

PROJECT DRAWINGS

BUILDING-03 ADDITION & ALTERATIONS

EVESHAM TOWNSHIP PUBLIC WORKS

100 SHARP ROAD
MARLTON, NEW JERSEY 08053
BURLINGTON COUNTY

LOTS 5 & 5.03 / BLOCK 14



APPLICABLE LIST OF CODES:

REHABILITATION SUBCODES

The following subcodes as adopted by the New Jersey Uniform Construction Code (NJAC 5:23 et seq.), shall apply to this Project.

SUBCODE	NATIONAL MODEL CODE	UCC REFERENCE
Rehabilitation	Rehabilitation Subcode	NJAC 5:23-6
Building	International Building Code NJ Ed/2015	NJAC 5:23-3.14
Plumbing	National Standard Plumbing Code/2015	NJAC 5:23-3.15
Electrical	National Electrical Code (NFPA 70)/2014	NJAC 5:23-3.16
Energy	ASHRAE 90.1-2013 (Comm) International Energy Conservation Code/2015 (Res)	NJAC 5:23-3.18
Mechanical	International Mechanical Code/2015	NJAC 5:23-3.20
Fuel Gas	International Fuel Gas Code/2015	NJAC 5:23-3.22
Barrier-Free	Barrier-Free Subcode & ICC/ANSI A117.1-2009	Chapter 11 of IBC/2015 & NJAC 5:23-7
Residential	International Residential Code NJ Ed/2015	NJAC 5:23-3.21
Elevator	American Society of Mechanical Engineers (ASME)	NJAC 5:23-12

LIST OF DRAWINGS

All Contractors shall examine all drawings indicated herein for required coordination between different trades and/or for work included in other sections of the Project Manual that may pertain to their respective contract.

- CS COVER SHEET
- CA CODE ANALYSIS & CONSTRUCTION NOTES
- C1 SITE PLAN
- C2 SECTIONS & DETAILS
- C3 SOIL EROSION & SEDIMENT CONTROL PLAN
- C4 SOIL EROSION & SEDIMENT CONTROL DETAILS
- A1.1 FLOOR PLANS & DETAILS
- A2.1 ELEVATIONS & WALL SECTION
- A3.1 WALL SECTIONS
- A4.1 OWNER PROVIDED EQUIPMENT PLAN
- S1 STRUCTURAL GENERAL NOTES
- S2 FOUNDATION PLAN
- S3 FOUNDATION DETAILS
- PD-1 FLOOR & MEZZANINE PLANS - PLUMBING DEMOLITION
- P-1 UNDERSLAB PLAN - PLUMBING
- P-2 FLOOR & MEZZANINE PLANS - PLUMBING
- P-3 SCHEDULES, SYMBOLS & DETAILS - PLUMBING
- P-4 RISER DIAGRAM - PLUMBING
- P-5 SPECIFICATIONS & DETAILS - PLUMBING
- FP-1 FLOOR & MEZZANINE PLANS - FIRE PROTECTION
- FP-2 SYMBOLS, SCHEDULES & DETAILS - FIRE PROTECTION
- FP-3 SPECIFICATIONS - FIRE SUPPRESSION
- H-1 FLOOR & MEZZANINE PLANS - HVAC
- H-2 SYMBOLS, ABBREVIATIONS, SCHEDULES & NOTES - HVAC
- H-3 DETAILS & SPECIFICATIONS - HVAC
- H-4 SPECIFICATIONS (CONTINUED) - HVAC
- ED-1 FLOOR & MEZZANINE PLANS - ELECTRICAL DEMOLITION
- E-1 FLOOR & MEZZANINE PLANS - ELECTRICAL
- E2 SINGLE LINE & SCHEDULES - ELECTRICAL
- E-3 SPECIFICATIONS - ELECTRICAL

PRINT DATE: 12/18/19

REGAN YOUNG ENGLAND BUTERA
REFERENDUMS - ENGINEERING - ARCHITECTURE - DESIGN
456 HIGH STREET • MT. HOLLY, NEW JERSEY 08060 USA
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MAINTENANCE BUILDING-03 ADDITION
EVESHAM TOWNSHIP PUBLIC WORKS
100 SHARP ROAD
MARLTON, NEW JERSEY 08053
TITLE: COVER SHEET

DRAWING DATE:

11 DEC 19

REVISION DATE:

DRAWN BY:

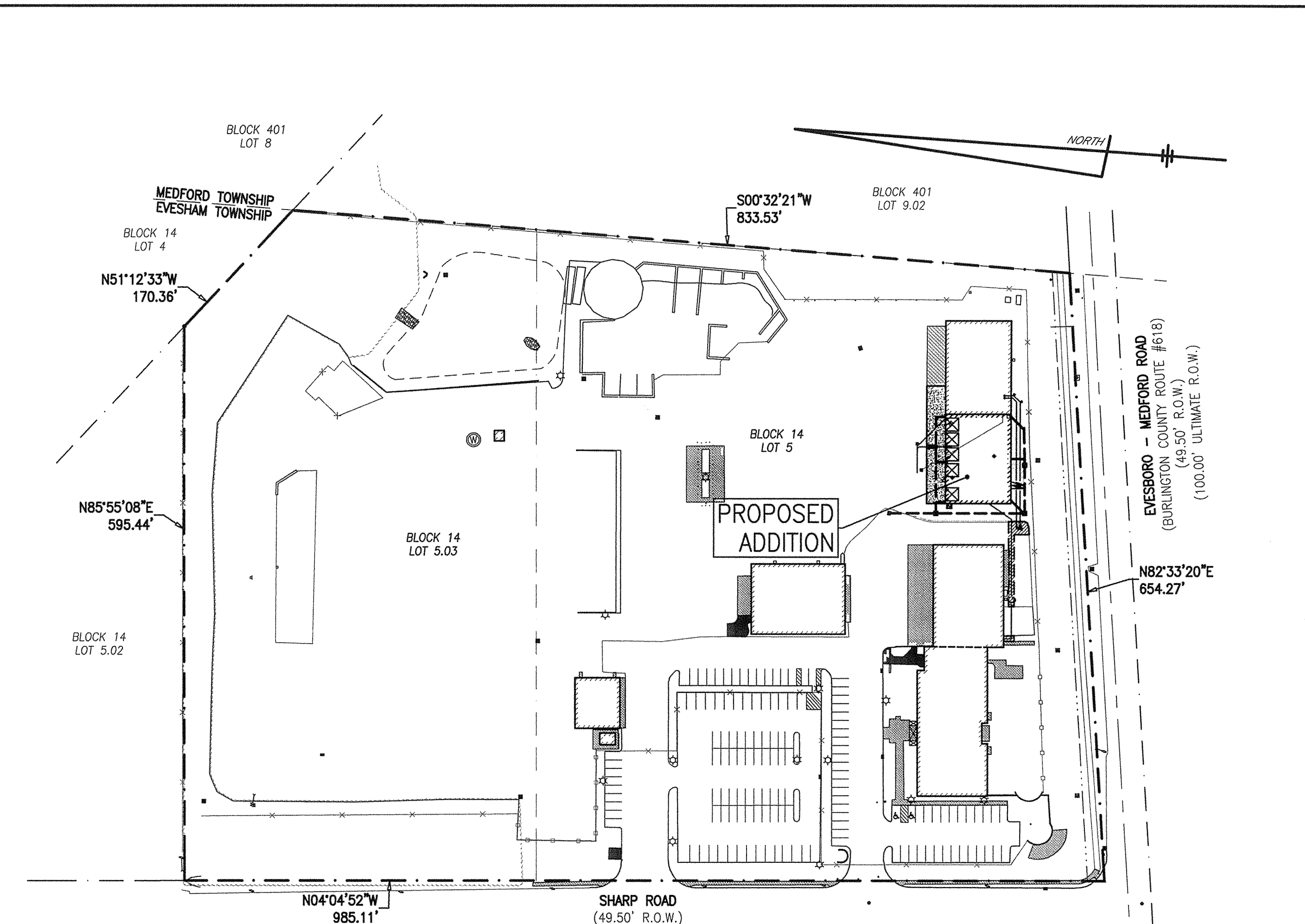
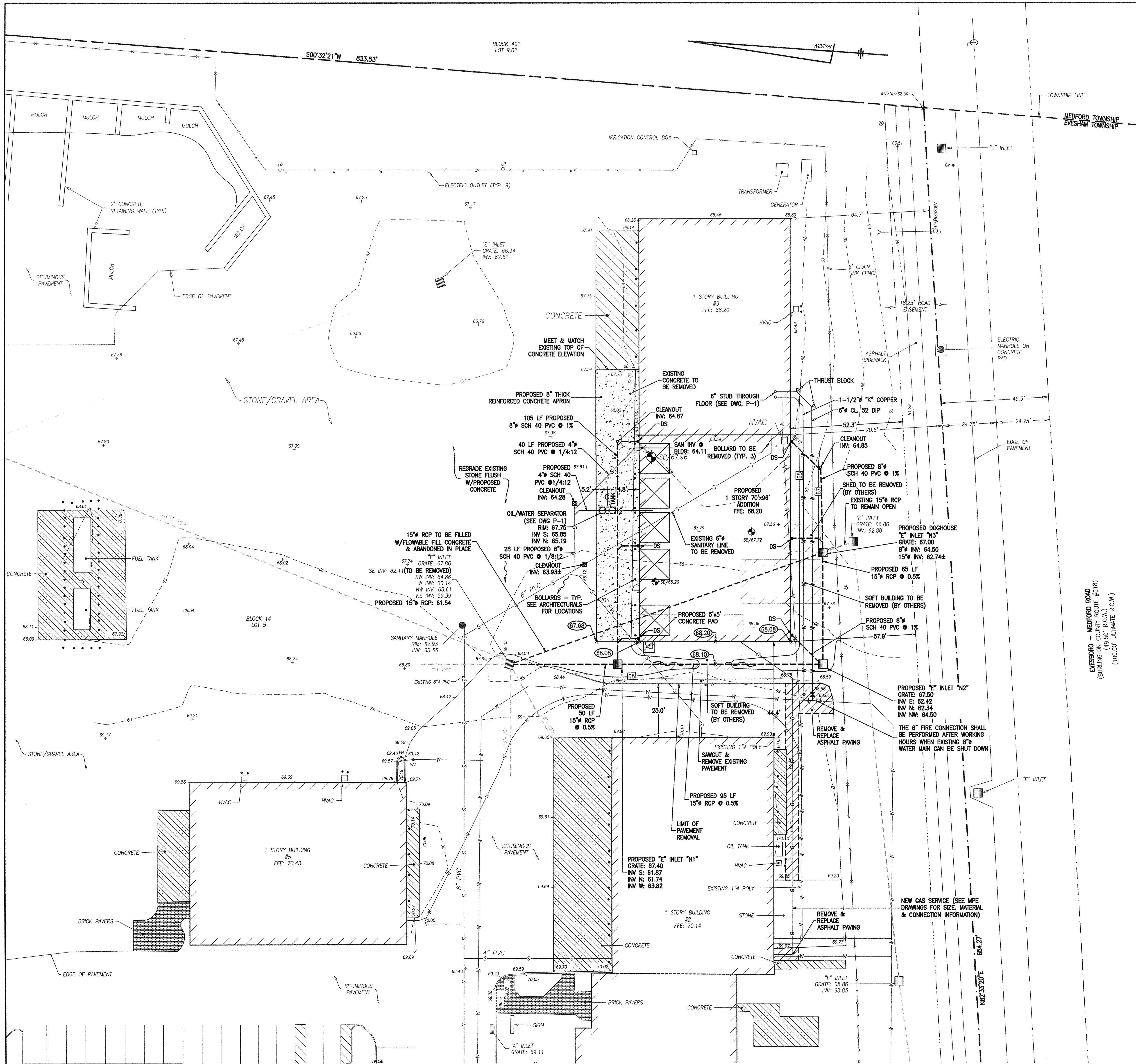
APB

COMMISSION NO.:

5596E

CS

1 OF 1



KEY MAP
SCALE: 1"=100'

- SITE PLAN - CONSTRUCTION NOTES**
- SITE CONSTRUCTION TO BE IN ACCORDANCE WITH NEW JERSEY STATE DEPARTMENT OF TRANSPORTATION STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 (LATEST ADDENDUM). CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UNDERGROUND ELECTRICAL, CONSULT AND VERIFY SAME PRIOR TO STARTING ANY EXCAVATION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE TOWNSHIP, COUNTY AND STATE AND SHALL PAY ALL FEES INCLUDING THE INSPECTION FEES AND IN GENERAL SHALL PRODUCE ALL REQUIRED PERMITS, LICENSES, INSPECTIONS, PAY ALL CHARGES AND FEES AND OBEY ALL ORDINANCES NECESSARY FOR AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE PAVING, TOPSOIL, FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS ACTIVITIES. INSPECTION OF OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS, AND LAW.
 - THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING VEGETATION, SUCH AS TREES, SHRUBS, AND GRASSES OR ADJACENT TO THE SITE, WHICH DO NOT REPRESENT INTEREST WITHIN THE CONSTRUCTION AS MAY BE DETERMINED BY THE DESIGN ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNAUTHORIZED CUTTING OR DAMAGING OF TREES AND SHRUBS, MATERIALS OR TRACKING OF GRASS AREAS BY EQUIPMENT. CARE SHALL BE TAKEN BY THE CONTRACTOR IN FELLING TREES AUTHORIZED FOR REMOVAL TO AVOID ANY UNNECESSARY DAMAGE TO VEGETATION THAT IS TO REMAIN IN PLACE. THE CONTRACTOR SHALL BE LIABLE FOR OR MAY BE REQUIRED TO REPLACE OR RESTORE, AT HIS EXPENSE, ALL VEGETATION NOT PROTECTED AND PRESERVED AS REQUIRED HEREIN THAT MAY BE DESTROYED OR DAMAGED.
 - THE CONTRACTOR SHALL ACKNOWLEDGE PRIOR TO CONSTRUCTION THAT HE HAS SATISFIED HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING ON TRANSPORTATION, HANDLING AND STORAGE OF MATERIALS, THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED DURING THE PROSECUTION OF THE WORK AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT. ANY FAILURE OF THE CONTRACTOR TO ACCURATELY DETERMINE THE AVAILABLE INFORMATION CONCERNING THESE CONDITIONS WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTIES OR COST OF SUCCESSFULLY PERFORMING THE WORK.
 - ALL MATERIALS, METHODS, AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF Evesham Township, Burlington County, AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES PRECEDENCE.
 - ALL CONCRETE FOR SIDEWALKS AND CURBS SHALL BE OF A MIX TO ENSURE A 28 DAY STRENGTH OF 4000 PSI AND HAVE A MINIMUM AIR CONTENT OF 5%.
 - THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ENSURING THAT ALL WORK PERFORMED CONFORMS TO ALL APPLICABLE STATUTES, REGULATIONS, ORDINANCES, AND STANDARDS OF GOVERNMENTAL BODIES HAVING JURISDICTION OVER SUCH WORK. THE RESPONSIBILITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - CONFORMANCE WITH THE APPROVED PLANS AS WELL AS STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP.
 - CORRECTION OF ALL DEFECTS OF THE WORK, NO MATTER WHAT THE CAUSE, UNTIL THE DATE OF THE ACCEPTANCE, AND THEREAFTER, FOR THE PERIOD OF ANY GUARANTEE PERIOD RUNS BEYOND THE DATE OF ACCEPTANCE.
 - RESOLUTION OF ANY PROBLEM UNOBTAINED AT THE TIME OF THE APPROVAL OF THE PLANS, WHICH MAY OR DO IMPAIR THE INTEGRITY OF ANY IMPROVEMENTS, INCLUDING PROBLEMS SUCH AS HIGH GROUND WATER, UNDESIRABLE SOIL, ETC.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PUBLIC SAFETY AND SECURING THE SITE AT ALL TIMES.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PUBLIC RIGHTS OF WAY AND ADJACENT PROPERTIES CLEAN AND SAFE FROM EXCESSIVE DUST AND DEBRIS RESULTING FROM DEMOLITION AND/OR CONSTRUCTION.
 - THE LOCATION OF ANY UTILITIES SHOWN ON THE PLANS ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION PRIOR TO BEGINNING EXCAVATION OR COMING CONSTRUCTION AND SHALL BE FULLY RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE VICINITY OF THE PROJECT. GARDEN STATE UNDERGROUND PLANT LOCATION SERVICE WILL PROVIDE FOR ON-SITE DELINEATION OF EXISTING UTILITIES UPON REQUEST (1-800-222-1000).
 - EXISTING MATERIALS DESIGNATED FOR REMOVAL SHALL BE REMOVED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER.
 - EXISTING PAVEMENT DESIGNATED FOR REMOVAL SHALL BE MILLED OUT 5" BELOW THE SURFACE.
 - EXISTING DEPRESSED CURBS AT DRIVEWAY APRONS SHALL HAVE NO MORE THAN 1-1/2" INCH REVEAL AFTER PAVING.
 - EXISTING CURBS SHALL BE LEFT WITH A 4 INCH TO 8 INCH (4"- 1/2" INCH REVEAL UNLESS OTHERWISE DIRECTED BY THE OWNER.
 - MINIMUM GUTTER SLOPE - 0.50 % UNLESS OTHERWISE NOTED.
 - DISTURBED AREAS SHALL BE RESTORED AS SOON AS PRACTICAL.
 - THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE SITE CONDITIONS. THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK PRIOR TO THE RESOLUTION OF ANY DISCREPANCIES.

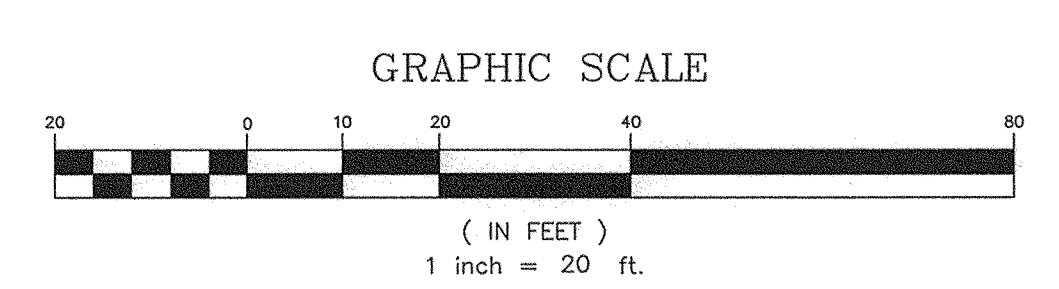
- LEGEND**
- FIRE HYDRANT
 - UTILITY POLE
 - SPOT ELEVATION
 - PROPOSED PAVEMENT ELEVATIONS
 - LIGHT POLE
 - WATER VALVE
 - GAS VALVE
 - INLET
 - MANHOLE
 - CURBING
 - CONCRETE
 - PROPOSED CONCRETE
 - STORM SEWER
 - WATER MARKOUT
 - SANITARY MARKOUT
 - EXISTING CONTOUR
 - PROPOSED CONTOUR

THIS PLAN HAS BEEN PREPARED FOR THE EXPLICIT PURPOSE OF OBTAINING APPROVAL FOR CONSTRUCTION OF A BUILDING ADDITION. USE OF THIS PLAN FOR ANY OTHER PURPOSE WITHOUT PRIOR AUTHORIZATION FROM GUZZI ENGINEERING SHALL BE DONE SO AT THE OWNERS OWN RISK. GUZZI ENGINEERING ASSUMES NO RESPONSIBILITY FOR SUCH USE.

SITE PLAN
SCALE: 1"=20'

- NOTES:**
- OUTBOUND AND EXISTING CONDITIONS SHOWN ARE BASED ON "LIPINSKI LANDSCAPE, BLOCK 14, LOTS 5 & 5.03, EVESHAM TOWNSHIP, BURLINGTON COUNTY, NEW JERSEY" BY EVERLAND, SHOURDS & ASSOCIATES, INC., DATED 08/21/1998, LAST REVISED 12/21/1999.
 - ELEVATIONS SHOWN ARE BASED ON NAVD 88 DATUM, NGS BENCHMARK DISK 3133 (EL. 40.43)(NAVD 88).
 - LOT AREA: 659,327 SF (15.13607 ACRES)

TEST PIT NOTE:
PRIOR TO ORDERING STORM SEWER MATERIAL, THE CONTRACTOR SHALL EXCAVATE IN THE PROPOSED STORM SEWER AREA BETWEEN INLETS "N1" & "N2" TO VERIFY THE LOCATION OF THE 8" DIP, 1" POLY & 4" PVC LATERAL.



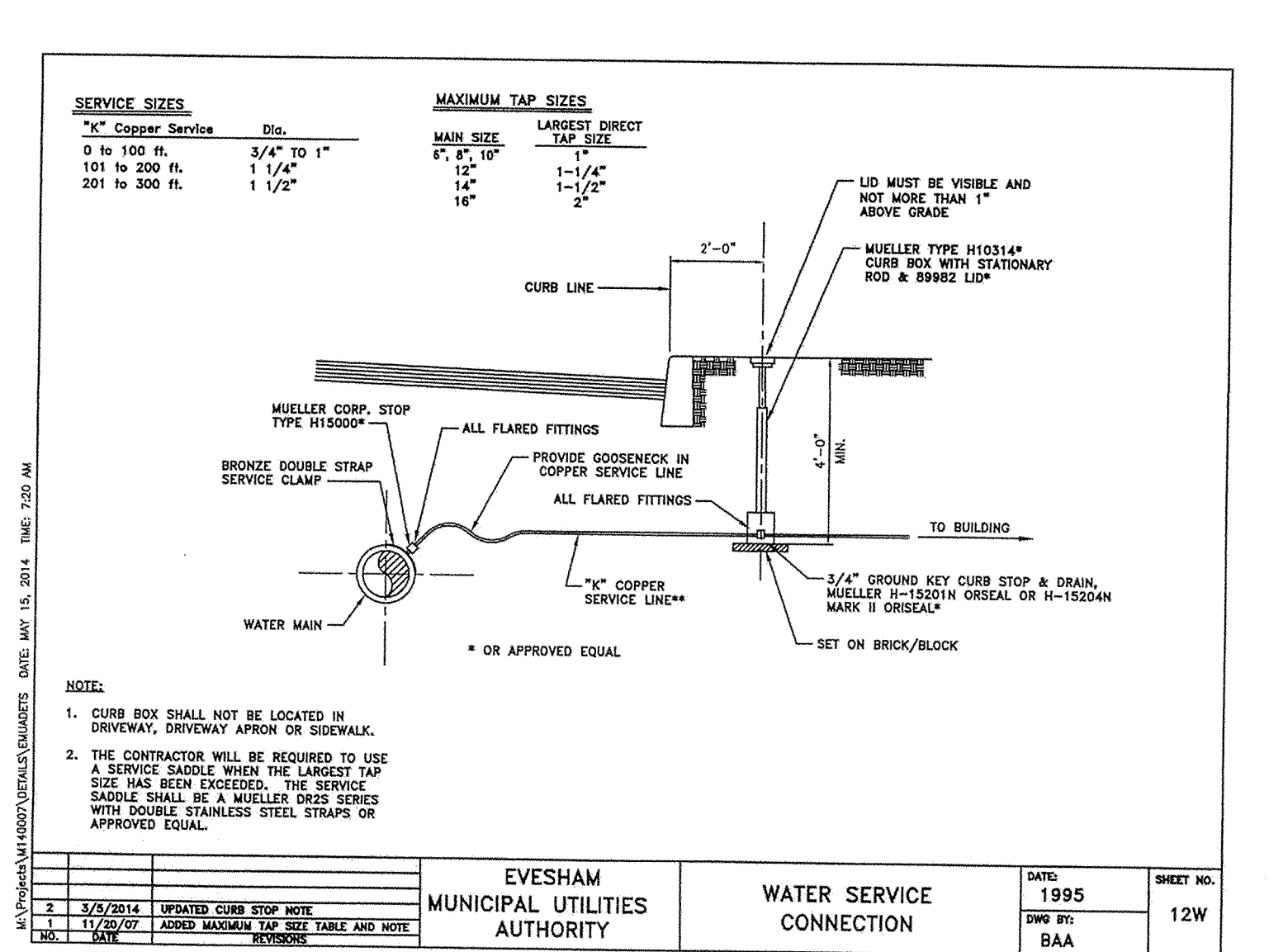
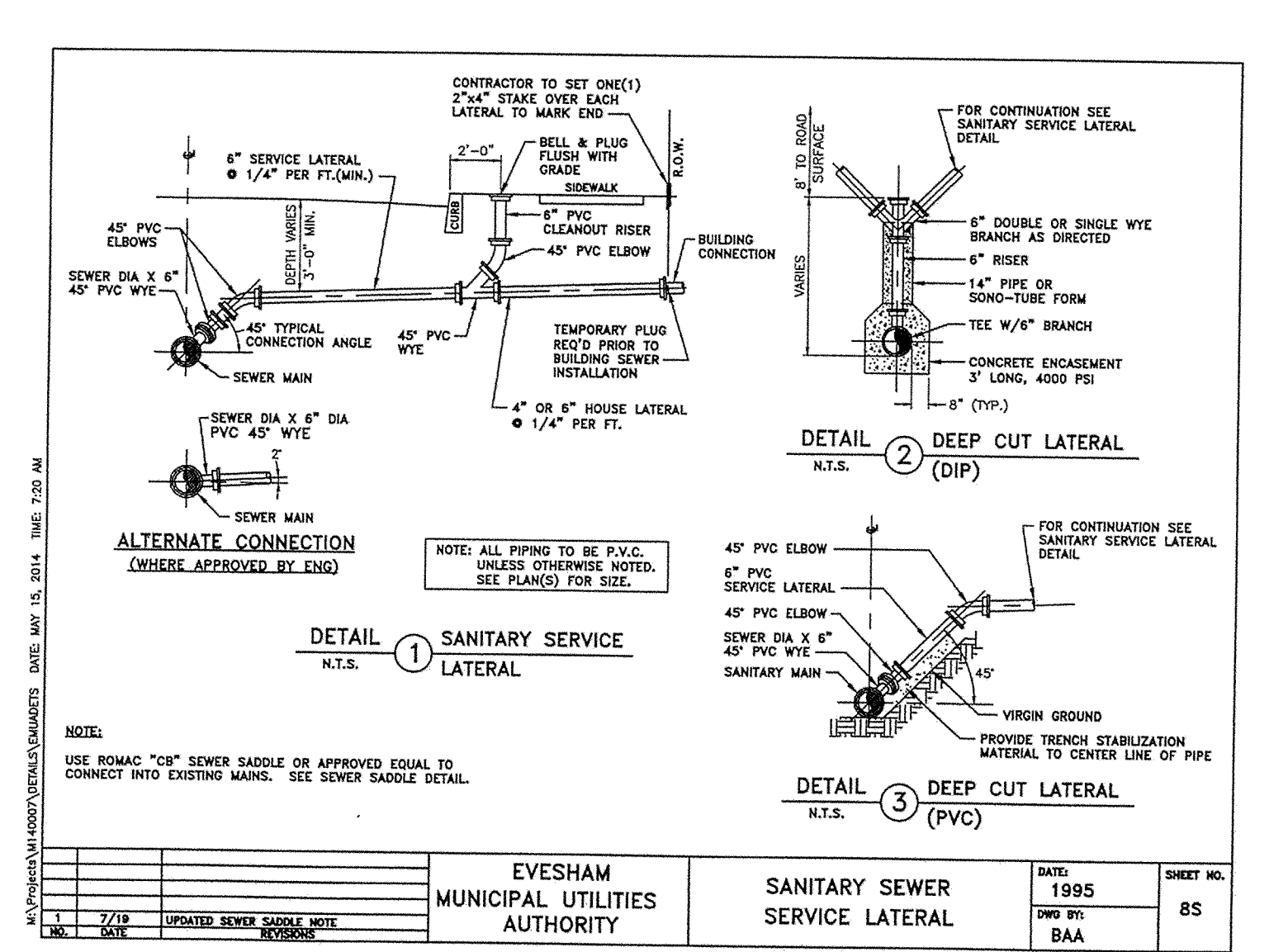
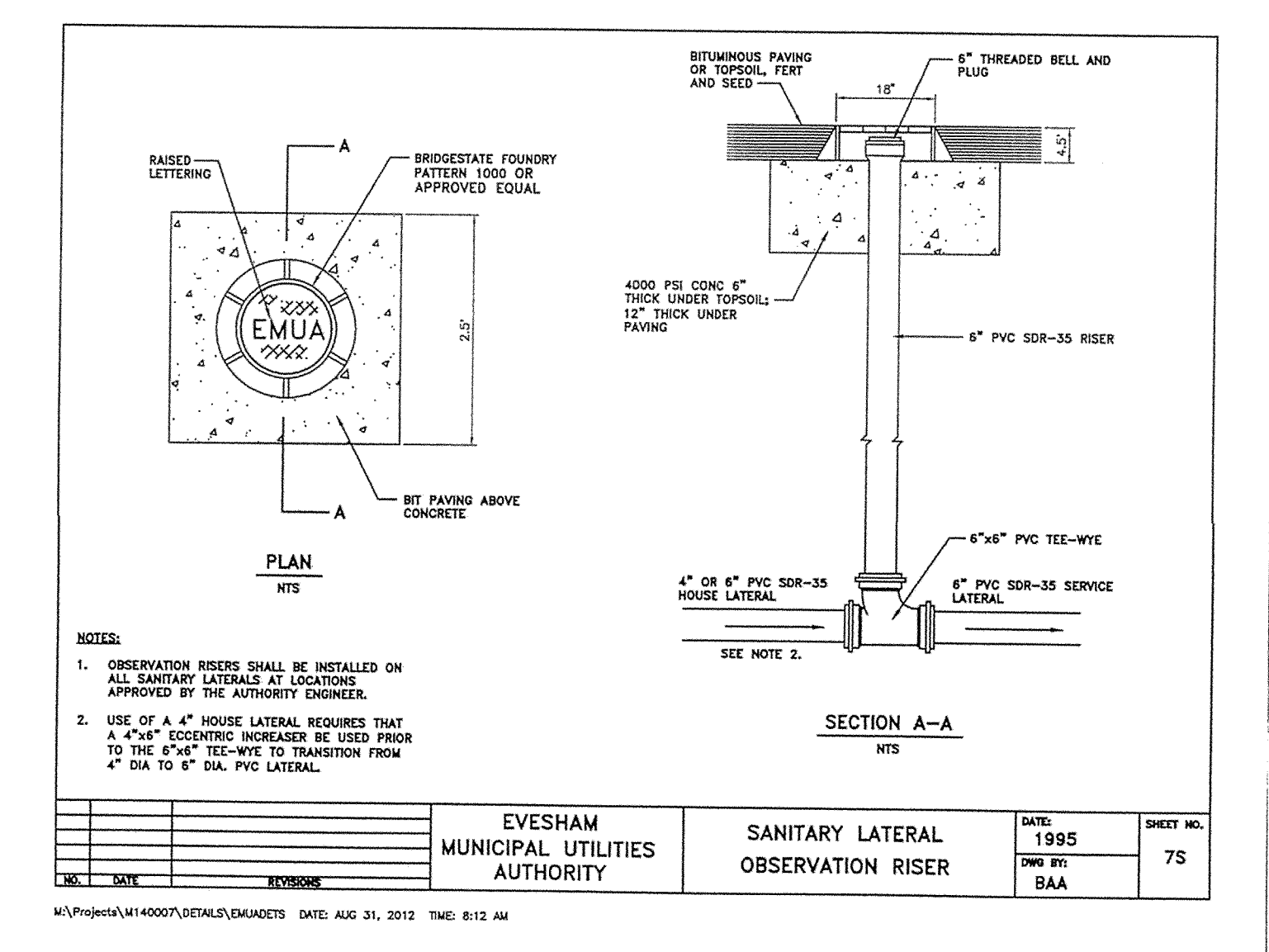
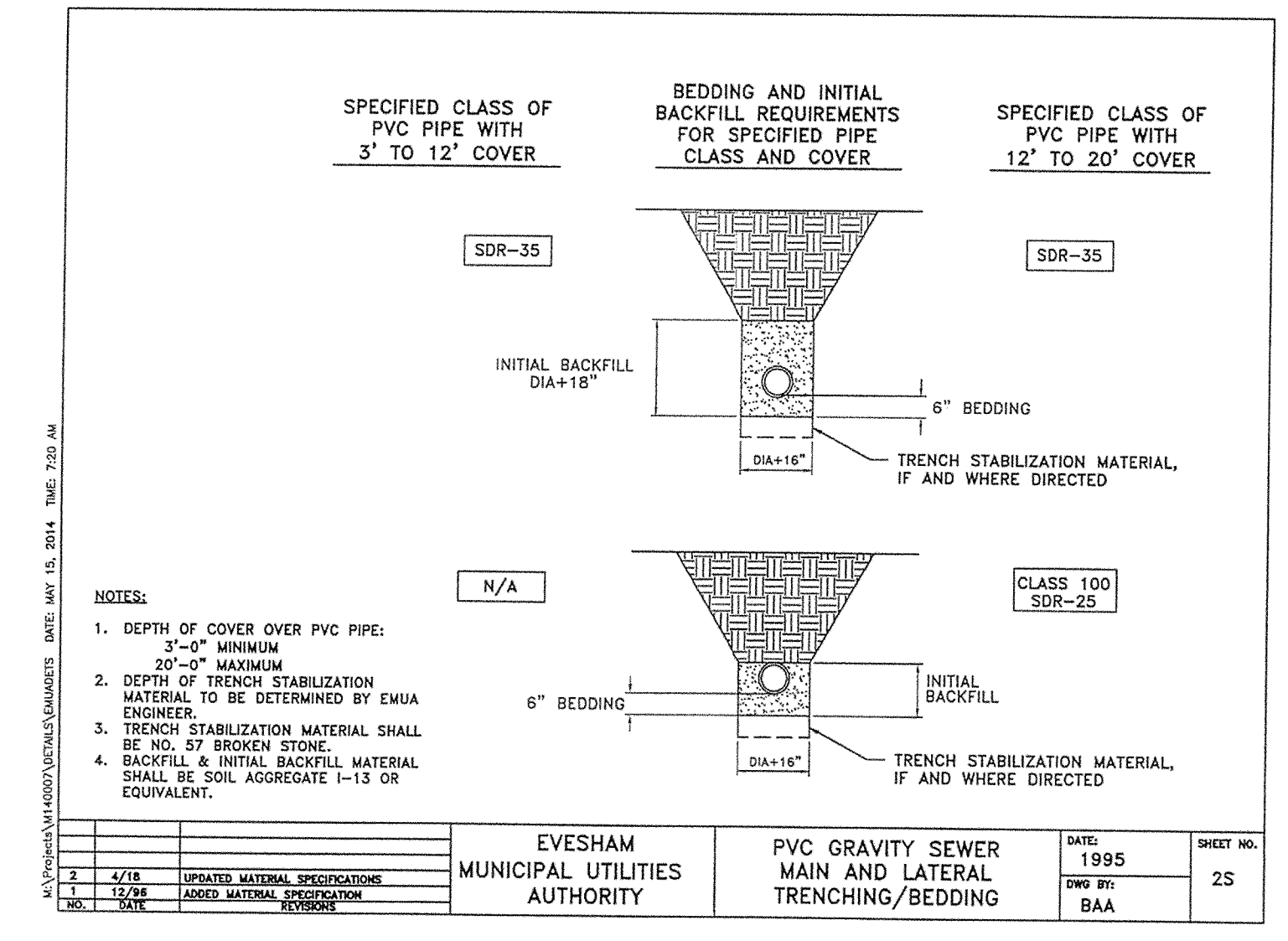
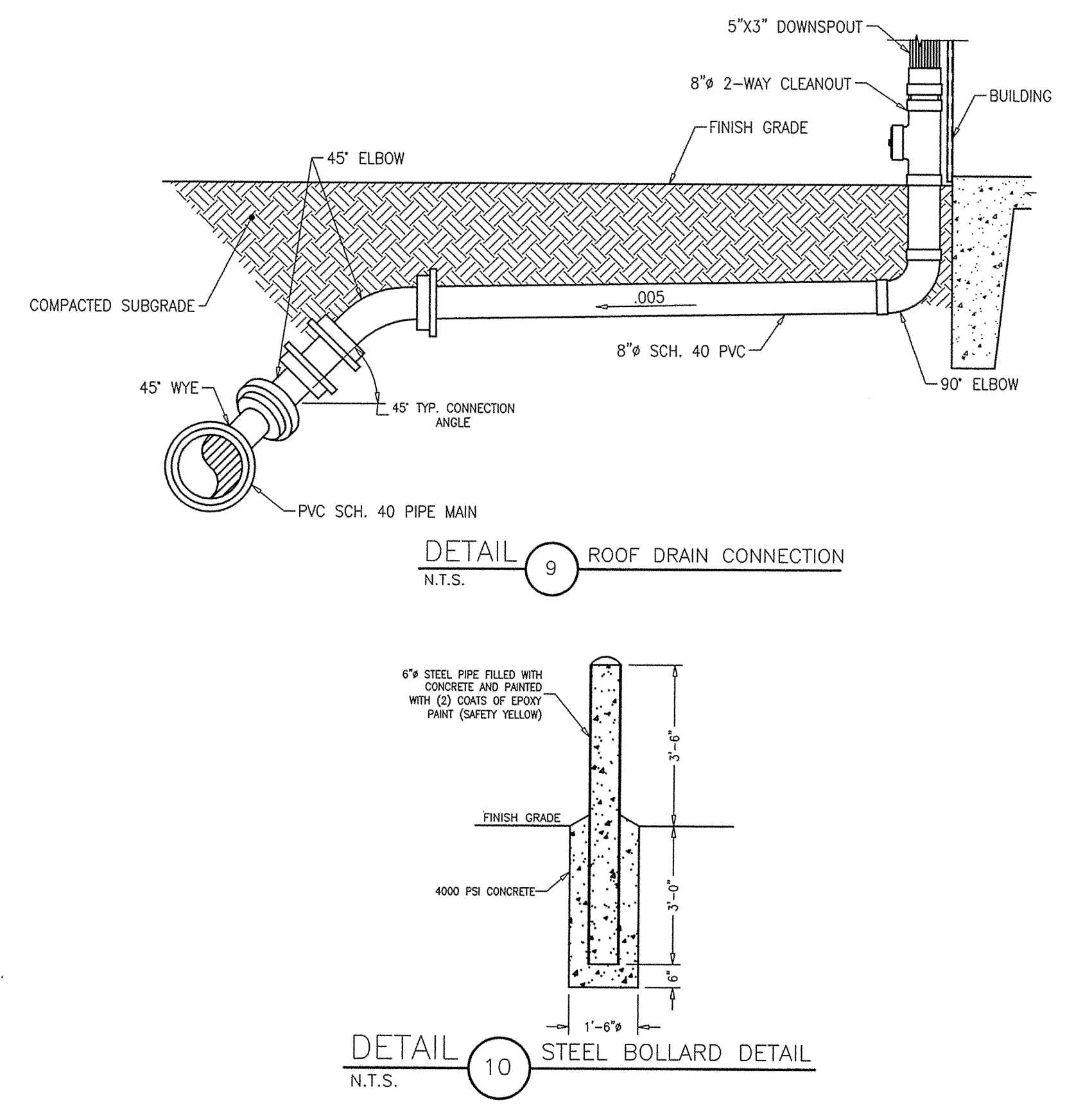
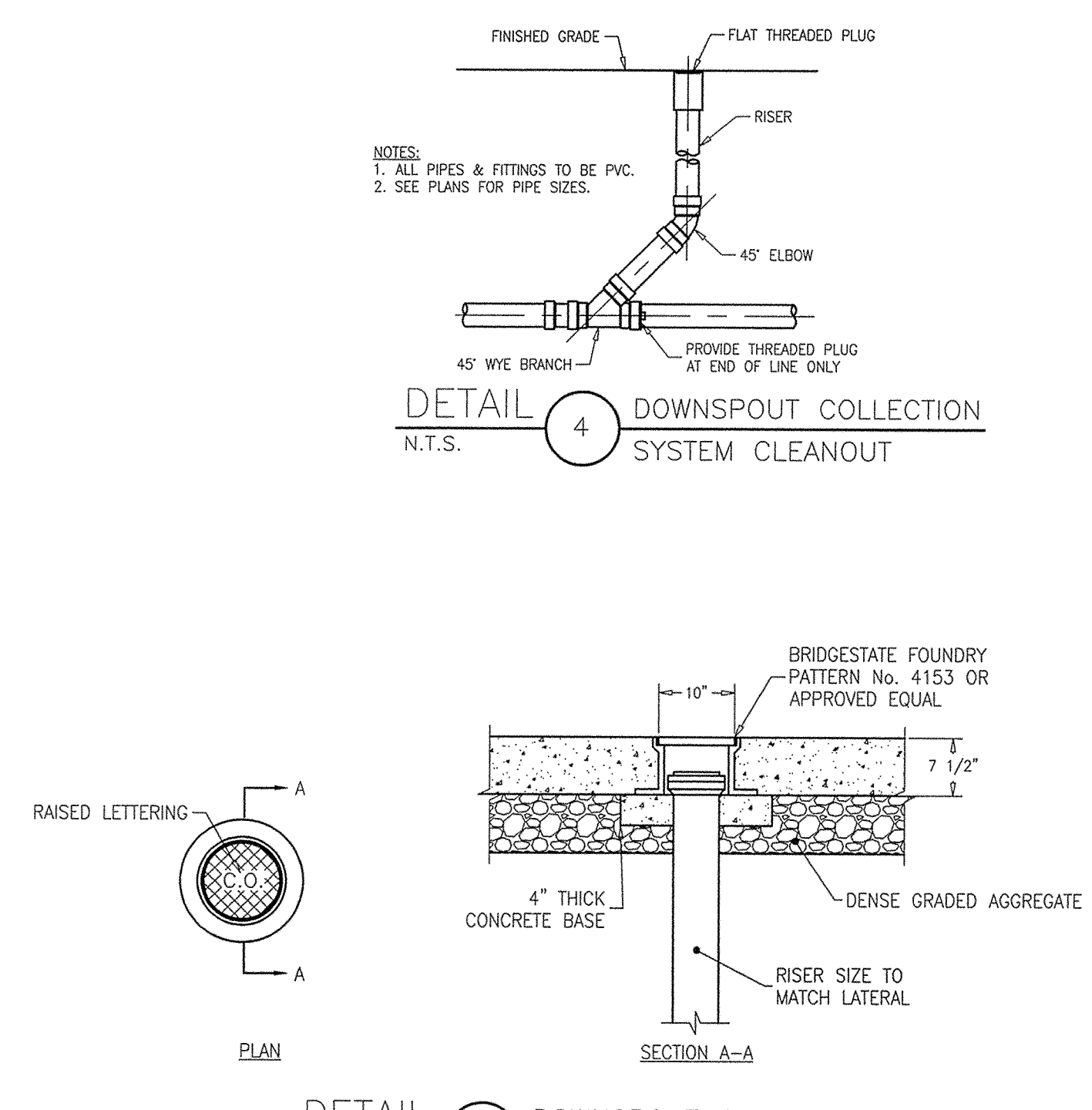
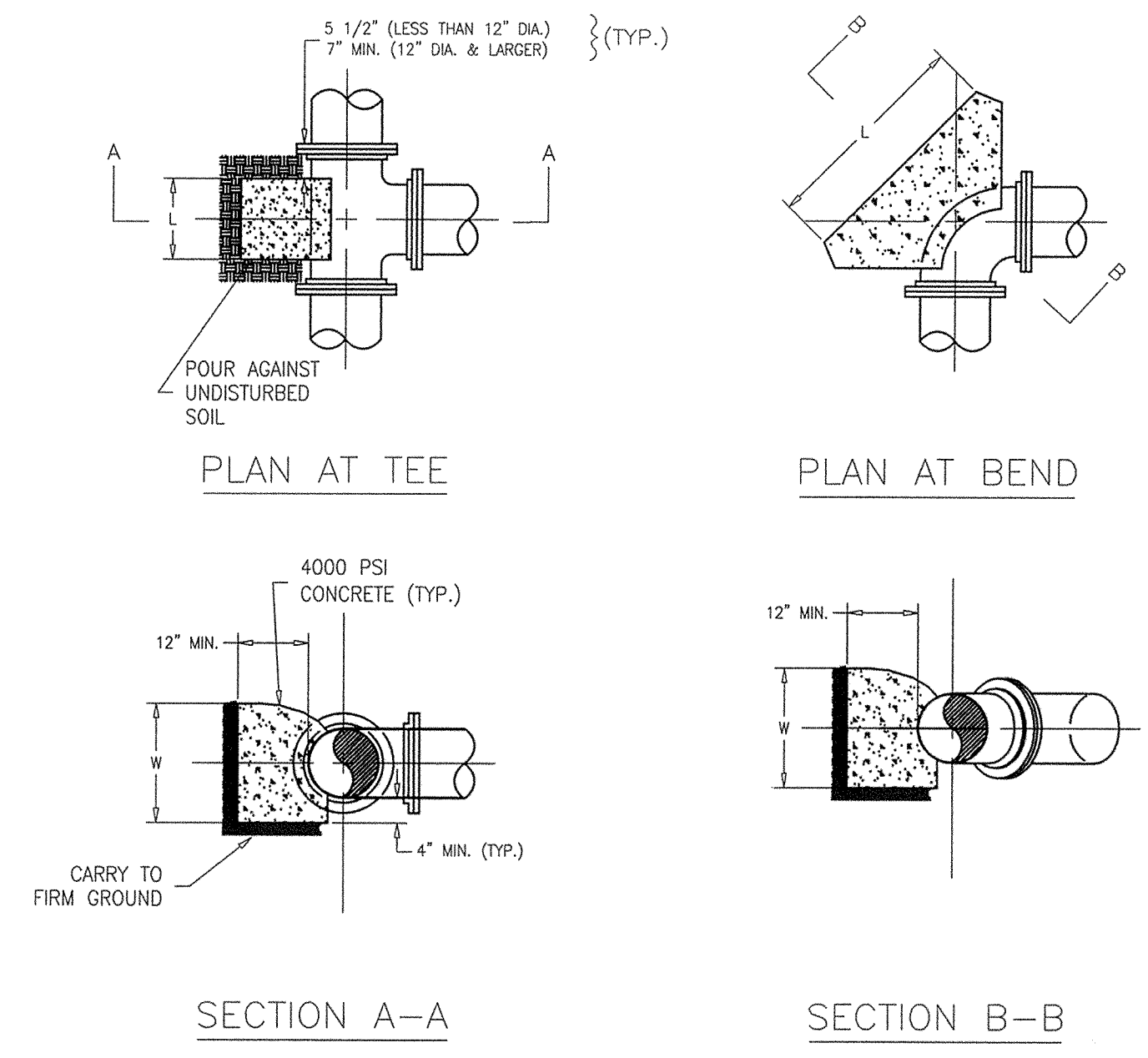
NO.	DATE	APPR.	REVISION

