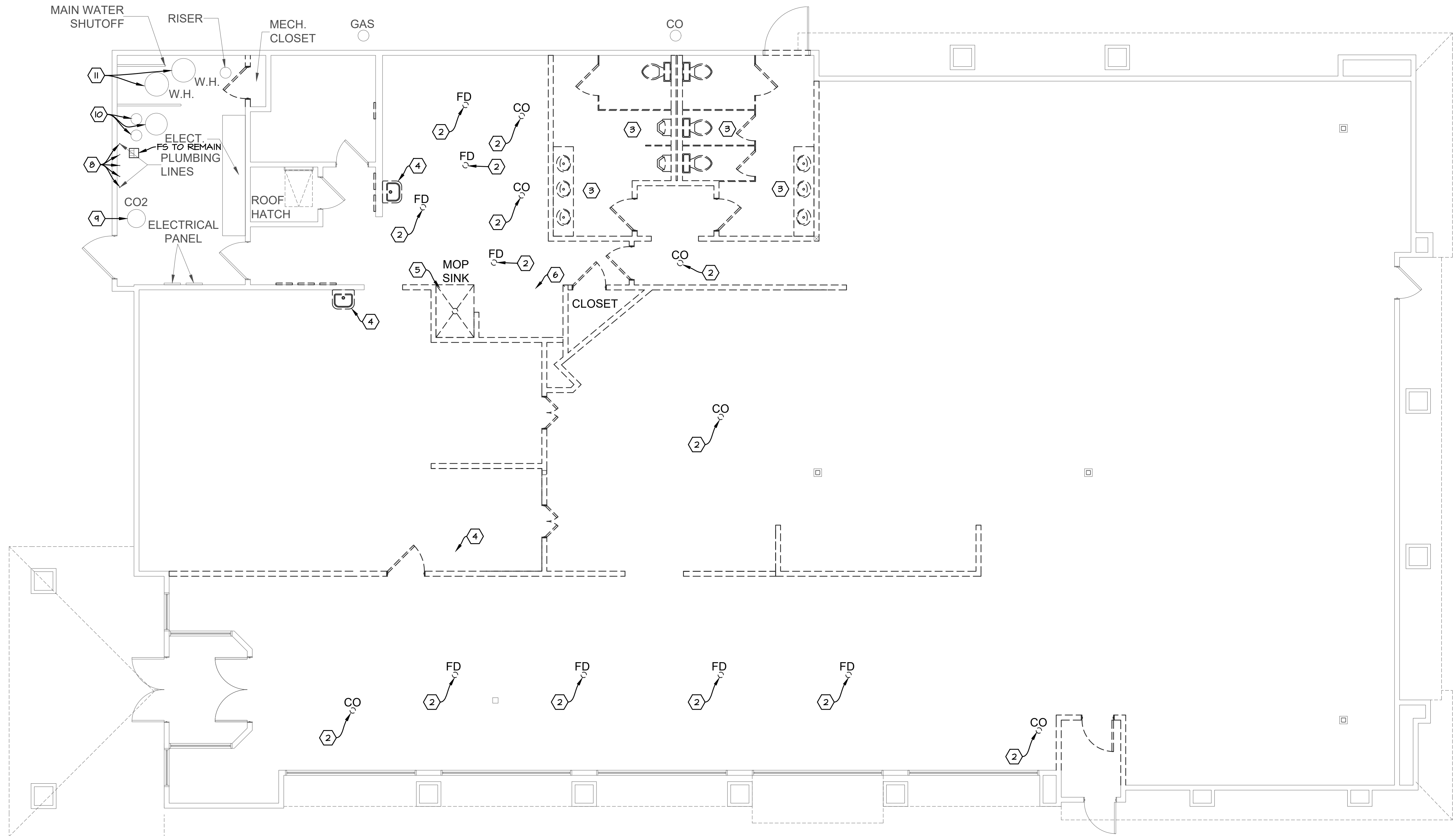
SHEET NO.
S7.0

DEMOLITION LEGEND

- (EX) ITEM IS EXISTING TO REMAIN
- (X) ITEM IS EXISTING TO BE REMOVED
- (XR) ITEM IS EXISTING TO BE RELOCATED

PLUMBING DRAWING KEYNOTES

- 1 CAP UNDERGROUND SANITARY BELOW FLOOR GAS TIGHT. ABANDON PIPE IN PLACE PER 2021 OREGON PLUMBING SPECIALTY CODE (OPSC); BASED ON THE 2021 OREGON PLUMBING CODE AND AMENDED BY THE STATE OF OREGON AS ADOPTED BY BEAVERTON.
- 2 REMOVE FLOOR DRAIN AND CLEAN OUT BELOW FLOOR AND CAP GAS TIGHT PER NOTE 1
- 3 REMOVE EXISTING TOILET ROOM FIXTURES. CAP SANITARY PER NOTE 1. REMOVE ALL ABOVE GROUND PIPING, HANGERS, INSULATION ETC. REMOVE WATER PIPING BACK TO MAIN.
- 4 REMOVE EXISTING HAND SINK. CAP SANITARY PER NOTE 1. REMOVE ALL ABOVE GROUND PIPING, HANGERS, INSULATION ETC. REMOVE WATER PIPING BACK TO MAIN.
- 5 REMOVE EXISTING MOP SINK. CAP SANITARY PER NOTE 1. REMOVE ALL ABOVE GROUND PIPING, HANGERS, INSULATION ETC. REMOVE WATER PIPING BACK TO MAIN.
- 6 REMOVE EXISTING ICE MAKER. CAP SANITARY PER NOTE 1. REMOVE ALL ABOVE GROUND PIPING, HANGERS, INSULATION ETC. REMOVE WATER PIPING BACK TO MAIN.
- 7 REMOVE ALL EXISTING HOT AND COLD WATER
- 8 REMOVE ALL EXISTING TRAP PRIMERS
- 9 REMOVE ALL EXISTING CO2 TANK AND ALL RELATED PIPING
- 10 OWNER TO DETERMINE IF EXISTING ECOLAB SYSTEM TO REMAIN.
- 11 REMOVE EXISTING WATER HEATER AND ALL RELATED PIPING



1 PLUMBING DEMOLITION
3/16" = 1'-0"

EMLER SWIM SCHOOL
TANASBOURNE

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REGISTERED PROFESSIONAL
ENGINEER
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OREGON
MEMBER 10 001
MARK O. VENTRELLI
EXPIRES 06/30/24

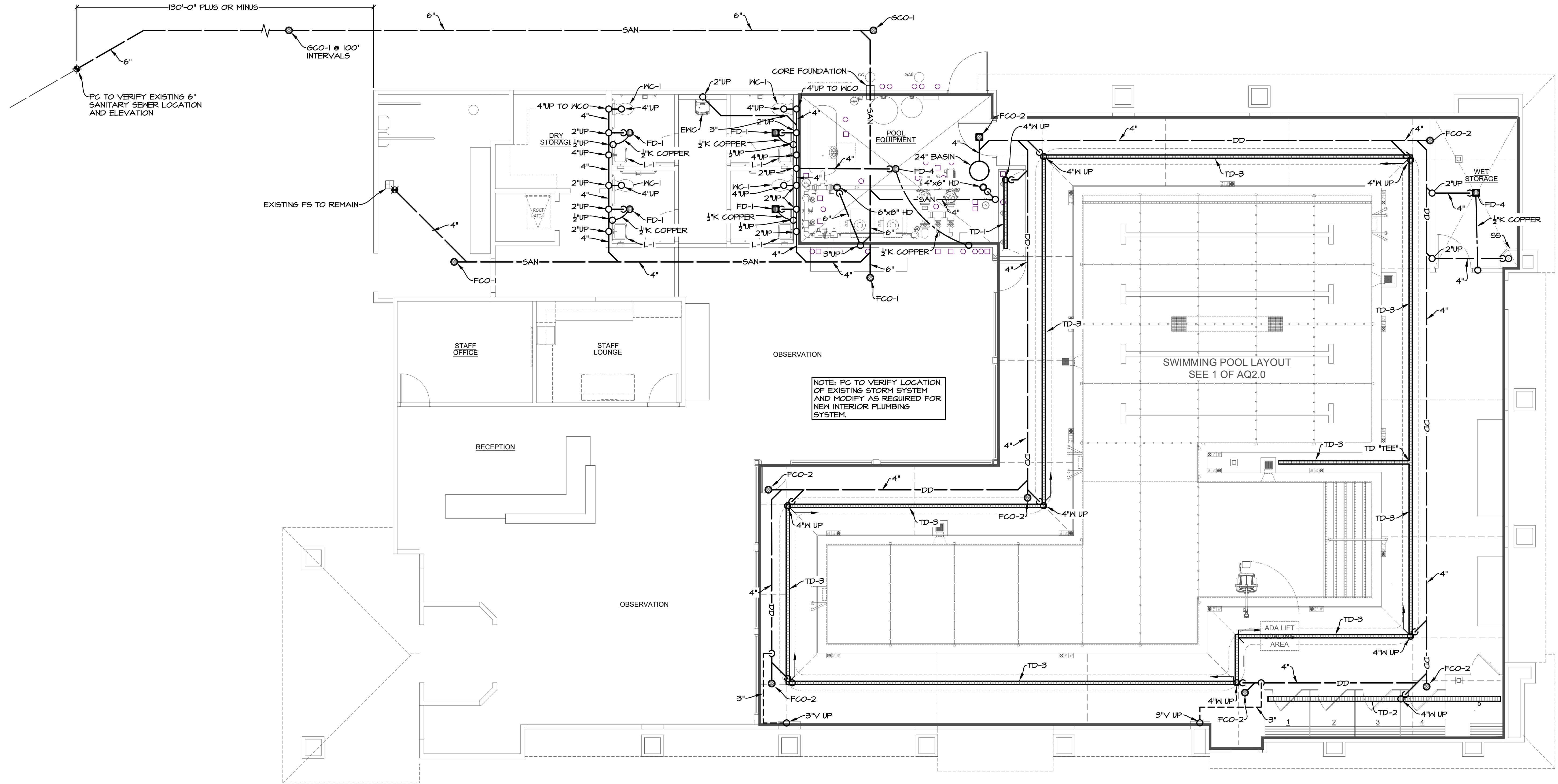
Date
06.23.2023

Polkington Group Architects, Inc.
248 ADDIE ROY ROAD, SUITE B-301 AUSTIN TX 78746
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Project No.
2301
Sheet No.

PD1.1

Sheet Title
PLUMBING DEMOLITION PLAN



1 UNDERGROUND PLUMBING
3/16" = 1'-0"

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LEP: 12/29/2021 | P: 12/29/2021

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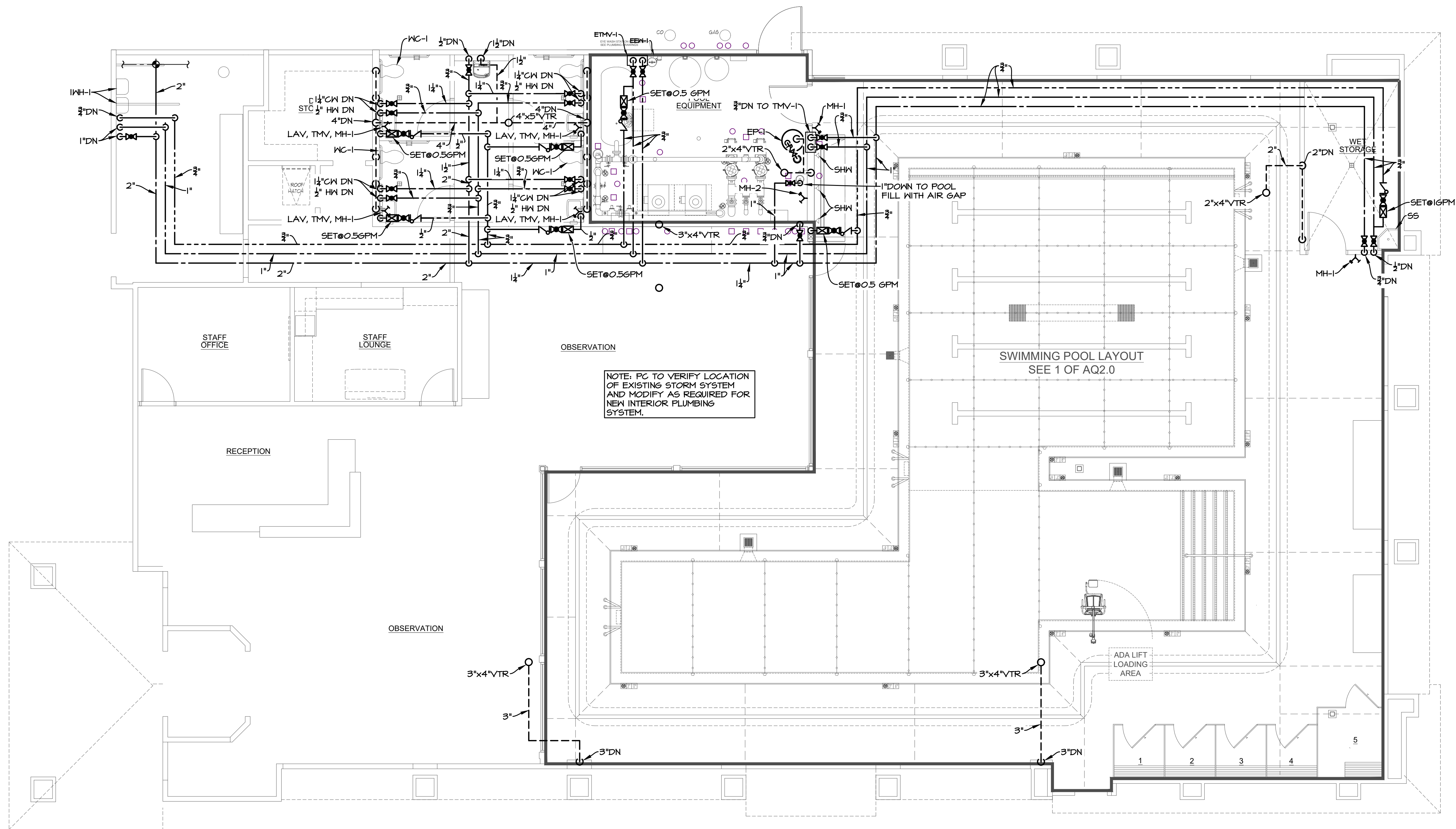
Date
06.23.2023

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Project No.
2301
Sheet No.

P1.1

Sheet Title
UNDERGROUND PLUMBING PLAN



NOTE: PC TO VERIFY LOCATION OF EXISTING STORM SYSTEM AND MODIFY AS REQUIRED FOR NEW INTERIOR PLUMBING SYSTEM.

1 ABOVEGROUND PLUMBING
3/16" = 1'-0"

EMLER SWIM SCHOOL
TANASBOURNE

12225 WATERHOUSE AVE BEAVERTON, OREGON 97223

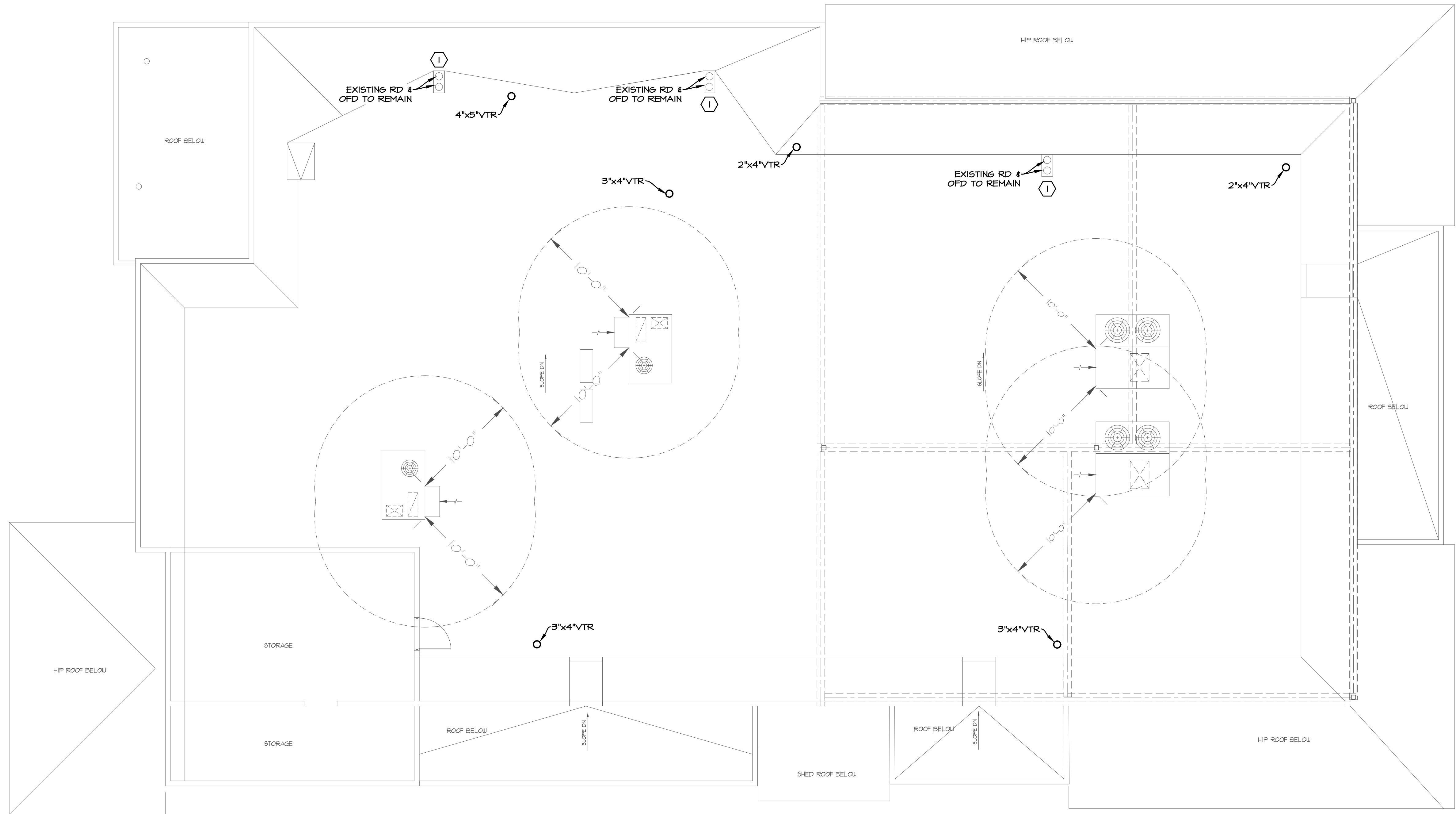
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LSP-12019712225-15-01-0001-1-01

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SEPTEMBER 10 2011
MARK O. VENTRELLI
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Date
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Project No.
2301
Sheet No.
P1.2
Sheet Title
ABOVEGROUND PLUMBING PLAN



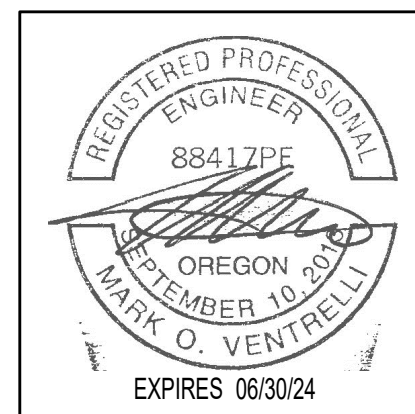
PLUMBING DRAWING KEYNOTES

① EXISTING ROOF DRAIN AND OVERFLOW DRAIN TO REMAIN. PG TO LOCATE DS LEADERS WITHIN CEILING AND REROUTE AS REQUIRED. MODIFICATION OF EXISTING STORM SYSTEM MAY BE REQUIRED.

1 ROOF PLUMBING
3/16" = 1'-0"

EMLER SWIM SCHOOL
TANASBOURNE

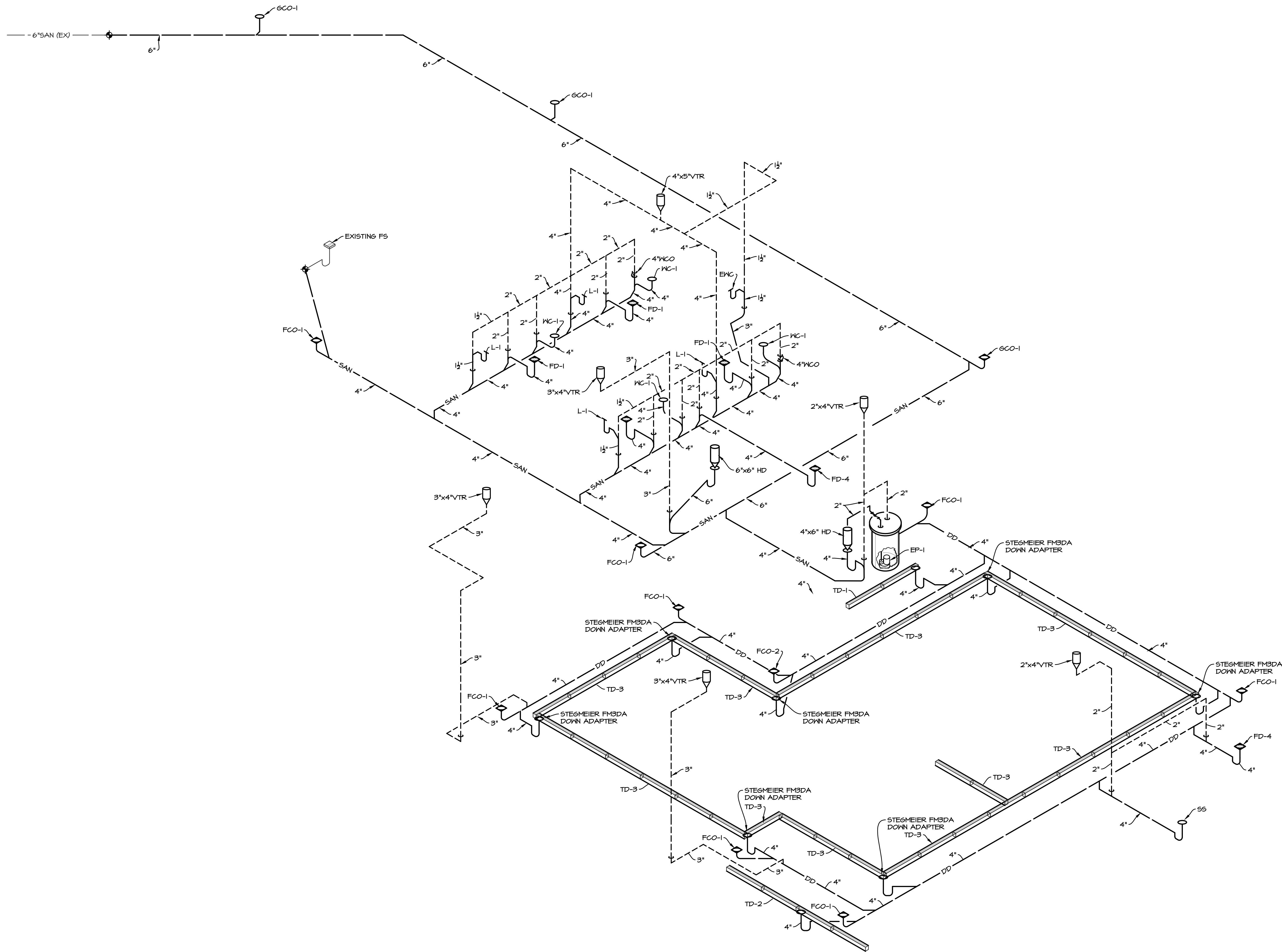
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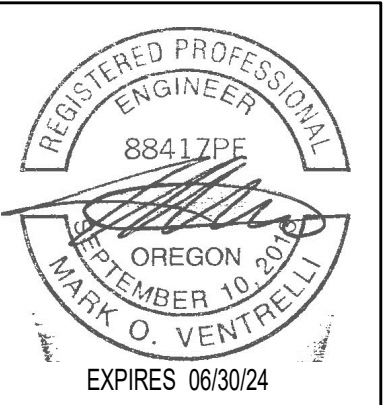
Date
06.23.2023

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Project No.
2301
Sheet No.
P1.3
Sheet Title
ROOF PLUMBING PLAN



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Project No.
2301
 Sheet No.
P1.4
 Sheet Title
WASTE AND VENT DIAGRAM

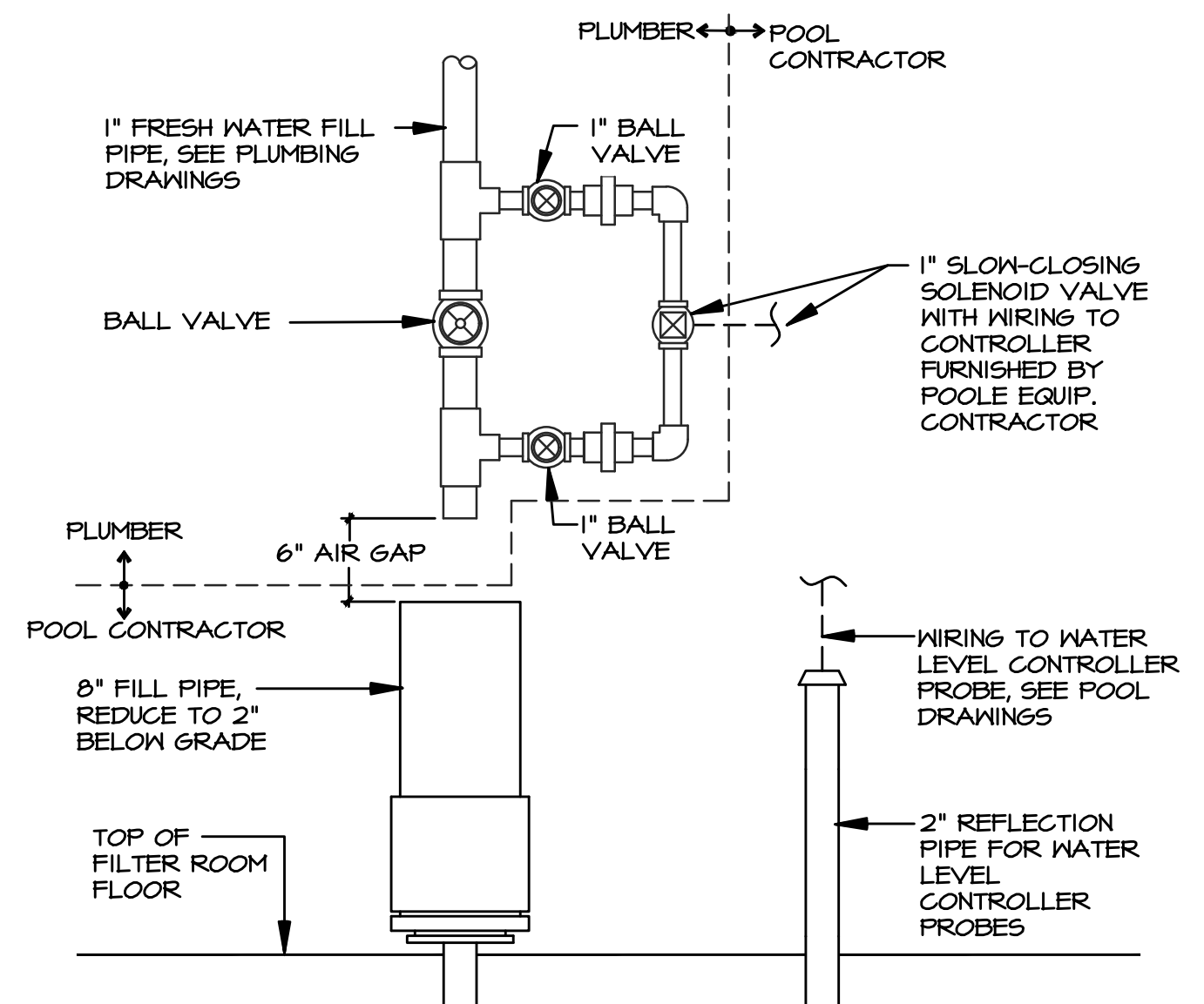
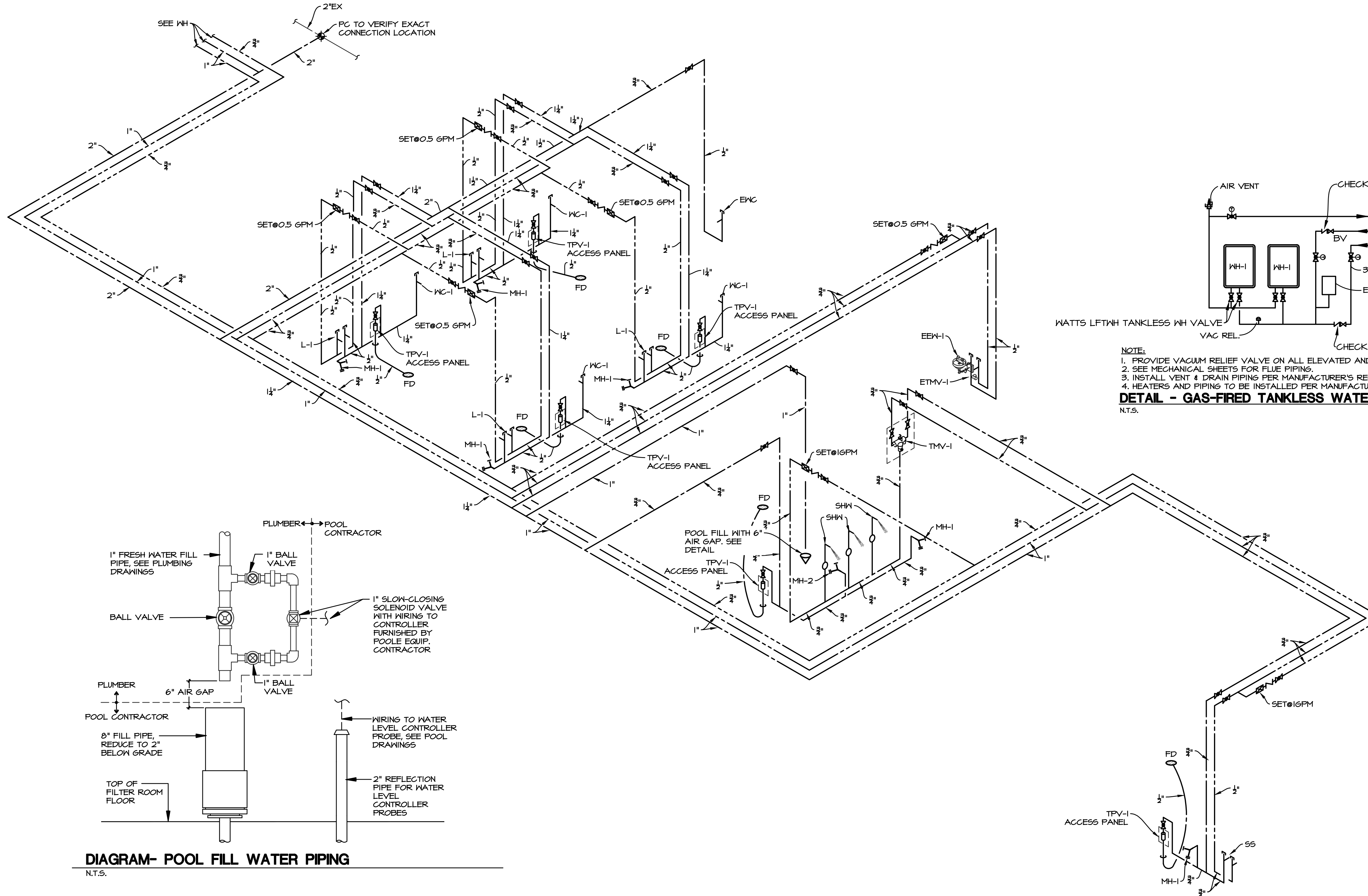
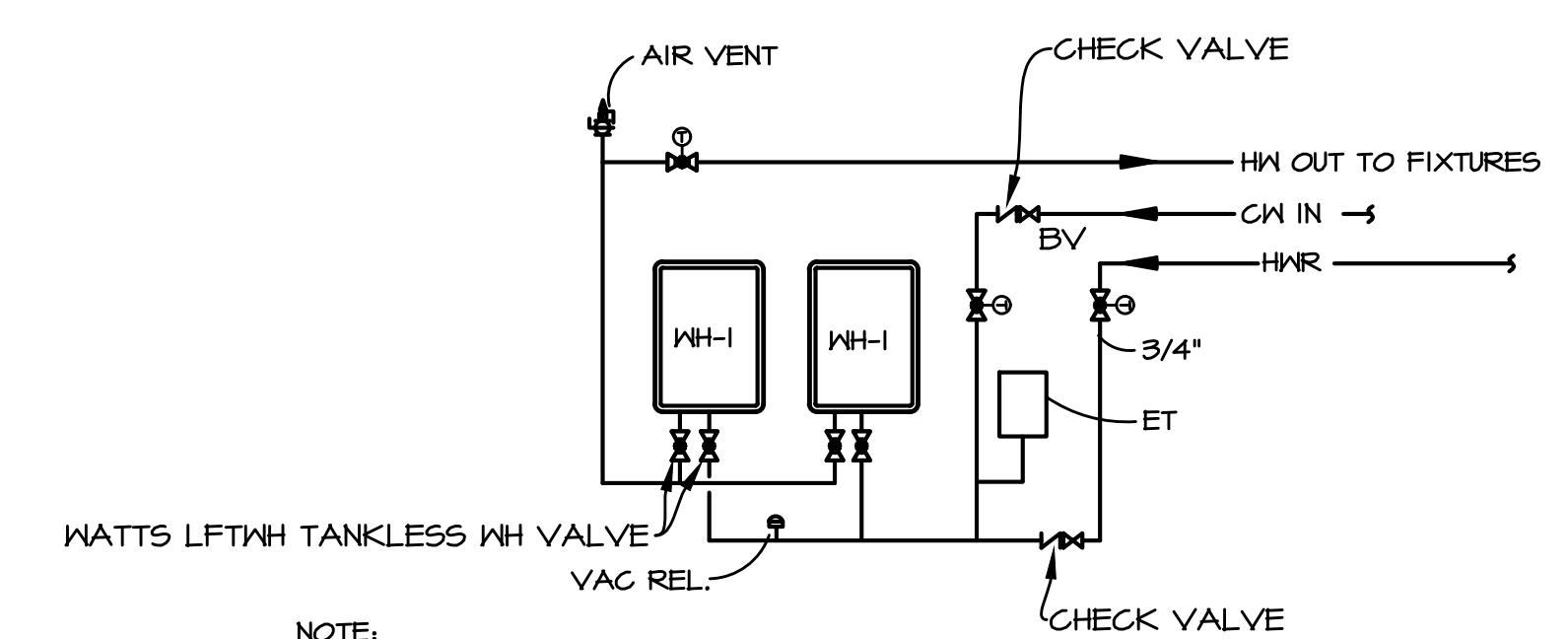


DIAGRAM- POOL FILL WATER PIPING
N.T.S.



NOTE:
 1. PROVIDE VACUUM RELIEF VALVE ON ALL ELEVATED AND BOTTOM FED WATER HEATERS.
 2. SEE MECHANICAL SHEETS FOR FLUE PIPING.
 3. INSTALL VENT & DRAIN PIPING PER MANUFACTURER'S RECOMMENDATIONS.
 4. HEATERS AND PIPING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
DETAIL - GAS-FIRED TANKLESS WATER HEATER (WH-1)
 N.T.S.

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Date
 06.23.2023

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Project No.
 2301
 Sheet No.

| PLUMBING SYMBOLS | |
|------------------------------------|--|
| NOT ALL SYMBOLS MAY APPLY | |
| --- | EXISTING COLD WATER PIPING |
| ---- | EXISTING HOT WATER PIPING |
| ----- | EXISTING HOT WATER RETURN PIPING |
| - - - - - | EXISTING UNDERGROUND SEWER |
| ---- | EXISTING SUSPENDED SEWER |
| ---- | EXISTING VENT PIPING |
| --- | COLD WATER PIPING (INSULATED) |
| ---- | HOT WATER PIPING (INSULATED) |
| ----- | HOT WATER RETURN PIPING (INSULATED) |
| --- --- | TEMPERED WATER PIPING (INSULATED) |
| --- --- | TEMPERED WATER RETURN PIPING (INSULATED) |
| --- | UNDERGROUND SEWER |
| --- | SUSPENDED SEWER |
| --- | VENT PIPING |
| --- | DRAIN TILE |
| --- | UNION |
| T | CLEAN-OUT PLUG |
| NOTE: JR SMITH OR MIFAB ACCEPTIBLE | |
| WC | WALL CLEAN-OUT (*SMITH* #4422, MIFAB C1450-RD) |
| FCO-1 | FLOOR CO (*SMITH* #4040, MIFAB C1220-S-3) FF |
| FCO-2 | FLOOR CO (*SMITH* #4020) FINISHED AREAS |
| FCO-3 | FLOOR CO (*SMITH* #4220, MIFAB C1220-XR-4) UNFF |
| FCO-4 | FLOOR CLEAN-OUT (*SMITH* #4250) NO-LOAD AREAS |
| FD-1 | FLOOR DRAIN (*WATTS* #FD-1160-T) |
| FD-2 | FLOOR DRAIN (*SMITH* #2210, MIFAB F1320-TFB) |
| FD-3 | FLOOR FUNNEL DRN (*SMITH* #3510, MIFAB F1100-C-EF-3) |
| FD-4 | FLOOR DRAIN (*SIQUX CHIEF* #864-4P, #64-S BUCKET) |
| HD | HUB DRAIN |
| AD | AREA DRAIN (*SMITH* #2675) |
| FS | FLOOR SINK (*SMITH #3101-12) |
| RD | ROOF DRAIN (*SMITH* #1010-C-GID) |
| OD | OVERFLOW ROOF DRAIN (*SMITH* #1070-C-GID) |
| DSN | DOWNSPOUT NOZZLE (*SMITH* #1710-B5) |
| GV | GATE VALVE (*NIBCO* #5-134 OR T-134) |
| BV | BALL VALVE (*NIBCO* #5-585-10 OR T-585-10) |
| BV | BALANCING VALVE (*NIBCO* #5-1710 OR T-1710) |
| CV | CHECK VALVE (*NIBCO* #5-433 OR T-433) |
| STR | STRAINER (*NIBCO* #5-221/222-A OR T-221/222-A) |
| BFP | DUAL CHECK WITH VENT AND STRAINER (*WATTS* #5D-3) |
| DCAV | DUAL CHECK WITH ATMOSPHERIC VENT (*WATTS* #4D) |
| DCV | DUAL CHECK VALVE (*WATTS* SERIES T) |
| PVB | PRESSURE VACUUM BREAKER (*WATTS* #008PCGT) |
| VB | ATMOSPHERIC VACUUM BREAKER (*WATTS* #288A) |
| BSC | BOXED WALL HYDRANT (*WOODFORD* #B67 OR RB67) |
| MH-1 | WALL HYDRANT (*WOODFORD* #B74) |
| MH-2 | HOSE BIBB (*WOODFORD #26) |
| YH | YARD HYDRANT (*WOODFORD* 53) |
| TD-1 | TRENCH DRAIN(*ZURN DEAD LEVEL P, GREY POLY GRATE) |
| TD-2 | TRENCH DRAIN(*ZURN DEAD LEVEL P, GREY POLY GRATE) |
| TD-3 | TRENCH DRAIN (STEGEMEIER FLOWMASTER 3 GREY POLY GRATE) |
| + | STACK OR RISER DESIGNATION |
| + | NEW CONNECTION BETWEEN NEW AND EXISTING |
| CW | COLD WATER |
| DFU | DRAINAGE FIXTURE UNIT |
| DN | DOWN |
| DS | DOWNSPOUT |
| GPM | GALLONS PER MINUTE |
| HW | HOT WATER |
| HR | HOT WATER RETURN |
| ISO | ISOLATION |
| NPCW | NON POTABLE COLD WATER |
| SAN | SANITARY |
| KW | KITCHEN GREASE WASTE |
| OW | OIL WASTE |
| ST | STORM |
| V | VENT |
| VTR | VENT THROUGH ROOF |
| VIF | VERIFY IN FIELD |
| W&V | WASTE & VENT |
| WSFU | WATER SERVICE FIXTURE UNIT |

- ### PLUMBING NOTES
- 1) SAW CUT EXISTING FLOOR AND WALL CONSTRUCTION AS REQUIRED IN ORDER TO ACCOMMODATE NEW WASTE, VENT AND WATER SUPPLY PIPING. PATCH ALL NEW WORK TO MATCH EXISTING CONSTRUCTION. DEMOLITION OF ALL PLUMBING WASTE LINES SHALL NOT RESULT IN DEAD ENDS GREATER THAN 10'-0" IN LENGTH AND ALL WATER SUPPLY PIPING DEAD ENDS SHALL NOT EXCEED 2'-0" IN LENGTH.
 - 2) ALL CLEAN-OUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS, WITH EQUIPMENT CABINETS, ETC. PROVIDE FULL SIZED CLEANOUTS ON STRAIGHT RUN INTERVALS NOT TO EXCEED FIFTY (50') AS WELL AS AT EACH CHANGE OF DIRECTION GREATER THAN (60 DEGREES). FIXTURE CRAPS (IE: FLOOR DRAINS) SHALL BE COORDINATED WITH OTHER ACCESS POINTS IF A CABLE MUST MAKE TWO (2) OR MORE RIGHT ANGLE TURNS IN ORDER TO ENTER THE MAIN DRAIN OR STACK.
 - 3) ALL PLUMBING FIXTURE VENTS SHALL TERMINATE A MINIMUM OF 12" ABOVE ANY VERTICAL SURFACE AND 12'-0" HORIZONTALLY FROM ANY OUTSIDE FRESH AIR INTAKE OR A MINIMUM OF 24" ABOVE FRESH AIR IN-TAKES IF THE 12'-0" HORIZONTAL SEPARATION IS NOT POSSIBLE.
 - 4) INSTALL SHUT-OFF VALVES ON ALL HOT & COLD WATER LINES TO FIXTURE OR APPLIANCE.
 - 5) PROVIDE 12" (MINIMUM) LONG AIR CHAMBERS ON ALL WATER SUPPLY LINES TO FIXTURES AND EQUIPMENT. PROVIDE WATER HAMMER ARRESTORS AT ALL FIXTURES WITH QUICK-CLOSING VALVES/FAUCETS.
 - 6) PROVIDE AIR GAPS FOR INDIRECT DRAINS AS REQUIRED BY CODE. AIR GAP SHALL BE TWO (2) TIMES THE DIAMETER OF THE INDIRECT DRAIN.
 - 7) PROVIDE DI-ELECTRIC UNIONS, COUPLINGS, ADAPTORS OR FLANGES AT ALL TRANSITIONS OF FERROUS PIPING TO NON-FERROUS PIPING.
 - 8) PROVIDE NON-REMOVEABLE/INTEGRAL VACUUM BREAKER ON ALL NEW AND EXISTING MOP BASIN FAUCETS AND ALL OTHER NEW AND EXISTING THREADED HOSE OUTLETS, HOSE BIBS AND WALL HYDRANTS.
 - 9) COORDINATE ROUTING OF ALL PIPING SYSTEMS TO AVOID DUCTWORK, ELECTRICAL CONDUIT, BEAMS AND OTHER STRUCTURAL MEMBERS.
 - 10) ALL SHOWER A VALVES SHALL BE PRESSURE BALANCING OR THERMOSTATIC (ANTI-SCALD) TYPE. ALL VALVES SHALL BE SET TO DELIVER A MAXIMUM TEMPERATURE OF 115 DEGREES F (110 DEGREES F FOR ADA FIXTURES) AT TIME OF INSTALLATION.
 - 11) PROVIDE WATER TIGHT SHOWER DRAIN PAN PER LOCAL CODE REQUIREMENTS FOR ALL NON-MONOLITHIC SHOWER STALLS. DRAIN PAN TO EXTEND A MINIMUM OF 6" UP ON ALL SIDE WALLS AND A WATER TIGHT CONNECTION MUST BE MADE TO THE DRAIN.
 - 12) PROVIDE VALVE STEM EXTENSIONS AS REQUIRED FOR ALL INSULATED WATER SUPPLY PIPING.
 - 13) PROVIDE GROUTING/CAULKING WHERE FIXTURES MEET WALLS, FLOORS, COUNTERTOPS, ETC.
 - 14) PROVIDE APPROVED AIR GAP FITTING PROTECTION AT BACKWASH DISCHARGE INTO SANITARY SYSTEM.
 - 15) PROVIDE ADA-COMPLIANT FLUSH VALVE HANDLES THAT ACTIVATE WITH FIVE FOOT POUNDS OF PRESSURE OR LESS FORCE. LOCATE ALL WATER CLOSET FLUSH VALVE HANDLES ON WIDE SIDE OF STALLS.
 - 16) ALL ROOF DRAIN PENETRATIONS SHALL BE SQUARE, WATERTIGHT OPENINGS WITH 18"-24" INCH METAL FLASHINGS. ALL ROOF DRAINS SHALL BE LOCATED A MINIMUM OF 12-18" INCHES FROM ANY PARAPET WALL OR OTHER OBSTRUCTION.
 - 17) ALL EXPOSED WASTE PIPING LOCATED IN TOILET ROOMS SHALL BE CHROME PLATED BRASS WITH MATCHING STOPS AND ESCUTCHEONS. PROVIDE LOOSE KEY TYPE STOPS IN ALL PUBLIC AREAS OR WHERE VANDAL RESISTANT INSTALLATIONS ARE REQUIRED. ALL RISER TUBES SHALL BE RIGID AND CHROME PLATED.
 - 18) PROVIDE PROTECTIVE INSULATED PIPE COVERS ON P-TRAPS, ANGLE STOPS, OFFSET TAILPIECES, RISER SUPPLY TUBES, ETC. FOR ALL ADA ACCESSIBLE FIXTURES.
 - 19) PROVIDE A.S.S.E. 1010 APPROVED POINT-OF-USE THERMOSTATIC MIXING VALVE TO SUPPLY 110 DEGREES (MAXIMUM) HOT WATER TO ALL PUBLIC AND ADA ACCESSIBLE LAVATORIES. PROVIDE 115 DEGREE F (MAXIMUM) HOT WATER TO ALL SHOWERS. PROVIDE 140 F DEGREE HOT WATER TO ALL FIXTURES WHERE HOT WATER IS REQUIRED FOR SANITIZING OR CLEANING.
 - 20) PROVIDE A VACUUM RELIEF VALVE ON ALL ELEVATED OR BOTTOM FED WATER HEATERS IN ADDITION TO A TEMPERATURE & PRESSURE RELIEF VALVE.
 - 21) OUTLET TEMPERATURE ON ALL WATER HEATERS SHALL BE SET AT 135 DEGREES F (MINIMUM) AND THERMOSTATICALLY MIXED DOWN AT POINTS INDICATED ON PLANS.
 - 22) ALL BACK-FLOW PREVENTION DEVICES SHALL BE TESTED IN-LINE AND APPROVED BY A CROSS-CONNECTION CONTROL DEVICE INSPECTOR BEFORE BEING PLACED INTO SERVICE. BACK-FLOW PREVENTION DEVICES SHALL BE TESTED AND MAINTAINED AT LEAST ANNUALLY BY A CROSS-CONNECTION CONTROL DEVICE INSPECTOR AND RECORDS TO VERIFY TESTING AND MAINTENANCE SHALL BE AVAILABLE AT THE SITE OF THE INSTALLATION OF THE DEVICE. BACK-FLOW PREVENTION DEVICES SHALL NOT BE INSTALLED MORE THAN 5'-0" ABOVE THE FLOOR. PROVIDE A PROTECTIVE STRAINER UPSTREAM OF ALL BACK-FLOW PREVENTION DEVICES UNLESS THE DEVICE CONTAINS A BUILT-IN STRAINER.
 - 23) PROVIDE LEAD ROOF FLASHING ON ALL VENT STACKS PENETRATING THROUGH THE ROOF (EXCEPT RUBBER ROOFS). PROVIDE INCREASED FITTINGS.
 - 24) PLUMBING CONTRACTOR TO COORDINATE EXACT SIZE AND LOCATION OF EACH FLUE/VENT FOR EACH GAS-FIRED WATER HEATER. COORDINATE WITH MECHANICAL CONTRACTOR AND VERIFY ADEQUATE CHASE/CHIMNEY SPACE WITH ARCHITECT PRIOR TO START OF CONSTRUCTION.
 - 25) PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL PVC INTAKE AND EXHAUST EACH GAS-FIRED WATER HEATER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 - 26) FURNISH FIRE RATED PIPE SLEEVE OR FIRE CAULKING ON ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS/FLOORS.
 - 27) PLUMBING CONTRACTOR TO VERIFY ALL EXISTING WASTE, VENT AND WATER SUPPLY PIPING WHERE NEW CONNECTIONS ARE TO BE MADE PRIOR TO BID. VERIFY EXACT SIZE, LOCATION, INVERT, CONDITION AND REQUIREMENTS IN FIELD. REPORT ANY MAJOR DISCREPANCIES TO ARCHITECT/ENGINEER IMMEDIATELY.
 - 28) PROVIDE HEAT TRAPS ON COLD WATER SUPPLY TO WATER HEATERS (HEAT TRAP NIPPLE, U-FLEX CONNECTOR & FABRICATED RETURN BEND.

PLUMBING SPECIFICATIONS

THE GENERAL CONDITIONS AND SUPPLEMENTAL GENERAL CONDITIONS ISSUED BY THE ARCHITECT SHALL GOVERN WHERE APPLICABLE.

THIS CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE PLANS AND SHALL VERIFY EXISTING SITE CONDITIONS AT THE JOB SITE BEFORE SUBMITTING BID. FAILURE TO RECOGNIZE WORK REQUIRED SHALL BE AT THE EXPENSE OF THIS CONTRACTOR. NO CONSIDERATION SHALL BE GIVEN FOR ADDITIONAL COMPENSATION AFTER THE LETTING OF BIDS.

ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEMS SHALL BE FULLY OPERATIONAL. ACCEPTANCE BY THE OWNER SHALL BE A CONDITION OF THE CONTRACT. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES IN ORDER TO AVOID INTERFERENCES, PRESERVE MAXIMUM HEADROOM, AND AVOID OMISSIONS.

CONTRACTOR TO MAKE ALL NECESSARY TAPS, AS CALLED FOR ON THE DRAWINGS.

THIS CONTRACTOR SHALL REMOVE ALL DEBRIS ON A REGULAR BASIS AND UPON COMPLETION OF THE JOB AND CLEAN ALL FIXTURES.

COVER ALL HOT, COLD AND HOT WATER RETURN LINES, ROOF DRAINS AND HORIZONTAL DOWNSPOUT PIPING, PIPE COVERING TO BE SHALL BE 3-1/2 LB. DENSITY FIBERGLASS WITH MOLDED FITTINGS AND BUTT JOINTS AND VAPOR BARRIER. WATER PIPING INSULATION SHALL BE INSTALLED PER 2015 IECC SEC. C404.5 & C404.6.

IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO START UP, ADJUST AND CHECK FOR PROPER OPERATION ALL EQUIPMENT INSTALLED UNDER HIS CONTRACT.

THIS CONTRACTOR SHALL ALLOW IN HIS INITIAL BID THE COST OF SERVICE ON ALL EQUIPMENT INSTALLED UNDER HIS CONTRACT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF THE WORK.

ALL WATER PIPING SHALL BE TESTED WITH WATER UNDER PRESSURE OF 100 PSI FOR 10 MINUTES, AND MADE TIGHT AT THIS PRESSURE.

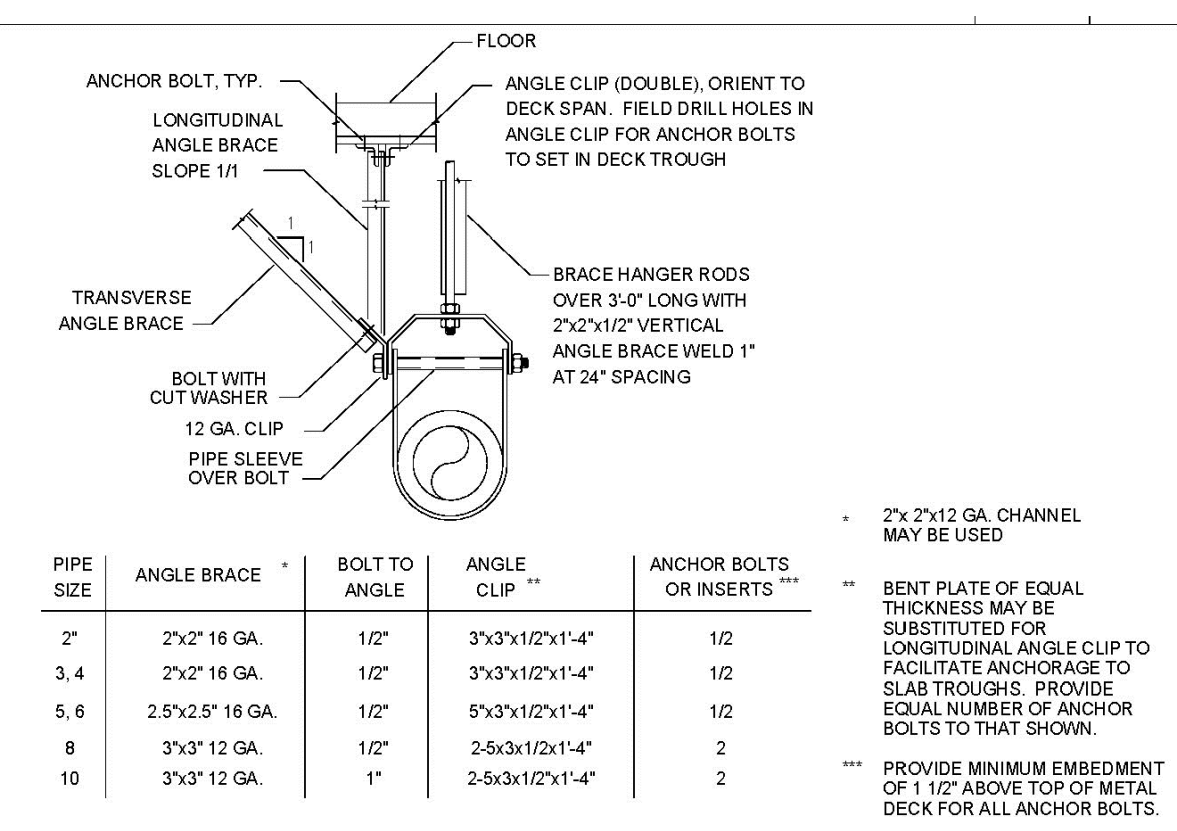
ALL SOIL, WASTE AND VENT PIPING SHALL BE SUBJECTED TO A HYDROSTATIC TEST OF NOT LESS THAN 10 FEET OF WATER COLUMN FOR 15 MINUTES BEFORE INSPECTION STARTS AND PROVEN TIGHT.

BEFORE TURNING PLUMBING SYSTEM OVER TO THE OWNER, CHLORINATE ALL DOMESTIC WATER PIPING FOR A PERIOD OF 24 HOURS. AFTER CHLORINATION HAS BEEN COMPLETED, FLUSH ALL PIPING UNTIL WATER RUNS CLEAR AND IS RESIDUAL CHLORINE FREE.

ALL BELOW GROUND WASTE & VENT PIPING SHALL BE SERVICE WEIGHT CAST IRON. SCHEDULE 40 PVC IS ACCEPTABLE IF PERMITTED BY LOCAL CODE. THE MINIMUM DIAMETER FOR ALL UNDERGROUND WATER PIPING IS FOUR (4) INCHES. THE MINIMUM DIAMETER FOR ALL UNDERGROUND VENT PIPING IS TWO (2) INCHES. ALL BELOW GROUND WATER PIPING SHALL BE TYPE "K" COPPER. ALL ABOVE GROUND WATER PIPING SHALL BE TYPE "L" COPPER. ALL ABOVE GROUND WASTE AND VENT PIPING 2" AND SMALLER SHALL BE TYPE "M" COPPER. ALL ABOVE GROUND WASTE AND VENT PIPING 3" AND LARGER SHALL BE SERVICE WEIGHT CAST IRON. SCHEDULE 40 PVC IS ACCEPTABLE FOR ABOVE GROUND D.W.V. SYSTEMS IN NON-PLENUM CEILINGSS IF PERMITTED BY LOCAL CODE.

THE PLUMBING SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH THE STATE OF OREGON PLUMBING CODE AND ALL LOCAL CODES, AMENDMENTS AND ORDINANCES.

PLUMBING CONTRACTOR TO INSTALL HANGERS, SWAY BARS, FLEXIBLE CONNECTIONS AND VIBRATION ISOLATORS PER SEISMIC D-1.



DETAIL- PIPE SUPPORT
N.T.S.

