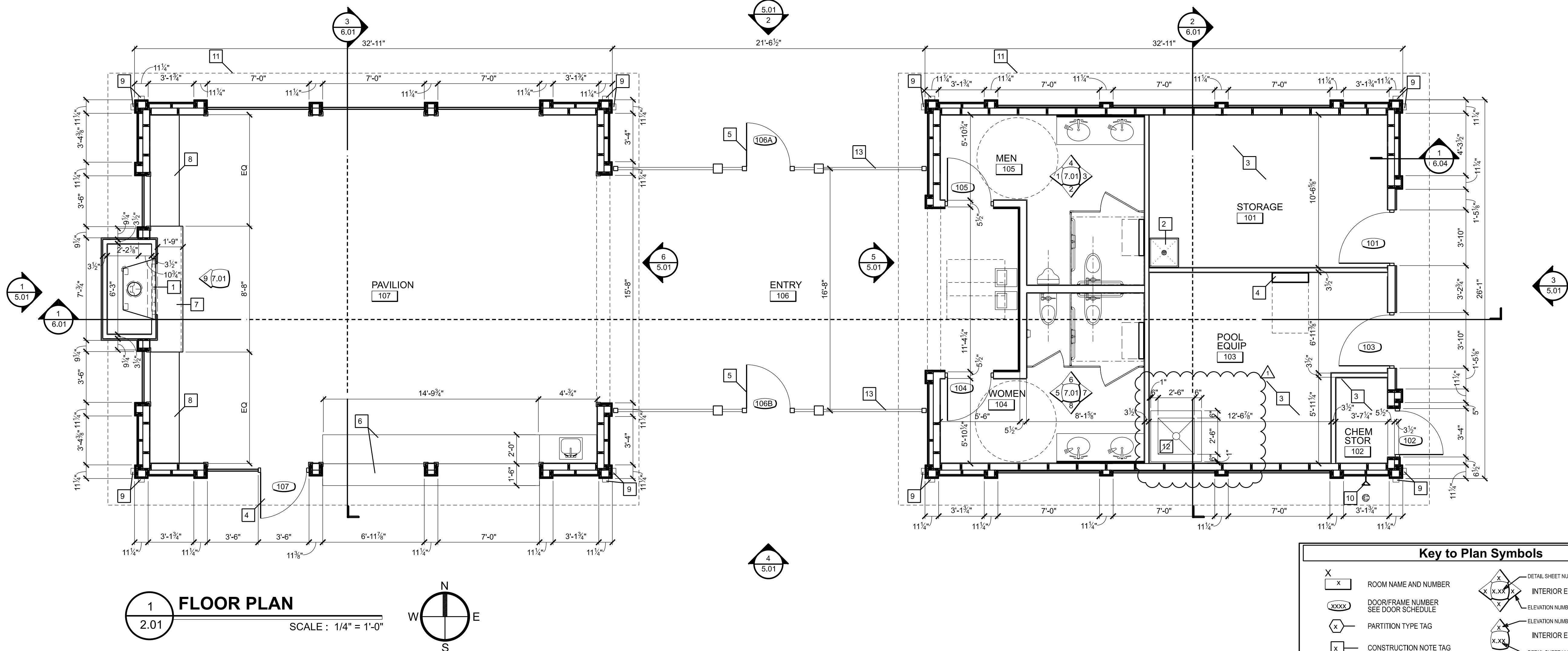


Room Finish Material Schedule												
AREA		FLOOR		BASE		WALLS				CEILING		
RM No.	NAME	MATL	COMMENT	MATL	COMMENT	NORTH	EAST	SOUTH	WEST	COMMENT	MATL	HGT
101	STORAGE	SC		RB		PT	PT	PT	PT		GYP PT	14'-0"
102	CHEM STORAGE	SC		RB		PT	PT	PT	PT		GYP PT	14'-0"
103	POOL EQUIP	SC		RB		PT	PT	PT	PT		GYP PT	14'-0"
104	WOMEN	EPOXY		RB		PT	PT	PT	PT	EPOXY PT @ WET WALL	GYP PT	10'-0"
105	MEN	EPOXY		RB		PT	PT	PT	PT	EPOXY PT @ WET WALL	GYP PT	10'-0"
107	PAVILION	EPOXY		PVC B	AZEK OR EQ	PT	PT	PT	PT		BEAD BD	14'-0"
AZEK PVC BEAD BD AND TRIM OR EQ												
FINISH SCHEDULE GENERAL NOTES												
A. ALL FINISH WORK, MATERIALS AND PRODUCTS SHALL COMPLY WITH OBC CHAPTER 8, ACCESSIBILITY STANDARDS 2010 (Effective 4/15/12) STANDARDS FOR ACCESSIBLE DESIGN ICC A117.1 (2009)												
B. PREPARE ALL SUBSTRATE SURFACES TO RECEIVE FINISH MATERIALS, IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.												
C. ALL ADHESIVES AND CLEANING/PREPARATORY MATERIALS SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS.												
D. REVEALS, AND DRYWALL EXPANSION JOINTS SHALL BE PAINTED TO MATCH ADJACENT WALL SURFACE UNLESS NOTED OTHERWISE.												
E. BOTTOM SOFFITS / BULKHEADS SHALL BE PAINTED WHITE. FACE OF BULKHEAD / SOFFITS SHALL BE PAINTED TO MATCH ADJACENT WALL SURFACE UNO.												
F. PAINT HOLLOW METAL DOORS, ACCESS PANELS AND FRAMES - 1 COAT PRIMER AND 2 COATS FINISH												
G. SEE REFLECTED CEILING PLAN FOR ADDITIONAL CEILING FINISH NOTES												
H. EXTERIOR EXPOSURE - AT LOCATIONS OF EXTERIOR/OPEN AIR EXPOSURE (ENCLOSED OR UNENCLOSED), PROV ARMSTRONG G-90 GRID, OR EQUIV, AND EXTERIOR RATED VINYL FACED GYPSUM CLG PANELS. COMPLY W/ MFR RECOMMENDATIONS. CONFIRM CAPACITY TO SUPPORT INSULATION, AZEK BEAD BOARD TO BE INSTALLED ON FACE OF GYP BD AT AREAS NOTED ON REFLECTED CEILING PLAN												
I. TOP OF UNFINISHED TILE BASE, OR WAINSCOT TO BE FINISHED WITH METAL SCHLUETER TRIM - PROV SAMPLES OF STD COLORS/FINISHES												
J. AT EDGES OF TILE FLOORING, OR JOINTS TO OTHER FLOORING MATERIALS, PROVIDE METAL SCHLUETER TRIM - PROV SAMPLES OF STD COLORS/FINISHES												
K. AT JOINTS IN FLOORING MATERIALS OF DIFFERING THICKNESS, PROVIDE LEVELING MATERIAL FOR FLUSH TRANSITION. ELIMINATE TRIP HAZARDS. ALTERNATIVELY, PROVIDE TRANSITION STRIPS, AND/OR THRESHOLDS, COMPLY WITH APPLICABLE ACCESSIBILITY STANDARDS												
L. PROVIDE CRACK ISOLATION MEMBRANE AT ALL TILE FLOOR INSTALLATIONS. PROVIDE WATERPROOFING MEMBRANE AT ALL ELEVATED SLAB TILE INSTALLATIONS. COMPLY WITH TCNA RECOMMENDATIONS												
M. PROVIDE SILLS/STOOL AT WINDOWS -PROV SOLID SURFACE STOOLS UNO - COORDINATE WITH INTERIOR DESIGNER FOR DETAIL/ STYLE AT ALL LOCATIONS OF WINDOW TRIM												
N. COMPLY WITH MFG RECOMMENDATIONS FOR REQUIRED CONTROL JOINTS IN GYPSUM BOARD WALLS AND CEILINGS. SEE FINISH NOTES.												
O. AT WALLS ADJACENT TO SERVICE SINKS, URINALS, & WATER CLOSETS, PROVIDE SMOOTH, HARD, NONABSORBANT SURFACE - MIN 48" HIGH, MIN 2ft BEYOND EDGE OF FIXTURE -OBC 1210.2.2 - TOILET, BATHING & SHOWER RM FLOOR FINISH MATLS -PROV SMOOTH, HARD, NONABSORBENT SURFACE. AT INTERSECTIONS OF FLOORS / WALLS PROV SMOOTH, HARD, NONABSORBENT VERT BASE MIN 4" HIGH.												

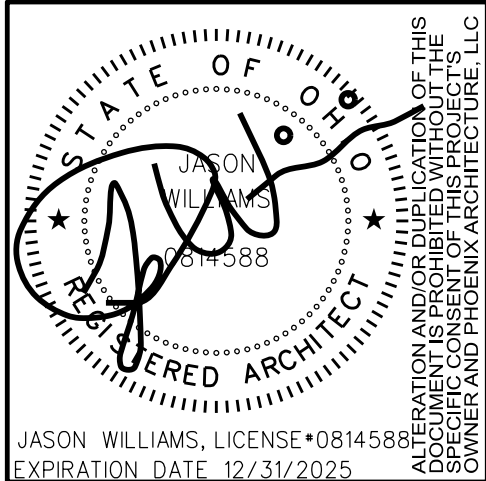
Door and Frame Schedule												
DOORS					FRAMES					HARDWARE		
DR No.	ELEV	DESCRIPTION	FIN	SIZE	THK	ELEV	MATL	FIN	HEAD	JAMB	ASSBLY RATING	SET No. NOTES
101		HM	PT	3'-0"x7'-0"	1 3/4"		HM	PT			--	1
102		HM	PT	3'-0"x7'-0"	1 3/4"		HM	PT			--	1
103		HM	PT	3'-6"x7'-0"	1 3/4"		HM	PT			--	1
104		HM	PT	3'-0"x7'-0"	1 3/4"		HM	PT			--	2
105		HM	PT	3'-0"x7'-0"	1 3/4"		HM	PT			--	2
106A		AL	PF	3'-0"x3'-6"	1 3/4"		--	--			--	3 GATE IN PREFINISHED ALUM FENCE
106B		AL	PF	3'-0"x3'-6"	1 3/4"		--	--			--	3 GATE IN PREFINISHED ALUM FENCE
107		WD	PT	3'-0"x3'-6"	1 3/4"		--	--			--	3 MILLWORK GATE

Hardware Sets												
SET 1: DOORS 101, 102, 103 - STORAGE						SET 3: DOORS 106A, 106B, 107 - FENCE GATE						
3	HINGES	5BB1 4.5 X 4.5	652	IVES		2	COMPACT HINGE AND GATE CLOSER - LOCINOX TIGER OR EQUAL					
1	LOCKSET	MA5818D	626	FALCON			1(106A AND 106B ONLY) MAGNETIC KEYFOB LOCK SYSTEM (COORDINATE W/ OWNER)					
1	IC CORE	C607	626	FALCON			BALANCE OF HDWR BY GATE MFR					
1	STOP	WS407CVX	630	IVES								
1	STOP (DR 109A)	904F	630	GJ								
1	KICK PLATE	8400 6"x2" LDW	630	IVES								
3	SILENCERS	SR64	GRAY	IVES								
SET 2: DOORS 104, 105 - PUSH PULL TLT RMS												
3	HINGES	5BB1 4.5 X 4.5	652	IVES								
1	PUSH	8200 4X16	630	IVES								
1	PULL	8800- 12	630	IVES								
1	DEADBOLT		630									
	PER OBC 1010.2.4											
	PROVIDE LOCK STATUS INDICATOR AND SIGNAGE INDICATING											
	"DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS"											
1	CLOSER	4011 DEL	689	LCN								
1	STOP	WS407CVX	630	IVES								
3	SILENCERS	SR64	GRAY	IVES								

Construction Plan Notes												
1	OUTDOOR LIFESTYLES COTTAGEWOOD 42" OUTDOOR WOOD BURNING FIREPLACE METAL INSERT AND FLUE. INSTALL PER MANUFACTURERS RECOMMENDATIONS											
2	MOP SINK											
3	SEE POOL EQUIPMENT DRAWINGS BY OWNERS FOR REQUIREMENTS											
4	ELECTRIC PANEL LOCATION - SEE ELECTRICAL DRAWINGS											
5	GATE WITH ADA COMPLIANT SELF CLOSING COMPACT HINGE AND GATE CLOSER - LOCKINOX TIGER OR EQUAL. EACH GATE TO HAVE MAGNETIC KEYFOB LOCK SYSTEM COORDINATE W/ OWNER. GC TO PROVIDE CONDUIT AND PULL STRING FROM ELECTRIC PANEL TO EACH GATE											
6	SOLID SURFACE COUNTERTOP - FINISH TO BE SELECTED BY OWNER											
7	24" HIGH STONE HEARTH											
8	24" DEEP WOOD BUILT IN BENCH SEATING AT EACH SIDE OF FIREPLACE											
9	DOWNSPOUT LOCATION - CONNECT TO STORM											
10	ADA COMPLIANT SHOWER HEAD W/ FLOOR DRAIN BELOW. EXT CONCRETE SLAB TO SLOPE TO DRAIN											
11	EDGE OF ROOF LINE ABOVE SHOWN DASHED											
12	BACK WASH SUMP LOCATION - PROVIDE 3'-0" DEEP CONCRETE PIT WITH DRAIN AT THE BASE AND A LID SEE PLUMBING DRAWINGS AND POOL DRAWINGS FOR DETAILS											
13	6'-0" HIGH ELITE COMMERCIAL GRADE ALUMINUM FENCE AND GATE - STYLE EFF-20											

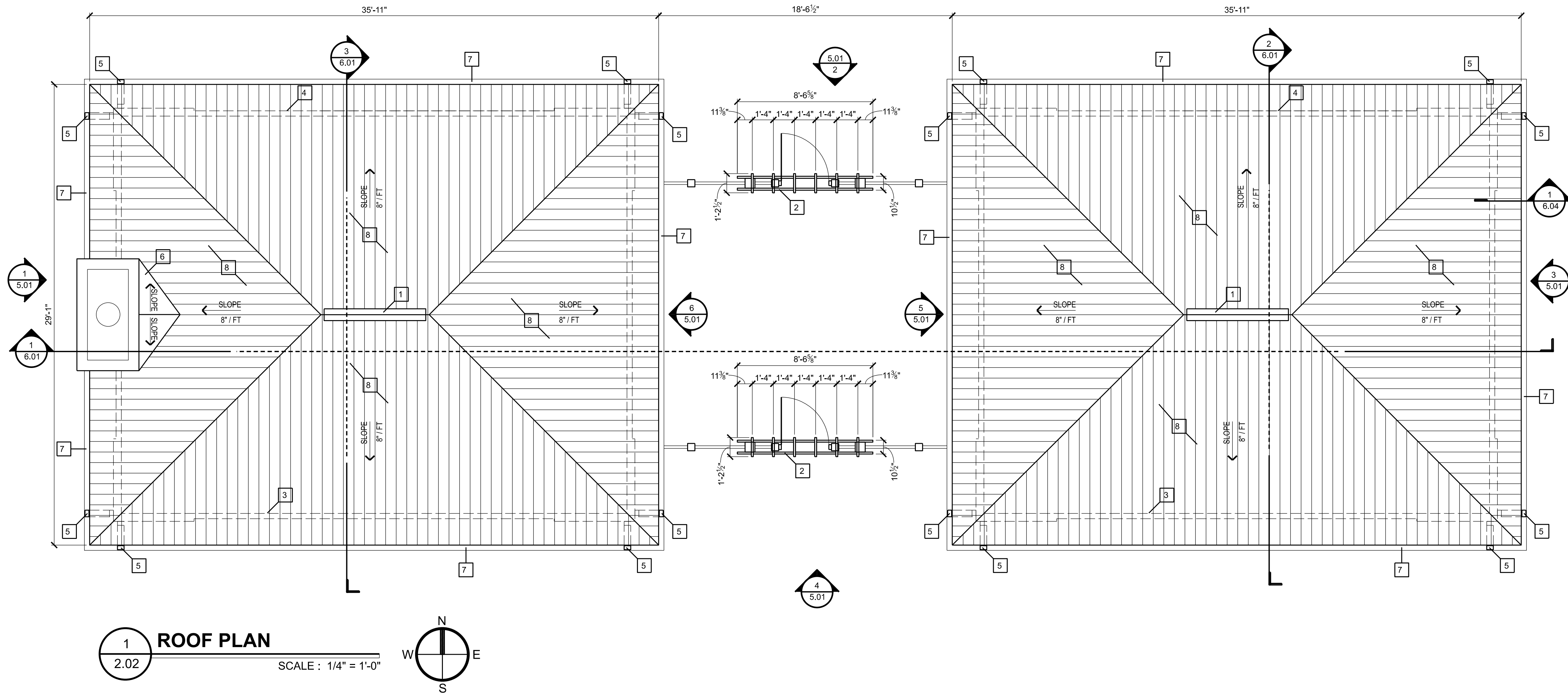


Key to Plan Symbols												
X	ROOM NAME AND NUMBER											
XXXX	DOOR/FRAME NUMBER SEE DOOR SCHEDULE											
X	PARTITION TYPE TAG											
X	CONSTRUCTION NOTE TAG											
	ELEVATION NUMBER											
	EXTERIOR ELEVATIONS											
	DETAIL SHEET NUMBER											
	DRAWING REVISION TAG											
	WALL MOUNTED FIRE EXTINGUISHER (FE)											
	DETAIL SHEET NUMBER											
	INTERIOR ELEVATIONS (MULTIPLE)											
	ELEVATION NUMBER											
	INTERIOR ELEVATION TAG											
	DETAIL SHEET NUMBER											
	DETAIL NUMBER											
	WALL SECTION TAG											
	DETAIL SHEET NUMBER											
	SEMI RECESSED FIRE EXTINGUISHER CABT (FEC)											
General Plan Notes												
A. INTERIOR DIMENSIONING IS TO FACE OF STUD, CMU METAL FRAMING, UNLESS NOTED OTHERWISE												
B. EXTERIOR DIMENSIONS ARE TO FACE OF MASONRY, PRECAST, GLASS OR ALUMINUM UNO, NON EDGE WINDOW DIMENSIONS ARE TO CENTERLINE OF WINDOW, OR CENTERLINE OF WINDOW MULLION.												
C. METAL STUD FRAMING - COMPLY WITH MFG RECOMMENDED TABLES FOR UNBRACED LENGTH / GAUGE												
D. ALL PARTITIONS ARE TYPE " " UNLESS NOTED OTHERWISE - NONBEARING AND FIRE NON-RATED												
E. DS - DOWNSPOUT / ROOF LEADER - SEE EGR / PLUMB DWGS - PROV BOOT/TRANSITION TO STORM SYST												
F. HB - INDICATES HOSE BIB/WALL HYDRANT - SEE WALL SECTIONS AND PLUMB DRAWINGS												
G. FD - INDICATES FLOOR DRAIN - SEE PLUMBING DRAWINGS												
H. FLOOR ELEVATION - 100'-0" EQUALS USGS xxx.xx' - COORDINATE WITH CIVIL DRWG												



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FIRST FLOOR PLAN	
2.01	



Construction Plan Notes

1

CONTINUOUS RIDGE VENT

2

PT WD PAINTED TRELLIS - PROVIDE AN 8X8 WOOD POST IN 30" DEEP CONCRETE FOUNDATION AT EACH END WITH 2X8 BEAM THRU-BOLTED ON EACH SIDE OF WOOD POST AND 2X2 TRELLIS PIECES AT 16" OC ON TOP

3

SELF ADHERED ICE AND WATER SHIELD MEMBRANE. EXTEND 24" FROM EDGE OF ROOF

4

OUTLINE OF BLDG BELOW SHOWN DASHED

5

3" X 5" PREFINISHED RECTANGULAR ALUMINUM DOWN SPOUT. CONNECT TO STORM AT GRADE

6

CRICKET TO MAINTAIN POSITIVE SLOPE AWAY FROM CHIMNEY

7

4" PREFINISHED "STYLE A" RECTANGULAR ALUMINUM GUTTER

8

STANDING SEAM METAL ROOF ON APA RATED ROOF SHEATHING W/ SYNTHETIC UNDERLAYMENT. ROOF COLOR TO BE SELECTED BY OWNER

Roof Plan General Notes

ROOF CONSTRUCTION AND MATERIALS SHALL COMPLY WITH OBC CH 15

OBC 1013.5 -MECHANICAL EQUIPMENT - AT ROOFTOP APPLIANCES, EQUIP. FANS, ROOF HATCHES OR OTHER COMPONENTS WHICH REQUIRE SERVICE - PROVIDE 42" H GUARDS AT ROOF EDGE WHEN EQUIP IS LOCATED WITHIN 10 FT OF THE EDGE OF THE ROOF, OR WHERE FALL HAZARD EXISTS. COMPLY WITH OBC, OMC, OSHA

COMPLY WITH OBC/ OMC FOR ROOF ACCESS. MAX 16 FT HIGH EAVE ALLOWABLE FOR LOOSE LADDER ACCESS.

VENT ROOF AND CONCEALED PARAPET SPACES IN COMPLIANCE WITH OBC 1203. AT ALL VOLUMES OF ENCLOSED ATTIC TYPE SPACES FORMED BY PARAPETS, KICKERS, STRUCTURAL ENCLOSURES, ETC PROVIDE LOWANCO ROOF LOUVER (OR SIMILAR) AT 1 SF FREE VENTILATION AREA PER 150 SF OF AREA ENCLOSED- MIN 8'-0 OC-COMPLY WITH OBC 1202.2

ALL WOOD LOCATIONS IN ROOF AND PARAPET DETAILS, INCLUDING BUT NOT LIMITED TO BLOCKING, SHEATHING, FURRING SHALL BE COMPLETELY DRIED AND PROTECTED TO REMAIN DRY DURING CONSTRUCTION, UNTIL COVERED AND PROTECTED BY FINAL MATERIAL SUCH AS COPINGS, FLASHINGS, ROOF MEMBRANES.

MFG APPROVED PROTECTIVE MEMBRANE AROUND ANY FAN, EXHAUST, VENT WHICH DISCHARGES MATERIALS OR TEMPERATURE NOT CAPATIBLE W/ ROOFING SYSTEM FIELD VERIFY SEE SPECS

ALL SEALANTS AND ADHESIVES BETWEEN DIFFERENT SYSTEMS TO BE APPROVED AND COMPATIBLE WITH BOTH SYSTEMS.

PROVIDE PROPER ROOF SLOPE TO DRAINS MIN 1/4" PER FOOT TYPICAL -COMPLY WITH OBC

VERIFY ROOFTOP MECH. EQUIPMENT WITH MECH. DESIGN/ BUILD DRAWINGS. PROVIDE BUILT-UP CRICKETS IN LINE OF DRAINAGE - TYPICAL

AT ALL COPINGS, FLASHINGS, PROV SLOPE TO DRAIN/SHED WATER

PROTECT ROOFING MATERIALS FROM NON-COMPATIBLE MATERIALS. STAINING, AND DIRT AND DEBRIS ACCUMULATION DURING CONSTRUCTION. REMOVE ALL LOOSE SCREWS, METAL SHAVINGS, SHARP OBJECTS

PROVIDE AND FLASH ALL SUPPORTS FOR ELEVATED PIPING OR OTHER ELEMENTS. PROPERLY ANCHOR AND PROTEC ROOF WITH MFG STD DETAILS.

MANUFACTURER APPROVED PROTECTIVE MEMBRANE 5'-0" DIA. AROUND ANY FAN WHICH DISCHARGES MATERIALS NOT COMPATIBLE W/ ROOFING SYSTEM. ROOFING CONTRACTOR TO CONFIRM AT ALL FANS, DISCHARGE ELEMENTS.

ALL PENETRATIONS FOR ALL TRADES TO BE PERFORMED BY, OR COORDINATED WITH, THE ROOFING CONTRACTOR. PROVIDE CONFIRMATION THAT ALL PENETRATIONS COMPLY WITH MANUFACTURERS WARRANTY REQUIREMENTS.

ALL ROOF PENETRATIONS AND CURBS TO BE FLASHED AND PROTECTED IN ACCORDANCE WITH ROOFING MFG REQUIREMENTS.

ROOFING CONTRACTOR TO PROVIDE AND INSTALL WATERTIGHT FLASHING AT ALL MISCELLANEOUS PENETRATIONS FOR GUARDS, RAILINGS, STRUCTURAL STEEL OR OTHER ITEMS. PATCH ANY DISTURBED INSULATION OR OTHER ROOFING MATERIALS AT POINTS OF REMOVAL FOR STRUCTURAL CONNECTIONS.

WHERE PIPING OR OTHER ELEMENTS PENETRATE ROOFING MEMBRANE OR FLASHING ON VERT AND SLOPED SURFACES, ROOFING CONTRACTOR SHALL PROVIDE WATERTIGHT FLASHING DETAIL IN COMPLIANCE WITH MFG APPROVED, WARRANTED DETAILS.

CURBS FOR MECHANICAL EQUIPMENT AND ROOF HATCHES SHALL BE COORDINATED TO ACCOMODATE ROOF SLOPE -SEE STRUCTURAL DRAWINGS FOR STEEL ELEVATIONS.

PENETRATIONS THROUGH ROOFS AND WALL SUBJECT TO VIBRATIONS SHALL BE FLASHED AND PROTECTED WITH APPROVED FLEXIBLE PRODUCT COMPATIBLE WITH ROOFING/FLASHING PRODUCTS.

ALL ROOF PENETRATIONS AND CURBS TO BE FLASHED AND PROTECTED IN ACCORDANCE WITH ROOFING MFG REQUIREMENTS.

ALL METAL FLASHINGS, SCUPPERS, GUTTERS AND DOWNSPOUTS TO COMPLY WITH SMACNA RECOMMENDATIONS.

SUPPORTS FOR GAS LINES, EQUIPMENT, DUCTWORK TO BE PROTECTED IN ACCORDANCE WITH ROOFING MANUFACTURE APPROVED DETAILS.

PROVIDE MANUFACTURER APPROVED AND WARRANTED EXPANSION JOINTS WHERE INDICATED ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

PROVIDE ROOFING MFG APPROVED FIELD INSPECTION/REPORT TO OWNER FOR RECORD

ROOFING CONTRACTOR SHALL VERIFY AND COORDINATE ALL ROOF PENETRATIONS AND CURBS. ADDITIONAL PENETRATIONS MAY BE SHOWN ON MECHANICAL, ELECTRICAL, FIRE PROTECTION OR PLUMBING DRAWINGS. SEE MEP FP AND ALL CONSULTANTS' DRAWINGS.

STATE OF OHIO

PHOENIX ARCHITECTURE

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REGISTERED ARCHITECT

JASON WILLIAMS, LICENSE #081458

EXPIRATION DATE 12/31/2025

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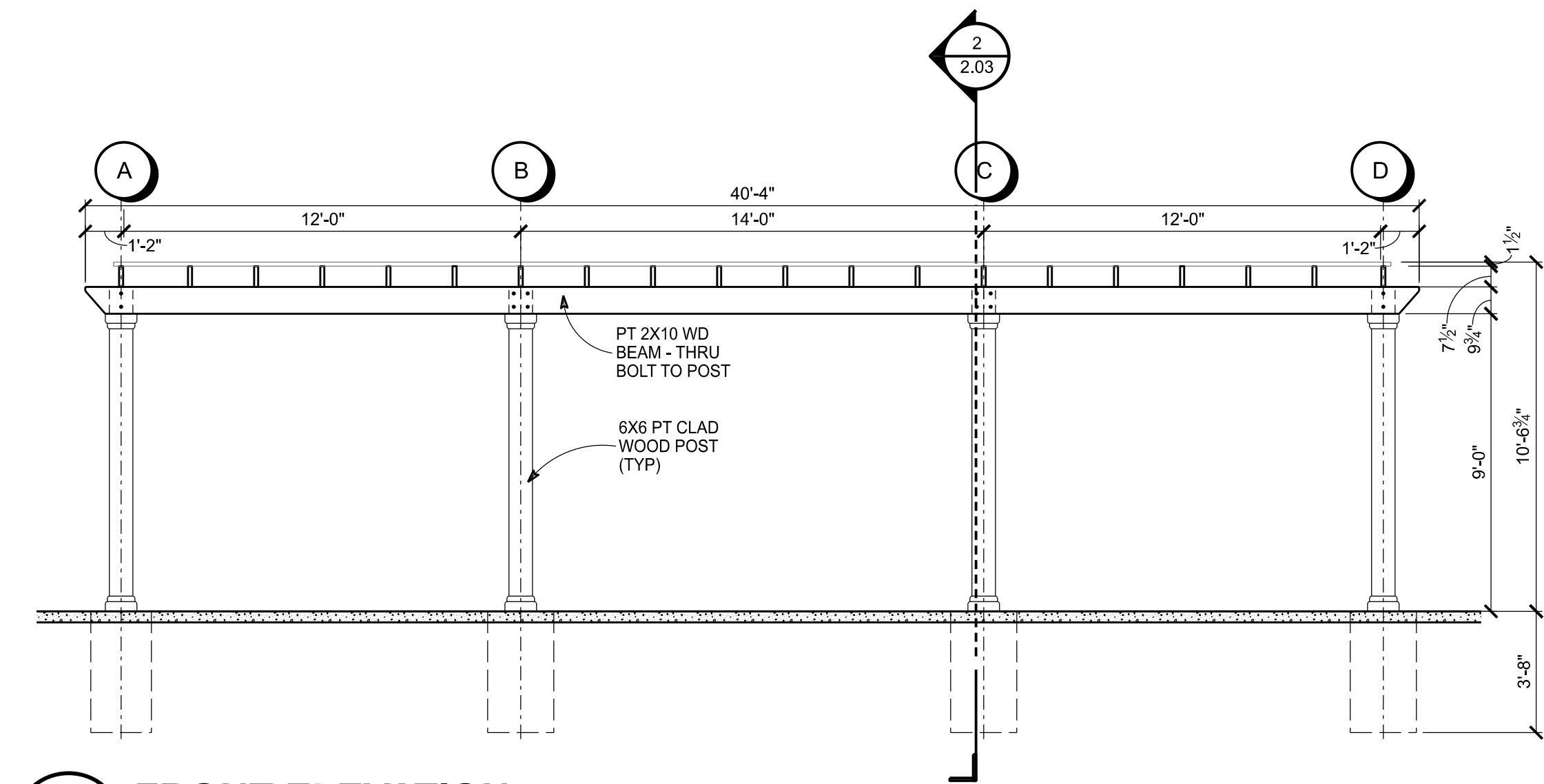
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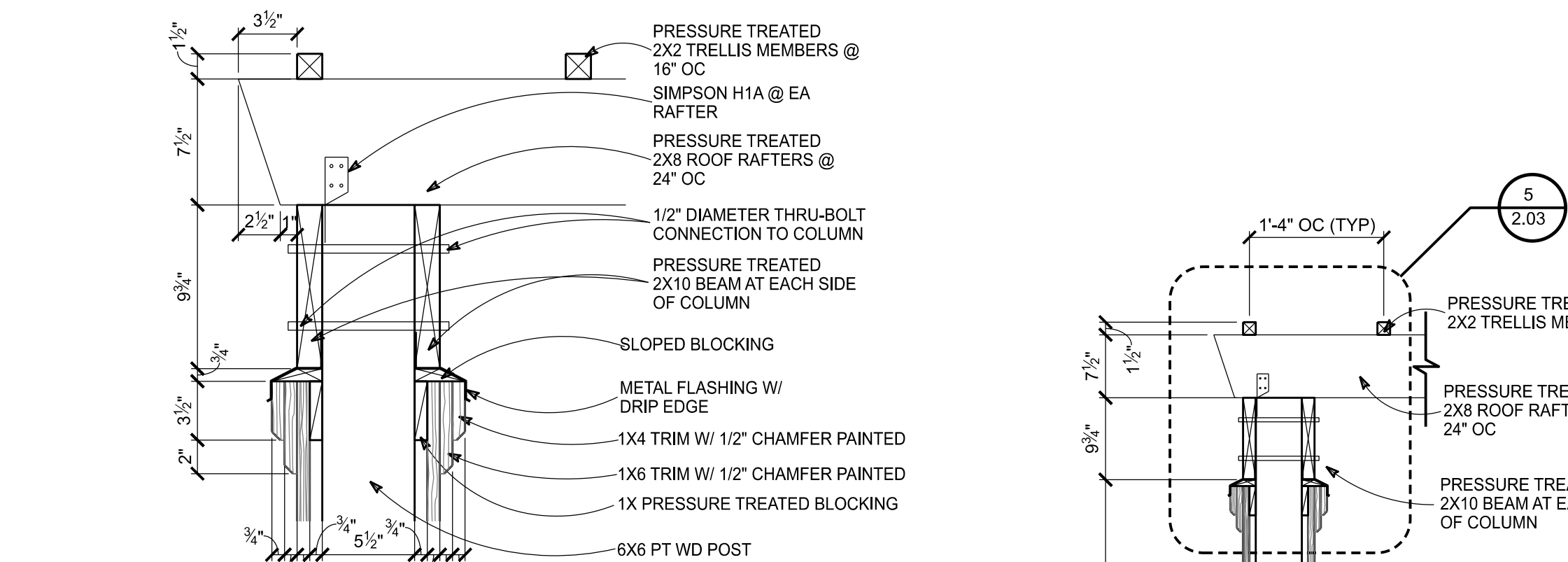
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ROOF
PLAN

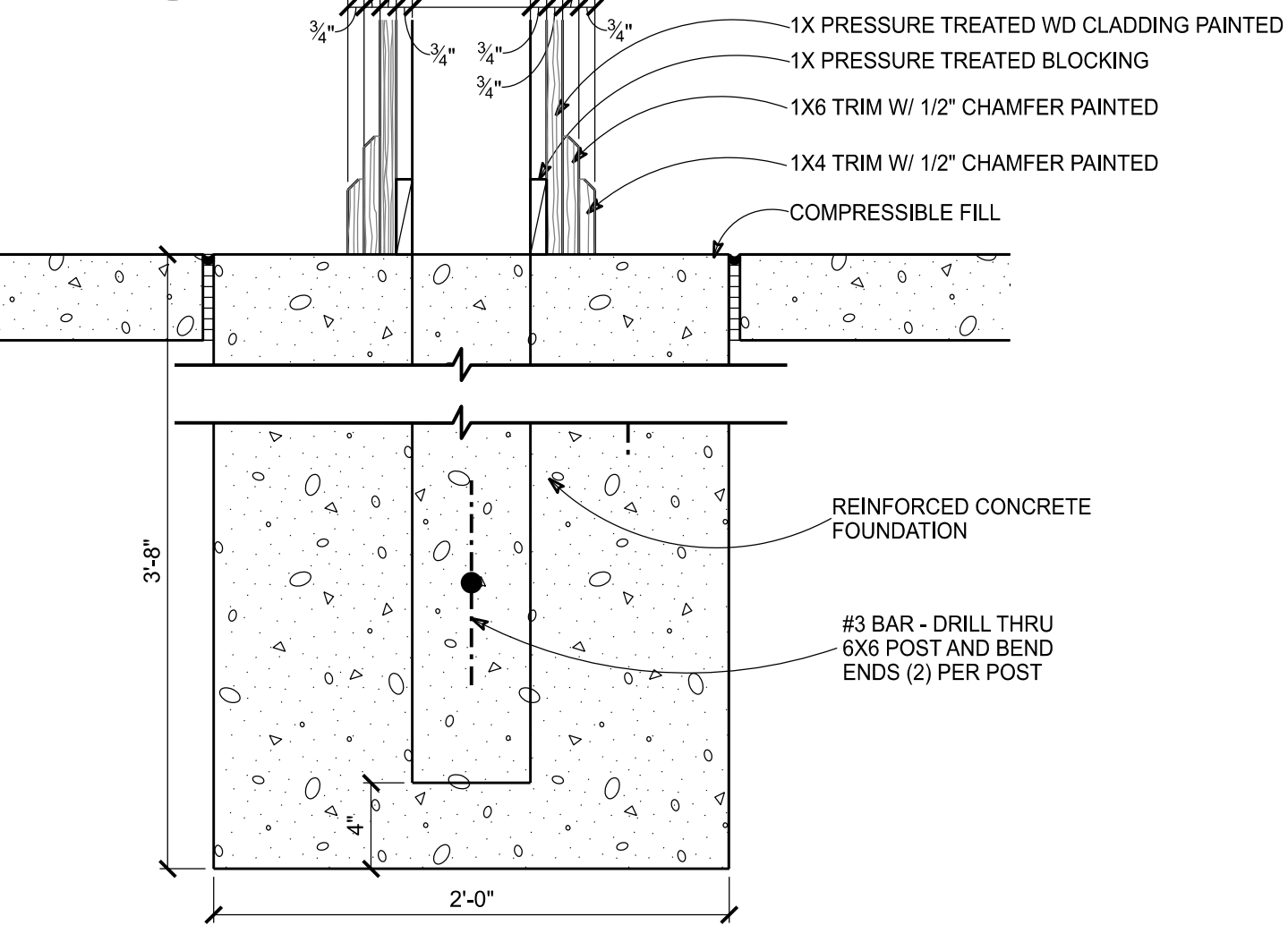
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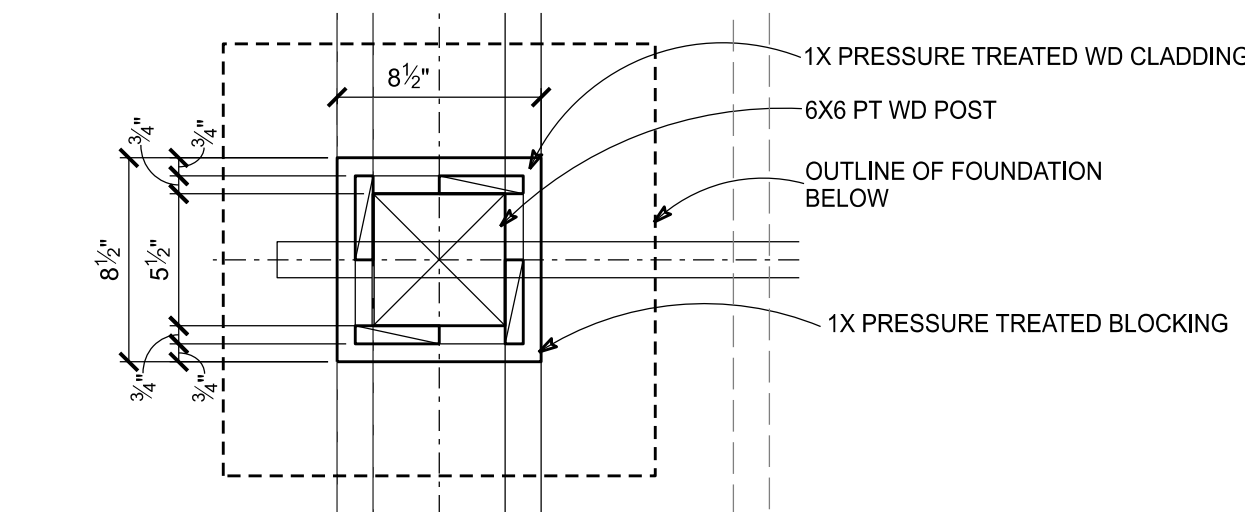
7 FRONT ELEVATION
2.03 SCALE : 1/4" = 1'-0"



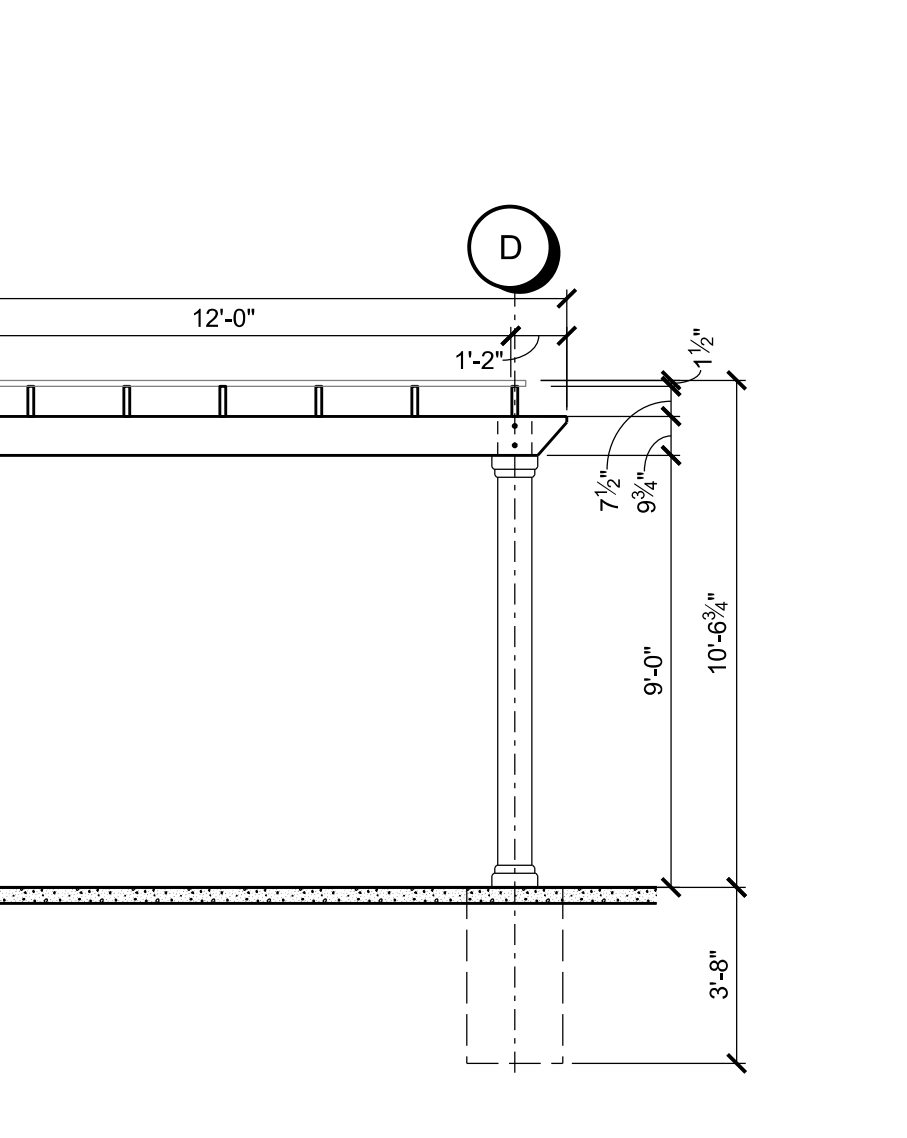
5 DETAIL
2.03 SCALE : 1/2" = 1'-0"



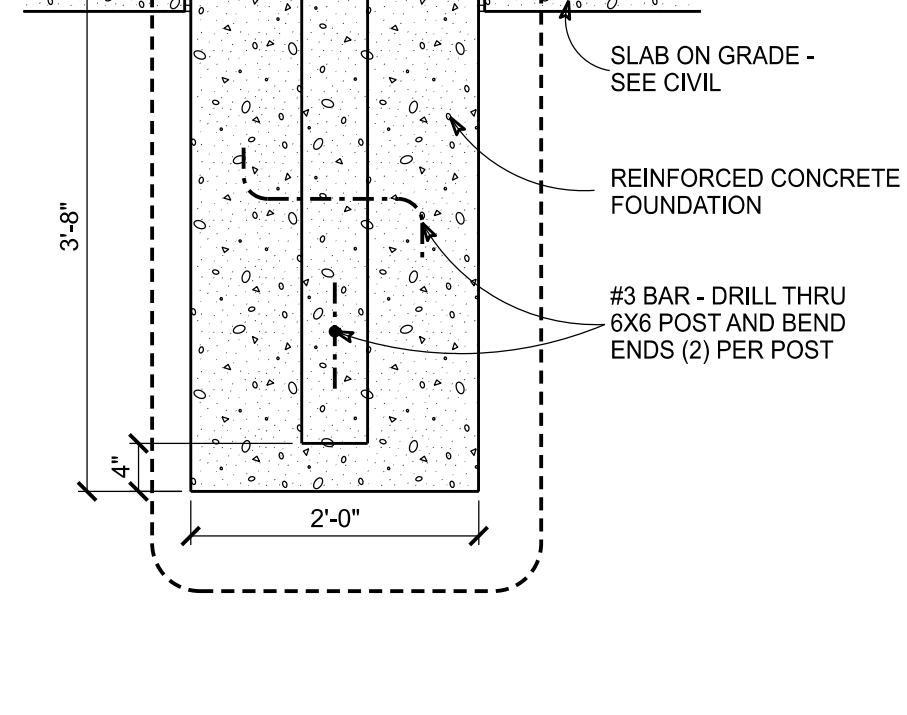
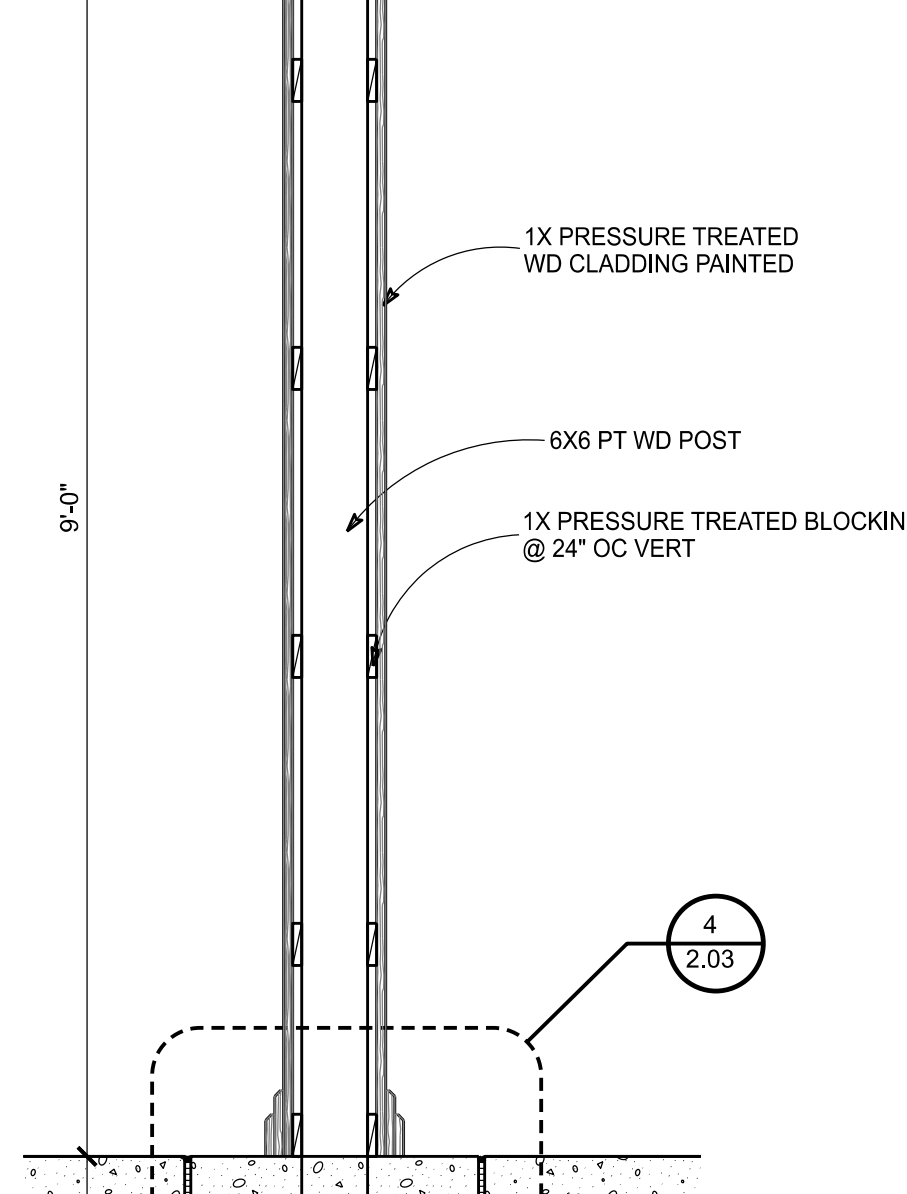
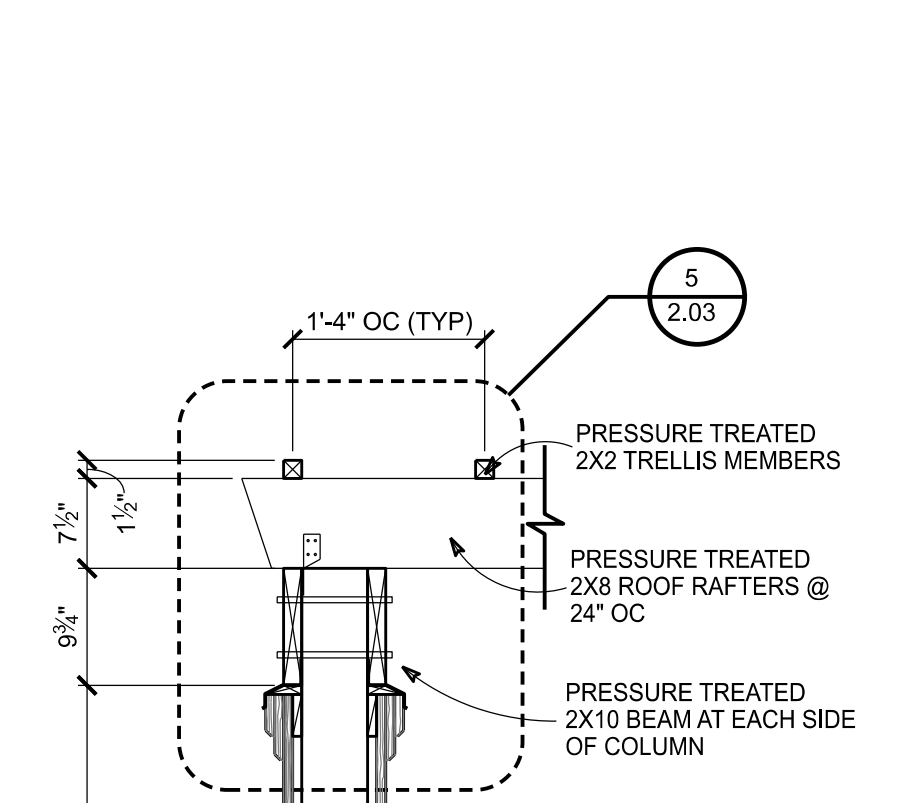
4 DETAIL
2.03 SCALE : 1/2" = 1'-0"