Dante Guzzi Engineering Associates
418 Stokes Road, P.O. Box 1025, Medford, New Jersey 08055
Telephone (609) 654-4440 N.J. Certificate of Authorization No. 346A27997500
Facsimile (609) 654-7792 www.guzziengineering.com

SITE PLAN
100 SHARP ROAD
BLOCK 14, LOTS 5 & 5.03
EVESHAM TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

C1

FILE	100SHARP-SITE	DATE	12/11/2019	CREATED BY	RV
SCALE	AS SHOWN	PROJECT NO.	P-19-156	CHECKED BY	DG
DATE	12/11/2019	SHEET	1	OF	4



PROCEDURE FOR CALCULATING REQUIRED AREA OF THRUST BLOCK

LEGEND:

H = HYDRAULIC HEAD/WATER PRESSURE, FT. T = TOTAL RADIAL THRUST, LBS.
d = DIAMETER OF PIPE, IN. P = SOIL BEARING PRESSURE, PSF
Δ = PIPE BEND, DEGREE A = AREA OF THRUST BLOCK, SQ. FT. (L/W)

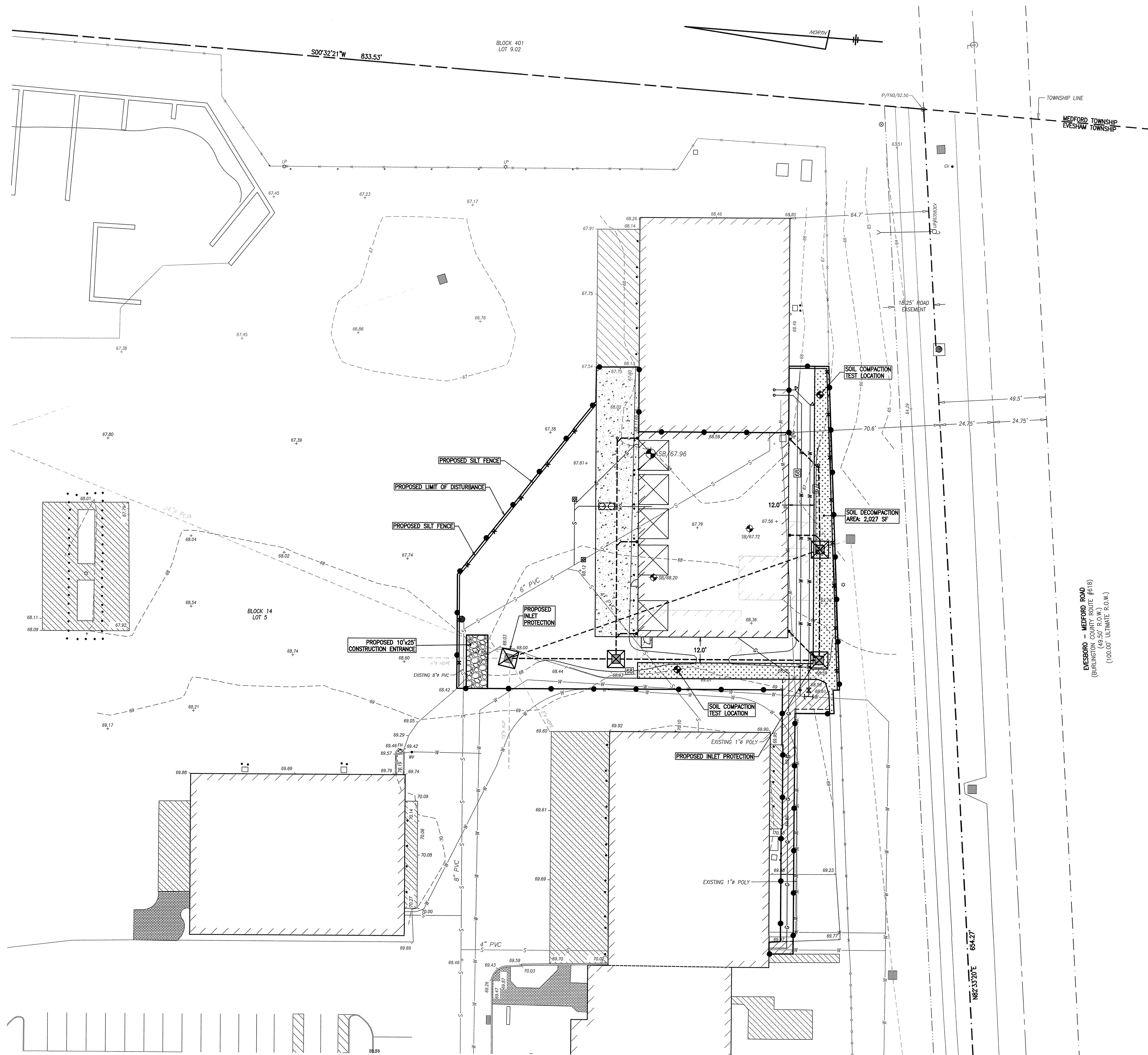
STEP 1: CONSTRUCT LINE FROM "DIAMETER OF PIPE" (d) TO "WATER PRESSURE/HYDRAULIC HEAD (H) TO ESTABLISH POINT ON "TRUCK LINE".

STEP 2: CONSTRUCT LINE FROM "PIPE BEND" (Δ) THROUGH ESTABLISHED POINT ON "TRUCK LINE" TO INTERSECT "TOTAL RADIAL THRUST" (T) LINE.

STEP 3: CONSTRUCT LINE FROM POINT ON "TOTAL RADIAL THRUST" (T) LINE TO KNOWN POINT ON "SOIL BEARING PRESSURE" (P) LINE WHICH DETERMINED REQUIRED "AREA OF THRUST BLOCK" (A).

EXAMPLE: GIVEN (A) 16" DIAMETER PIPE = 45° ELBOW
(B) WATER PRESSURE 60 PSI
(C) SOIL BEARING PRESSURE 2000 PSF
(1) LINE d-H-INDEX POINT
(2) LINE Δ-H-INDEX POINT-T (9000 LBS.)
(3) LINE T-P=Δ

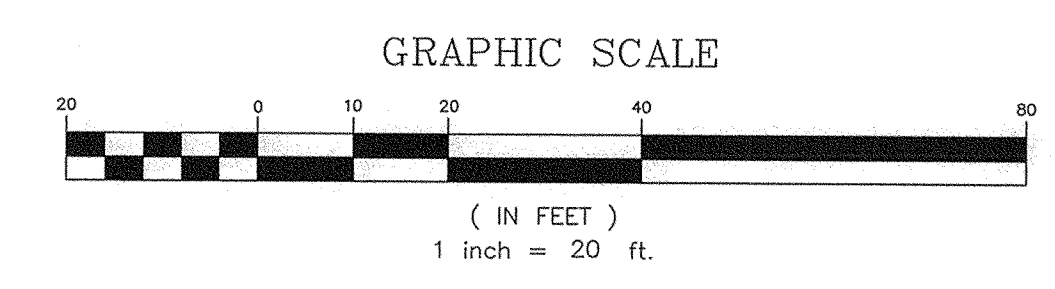
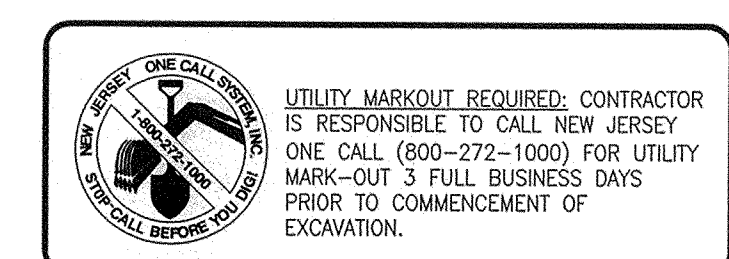
REQUIRED THRUST BLOCK BEARING AREA = 4.5 SF



LIMIT OF DISTURBANCE: 21,694 SF (0.49803 ACRES)
SOIL EROSION & SEDIMENT CONTROL PLAN
 SCALE : 1" = 20'

- LEGEND**
- FIRE HYDRANT
 - UTILITY POLE
 - 43.02 SPOT ELEVATION
 - LP LIGHT POLE
 - WV WATER VALVE
 - GV GAS VALVE
 - INLET
 - MANHOLE
 - CURBING
 - CONCRETE
 - PROPOSED CONCRETE
 - STORM SEWER
 - WATER MARKOUT
 - SANITARY MARKOUT
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED LIMIT OF DISTURBANCE
 - PROPOSED SILT FENCE
 - PROPOSED SILT TRAP

THIS PLAN HAS BEEN PREPARED FOR THE EXPLICIT PURPOSE OF OBTAINING APPROVAL FOR CONSTRUCTION OF A BUILDING. ADDITIONAL USE OF THIS PLAN FOR ANY OTHER PURPOSE WITHOUT PRIOR AUTHORIZATION FROM GUZZI ENGINEERING SHALL BE DONE SO AT THE OWNERS OWN RISK. GUZZI ENGINEERING ASSUMES NO RESPONSIBILITY FOR SUCH USE.



NO.	DATE	APPR.	REVISION

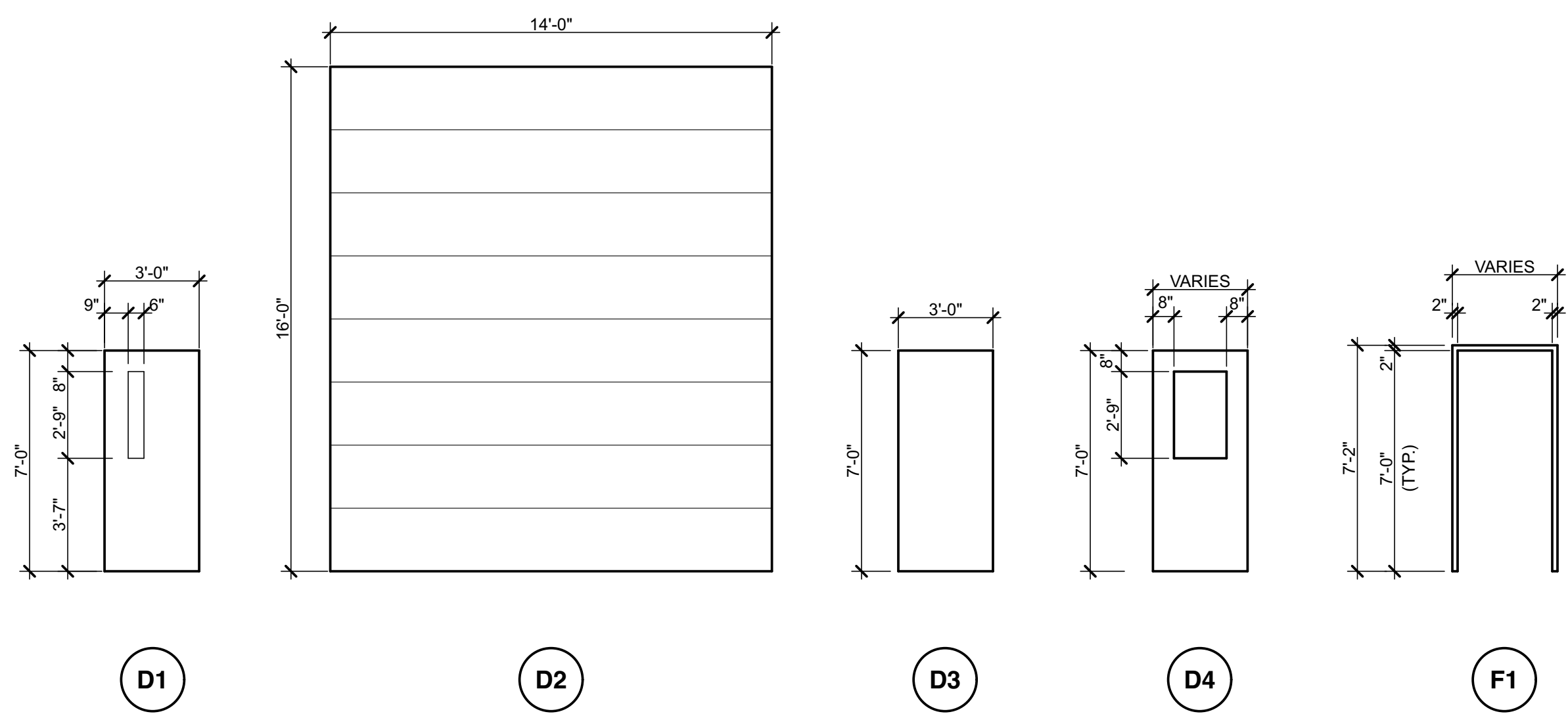
Dante Guzzi Engineering Associates
 418 Stokes Road, P.O. Box 1025, Medford, New Jersey 08055
 Telephone (609) 654-4440 NJ Certificate of Authorization No. 246A27957550
 Facsimile (609) 654-7795 www.guzziengineering.com
DANTE GUZZI, P.E. 12/11/2019
 PROFESSIONAL ENGINEER, LICENSE NO. 36455 DATE

SOIL EROSION & SEDIMENT CONTROL PLAN			
100 SHARP ROAD			
BLOCK 14, LOTS 5 & 5.03			
EVESHAM TOWNSHIP			
BURLINGTON COUNTY, NEW JERSEY			
FILE	DATE	DRAWN BY	CHECKED BY
100SHARP-SESC	12/11/2019	RV	DG
SCALE	PROJECT NO.	SHEET	OF
AS SHOWN	P-19-156	3	4

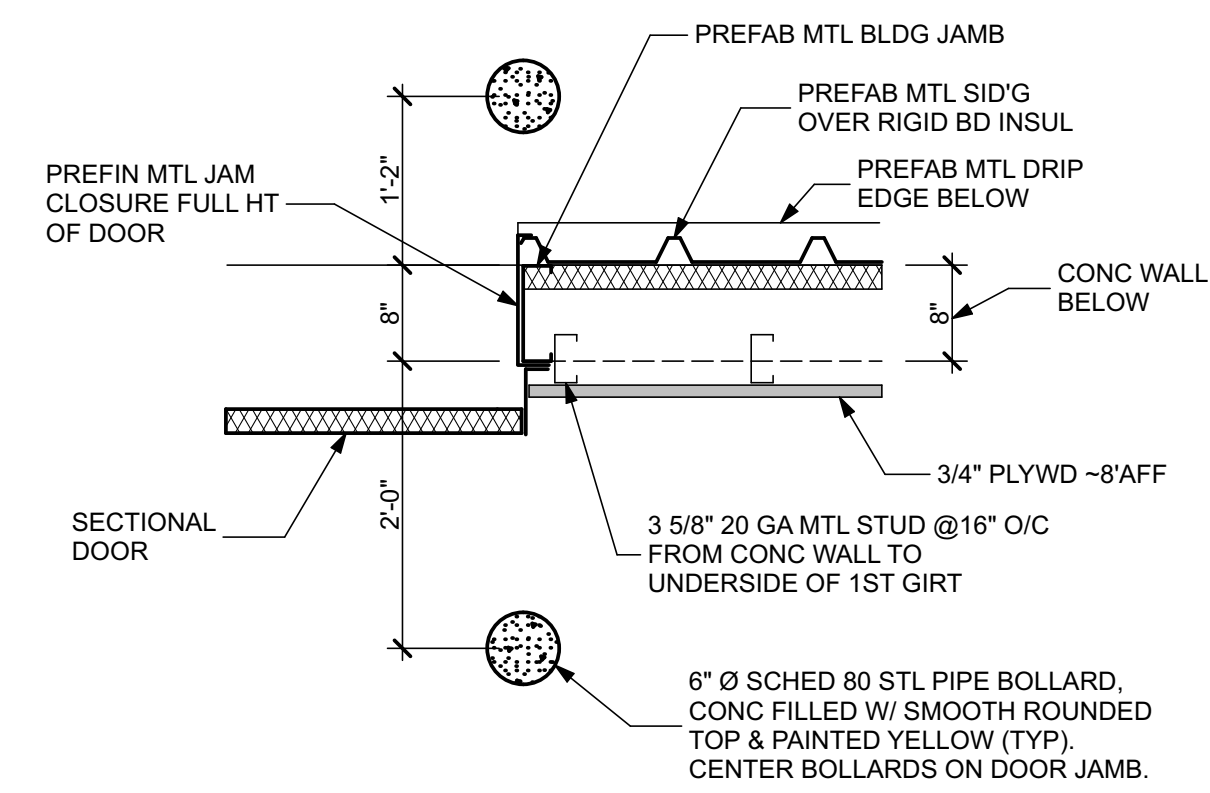
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REV. NO.

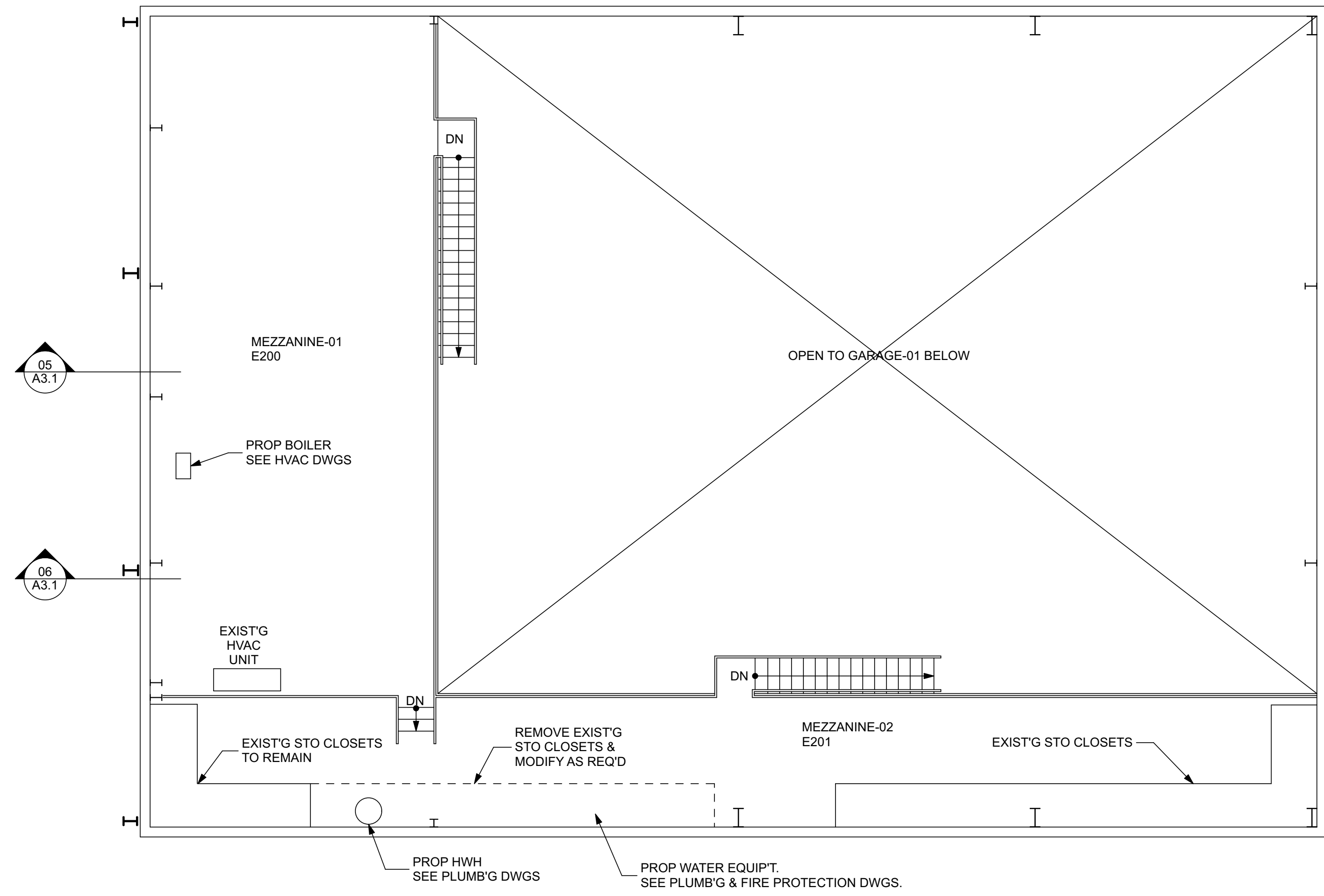
EVESHAM - MEDFORD ROAD
 (BURLINGTON COUNTY ROUTE #618)
 (49.50' R.O.W.)
 (100.00' ULTIMATE R.O.W.)



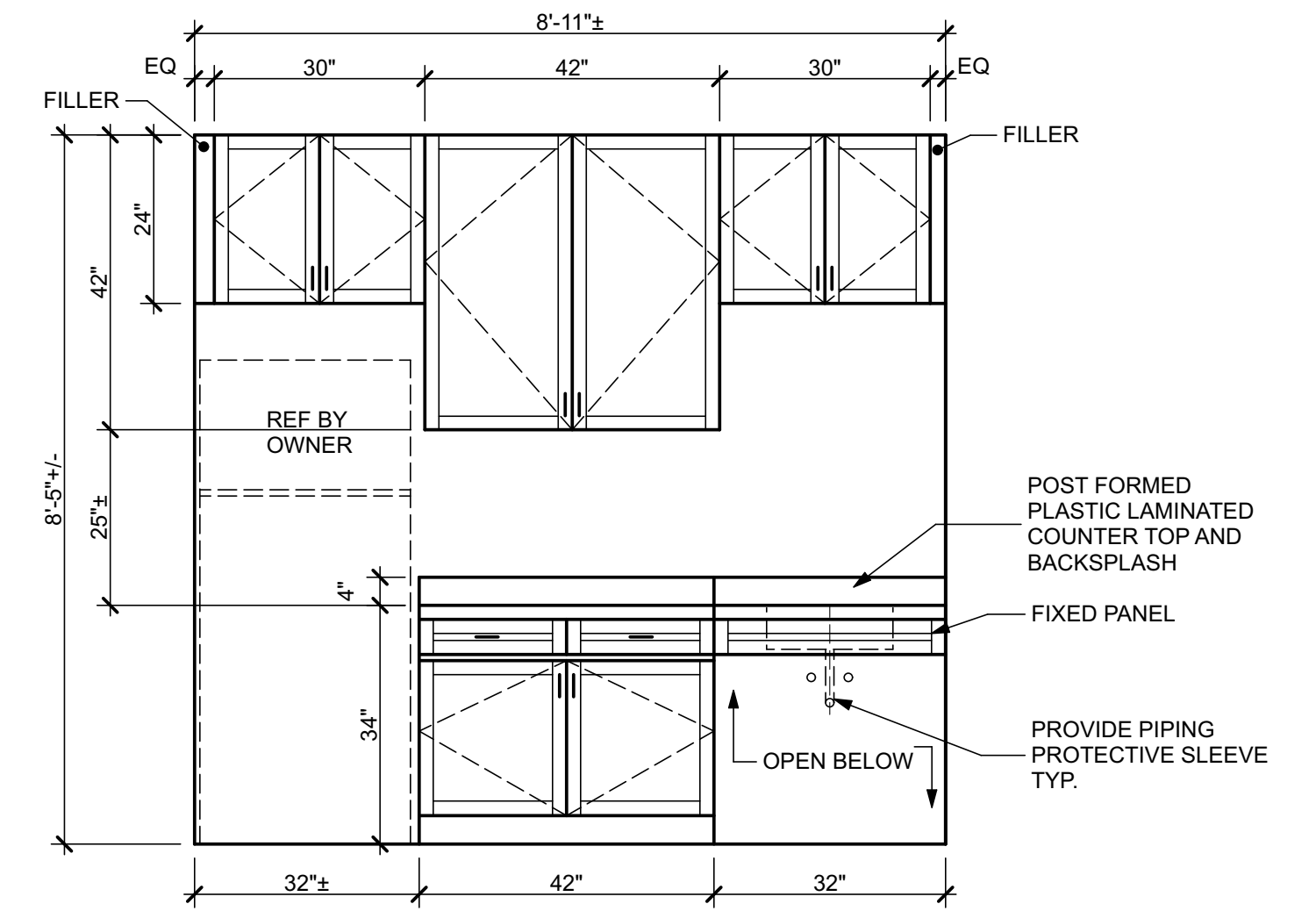
DOOR & FRAME TYPES SCALE: 1/4" = 1'-0" **04 A1.1**



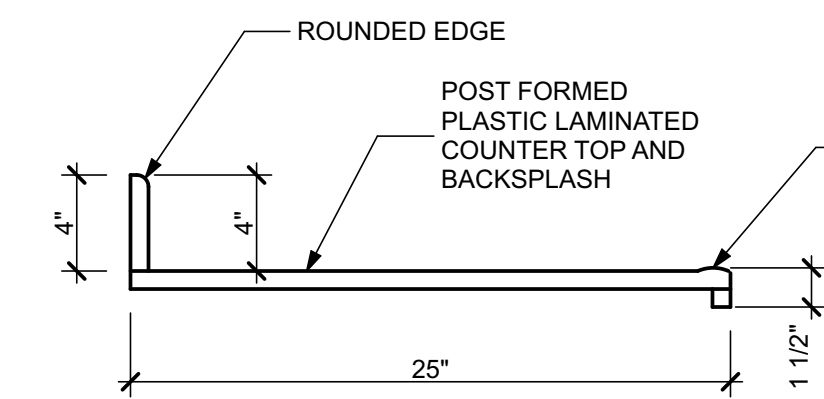
TYP GARAGE DOOR JAMB SCALE: 3/4" = 1'-0" **03 A1.1**



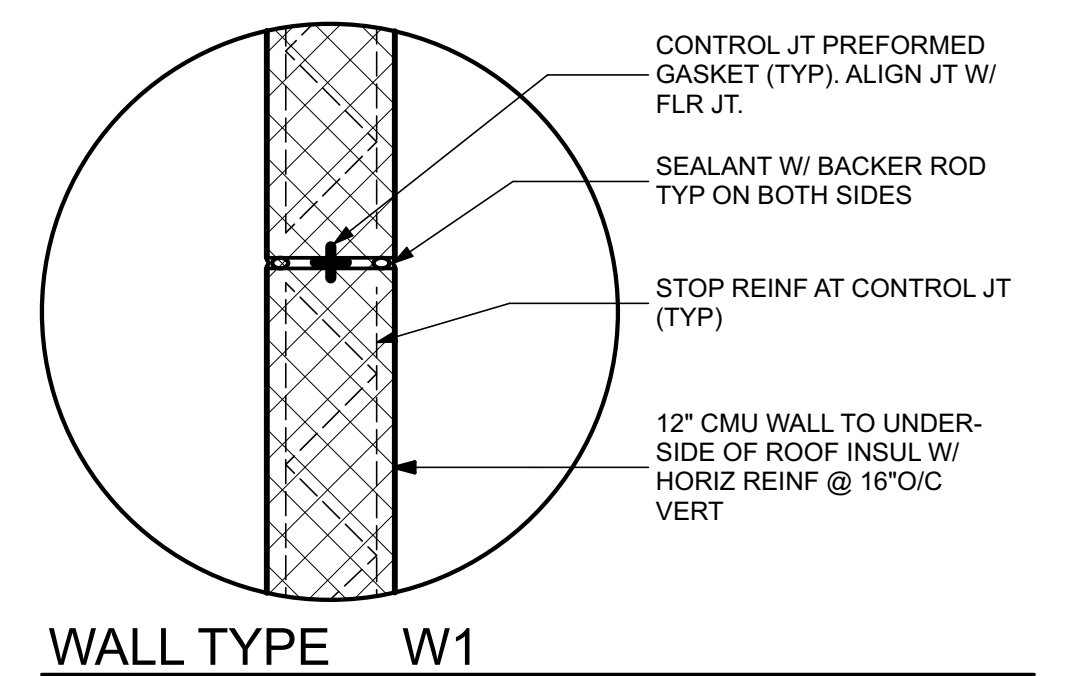
MEZZANINE PLAN SCALE: 1/8" = 1'-0" **02 A1.1**



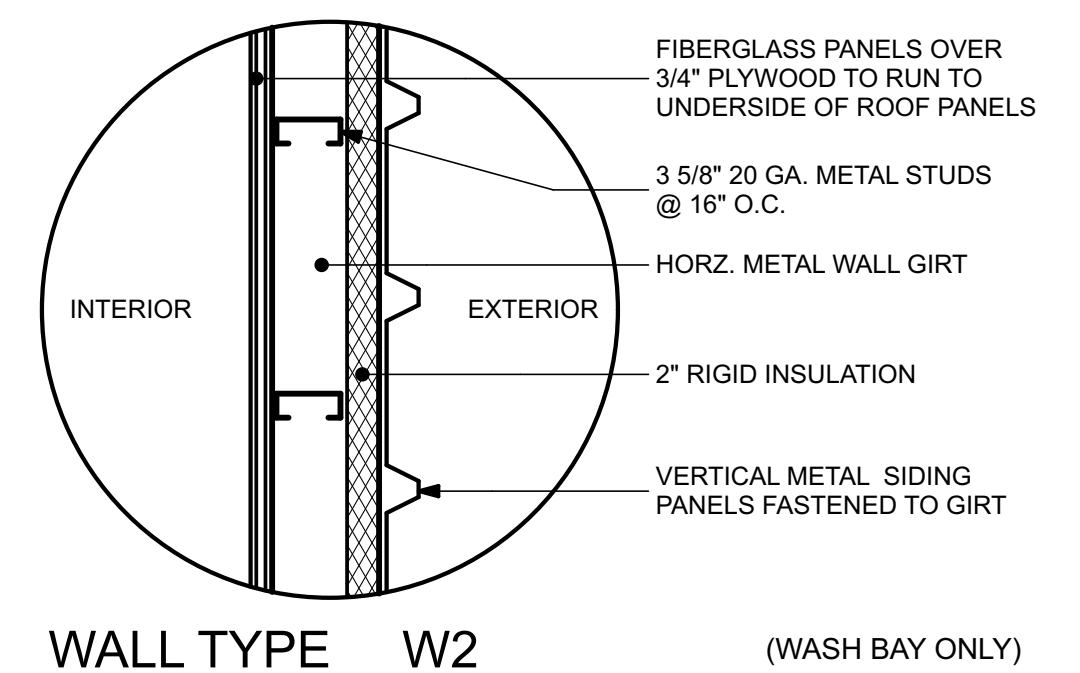
MILLWORK ELEVATION SCALE: 1/2" = 1'-0" **05 A1.1**



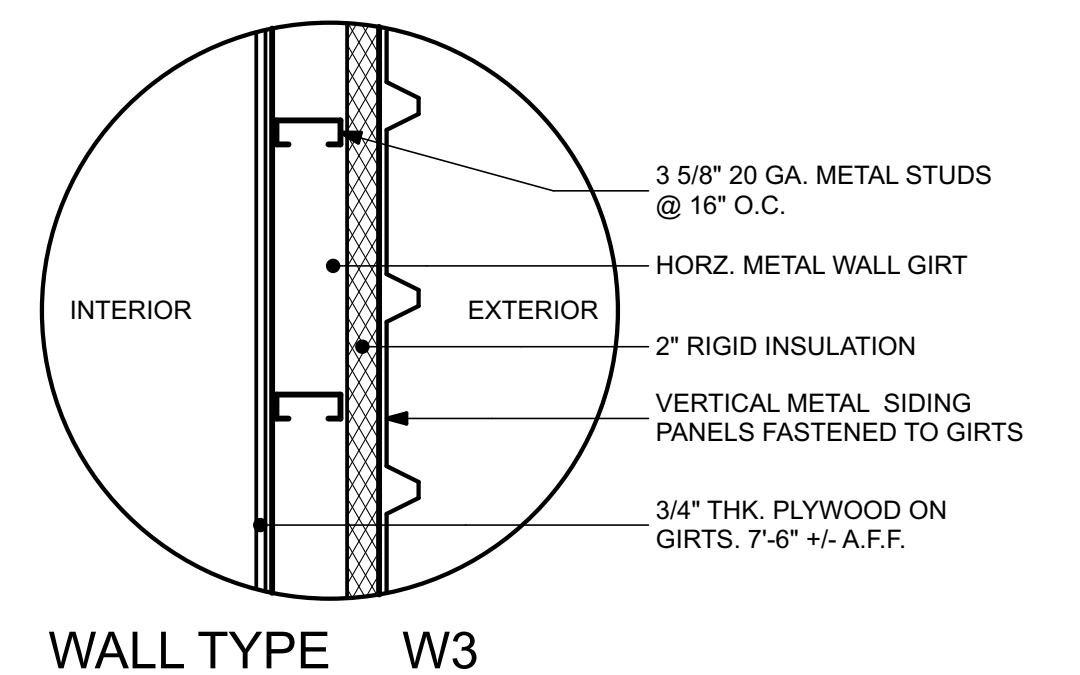
COUNTER DETAIL SCALE: 1" = 1'-0" **06 A1.1**