FIXTURE SCHEDULE

| WC | "AMERICAN STANDARD" MODEL# 3461.001 MADERA FLOWISE TOILET. FLOOR MOUNTED COMFORT HEIGHT FLUSH VALVE TOILET, VITREOUS CHINA, HIGH-EFFICIENCY (1.1-1.6 GPF), CONDENSATION CHANNEL, ELONGATED BOWL, POWERFUL DIRECT-FED SIPHON JET ACTION, 1-1/2" TOP SPUD, FULLY-GLAZED 2-1/8" TRAPWAY ADA 16-1/2" TO RIM | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|
| | C | H | T | C | H | T | C | H | T |
| | "SLOAN" MODEL #NES III-128 UPPERCUT DUAL FLUSH ROYAL FLUSHOMETER, EXPOSED, HIGH-EFFICIENCY (1.1/1.6 GPF) FOR TOP-SPUD BOWLS. WATERSENSE | | | | | | | | |
| | "BEMIS" MODEL #215556G1 OPEN FRONT LESS COVER, ELONGATED, HEAVY-DUTY, INJECTION MOLDED SOLID PLASTIC TOILET SEAT. SEAT CONTAINS DURAGUARD ANTIMICROBIAL BUILT-IN SEAT PROTECTION. | | | | | | | | |
| LAV | "KOHLER" MODEL# K-2355 ARCHER UNDERMOUNT LAVATORY. VITREOUS CHINA, FRONT OVERFLOW, RECTANGULAR BOWL, TOP BY OTHERS, FAUCET DRILLING BY OTHERS. | | | | | | | | |
| | "DELTA" MODEL #1954LF SINGLE HANDLE LAVATORY FAUCET WITH LEVER HANDLE FOR HANDICAP ACCESSIBLE APPLICATIONS. GOOSENECK SPOUT. CERAMIC CARTRIDGE. 1.5 GPM | | | | | | | | |
| | "SYMMONS" MODEL #T-210-CK POINT-OF-USE THERMOSTATIC MIXING VALVE WITH INTEGRAL CHECKS. (SET TEMPERATURE SHALL NOT EXCEED 110 DEGREES F) | | | | | | | | |
| | "MCGUIRE" MODEL #FD125WCPRO SEAMLESS PRE-WRAPPED ADJUSTABLE CAST BRASS P-TRAP KIT WITH PRE-WRAPPED PRO-DRAIN OFFSET GRID STRAINER. KIT ALSO INCLUDES SUPPLY COVERS. | | | | | | | | |
| | PROVIDE CHROME-PLATED ANGLES STOPS, ESCUTCHEONS AND RISER TUBES. | | | | | | | | |
| EW | "ELKAY" MODEL #LZ58NSP SINGLE WATER COOLER WITH EZ H2O BOTTLE FILLER. 8.0 GPH RATED CAPACITY, SELF-CLOSING EASY-TOUCH CONTROLS ON FRONT AND BOTH RIGHT AND LEFT SIDES. 1 PHASE, 115V, 370 WATTS USAGE. STAINLESS STEEL SHROUD. | | | | | | | | |
| | PROVIDE CHROME-PLATED ANGLES STOPS, ESCUTCHEONS, RISER TUBES, TAILPIECES AND P-TRAPS. | | | | | | | | |
| SHW | "CHICAGO" MODEL# T70-665SPHC CONCEALED STRAIGHT VALVE. PUSH HANDLE WITH ADJUSTABLE METERING TIME SET TO 15 SECONDS. "KOHLER" MODEL# K-494 SHOWER HEAD, ARM AND FLANGE. | | | | | | | | |
| SS | "STEARNS WILLIAMS" MODEL #58C-1700, CORNER TERRAZZO, 24"x24"x10". FRONT DROP WITH STAINLESS STEEL CAP, CAST BRASS DRAIN WITH ST STEEL STRAINER | | | | | | | | |
| | "CHICAGO FAUCET" 445-847 SRCXXCP WITH INTEGRAL VB AND STOPS, PAIL HOOK, 3/4" HOSE THREAD SPOUT. | | | | | | | | |

EQUIPMENT SCHEDULE

| | | | | | | | | | | |
|--------|---|--|--|--|--|--|--|--|--|--|
| WH-1 | "NAVIER" MODEL #NPE-240A GAS FIRED TANKLESS WATER HEATER HEATER HAS A 19,900-199,900 BTUH INPUT. HEATER SHALL RECOVER 5.6 GALLONS PER MINUTE AT A 67F DEGREE TEMPERATURE RISE. COORDINATE WITH ELECTRICIAN AND MECHANICAL CONTRACTOR. PLUMBER TO ROUTE 4" PVC INTAKE AND EXHAUST TO EXTERIOR. INCLUDES BUFFER TANK AND RECIRCULATION PUMP. NAVIER CONDENSATE NEUTRALIZER GXXXX01322. INCLUDE SEISMIC RESTRAINTS | | | | | | | | | |
| ET-1 | AMTROL OR EQUAL ST-12 THERMAL EXPANSION TANK. INCLUDE SEISMIC RESTRAINTS. | | | | | | | | | |
| EP-1 | "HYDROMATIC" MODEL #09P50AB NAVAL BRONZE ELECTOR PUMP. 115V 1/2HP, 1750 RPM, 1 1/2" DISCHARGE. 60 GPM @ 5' HEAD. 24" DIAMETER FIBERGLASS SUMP BASIN. 36" SUMP. INVERT ELEVATION DETERMINED BY FC. | | | | | | | | | |
| TMV-1 | "LEONARD" MODEL# 364-LF-STSTL RECESSED LEAD FREE BRONZE BODY. ADJUSTABLE TEMP RANGE 90-120F. INTEGRAL CHECK VALVES, 10 PSI PRESS DRIP AT 5.0 GPM. ASSE 1069 COMPLIANT. | | | | | | | | | |
| EBW-1 | "BRADLEY" MODEL #514224PDCFH HALO EYE-FACE WASH, PLASTIC BOWL & DUST COVER. WALL MOUNT | | | | | | | | | |
| ETMV-1 | "BRADLEY" MODEL#5-19-2000 NAVIGATOR EFX@ THERMOSTATIC MIXING VALVE. ANSI Z358.1, COLD ITER BY-PASS ASSE 1071. | | | | | | | | | |
| TPV-1 | "PPF" MODEL#PROI-500 OR EQUAL PRESSURE SENSING TRAP PRIMER WITH DISTRIBUTION UNIT. PROVIDE ACCESS PANEL. COORDINATE WITH ARCHITECT. | | | | | | | | | |

FIXTURE UNIT SCHEDULE

| JOB NAME | EMLER SWIM SCHOOL | | | | | | | | | | | |
|--------------------------------|-------------------|------------|----------|---------|-----------|-------------|--------------|------|------|--------|------|------|
| | FIXTURE TYPE | FIX. COUNT | DFU SAN. | DFU GR. | TOTAL SAN | TOTAL GR. | WSFU | | | TOTALS | | |
| | | | | | | | C | H | T | C | H | T |
| WC (FV) (HVY) | 4 | 6 | 0 | 0 | 24 | 0 | 8 | 0 | 8 | 32 | 0 | 32 |
| LAVATORY | 4 | 1 | 0 | 0 | 4 | 0 | 0.75 | 0.75 | 1 | 3 | 3 | 4 |
| SHOWER | 3 | 0 | 0 | 0 | 0 | 0 | 1.5 | 1.5 | 2 | 4.5 | 4.5 | 6 |
| DRINKING FTN (GEN) | 1 | 0.5 | 0 | 0.5 | 0 | 0.5 | 0 | 0.5 | 0.5 | 0 | 0.5 | 0.5 |
| MOP BASIN | 1 | 3 | 0 | 3 | 0 | 2.25 | 2.25 | 3 | 2.25 | 2.25 | 3 | 3 |
| SE-1 PUMP (POOL DECK DRAINAGE) | 1 | 120 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BACKWASH | 1 | 366 | 0 | 366 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| POOL FILL | 1 | 0 | 0 | 0 | 0 | 30 | 0 | 30 | 30 | 0 | 0 | 30 |
| 4" FLOOR SINK | 1 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4" FLOOR DRAIN | 6 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4" HUB DRAIN | 1 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL DFU SANITARY / GREASE= | | | | | 581.5 | 0 | TOTAL WSFU = | | | 72.25 | 9.75 | 75.5 |
| TOTAL DFU = | | | | | 581.5 | PIPE SIZE = | | | 2" | | | |
| PIPE SIZE = | | | | | 6" | GPM = | | | 60 | | | |

EMLER SWIM SCHOOL
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REGISTERED PROFESSIONAL ENGINEER
88417PE
SEPTEMBER 10 2011
MARK O. VENTRELLI
EXPIRES 06/30/24

Date: 06.23.2023

Project No. _____

2301 _____

Sheet No. _____

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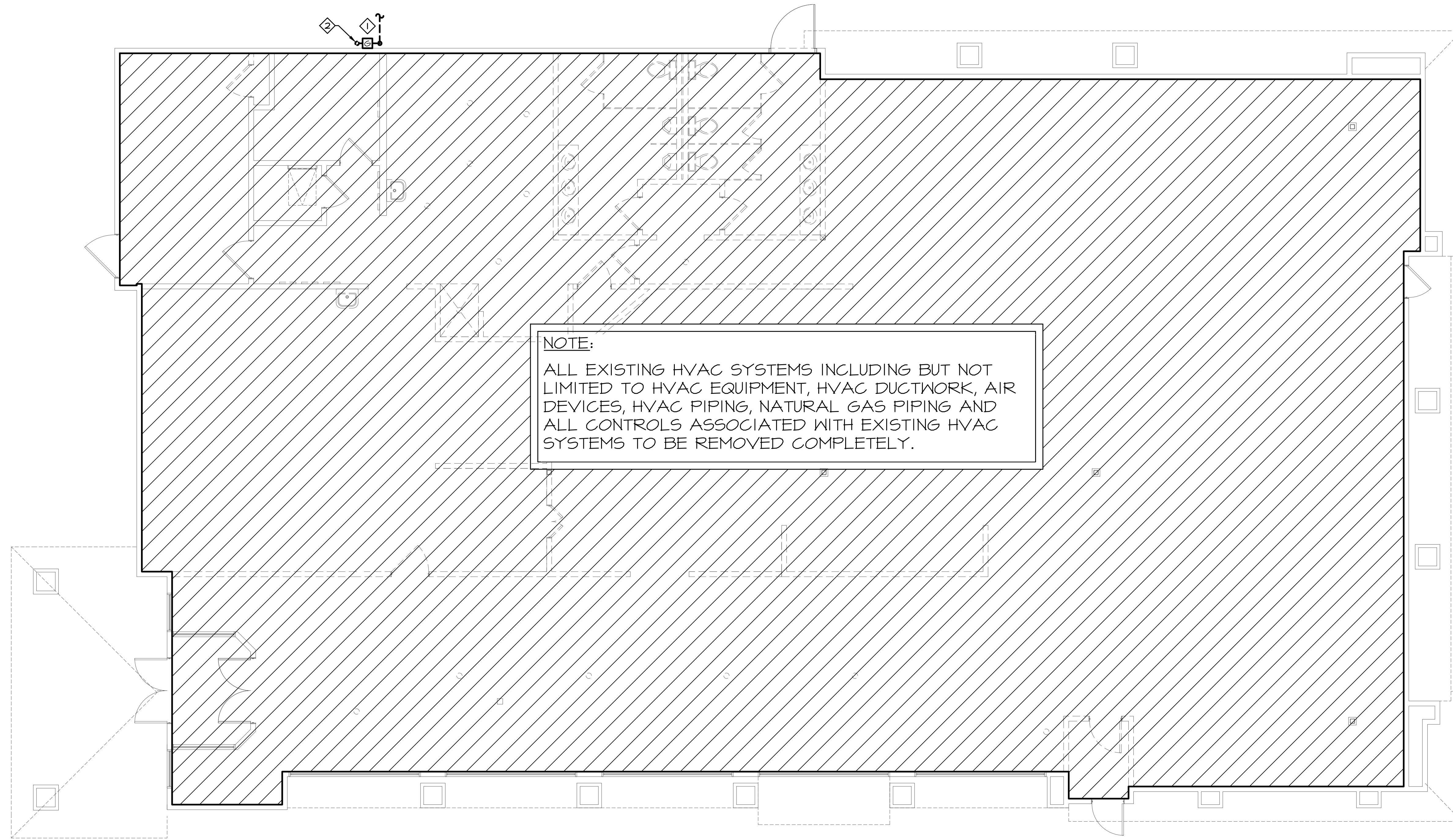
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2301 _____

Sheet No. _____

P2.1

Sheet Title
PLUMBING NOTES, SYMBOLS AND SPECIFICATIONS



MECHANICAL FLOOR DEMO PLAN
 SCALE: 3/16"=1'-0"

- MECHANICAL KEY NOTES**
- EXISTING NATURAL GAS SERVICE AND EXISTING GAS METER TO BE REMOVED.
 - EXISTING NATURAL GAS PIPING UP TO ROOF TO BE REMOVED.

NOTE:
 ALL EXISTING HVAC SYSTEMS INCLUDING BUT NOT LIMITED TO HVAC EQUIPMENT, HVAC DUCTWORK, AIR DEVICES, HVAC PIPING, NATURAL GAS PIPING AND ALL CONTROLS ASSOCIATED WITH EXISTING HVAC SYSTEMS TO BE REMOVED COMPLETELY.

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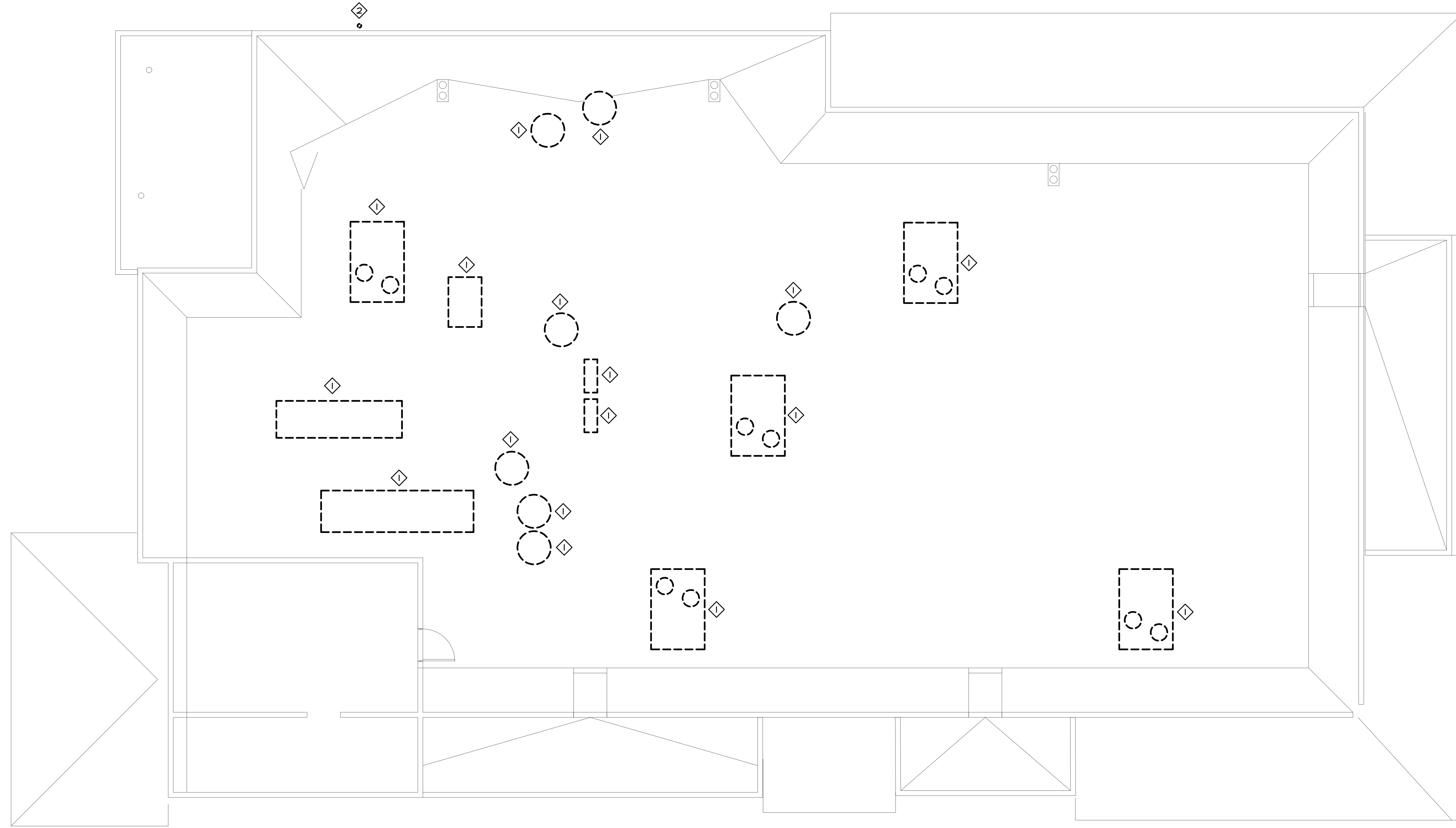
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Project No.
 2301
 Sheet No.
 MD1.1
 Sheet Title
 MECHANICAL DEMO PLAN



MECHANICAL ROOF DEMO PLAN
 SCALE: 3/16"=1'-0"

- MECHANICAL KEY NOTES**
1. ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, HVAC PIPING, NATURAL GAS PIPING AND ALL ASSOCIATED CONTROLS LOCATED ON ROOF TO BE REMOVED.
 2. EXISTING NATURAL GAS PIPING RISER TO BE REMOVED.

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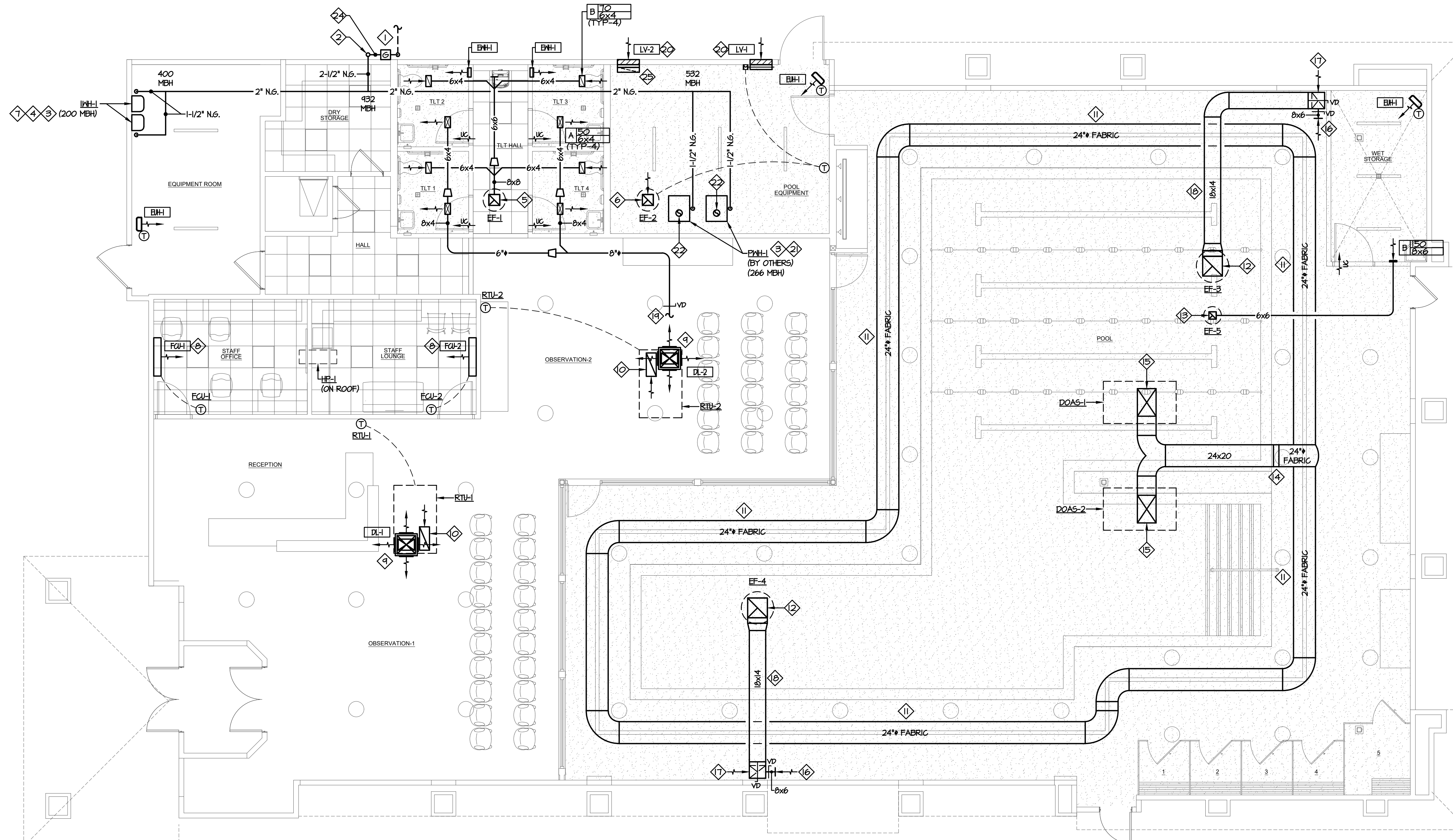
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Project No.
 2301
 Sheet No.
 MD1.2
 Sheet Title
 MECHANICAL ROOF DEMO PLAN



MECHANICAL FLOOR PLAN
SCALE: 3/16"=1'-0"

FABRIC SPECIFICATION

- FIRE SAFETY: FLAME SPREAD AND SMOKE DEVELOPED INDEX SHALL BE LESS THAN 250 PER ASTM E84 AND UL-C S102.
- VELOCITY OF INLET OF THE FABRIC DUCT SYSTEM SHALL BE LESS THAN 1800 FPM TO AVOID TURBULENCE AND NEGATIVE PRESSURE AT INLET.
- FABRIC MATERIALS SPEC:

| ITEM | PARAMETERS | COMPLIANCE |
|------------------|---------------------------|-------------|
| WEIGHT | 6 - 12 OZ/YD ² | ASTM D3716 |
| TENSION STRENGTH | >3.5 LB | 3411-I-1917 |
| TEAR STRENGTH | >15 LBS | 3411-I-1917 |
| SMOKING TOXICITY | ZA-3 | 20284-2006 |
| SHRINKAGE (WASH) | ≤5% | 20284-2006 |
| TEMP RANGE | -63F - 212F | 5453-1917 |
- POOL & DECK FABRIC DUCT COLOR: TO BE SELECTED BY ARCHITECT.

FABRIC DUCT NOTES

- NO WALL PENETRATIONS WITH FLEX OR FABRIC DUCT ARE ALLOWED.
- NO MANUFACTURER'S LOGO OR NAME IS ALLOWED ON THE FABRIC DUCT.
- FABRIC DUCT SUPPLIER SHALL PROVIDE AIR DISTRIBUTION NOZZLE TYPE AND A DUCT LAYOUT WITH DIMENSIONS INDEPENDENT OF CONTRACT PLANS.
- PROVIDE FABRIC DUCT WITH INTERNAL RING SUPPORT TO KEEP FABRIC DUCT AN INFLATED LOOK AT ALL TIME.
- FABRIC DUCT STATIC PRESSURE - NOT TO EXCEED 0.5" W.C.

DOAS SEQUENCE OF OPERATION

DOAS AND EXHAUST FANS TO RUN 24/7. DOAS TO RUN NORMALLY AT REDUCED AIRFLOW RATE OF 3,000 CFM (1,500 CFM PER UNIT) AND EXHAUST FANS AT 3,200 CFM (1,600 CFM PER FAN). DOAS TO MODULATE COMPRESSOR, HEAT AND HOT GAS REHEAT TO MAINTAIN THERMOSTAT SETPOINT OF 42° F. (ADJ.) AT 55% RH (ADJ.). UPON SPACE HUMIDITY EXCEEDING 60% RH, DOAS TO RAMP UP TO HIGH SPEED OF 3,800 CFM (1,900 CFM PER UNIT) AND EXHAUST FANS TO 4,000 CFM (2,000 CFM PER FAN) UNTIL HUMIDITY DROPS BACK BELOW 60% RH. CO SENSOR IN SPACE WILL BE SET TO A THRESHOLD OF 25 PPM TO SHUT DOWN SYSTEM IF SPACE EXCEEDS CO LEVEL OF 25 PPM.

- MECHANICAL KEY NOTES**
- NEW GAS METER FURNISHED AND INSTALLED BY THE LOCAL GAS COMPANY. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL DOWNSTREAM PIPING INCLUDING ALL VALVES, REGULATORS, SUPPORTS, HANGERS AND ANY ASSOCIATED APPARATUS. VERIFY ALL PRESSURE REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT SPECIFICATIONS. ALL GAS PIPING DOWNSTREAM OF METER IS SIZED AT LOW PRESSURE (1/4 PSI) AND A TOTAL INPUT OF 1,752 MBH. VERIFY EXACT LOCATION IN FIELD AND WITH ARCHITECT PRIOR TO INSTALLATION. 200'-0" T.E.L.
 - 2-1/2" LOW PRESSURE GAS PIPING (1/4 PSI) UP TO ROOF (820 MBH).
 - PROVIDE AND INSTALL UNION, 6" DIRT LEG AND GAS COCK INSTALLED PER INTERNATIONAL FUEL GAS CODE AND SPECIFICATIONS. PROVIDE GAS PRESSURE REGULATOR AT FUEL BURNING APPLIANCE AND REDUCE GAS PRESSURE FOR THE MANUFACTURER REQUIRED FLOW AND INLET AND OUTLET PRESSURES.
 - 1-1/2" LOW PRESSURE GAS PIPING (1/4 PSI) TO INH-1 (400 MBH).
 - 8x8 EXHAUST DUCT UP THRU ROOF TO EXHAUST FAN. PROVIDE DUCT TRANSITION AT EXHAUST FAN AS REQUIRED.
 - FULL SIZE EXHAUST DUCT FROM ROOF MOUNTED EXHAUST FAN DOWN THRU ROOF. EXTEND EXHAUST DUCT DOWN TO 6" BELOW CEILING. PROVIDE AND INSTALL 16 GA. 1"x1" WIRE MESH SCREEN ON END OF DUCT.
 - WATER HEATER VENT AND INTAKE PIPING TO BE PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR.
 - 3/4" PUMPED CONDENSATE FROM. RUN HIGH TIGHT TO STRUCTURE BY GRAVITY TO EXISTING FLOOR SINK IN EQUIPMENT ROOM. PROVIDE MINIMUM 2" AIR GAP AT EXISTING FLOOR SINK.
 - FULL SIZE SUPPLY DUCT DOWN THRU ROOF FROM ROOFTOP UNIT. RUN SUPPLY DUCT DOWN TO 6" BELOW ROOF STRUCTURE AND TRANSITION TO CONCENTRIC DRUM LOUVER.
 - FULL SIZE RETURN DUCT DOWN THRU ROOF FROM ROOFTOP UNIT. RUN RETURN DUCT DOWN TO 6" BELOW ROOF STRUCTURE. PROVIDE AND INSTALL 16 GA. 1"x1" WIRE MESH SCREEN ON END OF DUCT.
 - PROVIDE FABRIC DUCT AS SHOWN ON PLAN. COORDINATE FINAL LOCATION WITH LIGHTING FIXTURES AND ARCHITECT. CUSTOM FABRIC DUCT COLOR TO BE SELECTED AND APPROVED BY THE ARCHITECT. PROVIDE COLOR SAMPLES FOR APPROVAL.
 - FULL SIZE EXHAUST DUCT FROM ROOF MOUNTED EXHAUST FAN DOWN THRU ROOF.
 - 6x6 EXHAUST DUCT UP THRU ROOF TO EXHAUST FAN. PROVIDE DUCT TRANSITION AT EXHAUST FAN AS REQUIRED.
 - CONNECT SHEET METAL DUCT TO FABRIC DUCT WITH SHEET METAL TRANSITION.
 - FULL SIZE SUPPLY DUCT DOWN THRU ROOF FROM MAKE-UP AIR UNIT.
 - 8x6 EXHAUST DUCT LOCATED A MINIMUM 6" BELOW CEILING. PROVIDE AND INSTALL 16 GA. 1"x1" WIRE MESH SCREEN ON END OF DUCT. BALANCE TO 200 CFM.
 - 18x14 EXHAUST DUCT DOWN TO 24" ABOVE FINISHED FLOOR. PROVIDE AND INSTALL 16 GA. 1"x1" WIRE MESH SCREEN ON END OF DUCT. BALANCE TO 1,800 CFM.
 - RUN EXHAUST DUCT TIGHT TO BOTTOM OF CEILING.
 - CONNECT 8" DIAMETER SUPPLY DUCT TO SUPPLY DUCT RISER FROM RTU-2.
 - MOUNT TOP OF LOUVER 12" BELOW ROOF STRUCTURE.
 - 1-1/2" LOW PRESSURE GAS PIPING (1/4 PSI) TO PWH-1 (266 MBH).
 - 7" DIAMETER POOL HEATER TYPE "B" FLUE VENT UP THRU ROOF TO WEATHER-PROOF ROOF CAP.
 - POOL HEATER INTAKE WEATHER-PROOF WALL CAP.
 - 4" LOW PRESSURE GAS PIPING MANIFOLD (1/4 PSI) FROM GAS METER (1,752 MBH).
 - POOL HEATER COMBUSTION AIR. (1) 24"x9" DUCT OPENING 12" BELOW ROOF STRUCTURE. (1) 24"x9" DUCT DOWN TO 12" ABOVE FINISHED FLOOR. PROVIDE 16 GA. 1"x1" WIRE MESH SCREEN ON END OF BOTH DUCT OPENINGS.

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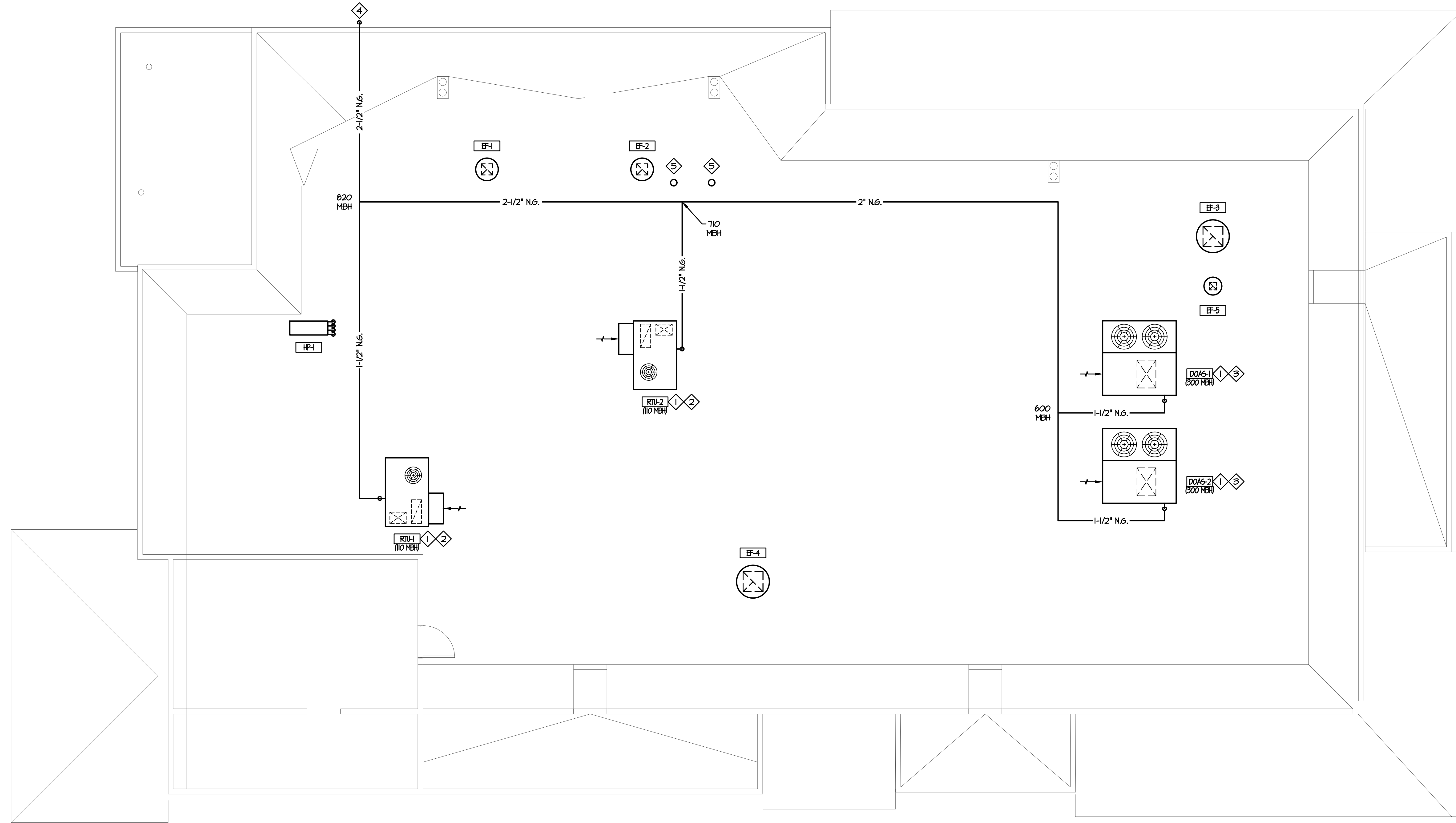
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MECHANICAL FLOOR PLAN



MECHANICAL ROOF PLAN
SCALE: 3/16"=1'-0"

MECHANICAL ROOF NOTES

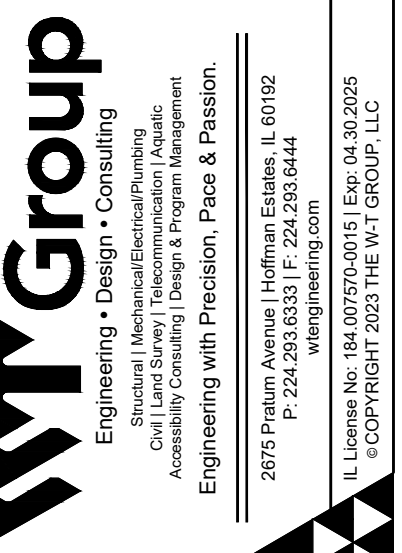
- ALL ROOFTOP EQUIPMENT LOCATIONS SHALL BE COORDINATED WITH ROOF DRAINS. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
- THE INSTALLING CONTRACTOR SHALL PROVIDE ROOF CURBS AND LEVELING CURBS TO MATCH THE ROOF PITCH IF REQUIRED. THE ROOFING CONTRACTOR SHALL FLASH ALL CURBS INTO ROOF.
- ALL STRUCTURAL DUCT OPENINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CUTTING. INDICATE ON 1/4" SHOP DRAWINGS EXACT LOCATION OF OPENINGS COORDINATED WITH STRUCTURAL TRADES. PROVIDE DUCT ROOF CURBS AT ALL DUCT PENETRATIONS THRU ROOF.
- ALL VENTS AND EXHAUSTS SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKES PER LOCAL CODES. PLUMBING VENTS SHALL BE A MINIMUM OF 12'-0" FROM ANY FRESH AIR INTAKE. EXTEND TERMINATION HEIGHT TO PROVIDE A 12'-0" CROSS SECTION CLEARANCE FROM PLUMBING VENTS WHERE NEEDED.
- ALL ROOFTOP EQUIPMENT SHALL BE SET ON EQUIPMENT CURBS OR RAILS. ALL PIPE AND DUCT PENETRATIONS THROUGH THE ROOF SHALL HAVE A WEATHERPROOF CURB OR FLASHING. ALL ROOF FLASHING SHALL BE PERFORMED BY THE ROOFING CONTRACTOR.
- PROVIDE A GAS SHUT-OFF VALVE, UNION, AND MIN. 6" DIRT LEG AT ALL ROOFTOP UNITS PROVIDE A CONDENSATE P-TRAP AT ALL ROOFTOP UNITS.
- THE MECHANICAL CONTRACTOR SHALL INSTALL ALL GAS PIPING SHOWN ON THIS PLAN. ALL GAS PIPING ROUTED ACROSS ROOF SHALL BE SUPPORTED BY ROOF SUPPORTS 10'-0" ON CENTER MAXIMUM. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL, ASTM A53 MALLEABLE IRON OR FORGED STEEL WELDING TYPE. ALL GAS PIPING SHALL BE INSTALLED PER A.S.A. REQUIREMENTS. ALL GAS PIPING SHOWN IS SIZED AT LOW PRESSURE.
- ALL GAS PIPING EXPOSED TO THE OUTDOORS SHALL BE CLEANED AND PAINTED FOR CORROSION PROTECTION PER IF6C 403.8.

MECHANICAL KEY NOTES

- PROVIDE AND INSTALL UNION, 6" DIRT LEG AND GAS COCK INSTALLED PER INTERNATIONAL FUEL GAS CODE AND SPECIFICATIONS. PROVIDE GAS PRESSURE REGULATOR AT FUEL BURNING APPLIANCE AND REDUCE GAS PRESSURE FOR THE MANUFACTURER REQUIRED FLOW AND INLET AND OUTLET PRESSURES.
- 1-1/2" LOW PRESSURE GAS PIPING (1/4 PSI) TO RTU-1, RTU-2 (110 MBH EACH).
- 1-1/2" LOW PRESSURE GAS PIPING (1/4 PSI) TO DOAS-1, DOAS-2 (300 MBH EACH).
- 2-1/2" LOW PRESSURE GAS PIPING (1/4 PSI) DOWN (820 MBH).
- 1" DIAMETER POOL HEATER TYPE "B" FLUE VENT UP THRU ROOF TO WEATHER-PROOF ROOF CAP.

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MECHANICAL ROOF PLAN

MECHANICAL SPECIFICATIONS

- THE MECHANICAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL EXISTING CONDITIONS IN FIELD AND INCLUDE IN THEIR BID ALL REQUIRED CHANGES TO PROVIDE A COMPLETE OPERATING SYSTEM.
- THIS CONTRACTOR SHALL FURNISH AND INSTALL MATERIAL INDICATED ON DRAWINGS AND AS REQUIRED TO PROVIDE A COMPLETE AND SATISFACTORY OPERATING INSTALLATION.
- ALL MATERIALS SHALL BE NEW AND OF STANDARD QUALITY UNLESS OTHERWISE NOTED. NO REJECTS. ALL MATERIALS FOR WHICH AN UNDERWRITER'S LABORATORY STANDARD EXISTS SHALL BEAR A U.L. LABEL. PROTECT ALL EQUIPMENT AND WORK FROM DAMAGE DUE TO ANY CAUSE.
- ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE NATIONAL, STATE AND LOCAL CODES AND REGULATIONS GOVERNING THE INSTALLATION OF THE WORK INVOLVED. ALL PERMITS FOR THE INSTALLATION OF THE WORK AND ALL INSPECTIONS OF SAME SHALL BE ARRANGED FOR BY THIS CONTRACTOR. ALL FEES AND ASSESSMENTS IN CONNECTION THEREWITH SHALL BE PAID BY THIS CONTRACTOR, THE COST OF WHICH SHALL BE INCLUDED IN THEIR BID.
- THE GENERAL CONDITIONS AND SPECIAL CONDITIONS ISSUED BY THE OWNER AND/OR ARCHITECT SHALL GOVERN WHERE APPLICABLE. GENERAL CONDITIONS AND SPECIAL CONDITION REQUIREMENTS RELATED BUT NOT LIMITED TO THE FOLLOWING SHALL APPLY:
 - RUBBISH REMOVAL.
 - COMPLIANCE WITH THE OWNER'S REQUIREMENTS.
 - OBTAINING AND PAYING FOR REQUIRED LICENSES AND PERMITS.
 - REPLACEMENT OF DAMAGED SYSTEM EQUIPMENT, AND/OR BUILDING DUE TO NEW INSTALLATIONS.
 - COMPLIANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES.
 - WORKMAN'S COMPENSATION INSURANCE, PUBLIC LIABILITY INSURANCE.
- THE ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIONAL AND ACCEPTANCE BY THE OWNER SHALL BE A CONDITION OF THE CONTRACT.
- NEW DUCTWORK AND PIPING SHALL RUN IN STRAIGHT LINES PARALLEL AND/OR PERPENDICULAR TO THE BUILDING CONSTRUCTION, AS HIGH AS POSSIBLE.
- THIS CONTRACTOR SHALL INCLUDE ALL MISCELLANEOUS ITEMS REQUIRED TO COMPLETE THE WORK INCLUDING MOVING AND RIGGING OF MATERIAL AND EQUIPMENT, HANGERS, SUPPORTS, STRUCTURAL FRAMING CHANGES, FITTINGS AND SLEEVES.
- ALL MATERIAL, WORKMANSHIP AND EQUIPMENT SHALL BE GUARANTEED FOR ONE YEAR AFTER SYSTEM ACCEPTANCE. PROVIDE TYPEWRITTEN OPERATING INSTRUCTIONS, AND EQUIPMENT WARRANTIES.
- ALL SHEET METAL DUCTS SHALL BE ERECTED IN FIRST CLASS AND WORKMANLIKE MANNER TRUE TO THE DIMENSIONS INDICATED ON THE DRAWINGS, UNLESS OTHERWISE APPROVED. STRAIGHT AND SMOOTH ON THE INSIDE WITH NEATLY FINISHED AIRTIGHT JOINTS. ALL SLOP JOINTS SHALL BE MADE IN THE DIRECTION OF FLOW, AND UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL ELBOWS SHALL HAVE A CENTERLINE RADIUS EQUAL TO 15 TIMES THE WIDTH OF THE DUCT. THE SHEET METAL USED SHALL BE GALVANIZED IRON, EXCEPT AS HERINAFTER SPECIFIED. THE THICKNESS OF THE SHEET METAL AND SIZE AND SPACING OF THE STIFFENERS USED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE BOOK. CONSTRUCT DUCTWORK IN ACCORDANCE WITH THE REQUIREMENTS OF SMACNA AND CURRENT LOCAL CODES, ASHRAE GUIDE AND DATA BOOK "SCHEDULE OF RECOMMENDED CONSTRUCTION FOR LOW PRESSURE RECTANGULAR SHEET METAL DUCTS." ALL DUCTWORK SHALL COMPLY WITH ASHRAE AND SMACNA STANDARDS.
- ALL DUCTWORK TO BE SUPPORTED FROM BUILDING CONSTRUCTION WITH ROD HANGERS AND PROPERLY SIZED ANGLE IRON BOTTOM SUPPORTS. THE DUCTS SHALL BE SECURELY ANCHORED TO THE BUILDING IN AN APPROVED MANNER AND SHALL BE SO INSTALLED AS TO BE COMPLETELY FREE FROM VIBRATION UNDER ALL CONDITIONS OF OPERATION. THE DUCTS SHALL BE PROPERLY BRACED AND REINFORCED WITH STEEL ANGLES OR OTHER STRUCTURAL MEMBERS SPACED NOT MORE THAN 60" ON CENTERS. ALL SAGGING DUCTWORK WILL BE REMOVED AND REHUNG AS DIRECTED BY ENGINEER.
- FLEXIBLE DUCTS AND CONNECTORS SHALL BE TESTED IN ACCORDANCE WITH UL 181 AND BE LABELED. FLEXIBLE DUCTS AND CONNECTORS SHALL BE LIMITED TO A MAXIMUM LENGTH OF 5'-0".
- ALL DUCTWORK SHALL BE INSULATED AS FOLLOWS UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, COVERINGS AND LININGS, INCLUDING ADHESIVES, SHALL HAVE A FLAME-SPREAD INDEX NO MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50, WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL DUCTWORK LOCATED WITHIN A SPACE THAT DOES NOT DIRECTLY COMMUNICATE WITH THE OUTDOORS, AND IS WITHIN THE BUILDING ENVELOPE SHALL BE CONSIDERED TO BE WITHIN A CONDITIONED SPACE.

CONDITIONED SPACES (INCLUDING DUCT IN PLENUM RETURN CEILING)
 RECTANGULAR: GLASS FIBER LINING WITH R-4 INSTALLED VALUE
 ROUND: FOIL FACED DUCT WRAP WITH R-4 INSTALLED VALUE

*OUTSIDE AIR INTAKE DUCTWORK IN CONDITIONED SPACES SHALL BE WRAPPED WITH R-5 FOIL FACED DUCT WRAP.
 *EXPOSED SPIRAL DUCTWORK IN CONDITIONED SPACES NOT INSULATED UNLESS COMMUNICATING WITH THE OUTSIDE. IF SO, PROVIDE GLASS FIBER LINING WITH R-4 INSTALLED VALUE

UNCONDITIONED SPACE (INCLUDING DUCT IN NON-PLENUM RETURN CEILING)
 RECTANGULAR: GLASS FIBER LINING WITH R-6 INSTALLED VALUE OR FOIL FACED DUCT WRAP WITH R-6 INSTALLED VALUE.
 ROUND: FOIL FACED DUCT WRAP WITH R-6 INSTALLED VALUE

EXTERIOR DUCTWORK
 RIGID BOARD EXTERIOR INSULATION WITH R-12 INSTALLED VALUE SIMILAR TO "CERTAINTEE" COMMERCIAL BOARD WITH WEATHER PROOF ALUMINUM JACKET WRAP SIMILAR TO "VENTURE CLAD" #1571CM
- ALL DUCTWORK DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS.
- THE MECHANICAL CONTRACTOR SHALL SUBMIT PRODUCT SHOP DRAWINGS FOR ALL NEW EQUIPMENT AND DUCT LAYOUT TO BE FURNISHED FOR ARCHITECT, OWNER, AND ENGINEER'S APPROVAL. CATALOG CUT SHEETS FOR ALL EQUIPMENT AND MATERIAL SHALL BE MADE AVAILABLE ON SITE. ALL EQUIPMENT AND APPLIANCES MUST BEAR LABEL INDICATING SUITABLE FOR USE. THE MECHANICAL CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTIONS TO THE BUILDING OWNER, INCLUDING INSTALLATION FOR OUTSIDE INSTALLATION WHEN APPLICABLE.
- THE EQUIPMENT SPECIFIED TO SET STANDARDS, INTENTION IS "OR EQUAL" IF APPROVED PRIOR TO BID DUE DATE.
- THE MECHANICAL CONTRACTOR SHALL HIRE AN INDEPENDENT AND CERTIFIED TEST AND BALANCE CONTRACTOR TO BALANCE SYSTEM TO AIR QUANTITIES AS INDICATED ON PLANS, AND SHALL PROVIDE A TEST AND BALANCE REPORT TO BE SENT TO THE BUILDING DEPARTMENT NO LESS THAN THREE DAYS PRIOR TO FINAL INSPECTION. CONTRACTOR SHALL ALSO PROVIDE COPIES OF THE BALANCE REPORT TO THE OWNER, ARCHITECT, AND ENGINEER. REPORT SHALL ALSO INCLUDE FAN RPM AND PRESSURE INFORMATION.
- THERMOSTATS TO BE TEMPERATURE LIMITING THERMOSTAT WITH REMOTE READING AND REMOTE CONTROL OF SET POINTS ACCESSIBLE BY OWNER. PROVIDE CLEAR PLASTIC LOCKING COVER WITH KEYS AT COMMON AREA THERMOSTATS. THERMOSTAT SHALL BE CHICAGO CONTROLS HC7272 HEATING AND COOLING THERMOSTAT.
- MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL FIRE DAMPERS IN DUCTWORK AND FIRESTOP ALL PIPE PENETRATIONS THRU RATED FLOORS, CEILING AND WALLS. VERIFY LOCATIONS OF ALL RATED ASSEMBLIES WITH ARCHITECTURAL PLANS. FIRE DAMPERS SHALL BE IN ACCORDANCE WITH UL 555. ALL FIRE DAMPERS SHALL BE "TYPE B" OR "TYPE C" DAMPERS WITH STORED DAMPER OUT OF AIRSTREAM UNLESS OTHERWISE NOTED.
- ALL DUCT LAYOUTS, PIPING LAYOUTS, WIRING LAYOUTS, ETC. ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD. EACH TRADE CONTRACTOR SHALL CERTIFY IN WRITING TO THE OWNER AND ARCHITECT THAT HE HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO FABRICATION OF DUCTS, PIPING, CONDUITS, ETC. AND START OF INSTALLATION OF SAME. ANY INSTALLATION OF CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.

MECHANICAL GENERAL NOTES

- ALL MECHANICAL WORK SHALL COMPLY WITH THE FOLLOWING CODES AND GOVERNING AGENCIES:
 - 2022 OREGON MECHANICAL SPECIALTY CODE (2021 IMC & 2021 IFGC).
 - 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (ASHRAE STANDARD 90.1-2019).
- ALL EQUIPMENT AND COMPONENTS FOR HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS SHALL COMPLY AND BE INSTALLED FOR THE EFFICIENT UTILIZATION OF ENERGY IN ACCORDANCE WITH LOCAL CODES.
- ALL MECHANICAL EQUIPMENT SHALL BEAR THE LABEL OF AN APPROVED AGENCY, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE INFORMATION ON THE LABEL AND PER THE MANUFACTURER'S RECOMMENDATIONS. THE MECHANICAL CONTRACTOR SHALL MAINTAIN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL MECHANICAL EQUIPMENT AT THE JOB SITE. THE MECHANICAL EQUIPMENT SPECIFIED SHALL MEET ALL APPLICABLE STANDARDS INCLUDING THE INTERNATIONAL MECHANICAL CODE, SMACNA, ASHRAE, AND THE INTERNATIONAL FUEL GAS CODE.

BOILERS - ANSI Z21.13 OR UL 745
 DIRECT FIRED MAKE-UP AIR HEATERS - ANSI Z83.4
 UNIT HEATERS - Z83.8
 WATER HEATERS - ANSI Z21.10.1 AND ANSI Z21.10.3
- THE CONSTRUCTION OF ALL DUCTWORK MUST BE IN ACCORDANCE WITH THE LATEST SMACNA DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE. COVERINGS AND LININGS, INCLUDING ADHESIVES, SHALL HAVE A FLAME-SPREAD INDEX NO MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50, WHEN TESTED IN ACCORDANCE WITH ASTM E 84. DUCT COVERINGS AND LININGS SHALL NOT FLAME, GLOW, SMOLDER OR SMOKE WHEN TESTED IN ACCORDANCE WITH ASTM C 411 AT THE TEMPERATURE TO WHICH THEY ARE EXPOSED IN SERVICE. THE TEST TEMPERATURE SHALL NOT FALL BELOW 250 DEG. F. FLEXIBLE DUCTS AND CONNECTORS SHALL BE TESTED IN ACCORDANCE WITH UL 181 AND BE LABELED. FLEXIBLE CONNECTORS SHALL BE LIMITED TO A MAXIMUM LENGTH OF 10 FEET. DUCTS MUST BE SEALED IN ACCORDANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE. RIGID DUCTS MUST BE SUPPORTED AT INTERVALS NOT EXCEEDING 10 FEET. ALL AIR FILTERS SHALL BE LISTED AND LABELED.
- AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2000 CFM SHALL BE PROVIDED WITH RETURN DUCT MOUNTED SMOKE DETECTOR. ALL RETURN DUCT MOUNTED SMOKE DETECTORS SHALL BE INSTALLED UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS AND OUTDOOR AIR CONNECTIONS. SMOKE DETECTORS SHALL BE LABELED FOR INSTALLATION IN AIR DISTRIBUTION SYSTEMS AND INSTALLED IN ACCORDANCE WITH NFPA 72. UPON ACTIVATION, THE SMOKE DETECTOR MUST SHUT DOWN THE AIR DISTRIBUTION SYSTEM.
- MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL FIRE DAMPERS IN DUCTWORK AND FIRESTOP ALL PIPE PENETRATIONS THRU RATED FLOORS, CEILING AND WALLS. VERIFY LOCATIONS OF ALL RATED ASSEMBLIES WITH ARCHITECTURAL PLANS. FIRE DAMPERS SHALL BE IN ACCORDANCE WITH UL 555.
- ALL DIRECT VENT APPLIANCES SHOWN SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTING AND PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ALL TERMINATIONS MUST BE IN ACCORDANCE WITH SECTION 503.8 OF THE INTERNATIONAL FUEL GAS CODE.
- GAS PIPING SHALL BE SCHEDULE 40 BLACK IRON PIPE WITH THREADED MALLEABLE IRON FITTINGS. ALL GAS PIPING, VALVES, HANGERS, JOINTS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS REFERENCED IN THE CURRENT INTERNATIONAL FUEL GAS CODE. ALL GAS VALVES SHALL BE TESTED AND LABELED IN ACCORDANCE WITH ASHRAE 618.33 OR ANSI Z21.13. GAS PIPING FOR OTHER THAN DRY GAS CONDITIONS SHALL BE SCHEDULE 40 BLACK IRON PIPE WITH THREADED FITTINGS, HOOKS, METAL PIPE STRAPS, BANDS, BRACKETS, OR HANGERS SUITABLE FOR THE SIZE OF PIPING, OF ADEQUATE STRENGTHS AND QUALITY, AND LOCATED AT INTERVALS SO AS TO PREVENT OR DAMP OUT EXCESSIVE VIBRATION. PIPING SHALL BE ANCHORED TO PREVENT UNDUE STRAINS ON CONNECTED EQUIPMENT AND SHALL NOT BE SUPPORTED BY OTHER PIPING. PIPE HANGERS AND SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF MSS SP-58 AND SHALL BE SPACED IN ACCORDANCE WITH SECTION 415 OF THE INTERNATIONAL FUEL GAS CODE. SUPPORTS, HANGERS, AND ANCHORS SHALL BE INSTALLED SO AS NOT TO INTERFERE WITH THE FREE EXPANSION AND CONTRACTION OF THE PIPING BETWEEN ANCHORS. ALL PARTS OF THE SUPPORTING EQUIPMENT SHALL BE DESIGNED AND INSTALLED SO MOVEMENT OF THE SUPPORTED PIPING WILL NOT DISENGAGE THEM. GAS PIPING FOR OTHER THAN DRY GAS CONDITIONS SHALL BE GLOFED NOT LESS THAN 1/4 INCH IN 15 FEET. PROVIDE A DRIP LEG AT EACH APPLIANCE CONNECTION. ALL GAS PIPING SHALL BE IDENTIFIED AT 5 FOOT INTERVALS. GAS PIPING INSTALLED IN CONCEALED SPACES SHALL NOT HAVE UNIONS, TUBING FITTINGS OR RUNNING THREADS. ALL SHUT-OFF VALVES SHALL BE LOCATED AT THE METER AND AT THE EXTERIOR OF THE BUILDING. ALL FLOW CONTROL VALVES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS REFERENCED IN THE INTERNATIONAL FUEL GAS CODE SECTION 410.
- THE MECHANICAL CONTRACTOR SHALL HIRE AN INDEPENDENT AND CERTIFIED TEST AND BALANCE CONTRACTOR, AND SHALL PROVIDE A TEST AND BALANCE REPORT TO BE SENT TO THE BUILDING DEPARTMENT NO LESS THAN THREE DAYS PRIOR TO FINAL INSPECTION.