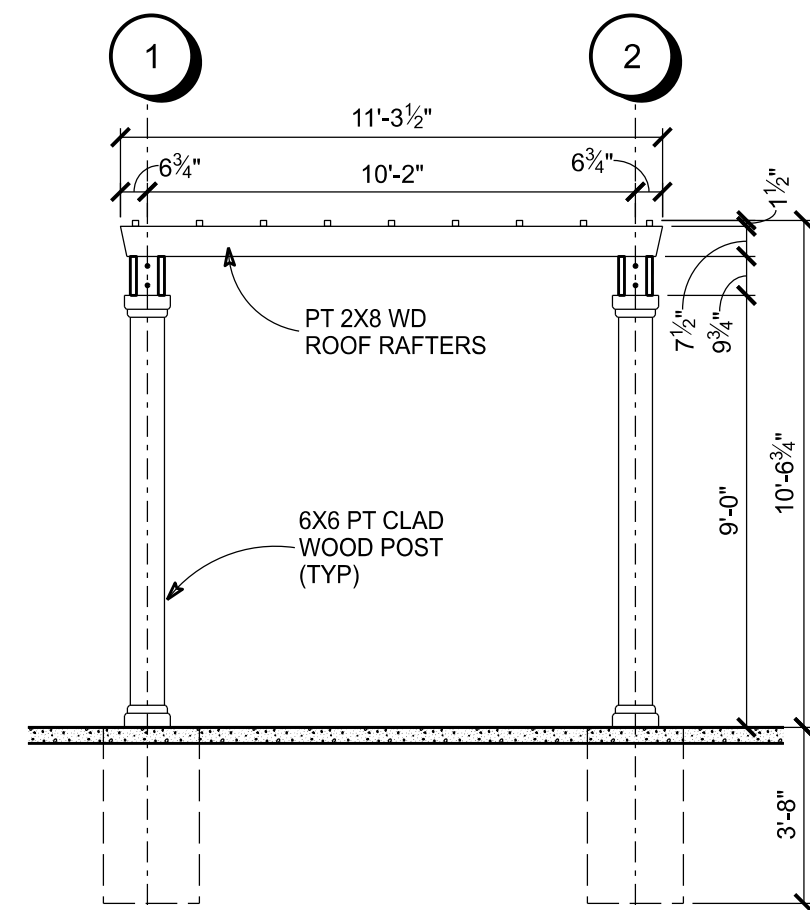
3 PLAN DETAIL
2.03 SCALE : 1/2" = 1'-0"



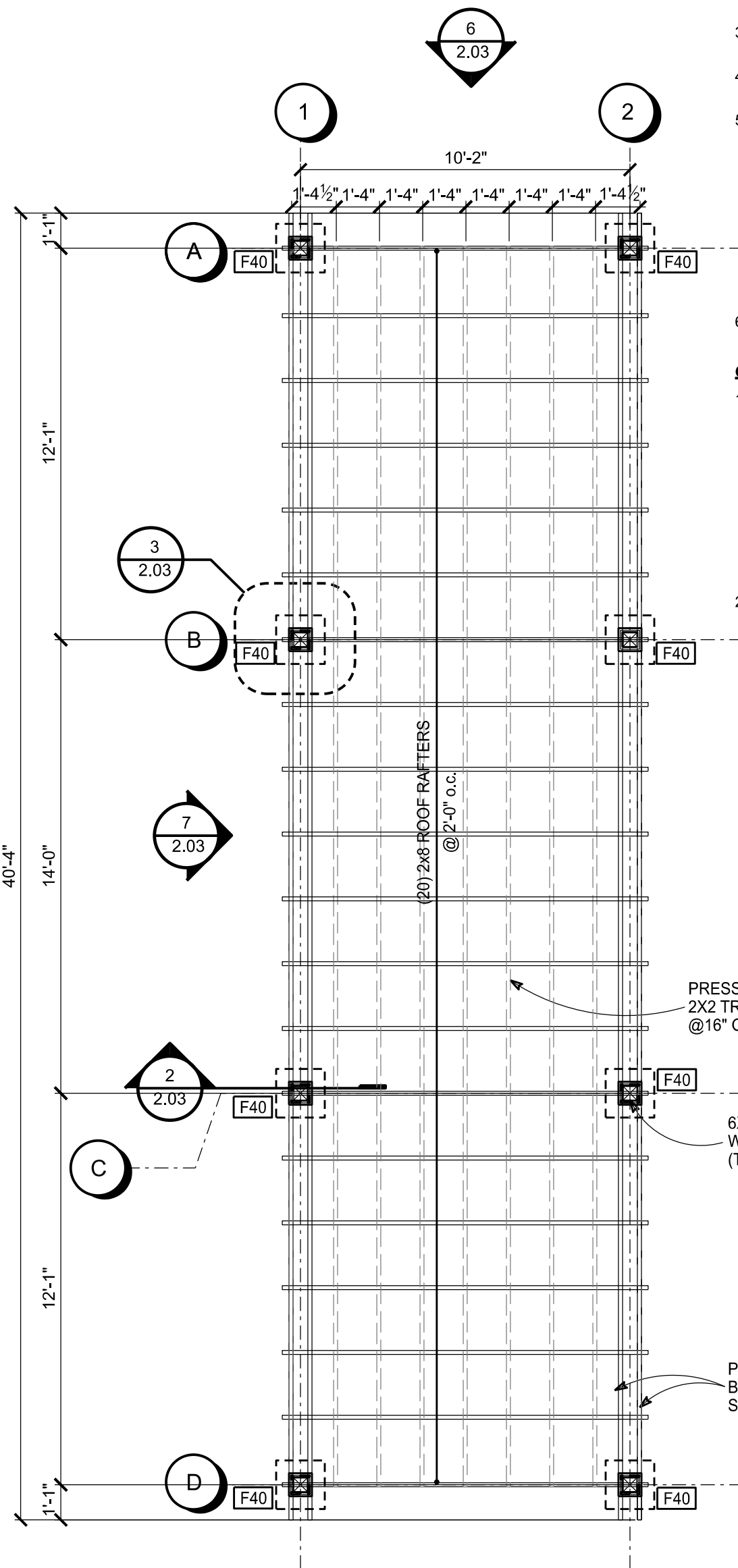
2 SECTION
2.03 SCALE : 3/4" = 1'-0"



2 SECTION
2.03 SCALE : 3/4" = 1'-0"



6 SIDE ELEVATION
2.03 SCALE : 1/4" = 1'-0"



1 PERGOLA PLAN
2.03 SCALE : 1/4" = 1'-0"

GENERAL STRUCTURAL NOTES

GOVERNING CODE

OHIO BUILDING CODE 2024, BASED ON 2021 IBC

CONSTRUCTION AND SAFETY

- THE CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR.
- THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.

MISCELLANEOUS STRUCTURAL NOTES

- THE CONTRACTOR SHALL ONLY USE STRUCTURAL PLANS ISSUED AS "FOR CONSTRUCTION" OR ISSUES THEREAFTER. PRIOR ISSUES SHALL ONLY BE USED FOR PERMITTING OR PRICING PURPOSES. GC SHALL VERIFY THE MOST CURRENT SET OF DRAWINGS WITH THE ARCHITECT AND ENGINEER PRIOR TO PREPARING SUBMITTALS AND PRIOR TO FABRICATION.
- THESE STRUCTURAL DRAWINGS DEPICT A STRUCTURAL SYSTEM AND THE MAJOR COMPONENTS OF THAT SYSTEM. MINOR ITEMS, INCLUDING BUT NOT LIMITED TO, POLESTOPS, DECK SUPPORT ANGLES, FRAMES AT FLOOR AND ROOF DECK OPENINGS, CFS AT ARCHITECTURAL FEATURES, ETC. SHALL BE SUPPLIED BY THE CONTRACTOR AS NEEDED TO PROVIDE A COMPLETE SYSTEM.
- WHERE DETAILS ARE CALLED FOR IN ONE AREA OF THE BUILDING, THEY SHALL BE DUPLICATED AT SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- STRUCTURAL AND ARCHITECTURAL PLANS SHOW DIMENSIONS AND ELEVATIONS TO SIGNIFICANT WORKING POINTS. CONTRACTORS, DETAILERS AND SUPPLIERS ARE RESPONSIBLE FOR THE DETERMINATION OF ALL DIMENSIONS, PITCHES, ELEVATIONS, ETC. BEYOND THOSE NOTED AS NECESSARY TO THOROUGHLY DETAIL/FABRICATE THEIR WORK. CONTACT ARCHITECT WITH ANY DISCREPANCIES FOUND.

FOUNDATIONS

- SOIL CONDITIONS:
 - PER THE CLIENT'S REQUEST, THE FOUNDATION DESIGN AND GENERAL FOUNDATION NOTES ARE BASED ON THE ASSUMPTION OF FAVORABLE SOIL CONDITIONS. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL CONSULTANT TO VERIFY THE DESIGN ASSUMPTIONS OF NATIVE UNDISTURBED SOILS PRIOR TO THE FOUNDATION INSTALLATION. THE COST FOR THIS DOCUMENTATION SHALL BE IDENTIFIED AS A SEPARATE ITEM ON THE CONTRACTOR'S BID. THE CONTRACTOR SHALL SUBMIT COPIES OF ALL FIELD-TESTING DOCUMENTATION TO PHOENIX.
 - THE BOTTOM OF FOUNDATION ELEVATION INDICATED ARE FOR BIDDING PURPOSES AND MAY BE LOWERED TO SUIT SUB-SURFACE SOIL CONDITION. BEARING STRATA SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR FLOWABLE FILL CONCRETE (500 PSI) UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS.
- FOOTINGS AND GRADE BEAMS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL.
- ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL.
- GRAVITY SOIL PRESSURES USED FOR DESIGN:

Foundation Description	Design Bearing Capacity	Minimum Footing Width	Minimum Frost Depth
Isolated Column Footings on Native Soil/Engineered Fill	1,500 psf	24"	30"
Continuous Wall Footings on Native Soil/Engineered Fill	1,500 psf	18"	30"

- CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.

CONCRETE

- MATERIALS (ALSO SEE CONCRETE MIX SCHEDULE):
 - REINFORCING STEEL: ASTM A615 OR ASTM 996 (AXLE ONLY) 60 KSI YIELD DEFORMED BARS AND ASTM A1064 MESH: FLAT SHEETS ONLY.
 - FLY ASH: ASTM C618, TYPE F OR C. FLY ASH-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 25% MAXIMUM.
 - GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989. TOTAL GROUND GRANULATED BLAST FURNACE SLAG-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM.
 - HIGH RANGE WATER REDUCER (HRWR) ADMIXTURE: ASTM C494.
 - CHLORIDE CONTENT OF CONCRETE: LIMIT TOTAL CHLORIDE ION CONTENT TO AMOUNT INDICATED IN TABLE 4.2.2.6 OF ACI 318. ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.

Application	f' @ 28 days (psi)	Air Content	Max w/c ratio	Max Agg. Size (in)	F Class	S Class	W Class	C Class
Footings & Drilled Piers	3000	N/A	0.55	3/4	F0	S0	W0	C0

[1] - Where 3/8" maximum aggregate is preferred, adjust air entrainment to 7.5% ± 1.5% (if required).
[2] - Where air entrainment is not required by design, the contractor/supplier may choose to include air entrainment to improve placement or finish characteristics. Air entrainment is not permitted in normal weight concrete to receive a hard trowel finish and entrapped air shall not exceed 3%.

- CONCRETE MIX SCHEDULE:

General Notes	
A.	ALL WOOD TO BE PRESSURE TREATED
B.	ALL WOOD TO BE PRIMED AND PAINTED PER PAINT MANUFACTURERS RECOMMENDATIONS COLOR TO BE SELECTED BY OWNER
C.	COORDINATE PERGOLA LOCATION WITH CIVIL DRAWINGS

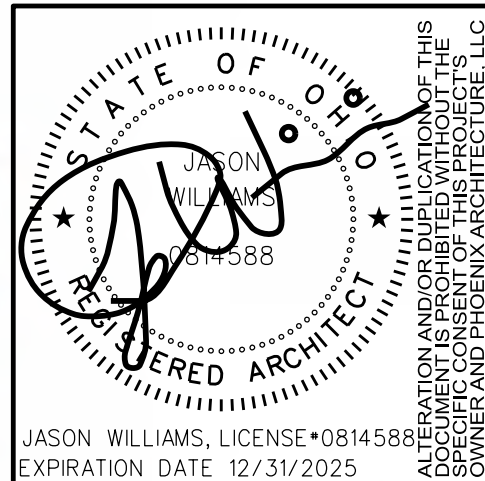
- SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF HRWR.
- BAR CLEARANCES BETWEEN ADJACENT BARS AND FORMWORK SHALL BE AS NOTED ON THE DRAWINGS OR A MINIMUM AS PER ACI REQUIREMENTS.
- PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.

WOOD

- MATERIALS:
 - FRAMING LUMBER:
 - 2x8 AND LARGER: NO.1 GRADE OR BETTER SOUTHERN PINE KILN DRIED.
 - 2x4: STUD GRADE OR BETTER SPRUCE PINE FIR KILN DRIED.
 - 2x6: NO.2 GRADE OR BETTER SPRUCE PINE FIR KILN DRIED.
 - 4x4: NO.1 GRADE OR BETTER SOUTHERN PINE.
 - 6x6: NO.2 GRADE OR BETTER SOUTHERN PINE.
 - PRESERVATIVE TREATED (PT) LUMBER TO BE UC38 FOR ABOVE GROUND EXTERIOR FRAMING AND UC4A FOR GROUND CONTACT.
 - ALL NAILS TO MEET ASTM 1667. NAIL SIZES AS CALLED OUT IN THE STRUCTURAL DRAWINGS AND FOR SIMPSON CONNECTORS ARE LISTED BELOW. NAIL GUN NAILS SHALL MEET DIAMETER AND LENGTH OF NAILS LISTED BELOW. OR ELSE NAILS SHALL BE DRIVEN WITH A HAMMER. AT EXTERIOR APPLICATIONS, PRESERVATIVE TREATED, OR FIRE RESISTANCE TREATED MATERIALS HOT DIP GALVANIZE PER ASTM F2329 OR ASTM A 153.
 - 6d NAILS ARE 0.120"Ø x 1 1/2" LONG (MIN 3/8" HEAD)
 - 8d NAILS ARE 0.131"Ø x 3" LONG (2 1/2" LONG FOR SHEATHING APPLICATIONS)
 - 10d NAILS ARE 0.148"Ø x 3" LONG
 - 16d NAILS ARE 0.162"Ø x 3 1/2" LONG
 - SIMPSON HANGERS:
 - ALWAYS USE THE NAIL OR FASTENER AS SPECIFIED BY SIMPSON, INCLUDING THE CORRECT DIAMETER AND LENGTH.
 - WHEN FASTENING TO A SINGLE PLY 1 1/2" OR 1 3/4" MEMBER, 1 1/2" FLANGE NAILS ARE ACCEPTABLE. USE FULL LENGTH NAILS FOR DIAGONAL NAILS OF DOUBLE SHEAR HANGERS.
 - EXTERIOR APPLICATIONS, PRESERVATIVE TREATED, OR FIRE-RETARDANT TREATED MATERIALS USE Z MAX (G185) OR HOT DIP GALVANIZE. G60 AND G60 AR NOT PERMITTED.
 - INTERIOR DRY APPLICATIONS WITH BORATE PRESERVATIVE TREATMENT SHALL BE G90 COATED.
 - UNLESS NOTED OTHERWISE, CONNECTORS SHALL BE MADE PER TABLE 2304.10.1, "RECOMMENDED FASTENING SCHEDULE," IN REFERENCED BUILDING CODE. STAPLES NOT PERMITTED FOR FASTENING APA RATED SHEATHING AND SUBFLOORING.
 - ALL CONNECTION HARDWARE SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY AND SHALL BE FASTENED AS SPECIFIED IN THE SIMPSON PRODUCT AND INSTRUCTION MANUAL.

FOR WOOD ROOF RAFTERS AND TRUSSES, INSTALL ONE SIMPSON H3 HURRICANE TIE AT EACH MEMBER AT EACH BEARING LOCATION IN ADDITION TO THE TYPICAL NAILING REQUIREMENT IN THE "RECOMMENDED FASTENING SCHEDULE".

Key to Plan Symbols			
X	ROOM NAME AND NUMBER	DETAIL SHEET NUMBER	
XXXX	DOOR/FRAME NUMBER SEE DOOR SCHEDULE	INTERIOR ELEVATIONS (MULTIPLE)	
X	PARTITION TYPE TAG	ELEVATION NUMBER	
X	CONSTRUCTION NOTE TAG	INTERIOR ELEVATION TAG	
ELEVATION NUMBER		DETAIL SHEET NUMBER	
EXTERIOR ELEVATIONS		WALL SECTION TAG	
DETAIL SHEET NUMBER		DETAIL SHEET NUMBER	
DRAWING REVISION TAG		SEMI RECESSED FIRE EXTINGUISHER CABT (FEC)	
WALL MOUNTED FIRE EXTINGUISHER (FE)			
General Plan Notes			
A. INTERIOR DIMENSIONING IS TO FACE OF STUD, CMU METAL FRAMING, UNLESS NOTED OTHERWISE			
B. EXTERIOR DIMENSIONS ARE TO FACE OF MASONRY, PRECAST, GLASS OR ALUMINUM UNO, NON EDGE WINDOW DIMENSIONS ARE TO CENTERLINE OF WINDOW, OR CENTERLINE OF WINDOW MULLION.			
C. METAL STUD FRAMING - COMPLY WITH MFG RECOMMENDED TABLES FOR UNBRACED LENGTH / GAUGE			
D. ALL PARTITIONS ARE TYPE " " UNLESS NOTED OTHERWISE - NONBEARING AND FIRE NON-RATED			
E. DS - DOWNSPOUT / ROOF LEADER - SEE EGR / PLUMB DWGS - PROV BOOT/TRANSITION TO STORM SYST			
F. HB - INDICATES HOSE BIB/WALL HYDRANT - SEE WALL SECTIONS AND PLUMB DRAWINGS			
G. FD - INDICATES FLOOR DRAIN - SEE PLUMBING DRAWINGS			
H. FLOOR ELEVATION - 100'-0" EQUALS USGS xxx.xx' - COORDINATE WITH CIVIL DRWG			

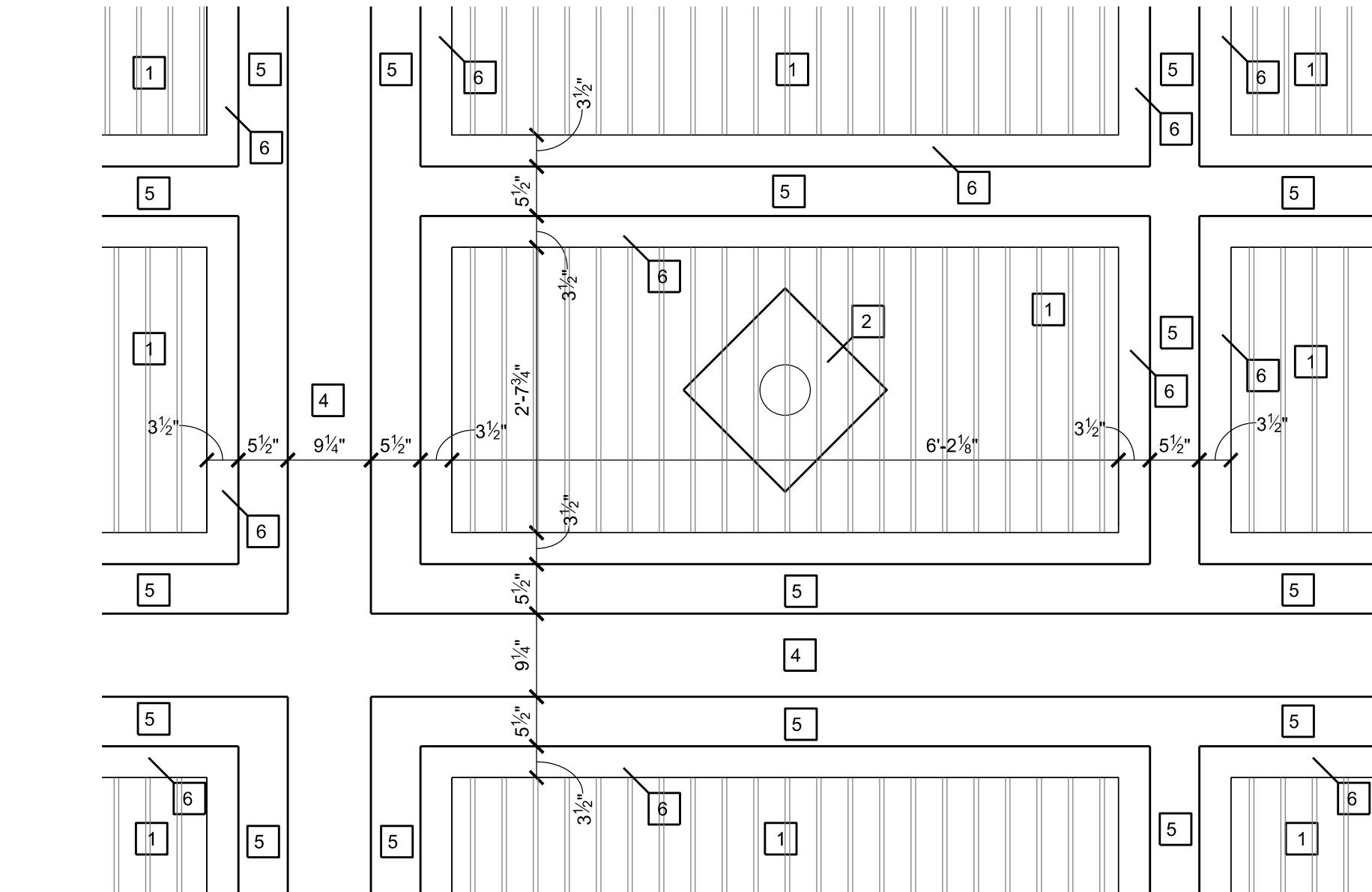


UNION VILLAGE BATH HOUSE AND PAVILION BAXTER ST. TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE	08/18/2025
PERMIT ISSUE	09/26/2025
REVISION 01	

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PROJ MANAGER:	ALD
JOB NO.	9164.01

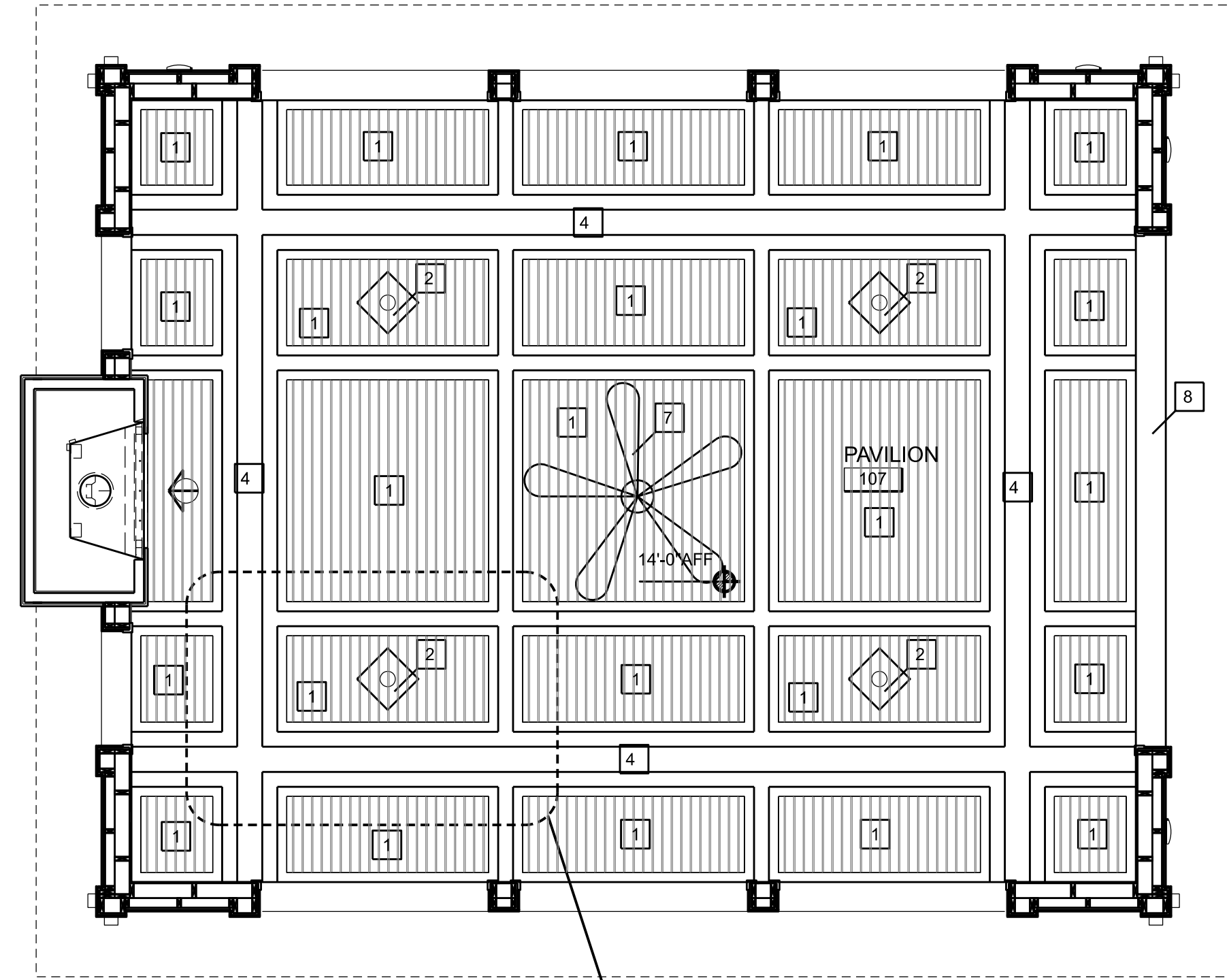
PERGOLA 2.03



2
3.01

TYPICAL CLNG DETAIL

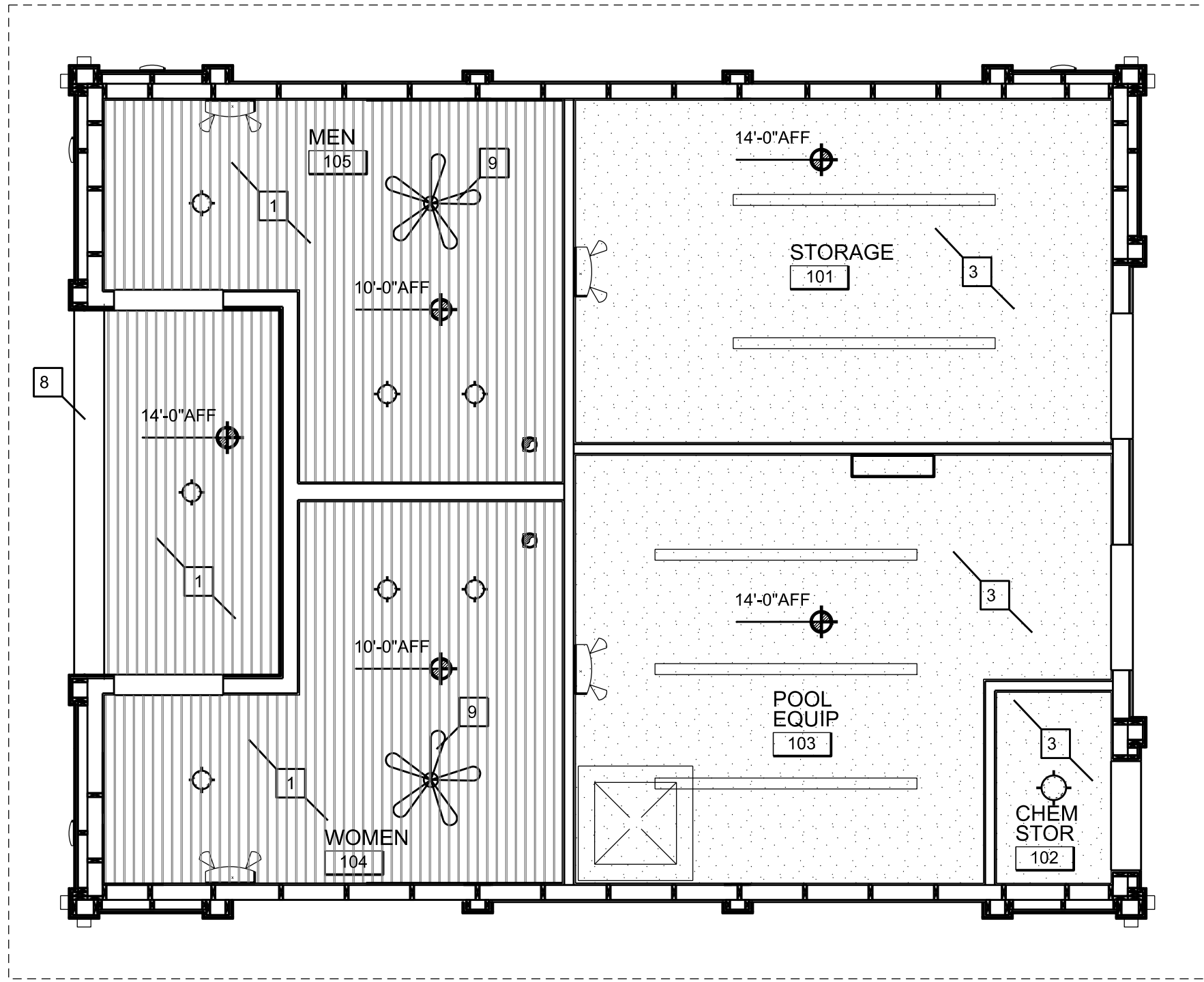
SCALE : 3/4" = 1'-0"



1
3.01

REFLECTED CEILING PLAN

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



Reflected Ceiling Plan Notes

1 AZEK PVC BEAD BOARD (OR EQUAL) PAINTED AT CEILING SMOOTH FINISH

2 PENDANT LIGHT FIXTURE

3 MOISTURE RESISTANT GYP BD PAINTED

4 1 1/2" X 9 1/4" AZEK PVC TRIM OR EQUAL

5 1" X 5 1/2" AZEK PVC TRIM OR EQUAL

6 5/8" X 3 1/2" AZEK PVC TRIM OR EQUAL

7 BIG ASS FAN 16 84" DIAMETER W/ LIGHT KIT IN BLACK FINISH

8 SMOOTH FINISH AZEK TRIM AT UNDERSIDE OF BULKHEAD

9 CORONA MATTE BLACK 44" OUTDOOR CEILING FAN W/ INCLUDED LIGHT KIT

ALL AZEK TRIM AND FINISH PRODUCTS TO BE PROVIDED IN SMOOTH FINISH. ALL TRIM TO BE PAINTED - COLOR TO BE SELECTED BY OWNER

General Notes - Reflected Ceiling Plan

A. ALIGNMENT – SEE ALSO FLOOR & CEILING PLAN NOTES. COORD STUD LOCATIONS SO THAT FACES OF CEILING FEATURES, BULKHEADS, AND/OR PARTITION TYPES ALIGN AS INDICATED. PROVIDE FLUSH AND CONTINUOUS FINISH FACE. PROVIDE CONTROL JOINTS PER MFG RECOMMENDATIONS.

B. OBC CH7 -FIRE RATED ASSEMBLIES –COMPLY WITH ALL APPLICABLE CODES INCLUDING OBC AND OMC. PROVIDE PROTECTIVE ASSEMBLIES AT PENETRATIONS THRU FIRE RATED AND NON FIRE RATED ASSEMBLIES. PROV PROTECTIVE ASSEMBLIES FOR MEMBRANE PENETRATIONS OF HORIZ AND VERT FIRE RATED ASSEMBLIES IN COMPLIANCE WITH OBC ALSO.

C. OBC 1008.2 - MEANS OF EGRESS ILLUMINATION – AT ALL TIMES, THE MEANS OF EGRESS ILLUMINATION SHALL NOT BE LESS THAN 1 FC AT THE WALKING SURFACE LEVEL. PROV NIGHT LIGHTING, EMERGENCY EGRESS LIGHTING AND EXIT DISCHARGE LIGHTING.

D. OBC 1203.2 - SOFFIT VENTS –-- PROV VENTING IN ATTIC. SPACES AT CANOPIES, OVERHANGS, BRACED PARAPETS, PORTE COCHERES AND OTHER ENCLOSED VOLUMES, ROOFS- 1 SF FREE VENTILATION AREA PER 150 SF OF AREA ENCLOSED

E. CEILING ACCESS – WHERE REQD BY BLDG CODE OR BY MEP TRADE, PROVIDE ACCESS PANELS -COMPLY WITH PROPER FIRE RATED OPENING PROTECTION FOR FIRE RATED ASSEMBLIES. PROVIDE LAYOUT COORDINATION DRWG INDICATING ALL PROPOSED LOCATIONS FOR APPROVAL BY ARCHITECT & OWNER.

F. MEP DEVICES - SEE PLUMB, ELEC, FP, AND MECH DRWS AND FOR ALL SPRINKLER HEADS, DIFFUSERS, LIGHTING, AIR GRILLES ETC. COORDINATE WITH ALL DESIGN-BUILD CONTRACTORS.

G. CONTROL JOINTS – COMPLY WITH MFG RECOMMENDATIONS FOR CONTROL JOINTS IN ALL SOFFIT AND BULKHEAD MATERIALS, INCLUDING EXTERIOR AND INTERIOR LOCATIONS - SEE SOFFIT VENT AND LIGHT LOCATIONS - SUBMITTAL REQD INDICATING LAYOUT FOR ARCHITECT/OWNER APPROVAL.

H. CEILING SYSTEMS / FIXTURE SUPPORT - SUPPORT FROM BLDG STRUCTURE ONLY. DO NOT SUSPEND FROM MEP/FP COMPONENTS. ALL HANGERS/SUPPORTS/SYSTEMS TO COMPLY WITH APPLICABLE CODES.

I. CEILING HUNG FIXTURES, EQUIPMENT AND ACCESSORIES - PROV METAL STRAP REINFORCING OR FRT WOOD BLOCKING- STUD FRAMING, OR UNISTRUT SUPPORT SYSTEM. COMPLY W/ MFR RECOMMENDATIONS.

J. EXTERIOR EXPOSURE - AT LOCATIONS OF EXTERIOR/OPEN AIR EXPOSURE (ENCLOSED OR UNENCLOSED), PROV ARMSTRONG G-90 GRID, OR EQUIV, AND EXTERIOR RATED VINYL FACED GYPSUM CLG PANELS. COMPLY W/ MFR RECOMMENDATIONS. CONFIRM CAPACITY TO SUPPORT INSULATION.

K. HOLD DOWN CLIPS - PROVIDE CLIPS AND STRUTS AT LOCATIONS OF EXTERIOR LAY-IN CEILINGS SUBJECT TO WIND FORCES, INCLUDING CANOPIES, OPEN AND PARTIALLY OPEN GARAGES, AND AREAS NEAR OVERHEAD DOOR OPENINGS. INCLUDE HOLD DOWN CLIPS AT ROOMS WITH PRESSURE RELEASE GASEOUS/DIRY FIRE PROTECTION.

L. DESIGN - BUILD – FIXTURE SUBMITTAL REQD TO OWNER FOR ACTUAL FIXTURE SPECIFICATIONS.

M. INFORMATION IS TAKEN FROM ELECTRICAL AND MECHANICAL DRAWINGS AND IS SHOWN FOR REFERENCE - CONTRACTOR TO NOTIFY THE ARCHITECT IF THERE ARE DISCREPENCIES BETWEEN THE ARCHITECTURAL CEILING PLANS AND THE MEP DRAWINGS.

N. INTERIOR DIMENSIONS ARE TO FACE OF STUD OR METAL FRAMING-TYPICAL UNO - COORDINATE WITH FLOOR PLAN DIMENSIONING

O. TYPICAL -CENTER LIGHT FIXTURE OR SPRINKLER HEAD IN CEILING TILE UNLESS INDICATED OTHERWISE.

P. TYPICAL -PAINT ALL CUT EDGES OF CEILING TILES WITH MFG RECOMMENDED TOUCH-UP PAINT. PROV EXTRA SUPPLY FOR OWNER.

Q. CEILING CONTRACTOR TO CUT AND MOUNT CEILING RECESSED FIXTURES AND OTHER FIXTURES IN METAL CEILING. FIXTURES BY ELECTRICAL CONTRACTOR. COORDINATE WITH ELECTRICAL CONTRACTOR.

R. TYPICAL - CENTER CEILING GRIDS IN INDIVIDUAL ROOMS: CENTER OF GRID OR CENTER OF PAD EQUALS CENTER OF ROOM. UNLESS NOTED OR DIMENSIONED OTHERWISE, NOTIFY ARCHITECT IF PERIMETER CUT TILES MEASURE LESS THAN 6".

S. GC TO CONDUCT COORDINATION MEETINGS TO IDENTIFY ANY CONFLICTS, CLEARANCE OR CEILING HEIGHT ISSUES PRIOR TO ANY INSTALLATION. PROVIDE DRAWING TO OWNER INDICATING ELEVATIONS AND LOCATIONS OF CONFLICTING ELEMENTS FOR RESOLUTION.

T. ALL KITCHEN CEILING SURFACES TO BE SMOOTH, DURABLE, NON-ABSORBANT AND EASILY CLEANABLE, STUD, JOISTS AND RAFTERS SHALL NOT EXPOSED TO AREAS SUBJECT TO MOISTURE. COMPLY WITH OBC, OMC, OHIO UNIFORM FOOD SAFETY CODE AND LOCAL HEALTH DEPARTMENT REQUIREMENTST.

Key to Ceiling Plan

CAN LIGHT

WALL WASH CAN LIGHT

PENDANT FIXTURE

CEILING FAN

EXT WALL SCONCE

8' LINEAR STRIP LIGHT

EMERGENCY EXIT LIGHT FIXTURE

TOILET ROOM EXHAUST FAN

OBC CH 10 - MEANS OF EGRESS ILLUMINATION – AT ALL TIMES, THE MEANS OF EGRESS ILLUMINATION SHALL NOT BE LESS THAN 1 FC AT THE WALKING SURFACE LEVEL. PROV NIGHT LIGHTING, EMERGENCY EGRESS LIGHTING AND EXIT DISCHARGE LIGHTING.