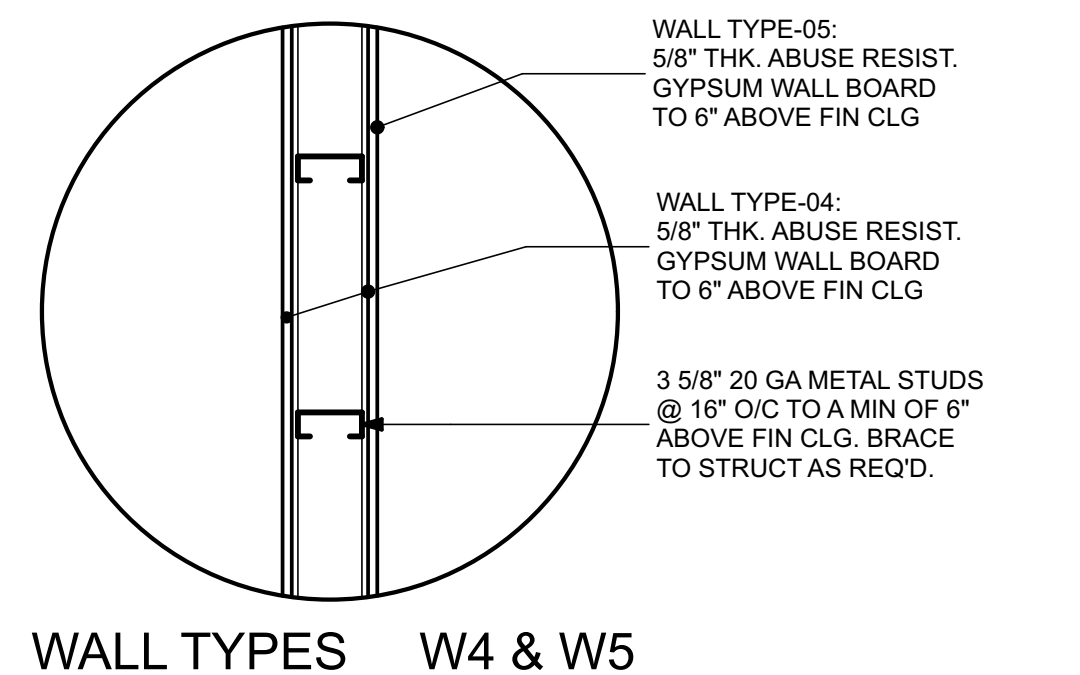
WALL TYPE W1



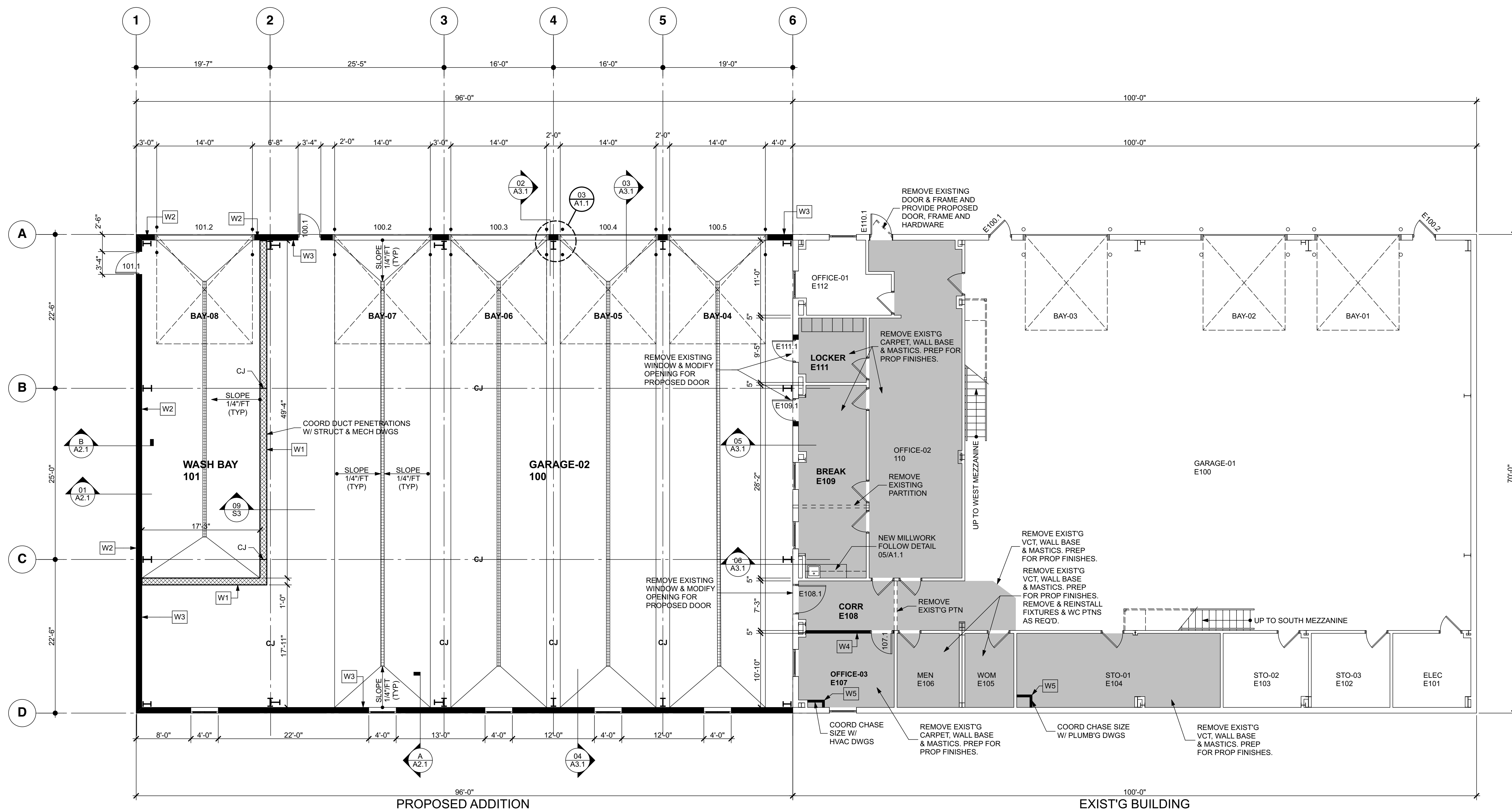
WALL TYPE W2 (WASH BAY ONLY)



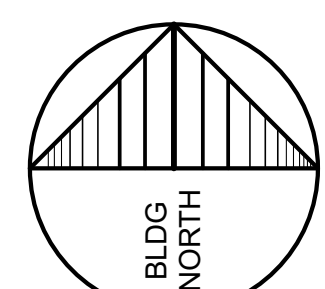
WALL TYPE W3



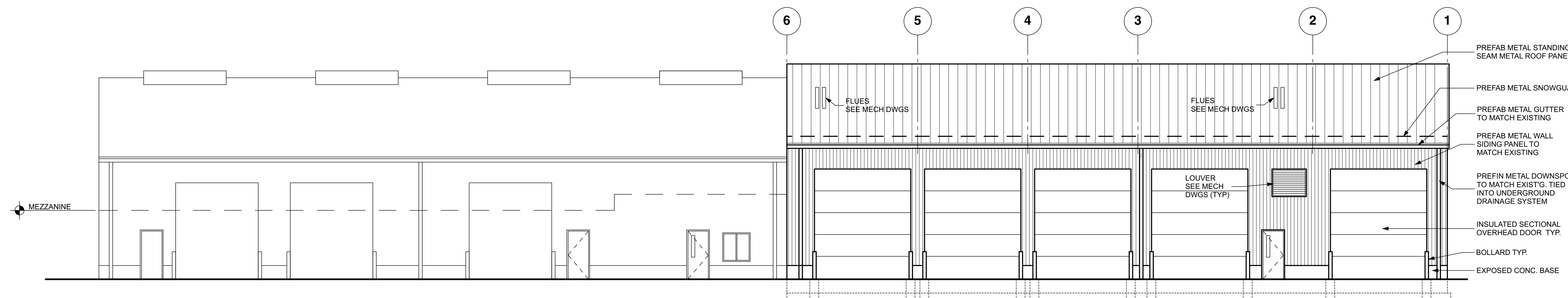
WALL TYPES W4 & W5



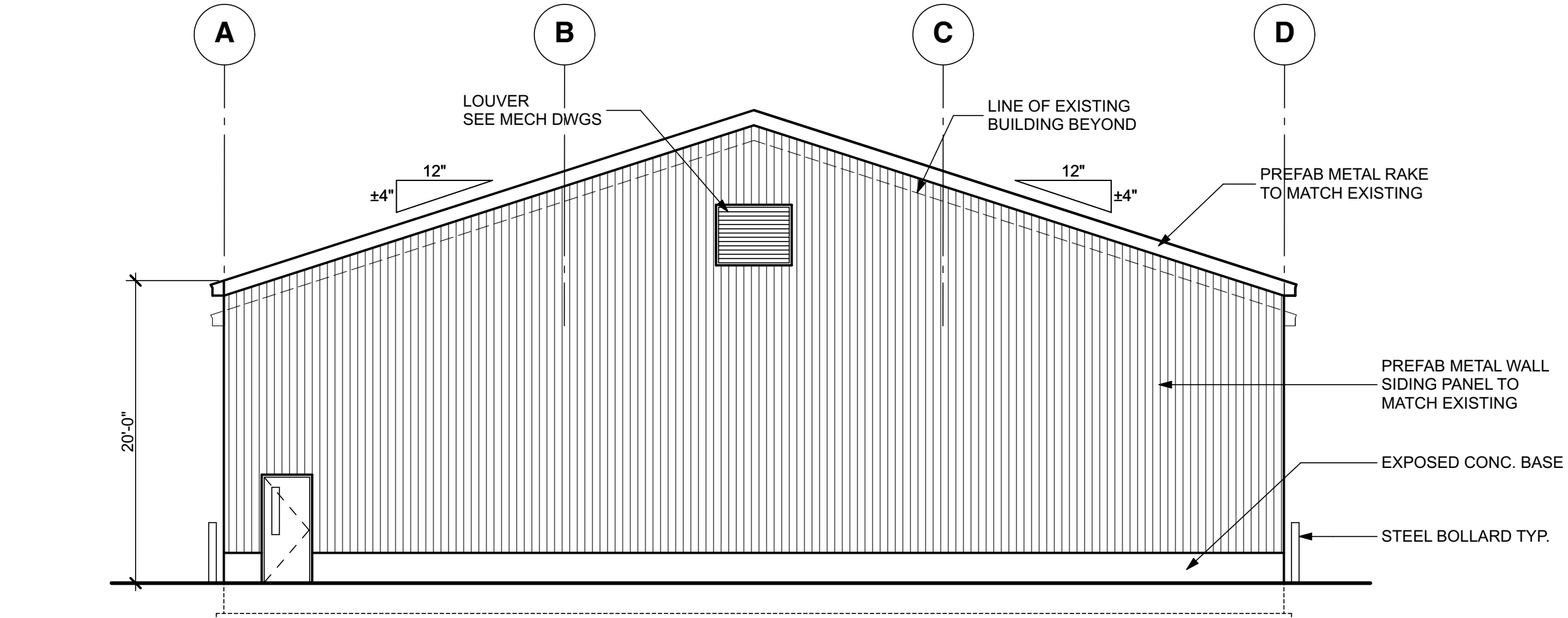
FLOOR PLAN SCALE: 1/8" = 1'-0" **01 A1.1**



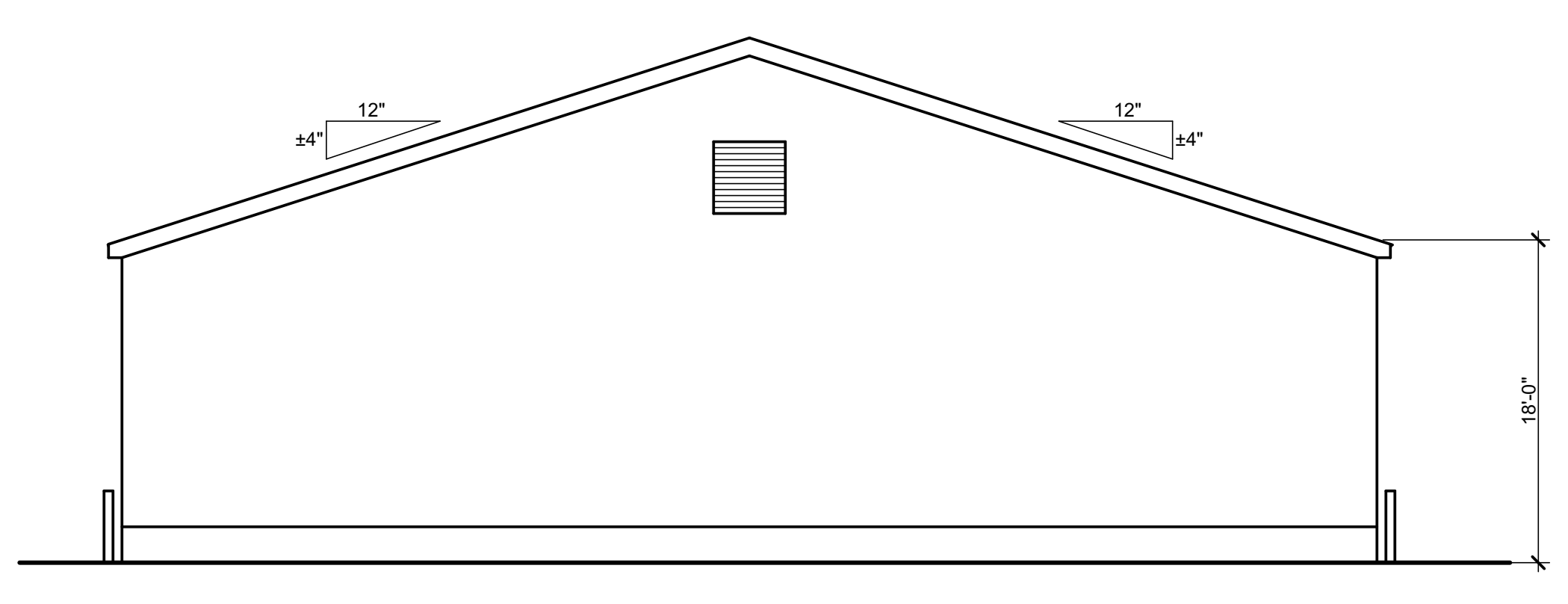
WALL TYPES NTS **07 A1.1**



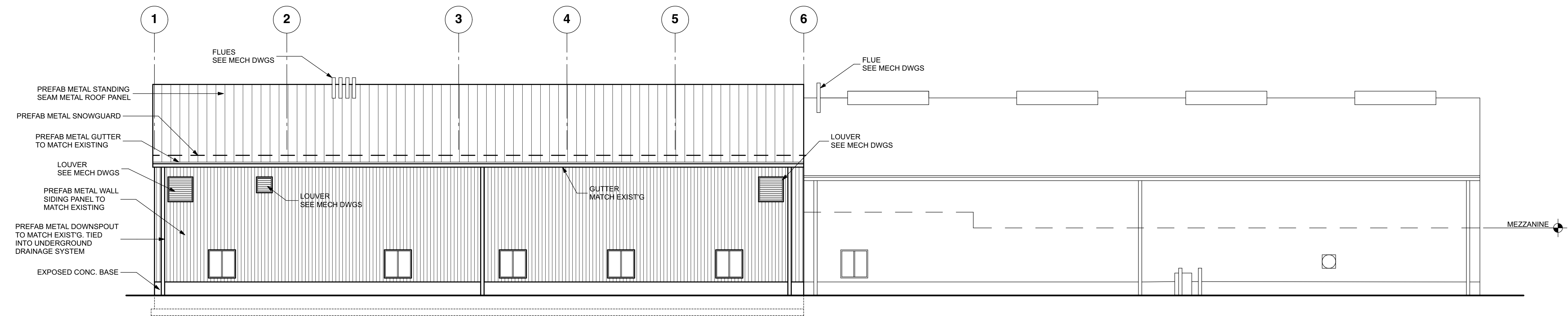
NORTH ELEVATION SCALE: 1/8" = 1'-0" **02 A2.1**



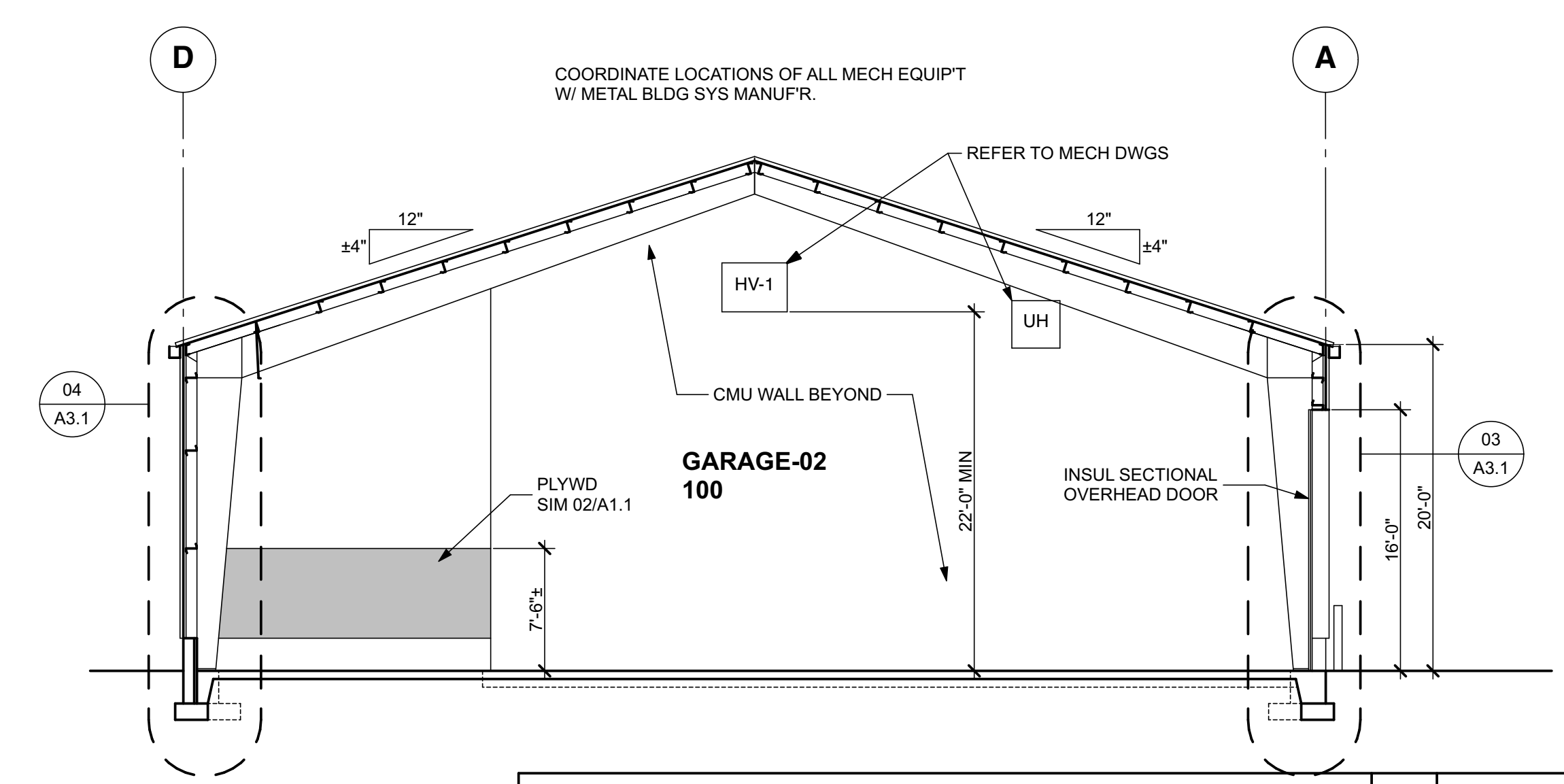
WEST ELEVATION SCALE: 1/8" = 1'-0" **03 A2.1**



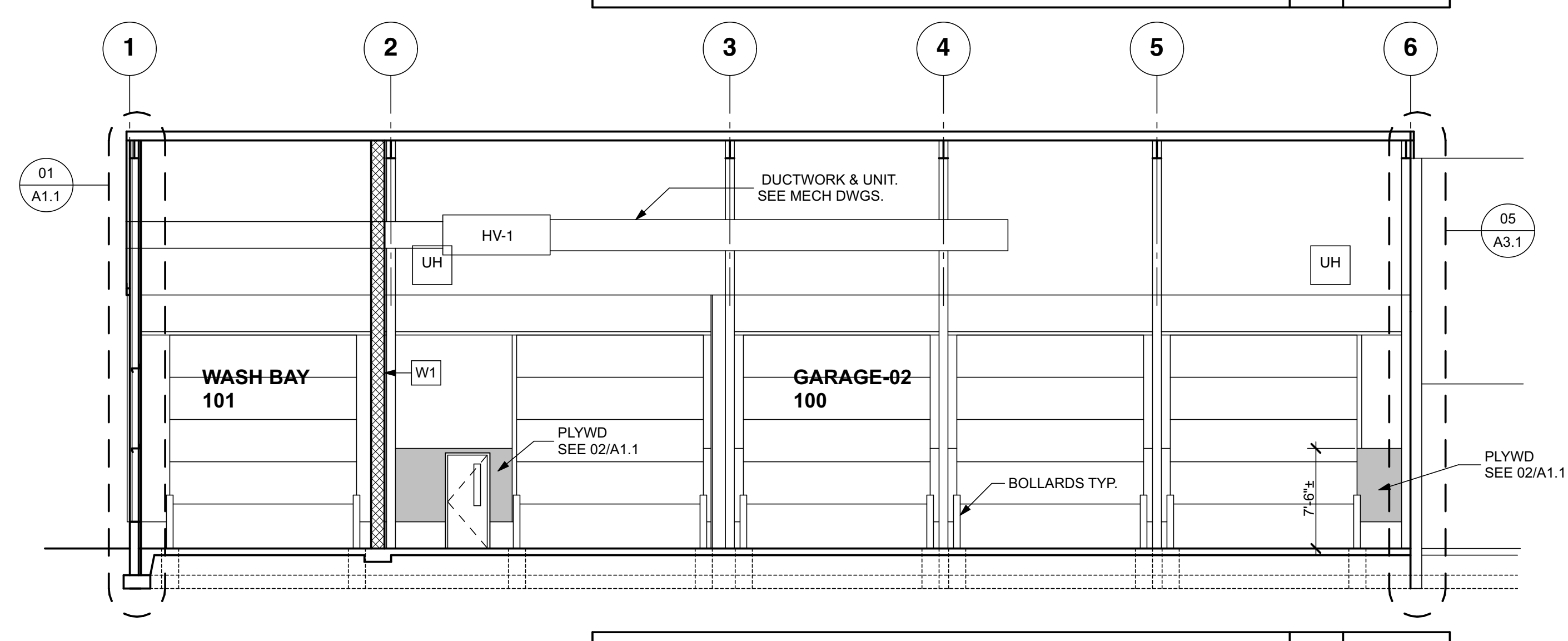
EXISTING EAST ELEVATION SCALE: 1/8" = 1'-0" **04 A2.1**



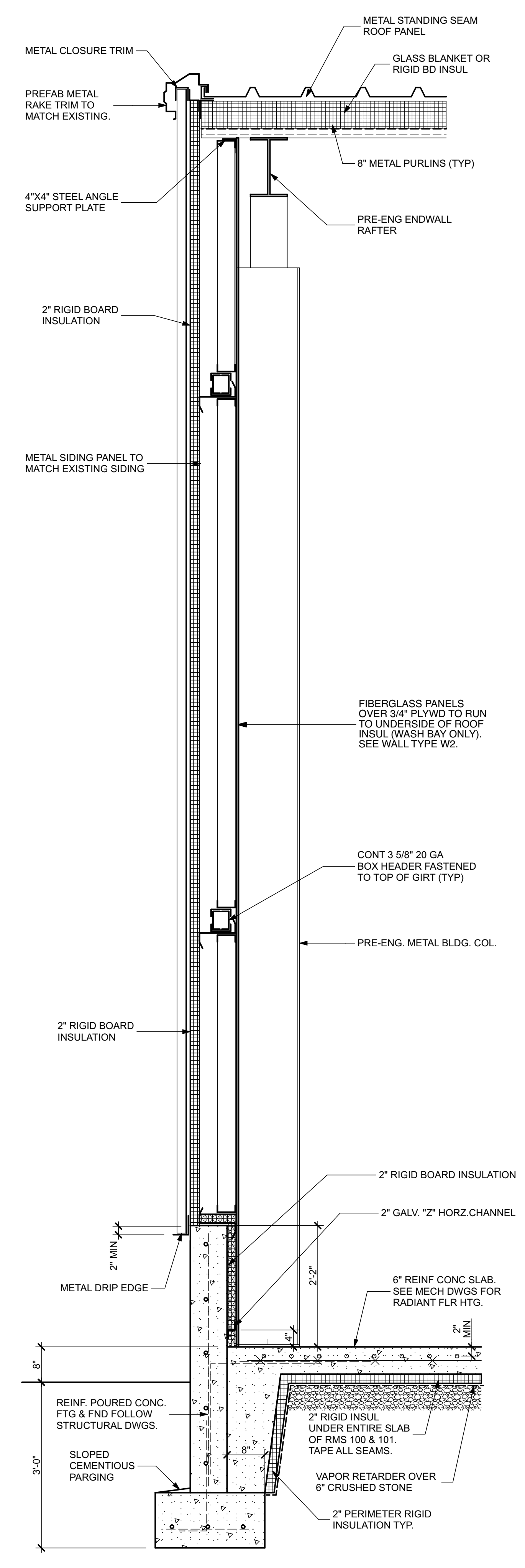
SOUTH ELEVATION SCALE: 1/8" = 1'-0" **05 A2.1**



BUILDING SECTION A SCALE: 1/8" = 1'-0" **A A2.1**

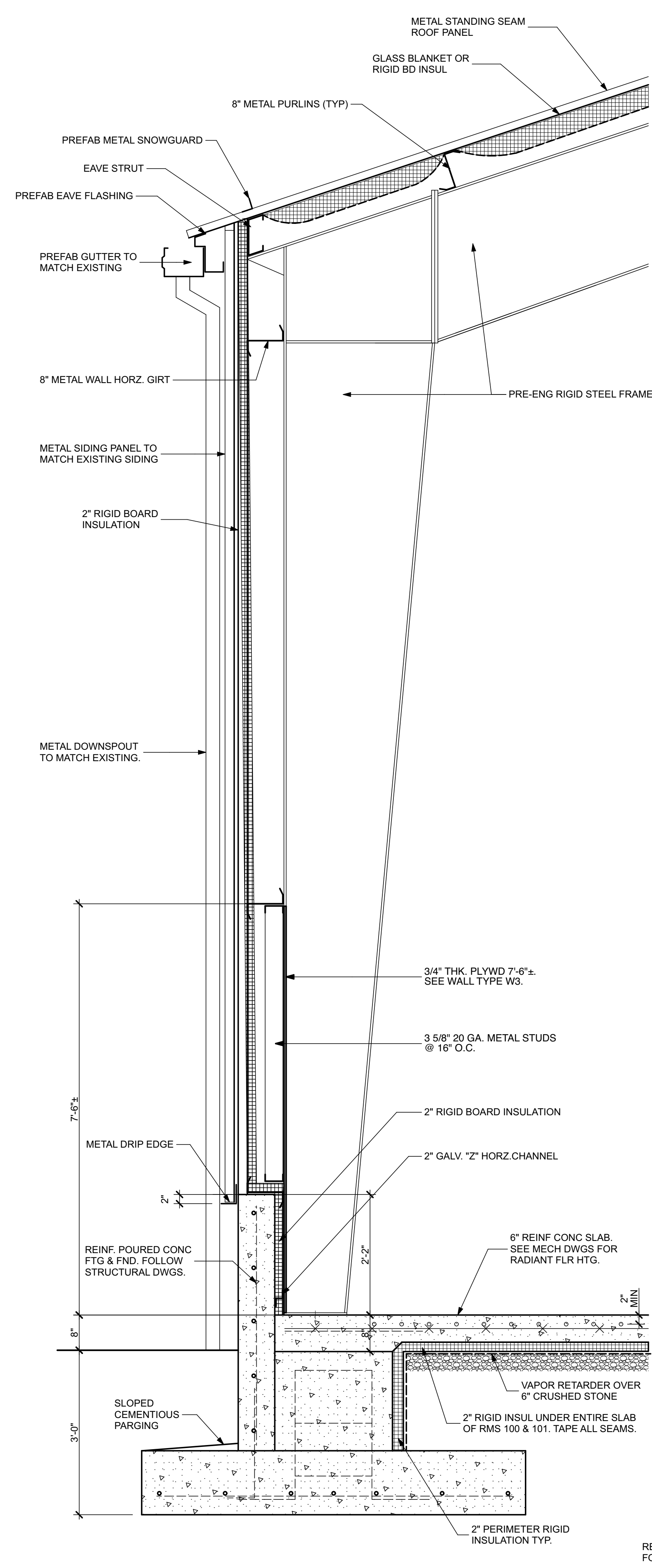


BUILDING SECTION B SCALE: 1/8" = 1'-0" **B A2.1**

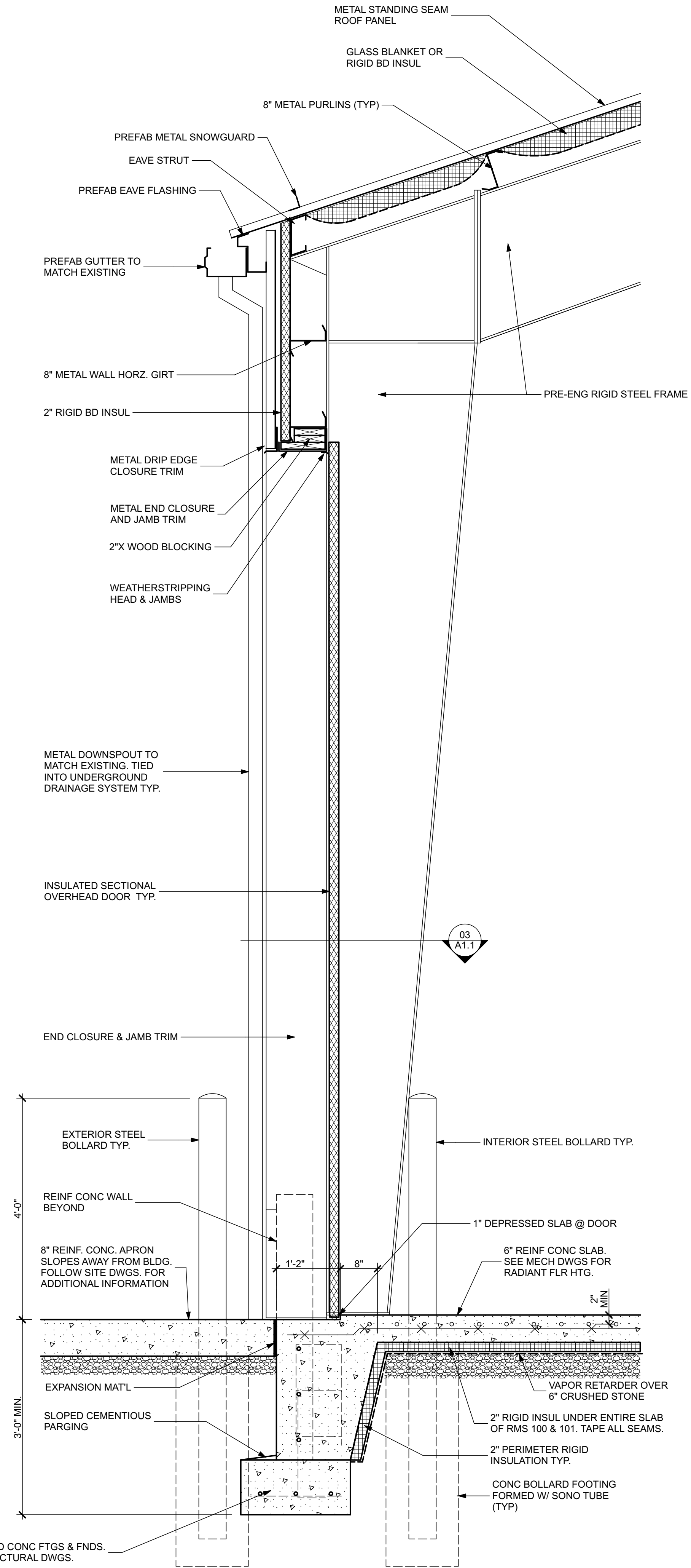


WEST WALL SECTION SCALE: 3/4" = 1'-0" **01 A2.1**

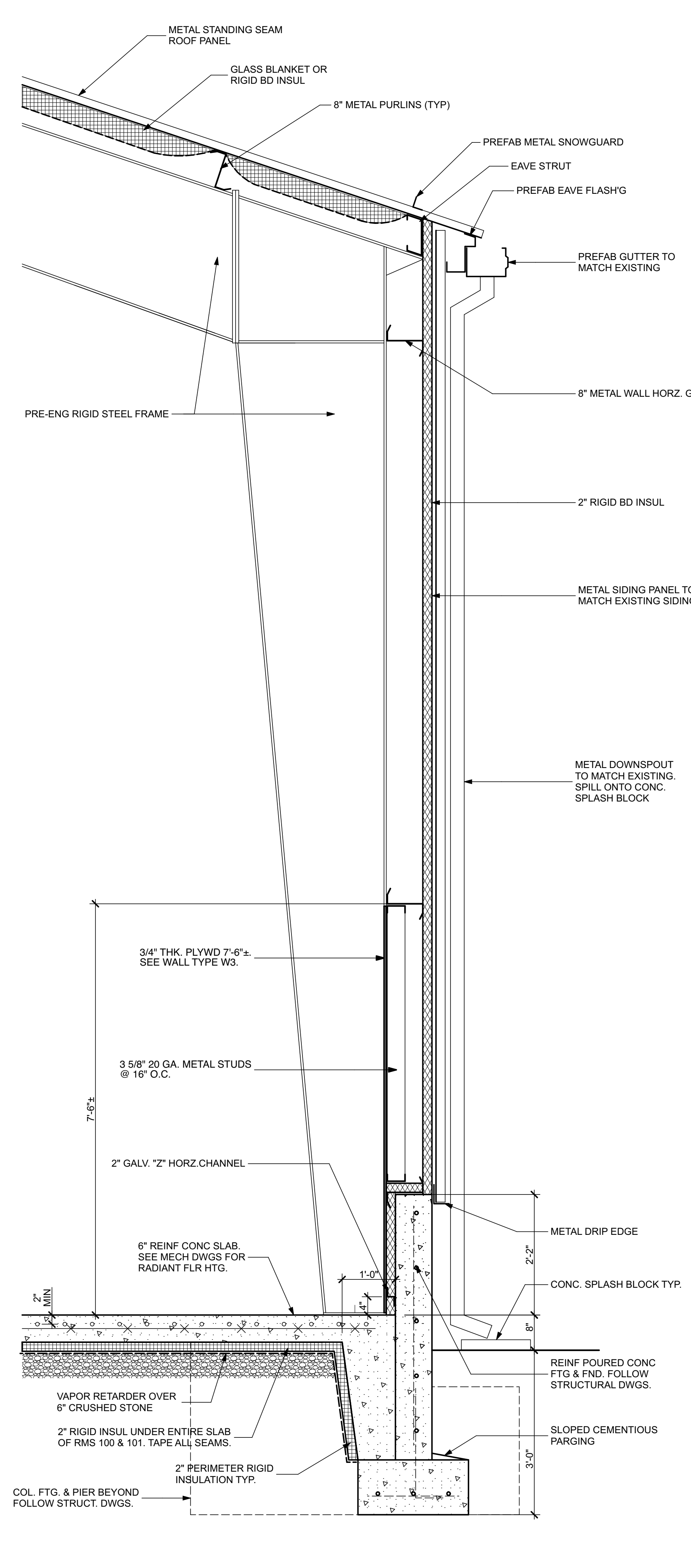
PRINT DATE: 12/29/19
 REGAN YOUNG, AIA
 21A00912100
REGAN YOUNG ENGLAND BUTERA
 REFERENDUMS - ENGINEERING - ARCHITECTURE - DESIGN
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MAINTENANCE BUILDING-03 ADDITION
 EVESHAM TOWNSHIP PUBLIC WORKS
 100 SHARP ROAD
 MARLTON, NEW JERSEY 08053
ELEVATIONS AND WALL SECTION
 DRAWING DATE:
11 DEC 19
 REVISION DATE:
 DRAWN BY:
 COMMISSION NO.:
5596E
A2.1
 2 OF 4



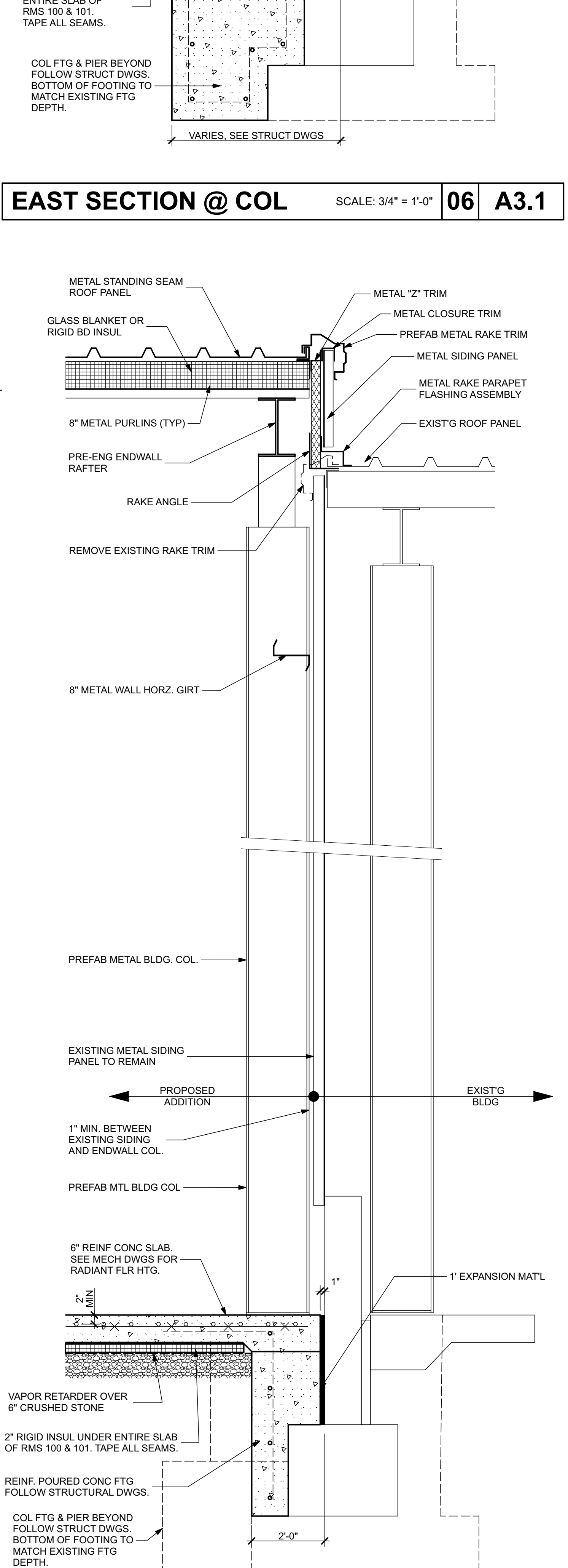
TYP. WALL SECTION @ COL. SCALE: 1/8" = 1'-0" 02 A3.1



