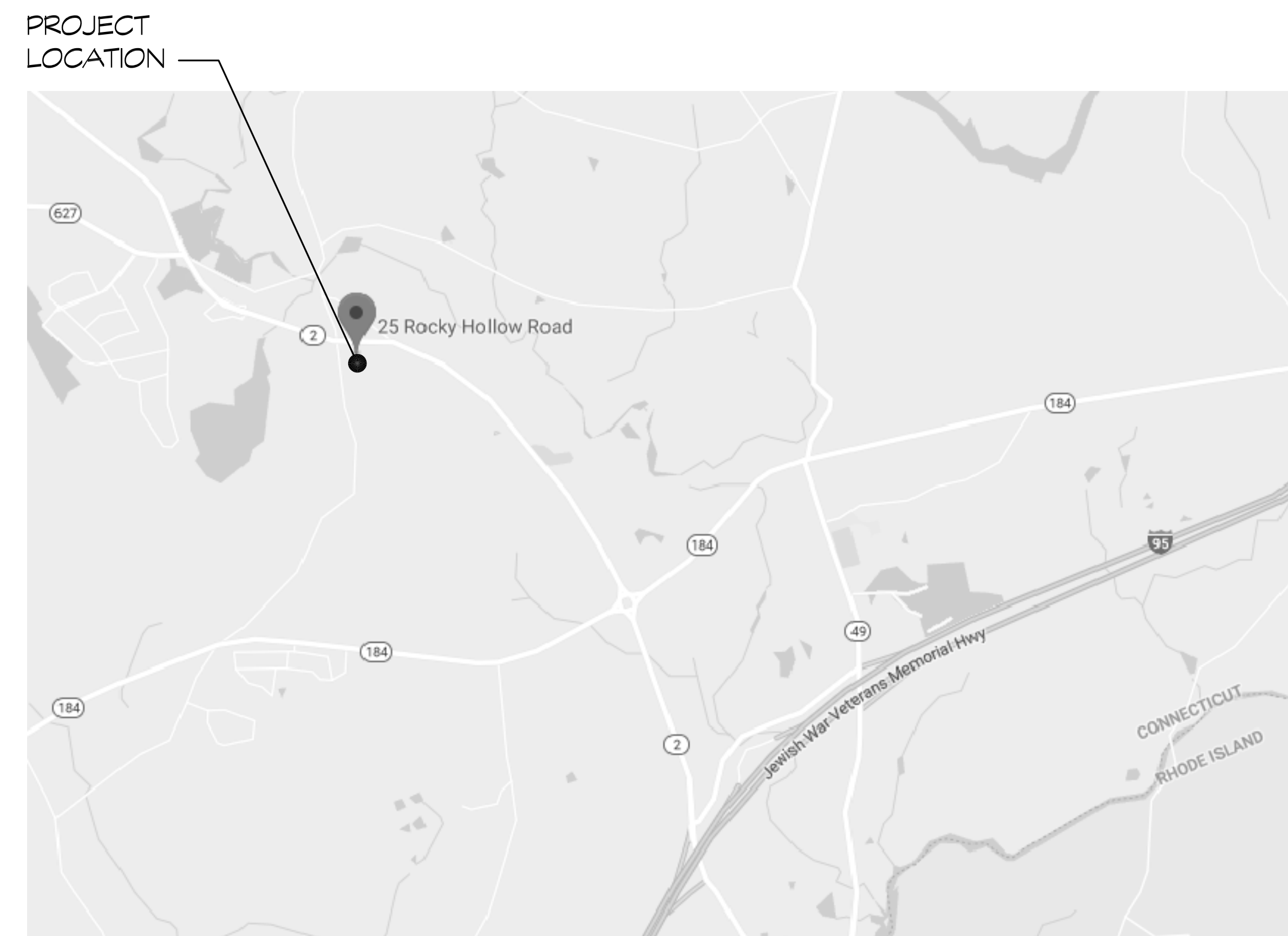


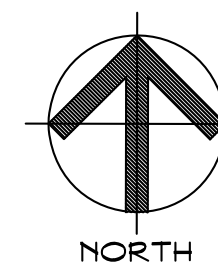
Town of North Stonington

Emergency Services Garage

25 Rocky Hollow Road
 North Stonington, Connecticut 06359



SITE LOCATION MAP
 SCALE: NONE



DRAWING LIST	
SHEET NO.	SHEET TITLE
GENERAL	
-	COVER SHEET
CML	
C100	SITE PLAN
ARCHITECTURAL	
A001	NOTES, LEGENDS & BID ALTERNATES
A101	FLOOR, ROOF & FOUNDATION PLANS
A102	BUILDING ELEVATIONS
A103	BUILDING SECTIONS & DETAILS
A250	SCHEDULES & DETAILS
ELECTRICAL	
E101	ELECTRICAL PLANS, NOTES, SCHEDULE & SPECIFICATIONS



SILVER / PETRUCCELLI + ASSOCIATES

Architects / Engineers / Interior Designers

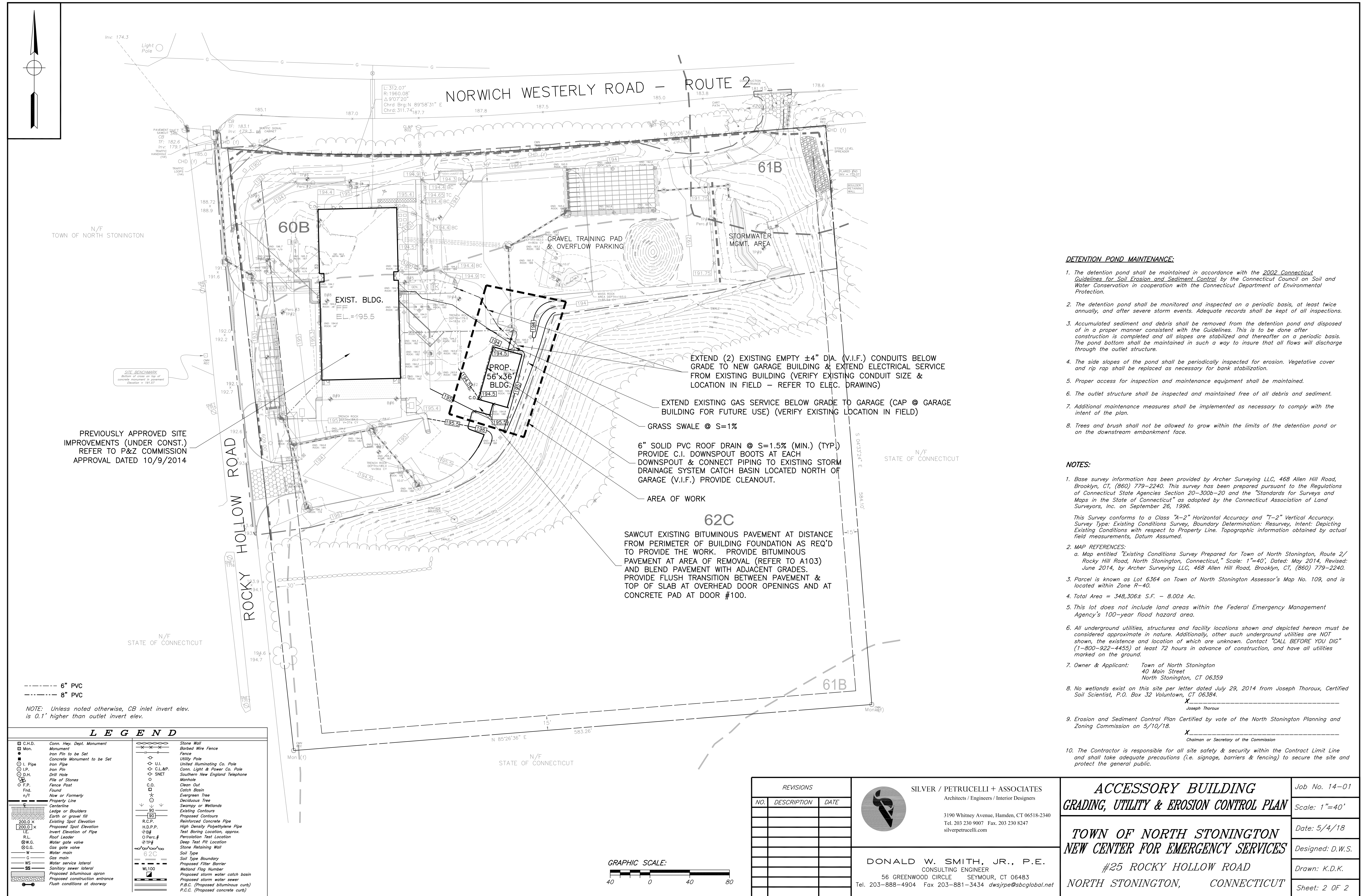
3190 Whitney Avenue, Hamden, CT 06518-2340

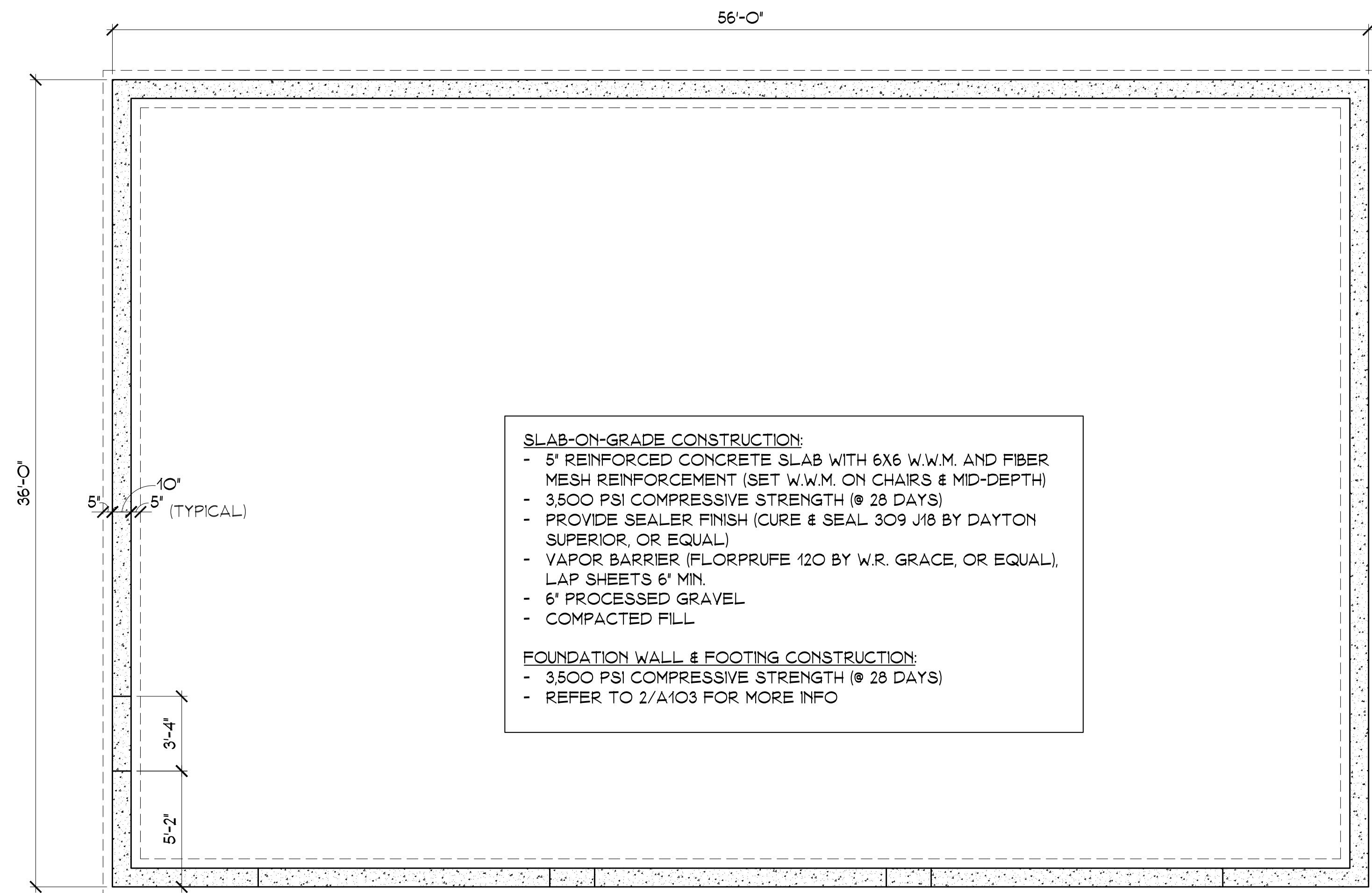
One Post Hill Place, New London, CT 06320