STATE OF OHIO

REGISTERED ARCHITECT

JASON WILLIAMS, LICENSE #081458

EXPIRATION DATE 12/31/2025

PHOENIX ARCHITECTURE

9467 Kenwood Rd

Indianapolis, IN 46242

(317) 451-9200

phoenix-arch.com

ALTERNATION AND/OR REVISIONS TO THIS PROJECT MUST BE PRESENTED IN THIS MANNER

DATE

DESCRIPTION

UNION VILLAGE
BATH HOUSE AND PAVILION

BAXTER ST.
TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE

08/18/2025

PERMIT ISSUE

09/26/2025

REVISION 01

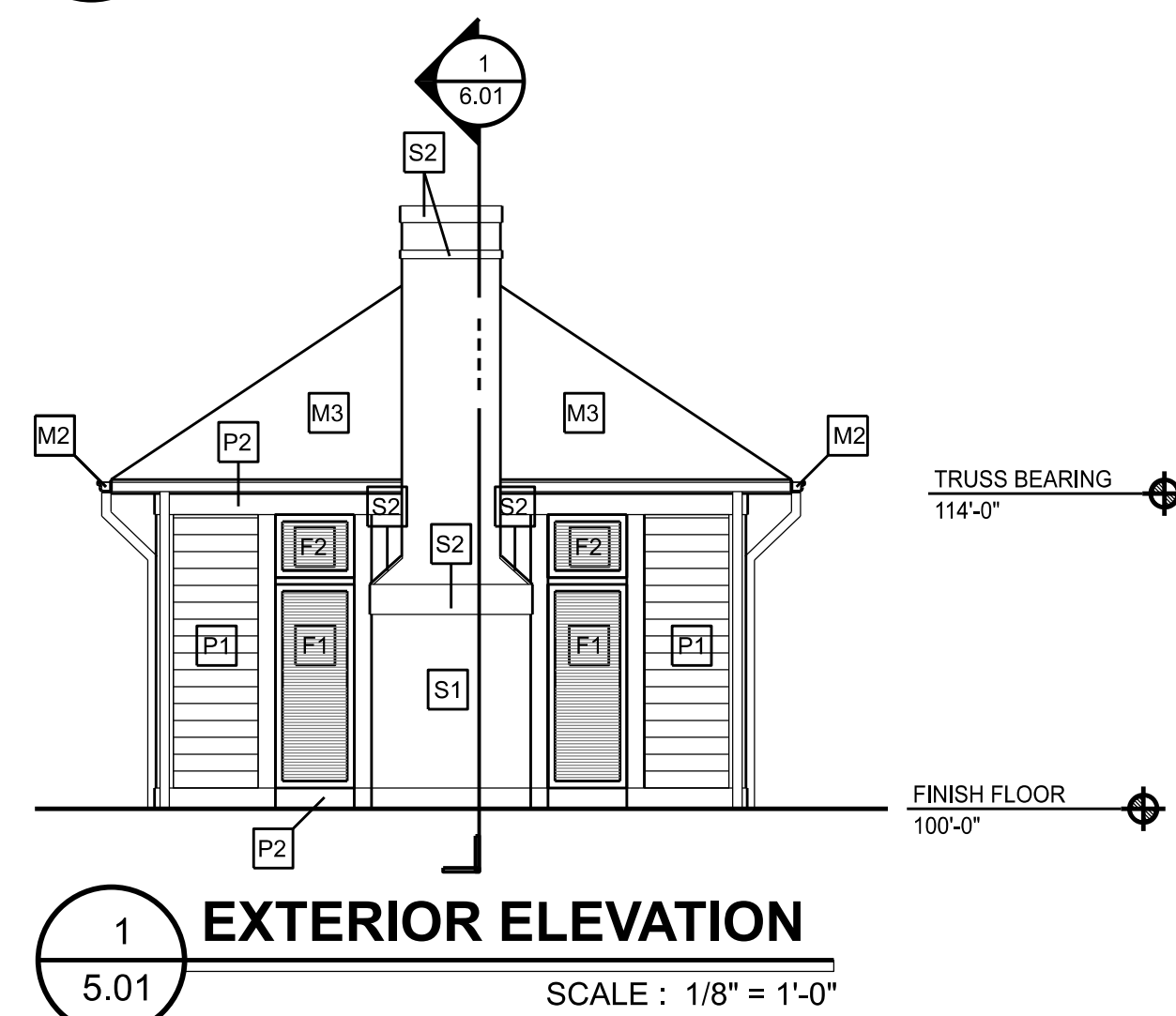
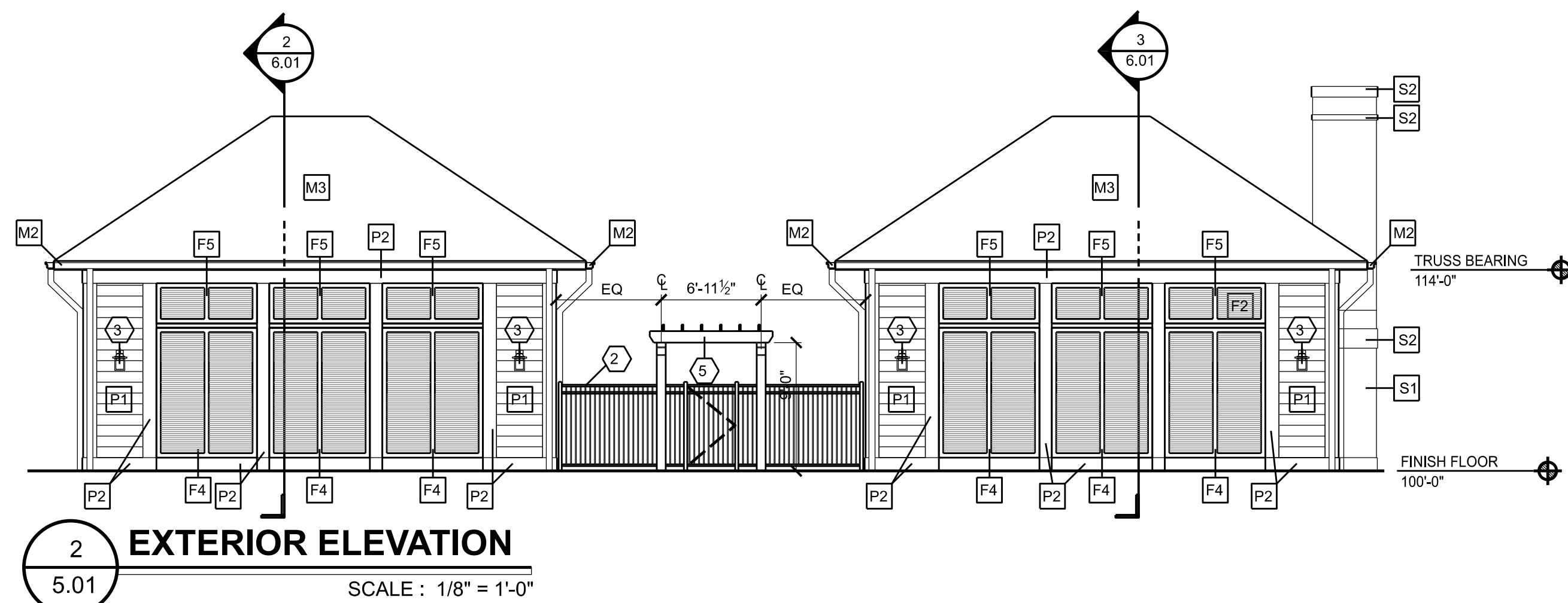
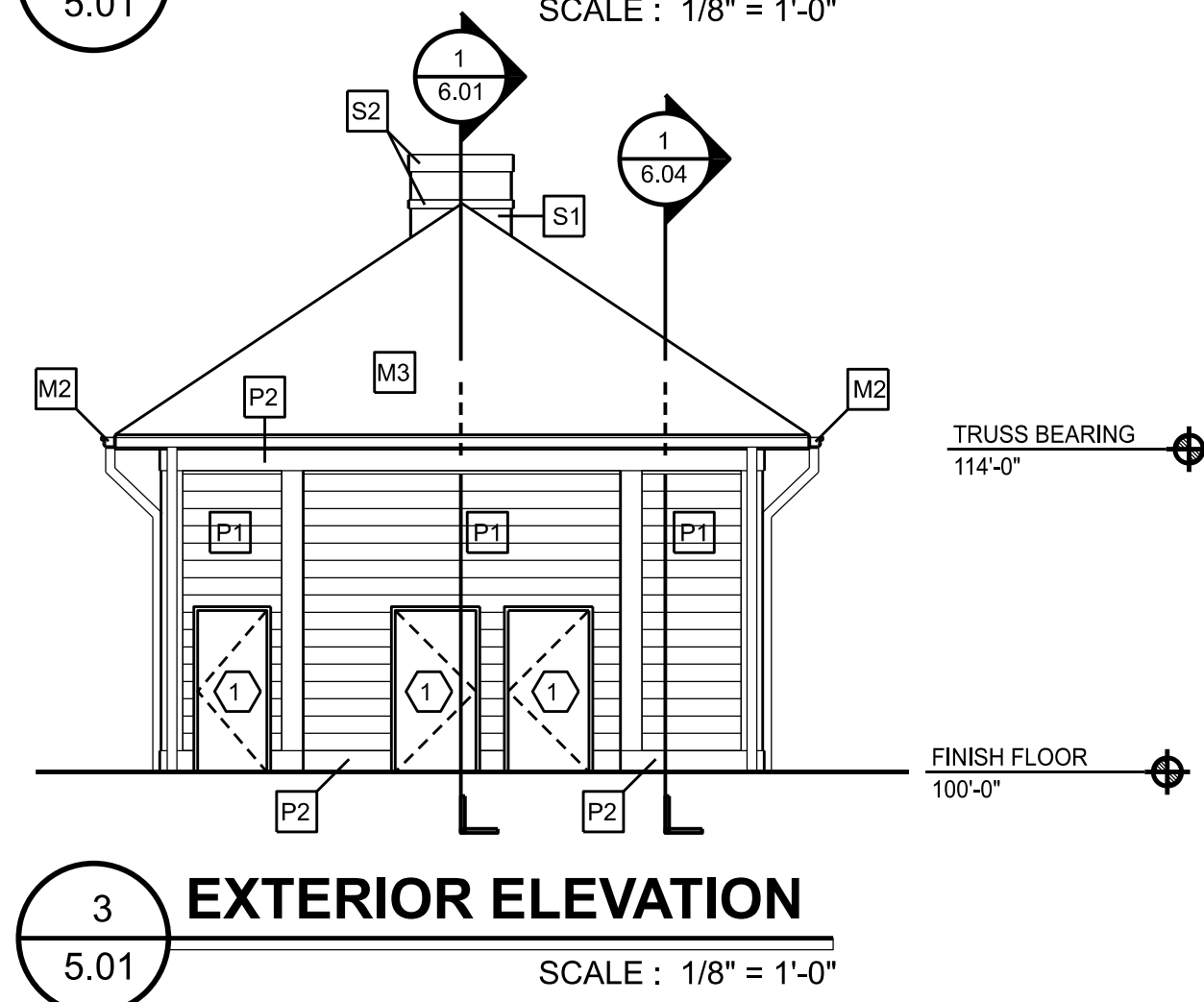
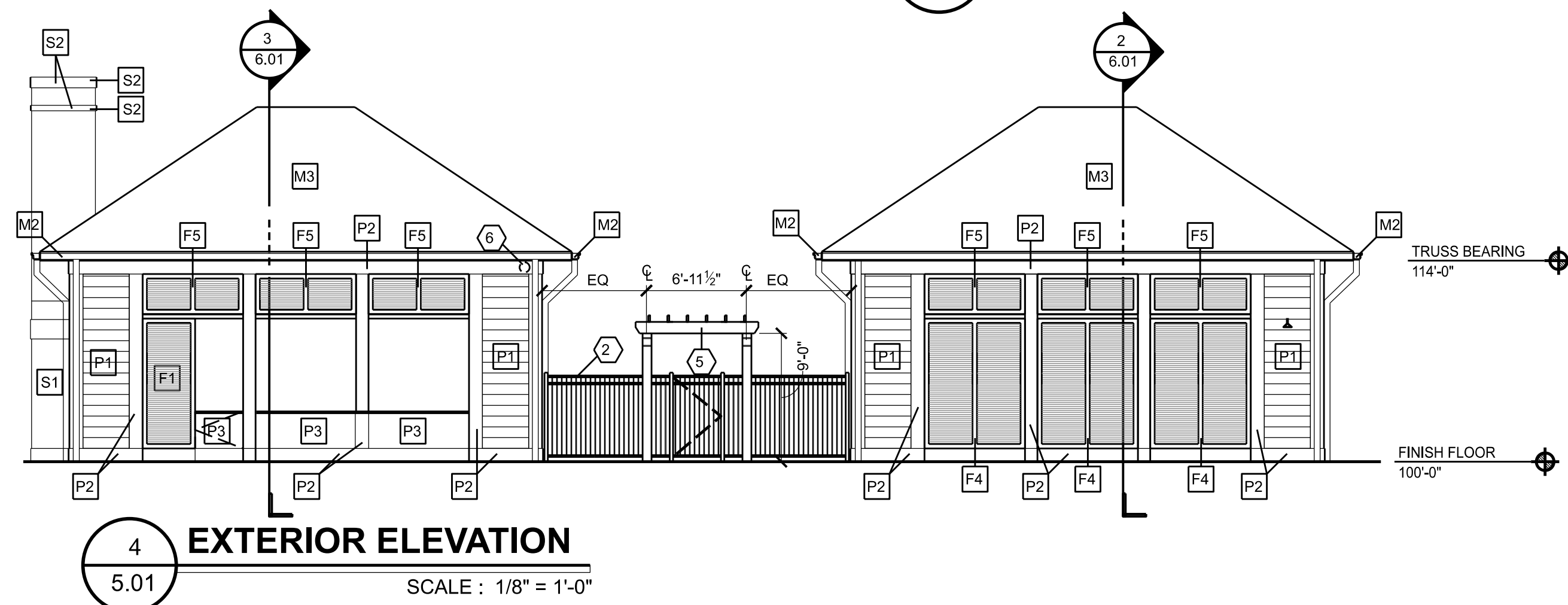
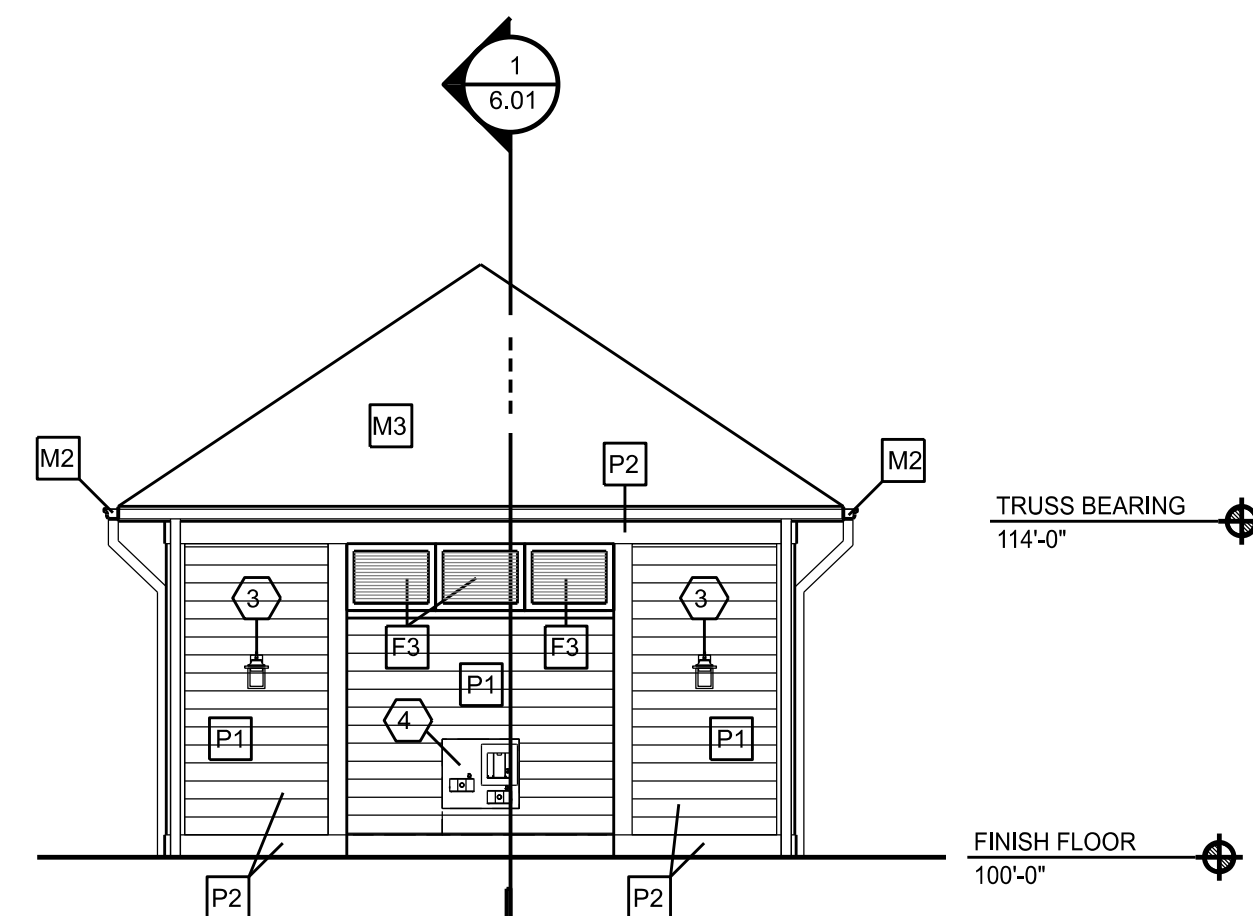
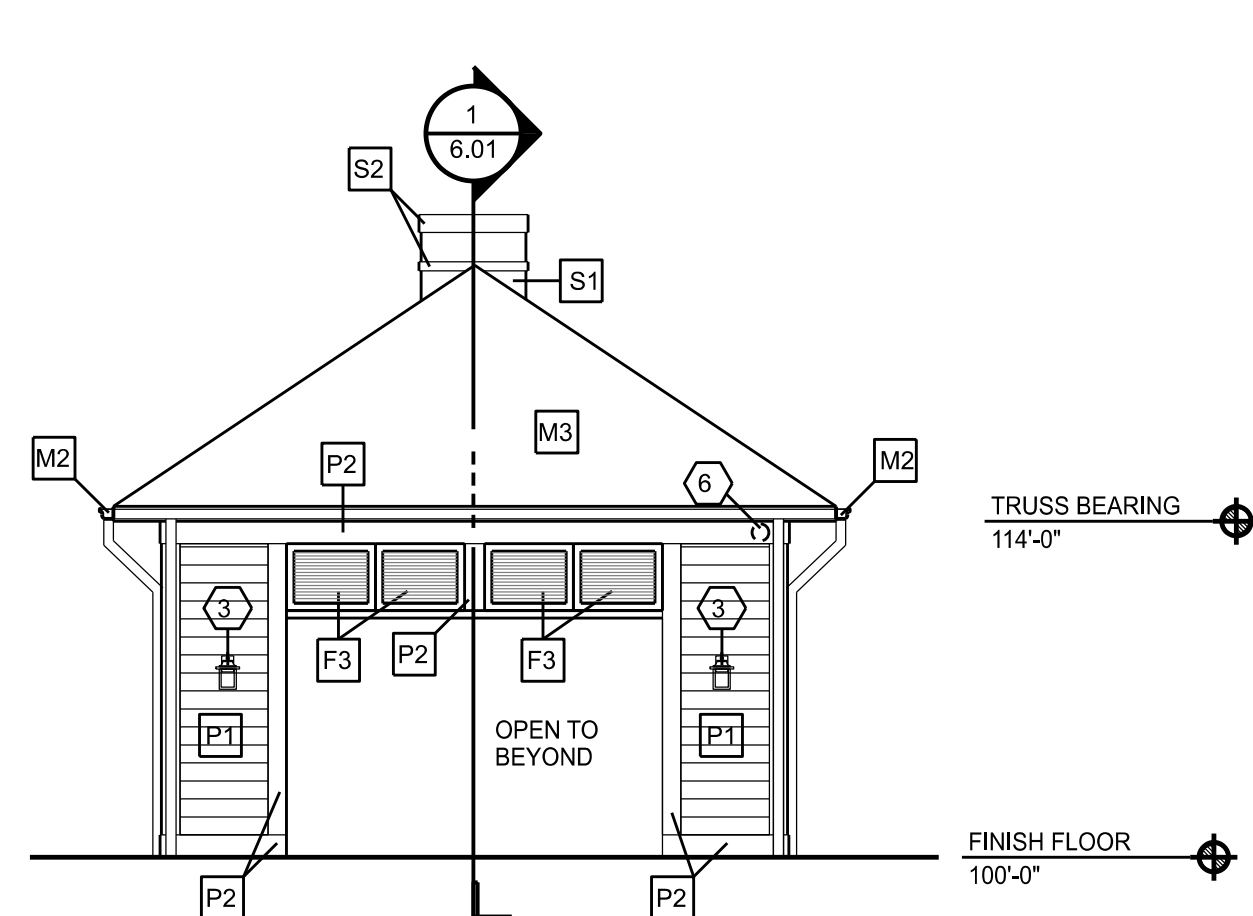
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REFLECTED
CLNG PLAN

3.01



Exterior Finish Legend

M1	PREFINISHED METAL FLASHING W/ DRIP EDGE
M2	PREFINISHED ALUM DOWNSPOUT AND GUTTER
M3	STANDING SEAM METAL ROOF - COLOR TO BE SELECTED BY OWNER
P1	HARDI SHIP LAP SIDING IN SMOOTH FINISH - PAINTED
P2	AZEK SMOOTH TRIM PAINTED
P3	AZEK 3/8" SHEETS IN TRADITIONAL SMOOTH FINISH
S1	MANUFACTURED STONE VENEER - LIMESTONE HARBOR STONE PROFILE W/ BLACK GROUT
S2	CAST STONE BAND - COLOR TO BE SELECTED BY OWNER
F1	PREFINISHED 42"W X 108.5"H STRUCTURAL FIBERGLASS SHUTTER - ATLANTIC PREMIUM SHUTTERS - ARCHITECTURAL COLLECTION - BAHAMA STYLE - COLOR TO BE SELECTED BY ARCHITECT
F2	PREFINISHED 42"W X 33.5"H STRUCTURAL FIBERGLASS SHUTTER - ATLANTIC PREMIUM SHUTTERS - ARCHITECTURAL COLLECTION - BAHAMA STYLE - COLOR TO BE SELECTED BY ARCHITECT
F3	PREFINISHED 44.5"W X 33.5"H STRUCTURAL FIBERGLASS SHUTTER - ATLANTIC PREMIUM SHUTTERS - ARCHITECTURAL COLLECTION - BAHAMA STYLE - COLOR TO BE SELECTED BY ARCHITECT
F4	PREFINISHED 84"W X 108.5"H STRUCTURAL FIBERGLASS SHUTTER - ATLANTIC PREMIUM SHUTTERS - ARCHITECTURAL COLLECTION - BAHAMA STYLE - COLOR TO BE SELECTED BY ARCHITECT
F5	PREFINISHED 84"W X 33.5"H STRUCTURAL FIBERGLASS SHUTTER - ATLANTIC PREMIUM SHUTTERS - ARCHITECTURAL COLLECTION - BAHAMA STYLE - COLOR TO BE SELECTED BY ARCHITECT

Elevation Notes

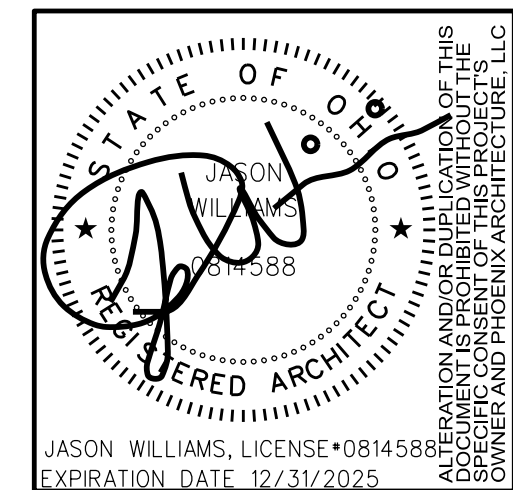
- 1 HOLLOW METAL DOOR AND FRAME PAINTED
- 2 6'-0" HIGH ALUM FENCE IN BLACK FINISH - ELITE COMMERCIAL GRADE ALUMINUM FENCE - STYLE RFP-20
- 3 EXTERIOR WALL SCONCE - SEE ELECTRICAL
- 4 ADA COMPLIANT HIGH / LOW DRINKING FOUNTAIN W/ BOTTLE FILLER
- 5 PT WD PAINTED TRELLIS - PROVIDE AN 8x8 WOOD POST IN 30" DEEP CONCRETE FOUNDATION AT EACH END WITH 2x8 BEAM THRU-BOLTED ON EACH SIDE OF WOOD POST AND 2x2 TRELLIS PIECES AT 16" OC ON TOP
- 6 PROVIDE POWER AND DATA FOR CAMERA BY OWNER

Key to Plan Symbols

	ROOM NAME AND NUMBER		DETAIL SHEET NUMBER
	DOOR/FRAME NUMBER SEE DOOR SCHEDULE		INTERIOR ELEVATIONS (MULTIPLE)
	PARTITION TYPE TAG		ELEVATION NUMBER
	CONSTRUCTION NOTE TAG		INTERIOR ELEVATION TAG
	ELEVATION NUMBER		DETAIL SHEET NUMBER
	EXTERIOR ELEVATIONS		DETAIL NUMBER
	DETAIL SHEET NUMBER		WALL SECTION TAG
	DRAWING REVISION TAG		DETAIL SHEET NUMBER
	WALL MOUNTED FIRE EXTINGUISHER (FE)		SEMI RECESSED FIRE EXTINGUISHER CABT (FEC)

General Plan Notes

- A. INTERIOR DIMENSIONING IS TO FACE OF STUD, CMU METAL FRAMING, UNLESS NOTED OTHERWISE
- B. EXTERIOR DIMENSIONS ARE TO FACE OF MASONRY, PRECAST, GLASS OR ALUMINUM UNO, NON EDGE WINDOW DIMENSIONS ARE TO CENTER OF WINDOW MULLION
- C. METAL STUD FRAMING - COMPLY WITH MFG RECOMMENDED TABLES FOR UNBRACED LENGTH / GAUGE
- D. ALL PARTITIONS ARE TYPE "X" UNLESS NOTED OTHERWISE - NONBEARING AND FIRE RATED
- E. DS - DOWNSLOPE / ROOF LEADER - SEE EGR / PLUMB DWGS - PROV BOOT/TRANSITION TO STORM SYS
- F. HB - INDICATES HOW BIB/WALL HYDRANT - SEE WALL SECTIONS AND PLUMB DRAWINGS
- FD - INDICATES FLOOR DRAIN - SEE PLUMBING DRAWINGS
- H. FLOOR ELEVATION - 100'-0" EQUALS USGS xxxxx - COORDINATE WITH CIVIL DRWG



UNION VILLAGE
BATH HOUSE AND PAVILION
BAXTER ST.
TURTLECREEK TOWNSHIP, OHIO

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EXTERIOR ELEVATIONS

5.01



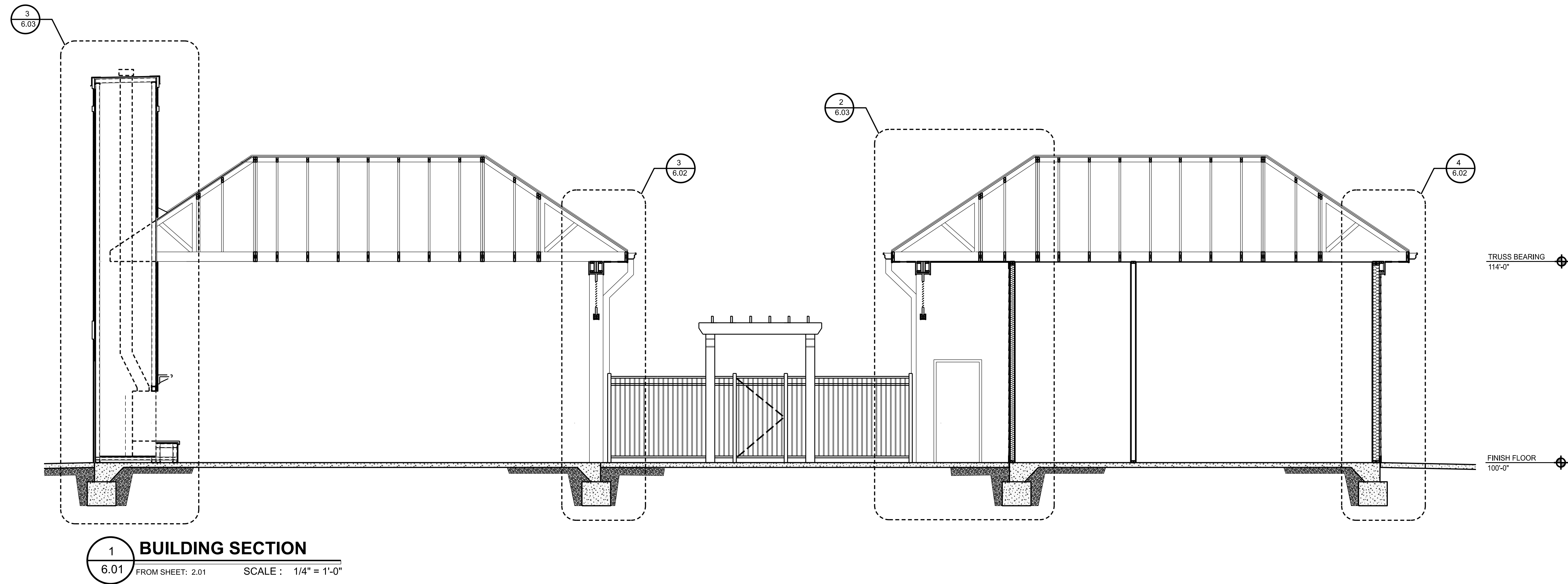
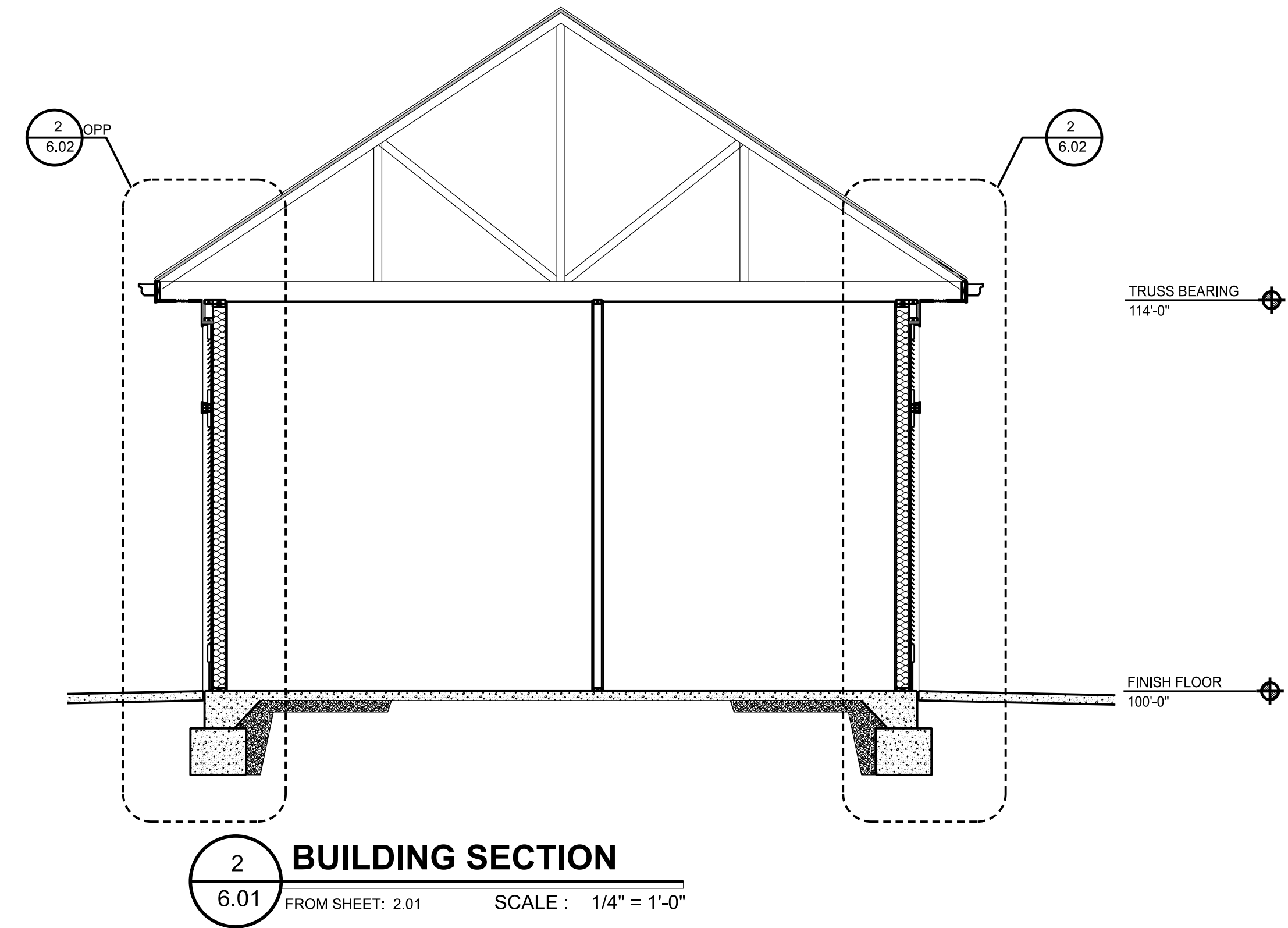
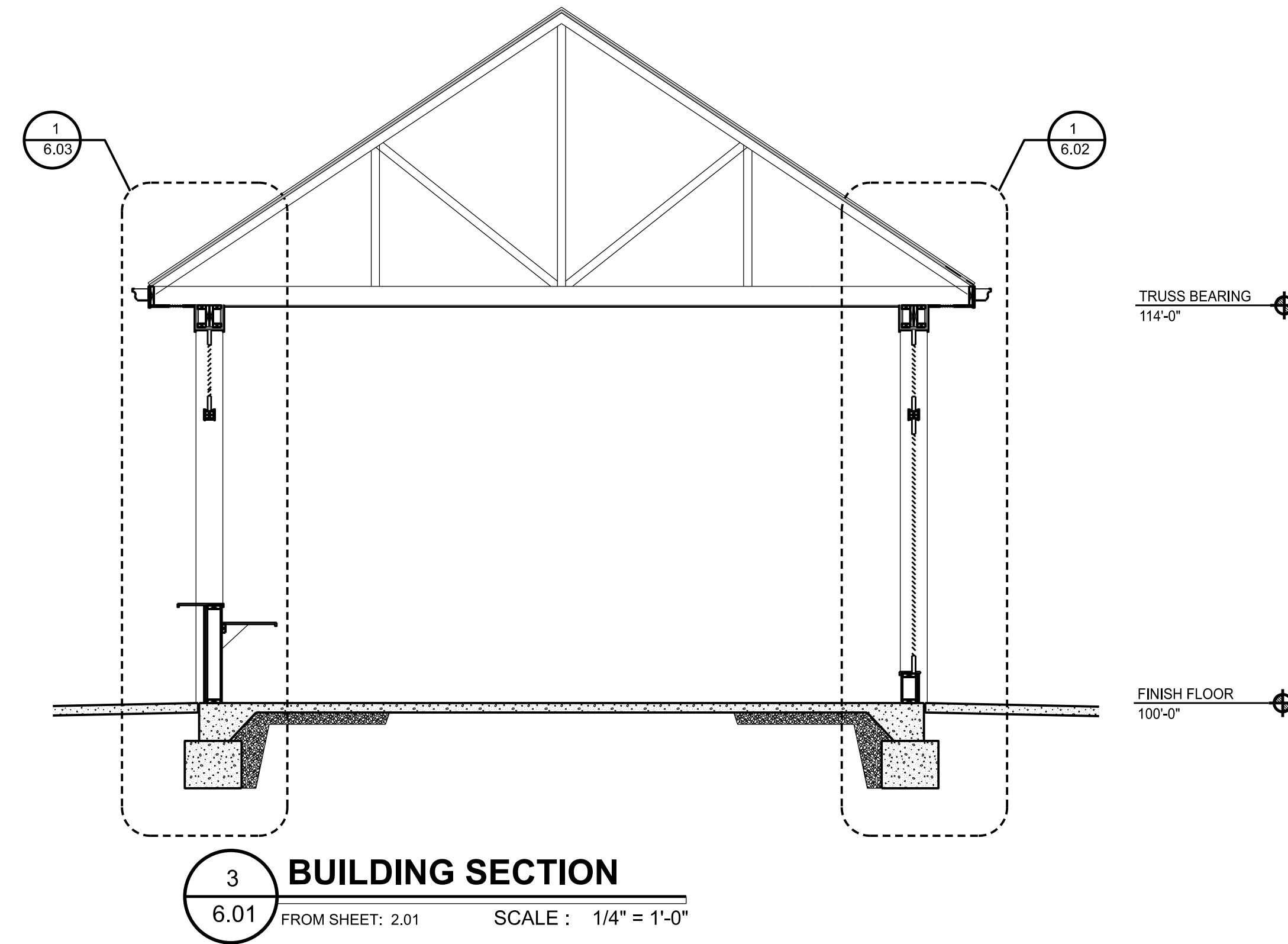
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BUILDING SECTIONS

6.01



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WALL
SECTIONS

6.02



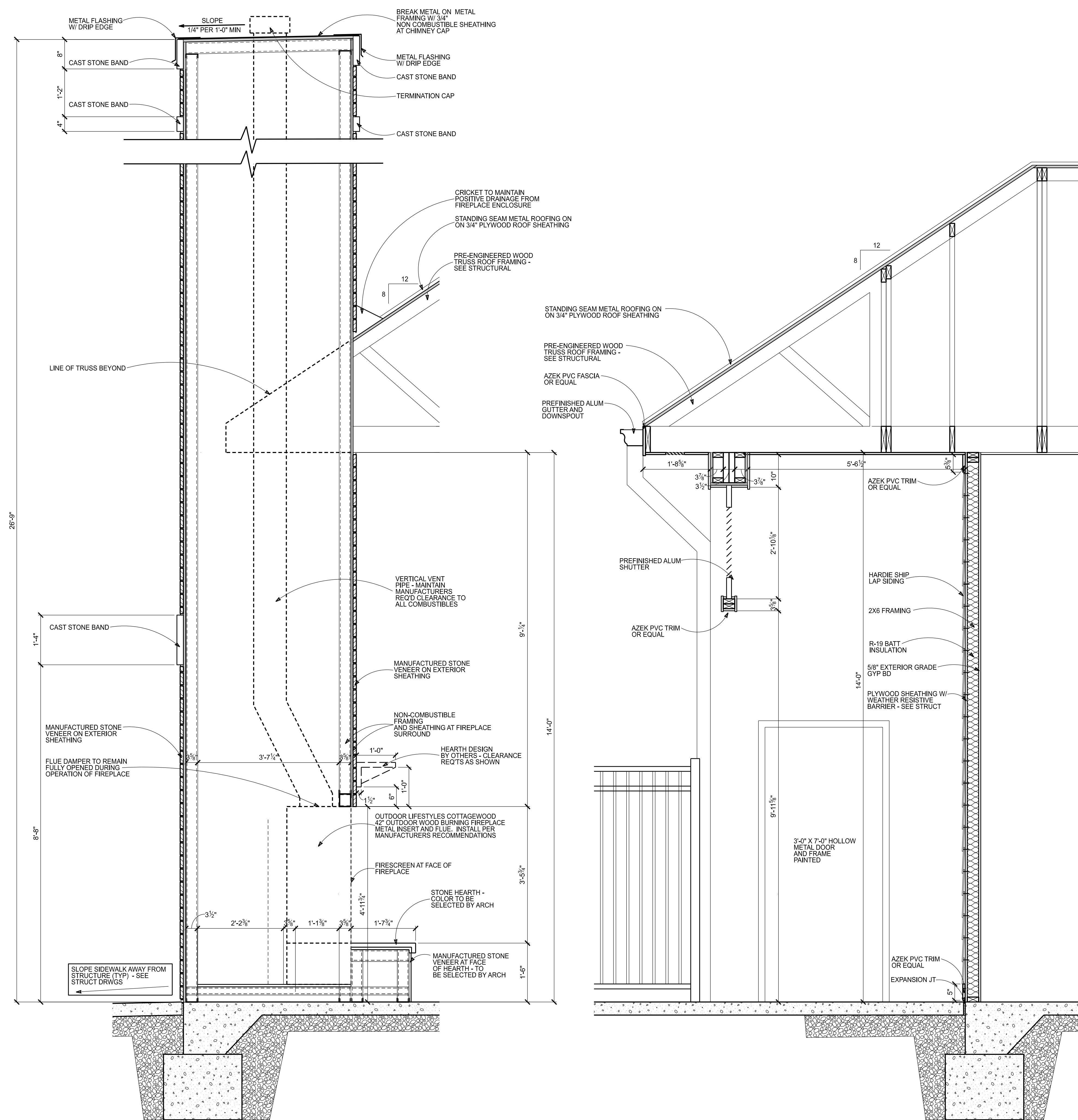
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WALL SECTIONS

6.03



2

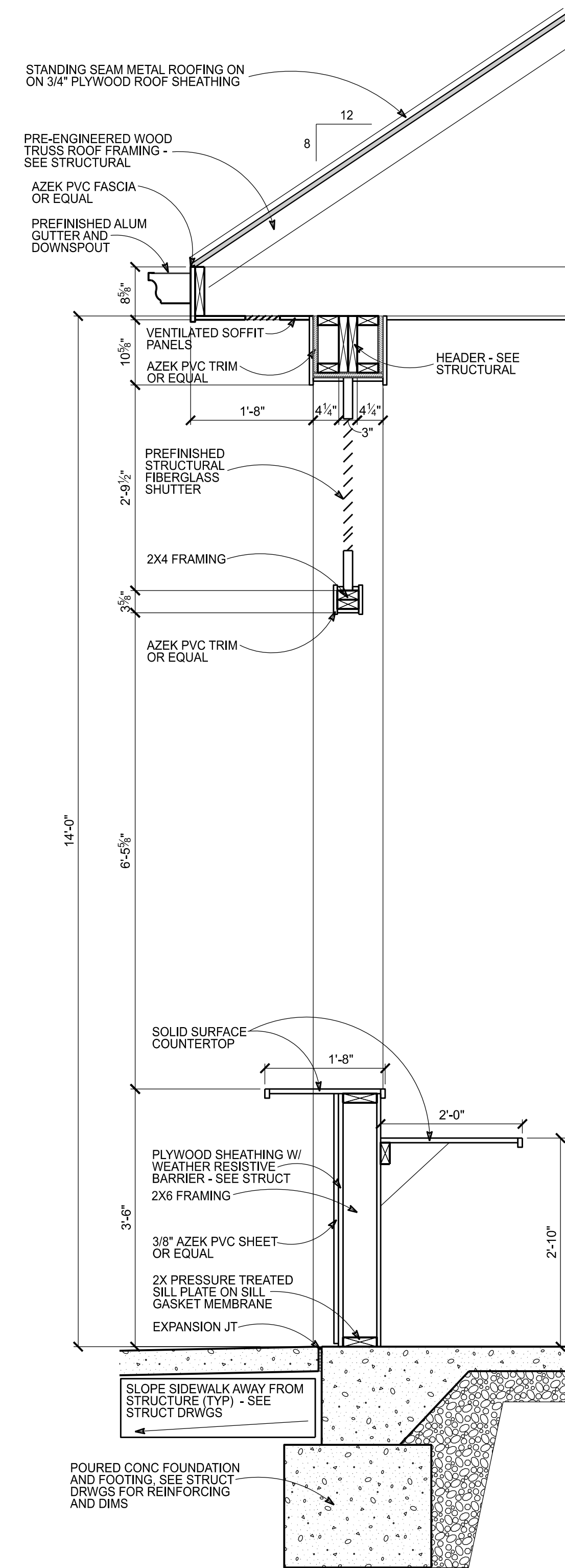
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WALL SECTION

FROM SHEET: 6.01

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

SEE TYP NOTES
PER 1/6.03





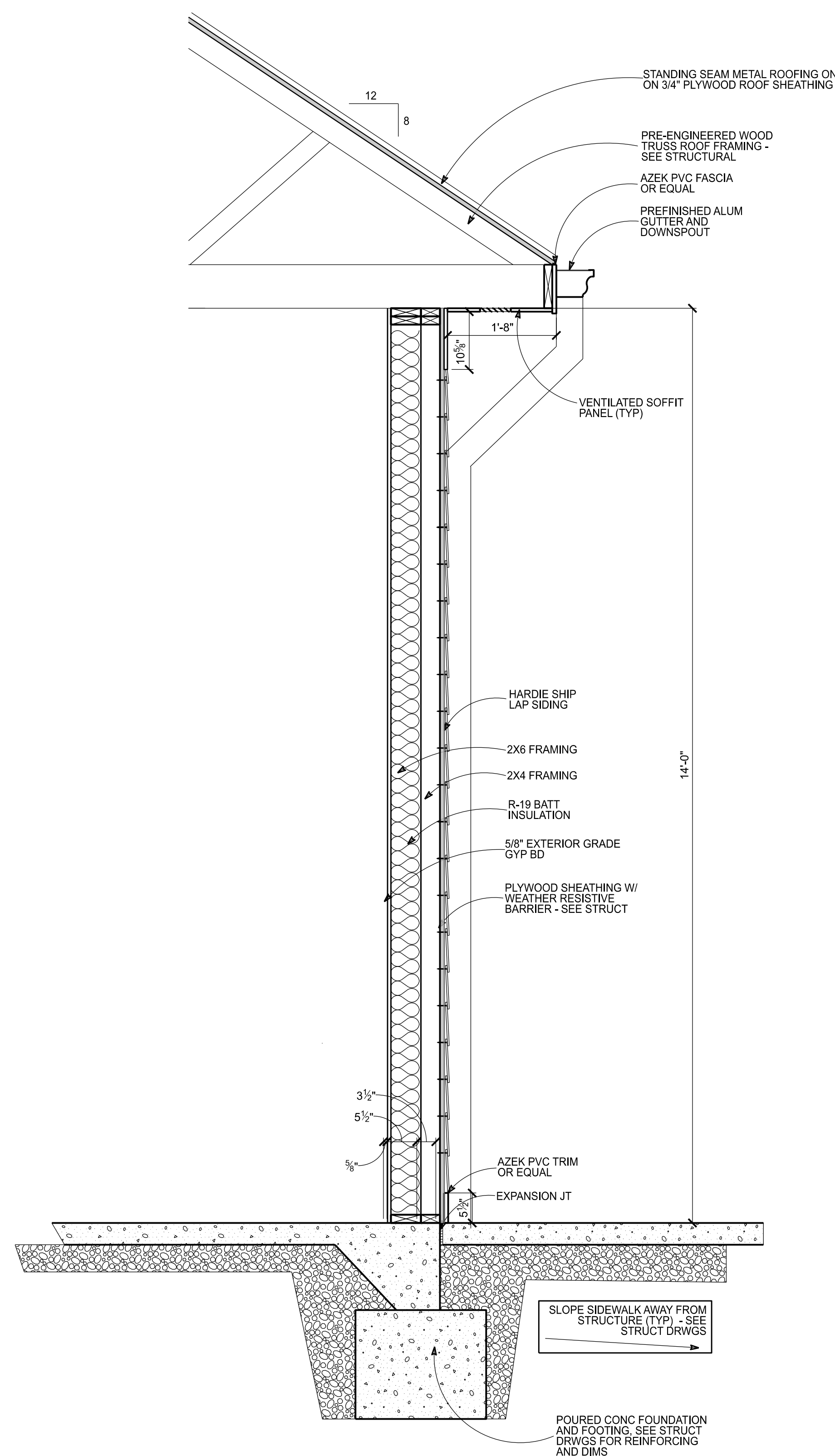
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WALL SECTIONS

6.04



1 WALL SECTION

6.04 FROM SHEET: 2.01 SCALE : 3/4" = 1'-0"



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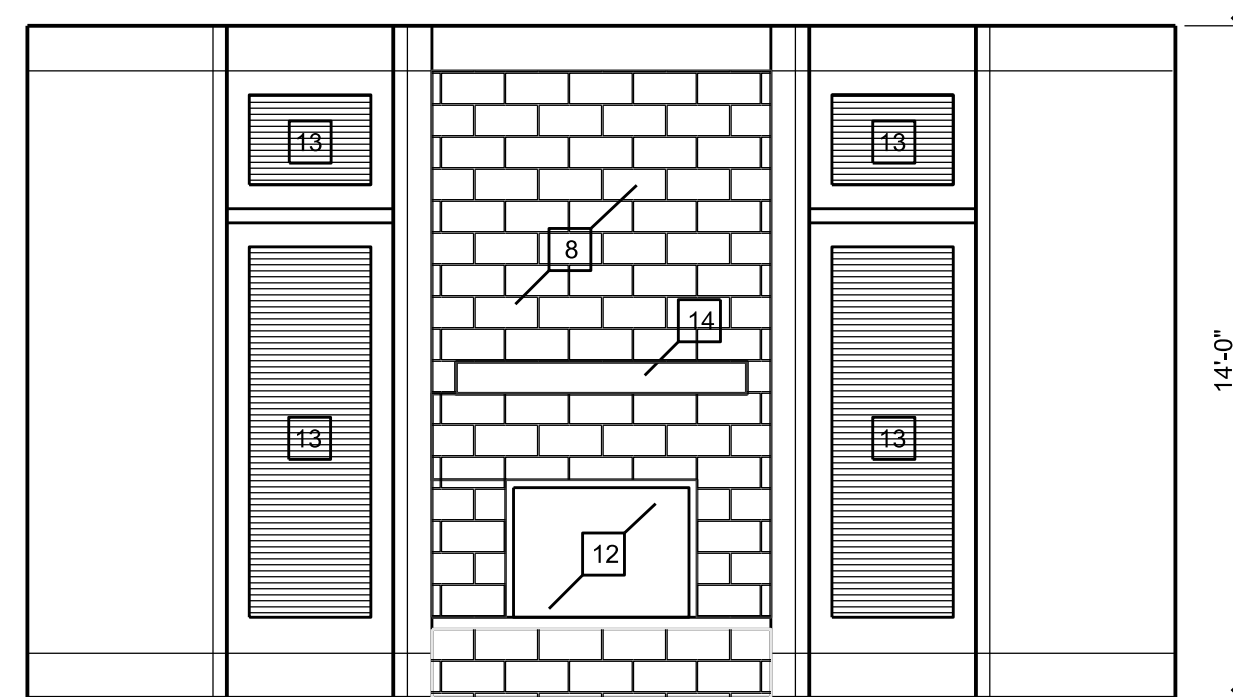
INTERIOR ELEVATIONS

7.01

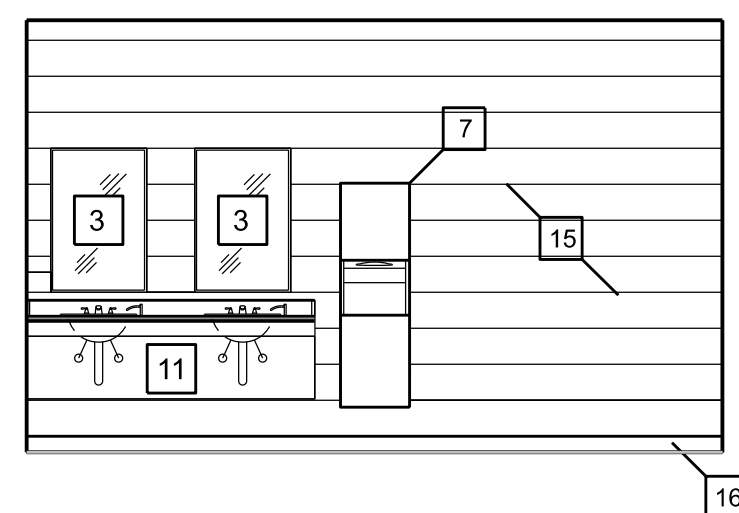
- A. ALL FINISH WORK, MATERIALS AND PRODUCTS SHALL COMPLY WITH OBC CHAPTER 8.
- B. PREPARE ALL SUBSTRATE SURFACES TO RECEIVE FINISH MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- C. PAINT HOLLOW METAL DOORS, ACCESS PANELS AND FRAMES - 1 COAT PRIMER AND 2 COATS FINISH
- D. PROVIDE TILE BACKER BOARD (CEMENT BOARD AT WET AREAS, PROVIDE 5/8" MOISTURE RESISTT GWB IN AREAS SUBJECT TO MOISTURE AND HUMIDITY, INCL ALL KITCHENS, UTILITY SINKS, WET WALLS, TOILET ROOMS, EXTEND WRB GWB FULL WIDTH OF WALL COVERING PLUMBING FIXTURES UNLESS APPROVED IN WRITING BY OWNER AND/OR ARCHITECT.