NORTH WALL SECTION SCALE: 3/4" = 1'-0" 03 A3.1

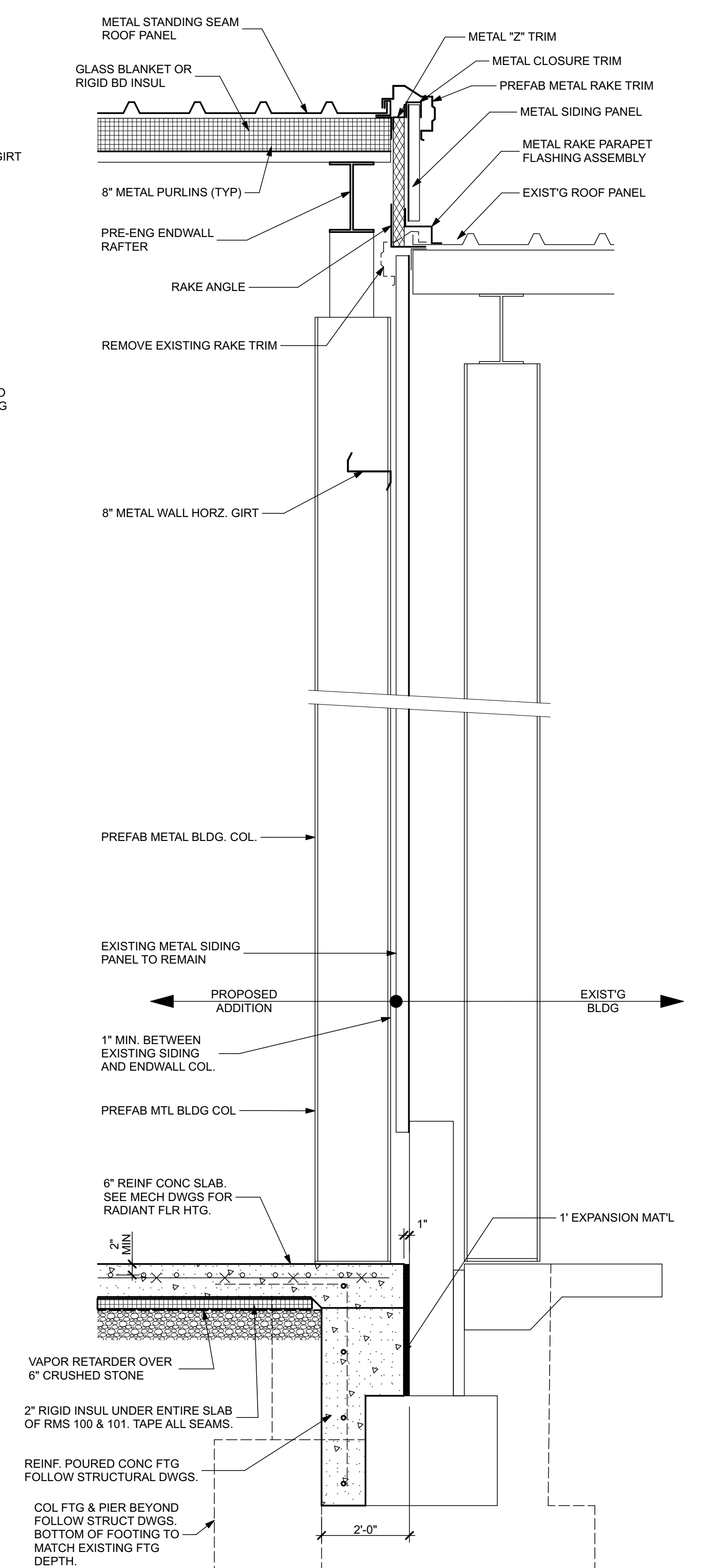


SOUTH WALL SECTION SCALE: 3/4" = 1'-0" 04 A3.1

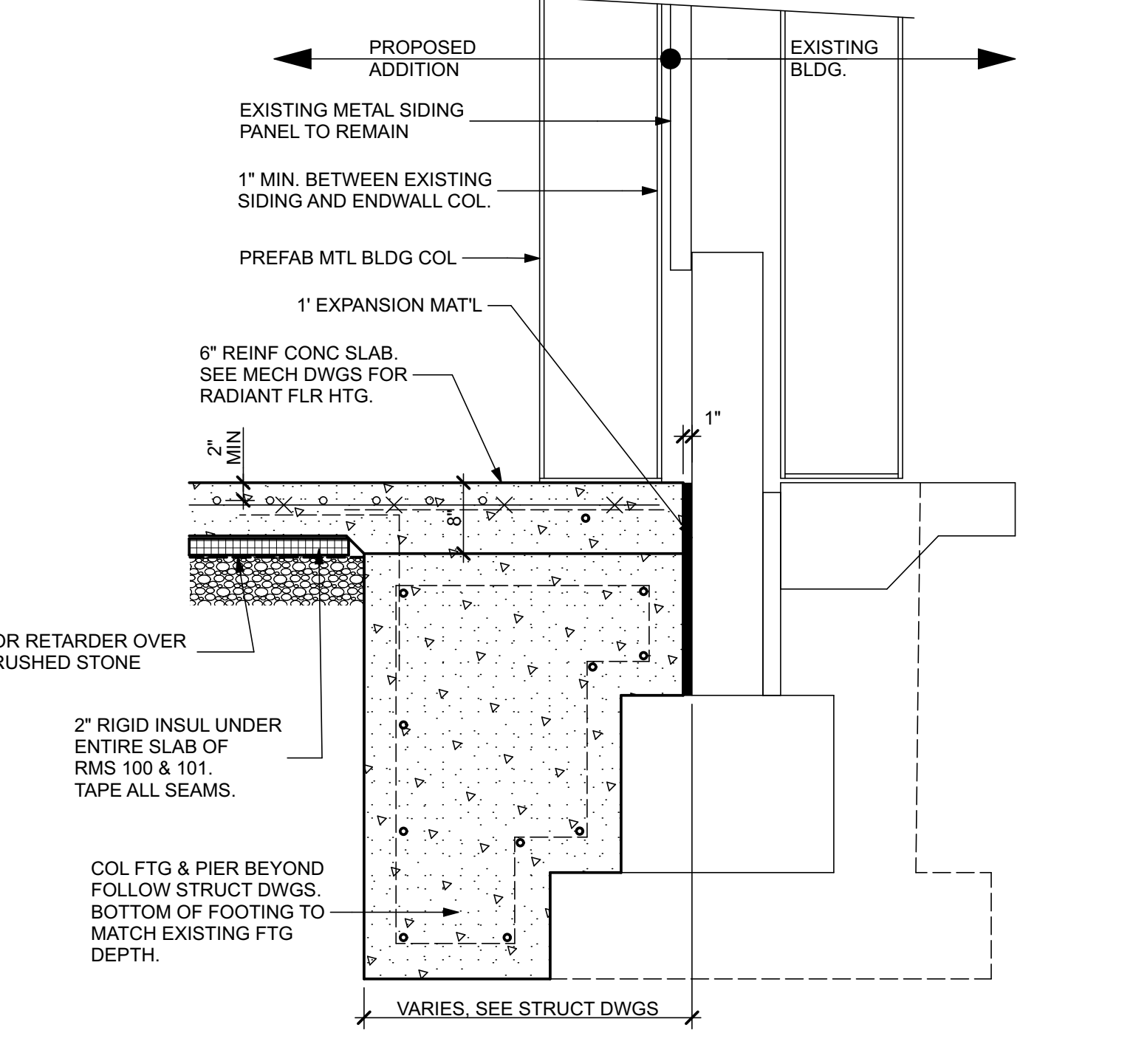


EAST WALL SECTION SCALE: 3/4" = 1'-0" 05 A3.1

EAST SECTION @ COL SCALE: 3/4" = 1'-0" 06 A3.1

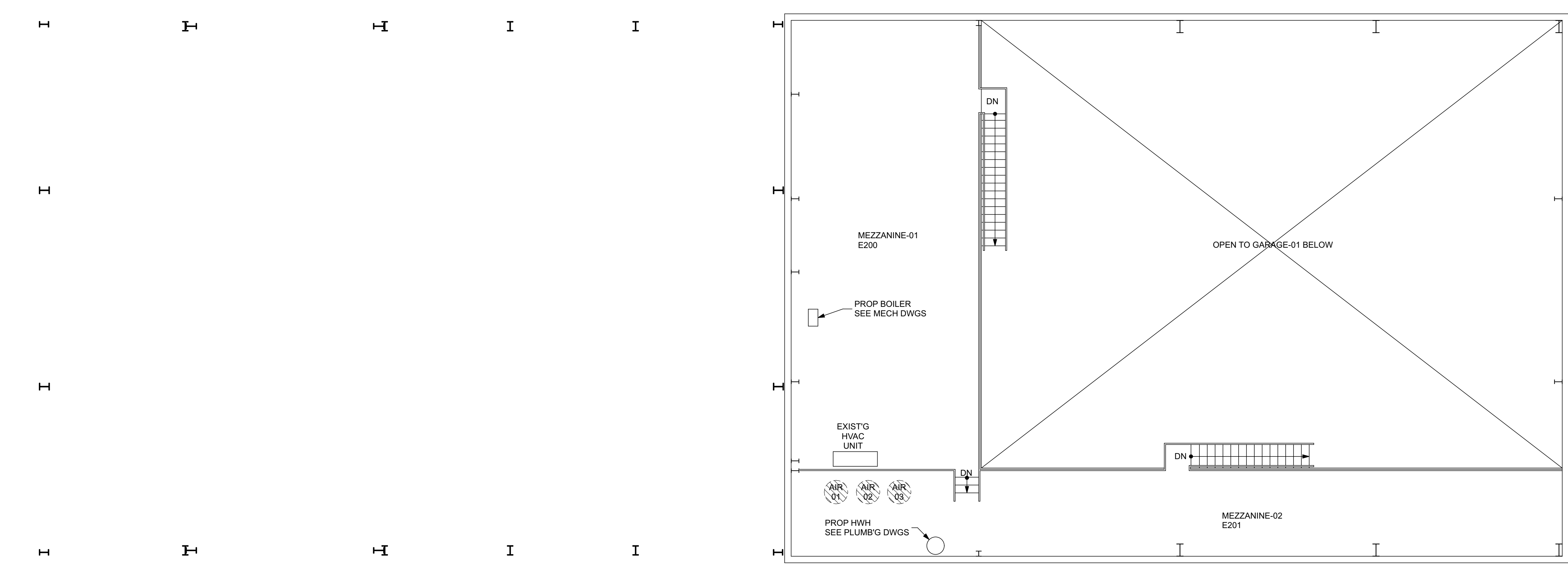


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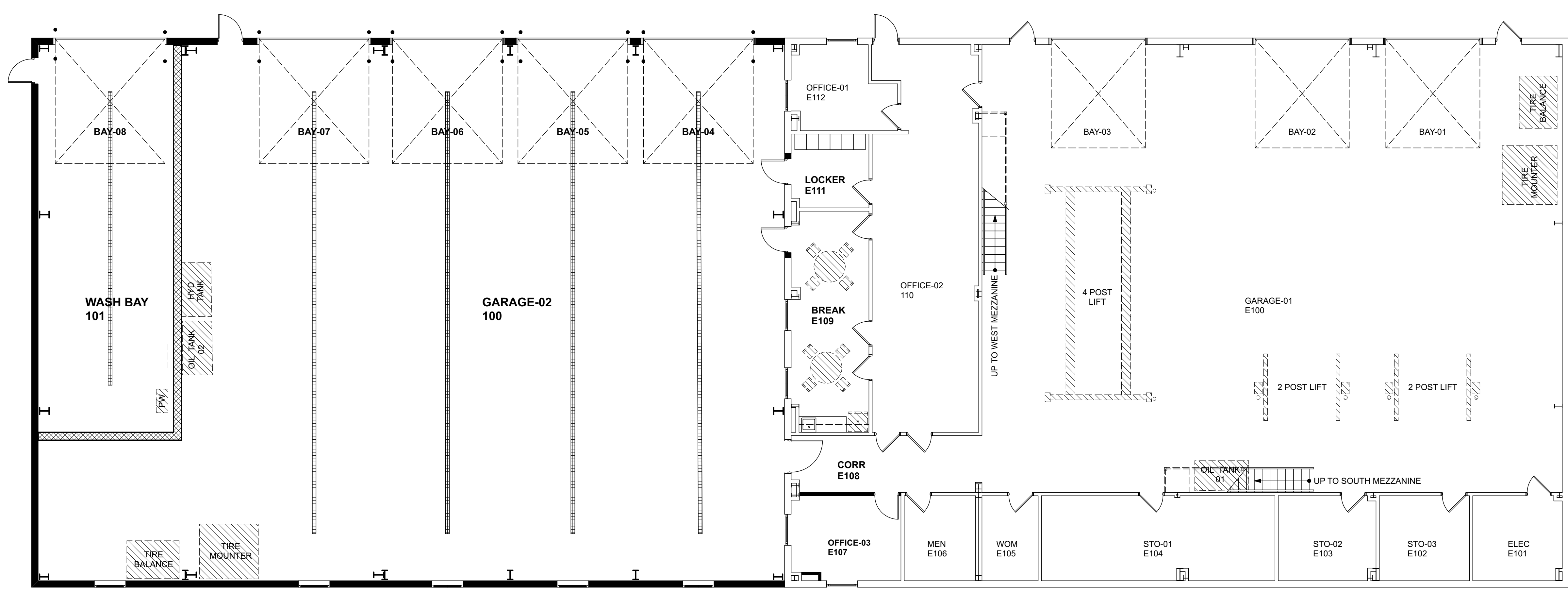
EAST SECTION @ COL SCALE: 3/4" = 1'-0" 06 A3.1

PRINT DATE: 12/29/19
 REGAN YOUNG, AIA
 21A00912100
REGAN YOUNG ENGLAND BUTERA
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 456 HIGH STREET • MT. HOLLY, NEW JERSEY 08060 USA
 +1(609)265-2652-0333FAX • 21A00912100 • RYEBREAD.COM
MAINTENANCE BUILDING-03 ADDITION
 EVESHAM TOWNSHIP PUBLIC WORKS
 100 SHARP ROAD
 MARLTON, NEW JERSEY 08053
 TITLE: **WALL SECTIONS**
 DRAWING DATE: **11 DEC 19**
 REVISION DATE:
 DRAWN BY:
 COMMISSION NO.: **5596E**
A3.1
 3 OF 4

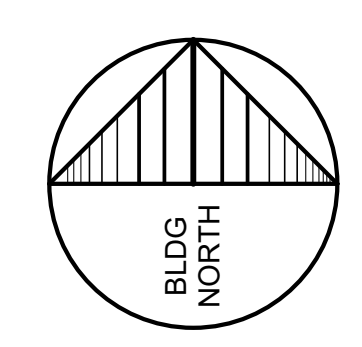


OWNER PROVIDED EQUIP'T MEZZANINE PLAN SCALE: 1/8" = 1'-0" **02** **A4.1**

OWNER FURNISHED & INSTALLED EQUIPMENT

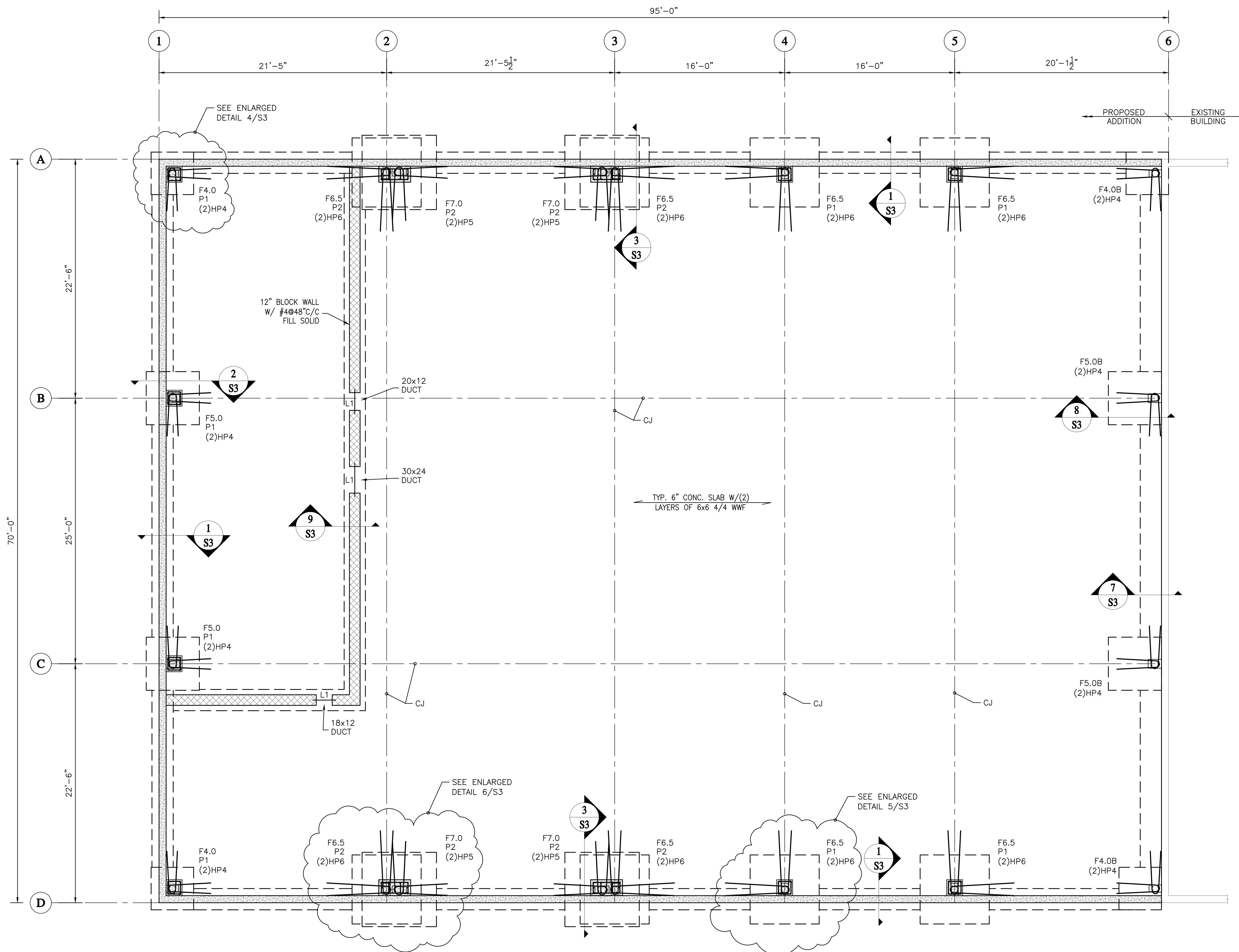


OWNER PROVIDE EQUIP'T FLOOR PLAN SCALE: 1/8" = 1'-0" **01** **A4.1**



MAINTENANCE BUILDING-03 ADDITION
EVESHAM TOWNSHIP PUBLIC WORKS
100 SHARP ROAD
MARLTON, NEW JERSEY 08053
TITLE: **OWNER PROVIDED EQUIP'T PLANS**

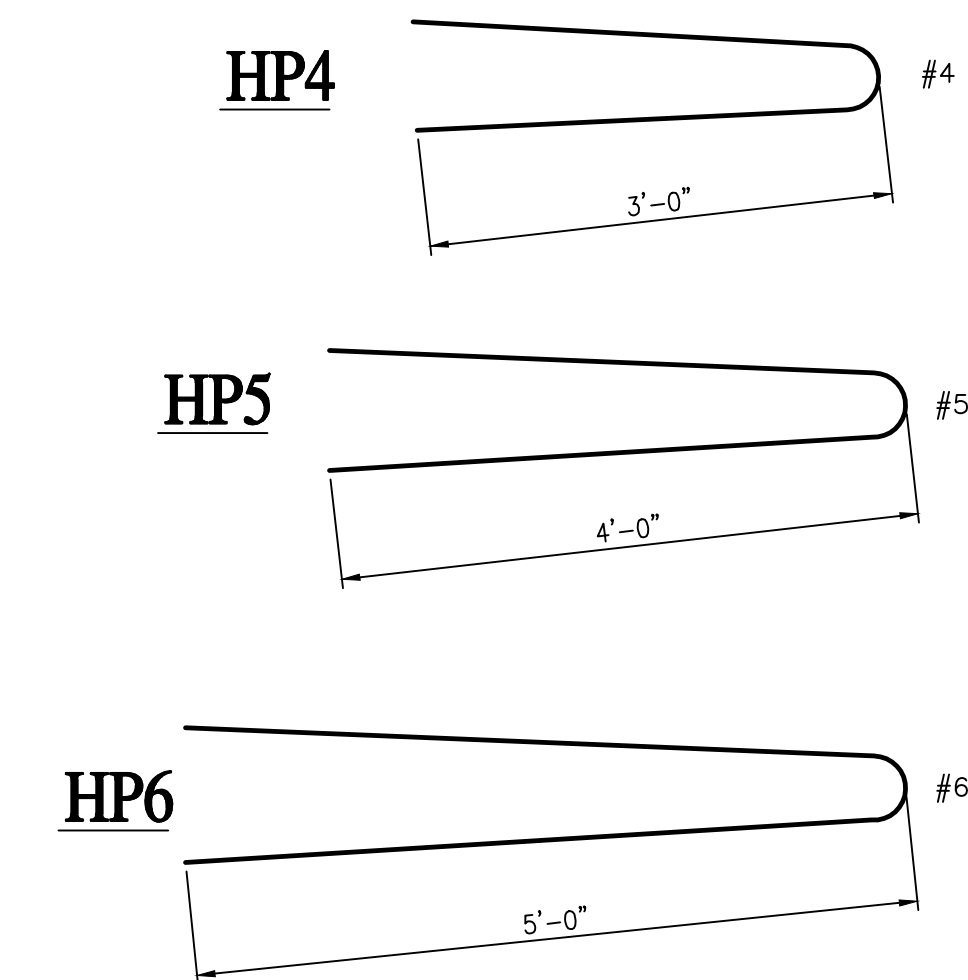
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DRAWN BY:	
COMMISSION NO.:	5596E



FOOTING SCHEDULE		
MARK	FOOTING INFORMATION	
	SIZE	REINFORCEMENT
F4.0	4'-0"x4'-0"x1'-0"	(5) #4 EACH WAY BOT.
F4.0B	4'-0"x4'-0" (BULK)	(5) #4 EACH WAY BOT.
F5.0	5'-0"x5'-0"x1'-0"	(7) #4 EACH WAY BOT.
F5.0B	5'-0"x5'-0" (BULK)	(7) #4 EACH WAY BOT.
F6.5	6'-0"x6'-0"x1'-2"	(7) #5 EACH WAY BOT.
F7.0	7'-0"x7'-0"x1'-2"	(8) #5 EACH WAY BOT.

NOTE:
 P1 = PIER 18x18 W/(4) #6 VERT. & #4 TIES @ 12" C/C
 P2 = PIER 18x36 W/(10) #8 VERT. & (2)#4 TIES @ 12" C/C

LINTEL SCHEDULE		
MARK	TYPE	
L1	(3) PCS. 4x8 PRECAST CONC. LINTEL W/ (1)#4 TOP & BOT.	



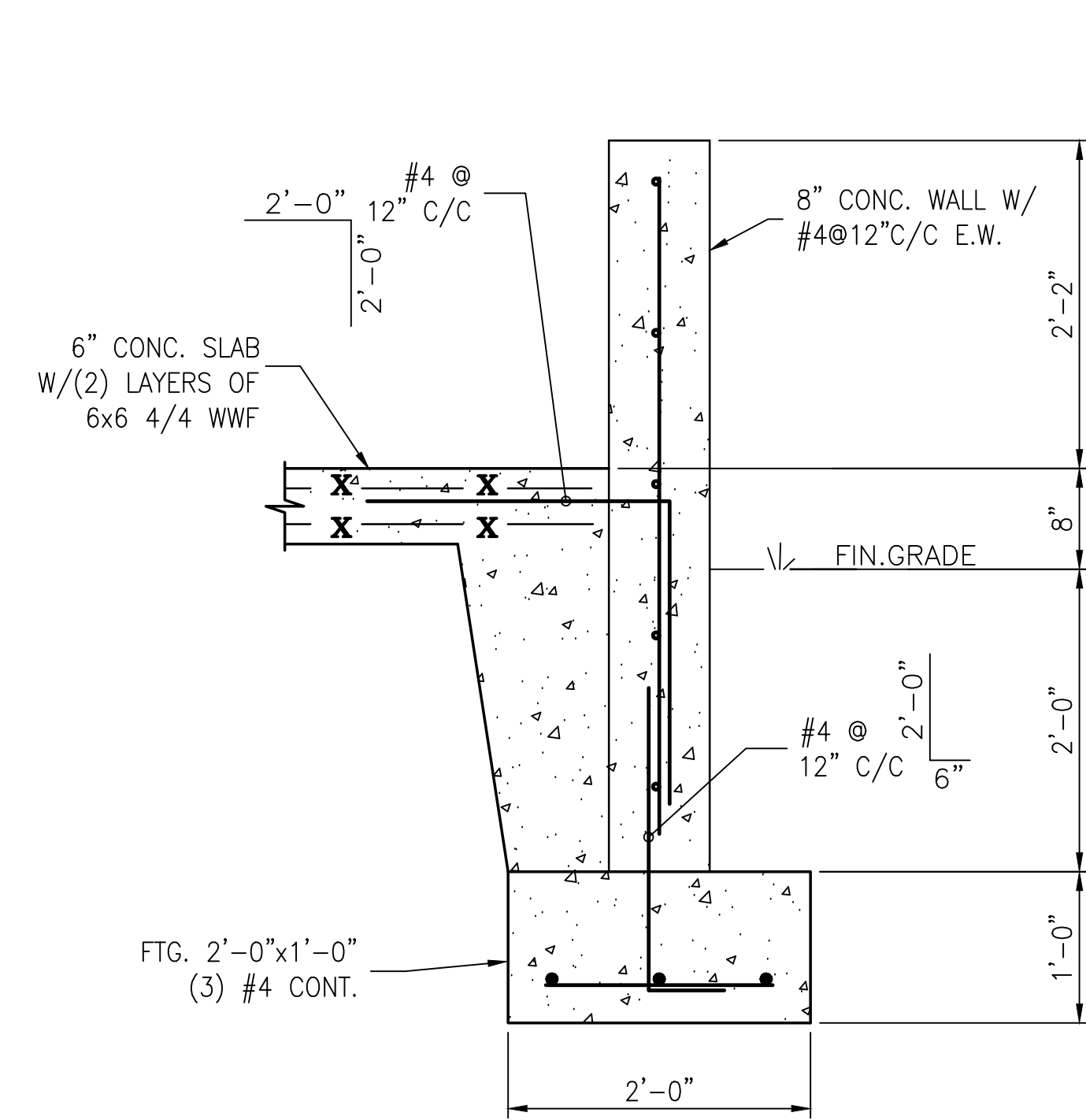
HAIRPIN DETAILS

NOTE:
 HAIRPINS TO WRAP AROUND ANCHOR BOLTS

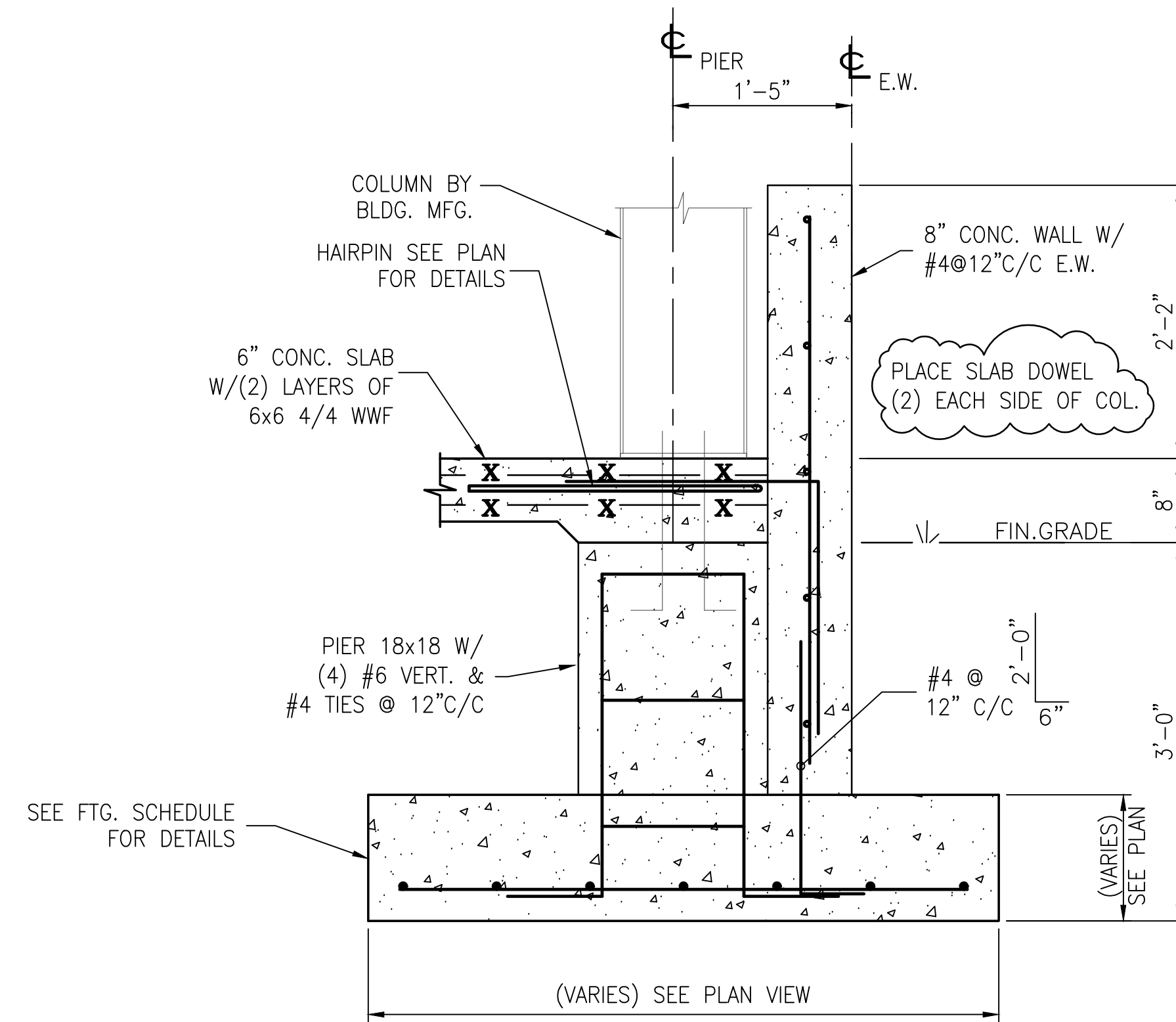
FOUNDATION PLAN
 SCALE: 1/4"=1'-0"



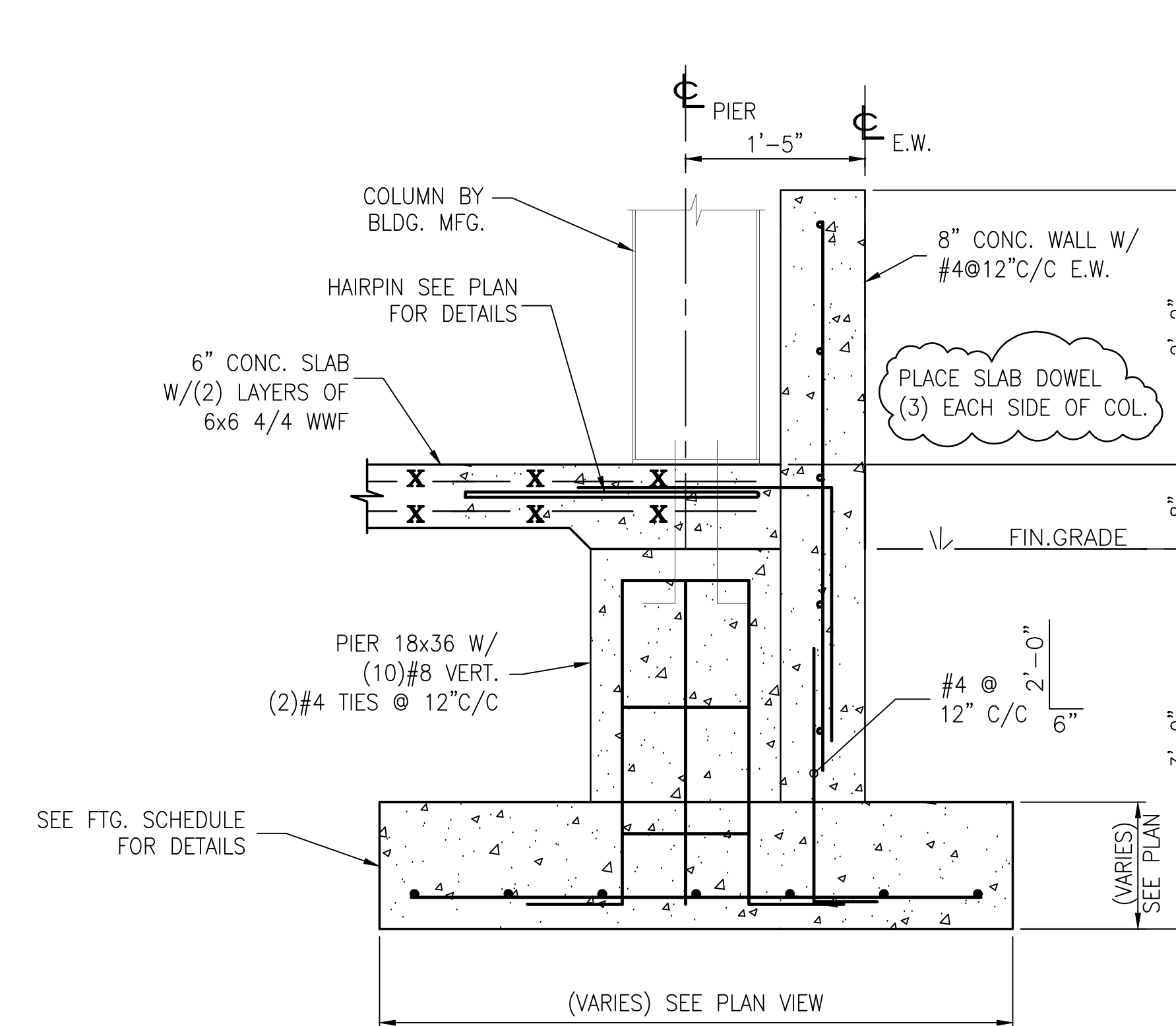
SE2 ENGINEERING, L.L.C. PROFESSIONAL ENGINEERS 1705 BUTLER PIKE, CONSHOHOCKEN, PA. 19428 TEL: (610) 828-1530 E-MAIL: OFFICE@SE2ENGINEER.COM		REVISION DESCRIPTION REV. DATE
FOUNDATION PLAN MAINTENANCE BUILDING - 03 ADDITION 100 SHARP ROAD MARLTON, NJ 08053		REVISION DESCRIPTION REV. DATE
Dwn by: SLD Date: 12/11/2019 Scale: AS NOTED Job#: 19-412 Sheet#: S2		THIS DRAWING IS THE PROPERTY OF SE2 ENGINEERING, L.L.C. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF SE2 ENGINEERING, L.L.C. IS STRICTLY PROHIBITED. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF SE2 ENGINEERING, L.L.C. SHALL BE CONSIDERED AS INVALID.