Tel. 203 230 9007 Fax. 203 230 8247

silverpetrucci.com

April 24, 2019





SLAB-ON-GRADE CONSTRUCTION:

- 5' REINFORCED CONCRETE SLAB WITH 6X6 W.W.M. AND FIBER MESH REINFORCEMENT (SET W.W.M. ON CHAIRS & MID-DEPTH)
- 3,500 PSI COMPRESSIVE STRENGTH (@ 28 DAYS)
- PROVIDE SEALER FINISH (CURE & SEAL 309 J18 BY DAYTON SUPERIOR, OR EQUAL)
- VAPOR BARRIER (FLORPRUFE 120 BY W.R. GRACE, OR EQUAL), LAP SHEETS 6' MIN.
- 6' PROCESSED GRAVEL
- COMPACTED FILL

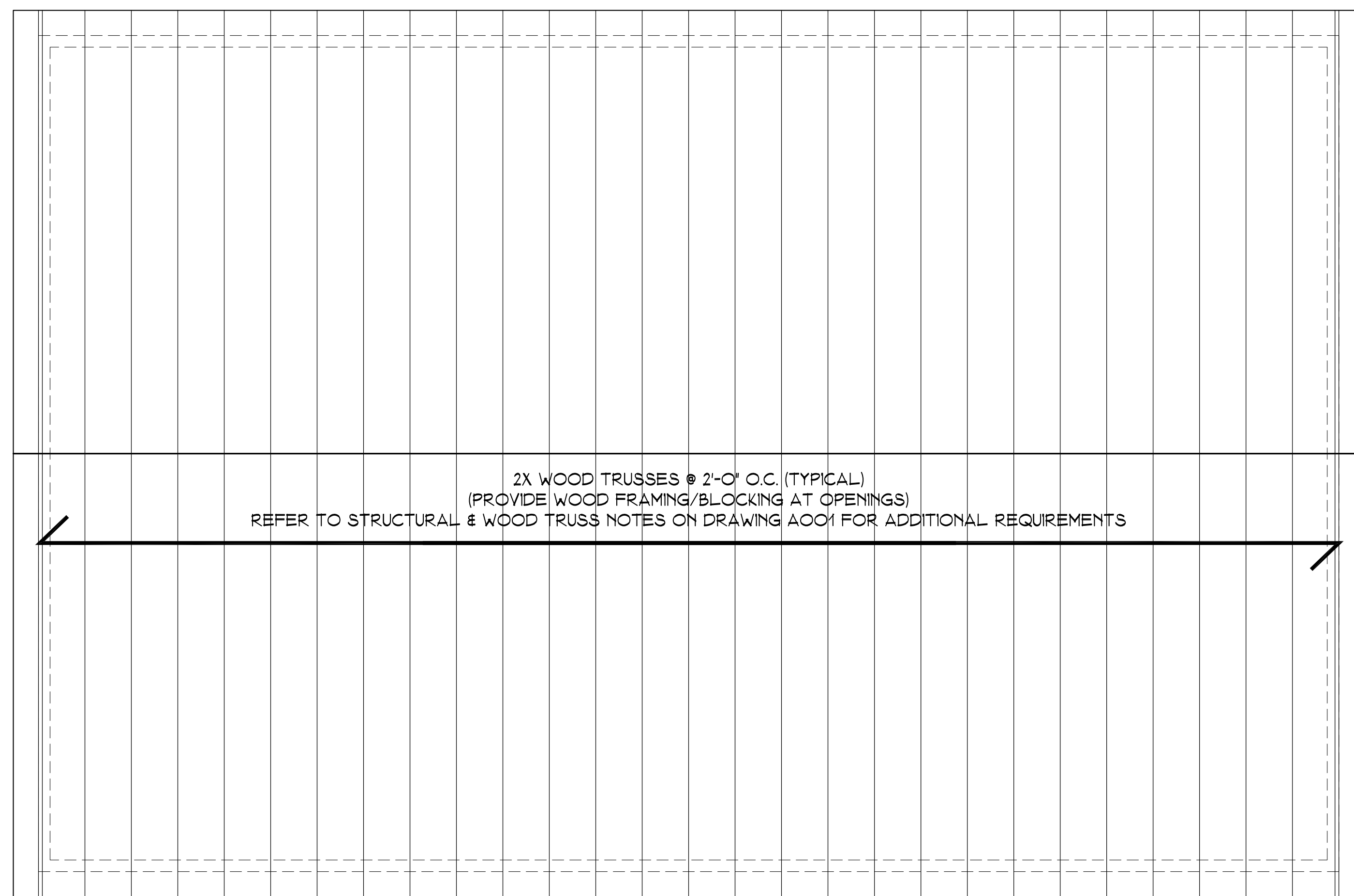
FOUNDATION WALL & FOOTING CONSTRUCTION:

- 3,500 PSI COMPRESSIVE STRENGTH (@ 28 DAYS)
- REFER TO 2/A103 FOR MORE INFO

- NOTES:**
1. REFER TO WALL SECTIONS & NOTES ON A001 FOR FOUNDATION & FOOTING INFORMATION.
 2. TYPICAL T.O. FOUNDATION WALL ELEVATION +8' ABOVE T.O. CONCRETE SLAB, U.O.N.
 3. T.O. FOUNDATION WALL AT DOOR OPENINGS SHALL BE DEPRESSED TO ACCEPT HAUNCHED SLAB EDGE (SEE DETAILS).
 4. CUT BACK RAISED PORTION OF FOUNDATION WALL AT JAMBS OF EACH OH DOOR OPENINGS AS REQD TO ACCOMMODATE FRAMING & OH DOOR ASSEMBLY. COORDINATE WITH FRAMING & OH DOOR MANUFACTURER REQUIREMENTS. REFER TO DOOR DETAILS.
 5. PROVIDE 1/4" CHAMFER AT EXPOSED EDGES OF FOUNDATION WALL AT INTERIOR LOCATIONS (TOP EDGE & OUTSIDE CORNERS).

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

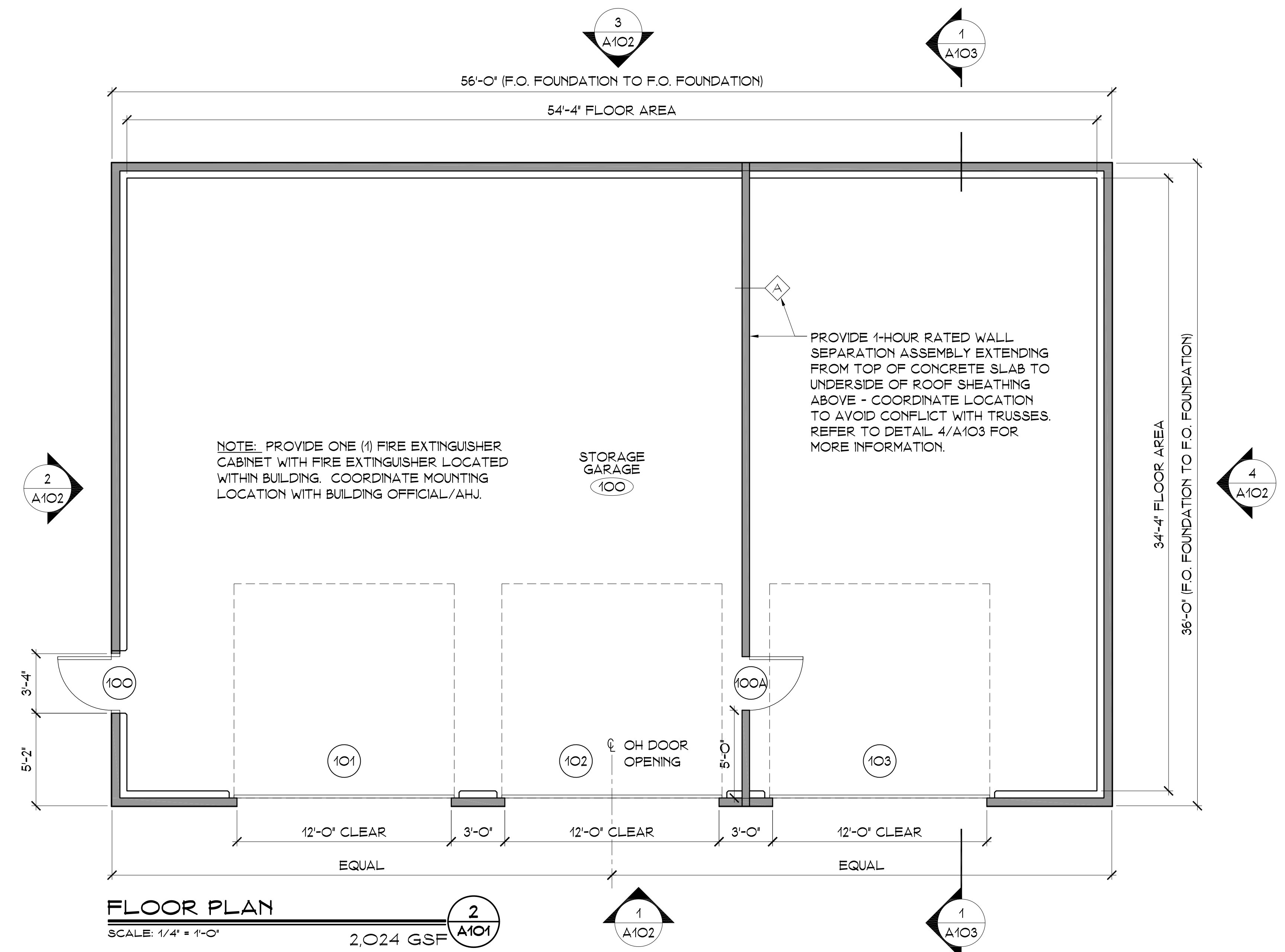
1
A101



2X WOOD TRUSSES @ 2'-0" O.C. (TYPICAL)
(PROVIDE WOOD FRAMING/BLOCKING AT OPENINGS)
REFER TO STRUCTURAL & WOOD TRUSS NOTES ON DRAWING A001 FOR ADDITIONAL REQUIREMENTS

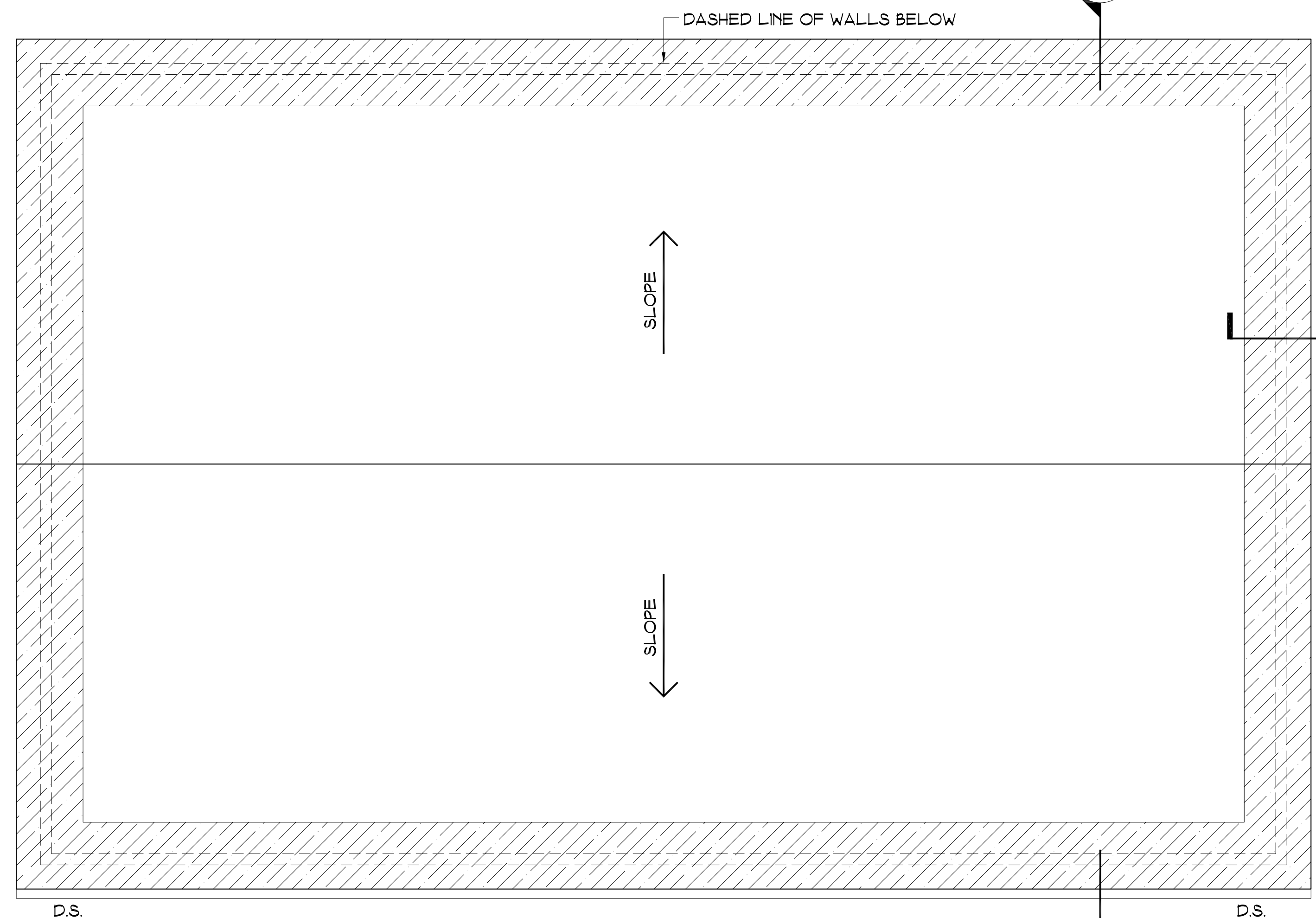
ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