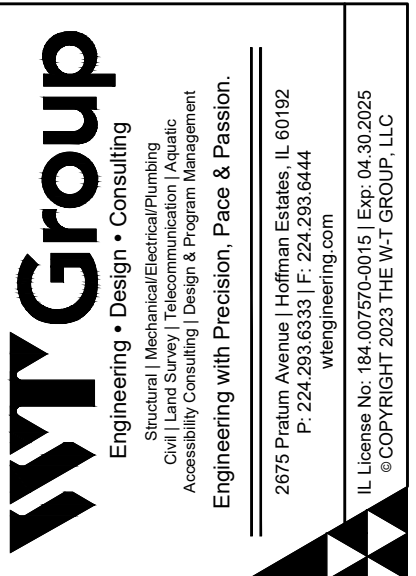
MECHANICAL LEGEND

| | |
|--|--|
| | NEW AIR DEVICE TAG |
| | EQUIPMENT TAG |
| | EXISTING AIR DEVICE TAG |
| | S = SUPPLY AIR |
| | R = RETURN AIR |
| | E = EXHAUST AIR |
| | M = MAKE-UP AIR |
| | T = TRANSFER AIR |
| | REVISION DELTA |
| | KEY NOTE |
| | NEW DUCTWORK |
| | EXISTING DUCTWORK TO REMAIN |
| | EXISTING DUCTWORK TO BE DEMOLISHED |
| | NEW SUPPLY DIFFUSER |
| | NEW SUPPLY DIFFUSER WITH BLANK OFF PANEL |
| | NEW RETURN GRILLE |
| | NEW EXHAUST GRILLE |
| | EXISTING SUPPLY DIFFUSER |
| | EXISTING RETURN GRILLE |
| | EXISTING EXHAUST GRILLE |
| | DUCT MOUNTED SUPPLY GRILLE |
| | DOOR MOUNTED TRANSFER GRILLE |
| | TAKE-OFF WITH MANUAL VOLUME DAMPER |
| | MANUAL VOLUME DAMPER |
| | FIRE DAMPER |
| | DIRECTION OF AIRFLOW |
| | THERMOSTAT |
| | THERMOSTAT REMOTE SENSOR |
| | PIPE UP |
| | PIPE DOWN |
| | PIPE TEE DOWN |
| | PIPE CONTINUATION |
| | PIPE CAP |
| | GAS COCK |
| | GAS METER |
| | VENTLESS PRESSURE REGULATOR |
| | POINT OF CONNECTION |
| | POINT OF DISCONNECTION |
| | ELECTRIC CABINET HEATER |
| | ELECTRIC WALL HEATER |
| | UNIT HEATER |
| | VARIABLE AIR VOLUME BOX |
| | NEW DUCTWORK DIMENSIONS |
| | EXISTING DUCTWORK DIMENSIONS |
| | ABOVE FINISHED FLOOR |
| | BACKDRAFT DAMPER |
| | BRAKE HORSEPOWER |
| | BRITISH THERMAL UNIT |
| | BTU PER HOUR |
| | CUBIC FEET PER MINUTE |
| | EXTERNAL STATIC PRESSURE |
| | FIRE DAMPER |
| | THOUSAND BTUS PER HOUR |
| | MANUAL VOLUME DAMPER |
| | NEW |
| | NOT APPLICABLE |
| | NOISE CRITERIA |
| | NATURAL GAS |
| | NOT IN CONTRACT |
| | REVOLUTIONS PER MINUTE |
| | UNDERCUT DOOR |
| | UP THROUGH ROOF |
| | INCHES WATER COLUMN |
| | EXISTING TO REMAIN |
| | EXISTING TO BE DEMOLISHED |
| | EXISTING TO BE RELOCATED |
| | EXISTING REMOVED AND RELOCATED |

MECHANICAL VENTILATION SCHEDULE

| ROOM NUMBER | ROOM NAME | OCCUPANCY CLASSIFICATION | DEFAULT OCCUPANT DENSITY # / 1000 SQ FT | ZONE AREA Az | OCCUPANT DENSITY Pz | PEOPLE OUTDOOR AIR Rp | AREA OUTDOOR AIR RATE Ra | BREATHING OUTDOOR AIRFLOW (REQ'D) Vbz=RpPz+RaAz | AIR DISTRIBUTION EFFECTIVENESS Ez | REQUIRED OUTDOOR AIRFLOW (CFM) | ACTUAL SPACE VENTILATION | | EXHAUST REQUIREMENTS | | | | ACTUAL EXHAUST PROVIDED (CFM) | EXHAUST EQUIPMENT | SUPPLY EQUIPMENT |
|-------------|----------------|--------------------------|---|--------------|---------------------|-----------------------|--------------------------|---|-----------------------------------|--------------------------------|--------------------------|----------|----------------------|-----------------|-----------------|-----------|-------------------------------|-------------------|------------------|
| | | | | | | | | | | | SUPPLY CFM | O.A. CFM | CFM / SQ FT | CFM / WC URINAL | NO. WC / URINAL | CFM TOTAL | | | |
| - | RECEPTION | RECEPTION AREAS | 30 | 303 | 6 | 5.0 | 0.06 | 48 | 0.8 | 60 | 300 | 75 | 0.0 | 0 | 0 | 0 | 0 | - | RTU-1 |
| - | OBSERVATION-1 | SPECTATOR AREAS | 150 | 820 | 25 | 7.5 | 0.06 | 237 | 0.8 | 296 | 1,300 | 325 | 0.0 | 0 | 0 | 0 | 0 | - | RTU-1 |
| - | TOILET-1 | TOILET | 0 | 49 | 0 | 0.0 | 0.00 | 0 | 0.8 | 0 | 50 | 13 | 0.0 | 70 | 1 | 70 | 70 | EF-1 | RTU-2 |
| - | TOILET-2 | TOILET | 0 | 49 | 0 | 0.0 | 0.00 | 0 | 0.8 | 0 | 50 | 13 | 0.0 | 70 | 1 | 70 | 70 | EF-1 | RTU-2 |
| - | TOILET-3 | TOILET | 0 | 49 | 0 | 0.0 | 0.00 | 0 | 0.8 | 0 | 50 | 13 | 0.0 | 70 | 1 | 70 | 70 | EF-1 | RTU-2 |
| - | TOILET-4 | TOILET | 0 | 49 | 0 | 0.0 | 0.00 | 0 | 0.8 | 0 | 50 | 13 | 0.0 | 70 | 1 | 70 | 70 | EF-1 | RTU-2 |
| - | TOILET HALL | CORRIDOR | 0 | 79 | 0 | 0.0 | 0.06 | 5 | 0.8 | 6 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | - | - |
| - | OBSERVATION-2 | SPECTATOR AREAS | 150 | 669 | 25 | 7.5 | 0.06 | 228 | 0.8 | 285 | 1,000 | 250 | 0.0 | 0 | 0 | 0 | 0 | - | RTU-2 |
| - | HALL | CORRIDOR | 0 | 125 | 0 | 0.0 | 0.06 | 8 | 0.8 | 9 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | - | - |
| - | STAFF OFFICE | OFFICE | 5 | 147 | 4 | 5.0 | 0.06 | 29 | 0.8 | 36 | 300 | 75 | 0.0 | 0 | 0 | 0 | 0 | - | FCU-1 |
| - | STAFF LOUNGE | OFFICE | 5 | 157 | 4 | 5.0 | 0.06 | 29 | 0.8 | 37 | 300 | 75 | 0.0 | 0 | 0 | 0 | 0 | - | FCU-2 |
| - | EQUIPMENT ROOM | STORAGE | 0 | 245 | 0 | 0.0 | 0.12 | 29 | 0.8 | 37 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | - | - |
| - | DRY STORAGE | STORAGE | 0 | 102 | 0 | 0.0 | 0.12 | 12 | 0.8 | 15 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | - | - |
| - | POOL EQUIPMENT | STORAGE | 0 | 308 | 0 | 0.0 | 0.12 | 37 | 0.8 | 46 | 0 | 1.5 | 0 | 0 | 462 | 500 | EF-2 | - | |
| - | WET STORAGE | STORAGE | 0 | 137 | 0 | 0.0 | 0.12 | 16 | 0.8 | 21 | 0 | 1.0 | 0 | 0 | 137 | 150 | EF-5 | - | |
| - | POOL | SWIMMING POOLS | 0 | 3,891 | 0 | 0.0 | 0.48 | 1,868 | 0.8 | 2,335 | 3,800 | 3,800 | 1.0 | 0 | 3,798 | 4,000 | EF-3, EF-4 | DOAS-1, 2 | |

2022 OREGON MECHANICAL SPECIALTY CODE (2021 IMC)



Date
 06.23.2023

Polkinghorn Group Architects, Inc.
 218 ADDIE ROY ROAD, SUITE B-301 AUSTIN TX 78746
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| GAS LOAD SUMMARY | | | | |
|---|-------------------|------|-----------|------------|
| ITEM TAG | EQUIPMENT | QTY. | BTUH EACH | BTUH TOTAL |
| RTU-1 | ROOFTOP UNIT | 1 | 110,000 | 110,000 |
| RTU-2 | ROOFTOP UNIT | 1 | 110,000 | 110,000 |
| DOAS-1 | MAKE-UP AIR UNIT | 1 | 300,000 | 300,000 |
| DOAS-2 | MAKE-UP AIR UNIT | 1 | 300,000 | 300,000 |
| WH-1 | WATER HEATER | 2 | 200,000 | 400,000 |
| PWH-1 | POOL WATER HEATER | 2 | 266,000 | 532,000 |
| GAS SERVICE PEAK LOAD | | | | 1,752,000 |
| GAS SERVICE SIZED AT LOW PRESSURE (1/4 PSI) AND A TOTAL EQUIVALENT LENGTH OF 200'-0" (IF&C TABLE 402.4(I)). | | | | |

| PACKAGED GAS HEATING / ELECTRIC COOLING ROOFTOP UNIT SCHEDULE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------------|--------------|----------------|------|-----------------|-------------|------|------|-------------------|--------------|------------|----------|-----------|--------------|------------|-----------|------------|------------|-----------------|----------|----------|--------------|-----|---------------|--------------|-------------------|---------|--------------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | NOMINAL TONS | ARI SEER/SEER2 | IEER | BLOWER SECTION | | | | | COOLING COIL | | | | HEATING COIL | | | | | ELECTRICAL DATA | | | | | SMOKE DETECT. | AREA SERVING | UNIT WEIGHT (LBS) | REMARKS | |
| | | | | | SUPPLY MIN. CFM | MIN. OA CFM | ESP | BHP | DISCHARGE CONFIG. | E.A.T. (F) | L.A.T. (F) | TOAL MBH | SENS. MBH | E.A.T. (F) | L.A.T. (F) | INPUT MBH | OUTPUT MBH | VOLT-PH-HZ | COMP RLA | COND FLA | EVAP FLA | CONV. OUTLET | MCA | | | | | MOCP |
| RTU-1 | CARRIER 486CEK05 | 4 | 17.4 / 16.0 | - | 1600 | 400 | 0.50 | 0.72 | VERTICAL | 79.5 | 56.0 | 44.5 | 40.6 | 58.0 | 104.0 | 110 82 | 88 65 | 208-3-60 | 12.9 | 2.6 | 7.1 | UNPOW. | 26 | 30 | NONE | SEE PLAN | 703 | I-II, 14, 15 |
| RTU-2 | CARRIER 486CEK04 | 3 | 17.4 / 16.0 | - | 1,200 | 300 | 0.50 | 0.31 | VERTICAL | 79.5 | 58.0 | 35.1 | 27.8 | 58.0 | 126.0 | 110 82 | 88 65 | 208-3-60 | 10.1 | 2.6 | 3.4 | UNPOW. | 19 | 25 | NONE | SEE PLAN | 655 | I-II, 14, 15 |

REMARKS:

- VERIFY EXACT VOLTAGE IN THE FIELD AND WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
- MAINTAIN MANUFACTURE'S RECOMMENDED SERVICE CLEARANCES.
- OUTSIDE AIR INTAKE SHALL BE A MINIMUM OF 10'-0" AWAY FROM ANY EXHAUST DISCHARGE.
- PROVIDE PREFABRICATED INSULATED FULL PERIMETER ROOF CURB LEVELED 14" HIGH.
- PROVIDE FLEXIBLE CANVAS CONNECTIONS AT SUPPLY AND RETURN DUCT CONNECTIONS.
- PROVIDE GAS PIPING, UNION, GAS COCK AND DIRT LEG CONNECTIONS TO UNIT.
- PROVIDE FILTER TRAY WITH 2" THICK THROW AWAY FILTERS.
- PROVIDE BELT DRIVE EVAPORATOR FAN MOTOR. PROVIDE FIELD SUPPLIED DRIVE AS REQUIRED.
- PROVIDE 7-DAY FULLY PROGRAMMABLE WALL MOUNTED HEATING/COOLING/FAN THERMOSTAT WITH OCCUPIED/UNOCCUPIED MODES.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL FIELD MOUNTED DISCONNECT SWITCH. DISCONNECT SHALL NOT BE MOUNTED ON UNIT NAMEPLATE.
- ELECTRICAL CONTRACTOR SHALL FIELD WIRE ALL CONVENIENCE OUTLETS. REFER TO ELECTRICAL PLANS FOR LOCATIONS OF OUTLETS.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL DUCT MOUNTED SMOKE DETECTORS. DETECTORS SHALL BE WIRED AS REQUIRED BY LOCAL CODES.
- PROVIDE FULLY MODULATING MOTORIZED ECONOMIZER WITH ENTHALPHY SENSORS AND POWER EXHAUSTER. INTERLOCK ECONOMIZER WITH THERMOSTAT OCCUPIED/UNOCCUPIED SETTING. ECONOMIZER DAMPER SHALL CLOSE WHEN THERMOSTAT IS IN UNOCCUPIED MODE.
- PROVIDE HAIL GUARDS.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "OR EQUAL" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: LENNOX, JOHNSON CONTROLS, CARRIER, TRANE, BRYANT, DAIKIN, AAO, YORK, AND AMERICAN STANDARD.

| DUCTLESS SPLIT SYSTEM INDOOR A/C UNIT | | | | | | | | | | | |
|---------------------------------------|-------------------------------|--------------|-----------|-------------------------|----------------------|-----|------|-----------------------------|--------------|-------------------|---------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | NOMINAL TONS | CFM (MAX) | ELECTRICAL DATA | OUTPUT POWER (WATTS) | FLA | MCA | ASSOCIATED OUTDOOR UNIT TAG | AREA SERVING | UNIT WEIGHT (LBS) | REMARKS |
| FCU-1 | CARRIER 40MHG18 | 1.5 | 554 | POWERED BY OUTDOOR UNIT | 28 | 0.4 | 0.28 | HP-1 | STAFF OFFICE | 32 | ALL |
| FCU-2 | CARRIER 40MHG18 | 1.5 | 554 | POWERED BY OUTDOOR UNIT | 28 | 0.4 | 0.28 | HP-1 | STAFF LOUNGE | 32 | ALL |

REMARKS:

- VERIFY EXACT VOLTAGE IN FIELD PRIOR TO ORDERING.
- PROVIDE UNIT WITH WALL MOUNTED THERMOSTAT.
- PROVIDE CONDENSATE PUMP AS REQUIRED.
- UNIT SHALL BE POWERED FROM ASSOCIATED OUTDOOR UNIT'S POWER SOURCE. REFER TO MANUFACTURER'S WIRING DIAGRAMS.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "OR EQUAL" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: FUJITSU, LENNOX, CARRIER, TRANE, YORK, PANASONIC, MITSUBISHI, AND REZNR.

| GAS FIRED MAKE-UP AIR UNIT SCHEDULE | | | | | | | | | | | | | | | | | | |
|-------------------------------------|--------------------------------|----------------|-----|----|-------|------------------|--------------|------------------|-------------|----------------|-----------------|------|------|------|-------|--------------|-------------------|---------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | BLOWER SECTION | | | | HEATING CAPACITY | | COOLING CAPACITY | | | ELECTRICAL DATA | | | IEER | ISMRE | AREA SERVING | UNIT WEIGHT (LBS) | REMARKS |
| | | CFM | ESP | HP | RPM | INPUT (MBH) | OUTPUT (MBH) | NOMINAL TONS | TOTAL (MBH) | SENSIBLE (MBH) | VOLT-PH-HZ | MCA | MOCP | | | | | |
| DOAS-1 | CAPTIVEAIRE GASRTU2-1300-15-8T | 1,900 | 1.0 | 2 | 1,416 | 300 | 243 | 8.0 | 101.8 | 85.0 | 208-3-60 | 37.1 | 40 | 20.2 | 9.8 | POOL | 1,941 | ALL |
| DOAS-2 | CAPTIVEAIRE GASRTU2-1300-15-8T | 1,900 | 1.0 | 2 | 1,416 | 300 | 243 | 8.0 | 101.8 | 85.0 | 208-3-60 | 37.1 | 40 | 20.2 | 9.8 | POOL | 1,941 | ALL |

REMARKS:

- DESIGN CONDITIONS - WINTER = 20° F, SUMMER = 90° F DB, 67° F WB.
- OUTSIDE AIR INTAKE SHALL BE 10'-0" MINIMUM AWAY FROM ANY EXHAUST DISCHARGE.
- VERIFY EXACT VOLTAGE IN THE FIELD PRIOR TO ORDERING.
- PROVIDE GAS PIPING TO UNIT WITH REGULATOR, UNION, GAS COCK AND DIRT LEG CONNECTIONS TO UNIT. MINIMUM INLET PRESSURE 1" W.C.
- PROVIDE FACTORY MOUNTED NON-FUSED DISCONNECT AND FACTORY WIRED VFD. FIELD WIRING BY ELECTRICAL CONTRACTOR.
- MAINTAIN MANUFACTURE'S RECOMMENDED SERVICE CLEARANCES.
- VERTICAL SUPPLY CONFIGURATION.
- PROVIDE WITH DIGITAL SCROLL LEAD COMPRESSOR, MODULATING HOT GAS REHEAT FOR HUMIDITY AND TEMPERATURE CONTROL, REHEAT CAPACITY= 145 MBH. LEAD ECM CONDENSER FAN FOR MODULATING HEAD PRESSURE CONTROL.
- PROVIDE 4 TO 1 TURNDOWN ON GAS HEAT, DOUBLE WALL CONSTRUCTION WITH 2" R-13 FOAM, LOW LEAKAGE OUTSIDE AIR DAMPER, S.S. DRAIN PAN, HINGED ACCESS DOORS.
- PROVIDE WITH MICROPROCESSOR CONTROLS WITH DISCHARGE AIR TEMPERATURE SENSOR, UNIT-MOUNTED CONTROLLER.
- FILTER RACK WITH 2" PLEATED, INSULATED SINGLE WALL CABINET.
- HAIL GUARDS.
- DOWNTURNED WEATHER HOOD.

| LOUVER SCHEDULE | | | | | | | | | |
|-----------------|-------------------------------|-------------|-----|---------|------------|-----|-----------|----------------|------------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | APPLICATION | CFM | DIM. | FREE AREA | FFM | DAMPER | ASSOCIATED FAN | REMARKS |
| LV-1 | GREENHECK ESD-635 | INTAKE | 500 | 20"x16" | 0.7 SQ FT | 673 | MOTORIZED | EF-2 | ALL |
| LV-2 | GREENHECK ESD-635 | INTAKE | - | 24"x18" | 1.11 SQ FT | - | - | COMBUSTION AIR | 1, 2, 3, 5 |

REMARKS:

- PROVIDE BIRDSCREEN, DRAINABLE BLADES, AND FLANGED FRAME.
- VERIFY THE EXACT MOUNTING HEIGHT, LOCATION, AND SIZE WITH THE ARCHITECTURAL DRAWINGS.
- PROVIDE COLOR AND FINISH AS CHOSEN BY THE ARCHITECT.
- PROVIDE LOUVER WITH CONCEALED DAMPER ACTUATOR AND LINKAGE.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "OR EQUAL" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: RUSKIN, DOWCO, FOTTORFF, TUTTLE & BAILEY.

| DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE (OUTDOOR UNIT) | | | | | | | | | | | | | | | |
|---|-------------------------------|-----------|-----------|----------------|----------------|----------------|------|----------------|------|-----------------|--------------|-----|-------------------|---------|-----------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | TYPE | NOM. TONS | SERVICE | COMPRESSOR RLA | HEATING | | COOLING | | ELECTRICAL DATA | | | UNIT WEIGHT (LBS) | REMARKS | |
| | | | | | | CAPACITY (MBH) | HSPF | CAPACITY (MBH) | EER | SEER | VOLT-PH-HZ | MCA | | | MOCP |
| HP-1 | CARRIER 38MGR36 | HEAT PUMP | 3.0 | FCU-1 FCU-2 | 21 | 36.0 | 10.5 | 36.0 | 13.5 | 21.5 | 208/230-1-60 | 35 | 50 | 61 | I-4, 6-10 |

REMARKS:

- EQUIPMENT SIZED FOR AMBIENT TEMPERATURE OF 95° F, SUMMER DB = 80° F, WB = 67° F, WINTER DB = -4° F.
- PROVIDE WITH LOW AMBIENT CONTROLS TO 0° F.
- INTERLOCK WITH ASSOCIATED SPLIT SYSTEM INDOOR UNIT.
- MOUNT UNIT LEVEL ON GRADE WITH MINIMUM 4" HIGH CONCRETE HOUSEKEEPING PAD.
- VERIFY EXACT VOLTAGE IN FIELD PRIOR TO ORDERING.
- INSTALL UNIT PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN MANUFACTURE'S RECOMMEND CLEARANCES.
- DISCONNECT PROVIDED BY ELECTRICAL CONTRACTOR.
- SIZE AND INSTALL REFRIGERANT LINES PER THE MANUFACTURER'S RECOMMENDATIONS. VERIFY WITH EQUIPMENT SUPPLIER REFRIGERATION LINE LENGTH AND SIZE.
- PROVIDE LIQUID LINE FILTER DRYER AND SIGHT GLASS.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "OR EQUAL" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: FUJITSU, LENNOX, CARRIER, TRANE, YORK, PANASONIC, MITSUBISHI, AND REZNR.

| GRILLE REGISTER DIFFUSER SCHEDULE | | | | | | | | | |
|-----------------------------------|-------------------------------|-----------------|-----------|------------------|----------|----------|-------------------------------------|---|---------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | PURPOSE | FACE SIZE | CONNECTION STYLE | MOUNTING | TYPE | ACCESSORIES | DESCRIPTION | REMARKS |
| A | TITUS 300RS | SUPPLY | SEE PLANS | RECT. | SURFACE | REGISTER | OPPOSED BLADE DAMPER, BORDER TYPE I | DOUBLE DEFLECTION ADJUSTABLE BLADE STEEL GRILLE | ALL |
| B | TITUS 350RL | RETURN/ EXHAUST | SEE PLANS | RECT. | SURFACE | GRILLE | OPPOSED BLADE DAMPER, BORDER TYPE I | 35' DEFLECTION FIXED BLADE STEEL GRILLE | ALL |

REMARKS:

- COORDINATE COLOR AND FINISH WITH ARCHITECTURAL PLANS.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "BASIS OF DESIGN" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: TITUS, PRICE, NAILOR, KREUGER, CARNES, METALAIRE, ANEMOSTAT, HART & COOLEY, AND TUTTLE & BAILEY.

| ELECTRIC HEATER SCHEDULE | | | | | | | | |
|--------------------------|---------------------------|-----|--------|-----------------|-----|------|-------------------|---------|
| ITEM TAG | MANUFACTURER MODEL NUMBER | CFM | BTUH | ELECTRICAL DATA | | | UNIT WEIGHT (LBS) | REMARKS |
| | | | | VOLT-PH-HZ | KW | AMPS | | |
| EWH-1 | MARKEL SERIES 3320 | 175 | 6,284 | 208-1-60 | 2.0 | 8.3 | 27 | ALL |
| EWH-1 | MARKEL SERIES 5100 | 400 | 17,100 | 208-1-60 | 5.0 | 24.1 | 25 | ALL |

REMARKS:

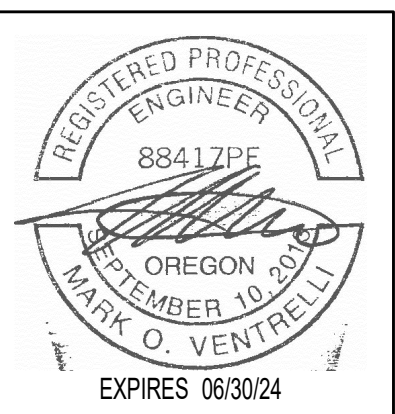
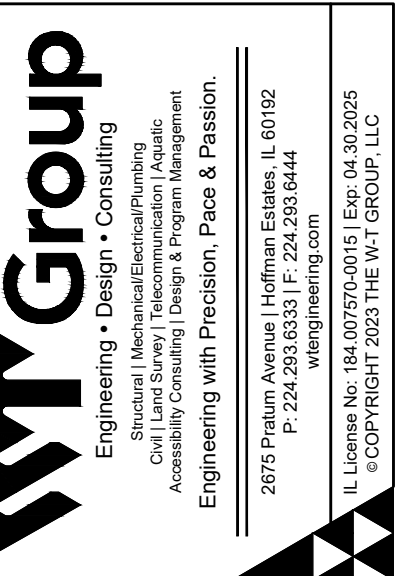
- UNIT TO BE PROVIDED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.
- PROVIDE UNIT WITH THERMOSTAT, DISCONNECT SWITCH, EPOXY COATING, AND MANUAL RESET.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "OR EQUAL" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: BERKO, QMARK, MCQUAY, AND MARLEY.

| DRUM LOUVER DIFFUSER SCHEDULE | | | | | | | |
|-------------------------------|------------------------------|----------------|-----------|------------------|----------------|------------|------------------|
| ITEM TAG | MANUFACTURER | MODEL | TOTAL CFM | GRILLE SIZE (IN) | 30° DEFLECTION | | |
| | | | | | S.P. | THROW (FT) | NOISE LEVEL (NC) |
| DL-1 | RUSKIN ROOFTOP SYSTEMS (RRS) | 01-575-150620B | 1,200 | 15x6 | 0.42 | 12-16 | <30 |
| DL-2 | RUSKIN ROOFTOP SYSTEMS (RRS) | 01-575-150620B | 1,000 | 15x6 | 0.42 | 12-16 | <30 |

| FAN SCHEDULE | | | | | | | | | | | | |
|--------------|-------------------------------|-------|------|-------|-----------------|-----|-------|----------------|-------------|----------------|-------------------|---------|
| ITEM TAG | MANUFACTURER AND MODEL NUMBER | CFM | ESP | SONES | ELECTRICAL DATA | | | CONTROLLED VIA | DAMPER TYPE | AREA SERVING | UNIT WEIGHT (LBS) | REMARKS |
| | | | | | VOLT-PH-HZ | HP | RPM | | | | | |
| EF-1 | GREENHECK 6-048-VG | 280 | 0.50 | 5.8 | 115-1-60 | 1/4 | 1,178 | TIME CLOCK | BACKDRAFT | TOILETS | 38 | ALL |
| EF-2 | GREENHECK 6-100-VG | 500 | 0.50 | 3.6 | 115-1-60 | 1/4 | 972 | THERMOSTAT | BACKDRAFT | POOL EQUIPMENT | 38 | ALL |
| EF-3 | CAPTIVEAIRE DUBSFA | 2,000 | 0.75 | 13.7 | 115-1-60 | 1.0 | 1,440 | MAU-1 | BACKDRAFT | POOL | 92 | ALL |
| EF-4 | CAPTIVEAIRE DUBSFA | 2,000 | 0.75 | 13.7 | 115-1-60 | 1.0 | 1,440 | MAU-1 | BACKDRAFT | POOL | 92 | ALL |
| EF-5 | GREENHECK 6-070-VG | 150 | 0.25 | 4.1 | 115-1-60 | 1/5 | 1,509 | TIME CLOCK | BACKDRAFT | WET STORAGE | 20 | ALL |

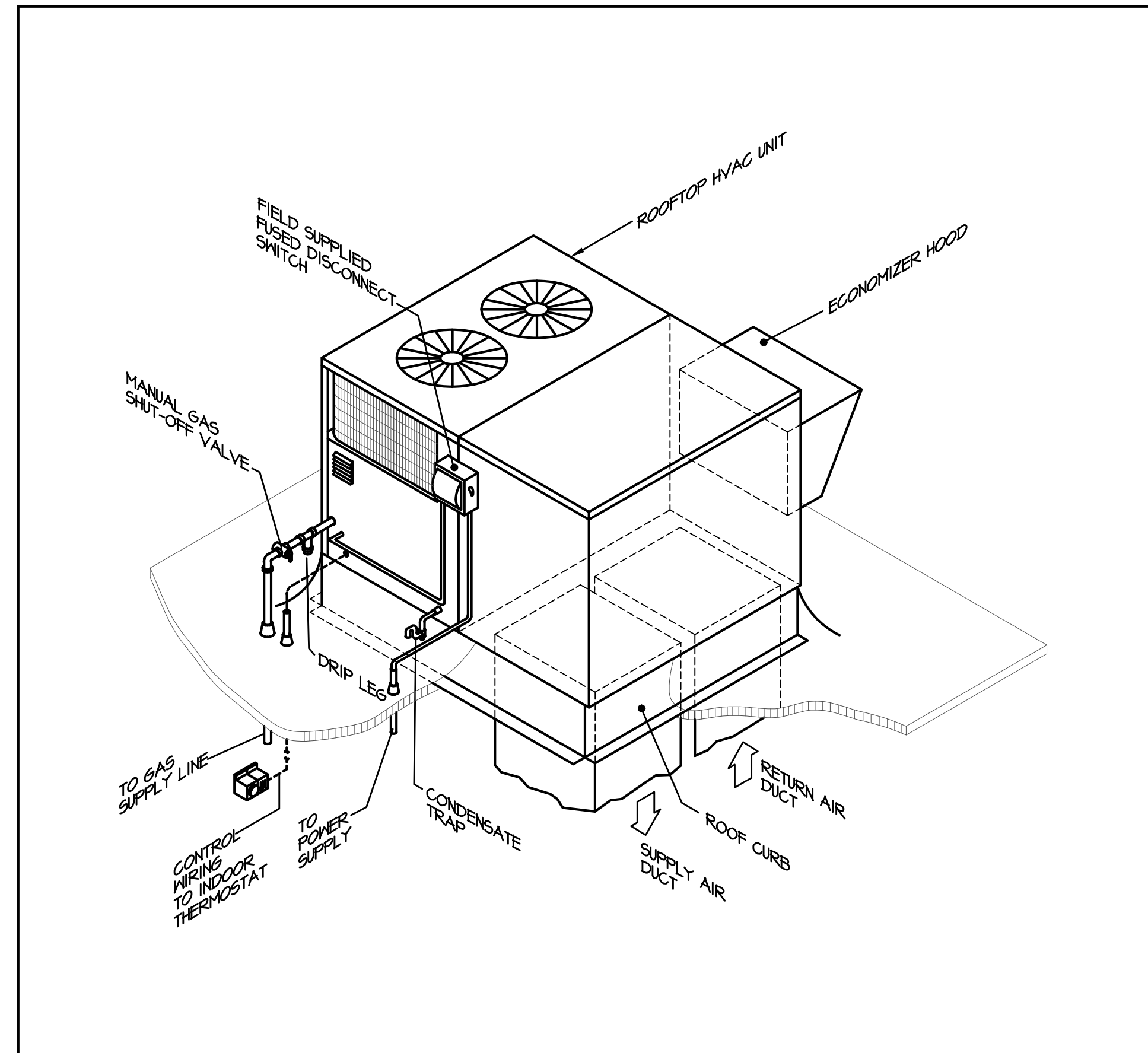
REMARKS:

- VERIFY EXACT VOLTAGE PRIOR TO ORDERING EQUIPMENT.
- ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH AND LINE WIRING.
- PROVIDE FULL PERIMETER INSULATED ROOF CURB WITH BIRD SCREEN.
- THE EQUIPMENT SCHEDULED IS TO SET STANDARDS, INTENTION IS "OR EQUAL" PENDING APPROVED SUBMITTALS. APPROVED ALTERNATIVES INCLUDE, BUT ARE NOT LIMITED TO: LOREN COOK, GREENHECK, THIN CITY, AND AGME.

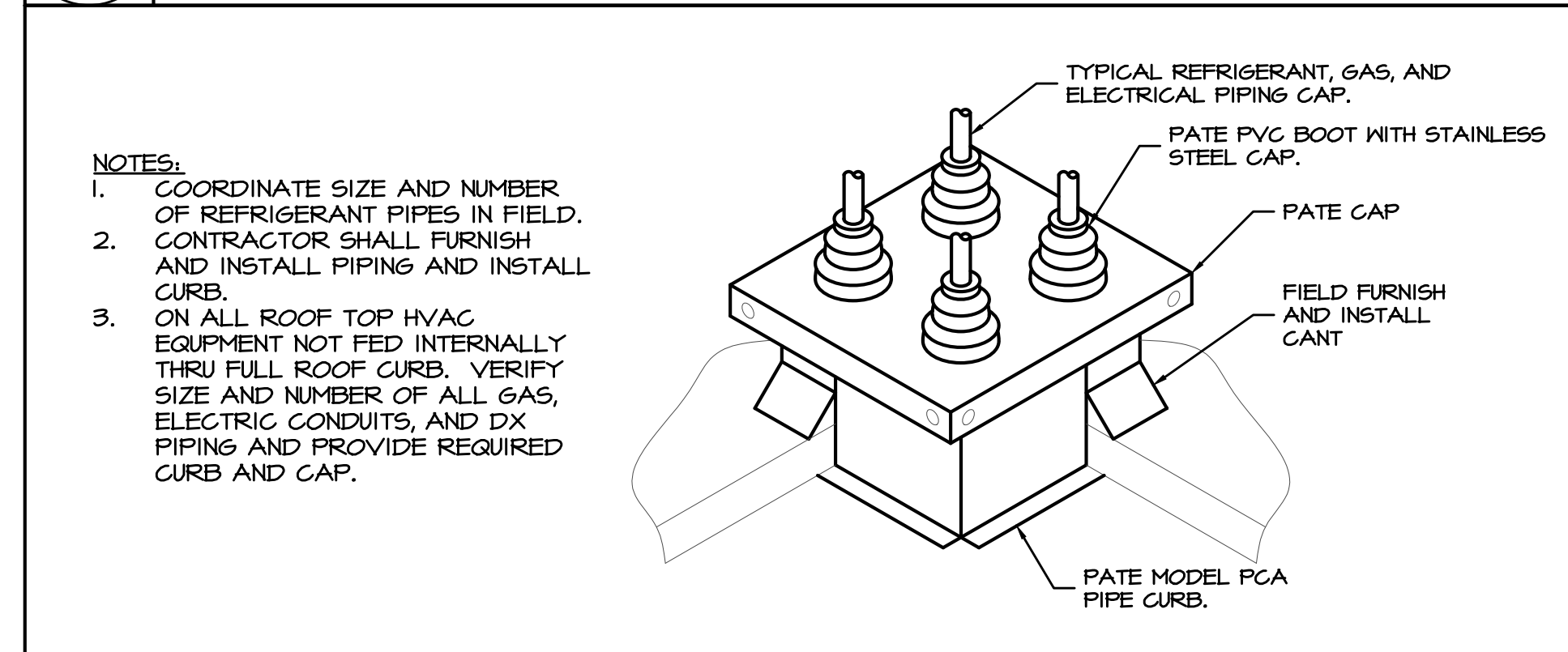


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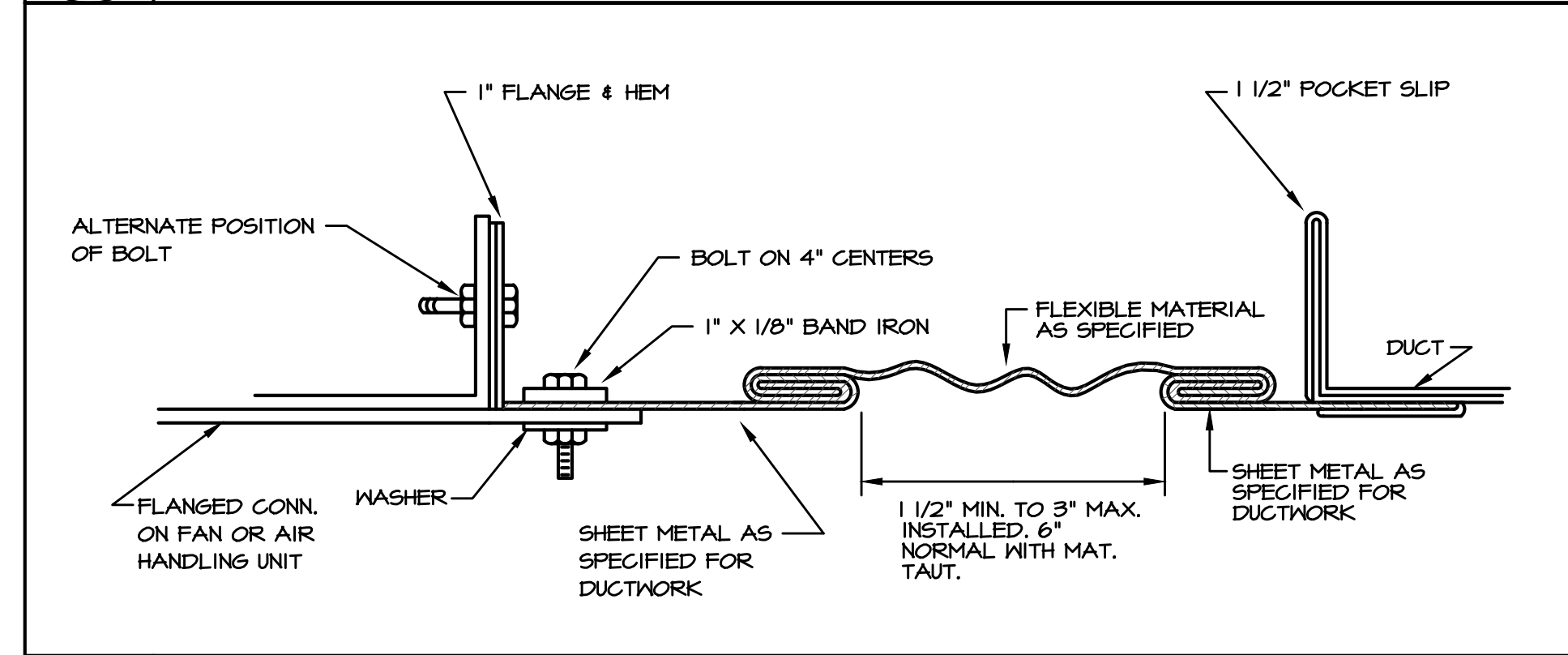
Project No.
2301
Sheet No.



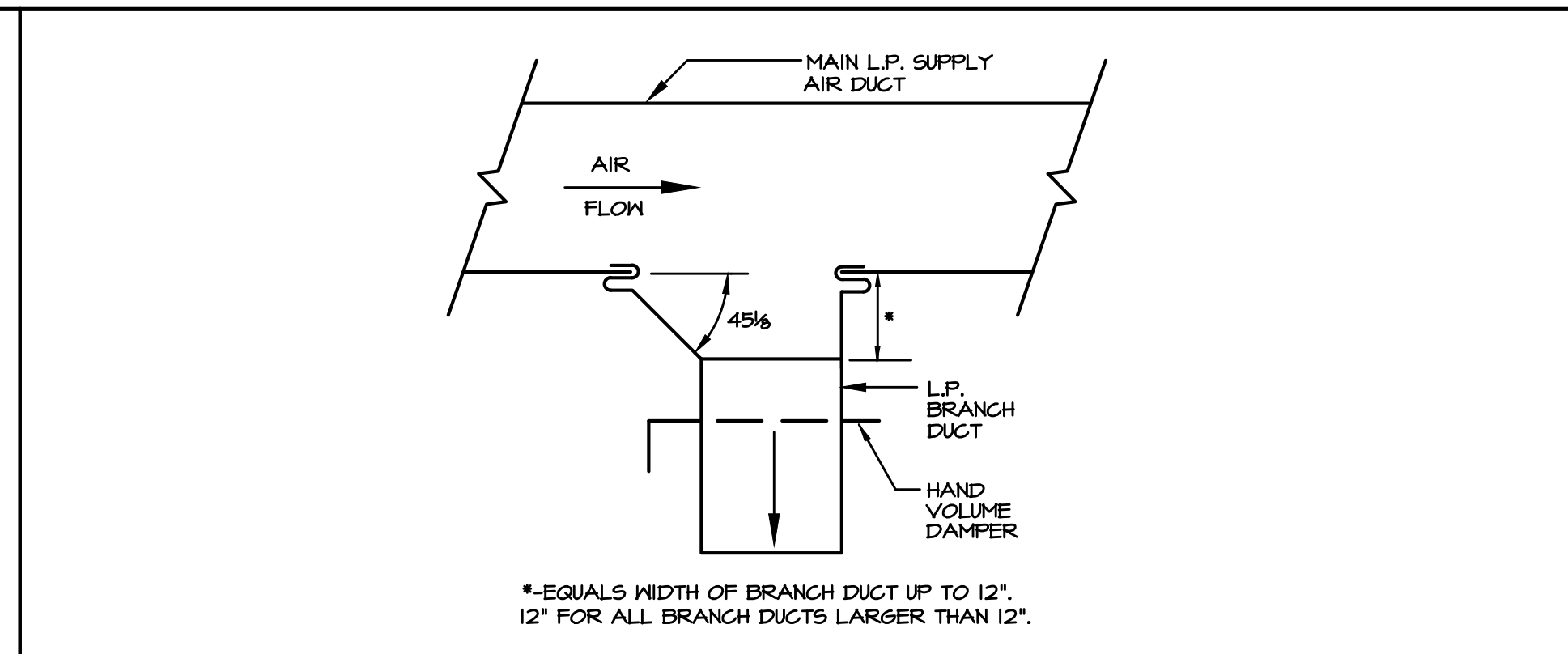
9 GAS FIRED ROOFTOP HVAC UNIT DETAIL NOT TO SCALE



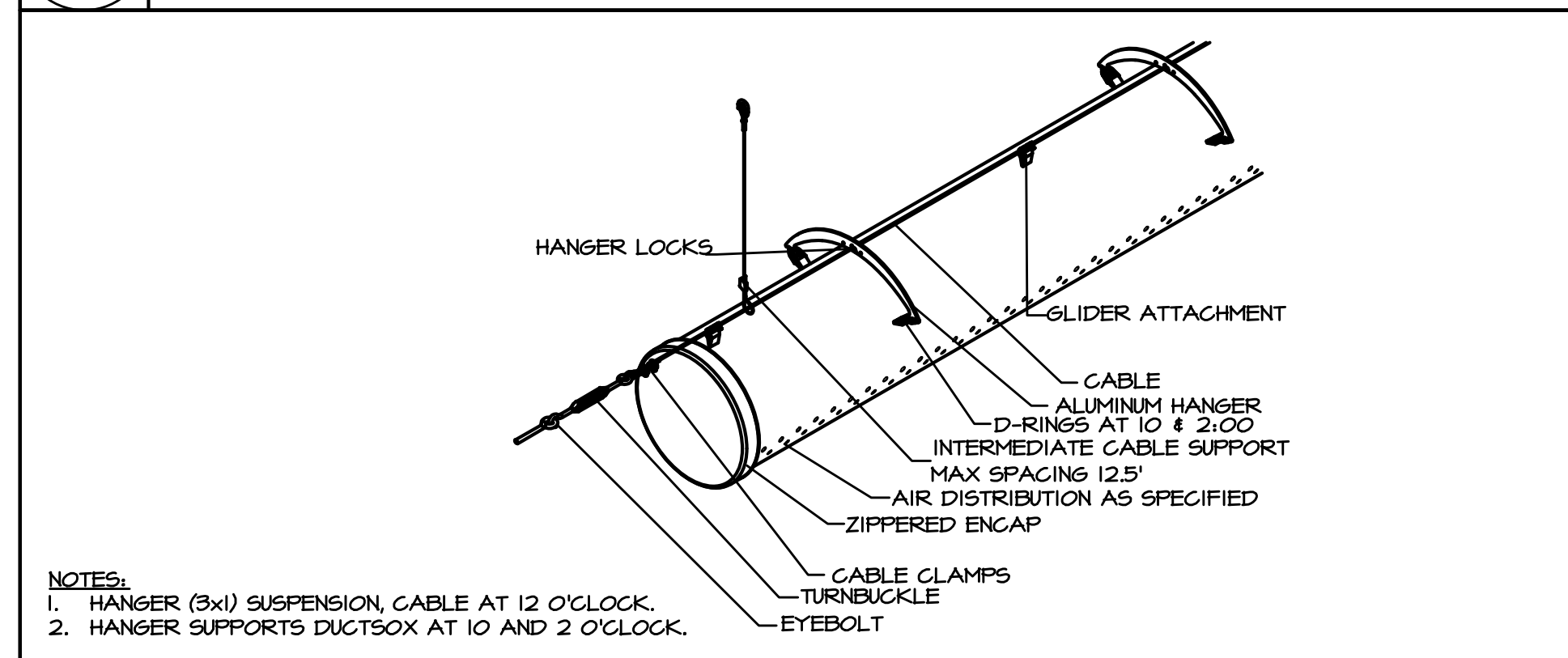
10 PIPE CURB NOT TO SCALE



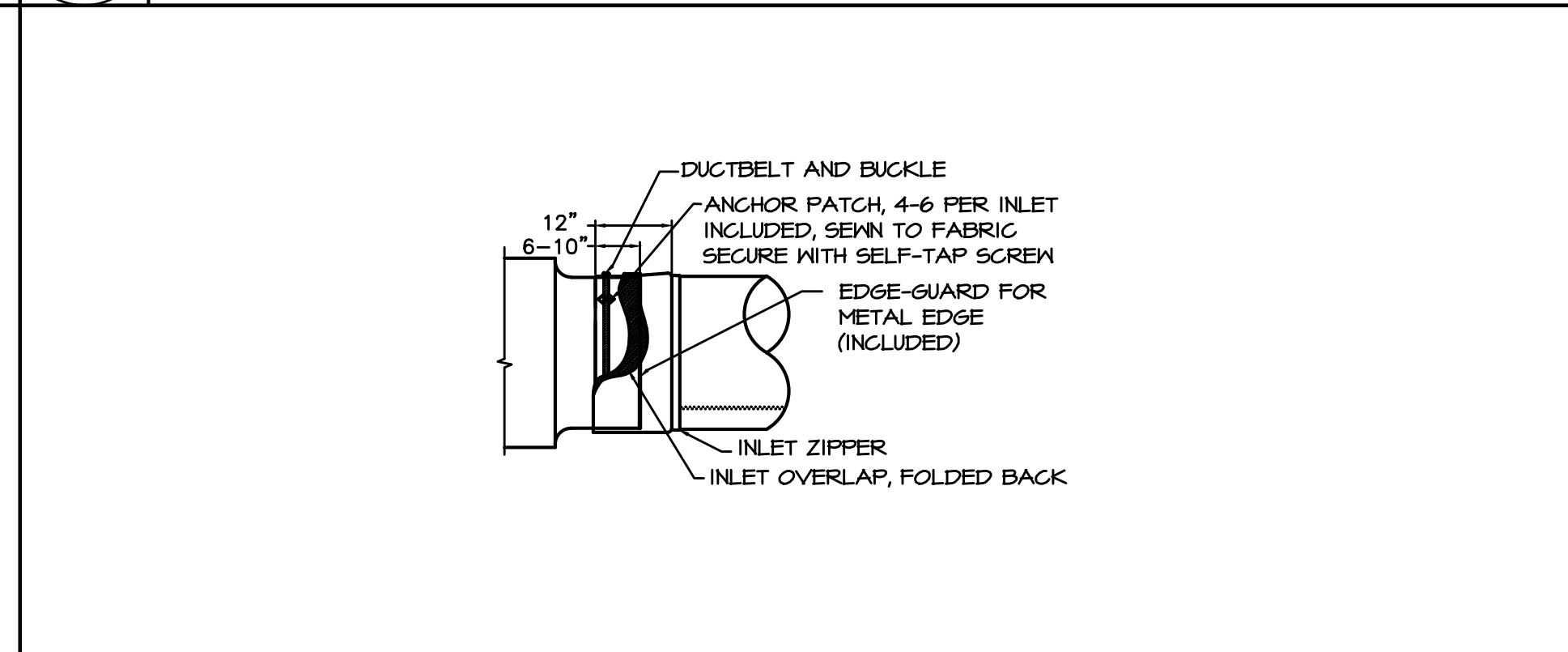
11 RECTANGULAR FLEXIBLE CONNECTION DETAIL NOT TO SCALE



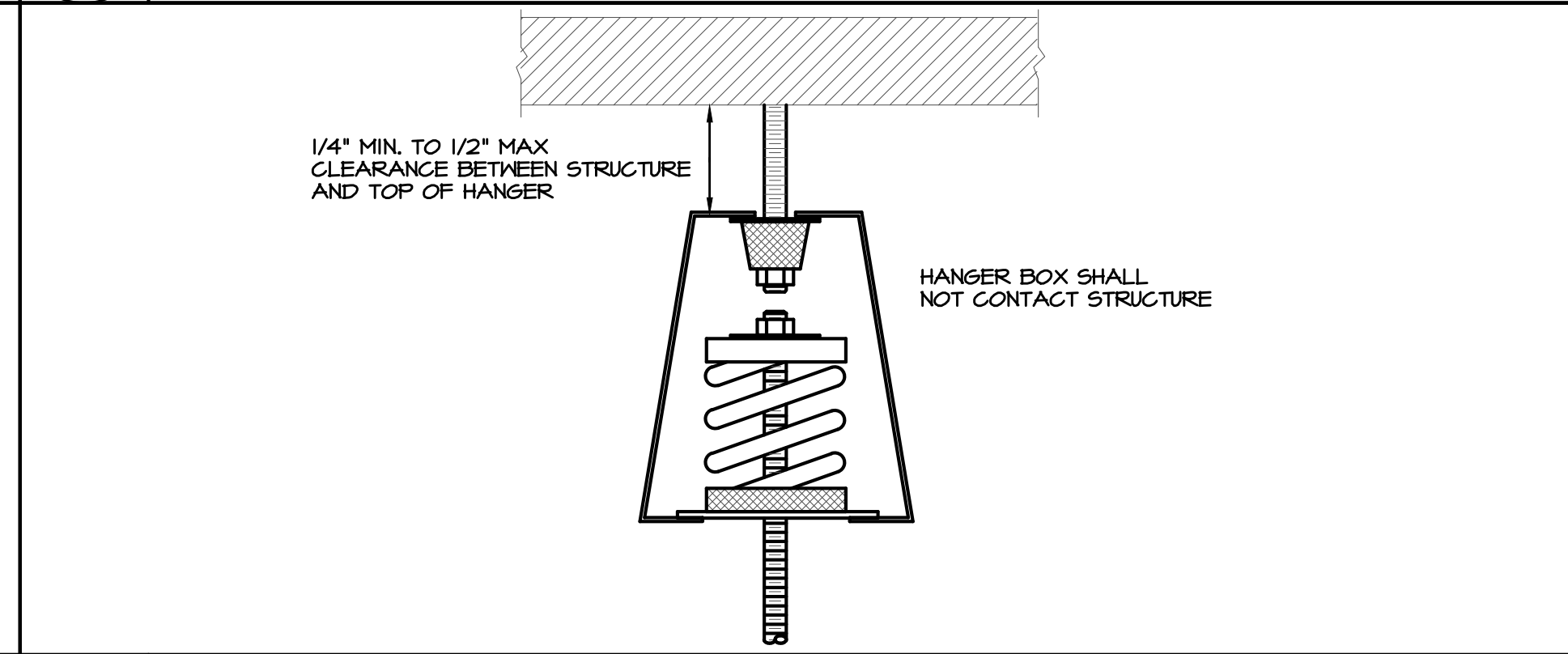
5 TYPICAL LOW PRESSURE BRANCH DUCT TAKE-OFF DETAIL NOT TO SCALE



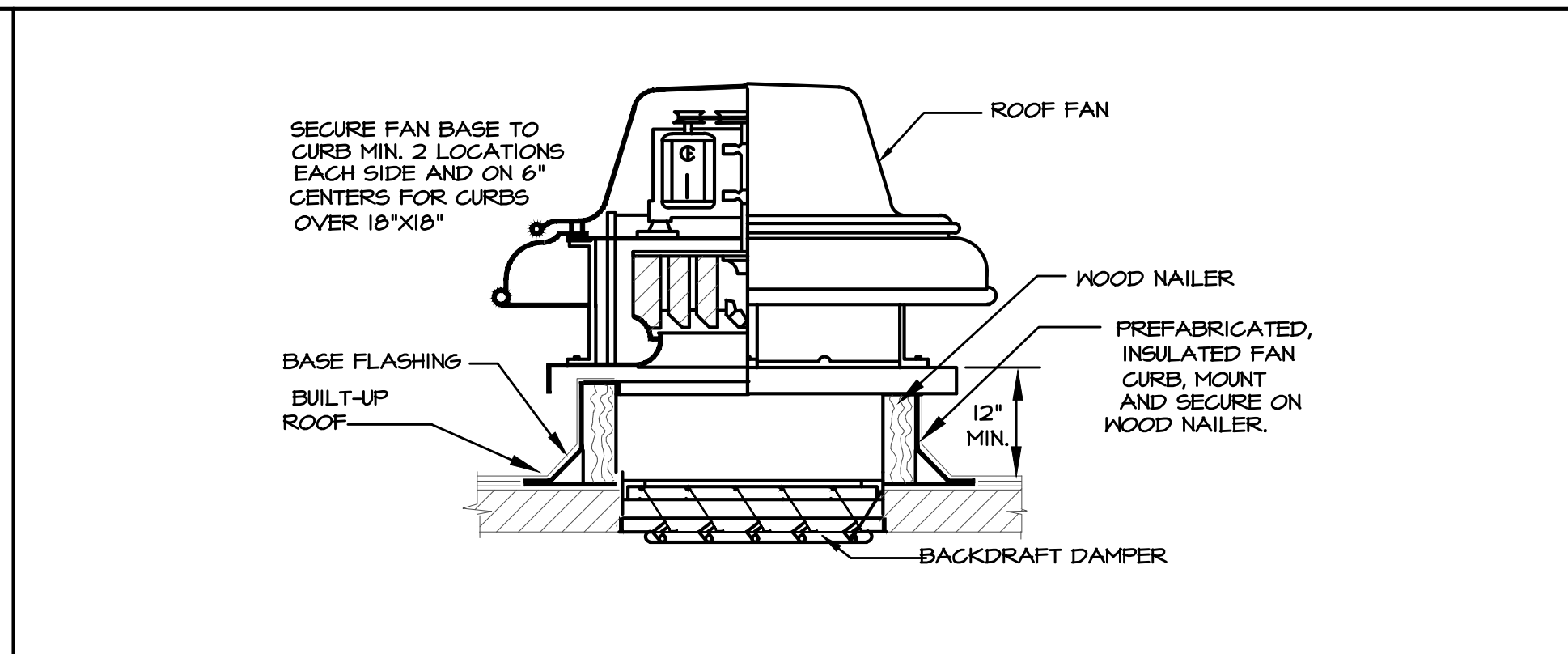
6 DUCTSOX SUSPENSION DETAIL NOT TO SCALE



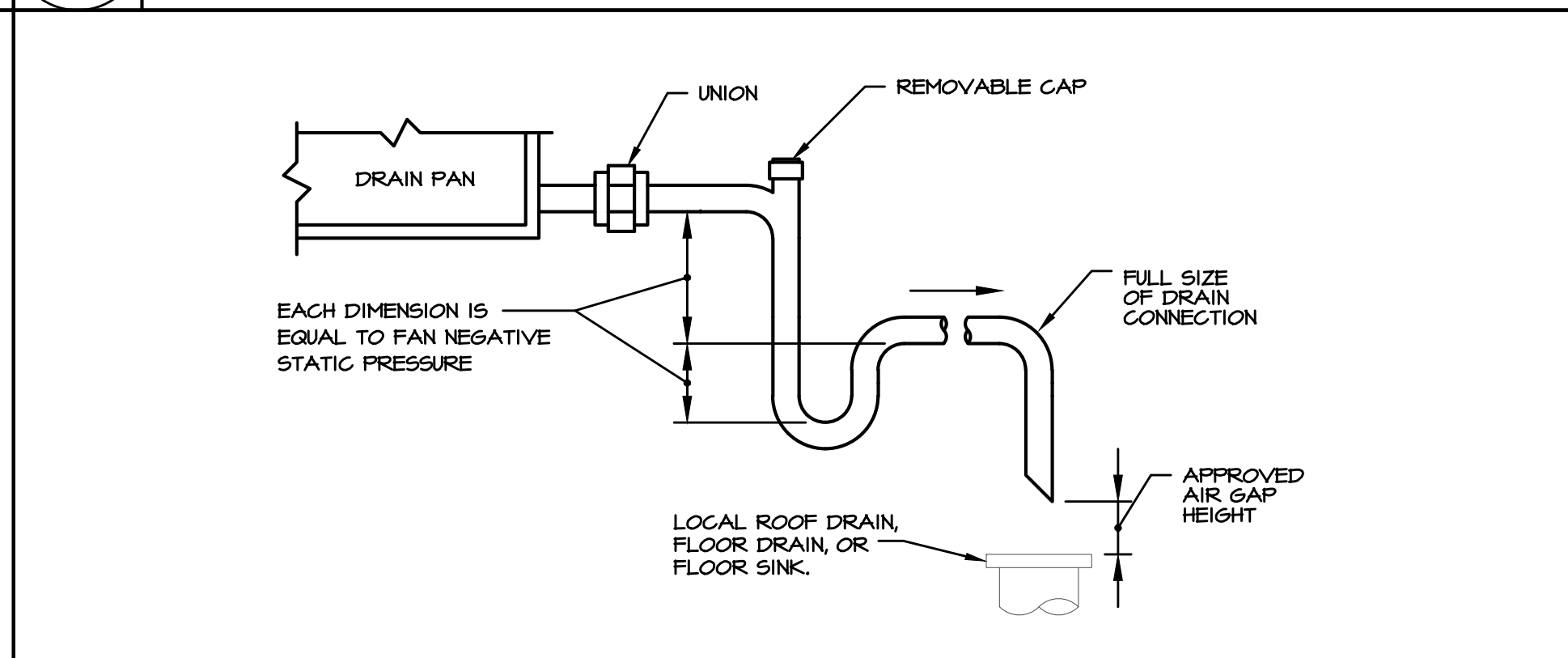
7 DUCTSOX INLET ATTACHMENT DETAIL NOT TO SCALE



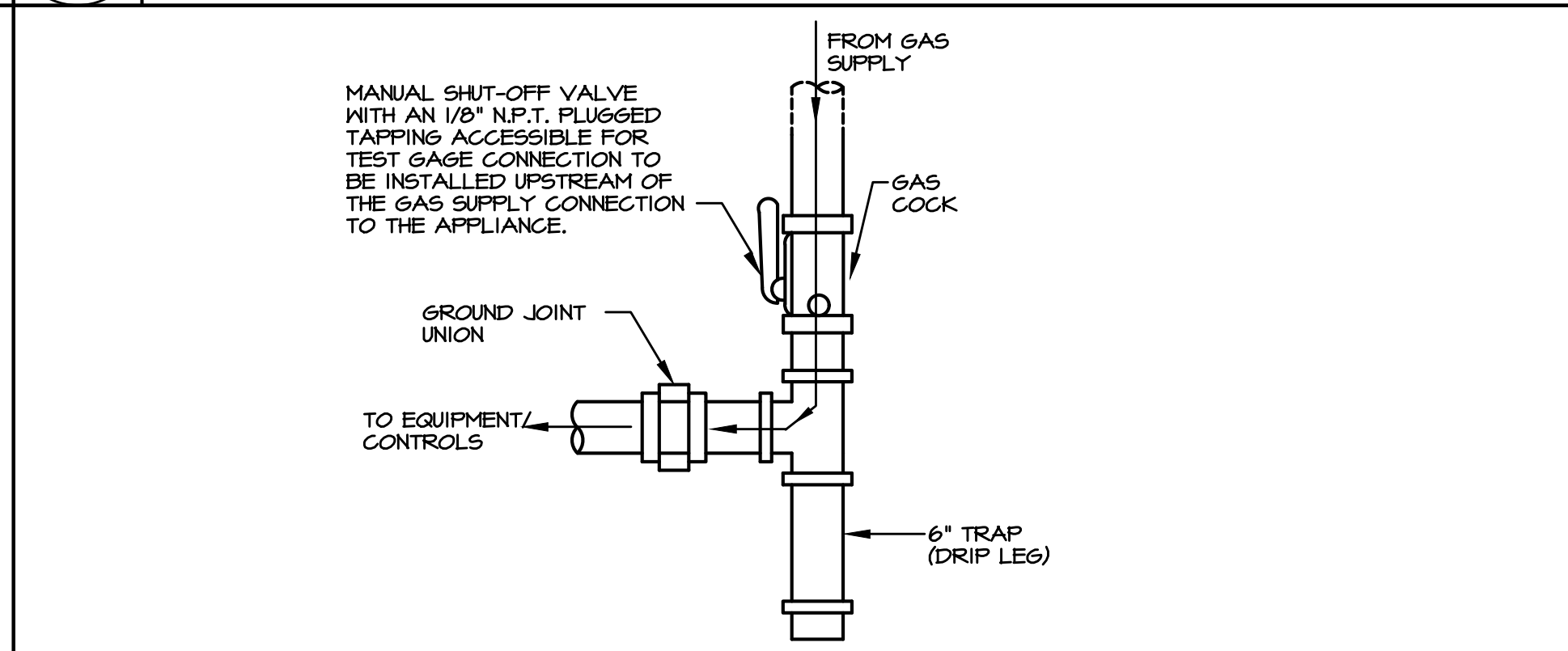
8 SPRING AND NEOPRENE ISOLATOR NOT TO SCALE



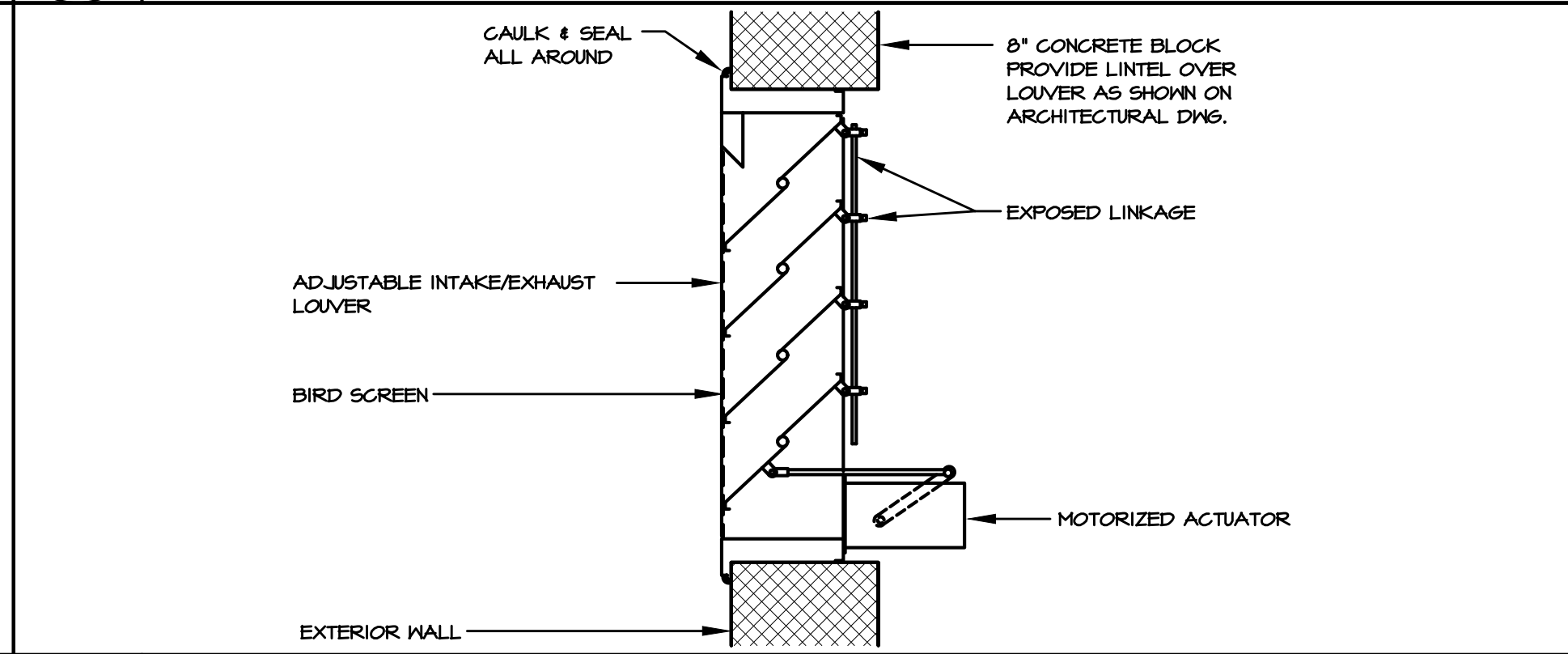
1 ROOF FAN MOUNTING DETAIL NOT TO SCALE



2 TYPICAL CONDENSATE DRAIN DETAIL NOT TO SCALE



3 TYPICAL GAS CONNECTION TO EQUIPMENT DETAIL NOT TO SCALE



4 MOTORIZED LOUVER DETAIL NOT TO SCALE

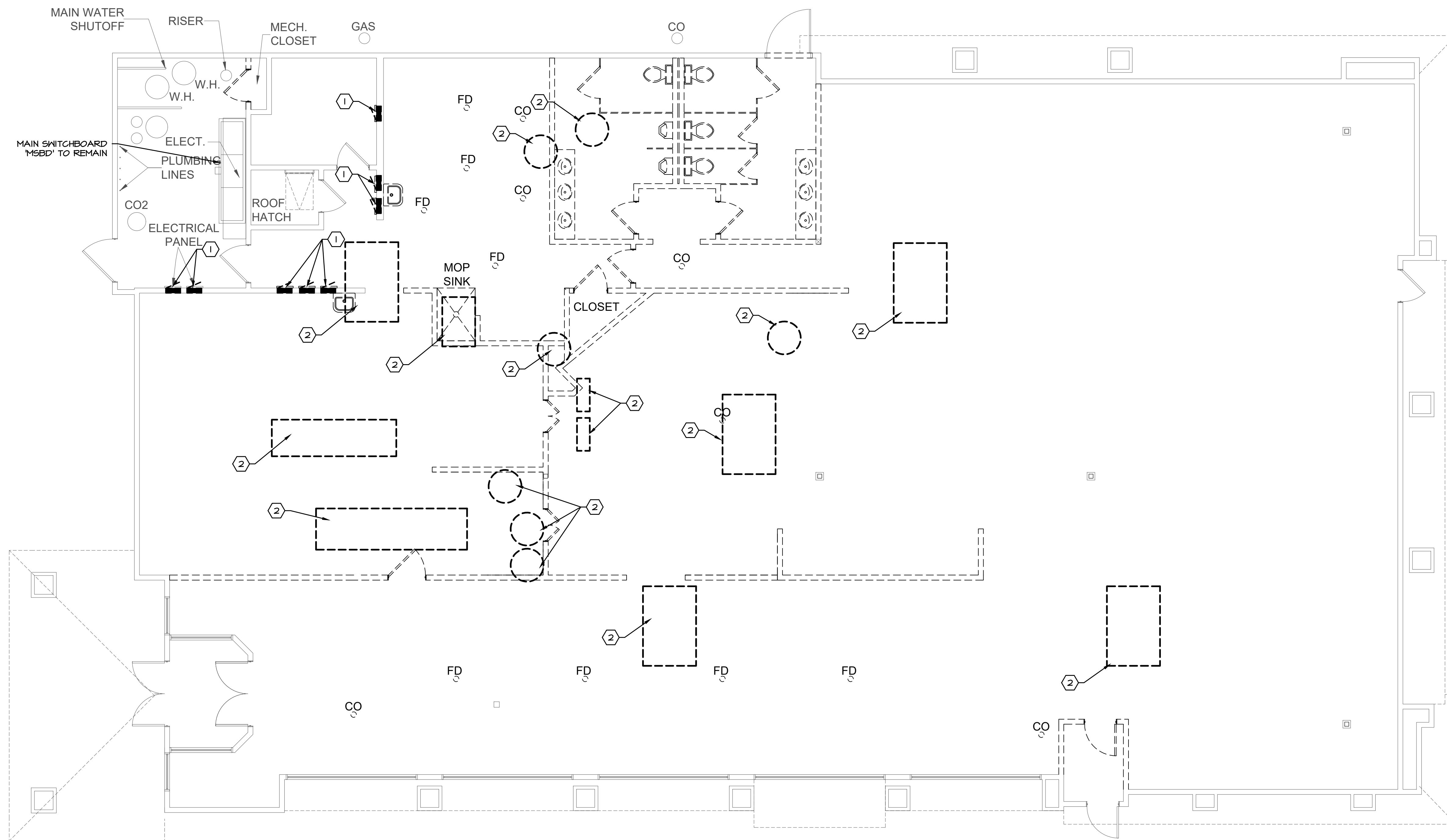
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SEPTEMBER 10 2011
MARK O. VENTRELLI
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06.23.2023

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Project No.
2301
Sheet No.
M2.3
Sheet Title
MECHANICAL DETAILS



CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL POWER, SYSTEMS AND LIGHTING BACK TO SOURCE. REMOVE ALL LOOSES CABLING AND ALL ASSOCIATED EQUIPMENT INCLUDE HANGERS, SUPPORTS, BOXES AND DEVICES..