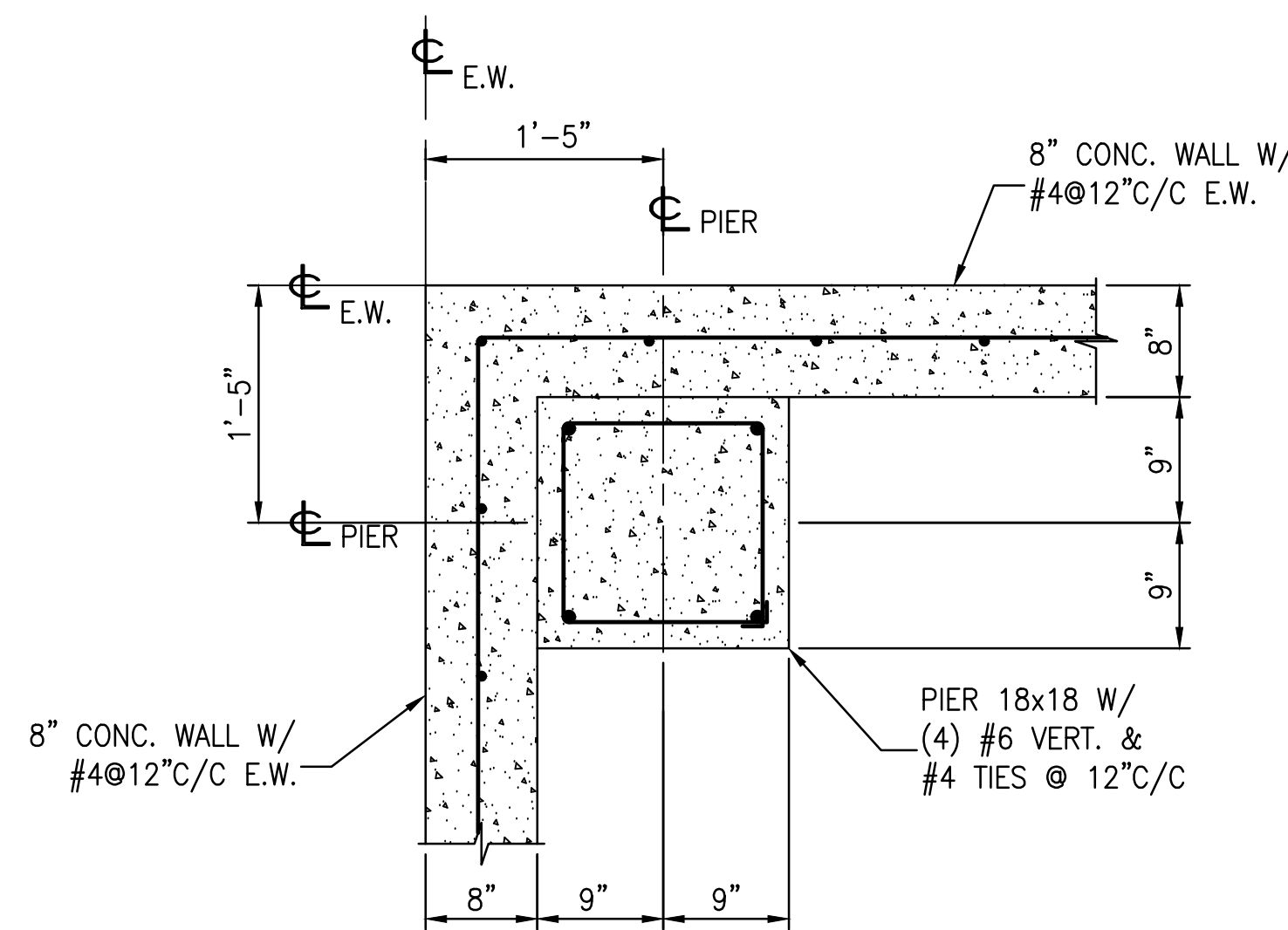
1 TYP. FOUNDATION SECTION
SCALE: 1"=1'-0"



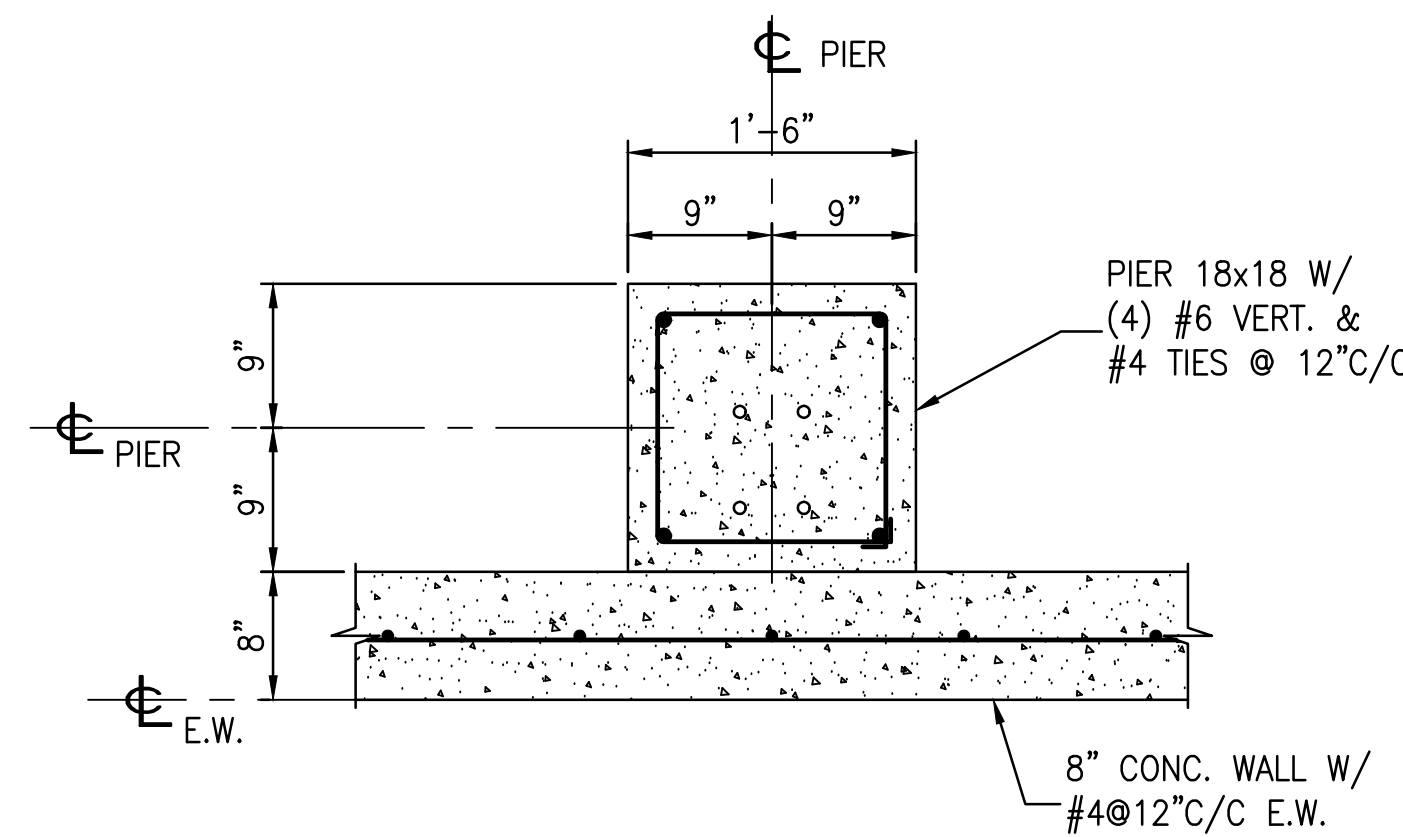
2 PIER/FOUNDATION SECTION
SCALE: 1"=1'-0"



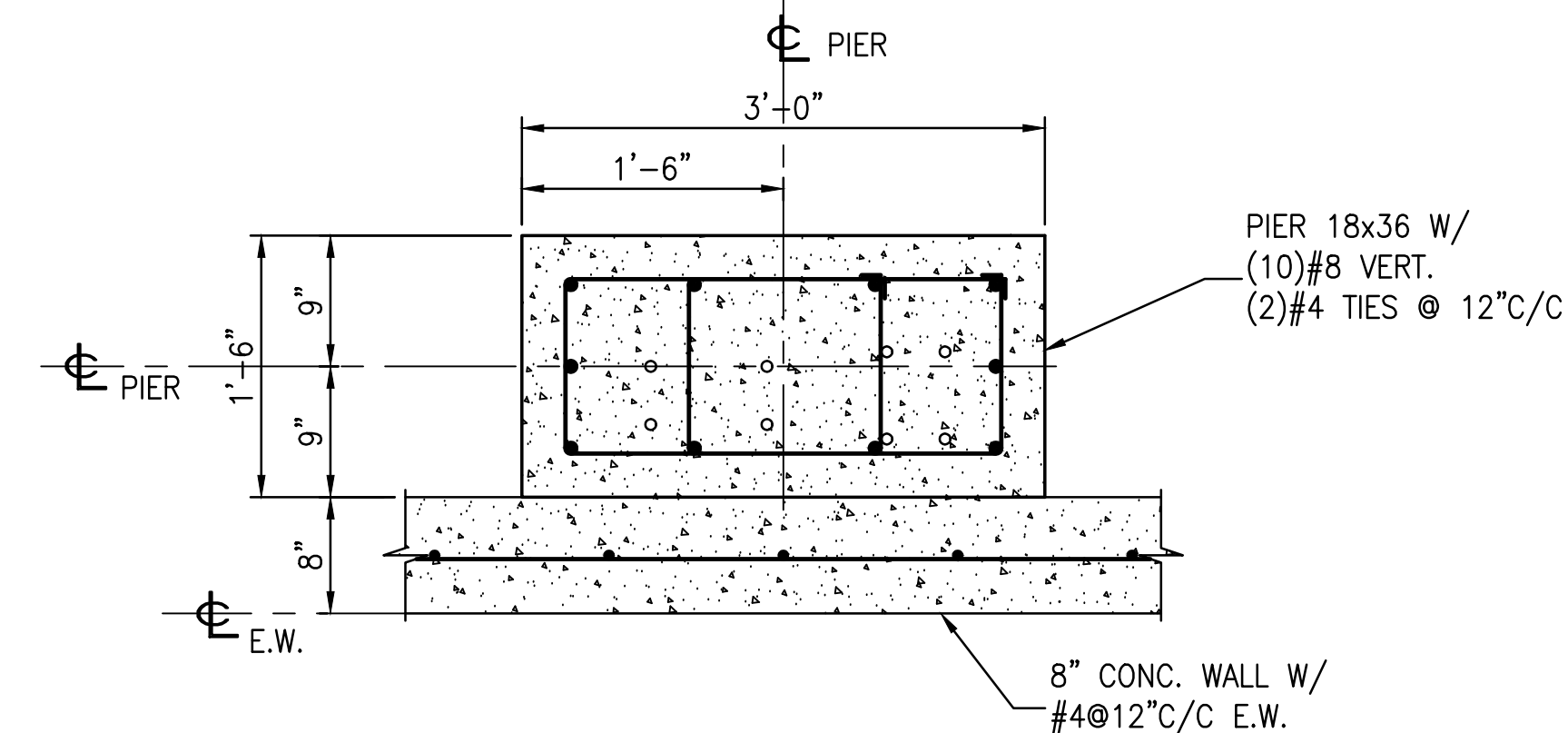
3 PIER/FOUNDATION SECTION
SCALE: 1"=1'-0"



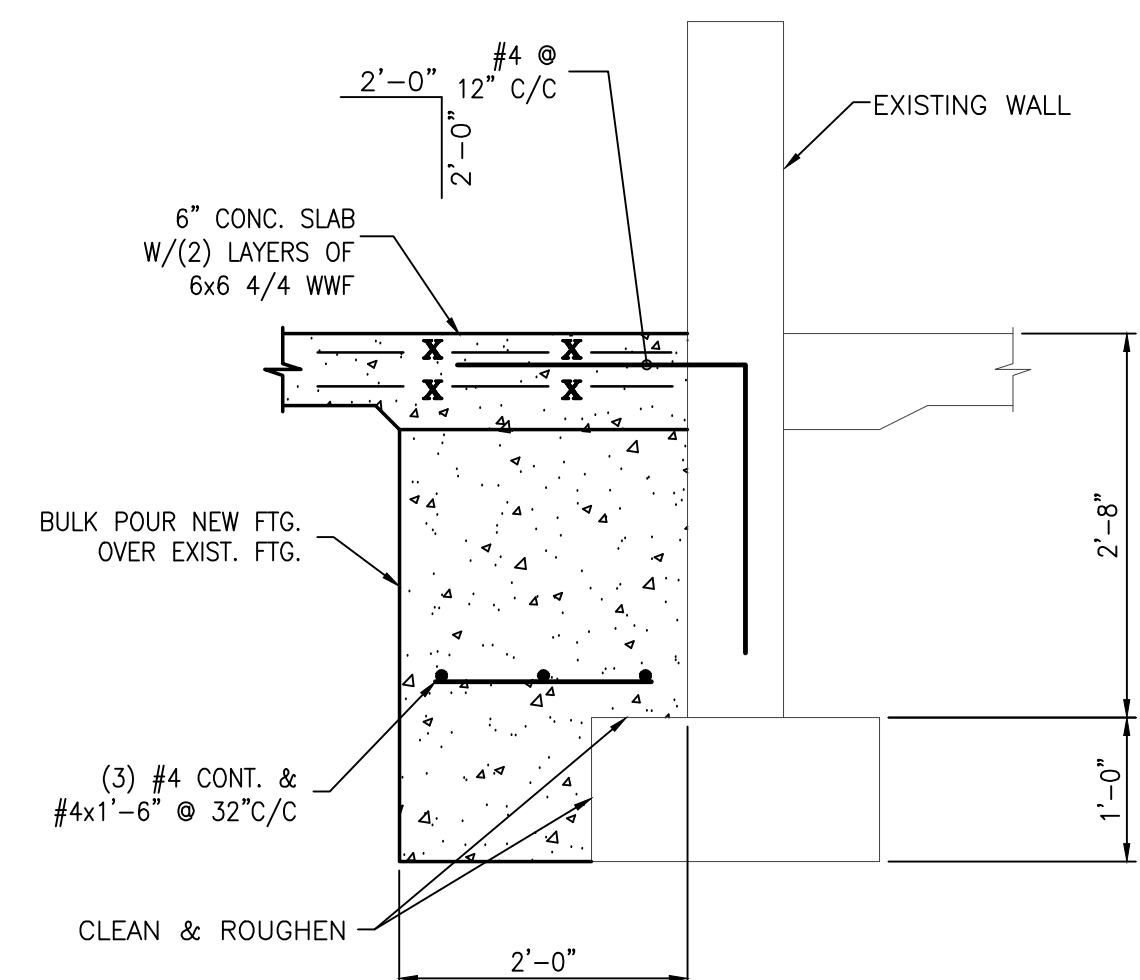
4 ENLARGED PIER DETAIL
SCALE: 1"=1'-0"



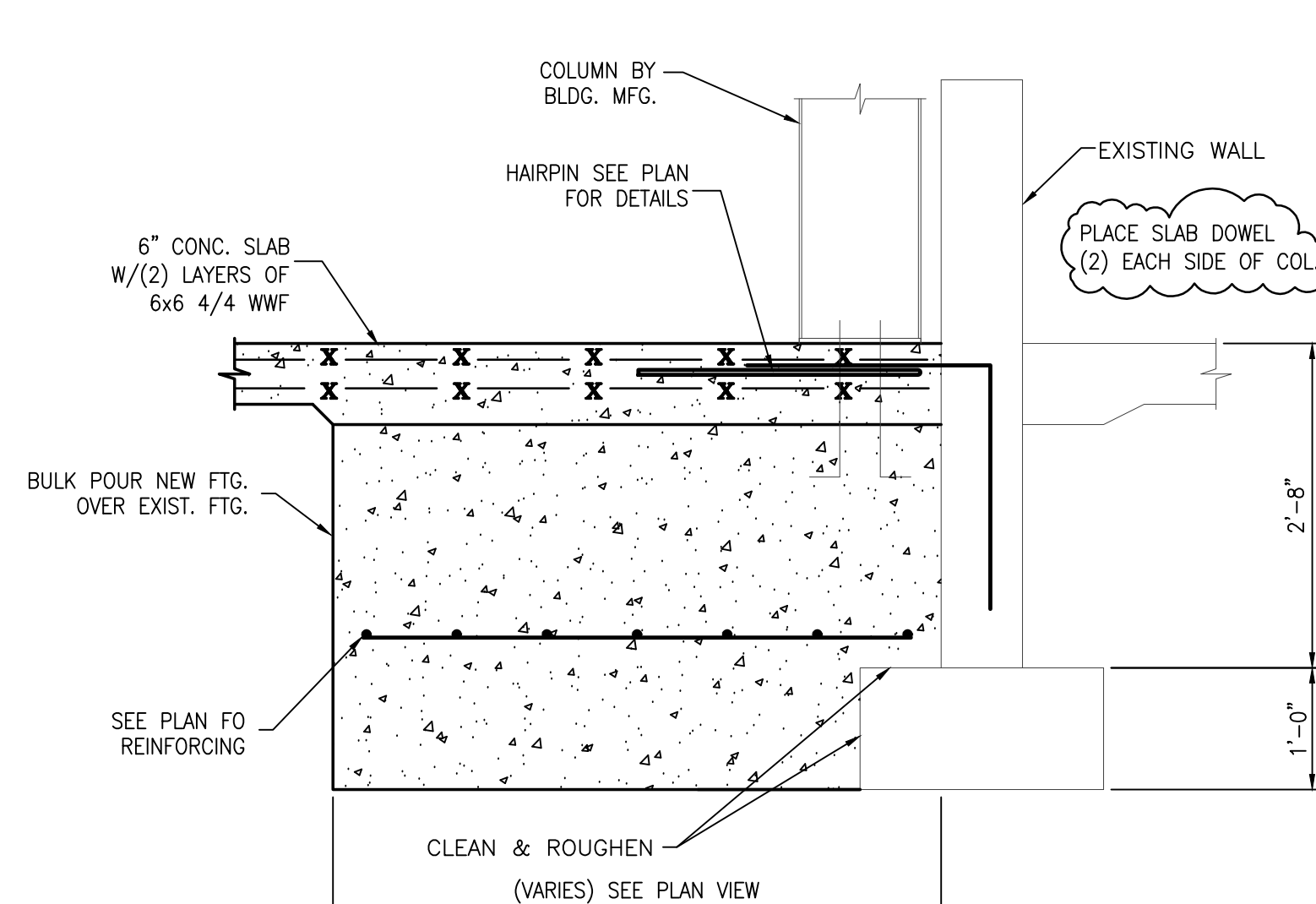
5 ENLARGED PIER DETAIL
SCALE: 1"=1'-0"



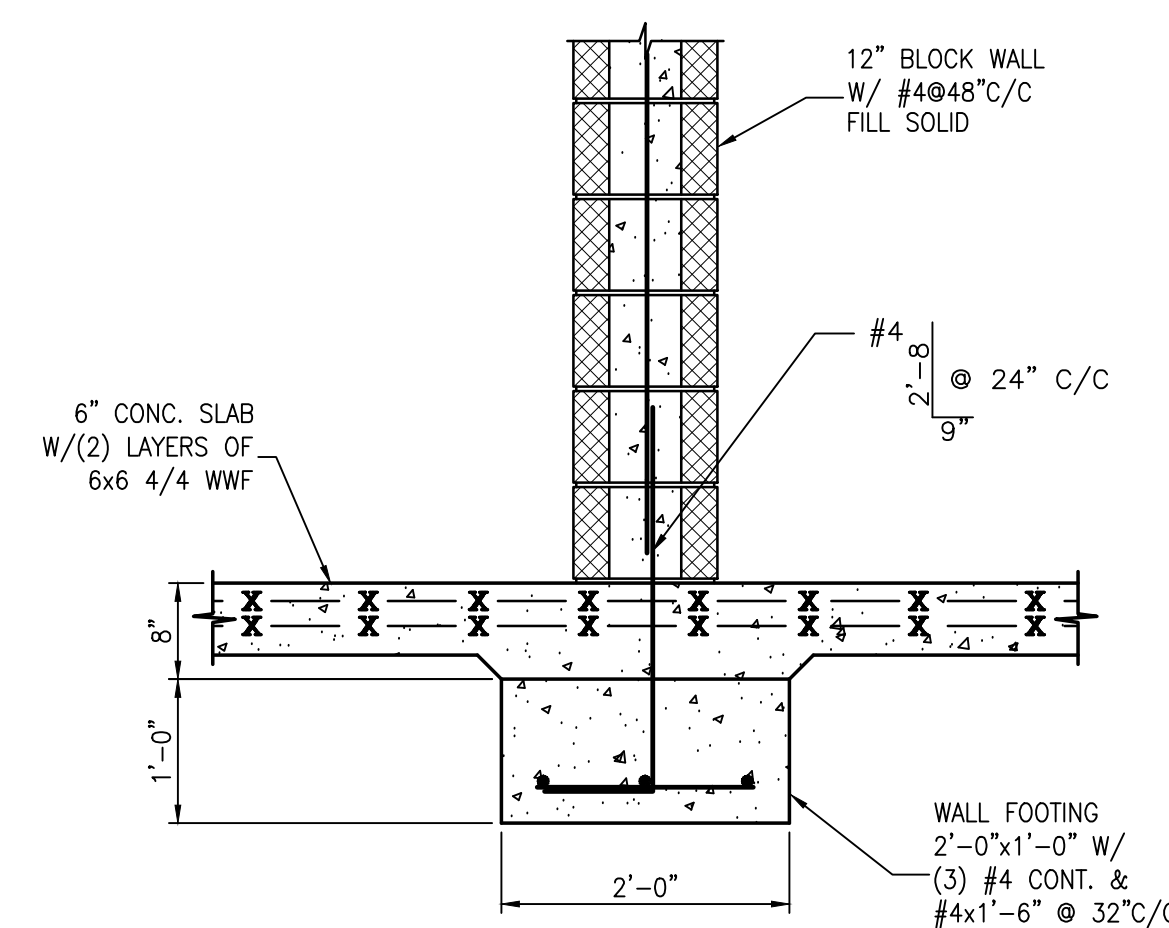
6 ENLARGED PIER DETAIL
SCALE: 1"=1'-0"



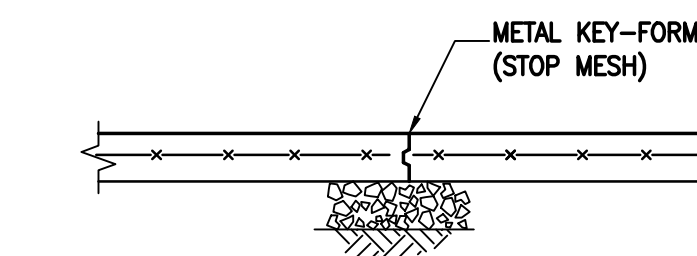
7 WALL FOOTING SECTION
SCALE: 3/4" = 1'-0"



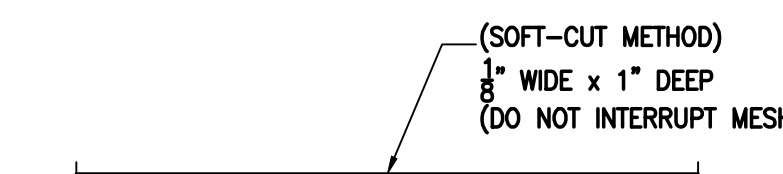
8 WALL FOOTING SECTION
SCALE: 3/4" = 1'-0"



9 HAUNCH FOOTING SECTION
SCALE: 3/4" = 1'-0"



10 TYP SLAB
CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"



11 TYP SLAB
CONTROL JOINT
SCALE: 3/4" = 1'-0"

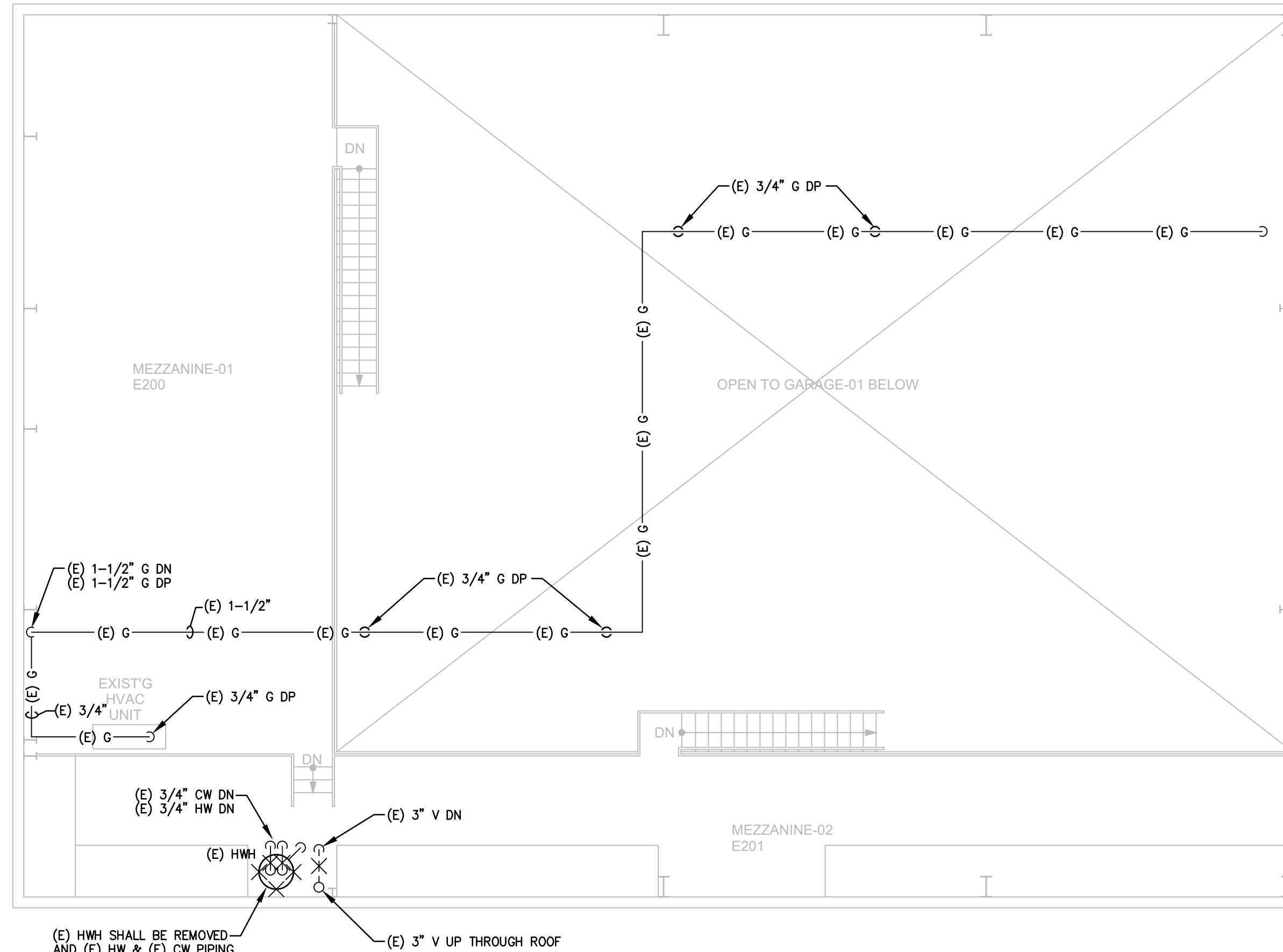
REV	DATE	DESCRIPTION

SE2 ENGINEERING, L.L.C.
- PROFESSIONAL ENGINEERS -
1705 BUTLER PIKE, CONSHOHOCKEN, PA. 19428
TEL: (610) 628-1530 EMAIL: OFFICE@SE2ENGINEER.COM

FOUNDATION DETAILS
MAINTENANCE BUILDING - 03 ADDITION
100 SHARP ROAD
MABLETON, NJ 08053

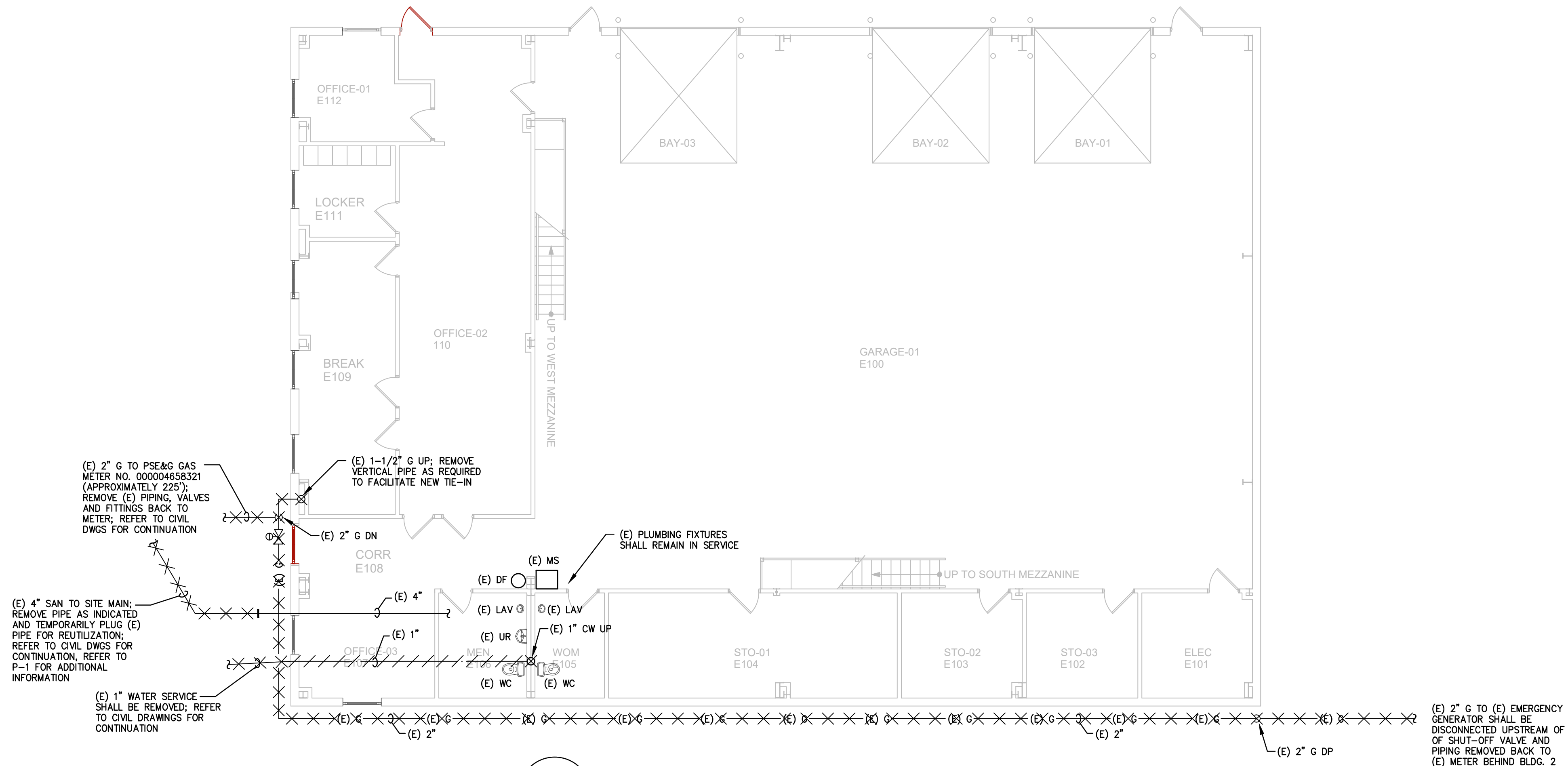
Drawn by: SLD Date: 12/11/2019
Scale: AS NOTED
Job#: 19-412
Sheet#: S3

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(E) HW1 SHALL BE REMOVED AND (E) HW & (E) CW PIPING SHALL BE CAREFULLY CUT BACK FOR REUTILIZATION WITH NEW PIPING. REFER TO DWG P-1 FOR ADDITIONAL INFORMATION

1 MEZZANINE PLAN - PLUMBING DEMOLITION
 PD-1 SCALE 1/8" = 1'-0"



(E) 2" G TO PSE&G GAS METER NO. 00004655321 (APPROXIMATELY 225'). REMOVE (E) PIPING, VALVES AND FITTINGS BACK TO METER. REFER TO CIVIL DWGS FOR CONTINUATION

(E) 4" SAN TO SITE MAIN. REMOVE PIPE AS INDICATED AND TEMPORARILY PLUG (E) PIPE FOR REUTILIZATION. REFER TO CIVIL DWGS FOR CONTINUATION. REFER TO P-1 FOR ADDITIONAL INFORMATION

(E) 1" WATER SERVICE SHALL BE REMOVED. REFER TO CIVIL DRAWINGS FOR CONTINUATION

(E) 1-1/2" G UP. REMOVE VERTICAL PIPE AS REQUIRED TO FACILITATE NEW TIE-IN

(E) 2" G DN

(E) 4"

(E) 1"

(E) 1" CW UP

(E) 2" G DP

(E) PLUMBING FIXTURES SHALL REMAIN IN SERVICE

(E) MS

(E) LAV 0

(E) UR

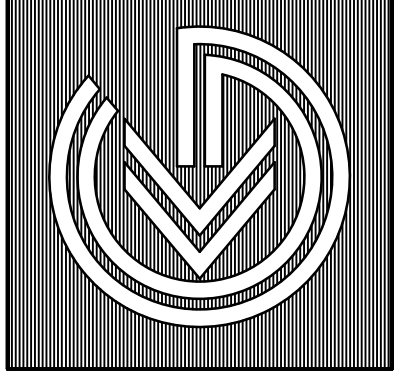
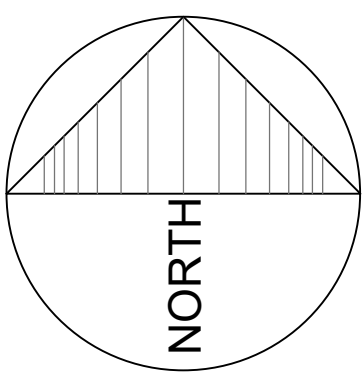
(E) WC

(E) WC

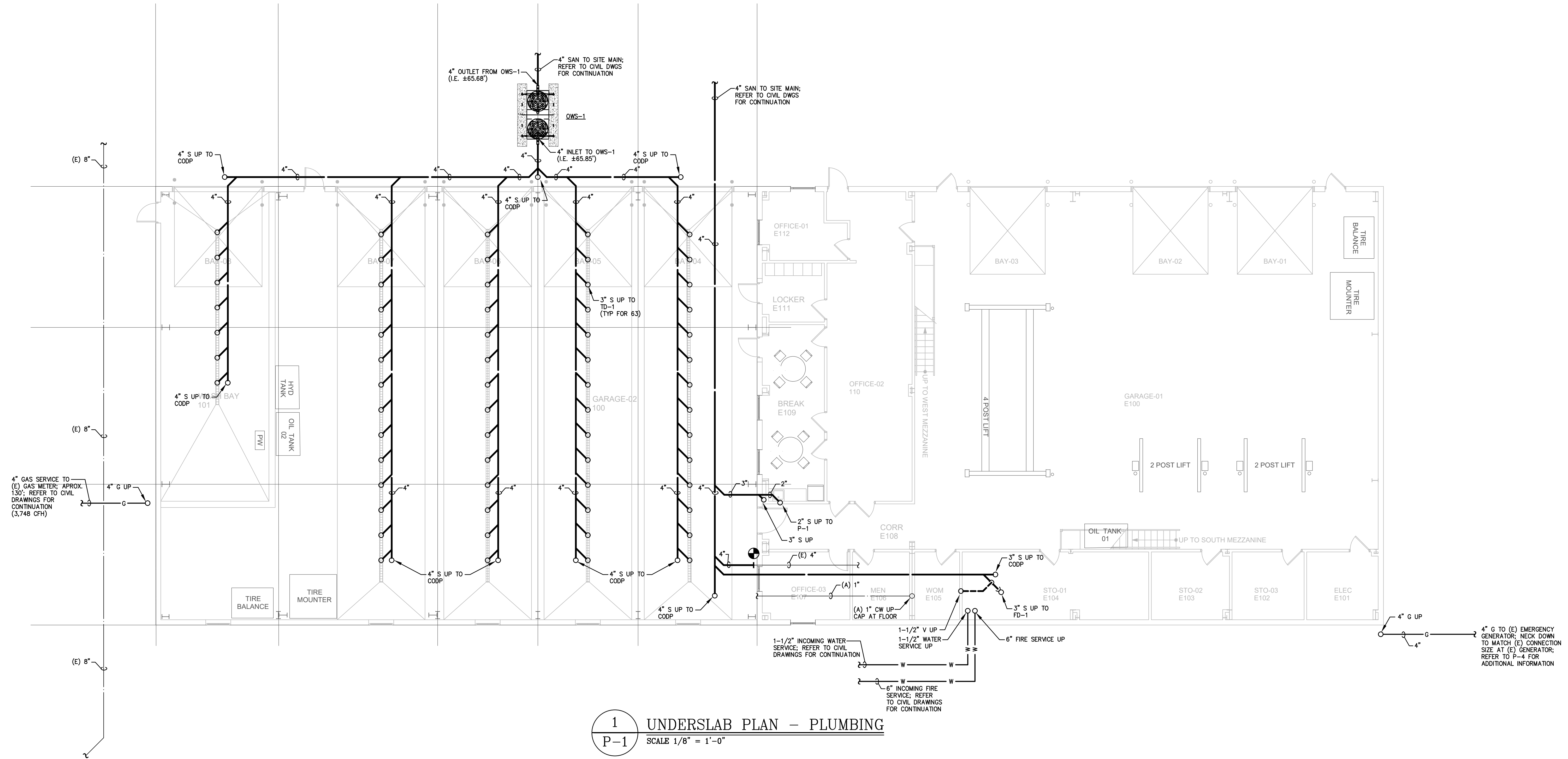
(E) 2" G TO (E) EMERGENCY GENERATOR SHALL BE DISCONNECTED UPSTREAM OF SHUT-OFF VALVE AND PIPING REMOVED BACK TO (E) METER BEHIND BLDG. 2

2 FLOOR PLAN - PLUMBING DEMOLITION
 PD-1 SCALE 1/8" = 1'-0"

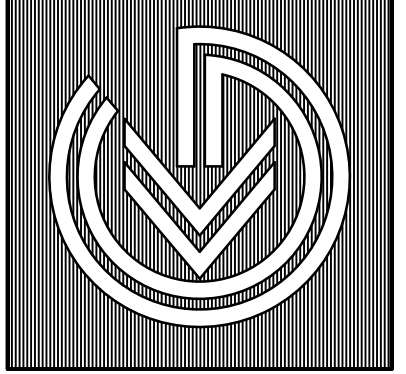
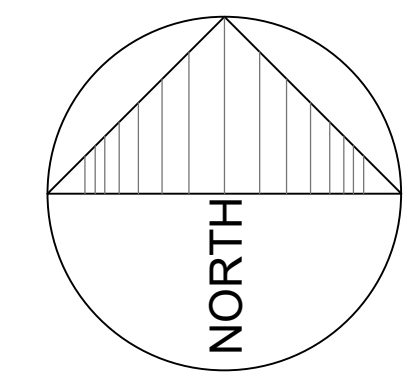
- NOTES:
- CONTRACTOR SHALL PERFORM DEMOLITION AND REROUTING OF NATURAL GAS PIPING SYSTEM AS PRELIMINARY PHASE TO MINIMIZE DOWN-TIME OF EMERGENCY GENERATOR. ALL WORK SHALL BE ACCOMPLISHED OVER THE COURSE OF ONE WEEKEND. COORDINATE WEEKEND WITH OWNER AND GAS UTILITY.
 - EXISTING 1" POLYETHYLENE PIPE UNDER SLAB SHALL BE DISCONNECTED TIGHT TO EXISTING EXTERIOR FOUNDATION WALL, AND TIGHT TO FLOOR IN WALL BETWEEN WOMEN E105 AND MEN E106. CAP ENDS WATER AND GAS TIGHT AND ABANDON IN PLACE.
 - EXISTING 1" COPPER WATER SERVICE SHALL BE TURNED OFF IN METER ROOM OF BUILDING 2, AND THE EXISTING 1" COPPER PIPE SHALL BE CUT BACK AND CAPPED WATER TIGHT ON DISCHARGE SIDE OF SHUT-OFF VALVE. EXISTING 1" COPPER PIPE SHALL BE CUT BACK TIGHT TO EXISTING FLOOR SLAB, CAPPED, AND SEALED LIQUID & GAS TIGHT. REMAINING WATER SERVICE PIPING SHALL BE ABANDONED IN PLACE.