3
A101



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

2
A101
2,024 GSF



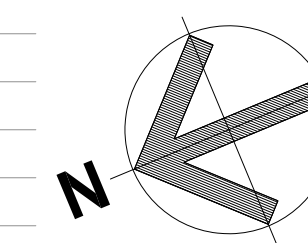
ROOF PLAN
SCALE: 1/4" = 1'-0"

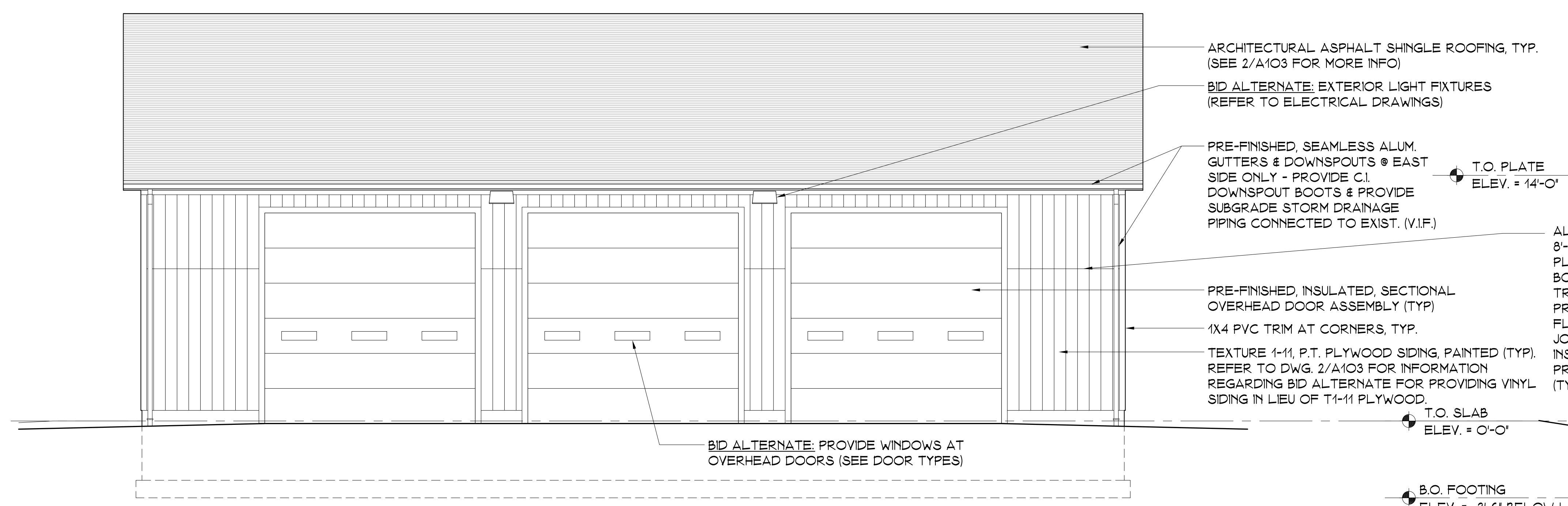
4
A101

(1 LAYER OF 3'-0" ICE & WATER SHIELD MEMBRANE (REFER TO 2/A103 FOR MORE INFO))