DEMOLITION GENERAL NOTES :

1. COORDINATE DEMOLITION AND PREPARATION WORK TO MINIMIZE DISTURBANCE TO THE OPERATION OF THE FACILITY. USE DIRECTIONAL SIGNAGE, BARRICADES, AND DUST PARTITIONS AS REQUIRED.
2. ELECTRICAL DEMOLITION DRAWINGS HAVE BEEN ASSEMBLED UTILIZING AVAILABLE RECORD DRAWINGS AND LIMITED VISUAL FIELD OBSERVATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO VISIT THE PROJECT JOBSITE PRIOR TO THE DELIVERY OF BIDS AND THOROUGHLY INVESTIGATE ALL EXISTING CONDITIONS CONCERNING ELECTRICAL DEMOLITION AND INCLUDE IN HIS PRICING ALL LABOR AND MATERIALS TO PERFORM ALL REMOVAL WORK NECESSARY TO ACCOMMODATE NEW CONSTRUCTION. WHERE EXISTING CIRCUITRY EXTENDS BEYOND THE REMODEL AREA, THE SUBCONTRACTOR SHALL PROVIDE ALL EXTENSIONS AND REVISIONS TO EXISTING CIRCUITRY TO MAINTAIN CONTINUITY OF AFFECTED BRANCH CIRCUITRY.
3. AT THE OPTION OF THE SUBCONTRACTOR, EXISTING IN PLACE BRANCH CIRCUITRY CONDUIT AND WIRE MAY BE UTILIZED AS LONG AS THE USE OF EXISTING SYSTEMS DOES NOT ADVERSELY AFFECT THE ORIGINAL DESIGN INTENT OF THE CONSTRUCTION DOCUMENTS.
4. EQUIPMENT SHOWN AS BOLD AND DASHED IN DEMOLITION DRAWINGS ARE EQUIPMENT SHALL BE REMOVED COMPLETELY.

KEYED NOTES:

- ① REMOVE POWER FEEDER, AND ALL ASSOCIATED EQUIPMENT FROM EXISTING PANELBOARD BACK TO SOURCE. MAKE FEEDER BREAKER SAFE.
- ② REMOVE POWER AND ALL ASSOCIATED EQUIPMENT TO ALL EQUIPMENT ON ROOF BACK TO SOURCE. MAKE FEEDER BREAKER SAFE.

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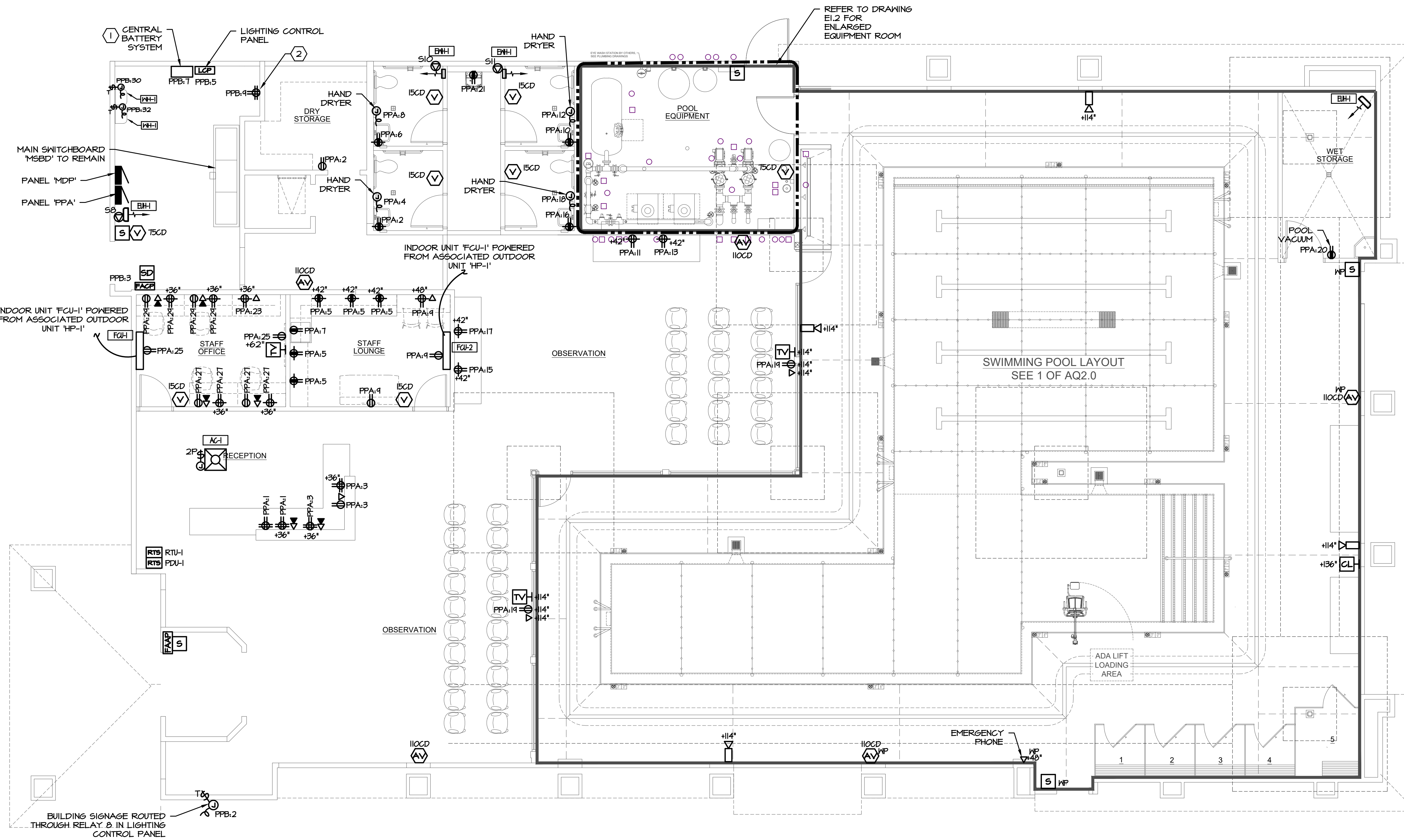
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Project No.
2301
Sheet No.
ED1.1
Sheet Title
DEMOLITION PLAN



POWER & SYSTEMS PLAN
 SCALE: 3/16" = 1'-0"

LEGEND

SI SYMBOL DENOTES SPECIAL OUTLET CONNECTION, NUMBER (SI) ADJACENT TO SYMBOL CORRESPONDS WITH TAG ON SCHEDULE. REFER TO DRAWING ES.1 FOR SPECIAL OUTLET SCHEDULE.

GENERAL NOTES:

- BRANCH CIRCUITS SHOWN THAT ARE 120V, 20A, 1 POLE SHALL BE 2-#12, 1-#12GND, 3/4" C UNLESS OTHERWISE NOTED. CONTRACTOR MAY NETWORK CIRCUITS, IF NETWORKING IS CHOSEN CONTRACTOR MUST COMPLY WITH LATEST ACCEPTED VERSION OF THE NEC.
- CONTRACTOR MUST TAKE INTO CONSIDERATION VOLTAGE DROP ON LONGER RUNS. ANY RUN LONGER THAN 100' CONTRACTOR IS RESPONSIBLE FOR CHECKING VOLTAGE DROP AND INCREASING CONDUCTOR SIZE WHEN NECESSARY.
- REFER TO POOL EQUIPMENT DRAWINGS FOR FURTHER ELECTRICAL DETAILS.
- VERIFY ALL POWER CONNECTION LOCATIONS AND REQUIREMENTS IN THIS ROOM WITH MECHANICAL AND POOL EQUIPMENT CONTRACTORS PRIOR TO INSTALLATION.

FIRE ALARM GENERAL NOTES:

- PROVIDE ALL ALARM DEVICES, NOTIFICATION DEVICES, PANELS, ETC. REQUIRED BY LOCAL CODES. PROVIDE NETWORK/TERMINATION PANELS AS REQUIRED.
- PROVIDE COMPLETE FIRE ALARM PERMIT AND CONSTRUCTION DOCUMENTS. SUBMIT DOCUMENTS TO PERMITTING AUTHORITY AND RE-SUBMIT BASED ON COMMENTS. OBTAIN AGENCY APPROVAL PRIOR TO INSTALLATION.
- PROVIDE HORN/STROBE DEVICES AS REQUIRED BY LOCAL FIRE OFFICIALS AND WIRE TO FIRE ALARM CONTROL PANEL. DEVICE LAYOUT IS REPRESENTATIVE ONLY. PROVIDE ACTUAL QUANTITY OF DEVICES PER IFC AND PER LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS.
- PROVIDE BATTERY AND VOLTAGE DROP CALCULATIONS.

KEYED NOTES:

- PROVIDE A MYERS, 2.8KW CENTRAL BATTERY SYSTEM WITH (2), 6FC, 20A IP CIRCUIT BREAKERS (PART #1-EM-4-S-BA2002-M-2YM, LABEL 'EM'.
- PROVIDE DEDICATED CIRCUIT FOR IT EQUIPMENT. COORDINATE EXACT LOCATION OF EQUIPMENT WITH OWNER PRIOR TO ROUGH-IN.

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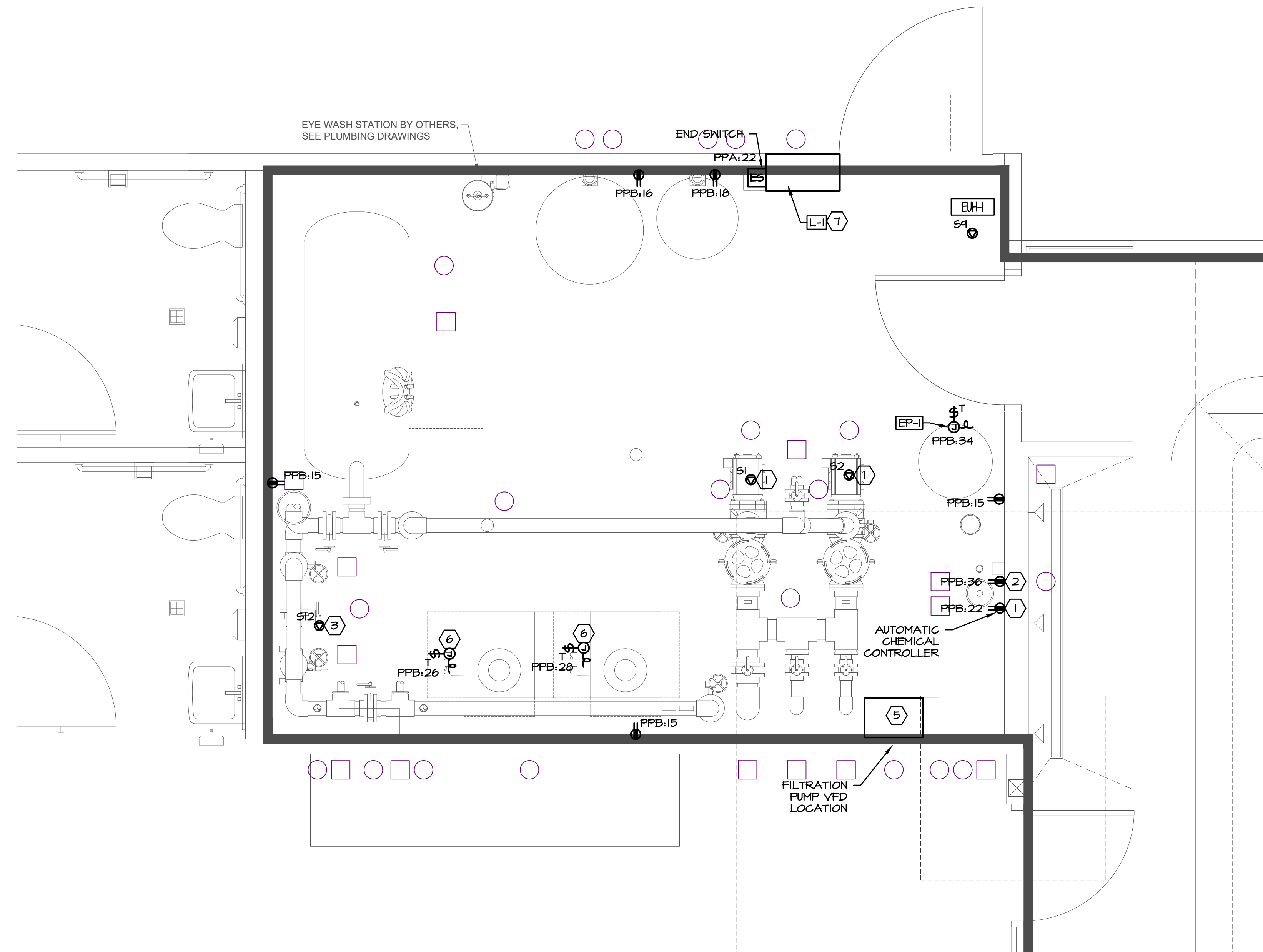
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Project No.
 2301
 Sheet No.
E1.1
 Sheet Title
 POWER & SYSTEMS PLAN



ENLARGED POOL EQUIPMENT ROOM POWER & SYSTEMS PLAN
SCALE: 1/2" = 1'-0"

LEGEND

SI SYMBOL DENOTES SPECIAL OUTLET CONNECTION, NUMBER (SI) ADJACENT TO SYMBOL CORRESPONDS WITH TAG ON SCHEDULE. REFER TO DRAWING E5.1 FOR SPECIAL OUTLET SCHEDULE.

GENERAL NOTES:

- BRANCH CIRCUITS SHOWN THAT ARE 120V, 20A, 1 POLE SHALL BE 2-#12, 1-#12GRD, 3/4" UNLESS OTHERWISE NOTED. CONTRACTOR MAY NETWORK CIRCUITS, IF NETWORKING IS CHOSEN CONTRACTOR MUST COMPLY WITH LATEST ACCEPTED VERSION OF THE NEC.
- CONTRACTOR MUST TAKE INTO CONSIDERATION VOLTAGE DROP ON LONGER RUNS. ANY RUN LONGER THAN 100' CONTRACTOR IS RESPONSIBLE FOR CHECKING VOLTAGE DROP AND INCREASING CONDUCTOR SIZE WHEN NECESSARY.
- REFER TO POOL EQUIPMENT DRAWINGS FOR FURTHER ELECTRICAL DETAILS AND DIAGRAMS. PROVIDE ALL CONTROL AND INTERLOCK REQUIREMENTS PER THESE DRAWINGS AND POOL DRAWING REQUIREMENTS. IF THERE ARE CONFLICTS BETWEEN DRAWINGS THE POOL EQUIPMENT DRAWINGS TAKE PRECEDENT.
- VERIFY ALL POWER CONNECTION LOCATIONS AND REQUIREMENTS IN POOL EQUIPMENT ROOM WITH MECHANICAL AND POOL EQUIPMENT CONTRACTORS PRIOR TO INSTALLATION.
- WIRING WITHIN THE POOL EQUIPMENT ROOM SHALL BE LISTED AND IDENTIFIED FOR USE WITHIN CORROSIVE ENVIRONMENTS AND SHALL BE INSTALLED IN PVC CONDUIT (NEC 680.14).

FIRE ALARM GENERAL NOTES:

- PROVIDE ALL ALARM DEVICES, NOTIFICATION DEVICES, PANELS, ETC. REQUIRED BY LOCAL CODES. PROVIDE NETWORK/TERMINATION PANELS AS REQUIRED.
- PROVIDE COMPLETE FIRE ALARM PERMIT AND CONSTRUCTION DOCUMENTS. SUBMIT DOCUMENTS TO PERMITTING AUTHORITY AND RE-SUBMIT BASED ON COMMENTS. OBTAIN AGENCY APPROVAL PRIOR TO INSTALLATION.
- PROVIDE HORN/STROBE DEVICES AS REQUIRED BY LOCAL FIRE OFFICIALS AND WIRE TO FIRE ALARM CONTROL PANEL. DEVICE LAYOUT IS REPRESENTATIVE ONLY. PROVIDE ACTUAL QUANTITY OF DEVICES PER IFC AND PER LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS.
- PROVIDE BATTERY AND VOLTAGE DROP CALCULATIONS.

KEYED NOTES:

- ROUTE 3/4" FROM VFD TO POOL HEATER, CHEMICAL CONTROL PANEL AND UV CONTROLLER FOR INTERLOCK. COORDINATE CONDUCTOR SIZES AND TERMINATIONS WITH POOL CONTRACTOR.
- ROUTE 3/4" FROM AQUASTAT TO POOL HEATER. COORDINATE CONDUCTOR SIZES AND TERMINATIONS WITH POOL CONTRACTOR.
- ROUTE 3/4" FROM ULTRAVIOLET DISINFECTION SYSTEM TO UV CHAMBER, CHEMICAL CONTROLLER AND FILTRATION SYSTEM. REFER TO POOL DRAWING DIAGRAM. COORDINATE CONDUCTOR SIZES AND TERMINATIONS WITH POOL CONTRACTOR.
- ROUTE CHLORINATOR BOOSTER PUMP POWER SHOWN ON SPECIAL OUTLET SCHEDULE THROUGH CHLORINATOR CONTROLLER.
- ROUTE FILTRATION PUMP POWER THRU PUMP VFD. PROVIDE ALL CONTROLS AND CONNECTIONS.
- ROUTE 3/4" FROM POOL HEATER TO POOL FILTRATION PUMP CONTROLLER FOR INTERLOCK. COORDINATE CONDUCTOR SIZES AND TERMINATIONS WITH POOL CONTRACTOR.
- EXHAUST FAN 'EF-1' SHALL BE INTERLOCKED WITH LOUVER 'L-1'. REFER TO DIAGRAM 'LOUVER/EXHAUST FAN' ON SHEET E4.2

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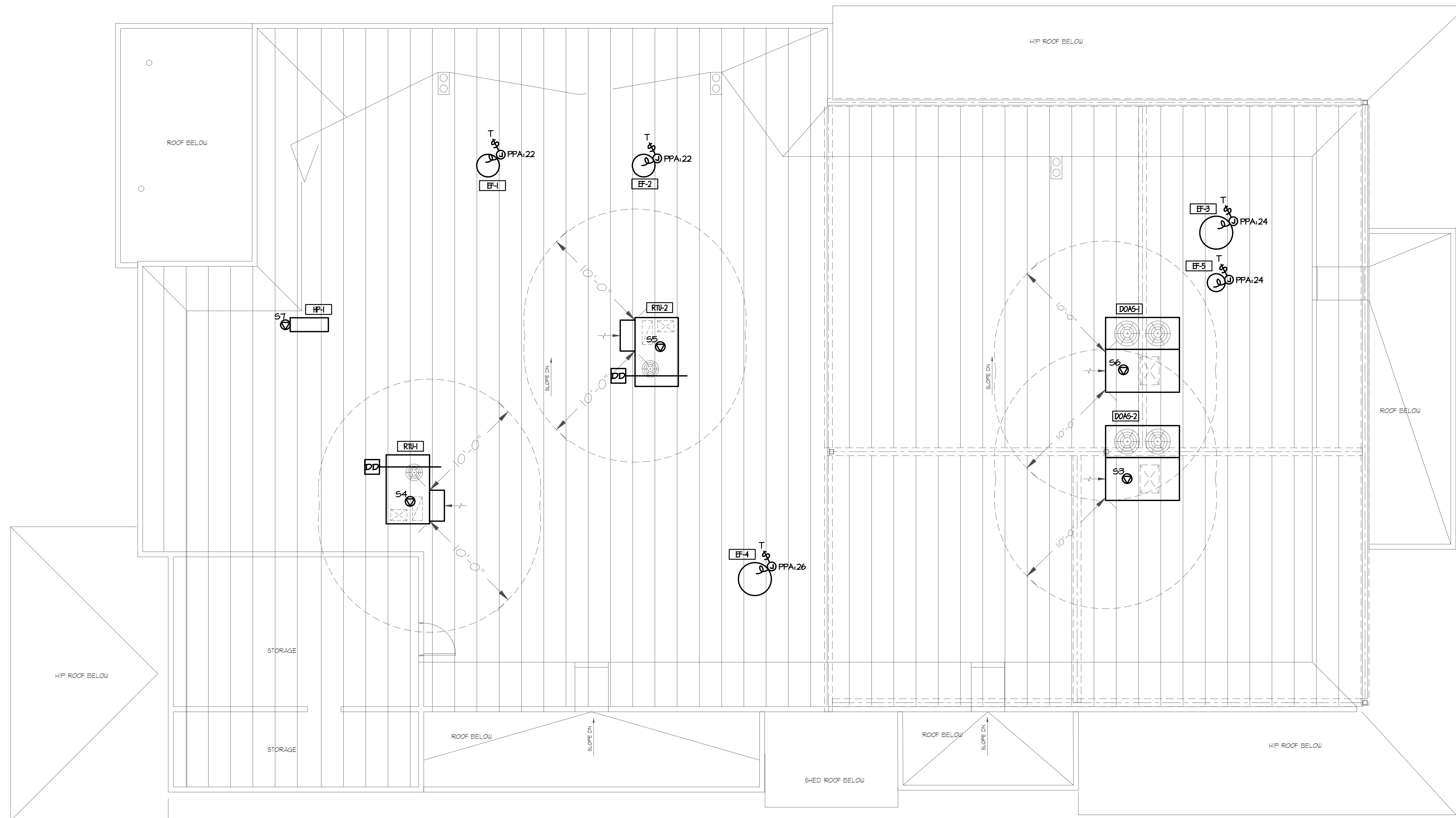
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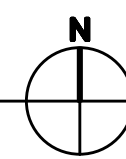
Project No.
2301
Sheet No.

E1.2

Sheet Title
ENLARGED POOL EQUIPMENT ROOM POWER & SYSTEMS PLAN



ROOF POWER PLAN
SCALE: 3/16" = 1'-0"



LEGEND

SI SYMBOL DENOTES SPECIAL OUTLET CONNECTION, NUMBER (SI) ADJACENT TO SYMBOL CORRESPONDS WITH TAG ON SCHEDULE. REFER TO DRAWING ES.1 FOR SPECIAL OUTLET SCHEDULE.

GENERAL NOTES:

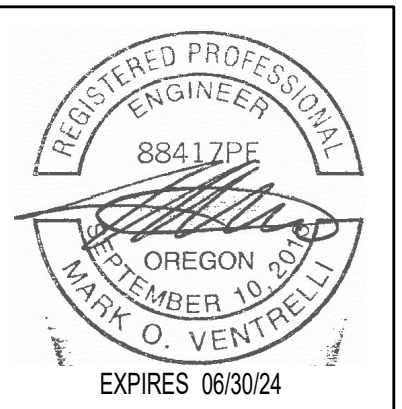
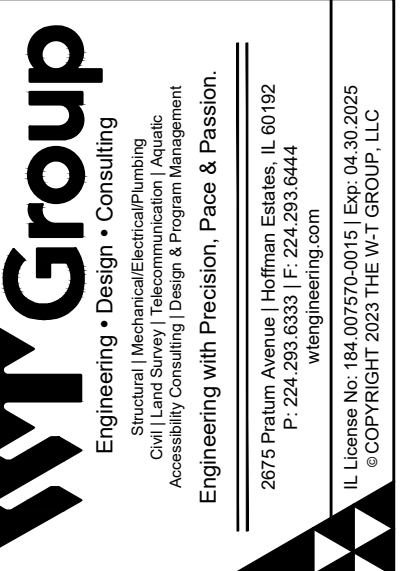
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- CONTRACTOR MUST TAKE INTO CONSIDERATION VOLTAGE DROP ON LONGER RUNS. ANY RUN LONGER THAN 100' CONTRACTOR IS RESPONSIBLE FOR CHECKING VOLTAGE DROP AND INCREASING CONDUCTOR SIZE WHEN NECESSARY.
- REFER TO POOL EQUIPMENT DRAWINGS FOR FURTHER ELECTRICAL DETAILS.
- VERIFY ALL POWER CONNECTION LOCATIONS AND REQUIREMENTS IN THIS ROOM WITH MECHANICAL AND POOL EQUIPMENT CONTRACTORS PRIOR TO INSTALLATION.

FIRE ALARM GENERAL NOTES:

- PROVIDE ALL ALARM DEVICES, NOTIFICATION DEVICES, PANELS, ETC. REQUIRED BY LOCAL CODES. PROVIDE NETWORK/TERMINATION PANELS AS REQUIRED.
- PROVIDE COMPLETE FIRE ALARM PERMIT AND CONSTRUCTION DOCUMENTS. SUBMIT DOCUMENTS TO PERMITTING AUTHORITY AND RE-SUBMIT BASED ON COMMENTS. OBTAIN AGENCY APPROVAL PRIOR TO INSTALLATION.
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- PROVIDE BATTERY AND VOLTAGE DROP CALCULATIONS.

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Project No.
2301

Sheet No.

E1.3

Sheet Title
ROOF POWER PLAN

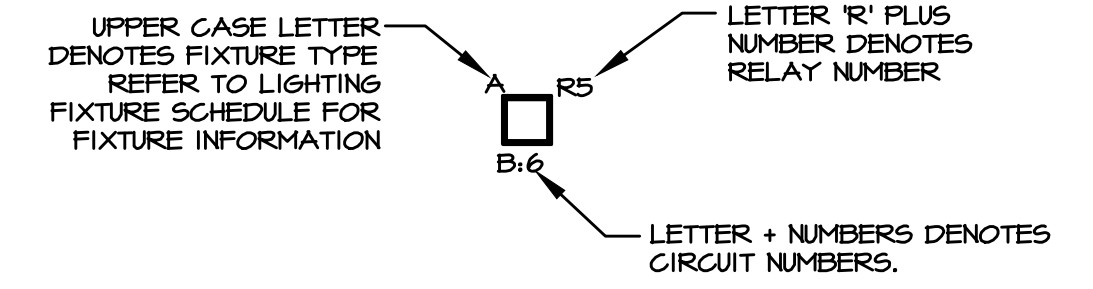
POOL & DECK AREA - NO UNDERWATER LIGHTING

3,886 SQ. FT. TIMES 33.5 LUMENS PER SQ. FT. = 130,181 LUMENS REQUIRED
 27 FIXTURES TIMES 21,000 LUMENS PER 150W FIXTURE
 = 567,000 LUMENS DESIGNED
 WHICH EXCEEDS THE REQUIRED LUMENS

LIGHTING DEVICE SYMBOL & SPECIFICATIONS:

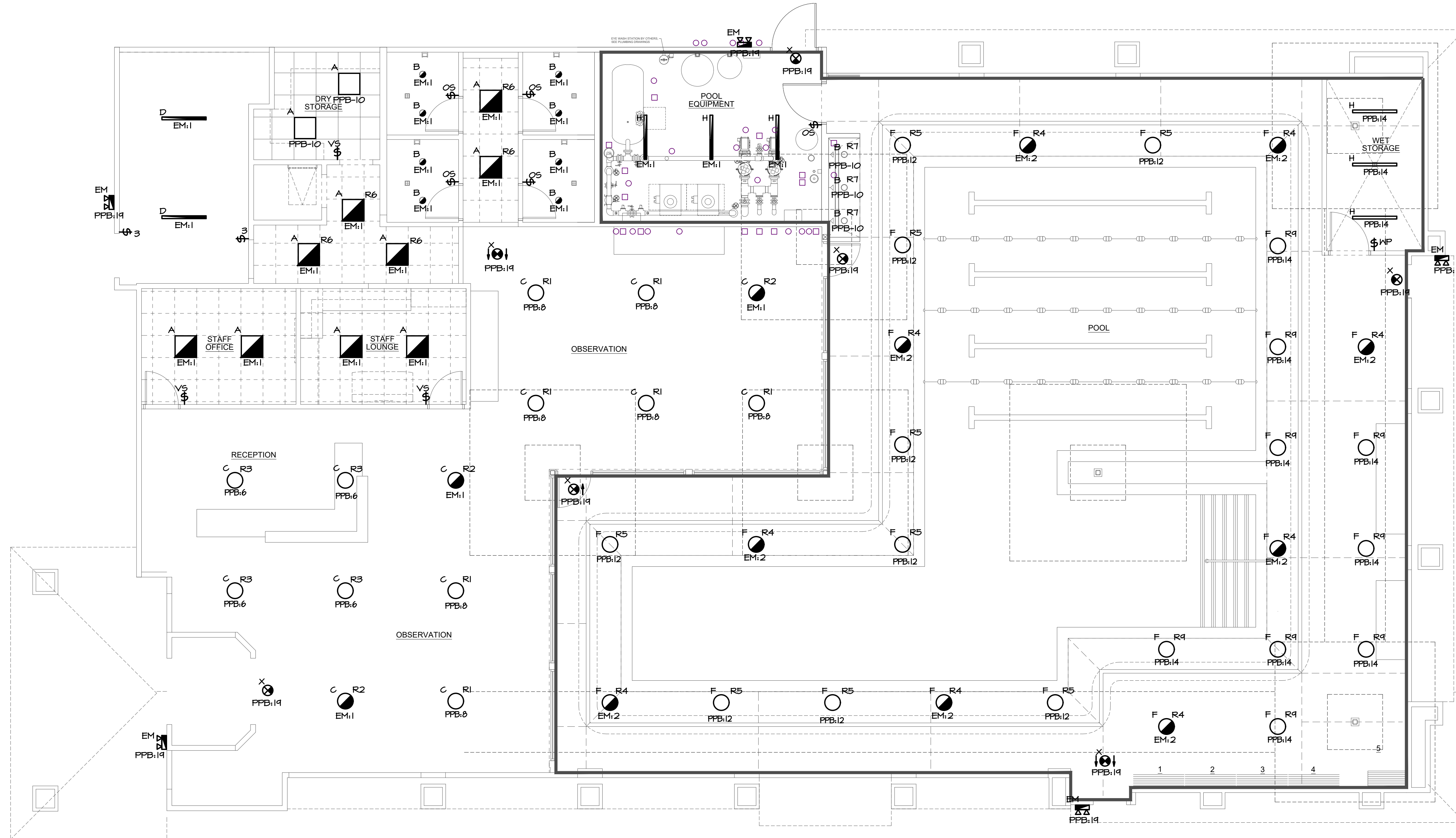
- OS, VS
\$ SENSOR SWITCH - DUAL TECHNOLOGY, SINGLE POLE, WALL MOUNTED OCCUPANCY SENSOR. 'OS' DENOTES AUTO ON SETTING (PART #MSD PDT 1), 'VS' DENOTES MANUAL SETTING (PART #MSD PDT VA). NUMBER '3' INDICATES MULTI-WAY LOCATIONS.
- OS
\$ SENSOR SWITCH - DUAL TECHNOLOGY, 2 POLE, (TO SWITCH MULTIPLE CIRCUITS) WALL MOUNTED OCCUPANCY SENSOR. 'OS' DENOTES AUTO ON SETTING (PART #MSD PDT 2P).
- OR
\$ ACUITY - DIGITAL, 6-BUTTON, 4-SCENE, OVERRIDE WALL SWITCH TO LIGHTING CONTROL PANEL (PART #CH6 WF BWH 6B WH PWH).
- D
\$ SENSOR SWITCH - DUAL TECHNOLOGY, SINGLE POLE, WALL MOUNTED OCCUPANCY SENSOR. 'D' FOR DIMMING SETTINGS (PART #MSD PDT D).
- OS
\$ SENSOR SWITCH - CEILING MOUNTED, DUAL TECHNOLOGY, SINGLE POLE, LINE VOLTAGE, MOTION SENSOR (PART #CMR PDT 1).
- LV
\$ LV SENSOR SWITCH - CEILING MOUNTED, DUAL TECHNOLOGY, SINGLE POLE, LOW VOLTAGE, MOTION SENSOR (PART #CMR PDT 10).
- PP
\$ SENSOR SWITCH - 120/277V/15VDC, STEP-DOWN POWER PACK RELAY, FOR CONTROLLING LOW VOLTAGE SENSORS (PART #PP20). NUMBER '2' DENOTES 2-POLE.
- ST
\$ SENSOR SWITCH - LINE VOLTAGE, EMERGENCY, SHUNT-TRIP RELAY (PART #PP16).
- DS
\$ SENSOR SWITCH - LOW VOLTAGE, DAYLIGHT SENSOR (PART #CM PC ADC) FIXTURES REQUIRE LOW VOLTAGE CONTROLLED DIMMING DRIVER.
- LCP
\$ ACUITY - BLUE BOX, 10-RELAY, UL-424 LISTED, LIGHTING CONTROL PANEL (PART #GR14010 LT ENG HL SM NEI)

LIGHTING LEGEND

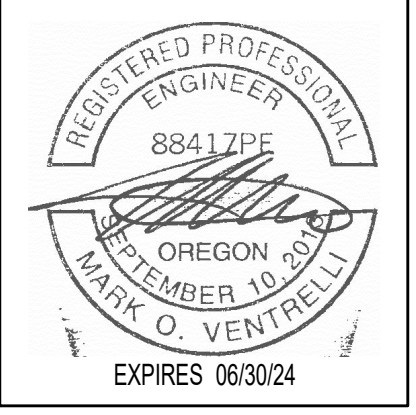
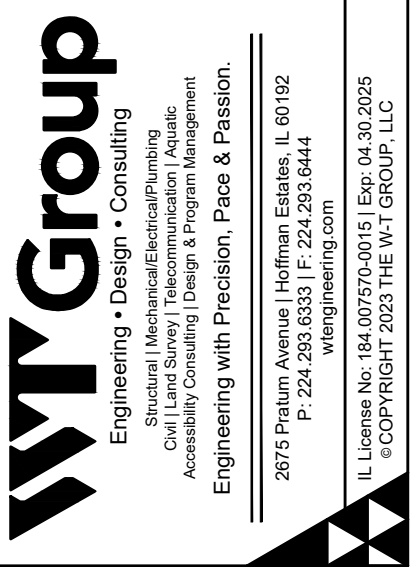


GENERAL NOTES:

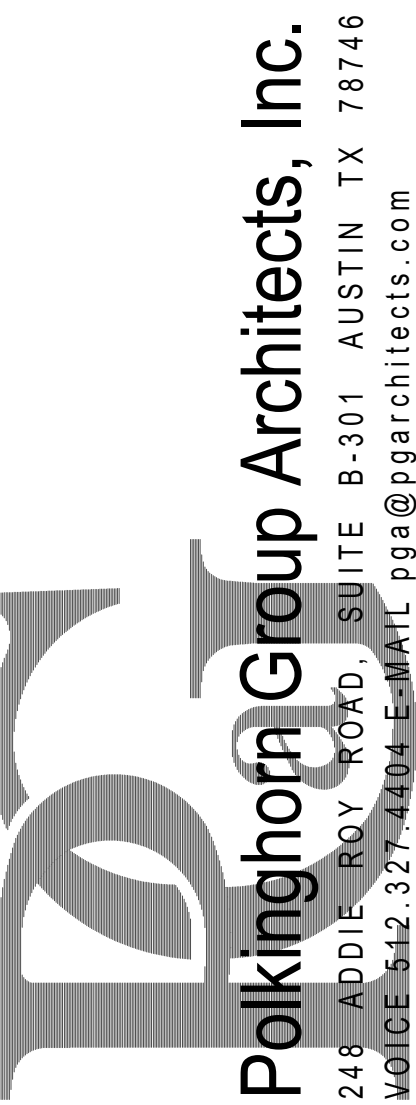
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2. CONTRACTOR MUST TAKE INTO CONSIDERATION VOLTAGE DROP ON LONGER RUNS. ANY RUN LONGER THAN 100' CONTRACTOR IS RESPONSIBLE FOR CHECKING VOLTAGE DROP AND INCREASING CONDUCTOR SIZE WHEN NECESSARY.
3. ALL VACANCY AND OCCUPANCY SENSORS SHALL BE DUAL TECHNOLOGY TYPE.
4. REFER TO ARCHITECTURAL DRAWING A6.1 FOR EXACT LIGHTING FIXTURE LOCATION.



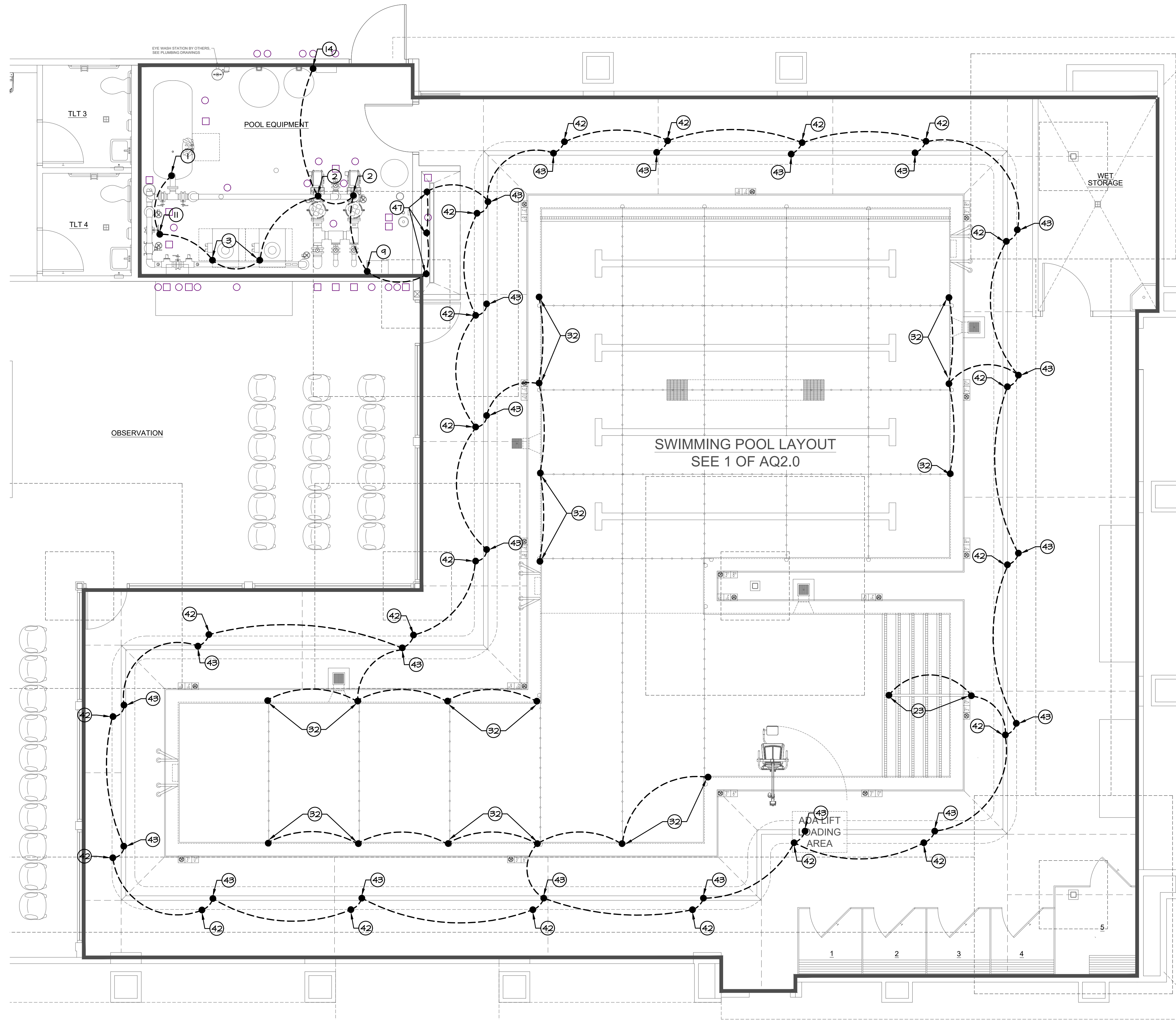
LIGHTING PLAN
 SCALE: 3/16" = 1'-0"



Date
 06.23.2023



Project No.
 2301
 Sheet No.
E2.1
 Sheet Title
 LIGHTING PLAN



1 POOL BONDING PLAN
SCALE: 1/4" = 1'-0"
N

THE FOLLOWING ITEMS ASSOCIATED WITH THE SWIMMING POOL SHALL BE ELECTRICALLY BONDED TOGETHER WITH A #8 MINIMUM SOLID COPPER CONDUCTOR TO COMPLY WITH 2017 NEC ARTICLES 250 AND 680-26:

| TAG | DESCRIPTION |
|-----|--|
| 1 | FILTER |
| 2 | FILTRATION PUMP |
| 3 | POOL HEATER |
| 4 | FILTRATION VFD |
| 11 | U.V. CONTROL PANEL |
| 12 | CHEMICAL CONTROL PANEL |
| 14 | ACID METERING PUMP |
| 23 | HAND & GRAB RAIL WEDGE ANCHOR |
| 26 | HANDICAP EQUIPMENT |
| 32 | WALL ANCHOR |
| 42 | POOL & DECK RE-BAR & MESH, SEE DETAIL-B |
| 43 | TRENCH DRAIN RE-BAR SUPPORTS WITHIN 5'-0" OF INSIDE WALL OF POOL |
| 47 | SHOWERS |

POOL BONDING REQUIREMENTS

WHERE BONDING CLAMPS ARE USED, THEY SHALL BE OF THE APPROVED TYPE.

BOND ALL METALLIC PARTS OF THE POOL STRUCTURE, INCLUDING THE REINFORCING METAL OF THE POOL SHELL AND DECK.

BOND ALL METAL FITTINGS WITHIN OR ATTACHED TO THE POOL STRUCTURE.

DETAIL "C" ILLUSTRATES A TYPICAL METHOD FOR BONDING GRAB RAILS, HAND RAILS, LADDERS, ETC.

BOND METAL PARTS OF ELECTRIC EQUIPMENT ASSOCIATED WITH THE POOL WATER CIRCULATING SYSTEM, INCLUDING PUMP MOTORS.

BOND METAL PARTS OF EQUIPMENT ASSOCIATED WITH POOL COVERS.

BOND METAL-SHEATHED CABLES AND RACEWAYS, METAL PIPING, AND ALL FIXED METAL PARTS THAT ARE WITHIN 5 FEET HORIZONTALLY OF THE INSIDE WALLS OF THE POOL, AND WITHIN 12 FEET ABOVE THE MAXIMUM WATER LEVEL OF THE POOL, OR ANY OBSERVATION STANDS, TOWERS, OR PLATFORMS, OR FROM ANY DIVING STRUCTURES, AND THAT ARE NOT SEPARATED FROM THE POOL BY A PERMANENT BARRIER.

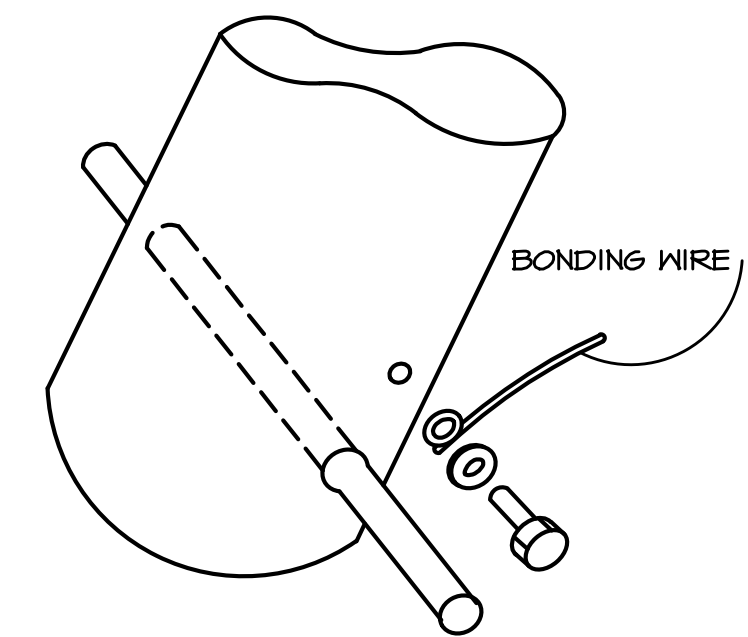
ALL PARTS LISTED ABOVE SHALL BE CONNECTED TO A COMMON BONDING GRID WITH A SOLID COPPER CONDUCTOR, INSULATED, COVERED, OR BARE, NOT SMALLER THAN NO. 8. ALL CONNECTIONS SHALL BE EXOTHERMIC WELDED OR PRESSURE WELDED OR CLAMPS THAT ARE SUITABLE FOR THE PURPOSE OF THE FOLLOWING MATERIAL: STAINLESS STEEL, BRASS, COPPER OR COPPER ALLOY.

THE FOLLOWING BONDING GRID SHALL BE PERMITTED TO BE OF THE FOLLOWING:

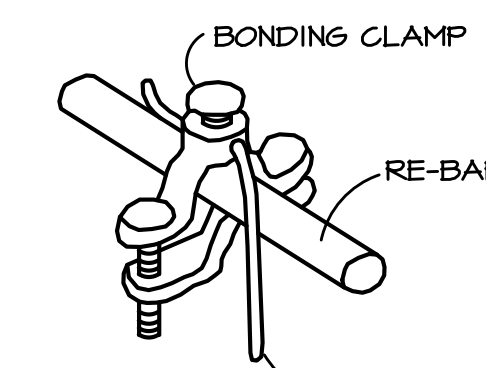
1. STRUCTURAL REINFORCING RODS BONDED TOGETHER BY STEEL WIRES.
2. THE WALL OF A BOLTED OR WELDED METAL POOL.
3. SOLID COPPER CONDUCTOR, INSULATED, COVERED OR BARE NOT SMALLER THAN NO. 8.
4. RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT OF BRASS.

STRUCTURAL REINFORCING STEEL OR THE WALLS OF BOLTED OR WELDED METAL POOL STRUCTURES SHALL BE PERMITTED AS A COMMON BONDING GRID FOR NON-ELECTRICAL PARTS WHERE CONNECTIONS CAN BE MADE IN ACCORDANCE WITH SECTION 250-8.

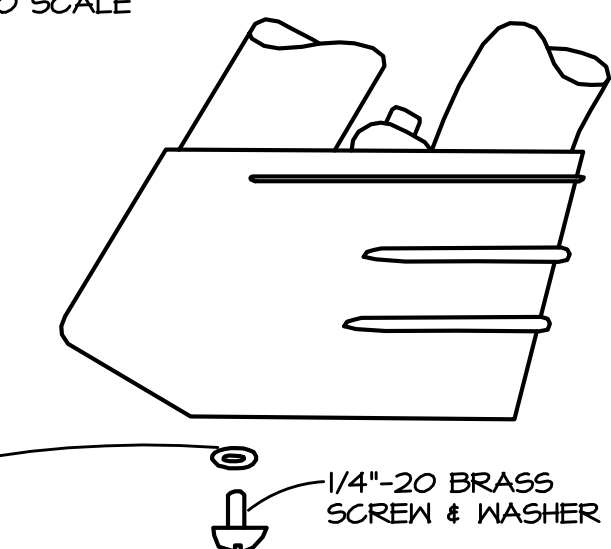
ELECTRICAL CONTRACTOR MUST BOND ALL COMPONENTS IN ACCORDANCE WITH NEC, SECTION 680-26.



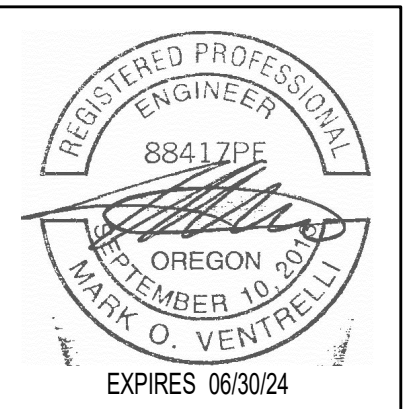
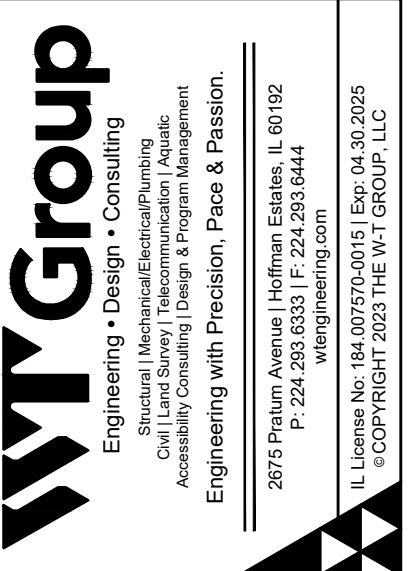
DETAIL-A
NOT TO SCALE



DETAIL-B
NOT TO SCALE



DETAIL-C
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Date
06.23.2023

Project No.
2301

Sheet No.

E3.1

Sheet Title
POOL BONDING PLAN

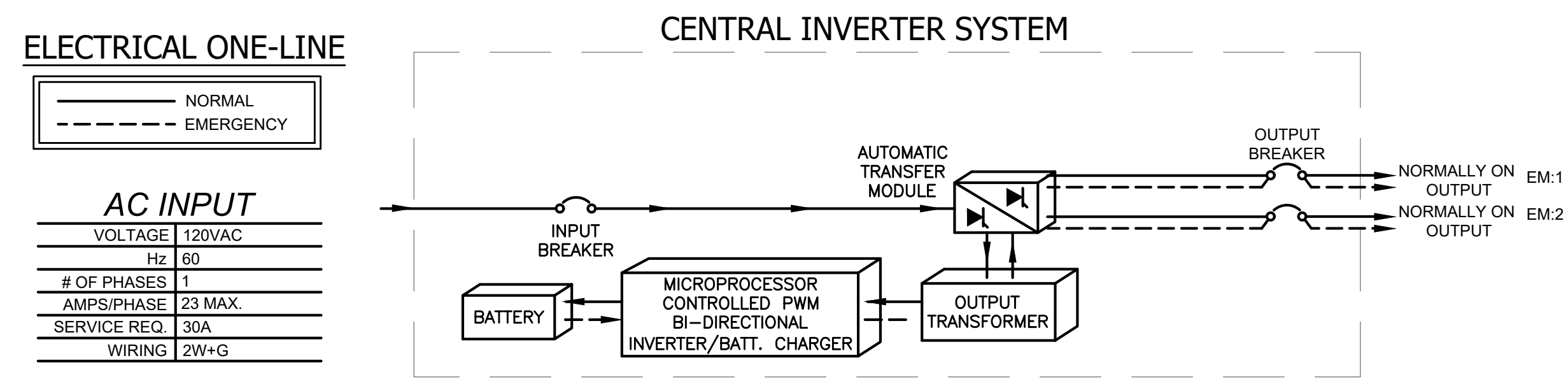
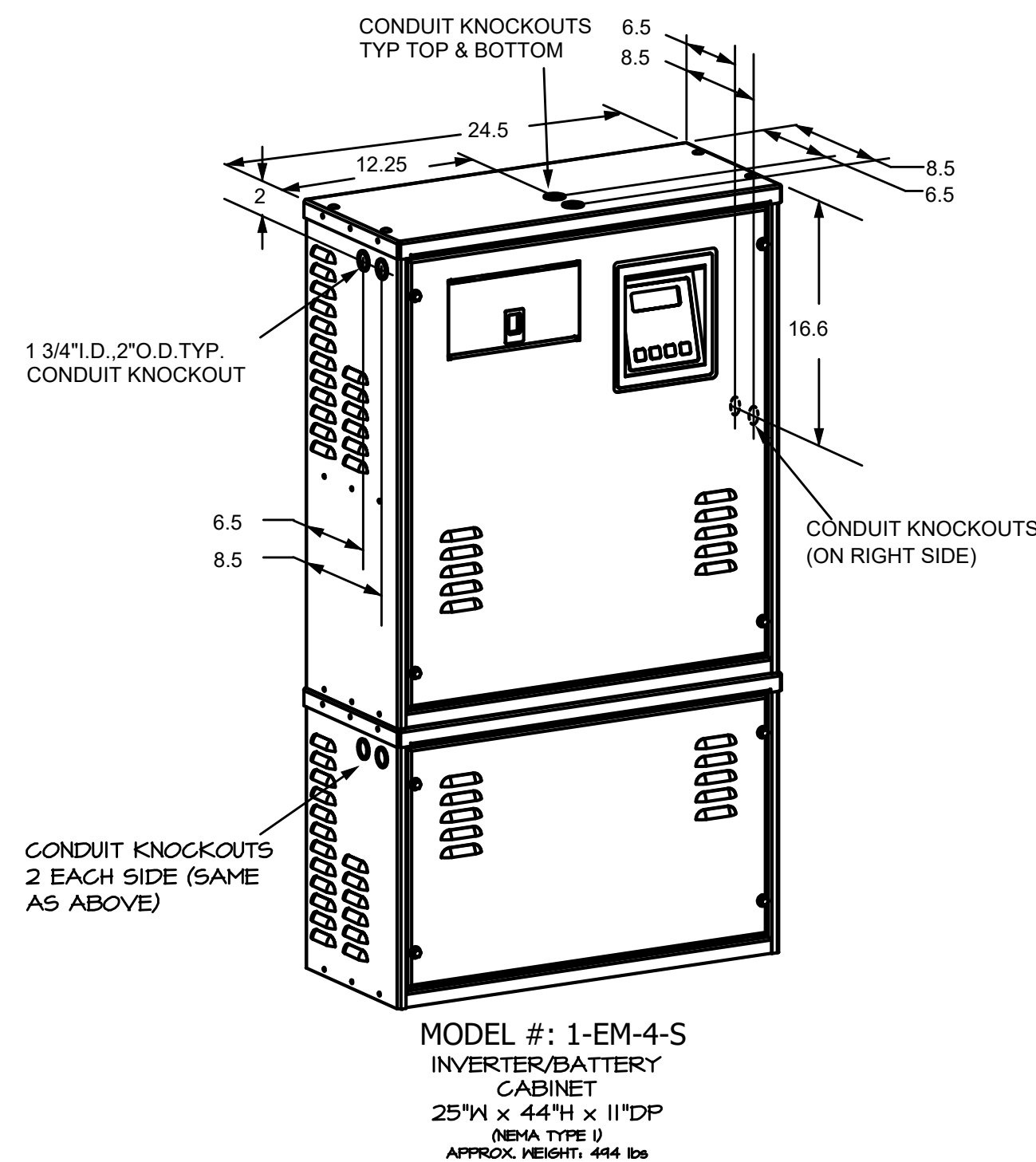


DIAGRAM - CENTRAL INVERTER
NO SCALE



DETAIL - CENTRAL INVERTER
NO SCALE

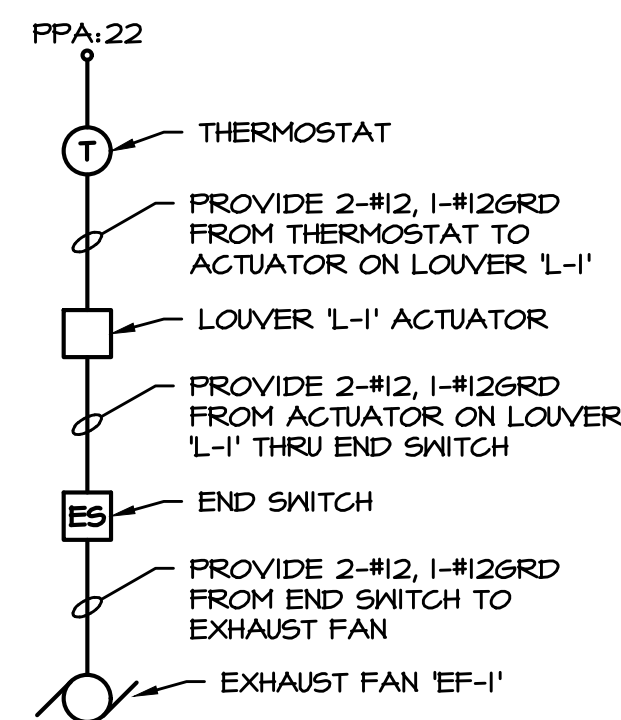


DIAGRAM - LOUVER/EXHAUST FAN
NO SCALE

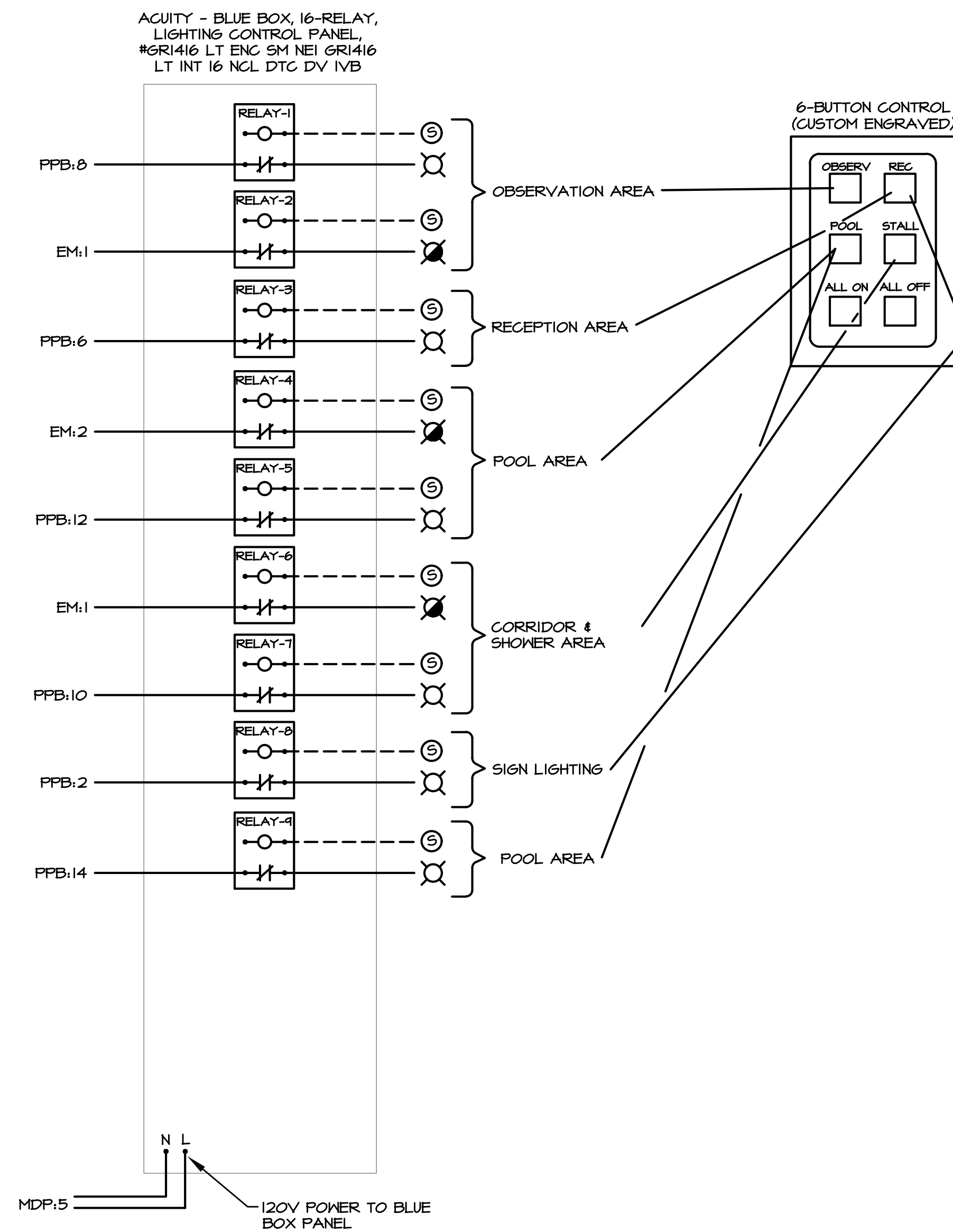


DIAGRAM - LIGHTING CONTROLS
NO SCALE

| LIGHTING FIXTURE SCHEDULE | | | | |
|---------------------------|--|------------|-------------------------|---|
| TYPE | DESCRIPTION & FEATURES | LAMPS TYPE | MOUNTING CLG./POLE-TYPE | SPECIFIED MANUFACTURER AND CATALOG NUMBER |
| A | 2 x 2 LED TROFFER | 31W LED | RECESSED/CEILING | LITHONIA-2BLT2 40L AD9M LP035 |
| B | 6" LED DOWNLIGHT SEMI-SPECULAR REFLECTOR | 11W LED | RECESSED/CEILING | LITHONIA-LDN6 95/10 L06AR L99 120 EZIO NL |
| C | PENDANT MOUNTED NATATORIUM LIGHT FED WITH 6FI BREAKER W/WHITE CORD | 100W LED | PENDANT/CEILING | LITETRONICS-HBF10050 |
| D | 4' LED LENSED STRIP W/WHITE CORD | 31W LED | SURFACE MOUNT | LITHONIA-CLX L48 3000LM SEF FDL MVOLT 6ZIO 40K 80CRI WH |
| F | PENDANT MOUNTED NATATORIUM LIGHT FED WITH 6FI BREAKER W/WHITE CORD | 150W LED | PENDANT/CEILING | LITETRONICS-HBF15040 |
| G | 14" TAHITIAN TEAL LED WALL SCONCE | 18W LED | SURFACE/WALL | TROY RLM LIGHTING-DOME 2 DM 14 LED12 TTL 2 LC24 TTL |
| H | VAPORTIGHT LED EQUIPMENT ROOM | 18W LED | SURFACE/CEILING | LITHONIA-XVML L48 5000LM MVOLT 50K 80CRI |
| EM | EXTERIOR EMERGENCY LIGHT | INCLUDED | SURFACE/WALL | LITHONIA-AFF DNAXD UVOLT LTP WT |
| X | EDGE LIT EXIT SIGN | INCLUDED | WALL/CEILING | LITHONIA ED6 2 G EL |