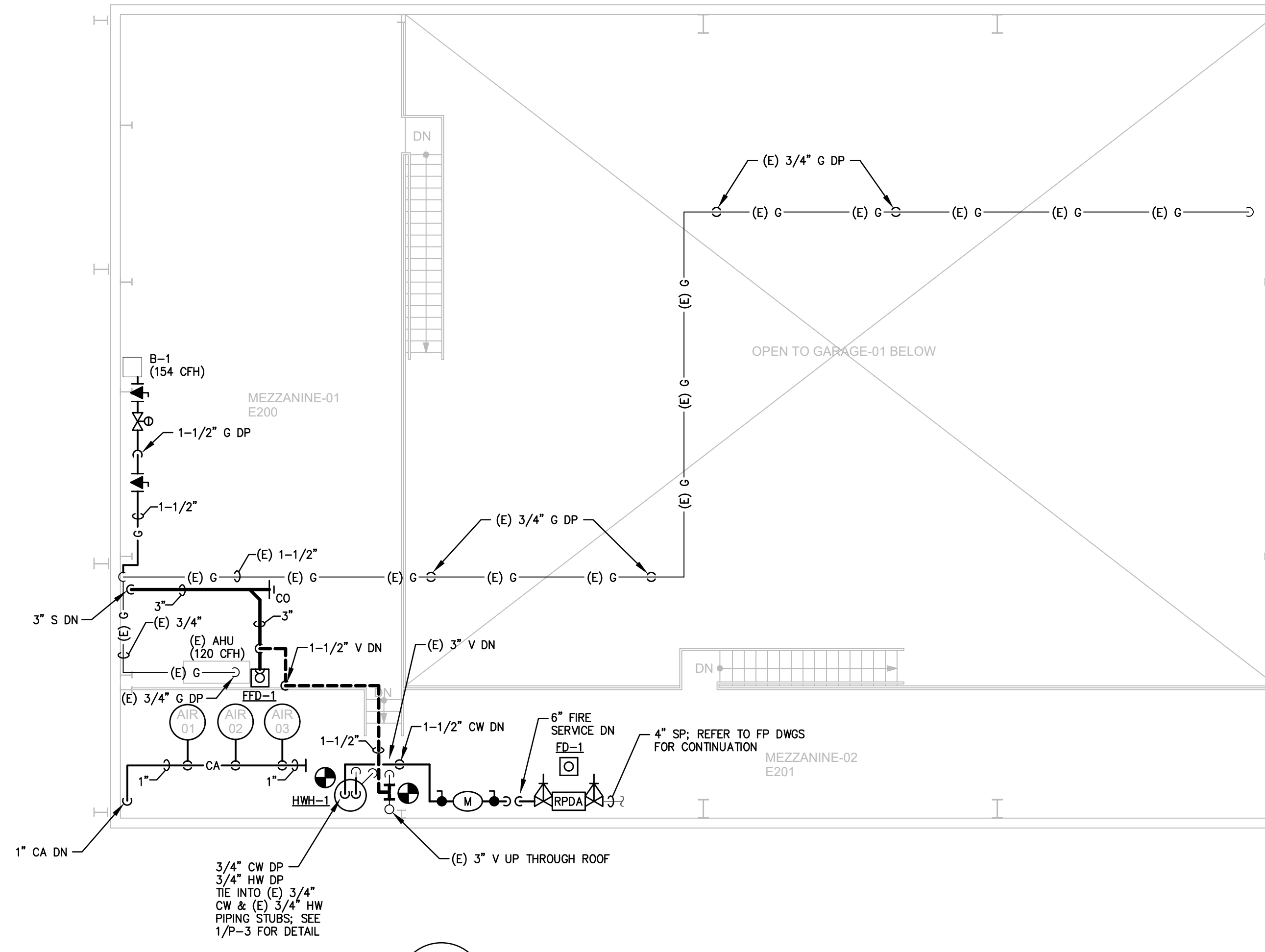
DRAWING DATE:	11 DEC 2019
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COMMISSION NO.:	5596E



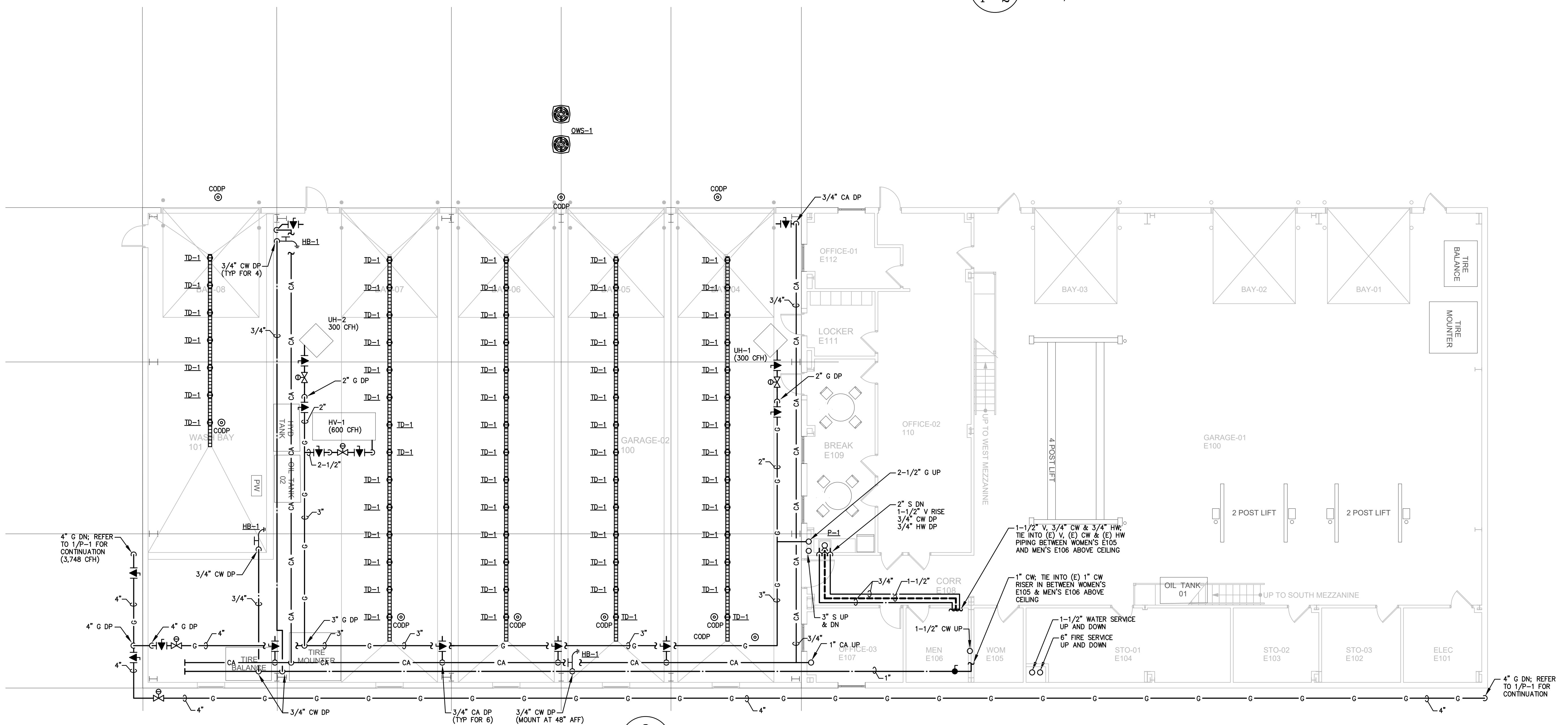
1 UNDERSLAB PLAN - PLUMBING
 P-1 SCALE 1/8" = 1'-0"



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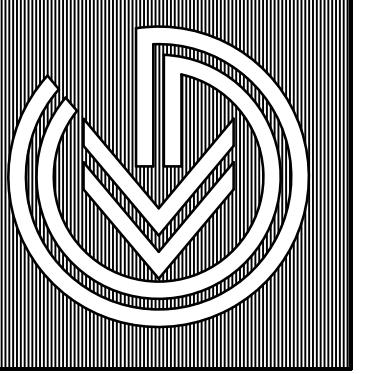
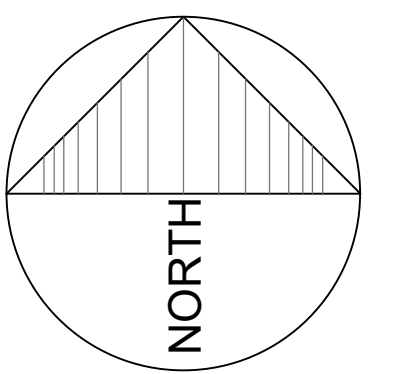


1 MEZZANINE PLAN - PLUMBING
 P-2 SCALE 1/8" = 1'-0"



2 FLOOR PLAN - PLUMBING
 P-2 SCALE 1/8" = 1'-0"

- NOTES:
1. FOR TOTAL DEVELOPED LENGTH OF GAS PIPING REFER TO NATURAL GAS RISER DIAGRAM.
 2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF UNDERGROUND GAS PIPING WITH EXISTING UNDERGROUND UTILITIES. ALL UTILITIES SHALL BE MARKED OUT AS REQUIRED BY NJUA, CALL BEFORE YOU DIG.
 3. ALL GAS PRVS SHALL BE EQUIMETER LOCK-UP TYPE APPROVED BY PSE&G. ALL VENTS SHALL BE EXTENDED OUTSIDE OF BUILDING AND PROVIDED WITH GOOSENECK AND INSECT SCREEN.
 4. REROUTING OF EXTERIOR NATURAL GAS PIPING SHALL BE ACCOMPLISHED PRIOR TO ALL OTHER NEW WORK. EMERGENCY GENERATOR SHALL BE TAKEN OFF-LINE FOR REROUTING OF GAS PIPING AND SHALL BE RETURNED TO SERVICE PRIOR TO REMAINDER OF WORK BEING ACCOMPLISHED. REFER TO 2/P-2-1 FOR ADDITIONAL INFORMATION.
 5. ALL COMPRESSED AIR DROPS SHALL HAVE SHUT-OFF VALVE ON VERTICAL DROP NO GREATER THAN 60" AFF. PROVIDE ELBOW WITH THREADED AND CAPPED OUTLET ALONG WALL FOR OWNER'S EQUIPMENT CONNECTION 48" AFF.
 6. ALL HOSE BIBBS SHALL BE MOUNTED 24" AFF UNLESS OTHERWISE NOTED.



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PLUMBING SYMBOL LIST					
ABBREVIATION	SYMBOL	DESCRIPTION	ABBREVIATION	SYMBOL	DESCRIPTION
CW		COLD WATER PIPING	GV		GATE VALVE
HW		HOT WATER PIPING	HB		HOSE BIBB W/VACUUM BREAKER
HWR		HOT WATER RETURN PIPING			BRANCH - TOP CONNECTION
(E) CW		(E) COLD WATER PIPING			BRANCH - BOTTOM CONNECTION
(E) HW		(E) HOT WATER PIPING			TRAP
(E) HWR		(E) HOT WATER RETURN PIPING			
W		SITE WATER SUPPLY	PV		GAS PLUG VALVE
V		VENT			CHECK VALVE
(E) V		(E) VENT	CV		CHECK VALVE
SAN, S		SOIL, WASTE, OR SANITARY SEWER	FD		FLOOR DRAIN
SAN, S		UNDERGROUND/BELOW SLAB SOIL, WASTE, OR SANITARY SEWER	TD		TRENCH DRAIN
CA		COMPRESSED AIR	COOP		CLEAN OUT DECK PLATE
G		NATURAL GAS	CO		CLEANOUT
(E) G		(E) NATURAL GAS	M		WATER METER & VALVE ASSEMBLY
		CAPPED OUTLET			NEW CONNECTION TO EXISTING
		VALVED & CAPPED OUTLET			REDUCED PRESSURE ZONE VALVE ASSEMBLY
		REDUCER	RPZ		REDUCED PRESSURE ZONE VALVE ASSEMBLY
		BALL VALVE	O.S.&Y.		OUTSIDE STEM & YOKE VALVE
		PIPING DROP	WH		NON-FREEZE WALL HYDRANT
		PIPING RISE			GAS PRESSURE REGULATOR
EX		EXISTING PIPING TO BE REMOVED			

PLUMBING ABBREVIATIONS		
A	COMPRESSED AIR	DN DOWN
(A)	ABANDONED	DP DROP
AF	ABOVE FINISHED FLOOR	DW DOMESTIC WATER
CA	COMPRESSED AIR	DWG DRAWING
CI	CAST IRON	(E) EXISTING
CO	CLEANOUT	FD FLOOR DRAIN
COOP	CLEANOUT WITH DECK PLATE	G GAS
CW	COLD WATER	HW HOT WATER SUPPLY
DF	DRINKING FOUNTAIN	IW IRRIGATION WATER
DFU	DRAINAGE FIXTURE UNITS	LAV LAVATORY
MS	MOP SINK	
OD	OVERFLOW DRAIN	
OS	SANITARY	
SAN	SANITARY	
SP	SPRINKLER PIPE	
TYP	TYPICAL	
UR	URINAL	
WC	WATER CLOSET	

PLUMBING SPECIALTIES SCHEDULE			
MARK	DESCRIPTION	MANUFACTURER MODEL	REMARKS
WH-1	NON-FREEZE WALL HYDRANT	ZURN Z-1300-4	BRONZE BODY, ENCASED, ANTI-SIPHON, AUTOMATIC DRAINING, INTEGRAL BACKFLOW PREVENTOR & 3/4" HOSE CONNECTION
HB-1	HOSE BIBB	ZURN Z-195	BRONZE BODY, ENCASED, ANTI-SIPHON, AUTOMATIC DRAINING, INTEGRAL BACKFLOW PREVENTOR & 3/4" HOSE CONNECTION
NEGH	NON-FREEZE GROUND HYDRANT	MURDOCH MODEL M-NP75	CAST IRON AND CAST BRASS CONSTRUCTION, ASSE 1057 CERTIFIED, VALVE BURIAL DEPTH SHALL BE 4'-0"
	AIR GAP FITTING	ZURN Z-1024 OR Z-1025	DURA-COAT CAST IRON FIXED AIR GAP FITTING (SELECT SIZE AS REQUIRED BY INDIRECT WASTE PIPING)
IG	WATERLESS TRAP GUARD	PROVENT TRAP GUARD	ELASTOMERIC, NORMALLY CLOSED TRAP GUARD DEVICE WHICH OPENS WHEN IN CONTACT WITH LIQUID, COMPLES WITH ANSI/ASME A112.6.3
RPDA	REDUCED PRESSURE ZONE VALVE	WATTS MODEL 909LF	SIZE REDUCED PRESSURE ZONE VALVE ASSEMBLY WITH SWEAT ENDS FOR IRRIGATION SYSTEM, COORDINATE SIZE WITH VENDOR
TMV-1	THERMOSTATIC MIXING VALVE	GUARDIAN MODEL G3600LF	BLENDS HOT AND COLD WATER TO DELIVER TEPID WATER AS REQUIRED BY ANSI Z358.1-2014
TMV-2	THERMOSTATIC MIXING VALVE	LEONARD MODEL 270-LF	INSTALL BELOW SINK; SET OUTLET TEMPERATURE TO 105° (F).

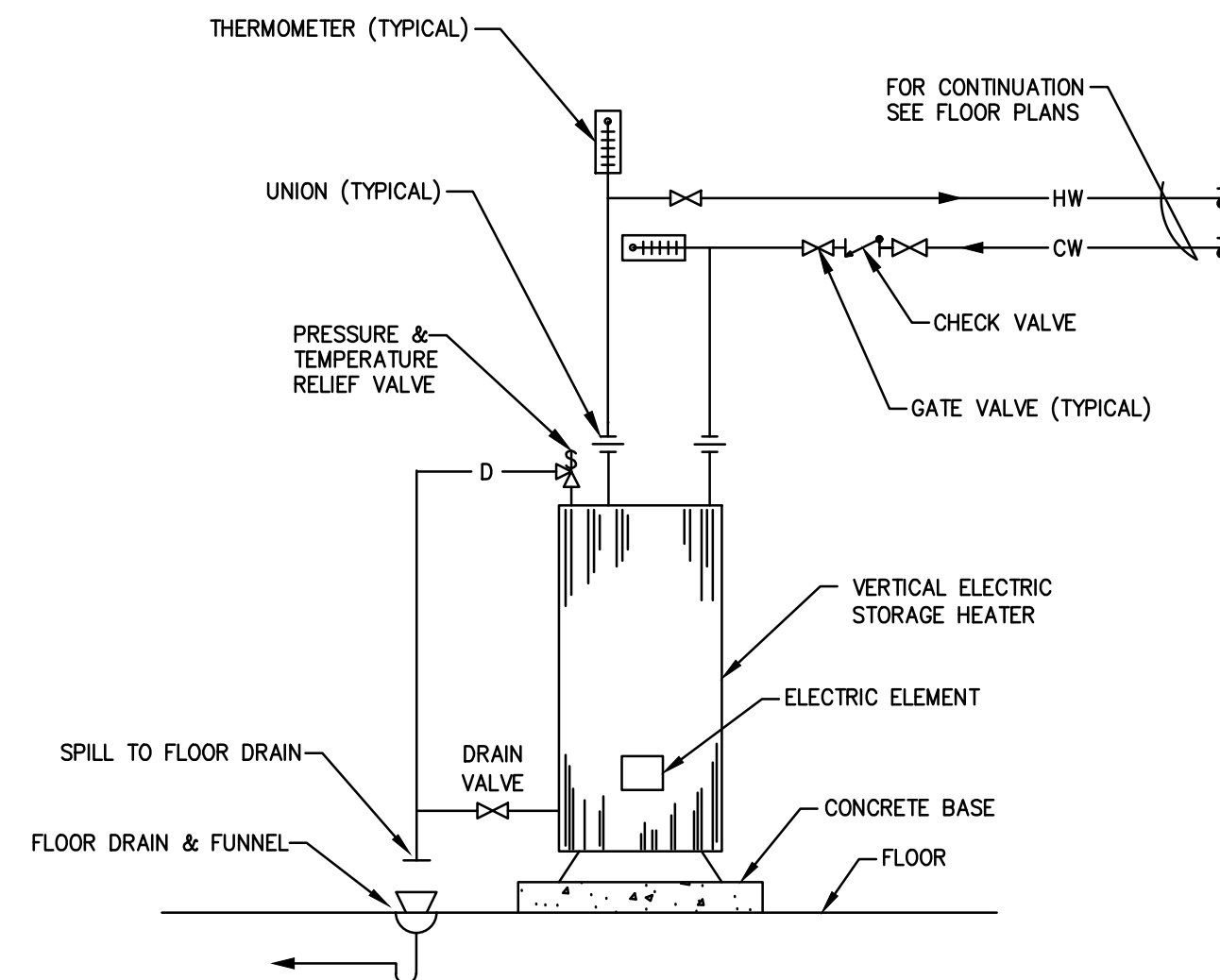
PLUMBING FIXTURE & CONNECTION SCHEDULE												
MARK	FIXTURE	MOUNTING	MANUFACTURER	MODEL NO.	TRIM NO.	SUPPORT NO.	TRAP	WASTE	VENT MIN.	CW	HW	REMARKS
P-1	SINK	COUNTER MOUNTED	ELKAY	LRAD222255	ELKAY LK800N0416	N/A	1-1/2" x 2"	2"	1-1/2"	3/4"	3/4"	ADA COMPLIANT, 18 GAUGE STAINLESS STEEL SINK, SINGLE BOWL, 3-HOLE ON 8" CENTERS; PROVIDE DRAIN LK500, CHROME PLATED P-TRAP & TAILPIECE, ANGLE STOPS AND BRAIDED STEEL SUPPLIES

PLUMBING EQUIPMENT SCHEDULE												
MARK	DESCRIPTION	GENERAL			DESIGN DATA			ELECTRICAL			REMARKS	
		MANUFACTURER	MODEL NUMBER	LOCATION	CAPACITY	PUMP HEAD	HP	RPM	VOLTS	PH		HZ
HWH-1	ELECTRIC HOT WATER HEATER	A.O. SMITH	BTH-120	MEZZANINE-02 E201	60 GALLONS	N/A	N/A	N/A	-	-	-	60 GALLON STORAGE WITH 138 GPH RECOVERY WITH INTEGRAL 3" FORCED DRAFT FLUE VERTICAL EXHAUST & 3" VERTICAL AIR INTAKE MOUNTED ON 4" CONCRETE PAD
AC-1	TANK MOUNTED AIR COMPRESSOR	SEE REMARKS	SEE REMARKS	MEZZANINE-02 E201	-	-	7.5	-	208	3	60	AIR COMPRESSOR AND ACCESSORIES ARE EXISTING AND WILL BE FURNISHED BY OWNER AND INSTALLED UNDER THIS CONTRACT
AC-2	TANK MOUNTED AIR COMPRESSOR	SEE REMARKS	SEE REMARKS	MEZZANINE-02 E201	-	-	7.5	-	208	1	60	AIR COMPRESSOR AND ACCESSORIES ARE EXISTING AND WILL BE FURNISHED BY OWNER AND INSTALLED UNDER THIS CONTRACT
AC-3	TANK MOUNTED AIR COMPRESSOR	SEE REMARKS	SEE REMARKS	MEZZANINE-02 E201	-	-	5	-	208	1	60	AIR COMPRESSOR AND ACCESSORIES ARE EXISTING AND WILL BE FURNISHED BY OWNER AND INSTALLED UNDER THIS CONTRACT
OIS-1	OIL/SAND INTERCEPTOR	HIGHLAND TANK	OS-2000-2	OUTSIDE ON SITE	2,000 GALLONS	N/A	N/A	N/A	N/A	N/A	N/A	STEEL DOUBLE-WALL TANK WITH LEAK MONITORING, 4" INLET/OUTLET AND TWO 24" MANWAY WITH STEEL ROADWAY COVERS

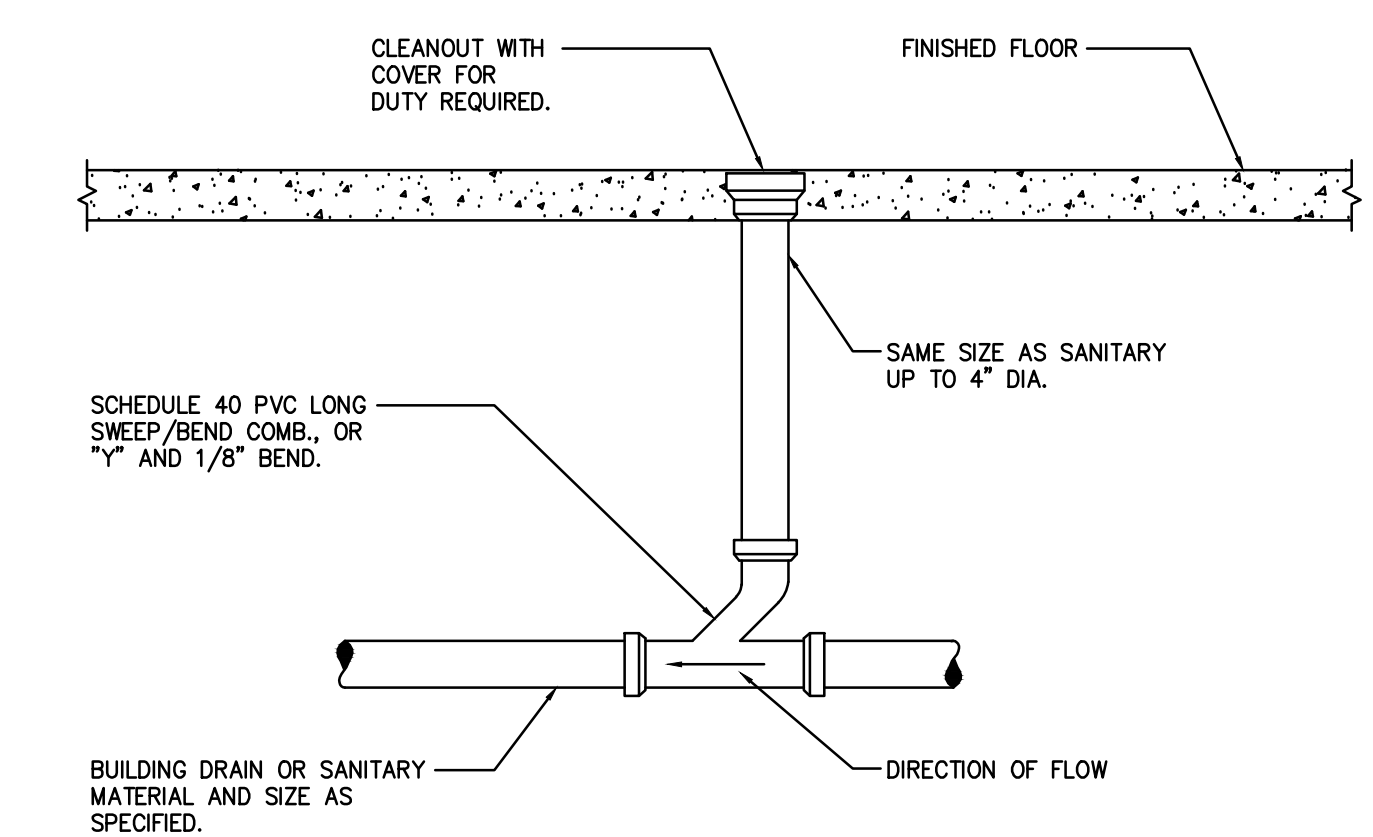
PLUMBING FLOOR DRAIN SCHEDULE				
MARK	DESCRIPTION	MANUFACTURER MODEL	LOCATION	REMARKS
FD-1	FLOOR DRAIN	ZURN INDUSTRIES INC ZN-415-P-Y	SEE FLOOR PLANS	C.I. BODY, SEDIMENT BUCKET, 3" OUTLET, FLASHING COLLAR, 5" SQUARE NICKEL BRONZE STRAINER, PROVIDE DEEP SEAL TRAP, AND ELASTOMERIC TRAP SEAL II (SEE PLUMBING SPECIALTIES SCHEDULE)
TD-1	TRENCH DRAIN	WATTS DEAD LEVEL S	SEE FLOOR PLANS	6" X 48" DUCTILE IRON WITH INTEGRAL 4" IPS THREADED BOTTOM OUTLET.
FFD-1	FUNNEL FLOOR DRAIN	ZURN INDUSTRIES INC Z1019	SEE FLOOR PLANS	C.I. BODY, 3" OUTLET, 4" X 3-3/4" FUNNEL, DOME STRAINER, BRONZE CLEAN OUT PLUG IN BASE OF P-TRAP, PROVIDE ELASTOMERIC TRAP SEAL II (SEE PLUMBING SPECIALTIES SCHEDULE)

PLUMBING GENERAL NOTES

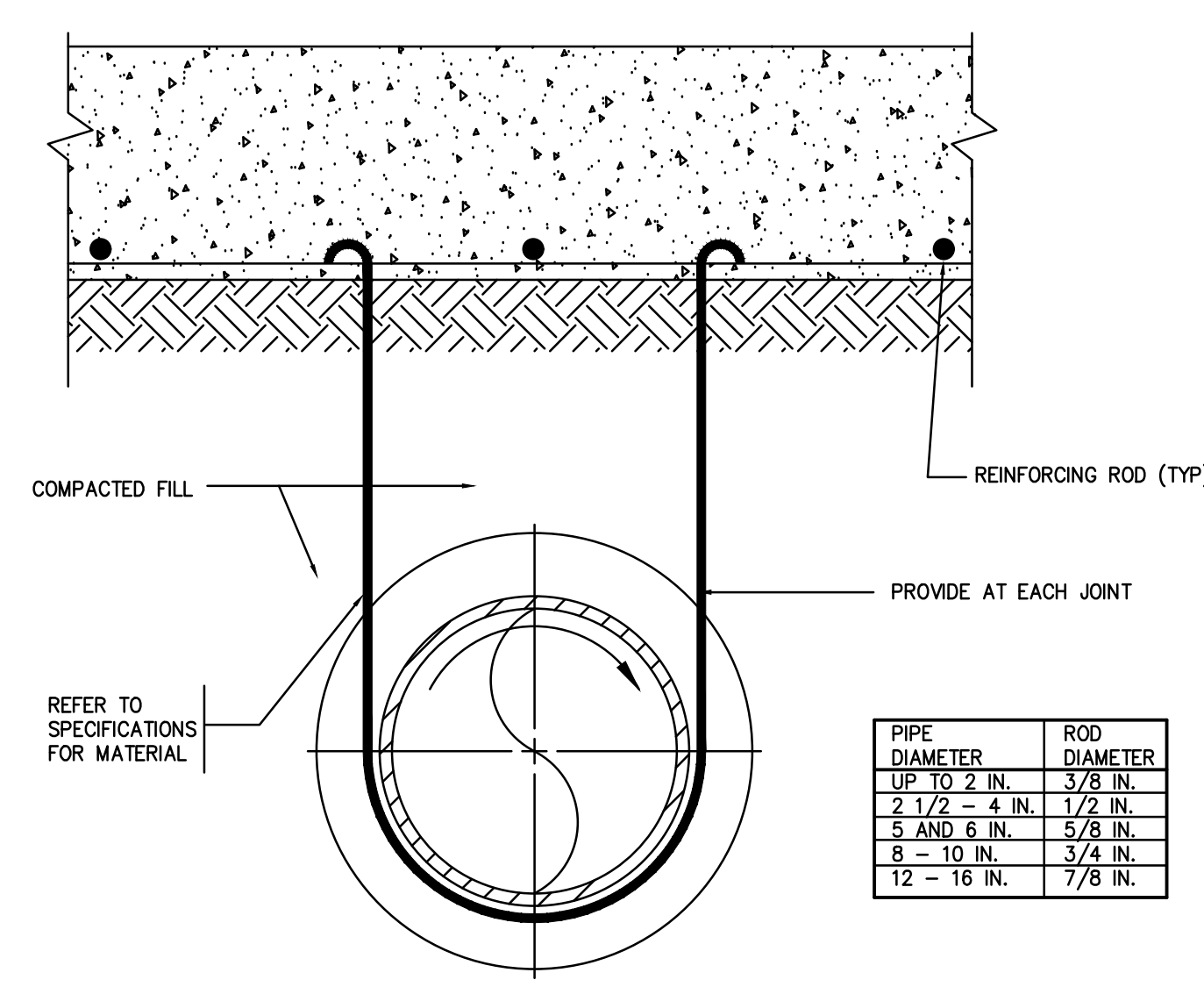
- THE PLUMBING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE STATE AND LOCAL BUILDING AND PLUMBING CODES, SUBSEQUENT AMENDMENTS, DEPARTMENT OF HEALTH REQUIREMENTS AND AUTHORITIES HAVING JURISDICTION.
- PIPING LAYOUTS ARE DIAGRAMMATIC AND INTENDED TO SHOW GENERAL ARRANGEMENT, SIZE, AND CAPACITY. ALL OFFSETS ARE NOT NECESSARILY SHOWN. THE CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES AND FITTINGS TO AVOID CONFLICTS WITH MECHANICAL, ELECTRICAL SYSTEMS, STRUCTURAL AND ARCHITECTURAL ELEMENTS.
- THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING. PATCH ALL WALL OPENINGS AS NECESSARY TO MATCH EXISTING CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING ALL WALL PENETRATIONS WITH FIRE RATED SEALANT.
- THE CONTRACTOR SHALL RUN ALL PIPING TO AVOID REINFORCING AT ALL COLUMN LINES.
- THE CONTRACTOR SHALL INSTALL PIPING SO AS NOT TO ENDOUR ON REQUIRED CLEARANCES ABOVE ANY ELECTRICAL PANEL. NO PIPING SHALL BE INSTALLED DIRECTLY OVER ELECTRICAL PANELS AND NO PIPING SHALL BE INSTALLED WITH THE BOTTOM AT LESS THAN 6" ABOVE THE 4'-0" SPACE DIRECTLY IN FRONT OF ANY ELECTRICAL PANELS.
- ALL PIPING AND INSTALLATION SHALL BE IN COMPLIANCE WITH NEW JERSEY INTERNATIONAL BUILDING CODE 2015, NATIONAL STANDARD PLUMBING CODE 2015, INTERNATIONAL FUEL GAS CODE 2015 AND ANY APPLICABLE LOCAL CODES AND STANDARDS.



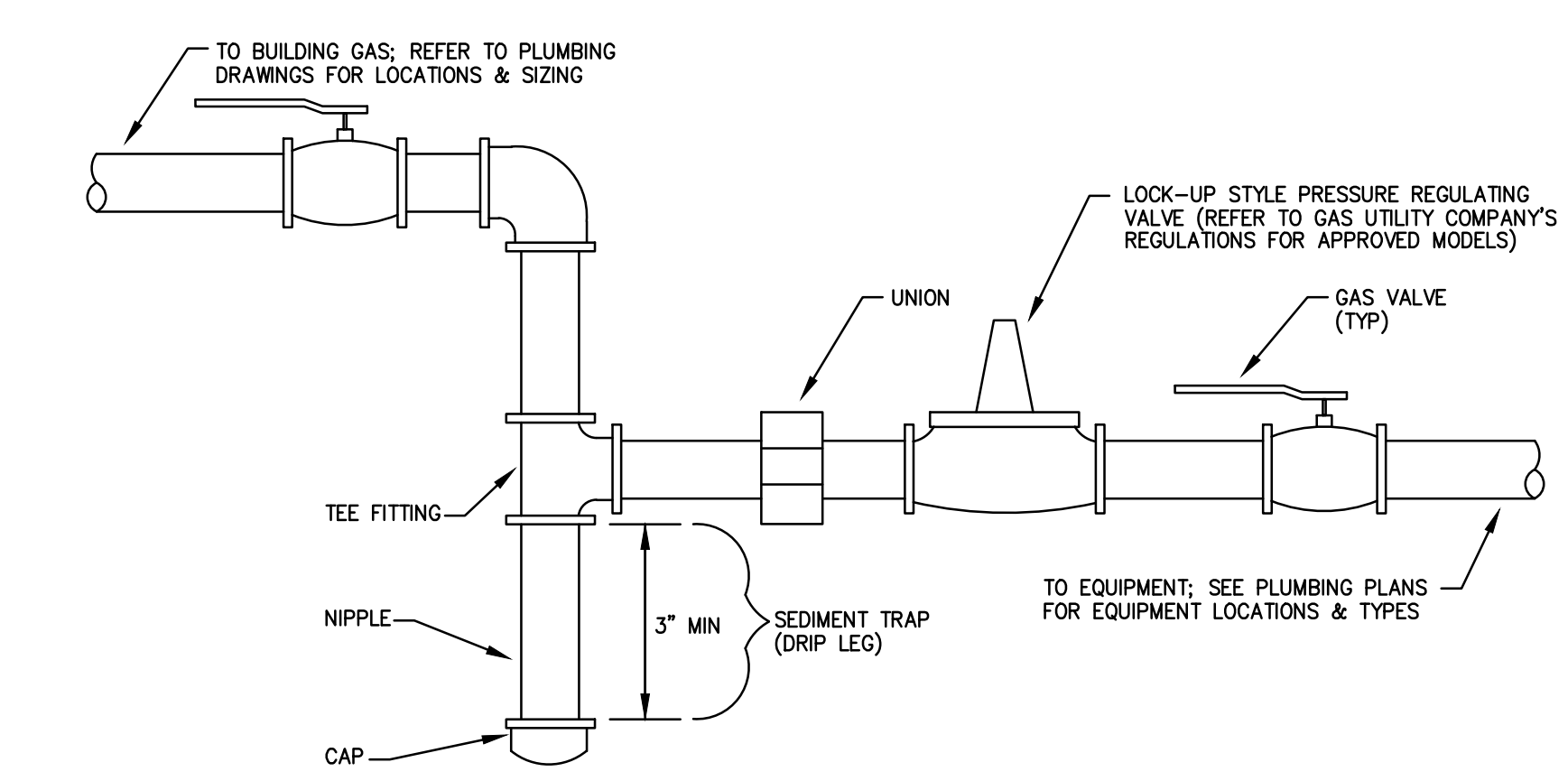
1 ELECTRIC DOMESTIC WATER HEATER
P-3 NOT TO SCALE



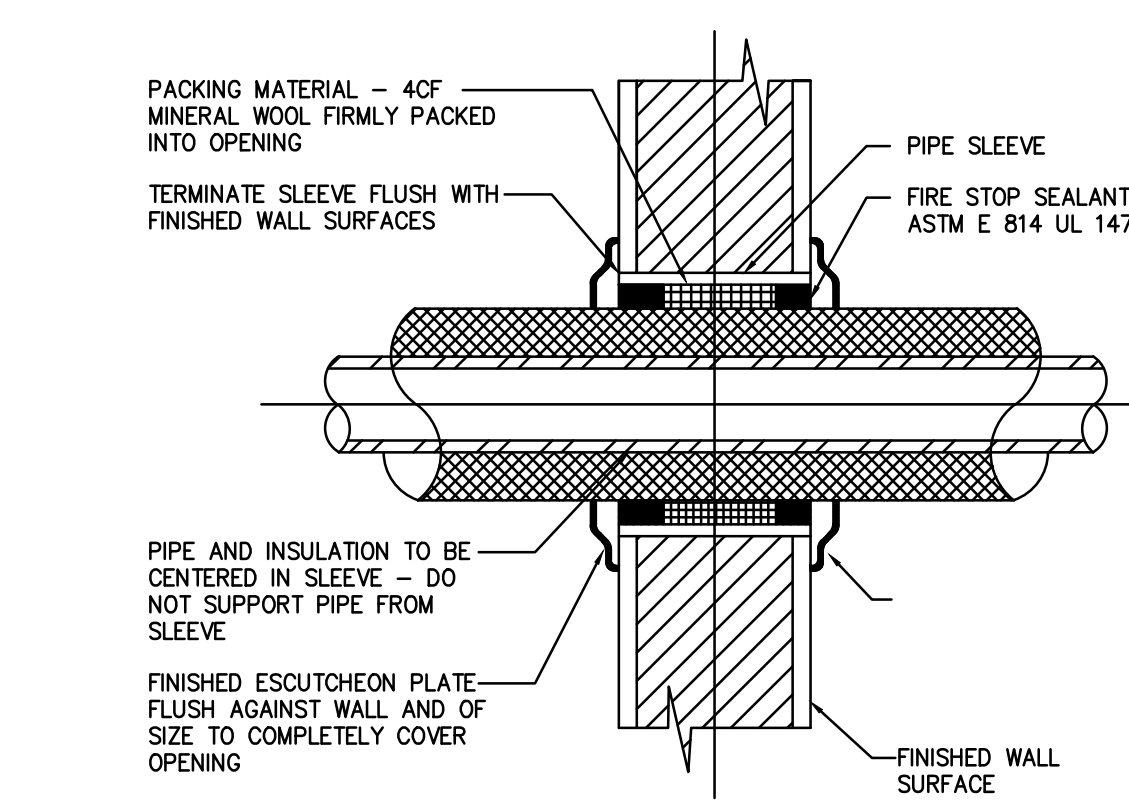
2 DETAIL OF CLEANOUT WITH DECK PLATE
P-3 NOT TO SCALE



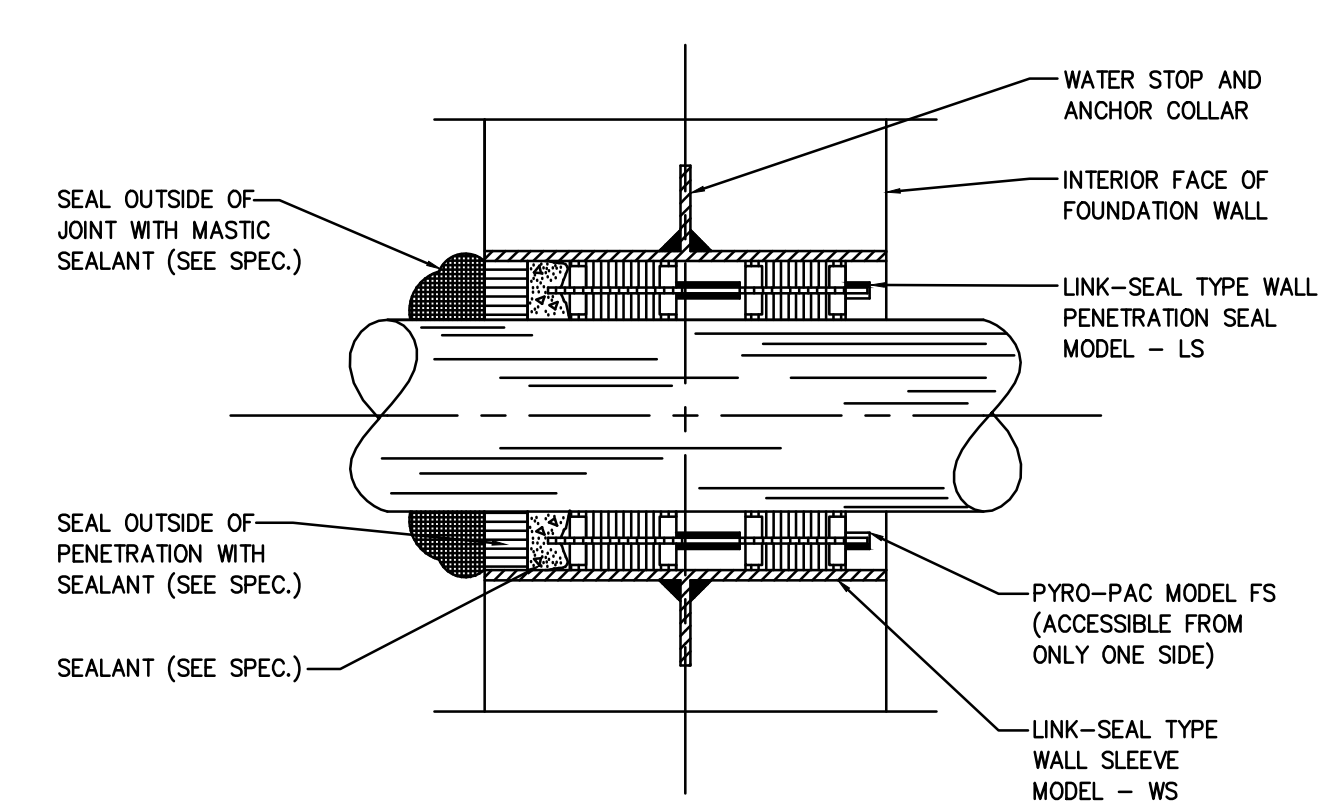
5 UNDERGROUND PIPING SUPPORT
P-3 NOT TO SCALE



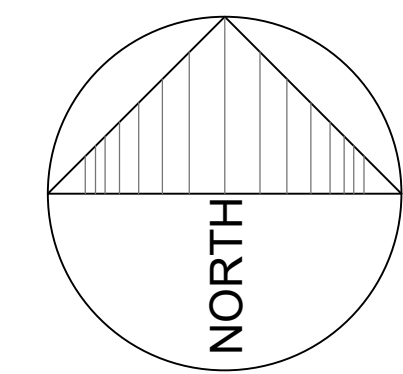
6 TYPICAL GAS EQUIPMENT CONNECTION
P-3 NOT TO SCALE



3 PIPE SLEEVE THROUGH INTERIOR WALL
P-3 NOT TO SCALE

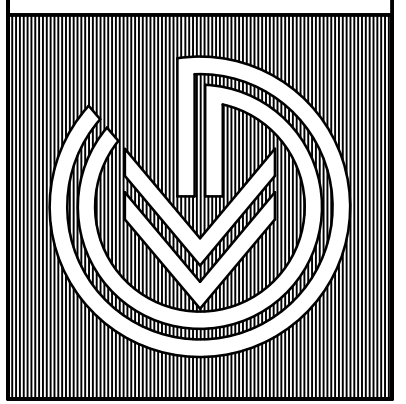


4 PIPE SLEEVE THROUGH EXTERIOR FOUNDATION WALL
P-3 NOT TO SCALE



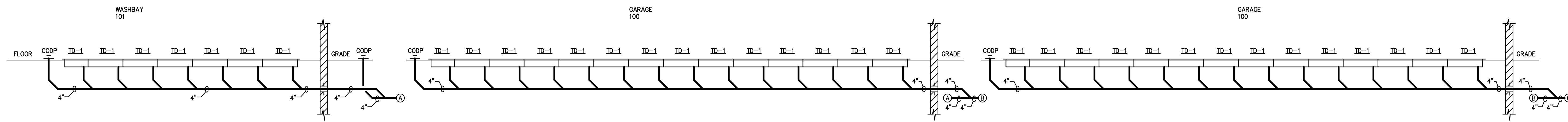
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KELTER & GILLICO
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FARGO, ND 58103
Phone: 701.785.9100
Professional Engineer
NJ 38606