*ALL GRAB BARS AND TOILET
ROOM ACCESSORIES TO BE
BRUSHED STAINLESS STEEL

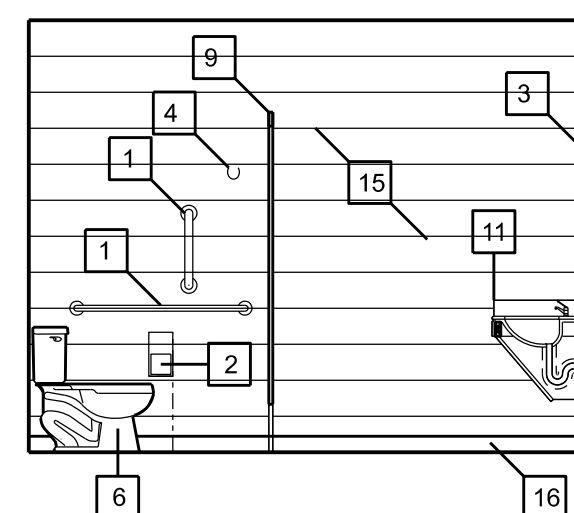
1	GRAB BARS. BOBRICK B-6806 SERIES
2	TOILET TISSUE DISPENSER. BOBRICK B-4288
3	MIRROR. KOHLER ESSENTIAL. 22" X 34" RECTANGULAR MIRROR, MATTE BLACK FINISH
4	DOUBLE ROBE HOOK. BOBRICK B-6727, STAINLESS STEEL
5	PORCELAIN CERAMIC WALL TILE
6	WATER CLOSET
7	PAPER TOWEL DISPENSER / TRASH. BOBRICK B-3944. STAINLESS STEEL
8	MANUFACTURED STONE VENEER - TO BE SELECTED BY OWNER
9	PLASTIC LAMINATE TOILET PARTITION
10	WALL MOUNTED URINAL
11	LEVER HANDLE SINK IN SOLID SURFACE COUNTER TOP W/ SIDE AND BACK SPLASH. PROVIDE IN COUNTER SOAP DISPENSER. PROVIDE SLOPED APRON FOR ACCESSIBILITY
12	WOOD BURNING FIREPLACE INSERT
13	PREFINISHED STRUCTURAL FIBERGLASS SHUTTER
14	ROUGH HEWN RECLAIMED WOOD MANTEL - PROVIDE BLOCKING PER MANUFACTURERS RECOMMENDATIONS. LOCATE PER WOOD BURNING FIREPLACE MANUFACTURER REQUIREMENTS
15	HARDIE FIBER CEMENT LAP SIDING W/ EPOXY PAINT - COLOR TO BE SELECTED BY OWNER
16	AZEK PVC TRIM AT FLOOR BASE



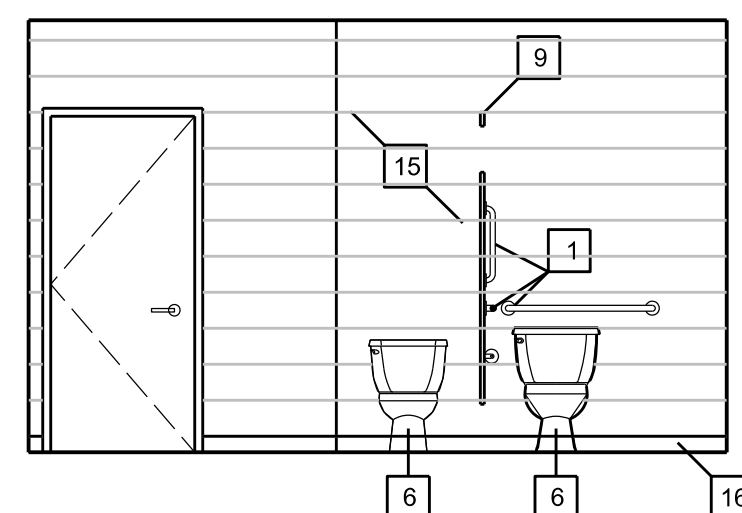
9 INTERIOR ELEVATION
7.01 SCALE: 1/4" = 1'-0"



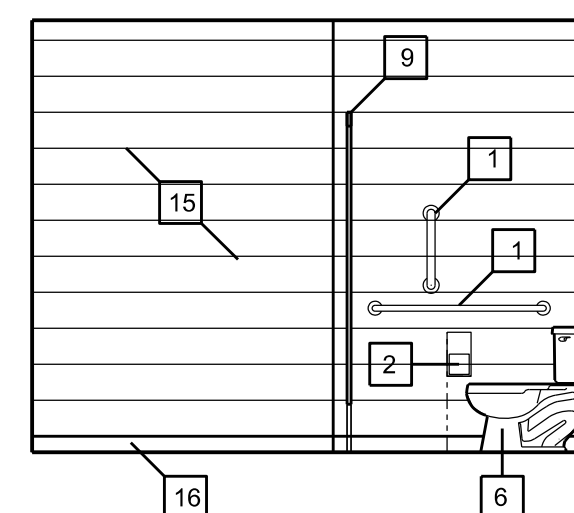
8 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



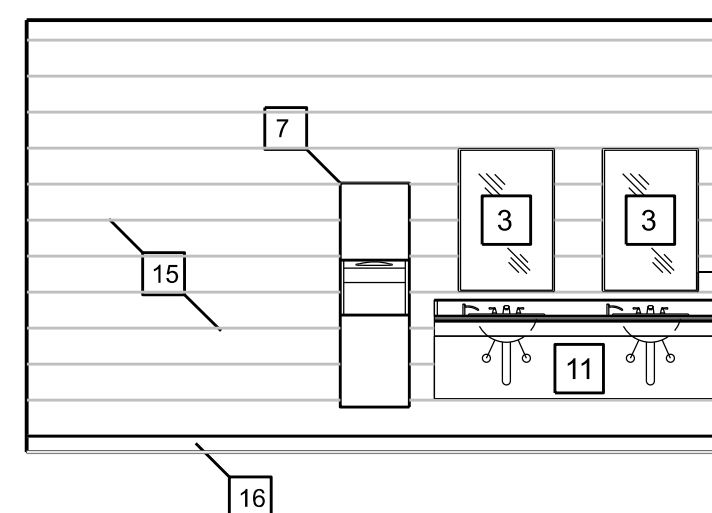
7 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



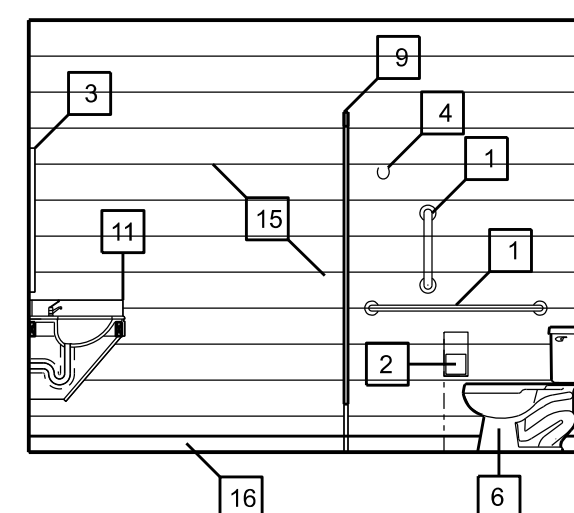
6 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



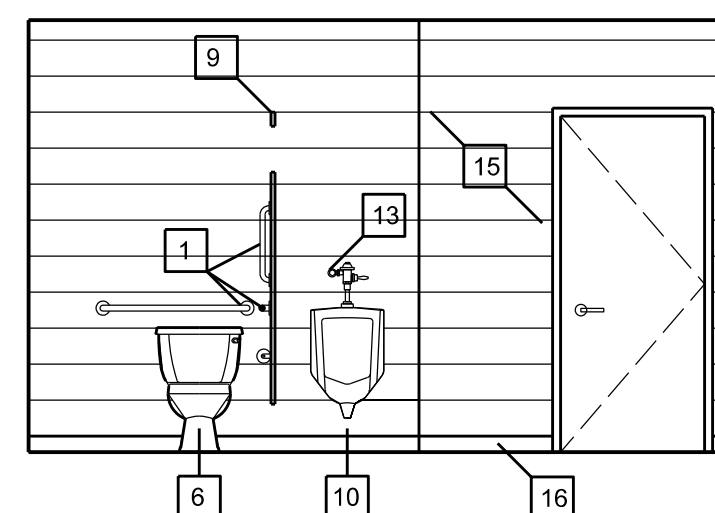
5 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



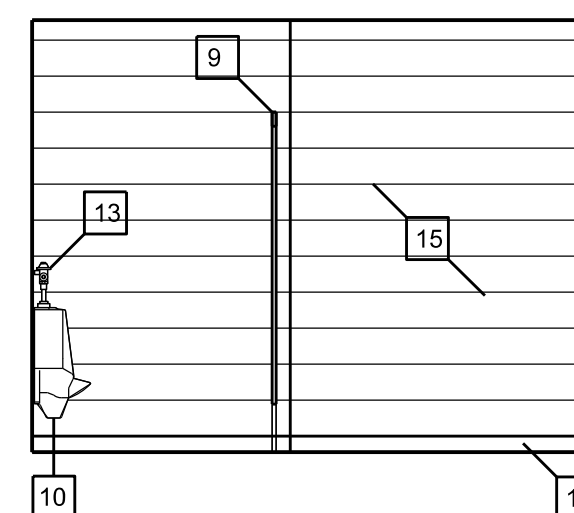
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7.01 SCALE : 1/4" = 1'-0"



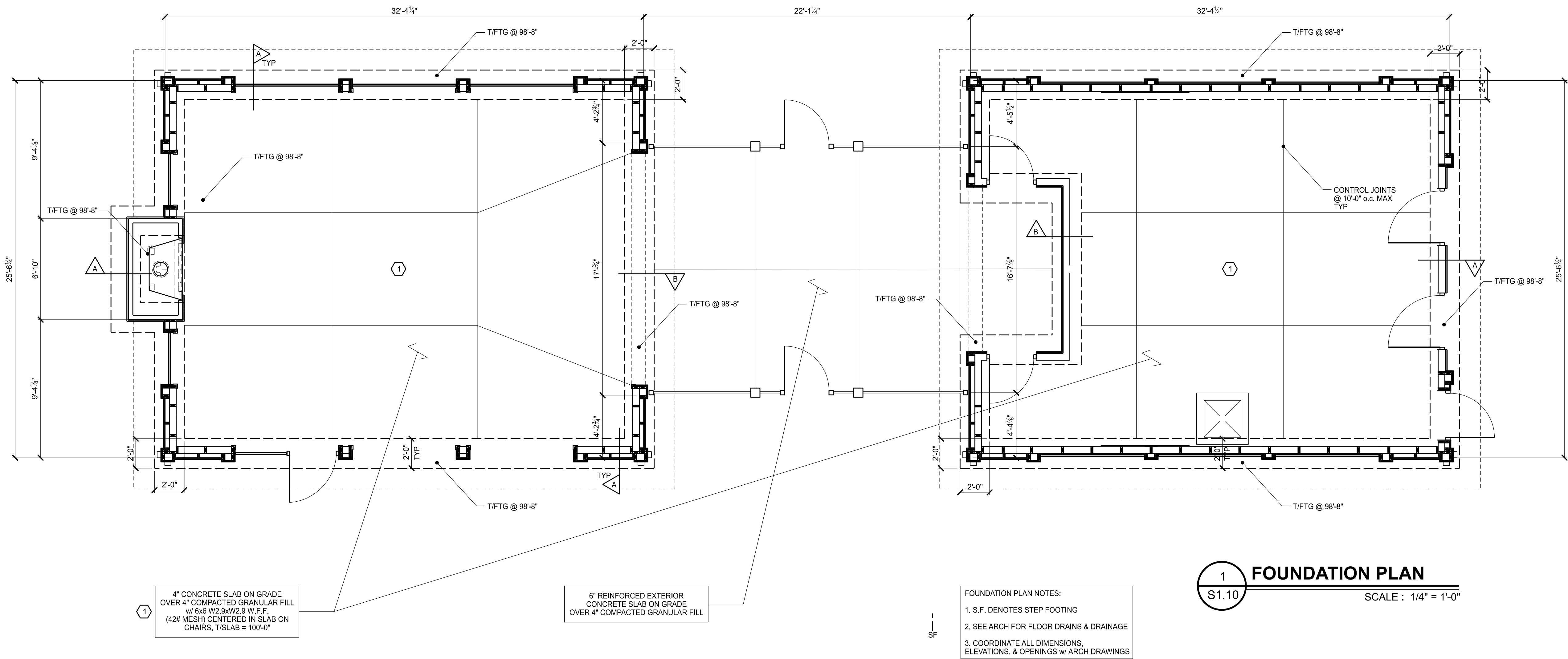
3 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



2 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



1 INTERIOR ELEVATION
7.01 SCALE : 1/4" = 1'-0"



1 FOUNDATION PLAN
S1.10 SCALE : 1/4" = 1'-0"

- FOUNDATION PLAN NOTES:
1. S.F. DENOTES STEP FOOTING
 2. SEE ARCH FOR FLOOR DRAINS & DRAINAGE
 3. COORDINATE ALL DIMENSIONS, ELEVATIONS, & OPENINGS w/ ARCH DRAWINGS

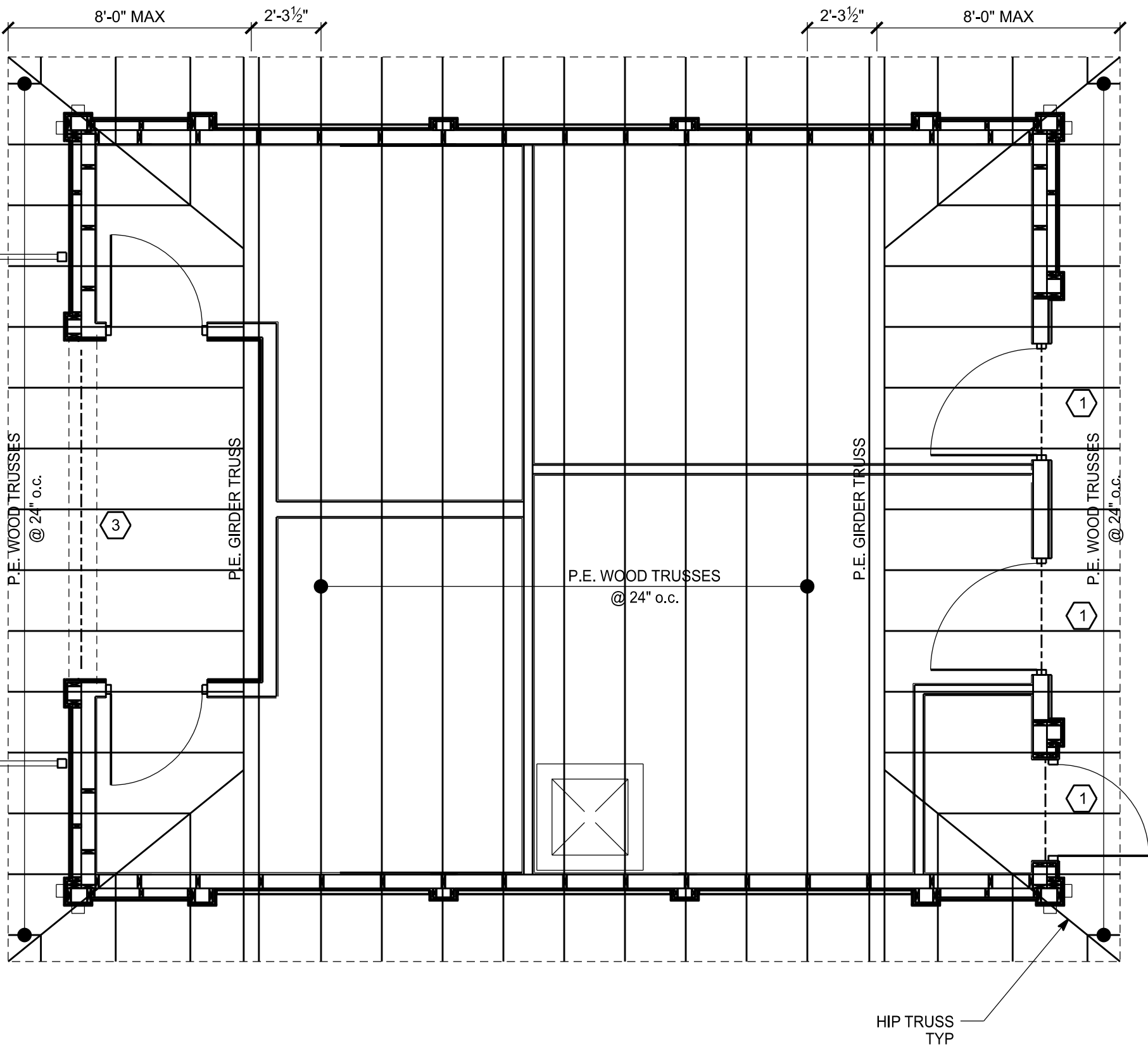
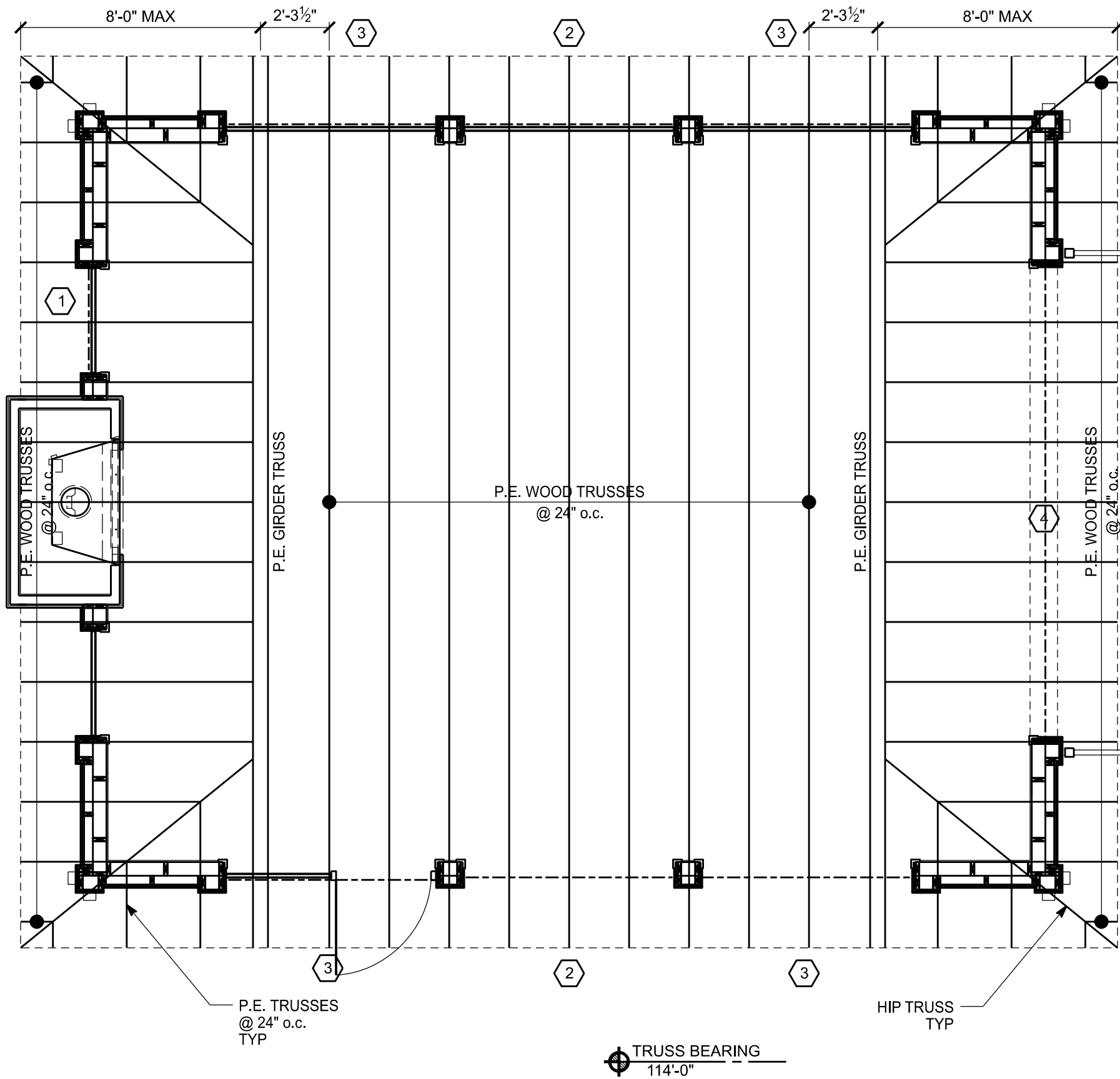


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UNION VILLAGE
BATH HOUSE AND PAVILION
BAXTER ST.
TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE	08/18/ 2025
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JOB NO. 9164.01
FOUNDATION PLAN
S1.10



1 **FRAMING PLAN**
S1.20 SCALE : 1/4" = 1'-0"

HEADER SCHEDULE		
MARK	DESCRIPTION	T/ HEADER
①	(2) 2x8's w/ (1) KING & (1) JACK STUDS	SEE PLAN
②	(2) 2x10's w/ (2) KING & (1) JACK STUDS	SEE PLAN
③	(2) 1½" x 9½" LVL w/ (2) KING & (1) JACK STUDS	SEE PLAN
④	(2) 1½" x 9½" LVL w/ (3) KING & (1) JACK STUDS	SEE PLAN



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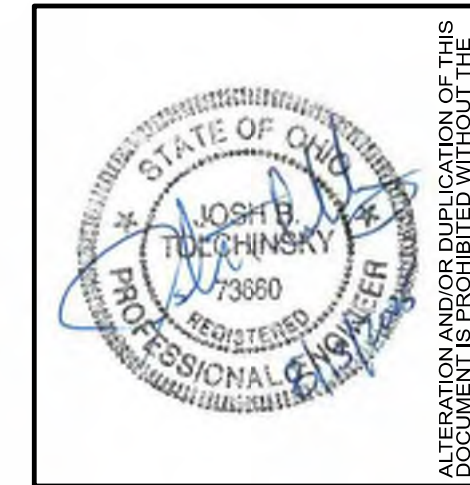
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FRAMING
PLAN

S1.20



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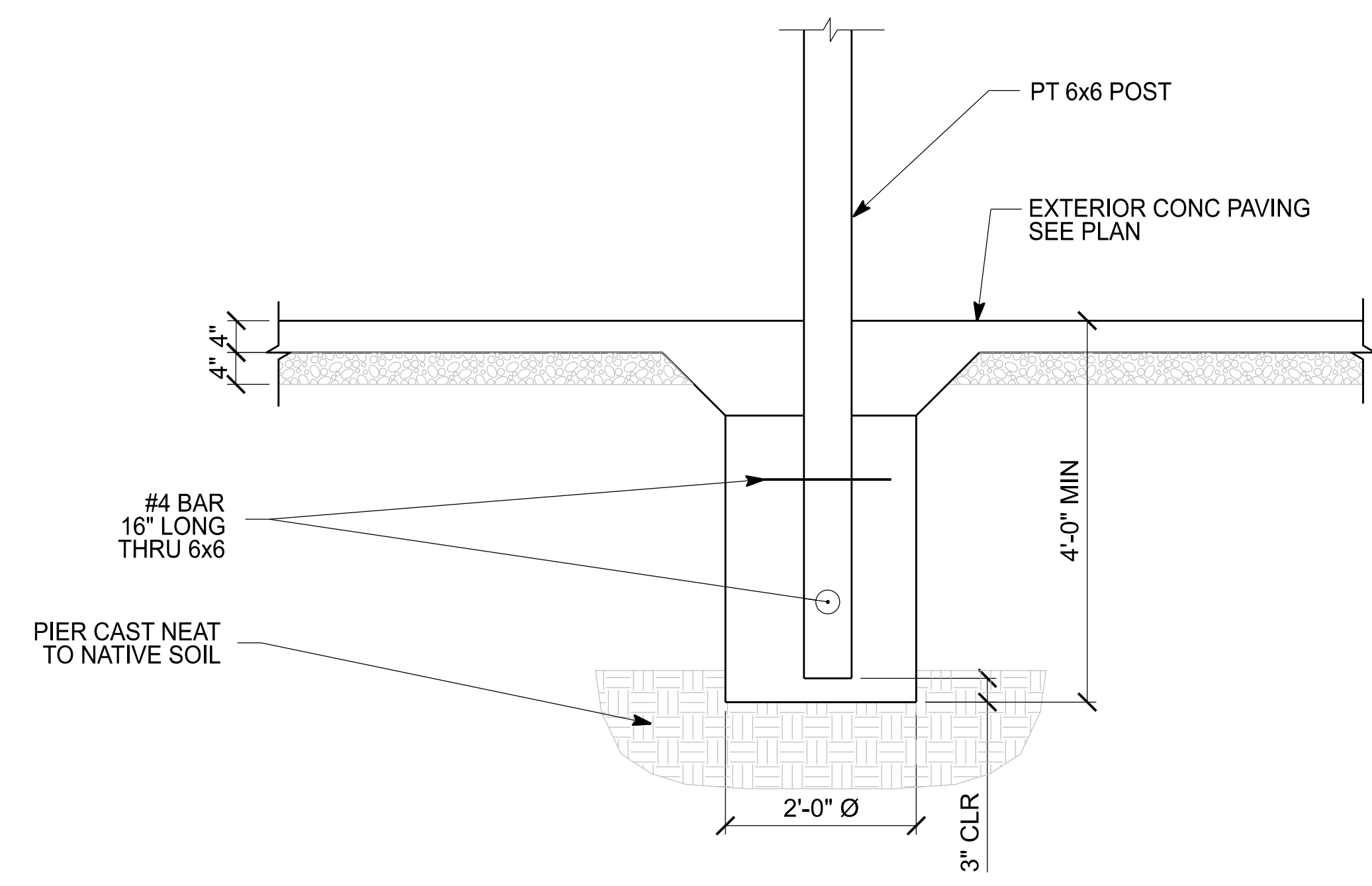
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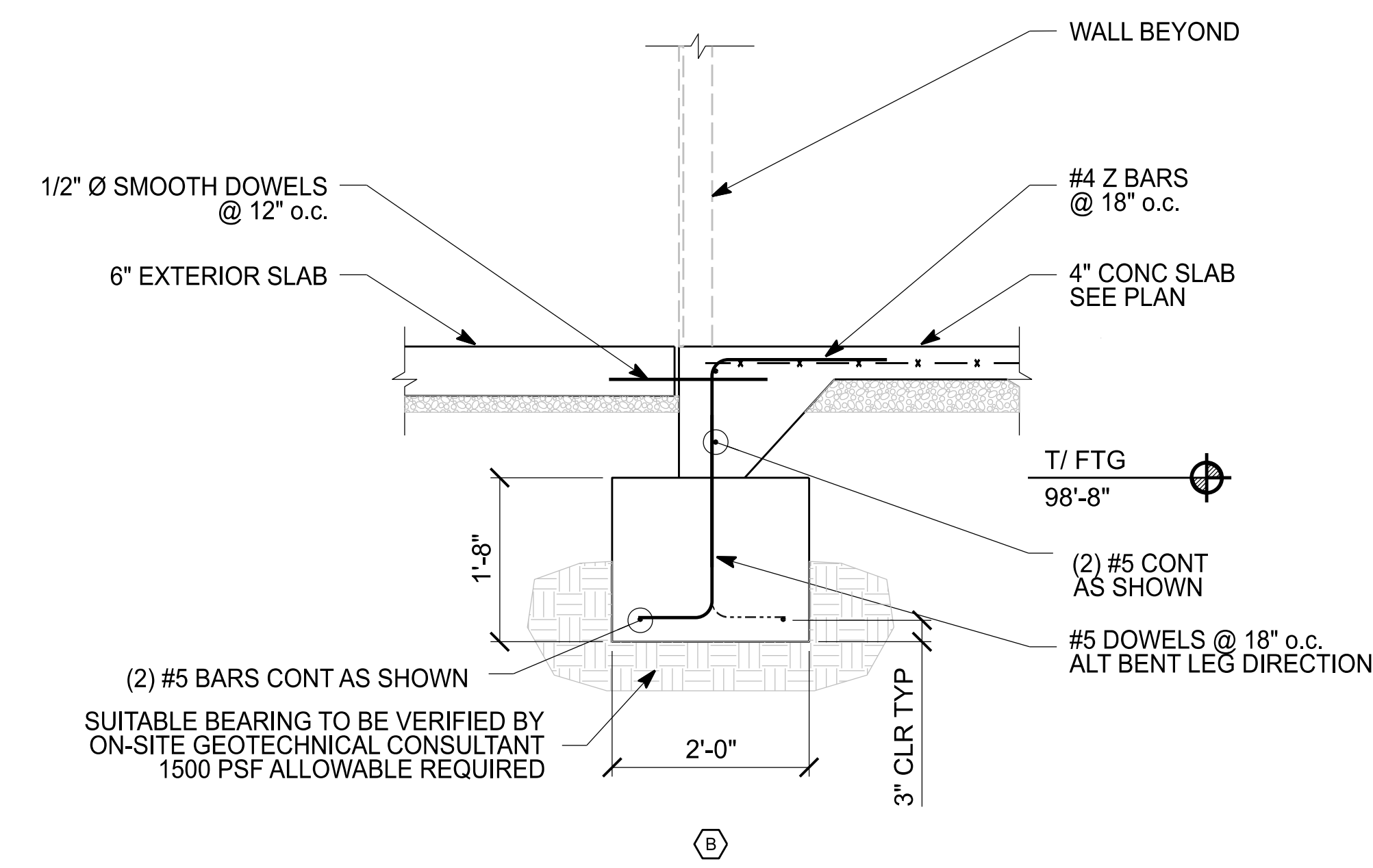
PROJ MANAGER:	ALB
JOB NO.	9164.0

STRUCTURAL
DETAILS

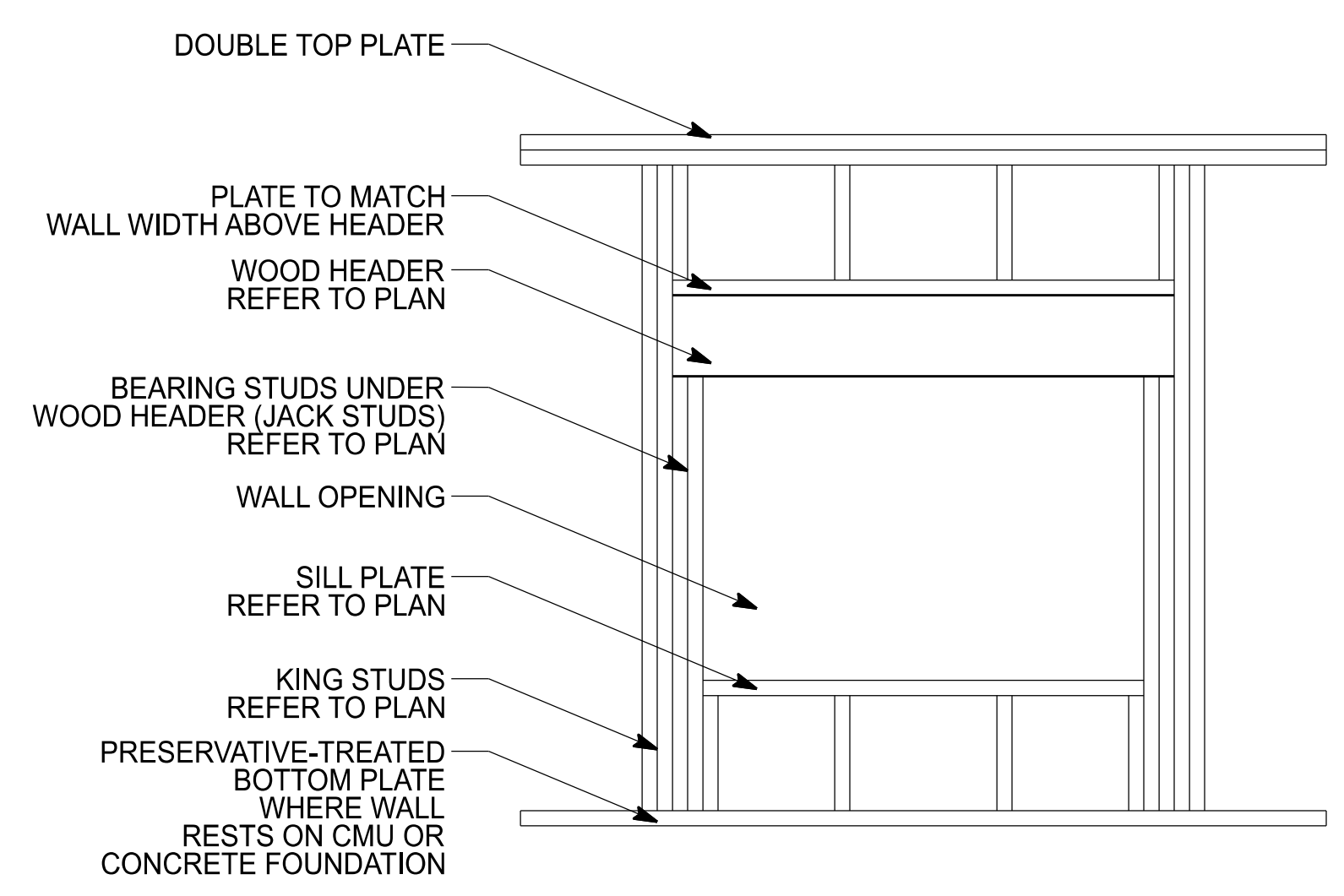
S3.10



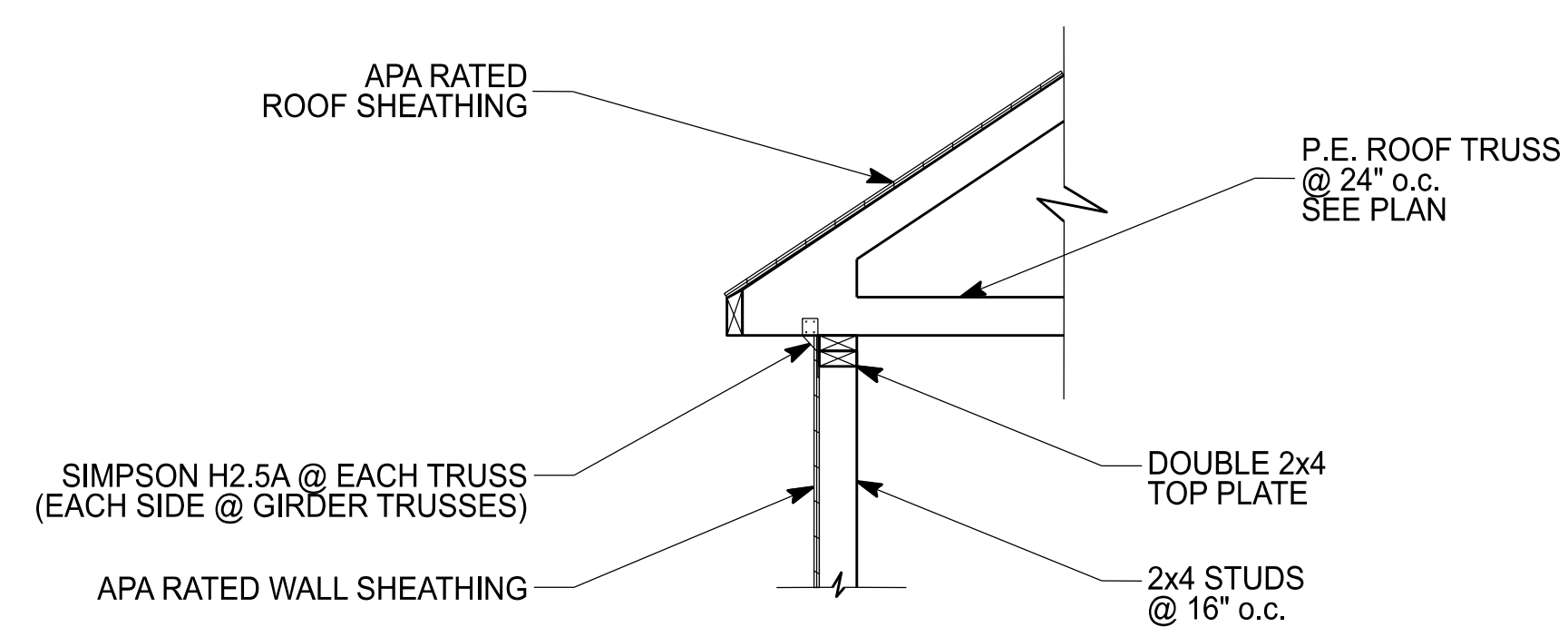
4 FOUNDATION DETAIL
S3.10 SCALE : 3/4" = 1'-0"



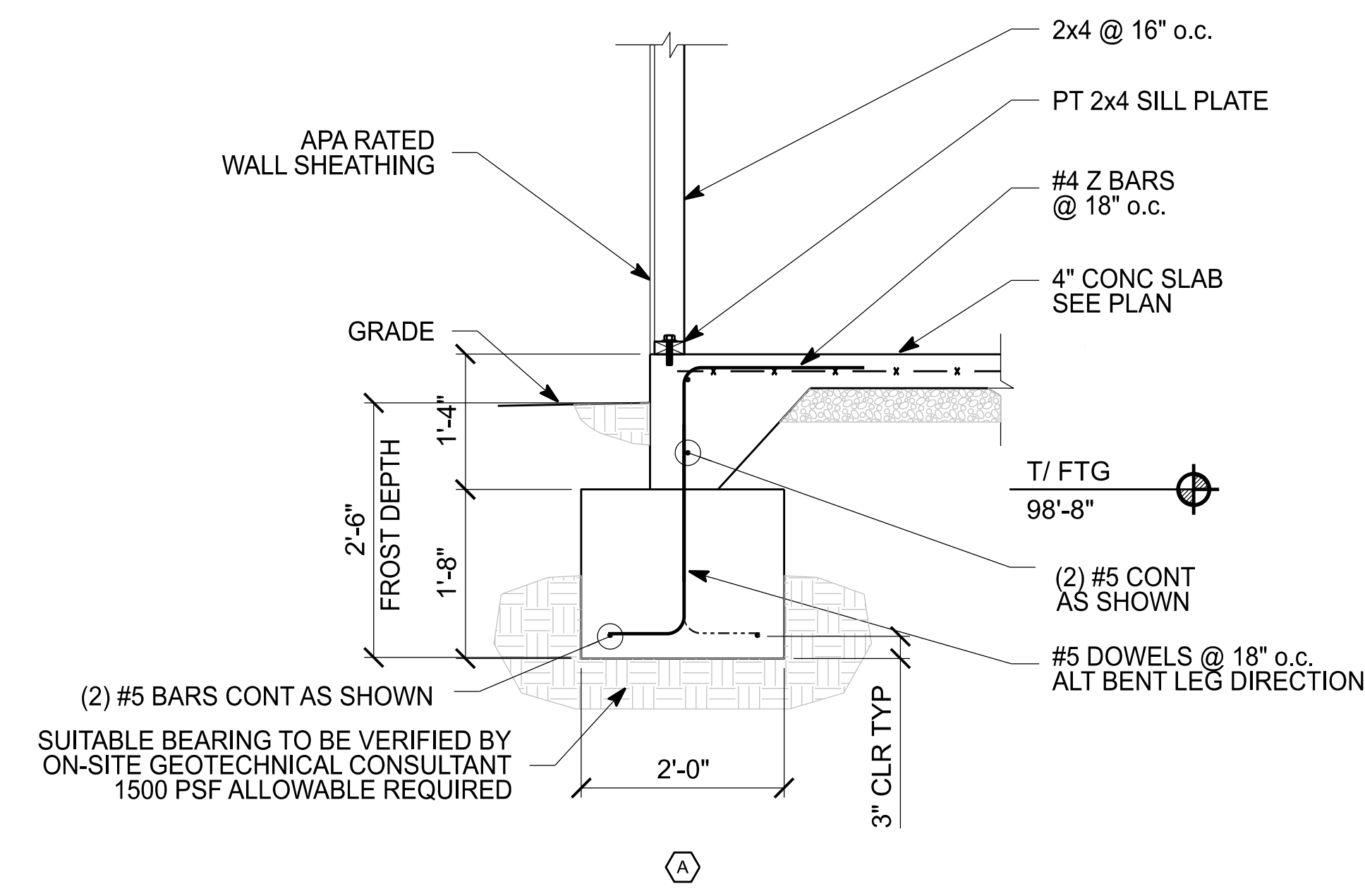
FOUNDATION DETAIL



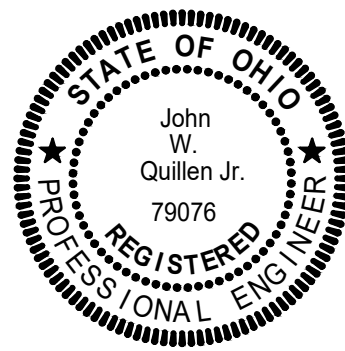
5 TYPICAL HEADER ASSEMBLY
S3.10 SCALE : 3/4" = 1'-0"



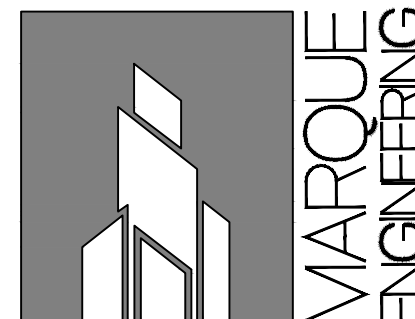
3 **FRAMING DETAIL**
S3.10 SCALE: 3/4" = 1'-0"



1 FOUNDATION DETAIL
S3.10 SCALE : 3/4" = 1'-0"



09/24/2025



4850 SMITH ROAD, STE. 101
CINCINNATI, OH 45212
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UNION VILLAGE COMMUNITY POOL

TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE

PERMIT SET

REV - 1

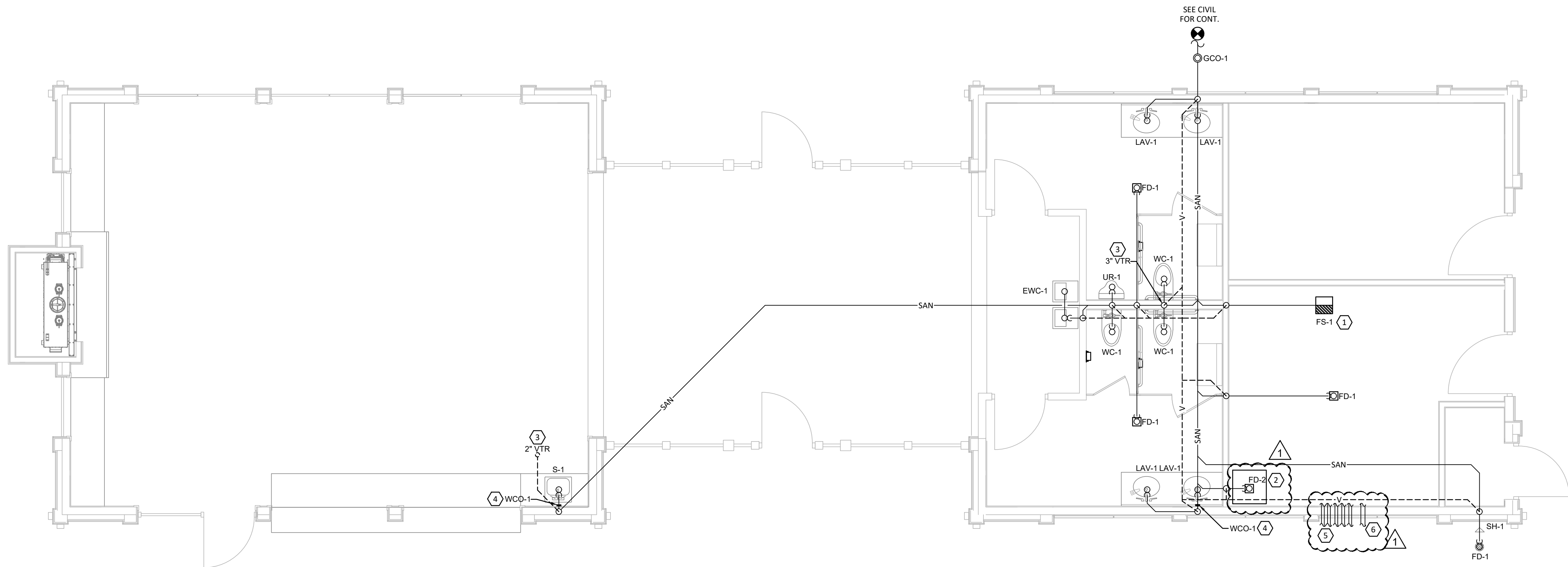
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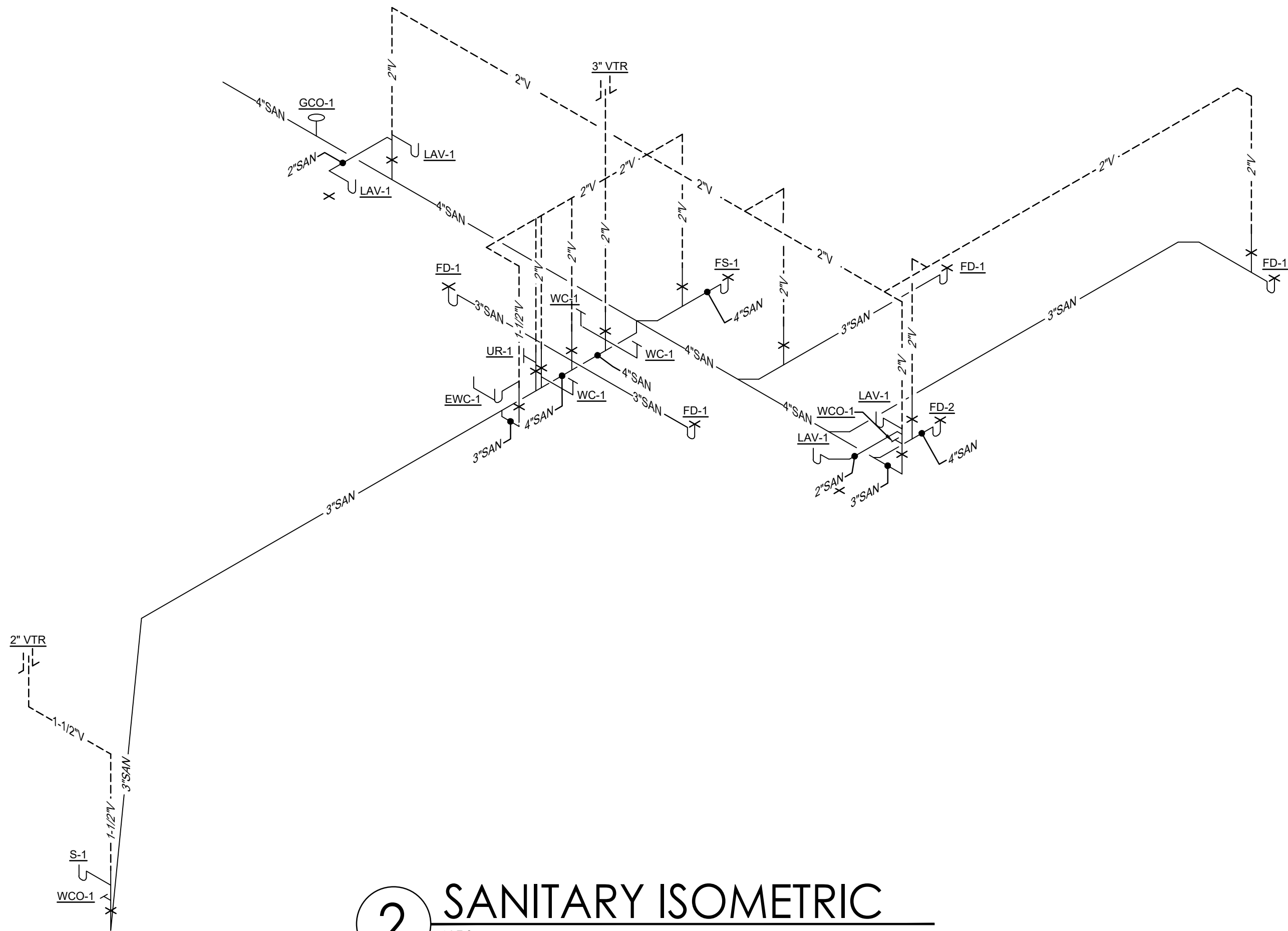
PLUMBING - SANITARY
& VENT PLAN

P1.00



1 SANITARY & VENT PLAN

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



2 SANITARY ISOMETRIC

N.T.S.