- NOTES:
- THE FIXTURE SCHEDULE DOES NOT NECESSARILY LIST ALL ACCESSORIES AND HARDWARE NECESSARY FOR THE COMPLETION OF INSTALLATION, NOR DOES IT DETAIL THE CEILING CONSTRUCTION TO BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY DETERMINE AND PROVIDE CORRECT COMPONENTS, ACCESSORIES, AND HARDWARE AS REQUIRED FOR THE INSTALLATION.
 - CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS AND CEILING CONTRACTOR FOR EXACT LIGHTING FIXTURE LOCATION.
 - ALL BATTERY BACK-UP EMERGENCY LIGHT AND EXIT SIGN LIGHTING FIXTURES INDICATED SHALL HAVE BATTERY BACK-UP RATED FOR 1-1/2 HOURS MINIMUM AND AS APPROVED BY LOCAL FIRE PREVENTION BUREAU.
 - EMERGENCY LIGHTING SHALL BE PROVIDED WITH SEPARATE EMERGENCY BATTERY PACK POWERED WITH SEPARATE HOT LEG. THE NORMAL BALLAST SHALL BE CONNECTED WITH ALL OTHER NORMAL FIXTURES CONTROLS. THE FIXTURE SHALL ACT AS A NORMAL CONTROLLABLE FIXTURE UNTIL LOSS OF POWER, AT THAT CONDITION EMERGENCY BATTERY PACK SHALL ENERGIZE LAMPS

| PANEL | | PPB | | VOLTS | | 120/208V | | PHASE | | 3PH/4W | | |
|----------|------|-------------|---------------------------------|-----------|---------------------------------|-------------|------|---------|--------------|--------|--|----|
| AMPS | | 225A | | MAIN | | 225A MLO | | A.I.C. | | 10,000 | | |
| LOCATION | | DRY STORAGE | | MOUNTING | | SURFACE | | | | | | |
| CIRCUIT | POLE | TRIP | DESCRIPTION | KVA | DESCRIPTION | TRIP | POLE | CIRCUIT | | | | |
| 1 | 1 | 20 | ROOFTOP RECEPTACLES | .54 .25 | BUILDING SIGNAGE | 20 | 1 | 2 | | | | |
| 3 | 1 | 20 | FIRE ALARM CONTROL PANEL | .25 .18 | EXTERIOR LIGHTING | 20 | 1 | 4 | | | | |
| 5 | 1 | 20 | LIGHTING CONTROL PANEL | .50 .23 | LIGHTING | 20 | 1 | 6 | | | | |
| 7 | 1 | 30 | LIGHTING CENTRAL BATTERY SYSTEM | .75 .37 | LIGHTING | 20 | 1 | 8 | | | | |
| 9 | 1 | 20 | IT EQUIPMENT | 1.20 .50 | LIGHTING | 20 | 1 | 10 | | | | |
| 11 | 2 | 20 | UV SYSTEM & CONTROLLER | 1.1 .15 | POOL LIGHTING | * | 20 | 12 | | | | |
| 13 | 1 | 20 | SPARE | 1.1 .13 | POOL LIGHTING | * | 20 | 14 | | | | |
| 15 | 1 | 20 | CONVENIENCE RECEPTACLE | * .54 .60 | CHLORINE METERING PUMP | * | 20 | 16 | | | | |
| 17 | 1 | 20 | SPARE | - .60 | ACID METERING PUMP | * | 20 | 18 | | | | |
| 19 | 1 | 20 | EM/EXIT LIGHTING | .50 - | SPARE | 20 | 1 | 20 | | | | |
| 21 | 2 | 15 | EMH-I | 1.0 1.3 | AUTOMATIC CHEMICAL CONTROLLER | * | 20 | 22 | | | | |
| 23 | 1 | 20 | SPARE | 1.0 .18 | POOL EQUIPMENT ROOM RECEPTACLES | * | 20 | 24 | | | | |
| 25 | 2 | 15 | EMH-I | 1.0 .75 | POOL HEATER | * | 20 | 26 | | | | |
| 27 | 1 | 20 | SPARE | 1.0 .75 | POOL HEATER | * | 20 | 28 | | | | |
| 29 | 1 | 20 | SPARE | - .75 | WATER HEATER WH-I | 20 | 1 | 30 | | | | |
| 31 | 1 | 20 | SPARE | - .75 | WATER HEATER WH-I | 20 | 1 | 32 | | | | |
| 33 | 1 | 20 | SPARE | - .50 | EJECTOR PUMP EP-I | * | 20 | 34 | | | | |
| 35 | 1 | 20 | SPARE | - .80 | AQUIASTAT | * | 20 | 36 | | | | |
| 37 | 1 | 20 | SPARE | - - | SPACE | | | 38 | | | | |
| 39 | 1 | 20 | SPARE | - - | SPACE | | | 40 | | | | |
| 41 | 1 | 20 | SPARE | - - | SPACE | | | 42 | | | | |
| TOTAL = | | | | 10.48 | 14.23 | TOTAL KVA = | | 24.71 | TOTAL AMPS = | | | 68 |

* CIRCUIT BREAKERS SUPPLYING SINGLE PHASE POOL PUMP MOTORS BY RECEPTACLE OR HARDWIRED CONNECTIONS SHALL BE GFCI TYPE PER NEC 680.21(C).

| PANEL | | PPA | | VOLTS | | 120/208V | | PHASE | | 3PH/4W | | |
|----------|------|-------------|-------------------------------------|----------|---------------------------|-------------|------|---------|--------------|--------|--|----|
| AMPS | | 125A | | MAIN | | 100A MLO | | A.I.C. | | 10,000 | | |
| LOCATION | | DRY STORAGE | | MOUNTING | | SURFACE | | | | | | |
| CIRCUIT | POLE | TRIP | DESCRIPTION | KVA | DESCRIPTION | TRIP | POLE | CIRCUIT | | | | |
| 1 | 1 | 20 | RECEPTION RECEPTACLES | .54 .18 | TOILET ROOM #1 RECEPTACLE | 20 | 1 | 2 | | | | |
| 3 | 1 | 20 | RECEPTION RECEPTACLES | .40 1.0 | TOILET ROOM #1 HAND DRYER | 20 | 1 | 4 | | | | |
| 5 | 1 | 20 | STAFF LOUNGE COUNTERTOP RECEPTACLES | .54 .18 | TOILET ROOM #2 RECEPTACLE | 20 | 1 | 6 | | | | |
| 7 | 1 | 20 | STAFF LOUNGE REFRIGERATOR | 1.0 1.0 | TOILET ROOM #2 HAND DRYER | 20 | 1 | 8 | | | | |
| 9 | 1 | 20 | STAFF LOUNGE RECEPTACLES | .54 .18 | TOILET ROOM #3 RECEPTACLE | 20 | 1 | 10 | | | | |
| 11 | 1 | 20 | CHANGING COUNTER RECEPTACLE | 1.0 1.0 | TOILET ROOM #3 HAND DRYER | 20 | 1 | 12 | | | | |
| 13 | 1 | 20 | CHANGING COUNTER RECEPTACLE | 1.0 - | SPARE | 20 | 1 | 14 | | | | |
| 15 | 1 | 20 | CHANGING COUNTER RECEPTACLE | 1.0 .18 | TOILET ROOM #4 RECEPTACLE | 20 | 1 | 16 | | | | |
| 17 | 1 | 20 | CHANGING COUNTER RECEPTACLE | 1.0 1.0 | TOILET ROOM #4 HAND DRYER | 20 | 1 | 18 | | | | |
| 19 | 1 | 20 | OBSERVATION AREA TELEVISIONS | 1.0 1.0 | POOL VACUUM | 20 | 1 | 20 | | | | |
| 21 | 1 | 20 | DRINKING FOUNTAIN | .75 .75 | EF-1 & EF-2 | 20 | 1 | 22 | | | | |
| 23 | 1 | 20 | OFFICE PRINTER | 1.0 .40 | EF-3 & EF-5 | 20 | 1 | 24 | | | | |
| 25 | 1 | 20 | OFFICE RECEPTACLES | .36 .75 | EF-4 | 20 | 1 | 26 | | | | |
| 27 | 1 | 20 | OFFICE DESK RECEPTACLES | .54 - | SPACE | | | 28 | | | | |
| 29 | 1 | 20 | OFFICE DESK RECEPTACLES | .54 - | SPACE | | | 30 | | | | |
| TOTAL = | | | | 11.71 | 8.12 | TOTAL KVA = | | 19.83 | TOTAL AMPS = | | | 55 |

1200 AMP BUS EXISTING MAIN SWITCHBOARD "MSBD" 1200 MAIN BREAKER
 120 / 208 V, 3 PHASE, 4 WIRE EXISTING A.I.C. MINIMUM

| CKT | POLE | TRIP | KVA | WIRE | GND | COND | HP | AMPS | DESCRIPTION |
|-----|------|------|-------|------|-----|--------|----|------|-----------------|
| 1 | 3 | 100 | 19.83 | #3 | #6 | 1 1/4" | - | - | PANEL 'PPA' |
| 2 | 3 | 50 | 9.3 | #8 | #10 | 1" | - | - | FILTRATION PUMP |
| 3 | 3 | 30 | 7.2 | #10 | #10 | 3/4" | - | - | 'RTU-1' |
| 4 | 3 | 25 | 7.0 | #10 | #10 | 3/4" | - | - | 'RTU-2' |
| 5 | 3 | 40 | 10 | #8 | #10 | 1" | - | - | 'DOAS-1' |
| 6 | 2 | 50 | 10 | #6 | #10 | 1" | - | - | 'HP-1' |
| 7 | 2 | 30 | 5.0 | #10 | #10 | 3/4" | - | - | 'EUH-1' |
| 8 | 2 | 30 | 5.0 | #10 | #10 | 3/4" | - | - | 'EUH-1' |
| 9 | 3 | 50 | 9.3 | #8 | #10 | 1" | - | - | FILTRATION PUMP |
| 10 | 3 | 40 | 10 | #8 | #10 | 1" | - | - | 'DOAS-2' |
| 11 | 3 | 225 | 24.71 | #4/0 | #3 | 2 1/2" | - | - | PANEL 'PPB' |
| 12 | - | - | - | - | - | - | - | - | |
| 13 | - | - | - | - | - | - | - | - | |
| 14 | - | - | - | - | - | - | - | - | |
| 15 | - | - | - | - | - | - | - | - | |
| 16 | - | - | - | - | - | - | - | - | |
| 17 | - | - | - | - | - | - | - | - | |
| 18 | - | - | - | - | - | - | - | - | |
| 19 | - | - | - | - | - | - | - | - | |
| 20 | - | - | - | - | - | - | - | - | |

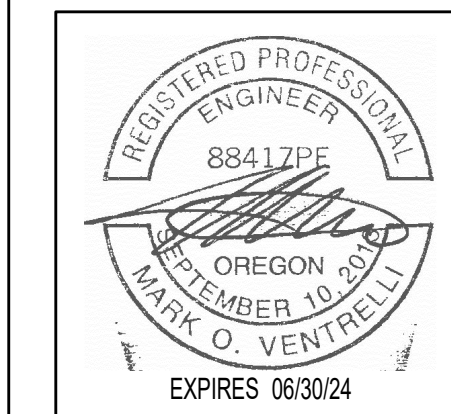
TOTAL CONNECTED KVA 117.34 TOTAL CONNECTED AMPS 325A

- NOTES:
 1. ALL C/B'S SERVING HVAC EQUIPMENT SHALL BE HACR RATED.

| CIRCUIT | DESCRIPTION | LOCATION | LOAD | | FED FROM | | O.C.P. (A/P) SIZE/POLE | WIRING | DISCONNECT | | RECEPT. | NOTES |
|---------|-------------------------------|---------------------|---------|------|----------|-------|------------------------|----------------------|------------|------|---------|-------|
| | | | VOLT/PH | KW | PANEL | CKT | | | SIZE/POLE | FUSE | | |
| 51 | FILTRATION PUMP MOTOR (1.5HP) | POOL EQUIPMENT ROOM | 208/3 | 9.3 | MSBD | 2 | 50/3 | 3-#8, 1-#10G, 1"C | VIA VFD | | | 3, 4 |
| 52 | FILTRATION PUMP MOTOR (1.5HP) | POOL EQUIPMENT ROOM | 208/3 | 9.3 | MSBD | 4 | 50/3 | 3-#8, 1-#10G, 1"C | VIA VFD | | | 3, 4 |
| 53 | DOAS-2 | ROOF | 208/3 | 10 | MSBD | 10 | 40/3 | 3-#8, 1-#10G, 1"C | 60/3 | | | 1. |
| 54 | RTU-1 | ROOF | 208/3 | 7.2 | MSBD | 3 | 30/3 | 3-#10, 1-#10G, 3/4"C | 30/3 | | | 1. |
| 55 | RTU-2 | ROOF | 208/3 | 7.0 | MSBD | 4 | 25/3 | 3-#10, 1-#10G, 3/4"C | 30/3 | | | 1. |
| 56 | DOAS-1 | ROOF | 208/3 | 10 | MSBD | 5 | 40/3 | 3-#8, 1-#10G, 1"C | 60/3 | | | 1. |
| 57 | HP-1 | ROOF | 208/1 | 10 | MSBD | 6 | 50/2 | 2-#6, 1-#10G, 1"C | 60/2 | | | 1. |
| 58 | EUH-1 | ELECTRICAL ROOM | 208/1 | 5.0 | MSBD | 7 | 30/2 | 2-#10, 1-#10G, 3/4"C | 30/2 | | | 2. |
| 59 | EUH-1 | POOL EQUIPMENT ROOM | 208/1 | 5.0 | MSBD | 8 | 30/2 | 2-#10, 1-#10G, 3/4"C | 30/2 | | | 1. |
| 510 | EMH-1 | TOILET 2 | 208/1 | 2.0 | PPB | 21-23 | 15/2 | 2-#12, 1-#12G, 3/4"C | - | | | 3. |
| 511 | EMH-1 | TOILET 3 | 208/1 | 2.0 | PPB | 25-27 | 15/2 | 2-#12, 1-#12G, 3/4"C | - | | | 3. |
| 512 | UV SYSTEM & CONTROLLER | POOL EQUIPMENT ROOM | 208/1 | 1.67 | PPB | 11-13 | 20/2 | 2-#12, 1-#12G, 3/4"C | 30/2 | | | 1. |

- NOTES:
 1. PROVIDE NEMA-3R DISCONNECT ADJACENT TO UNIT. PROVIDE FINAL CONNECTIONS TO UNIT.
 2. PROVIDE NEMA-1 DISCONNECT ADJACENT TO UNIT. PROVIDE FINAL CONNECTIONS TO UNIT.
 3. PROVIDE SINGLE CONNECTION TO UNIT. PROVIDE FLEXIBLE CONDUIT FOR FINAL 3". DISCONNECT IS INTEGRAL TO UNIT.
 4. EQUIPMENT FED FROM MANUFACTURER SUPPLIED VFD.

EMLER SWIM SCHOOL
 TANASBOURNE
 1225 WATERHOUSE AVE BEAVERTON, OREGON 97223



Date
 06.23.2023

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Project No.
 2301
 Sheet No.
E5.1
 Sheet Title
 EQUIPMENT & PANELBOARD SCHEDULES

FIRE ALARM SYMBOLS

| | |
|--|--|
| | ADDRESSABLE FIRE ALARM CONTROL PANEL WITH REMOTE 24 HOUR TELEPHONE MONITORING |
| | FIRE ALARM ANNUCIATOR PANEL |
| | FIRE ALARM SYSTEM DUAL ACTION PULL STATION (48" AFF, MOUNT WITHIN 5 FT. OF DOOR) |
| | FIRE ALARM SYSTEM HORN & STROBE LIGHT (AUDIO-VISUAL ALARM, 48" AFF, CANDELA RATING BY OTHERS) |
| | VISUAL STROBE LIGHT (48" AFF, CANDELA RATING BY OTHERS) |
| | SMOKE DETECTOR, MINIMUM 3FT. FROM SUPPLY VENT |
| | HEAT DETECTOR, 135° DEGREE FIXED TEMP/RATE OF RISE |
| | HVAC DUCT TYPE SMOKE DETECTOR |
| | REMOTE INDICATING LIGHT WITH KEY-OPERATED TEST SWITCH. VERIFY LOCATION OF LIGHT AND KEY SWITCH WITH INSPECTOR. |
| | FAN SHUT DOWN RELAY |
| | KNOX BOX (WEATHER PROOF) |
| | NOTIFICATION APPLIANCE CIRCUIT EXPANSION PANEL |
| | SPRINKLER ALARM FLOW SWITCH, BY DIVISION 15, WIRED BY E.C. |
| | SPRINKLER ALARM TAMPER SWITCH, BY DIVISION 15, WIRED BY E.C. |

NOTE: FIRE ALARM SYSTEM SHALL BE AN ADDRESSABLE TYPE ZONED PER NFPA CODE, NON-CODED, CONTINUOUS SOUNDING, UL LISTED, WITH SERIES BATTERIES, MINIMUM WIRE TWO CONDUCTOR INSULATED #14 AWG, TWISTED PAIR, PROVIDE BACKBOXES WITH MINIMUM 1/2" CONDUIT STUBBED INTO ACCESSIBLE CEILING SPACE FOR EACH DEVICE. PROVIDE CONDUIT IN NON-ACCESSIBLE CEILING SPACES. FIRE ALARM CABLE SHALL BE ROUTED FREE-AIR UNLESS A FULL CONDUIT SYSTEM IS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

DEVICE LAYOUT IS REPRESENTATIVE ONLY. PROVIDE ACTUAL QUANTITY OF DEVICES PER NFPA 72, NFPA 101, IBC, NEC, IFC, AND PER LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT QUANTITY OF FIRE ALARM DEVICES PRIOR TO BIDDING.

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE FIRE ALARM PERMIT AND CONSTRUCTION DOCUMENTS. SUBMIT SHOP DRAWINGS TO ENGINEER AND PERMITTING AUTHORITY FOR REVIEW PRIOR TO INSTALLATION AND RESUBMIT BASED ON COMMENTS, AS REQUIRED. PROVIDE BATTERY AND VOLTAGE DROP CALCULATIONS.

FIRE ALARM DEVICES WIRED TO FACP SHALL BE ADDRESSABLE (DUCT SMOKE DETECTORS, PULL STATIONS, HORNS, VISUALS, FLOW SWITCHES, TAMPER SWITCHES, AND BELLS). VERIFY AND COORDINATE IN FIELD. FACP SHALL BE CONNECTED TO TELEPHONE TERMINAL CABINET OR WIRELESS TRANSMITTER.

ELECTRICAL SYMBOLS

| | |
|--|---|
| | LIGHT FIXTURE. CAPITAL LETTER DENOTES FIXTURE TYPE, NUMERAL INDICATES CIRCUIT ASSIGNMENT, SUBSCRIPT LETTER DENOTES SWITCH LEG. SHADING OF ANY FIXTURE INDICATES CIRCUITED TO UNSWITCHED EMERGENCY CIRCUIT. SEE "LIGHTING FIXTURE SCHEDULE." |
| | EXIT SIGN UNIVERSAL MOUNT SHADED AREA INDICATES FACE, ARROWS AS REQUIRED. SEE "LIGHTING FIXTURE SCHEDULE." |
| | LIGHTING FIXTURE OUTLET - SEE "LIGHTING FIXTURE SCHEDULE" |
| | SELF CONTAINED EMERGENCY LIGHTING FIXTURE, WITH BATTERY BACK-UP AND SOLID STATE CHARGER |
| | MANUAL SINGLE PHASE MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION. "P" DENOTES DEVICE FURNISHED WITH PILOT LIGHT., 48" AFF UNLESS INDICATED OTHERWISE |
| | FAN SPEED SWITCH, 48" A.F.F. |
| | NON FUSED SAFETY SWITCH, RATING AS INDICATED |
| | FUSED DISCONNECT SWITCH, SWITCH AND FUSE RATING AS INDICATED. |
| | DUPLEX RECEPTACLE, NEMA 5-20R, 15"A.F.F. |
| | DUPLEX RECEPTACLE CROSS LINE DENOTES 6" ABOVE COUNTER OR BACKSPASH. |
| | DUPLEX RECEPTACLE SHADING DENOTES GROUND FAULT CIRCUIT INTERRUPTER "GFCI". NEMA 5-20R |
| | QUAD RECEPTACLE |
| | SWITCHED RECEPTACLE HALF THE RECEPTACLE CONTROLLED BY SWITCH |
| | QUAD FLOOR RECEPTACLE |
| | CEILING MOUNT RECEPTACLE |
| | COMBINATION DUPLEX RECEPTACLE AND USB PORT |
| | SPECIAL PURPOSE OUTLET, COORDINATE REQUIREMENTS WITH SPECIAL OUTLET SCHEDULE |
| | LIGHTING AND/OR POWER PANEL. REFER TO RISER DIAGRAM |
| | MOTOR |
| | PHOTO ELECTRIC CONTROL, ROOF MOUNTED, 120V OPERATION, 20A RATED |
| | AUXILLARY JUNCTION BOX |
| | FLEXIBLE CONDUIT CONNECTION |
| | TELEPHONE OUTLET, WITH 3/4" CONDUIT STUB ABOVE ACCESSIBLE CEILING. ROUGH-IN ONLY NO CABLING |
| | DATA SYSTEM OUTLET WITH 3/4" CONDUIT STUB ABOVE ACCESSIBLE CEILING. ROUGH-IN ONLY NO CABLING |
| | TV OUTLET, WITH 3/4" CONDUIT STUB ABOVE ACCESSIBLE CEILING. ROUGH-IN ONLY NO CABLING |
| | INTERCOM SPEAKER, ROUGH-IN ONLY NO CABLING |
| | POWER POLE WITH DIVIDED RACEWAY LEGRAND OR APPROVED EQUAL |
| | CARD READER WITH 3/4" CONDUIT STUB ABOVE ACCESSIBLE CEILING. ROUGH-IN ONLY NO CABLING |
| | CAMERA ROUGH-IN ONLY NO CABLING |
| | CL OUTLET, WITH 3/4" CONDUIT STUB ABOVE ACCESSIBLE CEILING. ROUGH-IN ONLY NO CABLING |

ELECTRICAL SPECIFICATIONS

THE GENERAL CONDITIONS AND SUPPLEMENTAL GENERAL CONDITIONS BY THE ARCHITECT SHALL GOVERN WHERE APPLICABLE.

THIS CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE PLANS AND SHALL VERIFY EXISTING SITE CONDITIONS AT THE JOB SITE BEFORE SUBMITTING BID. FAILURE TO RECOGNIZE WORK REQUIRED SHALL BE AT THE EXPENSE OF THIS CONTRACTOR. NO CONSIDERATION SHALL BE GIVEN FOR ADDITIONAL COMPENSATION AFTER THE LETTING OF BIDS.

ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKMANLIKE MANNER AND SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. THE COMPLETED SYSTEMS SHALL BE FULLY OPERATIONAL; ACCEPTANCE BY THE OWNER SHALL BE A CONDITION OF THE CONTRACT. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES IN ORDER TO AVOID INTERFERENCES, PRESERVE MAXIMUM HEADROOM, AND AVOID OMISSIONS. ALL MATERIALS, WORKMANSHIP AND EQUIPMENT SHALL BE GUARANTEED FOR ONE (1) YEAR AFTER SYSTEM ACCEPTANCE.

RECEPTACLES AND SWITCHES SHALL BE THE TYPE AS SHOWN ON THE DRAWINGS AND SHALL BE SPECIFICATION GRADE.

MINIMUM BRANCH WIRE SIZE SHALL BE #12 AWG COPPER EXCEPT FOR CONTROL AND SIGNAL CIRCUITS. INSULATION (INTERIOR) SHALL BE SOLID TYPE THIN OR THIN SIZES #12 THROUGH #10. SIZES #8 THROUGH #10 MCM SHALL BE STRANDED TYPE THIN OR THIN AT THE CONTRACTOR'S OPTION.

MINIMUM OUTLET BOXES SHALL BE 4" SQUARE, UNLESS OTHERWISE SPECIFIED.

CONTRACTOR SHALL NOT SCALE DRAWINGS FOR DIMENSIONS BUT SHALL CONTACT THE PROJECT ARCHITECT FOR ALL DIMENSIONAL DATA AND SHALL VERIFY EXACT LOCATION AND MOUNTING HEIGHTS OF ALL OUTLETS WITH ARCHITECT AND/OR OWNER PRIOR TO INSTALLATION.

GROUNDING SHALL COMPLY WITH REQUIREMENTS OF ALL APPLICABLE CODES.

MATERIALS USED SHALL BE NEW AND BEAR THE UL LABEL AND BE OF THE APPROPRIATE NEMA STANDARD.

THIS CONTRACTOR SHALL ALLOW IN HIS INITIAL BID THE COST OF SERVICES ON ALL EQUIPMENT INSTALLED UNDER HIS CONTRACT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF THE WORK.

LAYOUT IS DIAGRAMMATIC AND WORK SHALL BE INSTALLED TO MEET FIELD CONDITIONS AND EQUIPMENT SELECTED. PROVIDE SHOP DRAWINGS AS REQUIRED AND VERIFY ALL EQUIPMENT.

PANELBOARDS SHALL BE DEAD FRONT WITH BOLT-ON TYPE CIRCUIT BREAKERS W/OUT BUS. A TYPED LEGEND, UNDER A CLEAR PLEXAN-GLASS SHALL BE PROVIDED FOR CIRCUIT IDENTIFICATION.

CONTRACTOR SHALL INCLUDE ALL MISCELLANEOUS ITEMS REQUIRED TO COMPLETE THE WORK.

CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND REQUIRED INSPECTION FEES.

IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE AND REVIEW THE ELECTRICAL CHARACTERISTICS, AMPACITY AND OTHER REQUIREMENTS OF ALL EQUIPMENT PRIOR TO INSTALLATION.

IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE THE LOCATIONS OF CONDUIT ROUTING, EQUIPMENT, LIGHTING, ETC. WITH ALL OTHER TRADES IN THE FIELD PRIOR TO INSTALLATION.

THE ENTIRE INSTALLATION OF ALL COMPONENTS OF THIS PROJECT SHALL COMPLY WITH ALL FEDERAL ADA REQUIREMENTS. VERIFY EXACT LOCATIONS AND HEIGHTS OF ALL FIXTURES AND OUTLETS BEFORE INSTALLATION TO INSURE COMPLIANCE WITH FEDERAL REGULATIONS.

FOR CLARITY OF ALL PLANS, SOME CONDUIT AND WIRE HAS NOT BEEN SHOWN. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO FURNISH AND INSTALL COMPLETE AND OPERATING SYSTEMS INCLUDING ALL CONDUIT AND WIRING.

FOR ALL NIGHT LIGHTING, EXIT SIGNS AND BATTERY POWERED EMERGENCY LIGHTING CIRCUITS, THIS CONTRACTOR SHALL USE #10 AWG FOR THE ENTIRE CIRCUIT LENGTH UNLESS INDICATED OTHERWISE.

THIS CONTRACTOR SHALL MAINTAIN THE FIRE RATED INTEGRITY OF ALL FLOORS, CEILINGS AND WALLS. ALL PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS SHALL BE EFFECTIVELY SEALED USING APPROVED MATERIALS AND METHODS. ALL LIGHTING FIXTURES MOUNTED IN FIRE RATED CEILINGS SHALL MAINTAIN THE INTEGRITY OF THE FIRE RATED CEILINGS USING APPROVED MATERIALS AND METHODS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATINGS.

THIS CONTRACTOR SHALL INSPECT THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS TO DETERMINE HIS ENTIRE SCOPE OF WORK. THIS CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND EXTENT OF DEMOLITION AND NEW WORK FOR THIS PROJECT PRIOR TO SUBMITTING HIS BID.

THE ELECTRICAL INSTALLATION IS TO BE IN STRICT ACCORDANCE WITH THE APPLICABLE RULES AND REGULATIONS OF ALL LOCAL, STATE AND FEDERAL ELECTRICAL CODES AND THE LOCAL UTILITY COMPANY REQUIREMENTS OR ANY OTHER AUTHORITIES HAVING LAWFUL JURISDICTION.

UNDERFLOOR OR EXPOSED TO THE WEATHER CONDUIT SHALL BE HEAVYWALL, GALVANIZED RIGID STEEL, MINIMUM SIZE 3/4".

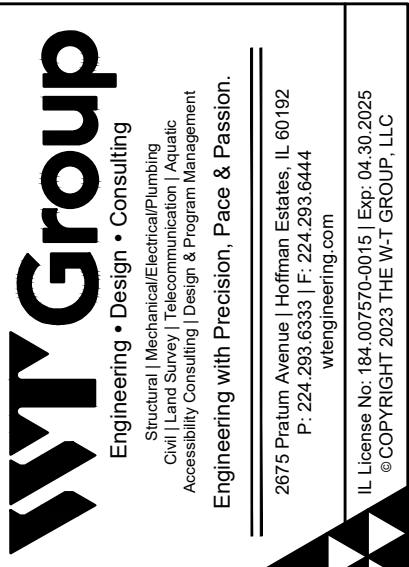
UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC AT MINIMUM.

ALL WIRE SHALL BE INSTALLED IN THINWALL, ELECTRICAL METALLIC TUBING (EMT) CONDUIT UNLESS OTHERWISE NOTED. MINIMUM SIZE SHALL BE 3/4" FOR BRANCH CIRCUIT WIRING, DROPS TO SWITCHES AND BRANCH DEVICES MAY BE 1/2" UNLESS OTHERWISE NOTED ON DRAWINGS. ALL THINWALL FITTINGS SHALL BE OF THE STEEL COMPRESSION GLAND TYPE PER ALL APPLICABLE CODE REQUIREMENTS. ALL CONDUITS SHALL BE CONCEALED WHERE POSSIBLE. WHERE EXPOSED, THIS CONTRACTOR SHALL RUN CONDUITS IN STRAIGHT LINES PARALLEL AND/OR PERPENDICULAR TO THE BUILDING CONSTRUCTION. CONDUITS INSTALLED IN AREAS SUBJECT TO MECHANICAL DAMAGE SHALL BE RIGID GALVANIZED, OR INTERMEDIATE METAL TYPE.

THIS CONTRACTOR SHALL PROVIDE ALL TEMPORARY WIRING FOR ALL TRADES FOR CONSTRUCTION EQUIPMENT (ie: HANDTOOLS, WELDERS, PIPE BENDERS, ETC.) AND CONSTRUCTION LIGHTING PER THE LATEST OSHA STANDARDS. INCLUDE ALL COSTS IN THE BASE BID. THIS CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK, COMPLYING WITH THE APPLICABLE PROVISIONS OF ALL CITY, STATE AND FEDERAL SAFETY LAWS (OSHA).

ABBREVIATIONS

| | | |
|----------------------------------|---|---|
| A, AMP - AMPERES | ETR - EXISTING TO REMAIN | NFPA - NATIONAL FIRE PROTECTION ASSOCIATION |
| AFF - ABOVE FINISHED FLOOR | FLA - FULL LOAD AMPS | NIC - NOT IN CONTRACT |
| AF6 - ABOVE FINISHED GRADE | FLEX - FLEXIBLE | NTS - NOT TO SCALE |
| ATS - AUTOMATIC TRANSFER SWITCH | G - GROUND | NO - NORMALLY OPEN |
| AWG - AMERICAN WIRE GAUGE | GFI - GROUND FAULT INTERRUPTING | OH - OVERHEAD |
| C - CONDUIT | HID - HIGH INTENSITY DISCHARGE | PNL - PANEL |
| CB - CIRCUIT BREAKER | HP - HORSEPOWER | QTY - QUANTITY |
| CGTV - CLOSED CIRCUIT TELEVISION | IG - ISOLATED GROUND | REF - REFERENCE, REFER |
| CKT - CIRCUIT | INC - INCANDESCENT | R65 - RIGID GALVANIZED STEEL |
| COND - CONDUCTOR | J-BOX, JB - JUNCTION BOX | SQ FT - SQUARE FOOT |
| CONN - CONNECTION | KCMIL - 1000 CIRCULAR MILS | SS - STAINLESS STEEL |
| CU - COPPER | KVA - KILOVOLT AMPS | SN - SWITCH |
| DP - DISTRIBUTION PANEL | KN - KILOWATT | TEL - TELEPHONE |
| DISC - DISCONNECT | LT6 - LIGHTING | TYP - TYPICAL |
| DN - DOWN | LV - LOW VOLTAGE | UG - UNDERGROUND |
| EA - EACH | MAX - MAXIMUM | UH - UNIT HEATER |
| ELEC - ELECTRICAL | MCB - MAIN CIRCUIT BREAKER | V - VOLTAGE |
| ELEV - ELEVATOR | MDP - MAIN DISTRIBUTION PANEL | VFD - VARIABLE FREQUENCY DRIVE |
| EM, EMERG - EMERGENCY | MFR - MANUFACTURER | WP - WEATHERPROOF |
| EMT - ELECTRICAL METALLIC TUBING | MH - MANHOLE, METAL HALIDE, MOUNTING HEIGHT | WT - WEIGHT |
| EOL - END OF LINE | MIN - MINIMUM | XFMR, XFMR - TRANSFORMER |
| EUH - ELECTRIC UNIT HEATER | MLO - MAIN LUGS ONLY | |
| EWG - ELECTRIC WATER COOLER | MTD - MOUNTED | |
| EWH - ELECTRIC WATER HEATER | N/A - NOT APPLICABLE | |
| EX - EXISTING | NEG - NATIONAL ELECTRICAL CODE | |



Date
06.23.2023



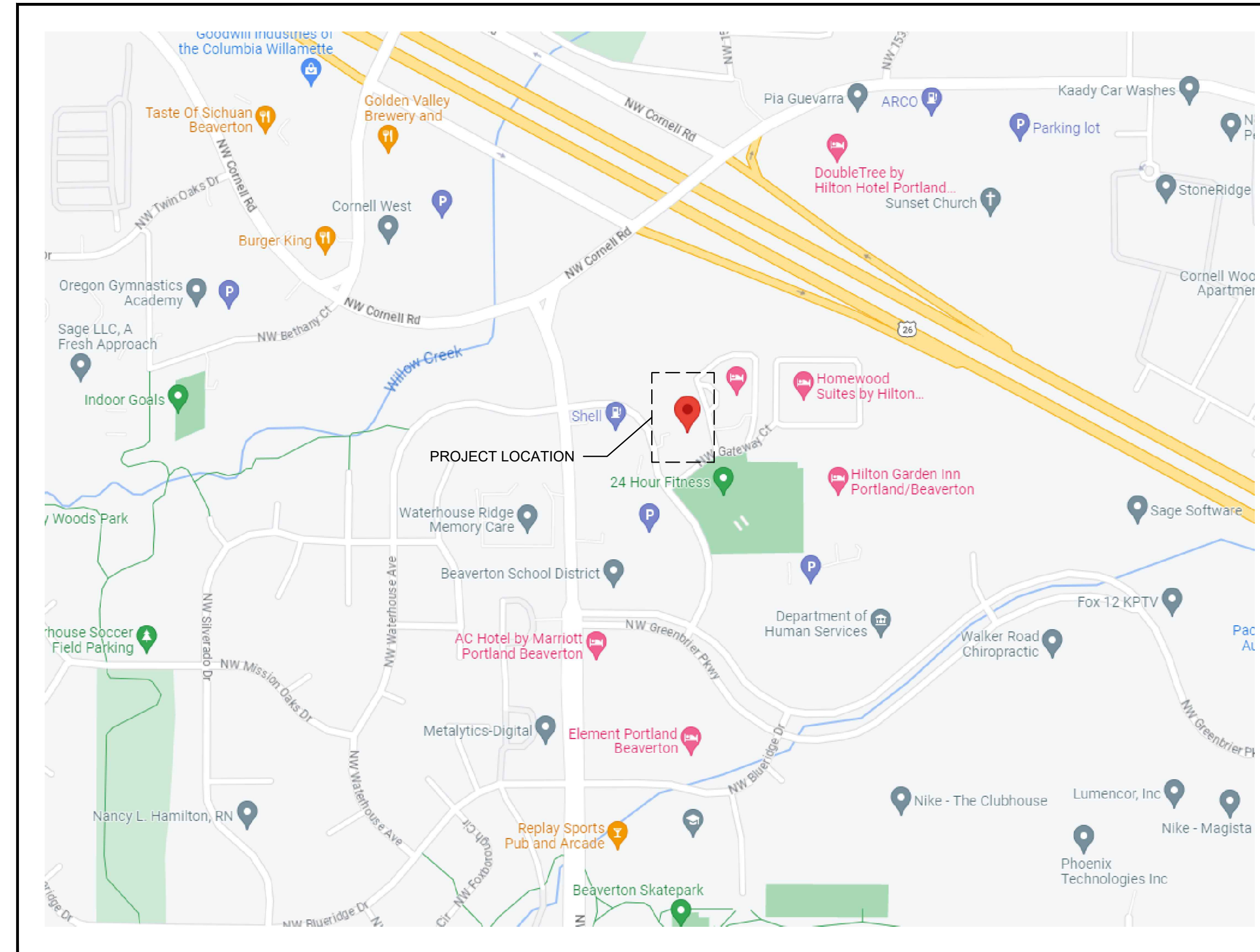
Project No.
2301
Sheet No.

E6.1
Sheet Title
SYMBOLS, ABBREVIATIONS & SPECIFICATIONS

EMLER SWIM SCHOOL

1225 WATERHOUSE AVE
BEAVERTON, OR 97223

LOCATION MAP



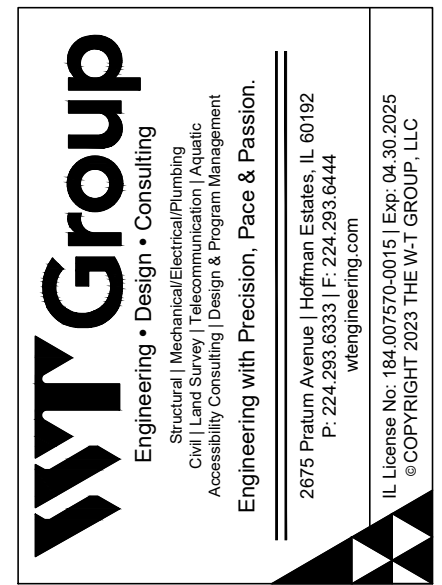
DRAWING INDEX

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EMLER SWIM SCHOOL
TANASBOURNE

1225 WATERHOUSE AVE BEAVERTON, OREGON 97223



Date
06.23.2023

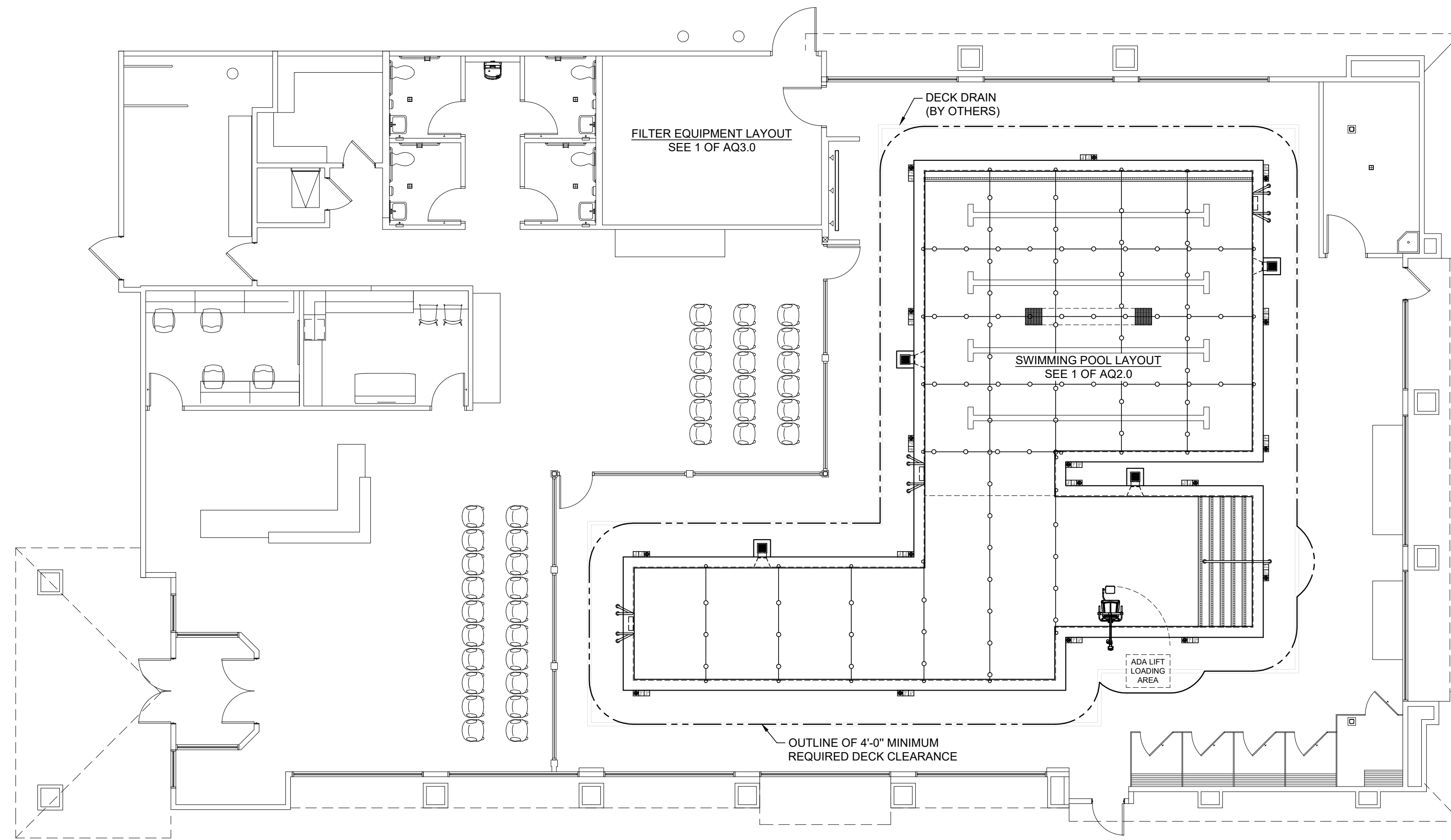
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Project No.
2301
Sheet No.
AQ0.0
Sheet Title
COVER SHEET

NOTE:

REQUIRED SIGNS SHALL BE INSTALLED IN CONSPICUOUS PLACES WITHIN POOL AREA OR ENCLOSURE, AND SHALL CONTAIN THE FOLLOWING:

- "WARNING - NO LIFEGUARD ON DUTY" - IN MINIMUM 4" HIGH LETTERS
- "CHILDREN UNDER THE AGE OF 14 SHALL NOT USE THE POOL WITHOUT A PARENT OF ADULT GUARDIAN IN ATTENDANCE" - IN MINIMUM 1" HIGH LETTERS
- DEMONSTRATION OF ARTIFICIAL RESPIRATION. AN ILLUSTRATED DIAGRAM WITH TEXT AT LEAST 1/4" HIGH OF ARTIFICIAL RESPIRATION AND CPR PROCEDURES
- THE EMERGENCY PHONE NUMBER 911 - IN MINIMUM 4" HIGH LETTERS
- THE NUMBER OF THE NEAREST EMERGENCY SERVICES, FACILITY NAME AND ADDRESS - IN MINIMUM 1" HIGH LETTERS
- "KEEP CLOSED" OR "KEEP GATE CLOSED", ON THE EXTERIOR SIDE OF THE GATES AND DOORS LEADING INTO THE POOL ENCLOSURE - IN MINIMUM 4" HIGH LETTERS
- "NO DIVING" - IN MINIMUM 4" HIGH LETTERS
- OCCUPANCY LOAD: ___ PERSONS - IN MINIMUM 4" HIGH LETTERS
- "DO NOT SWIM IF YOU HAVE BEEN ILL WITH DIARRHEA WITHIN THE PAST 2 WEEKS" - IN MINIMUM 1" HIGH LETTERS



GENERAL NOTES

1. OREGON SWIMMING POOL CODE APPLICABLE
2. OREGON PLUMBING CODE APPLICABLE
3. ELECTRICAL CODE APPLICABLE - NEC
4. REFER TO POOL EQUIPMENT LIST ON SHEET AQ1.1
5. REFER TO ELECTRICAL REQUIREMENTS ON SHEET AQ1.1
6. REFER TO UTILITY REQUIREMENTS ON SHEET AQ1.1
7. REFER TO PLUMBING NOTES ON SHEET AQ1.1

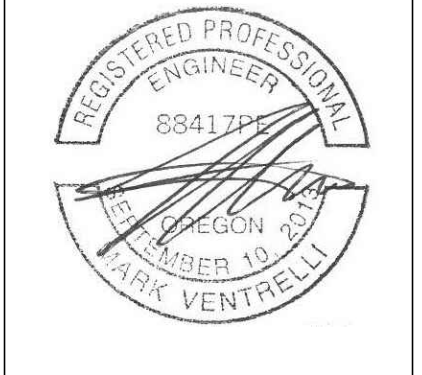
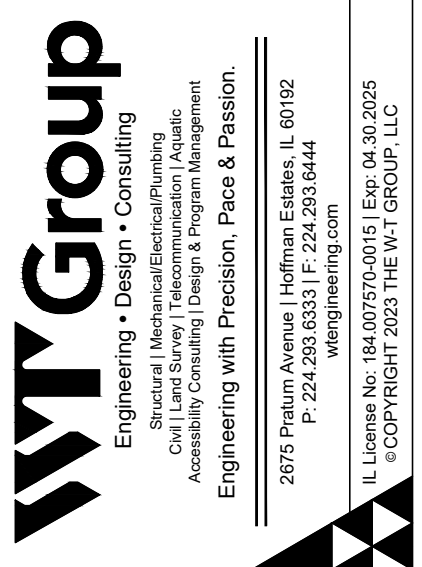
SCOPE OF WORK BY OTHERS

1. POOL AREA BARRIERS
2. POOL AREA ENTRANCES AND HARDWARE
3. POOL DECK DESIGN, SLOPES AND DRAINAGE
5. POOL DECK HOSE BIBBS
6. POOL DRINKING FOUNTAIN
7. POOL LIGHT ELECTRICAL BRANCH CIRCUIT SUPPLY, CONDUITS AND JUNCTION BOX / TRANSFORMER LOCATION
8. POOL TIMER AND/OR EMERGENCY STOP
9. POOL BONDING
10. POOL AREA LIGHTING AND ELECTRICAL
11. POOL ENCLOSURE ACOUSTICAL TREATMENT (INDOOR ONLY)
12. POOL ENCLOSURE VENTILATION (INDOOR ONLY)
13. EMERGENCY PHONE
14. EQUIPMENT ROOM VENTILATION, LIGHTING AND PREVENTION OF UNAUTHORIZED ACCESS
15. EQUIPMENT ROOM FLOOR SLOPE, FINISH AND FLOOR DRAIN
16. EQUIPMENT ROOM HOSE BIBB
17. EQUIPMENT ROOM ELECTRICAL OUTLETS, POOL EQUIPMENT BRANCH CIRCUIT SUPPLY, STARTERS / DISCONNECTS, ETC.
18. EQUIPMENT ROOM BONDING
19. POOL HEATER GAS SUPPLY, VENTILATION AND AIR SUPPLY
20. POOL MAKE-UP FRESH WATER SUPPLY
21. POOL EQUIPMENT BACKWASH SANITARY RECEPTACLE
22. BATHER PREPARATION FACILITIES OR REQUIREMENTS
23. POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
24. POOL SIGNAGE LOCATIONS

SWIMMING POOL DATA

| | |
|--------------------|-----------------|
| SURFACE AREA: | 1,510 SQ.FT. |
| PERIMETER: | 242'-2" |
| WATER DEPTHS: | 3'-0" TO 3'-10" |
| VOLUME: | 38,797 GAL. |
| DESIGN FLOW RATE: | 216 G.P.M. |
| TURNOVER RATE: | 180 MINUTES |
| MAXIMUM OCCUPANCY: | 62 BATHERS |

EMLER SWIM SCHOOL
TANASBOURNE



Date
06.23.2023

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Project No.
2301
Sheet No.

AQ1.0

Sheet Title
AQUATIC FACILITY LAYOUT

POOL PLUMBING NOTES

- ALL PLUMBING WORK, THROUGHOUT THE ENTIRE SWIMMING POOL PROJECT, SHALL COMPLY AND BE IN ACCORDANCE WITH THE OREGON STATE PLUMBING CODE.
- PIPE MATERIALS FOR ALL POOL RECIRCULATION LINES TO BE, AS PER PLAN, SCHEDULE 80 PVC(ASTM D1785), UNLESS OTHERWISE SPECIFIED. PVC PIPING SHALL BE STAMPED WITH N.S.F. SEAL OF APPROVAL.
- ALL POOL WATER HEATER INFLUENT AND EFFLUENT LINES FROM THE BYPASS TO THE HEATER ARE TO BE CPVC.
- EACH FLOWMETER SHALL BE LOCATED FIVE (5) STRAIGHT PIPE DIAMETERS UPSTREAM AND TWENTY (20) STRAIGHT PIPE DIAMETERS DOWNSTREAM FROM ANY VALVES, ELBOWS OR OTHER SOURCES OF TURBULENCE.
- FILTER DRAIN SHALL BE PIPED TO SANITARY WITH A SIX (6) INCH FREE FALL AT THE POINT OF DISPOSAL, NO FILTER MEDIA SHALL BE DISCHARGED INTO THE SANITARY SEWER.
- THESE DRAWINGS ARE INTENDED FOR SCHEMATIC USE ONLY. FINAL PIPE LOCATIONS TO BE FIELD VERIFIED WITH ALL OTHER TRADES BY POOL CONTRACTOR. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL DRAWINGS AS REQUIRED.
- EACH FILTER TO BE BACKWASHED AT A RATE OF 15 G.P.M. PER SQ.FT. OF FILTER AREA TO SANITARY WITH A 6" FREE FALL AT POINT OF DISPOSAL.
- A PRESSURE RELIEF VALVE WITH A MAXIMUM PRESSURE RATING OF 75 POUNDS PER SQUARE INCH AND HAVING A THERMAL CAPACITY AT LEAST EQUAL TO THE HEAT INPUT RATING OF THE HEATER SHALL BE INSTALLED ON THE HEATER EFFLUENT PIPE, WITH THE DISCHARGE PIPED TO WITHIN SIX (6) INCHES OF THE FLOOR.
- ALL VALVES TWO (2) INCHES AND SMALLER TO BE TRUE UNION PVC BALL VALVES, UNLESS OTHERWISE SPECIFIED. ALL VALVES THREE (3) INCHES AND LARGER TO BE BUTTERFLY VALVES, UNLESS OTHERWISE SPECIFIED. ALL CHECK VALVES TO BE TRUE UNION 2000 INDUSTRIAL BALL CHECK VALVES BY SPEARS MFG. COMPANY OR EQUAL.
- POOL CONTRACTOR NOT RESPONSIBLE FOR PENETRATIONS THRU FIRE RATED WALLS, FLOORS OR ROOMS. PENETRATIONS TO BE FIRE RATED TO ORIGINAL SPECIFICATIONS BY OWNER.
- THE CHEMICAL CONTROLLER SHALL BE PROVIDED WITH A FLOW SWITCH WHICH WILL TURN OFF THE CHEMICAL METERING PUMPS WHEN THE FILTRATION PUMP(S) IS NOT IN OPERATION. INFLUENT AND EFFLUENT PIPING FOR THE FLOW SWITCH SHALL ORIGINATE FROM THE FILTERED WATER SUPPLY PIPE SO THE CHEMICAL METERING PUMPS DO NOT OPERATE DURING THE BACKWASH CYCLE.
- SWIMMING POOL SHALL BE DRAINED TO STORM BUT NOT EARLIER THAN 24 HOURS FOLLOWING A RAINFALL. POOL TO BE DRAINED VIA PUMP DISCHARGE BYPASS TO "WASTE".
- POOL CONTRACTOR TO MINIMIZE THE USE OF FITTINGS WHEREVER POSSIBLE.