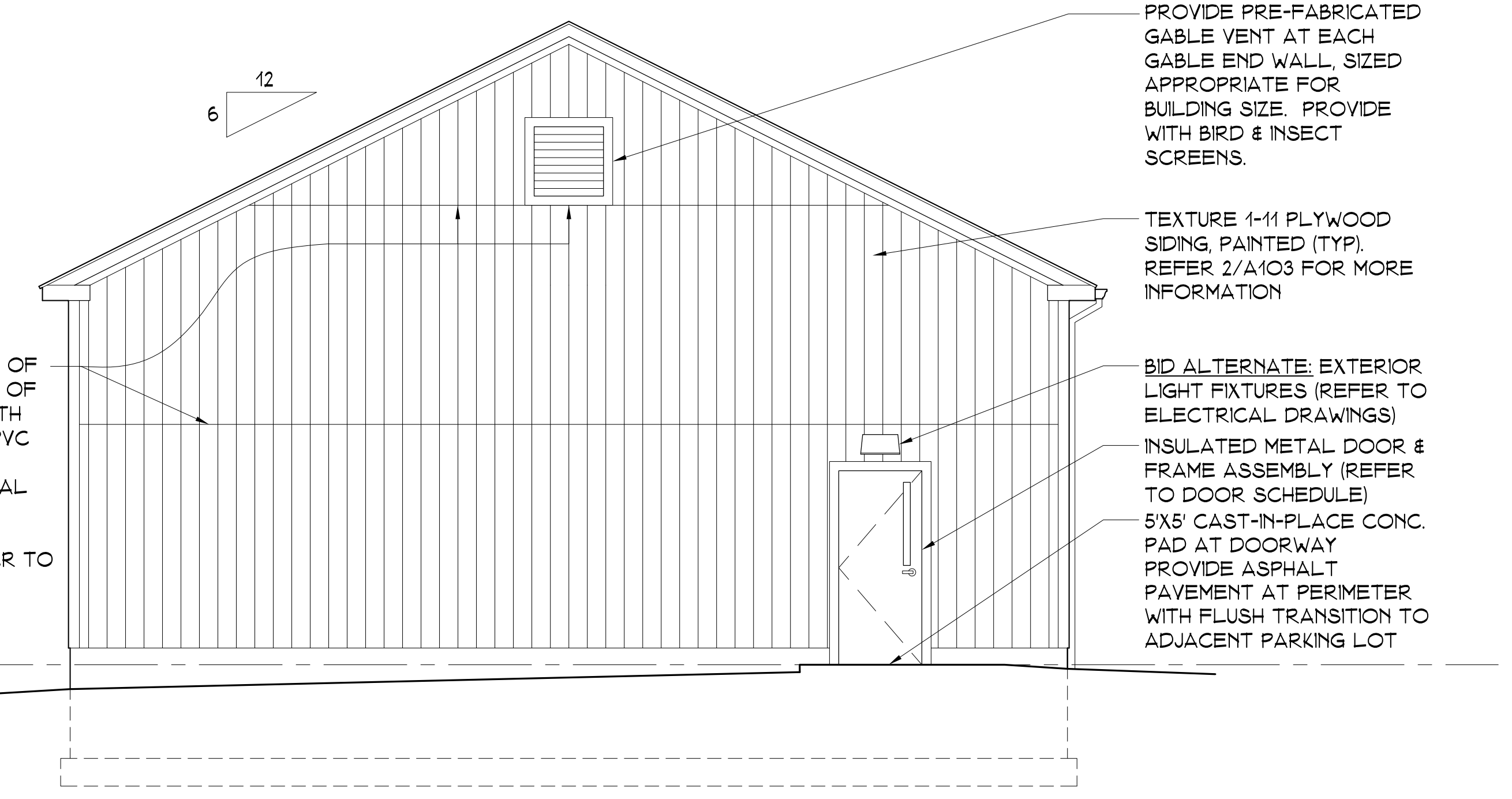


Revision	Description	Date	Revised By

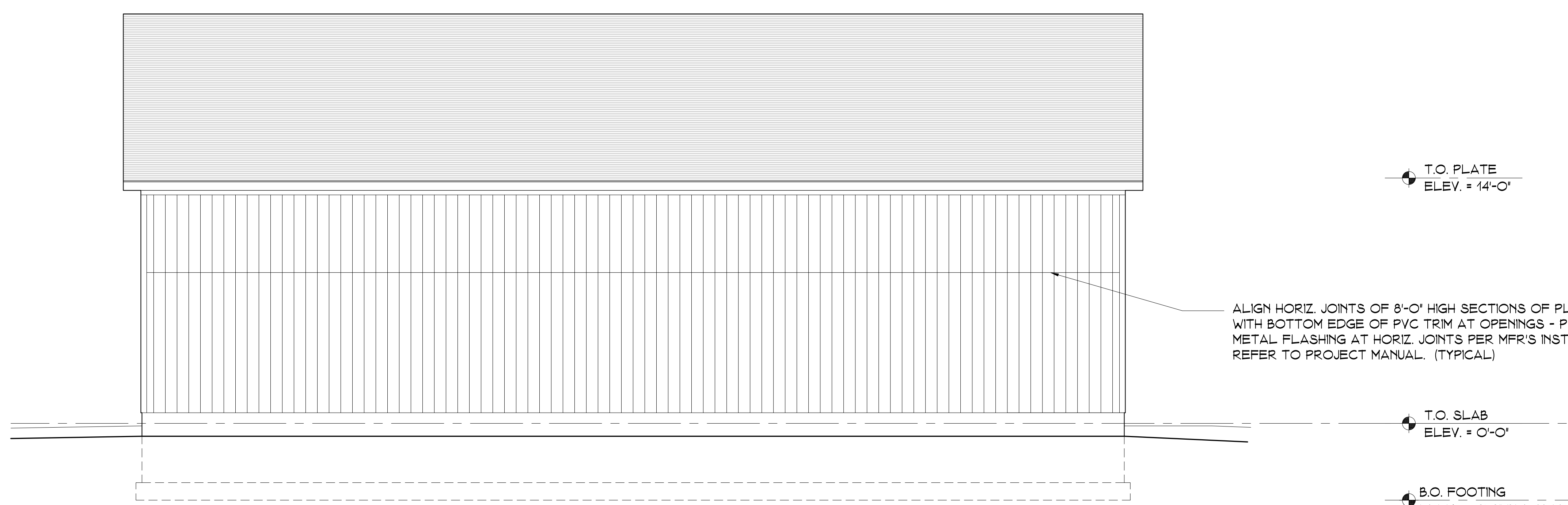




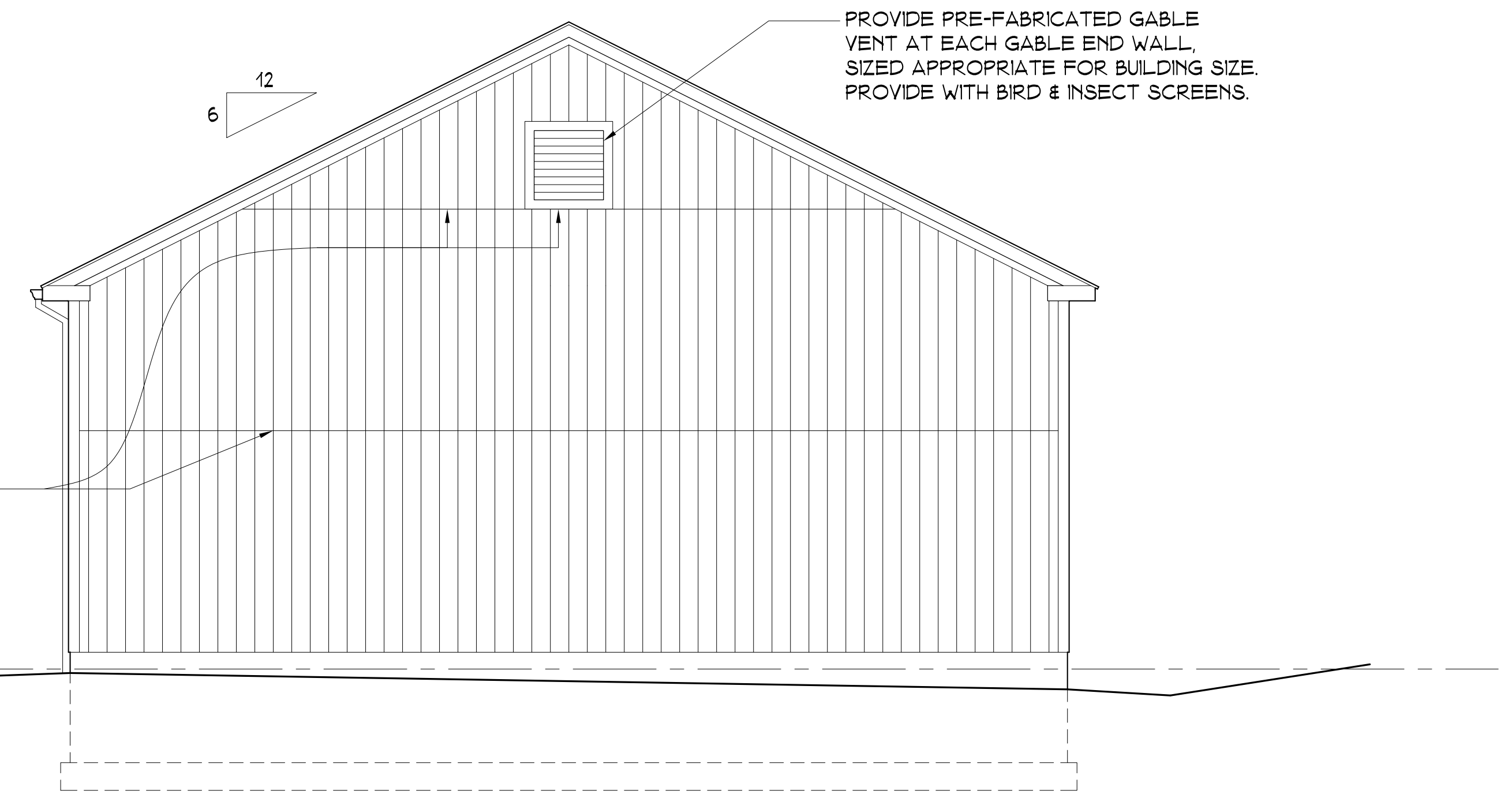
WEST BUILDING ELEVATION
SCALE: 1/4" = 1'-0"
1
A102



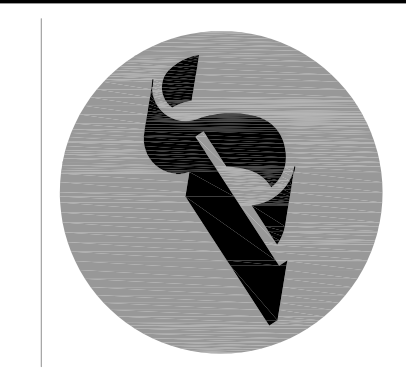
NORTH BUILDING ELEVATION
SCALE: 1/4" = 1'-0"
2
A102



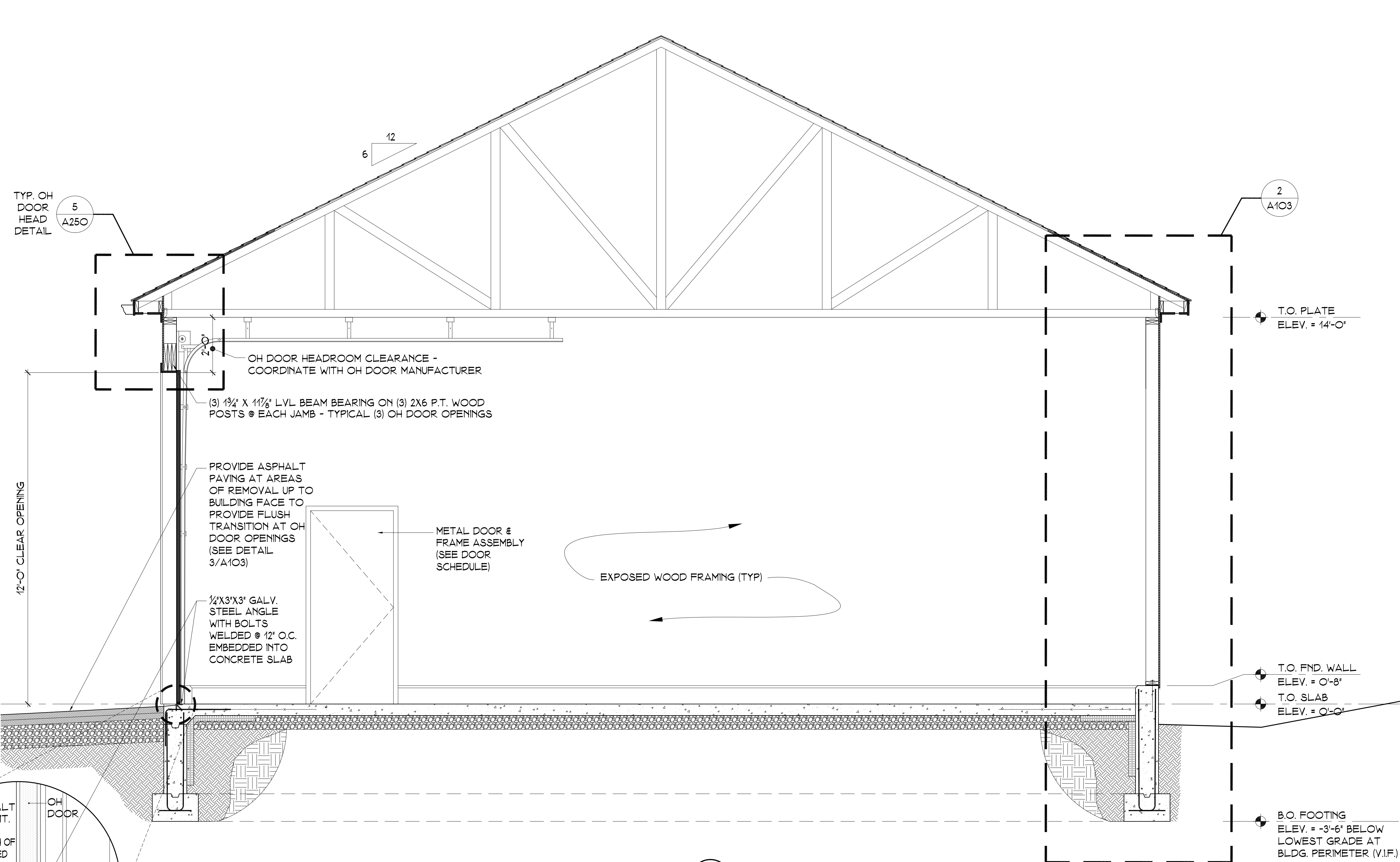
EAST BUILDING ELEVATION
SCALE: 1/4" = 1'-0"
3
A102



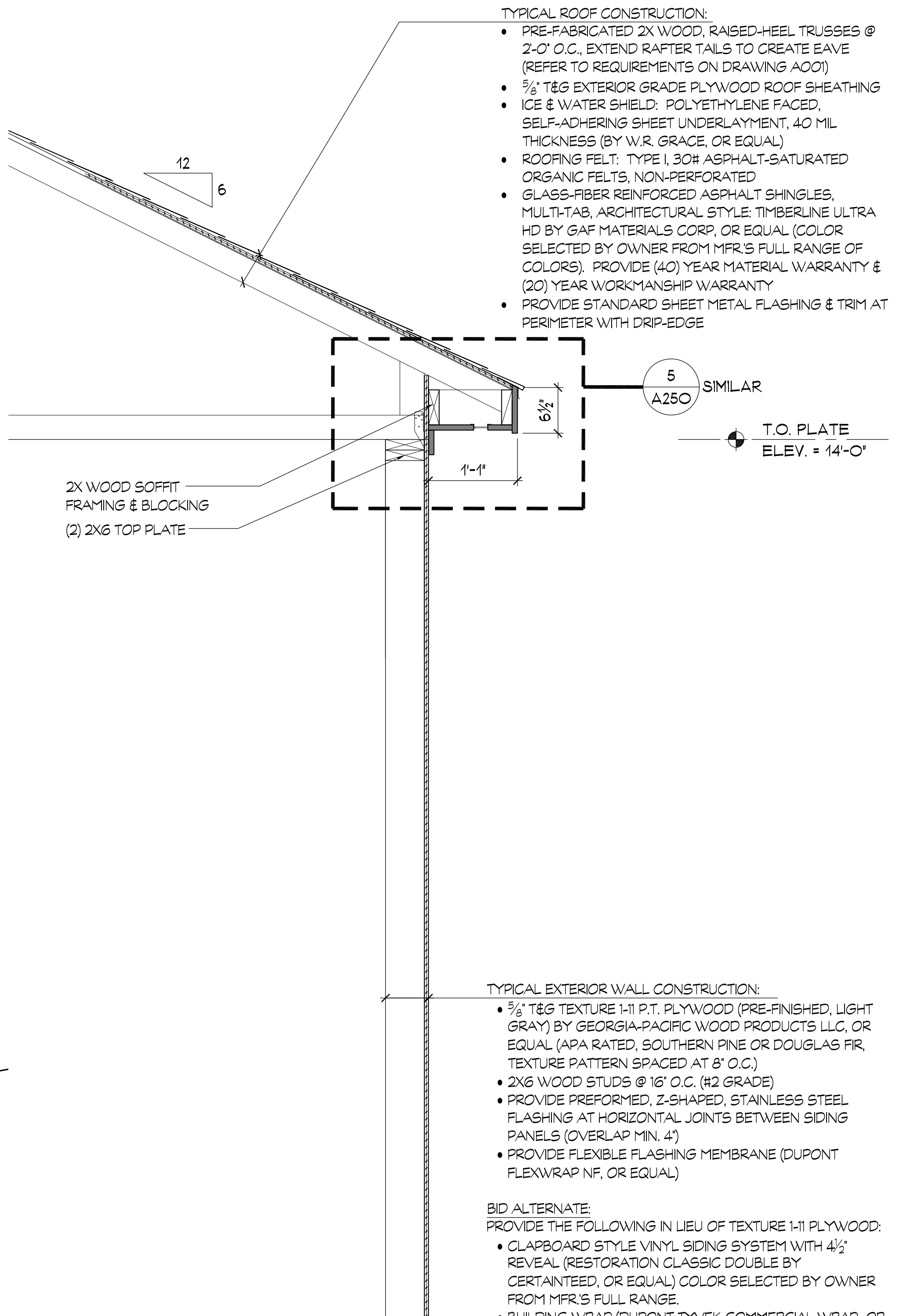
SOUTH BUILDING ELEVATION
SCALE: 1/4" = 1'-0"
4
A102