KEYED NOTES

- PROVIDE NEW FLOOR SINK FOR WATER HEATER AND BACKFLOW PREVENTER DRAIN PIPING DISCHARGE.
- PROVIDE NEW FLOOR DRAIN AT THE BOTTOM OF POOL BACKWASH SUMP. COORDINATE WITH ARCHITECTURAL AND POOL EQUIPMENT DRAWINGS.
- NEW VENT THRU ROOF LOCATION TO BE A MINIMUM 10' AWAY FROM AIR INTAKE. NEW VENT THRU ROOF LOCATION TO BE A MINIMUM 10' AWAY FROM NEAREST BUILDING OR EQUIPMENT'S FRESH AIR INTAKE. PROVIDE ONE PIECE SPUN ALUMINUM BASE WITH GRADUATED STEPPED PVC BOOT AND ADJUSTABLE STAINLESS STEEL CLAMPS. SEAL BASE TO ROOF WATER TIGHT. VERIFY FLASHING AND COUNTER FLASHING REQUIREMENTS WITH ROOFING CONTRACTOR TO ASSURE ROOF WARRANTY IS NOT VOIDED.
- PROVIDE WALL CLEANOUT 12" MIN AFF CENTERED ON FIXTURE DRAIN PIPING.
- POOL SUCTION LINES FROM POOL TO POOL EQUIPMENT ROOM. COORDINATE WITH POOL INSTALLER.
- 3" POOL RETURN. COORDINATE WITH POOL INSTALLER.

GENERAL NOTES

- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. VERIFY ALL DIMENSIONS. DRAWINGS ARE ILLUSTRATIVE AND MAY NOT REFLECT EXACT CONDITIONS OR DIMENSIONS.
- DO NOT SCALE THE DRAWINGS. DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT AND SYSTEMS. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET, FITTING AND COMPONENT. DO NOT USE THE PLANS FOR EXACT LOCATION OF EQUIPMENT, FIXTURES OR ARCHITECTURAL ITEMS SUCH AS WALLS, WINDOWS, SOFFITS, AND PILASTERS. SPECIFIC LOCATIONS, MOUNTING HEIGHTS AND OVERALL DIMENSIONS OF DEVICES AND FIXTURES ARE TO BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS AND DETAILS WHEN AVAILABLE.
- DRAWINGS SPECIFIC TO THIS TRADE DO NOT LIMIT THE RESPONSIBILITY OR WORK REQUIRED BY THE CONTRACT DOCUMENTS REFER TO DRAWINGS AND SPECIFICATIONS OF OTHER TRADES FOR COMPLETE INFORMATION PRIOR TO BID.
- WHERE CONFLICTS EXIST AMONG DRAWINGS, SPECIFICATIONS AND EQUIPMENT SCHEDULES, THE MORE STRINGENT SHALL APPLY. NOTIFY THE ENGINEER OF ALL CONFLICTS FOR RESOLUTION OR INTERPRETATION.
- NOTIFY THE OWNER IN WRITING AND FIELD VERIFY CONDITIONS BEFORE PERFORMING ANY SAWCUTTING, TRENCHING, CORING OR ANY OTHER STRUCTURAL MODIFICATIONS. ENSURE THAT NO ADVERSE EFFECT TO THE BUILDING'S STRUCTURAL INTEGRITY WILL OCCUR.
- ANY EXISTING CONDITION DISCOVERED DURING THE DEMOLITION OR CONSTRUCTION PROCESS WHICH, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICES, SHOULD BE REMEDIED, SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER/ARCHITECT IMMEDIATELY, IN WRITING.
- OBTAIN WRITTEN APPROVAL FROM THE ENGINEER BEFORE REUSING ANY EXISTING EQUIPMENT, COMPONENTS OR OPENINGS.
- INSULATE PLUMBING LINES IN EXTERIOR WALLS TO PREVENT FREEZING.
- COORDINATE ROOF WORK WITH ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.

PLUMBING PENETRATIONS

COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.

PLUMBING LEGEND

	SAN	SANITARY PIPING
	V	SANITARY VENT PIPING
	CW	UNDERGROUND WATER PIPING
	HW	DOMESTIC COLD WATER
	RHW	DOMESTIC HOT WATER PIPING
	ST	DOMESTIC HOT WATER RETURN PIPING
	G	STORM DRAINAGE PIPING
	N	NATURAL GAS
	GV	GATE VALVE
	CV	CHECK VALVE
	CD	CONDENSATE DRAIN PIPING
	CO	CLEAN OUT
	WCO	WALL CLEAN OUT
	FD	FLOOR DRAIN
	HD	HUB DRAIN
	FS	FLOOR SINK
	RD	ROOF DRAIN
	FWH	FROSTPROOF WALL HYDRANT
	VTR	VENT THROUGH ROOF
	1	DRAWING NOTE SYMBOL
	ED	ELBOW DOWN
	WH	WATER HEATER
	RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
	DCBP	DOUBLE CHECK BACKFLOW PREVENTER
	HB	HOSE BIBB
	B.F.F.	BELOW FINISH FLOOR
	E	CONNECT TO EXISTING
	D	EXISTING
	R	DEMOLITION
	R	RELOCATED

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UNION VILLAGE COMMUNITY POOL

TURTLE CREEK TOWNSHIP, OHIO

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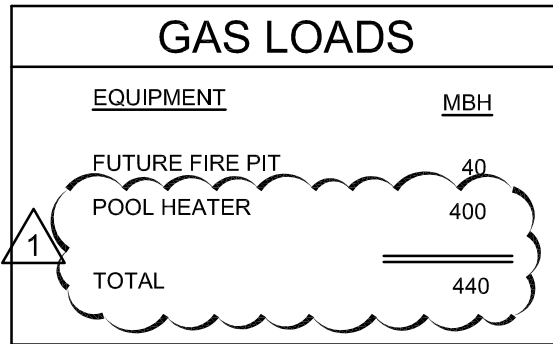
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PLUMBING - DOMESTIC WATER PLAN

P1.01



- A. GAS LINE SIZING BASED ON INLET PRESSURE OF 0.3" WC. 2015 IFGC TABLE 402.4(1) SCHEDULE 40 METALLIC PIPE.
- B. INDICATED LENGTHS OF PIPE ARE EQUIVALENT DEVELOPED LENGTHS. MAXIMUM DEVELOPED LENGTH IS 30'
- C. ALL GAS PIPING OTHER THAN BLACK STEEL SHALL BE PERMANENTLY IDENTIFIED BY A YELLOW LABEL AT INTERVALS OF NOT MORE THAN 5'-0".
- D. ALL OUTSIDE EXPOSED GAS PIPING SHALL BE COATED WITH A RUST INHIBITOR TO PREVENT ATMOSPHERIC CORROSION.
- E. GAS PIPING SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS PER IFGC 406.1, NFPA 54 AND ANSI B 31.2.
- F. MAINTAIN 3 FEET AWAY FROM ELECTRIC LINE.
- G. PROVIDE MIRO INDUSTRIES 3-R-4 PIPE SUPPORT (PIPE 3" & SMALLER) WITH 3-R SPACER AND 3-R-4 PIPE STRAP WHEN PIPING IS INSTALLED ON ROOFTOP. LARGER THAN 3" PROVIDE HAYDON+H BLOCK HISS SUPPORT WITH H164 STEEL CHANNEL, AS3102 PIPE ROLLER SUPPORT AND AS3126 HOLD DOWN CLAMP.

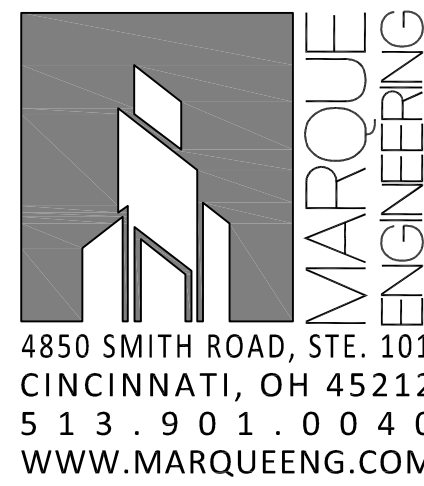
EXPANSION TANK SCHEDULE								
SYMBOL	MANUF.	MODEL	GAL.	ACCEPT. GAL.	CONN. LOC.	CONN. SIZE	MOUNTING	NOTES (#)
ET-1	AMTROL	ST-5	2.0	0.9	TOP	3/4"	ABOVE <u>EWH-1</u>	(1), (2)

NOTES:

- EXPANSION TANK; STEEL SHELL, HEAVY DUTY BUTYL NSF/ANSI 61, PRECHARGE EQUAL TO STATIC SUPPLY PRESSURE, MAX OPERATING TEMPERATURE 200°, MAX OPERATING PRESSURE 150 PSI, THREE YEAR MANUFACTURER'S WARRANTY. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- FIELD CHANGE EXPANSION TANK TO SYSTEM PRESSURE BEFORE CONNECTION TO DOMESTIC WATER SYSTEM. FIELD VERIFY PRESSURE REQUIREMENTS.

MARK	DESCRIPTION	SAN	VENT	CW	HW
WC-1	WATER CLOSET: AMERICAN STANDARD MADURA TOP SPUD 1.28 GPF, ELONGATED EVERCLEAN BOWL, MODEL #9461001.020. VITREOUS CHINA, SLOAN OPTIMA PLUS 8111-1.28 BATTERY POWERED, SENSOR ACTIVATED FLUSH VALVE, 1.28 GPF, 12" ROUGH-IN, 16-1/2" TALL PLUS SEAL THICKNESS, PROVIDE WITH SELF-SUSTAINING, OPEN FRONT SEAT LESS COVER, CONFIRM SELECTION WITH ARCHITECT, ADA COMPLIANT.	4"	2"	1"	-
UR-1	URINAL: AMERICAN STANDARD "ALLBROOK" 6550.505 TOP SPUD, WHITE VITREOUS CHINA, SIPHON JET FLUSH ACTION, SUPPLIED WITH WALL HANGER, 1-1/2" TUBING TAILPIECE, 3/4" INLET SPUD, LOW CONSUMPTION 0.5 GPF. WITH SLOAN OPTIMA PLUS 8186-0.5 BATTERY POWERED, SENSOR ACTIVATED FLUSH VALVE. MOUNT AT ADA HEIGHT WHERE REQUIRED, COORDINATE WITH ARCHITECT.	1-1/2"	1-1/2"	3/4"	
LAV-1	LAVATORY: AMERICAN STANDARD "AQUALYN" COUNTERTOP SINK 0476.028, WHITE VITREOUS CHINA WITH FRONT OVERFLOW, 16"x10" BOWL, WITH SLOAN OPTIMA PLUS EBF-85 BATTERY POWERED, SENSOR ACTIVATED FAUCET WITH GRID DRAIN, SUPPLIES, STOPS AND 1-1/4" PP TRAP, INSULATE PIPING BELOW LAVATORY USING TRUEBRO "LAVGUARD2" ASSE 1070 TEMPERING ANTI-SCALD VALVE - SET TO 110°, EQUAL TO POWERS HYDROGRAD LFe480, MEETS ADA GUIDELINES.	1-1/2"	1-1/2"	1/2"	1/2"
S-1	COUNTERTOP SINK: ELKAY SINGLE BOWL, STAINLESS STEEL SINK, LRAD2219, 22"x19-1/2", ELKAY KLD2423BH GOOSENECK FAUCET WITH BLADE HANDLES, WITH LK-99 CRUMB CUP STRAINER AND DRAIN, PROVIDE 1-1/2" PP TRAP AND SUPPLIES WITH STOPS, MEETS ADA GUIDELINES.	1-1/2"	1-1/2"	1/2"	1/2"
FS-1	FLOOR SINK: SIOUX CHIEF 861 SERIES PVC FLOOR SINK MODEL 861-4PU2, 11-3/16" X 11-3/16" X 6-3/8" DEEP WITH 4" OUTLET, OPEN-HALF PVC GRATE WITH ALUMINUM DOME BOTTOM STRAINER.	4"	2"	-	-
RP2-1	BACKFLOW PREVENTER: WATTS LF9190T REDUCED PRESSURE ZONE, ASSE 1013 COMPLIANT, LEAD FREE CAST COPPER SILICON ALLOY BODY, QUARTER TURN BALL VALVES, AND OPTIONAL FLOW SENSOR (COORDINATE WITH OWNER, ADD-ON CONNECTION KIT REQUIRED), PROVIDE WITH WATTS 919AGF AIR GAP FITTING, ROUTE RELIEF VALVE DRAIN INDIRECTLY TO FLOOR SINK BELOW WITH AIR GAP, COORDINATE INSTALLATION REQUIREMENTS WITH LOCAL A.H.J.	-	-	2"	-
FD-1	FLOOR DRAIN: SIOUX CHIEF FINISH LINE 832-36P50, 3" CONNECTION SIZE, PVC BASE ADAPTER, SQUARE STAINLESS STEEL STRAINER, PROVIDE WITH BARRIER TYPE TRAP SEAL SIOUX CHIEF 835 SERIES TRAP SHIELD.	3"	1-1/2"	-	-
FD-2	FLOOR DRAIN: SIOUX CHIEF FINISH LINE 832-4P50, 4" CONNECTION SIZE, PVC BASE ADAPTER, SQUARE STAINLESS STEEL STRAINER.	4"	2"	-	-
FWH-1	FROSTPROOF WALL HYDRANT: BOX TYPE, ANTI-SIPHON, EQUAL TO WOODFORD MODEL B65.	-	-	1/2"	-
EW-1	ELECTRIC WATER COOLER: AQUATRU PRO SERIES ON-WALL BOTTLE FILLER WITH BUBBLER, OUTDOOR INSTALL, #90AT01WF01H, SINGLE BUBBLER STATION, FILTERED, REFRIGERATED, STAINLESS-STEEL FINISH, R290 REFRIGERANT COOLING SYSTEM, 9.5 GPH CHILLED WATER CAPACITY, DIGITAL BOTTLE DISPLAY COUNT, VISUAL FILTER STATUS DISPLAY, HANDS FREE SENSOR ACTIVATION BOTH BUBBLER AND BOTTLE FILLER, ADA COMPLIANT.	1-1/2"	1-1/2"	1/2"	1/2"
HB-1	HOSE BIBB: FREEZELESS, ANTI-SIPHON WALL FAUCET WOODFORD MODEL 19, INTEGRAL BACKFLOW PROTECTION.	-	-	1/2"	-
SH-1	SHOWER: SELECTION BY ARCHITECT.	-	-	1/2"	1/2"

WATER CALCULATION	
CRITICAL ELEVATIONS AND DISTANCES:	FEET
ELEVATION OF CONTROLLING FIXTURE (WATER CLOSET)	3.0
ELEVATION OF FINISHED FLOOR	0
ELEVATION OF WATER MAIN	-5.0
ELEVATION OF WATER ENTRY	0.0
VERTICAL DIST. FROM WATER MAIN TO CONTROLLING FIXTURE	8.0
SYSTEM PRESSURE REQUIREMENTS:	PSI
ELEVATION (VERTICAL DISTANCE) X 0.434 PS/FT	3.5
PRESSURE NEEDED AT CONTROLLING FIXTURE	35.0
BACKFLOW PREVENTER: 2" AT 48 GPM	12.0
WATER METER: 2" AT 48 GPM	1.7
TOTAL	52.2
PIPE RUNS:	FEET
EXTERIOR, MAIN TO BUILDING ENTRY	110.0
EXTERIOR, VERTICAL RISE	0.0
INTERIOR, ENTRY TO CONTROLLING FIXTURE	15
INTERIOR, VERTICAL RISE	10
ALLOWANCE FOR FITTINGS, ETC. (LENGTH X 0.25)	33.75
L _{TOT} : LENGTH TOTAL	168.75
SYSTEM PRESSURE DATA:	PSI
P _{DES} : DESIGN POINT: PRESSURE LOSS / 100 FT.	2.0
P _{LOSS} : PRESSURE NEEDED FOR (PIPING) FRICTION LOSS (P _{DES} x L _{TOT} / 100)	3.4
P _{SYS} : SYSTEM PRESSURE REQUIRED	52.2
STREET PRESSURE REQ'D (P _{LOSS} + P _{SYS})	55.6



UNION VILLAGE COMMUNITY POOL

TURTLECREEK TOWNSHIP, OHIO

TURTLE CREEK TOWNSHIP, OHIO

ISSUE DATE	08-14-2025
PERMIT SET	09-24-2025
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PROJ MANAGER: JRR

JOB NO. #13270

**PLUMBING - DETAILS &
SCHEDULES**

P2.00

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DIVISION 22 - PLUMBING SPECIFICATION

22 05 00 COMMON WORK RESULTS FOR PLUMBING

ALL PLUMBING WORK AND TESTS SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST STATE, COUNTY, AND LOCAL REGULATIONS, LAWS, AND ORDINANCES WHICH MAY BE APPLICABLE.

BEFORE SUBMITTING A BID, EXAMINE DOCUMENTS OF ALL OTHER TRADES, VISIT THE SITE AND GET ACQUAINTED WITH ALL CONDITIONS THAT MAY IN ANY WAY AFFECT THE EXECUTION OF THIS CONTRACT. TAKE MEASUREMENTS AND BE RESPONSIBLE FOR EXACT SIZE AND LOCATIONS OF ALL OPENINGS REQUIRED. VERIFY INSTALLATION MAY BE MADE IN COMPLETE ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE PROFESSIONAL ENGINEER OF RECORD. DO NOT PROCEED WITH THE INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

IT IS NOT THE INTENT OF THE DRAWINGS THAT EXISTING CONDITIONS BE ACCURATELY SHOWN. EXISTING PLUMBING WORK IS SHOWN TO LIMITED EXTENT ON DRAWINGS AND IS SHOWN FOR GENERAL REFERENCE ONLY. LOCATIONS AND INFORMATION WERE DERIVED FROM CURSORY SITE VISUAL OBSERVATIONS OR FROM DOCUMENTS THAT WERE PREPARED FOR PREVIOUSLY INSTALLED WORK WHEN AVAILABLE.

THE WORK COVERED BY THESE SPECIFICATIONS SHALL CONSIST OF PROVIDING ALL NEW MATERIAL, LABOR, EQUIPMENT, AND SERVICES NECESSARY FOR A COMPLETE PLUMBING INSTALLATION AS SPECIFIED HEREIN. WORK IN THIS SECTION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING ITEMS:

- PLUMBING FIXTURES
- WATER HEATERS

WHENEVER THE WORDS "CONTRACTOR" APPEAR ON PLUMBING DRAWINGS OR IN THESE SPECIFICATIONS, IT SHALL REFER TO THE PLUMBING SUB-CONTRACTOR. WHENEVER THE WORD "PROVIDE" APPEARS IN THESE DOCUMENTS, IT SHALL BE INTERPRETED TO MEAN "FURNISH AND INSTALL".

COORDINATE ALL WORK WITH THE OWNER TO MINIMIZE INTERRUPTION OF BUILDING OPERATION.

COORDINATE THE INSTALLATION OF PLUMBING ITEMS WITH THE SCHEDULES FOR WORK OF ALL OTHER TRADES TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

THIS CONTRACTOR SHALL VERIFY AND SATISFY HIMSELF THAT ALL EQUIPMENT FURNISHED WILL PROPERLY FIT IN THE SPACE PROVIDED, THAT IT WILL FUNCTION PROPERLY, AND THAT ALL PARTS OF EQUIPMENT REQUIRING SERVICE ARE READILY ACCESSIBLE.

ALL PIPING SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS AND FRAMING SYSTEM. ALL VERTICAL RUNS SHALL BE HELD AGAINST WALLS, COLUMNS, ETC., AS POSSIBLE TO PERMIT MAKING OF PIPE JOINTS.

CONTRACTOR SHALL PROVIDE A GUARANTEE IN WRITTEN FORM STATING THAT ALL WORK SHALL BE FREE OF DEFECTS OR ERRORS, AND ALL EQUIPMENT, MATERIALS, OR PARTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S FINAL ACCEPTANCE AND SHALL REPAIR, REVISE OR REPLACE AT NO COST TO THE OWNER ANY SUCH DEFECTS OCCURRING WITHIN THE GUARANTEE PERIOD.

CONTRACTOR SHALL ALSO STATE IN WRITTEN FORM THAT ANY ITEMS OR OCCURRENCES ARISING DURING THE GUARANTEE PERIOD WILL BE ATTENDED TO IN A TIMELY MANNER AND WILL IN NO CASE EXCEED THREE (3) WORKING DAYS FROM DATE OF NOTIFICATION BY OWNER.

PROVIDE A COMPLETE INSTALLATION IN CONFORMANCE WITH THE FOLLOWING STANDARDS:

- AGA: AMERICAN GAS ASSOCIATION
- ASPE: AMERICAN SOCIETY OF PLUMBING ENGINEERS
- NFPA: NATIONAL FIRE PROTECTION ASSOCIATION
- STATEWIDE BUILDING CODE
- INTERNATIONAL PLUMBING CODE

CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF THIS WORK. ALL OPENINGS IN WALLS, FLOORS OR CEILINGS SHALL BE PROPERLY SEALED AND RESTORED IN KIND. FLASH AND COUNTERFLASH AT ROOF OPENINGS.

ALL EQUIPMENT SHALL BE LISTED AND LABELED, UNLESS OTHERWISE APPROVED.

ALL WIRING SHALL MEET THE REQUIREMENTS LISTED IN THE ELECTRICAL SPECIFICATIONS. ALL CONTROL AND INTERLOCK WIRING AND CONDUIT (120V OR 24V) SHALL BE BY THE PLUMBING CONTRACTOR.

EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE.

CLEANING: THIS CONTRACTOR SHALL REMOVE FROM THE PREMISES ALL ACCUMULATION OF DIRT, DEBRIS, WASTE MATERIALS AND RUBBISH CAUSED BY HIS EMPLOYEES OR WORK, AT LEAST ONCE A WEEK, EXCEPT THAT COMBUSTIBLE MATERIALS SHALL BE REMOVED DAILY.

DURING PROGRESS OF THE WORK, MAINTAIN ON DRAWINGS AT THE SITE, AN ACCURATE RECORD OF THE INSTALLATION OF THE MECHANICAL SYSTEM, INDICATING ALL ITEMS WHICH HAVE BEEN CHANGED OR ADDED.

APPLY FOR AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY LOCAL AUTHORITY, FOR THE APPROVAL OF WORK.

A CERTIFICATE OF FINAL INSPECTION AND APPROVAL SHALL BE SUBMITTED WITH THE CONTRACTOR'S REQUEST FOR FINAL PAYMENT. NO FINAL PAYMENT WILL BE APPROVED WITHOUT THIS CERTIFICATE.

GUARANTEE ALL WORKMANSHIP, MATERIAL, AND EQUIPMENT AND REPLACE ANY FOUND DEFECTIVE WORK WITHOUT COST TO THE OWNER, FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.

EXISTING CONDITIONS

DO NOT REUSE REMOVED PLUMBING MATERIALS UNLESS SPECIFICALLY INDICATED ON DRAWINGS. EXISTING SYSTEMS MAY BE UTILIZED ONLY TO THE EXTENT INDICATED ON DRAWINGS.

IF REQUIRED TO ACCOMMODATE CONSTRUCTION RELATED ACTIVITIES TEMPORARILY REMOVE, STORE IN PROTECTED LOCATION ON SITE, AND REINSTALL CONFLICTING PLUMBING EQUIPMENT, OR DEVICES THAT ARE TO REMAIN OR TO BE RELOCATED.

WHERE THE TERM "DEMOLITION" IS USED HEREIN, INTERPRET IT TO MEAN "DEMOLITION" OR "SELECTIVE DEMOLITION" WHERE APPLICABLE.

PROVIDE PLUMBING DEMOLITION WORK AS REQUIRED TO ACCOMMODATE PROJECT DEMOLITION AND AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. DISCONNECT AND REMOVE WORK TO BE ABANDONED, AND AS REQUIRED TO ACCOMMODATE WORK OF OTHER TRADES, IN AREAS AFFECTED BY THIS PROJECT.

LEGALLY DISPOSE OF MATERIALS TO SALVAGED OR RETAINED.

22 05 03 SUBMITTALS FOR PLUMBING

DESIGN BASIS MANUFACTURERS OF MATERIAL AND EQUIPMENT ARE SPECIFIED AND PLANS ARE DETAILED ACCORDING TO THIS MATERIAL. CONTRACTOR SHALL BASE HIS BID ON FURNISHINGS AND INSTALLING THE SPECIFIED MAKE OF MATERIAL AND EQUIPMENT.

SHOP DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: MAKE, MODEL NUMBER, DIMENSIONS, ELECTRICAL CHARACTERISTICS (RATING). SHOP DRAWINGS SHALL BEAR NAME OF PROJECT AND LOCATION.

THE MAKE, TYPE, AND FINISH OF ALL MATERIALS, EQUIPMENT AND APPARATUS SHALL BE APPROVED BY THE ENGINEER/ARCHITECT IN WRITING BEFORE THE CONTRACTOR INSTALLS IT. ANY SUBSTITUTION FOR ANY SPECIFIED EQUIPMENT OR MATERIAL SHALL FIRST BY APPROVED BY THE ENGINEER/ARCHITECT IN WRITING.

SUBMIT SHOP DRAWINGS ON THE FOLLOWING ITEMS FOR REVIEW BEFORE FABRICATION OR SHIPMENT:

- PLUMBING FIXTURES
- WATER HEATERS

MAINTENANCE MANUALS: FURNISH THREE FINAL COPIES, INCLUDING WIRING DIAGRAMS, MAINTENANCE AND OPERATING INSTRUCTIONS, PARTS LISTINGS, AND COPIES OF OTHER SUBMITTALS INDICATED FOR INCLUSION.

ANY CHANGES TO ITEMS SPECIFIED MUST BE SUBMITTED AS A SUBSTITUTION, WITH COMPLETE DOCUMENTATION OF PRICE DIFFERENTIAL AND EQUIPMENT DETAILS.

1. CERTAIN MAKES OF MATERIALS AND EQUIPMENT ARE SPECIFIED AND DRAWINGS ARE DETAILED ACCORDING TO THIS MATERIAL. CONTRACTOR SHALL BASE HIS BID ON FURNISHINGS AND INSTALLING THE SPECIFIED MAKE OF MATERIAL OR MODEL OR THE "EQUIVALENT" MODEL OF ANOTHER OF THE SPECIFIED MANUFACTURERS WHICH MEETS ALL THE QUALIFICATIONS OF THE SPECIFIED ITEMS.
2. WHERE MORE THAN ONE MAKE OF MATERIAL OR EQUIPMENT IS SPECIFIED, THE CONTRACTOR SHALL STATE IN HIS BID WHICH MAKE HE PROPOSES TO FURNISH. SHOP DRAWING APPROVAL SHALL BE OBTAINED PRIOR TO SHIPMENT OF EQUIPMENT.
3. "EQUIVALENT" MATERIALS AND EQUIPMENT ARE THOSE OF MANUFACTURER WHICH MEET THE SAME STANDARDS OF PERFORMANCE, HAVE EQUAL OR BETTER MATERIALS OF CONSTRUCTION, AND EQUAL OR BETTER MAINTENANCE CHARACTERISTICS. ALL EQUIVALENTS MUST FIT THE SPACE PROVIDED IN THE BUILDING STRUCTURE, WHERE THE USE OF EQUIVALENTS RESULTS IN CHANGES, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH CHANGES AND ANY COSTS RESULTING FROM THEM.
4. IF THE CONTRACTOR INTENDS TO USE EQUIPMENT OR MATERIALS NOT SPECIFIED, HE MUST RECEIVE APPROVAL FROM THE ENGINEER/ARCHITECT PRIOR TO THE AWARD OF THE CONTRACT. THIS PRIOR APPROVAL ONLY PERMITS SUBMITTAL OF A PARTICULAR MANUFACTURER'S EQUIPMENT IN GENERAL. THE SPECIFIED ITEM TO BE USED MUST AGAIN BE SUBMITTED FOR FINAL REVIEW AS SPECIFIED UNDER "SHOP DRAWINGS".

22 05 23 GENERAL DUTY VALVES

GENERAL
PROVIDE STOPS OR ISOLATION VALVES ON DOMESTIC WATER SUPPLIES TO ISOLATE HOT AND COLD WATER TO EACH FIXTURE, INCLUDING ALL EQUIPMENT AND EQUIPMENT PROVIDED BY OTHERS.
FIXTURES, ITEM OR UNITS FURNISHED BY THE MANUFACTURER WITH INTEGRAL STOPS OR STOPS SPECIFIED WITH THE FIXTURE ARE CONSIDERED TO BE PROPERLY VALVED AT THE FIXTURES.

ACCESS SHALL BE PROVIDED TO ALL VALVES.

VALVES ON DOMESTIC WATER PIPING SHALL BE BALL VALVES.

BALL VALVES: 1 INCH AND SMALLER: 2-PIECE BODY, 600 PSI CWP, 150 PSI SWP, CAST BRONZE BODY, FULL PORT, TEFLON SEATS, BLOWOUT-PROOF STEM, ADJUSTABLE PACKING GLAND, CHROME PLATED BRONZE BALL, WITH SCREWED ENDS, AND VINYL-COVERED STEEL HANDLE. PROVIDE SOLDER ENDS. PROVIDE EXTENDED VALVE STEMS FOR VALVES USED ON INSULATED LINES. PROVIDE NIBCO SERIES 585-70 NLS.]

BALL VALVES: 1-1/4 INCH TO 3 INCH: 3-PIECE BODY, 600 PSI CWP, 150 PSI SWP, CAST BRONZE BODY, CONVENTIONAL PORT, TEFLON SEATS, BLOWOUT-PROOF STEM, ADJUSTABLE PACKING GLAND, CHROME PLATED BRONZE BALL, SCREWED ENDS, AND VINYL-COVERED STEEL HANDLE. PROVIDE SOLDER ENDS. PROVIDE EXTENDED VALVE STEMS FOR VALVES USED ON INSULATED LINES. PROVIDE TO NIBCO SERIES 590-V.]

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND ARE LIMITED TO, THE FOLLOWING:

AMERICAN VALVE, INC.

CONBRACO INDUSTRIES, INC.; APOLLO VALVES.

CRANE CO.; CRANE VALVE GROUP; CRANE VALVES.

HAMMOND VALVE.

MILWAUKEE VALVE COMPANY.

NIBCO INC.

RED-WHITE VALVE CORPORATION.

WATTS REGULATOR CO.; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.

CHECK VALVES

SWING CHECK VALVES - CLASS 125, CAST BRONZE BODY AND CAP, HORIZONTAL SWING, Y-PATTERN, WITH A BRONZE DISC, AND HAVING THREADED OR SOLDER ENDS. PROVIDE SOLDER ENDS FOR DOMESTIC HOT AND COLD WATER SERVICE. PROVIDE NIBCO 5-413.

22 05 29 HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

GENERAL

SUPPORT ALL PIPING AND EQUIPMENT BY HANGERS OR BRACKETS. PROVIDE STRUCTURAL STEEL MEMBERS WHERE REQUIRED TO SUPPORT PIPING AND EQUIPMENT. NO PORTION OF PIPING OR VALVES SHALL BE SUPPORTED BY EQUIPMENT.

DELEGATED DESIGN

FOR EQUIPMENT SUPPORTS, THIS CONTRACTOR SHALL RETAIN A QUALIFIED PROFESSIONAL ENGINEER TO PROVIDE SUPPORT CALCULATIONS OF STATIC AND DYNAMIC LOADING DUE TO OPERATING EQUIPMENT WEIGHT, SEISMIC AND WIND FORCES. THE SIGNED AND SEALED CALCULATIONS AND DETAILS SHALL BE SUBMITTED BY THE RETAINED PROFESSIONAL ENGINEER.

PIPING

PROVIDE HANGERS, SUPPORTS, CLAMPS AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING SUPPORTED TOGETHER ON FIELD-FABRICATED, HEAVY-DUTY TRAPEZE HANGERS WHERE POSSIBLE. WHERE PIPING OF VARIOUS SIZES IS SUPPORTED TOGETHER BY TRAPEZE HANGERS, SPACE HANGERS FOR SMALLEST PIPE SIZE OR PROVIDE INTERMEDIATE SUPPORTS FOR SMALLER DIAMETER PIPE AS SPECIFIED ABOVE FOR INDIVIDUAL PIPE HANGERS.

INDIVIDUAL PIPE HANGERS TO BE ANVIL INTERNATIONAL CLEVIS HANGER FIG. 260, ELCEN.

ROD SIZES TO CONFORM TO THE FOLLOWING: 3/8" RODS FOR 3/4" TO 2" PIPE; 1/2" RODS FOR 2-1/2" TO 3" PIPE; 5/8" RODS FOR 4" TO 5" PIPE; 3/4" RODS FOR 6" PIPE.

HANGERS SHALL BE SIZED TO ALLOW INSULATION TO PASS THROUGH UNOBSTRUCTED, PROVIDE SADDLE SUPPORT FOR INSULATION AT ALL HANGERS.

HANGER SPACING FOR STEEL PIPING UNLESS OTHERWISE NOTED IS TO BE AS FOLLOWS: 1-1/4" OR SMALLER TO BE 8' ON CENTER; 1-1/2" TO 2" TO BE 10' ON CENTER; 2-1/2" AND LARGER TO BE 12' ON CENTER AND AT EACH CHANGE OF DIRECTION. HANGER SPACING FOR COPPER PIPE TO BE AS FOLLOWS: 1" OR SMALLER 6' ON CENTER; 1-1/4" OR LARGER 8' ON CENTER.

HANGER SPACE FOR CPVC AND PVC PIPE TO BE AS FOLLOWS: 1" AND SMALLER TO BE 3' ON CENTER; 1-1/4" OR LARGER TO BE 4' ON CENTER.

PIPING SHALL ALSO BE SUPPORTED AT EACH CHANGE IN DIRECTION, VALVES AND EQUIPMENT.

22 05 53 IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

PIPING

PROVIDE SELF-ADHESIVE PIPE LABELS WITH WHITE BACKGROUND AND BLACK LETTERING, CONTACT TYPE WITH PERMANENT ADHESIVE BACKING. INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON THE DRAWINGS AND AN ARROW INDICATING FLOW DIRECTION.

EQUIPMENT

PROVIDE SELF-ADHESIVE PLASTIC EQUIPMENT LABELS WITH WHITE BACKGROUND AND BLACK LETTERING, CONTACT TYPE WITH PERMANENT ADHESIVE BACKING, 160 DEGREE F TEMPERATURE. INCLUDE EQUIPMENT'S DRAWING DESIGNATION AND SPECIFICATION SECTION NUMBER WHERE EQUIPMENT IS SPECIFIED.

22 07 19 PLUMBING SYSTEM INSULATION

GENERAL

INSULATION SHALL BE LISTED AND LABELED PER ASTM E 84 FOR PLENUM INSTALLATIONS EMPLOYING SLIP ON TECHNIQUES. PROVIDE INSULATION MATERIALS, ACCESSORIES, AND FINISHES WITH SMOOTH, STRAIGHT, AND EVEN SURFACES; FREE OF VOIDS THROUGHOUT THE LENGTH OF PIPING INCLUDING FITTINGS, VALVES, AND SPECIALTIES.

SURFACE PREPARATION: CLEAN AND DRY SURFACES TO RECEIVE INSULATION. REMOVE MATERIALS THAT WILL ADVERSELY AFFECT INSULATION APPLICATION.

PIPING SYSTEMS REQUIRING INSULATION

INSULATE DOMESTIC COLD WATER PIPING, ASSOCIATED FITTINGS AND VALVES WITH FLEXIBLE ELASTOMERIC 1/2" WALL THICKNESS INSULATION.

INSULATE DOMESTIC HOT WATER PIPING, ASSOCIATED FITTINGS AND VALVES WITH 1" THICK FLEXIBLE ELASTOMERIC, 1" THICK MINERAL WOOL, 1-1/2" THICK FIBERGLASS INSULATION OR PER LOCAL ENERGY CODE, WHICHEVER GREATER.

INSULATE DOMESTIC HOT WATER RETURN PIPING, ASSOCIATED FITTINGS AND VALVES WITH 1" WALL THICKNESS INSULATION OR PER LOCAL ENERGY CODE, WHICHEVER GREATER.

INSULATE WASTE PIPING ABOVE CEILINGS THAT RECEIVE CONDENSATE WITH 1/2" WALL THICKNESS INSULATION.

INSULATE EXPOSED SANITARY DRAINS, DOMESTIC WATER, DOMESTIC HOT WATER, AND STOPS FOR PLUMBING FIXTURES FOR PEOPLE WITH DISABILITIES.

FLEXIBLE ELASTOMERIC INSULATION

CLOSED-CELL, SPONGE, OR EXPANDED-RUBBER MATERIALS. COMPLY WITH ASTM C 534, TYPE I FOR TUBULAR MATERIALS AND TYPE II FOR SHEET MATERIALS.

ADHESIVES, SEALERS, AND PROTECTIVE FINISHES: AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND ARE LIMITED TO, THE FOLLOWING:

AEROFLEX USA, INC.; AEROCEL.

ARMACELL LLC; AP ARMAFLEX.

K-FLEX USA; INSUL-LOCK, INSUL-TUBE, AND K-FLEX LS.

FIBERGLASS INSULATION

FIBERGLASS PIPING INSULATION: ASTM C 547, CLASS 1

ENCASE PIPE FITTINGS INSULATION WITH ONE-PIECE PRE-MOLDED PVC FITTING COVERS.

VAPOR BARRIER MATERIAL: PAPER-BACKED ALUMINUM FOIL, EXCEPT AS OTHERWISE INDICATED, STRENGTH AND PERMEABILITY RATING EQUIVALENT TO ADJOINING PIPE INSULATION JACKETING.

STAPLES, BANDS, WIRES, AND CEMENT: AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

ADHESIVES, SEALERS, AND PROTECTIVE FINISHES: AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND ARE LIMITED TO, THE FOLLOWING:

ARMSTRONG WORLD INDUSTRIES, INC.

OWENS CORNING FIBERGLASS CORP.

KEENE CORP.

CERTAINTEED.

JOHNS MANVILLE.

ADHESIVES

MATERIALS SHALL BE COMPATIBLE WITH INSULATION MATERIALS, JACKETS, AND SUBSTRATES AND FOR BONDING INSULATION TO ITSELF AND TO SURFACES TO BE INSULATED, UNLESS OTHERWISE INDICATED.

ALL HANDICAP LAVATORY P-TRAP AND ANGLE STOP ASSEMBLIES SHALL BE INSULATED WITH TRAP WRAP PROTECTIVE KIT MANUFACTURED BY PROFLO MODEL PF202WH. ABRASION RESISTANT, ANTI-MICROBIAL VINYL EXTERIOR COVER SHALL BE SMOOTH. FOR TRAPS, THE INSULATION SHALL HAVE A CLEANOUT NUT CAP TO ALLOW SERVICE TO THE TRAP WITHOUT DISASSEMBLY. FOR STOPS, THE INSULATION SHALL HAVE A LOCK LID THAT PREVENTS TAMPERING BUT ALLOWS ACCESS WITHOUT REMOVAL OF THE INSULATION. FASTENERS SHALL REMAIN SUBSTANTIALLY OUT OF SIGHT.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS:

PROFLO

TRUEBERO

PLUMBEREX

22 11 16 DOMESTIC WATER PIPING

GENERAL

INSTALL PIPING CONCEALED FROM VIEW UNLESS NOTED OTHERWISE, FREE OF SAGS AND BENDS. DO NOT ENCLOSE, COVER, OR PUT PIPING INTO OPERATION UNTIL IT HAS BEEN INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION. CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING USING APPROVED PROCEDURES BY AUTHORITIES HAVING JURISDICTION.

INSTALL AT RIGHT ANGLES; DIAGONAL RUNS ARE PROHIBITED UNLESS OTHERWISE SHOWN. INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL. COORDINATE ALL PIPING WITH ALL OTHER TRADES.

PROVIDE WATER PRESSURE REGULATORS WHERE NECESSARY TO LIMIT THE INCOMING WATER PRESSURE TO 80 PSI INSIDE THE BUILDING.

DOMESTIC WATER PIPING ABOVE GROUND:

HARD COPPER TUBE, ASTM B 88, TYPE L; WROUGHT-COPPER, SOLDER-JOINT FITTINGS; AND SOLDERED JOINTS.

SOLDER-FILLER METALS: ASTM B 32, LEAD-FREE ALLOYS.

FLUX: ASTM B 813, WATER FLUXABLE. TYPE "1"; COPPER PRESSURE-SEAL JOINT; AND PRESSURE-SEAL JOINT SYSTEMS.

FLOWGUARD GOLD CPVC PLUMBING SYSTEM. (COPPER TUBE SIZE), SCHEDULE 40 CPVC PIPE, SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS. MEET THE FLAME /SMOKE REQUIREMENTS. COMPLY WITH NSF 61 FOR POTABLE DOMESTIC WATER PIPING AND COMPONENTS. APPROVED FOR RETURN AIR PLENUMS INSTALLATION AND POTABLE WATER DISTRIBUTION SYSTEM. TEST REPORT REQUIRED.

TYPE PEX-A, CROSS LINKED POLYETHYLENE TUBING FOR HOT AND COLD WATER DISTRIBUTION. ENGINEERED PLASTIC FITTINGS WITH PLASTIC COLLARS. ENGINEERED PLASTIC MANIFOLDS. USE MANUFACTURER APPROVED VALVES AND FITTINGS. BASIS OF DESIGN - UPONOR PEX TUBING UPONOR WIRSBO INC. OR JEBCO MANUFACTURING INC.

CATHODIC PROTECTION
PROVIDE DIELECTRIC INSULATION AT POINTS WHERE COPPER OR BRASS PIPE COMES IN CONTACT WITH FERROUS PIPING, REINFORCING STEEL OR OTHER DISSIMILAR METAL IN STRUCTURE.

22 11 19 DOMESTIC WATER PIPING SPECIALTIES

REDUCED PRESSURE BACKFLOW PREVENTERS

BACKFLOW PREVENTER (2" AND SMALLER) - PROVIDE A REDUCED PRESSURE BACKFLOW PREVENTER ON WATER SERVICE MAIN WHERE THE WATER SERVICE ENTERS THE BUILDING. REDUCED PRESSURE BACKFLOW PREVENTER SHALL BE SIZED EQUAL TO THE SIZE OF THE WATER SERVICE AND CONFORM TO ASSE 1013. PIPE BACKFLOW PREVENTER DISCHARGE TO APPROVED PLACE OF DISPOSAL.

DUAL CHECK VALVE BACKFLOW PREVENTER

PROVIDE A DUAL CHECK VALVE BACKFLOW PREVENTER THAT COMPLIES WITH ASSE 1022 AT CONNECTION OF DOMESTIC WATER SUPPLY TO ANY PERMANENTLY CONNECTED CARBONATED BEVERAGE DISPENSER OR WHERE INDICATED IN THE CONTRACT DOCUMENTS.

PROVIDE A DUAL CHECK VALVE BACKFLOW PREVENTER THAT COMPLIES WITH ASSE 1024 AT CONNECTION OF DOMESTIC WATER SUPPLY TO ANY POTABLE WATER DISPENSING EQUIPMENT SUCH AS ICE MAKERS, COFFEE MACHINES, TEA MACHINES, ESPRESSO MACHINES OR WHERE INDICATED IN THE CONTRACT DOCUMENTS.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND ARE LIMITED TO, THE FOLLOWING:

AMES FIRE & WATERWORKS; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.

CONBRACO INDUSTRIES, INC.

FEBCO; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.

FLOMATIC CORPORATION.

WATTS; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR COMPANY.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; WILKINS WATER CONTROL PRODUCTS.