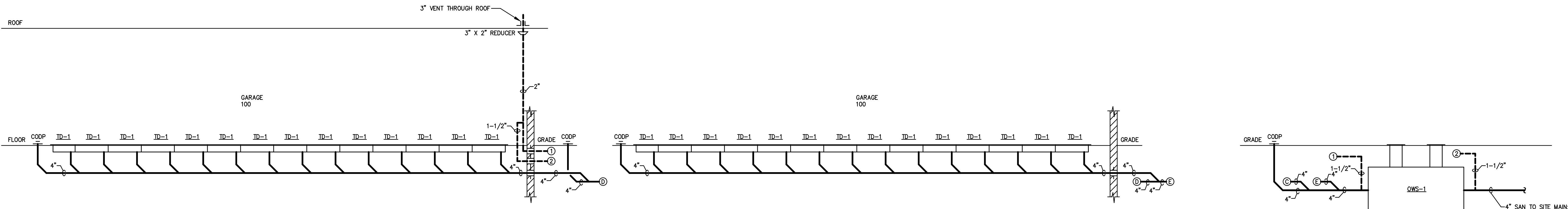


MAINTENANCE BUILDING-03 ADDITION
EVESHAM TOWNSHIP PUBLIC WORKS
100 SHARP ROAD
MARTLTON, NEW JERSEY 08053
TITLE: SCHEDULES, SYMBOLS, AND DETAILS - PLUMBING

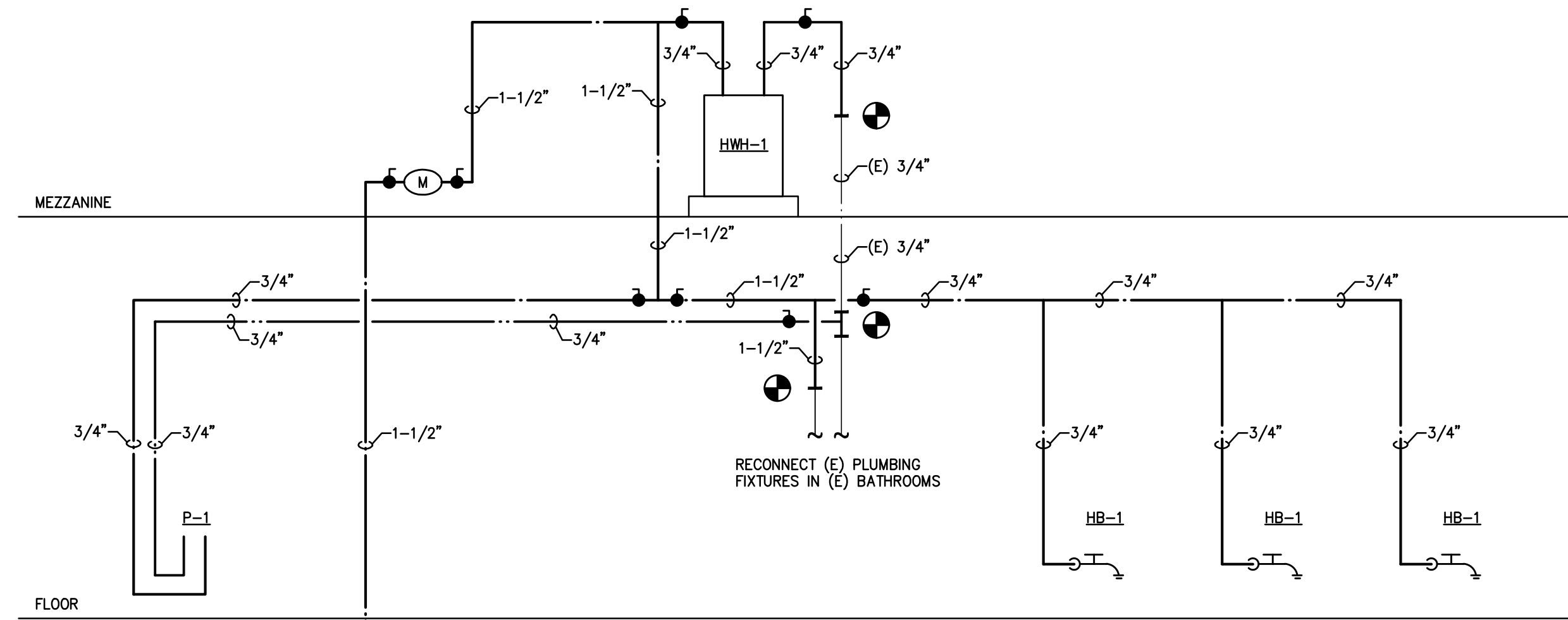
DRAWING DATE:	11 DEC 2019
REVISION DATE:	
DRAWN BY:	ACL
COMMISSION NO.:	5596E



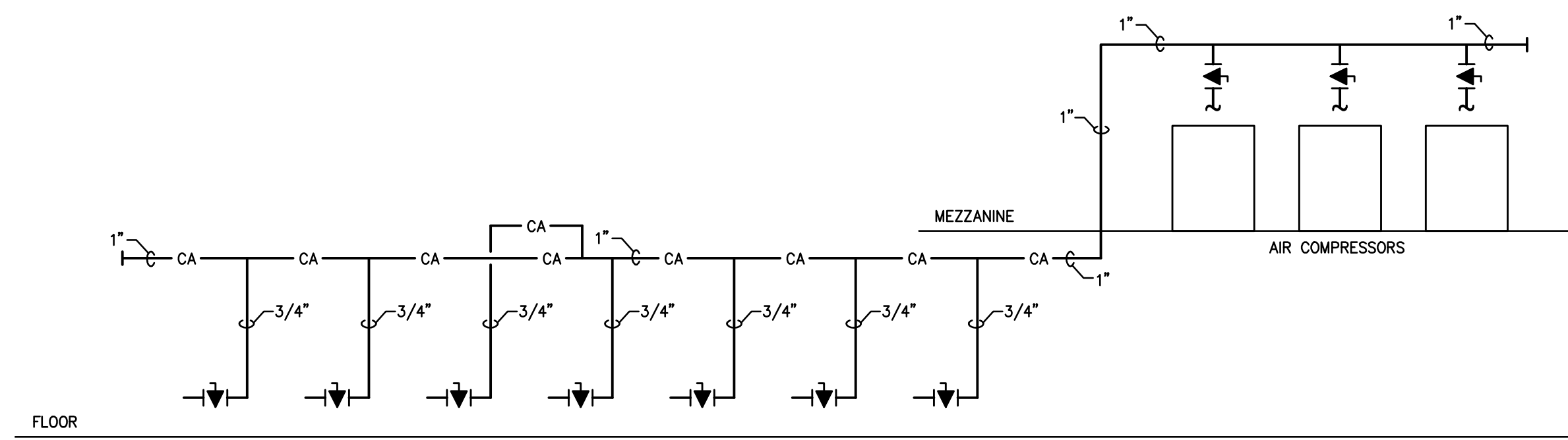
1 SANITARY RISER DIAGRAM - PLUMBING
P-4 NOT TO SCALE



2 SANITARY RISER DIAGRAM - PLUMBING
P-4 NOT TO SCALE

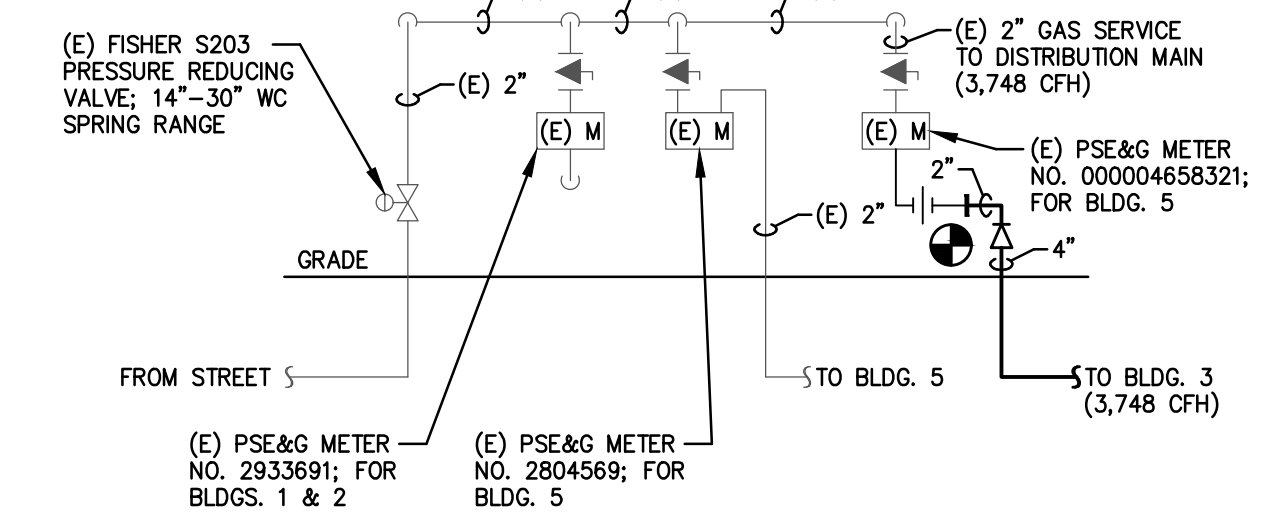


3 DOMESTIC WATER RISER DIAGRAM - PLUMBING
P-4 NOT TO SCALE



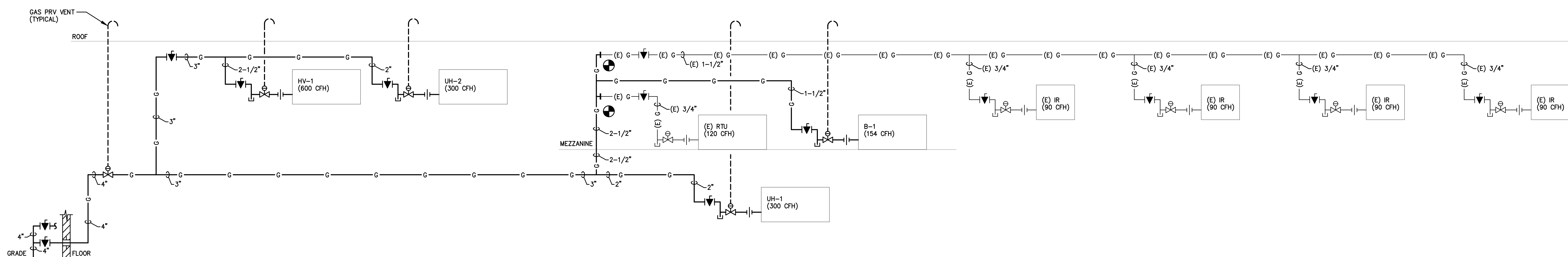
4 COMPRESSED AIR RISER DIAGRAM - PLUMBING
P-4 NOT TO SCALE

- NOTES:
- MANIFOLD CONNECTION TO OWNER FURNISHED EQUIPMENT SHALL BE PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE EACH HOSE STATION WITH VALVED AND CAPPED OUTLET SUITABLE FOR OWNER TO ATTACH HOSE CONNECTION.
 - LOCATE VALVED & CAPPED OUTLETS 48" AFF.



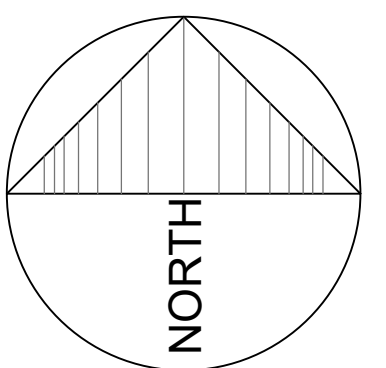
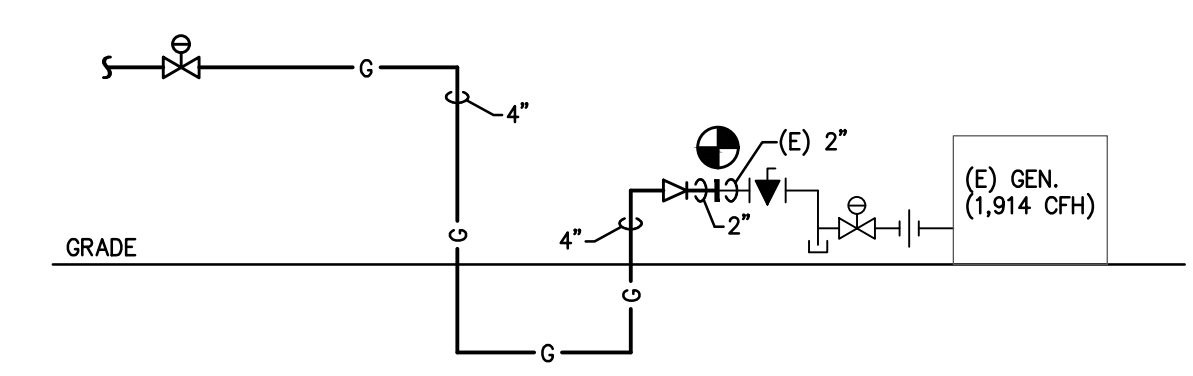
5 NATURAL GAS METER RIG RISER DIAGRAM
P-4 NOT TO SCALE

- NOTES:
- METER RIG IS LOCATED BEHIND BUILDING 2.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SUPPLY PRESSURE TO METER.



6 NATURAL GAS RISER DIAGRAM
P-4 NOT TO SCALE

- NOTES:
- TOTAL DEVELOPED LENGTH OF GAS PIPING = 600'-0"
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF UNDERGROUND GAS PIPING WITH EXISTING UNDERGROUND UTILITIES. ALL UTILITIES SHALL BE MARKED OUT AS REQUIRED BY NAJA, CALL BEFORE YOU DIG.
 - ALL GAS PRV'S SHALL BE EQUI-METER LOCK-UP TYPE APPROVED BY PSE&G. ALL INDOOR VENTS SHALL BE EXTENDED OUTSIDE OF THE BUILDING AND PROVIDED WITH GOOSENECK AND INSECT SCREEN. ALL OUTDOOR VENTS SHALL BE INSTALLED SUCH THAT THE VENT OPENINGS ARE ORIENTED DOWNWARD AND SHALL BE PROVIDED WITH INSECT SCREEN.
 - MAXIMUM SPACING FOR PIPE SUPPORTS SHALL NOT EXCEED:
6'-0" FOR 1/2" PIPE
8'-0" FOR 3/4" AND 1" PIPE
10'-0" FOR 1-1/4" PIPE AND LARGER



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MAINTENANCE BUILDING-03 ADDITION
EVESHAM TOWNSHIP PUBLIC WORKS
100 SHARP ROAD
MARTLTON, NEW JERSEY 08053
TITLE: RISER DIAGRAMS - PLUMBING

DRAWING DATE:
11 DEC 2019
REVISION DATE:

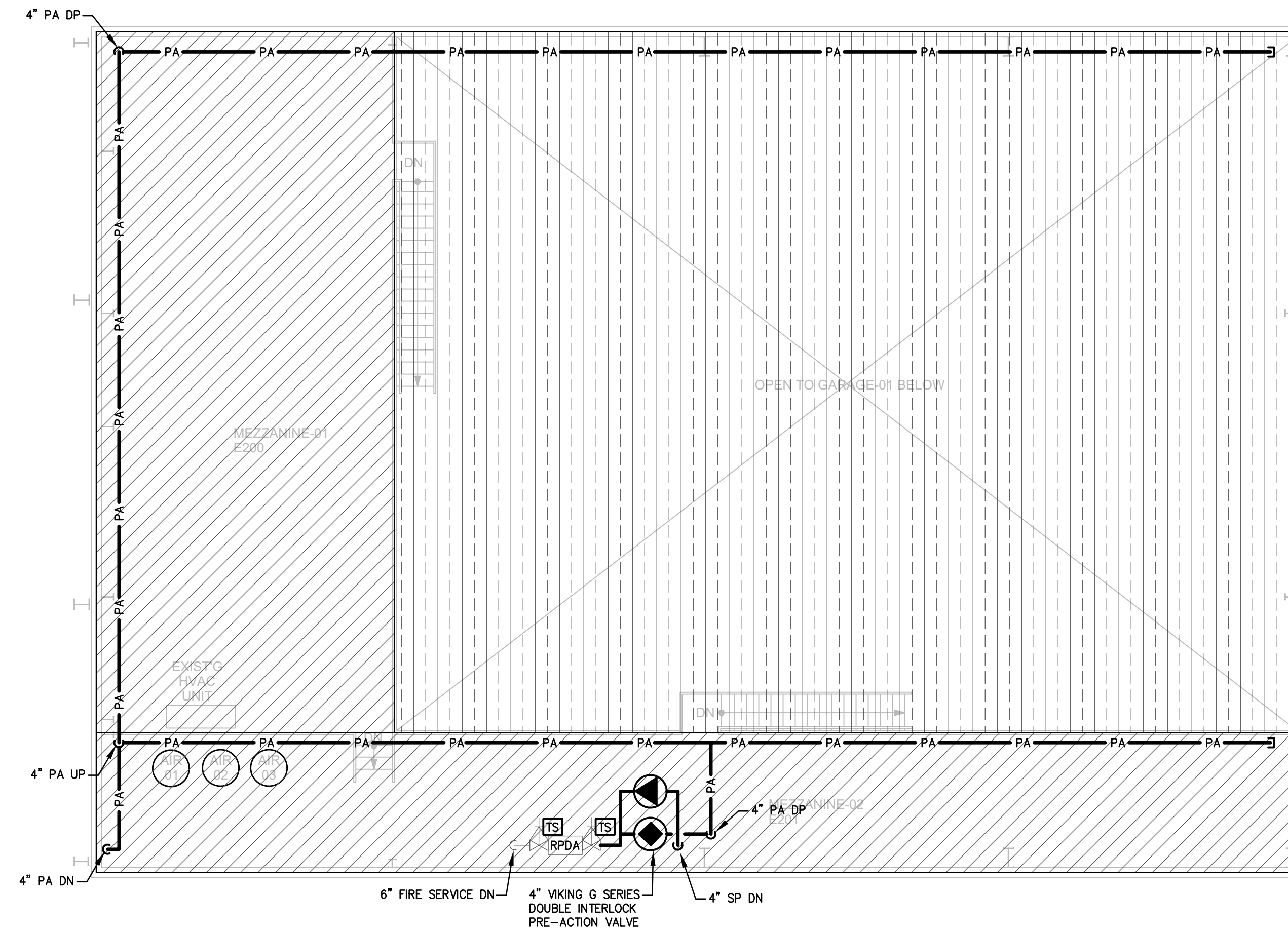
DRAWN BY:
ACL
COMMISSION NO:
5596E

P-4
5 OF 6

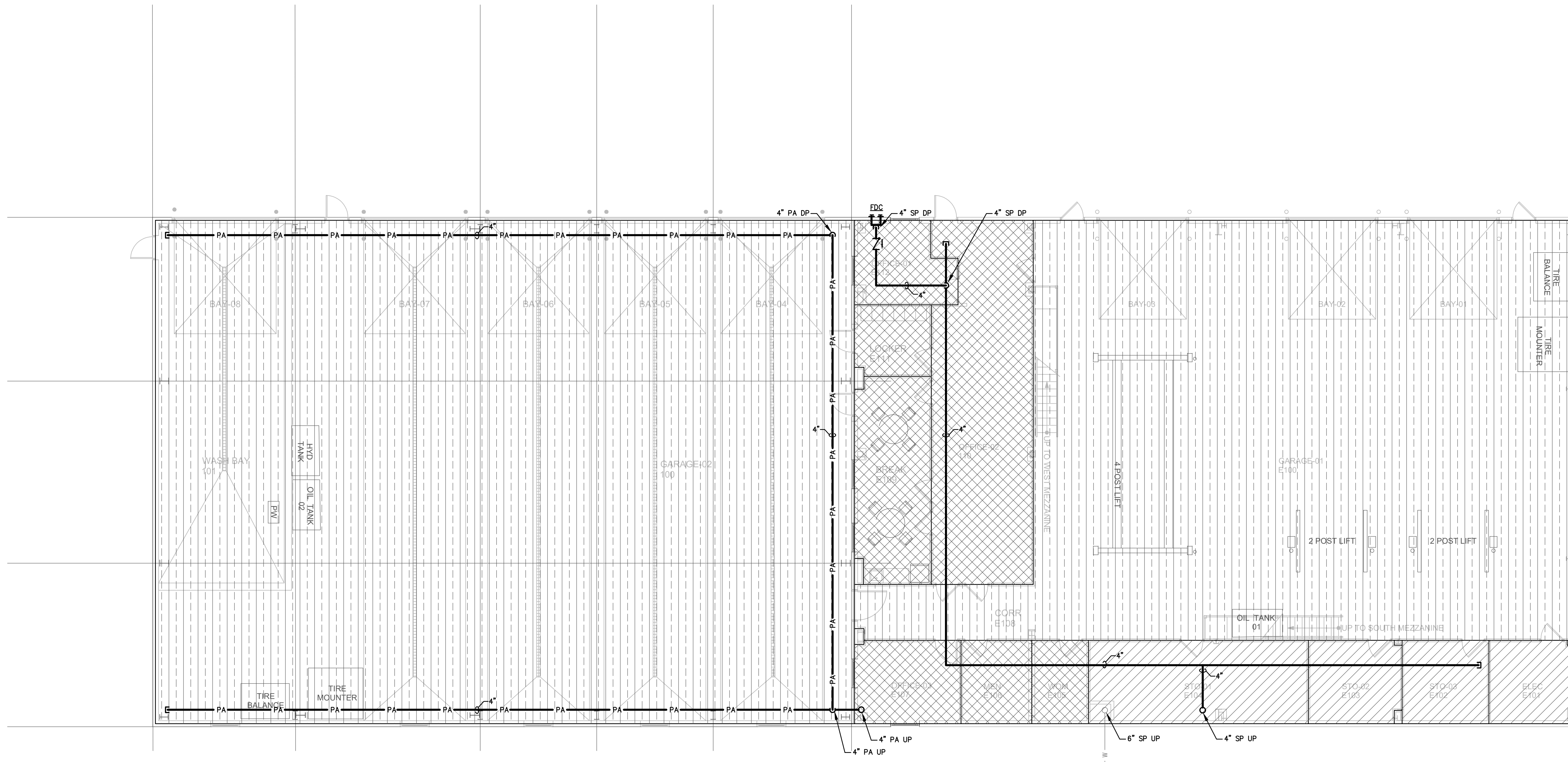
AREA OF SPRINKLER CALCULATION:
 LOCATION: WOMEN'S E105, MEN'S E106, OFFICE-03 E107, BREAK E108, OFFICE-02 E110, LOOKER E111, OFFICE-01 E112
 CALCULATED AREA 1,500 sq. ft.
 DENSITY = 0.10
 LIGHT HAZARD
 K - FACTOR = 5.6
 TOTAL COMBINED HOSE STREAM ALLOWANCE = 250 G.P.M.
 DESIGN BASED ON NFPA-13, 2013
 SPRINKLER TYPE: STANDARD (165) TEMPERATURE

AREA OF SPRINKLER CALCULATION:
 LOCATION: ELEC E101, STORAGE-03 E102, STORAGE-02 E103, STORAGE-01 E104, MEZZANINE-01 E200, MEZZANINE-02 E201
 CALCULATED AREA 1,500 sq. ft.
 DENSITY = 0.15
 ORDINARY HAZARD GROUP 1
 K - FACTOR = 5.6
 TOTAL COMBINED HOSE STREAM ALLOWANCE = 250 G.P.M.
 DESIGN BASED ON NFPA-13, 2013
 SPRINKLER TYPE: STANDARD (165) TEMPERATURE

AREA OF SPRINKLER CALCULATION:
 LOCATION: GARAGE-01 E100, GARAGE-02, WASH BAY 101, CORRIDOR E108
 CALCULATED AREA 1,500 sq. ft.
 DENSITY = 0.2
 ORDINARY HAZARD GROUP 2
 K - FACTOR = 5.6
 TOTAL COMBINED HOSE STREAM ALLOWANCE = 250 G.P.M.
 DESIGN BASED ON NFPA-13, 2013
 SPRINKLER TYPE: STANDARD (165) TEMPERATURE

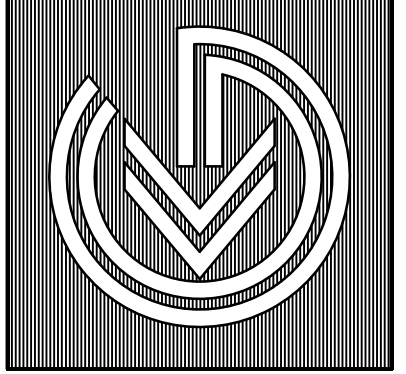
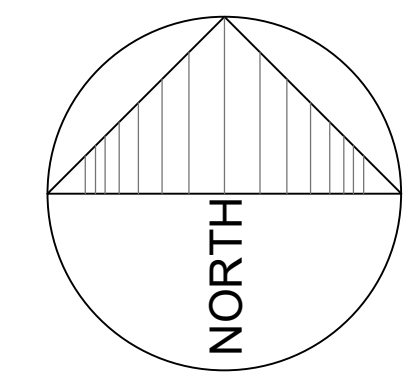


1 MEZZANINE PLAN - FIRE PROTECTION
 FP-1 SCALE 1/8" = 1'-0"



2 FLOOR PLAN - FIRE PROTECTION
 FP-1 SCALE 1/8" = 1'-0"

6" INCOMING FIRE SERVICE, REFER TO PLUMBING DWGS. AND CIVIL DRAWINGS FOR CONTINUATION AND ADDITIONAL INFORMATION

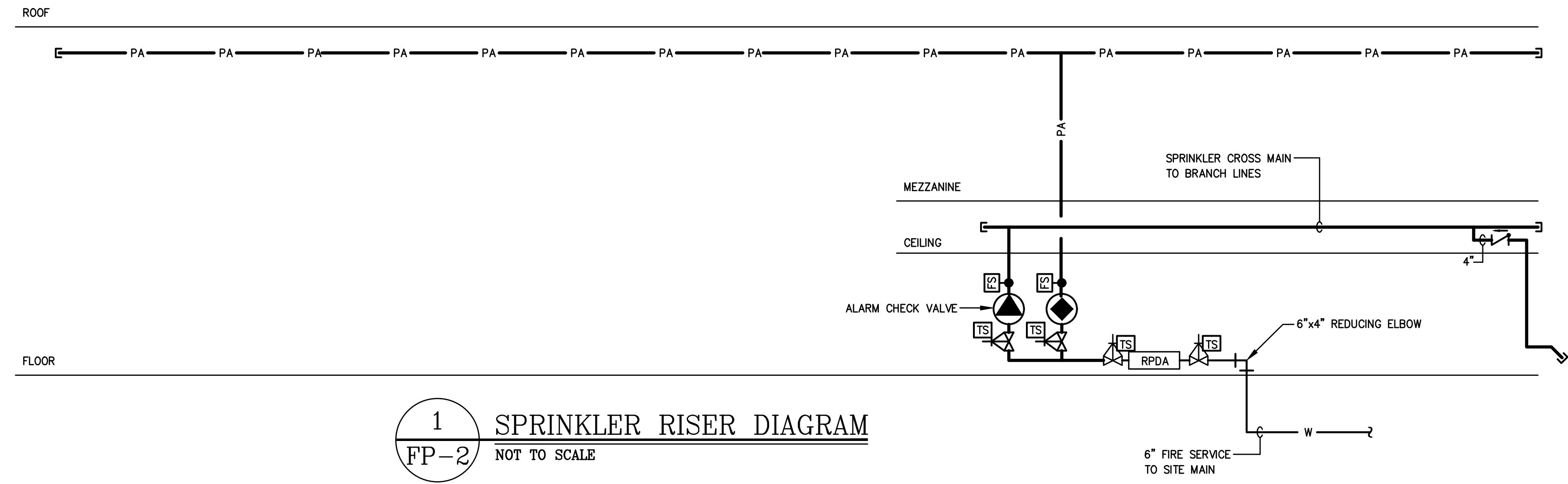


FIRE PROTECTION SYMBOL LIST

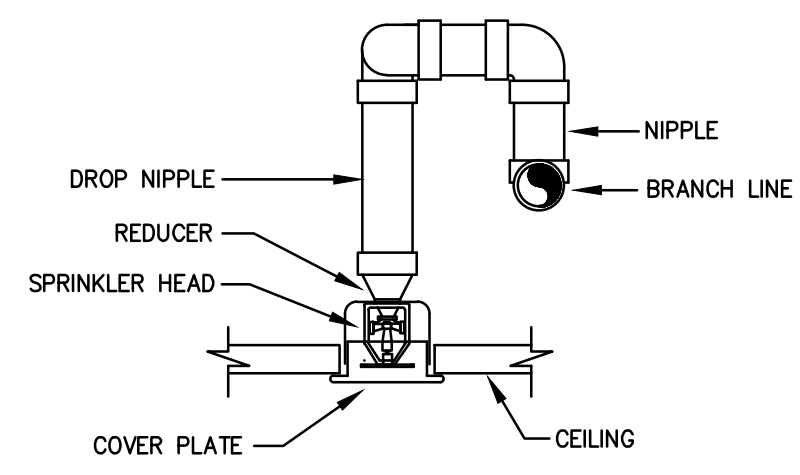
ABBREVIATION	SYMBOL	DESCRIPTION
W	— W —	SITE WATER SUPPLY
SP	—	SPRINKLER PIPING MAIN
PA	— PA —	DOUBLE-INTERLOCK PREACTION SYSTEM PIPING
	—	PIPING DROP
	—	PIPING RISE
	—	BRANCH - TOP CONNECTION
	—	BRANCH - BOTTOM CONNECTION
RPDA	RPDA	REDUCED PRESSURE ZONE DETECTOR ASSEMBLY
FDC	FDC	WALL MOUNTED FIRE DEPARTMENT SIAMOSE CONNECTION
O.S.&Y.	O.S.&Y.	OUTSIDE STEM & YOKE VALVE WITH TAMPER SWITCH
CV	CV	CHECK VALVE
ACV	ACV	ALARM CHECK VALVE (WITH ALL RELATED APPURTENANCES)
DPV	DPV	DRY PIPE VALVE (WITH ALL RELATED APPURTENANCES)
	▨	WET SYSTEM, LIGHT HAZARD
	▨	WET SYSTEM, ORDINARY HAZARD I
	▨	WET SYSTEM, ORDINARY HAZARD II

FIRE PROTECTION ABBREVIATIONS

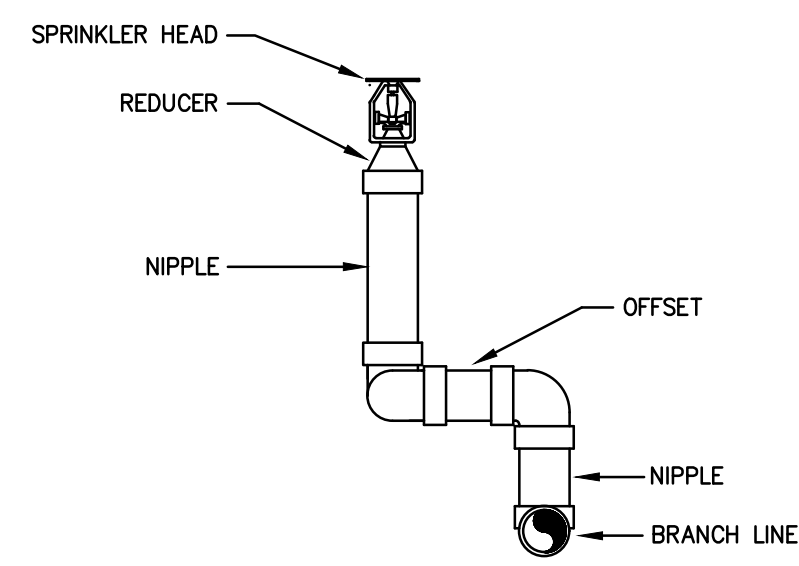
AC	AIR COMPRESSOR
AFF	ABOVE FINISHED FLOOR
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BLDG	BUILDING
DN.	DOWN
DWL.	DRAWING
(E)	EXISTING
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
GPM	GALLONS PER MINUTE
NC	NORMALLY CLOSED (VALVE)
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
PA	PRE-ACTION
PSI	POUNDS PER SQUARE INCH
SP	SPRINKLER PIPING
TYP.	TYPICAL
W/	WITH