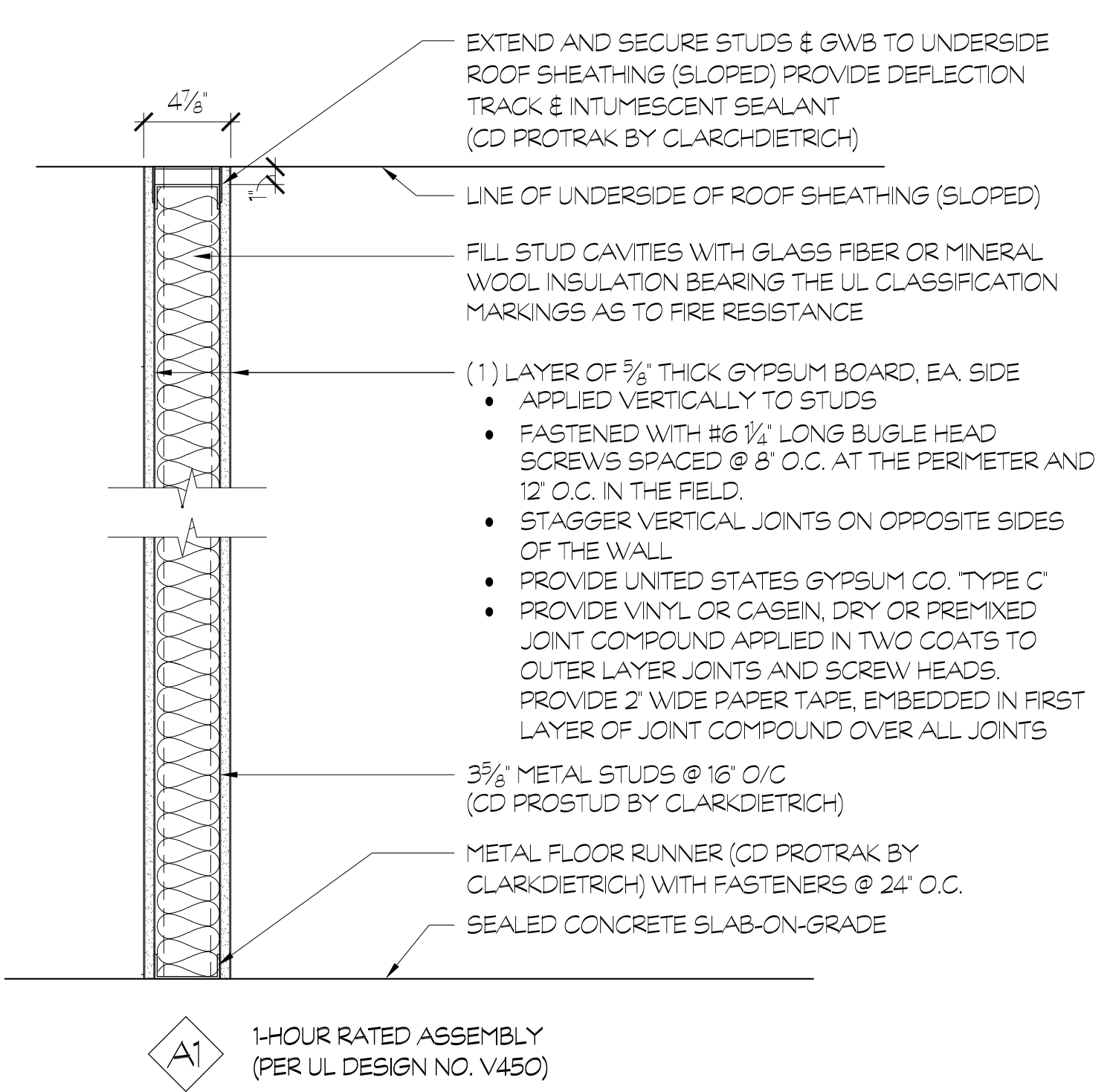
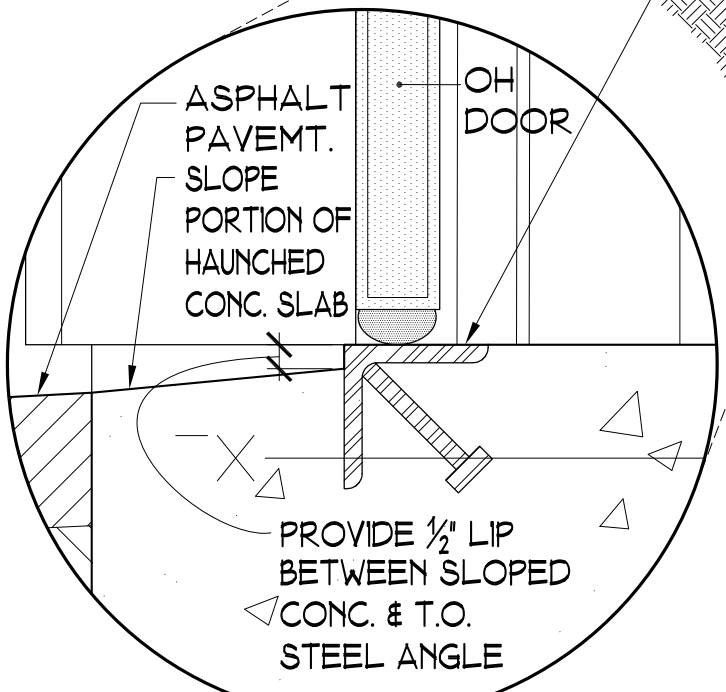
Revision	Description	Date	Revised By



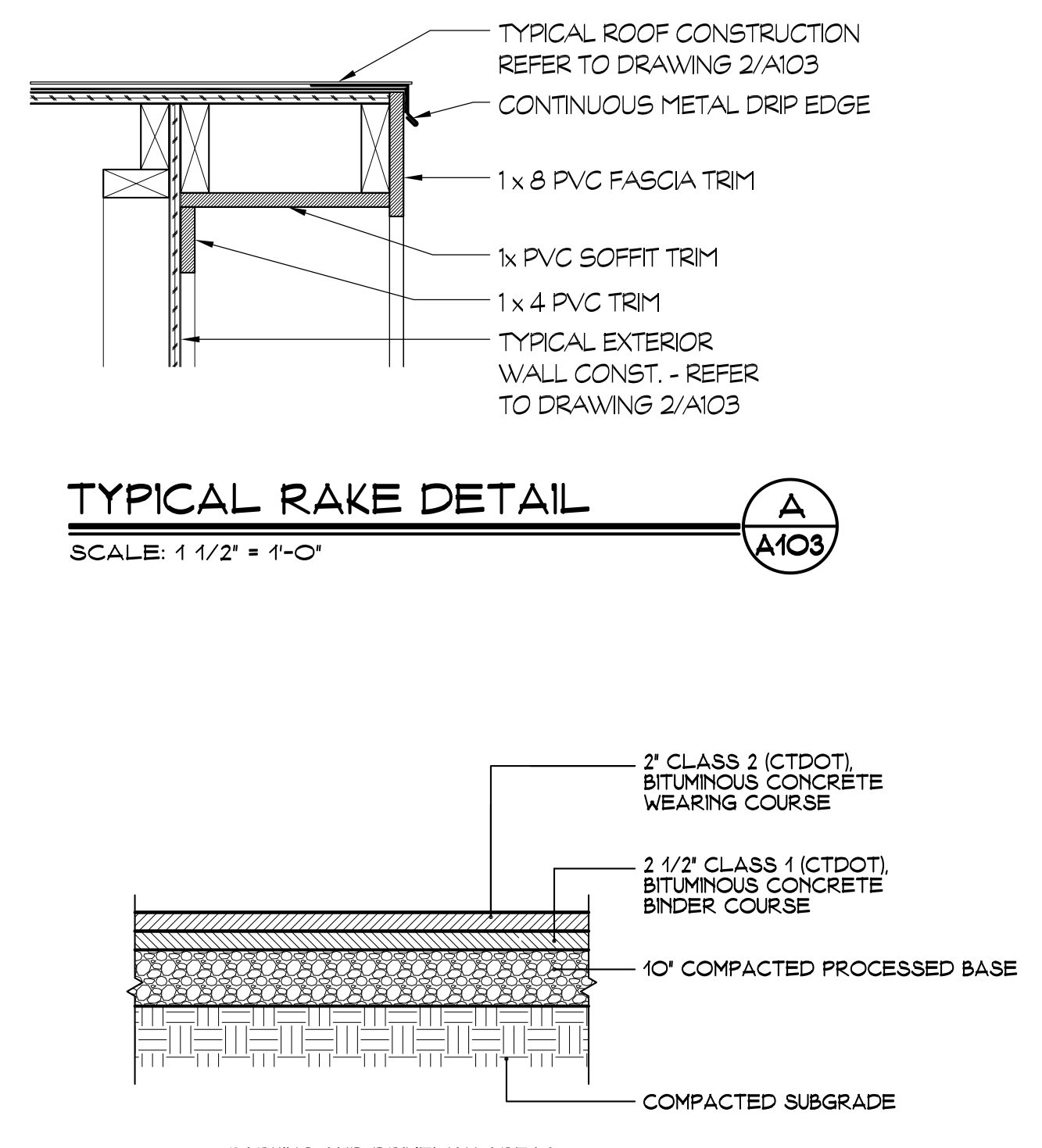
BUILDING SECTION
SCALE: 1/2" = 1'-0"
1 A103



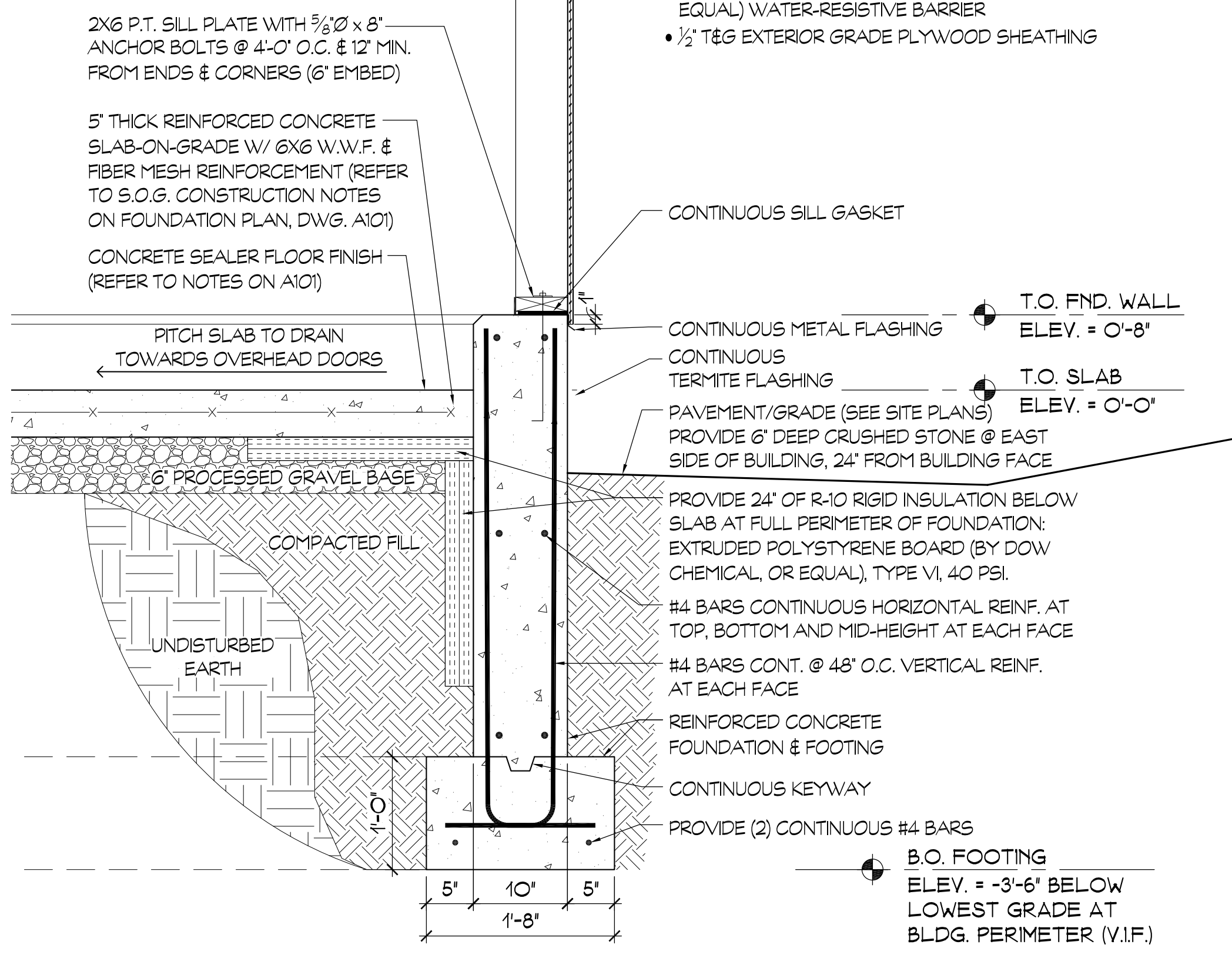
- TYPICAL ROOF CONSTRUCTION:**
- PRE-FABRICATED 2X WOOD, RAISED-HEEL TRUSSES @ 2'-0" O.C., EXTEND RAFTER TAILS TO CREATE EAVE (REFER TO REQUIREMENTS ON DRAWING A001)
 - 5/8" T&G EXTERIOR GRADE PLYWOOD ROOF SHEATHING
 - ICE & WATER SHIELD: POLYETHYLENE FACED, SELF-ADHERING SHEET UNDERLAYMENT, 40 MIL THICKNESS (BY W.R. GRACE, OR EQUAL)
 - ROOFING FELT: TYPE I, 30# ASPHALT-SATURATED ORGANIC FELTS, NON-PERFORATED
 - GLASS-FIBER REINFORCED ASPHALT SHINGLES, MULTI-TAB, ARCHITECTURAL STYLE: TIMBERLINE ULTRA HD BY GAF MATERIALS CORP. OR EQUAL (COLOR SELECTED BY OWNER FROM MFR'S FULL RANGE OF COLORS). PROVIDE (40) YEAR MATERIAL WARRANTY & (20) YEAR WORKMANSHIP WARRANTY
 - PROVIDE STANDARD SHEET METAL FLASHING & TRIM AT PERIMETER WITH DRIP-EDGE
- TYPICAL EXTERIOR WALL CONSTRUCTION:**
- 5/8" T&G TEXTURE 1-1 PLYWOOD (PRE-FINISHED, LIGHT GRAY) BY GEORGIA-PACIFIC WOOD PRODUCTS LLC, OR EQUAL (APA RATED, SOUTHERN PINE OR DOUGLAS FIR, TEXTURE PATTERN SPACED AT 8" O.C.)
 - 2X6 WOOD STUDS @ 16" O.C. (#2 GRADE)
 - PROVIDE PREFORMED, Z-SHAPED, STAINLESS STEEL FLASHING AT HORIZONTAL JOINTS BETWEEN SIDING PANELS (OVERLAP MIN. 4")
 - PROVIDE FLEXIBLE FLASHING MEMBRANE (DUPONT FLEXWRAP NF, OR EQUAL)
- BID ALTERNATE:**
PROVIDE THE FOLLOWING IN LIEU OF TEXTURE 1-1 PLYWOOD:
- CLAPBOARD STYLE VINYL SIDING SYSTEM WITH 4 1/2" REVEAL (RESTORATION CLASSIC DOUBLE BY CERTAINTEED, OR EQUAL) COLOR SELECTED BY OWNER FROM MFR'S FULL RANGE.
 - BUILDING WRAP (DUPONT TYVEK COMMERCIAL WRAP OR EQUAL) WATER-RESISTIVE BARRIER
 - 1/2" T&G EXTERIOR GRADE PLYWOOD SHEATHING