BALANCING VALVES

PROVIDE BALANCING VALVES WHERE REQUIRED FOR PROPER BALANCING OF WATER SYSTEMS AS SHOWN ON THE CONTRACT DOCUMENTS.

BALANCING VALVES SHALL BE RED-WHITE VALVE CORPORATION MODEL 9517AB (NPT) OR MODEL 9519 (SOLDER). VALVE SHALL HAVE BRASS BODY, GLOBE VALVE ACTION AND ISOLATION PROPERTIES. FIXED ORIFICE DESIGN FOR PRECISE MEASUREMENT. INTEGRAL MEMORY STOP TO ENSURE REPEATABLE SETTING, FLUID SHUTOFF WITHOUT AFFECTING MEMORY SETTINGS, HIGH AND LOW PRESSURE METERING POINTS, PRECISION INDICATOR WINDOWS, RUGGED TOP SET HAND-WHEEL ASSEMBLY, PRESSURE RATING OF 300 PSI, AND TEMPERATURE RATING OF 15 DEG. F TO 260 DEG. F.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND ARE LIMITED TO, THE FOLLOWING:

CRANE CO.; CRANE VALVE GROUP; CRANE VALVES.

HAMMOND VALVE.

MILWAUKEE VALVE COMPANY.

NIBCO INC.

WATTS

RED-WHITE VALVE CORP.

VACUUM BREAKERS

VACUUM BREAKERS SHALL BE WATTS MODEL LF288A FOR PIPED CONNECTIONS OR WATTS LFB SERIES FOR HOSE CONNECTIONS. VACUUM BREAKERS SHALL COMPLY WITH ASSE 1001 FOR PIPED CONNECTIONS, ASSE 1011 FOR HOSE CONNECTIONS, BRONZE BODY AND THREADED CONNECTIONS WITH ROUGH BRONZE FINISH.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND LIMITED TO, THE FOLLOWING:

MIFAB, INC.

PRIER PRODUCTS, INC.

WATTS; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR COMPANY.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; LIGHT COMMERCIAL PRODUCTS.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; WILKINS WATER CONTROL PRODUCTS

PRESSURE REDUCING VALVES

PROVIDE PRESSURE REDUCING VALVE TO REGULATE INCOMING DOMESTIC WATER PRESSURE IN EXCESSIVE OF 80 PSIG. PRESSURE REDUCING VALVE SHALL BE WATTS MODEL LF254UB-23 OR LF2235, COMPLY WITH ASSE 1003, INITIAL WORKING PRESSURE OF 300 PSIG, INTEGRAL STRAINER, LEAD-FREE BRASS BODY WITH THREADED CONNECTIONS.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND LIMITED TO, THE FOLLOWING:

CASH ACME; A DIVISION OF RESTATE WORLDWIDE CORPORATION.

CONBRACO INDUSTRIES, INC.

HONEYWELL INTERNATIONAL, INC.

WATTS; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR COMPANY.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; WILKINS WATER CONTROL PRODUCTS.

STRAINERS

PROVIDE LEAD-FREE WYE-PATTERN STRAINER WATTS MODEL LSF775 RATED FOR 125 PSIG MINIMUM, BRONZE BODY, THREADED CONNECTIONS, STAINLESS STEEL SCREEN WITH ROUND PERFORATIONS OF 0.020 INCH AND PIPE PLUG DRAIN. PROVIDE STRAINERS ON SUPPLY SIDE OF EACH PRESSURE REDUCING VALVE, SOLENOID VALVE AND PUMP.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND LIMITED TO, THE FOLLOWING:

MIFAB, INC.

PRIER PRODUCTS, INC.

WATTS; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR COMPANY.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; LIGHT COMMERCIAL PRODUCTS.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; WILKINS WATER CONTROL PRODUCTS

HOSE BIBBS

WHERE APPLICABLE AND POSSIBLE, INSTALL ALL HOSE BIBS 24"-30" ABOVE FINISHED FLOOR TO FACILITATE FILLING OF MOP BUCKETS WITHOUT A HOOK OR FURNISH TO OWNER VALVE KEY FOR EACH KEY OPERATED HOSE BOB INSTALLED.

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, AND LIMITED TO, THE FOLLOWING:

JOSAM COMPANY

MIFAB, INC.

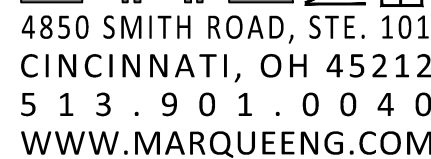
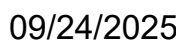
SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.

TYLER PIPE-VADE DIV.

WATTS DRAINAGE PRODUCTS.

WOODFORD MANUFACTURING COMPANY; A DIVISION OF WCM INDUSTRIES, INC.

ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; LIGHT COMMERCIAL PRODUCTS.



UNION VILLAGE COMMUNITY POOL

TURTLE CREEK TOWNSHIP, OHIO

ISSUE DATE	
PERMIT SET	08-14-2025
REV - 1	09-24-2025

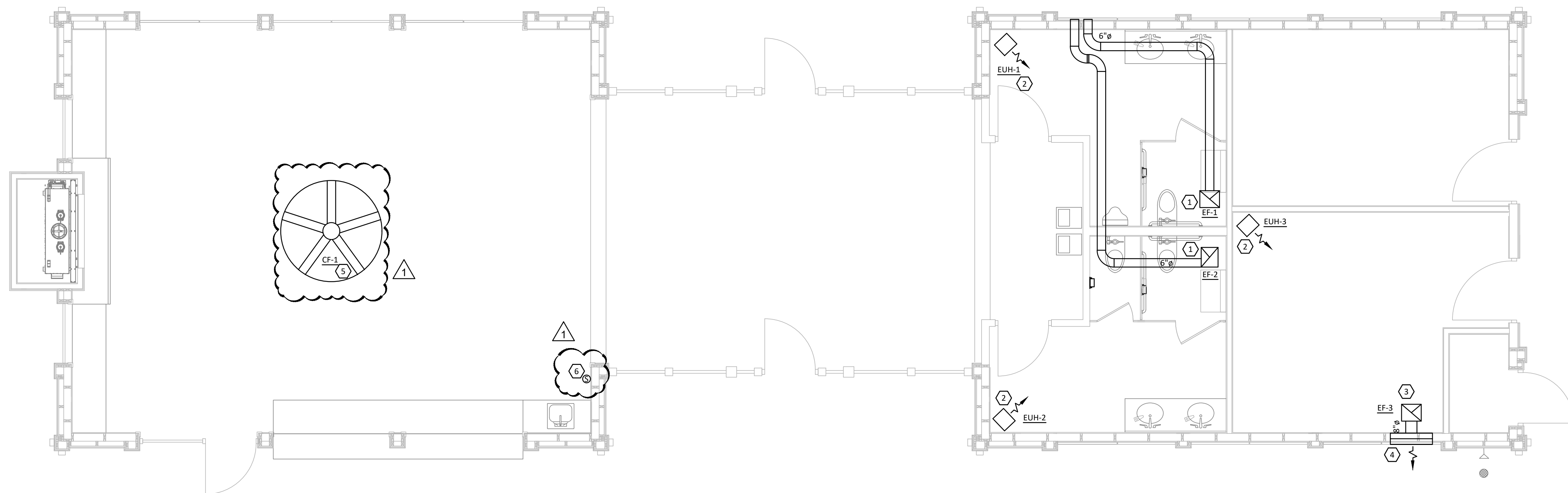
COPYRIGHT:
MARQUE ENGINEERING LLC

PROJ MANAGER: JJR

JOB NO. #13270

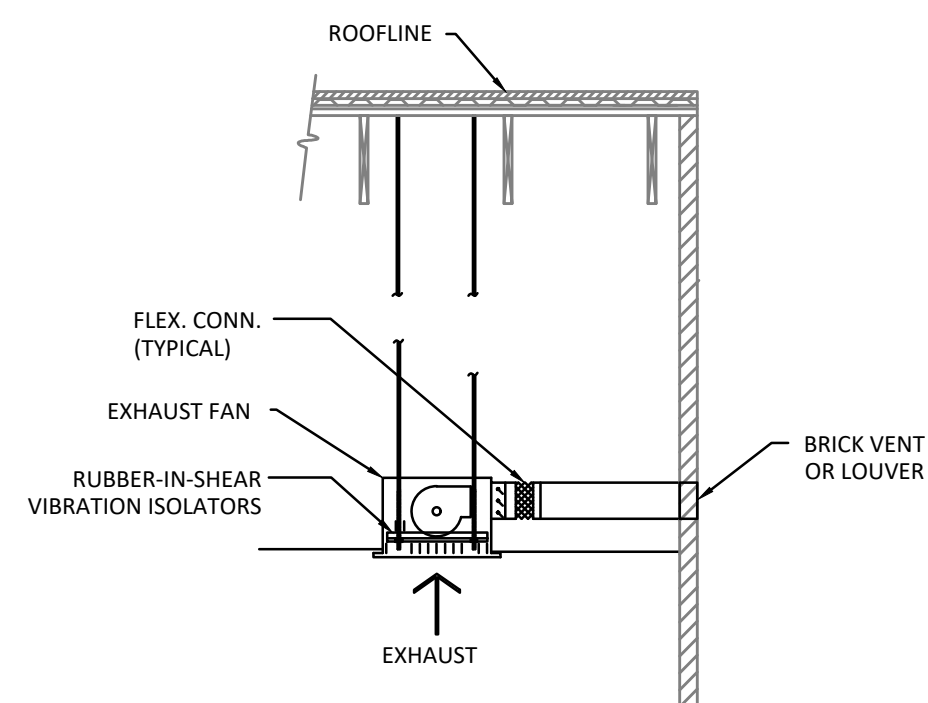
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M1.00



1 MECHANICAL - FLOOR PLAN

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



1 EXHAUST RISER DETAIL

SCALE: NONE

ELECTRIC HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	CFM	KW	BTU/H	ELECTRICAL		REMARKS
						VOLTAGE	PHASE	
EUH-1	REZNOR	EGW-3	300	3.0	10,236	208	1	A,B
EUH-2	REZNOR	EGW-3	300	3.0	10,236	208	1	A,B
EUH-3	REZNOR	EGW-3	300	3.0	10,236	208	1	A,B

REMARKS:

- A. PROVIDE COMPLETE UNIT WITH UNIT MOUNTED THERMOSTAT, AND DISCONNECT SWITCH.
B. SUPPLIED BRACKETS FOR WALL MOUNTING THAT ALLOW 360-DEGREE ROTATION.

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER	MODEL	CFM	ESP	RPM	WATTS	VOLTAGE	PHASE	WEIGHT LBS	SONES	REMARKS
EF-1	GREENHECK	SP-B150	150	0.1	1,050	128	115	1	10	2.5	A,B,C,D
EF-2	GREENHECK	SP-B150	150	0.1	1,050	128	115	1	10	2.5	A,B,C,D
EF-3	GREENHECK	SP-A200	200	0.14	900	54	115	1	24	1.5	A,B,C,D

REMARKS:

- A. DISCONNECT SWITCH
- B. BACKDRAFT DAMPER
- C. ALUMINUM GRILLE WITH WHITE ENAMEL FINISH
- D. HANGING VIBRATION ISOLATORS.
- E. BIRD SCREEN.

HVLS CEILING FAN

TAG	MANUFACTURER	MODEL	CFM	ESP	RPM	EFF. (CFM/W)	AMPS	WATTS	VOLTAGE	PHASE	WEIGHT LBS	SOUND (DBA)	REMARKS
CF-1	GREENHECK	DC-5-6-3MV	12,424	-	165	195.00	1.6	61	115	1	31	39	A,B,C,D,E

REMARKS:

- A. DISCONNECT SWITCH
- B. DIRECT DRIVE MOTOR FOR FORWARD OR REVERSE OPERATION
- C. UNIVERSAL CEILING MOUNT.
- D. ENERGY STAR CERTIFIED
- E. 5-BLADE AIRFOIL KIT.
- F. FINISH AND COLOR TO BE SELECTED BY ARCHITECT AND OWNER

HVAC LEGEND

	DRAWING NOTE SYMBOL
	NEW RECTANGULAR DUCTWORK AND SIZE
	NEW ROUND DUCTWORK AND SIZE
	BALANCING/VOLUME DAMPER
	THERMOSTAT
	NEW SUPPLY AIR DIFFUSER AND CFM
	NEW RETURN GRILLE
	NEW EXHAUST GRILLE AND CFM
	AIR FLOW DIRECTION

HVAC DESIGN CONDITIONS

<u>COOLING:</u> OUTDOOR = 92°FDB/74°FWB INDOOR = 72°FDB/50%RH	<u>HEATING:</u> OUTDOOR = 1°FDB INDOOR = 70°FDB
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GENERAL NOTES

- A. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE. EXACT LOCATIONS OF DEVICES AND ROUTING OF DUCTWORK SHALL BE DETERMINED BY CONTRACTOR AFTER COORDINATION WITH ALL OTHER TRADES AND FIELD DETERMINATION OF FINAL CONSTRUCTION DETAILS. MINOR ADJUSTMENTS TO DUCT ROUTING AND CONFIGURATION TO AVOID CONFLICT WITH BUILDING STRUCTURE OR OTHER TRADES SHALL BE INCLUDED IN CONTRACTOR'S PRICE. CONTRACTOR SHALL OBTAIN ENGINEERS APPROVAL IN WRITING FOR ANY MODIFICATIONS TO SYSTEM DESIGN PRIOR TO INSTALLATION.
- B. ALL EXPOSED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND SUPPORTED IN A FIRST-CLASS AND WORKMANLIKE FASHION. DUCTWORK SHALL RUN PARALLEL TO AND/OR PERPENDICULAR TO MAIN BUILDING STRUCTURE. ANY WORK THAT IS NOT DONE IN A FIRST-CLASS OR WORKMANLIKE FASHION, IN THE ARCHITECTS OPINION, SHALL BE REDONE AT THE CONTRACTORS EXPENSE.
- C. ALL DUCT JOINTS, SEAMS AND CONNECTIONS SHALL BE SECURELY FASTENED AND SEALED. DUCTS SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN FEET. DUCT COVERINGS AND LININGS SHALL HAVE A FLAME-SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
- D. PROVIDE VOLUME DAMPERS AT ALL ROUND BRANCH DUCT TAKE-OFFS THAT ARE ACCESSIBLE. PROVIDE TURNING VANES AT ALL 90 DEGREE SQUARE ELBOWS IN SUPPLY AIR DUCTS. PROVIDE 45 DEGREE HEEL AT ALL TRIANGULAR SUPPLY AND RETURN BRANCH DUCT TAKE-OFFS.
- E. OUTDOOR AIR INTAKES SHALL BE 10'-0" MINIMUM AWAY FROM ANY EXHAUST AND PLUMBING VENT OUTLET.
- F. WIRE UP ALL LOW VOLTAGE (24V) THERMOSTATS.
- G. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL PIPES, DUCTWORK, UNITS, ETC. WITH ALL OTHER TRADES AND SHIFT LOCATION OR OFFSET WHERE NECESSARY. PROVIDE TRANSITIONS IN DUCTWORK TO AVOID CONFLICT WITH EXISTING DUCTWORK AND OTHER STRUCTURES.
- H. CONTRACTOR SHALL COORDINATE ALL AIR DEVICES WITH ELECTRICAL AND ARCHITECTURAL REFLECTED CEILING PLANS.
- I. COORDINATE LOCATION OF ALL EXTERIOR LOUVER OR OUTLET WITH ARCHITECTURAL ELEVATION PLAN.
- J. INSTALL DUCTWORK AS HIGH AS POSSIBLE.
- K. EXHAUST AIR DUCTS SHALL BE EQUIPPED WITH BACKDRIFT DAMPERS.
- L. ALL DUCT OPENINGS AND OTHER AIR DISTRIBUTION OPENINGS SHALL BE COVERED DURING CONSTRUCTION EXCEPT FOR TESTING AND INSPECTION.
- M. PROVIDE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND WARRANTIES /WRITTEN GUARANTEE FOR EACH SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN GCR TITLE 8, SECTION 5142 AND OTHER RELATED REGULATIONS.
- N. ALL DUCT ELBOWS SHALL BE LONG RADIUS OR MITERED.

KEYED NOTES

1. PROVIDE NEW CEILING EXHAUST FAN, CONTROLLED BY LIGHT SWITCH, AND ROUTE EXHAUST DUCTWORK TO 6" FLUSH MOUNT LOUVERED FLAPPER GRILLE WITH BIRD SCREEN. PAINT GRILLE TO MATCH BRICK COLOR.
2. PROVIDE ELECTRIC UNIT HEATER, WITH UNIT MOUNTED THERMOSTAT. HEATER SHALL BE MOUNTED FROM WALL. SET THERMOSTAT TO 60°F (ADJUSTABLE).
3. PROVIDE NEW CONTINUOUS EXHAUST FAN MOUNTED FROM STRUCTURE, AND ROUTE EXHAUST DUCTWORK TO FLUSH MOUNT LOUVER.
4. GREENHECK WALL LOUVER. MODEL: ESD-202 - 30x22 OR EQUAL. INSTALL BIRD SCREEN. LOUVER PAINT COLOR TO BE SELECTED BY ARCHITECT.
5. PROVIDE FINS FAN AND COORDINATE MOUNTING HEIGHT WITH OWNER AND ARCHITECT. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION.
6. FURNISH MANUFACTURER PROVIDED TROUSCHEN FAN CONTROLLER. MECHANICAL CONTRACTOR TO PROVIDE WEATHERPROOF LOCKBOX. COORDINATE FINAL LOCATION WITH OWNER.

NATURAL VENTILATION

OUTDOOR AIR IS OBTAINED FROM NATURAL VENTILATION, IN ACCORDANCE WITH SECTION 402.2 OF THE INTERNATIONAL MECHANICAL CODE. THE MINIMUM OPENABLE AREA TO THE OUTDOORS EXCEEDS 4% OF THE FLOOR AREA BEING VENTILATED.

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DIVISION 23 MECHANICAL SPECIFICATIONS

23 05 01 COMMON REQUIREMENTS FOR HVAC

ALL MECHANICAL WORK AND TESTS SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST STATE, COUNTY, AND LOCAL REGULATIONS, LAWS, AND ORDINANCES WHICH MAY BE APPLICABLE.

BEFORE SUBMITTING A BID, EXAMINE DOCUMENTS OF ALL OTHER TRADES, VISIT THE SITE AND GET ACQUAINTED WITH ALL CONDITIONS THAT MAY IN ANY WAY AFFECT THE EXECUTION OF THIS CONTRACT. TAKE MEASUREMENTS AND BE RESPONSIBLE FOR EXACT SIZE AND LOCATIONS OF ALL OPENINGS REQUIRED. VERIFY INSTALLATION MAY BE MADE IN COMPLETE ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE PROFESSIONAL ENGINEER OF RECORD. DO NOT PROCEED WITH THE INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

IT IS NOT THE INTENT OF THE DRAWINGS THAT EXISTING CONDITIONS BE ACCURATELY SHOWN. EXISTING MECHANICAL WORK IS SHOWN TO LIMITED EXTENT ON DRAWINGS AND IS SHOWN FOR GENERAL REFERENCE ONLY. LOCATIONS AND INFORMATION WERE DERIVED FROM CURSORY SITE VISUAL OBSERVATIONS OR FROM DOCUMENTS THAT WERE PREPARED FOR PREVIOUSLY INSTALLED WORK WHEN AVAILABLE.

THE WORK COVERED BY THESE SPECIFICATIONS SHALL CONSIST OF: PROVIDING ALL NEW MATERIAL, LABOR, EQUIPMENT, AND SERVICES NECESSARY FOR A COMPLETE MECHANICAL INSTALLATION AS SPECIFIED HEREIN. WORK IN THIS SECTION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING ITEMS:

- RESTROOM EXHAUST FANS
- STORAGE ROOM EXHAUST FAN
- ELECTRIC WALL HUNG UNIT HEATERS
- LOW VOLTAGE THERMOSTATS
- DUCT
- DAMPERS
- DIFFUSERS, REGISTERS, AND LOUVERS

WHENEVER THE WORDS "CONTRACTOR" APPEAR ON MECHANICAL DRAWINGS OR IN THESE SPECIFICATIONS, IT SHALL REFER TO THE MECHANICAL SUB-CONTRACTOR. WHENEVER THE WORD "PROVIDE" APPEARS IN THESE DOCUMENTS, IT SHALL BE INTERPRETED TO MEAN "FURNISH AND INSTALL".

COORDINATE ALL WORK WITH THE OWNER TO MINIMIZE INTERRUPTION OF BUILDING OPERATION.

COORDINATE THE INSTALLATION OF MECHANICAL ITEMS WITH THE SCHEDULES FOR WORK OF ALL OTHER TRADES TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

THIS CONTRACTOR SHALL VERIFY AND SATISFY HIMSELF THAT ALL EQUIPMENT FURNISHED WILL PROPERLY FIT IN THE SPACE PROVIDED, THAT IT WILL FUNCTION PROPERLY, AND THAT ALL PARTS OF EQUIPMENT REQUIRING SERVICE ARE READILY ACCESSIBLE.

ALL PIPING SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS AND FRAMING SYSTEM. ALL VERTICAL RUNS SHALL BE HELD AGAINST WALLS, COLUMNS, ETC., AS POSSIBLE TO PERMIT MAKING OF PIPE JOINTS.

CONTRACTOR SHALL PROVIDE A GUARANTEE IN WRITTEN FORM STATING THAT ALL WORK SHALL BE FREE OF DEFECTS OR ERRORS, AND ALL EQUIPMENT, MATERIALS, OR PARTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S FINAL ACCEPTANCE AND SHALL REPAIR, REVISE OR REPLACE AT NO COST TO THE OWNER ANY SUCH DEFECTS OCCURRING WITHIN THE GUARANTEE PERIOD.

CONTRACTOR SHALL ALSO STATE IN WRITTEN FORM THAT ANY ITEMS OR OCCURRENCES ARISING DURING THE GUARANTEE PERIOD WILL BE ATTENDED TO IN A TIMELY MANNER AND WILL IN NO CASE EXCEED THREE (3) WORKING DAYS FROM DATE OF NOTIFICATION BY OWNER.

PROVIDE A COMPLETE INSTALLATION IN CONFORMANCE WITH THE FOLLOWING STANDARDS.
AGA: AMERICAN GAS ASSOCIATION
ASHRAE: AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
NFPA: NATIONAL FIRE PROTECTION ASSOCIATION
SMACNA: SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
STATEWIDE BUILDING CODE
INTERNATIONAL MECHANICAL CODE

CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF THIS WORK. ALL OPENINGS IN WALLS, FLOORS OR CEILINGS SHALL BE PROPERLY SEALED AND RESTORED IN KIND. FLASH AND COUNTERFLASH AT ROOF OPENINGS.

ALL EQUIPMENT SHALL BE LISTED AND LABELED, UNLESS OTHERWISE APPROVED.

ALL WIRING SHALL MEET THE REQUIREMENTS LISTED IN THE ELECTRICAL SPECIFICATIONS. ALL CONTROL AND INTERLOCK WIRING AND CONDUIT (120V OR 24V) SHALL BE BY THE MECHANICAL CONTRACTOR.

EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE.

CLEANING: THIS CONTRACTOR SHALL REMOVE FROM THE PREMISES ALL ACCUMULATION OF DIRT, DEBRIS, WASTE MATERIALS AND RUBBISH CAUSED BY HIS EMPLOYEES OR WORK, AT LEAST ONCE A WEEK, EXCEPT THAT COMBUSTIBLE MATERIALS SHALL BE REMOVED DAILY.

DURING PROGRESS OF THE WORK, MAINTAIN ON DRAWINGS AT THE SITE, AN ACCURATE RECORD OF THE INSTALLATION OF THE MECHANICAL SYSTEM, INDICATING ALL ITEMS WHICH HAVE BEEN CHANGED OR ADDED.

APPLY FOR AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY LOCAL AUTHORITY, FOR THE APPROVAL OF

WORK.

A CERTIFICATE OF FINAL INSPECTION AND APPROVAL SHALL BE SUBMITTED WITH THE CONTRACTOR'S REQUEST FOR FINAL PAYMENT. NO FINAL PAYMENT WILL BE APPROVED WITHOUT THIS CERTIFICATE.

GUARANTEE ALL WORKMANSHIP, MATERIAL, AND EQUIPMENT AND REPLACE ANY FOUND DEFECTIVE WORK WITHOUT COST TO THE OWNER, FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.

EXISTING CONDITIONS

DO NOT REUSE REMOVED MECHANICAL MATERIALS UNLESS SPECIFICALLY INDICATED ON DRAWINGS. EXISTING SYSTEMS MAY BE UTILIZED ONLY TO THE EXTENT INDICATED ON DRAWINGS.

IF REQUIRED TO ACCOMMODATE CONSTRUCTION RELATED ACTIVITIES TEMPORARILY REMOVE, STORE IN PROTECTED LOCATION ON SITE, AND REINSTALL CONFLICTING MECHANICAL EQUIPMENT, OR DEVICES THAT ARE TO REMAIN OR TO BE RELOCATED.

WHERE THE TERM "DEMOLITION" IS USED HEREIN, INTERPRET IT TO MEAN "DEMOLITION" OR "SELECTIVE DEMOLITION" WHERE APPLICABLE.

PROVIDE MECHANICAL DEMOLITION WORK AS REQUIRED TO ACCOMMODATE PROJECT DEMOLITION AND AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. DISCONNECT AND REMOVE WORK TO BE ABANDONED, AND AS REQUIRED TO ACCOMMODATE WORK OF OTHER TRADES, IN AREAS AFFECTED BY THIS PROJECT.

LEGALLY DISPOSE OF MATERIALS TO SALVAGED OR RETAINED.

23 05 03 SUBMITTALS FOR MECHANICAL SYSTEMS

DESIGN BASIS MANUFACTURERS OF MATERIAL AND EQUIPMENT ARE SPECIFIED AND PLANS ARE DETAILED ACCORDING TO THIS MATERIAL. CONTRACTOR SHALL BASE HIS BID ON FURNISHING AND INSTALLING THIS MAKE OF MATERIAL AND EQUIPMENT.

AN ACCEPTABLE MANUFACTURER'S NAME AND MODEL NUMBER OF A PRODUCT MAY BE PROVIDED IN THESE DOCUMENTS. THIS IS THE EQUIPMENT INCLUDED DURING THE DESIGN PROCESS AND FORMS THE BASIS OF A STANDARD OF QUALITY. WHERE MORE THAN ONE MAKE OF MATERIAL OR EQUIPMENT IS SPECIFIED, THE CONTRACTOR SHALL STATE IN HIS BID WHICH MAKE HE PROPOSES TO FURNISH AND INSTALL. SHOP DRAWING APPROVAL SHALL BE OBTAINED PRIOR TO SHIPMENT OF EQUIPMENT.

VERIFY THE MODEL NUMBER OR PRODUCT IS STILL ACCURATE AND MEETS ALL REQUIREMENTS SHOWN ON THE DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN THE REQUIREMENTS AND THE PRODUCT OR MODEL NUMBER, THE STRICTER OF THE TWO SHALL GOVERN.

SUBMIT SHOP DRAWINGS AND/OR PRODUCT DATA (ELECTRONIC COPIES) ON THE FOLLOWING ITEMS FOR REVIEW BEFORE FABRICATION OR SHIPMENT:

- RESTROOM EXHAUST FANS
- STORAGE ROOM EXHAUST FAN
- ELECTRIC WALL HUNG UNIT HEATERS
- LOW VOLTAGE THERMOSTATS
- DUCT
- DAMPERS
- DIFFUSERS, REGISTERS, AND LOUVERS

MAINTENANCE MANUALS: THE MANUALS SHALL INCLUDE WIRING DIAGRAMS, MAINTENANCE AND OPERATING INSTRUCTIONS, PARTS LISTINGS, AND COPIES OF OTHER SUBMITTALS INDICATED FOR INCLUSION.

REVIEW AND CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS, PRODUCT DATA: CATALOGS, CUT SHEETS, CHARTS, AND OTHER ITEMS DURING CONSTRUCTION PHASE SUBMITTAL REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS, FOR PROVIDING A COMPLETE AND FUNCTIONING PROJECT, NOR SHALL THEY RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS OR ERRORS OF ANY SORT. THIS REVIEW IS FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. CONTRACTOR REMAINS RESPONSIBLE FOR DETERMINING THE ACCURACY AND COMPLETENESS OF OTHER DETAILS SUCH AS DIMENSIONS AND QUANTITIES, FOR SUBSTANTIATING INSTRUCTIONS FOR INSTALLATIONS, VERIFYING MATERIALS REQUIRED, OBTAINING FIELD MEASUREMENTS AND RELATED CRITERIA, COORDINATING WORK WITH OTHER DISCIPLINES AND PERFORMING WORK IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

ANY CHANGES TO ITEMS SPECIFIED MUST BE SUBMITTED IN WRITING AS A SUBSTITUTION, WITH COMPLETE DOCUMENTATION OF PRICE DIFFERENTIAL AND EQUIPMENT DETAILS. ANY SUBSTITUTIONS PROVIDED SHALL BE REVIEWED AT MARQUE ENGINEERING'S HOURLY RATES. REVIEW SHALL BE PAID FOR BY THE CONTRACTOR TO MARQUE ENGINEERING AT NO COST TO THE OWNER. BY USING PRE-APPROVED SUBSTITUTIONS, THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY AND ASSOCIATED COSTS FOR ALL REQUIRED MODIFICATIONS TO THE CONTRACT DOCUMENTS TO INCLUDE BUT NOT LIMITED TO MATERIAL OR EQUIPMENT COSTS FOR THEIR OR OTHER TRADES, AND ENSURING THAT SUBSTITUTED MATERIALS AND EQUIPMENT TO BE FURNISHED FIT INTO SPACE AVAILABLE.

EXTENSIVE REVISIONS NECESSITATED TO THE CONTRACT DOCUMENTS, OR SUBSTITUTION ACTIONS RELATED TO ANY SPECIFIED PRODUCT NOT ABLE TO BE PROVIDED DUE TO A FAILURE TO COMMENCE WORK, RELEASE PRODUCT OR COORDINATE CONSTRUCTION ACTIVITIES SHALL BE PROVIDED AT MARQUE ENGINEERING'S HOURLY RATES. COSTS SHALL BE BODN BY THE CONTRACTOR AT NO COST TO THE OWNER.

23 05 29 HANGERS AND SUPPORTS

SUPPORT ALL PIPING, DUCTWORK AND EQUIPMENT BY HANGERS OR BRACKETS. FURNISH STRUCTURAL STEEL MEMBERS WHERE REQUIRED TO SUPPORT PIPING AND EQUIPMENT. NO PORTION OF PIPING OR VALVES SHALL BE SUPPORTED BY EQUIPMENT.

DUCTWORK - SUPPORT BY MEANS OF HANGERS AS FOLLOWS:

DUCT WIDTH 30 OR LESS
HANGER SIZE (16 GAUGE)

TYPE MAX. SPACING 8
A PAIR OF HANGERS SHALL BE LOCATED AT EVERY TRANSVERSE JOINT AND ELSEWHERE ACCORDING TO THE TABLE.

23 05 93 HVAC SYSTEM TESTING, ADJUSTING AND BALANCING FOR HVAC

ALL SYSTEMS AND EQUIPMENT SHALL BE CAREFULLY ADJUSTED TO PROVIDE COMFORTABLE AND UNIFORM CONDITIONS IN EACH AND EVERY SPACE TO THE OWNER'S SATISFACTION. PROVIDE ANY REQUIRED DRIVES TO SATISFY QUANTITIES INDICATED. PROVIDE A CERTIFIED AIR BALANCE OF THE DIFFUSERS AND AIR HANDLERS.

AIR SYSTEM:

AIR BALANCE AND TESTING SHALL NOT BEGIN UNTIL THE SYSTEM HAS BEEN COMPLETED AND IS IN FULL WORKING ORDER. CONTRACTOR SHALL PUT ALL HEATING, VENTILATING AND AIR CONDITIONING SYSTEM AND EQUIPMENT INTO FULL OPERATION AND SHALL CONTINUE THE OPERATION OF SAME DURING EACH WORKING DAY OF TESTING AND BALANCING. CONTRACTOR SHALL SUBMIT WITHIN 30 DAYS AFTER RECEIPT OF CONTRACT, COPIES OF SUBMITTAL DATA FOR THE TESTING AND BALANCING OF THE AIR CONDITIONING, HEATING, AND VENTILATING SYSTEMS. THE AIR BALANCE AND TESTING AGENCY SHALL PROVIDE PROOF OF HAVING SUCCESSFULLY COMPLETED AT LAST FIVE PROJECTS OF SIMILAR SIZE AND SCOPE.

CONTRACTOR SHALL PROCURE THE SERVICES OF AN INDEPENDENT AIR BALANCE AND TESTING AGENCY, APPROVED BY THE ENGINEER, AND A MEMBER OF AABC OR NEBB, WHICH SPECIALIZES IN THE BALANCING AND TESTING OF HEATING VENTILATION AND AIR CONDITIONING SYSTEMS, TO BALANCE, ADJUST AND TEST AIR MOVING EQUIPMENT AND AIR DISTRIBUTION OR EXHAUST SYSTEMS AS HEREIN SPECIFIED.

ALL WORK BY THIS AGENCY SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A QUALIFIED HEATING AND VENTILATING ENGINEER EMPLOYED BY THIS AGENCY. ALL INSTRUMENTS USED BY THIS AGENCY SHALL BE ACCURATELY CALIBRATED AND MAINTAINED IN GOOD WORKING ORDER.

23 07 13 DUCT INSTALLATION

INSULATE ALL SUPPLY, DIFFUSER PLENUMS, AND OUTSIDE AIR DUCTWORK OF ALL UNITS WITH OWENS CORNING "ALL SERVICE DUCT WRAP" TYPE 150 GLASS FIBER INSULATION UNLESS OTHERWISE NOTED. INSULATION SHALL BE 1-1/2" THICK (2" THICK FOR SUPPLY AND RETURN IN TRUSS SPACE). 1.5 PCT. DENSITY WITH FRK JACKET .002 THICK REINFORCED ALUMINUM FOIL VAPOR BARRIER. INSULATION SHALL CONFORM TO NFPA 90A AND 90B PER ASTM E-84 FOR FLAME SPREAD AND SMOKE DEVELOPED RATING.

INSULATE ALL EXTERIOR SUPPLY AND RETURN DUCTWORK WITH RIGID FIBERGLASS BOARD INSULATION WITH OUTDOOR JACKET. INSULATION SHALL BE 2" THICK WITH A "K" VALUE OF 0.23 AT 75 F. INSTALL ON DUCTWORK USING IMPALE ANCHORS AND WIRES. SEAL VAPOR BARRIER WITH VAPOR BARRIER ADHESIVE.

PROVIDE INSULATION ON ALL CONCEALED SUPPLY, RETURN DUCTWORK. ALL LINERS, INSULATION AND ADHESIVES SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50.

RIGID FIBERGLASS DUCTWORK INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 612, TYPE IB, WITHOUT FACING AND WITH VAPOR BARRIER ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL, AND VINYL FILM. INSULATION SHALL HAVE A MINIMUM R VALUE AS REQUIRED BY CODE.

FLEXIBLE FIBERGLASS DUCTWORK INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 553, TYPE II, WITHOUT FACING AND WITH VAPOR BARRIER ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL, AND VINYL FILM. INSULATION SHALL HAVE A MINIMUM R VALUE AS REQUIRED BY CODE.

VAPOR BARRIER MATERIAL FOR DUCTWORK: PAPER-BACKED ALUMINUM-FOIL, EXCEPT AS OTHERWISE INDICATED; STRENGTH AND PERMEABILITY RATING EQUIVALENT TO FACTORY-APPLIED VAPOR BARRIERS ON ADJOINING DUCTWORK INSULATION, WHERE AVAILABLE; WITH FOLLOWING ADDITIONAL CONSTRUCTION CHARACTERISTICS:

HIGH PUNCTURE RESISTANCE: LOW VAPOR TRANSMISSION (FOR DUCTS IN EXPOSED AREAS: MECH. ROOMS, ETC.)
MODERATE PUNCTURE RESISTANCE: MEDIUM VAPOR TRANSMISSION (FOR DUCTS IN CONCEALED AREAS).

INSTALLATION IS NOT PERMITTED ABOVE DRYWALL CEILINGS AND INACCESSIBLE CEILINGS.

ELECTRIC UNIT HEATERS

FORCED AIR UNIT HEATER WITH 10 POWER RATINGS; FROM 3KW TO 50 KW HEATING OUTPUT; 208, 240, 277 AND 480V, 10,230 TO 170,500 BTU/HR.

HEAVY GAUGE DIE-FORMED STEEL HOUSING. STAINLESS STEEL LOUVERS.

ADVANCED PULL-THROUGH AIR FLOW DESIGN DRAWS AIR ACROSS HEATING ELEMENT FOR MORE EVEN AIR DISTRIBUTION AND COOLER ELEMENT OPERATION.

COMPLETELY ENCLOSED FAN MOTOR.

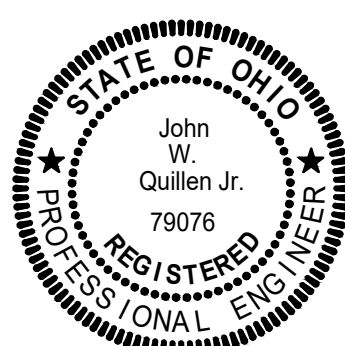
ALUMINUM-FINNED, COPPER CLAD STEEL SHEATH HEATING ELEMENT.

3KW AND 5KW, 208-277V, HAVE LINE VOLTAGE CONTROLS AS STANDARD.

AUTOMATIC RESET LINEAR THERMAL CUT-OUT, CAPILLARY TYPE, PROVIDES PROTECTIONS OVER ENTIRE LENGTH OF ELEMENT AREAS (MANUAL RESET PROTECTION AVAILABLE ON MADE-TO-ORDER BASIS).

FAN DELAY FEATURE ELIMINATES COLD DRAFTS. ELEMENT HEATS UP BEFORE FAN CUTS IN, THEN FAN CONTINUES TO DISTRIBUTE HEAT AFTER ELEMENT SHUTS OFF.

MEETS ALL UL, NEC, AND OSHA REQUIREMENTS.



09/24/2025



UNION VILLAGE COMMUNITY POOL

TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE

PERMIT SET

REV. - 1

08-14-2025

09-24-2025

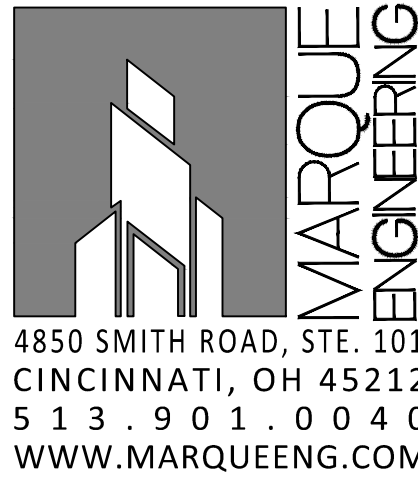
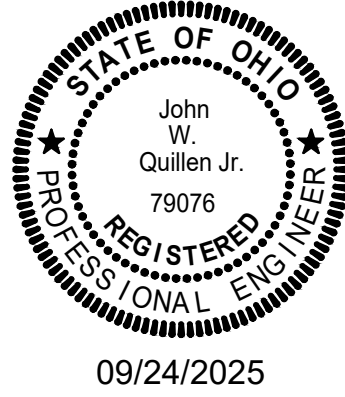
COPYRIGHT:
MARQUE ENGINEERING LLC
PROJ MANAGER: JJR
JOB NO. #13270

MECHANICAL -
SPECIFICATIONS

M2.00

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UNION VILLAGE COMMUNITY POOL

TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE
PERMIT SET
REV - 1
08-14-2025
09-24-2025

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PROJ MANAGER: JJR
JOB NO. #13270

MECHANICAL - ENERGY
COMPLIANCE

M3.00

COMcheck Software Version COMcheckWeb Mechanical Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: 13270 - Union Village Pool Structure
Location: Lebanon (Warren), Ohio
Climate Zone: 4a
Project Type: New Construction

Construction Site:
Allen St
Lebanon, Ohio 45036

Owner/Agent:

Designer/Contractor:
Marque Engineering
4850 Smith Rd Suite 101
Cincinnati, Ohio 45212
513-901-0040

Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed

Mechanical Systems List

Quantity System Type & Description

3 HVAC System (Unknown w/ ReimasterSystems)
Heating: 3 each - Unit Heater, Electric, Capacity = 10 kBtu/h
No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

John Graves - PE
Name - Title Signature Date 8/08/2025

Project Title: 13270 - Union Village Pool Structure
Data filename: Report date: 08/08/25
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COMcheck Software Version COMcheckWeb Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 (P102)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. Hot water system sized per manufacturer's sizing guide.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C406 (P109)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 (P16)	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 (ME41)	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.12.3 (ME61)	HVAC piping insulated in accordance with Table C403.11.3. Insulation exposed to weather is protected from damage and is provided with shielding from solar radiation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.8.1 (ME65)	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met. See the Mechanical Systems list for values.
C403.8.3 (ME11)	Fans have a fan energy index (FEI) >= 1.05. Variable volume fans will have an FEI >= 0.95.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.9 (ME144)	Large diameter fans where installed shall be tested and labeled in accordance with AMCA 230.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.13.1 (ME71)	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.3 (ME35)	HVAC equipment efficiency verified.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	See the Mechanical Systems list for values.
C403.2.2 (ME59)	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.7.1 (ME59)	Demand control ventilation provided for spaces >500 ft ² and >15 people/1000 ft ² occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >= 1,000 cfm.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.2 (ME115)	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.6 (ME141)	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.7.4 (ME57)	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.7.5 (ME116)	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C403.12.1 (ME60)	HVAC ducts and plenums insulated in accordance with C403.11.1 and C403.12.2, verification may need to occur during Foundation Inspection.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.1 (ME63)	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C408.2.2.1 (ME53)	Air outlets and zone terminal devices have means for air balancing.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.11.3 (ME121)	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.11.3.1 and refrigeration compressor systems that comply with C403.11.3.2.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.7 (EL26)	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.8 (EL27)	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.9.1, C405.9.2 (EL28)	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.10 (EL29)	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.1.1 (EL30)	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.11.1 (EL31)	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C308.2.5 (F18)	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.1.1 (F150)	HVAC systems and equipment design loads calculated in accordance with ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.3.1 (F17)	HVAC systems and equipment capacity does not exceed calculated loads.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.1 (F147)	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.1.1 (F138)	Thermostatic controls have a 5 °F deadband.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.1.2 (F120)	Temperature controls have setpoint overlap restrictions.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.2 (F139)	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C403.4.2.1 (F140)	Automatic Controls: Setback to 55°F (heat) and 55°F (cool); 7-day clock; 2-hour occupant override; 10-hour backup.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.1.1 (F157)	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.1 (F128)	Commissioning plan developed by registered design professional or approved agency.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.3 (F13)	HVAC equipment, systems and system-to-system relationships have been tested to ensure proper operation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.3 (F10)	HVAC and service water heating systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.4 (F129)	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5 (F17)	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5.1 (F143)	An air and/or hydronic system balancing report is provided for HVAC systems.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5.2 (F130)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

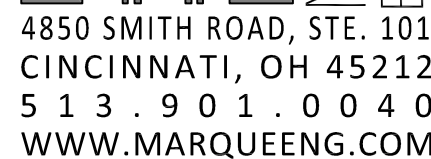
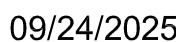
Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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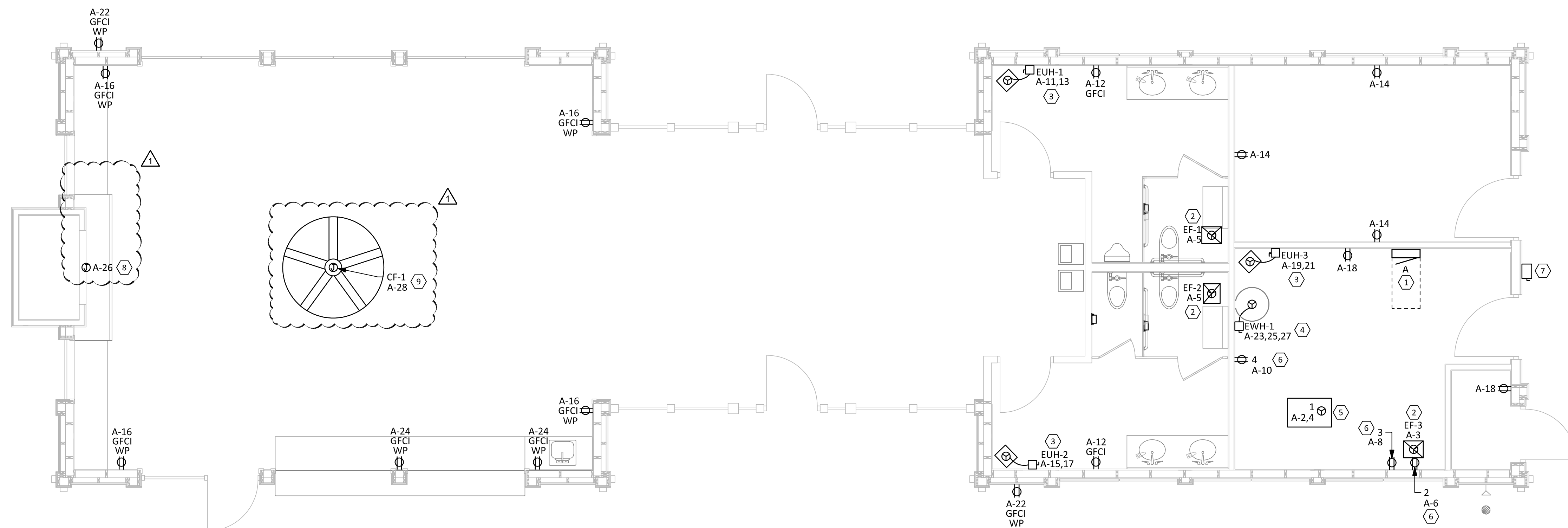
TURTLE CREEK TOWNSHIP, OHIO

PERMIT SET	08-14-2025
REV - 1	09-24-2025

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PROJ MANAGER:	JJR
JOB NO.	#13270

**ELECTRICAL - POWER
PLAN**

E1.00



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

CALLOUT	SYMBOL
DUPLEX	

1	FLOW PUMP		208/120V 2P 3W	3.2	A-2,4
2	CHLORINATOR		120V 1P 2W	0.22	A-6
3	ACID FEEDER		120V 1P 2W	0.22	A-8
4	CHEMICAL CONTROLLER		120V 1P 2W	0.03	A-10

2. EXHAUST FAN TO BE INTERLOCKED WITH LOCAL LIGHTING BRANCH CIRCUIT SUCH THAT IF LIGHTING IN THE ROOM IS ON, THE EXHAUST FAN IS ON.