SAFETY AND MAINTENANCE EQUIPMENT

| MAINTENANCE EQUIPMENT | | SAFETY EQUIPMENT | |
|-----------------------|---|------------------|---|
| TEST KIT | QTY.1 • MANUFACTURER: TAYLOR • MODEL#: K-0206 | FIRST AID KIT | QTY.1 • MANUFACTURER: SWIFT FIRST AID • MODEL#: 35-P24UF • 24 UNIT • PER HEALTH DEPARTMENT REQUIREMENTS |
| TELESCOPIC POLE | QTY.1 • MANUFACTURER: PENTAIR • MODEL#: R191090 • 8'-0" EXTENDING ALUMINUM | RING BUOY | QTY.2 • MANUFACTURER: LINCOLN EQUIPMENT • MODEL#: 44-075 |
| LEAK RAKE | QTY.1 • MANUFACTURER: PENTAIR • MODEL#: R121230 | LIFE HOOK | QTY.2 • MANUFACTURER: PENTAIR • MODEL#: R221026 • INCLUDE 12' ONE-PIECE ALUMINUM POLE |
| WALL BRUSH | QTY.1 • MANUFACTURER: PENTAIR • MODEL#: R111646 | | |
| VACUUM HEAD | QTY.1 • MANUFACTURER: PENTAIR • MODEL#: R201286 | | |
| VACUUM HOSE | QTY.1 • MANUFACTURER: LINCOLN EQUIPMENT • MODEL#: 29-080 • 2" DIAMETER HOSE • 50'-0" LENGTH | | |

SWIMMING POOL ELECTRICAL AND UTILITY REQUIREMENTS

| ELECTRICAL | | UTILITY | |
|--------------------------------|--|---------------------|---|
| FILTRATION PUMP | QTY.2 • 7.5 HORSEPOWER • 208 VOLT, 3-PHASE • PROVIDE CONDUIT AND HARD WIRE TO VARIABLE FREQUENCY DRIVE • INTERLOCK WITH CHEMICAL CONTROLLER • INTERLOCK WITH HEATER • INTERLOCK WITH U.V. UNIT | HEATER | QTY.2 • 240,000 B.T.U. INPUT • AIR INTAKE - SEE MECHANICAL DRAWINGS • 7" EXHAUST VENT CONNECTION • 3/4" GAS SUPPLY CONNECTION |
| U.V. CHAMBER AND CONTROL PANEL | QTY.1 • 20 AMP BREAKER • 208 VOLT, 1-PHASE, G.F.C.I. PROTECTED • PROVIDE DISCONNECT • INTERLOCK WITH FILTRATION PUMP • INTERLOCK WITH CHEMICAL CONTROLLER | FRESH WATER FILL | QTY.1 • PROVIDE 1 1/2" FRESH WATER SUPPLY PIPE TO POOL FILL LOCATION |
| VARIABLE FREQUENCY DRIVE | QTY.1 • HARD WIRE TO PUMP MOTOR • VOLTAGE & HORSEPOWER TO MATCH PUMP MOTOR • INTERLOCK WITH CHEMICAL CONTROLLER • INTERLOCK WITH HEATER • LOW-VOLTAGE WIRING TO FLOW METER | BACKWASH RECEPTACLE | QTY.1 • EACH FILTER TO BACKWASH INDIVIDUALLY • EACH FILTER TO BACKWASH AT 173 G.P.M. • EACH BACKWASH CYCLE 3 TO 5 MINUTES |
| HEATER | QTY.2 • 4 AMPS MAXIMUM • 120 VOLT, 1-PHASE, G.F.C.I. PROTECTED • PROVIDE DISCONNECT • INTERLOCK WITH FILTRATION PUMP | | |
| AQUASTAT | QTY.2 • LOW VOLTAGE WIRING TO POOL HEATER | | |
| CHEMICAL CONTROLLER | QTY.1 • 12.5 AMPS MAXIMUM • 120 VOLT, 1-PHASE, G.F.C.I. PROTECTED • INTERLOCK WITH FILTRATION PUMP | | |
| CHLORINE METERING PUMP | QTY.1 • 22 WATTS MAXIMUM • 120 VOLT, 1-PHASE • PLUG INTO CHEMICAL CONTROLLER | | |
| ACID METERING PUMP | QTY.1 • 22 WATTS MAXIMUM • 120 VOLT, 1-PHASE • PLUG INTO CHEMICAL CONTROLLER | | |

SWIMMING POOL EQUIPMENT LIST

| | | | |
|-----------------------------|--|--------------------------------------|---|
| 1. POOL FILTER | QTY.1 • MANUFACTURER: NEPTUNE BENSON • MODEL#: 3478SHFFG • FILTER SURFACE AREA: 19.6 SQ.FT. • FILTRATION RATE PER SQ.FT. 11.02 G.P.M. • HI-RATE SAND FILTER MEDIA • GAUGE PANEL • 4" TANK CONNECTIONS • 4" 3-WAY FACE PIPING | 14. CHLORINE STORAGE TANK | QTY.1 • MANUFACTURER: CHEM-TAINER • MODEL#: TC3539DC • 100 GALLON CAPACITY • DOUBLE WALL TANK • POLYETHYLENE CONSTRUCTION • PROVIDE LABEL OF CONTENTS |
| 2. POOL FILTRATION PUMP | QTY.2 • MANUFACTURER: PENTAIR • MODEL#: EQKT-750 • SELF-PRIMING • FILTRATION FLOW RATE: 216 G.P.M. • TOTAL DYNAMIC HEAD: 79' | 15. ACID STORAGE TANK | QTY.1 • MANUFACTURER: CHEM-TAINER • MODEL#: TC2738DC • 50 GALLON CAPACITY • DOUBLE WALL TANK • POLYETHYLENE CONSTRUCTION • PROVIDE LABEL OF CONTENTS |
| 3. VARIABLE FREQUENCY DRIVE | QTY.1 • MANUFACTURER: NEPTUNE BENSON • MODEL#: GREENDRIVE VFD • NEMA 12/ IP55 ENCLOSURE • DIGITAL READ-OUT FOR FLOW RATE • INPUT DISCONNECT AND LINE REACTOR • VOLTAGE AND HORSEPOWER TO MATCH ASSOCIATED PUMP MOTOR | 16. WATER LEVEL CONTROLLER | QTY.1 • MANUFACTURER: LEVELOR • MODEL#: K-1100 • 115 VOLT, 1-PHASE • REFLECTION SENSORS • RELAY FOR SOLENOID VALVE |
| 4. VACUUM GAUGE | QTY.1 • MANUFACTURER: TRERICE • MODEL#: 700-LFSS • 2 1/2" DIAL • 0" TO 30" Hg RANGE | 17. REFLECTION AND FILL PIPE FITTING | QTY.2 • MANUFACTURER: HAYWARD • MODEL#: SP-1019 • 2" CONNECTION |
| 5. PRESSURE GAUGE | QTY.3 • MANUFACTURER: TRERICE • MODEL#: 700-LFSS • 2 1/2" DIAL • 0 TO 60 P.S.I. RANGE | 18. MAIN DRAIN SUCTION OUTLET | QTY.2 • MANUFACTURER: LAWSON AQUATICS • MODEL#: MLD-SG-1818 • FRAME AND GRATE SIZE: 18" X 18" • OPEN AREA: 183.06 SQ.IN. • MAXIMUM FLOW RATE: 816 G.P.M. • SUPER SUMP WITH 6" CONNECTION • V.G.B. APPROVED |
| 6. POOL FLOW METER | QTY.1 • MANUFACTURER: GF SIGNET • MODEL#: 3-2551-P0-12 • CONNECT TO MOTOR CONTROL CENTER • 4" PIPE SIZE • 4 TO 20 mA OUTPUT | 19. HYDROSTATIC RELIEF VALVE | QTY.2 • MANUFACTURER: HAYWARD • MODEL#: SP-1056 • 2" CONNECTION |
| 7. U.V. DISINFECTION SYSTEM | QTY.1 • MANUFACTURER: NEPTUNE BENSON • MODEL#: WAFER WF-115-4-N • 1 LAMP X 1.5 kW • 4" STRAINER • CONTROL PANEL: PGA 1x1500 • 208 VOLT, 1-PHASE | 20. HYDROSTATIC COLLECTION TUBE | QTY.2 • MANUFACTURER: HAYWARD • MODEL#: SP-1055 • 2" CONNECTIONS |
| 8. HEATER | QTY.2 • MANUFACTURER: RAYPAK • MODEL#: R266A • NATURAL GAS • 240,000 B.T.U. INPUT • CUPRO-NICKEL HEAT EXCHANGER • AUTOMATIC HIGH-LIMIT SHUT-OFF • 120 VOLT, 1-PHASE • ASME PRESSURE RELIEF VALVE • ASME CODE AND LABEL | 21. SURFACE SKIMMER | QTY.4 • MANUFACTURER: HAYWARD • MODEL#: SP-1082FVE • EQUALIZER KIT • 2" CONNECTIONS |
| 9. THERMOMETER | QTY.2 • MANUFACTURER: LETRO • MODEL#: SL-1 • 30 DEGREE TO 130 DEGREE RANGE • 1 DEGREE GRADATION | 22. WALL INLET FITTING | QTY.18 • MANUFACTURER: HAYWARD • MODEL#: SP-1022 • DIRECTION EYEBALL FITTING • 1/2" ORIFICE MODEL#: SP-1419-C • 1" ORIFICE MODEL#: SP-1419-C |
| 10. AQUASTAT | QTY.2 • MANUFACTURER: HONEYWELL • MODEL#: L4006A1959 • 115 DEGREES FAHRENHEIT MAXIMUM | 23. HAND RAIL | QTY.1 • MANUFACTURER: PARAGON AQUATICS • MODEL#: CUSTOM • STAINLESS STEEL • 1.90" DIAMETER TUBING • .109" WALL THICKNESS |
| 11. CHEMICAL CONTROLLER | QTY.1 • MANUFACTURER: PROMINENT • MODEL#: DCM300 • FLOW CELL • FLOW SWITCH • pH, ORP, TEMPERATURE SENSORS • 120 VOLT, 1-PHASE | 24. GRAB RAIL | QTY.3 PAIR • MANUFACTURER: PARAGON AQUATICS • MODEL#: 30202 • PRETZEL BEND STYLE • STAINLESS STEEL • 1.90" DIAMETER TUBING • .109" WALL THICKNESS |
| 12. CHLORINE METERING PUMP | QTY.1 • MANUFACTURER: STENNER • MODEL#: 45M4 • 1.7 TO 35 G.P.D. OUTPUT • 120 VOLT, 1-PHASE • SODIUM HYPOCHLORITE | 25. RECESSED STEP | QTY.9 • MANUFACTURER: PARAGON AQUATICS • MODEL#: 32102 • HEAVY-DUTY PLASTIC |
| 13. ACID METERING PUMP | QTY.1 • MANUFACTURER: STENNER • MODEL#: 45M3 • 1.1 TO 22 G.P.D. OUTPUT • 120 VOLT, 1-PHASE • SODIUM BISULFATE | 26. RECESSED WEDGE ANCHOR | QTY.14 • MANUFACTURER: S.R. SMITH • MODEL #: IAS-100 • BRONZE |
| | | 27. ESCUTCHEON PLATE | QTY.14 • MANUFACTURER: S.R. SMITH • MODEL #: EP-100A • STAINLESS STEEL |
| | | 28. WALL ANCHOR | QTY.25 • MANUFACTURER: PARAGON AQUATICS • MODEL #: 70316SS • 316L STAINLESS STEEL • RECESSED |
| | | 29. HANDICAP LIFT | QTY.1 • MANUFACTURER: SPECTRUM AQUATICS • MODEL#: 153121-DLX • ADA COMPLIANT • BATTERY OPERATED • RECESSED DECK ANCHOR |
| | | 30. RACING LANE MARKER | QTY. PER PLAN • MANUFACTURER: COMPETITOR • MODEL#: 200375 • 6" • LENGTH: PER PLAN • COLOR BY OWNER |

GENERAL NOTES

- OREGON SWIMMING POOL CODE APPLICABLE
- OREGON PLUMBING CODE APPLICABLE
- ELECTRICAL CODE APPLICABLE - NEC
- REFER TO POOL EQUIPMENT LIST ON SHEET AQ1.1
- REFER TO ELECTRICAL REQUIREMENTS ON SHEET AQ1.1
- REFER TO UTILITY REQUIREMENTS ON SHEET AQ1.1
- REFER TO PLUMBING NOTES ON SHEET AQ1.1

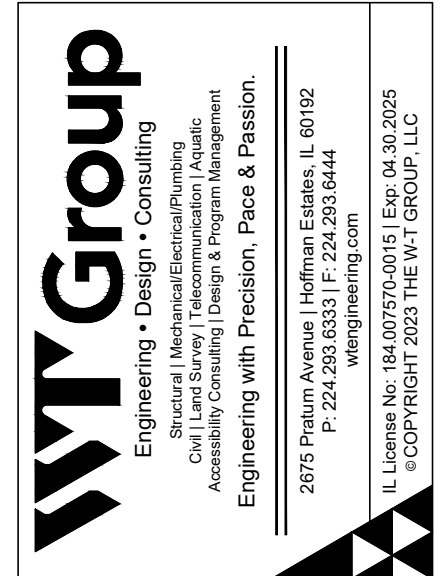
SCOPE OF WORK BY OTHERS

- POOL AREA BARRIERS
- POOL AREA ENTRANCES AND HARDWARE
- POOL DECK DESIGN, SLOPES AND DRAINAGE
- POOL DECK HOSE BIBBS
- POOL DRINKING FOUNTAIN
- POOL LIGHT ELECTRICAL BRANCH CIRCUIT SUPPLY, CONDUITS AND JUNCTION BOX / TRANSFORMER LOCATION
- POOL TIMER AND/OR EMERGENCY STOP
- POOL BONDING
- POOL AREA LIGHTING AND ELECTRICAL
- POOL ENCLOSURE ACOUSTICAL TREATMENT (INDOOR ONLY)
- POOL ENCLOSURE VENTILATION (INDOOR ONLY)
- EMERGENCY PHONE
- EQUIPMENT ROOM VENTILATION, LIGHTING AND PREVENTION OF UNAUTHORIZED ACCESS
- EQUIPMENT ROOM FLOOR SLOPE, FINISH AND FLOOR DRAIN
- EQUIPMENT ROOM HOSE BIBB
- EQUIPMENT ROOM ELECTRICAL OUTLETS, POOL EQUIPMENT BRANCH CIRCUIT SUPPLY, STARTERS / DISCONNECTS, ETC.
- EQUIPMENT ROOM BONDING
- POOL HEATER GAS SUPPLY, VENTILATION AND AIR SUPPLY
- POOL MAKE-UP FRESH WATER SUPPLY
- POOL EQUIPMENT BACKWASH SANITARY RECEPTACLE
- BATHER PREPARATION FACILITIES OR REQUIREMENTS
- POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
- POOL SIGNAGE LOCATIONS

SWIMMING POOL DATA

| | |
|--------------------|-----------------|
| SURFACE AREA: | 1,510 SQ.FT. |
| PERIMETER: | 242'-2" |
| WATER DEPTHS: | 3'-0" TO 3'-10" |
| VOLUME: | 38,797 GAL. |
| DESIGN FLOW RATE: | 216 G.P.M. |
| TURNOVER RATE: | 180 MINUTES |
| MAXIMUM OCCUPANCY: | 62 BATHERS |

EMLER SWIM SCHOOL
TANASBOURNE



Date
06.23.2023

Polkingshorn Group Architects, Inc.
248 ADDIE ROY ROAD, SUITE B-301 AUSTIN TX 78746
VOICE 512.327.4404 E-MAIL pgg@pgarchitects.com

Project No.
2301
Sheet No.
AQ1.1
Sheet Title
EQUIPMENT LIST
AND REQUIREMENTS

1225 WATERHOUSE AVE BEAVERTON, OREGON 97223

SPECIFICATION

1.1 GENERAL
A. SECTION INCLUDES:
1. LAYOUT OF POOL, BENCH MARK AND EXACT LOCATION OF BENCH MARK WILL BE FURNISHED BY THE OWNER / ARCHITECT.
2. EXCAVATION AND STONE FILL AS REQUIRED FOR POOL TANK STRUCTURE AND PIPE TRENCHING.
3. REINFORCED CONCRETE POOL TANK STRUCTURE, AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
4. POOL MECHANICAL SYSTEMS, INCLUDING PIPING, RECIRCULATION SYSTEM, FILTRATION SYSTEM, AND WATER CHEMICAL TREATMENT SYSTEMS.
5. INTERIOR POOL FINISH, DIAMOND BRITE, AND CERAMIC TILE.
6. POOL DECK EQUIPMENT AND ACCESSORY EQUIPMENT AS SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN.
7. MISCELLANEOUS POOL TESTING, SAFETY, AND CONTROL EQUIPMENT AS REQUIRED BY THE DEPARTMENT OF PUBLIC HEALTH.
8. POOL START-UP, CLOSING, AND INSTRUCTION OF OWNERS PERSONNEL.
B. REFERENCES:
1. ACI 315 - MANUAL OF STANDARD PRACTICE FOR DETAILED REINFORCED CONCRETE STRUCTURES.
2. ACI 318 - BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
3. ASTM A615 - SPECIFICATION FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT.
4. ASTM B88 - SPECIFICATION FOR SEAMLESS COPPER WATER TUBE.
5. ASTM C31 - PRACTICE FOR MAKING AND CURING CONCRETE TEST SPECIMENS IN THE FIELD.
6. ASTM C33 - SPECIFICATION FOR CONCRETE AGGREGATES.
7. ASTM C39 - TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS.
8. ASTM C94 - SPECIFICATION FOR READY-MIXED CONCRETE.
9. ASTM C143 - TEST METHOD FOR SLUMP OF HYDRAULIC CEMENT CONCRETE.
10. ASTM C150 - SPECIFICATION FOR PORTLAND CEMENT.
11. ASTM C172 - METHOD OF SAMPLING FRESHLY MIXED CONCRETE.
12. ASTM C231 - TEST METHOD FOR AIR CONTENT OF FRESHLY MIXED CONCRETE BY THE PRESSURE METHOD.
13. ASTM C260 - SPECIFICATION FOR AIR ENTRAINING ADMIXTURES FOR CONCRETE.
14. ASTM C494 - SPECIFICATION FOR CHEMICALS ADMIXTURES FOR CONCRETE.
15. ASTM D1785 - SPECIFICATION FOR STANDARD SPECIFICATION POLYVINYL CHLORIDE (PVC) PLASTIC PIPE SCHEDULES 40, 80, AND 120.
16. ASTM D1784 - SPECIFICATION FOR RIGID POLY VINYL CHLORIDE (PVC) COMPOUNDS AND CHLORINATED POLY VINYL CHLORIDE (CPVC) COMPOUNDS.
17. ASTM D2564 - SPECIFICATIONS FOR SOLVENT CEMENTS FOR POLY VINYL CHLORIDE (PVC) PLASTIC PIPE AND FITTINGS.
18. ASTM D2855 - PRACTICE FOR MAKING SOLVENT-CEMENTED JOINTS WITH PVC PIPE AND FITTINGS.
19. CRSI - CONCRETE REINFORCING STEEL INSTITUTE - MANUAL OF PRACTICE.
20. NSF - SEAL FOR POTABLE WATER.
21. ANSITCA A137.1 - SPECIFICATIONS FOR CERAMIC TILE.
C. DEFINITIONS:
1. THE TERM "POOL" AS USED IN THIS SECTION SHALL REFER TO THE SWIMMING POOL AND HYDROTHERAPY POOL.
2. THE TERM "CONCRETE" AS USED IN THIS SECTION SHALL REFER TO CONCRETE FOR POOL CONSTRUCTION ONLY.
3. THE TERM "ARCHITECT/ENGINEER" AS USED IN THIS SECTION SHALL REFER TO THE POOL DESIGN ONLY.
D. SYSTEM DESCRIPTION:
1. PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR CONSTRUCTION OF THE POOL. THE ABOVE WILL BE COMPLETE WILL ALL EQUIPMENT AS INDICATED ON THE CONSTRUCTION DOCUMENTS. CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES.
E. SUBMITTALS:
1. SUBMIT UNDER PROVISIONS OF SECTION 01300.
2. PRODUCT DATA: PROVIDE MANUFACTURER'S/INSTALLER'S WRITTEN INSTALLATION INSTRUCTIONS.

3. SAMPLES: SUBMIT TILE SAMPLES, AND OTHER SAMPLES OF MATERIALS, FINISHES, AND TRIM AS MAY BE REQUESTED BY THE ARCHITECT/ENGINEER.
4. OPERATION AND MAINTENANCE MANUALS: SUBMIT 4 COPIES IN ACCORDANCE WITH THE REQUIREMENTS IN SECTION 01700.
5. REQUIRED SUBMITTALS:
a. CONCRETE MIX DESIGN
b. POOL EQUIPMENT LIST ITEMS
c. SAFETY EQUIPMENT ITEMS
d. MAINTENANCE EQUIPMENT ITEMS
e. PIPING MATERIALS
f. TEST RESULTS:
1. TESTING
2. COMPACTION
3. PIPING PRESSURE TESTING
g. SAMPLES:
1. CERAMIC TILE
2. DIAMOND BRITE
h. GUARANTEES WARRANTIES:
1. STANDARD (1) YEAR
2. SPECIAL (2) YEAR ON CONCRETE STRUCTURE
3. FILTER TANK (10)
i. CLOSE OUT DOCUMENTS:
1. O&M MANUALS
2. OWNERS CERTIFICATION OF INSTRUCTION
F. QUALITY ASSURANCE:
1. QUALIFICATIONS OF POOL SUB-CONTRACTOR/EQUIPMENT SUPPLIER: WORK OF THIS SECTION SHALL BE PERFORMED BY A CONTRACTOR WHO HAS A PROVEN RECORD OF COMPETENCE AND EXPERIENCE IN THE CONSTRUCTION OF SIMILAR FACILITIES OF THIS SIZE AND COMPLEXITY FOR NOT LESS THAN 5 YEARS. REFERENCES WILL BE REQUIRED BY THE OWNER.
2. PERFORMANCE CRITERIA: CERTAIN SECTIONS OF THE SPECIFICATIONS CONTAIN PERFORMANCE CRITERIA RATHER THAN PRODUCT DESCRIPTIONS. IT SHALL BE THE OBLIGATION OF THE CONTRACTOR/EQUIPMENT SUPPLIER TO INSURE THAT ALL CRITERIA ARE SATISFIED AND THE BURDEN OR PROOF OF CONFORMANCE SHALL REST WITH THE CONTRACTOR/EQUIPMENT SUPPLIER. THE ARCHITECT/ENGINEER SHALL REQUIRE COMPLETE CALCULATIONS, PAST PERFORMANCE RECORDS AND, IF REQUIRED, INSPECTION TRIPS OF SIMILAR FACILITIES TO SUBSTANTIATE CONFORMANCE WITH THESE CRITERIA. THE ARCHITECT/ENGINEER SHALL BE SOLE JUDGE OF CONFORMANCE. THE POOL SUB-CONTRACTOR/EQUIPMENT SUPPLIER IS CAUTIONED THAT HE WILL BE REQUIRED TO PROVIDE A FINISHED PRODUCT MEETING ALL STATED CRITERIA AND MEETING OR EXCEEDING DEPARTMENT OF HEALTH REQUIREMENTS.
G. REGULATORY REQUIREMENTS:
1. ALL APPLICABLE LOCAL BUILDING AND HEALTH CODES.
2. NATIONAL ELECTRICAL CODE
3. NATIONAL SANITATION FOUNDATION (NSF): SEAL OF APPROVAL PROGRAM.
4. OREGON DEPARTMENT OF PUBLIC HEALTH SWIMMING POOL CODE
5. ASME CODE AND LABEL.
H. REQUIRED PERMITS:
1. OREGON DEPARTMENT OF PUBLIC HEALTH BY ARCHITECT.
2. COUNTY AND LOCAL BUILDING DEPARTMENTS.
I. DELIVERY, STORAGE AND HANDLING:
1. DELIVER, STORE, PROTECT AND HANDLE PRODUCTS TO SITE UNDER PROVISIONS OF SECTION 01600.
2. DELIVER ALL MATERIALS AND EQUIPMENT TO THE WORK SITE IN ORIGINAL PACKAGES FULLY IDENTIFIED, WITH MANUFACTURER'S LABEL. STORE OFF GROUND AND PROTECT FROM WEATHER WITH A SUITABLE COVERING.
3. DELIVER CEMENTITIOUS MATERIALS TO SITE IN MANUFACTURER'S STANDARD PACKAGES. IMMEDIATELY UPON DELIVERY TO WORK SITE, STORE IN WATERPROOF SHEDS. NO CEMENTITIOUS OR OTHER MATERIAL THAT HAS BECOME CAKED OR HARDENED WILL BE PERMITTED IN THE WORK.
4. PROTECT PLASTIC PIPE FROM EXPOSURE TO CHEMICALS (AROMATIC HYDROCARBONS, HALOGENATED HYDROCARBONS AND OTHER ESTERS AND KETONES) THAT MIGHT ATTACK THE MATERIAL. PROTECT ALL PIPE FROM MECHANICAL DAMAGE AND LONG EXPOSURE TO SUNLIGHT DURING STORAGE.
J. ENVIRONMENTAL REQUIREMENTS:
1. ALL TILE WORK IS TO BE PERFORMED AT 50 DEGREES F MINIMUM DURING INSTALLATION. THIS TEMPERATURE IS TO BE MAINTAINED FOR 7 DAYS AFTER COMPLETION OR FURNISH ADEQUATE PROTECTION AS APPROVED BY THE ARCHITECT.

SPECIFICATION

K. WARRANTY:
1. WARRANTY: PROVIDE ONE (1) YEAR WARRANTY COVERING ALL POOL WORKMANSHIP, MATERIALS AND EQUIPMENT. REFER TO SECTION 01600 FOR ADDITIONAL REQUIREMENTS.
2. SPECIAL PROJECT WARRANTY ON CONCRETE STRUCTURE: THE POOL SUB-CONTRACTOR SHALL GUARANTEE FOR TWO (2) YEARS REPAIR OF THE CONCRETE POOL STRUCTURE COVERING ANY DEFECTS, CRACKS, AND/OR LEAKING IN THE POOL SHELL CAUSED BY DEFECTIVE WORKMANSHIP OR MATERIAL.
3. ALL STANDARD MANUFACTURER'S WARRANTIES SHALL APPLY TO ALL EQUIPMENT AND PRODUCTS PROVIDED BY THIS SUBCONTRACTOR.
4. FILTER TANKS SHALL HAVE A TEN (10) YEAR WARRANTY, ALL LABOR AND WORKMANSHIP IS TO BE GUARANTEED FIRST CLASS AND CARRY A ONE (1) YEAR UNCONDITIONAL WARRANTY.
L. PRODUCTS
A. CONCRETE MATERIALS:
1. PORTLAND CEMENT: ASTM C150, TYPE I.
2. COARSE AGGREGATE: REFER TO ASTM C33.
3. SAND: REFER TO ASTM C33.
4. ADD MIXTURES:
a. AIR ENTRAINING: REFER TO ASTM C260.
b. WATER REDUCING: REFER TO ASTM C494, TYPE A OR D.
B. REINFORCING STEEL:
1. REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED.
2. WELDED WIRE FABRIC: ASTM A 185, WELDED STEEL WIRE FABRIC.
3. SUPPORTS FOR REINFORCEMENT: BOLSTERS, CHAIRS, SPACERS, AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCING BARS AND WELDED WIRE FABRIC IN PLACE. BRICKS OR BLOCKS ARE NOT ALLOWED. USE WIRE TYPE SUPPORTS COMPLYING CRSI SPECIFICATIONS.
4. PLACING REINFORCING STEEL: PLACE REINFORCING STEEL IN CONFORMANCE WITH THE INFORMATION ON THE CONTRACT DOCUMENTS AND CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS, EXCEPT AS MODIFIED HEREIN. MINIMUM LENGTH OF SPLICES SHALL BE AS SHOWN ON CONTRACT DOCUMENTS. TIE SPLICES WITH 18-GAUGE ANNEALED WIRE AS SPECIFIED IN THE REFERENCED CRSI STANDARD.
C. FILTRATION SYSTEM:
1. GENERAL REQUIREMENTS
2. CONTRACTOR IS ADVISED THAT THE DESCRIPTION, CATALOG NUMBERS AND MANUFACTURER'S NAMES OF CERTAIN PIPES AND EQUIPMENT ACCESSORIES LISTED ON DRAWINGS, ARE NOT REPEATED IN THE SPECIFICATION.
3. PROJECT DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL REQUIREMENTS AS TO SIZE OF PIPE, VALVES AND APPURTENANCES AND TO THE LOCATION OF FIXTURES. IF INSTALLED PIPING WILL INTERFERE WITH INSTALLATION OF OTHER WORK SHOWN, THE CONTRACTOR AT HIS OWN EXPENSE, SHALL MAKE SUCH CHANGES AS DIRECTED.
4. LAWS AND ORDINANCES: THE PLUMBING WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PLUMBING PROVISIONS OF THE OREGON SWIMMING POOL CODE. WHERE PLANS SHOW OR SPECIFICATIONS CALL FOR SIZES OF MATERIALS IN EXCESS OF THOSE REQUIRED BY CODE, THE PLANS SPECIFICATIONS SHALL GOVERN THE INSTALLATION.
5. SUBSTITUTES: CONTRACT IS BASED UPON FURNISHING MATERIALS AND EQUIPMENT STRICTLY IN ACCORDANCE WITH THE TYPE AND MAKES SHOWN AND/OR CALLED FOR IN THE SPECIFICATIONS. CONSIDERATION WILL BE GIVEN FOR SUBSTITUTIONS THAT ARE EQUAL TO IN EVERY RESPECT TO THOSE SPECIFIED AND/OR SHOWN.
6. COOPERATION: WORK HEREUNDER SHALL BE SCHEDULED, PLANNED EXECUTED SO AS NOT TO INTERFERE WITH OR DELAY ANY OTHER WORK UNDER THE CONTRACT.
7. CONTRACTOR SHALL MAKE ALL NECESSARY OPENINGS AND ALSO FURNISH AND INSTALL ALL PIPE AND FIXTURE SUPPORTS AND ANY OTHER FIXTURE DETAILS TO BE PLACED IN CONCRETE OR ANY OTHER PARTS OF THE STRUCTURE.
8. MATERIALS IN GENERAL: CONTRACTOR SHALL SUBMIT FOR APPROVAL SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIAL, AND/OR EQUIPMENT THAT HE PROPOSES TO USE IN THE WORK. SUCH EVIDENCE SHALL INCLUDE NAME OF MANUFACTURER, THE PERFORMANCE CAPACITY AND OTHER PERTINENT INFORMATION IF INSTALLED WITHOUT THE REQUIRED APPROVAL, MATERIAL AND EQUIPMENT WILL BE SUBJECT TO SUBSEQUENT REJECTION. THE SPECIFIED REQUIREMENTS FOR MATERIALS SHALL BE CONSIDERED AS THE MINIMUM.
9. EQUIPMENT REQUIREMENTS
a. GENERAL: PROVIDE A FILTRATION SYSTEM AS SHOWN AND SCHEDULED ON CONTRACT DOCUMENTS. ALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

10. COMPONENTS
a. FILTERS SHALL BE NSF APPROVED. SUCH APPROVAL SHALL BE EVIDENCED BY THE FILTER MODEL NUMBER APPEARING IN THE CURRENT NSF TESTING LABORATORY LISTING FOR SWIMMING POOL FILTERS AS SUITABLE TO FILTER AT THE FLOW RATE REQUIRED FOR THIS PROJECT.
D. WATER TREATMENT:
1. PROVIDE A WATER TREATMENT SYSTEM AS SHOWN AND SCHEDULED ON CONTRACT DOCUMENTS. ALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. FURNISH OWNER WITH WRITTEN WATER TREATMENT PROGRAM COMPLETE WITH WRITTEN BASIC WATER CHEMICAL ANALYSIS AND VERBAL INSTRUCTIONS AS TO OPERATE OF SYSTEM.
3. PROVIDE A TEST KIT WITH SLIDE COMPARATOR, 0.5 - 10 PPM (PH, ALKALINITY, HARDNESS, CYANURIC ACID AND BASE DEMAND). TEST KIT SHALL BE PROFESSIONAL COMPLETE TEST KIT AS MANUFACTURED BY TAYLOR, OR APPROVED EQUAL.
E. PUMPS - SELF-PRIMING:
1. FURNISH AND INSTALL CIRCULATION PUMPS AS SHOWN AND SCHEDULED ON CONTRACT DOCUMENTS. SEE CONTRACT DOCUMENTS FOR HORSEPOWER, VOLTAGE, FLOW RATE AND SIZE.
2. EACH PUMP SHALL BE FURNISHED WITH AN INTEGRAL HAIR AND LINT STRAINER. CONTRACTOR TO FURNISH EXTRA STRAINER BASKET WITH EACH PUMP.
F. POOL VALVES AND PIPING MATERIALS:
1. PRODUCTS:
a. PROVIDE VALVES OF SAME MANUFACTURER THROUGHOUT WHERE POSSIBLE AND PRACTICAL.
b. PROVIDE VALVES WITH MANUFACTURER'S NAME AND PRESSURE RATING CLEARLY MARKED ON OUTSIDE OF BODY.
2. VALVE CONNECTIONS: PROVIDE VALVES SUITABLE TO CONNECT TO ADJOINING PIPING AS SPECIFIED FOR PIPE JOINT. USE PIPE SIZE VALVES.
3. USE OF VALVES:
a. PIPE SIZES 3", BUTTERFLY.
b. MISCELLANEOUS VALVES 1/2" - 2", PVC TRUE UNION BALL VALVES.
c. ALL CHEMICAL LINES AND EQUIPMENT - PVC TRUE UNION BALL VALVES.
4. BUTTERFLY VALVES:
a. BUTTERFLY VALVES 3" SHALL BE WAFER OR LUG BODIES AND SHALL BE SUITABLE FOR USE BETWEEN ANSI 125 OR 150 LB. FLANGES.
b. BODIES OF THE FLANGELESS DESIGN SHALL BE PROVIDED WITH AT LEAST FOUR (2) BOLT GUIDES TO CENTER THE VALVE IN THE PIPELINE.
c. ALL BUTTERFLY VALVES SHALL HAVE A CAST IRON BODY EPOXY COATED, DUCTILE IRON NYLON 11 COATED DISC, STAINLESS SHAFT WITH BUNA-N OR EPDM SEAT MINIMUM 150 PSI RATING.
d. ALL BUTTERFLY VALVES 3" SHALL HAVE 10 POSITION LOCKING HANDLE.
e. ALL VALVES SHALL BE AS MANUFACTURED BY BRAY VALVE (713) 894 5454 OR EQUAL AS APPROVED BY THE ARCHITECT/ENGINEER.
5. BALL VALVES:
a. PVC TRUE UNION BALL VALVES, DUAL UNION, ESLON, SPEARS, OR EQUAL.
6. CHECK VALVES - (WHERE REQUIRED): ALL CHECK VALVES TO BE TRUE UNION 2000 INDUSTRIAL BALL CHECK VALVES BY SPEARS MFG. COMPANY OR EQUAL.
G. SPECIAL AGGREGATE POOL INTERIOR FINISH:
1. DIAMOND BRITE
a. QUARTZ AGGREGATES BLENDED WITH POLYMER MODIFIED PORTLAND CEMENT.
2. DELIVER, STORAGE AND HANDLING
a. IF MATERIAL IS STORED, IT MUST BE IN A COOL, DRY AREA, PROTECTED FROM THE ELEMENTS.
3. SUBMITTALS
a. SUBMIT SPECIFICATION FOR DIAMOND BRITE SPECIAL AGGREGATE FINISH 40 DAYS PRIOR TO USE.
b. SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL.
4. PRODUCTS
a. ACCEPTABLE MANUFACTURERS; SOUTHERN GROUT & MORTARS, INC.
H. TILE AND TILE SETTING MATERIALS:
1. POOL TILE: FURNISH AND INSTALL TILES AS SHOWN ON THE CONTRACT DOCUMENTS AND AS LISTED IN THIS SECTION. TILE WORK INCLUDED IN THIS CONTRACT SHALL BE LIMITED TO THE FOLLOWING:
a. 6" BAND AT WATER LINE
b. DEPTH MARKERS
c. STAIR AND BENCH ACCENTS
2. ALL WORK IS TO CONFORM TO ANSITCA A137.1

SPECIFICATION

3. SUBMIT TILE SAMPLES FOR ARCHITECTS COLOR SELECTION AND APPROVAL BEFORE ORDERING TILE.
4. EXTRA STOCK: SUPPLY EXTRA 5% OF EACH COLOR OF FLAT AND TRIM IN CLEAN MARKED CARTONS FOR THE OWNERS USE.
5. CERAMIC TILE: TILE TO BE AS MANUFACTURED BY AMERICAN OLEAN OR EQUAL.
a. COLORS TO BE AS SELECTED BY OWNER.
b. FURNISH AND INSTALL ALL TILE REQUIRED FOR DEPTH MARKERS AND "NO DIVING MARKERS" CONFORMING TO THE CONSTRUCTION DRAWINGS AND APPLICABLE CODES.
6. LATEX DRY-SET MORTAR: MAPEI KERALASTIC KERABOND, PRE-SANDED, ANSI 118.1. TWO COMPONENT SETTING SYSTEM CONSISTING OF DRY-SET MORTAR AND LIQUID SYNTHETIC POLYMER ADDITIVE.
7. FLOOR GROUT: MAPEI ULTRA/COLOR SANDED GROUT, POLYMER MODIFIED CEMENTITIOUS GROUT. NO SUBSTITUTIONS PERMITTED.
8. USE A SURFACE BULLNOSE FOR THE STEP TREADS.
9. TILE FOR DEPTH MARKERS TO BE INSTALLED FLUSH WITH POOL DECK.
1.3 EXECUTION
A. PNEUMATICALLY PLACED CONCRETE:
1. CONTRACTOR MAY AT HIS DISCRETION CONSTRUCT THE POOLS USING THE PNEUMATICALLY PLACED CONCRETE METHOD, EITHER WET-GUN OR DRY-GUN.
2. WORKMANSHIP:
a. THE FOLLOWING DESCRIBES THE "WET-GUN" METHOD. THE CONTRACTOR MAY AT HIS DISCRETION USE THE "DRY-GUN" METHOD.
b. ONLY FOREMAN, NOZZLEMAN AND ROOMMAN WITH AT LEAST FIVE (5) YEARS OF STRUCTURAL EXPERIENCE SHALL BE EMPLOYED AND SATISFACTORY WRITTEN EVIDENCE OF SUCH EXPERIENCE SHALL BE FURNISHED TO THE ARCHITECT OR HIS REPRESENTATIVE UPON DEMAND.
c. THE CONTRACTOR MUST HAVE HAD AT LEAST FIVE (5) YEARS EXPERIENCE IN POOL CONSTRUCTION AND MUST LIST AT LEAST TWENTY (20) SIGNIFICANT STRUCTURAL INSTALLATIONS WHICH HE HAS CONSTRUCTED AND WHICH, ON INVESTIGATION, HAVE BEEN FOUND TO BE COMPLETED IN A SATISFACTORY MANNER.
d. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTION OF CONCRETE WORK WHICH DOES NOT CONFORM TO THE SPECIFIED REQUIREMENTS, INCLUDING STRENGTH, TOLERANCES AND FINISHES.
3. TOLERANCES:
a. THE COMPLETED STRUCTURE SHALL BE CONSTRUCTED LEVEL AND TO THE DIMENSIONS, ELEVATION, DEPTHS AND THICKNESS AS SHOWN ON THE APPROVED PLANS.
b. THE ELEVATION [LEVEL] TOLERANCES OF THE POOL SHELL SHALL BE PLUS OR MINUS 1/8 INCH.
c. THE HORIZONTAL AND VERTICAL SURFACE TOLERANCE OF THE POOL SHELLS SHALL BE PLUS OR MINUS 1/4 INCH MEASURED WITH A 10 FOOT STRAIGHT EDGE.
d. THE LENGTH AND WIDTH TOLERANCE IS PLUS 1/4 INCH.
e. THE FLOOR AND WALL THICKNESS TOLERANCE IS PLUS 1/4 INCH.
f. THE BOND BEAM "SHELL" ELEVATION, THICKNESS AND DIMENSIONAL TOLERANCE IS PLUS OR MINUS 1/8 INCH DUE TO PREFABRICATED UNITS THAT ARE ATTACHED TO OR BUTTING THIS SECTION.
g. GROUND WIRES OR GRADE PINS IF USED, SHALL BE INSTALLED IN SUCH A MANNER THAT THEY ACCURATELY OUTLINE THE SECTION OF THE LININGS AS INDICATED ON THE PLANS. THEY SHALL BE LOCATED AT INTERVALS SUFFICIENT TO INSURE PROPER THICKNESS THROUGHOUT AND SHALL BE MAINTAINED TIGHT.
4. CURING:
a. STRUCTURE SHALL BE DAMP CURED FOR AT LEAST 7 DAYS. IT SHALL BE MANDATORY FOR THE CONTRACTOR TO PERFORM THE CURING OPERATION. NO CONCRETE SHALL BE PLACED DURING FREEZING WEATHER EXCEPT WHEN PROTECTIVE MEASURES ARE TAKEN AS WITH POURED CONCRETE WORK. CONCRETE SHALL NOT BE PLACED AGAINST FROZEN SURFACES.
b. STRUCTURE SHALL BE MAINTAINED AT A TEMPERATURE ABOVE 45 DEGREES DURING THE 7 DAY CURING PROCESS PROTECTION.
5. PROTECTION:
a. ALL SURFACES NOT TO RECEIVE CONCRETE WILL BE PROTECTED WITH PAPER OR OTHER PROTECTIVE MATERIAL.
b. ALL SURROUNDING SURFACES SHALL BE PROTECTED FROM OVER SPRAY, DUST, REBOUND OR SPILLING REBOUND OR SPILLAGE SHALL NOT BE DISPOSED OF SO AS TO INTERFERE WITH INSTALLATION OF PIPING, ANCHORS, DECK DRAIN, CONDUITS, DUCTS, ETC.

6. SHOTCRETE [WET GUN] APPLICATION:
a. SHOTCRETE AS HEREIN SPECIFIED IS TO DESIGNATE MIXTURE OF PORTLAND CEMENT, GRADED AGGREGATE AND SAND THAT IS BATCHED, HYDRATED AND MIXED PRIOR TO BEING PLACED THROUGH A CONCRETE "GUN" AND DEPOSITED BY AIR PRESSURE INTO THE STRUCTURE.
b. REFERENCE STANDARDS: THE FOLLOWING STANDARDS REFERRED TO IN THIS SPECIFICATION ARE LISTED BELOW WITH THEIR COMPLETE DESIGNATION AND TITLE INCLUDING THE YEAR OF ADOPTION OR REVISION. ASTM STANDARDS [AMERICAN SOCIETY FOR TESTING MATERIALS.
1. A615-84 STANDARD SPECIFICATION FOR DEFORMED AND PLAIN BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT.
2. THE F.M. OF THE SAND SHALL NOT EXCEED 2.75 AND NOT BE LESS THAN 2.55. NO OTHER AGGREGATE SHALL BE ADDED OR SUBSTITUTED.
c. CONCRETE SHALL BE DESIGNED, DELIVERED, SHOT IN PLACE AND TESTED IN PLACE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS: ASTM C-94-83, STANDARD SPECIFICATIONS FOR READY MIXED CONCRETE; AS1506-77 [REVISED 1983] RECOMMENDED PRACTICE FOR SHOTCRETING.
1. CONTRACTOR SHALL SUBMIT WET-MIX CONCRETE DESIGN TO ARCHITECT FOR APPROVAL. PRIOR TO START OF WORK, MIX SHALL BE DESIGNED TO ASSURE PROPER PUMPABILITY, WORKABILITY AND PROPER SHOTCRETE APPLICATION WITHOUT CONSISTENT PLUG UPS AND BLOCKAGE.
2. CONTRACTOR SHALL PROVIDE A CONCRETE SPECIALIST DURING SHOTCRETING. HE SHALL SUPERVISE THE OPERATING OF THE PLUMBING EQUIPMENT, CONCRETE TRUCK DELIVERY AND INSPECT AND MAINTAIN THE QUALITY OF IN-PLACE SHOT-CRETE.
3. THE CONTRACTOR SHALL PROVIDE EQUIPMENT CAPABLE OF DELIVERING WET-MIX SHOTCRETE IN A NEARLY HOMOGENEOUS STATE AT A CONSTANT PRESSURE TO THE POINT OF APPLICATION.
4. SHOTCRETE SHALL EMERGE FROM THE NOZZLE IN A STEADY, UNINTERRUPTED FLOW. SHOULD THE FLOW BECOME INTERRUPTED FOR ANY CAUSE, THE NOZZLEMAN SHALL DIRECT IT AWAY FROM THE WORK UNTIL IT AGAIN BECOMES CONSTANT. THE DISTANCE OF THE NOZZLE FROM THE WORK SHALL BE BETWEEN A FOOT AND A HALF TO THREE FEET TO GIVE BEST RESULTS FOR WORK.
5. BEFORE COMMENCING NEW CONCRETE PLACEMENT, THE SURFACE AND EDGES OF ANY PREVIOUSLY PLACED CONCRETE SCHEDULED TO RECEIVE NEW CONCRETE SHALL BE THOROUGHLY WASHED AND CLEANED. ALL SURFACES SHALL BE FINISHED TO ACCEPT CERAMIC TILE AND/OR PLASTER.
B. PIPING AND PIPE FITTINGS
1. WORK INCLUDED: PIPE, FITTINGS, CONNECTIONS, WALL PENETRATIONS, HANGERS AND SUPPORTS, EQUIPMENT BASES AND SUPPORTS, EXCAVATION AND BACKFILL.
2. USE THE PRESCRIBED PIPE TYPE IN THE FOLLOWING AREAS: ALL PLASTIC PIPE FLANGES SHALL BE SCHEDULED 80 PVC WITH NEOPRENE GASKETS WHERE REQUIRED.
a. ALL BURIED FILTER RETURN LINES, SKIMMER LINES, MAIN DRAIN LINES, FILL AND REFLECTION LINES PVC SCHEDULE 80, SOLVENT WELD.
b. ALL ABOVE GRADE PIPING INSIDE THE PUMP MECHANICAL ROOM, SCHEDULE 80 PVC, SOLVENT WELD.
c. ALL CHEMICAL PIPING PER THE MANUFACTURER.
d. HEATER CONNECTIONS SHALL BE CPVC PIPING ON THE HEATER INFLUENT AND EFFLUENT LINES FROM THE BYPASS TO THE HEATER.
3. HANGERS AND SUPPORTS:
a. ALL MECHANICAL ROOM PIPING MUST BE PROPERLY SUPPORTED PER THE PIPING MANUFACTURER'S ENGINEERING MANUAL.
b. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY SUPPORT PIPING AT ALL VALVES, PUMPS, EQUIPMENT, OVERHEAD AREAS, ETC.
c. USE OF THE PROPER HANGER FOR THE CONDITIONS IS ESSENTIAL. ALL PIPING MUST BE SUPPORTED Laterally AS WELL AS VERTICALLY HUNG.
d. ALL PIPING CONNECTIONS AND SUPPORT HARDWARE SHALL BE STAINLESS STEEL INSIDE SURGE TANKS.
4. POOL PIPE EXCAVATION AND BACKFILL:
a. EXCAVATION FOR ALL SWIMMING POOL SYSTEM RELATED PIPING.
b. COMPLY WITH SECTION 02225.
5. SPECIAL BACKFILL AND BEDDING MATERIALS:
a. EXISTING SUBSOIL MATERIALS SHALL NOT BE USED FOR PIPE BEDDING.
b. ALL PIPING SHALL BE BEDDED WITH A MINIMUM OF 6" CLEAN STONE MATERIAL AND A MINIMUM OF 2'-0" CLEAN STONE MATERIAL TOP COVER. THE BALANCE MAY BE EXISTING SITE MATERIAL, PROVIDED NO ORGANIC MATERIAL, CLAY OR TOPSOIL IS USED.

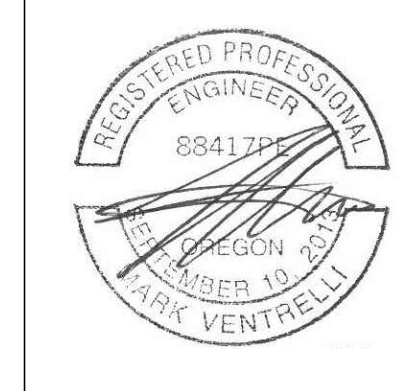
GENERAL NOTES

1. OREGON SWIMMING POOL CODE APPLICABLE
2. OREGON PLUMBING CODE APPLICABLE
3. ELECTRICAL CODE APPLICABLE - NEC
4. REFER TO POOL EQUIPMENT LIST ON SHEET AQ.1
5. REFER TO ELECTRICAL REQUIREMENTS ON SHEET AQ.1.1
6. REFER TO UTILITY REQUIREMENTS ON SHEET AQ.1
7. REFER TO PLUMBING NOTES ON SHEET AQ.1

SCOPE OF WORK BY OTHERS

1. POOL AREA BARRIERS
2. POOL AREA ENTRANCES AND HARDWARE
3. POOL DECK DESIGN, SLOPES AND DRAINAGE
4. POOL DECK HOSE BIBBS
5. POOL DRINKING FOUNTAIN
6. POOL LIGHT ELECTRICAL BRANCH CIRCUIT SUPPLY, CONDUITS AND JUNCTION BOX / TRANSFORMER LOCATION
7. POOL TIMER AND/OR EMERGENCY STOP
8. POOL BONDING
9. POOL AREA LIGHTING AND ELECTRICAL
10. POOL ENCLOSURE ACOUSTICAL TREATMENT (INDOOR ONLY)
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12. EMERGENCY PHONE
13. EQUIPMENT ROOM VENTILATION, LIGHTING AND PREVENTION OF UNAUTHORIZED ACCESS
14. EQUIPMENT ROOM FLOOR SLOPE, FINISH AND FLOOR DRAIN
15. EQUIPMENT ROOM HOSE BIBB
16. EQUIPMENT ROOM ELECTRICAL OUTLETS, POOL EQUIPMENT BRANCH CIRCUIT SUPPLY, STARTERS / DISCONNECTS, ETC.
17. EQUIPMENT ROOM GAS BONDING
18. POOL HEATER GAS SUPPLY, VENTILATION AND AIR SUPPLY SHOT-CRETE.
19. POOL MAKE-UP FRESH WATER SUPPLY
20. POOL EQUIPMENT BACKWASH SANITARY RECEPTACLE
21. BATHER PREPARATION FACILITIES OR REQUIREMENTS
22. POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
23. POOL SIGNAGE LOCATIONS

EMLER SWIM SCHOOL
TANASBOURNE



Date
06.23.2023

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Project No.
2301
Sheet No.
AQ1.2
Sheet Title
SPECIFICATION

1225 WATERHOUSE AVE BEAVERTON, OREGON 97223

SPECIFICATION

c. PIPING SHALL BE COVERED WITH 8" LIFTS OF GRANULAR FILL AND COMPACTED ACCORDING TO SPECIFICATIONS.

6. PIPING:

a. CUT ALL PIPE WITH MECHANICAL CUTTER WITHOUT DAMAGE TO PIPE.

b. PLACING AND LAYING: INSPECT PIPE FOR DEFECTS BEFORE INSTALLATION. CLEAN THE INTERIOR OF PIPE THOROUGHLY OF FOREIGN MATTER AND KEEP CLEAN DURING LAYING OPERATION. PIPE SHALL NOT BE LAID IN WATER OR WHEN TRENCH CONDITIONS ARE UNSTABLE. WATER SHALL BE KEPT OUT OF THE TRENCH UNTIL THE PIPE IS INSTALLED. WHEN WORK IS NOT IN PROGRESS, OPEN ENDS OF PIPE AND FITTINGS SHALL BE SECURELY CLOSED SO THAT NO TRENCH WATER, EARTH OR OTHER SUBSTANCE WILL ENTER THE PIPES OR FITTINGS.

c. THREADED JOINTS: AFTER CUTTING AND BEFORE THREADING, THE PIPE SHALL BE REAMED AND SHALL HAVE BURRS REMOVED. SCREW JOINTS SHALL BE MADE WITH GRAPHITE OR INERT FILLER AND OIL OR WITH AN APPROVED GRAPHITE COMPOUND APPLIED TO MAKE THREADS ONLY. THREADS SHALL BE FULL-CUT AND NOT MORE THAN 3 THREADS ON THE PIPE REMAINED EXPOSED. USE TEFLON II TAPE ON THE MAKE THREADS OF ALL THREADED PIPE JOINTS. CAULKING OF THREADED JOINTS TO STOP OR PREVENT LEAKS WILL NOT BE PERMITTED. UNIONS SHALL BE PROVIDED WHERE REQUIRED FOR DISCONNECTION OF EXPOSED PIPING. UNIONS WILL BE PERMITTED WHERE ACCESS IS PROVIDED.

d. SOLVENT WELDED JOINTS SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND THE FOLLOWING MINIMUM STANDARDS:

- ALL FITTINGS SHALL FIT EASILY ON THE PIPE BEFORE APPLYING CEMENT. THE OUTER SURFACE AREA OF PIPE AND INNER WALL OF FITTING SHALL BE DRY AND CLEAN. CLEANER IS TO BE APPLIED TO THE OUTER SURFACE OF THE PIPE AND TO THE INNER SURFACE OF THE FITTING. CEMENT IS TO BE APPLIED TO THE OUTER SURFACE OF THE PIPE, OR ON THE MALE SECTION OF FITTINGS ONLY. WHEN THE OUTSIDE SURFACE AREA OF THE PIPE IS SATISFACTORILY COVERED WITH CEMENT ALLOW TEN (10) SECONDS OPEN TIME TO LAPSE BEFORE INSERTING PIPE END INTO FITTINGS. AFTER FULL INSERTION OF PIPE INTO FITTING, TURN FITTING AROUND THE PIPE END APPROXIMATELY 1/8 TO 1/4 OF A TURN. WIPE OFF EXCESS CEMENT AT THE JOINT IN A NEAT COVE BEAD. FOLLOW MANUFACTURER'S INSTRUCTIONS ON SOLVENTS.
- ALL JOINTS SHALL REMAIN COMPLETELY UNDISTURBED FOR A MINIMUM OF 10 MINUTES FROM TIME OF JOINTING THE PIPE AND FITTING. IF NECESSARY TO APPLY PRESSURE TO A NEWLY MADE JOINT, LIMIT TO 10% OF RATED PIPE PRESSURE. DURING THE FIRST 24 HOURS AFTER THE JOINT HAS BEEN MADE.
- FULL WORKING PRESSURE SHALL NOT BE APPLIED UNTIL THE JOINTS HAVE SET FOR A PERIOD OF 24 HOURS.

e. MAKE PROVISIONS FOR EXPANSION AND CONTRACTION BY WAY OF SWING JOINTS OR SNAKING.

7. PROTECT PLASTIC PIPE FROM EXPOSURE TO AROMATIC HYDROCARBONS, HALOGENATED HYDRO-CARBONS, AND MOST OF THE ESTERS AND KETONES THAT ATTACK THE MATERIAL. PROTECT ALL PIPE FROM MECHANICAL DAMAGE AND LONG EXPOSURE TO SUNLIGHT DURING STORAGE.

8. NO INSTALLATION SHALL BE MADE THAT WILL PROVIDE A CROSS CONNECTION OR INTERCONNECTION BETWEEN DISTRIBUTION SUPPLY FOR DRINKING PURPOSES AND THE SWIMMING POOL THAT WILL PERMIT A BACKFLOW OF WATER INTO THE POTABLE WATER SUPPLY. PIPE OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS DURING INSTALLATION. EQUIPMENT AND POOL FITTINGS SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT, WATER AND CHEMICAL OR MECHANICAL INJURY AT THE COMPLETION OF WORK THE FITTINGS, MATERIALS AND EQUIPMENT SHALL BE THOROUGHLY CLEAN AND ADJUSTED FOR PROPER OPERATION.

9. PIPE IDENTIFICATION

a. PROVIDE IDENTIFICATION ON ALL PIPING LOCATED IN MECHANICAL EQUIPMENT, CHLORINE, ACID ROOMS, HEATER COURTS, ETC.

b. IDENTIFY THE POOL THAT THE LINE IS SERVING (WITH MULTIPLE POOLS ONLY), CONTENTS, DIRECTION OF FLOW.

c. MARK AT LEAST ONCE ON EACH LINE AND AT 20 FT. INTERVALS ON LONG PIPE RUNS. CONSULT HEALTH DEPARTMENT CODE FORM MINIMUM MARKING REQUIREMENTS.

d. COLOR CODE PER HEALTH DEPARTMENT REQUIREMENTS. IF CODE DOES NOT IDENTIFY COLOR CODING REQUIREMENTS CONSULT ARCHITECT/ENGINEER.

e. BRADY, B-946. CUSTOM LEGEND, SELF STICKING MARKERS AND ARROWS OR EQUAL.

D. EQUIPMENT BASES AND SUPPORTS

- PROVIDE FOR ALL RECIRCULATION PUMP AND MOTORS ANCHORAGE SYSTEM SHALL BE IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S SPECIFICATIONS. CONSULT WITH EQUIPMENT MANUFACTURER FOR LENGTH AND INSTALLATION OF ANCHOR BOLTS.

E. DECK CLEANING AND SAFETY EQUIPMENT

- INCORPORATE POOL STEPS, LADDERS, AND/OR RECESSED STAIR WELLS INTO THE POOL AS SHOWN ON THE CONTRACT DOCUMENTS.
- INSTALL ALL DECK, CLEANING, AND SAFETY EQUIPMENT IN COMPLIANCE WITH MANUFACTURERS RECOMMENDATIONS; AS REQUIRED BY CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, AND ANY OTHER AUTHORITIES WITH JURISDICTION, AND AS APPROVED BY ARCHITECT/ENGINEER.

F. TESTING - FIELD QUALITY CONTROL

- THIS SECTION REQUIRES THE FOLLOWING TESTS TO BE PERFORMED BY THE CONTRACTOR. REFER TO SECTION 01400 FOR FURTHER REQUIREMENTS.
- CONCRETE: TESTS TO MEASURE SLUMP, ENTRAINED AIR CONTENT AND COMPRESSIVE STRENGTH SHALL BE CONDUCTED BY INDEPENDENT TESTING LABORATORY OF THE CONTRACTOR.
 - COMPRESSIVE STRENGTH TESTS: PROVIDE MINIMUM OF 4 TEST CYLINDERS PER 50 CUBIC YARD OR FRACTION THEREOF FOR EACH CLASS OF CONCRETE POURED EACH DAY. COMPLY WITH ACI-318, SUB-SECTION 4.3 (SAMPLES SECURED - ASTM C172, CYLINDERS PREPARED AND CURED - ASTM C31, AND TESTED -ASTM C39). IDENTIFY SAMPLES, MOIST CURE AT 70 DEGREES F FOR FIVE DAYS AND SHIP SAMPLES TO THE LABORATORY
 - SLUMP AND AIR CONTROL TESTS: PERFORM THESE TESTS ON CONCRETE FROM THE SAME BATCH AS SAMPLED FOR STRENGTH TESTS AND WHENEVER THERE IS CONSISTENCY OF CONCRETE. SLUMP TEST SHALL BE MADE IN ACCORDANCE WITH ASTM C143. AIR CONTENT TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM C231. IF MEASURED SLUMP OR AIR CONTENT FALLS OUTSIDE SPECIFIED LIMITS, CHECK SHALL BE MADE IMMEDIATELY ON ANOTHER PORTION OF SAME SAMPLE. IN EVENT OF A SECOND FAILURE, CONCRETE SHALL NOT BE USED.
 - COMPLIANCE:
 - AVERAGE OF ANY THREE CONSECUTIVE STRENGTH TESTS FOR EACH CLASS OF CONCRETE, SHALL BE EQUAL TO OR GREATER THAN SPECIFIED STRENGTH, AND NO INDIVIDUAL TEST SHALL FALL MORE THAN 500 PSI BELOW SPECIFIED STRENGTH.
 - WHEN TESTS RESULTS ARE BELOW SPECIFIED REQUIREMENTS OR WHEN TESTS OF FIELD CURED CYLINDERS INDICATE DEFICIENCIES IN PROTECTION AND CURING, ARCHITECT/ENGINEER MAY REQUIRE ADDITIONAL TESTS IN ACCORDANCE WITH ACI-318, SUBSECTION 4.3.
- TESTING AND FLUSHING OF PIPING:
 - CONTRACTOR SHALL BE RESPONSIBLE FOR DISCOVERING LEAKS AND MAKING NECESSARY REPAIRS.
 - AFTER THE PIECE IS LAID, THE JOINTS COMPLETED, AND THE TRENCH PARTIALLY BACKFILLED, LEAVING JOINTS EXPOSED FOR EXAMINATION, TEST ALL POOL PIPING PER THE ILLINOIS PLUMBING CODE, SECTION 890.1930, TEST METHODS. PROVIDE TEST RESULTS TO THE ARCHITECT/ENGINEER BEFORE BACKFILLING PIPES OR COVERING PIPES WITH CONCRETE.
 - LEAKS SHALL BE REPAIRED AND TESTED REPEATEDLY UNTIL LEAKAGE OR INFILTRATION IS APPROVED.
- WATER TREATMENT:
 - OBTAIN A CHEMICAL ANALYSIS OF THE SOURCE/POOL MAKE-UP WATER SUPPLY AND SUBMIT TO ARCHITECT/ENGINEER. INCLUDE THE FOLLOWING:
 - TOTAL ALKALINITY / PPM
 - CALCIUM HARDNESS / PPM
 - CHLORINE / PPM
 - PH
 - IRON
 - COPPER
 - TREAT AND BALANCE POOL WATER PRIOR TO TURNOVER OF POOL TO THE OWNER (USING CHEMICALS PROVIDED BY THE OWNER).
 - POOL WATER: BALANCE TO ESTABLISH A TOTAL ALKALINITY LEVEL OF 60-125 PPM AND CALCIUM HARDNESS LEVEL OF 180-375 PPM (3 TIMES ALKALINITY LEVEL).
 - STABILIZE POOL WATER BY SHOCKING TO 20 PPM OF CHLORINE FOR INITIAL SANITATION.
 - CONSULT WITH ARCHITECT/ENGINEER FOR SPECIAL WATERS TO ESTABLISH BALANCED LEVELS.

G. INSTRUCTION OF OWNER'S PERSONNEL:

- THE POOL SUB-CONTRACTOR SHALL SUPPLY THE SERVICES OF AN EXPERIENCED SWIMMING POOL OPERATOR INSTRUCTOR FOR A PERIOD OF NOT LESS THAN FIVE DAYS (3 DAYS OPERATIONS, 1 DAY START-UP, 1 DAY WINTERIZING) AFTER THE POOL HAS BEEN FILLED AND INITIALLY PLACED IN OPERATION. DURING THIS PERIOD THE OWNER'S DESIGNATED REPRESENTATIVES SHALL BE THOROUGHLY INSTRUCTED IN ALL PHASES OF THE POOL'S OPERATION.
- PRIOR TO THIS INSTRUCTOR LEAVING THE JOB, HE SHALL OBTAIN WRITTEN CERTIFICATION FROM THE OWNER'S DESIGNATED REPRESENTATIVE ACKNOWLEDGING THAT THE INSTRUCTION PERIOD HAS BEEN COMPLETED AND ALL NECESSARY OPERATING INFORMATION PROVIDED.

SPECIFICATION

- POOL SUB-CONTRACTOR SHALL DELIVER ONE SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR THE SWIMMING POOL STRUCTURES, FINISHES AND ALL COMPONENT EQUIPMENT TO THE OWNER, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
 - BOUND TOGETHER IN A COMPLETE MANUAL.
 - ACCURATE PARTS LIST.
 - POOL START-UP INSTRUCTIONS.
 - NARRATIVE ON THE POOL OPERATION THROUGH ALL SEQUENCES.
 - ALL VALVES MUST BE PERMANENTLY TAGGED ALONG WITH VALVE LEGEND AND EXPLANATION.
 - TROUBLE SHOOTING INFORMATION.
 - ALL PIPING IN MECHANICAL ROOM TO BE LABELED WITH DESCRIPTION OF LINE AND ARROWS INDICATING DIRECTION OF FLOW.
- CLEAN UP AND PROTECTION:
 - AFTER WORK OF THIS SECTION HAS BEEN COMPLETE, CLEAN UP WORK AREAS AND REMOVE ALL EQUIPMENT EXCESS MATERIALS AND DEBRIS. PROTECT POOL FROM DAMAGE UNTIL TIME OF FINAL ACCEPTANCE. REMOVE AND REPLACE FINISHES THAT ARE CHIPPED, CRACKED, ABRADED, IMPROPERLY ADHERED, OR OTHERWISE DAMAGED.