PARTITION TYPES
SCALE: 1-1/2" = 1'-0"
4 A103



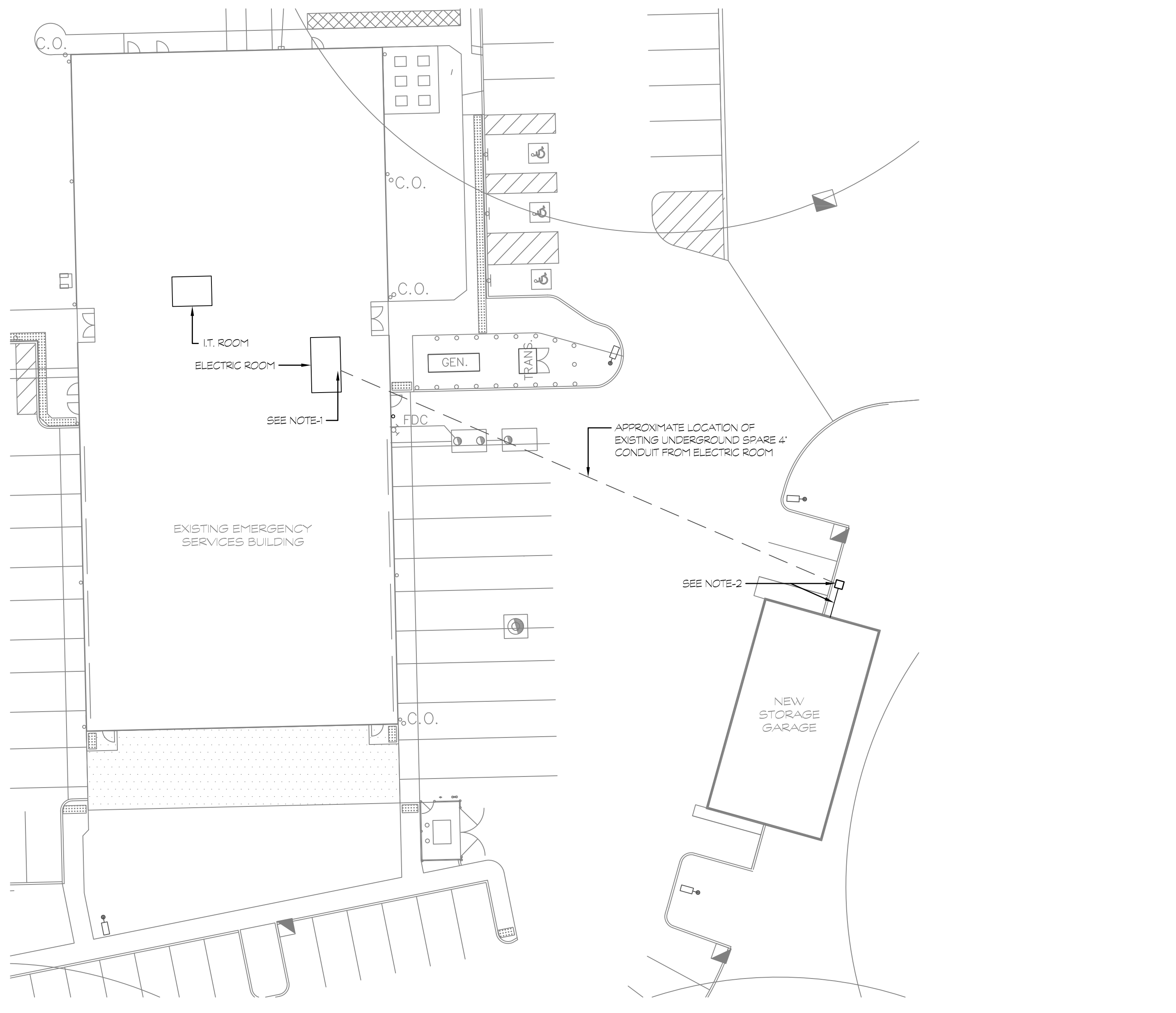
BITUMINOUS PAVEMENT DETAIL (TYP)
SCALE: 1/2" = 1'-0"
3 A103



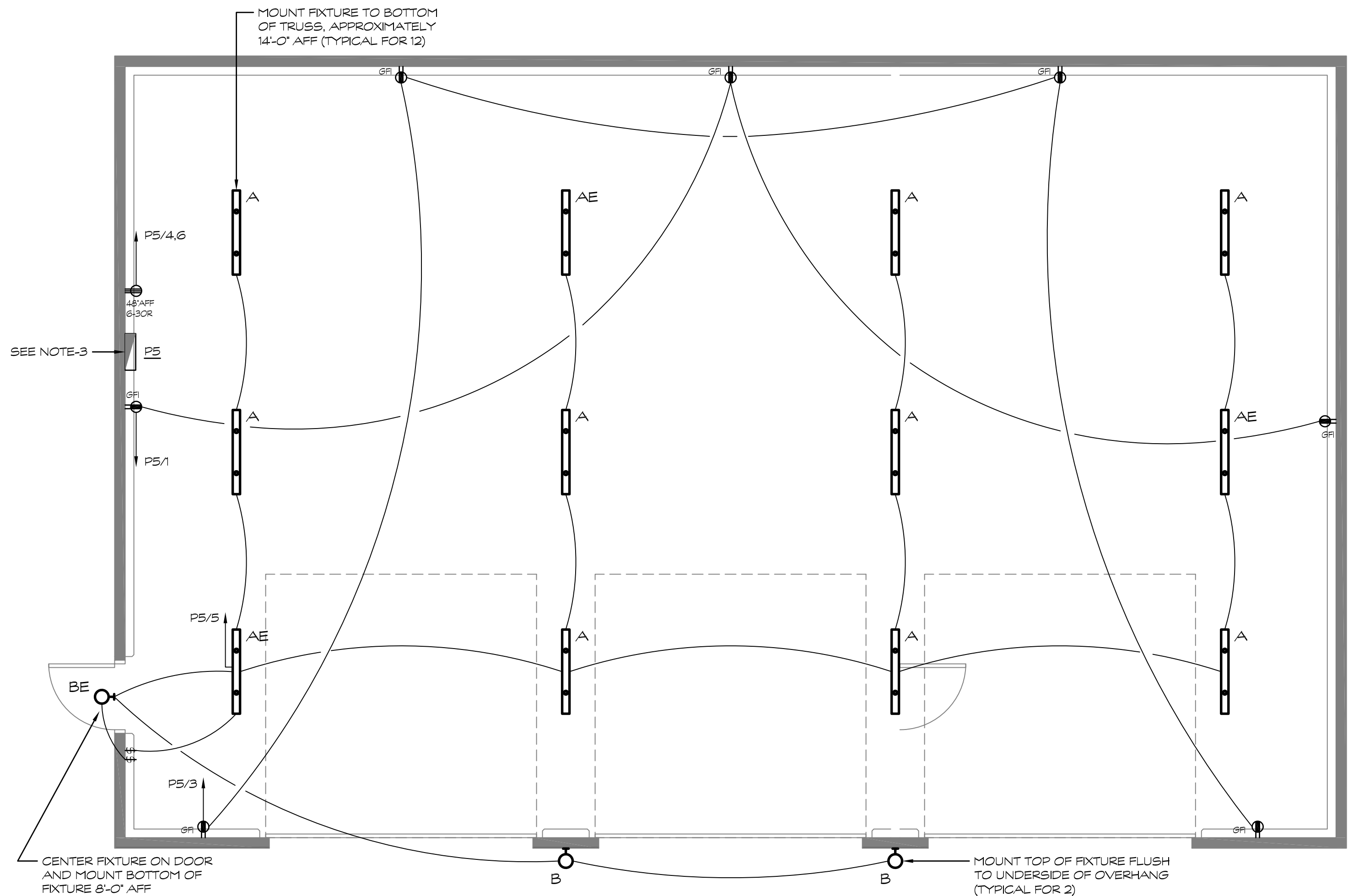
WALL SECTION (TYP)
SCALE: 1" = 1'-0"
2 A103



Revision	Description	Date	Revised By



1 ELECTRICAL SITE PLAN
E101 SCALE: 1" = 20'-0"



2 ELECTRICAL FLOOR PLAN
E101 SCALE: 1/4" = 1'-0"

ELECTRICAL LEGEND	
(NOT ALL SYMBOLS ARE USED)	
	ELECTRICAL PANEL, 120/208 VOLT
	PANELBOARD FLUSH MOUNTED
	PANELBOARD SURFACE MOUNTED
	WALL MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
	CEILING MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
	TYPICAL PENDANT/SURFACE MOUNTED LED FIXTURE, LETTER INDICATES FIXTURE TYPE
	WALL MOUNTED FIXTURE, LETTER INDICATES FIXTURE TYPE
	SINGLE POLE SWITCH, MOUNT AT 48" AFF
	2-SPEED FAN CONTROL SWITCH (FURNISHED BY HVAC CONTRACTOR, INSTALLED & WIRED BY E.C.)
	DUPLEX RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
	GROUND FAULT INTERRUPTING DUPLEX RECEPTACLE, MOUNTED AT 48" AFF UNLESS OTHERWISE SPECIFIED
	QUAD RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
	SPECIAL OUTLET CONFIGURATION, SEE NEMA #
	BRANCH CIRCUIT HOMERUN (VOLTAGE, BRANCH CIRCUIT POLES)

ABBREVIATIONS	
A	AMPERES
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
C/B	CIRCUIT BREAKER
QCT	CIRCUIT
DA	DIAMETER
EC	ELECTRICAL CONTRACTOR
EX	EXISTING TO REMAIN
REM	EXISTING TO BE REMOVED
JB	JUNCTION BOX
MB	MAIN BREAKER
MLO	MAIN LUG ONLY
M/D	MOUNTED
OHD	OVER HEAD DOOR
PNL	PANELBOARD
RELOC	RELOCATE/RELOCATED AT THE SAME HEIGHT (PER NEC REQUIREMENTS)
U.O.N	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF

- ### DRAWING NOTES
- CONTRACTOR SHALL FURNISH AND INSTALL A NEW 100A-3P CIRCUIT BREAKER AND ALL NECESSARY MOUNTING HARDWARE IN EXISTING PANEL, MDP TO SERVE NEW STORAGE GARAGE. CONTRACTOR SHALL FURNISH AND INSTALL A FEEDER (4 #3 + #8G + 1/2") FROM MDP TO NEW PANEL, PS IN STORAGE GARAGE.
 - CONTRACTOR SHALL FURNISH AND INSTALL A NEW HAND-HOLE (MINIMUM 30"x30"x24") APPROXIMATELY IN THIS LOCATION, AND EXTEND THE EXISTING SPARE 4' UNDERGROUND CONDUIT (LEFT FROM THE BASE BUILDING PROJECT) UP INTO THE NEW HAND-HOLE. CONTRACTOR SHALL THEN INSTALL A NEW EMPTY 1/2" CONDUIT FROM THE HAND-HOLE OVER TO THE STORAGE GARAGE TO WHERE THE ELECTRICAL PANEL IS TO BE INSTALLED AND TERMINATE IN BOTTOM OF PANEL, PS.
 - CONTRACTOR SHALL FURNISH AND INSTALL A NEW 100A-3P-4W-120/208V-30 POLE PANEL WITH 100 AMP MAIN BREAKER AND 22KVA RATED BUS (BY EXACT TO MATCH MAIN BUILDING). PANEL SHALL BE INSTALLED WITH (2) 20A-1P, (1) 30A-2P CIRCUIT BREAKERS AND (8) SPACES). CONTRACTOR SHALL MOUNT PANEL TO PLYWOOD BACKBOARD PAINTED BLACK. ALSO, CONTRACTOR SHALL INSTALL A DUPLEX RECEPTACLE (8P) SIX INCHES BELOW PANEL AS PART OF BASE BID (PS1). CONTRACTOR SHALL ALSO INSTALL AN INDEPENDENT SERVICE GROUND (MINIMUM #8 GROUND TO TWO (2) 10 FOOT GROUND RODS) AND AN INTERSYSTEM GROUNDING TERMINATION BLOCK ADJACENT TO THE PANEL PER NEC 250.94.