3. PROVIDE DISCONNECT SWITCH AND CIRCUIT INDICATED FOR NEW HVAC EQUIPMENT. REFER TO SPECIFICATIONS AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION AND REQUIREMENTS. REFER TO MECHANICAL DRAWINGS MORE DETAIL.

4. PER PLUMBING DRAWINGS, PROVIDE DISCONNECT SWITCH AND CIRCUIT INDICATED FOR NEW ELECTRIC WATER HEATER. REFER TO SPECIFICATIONS AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION AND REQUIREMENTS. REFER TO PLUMBING DRAWINGS MORE DETAIL.

5. PROVIDE FINAL CONNECTION TO POOL EQUIPMENT AS INDICATED ON PLANS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH POOL EQUIPMENT VENDOR.

6. PROVIDE 120V 20A RECEPTACLE AND BRANCH CIRCUIT AS INDICATED ON PLANS FOR POOL EQUIPMENT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH POOL EQUIPMENT VENDOR.

7. PROVIDE NEW SERVICE DISCONNECT SWITCH. REFER TO SINGLE LINE DIAGRAM ON SHEET E-300.

8. PROVIDE 120V 20 AMP DEDICATED BRANCH CIRCUIT FOR FUTURE GAS FIREPLACE. COORDINATE EXACT LOCATION IN FIELD WITH OWNER.

9. PROVIDE 120V 20 AMP DEDICATED BRANCH CIRCUIT FOR CEILING FAN. COORDINATE EXACT LOCATION IN FIELD WITH OWNER. VERIFY EXACT REQUIREMENTS WITH MANUFACTURERS SPECIFICATIONS.

10. WHETHER OR NOT IT IS LOCATED ON PLANS.

11. IT IS THE RESPONSIBILITY OF THE E.C. TO REVIEW ALL ARCHITECTURAL DRAWINGS, ELECTRICAL DRAWINGS AND NOTES TO INSURE THAT ALL ELECTRICAL REQUIREMENTS ARE MET.

12. COORDINATE LOCATIONS AND HEIGHTS OF ALL ELECTRICAL DEVICES WITH KITCHEN EQUIPMENT CONTRACTOR DRAWINGS PRIOR TO ROUGH-IN.

13. PROVIDE ALL SAW CUTTING AND PATCHING OF EXISTING FLOORS AND WALLS AS REQUIRED FOR INSTALLATION OF THIS WORK.

14. ENSURE SPECIFICALLY NOTED OTHERWISE, ALL BRANCH CIRCUITS SHALL BE PROVIDED WITH #12(1 CU THHN AND #11(1/2 CU THHN GND IN 3/4" EMT CONDUIT FOR EACH 20 AMP CIRCUIT.

15. PROVIDE ALL ELECTRICAL ROUGH-INS, OUTLETS, SWITCHES, DISCONNECTS, CORDS AND PLUGS, AND OTHER SIMILAR ITEMS NECESSARY TO MAKE FOOD SERVICE EQUIPMENT OPERATIONAL.

16. PROVIDE ALL ROUGH-IN AND FINAL CONNECTIONS AS THEY RELATE TO WALK-IN AND REMOTE REFRIGERATION SYSTEM INCLUDING: LIGHTS, BLOWER COIL, DEFROST COIL, DRAIN LINE HEATER, DOOR HEATER AND COMPRESSORS.

17. SEAL ALL PENETRATIONS THROUGH WALK-IN COOLER/FREEZERS. AVOID SEAMS IN WALK-IN COOLER/FREEZER PANELS WHEN MAKING PENETRATIONS. MAKE ALL NECESSARY CONNECTIONS TO THE LIGHTS, DEFROST TIMER, EVAPORATOR, CONDENSOR, ETC.

18. ALL WORK SHOWN IS NEW, UNLESS OTHERWISE NOTED.

19. ANY PENETRATIONS THROUGH FIRE-RESISTANT/RATED WALLS, PARTITIONS, FLOORS, AND CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING.

20. REFER TO ELECTRICAL SPECIFICATIONS FOR ELECTRICAL DEVICE TYPES AND RATINGS.

21. ALL CONDUITS SHALL BE CONCEALED IN WALLS AND OUTLET BOXES SHALL BE FLUSH WITH FINISHED WALLS UNLESS OTHERWISE NOTED.

22. RECEPTACLES TO BE MOUNTED AT 1'-6" ABOVE FINISHED FLOOR TO CENTER OF RECEPTACLE UNLESS NOTED OTHERWISE.

23. PROVIDE CABLING AND TERMINATIONS FOR OWNER FURNISHED SPEAKERS AND SYSTEMS. COORDINATE ALL WORK WITH G.C. SPEAKERS SHOWN ON ARCHITECTURAL PLANS.

24. PROVIDE JUNCTION BOX AND RACEWAY FOR THERMOSTATS AND HVAC LOW VOLTAGE CONTROLS AT 48" A.F.F. THERMOSTATS AND HVAC LOW VOLTAGE CONTROLS INSTALLED AND WIRED BY M.C.C. COORDINATE EXACT LOCATIONS WITH M.C.C. TYPICAL OF ALL.

25. REFER TO ARCHITECTURAL DRAWINGS FOR DEVICE COLORS AND PANEL NUMBERS. IN THE CASE OF A CONFLICT BETWEEN LOCATIONS ON THE ELECTRICAL DRAWINGS AND LOCATIONS ON THE ARCHITECTURAL DRAWINGS, THE ARCHITECTURAL DRAWINGS SHALL TAKE PRIORITY.

26. ALL RECEPTACLES MOUNTED ON EXPOSED BRICK/MASONRY WALLS SHALL HAVE SURFACE MOUNT CONDUIT RUN FROM BELOW.

27. REFER TO SPECIFICATIONS FOR WIRE SIZING.

28. TELEPHONE AND DATA CABLING SHALL BE CAT6 CABLE AND SHALL BE BY THE G.C.

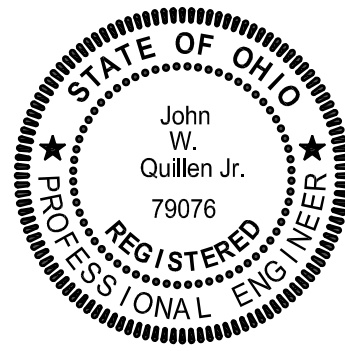
29. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL DATA AND TELEPHONE LOCATIONS SHALL RECEIVE 2 DATA DROPS AND 2 TELEPHONE DROPS. COORDINATE WITH OWNER PRIOR TO BID AND ROUGH-IN. PROVIDE EMPTY 1" CONDUIT TO ABOVE ACCESSIBLE CEILING WITH BUSHING TO ROUTE CABLES UP WALL. ALL CABLES SHALL BE ROUTED BACK TO DEMARCATION POINT.

30. UNLESS NOTED OTHERWISE, ALL RECEPTACLES SHALL BE WHITE WITH WHITE COVERPLATES.

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UNION VILLAGE COMMUNITY POOL

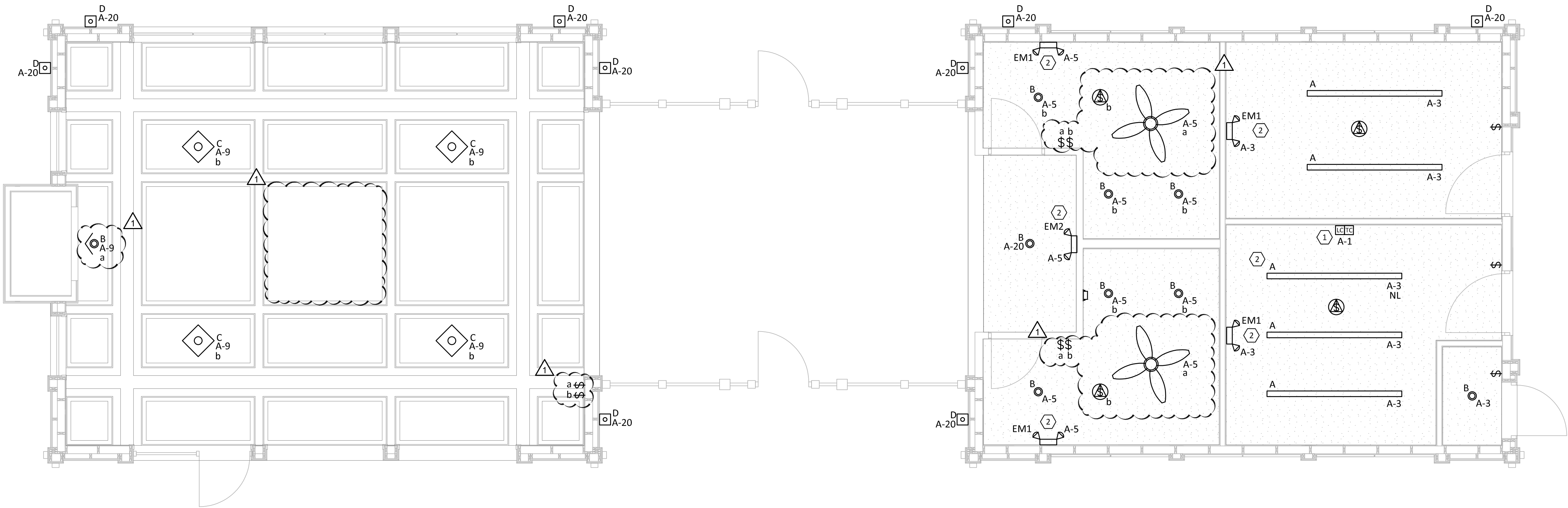
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ISSUE DATE
PERMIT SET
REV - 1
08-14-2025
09-24-2025

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ELECTRICAL - LIGHTING
PLAN

E2.00



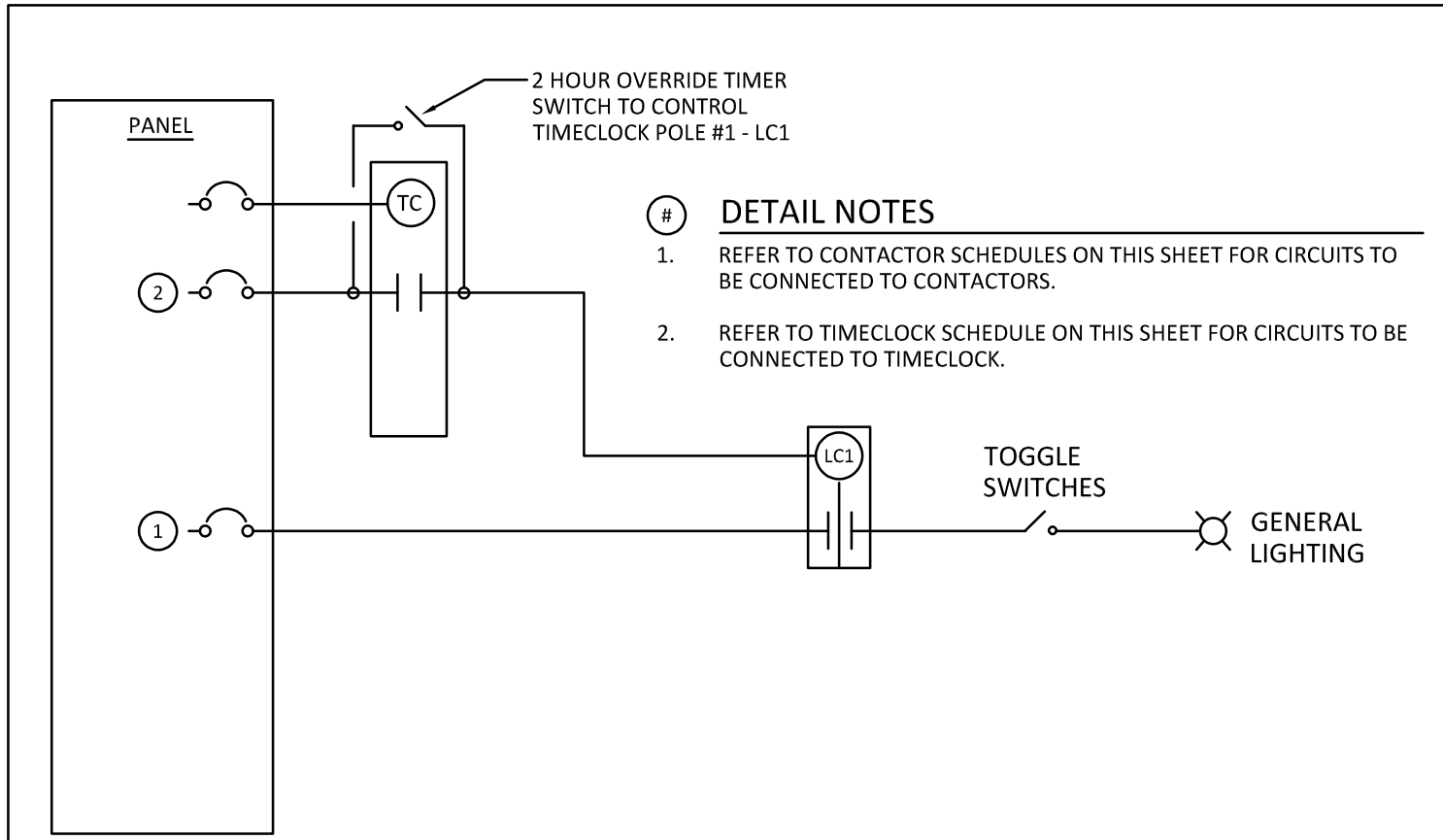
1 LIGHTING PLAN
SCALE: 1/4" = 1'-0"

TIMECLOCK SCHEDULE "TC"		
NUMBER OF POLES:	2	
CONTROL REMARKS:	COORDINATE SCHEDULE WITH OWNER	
POLE	CIRCUIT	DESCRIPTION
1	A-1	LIGHTING CONTACTOR "LC1"
2	-- --	SPARE

LIGHTING CONTACTOR "LC1"		
SPECIFICATIONS:	4 POLE, 120V	
CONTROL REMARKS:	TIMECLOCK CONTROLLED	
POLE	CIRCUIT	DESCRIPTION
1	A-7	POOL LIGHTING
2	A-9	PAVILION LIGHTING
3	A-20	EXTERIOR LIGHTING
4	-- --	SPARE

SWITCH SCHEDULE	
CALLOUT	SYMBOL
CEILING OCCUPANCY SENSOR	
TOGGLE SWITCH	\$

LUMINAIRE SCHEDULE							
CALLOUT	SYMBOL	DESCRIPTION	MODEL	LAMP	VOLTS	INPUT WATTS	NOTE 1
A		8' LINEAR STRIP LIGHT	LITHONIA CLX-L96-6000LM-SEF-FDL-MVOLT-GZ1-35K-80CRI-N100	LED	120V 1P 2W	37	CONFIRM FINISH WITH OWNER AND ARCHITECT
B		4" RECESSED DOWNLIGHT	LITHONIA LDN4-35/10-LO4-WR-LD-XX-MVOLT	LED	120V 1P 2W	11	CONFIRM FINISH WITH OWNER AND ARCHITECT
C		CECILE 19.5" HANGING LANTERN	JOHN TIMBERLAND LVB1029-ODHL-L BLK	LED	120V 1P 2W	8	
D		JOHN TIMBERLAND CECILE 18.25" OUTDOOR LANTERN		LED	120V 1P 2W	8	BOTTOM EDGE OF FIXTURE TO BE 84" AFF
EM1		LED EMERGENCY BATTERY LIGHT UNIT WITH (2) HEADS	LITHONIA EU2C-XX	(2) 1W LED	120V 1P 2W	2	CONFIRM FINISH WITH OWNER AND ARCHITECT
EM2		EXTERIOR EMERGENCY LIGHT W/ BATTERY BACKUP	LITHONIA ELM4L-UVOLT-LTP-WPV5	LED	120V 1P 2W	3	CONFIRM FINISH WITH OWNER AND ARCHITECT



2 LIGHTING CONTROL SCHEMATIC
SCALE: NONE

LIGHTING CONTROL DESIGN INTENT

EVENT: NORMAL BUSINESS HOURS (HOURS TO BE DETERMINED BY PROJECT MANAGER)
- LIGHT SWITCHES AT THE LIGHTING SWITCH BANK SHALL CONTROL THE LIGHT FIXTURES.

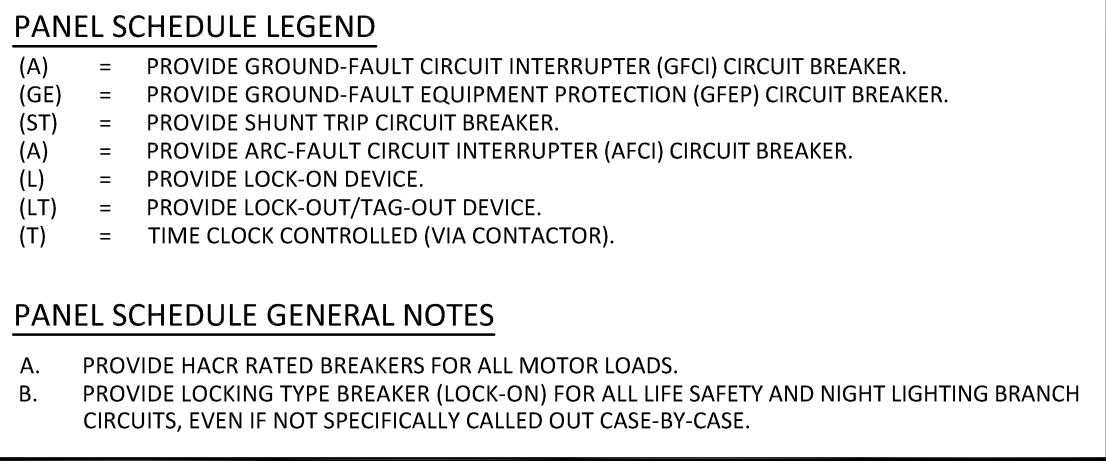
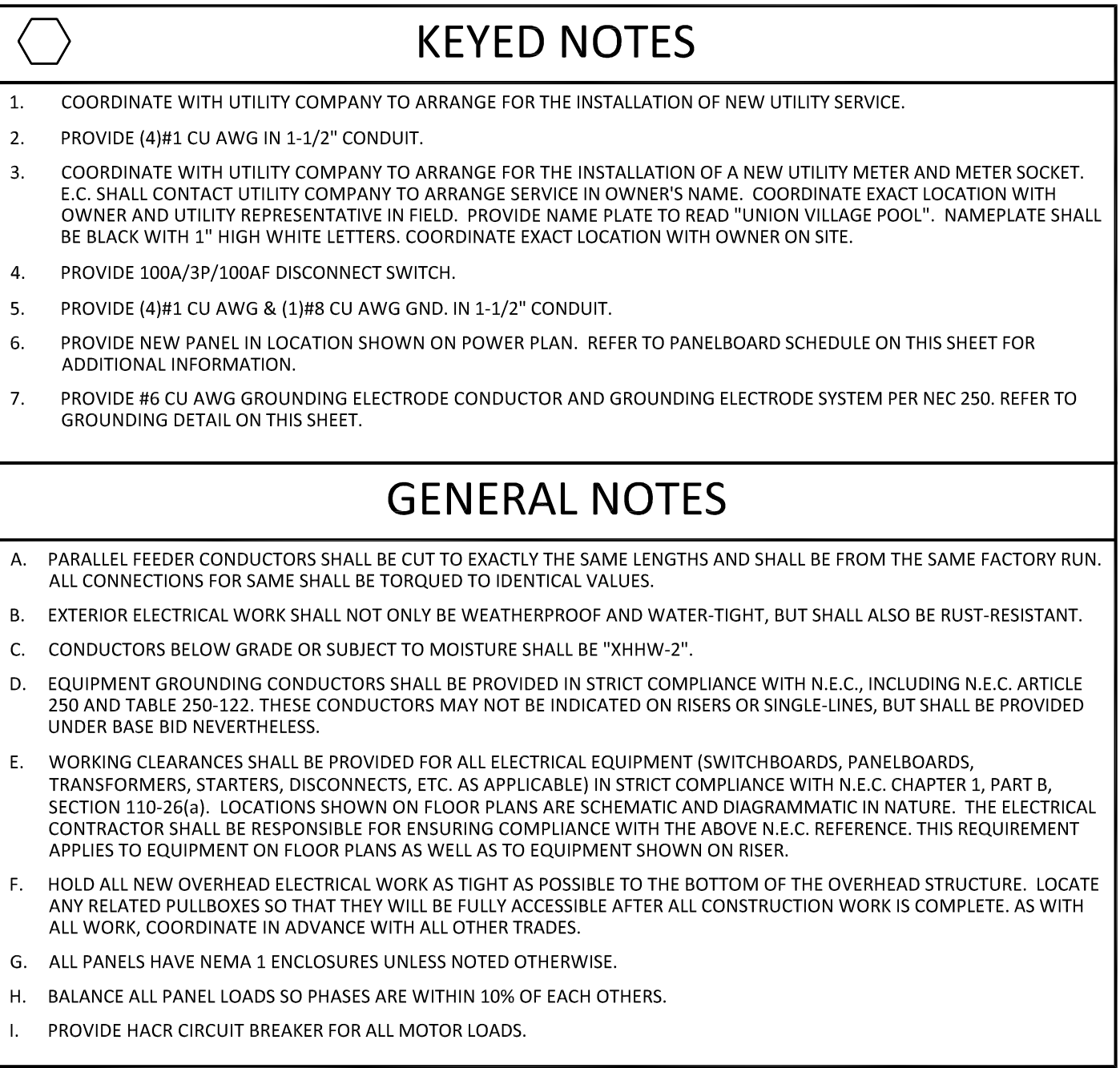
EVENT: CONCLUSION OF BUSINESS DAY (TIME TO BE DETERMINED BY PROJECT MANAGER)
- TIMECLOCK SHALL SWEEP "OFF" ALL LIGHTS

EVENT: AFTER BUSINESS HOURS
- LIGHT FIXTURES SHALL REMAIN "OFF".
- IF AFTER HOURS CONTROL OF THE LIGHT FIXTURES IS DESIRED, THE OVERRIDE SWITCH SHALL SERVE AS AN OVERRIDE SIGNAL TO THE TIMECLOCK AND THE LIGHT SWITCHES SHALL BE CAPABLE OF CONTROLLING THE LIGHT FIXTURES AGAIN (2 HOUR OVERRIDE MAX).

KEYED NOTES	
1.	PROVIDE NEW TIMECLOCK "TC" AND NEW LIGHTING CONTACTOR "LC1". TIMECLOCK SHALL BE DIGITAL, 965-DAY SKIPPER TYPE WITH HOLIDAY PROGRAMMING AND WITH EXTERNAL OVERRIDE CAPABILITIES (TORK, PARAGON, OR ACCEPTED EQUIVALENT), COORDINATE ON/OFF SCHEDULING WITH OWNER. REFER TO TIMECLOCK AND LIGHTING CONTACTOR SCHEDULES ON THIS SHEET FOR ADDITIONAL INFORMATION.
2.	CONNECT EM/NL FIXTURE TO LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL CONTROLS.
GENERAL NOTES	
A.	EMERGENCY AND EXIT FIXTURES SHALL BE INSTALLED AND CIRCUITED PER LOCAL AND LATEST NATIONAL ELECTRICAL CODES.
B.	EMERGENCY DEVICES SHALL BE PROVIDED WITH AN UNSWITCHED "HOT" TO PROVIDE CONTINUOUS POWER TO DEVICE EVEN WHEN FIXTURE IS OFF.
C.	PROVIDE EMERGENCY LIGHTS TO PROVIDE A MINIMUM OF 1 FOOT CANDLE FOR 90 MINUTES AT FLOOR LEVEL FOR EMERGENCY EGRESS
D.	COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO ROUGH-IN. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS FOR ALL DEVICES PRIOR TO ROUGH-IN.
E.	PROVIDE DIMMABLE CIRCUITS WITH A DEDICATED NEUTRAL - NO SHARED NEUTRALS.
F.	ALL NIGHT LIGHTS (SHOWN WITH "NL" DESIGNATION) SHALL BE WIRED AHEAD OF SWITCHING.
G.	LABEL JUNCTION BOXES WITH THE PANEL AND CIRCUIT USED TO FEED THE LUMINAIRES. AS BUILTS SHALL REFLECT AND SHOW THE CIRCUIT USED BY EACH FIXTURE.
H.	ALL LUMINAIRES, LIGHT SWITCH COVERPLATES, EXIT SIGNS SHALL MATCH ARCHITECTURAL DECOR. PROVIDE PRODUCT SUBMITTAL FOR ARCHITECT AND OWNER APPROVAL.
I.	LUMINAIRES IN CONTACT WITH INSULATION SHALL BE U.L. LISTED FOR THERMAL BARRIER OR BE PROVIDED WITH 3" MINIMUM CLEARANCE.
J.	LIGHTS AND PANELS SHALL NOT BE RECESSED IN FIRE RATED ASSEMBLIES UNLESS BOXED WITH EQUIVALENT CONSTRUCTION AS UTILIZED TO MAINTAINED INTEGRITY OF FIRE RATING.
K.	LIGHTING SHALL BE CIRCUITED AS SHOWN ON PLANS. CIRCUITING SHALL BE THRU-WIRING WHEREVER POSSIBLE. MULTIPLE CONNECTIONS TO A SINGLE LIGHT FIXTURE FOR VOLTAGE DROP CONDITIONS OR AS A RESULT OF A FIELD CONDITION ARE ACCEPTABLE. LUMINAIRES SHALL BE MANUFACTURED TO ACCOMMODATE THRU-WIRING, ANY RELATED COSTS FOR MULTIPLE CONNECTIONS SHALL BE INCLUDED IN BID.
L.	PROVIDE LIFTING MEANS TO ACCESS ALL LUMINAIRES DURING FINAL AIMING. AIM DIRECTIONAL LUMINAIRES AFTER INSTALLATION PER DIRECTION FROM OWNER.
M.	PROVIDE UPDATED PANEL SCHEDULES UPON COMPLETION OF WORK.
N.	ALL CONDUITS RUN IN AREAS WITHOUT SUSPENDED CEILINGS SHALL BE RUN INCONSPICUOUSLY AS POSSIBLE, HIDDEN BEHIND BEAMS, TIGHT TO DECK, ETC. PAINT ALL CONDUIT TO MATCH FINISH OF EACH SPECIFIC AREA.
O.	CONDUIT SHALL NOT BE INSTALLED WITHIN FIRE PROOFING. PROVIDE ALL REQUIRED DROP HANGERS.
P.	ALL WIRING SHALL BE COPPER, MINIMUM SIZE SHALL BE #12, UNLESS OTHERWISE NOTED.
Q.	BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED FOR A MAXIMUM OF 3% VOLTAGE DROP.
R.	LOCATIONS OF LUMINAIRES WITHIN MECHANICAL EQUIPMENT ROOMS SHALL BE COORDINATED IN FIELD WITH INSTALLED EQUIPMENT. LUMINAIRES SHALL BE LOCATED OVER ACCESS PATHWAYS AROUND EQUIPMENT AND NOT OVER TOP OF DUCTWORK WHERE INACCESSIBLE. DO NOT SUSPEND LUMINAIRES FROM PIPING OR DUCTWORK. PROVIDE APPROPRIATE MOUNTING HARDWARE, UNISTRUT, ALL THREAD, ETC., AS REQUIRED TO SUPPORT FIXTURES.
S.	ALL LUMINAIRES WITHIN A ROOM OR AREA SHALL BE CONTROLLED BY SWITCHES/OCCUPANCY SENSORS SHOWN IN THAT ROOM OR AREA UNLESS OTHERWISE NOTED.
T.	POWER PACKS AND SATELLITE PACKS FOR OCCUPANCY SENSORS ARE NOT SHOWN. AS PRODUCTS REQUIRE, PROVIDE POWER AND SATELLITE PACKS WITHIN EACH ROOM ABOVE CEILING ADJACENT TO ENTRY DOOR.
U.	OCCUPANCY SENSOR LOCATIONS SHOWN FOR SCHEMATIC INTENT AND COVERAGE PURPOSES ONLY. VERIFY EXACT SPACING WITH SELECTED OCCUPANCY SENSOR'S MANUFACTURER RECOMMENDATIONS TO PROVIDE ADEQUATE COVERAGE IN CORRIDORS.
V.	ALL EXPOSED CABLING SHALL BE BLACK.

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A											
ROOM STORAGE MOUNTING SURFACE FED FROM UTILITY NOTE			VOLTS 208Y/120V 3P 4W BUS AMPS 100 NEUTRAL 100%			AIC 42,000 MAIN BKR MLO LUGS STANDARD					
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	LIGHTING CONTACTOR, TIME CLOCK	0.2			2	20/2	(G) FLOW PUMP	1.6		
3	20/1	STORAGE LIGHTING & EXHAUST FAN		0.254		4	1	(G) ACID FEEDER		1.6	
5	20/1	EXHAUST FAN, LIGHTING			0.373	6	20/1	(G) CHLORINATOR			0.224
7	20/1	(T) POOL LIGHTING	0.2			8	20/1	(G) ACID FEEDER	0.224		
9	20/1	(T) PAVILION LIGHTING		0.043		10	20/1	(G) CHEMICAL CONTROLLER		0.026	
11	20/2	ELECTRIC HEATER			1.5	12	20/1	RESTROOM RECEPTACLE			0.36
13			1.5			14	20/1	STORAGE RECEPTACLE	0.54		
15	20/2	ELECTRIC HEATER		1.5		16	20/1	PAVILION RECEPTACLE		0.72	
17					1.5	18	20/1	POOL EQUIPMENT ROOM RECEPTACLE			0.36
19	20/2	ELECTRIC HEATER	1.5			20	20/1	(T) EXTERIOR LIGHTING	0.083		
21				1.5		22	20/1	EXTERIOR RECEPTACLE		0.36	
23	30/3	ELECTRIC WATER HEATER			2	24	20/1	CONV. RECEPTACLE			0.36
25			2			26	20/1	GAS FIREPLACE	0.36		
27				2		28	20/1	CF-1		0.061	
29	-Y1	SPACE			0	30	-Y1	SPACE			0
						TOTAL CONNECTED KVA BY PHASE			8.25	8.06	6.68
			CONN KVA	CALC KVA					CONN KVA	CALC KVA	
LIGHTING			0.683	0.854	(125%)	RECEPTACLES			2.7	2.7	(50%>10)
LARGEST MOTOR			3.2	0.8	(25%)	CONTINUOUS			6	7.5	(125%)
MOTORS			3.98	3.98	(100%)	NONCONTINUOUS			0.621	0.621	(100%)
						HEATING			9	9	(100%)
						TOTAL LOAD			25.5		
						BALANCED 3-PHASE LOAD			70.7 A		

MOUNTING HEIGHTS			
ALL MOUNTING HEIGHTS ARE BASED ON NECA-1, NATIONAL ELECTRICAL CONTRACTOR'S ASSOCIATION STANDARD PRACTICE OF GOOD WORKSMANSHIP IN ELECTRICAL CONSTRUCTION, UNLESS OTHERWISE NOTED. ALL HEIGHTS ARE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE.			
WALL SWITCHES	48" (120 cm)		
RECEPTACLE OUTLETS (GENERAL)	18" (45 cm)		
RECEPTACLE OUTLETS (COUNTER HEIGHT)	42" (105 cm) OR 6" (15 cm) ABOVE COUNTERTOP. INSTALL ABOVE BACKSPLASH, IF APPLICABLE		
SPECIAL PURPOSE OUTLET	WITHIN 72" (180 cm) OF INTENDED USE		
TELEPHONE OUTLET	18" (45 cm)		
WALL INTERCOM STATIONS	48" (120 cm)		
NIGHT LIGHTS	18" (45 cm)		
WALL LIGHTING OUTLETS	84" (210 cm)		
THERMOSTATS	48" (120 cm)		
PUSH BUTTONS	48" (120 cm)		
BELLS, BUZZERS, CHIMES	96" (240 cm) PREFERRED, OR 6" (15 cm) BELOW CEILING		
FIRE ALARM PUL STATIONS	48" (120 cm)		
FIRE ALARM (GONGS, BELLS, HORNS, LIGHTS)	80" (200 cm) AFF PREFERRED, OR 6" (15 cm) BELOW CEILING		
ELECTRIC ABBREVIATIONS			
1Ø	SINGLE-PHASE	MC	METAL CLAD
1P	SINGLE POLE	MCA	MINIMUM CIRCUIT AMPS
3Ø	THREE-PHASE	MCB	MAIN CIRCUIT BREAKER
4W	FOUR-WIRE	MDP	MAIN DISTRIBUTION PANEL
AFF	AMPERE FRAME OR AMP FUSE	MOC	MAXIMUM OVERCURRENT PROTECTION
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AHJ	AUTHORITY HAVING JURISDICTION	MTD	MOUNTED
AIC	AMPERE INTERRUPTING CAPACITY	MTG	MOUNTING
ALT	ALTERNATE	NA	NOT APPLICABLE
A	AMPERE	NEC	NATIONAL ELECTRICAL CODE
AT	AMPERE TRIP	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AV	AUDIO VISUAL	NEUT	NEUTRAL
C	CONDUIT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
cd	CANDELA	NIC	NOT IN CONTRACT
CD	CONSTRUCTION DOCUMENTS	NL	NIGHT LIGHT
CLG	CEILING	NM	NON-METALLIC
COMM	COMMUNICATION	NTS	NOT TO SCALE
CRI	COLOR RENDERING INDEX	OC	ON CENTER
CT	CURRENT TRANSFORMER	OD	OUTSIDE DIAMETER
CU	COPPER	PC	PHOTOCELL
DISC	DISCONNECT	PNL	PANEL
EC	ELECTRICAL CONTRACTOR	PWR	POWER
EG	EQUIPMENT GROUND	RCF	REFLECTED CEILING PLAN
EMT	ELECTRICAL METALLIC TUBING	RMC	RIGID METAL CONDUIT
EPO	EMERGENCY POWER OFF	RMS	ROOT MEAN SQUARE
ETR	EXISTING TO REMAIN	SE	SERVICE ENTRANCE
FA	FIRE ALARM	SER	SERVICE RATING RATED
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SF	SQUARE FOOT (FEET)
FACP	FIRE ALARM CONTROL PANEL	SW	SWITCH
FC	FOOTCANDLE	SWBD	SWITCHBOARD
FLA	FULL LOAD AMPS	SWGR	SWITCHGEAR
FMC	FLEXIBLE METALLIC CONDUIT	TC	TIME CLOCK
GND	GROUND	TV	TELEVISION AND/OR MONITOR
GI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
HP	HORSEPOWER	UL	UNDERWRITERS LABORATORY
IMC	INTERMEDIATE METAL CONDUIT	V	VOLT
IR	INFRARED	VA	VOLT AMPERE
JBOX	JUNCTION BOX	VOLT	VOLTAGE
kv	KILOVOLT	W	WATT
kVA	KILOVOLT AMPERE	WH	WATER HEATER
kw	KILOWATT	WP	WEATHERPROOF
kWh	KILOWATT HOUR	XFMR	TRANSFORMER
LV	LOW VOLTAGE		

GENERAL PROJECT NOTES

- A. ALL DEVICES SHOWN ON THE EXTERIOR OF THE BUILDING SHALL BE WEATHER PROOF TYPE.
- B. REFER TO ALL OTHER CONSTRUCTION TRADES' DRAWINGS' AND SPECIFICATIONS' FOR ADDITIONAL ELECTRICAL WORK THAT IS INCLUDED IN DIVISION 26'S SCOPE.
- C. ALL CONDUITS RUN IN AREAS WITHOUT SUSPENDED CEILINGS SHALL BE RUN INCONSPICUOUSLY AS POSSIBLE, HIDDEN BEHIND BEAMS, TIGHT TO DECK, ETC. PAINT ALL CONDUIT TO MATCH FINISH OF EACH SPECIFIC AREA.
- D. CONDUIT SHALL NOT TO BE INSTALLED WITHIN FIRE PROOFING. PROVIDE ALL REQUIRED DROP HANGERS.
- E. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED FOR A MAXIMUM OF 3% VOLTAGE DROP.
- F. PROVIDE ALL RACEWAY FOR HVAC THERMOSTATS AND SENSORS. THERMOSTAT AND SENSORS ARE FURNISHED AND INSTALLED UNDER MECHANICAL DIVISION 23 SCOPE.
- G. PROVIDE ALL TELECOMMUNICATION, FIRE ALARM, SECURITY AND ACCESS CONTROL RACEWAYS, FIRE ALARM, SECURITY, ACCESS CONTROL AND/OR TELECOMMUNICATION SYSTEMS ARE UNDER DEFERRED SUBMITTAL UNLESS OTHERWISE NOTED.

LUMINAIRE SCHEDULE NOTES

- A. REFER TO ARCHITECTURAL RCP(S), ELEVATIONS, AND DETAILS. FULLY COORDINATE WITH ALL MATERIAL.
- B. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION TO AVOID CONFLICTS AND ENSURE SUFFICIENT SPACE ABOVE CEILING.
- C. ALL LUMINAIRES WITHIN A ROOM OR AREA SHALL BE CONTROLLED BY SWITCHES/OCCUPANCY SENSORS SHOWN IN THAT ROOM OR AREA U.O.
- D. LUMINAIRES IDENTIFIED AS NIGHT LIGHT (NL) SHALL BE CONNECTED AHEAD OF ANY SWITCHING FOR CONTINUOUS OPERATION.
- E. LOCATIONS OF LUMINAIRES WITHIN MECHANICAL EQUIPMENT ROOMS SHALL BE COORDINATED IN FIELD WITH INSTALLED EQUIPMENT. LUMINAIRES SHALL BE LOCATED OVER ACCESS PATHWAYS AROUND EQUIPMENT AND NOT OVER TOP OF DUCTWORK WHERE INACCESSIBLE.
- F. DO NOT SUSPEND LUMINAIRES FROM PIPING OR DUCTWORK.
- G. PROVIDE APPROPRIATE MOUNTING HARDWARE, UNISTRUT, ALL THREAD, ETC., AS REQUIRED TO SUPPORT ALL LUMINAIRES.
- H. ALL LUMINAIRES SHALL BE U.L. LISTED.
- I. INSTALL LUMINAIRES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- J. PROVIDE ALL EXIT SIGNAGE WITH APPROPRIATE MOUNTING HARDWARE AND DIRECTIONAL CHEVRONS.
- K. PROVIDE ALL HANGING/MOUNTING HARDWARE AS REQUIRED TO INSTALL FIXTURES IN LOCATIONS SHOWN, EVEN IF NOT SPECIFICALLY LISTED IN SCHEDULE.
- L. UNLESS OTHERWISE NOTED, ALL LED DRIVERS AND LAMPS SHALL BE 3500K COLOR TEMPERATURE. IF FIXTURE LISTED IS NOT AVAILABLE IN SPECIFIED COLOR TEMPERATURE, CONTACT ENGINEER FOR RECOMMENDATIONS.
- M. CONTRACTOR IS ALLOWED TO USE COMBINATION EXIT SIGN AND UNITARY BATTERY POWERED EGRESS EMERGENCY LIGHTING UNITS. NOTE: IN INSTANCES WHERE THERE IS A "HIGH CAPABLE" DEVICE FEEDING AN EXTERIOR EGRESS LUMINAIRE, THE CONTRACTOR SHALL MAINTAIN THE HIGH CAPABLE FUNCTION OR FEED WITH ANOTHER UNITARY BATTERY DEVICE.
- N. ALL LUMINAIRES ARE BASIS OF DESIGN. COORDINATE EXACT LIGHTING WITH OWNER PRIOR TO PROCUREMENT.



UNION VILLAGE COMMUNITY POOL

TURTLE CREEK TOWNSHIP, OHIO

[illegible]

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PROJ MANAGER: JJR

JOB NO. #13270

ELECTRICAL - SCHEDULES & DETAILS

E3.00

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DIVISION 26 ELECTRICAL SPECIFICATIONS

26 05 01 COMMON REQUIREMENTS FOR ELECTRIC

ALL ELECTRICAL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF NFPA 70 AND ALL REGULATIONS, LAWS, AND ORDINANCES WHICH MAY BE APPLICABLE AND BY TRAINED AND LICENSED ELECTRICIANS.

BEFORE SUBMITTING A BID, EXAMINE DOCUMENTS OF ALL OTHER TRADES, VISIT THE SITE AND GET ACQUAINTED WITH ALL CONDITIONS WITHIN WHICH THE EXECUTION OF THIS CONTRACT TAKE MEASUREMENTS AND BE RESPONSIBLE FOR EXACT SIZE AND LOCATIONS OF ALL OPENINGS REQUIRED. VERIFY INSTALLATION MAY BE MADE IN COMPLETE ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE PROFESSIONAL ENGINEER OF RECORD. DO NOT PROCEED WITH THE INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

IT IS NOT THE INTENT OF THE DRAWINGS THAT EXISTING CONDITIONS BE ACCURATELY SHOWN. EXISTING ELECTRICAL WORK IS SHOWN TO LIMITED EXTENT ON DRAWINGS AND IS SHOWN FOR GENERAL REFERENCE ONLY. LOCATIONS AND INFORMATION WERE DERIVED FROM CURSORY SITE VISUAL OBSERVATIONS OR FROM DOCUMENTS THAT WERE PREPARED FOR PREVIOUSLY INSTALLED WORK WHEN AVAILABLE.

LIST OF EQUIPMENT, TABULATIONS OF DATA, SCHEDULES, ETC. APPEARING IN THE SPECIFICATIONS OR ON THE DRAWINGS ARE INCLUDED FOR REFERENCE BY THE CONTRACTOR IN ARRIVING AT A MORE COMPLETE UNDERSTANDING OF THE INTENDED INSTALLATION. THEY ARE NOT INTENDED OR TO BE CONSTRUED AS RELIEVING THE RESPONSIBILITY OF THE CONTRACTOR IN MAKING HIS/HER OWN TAKE-OFF AND PROVIDING ALL REQUIRED WORK.

THE WORK COVERED BY THESE SPECIFICATIONS SHALL CONSIST OF: PROVIDING ALL NEW MATERIAL, LABOR, EQUIPMENT, AND SERVICES NECESSARY FOR A COMPLETE ELECTRICAL INSTALLATION AS SPECIFIED HEREIN. WORK IN THIS SECTION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING ITEMS:

- TELEPHONE CONDUIT SYSTEM
- DATA COMMUNICATIONS CONDUIT SYSTEM
- WIRING DEVICES
- BRANCH CIRCUITING
- GROUNDING
- CONNECTION OF HVAC EQUIPMENT
- TEMPORARY ELECTRICAL WIRING
- LIGHTING

WHenever the words "CONTRACTOR" APPEAR ON ELECTRICAL DRAWINGS OR IN THESE SPECIFICATIONS, IT SHALL REFER TO THE ELECTRICAL SUB-CONTRACTOR. WHENEVER THE WORD "PROVIDE" APPEARS IN THESE DOCUMENTS, IT SHALL BE INTERPRETED TO MEAN "FURNISH AND INSTALL".

COORDINATE ALL WORK WITH THE OWNER TO MINIMIZE INTERRUPTION OF BUILDING OPERATION. SCHEDULE OF ALL POWER OUTAGES MUST BE APPROVED BY THE OWNER PRIOR TO THE BEGINNING OF ANY WORK.

PRIOR TO ALL WORK, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE. COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE SCHEDULES FOR WORK OF ALL OTHER TRADES TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

COORDINATE EXACT ELECTRICAL REQUIREMENTS (VOLTAGE, PHASE, AMPS, WIRING, CONNECTIONS, AND ETC.) OF EQUIPMENT FURNISHED BY OTHERS PRIOR TO PERFORMING WORK. COORDINATE MANUFACTURER'S ELECTRICAL WIRING AND CONNECTION REQUIREMENTS WITH PRODUCT DATA AND/OR SUBMITTAL DRAWINGS PRIOR TO ROUGH-IN AND FURNISHING EQUIPMENTS OVER-CURRENT PROTECTIVE DEVICES. ALL WIRING REQUIREMENTS SHOWN ARE SCHEMATIC IN NATURE.

- COORDINATE SPECIALTY RECEPTACLE AND/OR OUTLET TYPES WITH EQUIPMENT REQUIREMENTS.
- WHEN LOOSE DISCONNECT SWITCHES ARE FURNISHED UNDER MECHANICAL CONTRACT, RECEIVE AND INSTALL AND PROVIDE ALL FINAL TERMINATIONS NECESSARY.

VERIFY ALL EQUIPMENT LOCATIONS, SWITCHES, RECEPTACLES, LIGHTING FIXTURES, ETC., IN FIELD. THE OWNER RESERVES THE RIGHT TO CHANGE LOCATION OF ANY OUTLET OR FIXTURE FOR A DISTANCE OF 15 FT. IN ANY DIRECTION FROM DRAWING LOCATION, BEFORE THE WORK IS ACTUALLY ROUGHED IN, AT NO EXTRA CHARGE.

WHERE LIGHT FIXTURE AND OTHER ELECTRICAL ITEMS ARE SHOWN IN CONFLICT WITH LOCATIONS OF STRUCTURAL MEMBERS AND MECHANICAL OR OTHER EQUIPMENT, PROVIDE ALL REQUIRED SUPPORTS AND WIRING TO CLEAR THE ENCRoACHMENT.

PROVIDE ALL MISCELLANEOUS HARDWARE AND MATERIAL NOT SPECIFIED BUT NECESSARY TO PROVIDE A COMPLETE AND WORKING ELECTRICAL SYSTEM. THIS HARDWARE SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL MISCELLANEOUS CONDUIT FITTINGS AND MOUNTING HARDWARE, LUMINAIRE MOUNTING HARDWARE, BRACKETS, CONNECTORS, CORDS AND PLUGS.

PROVIDE ACCESS DOORS TO PROVIDE ACCESS TO ALL J-BOXES, PULL BOXES, AND OTHER EQUIPMENT AS REQUIRED. ACCESS DOORS FOR INSTALLATION IN FIRE RATED CONSTRUCTION SHALL HAVE APPROPRIATE FIRE RATING.

DURING PROGRESS OF THE WORK, MAINTAIN ON DRAWINGS AT THE SITE, AN ACCURATE RECORD OF THE INSTALLATION OF THE ELECTRICAL SYSTEM, INDICATING ALL ITEMS WHICH HAVE BEEN CHANGED OR ADDED.

APPLY FOR AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY LOCAL AUTHORITY, FOR THE APPROVAL OF WORK.

A CERTIFICATE OF FINAL INSPECTION AND APPROVAL SHALL BE SUBMITTED WITH THE CONTRACTOR'S REQUEST FOR FINAL PAYMENT. NO FINAL PAYMENT WILL BE APPROVED WITHOUT THIS CERTIFICATE.

GUARANTEE ALL WORKMANSHIP. MATERIAL, AND EQUIPMENT AND REPLACE ANY FOUND DEFECTIVE WORK WITHOUT COST TO THE OWNER, FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.