SPECIFICATION

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GENERAL NOTES

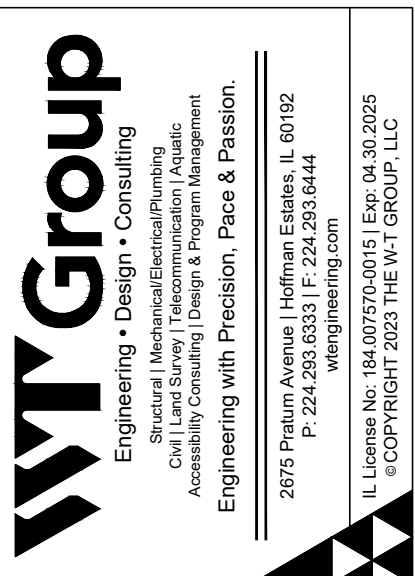
- OREGON SWIMMING POOL CODE APPLICABLE
- OREGON PLUMBING CODE APPLICABLE
- ELECTRICAL CODE APPLICABLE - NEC
- REFER TO POOL EQUIPMENT LIST ON SHEET AQ1.1
- REFER TO ELECTRICAL REQUIREMENTS ON SHEET AQ1.1
- REFER TO UTILITY REQUIREMENTS ON SHEET AQ1.1
- REFER TO PLUMBING NOTES ON SHEET AQ1.1

SCOPE OF WORK BY OTHERS

- POOL AREA BARRIERS
- POOL AREA ENTRANCES AND HARDWARE
- POOL DECK DESIGN, SLOPES AND DRAINAGE
- POOL DECK HOSE BIBBS
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- POOL LIGHT ELECTRICAL BRANCH CIRCUIT SUPPLY, CONDUITS AND JUNCTION BOX / TRANSFORMER LOCATION
- POOL TIMER AND/OR EMERGENCY STOP
- POOL BONDING
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- POOL EQUIPMENT BACKWASH SANITARY RECEPTACLE
- BATHER PREPARATION FACILITIES OR REQUIREMENTS
- POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
- POOL SIGNAGE LOCATIONS

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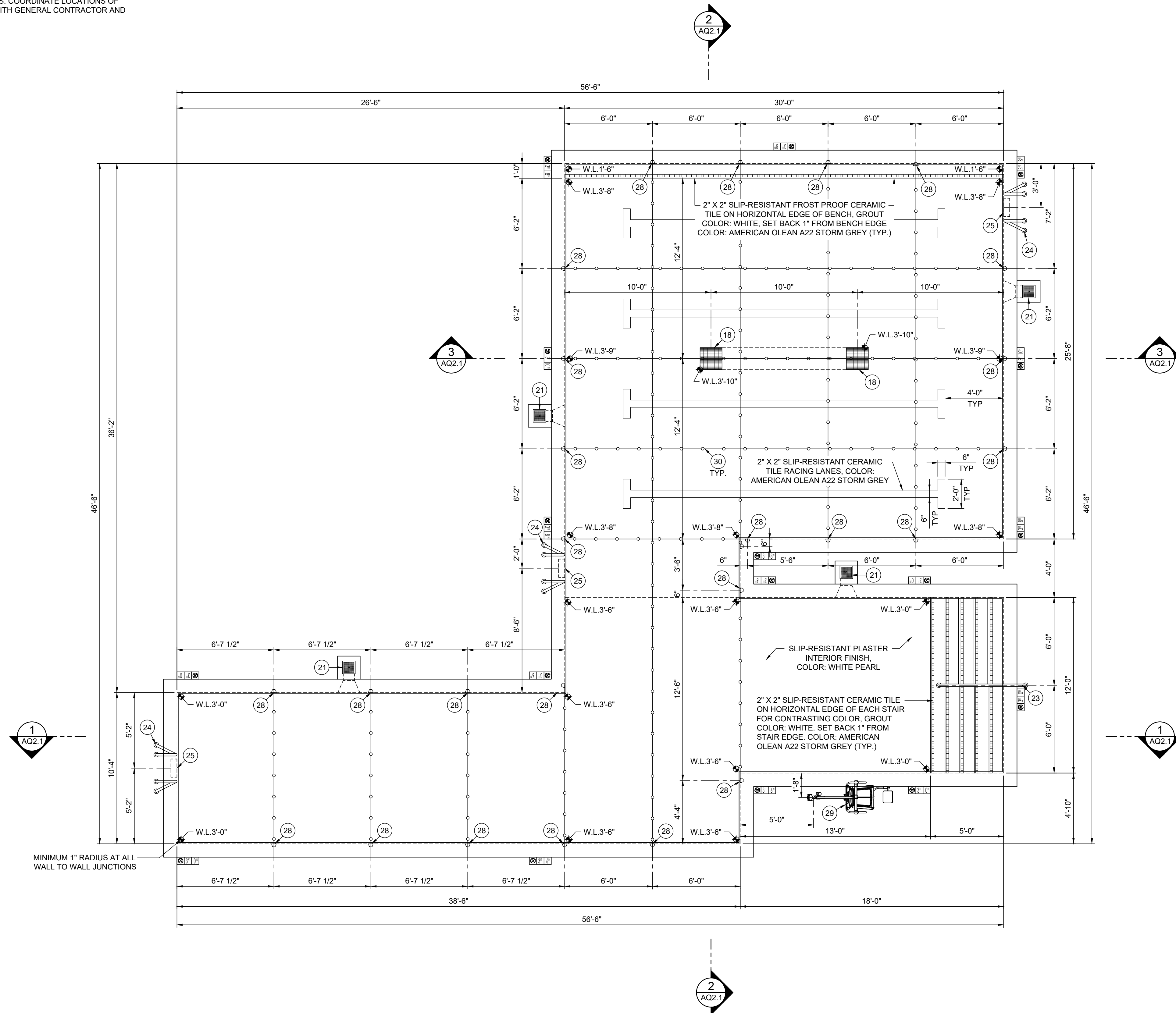
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Project No.
2301
Sheet No.
AQ1.3
Sheet Title
SPECIFICATION

NOTES:

- 1.) THE "W.L." NOTATIONS REFER TO THE WATER LEVEL AT EACH LOCATION SHOWN.
- 2.) POOL DEPTH MARKERS AND NO-DIVING SYMBOL REQUIREMENTS SEE DETAIL #9 ON AQ2.2
- 3.) POOL CONTRACTOR SHALL PROVIDE ALL NECESSARY POOL SIGNAGE AS REQUIRED BY STATE AND COUNTY HEALTH DEPARTMENTS. COORDINATE LOCATIONS OF SIGNAGE ON WALLS WITH GENERAL CONTRACTOR AND OWNER.



GENERAL NOTES

1. OREGON SWIMMING POOL CODE APPLICABLE
2. OREGON PLUMBING CODE APPLICABLE
3. ELECTRICAL CODE APPLICABLE - NEC
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6. REFER TO UTILITY REQUIREMENTS ON SHEET AQ1.1
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SCOPE OF WORK BY OTHERS

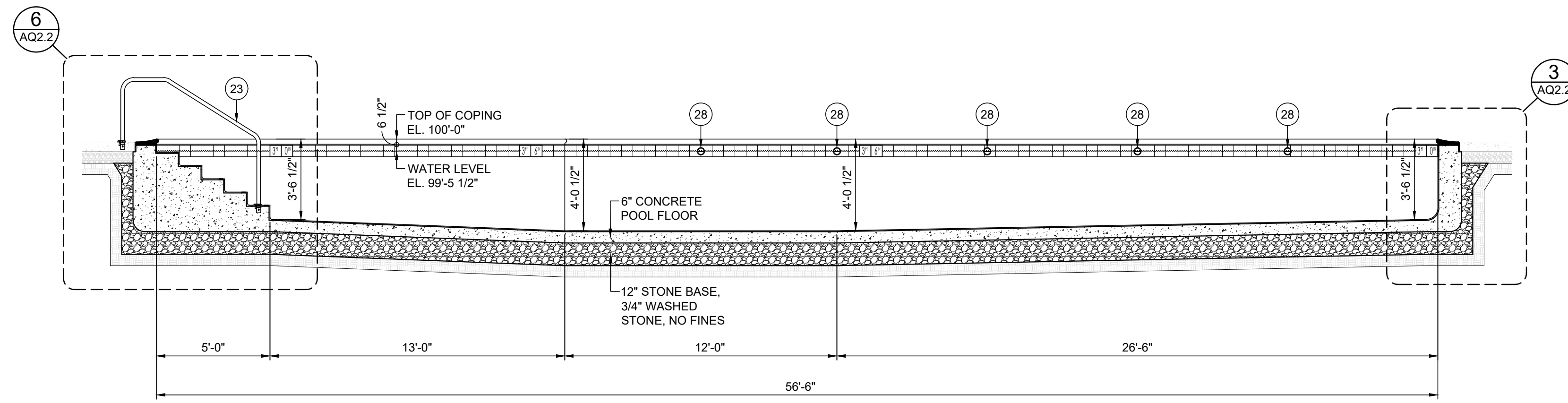
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22. BATHER PREPARATION FACILITIES OR REQUIREMENTS
23. POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
24. POOL SIGNAGE LOCATIONS

SWIMMING POOL DATA

| | |
|--------------------|-----------------|
| SURFACE AREA: | 1,510 SQ. FT. |
| PERIMETER: | 242'-2" |
| WATER DEPTHS: | 3'-0" TO 3'-10" |
| VOLUME: | 38,797 GAL. |
| DESIGN FLOW RATE: | 216 G.P.M. |
| TURNOVER RATE: | 180 MINUTES |
| MAXIMUM OCCUPANCY: | 62 BATHERS |

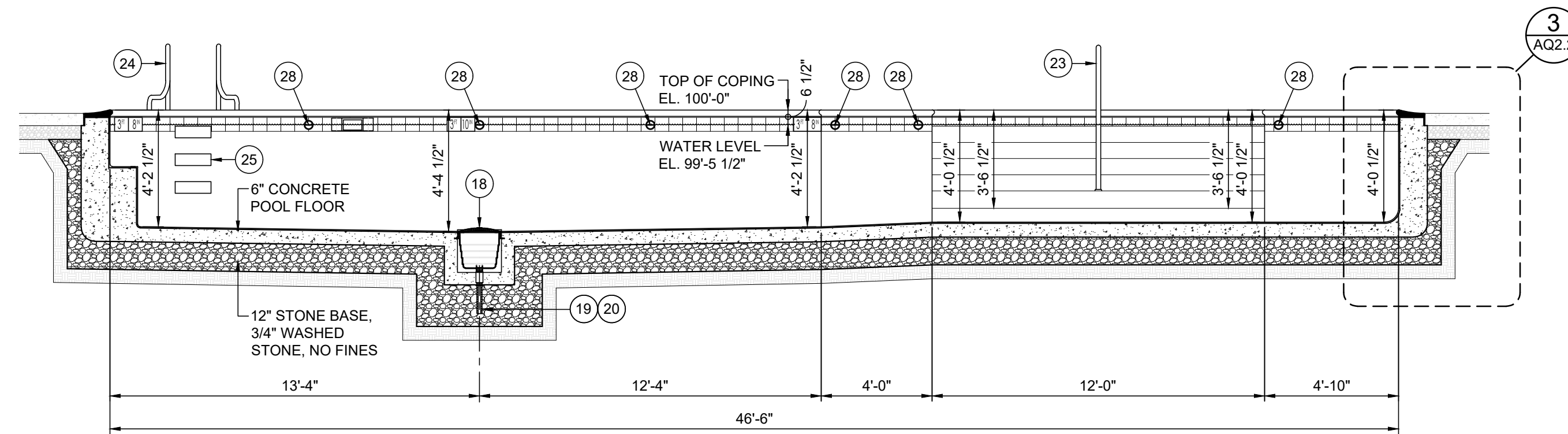
POOL EQUIPMENT TAGS

1. FILTER
2. FILTRATION PUMP
3. VARIABLE FREQUENCY DRIVE
4. VACUUM GAUGE
5. PRESSURE GAUGE
6. FLOW METER (SIGNET)
7. U.V. DISINFECTION SYSTEM
8. HEATER
9. THERMOMETER
10. AQUASTAT
11. CHEMICAL CONTROLLER
12. CHLORINE METERING PUMP
13. ACID METERING PUMP
14. CHLORINE STORAGE TANK
15. ACID STORAGE TANK
16. WATER LEVEL CONTROLLER
17. REFLECTION AND FILL PIPE FITTINGS
18. MAIN DRAIN SUCTION OUTLET
19. HYDROSTATIC RELIEF VALVE
20. HYDROSTATIC COLLECTION TUBE
21. SURFACE SKIMMER
22. WALL INLET
23. HAND RAIL
24. GRAB RAIL
25. RECESSED STEP
26. WEDGE ANCHOR
27. ESCUTCHEON PLATE
28. WALL ANCHOR
29. HANDICAP LIFT AND ANCHOR
30. RACING LANE MARKER



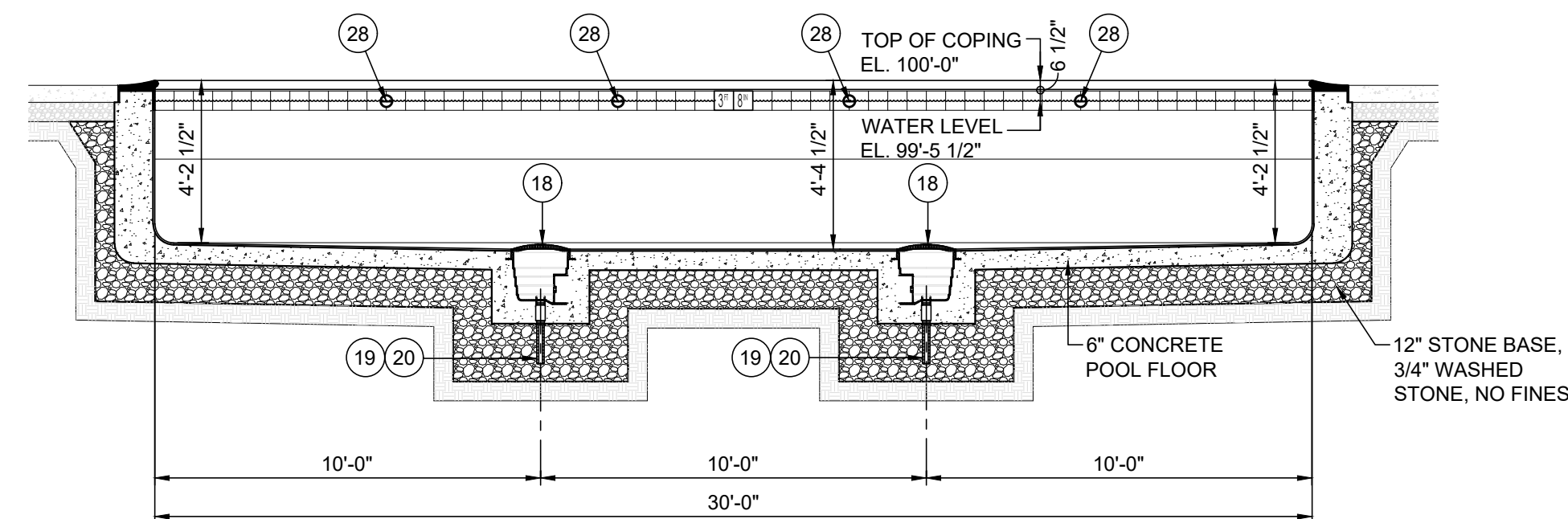
1 SWIMMING POOL LONGITUDINAL SECTION #1

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



2 SWIMMING POOL CROSS SECTION #1

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



3 SWIMMING POOL LONGITUDINAL SECTION #2

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

GENERAL NOTES

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SCOPE OF WORK BY OTHERS

1. POOL AREA BARRIERS
2. POOL AREA ENTRANCES AND HARDWARE
3. POOL DECK DESIGN, SLOPES AND DRAINAGE
5. POOL DECK HOSE BIBBS
6. POOL DRINKING FOUNTAIN
7. POOL LIGHT ELECTRICAL BRANCH CIRCUIT SUPPLY, CONDUITS AND JUNCTION BOX / TRANSFORMER LOCATION
8. POOL TIMER AND/OR EMERGENCY STOP
9. POOL BONDING
10. POOL AREA LIGHTING AND ELECTRICAL
11. POOL ENCLOSURE ACOUSTICAL TREATMENT (INDOOR ONLY)
12. POOL ENCLOSURE VENTILATION (INDOOR ONLY)
13. EMERGENCY PHONE
14. EQUIPMENT ROOM VENTILATION, LIGHTING AND PREVENTION OF UNAUTHORIZED ACCESS
15. EQUIPMENT ROOM FLOOR SLOPE, FINISH AND FLOOR DRAIN
16. EQUIPMENT ROOM HOSE BIBB
17. EQUIPMENT ROOM ELECTRICAL OUTLETS, POOL EQUIPMENT BRANCH CIRCUIT SUPPLY, STARTERS / DISCONNECTS, ETC.
18. EQUIPMENT ROOM BONDING
19. POOL HEATER GAS SUPPLY, VENTILATION AND AIR SUPPLY
20. POOL MAKE-UP FRESH WATER SUPPLY
21. POOL EQUIPMENT BACKWASH SANITARY RECEPTACLE
22. BATHER PREPARATION FACILITIES OR REQUIREMENTS
23. POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
24. POOL SIGNAGE LOCATIONS

SWIMMING POOL DATA

| | |
|--------------------|-----------------|
| SURFACE AREA: | 1,510 SQ. FT. |
| PERIMETER: | 242'-2" |
| WATER DEPTHS: | 3'-0" TO 3'-10" |
| VOLUME: | 38,797 GAL. |
| DESIGN FLOW RATE: | 216 G.P.M. |
| TURNOVER RATE: | 180 MINUTES |
| MAXIMUM OCCUPANCY: | 62 BATHERS |

POOL EQUIPMENT TAGS # --

1. FILTER
2. FILTRATION PUMP
3. VARIABLE FREQUENCY DRIVE
4. VACUUM GAUGE
5. PRESSURE GAUGE
6. FLOW METER (SIGNET)
7. U.V. DISINFECTION SYSTEM
8. HEATER
9. THERMOMETER
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12. CHLORINE METERING PUMP
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EMLER SWIM SCHOOL
TANASBOURNE



Date
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Polkinghorn Group Architects, Inc.
248 ADDIE ROY ROAD, SUITE B-301 AUSTIN TX 78746
VOICE 512.327.4404 E-MAIL: pgs@pgarchitects.com

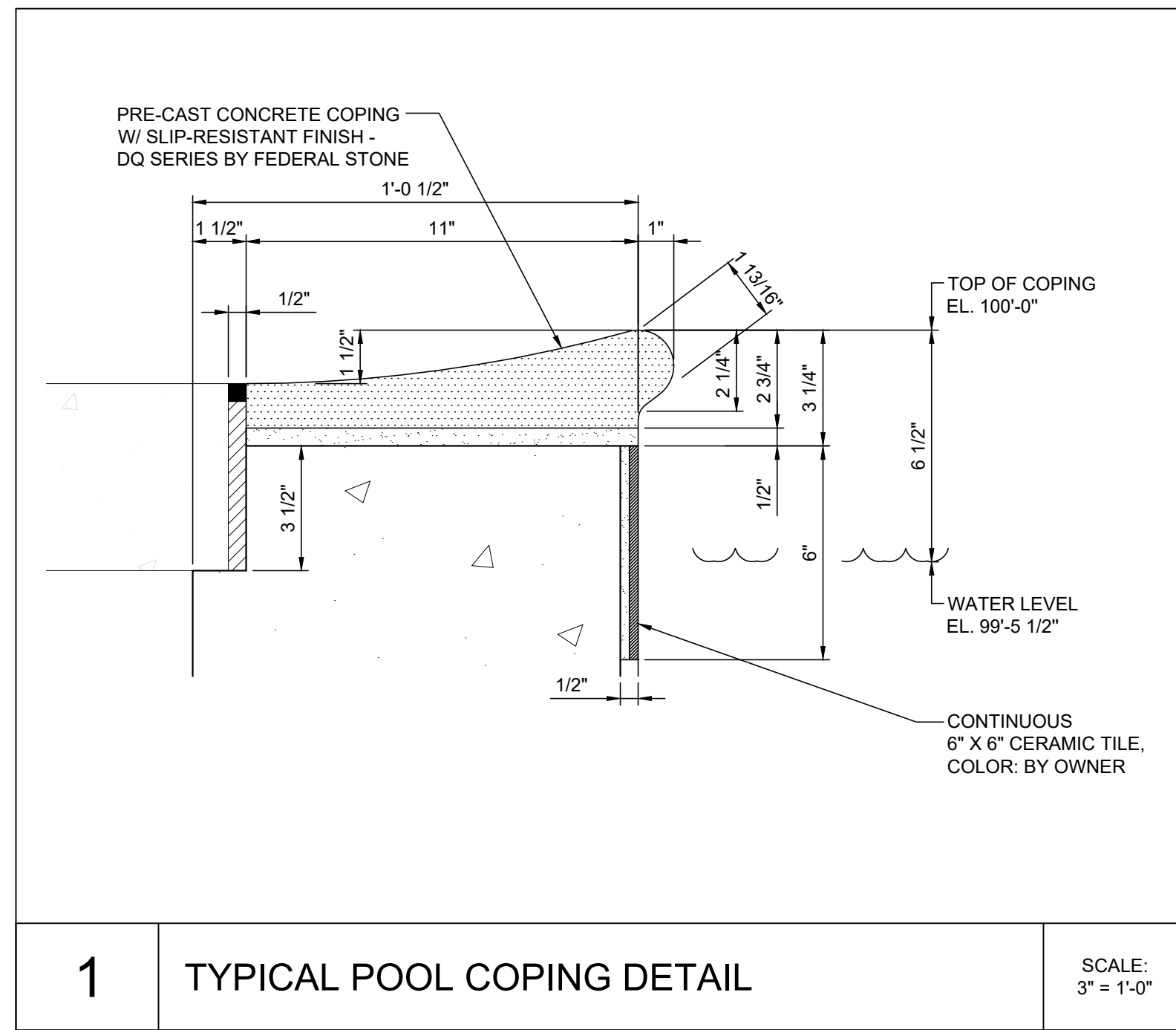
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2301

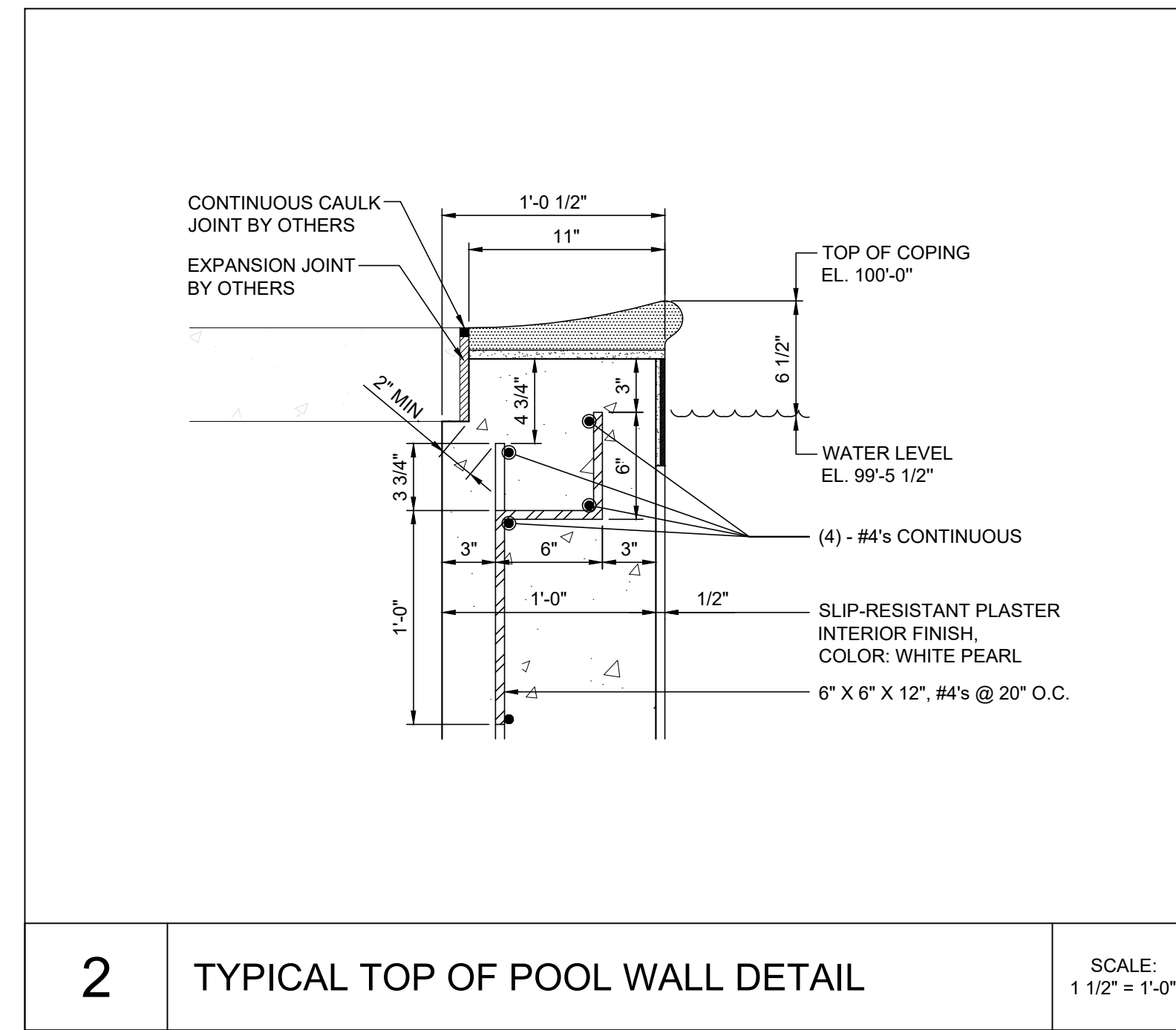
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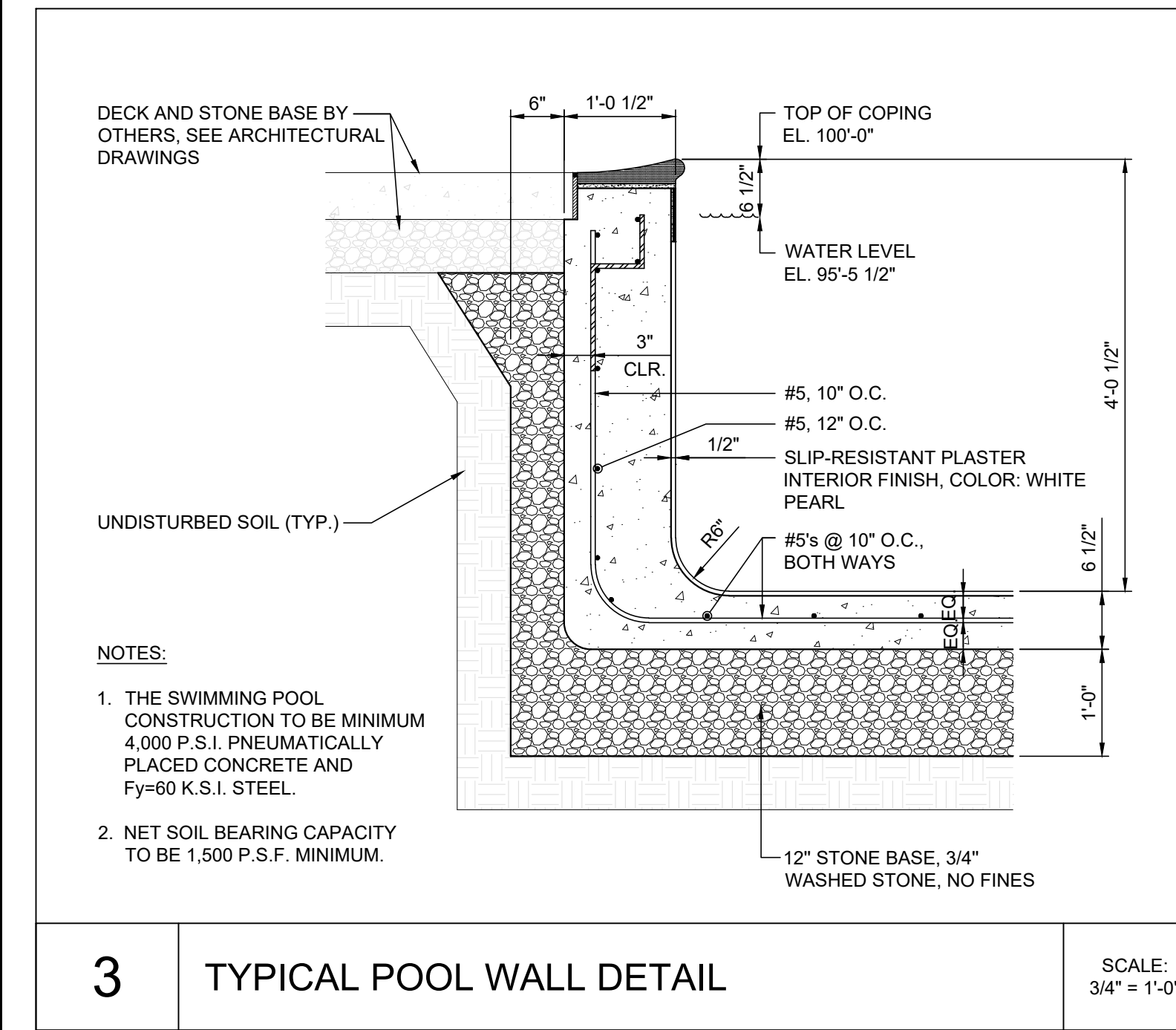
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SWIMMING POOL SECTIONS



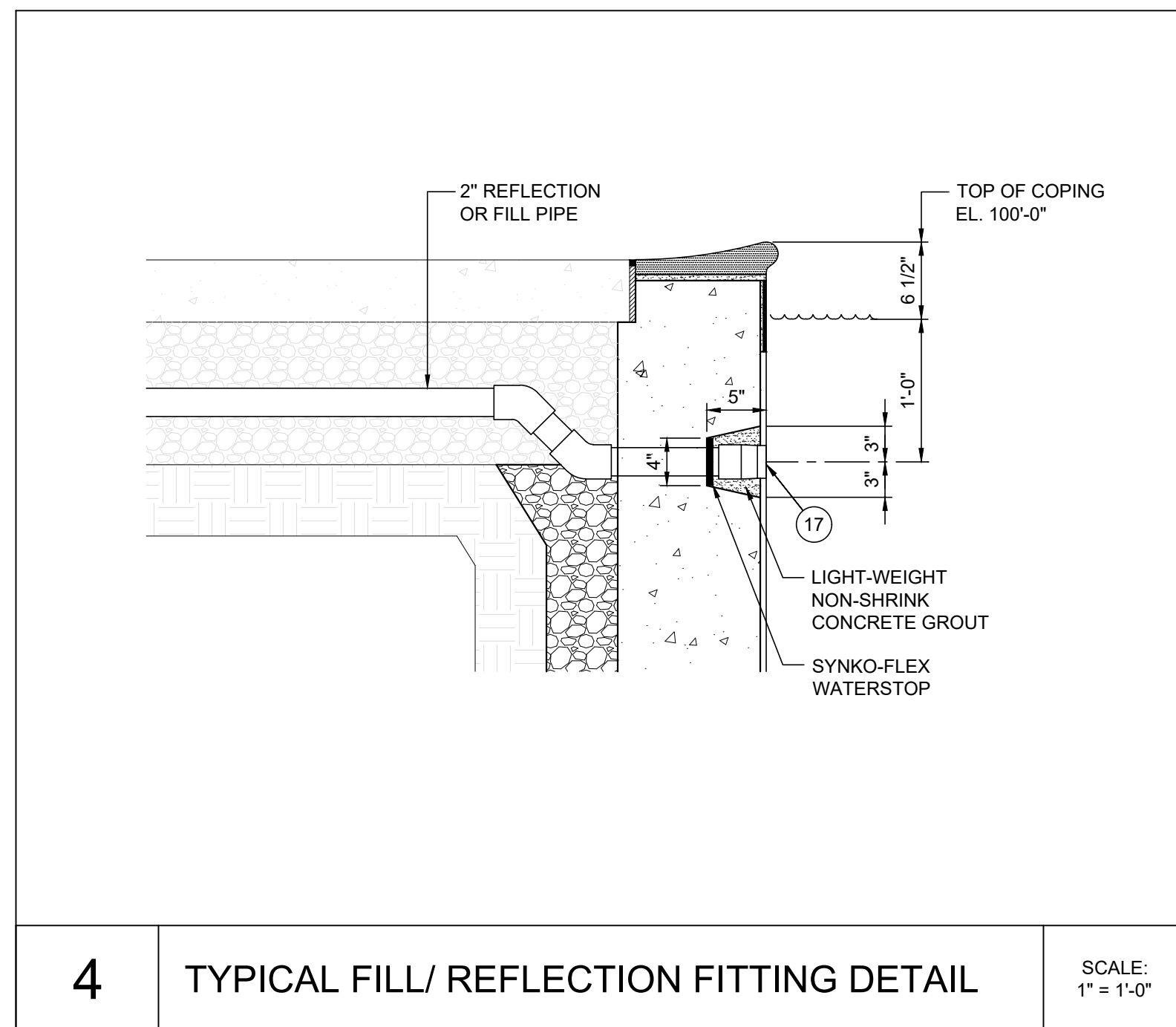
1 TYPICAL POOL COPING DETAIL SCALE: 3" = 1'-0"



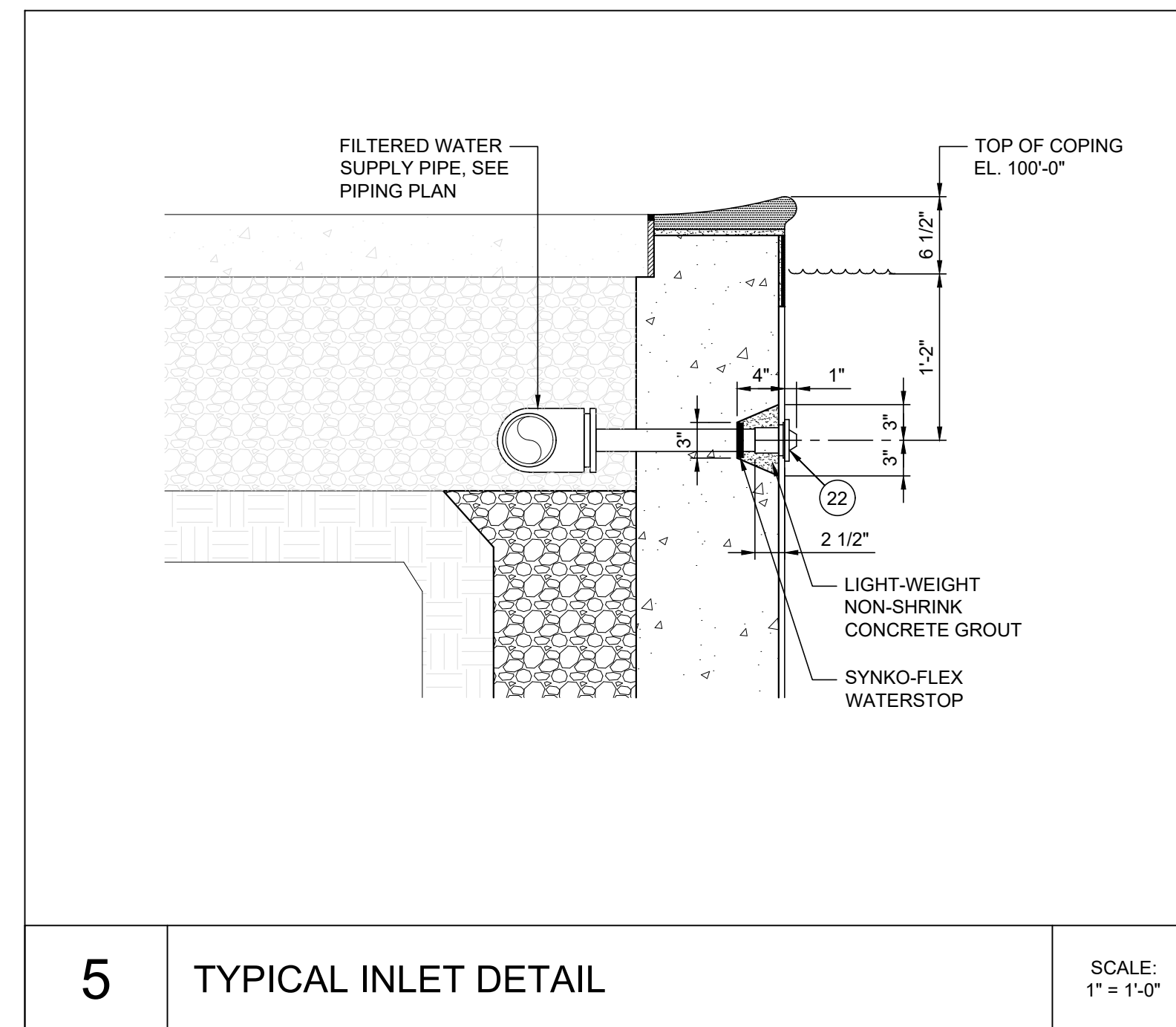
2 TYPICAL TOP OF POOL WALL DETAIL SCALE: 1 1/2" = 1'-0"



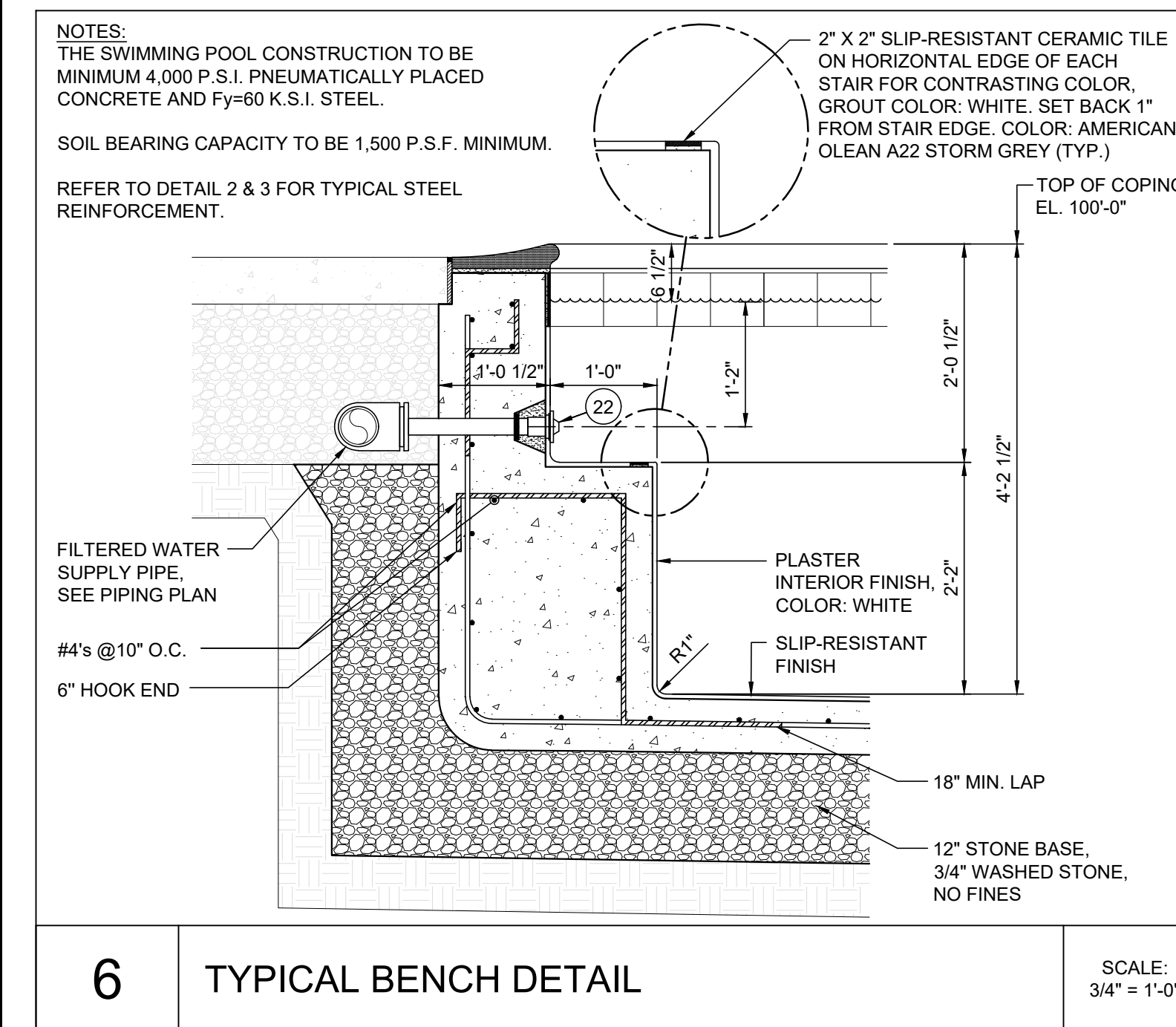
3 TYPICAL POOL WALL DETAIL SCALE: 3/4" = 1'-0"



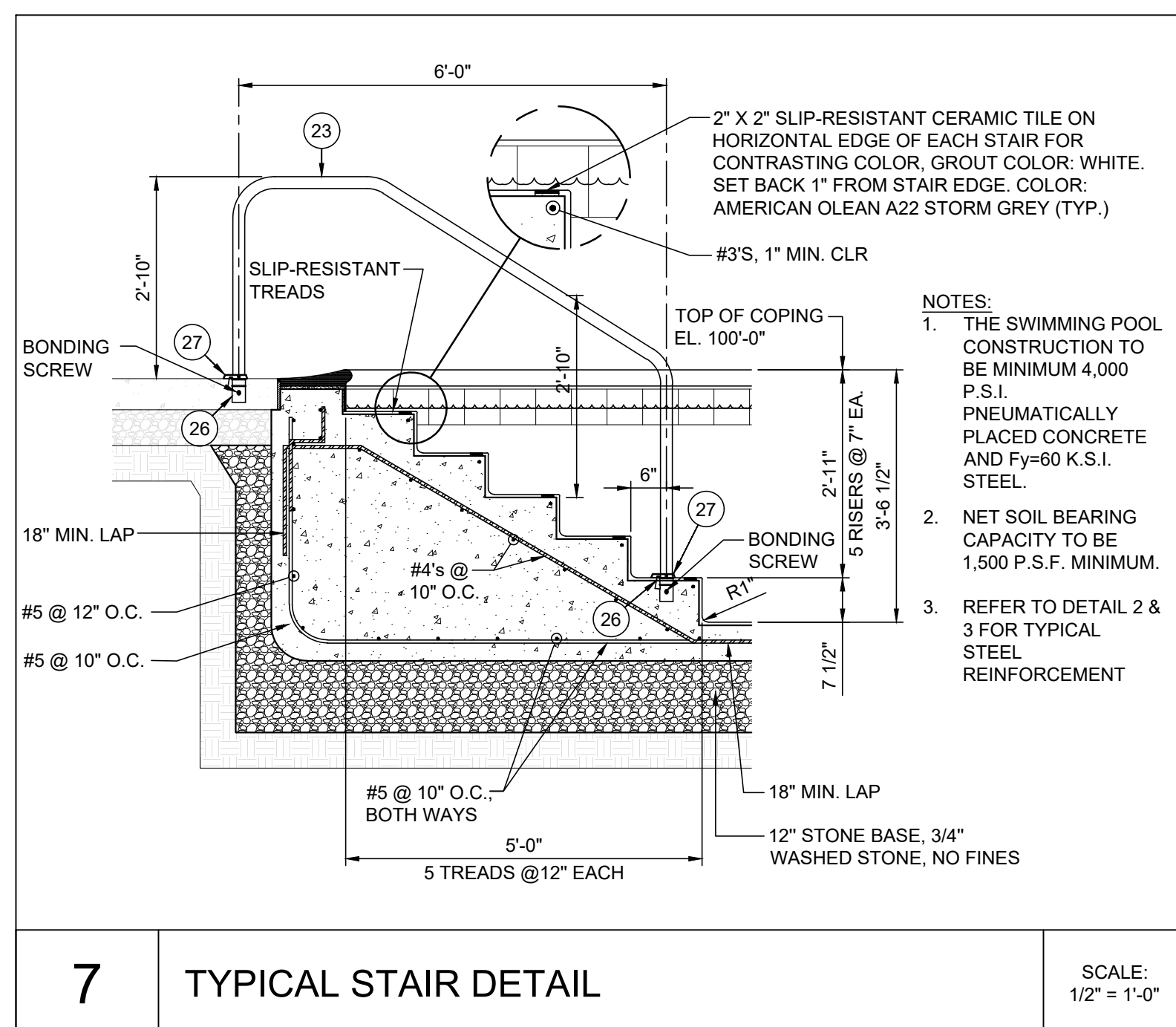
4 TYPICAL FILL/ REFLECTION FITTING DETAIL SCALE: 1" = 1'-0"



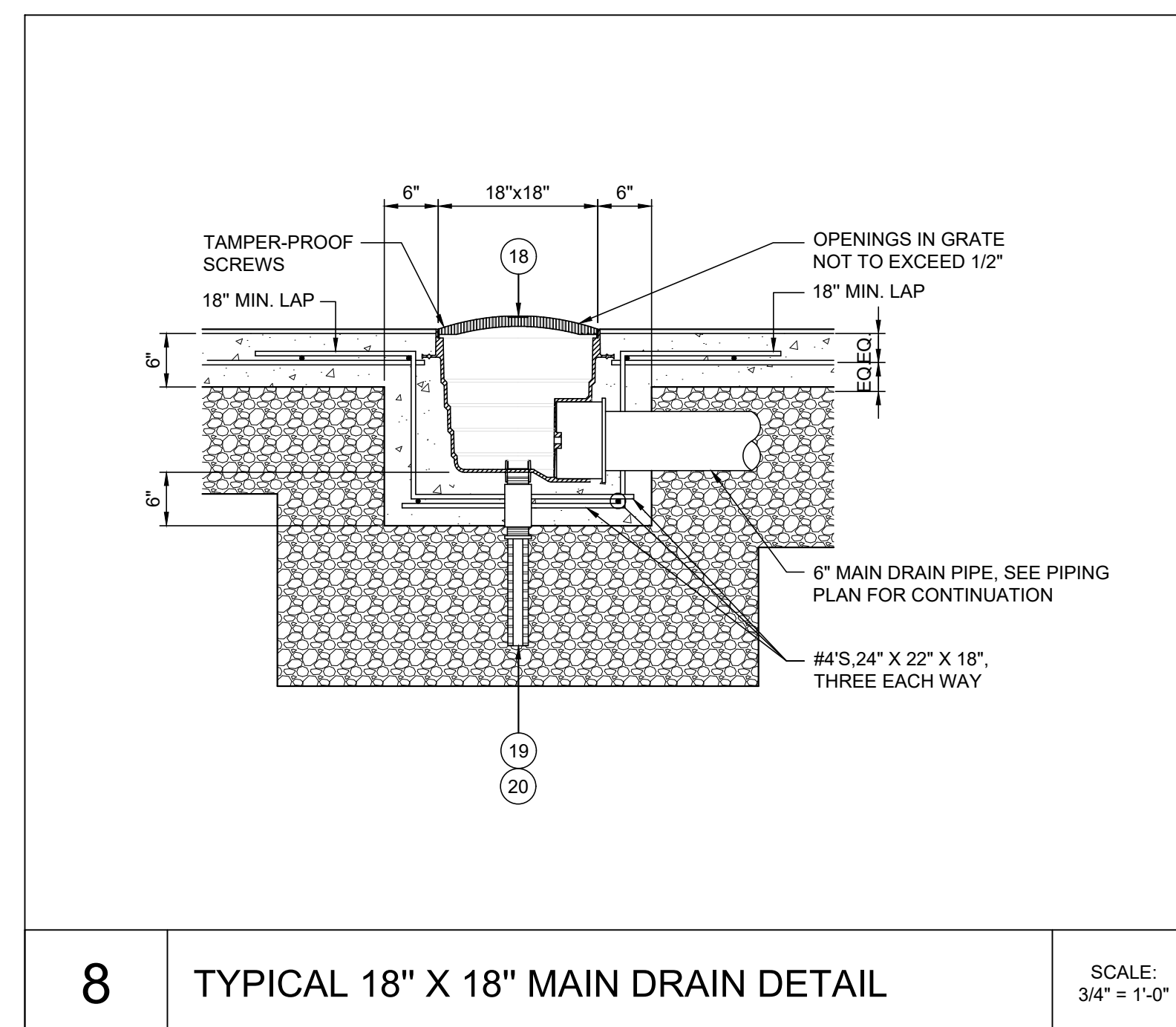
5 TYPICAL INLET DETAIL SCALE: 1" = 1'-0"



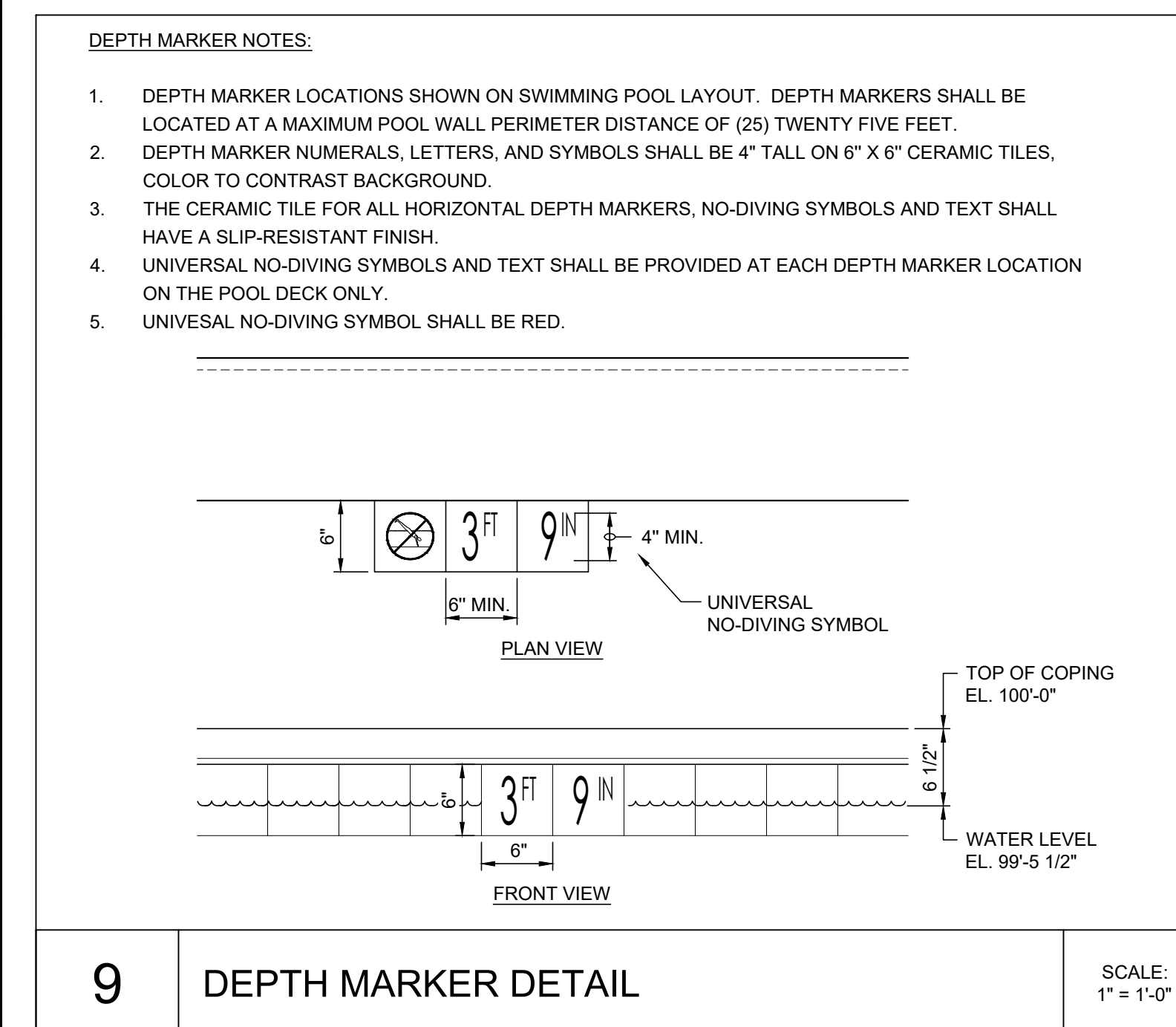
6 TYPICAL BENCH DETAIL SCALE: 3/4" = 1'-0"



7 TYPICAL STAIR DETAIL SCALE: 1/2" = 1'-0"



8 TYPICAL 18" X 18" MAIN DRAIN DETAIL SCALE: 3/4" = 1'-0"



9 DEPTH MARKER DETAIL SCALE: 1" = 1'-0"

GENERAL NOTES

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- OREGON PLUMBING CODE APPLICABLE
- ELECTRICAL CODE APPLICABLE - NEC
- REFER TO POOL EQUIPMENT LIST ON SHEET AQ1.1
- REFER TO ELECTRICAL REQUIREMENTS ON SHEET AQ1.1
- REFER TO UTILITY REQUIREMENTS ON SHEET AQ1.1
- REFER TO PLUMBING NOTES ON SHEET AQ1.1

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SWIMMING POOL DATA

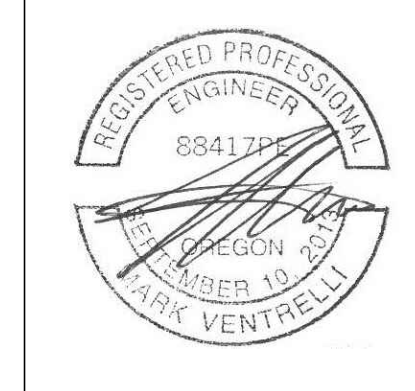
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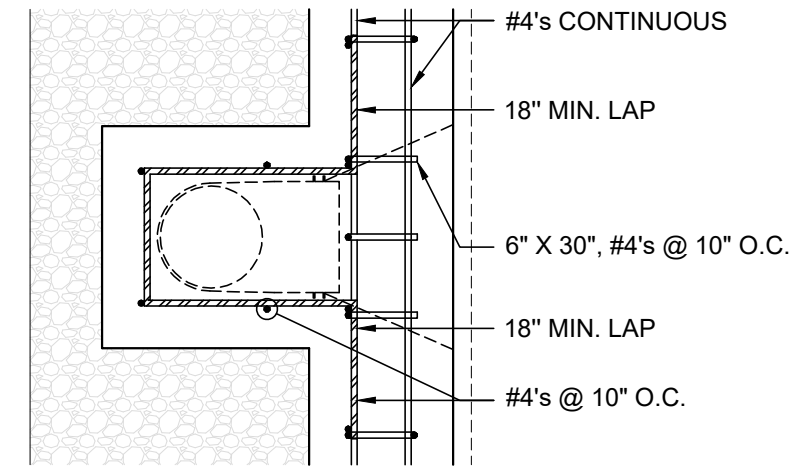
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TANASBOURNE

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Architectural / Civil / Environmental/Program Management
Accessibility Consulting / Design / Program Management
Engineering with Precision, Pace & Passion.
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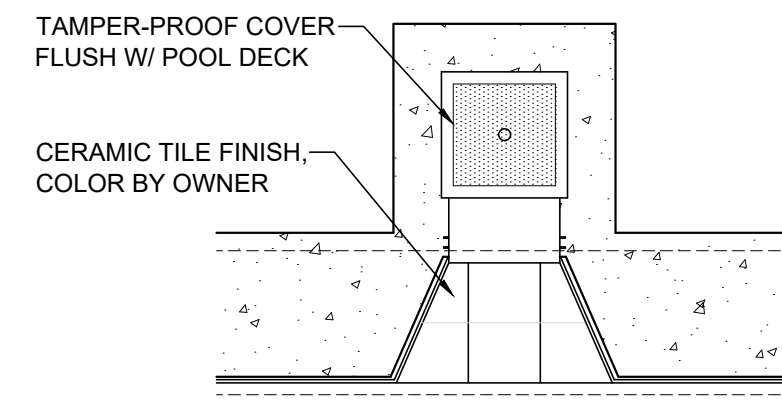