- ### BID ALTERNATES
- REFER TO BID ALTERNATE NOTES ON DRAWING A001 FOR MORE INFORMATION.
- #1: ALL LIGHT FIXTURES, SWITCHES, RECEPTACLES AND ASSOCIATED WIRING INDICATED SHALL BE PRICED SEPARATELY AS PART OF BID ALTERNATE.

- ### LIGHT FIXTURE NOTES
- ALL ELECTRONIC DRIVERS SHALL HAVE A MINIMUM TOTAL HARMONIC DISTORTION OF BETWEEN TEN & FIFTEEN PERCENT (10-15%).
 - COLOR OF ALL LAMPS SHALL BE 4000K UNLESS OTHERWISE NOTED.
 - FURNISH ALL ADDITIONAL MATERIALS AND ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION TO BE FULLY OPERATIONAL.
 - FURNISH WITH EMERGENCY BATTERY FOR MINIMUM 90 MINUTE EMERGENCY LIGHTING OPERATION THAT MEETS CODE REQUIRED MINIMUM LIGHT LEVELS.

- ### GENERAL NOTES / SPECIFICATIONS
- GENERAL**
- WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
- WIRING & RACEWAY**
- THE DRAWINGS SHOW THE GENERAL LAYOUT AND TYPICAL DETAILS. PROVIDE COMPLETE SYSTEMS. DRAWINGS ARE BASED ON THE SPECIFIED EQUIPMENT RACEWAY LAYOUTS, BOXES, AND WIRING OF THE SYSTEMS ARE SUBJECT TO APPROVED SHOP DRAWINGS.
 - ENSURE THAT ITEMS TO BE FINISHED FIT THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHARES OF EQUIPMENT THAT FINAL INSTALLATION SHALL SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
 - LOCATIONS OF OUTLETS, SWITCHES, APPLIANCES, ETC. AS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS AND DETAILS, AND WITH JOB CONDITIONS. INSTALL SWITCHES WITH OFF POSITION DOWN. INSTALL RECEPTACLES WITH GROUNDING POLE IN THE UP POSITION FOR VERTICAL MOUNTING AND AT RIGHT FOR HORIZONTAL MOUNTING.
 - LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, PANELBOARDS, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.
- RACEWAY INSTALLATION**
- IN ALL ARCHITECTURALLY FINISHED SPACES, CONDUITS AND CABLES SHALL BE RUN CONCEALED IN PLUMB OR FURRED CEILING, SLABS, MASONRY, AND PARTITIONS UNLESS OTHERWISE INDICATED. SAW CUTTING AND FINISHED PATCHING SHALL BE REQUIRED IN EXISTING SLABS AND MASONRY WALLS. IN UNFINISHED SPACES, RACEWAYS MAY BE RUN EXPOSED.
 - UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.
 - PROVIDE SEPARATE RACEWAYS, JUNCTION BOXES, PULL BOXES AND WIREWAYS FOR ALL EMERGENCY SYSTEM WIRING.
- WIRING INSTALLATION**
- DO NOT USE WIRE SMALLER THAN NO. 12 AWG FOR ANY POWER OR LIGHTING CIRCUIT. USE LARGER SIZES WHERE INDICATED, AS REQUIRED BY CODES, AND AS FOLLOWS:
- | LENGTH | CIRCUIT WIRE SIZE | HOME RUN WIRE SIZE | CONDUIT SIZE (8 WIRES/CONDUIT) |
|------------|-------------------|--------------------|--------------------------------|
| 0 TO 50 | #12 | #12 | 3/4" |
| 51 TO 200 | #12 | #12 | 3/4" |
| 101 TO 200 | #10 | #10 | 7" |
- GREATER THAN 200' - REQUEST DIRECTION FROM ARCHITECT.
- NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.
- ALL WIRING SHALL BE IN CONDUIT, AND ALL WIRE SHALL BE COPPER (TYPE THHN).
 - DO NOT USE WIRE SMALLER THAN NO. 14 AWG FOR CONTROL CIRCUITS UNLESS OTHERWISE RECOMMENDED BY THE EQUIPMENT OR SYSTEM MANUFACTURER ON WIRING SHOP DRAWINGS, AND SO APPROVED BY THE ARCHITECT.
 - WHERE GREATER THAN THREE (3) CURRENT-CARRYING CONDUCTORS ARE INSTALLED IN ANY ONE CONDUIT OR CABLE, CONDUCTORS MUST BE DERATED AND SIZES INCREASED, IF NEEDED, TO ACCOMMODATE CONDUCTOR DERATING AS REQUIRED BY NEC ARTICLE 310.
 - CONDUCTORS SHALL BE COMPLETELY INSTALLED AND CONNECTED. PROVIDE ALL TERMINALS, LUGS, AND CONNECTORS TO SUIT THE APPLICATION, AND IN COMPLIANCE WITH EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.
 - UNDER NO CIRCUMSTANCES SHALL ANY SWITCH OR CIRCUIT BREAKER BREAK A NEUTRAL CONDUCTOR.
 - THE CIRCUIT NUMBERS INDICATED ON THE DRAWINGS ARE INTENDED AS A GUIDE FOR PROPER CONNECTION OF CIRCUITS AT PANELS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE FINAL CIRCUITING WORK FULFILLS THE FOLLOWING CONDITIONS:
 - LOADS ON PANEL BUSES SHALL BE PHASE-BALANCED AS EVENLY AS POSSIBLE.
- GROUNDING INSTALLATION**
- EQUIPMENT GROUNDING
 - INSTALL AN INSULATED GROUND CONDUCTOR, RUN IN THE RACEWAY WITH THE PHASE CONDUCTORS, FOR EACH FEEDER SERVING PANELBOARDS, LIGHTING DIMMER BOARDS, MOTOR CONTROL CENTERS, MOTORS, EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED.
 - INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL CONDUIT RUNS CONTAINING SECTIONS OF FLEXIBLE CONDUIT UNLESS OTHERWISE NOTED.
 - INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL BRANCH CIRCUIT RACEWAYS OR CABLES UNLESS OTHERWISE NOTED.
- LIGHTING AND POWER PANELS**
- LIGHTING AND POWER PANELS SHALL BE WALL-MOUNTED, 208Y/120 VOLTS, 3 PHASE AS INDICATED WITH NEUTRAL AND GROUND BUSES. ALL MAIN BUS BARS AND BRANCH CONNECTORS SHALL BE COPPER, SIZED IN ACCORDANCE WITH UL STANDARDS. PANELS SHALL UTILIZE BOLT-ON CIRCUIT BREAKERS ONLY AND SHALL BE FURNISHED DOOR-IN-DOOR COVER.
- WIRING DEVICES**
- WIRING DEVICES WILL BE PREMIUM SPECIFICATION GRADE MANUFACTURED BY LEVITON, HUBBELL, OR GE.
- RECEPTACLES SHALL BE NEMA 5-20R, TWO-POLE, THREE-WIRE GROUNDING TYPE, WITH MOLDED NYLON BODY AND FACE, PREMIUM SPECIFICATION GRADE, RATED 20 AMPS AT 125 VOLTS. RECEPTACLES SHALL COME WITH A 10 YEAR LIMITED WARRANTY FROM THE MANUFACTURER. ISOLATED GROUND RECEPTACLES SHALL HAVE INTEGRAL SURGE PROTECTION WITH AUDIBLE INDICATOR ALARM. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES SHALL BE 20 AMP, 125 VOLT DUPLEX WITH FEED-THROUGH AND TRIP INDICATOR, HUBBELL OR LEVITON.
- MAINTAINED CONTACT SWITCHES SHALL BE 20A, RATED 125 VAC, QUIET TYPE, SINGLE POLE, THREE OR FOUR WAY.
- DEVICE COLOR, WIRING DEVICE CATALOG NUMBERS IN SECTION TEXT DO NOT DESIGNATE DEVICE COLOR.
- WIRING DEVICES CONNECTED TO NORMAL POWER SYSTEM: WHITE UNLESS OTHERWISE INDICATED OR REQUIRED BY SECTION TO OR DEVICE LISTING.
 - WIRING DEVICES CONNECTED TO EMERGENCY POWER SYSTEM: RED.
 - TVS DEVICES: BLUE.
 - ISOLATED-GROUND RECEPTACLES: ORANGE.
- COVERPLATES SHALL BE SATIN-FINISHED STAINLESS STEEL OR AS SELECTED BY ARCHITECT.
- RECEPTACLES (IDENTIFY PANELBOARD AND CIRCUIT NUMBER FROM WHICH SERVED). USE PRESS ON LABEL, BLACK LETTERING ON WHITE BACKGROUND ON FACE OF PLATE AND IN EASILY REACHABLE LOCATION INSIDE DEVICE BACKBOX AND DURABLE WIRE MARKERS OR TAPS ON CONDUCTORS INSIDE OUTLET BOXES.
- OUTLET BOXES**
- PROVIDE GALVANIZED PRESSED STEEL OUTLET BOXES OF PROPER SIZE AND TYPE AS REQUIRED BY THE BUILDING CONDITIONS TO SERVE ALL INTERIOR OUTLETS FOR MOTOR CIRCUITS, LIGHTING, SWITCHES, RECEPTACLES, SIGNALS, AND THE LIKE.
- MECHANICAL EQUIPMENT WIRING**
- UNLESS OTHERWISE INDICATED OR SPECIFIED HEREIN, ALL MOTORS, MOTOR STARTERS, MOTOR CONTROLLERS, VARIABLE SPEED/FREQUENCY DRIVES, AND ASSOCIATED CONTROL DEVICES ARE FURNISHED UNDER OTHER DIVISIONS AND INSTALLED UNDER THIS DIVISION. COORDINATE INSTALLATION AND LOCATIONS WITH OTHER DIVISION CONTRACTORS.
 - POWER WIRING FROM THE INDICATED SOURCE TO THE STARTER/CONTROLLER/DRIVE UNIT, AND FROM THE STARTER/CONTROLLER/DRIVE UNIT TO THE MOTOR, INCLUDING ANY LOCAL DISCONNECT SWITCHES PROVIDED AND INSTALLED BY THIS DIVISION, AND ALL ASSOCIATED LUGS, TERMINALS, AND CONNECTIONS, IS THE WORK OF THIS DIVISION.
 - CONTROL CIRCUIT WIRING IS GENERALLY FURNISHED AND INSTALLED UNDER OTHER DIVISIONS EXCEPT THAT ANY SUCH WIRING SHOWN ON ELECTRICAL DRAWINGS IS WORK OF THIS DIVISION.
 - PROVIDE 120 VOLT POWER TO ALL TEMPERATURE CONTROL PANELS (TCPs) SUPPLIED AND INSTALLED BY DIVISION 33. USE EMERGENCY POWER SOURCES WHEN AVAILABLE. COORDINATE ALL POWER REQUIREMENTS AND PANEL LOCATIONS WITH DIVISION 23 TEMPERATURE CONTROLS CONTRACTOR.
 - COORDINATE AND COORDINATE WITH THE OTHER TRADES IN THE INSTALLATION, CONNECTION, AND TESTING OF MECHANICAL EQUIPMENT. PERFORM WORK OF THIS SECTION IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS' INSTRUCTIONS.
- AS-BUILT DRAWINGS**
- PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEER'S COMMENTS TO PRODUCE A CLEAR AND CONGRUENT SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD) VERSION AS REQUIRED BY THE OWNER. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.
 - PROVIDE 'AS-BUILT DRAWINGS' INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:
 - INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP.
 - DRAWINGS OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.
 - EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.
 - APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.
 - SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THE CONTRACT.