ALL MATERIALS, APPARATUS AND EQUIPMENT SHALL BEAR THE SEAL OF UNDERWRITERS LABORATORIES INC. (UL) OR A SIMILAR CREDIBLE TESTING AGENCY. DESIGN BASIS MANUFACTURERS OF MATERIAL AND EQUIPMENT ARE SPECIFIED AND PLANS ARE DETAILED ACCORDING TO THIS MATERIAL. CONTRACTOR SHALL BASE HIS BID ON FURNISHING AND INSTALLING THIS MAKE OF MATERIAL AND EQUIPMENT.

AN ACCEPTABLE MANUFACTURER'S NAME AND MODEL NUMBER OF A PRODUCT MAY BE PROVIDED IN THESE DOCUMENTS. THIS IS THE EQUIPMENT INCLUDED DURING THE DESIGN PROCESS AND FORMS THE BASIS OF A STANDARD OF QUALITY. WHERE MORE THAN ONE MAKE OF MATERIAL OR EQUIPMENT IS SPECIFIED, THE CONTRACTOR SHALL STATE IN HIS BID WHICH MAKE HE PROPOSES TO FURNISH AND INSTALL. SHOP DRAWING APPROVAL SHALL BE OBTAINED PRIOR TO SHIPMENT OF EQUIPMENT.

VERIFY THE MODEL NUMBER OR PRODUCT IS STILL ACCURATE AND MEETS ALL REQUIREMENTS SHOWN ON THE DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN THE REQUIREMENTS AND THE PRODUCT OR MODEL NUMBER, THE STRICTER OF THE TWO SHALL GOVERN.

IF ANY EXISTING CODE OR SAFETY VIOLATIONS ARE DISCOVERED BY THE ELECTRICAL CONTRACTOR, THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION (DETAILED IN WRITING) OF THE OWNER'S REPRESENTATIVE ALONG WITH THE CONTRACTOR'S PROPOSED COST FOR CORRECTIONS.

26 05 03 SUBMITTALS FOR ELECTRICAL SYSTEMS

SUBMIT SHOP DRAWINGS AND AND/OR PRODUCT DATA (ELECTRONIC COPIES) ON THE FOLLOWING ITEMS FOR REVIEW BEFORE FABRICATION OR SHIPMENT:

- PANEL BOARDS AND CIRCUIT BREAKERS
- DISCONNECT SWITCHES
- WIRING DEVICES
- LIGHTING
- LIGHTING CONTROLS (SWITCHES - TOGGLE, DIMMER, OCCUPANT SENSORS, ETC.)

MAINTENANCE MANUALS: THE MANUALS SHALL INCLUDE WIRING DIAGRAMS, MAINTENANCE AND OPERATING INSTRUCTIONS, PARTS LISTINGS, AND COPIES OF OTHER SUBMITTALS INDICATED FOR INCLUSION.

REVIEW AND CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS, PRODUCT DATA: CATALOGS, CUT SHEETS, CHARTS, AND OTHER ITEMS DURING CONSTRUCTION PHASE SUBMITTAL REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS, FOR PROVIDING A COMPLETE AND FUNCTIONING PROJECT, NOR SHALL THEY RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS OR ERRORS OF ANY SORT. THIS REVIEW IS FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. CONTRACTOR REMAINS RESPONSIBLE FOR DETERMINING THE ACCURACY AND COMPLETENESS OF OTHER DETAILS SUCH AS DIMENSIONS AND QUANTITIES, FOR SUBSTANTIATING INSTRUCTIONS FOR INSTALLATIONS, VERIFYING MATERIALS REQUIRED, OBTAINING FIELD MEASUREMENTS AND RELATED CRITERIA, COORDINATING WORK WITH OTHER DISCIPLINES AND PERFORMING WORK IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

ANY CHANGES TO ITEMS SPECIFIED MUST BE SUBMITTED IN WRITING AS A SUBSTITUTION, WITH COMPLETE DOCUMENTATION OF PRICE DIFFERENTIAL AND EQUIPMENT DETAILS. SUBSTITUTIONS PROVIDED SHALL BE REVIEWED AT MARQUE ENGINEERING'S HOURLY RATES. REVIEW SHALL BE PAID FOR BY THE CONTRACTOR TO MARQUE ENGINEERING AT NO COST TO THE OWNER. BY USING PRE-APPROVED SUBSTITUTIONS, THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY AND ASSOCIATED COSTS FOR ALL REQUIRED MODIFICATIONS TO THE CONTRACT DOCUMENTS TO INCLUDE BUT NOT LIMITED TO MATERIAL OR EQUIPMENT COSTS FOR THEIR OR OTHER TRADES, AND ENSURING THAT SUBSTITUTED MATERIALS AND EQUIPMENT TO BE FURNISHED FIT INTO SPACE AVAILABLE.

EXTENSIVE REVISIONS NECESSITATED TO THE CONTRACT DOCUMENTS, OR SUBSTITUTION ACTIONS RELATED TO ANY SPECIFIED PRODUCT NOT ABLE TO BE PROVIDED DUE TO A FAILURE TO COMMENCE WORK, PROCURE PRODUCT OR COORDINATE CONSTRUCTION ACTIVITIES SHALL BE PROVIDED AT MARQUE ENGINEERING'S HOURLY RATES. COSTS SHALL BE BORNE BY THE CONTRACTOR AT NO COST TO THE OWNER.

26 05 08 - ELECTRICAL SITE REQUIREMENTS

EXISTING UTILITIES: THE INFORMATION SHOWN CONCERNING EXISTING UTILITIES IS APPROXIMATE. THE LOCATION, SIZES AND OTHER INFORMATION INDICATED IS ONLY AS ACCURATE AS THAT PROVIDED BY THE OWNERS OF THE UTILITIES. THIS INFORMATION IS NOT WARRANTED OR GUARANTEED TO BE COMPLETE OR ACCURATE. THE ENGINEER DOES NOT INDEPENDENTLY VERIFY NOR FIELD LOCATE UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO PHYSICALLY LOCATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON PLANS OR NOT, PRIOR TO BEGINNING CONSTRUCTION.

- THE CONTRACTOR SHALL SUPPORT, PROTECT AND RESTORE ALL EXISTING UTILITIES AND THEIR ASSOCIATED ITEMS.
- PROTECT EXCAVATED OPENINGS WITH SUBSTANTIAL RAILINGS, SIGNAGE, SHORING, AND STEEL ROADWAY PLATES IN STRICT COMPLIANCE WITH OSHA/NIOSH, WITH LOCAL DEPARTMENT OF TRANSPORTATION (DOT) STANDARDS, WITH AUTHORITY HAVING JURISDICTION, AND AS DIRECTED BY OWNER'S REPRESENTATION IN FIELD.
 - PROVIDE TRAFFIC DETOURS PER DOT STANDARDS DURING ACTIVE CONSTRUCTION WORK SHIFT TIME PERIODS.
 - PROTECT STEEL ROADWAY PLATES, PROPERLY INSTALLED AND ANCHORED PER DOT STANDARDS, OVER ROADWAY CUTS DURING INACTIVE PERIODS.
 - FINISH WORK AFFECTING THE ROADWAYS, AND RESTORE/PAVE ROADWAY CUTS AS QUICKLY AS POSSIBLE AFTER STARTING THOSE SEGMENT OF WORK.

THE CONTRACTOR SHALL NOTIFY THE REGISTERED UTILITY PROTECTION SERVICE AND ALL UTILITY OWNERS HAVING FACILITIES IN THE CONSTRUCTION AREA WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE.

THE CONTRACTOR SHALL GIVE NOTIFICATION AS REQUIRED BY CODE, AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION ON DAYS AND HOLIDAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS. THE CONTRACTOR SHALL COORDINATE THE WORK WITH THE UTILITY OWNERS UNTIL THE WORK IS COMPLETED. THE CONTRACTOR SHALL PROVIDE THE PROJECT OWNER WITH EVIDENCE OF HAVING NOTIFIED THE UTILITIES AND PROVIDED THEM WITH THE WORK SCHEDULE PRIOR TO CONSTRUCTION COMMENCEMENT.

DO NOT USE EXPLOSIVES.

PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EXCAVATION OPERATIONS.

EXCAVATE BY HAND AREAS WITHIN DRIP-LINE OF LARGE TREES. PROTECT THE ROOT SYSTEM FROM DAMAGE AND DRY-OUT. MAINTAIN MOST CONDITIONS FOR ROOT SYSTEM AND COVER EXPOSED ROOTS WITH BURLAP. PAINT ROOT CUTS OF 1 INCH DIAMETER AND LARGER WITH EMULSIFIED ASPHALT TREE PAINT.

BACKFILL AND FILL MATERIALS: IN GENERAL, USE EXCAVATED MATERIAL FOR BACKFILL. PRIOR TO BACKFILLING, REMOVE ROCK AND GRAVEL LARGER THAN 2 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETABLE MATTER, AND OTHER DELETERIOUS MATTER. PROVIDE PRE-MIXED, FACTORY PACKAGED, NON-STAINING, NON-CORROSIVE, NONGASEOUS GROUT, RECOMMENDED FOR INTERIOR AND EXTERIOR APPLICATIONS. PROVIDE SUB-BASE CONSISTING OF GRADED MIXTURE OF CRUSHED GRAVEL, CRUSHED STONE, CRUSHED SLAG, OR SAND.

TRENCHING: EXCAVATE TRENCHES TO THE UNIFORM WIDTH, SUFFICIENTLY WIDE TO PROVIDE AMPLE WORKING ROOM. EXCAVATE TRENCHES TO DEPTH AND WIDTH INDICATED OR OTHERWISE NECESSARY TO FULFILL PROJECT REQUIREMENTS.

COMPACT EACH LAYER OF BACKFILL OR FILL MATERIAL TO 95% STANDARD COMPACTION.

TOPSOIL AND SEEDING: SEPARATELY STOCKPILE EXCAVATED TOPSOIL ADJACENT TO TRENCH AND UTILIZE IN THE FINAL STAGE OF BACKFILLING. GRADE EXPOSED EARTH AND OTHER ERODIBLE AREAS TO A REASONABLY UNIFORM, AND SATISFACTORY, CROSS SECTION AND SLOPE, AS SOON AS PRACTICABLE.

CONCRETE ENCASEMENT: PROVIDE AS INDICATED OR OTHERWISE NECESSARY TO FULFILL PROJECT REQUIREMENTS.

IN GENERAL, UNLESS DIRECTED OTHERWISE IN FIELD, USE THE SIDES OF EXCAVATED TRENCHES AS FORMS FOR CONCRETE ENCASEMENT. DO NOT REMOVE FORMS FOR 24 HOURS AFTER CONCRETE HAS BEEN PLACED. PROVIDE SUFFICIENT QUANTITY OF FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK. IF REQUIRED FOR SPECIAL APPLICATIONS IN FIELD, PROVIDE FORMS MADE OF STEEL, WOOD, OR OTHER SUITABLE MATERIAL OF SIZE AND STRENGTH TO RESIST MOVEMENT DURING CONCRETE PLACEMENT, AND TO RETAIN HORIZONTAL AND VERTICAL ALIGNMENT UNTIL REMOVAL. CLEAN ALL FORMS AFTER EACH USE AND COAT WITH FORM RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE. FORM AREAS THAT INVOLVE TERMINATION OF SPARE CONDUITS BELOW GRADE, OR THAT INVOLVE CONTINUATION OF CONDUITS BY OTHERS, ACCORDINGLY TO ACCOMMODATE EASY FUTURE ACCESS TO THE ENDS OF CONDUITS FOR FUTURE EXTENSIONS.

PROVIDE REINFORCEMENT TO INCLUDE WELDED WIRE MESH, REINFORCING BARS, AND JOINT DOWEL BARS IF DEEMED NECESSARY.

DESIGN MIX TO PRODUCE NORMAL-WEIGHT CONCRETE CONSISTING OF PORTLAND CEMENT, AGGREGATE, AIR-ENTRAINING ADMIXTURE, AND WATER TO PRODUCE THE FOLLOWING PROPERTIES:

- AGGREGATE: 3/8"
- COMPRESSIVE STRENGTH: 3000 PSI, MINIMUM AT 28 DAYS
- SLUMP RANGE: 7" - 8" (PROVIDE ENOUGH SLUMP TO FLOW TO BOTTOM OF THE FORMATION AND YET NOT BE SO WET AS TO CAUSE THE MIX TO FLOAT.
- AIR CONTENT: 5% - 8%
- PORTLAND CEMENT: ANSI/ASTM C 150, TYPE 1.
- DYE: PROVIDE BRIGHT RED DYE, CENTRALLY MIXED.

EXPANSION JOINTS: PROVIDE PRE-MOLDED JOINT FILLER FOR EXPANSION JOINTS ABUTTING MANHOLES, CABLE PITS, AND SIMILAR STRUCTURES.

CONCRETE FINISHING: PROVIDE SMOOTH BROOM FINISHED CONCRETE SURFACE BY SCREEDING AFTER STRIKING-OFF AND CONSOLIDATING CONCRETE. PROTECT CONCRETE FROM DAMAGE UNTIL ACCEPTANCE OF WORK.

26 05 19 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

FURNISH AND INSTALL ALL NECESSARY CABLE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS. ALL WIRE SHALL BE COPPER UNLESS OTHERWISE SPECIFIED.

NO CONDUCTOR SMALLER THAN NO. 12 AWG SHALL BE USED UNLESS OTHERWISE INDICATED. IN GENERAL, CONDUCTORS SMALLER THAN NO. 12 WILL BE PERMITTED ONLY FOR COMMUNICATION, SIGNAL, OR CONTROL CIRCUITS.

PROVIDE THE FOLLOWING MINIMUM AWG CONDUCTOR SIZES FOR GENERAL BRANCH CIRCUITING AND GROUNDS THAT ARE NOT INDICATED ON DRAWINGS. ALL WIRING IS BASED ON USING COPPER CONDUCTORS UNLESS OTHERWISE INDICATED, WHERE APPLICABLE INCREASED AS REQUIRED TO ACCOMMODATE VOLTAGE DROP AND TO ACCOMMODATE SPECIAL CONDITIONS. DO NOT DERATE ANY GROUNDED (NEUTRAL) CONDUCTORS. TEMPERATURE RATINGS LISTED BELOW PERTAIN TO BOTH WIRE AND TERMINATIONS.

SOURCE BREAKER/FUSE	60 DEG. C RATING AWG WIRE SIZE	EQUIPMENT GROUNDING AWG WIRE SIZE
15 AMPERE	#12	#12
20 AMPERE	#12	#12
25 AMPERE	#10	#10
30 AMPERE	#10	#10
35 AMPERE	# 8	#10
40 AMPERE	# 8	#10
45 AMPERE	# 8	#10
50 AMPERE	# 6	#10
60 AMPERE	# 4	#10
70 AMPERE	# 4	#8
80 AMPERE	# 3	#8
90 AMPERE	# 2	#8
100 AMPERE	# 1	#8

CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET, NO SPLICES SHALL BE PERMITTED EXCEPT AT OUTLETS. ALL ELECTRICAL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH NEC.

COLOR CODING IS REQUIRED FOR ALL SERVICE, FEEDER, BRANCH, CONTROL, AND SIGNALING CIRCUIT CONDUCTORS. INSULATION COLOR FOR NEUTRALS SHALL BE WHITE FOR 120 VOLT CIRCUITS. EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN. THE COLOR OF THE INSULATION OF THE UNGROUNDED CONDUCTORS SHALL BE AS FOLLOWS:

208Y/120V SYSTEM: BLACK, RED, BLUE AND WHITE (NEUTRAL)
480Y/277V SYSTEM: BROWN, ORANGE, YELLOW AND GRAY (NEUTRAL)

EQUIPMENT GROUNDING: GREEN
ALL UNGROUNDED CONDUCTORS OF THE SAME COLOR SHALL BE CONNECTED TO THE SAME UNGROUNDED FEEDER CONDUCTOR.

USE NO WIRE SMALLER THAN NO. 12 AWG, RATED AT 600 VOLTS, FOR POWER AND LIGHTING CIRCUITS AND NO SMALLER THAN NO. 14 FOR CONTROL WIRING. BRANCH CIRCUIT CONDUCTORS FOR 20 AMPERE, 120 VOLT CIRCUITS SHALL BE NO. 12 AWG, WITH CONDUCTOR FROM PANEL BOARD TO THE FIRST OUTLET AS FOLLOWS:

0 - 75 FEET-----#12 AWG
75 -150 FEET-----#10 AWG
150-250 FEET-----# 8 AWG
250-350 FEET-----# 6 AWG

ALL JOINTS AND SPLICES SHALL BE MADE MECHANICALLY AND ELECTRICALLY SECURE. ALL SPLICES AND JOINTS SHALL BE MADE WITH APPROVED SOLDERLESS CONNECTORS, PROPERLY INSTALLED.

TYPE MC CABLE MAY BE USED FOR SHORT (LESS THAN 6 FEET) FINAL CONNECTIONS ONLY.

TYPE MC CABLE MUST BE LISTED AND LABELED AS DEFINED IN NFPA 70, BE MARKED FOR INTENDED LOCATION AND USE, AND COMPLY WITH UL 1569. MC CABLE MAY BE UTILIZED FOR SINGLE CIRCUITS AND MULTICIRCUITS WITH COLOR-CODED CONDUCTORS.

MC CABLE CONDUCTORS SHALL BE COPPER, COMPLYING WITH ASTM B3 FOR BARE ANNEALED COPPER AND WITH ASTM B8 FOR STRANDED CONDUCTORS. GROUNDING CONDUCTORS SHALL BE INSULATED. CONDUCTOR INSULATION SHALL BE OF EITHER TYPE THN/THHN/THWN-2 AND COMPLY WITH UL 83, OR TYPE XHHW-2 AND COMPLY WITH UL44.

MC CABLE INSTALLED IN WET LOCATIONS PER NEC 330.10 SHALL HAVE A SUNLIGHT RESISTANT PVC JACKET APPLIED OVER ARMOR.

ALL MC CABLE INSTALLATIONS SHALL COMPLY WITH NEC ARTICLE 330.

26 05 26 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

ALL WIRE FOR GROUNDING PURPOSE SHALL BE STRANDED COPPER, OR COPPER CLAD STEEL AS REQUIRED FOR TYPE AND SIZES INDICATED ON DRAWINGS.

BUILDING ELECTRODE GROUND RODS SHALL BE 10'-0" LONG X 3/4" DIAMETER (MINIMUM DIMENSIONS). GROUND RODS SHALL BE STEEL WITH A MOLECULARLY BONDED OUTER LAYER OF ELECTROLYTICALLY APPLIED COPPER JACKET OF GALVANIZED STEEL AS REQUIRED. ALL GROUND RODS SHALL BE TESTED WITH PROPER TEST EQUIPMENT FOR ROD TO EARTH RESISTANCE BEFORE CONNECTING GROUND WIRE.

METAL RACEWAYS MAY NOT BE USED FOR EQUIPMENT GROUNDING CONDUCTOR.

PROVIDE A SEPARATE DRIVEN GROUND FOR THE NEUTRAL BUSS ON THE ELECTRICAL DISTRIBUTION SYSTEM.

PROVIDE A SEPARATE DRIVEN GROUND FOR USE AS EQUIPMENT GROUND. THE DRIVEN GROUND TO INCOMING CITY WATER LINE THROUGH A #4/0 BAR STRANDED COPPER CONDUCTOR. USE APPROVED GROUND CLAMPS.

PROPERLY GROUND ALL MOTORS, TRANSFORMERS, EQUIPMENT, CONDUITS, SWITCH GEAR, ETC.

GROUND ALL LUMINAIRES BY INSTALLING A SEPARATE GREEN GROUND WIRE IN ANY FLEXIBLE CONDUIT BETWEEN OUTLET BOX AND FIXTURE.

26 05 29 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

CONDUIT SHALL BE SUPPORTED BY APPROVED STRAPS, FASTENERS AND HANGERS. HANGERS SHALL BE SUSPENDED FROM RODS. PERFORATED STRAPS WILL NOT BE ACCEPTABLE. FASTENERS SHALL BE LEAD EXPANSION SHIELDS IN BLOCK OR CONCRETE, TOGGLE BOLTS IN HOLLOW WALLS, MACHINE SCREWS ON METAL SURFACES AND WOOD SCREWS ON WOOD CONSTRUCTION.

ALL CONDUIT SHALL BE SUPPORTED INDEPENDENTLY FROM ALL OTHER BUILDING SYSTEMS AND SHALL BE SUPPORTED DIRECTLY FROM STRUCTURAL COMPONENTS. AT BUILDING EXPANSION JOINTS AND WHERE DEFLECTION IS EXPECTED, CONDUITS SHALL BE PROVIDED WITH EXPANSION FITTINGS WITH BONDING JUMPERS. CONDUITS PASSING THROUGH STRUCTURAL MEMBERS SHALL BE PROVIDED WITH STUB AND COUPLING OR SLEEVE IN THE MEMBER. WHERE MOISTURE CONDITIONS ARE ENCOUNTERED, A HOLE SHALL BE DRILLED AT THE LOWEST POINT IN THE CONDUIT RUN.

26 05 33 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

CONCEAL CONDUIT AND EMT WITHIN FURNISHED WALLS, CEILINGS, AND FLOORS UNLESS OTHERWISE INDICATED. INSTALL CONDUITS PARALLEL OR PERPENDICULAR TO BUILDING LINES.

INTERIOR CONDUIT SHALL BE OF SUFFICIENT SIZE AND INSTALLED SO THE REQUIRED NUMBER OR CONDUCTORS CAN BE INSERTED OR REMOVED WITHOUT INJURY TO, OR EXCESSIVE STRAIN UPON, THE INSULATION. THE MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS OTHERWISE NOTED.

CONDUITS SHALL BE RUN CONTINUOUS FROM OUTLET TO OUTLET AND SHALL BE FASTENED TO ALL BOXES AND CABINETS WITH DOUBLE LOCKOUTS, TO PROVIDE CONTINUITY OF GROUND, AND A BUSHING. THE FULL NUMBER OF THREADS MUST PROJECT BEYOND LOCKOUT IN BOXES AND CABINETS TO ALLOW THE BUSHING TO BUTT UP TIGHT AGAINST THE END OF THE CONDUIT.

CONDUIT RUN EXPOSED SHALL RUN PARALLEL, OR PERPENDICULAR TO WALLS, CEILINGS, OR PRINCIPAL FRAMING MEMBERS. IT IS REQUIRED THAT ALL CONDUIT BE INSTALLED TO REFLECT NEAT, CAREFUL WORKMANSHIP THROUGHOUT THE JOB. CONDUIT WHICH HAS BEEN CRUSHED, DAMAGED, OR DEFORMED IN ANY WAY SHALL NOT BE INSTALLED IN THE JOB. CONDUIT SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST TROUBLE FROM COLLECTION OF TRAPPED CONDENSATE, AND ALL RUNS OF CONDUIT SHALL BE FREE OF SUCH TRAPS WHEREVER POSSIBLE.

ALL CONDUIT HANGERS AND SUPPORTS SHALL BE RIGIDLY FASTENED TO THE BUILDING STRUCTURE. NO CONDUIT SHALL BE SPECIFIED FROM DUCTWORK, PIPING, OR CEILING GRID SYSTEMS.

PROVIDE FIRE SEALS WHEREVER CONDUIT PENETRATES FIRE WALLS, CEILING OR RATED FLOOR SLABS.

RIGID STEEL CONDUIT SHALL BE USED FOR ALL BUILDING RUNS INSTALLED IN CONCRETE SLABS, IN ALL POURED CONCRETE CONSTRUCTION AND ALL APPLICATIONS INSIDE BUILDING REQUIRING 2" OR LARGER IN SIZE. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 7 FEET FOR 3/4" CONDUIT, 8 FEET INTERVALS FOR CONDUIT ON 1" TO AND INCLUDING 2", AND 10 FEET FOR CONDUITS 2-1/2" OR LARGER.

RIGID CONDUIT (ALUMINUM) SHALL NOT BE INSTALLED IN POURED CONCRETE. ALUMINUM CONDUIT MAY BE USED FOR SWITCH LEGS AND BRANCH CIRCUITS IN PARTITIONS, ABOVE CEILING, AND WHERE CONDUIT RUN IS EXPOSED. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 7 FEET FOR 3/4" CONDUIT, 8 FEET INTERVALS FOR CONDUIT 1" TO AND INCLUDING 2".

ELECTRICAL METALLIC TUBING (THIN WALL) MAY BE USED FOR SWITCH LEGS (EXCEPT IN POURED CONCRETE WALLS) AND BRANCH CIRCUITS IN PARTITIONS, ABOVE CEILINGS, AND WHERE CONDUIT RUN IS EXPOSED. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 7 FEET FOR 3/4" CONDUIT, 8 FEET INTERVALS FOR CONDUIT 1" TO AND INCLUDING 1-1/2". EMT LARGER THAN 1-1/2" WILL NOT BE PERMITTED.

PLASTIC CONDUIT (PVC): PLASTIC CONDUIT MAY BE USED FOR UNDERGROUND CONDUIT RUNS OUTSIDE BUILDING AND BELOW FLOOR SLAB. UNDERGROUND CONDUIT RUNS OUTSIDE BUILDING SHALL BE A MINIMUM OF 2'-6" BELOW GRADE. CONDUIT RUN BELOW FLOOR SLAB SHALL BE A MINIMUM OF 12" BELOW FLOOR SLAB.

FLEXIBLE CONDUIT SHALL BE USED BETWEEN OUTLET BOXES IN HUNG OR FURRED CEILINGS AND RECESSED LIGHTING FIXTURES. FLEXIBLE CONDUIT SHALL NOT EXCEED 6 FEET IN LENGTH.

LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE USED FOR FINAL CONNECTIONS TO ALL MOTORS. LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE USED FOR FINAL CONNECTIONS TO ALL MOTORS OR DEVICES WHICH DO OR MAY VIBRATE. LIQUID TIGHT FLEXIBLE CONDUIT SHALL NOT EXCEED 3 FEET IN LENGTH.

PROVIDE SEALING BUSHINGS IN ALL UNDERGROUND CONDUITS AS REQUIRED TO PREVENT THE ENTRY OF MOISTURE INTO ELECTRICAL EQUIPMENT.

PROVIDE CONDUIT EXPANSION FITTINGS WHERE CONDUIT CROSSES A BUILDING EXPANSION JOINT, AND IN ALL STRAIGHT CONDUIT RUNS 200 FEET OR LONGER.

ALL OUTLET, SWITCH, JUNCTION AND PULL BOXES SHALL BE MADE OF CODE GALVANIZED STEEL COMPLETE WITH RINGS AND SCREW COVER PLATES AND LOCATED WHERE SHOWN AND NOTED ON DRAWINGS. WHERE CONDUIT IS CONCEALED, BOXES SHALL NOT BE LESS THAN 4" SQUARE X 1-1/2" DEEP. ALL BOXES SHALL BE EQUIPPED WITH PROPER COVERS TO BRING FLUSH WITH FINISHED WALL SURFACE.

USE GANG BOXES WHERE MORE THAN ONE DEVICE IS TO BE INSTALLED AT THE SAME LOCATION.

ALL BOXES FOR CONCRETE WORK SHALL BE OF TYPE ESPECIALLY DESIGNED FOR INSTALLATION IN CONCRETE.

PROVIDE OUTLET BOX ACCESSORIES AS REQUIRED FOR EACH INSTALLATION, INCLUDING MOUNTING BRACKETS, WALLBOARD HANGERS, EXTENSION RINGS, FIXTURE STUDS, CABLE CLAMPS, AND METAL STRAPS FOR SUPPORTING OUTLET BOXES, COMPATIBLE WITH OUTLET BOXES BEING USED AND MEETING REQUIREMENTS OF INDIVIDUAL WIRING SITUATIONS.

PULL BOXES (NOT SHOWN ON THE CONTRACT DRAWINGS) SHALL BE INSTALLED AS REQUIRED TO FACILITATE PULLING OF CONDUCTORS ON LONG RUNS. PULL BOXES LOCATED IN FLOORS SHALL BE FLUSH WITH FINISHED FLOOR, AND OF CAST WROUGHT IRON, ALUMINUM, OR BRONZE WITH SEALED WATERPROOF COVER. CONDUIT ENTRANCES SHALL BE THEADED.

PROVIDE CORROSION RESISTANT CAST METAL WEATHERPROOF OUTLET WIRING BOXES, OF THE TYPE, SHAPE, AND SIZE REQUIRED FOR EACH APPLICATION, WITH THEADED CONDUIT ENDS, CAST METAL FACE PLATE WITH SPRING-HINGE WATERPROOF CAP, SUITABLE CONFIGURED FOR EACH APPLICATION, INCLUDING FACE PLATE GASKET AND CORROSION PROOF FASTENERS.

PROVIDE WATERPROOF OUTLETS FOR INTERIOR AND EXTERIOR LOCATIONS EXPOSED TO WEATHER OR SUBJECT TO FREQUENT WASHING.

SECURE BOXES RIGIDLY TO THE SUBSTRATE UPON WHICH THEY ARE BEING MOUNTED, OR SOLIDLY EMBED BOXES IN CONCRETE OR MASONRY.

26 05 53 IDENTIFICATION FOR ELECTRICAL SYSTEMS

PROVIDE MANUFACTURERS STANDARD SELF-ADHESIVE VINYL TAPE NOT LESS THAN 3 MILS THICK BY 1-1/2" WIDE. INSTAL ON ALL CONCEALED RACEWAYS AT CONNECTION TO ALL JUNCTION BOXES, PULL BOXES, EQUIPMENT, WALL/FLOOR/ROOF PENETRATIONS, ETC.

PROVIDE CIRCUIT IDENTIFICATION BANDS FOR ALL CABLES AND CONDUCTORS. PROVIDE ON ALL CONDUCTORS OF ALL SYSTEMS.

INSTALL ENGRAVED PLASTIC-LAMINATE SIGN ON ELECTRICAL EQUIPMENT, INCLUDING PANELBOARDS, DISCONNECTS, STARTERS, CONTROL PANELS, ETC. PROVIDE SINGLE LINE OF TEXT, 1/2" HIGH LETTERING, ON 1-1/2" HIGH SIGN (2" HIGH WHERE 2 LINES ARE REQUIRED), WHITE LETTERING IN BLACK FIELD.

26 05 64 MECHANICAL EQUIPMENT

PROVIDE ALL NECESSARY ELECTRICALLY RELATED WORK AS REQUIRED TO RENDER ALL MECHANICAL EQUIPMENT (INCLUDING PLUMBING, HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT) FULLY OPERATIONAL AND FULLY COMPLIANT WITH ALL LOCAL AND NATIONAL CODES. THIS INCLUDES, PRIOR TO ORDERING MATERIALS OR COMMENCING WITH ROUGH-IN, REVIEWING EQUIPMENT SUBMITTAL DATA AND COORDINATING WITH INSTALLING CONTRACTORS TO ENSURE THE CORRECT SIZE, RATING AND QUANTITY OF CONDUCTORS ARE PROVIDED.

26 24 16 PANELBOARDS

PROVIDE PANEL BOARDS AS SHOWN ON THE DRAWINGS. PANEL BOARDS SHALL BE DEAD FRONT EQUIPPED WITH THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKERS, OF FRAME AND TRIP RATINGS AS SHOWN ON THE PANEL BOARDS SCHEDULE. PANEL BOARDS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST NEMA STANDARDS AND SHALL BE LISTED BY UL AND BEAR UL LABEL. ALL PANEL BOARDS SHALL BE OF ONE MANUFACTURER.

PANELBOARDS, MAIN BUSS, MAIN LUGS, AND/OR MAIN BREAKER SHALL BE RATED AS NOTED ON PANEL BOARD SCHEDULES. CURRENT DENSITY SHALL BE IN ACCORDANCE WITH UL REQUIREMENTS. BUSS MOUNTING FOR CIRCUIT BREAKERS SHALL BE BOLTED CONNECTIONS AND ACCOMMODATE ANY COMBINATION OF CIRCUIT BREAKER UNITS WITHOUT FURTHER MODIFICATIONS. THE COMPLETE PANEL BOARD, INCLUDING MAIN CIRCUIT BREAKER, BUSS AND LUGS, BRANCH CIRCUIT BREAKERS, AND CONNECTION SHALL BE PROPERLY DESIGNED AND UL LISTED TO WITHSTAND THE EFFECT OF THE AVAILABLE REQUIRED SHORT CIRCUIT CURRENT.

MATERIALS: ALL PANEL BOARDS SHALL BE MOUNTED IN CODE GAUGE GALVANIZED STEEL CABINETS, HAVING HINGED DOOR. EACH DOOR SHALL BE EQUIPPED WITH A LATCH AND LOCK. ALL LOCKS ON ALL PANEL BOARD CABINET DOORS ON THIS PROJECT SHALL ACCEPT A COMMON KEY. FURNISH TWO KEYS WITH EACH LOCK.

FOR DETAILS CONCERNING THE NUMBER AND SIZE OF CIRCUIT BREAKERS, SIZE OF MAINS, SIZE AND LOCATION OF LUGS, AND WHETHER SURFACE OR FLUSH MOUNTED, REFER TO PROJECT PANEL BOARD SCHEDULES ON THE CONTRACT DRAWINGS.

CABINET SHALL BE SIZED TO PROVIDE WIRING GUTTERS AT SIDES, TOP AND BOTTOM TO ACCOMMODATE THE NECESSARY CONDUCTORS WITHOUT CROWDING.

PROVIDE ON THE INSIDE OF THE DOOR FACE OF EACH PANEL BOARD CABINET, AN ACCURATE TYPEWRITTEN CIRCUIT DIRECTORY PROTECTED BY GLASS OR CLEAR PLASTIC. HANDWRITTEN OR HAND PRINTED DIRECTORIES WILL NOT BE ACCEPTED. THE CONTRACTOR IS INSTRUCTED THAT THE FINAL TYPED DIRECTORY SHALL BE MADE AFTER THE PERMANENT ROOM NUMBERS ARE INSTALLED ON THE DOORS, AND THE DIRECTORIES SHALL LIST THESE NUMBERS RATHER THAN THE ROOM NUMBERS USED ON THE CONSTRUCTION DRAWINGS.

ALL PANEL BOARDS SHALL HAVE ENGRAVED NAME TAGS ATTACHED TO COVER INDICATING PANEL NUMBER AND VOLTAGE.

ANCHOR ENCLOSURES FIRMLY TO WALLS AND STRUCTURAL SURFACES, ENSURING THAT THEY ARE PERMANENTLY AND MECHANICALLY SECURED.

INSTALL ALL PANEL BOARDS WITH THE TOP 6'-6" ABOVE FINISHED FLOOR.

DISTRIBUTION PANEL BRANCH BREAKERS SHALL BE SELECTED TO PROVIDE SERIES RATING AS NECESSARY FOR AVAILABLE FAULT CURRENT.

ACCEPTABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: SCHNEIDER ELECTRIC, EATON, GE BY ABB, OR SIEMENS.

26 27 26 WIRING DEVICES

ALL WIRING DEVICES SHALL BE UL LISTED, COMMERCIAL SPECIFICATION GRADE.

SWITCHES IN THE SAME LOCATION SHALL BE GANGED BEHIND A SINGLE PLATE.

DEVICE PLATES IN THE COMMERCIAL FOOD SERVICE AND/OR KITCHEN AREA SHALL BE METAL, ALUMINUM OR ST



COMcheck Software Version COMcheckWeb
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: 13270 - Union Village Pool Structure
Project Type: Alteration

Construction Site: Allen St, Lebanon, Ohio 45036
Owner/Agent:
Designer/Contractor: Marquee Engineering, 4850 Smith Rd Suite 101, Cincinnati, Ohio 45212, 513-901-0040

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1.Storage (Common Space Types:Storage >=50 - <=1000 sq.ft.)	175	0.38	66
2.Pool Equipment (Common Space Types:Storage >=50 - <=1000 sq.ft.)	216	0.38	82
3-Restroom (Common Space Types:Restrooms)	268	0.63	169
4-Pavilion (Common Space Types-General Seating Area)	740	0.23	170
Total Allowed Watts =			488

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Storage (Common Space Types: Storage >=50 - <=1000 sq.ft., 175 sq.ft.)				
LED: A: 8' Linear: Other:	1	2	37	74
Pool Equipment (Common Space Types: Storage >=50 - <=1000 sq.ft., 216 sq.ft.)				
LED: A: 8' Linear: Other:	1	3	37	111
Restroom (Common Space Types: Restrooms, 268 sq.ft.)				
LED: B: 4" Downlight: Other:	1	10	11	110
Pavilion (Common Space Types: General Seating Area, 740 sq.ft.)				
LED: B: 4" Downlight: Other:	1	10	1	10
LED: C: Lantern: Other:	1	8	4	32
Total Proposed Watts =			337	

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Project Title: 13270 - Union Village Pool Structure
Data filename: Report date: 08/08/25
Page 1 of 6

Name: John Quillen, PE
Title:

Signature

Date: 08/08/2025



COMcheck Software Version COMcheckWeb
Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COMcheck software
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [P84]1	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: 13270 - Union Village Pool Structure
Data filename: Report date: 08/08/25
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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3.1 [EL22]1	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.2.1.1 [EL18]1	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.2.1.2 [EL19]2	Occupancy sensors control function in warehouses. In warehouses, the lighting in aiseways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.2.1.3 [EL20]1	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.2.2.1 [EL21]1	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4.1, C405.2.4.2 [EL23]1	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3.2 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight-responsive control function and section C405.2.3.2 Sidelit zone.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.2.5 [EL27]1	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.7 [EL26]1	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.8 [EL27]1	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.9.1, C405.9.2 [EL28]1	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.10 [EL29]1	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C405.1.1 [EL30]1	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.
C405.11.1 [EL31]1	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

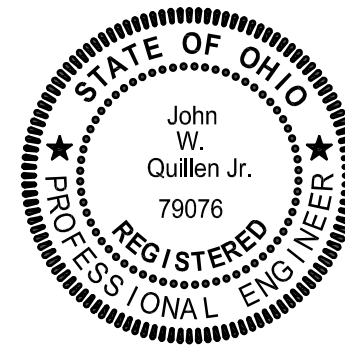
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Data filename: Report date: 08/08/25
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [F117]1	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.1.1 [F157]1	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building equipment and systems are intended to be installed, maintained, and operated.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.2.5.2 [F116]1	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
C408.3 [F133]1	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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09/24/2025

MARQUE ENGINEERING
4850 SMITH ROAD, STE. 101
CINCINNATI, OH 45212
513.901.0040
WWW.MARQUEENG.COM

UNION VILLAGE COMMUNITY POOL

TURTLECREEK TOWNSHIP, OHIO

ISSUE DATE
PERMIT SET
REV - 1

08-14-2025
09-24-2025

COPYRIGHT:
MARQUE ENGINEERING LLC
PROJ MANAGER: JJR
JOB NO. #13270

ELECTRICAL - ENERGY
COMPLIANCE

E5.00

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[illegible]

- Perimeter barrier shall be not less than 48" tall from the ground;
- All gates, doors shall be self-closing, self-latching, and lockable;
- Windows part of perimeter barrier shall not open more than 6 inches;
- Accumulating debris for lightning mechanism shall not be less than 36" above ground;
- Perimeter barrier shall have no horizontal members that would make barrier climbable;
- No gaps in perimeter barrier shall be more than 4 inches.
- Horizontal slings shall be greater than or equal to 1/2" from ground.

Access is restricted to authorized personnel only
Acquire floor space for maintenance shall be provided
Lighting of more than 20 footcandles shall be provided
Pool equipment room enclosed to prevent unauthorized access
Pool discharge will go to approved sanitary sewer system
Equipment room floor subject to floor drain to prevent pooling
Compressed air equipment does not return to pool
Backwash to the #1 or #2 air gap to the pump
Sump and floor drain to be installed and connected to approved sanitary sewer
source
Sump shall have a cover #16 1/2" diameter
No open fittings in the equipment room
Pool equipment room shall be enclosed to prevent unauthorized access

Deck members shall not be spaced more than twenty feet apart as measured along the perimeter of a public gathering. (b) And they be placed:

- (1) On top of the deck, and,
- (2) Within four feet of the water's edge.

Depth markings shall reflect the water depth in the nearest six inch or one-half foot interval.

Depth markings shall be placed in the pool, at least four inches in size and of a color that contrasts with the background.

The units of measure to denote the water depth shall be spelled out in feet and inches and may be abbreviated as ft. or in.

— If this is true, the unit of measure may be "single" letters (one in) or "double" letters (one ft.)

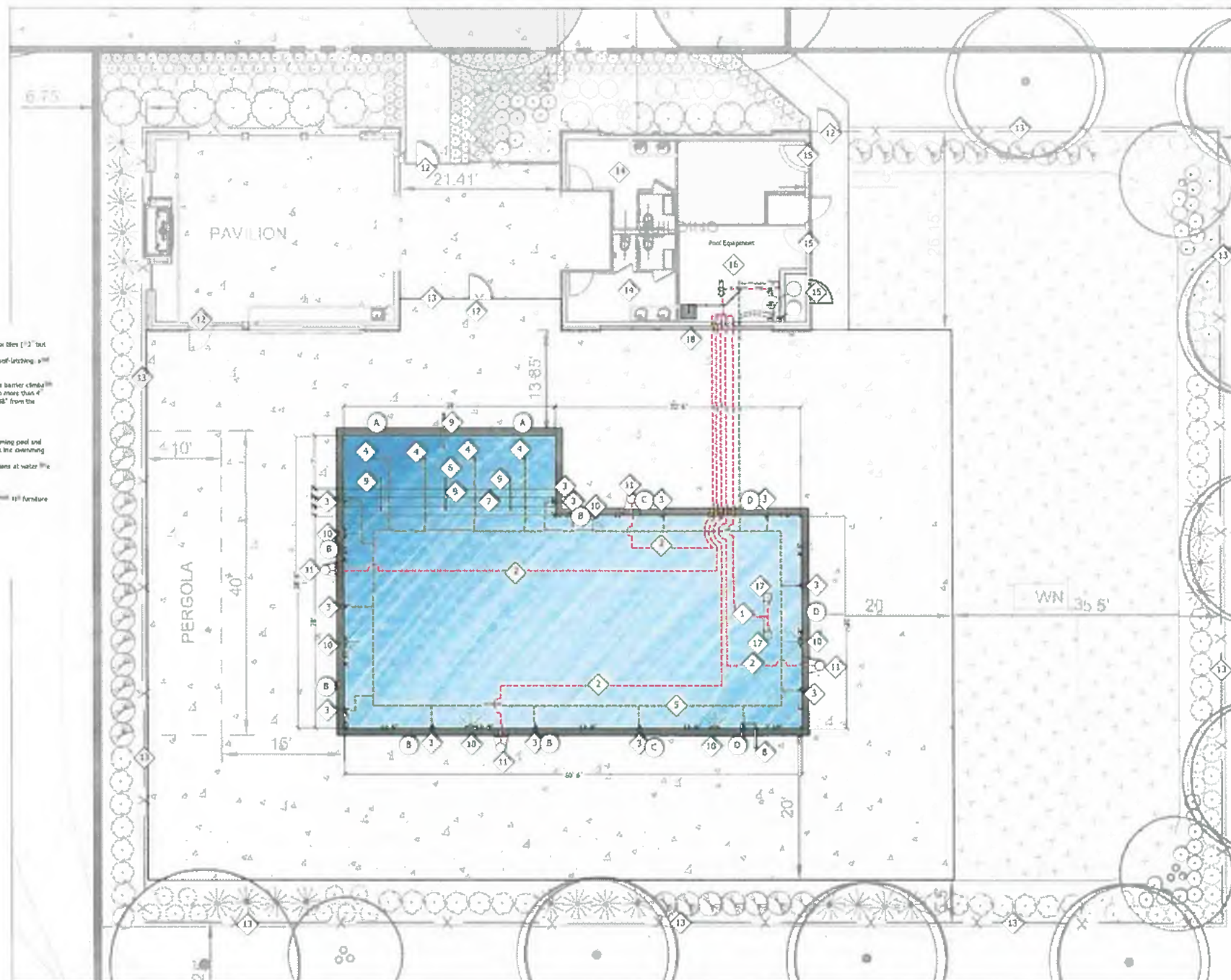
— If this is false, the unit of measure may be "double" letters (one ft.) or "single" letters (one in).

All deck markings shall have all resistant surfaces.

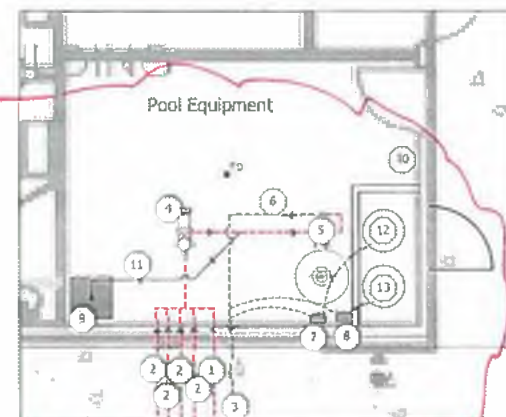
Decks shall be sloped to prevent standing water
Decks shall not drain back into pool or circulation system
Pool warning signs complying with the Ohio Administrative Code 2701.33-04 and 2701.33-05 shall be posted by the pool



4-1-1-



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Scale: $1/4'' = 1'$

- 1 Main Drain Suction 3"
- 2 Skimmer Suction 2"
- 3 Pool Return 3"
- 4 Pool Pump
- 5 Multiport Valve
- 6 Flow Meter
- 7 Acid Feeder
- 8 Chlorinator
- 9 Sump (by others)
- 10 Electric Panel
- 11 Backwash Line
- 12 Chlorine Tank
- 13 Acid Tank



6. *Journal of the American Statistical Association*, 1997, 92, 1009-1014.

- 1 Pool Main Drain Section 3"
- 2 Skimmer Suction 2"
- 3 Wall Return (13)
- 4 Floor Return (9)
- 5 Return Loop 3"
- 6 Sunshelf (196 SF)
- 7 Stairs
- 8 Ladder
- 9 Handrail (4)
- 10 Pentair LED Light (5)
- 11 Skimmer (4)
- 12 Gate Self-Closing, Self Latching
- 13 Fence by others
- 14 Restrooms
- 15 Door Self-Closing, Self Latching, Self Locking
- 16 Equipment Room
- 17 VGD Compliant Pool Main Drain
- 18 Emergency Phone by others

- DEPTH MARKERS**
- ☐ 6 IN NO DIVING (2)
 - ☐ 8 3 FT NO DIVING (5)
 - ☐ C 4 FT NO DIVING (2)
 - ☐ D 5 FT NO DIVING (3)

Mid American
Gunite Pools

3152 Crescent Ave
Exchange, KY 41018
Ph: 859-581-8566

Union Village Community Pool
Allen St
Lebanon, OH 45036
Turtlecreek Twp
Warren County

Date Drawn: 7/15/25

Drawn By: MB

Scale: AS NOTED

Revisions:

[illegible]

SP 1.0