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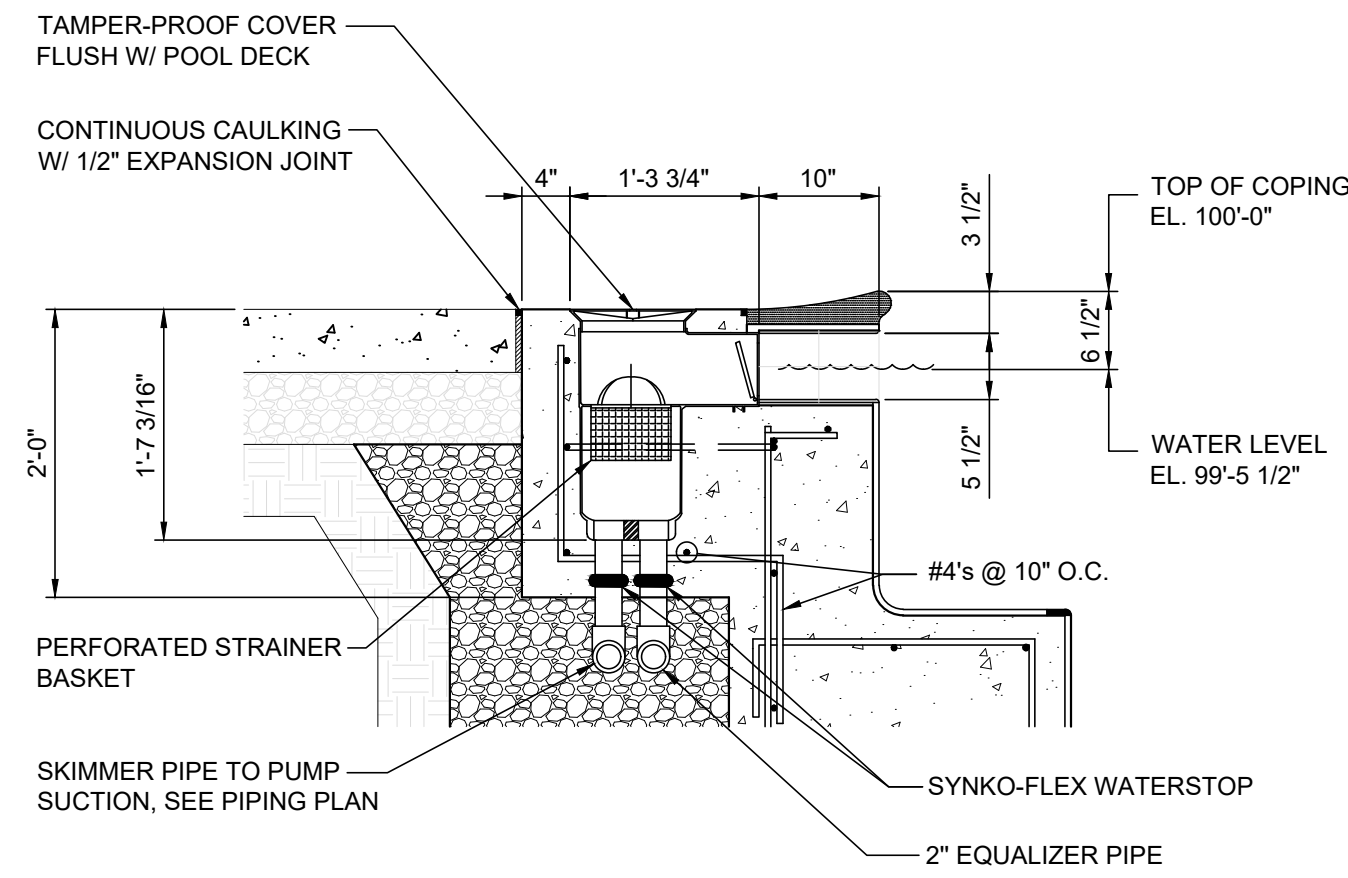
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248 ADDIE ROY ROAD, SUITE B-301 AUSTIN TX 78746
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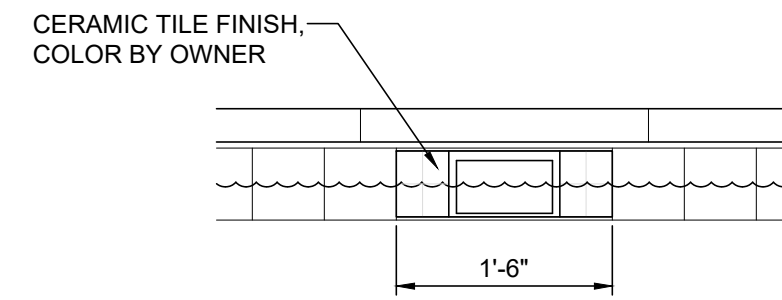
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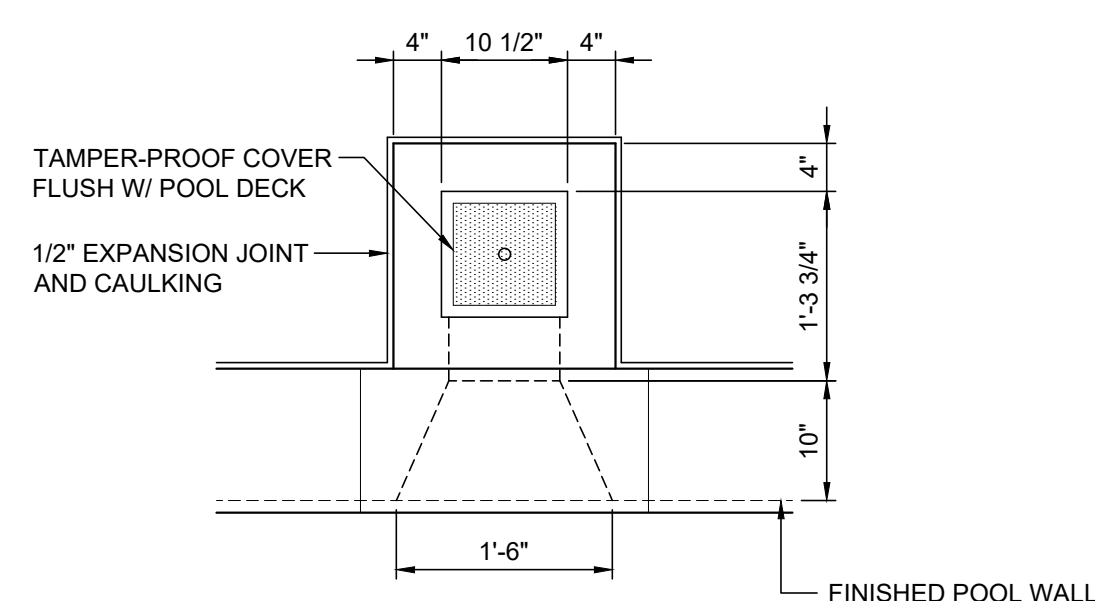
PLAN VIEW W/O COPING



SECTION



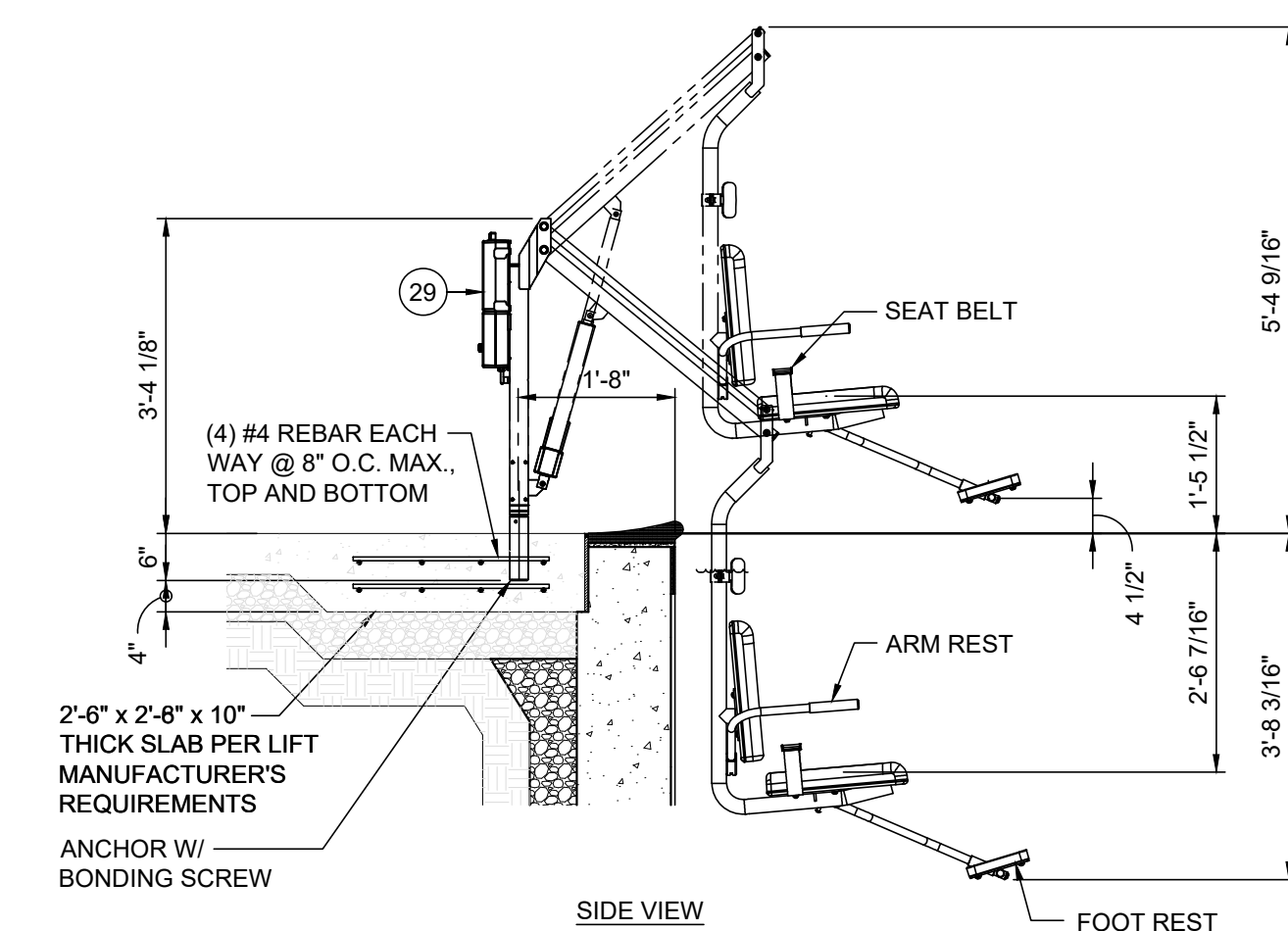
FRONT VIEW



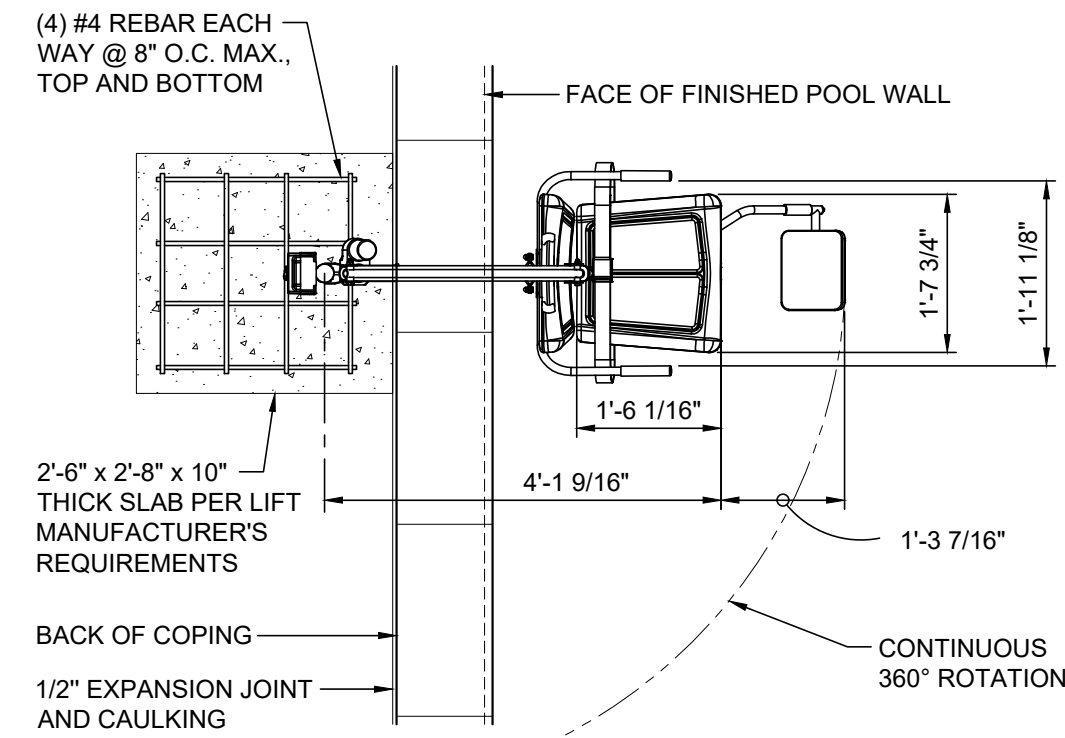
PLAN VIEW

1 TYPICAL SKIMMER DETAIL

SCALE: 3/4" = 1'-0"



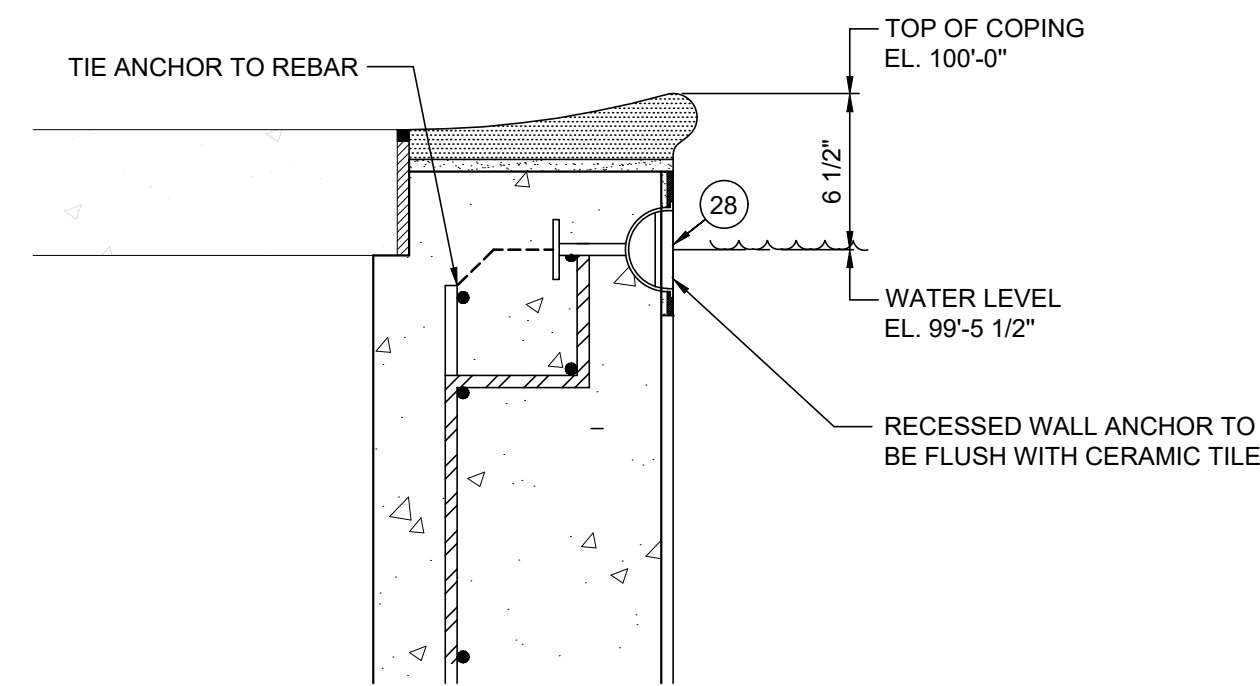
SIDE VIEW



PLAN VIEW

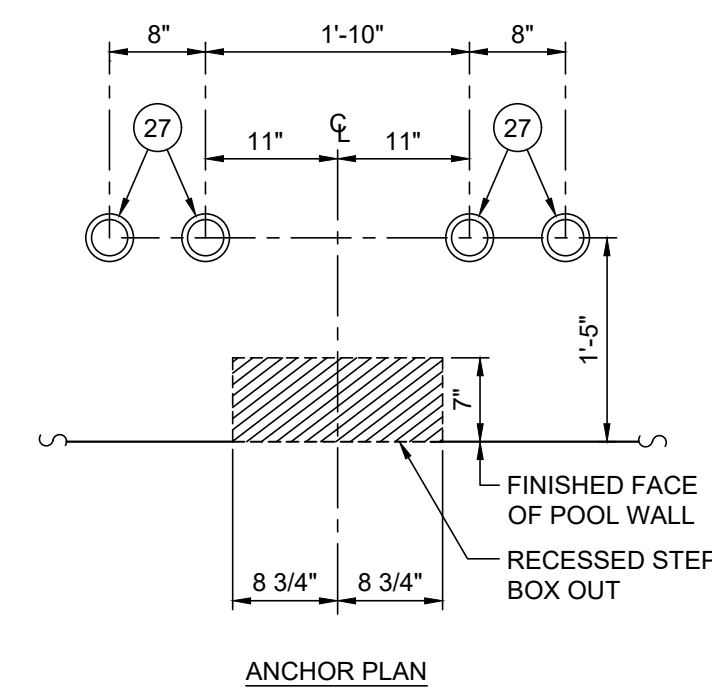
2 HANDICAP LIFT DETAIL

SCALE: 1/2" = 1'-0"

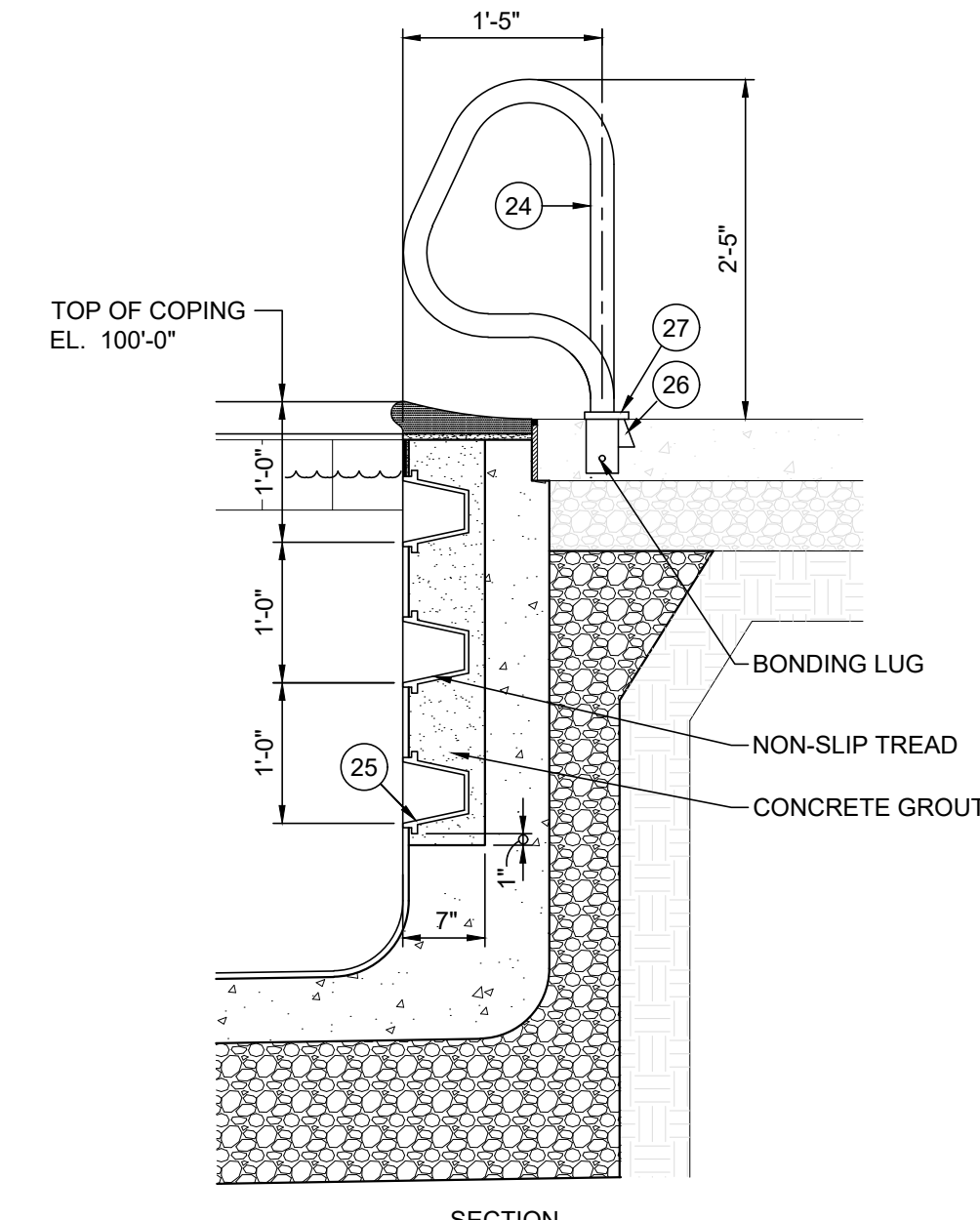


3 TYPICAL WALL ANCHOR DETAIL

SCALE: 1 1/2" = 1'-0"



ANCHOR PLAN



SECTION

4 TYPICAL GRAB RAIL AND RECESSED STEPS DETAIL

SCALE: 3/4" = 1'-0"

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2. OREGON PLUMBING CODE APPLICABLE
3. ELECTRICAL CODE APPLICABLE - NEC
4. REFER TO POOL EQUIPMENT LIST ON SHEET AQ1.1
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24. POOL SIGNAGE LOCATIONS

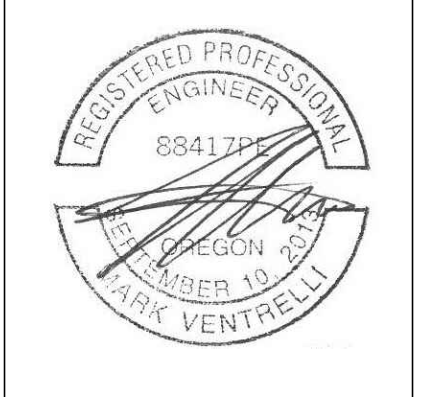
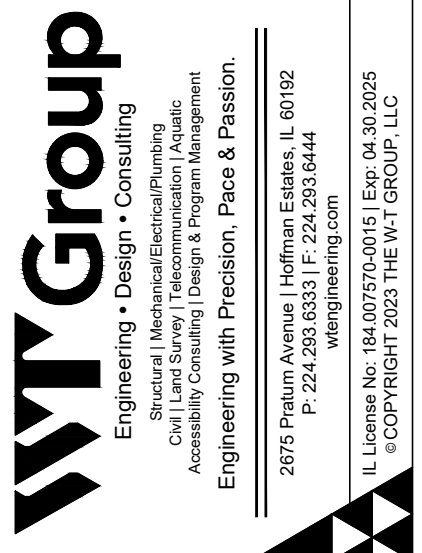
SWIMMING POOL DATA

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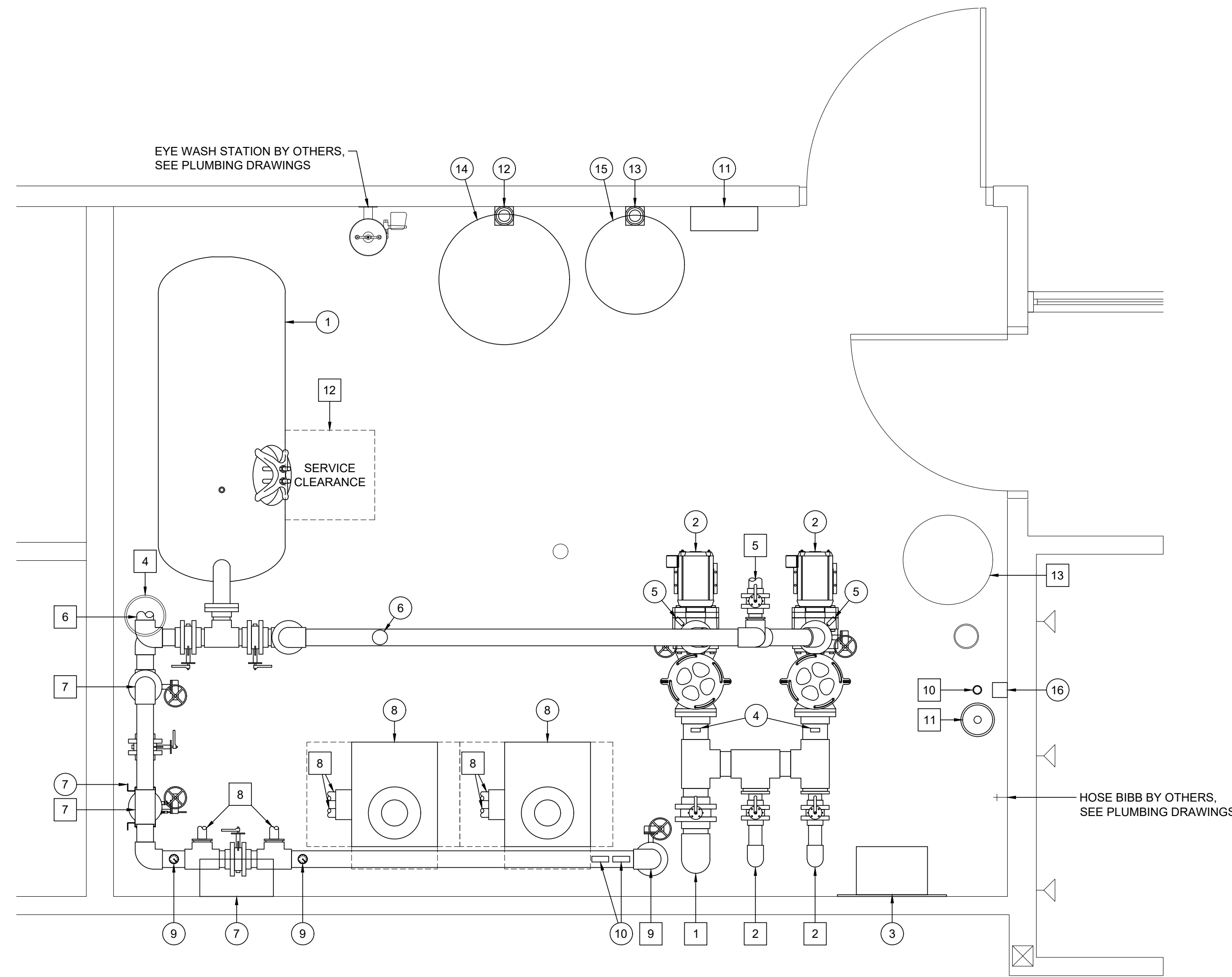
Project No.

2301

Sheet No.

AQ2.3

Sheet Title
SWIMMING POOL DETAILS

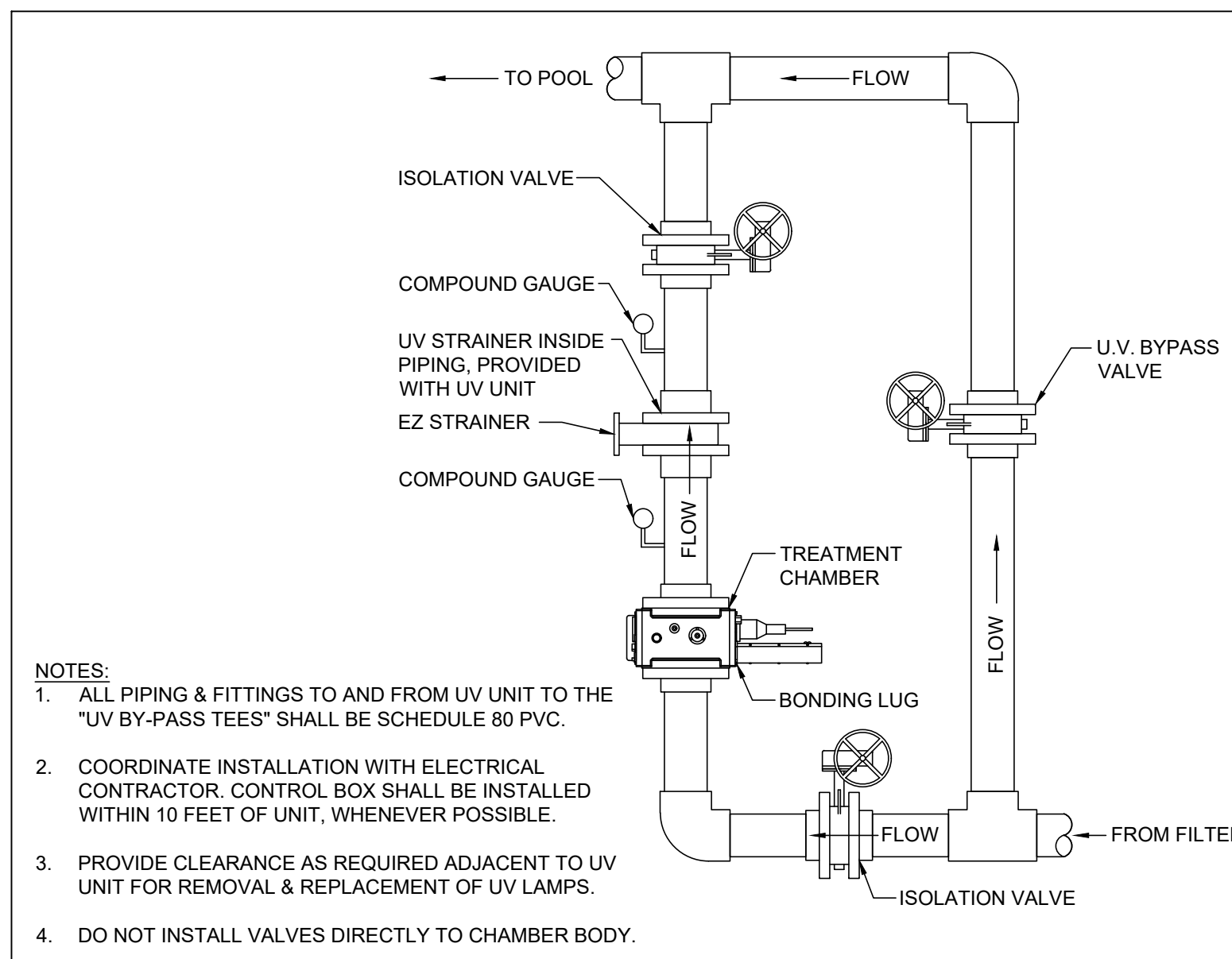


1 FILTER EQUIPMENT LAYOUT

SCALE: 1/2" = 1'-0"

KEY NOTES # --

1. 6" MAIN DRAIN PIPE
2. 3" SKIMMER PIPE
3. 6" FILTRATION PUMP DISCHARGE PIPE, BOTTOM OF PIPE TO BE LOCATED ± 6'-0" ABOVE FINISHED FLOOR
4. BACKWASH STAND PIPE, SEE PLUMBING DRAWINGS
5. 3" POOL DRAIN BYPASS PIPE TO WASTE W/ 6" FREE FALL AT POINT OF DISPOSAL
6. 4" FILTER BACKWASH PIPE W/ 6" FREE FALL AT POINT OF DISPOSAL. PROVIDE SIGHT GLASS
7. 4" U.V. INFLUENT AND EFFLUENT PIPES
8. 2" HEATER INFLUENT AND EFFLUENT PIPES
9. 4" FILTERED WATER SUPPLY PIPE, BOTTOM OF PIPE TO BE LOCATED ± 8'-0" ABOVE FINISHED FLOOR
10. 2" REFLECTION PIPE FOR WATER LEVEL CONTROLLER PROBES. EXTEND TO SWIMMING POOL WALL
11. 8" FILL PIPE, REDUCE TO 2" BELOW GRADE AND EXTEND TO SWIMMING POOL WALL
12. CLEARANCE FOR FILTER HATCH REMOVAL
13. EJECTOR PIT FOR DECK DRAINS, SEE PLUMBING DRAWINGS
14. 1/2" SAMPLE STREAM INFLUENT LINE TO CHEMICAL CONTROLLER FLOW CELL
15. 1/2" SAMPLE STREAM EFFLUENT LINE FROM CHEMICAL CONTROLLER FLOW CELL
16. 1/2" CHLORINE INJECTION PIPE
17. 1/2" ACID INJECTION PIPE



- NOTES:
1. ALL PIPING & FITTINGS TO AND FROM UV UNIT TO THE "UV BY-PASS TEES" SHALL BE SCHEDULE 80 PVC.
 2. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR. CONTROL BOX SHALL BE INSTALLED WITHIN 10 FEET OF UNIT, WHENEVER POSSIBLE.
 3. PROVIDE CLEARANCE AS REQUIRED ADJACENT TO UV UNIT FOR REMOVAL & REPLACEMENT OF UV LAMPS.
 4. DO NOT INSTALL VALVES DIRECTLY TO CHAMBER BODY.

3 TYPICAL U.V. INSTALLATION DETAIL

NOT TO SCALE

GENERAL NOTES

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2. OREGON PLUMBING CODE APPLICABLE
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SCOPE OF WORK BY OTHERS

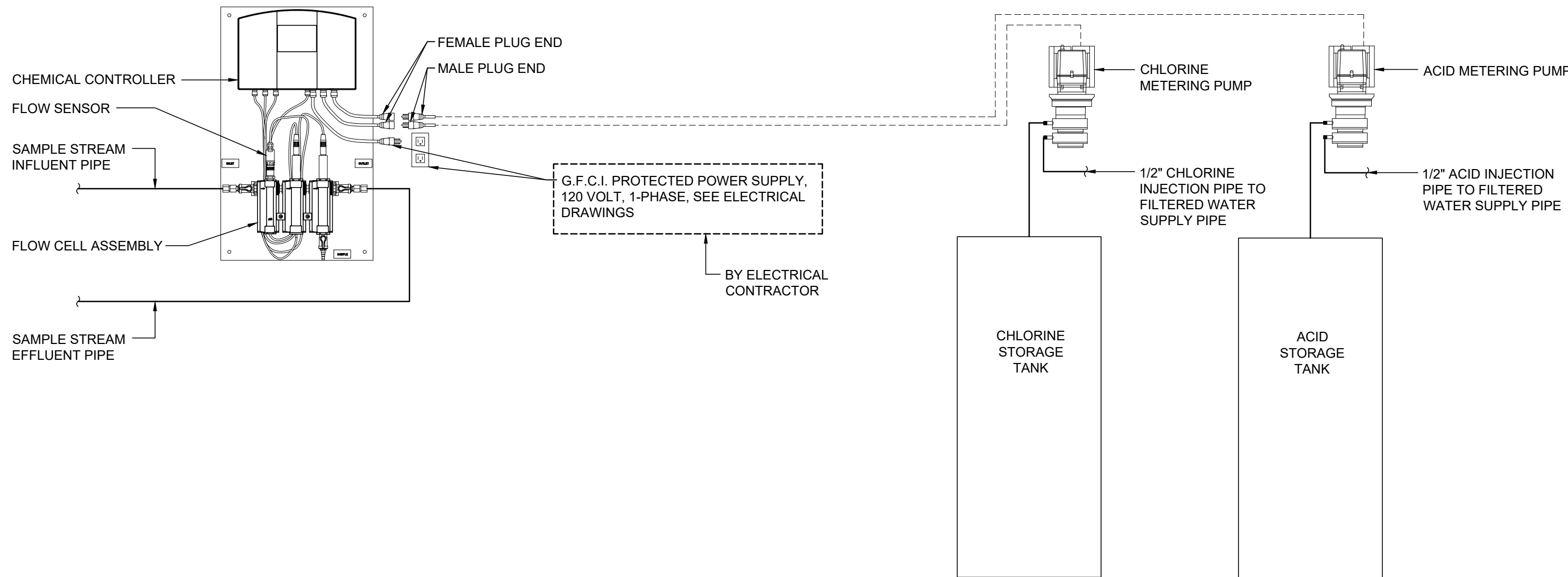
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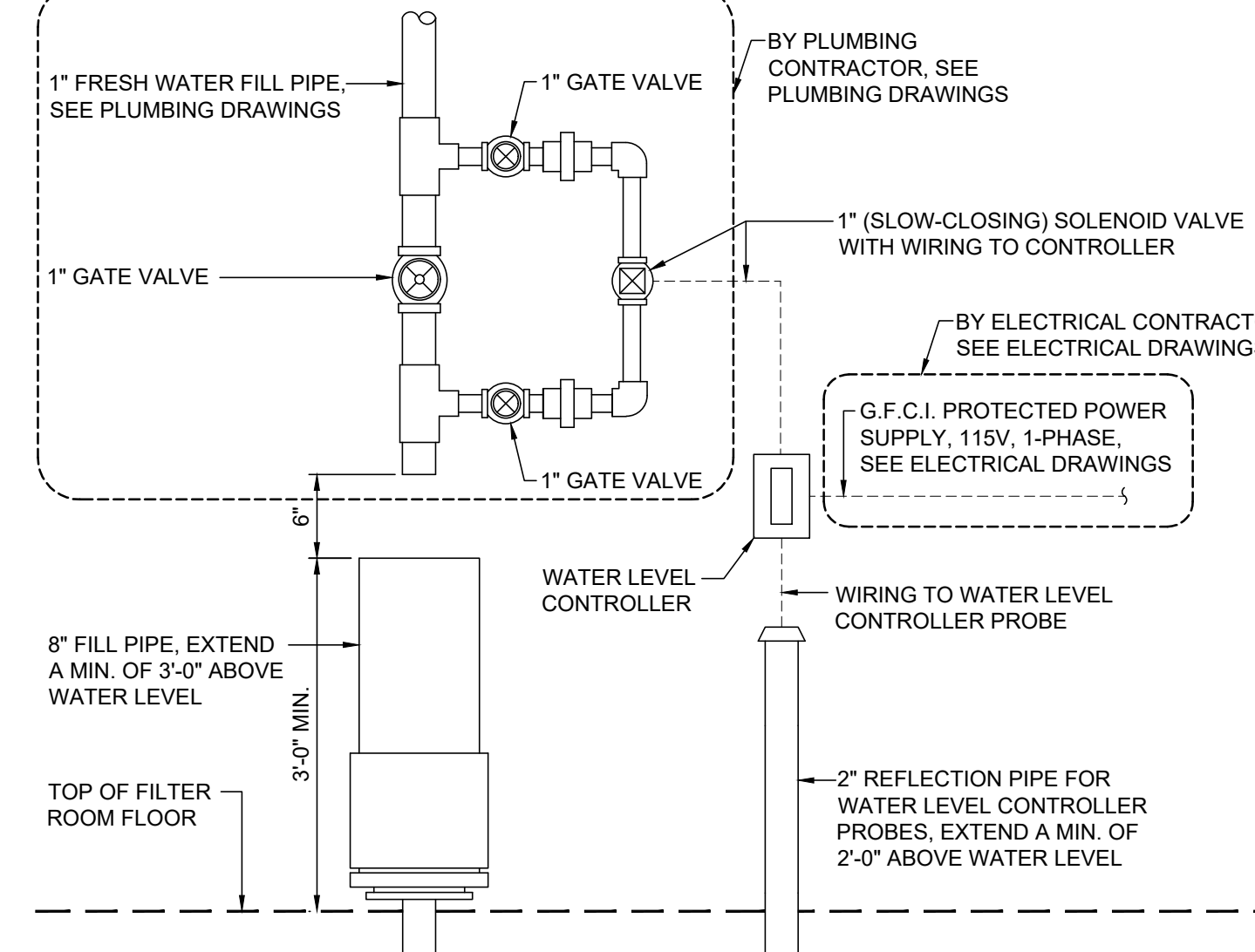
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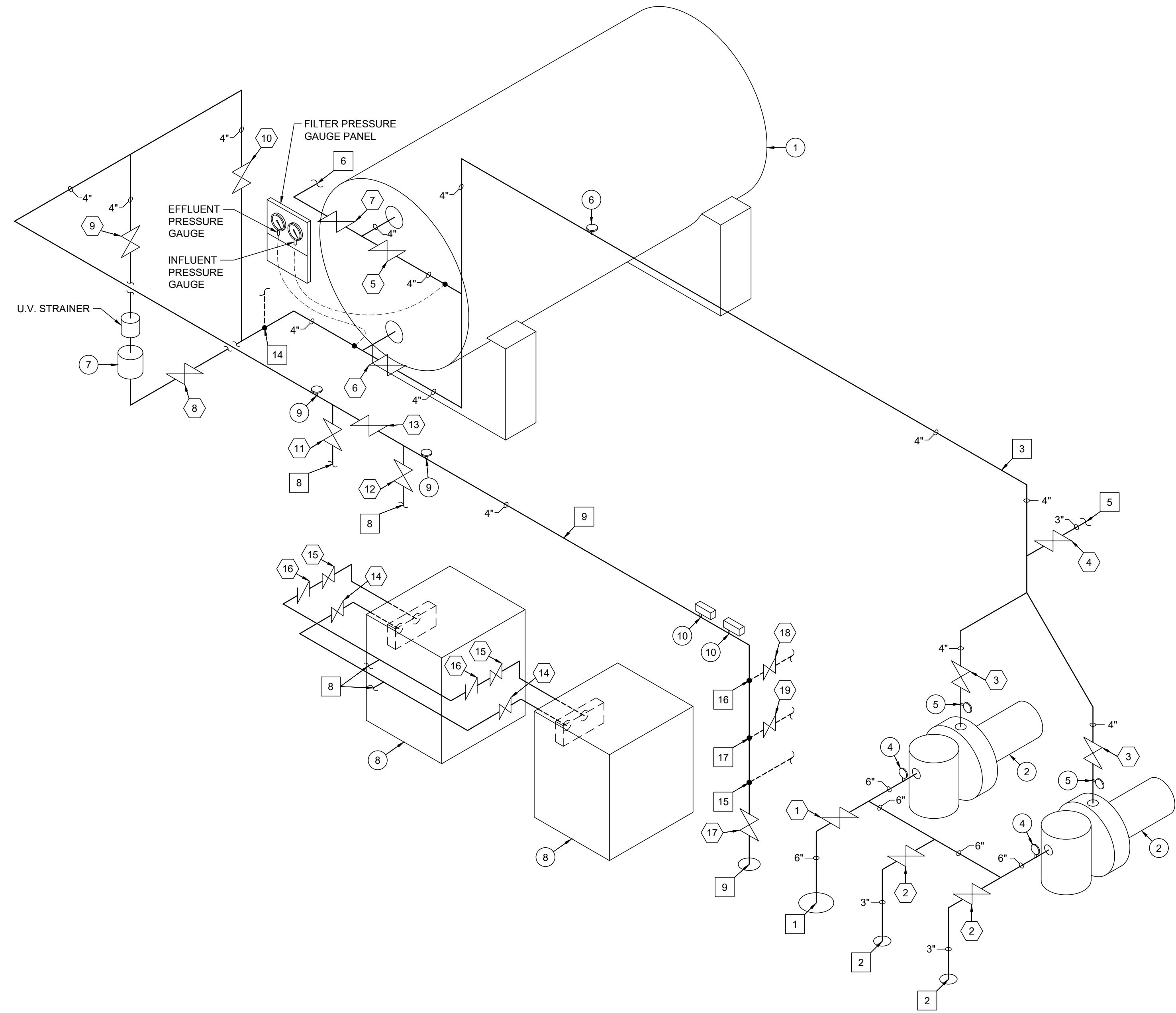
2 TYPICAL CHEMICAL CONTROLLER DETAIL

SCALE: N.T.S.



4 WATER LEVEL CONTROLLER DETAIL

SCALE: N.T.S.



SWIMMING POOL VALVE LEGEND

| | | | |
|---|------|-----------------------|-------|
| 1. SWIMMING POOL MAIN DRAIN | 6" | BUTTERFLY GEAR VALVE | QTY.1 |
| 2. SWIMMING POOL SKIMMER | 3" | BUTTERFLY LEVER VALVE | QTY.2 |
| 3. SWIMMING POOL FILTRATION DISCHARGE | 4" | BUTTERFLY GEAR VALVE | QTY.2 |
| 4. SWIMMING POOL BYPASS TO WASTE | 3" | BUTTERFLY LEVER VALVE | QTY.1 |
| 5. SWIMMING POOL FILTER INFLUENT | 4" | BUTTERFLY LEVER VALVE | QTY.1 |
| 6. SWIMMING POOL FILTER EFFLUENT | 4" | BUTTERFLY LEVER VALVE | QTY.1 |
| 7. SWIMMING POOL BACKWASH | 4" | BUTTERFLY LEVER VALVE | QTY.1 |
| 8. SWIMMING POOL U.V. INFLUENT | 4" | BUTTERFLY LEVER VALVE | QTY.1 |
| 9. SWIMMING POOL U.V. EFFLUENT | 4" | BUTTERFLY LEVER VALVE | QTY.1 |
| 10. SWIMMING POOL U.V. BYPASS | 4" | BUTTERFLY GEAR VALVE | QTY.1 |
| 11. SWIMMING POOL HEATER INFLUENT | 2" | TRUE UNION BALL VALVE | QTY.1 |
| 12. SWIMMING POOL HEATER EFFLUENT | 2" | TRUE UNION BALL VALVE | QTY.1 |
| 13. SWIMMING POOL HEATER BYPASS | 4" | BUTTERFLY GEAR VALVE | QTY.1 |
| 14. SWIMMING POOL HEATER INFLUENT ISOLATION | 2" | TRUE UNION BALL VALVE | QTY.2 |
| 15. SWIMMING POOL HEATER EFFLUENT ISOLATION | 2" | TRUE UNION BALL VALVE | QTY.2 |
| 16. SWIMMING POOL HEATER EFFLUENT | 2" | CHECK VALVE | QTY.2 |
| 17. SWIMMING POOL FILTERED WATER SUPPLY | 4" | BUTTERFLY GEAR VALVE | QTY.1 |
| 18. CHLORINE INJECTION | 1/2" | TRUE UNION BALL VALVE | QTY.1 |
| 19. ACID INJECTION | 1/2" | TRUE UNION BALL VALVE | QTY.1 |

GENERAL NOTES

1. OREGON SWIMMING POOL CODE APPLICABLE
2. OREGON PLUMBING CODE APPLICABLE
3. ELECTRICAL CODE APPLICABLE - NEC
4. REFER TO POOL EQUIPMENT LIST ON SHEET AQ1.1
5. REFER TO ELECTRICAL REQUIREMENTS ON SHEET AQ1.1
6. REFER TO UTILITY REQUIREMENTS ON SHEET AQ1.1
7. REFER TO PLUMBING NOTES ON SHEET AQ1.1

SCOPE OF WORK BY OTHERS

1. POOL AREA BARRIERS
2. POOL AREA ENTRANCES AND HARDWARE
3. POOL DECK DESIGN, SLOPES AND DRAINAGE
5. POOL DECK HOSE BIBBS
6. POOL DRINKING FOUNTAIN
7. POOL LIGHT ELECTRICAL BRANCH CIRCUIT SUPPLY, CONDUITS AND JUNCTION BOX / TRANSFORMER LOCATION
8. POOL TIMER AND/OR EMERGENCY STOP
9. POOL BONDING
10. POOL AREA LIGHTING AND ELECTRICAL
11. POOL ENCLOSURE ACOUSTICAL TREATMENT (INDOOR ONLY)
12. POOL ENCLOSURE VENTILATION (INDOOR ONLY)
13. EMERGENCY PHONE
14. EQUIPMENT ROOM VENTILATION, LIGHTING AND PREVENTION OF UNAUTHORIZED ACCESS
15. EQUIPMENT ROOM FLOOR SLOPE, FINISH AND FLOOR DRAIN
16. EQUIPMENT ROOM HOSE BIBB
17. EQUIPMENT ROOM ELECTRICAL OUTLETS, POOL EQUIPMENT BRANCH CIRCUIT SUPPLY, STARTERS / DISCONNECTS, ETC.
18. EQUIPMENT ROOM BONDING
19. POOL HEATER GAS SUPPLY, VENTILATION AND AIR SUPPLY
20. POOL MAKE-UP FRESH WATER SUPPLY
21. POOL EQUIPMENT BACKWASH SANITARY RECEPTACLE
22. BATHER PREPARATION FACILITIES OR REQUIREMENTS
23. POOL SAFETY AND MAINTENANCE EQUIPMENT LOCATIONS
24. POOL SIGNAGE LOCATIONS

KEY NOTES

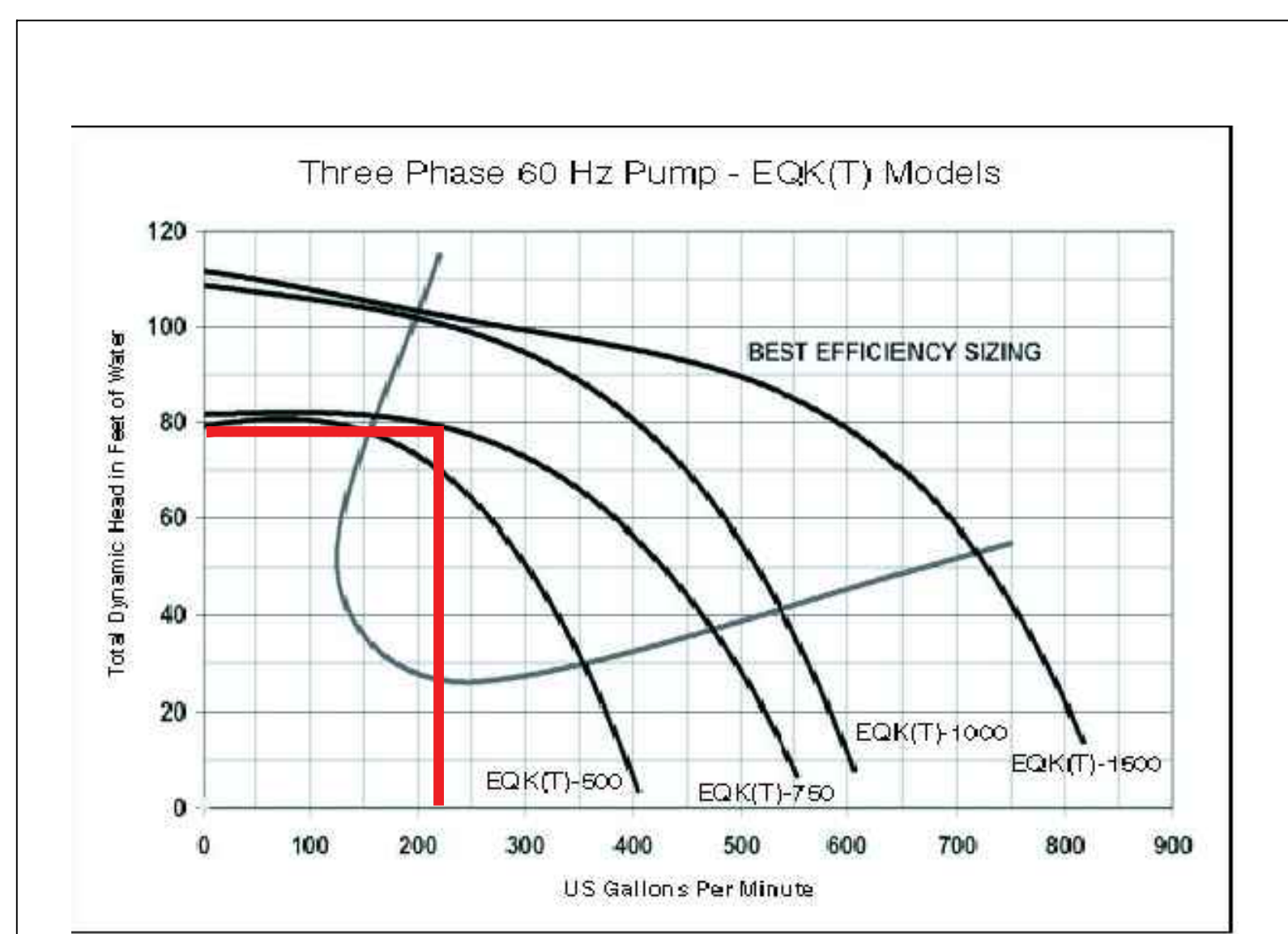
1. 6" MAIN DRAIN PIPE
2. 3" SKIMMER PIPE
3. 6" FILTRATION PUMP DISCHARGE PIPE, BOTTOM OF PIPE TO BE LOCATED ± 6'-0" ABOVE FINISHED FLOOR
4. BACKWASH STAND PIPE, SEE PLUMBING DRAWINGS
5. 3" POOL DRAIN BYPASS PIPE TO WASTE W/ 6" FREE FALL AT POINT OF DISPOSAL
6. 4" FILTER BACKWASH PIPE W/ 6" FREE FALL AT POINT OF DISPOSAL. PROVIDE SIGHT GLASS
7. 4" U.V. INFLUENT AND EFFLUENT PIPES
8. 2" HEATER INFLUENT AND EFFLUENT PIPES
9. 4" FILTERED WATER SUPPLY PIPE, BOTTOM OF PIPE TO BE LOCATED ± 8'-0" ABOVE FINISHED FLOOR
10. 2" REFLECTION PIPE FOR WATER LEVEL CONTROLLER PROBES, EXTEND TO SWIMMING POOL WALL
11. 8" FILL PIPE, REDUCE TO 2" BELOW GRADE AND EXTEND TO SWIMMING POOL WALL
12. CLEARANCE FOR FILTER HATCH REMOVAL
13. EJECTOR PIT FOR DECK DRAINS, SEE PLUMBING DRAWINGS
14. 1/2" SAMPLE STREAM INFLUENT LINE TO CHEMICAL CONTROLLER FLOW CELL
15. 1/2" SAMPLE STREAM EFFLUENT LINE FROM CHEMICAL CONTROLLER FLOW CELL
16. 1/2" CHLORINE INJECTION PIPE
17. 1/2" ACID INJECTION PIPE

SWIMMING POOL DATA

| | |
|--------------------|-----------------|
| SURFACE AREA: | 1,510 SQ.FT. |
| PERIMETER: | 242'-2" |
| WATER DEPTHS: | 3'-0" TO 3'-10" |
| VOLUME: | 38,797 GAL. |
| DESIGN FLOW RATE: | 216 G.P.M. |
| TURNOVER RATE: | 180 MINUTES |
| MAXIMUM OCCUPANCY: | 62 BATHERS |

POOL EQUIPMENT TAGS

1. FILTER
2. FILTRATION PUMP
3. VARIABLE FREQUENCY DRIVE
4. VACUUM GAUGE
5. PRESSURE GAUGE
6. FLOW METER (SIGNET)
7. U.V. DISINFECTION SYSTEM
8. HEATER
9. THERMOMETER
10. AQUASTAT
11. CHEMICAL CONTROLLER
12. CHLORINE METERING PUMP
13. ACID METERING PUMP
14. CHLORINE STORAGE TANK
15. ACID STORAGE TANK
16. WATER LEVEL CONTROLLER
17. REFLECTION AND FILL PIPE FITTINGS
18. MAIN DRAIN SUCTION OUTLET
19. HYDROSTATIC RELIEF VALVE
20. HYDROSTATIC COLLECTION TUBE
21. SURFACE SKIMMER
22. WALL INLET
23. HAND RAIL
24. GRAB RAIL
25. RECESSED STEP
26. WEDGE ANCHOR
27. ESCUTCHEON PLATE
28. WALL ANCHOR
29. HANDICAP LIFT AND ANCHOR
30. RACING LANE MARKER



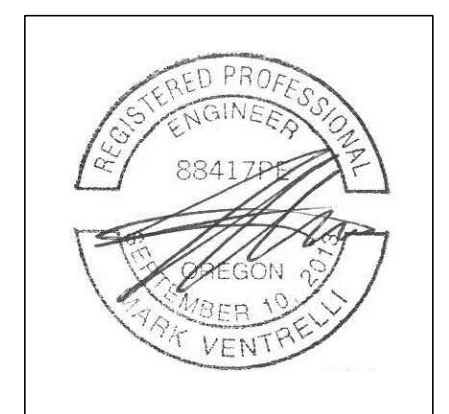
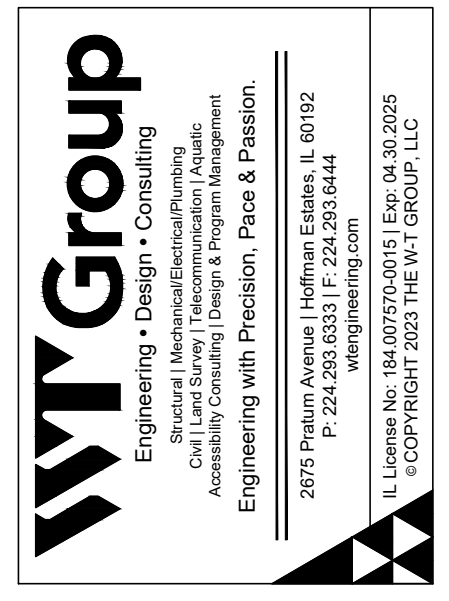
2 SWIMMING POOL FILTRATION PUMP CURVE (216 G.P.M. @ 79 T.D.H.)

SCALE: N.T.S.

1 SWIMMING POOL PIPING DIAGRAM

SCALE: N.T.S.

EMLER SWIM SCHOOL
TANASBOURNE

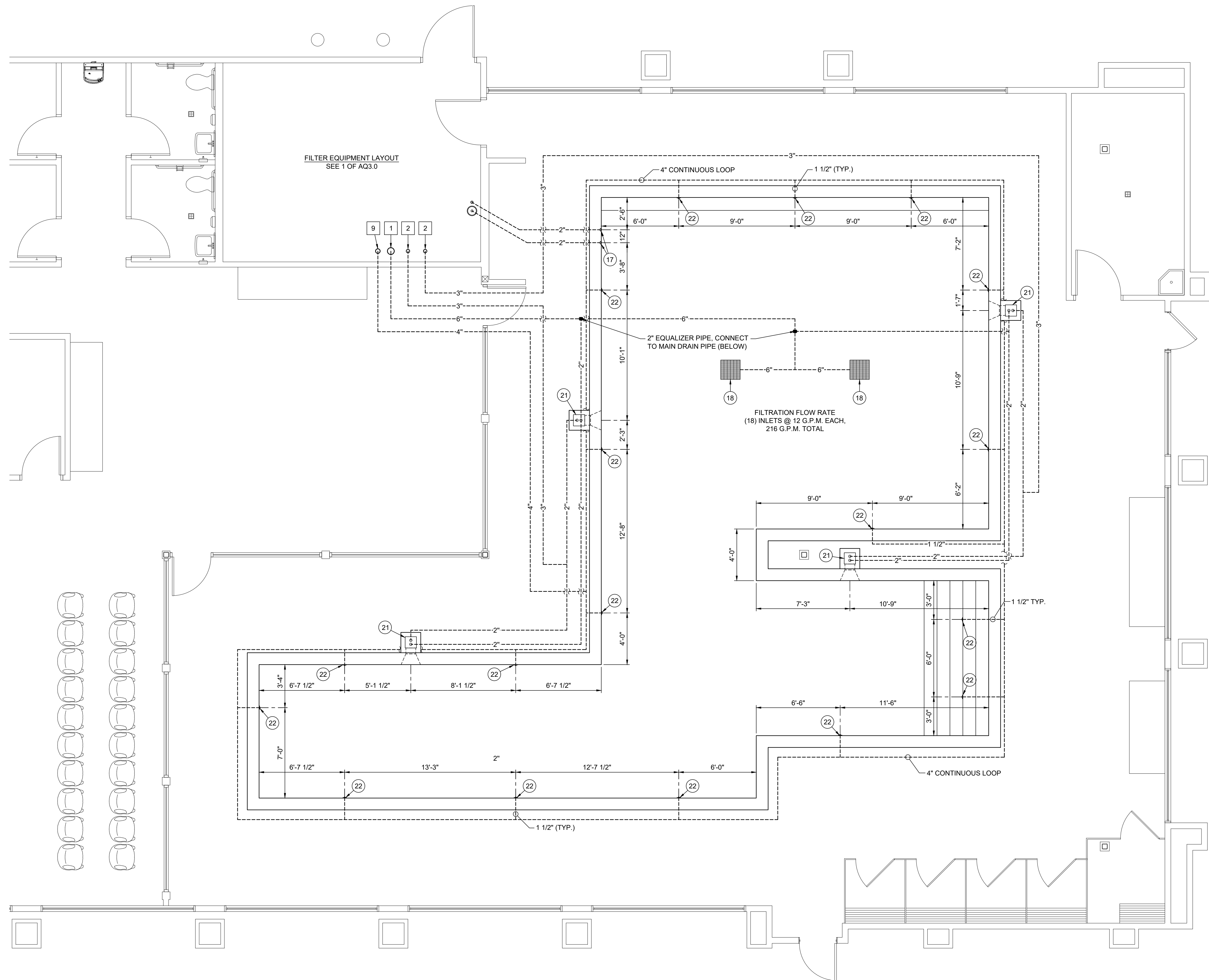


Date
06.23.2023

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Project No.
2301
Sheet No.
AQ3.1
Sheet Title
PIPE DIAGRAM AND VALVE LEGEND

1225 WATERHOUSE AVE BEAVERTON, OREGON 97223



GENERAL NOTES

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SCOPE OF WORK BY OTHERS

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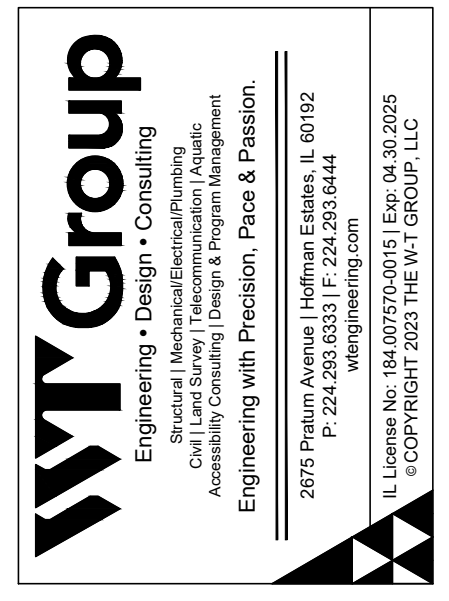
SWIMMING POOL DATA

| | |
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EMLER SWIM SCHOOL
TANASBOURNE



Date
06.23.2023

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Project No.
2301
Sheet No.
AQ4.0
Sheet Title
AQUATIC FACILITY PIPING PLAN