- ### GENERAL NOTES / SPECIFICATIONS
- GENERAL**
- WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
- WIRING & RACEWAY**
- THE DRAWINGS SHOW THE GENERAL LAYOUT AND TYPICAL DETAILS. PROVIDE COMPLETE SYSTEMS. DRAWINGS ARE BASED ON THE SPECIFIED EQUIPMENT RACEWAY LAYOUTS, BOXES, AND WIRING OF THE SYSTEMS ARE SUBJECT TO APPROVED SHOP DRAWINGS.
 - ENSURE THAT ITEMS TO BE FINISHED FIT THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHARES OF EQUIPMENT THAT FINAL INSTALLATION SHALL SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
 - LOCATIONS OF OUTLETS, SWITCHES, APPLIANCES, ETC. AS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS AND DETAILS, AND WITH JOB CONDITIONS. INSTALL SWITCHES WITH OFF POSITION DOWN. INSTALL RECEPTACLES WITH GROUNDING POLE IN THE UP POSITION FOR VERTICAL MOUNTING AND AT RIGHT FOR HORIZONTAL MOUNTING.
 - LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, PANELBOARDS, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.
- RACEWAY INSTALLATION**
- IN ALL ARCHITECTURALLY FINISHED SPACES, CONDUITS AND CABLES SHALL BE RUN CONCEALED IN PLUMB OR FURRED CEILING, SLABS, MASONRY, AND PARTITIONS UNLESS OTHERWISE INDICATED. SAW CUTTING AND FINISHED PATCHING SHALL BE REQUIRED IN EXISTING SLABS AND MASONRY WALLS. IN UNFINISHED SPACES, RACEWAYS MAY BE RUN EXPOSED.
 - UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.
 - PROVIDE SEPARATE RACEWAYS, JUNCTION BOXES, PULL BOXES AND WIREWAYS FOR ALL EMERGENCY SYSTEM WIRING.
- WIRING INSTALLATION**
- DO NOT USE WIRE SMALLER THAN NO. 12 AWG FOR ANY POWER OR LIGHTING CIRCUIT. USE LARGER SIZES WHERE INDICATED, AS REQUIRED BY CODES, AND AS FOLLOWS:
- | LENGTH | CIRCUIT WIRE SIZE | HOME RUN WIRE SIZE | CONDUIT SIZE (8 WIRES/CONDUIT) |
|------------|-------------------|--------------------|--------------------------------|
| 0 TO 50 | #12 | #12 | 3/4" |
| 51 TO 200 | #12 | #12 | 3/4" |
| 101 TO 200 | #10 | #10 | 7" |
- GREATER THAN 200' - REQUEST DIRECTION FROM ARCHITECT.
- NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.
- ALL WIRING SHALL BE IN CONDUIT, AND ALL WIRE SHALL BE COPPER (TYPE THHN).
 - DO NOT USE WIRE SMALLER THAN NO. 14 AWG FOR CONTROL CIRCUITS UNLESS OTHERWISE RECOMMENDED BY THE EQUIPMENT OR SYSTEM MANUFACTURER ON WIRING SHOP DRAWINGS, AND SO APPROVED BY THE ARCHITECT.
 - WHERE GREATER THAN THREE (3) CURRENT-CARRYING CONDUCTORS ARE INSTALLED IN ANY ONE CONDUIT OR CABLE, CONDUCTORS MUST BE DERATED AND SIZES INCREASED, IF NEEDED, TO ACCOMMODATE CONDUCTOR DERATING AS REQUIRED BY NEC ARTICLE 310.
 - CONDUCTORS SHALL BE COMPLETELY INSTALLED AND CONNECTED. PROVIDE ALL TERMINALS, LUGS, AND CONNECTORS TO SUIT THE APPLICATION, AND IN COMPLIANCE WITH EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.
 - UNDER NO CIRCUMSTANCES SHALL ANY SWITCH OR CIRCUIT BREAKER BREAK A NEUTRAL CONDUCTOR.
 - THE CIRCUIT NUMBERS INDICATED ON THE DRAWINGS ARE INTENDED AS A GUIDE FOR PROPER CONNECTION OF CIRCUITS AT PANELS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE FINAL CIRCUITING WORK FULFILLS THE FOLLOWING CONDITIONS:
 - LOADS ON PANEL BUSES SHALL BE PHASE-BALANCED AS EVENLY AS POSSIBLE.
- GROUNDING INSTALLATION**
- EQUIPMENT GROUNDING
 - INSTALL AN INSULATED GROUND CONDUCTOR, RUN IN THE RACEWAY WITH THE PHASE CONDUCTORS, FOR EACH FEEDER SERVING PANELBOARDS, LIGHTING DIMMER BOARDS, MOTOR CONTROL CENTERS, MOTORS, EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED.
 - INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL CONDUIT RUNS CONTAINING SECTIONS OF FLEXIBLE CONDUIT UNLESS OTHERWISE NOTED.
 - INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL BRANCH CIRCUIT RACEWAYS OR CABLES UNLESS OTHERWISE NOTED.

- ### GENERAL NOTES / SPECIFICATIONS
- LIGHTING AND POWER PANELS**
- LIGHTING AND POWER PANELS SHALL BE WALL-MOUNTED, 208Y/120 VOLTS, 3 PHASE AS INDICATED WITH NEUTRAL AND GROUND BUSES. ALL MAIN BUS BARS AND BRANCH CONNECTORS SHALL BE COPPER, SIZED IN ACCORDANCE WITH UL STANDARDS. PANELS SHALL UTILIZE BOLT-ON CIRCUIT BREAKERS ONLY AND SHALL BE FURNISHED DOOR-IN-DOOR COVER.
- WIRING DEVICES**
- WIRING DEVICES WILL BE PREMIUM SPECIFICATION GRADE MANUFACTURED BY LEVITON, HUBBELL, OR GE.
- RECEPTACLES SHALL BE NEMA 5-20R, TWO-POLE, THREE-WIRE GROUNDING TYPE, WITH MOLDED NYLON BODY AND FACE, PREMIUM SPECIFICATION GRADE, RATED 20 AMPS AT 125 VOLTS. RECEPTACLES SHALL COME WITH A 10 YEAR LIMITED WARRANTY FROM THE MANUFACTURER. ISOLATED GROUND RECEPTACLES SHALL HAVE INTEGRAL SURGE PROTECTION WITH AUDIBLE INDICATOR ALARM. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES SHALL BE 20 AMP, 125 VOLT DUPLEX WITH FEED-THROUGH AND TRIP INDICATOR, HUBBELL OR LEVITON.
- MAINTAINED CONTACT SWITCHES SHALL BE 20A, RATED 125 VAC, QUIET TYPE, SINGLE POLE, THREE OR FOUR WAY.
- DEVICE COLOR, WIRING DEVICE CATALOG NUMBERS IN SECTION TEXT DO NOT DESIGNATE DEVICE COLOR.
- WIRING DEVICES CONNECTED TO NORMAL POWER SYSTEM: WHITE UNLESS OTHERWISE INDICATED OR REQUIRED BY SECTION TO OR DEVICE LISTING.
 - WIRING DEVICES CONNECTED TO EMERGENCY POWER SYSTEM: RED.
 - TVS DEVICES: BLUE.
 - ISOLATED-GROUND RECEPTACLES: ORANGE.
- COVERPLATES SHALL BE SATIN-FINISHED STAINLESS STEEL OR AS SELECTED BY ARCHITECT.
- RECEPTACLES (IDENTIFY PANELBOARD AND CIRCUIT NUMBER FROM WHICH SERVED). USE PRESS ON LABEL, BLACK LETTERING ON WHITE BACKGROUND ON FACE OF PLATE AND IN EASILY REACHABLE LOCATION INSIDE DEVICE BACKBOX AND DURABLE WIRE MARKERS OR TAPS ON CONDUCTORS INSIDE OUTLET BOXES.
- OUTLET BOXES**
- PROVIDE GALVANIZED PRESSED STEEL OUTLET BOXES OF PROPER SIZE AND TYPE AS REQUIRED BY THE BUILDING CONDITIONS TO SERVE ALL INTERIOR OUTLETS FOR MOTOR CIRCUITS, LIGHTING, SWITCHES, RECEPTACLES, SIGNALS, AND THE LIKE.
- MECHANICAL EQUIPMENT WIRING**
- UNLESS OTHERWISE INDICATED OR SPECIFIED HEREIN, ALL MOTORS, MOTOR STARTERS, MOTOR CONTROLLERS, VARIABLE SPEED/FREQUENCY DRIVES, AND ASSOCIATED CONTROL DEVICES ARE FURNISHED UNDER OTHER DIVISIONS AND INSTALLED UNDER THIS DIVISION. COORDINATE INSTALLATION AND LOCATIONS WITH OTHER DIVISION CONTRACTORS.
 - POWER WIRING FROM THE INDICATED SOURCE TO THE STARTER/CONTROLLER/DRIVE UNIT, AND FROM THE STARTER/CONTROLLER/DRIVE UNIT TO THE MOTOR, INCLUDING ANY LOCAL DISCONNECT SWITCHES PROVIDED AND INSTALLED BY THIS DIVISION, AND ALL ASSOCIATED LUGS, TERMINALS, AND CONNECTIONS, IS THE WORK OF THIS DIVISION.
 - CONTROL CIRCUIT WIRING IS GENERALLY FURNISHED AND INSTALLED UNDER OTHER DIVISIONS EXCEPT THAT ANY SUCH WIRING SHOWN ON ELECTRICAL DRAWINGS IS WORK OF THIS DIVISION.
 - PROVIDE 120 VOLT POWER TO ALL TEMPERATURE CONTROL PANELS (TCPs) SUPPLIED AND INSTALLED BY DIVISION 33. USE EMERGENCY POWER SOURCES WHEN AVAILABLE. COORDINATE ALL POWER REQUIREMENTS AND PANEL LOCATIONS WITH DIVISION 23 TEMPERATURE CONTROLS CONTRACTOR.
 - COORDINATE AND COORDINATE WITH THE OTHER TRADES IN THE INSTALLATION, CONNECTION, AND TESTING OF MECHANICAL EQUIPMENT. PERFORM WORK OF THIS SECTION IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS' INSTRUCTIONS.
- AS-BUILT DRAWINGS**
- PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEER'S COMMENTS TO PRODUCE A CLEAR AND CONGRUENT SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD) VERSION AS REQUIRED BY THE OWNER. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.
 - PROVIDE 'AS-BUILT DRAWINGS' INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:
 - INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP.
 - DRAWINGS OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.
 - EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.
 - APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.
 - SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THE CONTRACT.

LIGHTING FIXTURE SCHEDULE									
DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP		ELECTRICAL			NOTES	
			TYPE	COLOR TEMP	NO.	DRIVER	VOLTAGE		WATTS
A	SURFACE/PENDANT MTD LOW-PROFILE GASKETED INDUSTRIAL LED LIGHT FIXTURE W/LOW PROFILE FROSTED ACRYLIC LENS & WHITE FINISH (8,000 LUMEN PACKAGE)	LITHONIA LIGHTING FEM-148-6000LM-LPAPL-D-120-62C-40X-80CR	LED	4000K		ELECTRONIC	120	48	
AE	SAME AS TYPE 'A' EXCEPT WITH EMERGENCY BATTERY	LITHONIA LIGHTING FEM-148-6000LM-LPAPL-D-120-62C-40X-80CR-EBWCP	LED	4000K		ELECTRONIC	120	48	ⓐ
B	SURFACE MTD FULL CUTOFF LED WALL SCIENCE LIGHT FIXTURE WITH FROSTED ACRYLIC LENS AND WHITE FINISH (1,800 LUMEN PACKAGE)	LITHONIA LIGHTING WST LED P140X V120 PE DWHND	LED	4000K		ELECTRONIC	120	11	
BE	SAME AS TYPE 'B' EXCEPT WITH EMERGENCY BATTERY	LITHONIA LIGHTING WST LED P140X V120 PE DWHND ETVNC	LED	4000K		ELECTRONIC	120	11	ⓐ