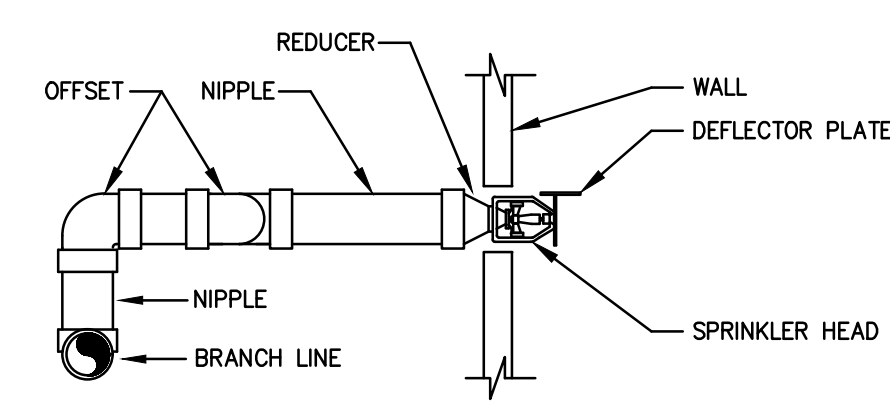
1 SPRINKLER RISER DIAGRAM
FP-2 NOT TO SCALE



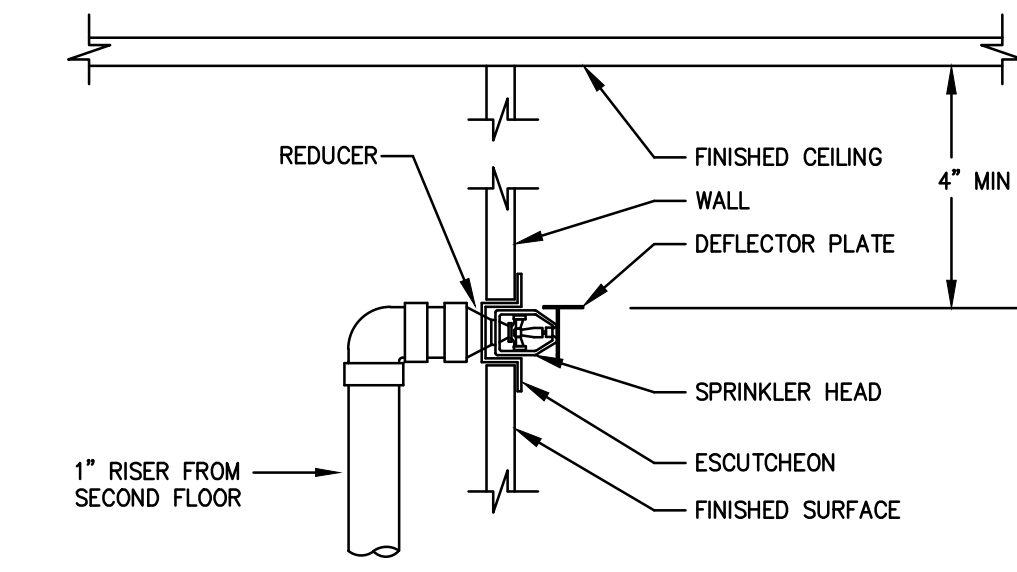
2 CONCEALED TYPE SPRINKLER HEAD
FP-2 NOT TO SCALE



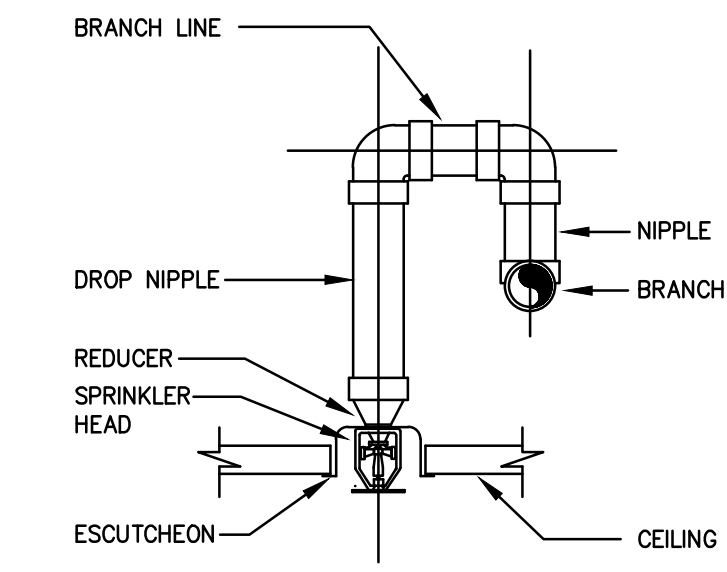
3 TYPICAL CONNECTION TO UPRIGHT SPRINKLER HEAD
FP-2 NOT TO SCALE



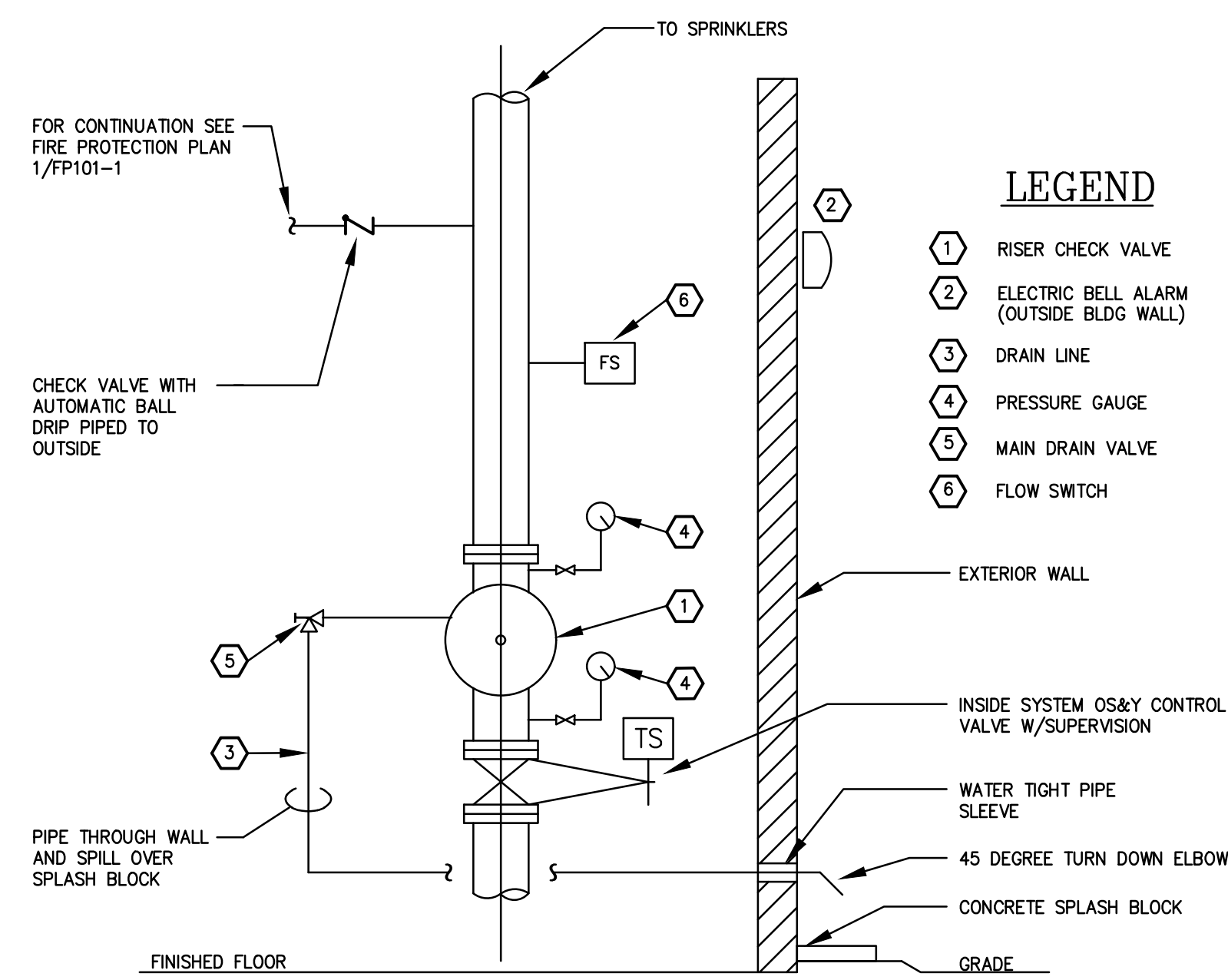
4 TYPICAL CONNECTION TO SIDEWALL SPRINKLER HEAD
FP-2 NOT TO SCALE



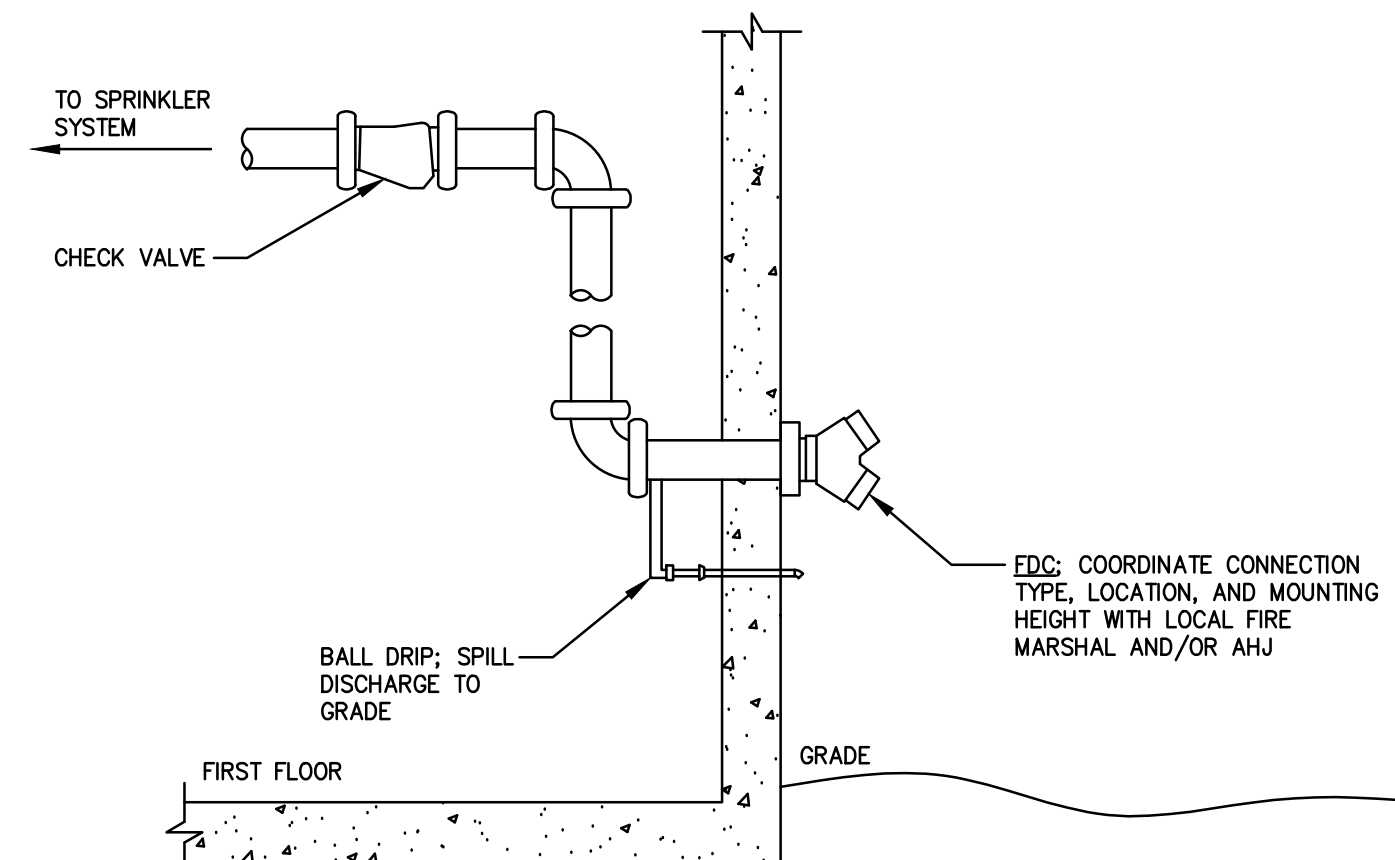
5 RECESSED SIDEWALL SPRINKLER HEAD INSTALLATION DETAIL - THIRD FLOOR
FP-2 NOT TO SCALE



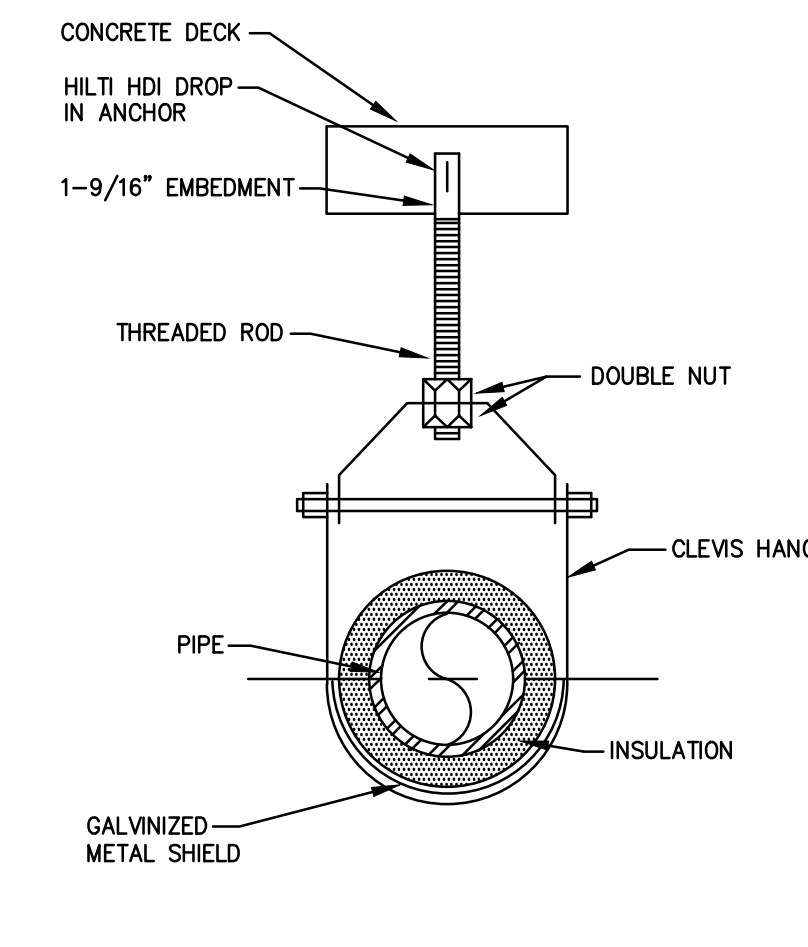
6 RECESSED PENDENT TYPE SPRINKLER HEAD
FP-2 NOT TO SCALE



7 SPRINKLER RISER CHECK VALVE ASSEMBLY
FP-2 NOT TO SCALE

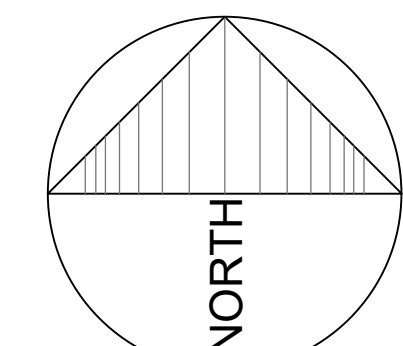


8 FIRE DEPARTMENT CONNECTION DETAIL
FP-2 NOT TO SCALE



9 CLEVIS HANGER DETAIL
FP-2 NOT TO SCALE

PIPE DIA.	LENGTH	SHIELD THICKNESS	ROD DIA.	MAX. PIPE SUPPORT SPAN		
				STEEL	COPPER	CAST IRON
1/2"	12"	.048"	3/8"	8'-0"	6'-0"	-
3/4"	12"	.048"	3/8"	8'-0"	6'-0"	-
1"	12"	.048"	3/8"	8'-0"	6'-0"	-
1-1/4"	12"	.048"	3/8"	8'-0"	6'-0"	-
1-1/2"	12"	.048"	1/2"	10'-0"	8'-0"	5'-0"
2"	12"	.048"	1/2"	10'-0"	8'-0"	5'-0"
2-1/2"	12"	.048"	1/2"	10'-0"	8'-0"	-
3"	12"	.048"	1/2"	12'-0"	10'-0"	5'-0"
4"	12"	.060"	5/8"	12'-0"	10'-0"	5'-0"
5"	18"	.060"	5/8"	12'-0"	10'-0"	5'-0"
6"	18"	.060"	3/4"	12'-0"	10'-0"	5'-0"
8"	24"	.075"	3/4"	12'-0"	-	5'-0"
10"	24"	.075"	3/4"	12'-0"	-	5'-0"
12"	24"	.075"	1"	12'-0"	-	5'-0"



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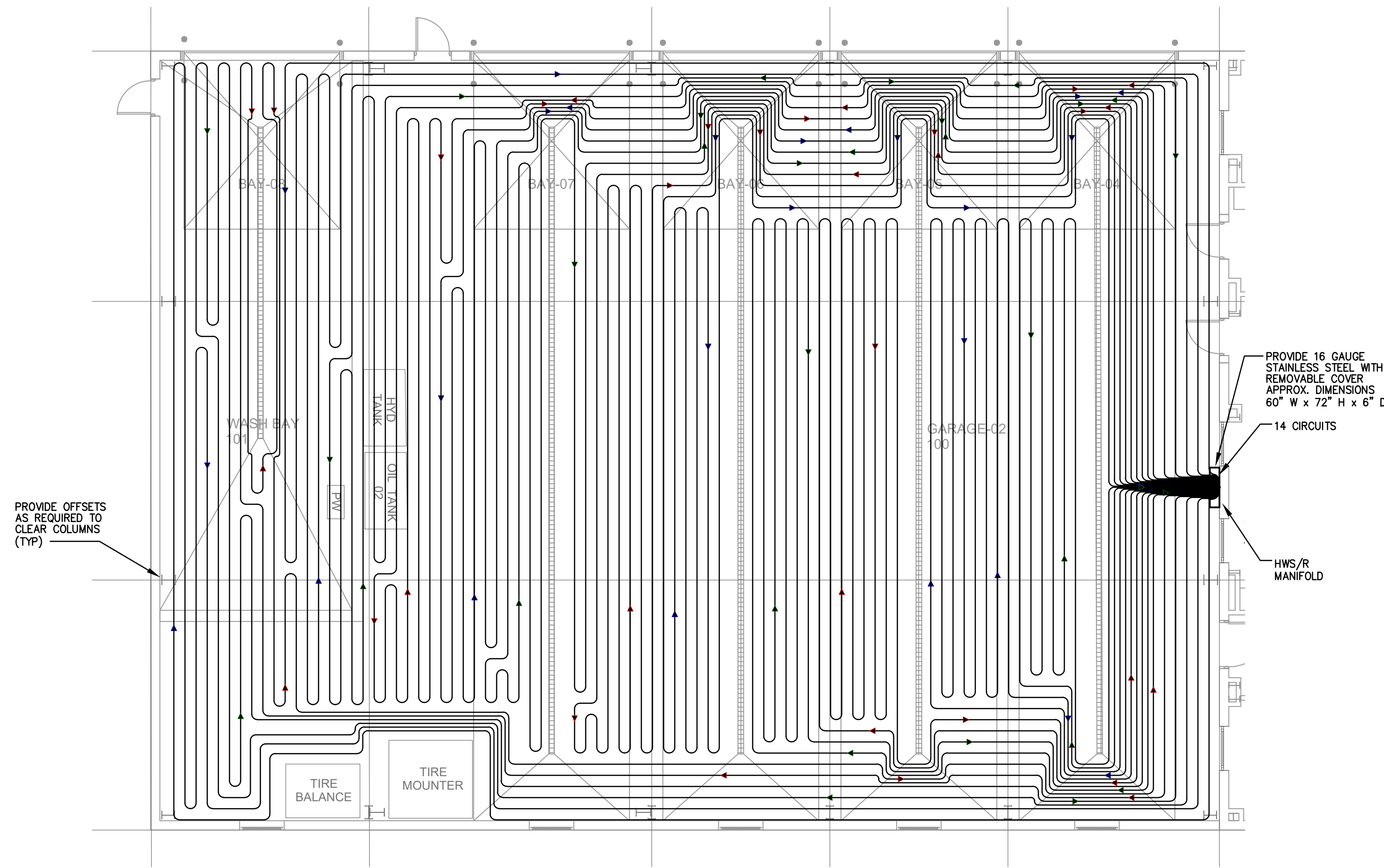
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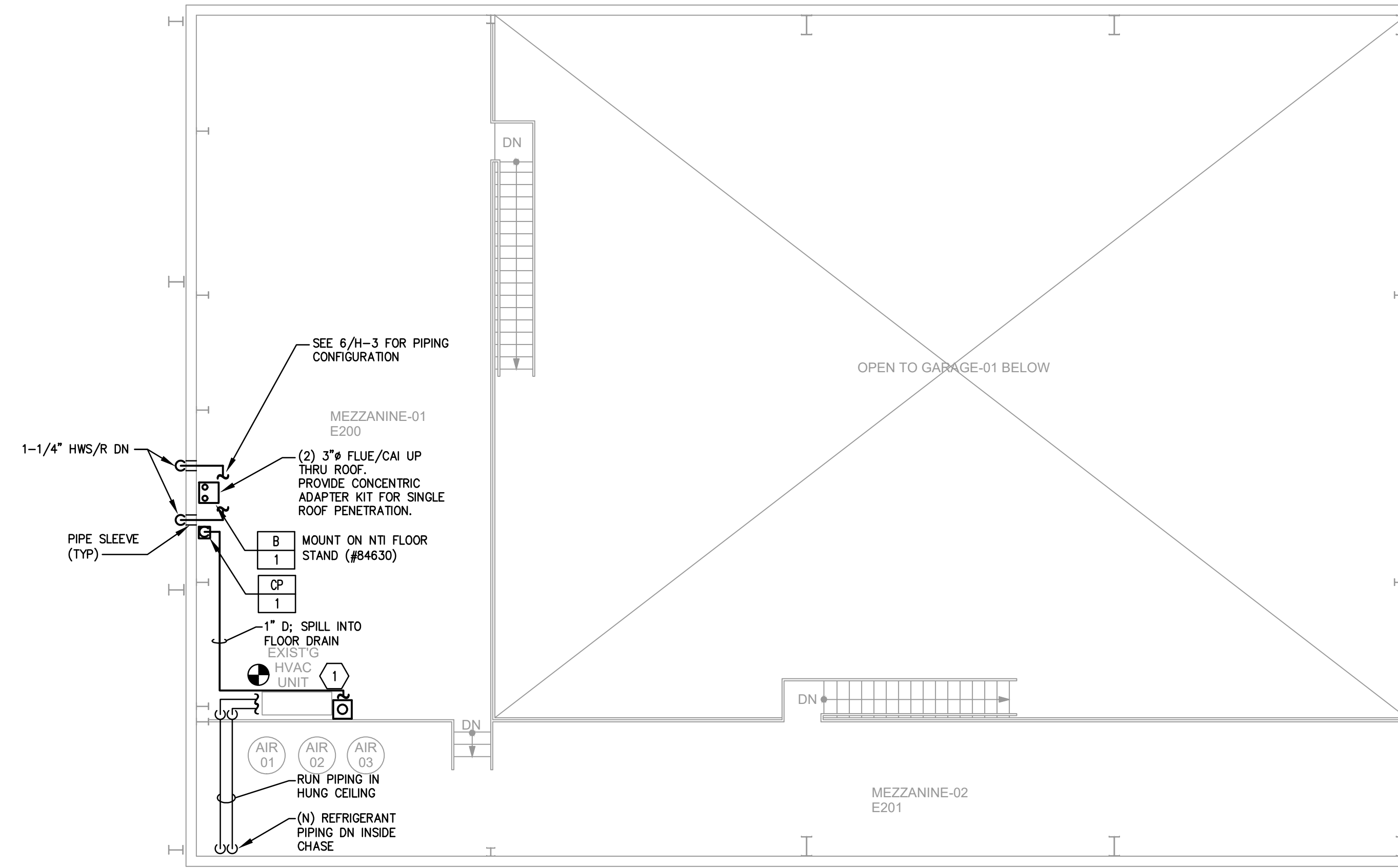
MAINTENANCE BUILDING-03 ADDITION
EVESHAM TOWNSHIP PUBLIC WORKS
100 SHARP ROAD
MARLTON, NEW JERSEY 08053
TITLE: SYMBOLS, SCHEDULES & DETAILS - FIRE PROTECTION

DRAWING DATE:
11 DEC 2019
REVISION DATE:
DRAWN BY:
ACL
COMMISSION NO:
5596E

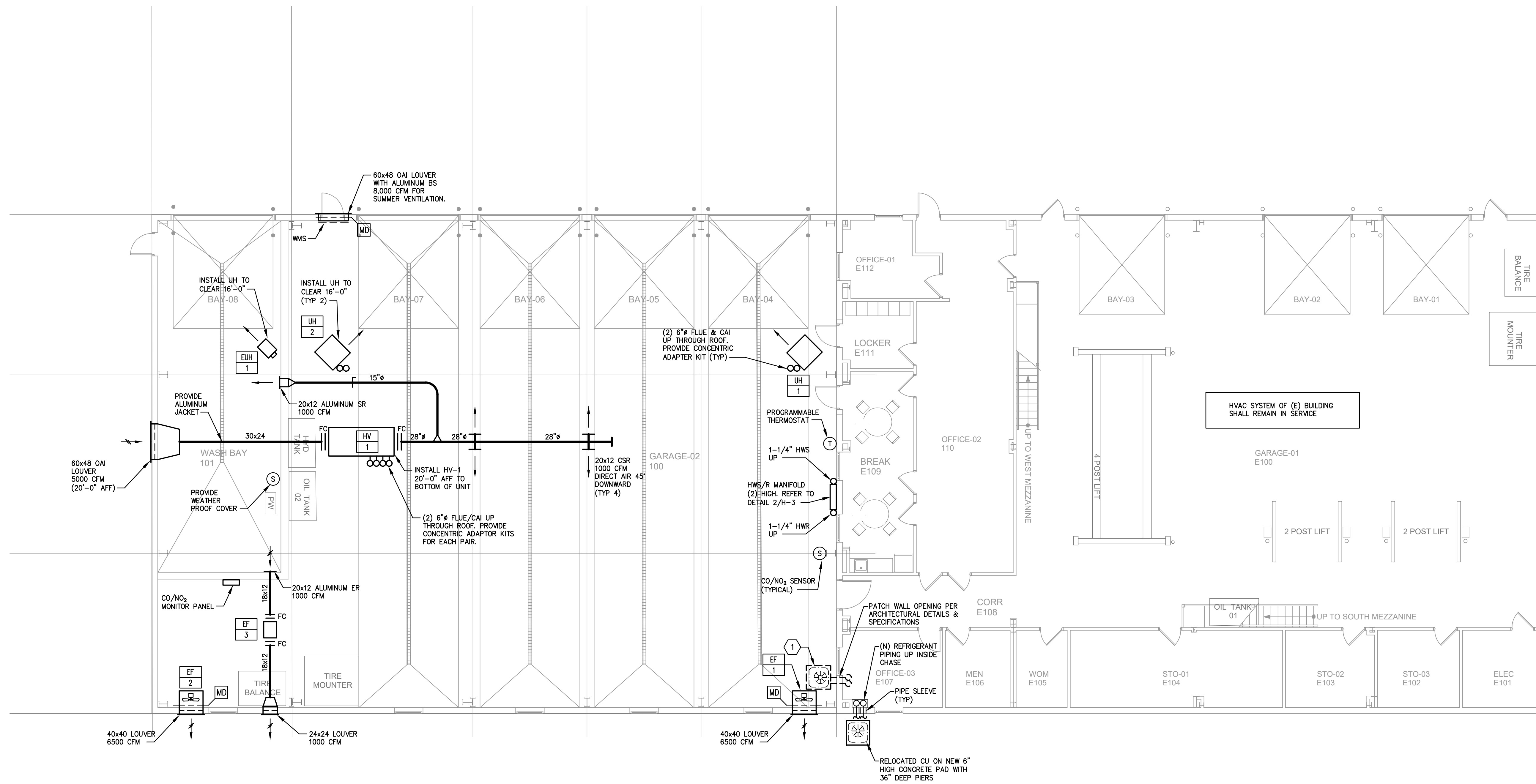
FP-2
2 OF 3



1 PARTIAL FLOOR SLAB PLAN - HVAC - FLOOR HEATING PIPING
H-1 SCALE 1/8" = 1'-0"

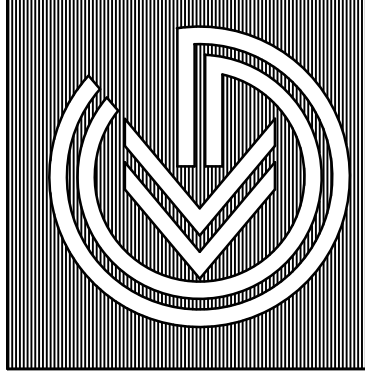
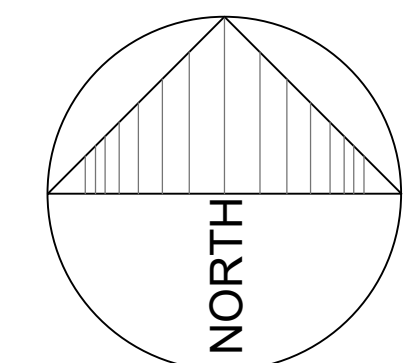


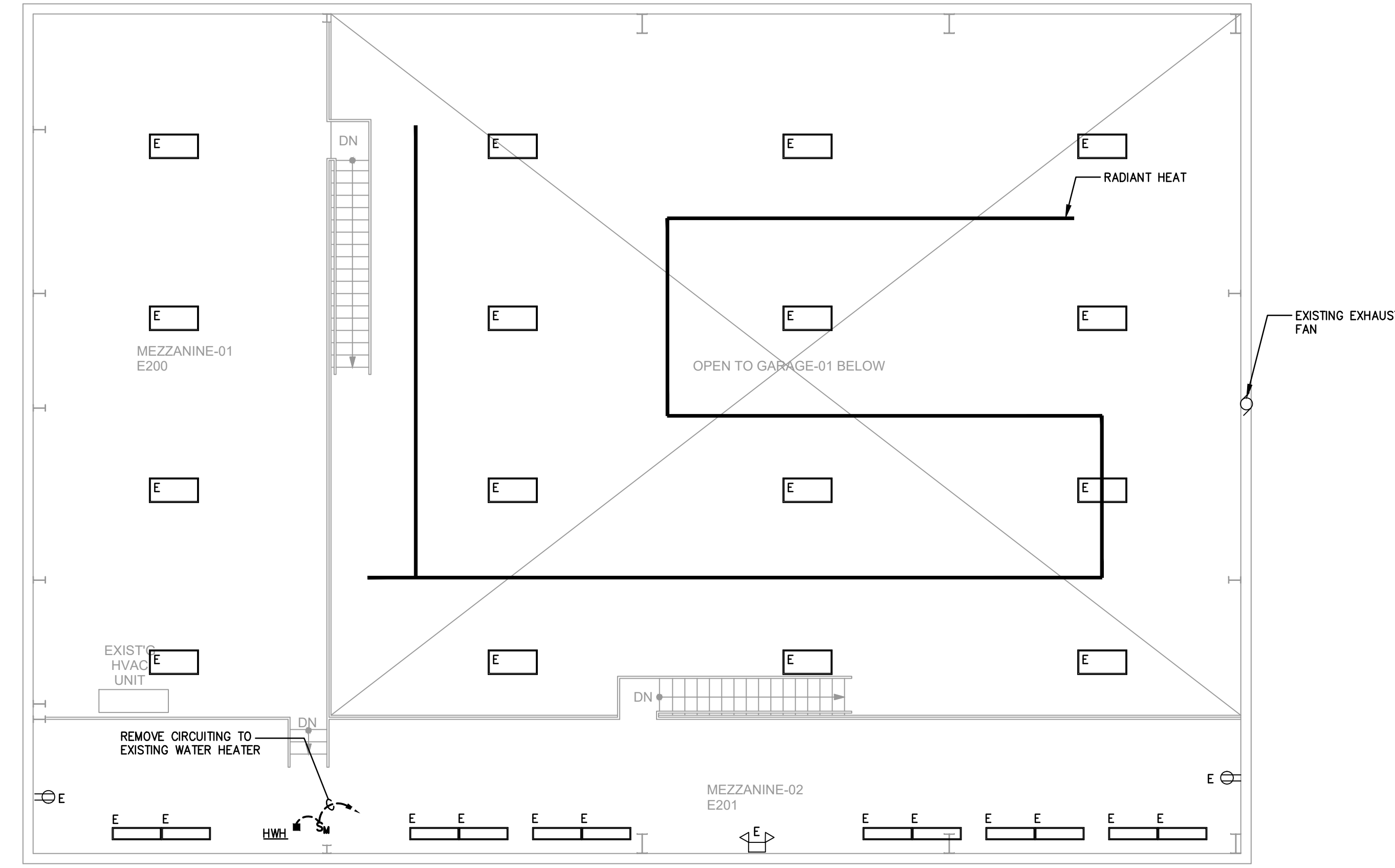
2 MEZZANINE PLAN - HVAC
H-1 SCALE 1/8" = 1'-0"



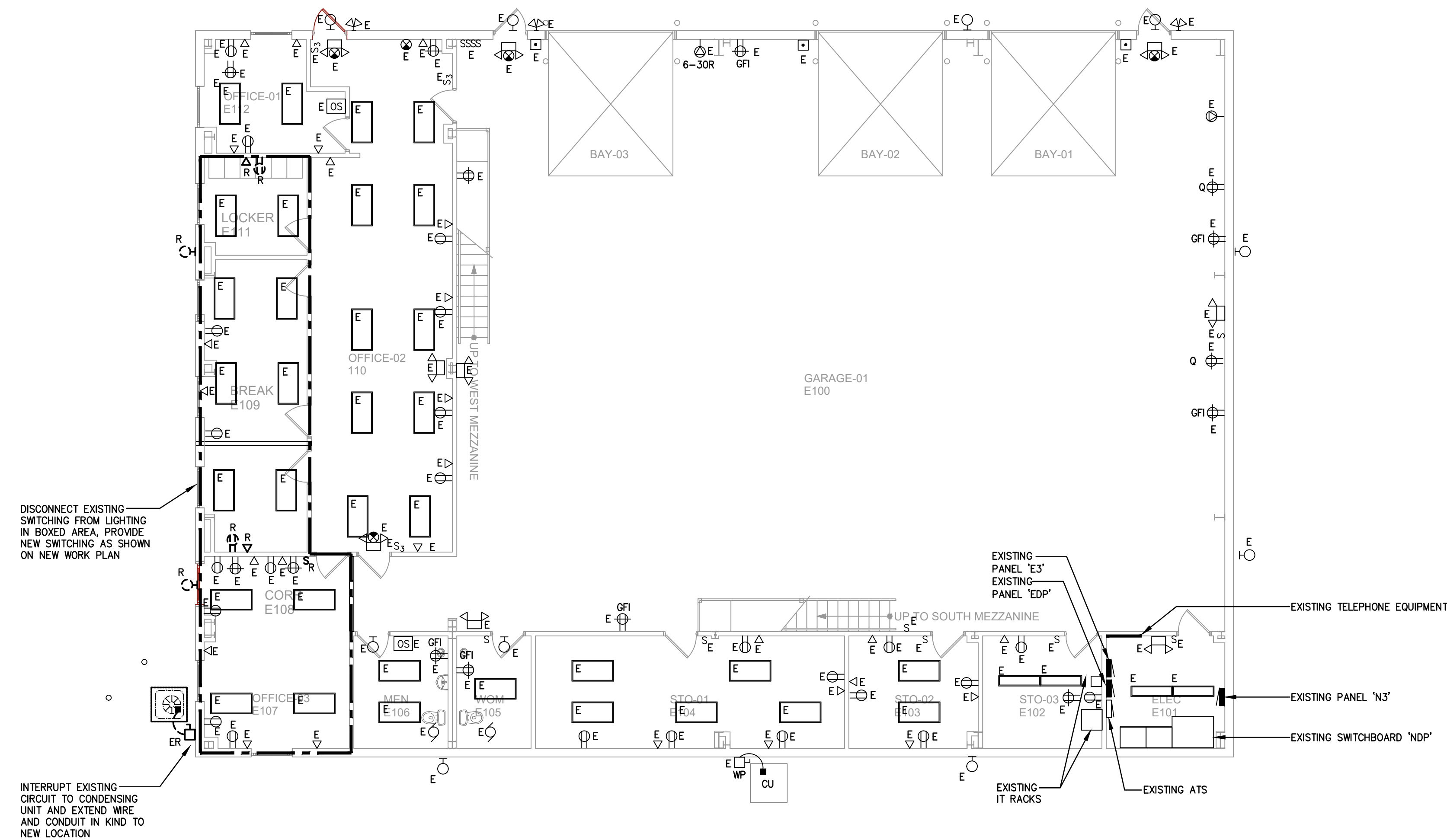
3 FLOOR PLAN - HVAC
H-1 SCALE 1/8" = 1'-0"

KEY NOTE:
1 EXISTING CONDENSING UNIT SHALL BE CAREFULLY DISCONNECTED & DETACHED FROM CONCRETE PAD AND SHALL BE RELOCATED AS SHOWN. ASSOCIATED CONCRETE PAD & REFRIGERANT PIPING SHALL BE DEMOLISHED. RECOVER REFRIGERANT PER LATEST ENVIRONMENTAL STANDARDS PRIOR TO DEMOLITION. PROVIDE NEW REFRIGERANT PIPING BETWEEN RELOCATED CONDENSING UNIT & (E) HVAC UNIT IN MEZZANINE. SIZE, CHARGE AND INSULATE REFRIGERANT PIPING PER MANUFACTURER'S INSTRUCTIONS. PROVIDE START-UP.





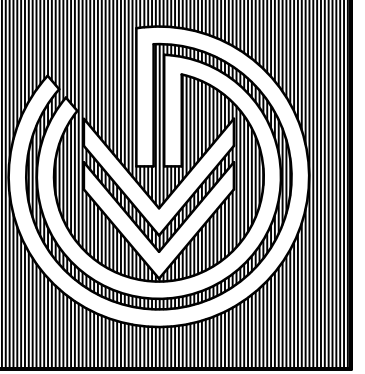
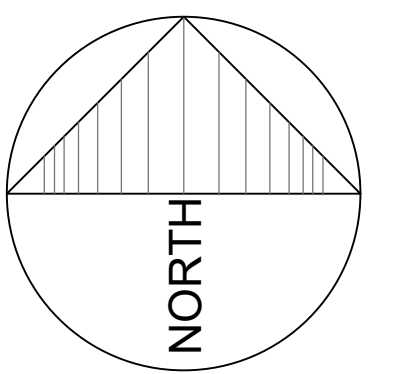
1 MEZZANINE PLAN - ELECTRICAL DEMOLITION
ED-1 SCALE 1/8" = 1'-0"



2 FLOOR PLAN - ELECTRICAL DEMOLITION
ED-1 SCALE 1/8" = 1'-0"

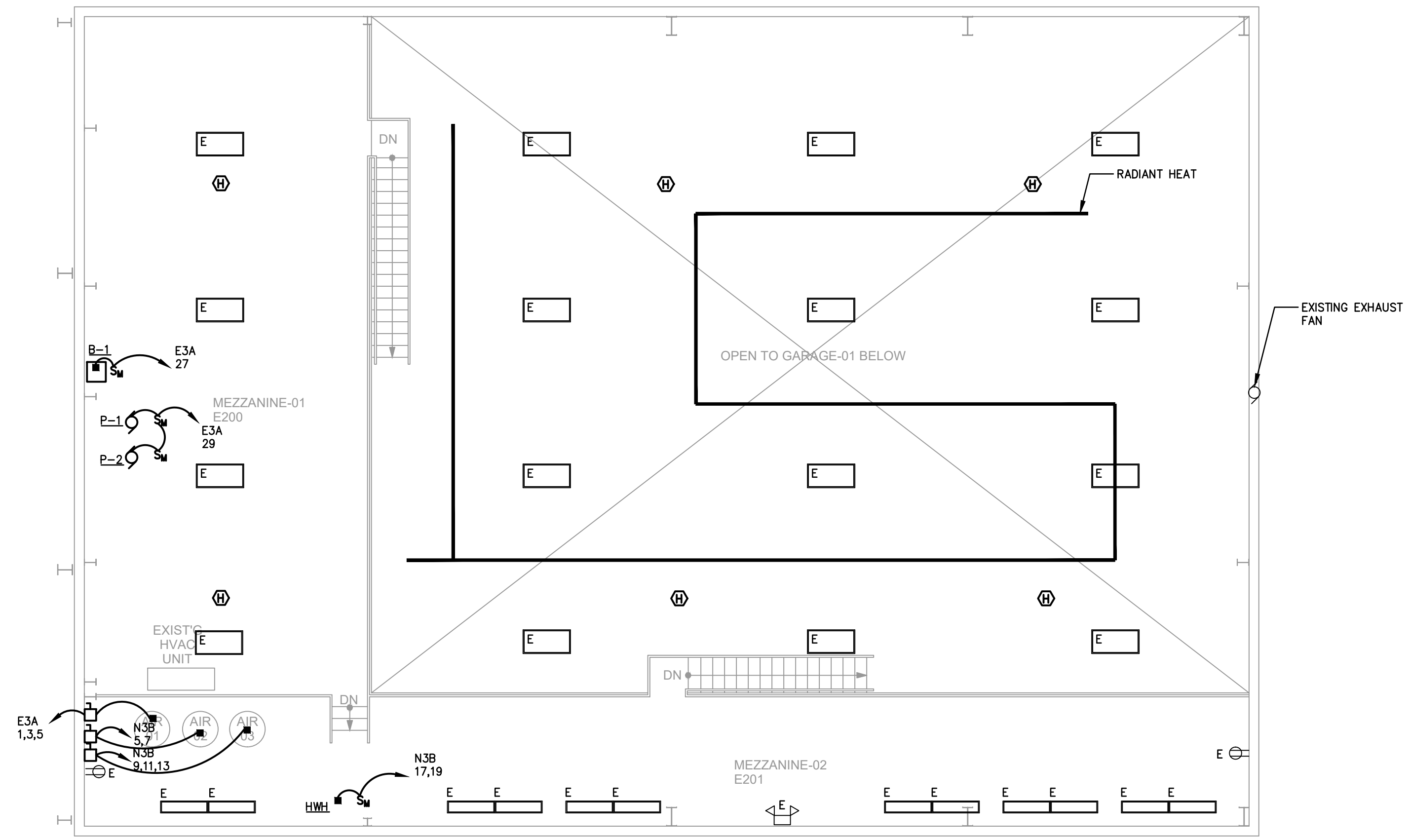
DEMOLITION NOTES:

1. THESE DEMOLITION PLANS ARE INTENDED TO BE USED AS A GUIDE TO THE CONTRACTOR. ALL DEMOLITION WORK REQUIRED, OR NECESSARY FOR THE INSTALLATION OF NEW WORK OR THE REMOVAL OF EXISTING EQUIPMENT, IS HEREBY INCLUDED, WHETHER SHOWN ON THESE PLANS OR NOT. REFER TO DRAWINGS OF ALL TRADES FOR ADDITIONAL WORK, AND COORDINATE IN THE FIELD.
2. THE CONTRACTOR SHALL VERIFY ACTUAL SITE CONDITIONS PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR SHALL INCLUDE ALL DEMOLITION WORK NECESSARY FOR THE EFFECTIVE INSTALLATION AND PERFORMANCE OF NEW SYSTEMS. THE CONTRACTOR SHALL ALSO INCLUDE TEMPORARY REMOVAL AND REINSTALLATION OF EXISTING WORK WHEREVER NECESSARY. THE OWNER SHALL NOT ACCEPT EXTRA COSTS ASSOCIATED WITH THE DEMOLITION AND/OR TEMPORARY REMOVAL/REINSTALLATION WORK FROM THE CONTRACTOR.
3. THIS CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON THE DEMOLITION PLANS, OR THAT ARE NO LONGER NEEDED BY THE OWNER. ALL EXISTING WIRING AND CONDUIT WHERE NO LONGER REQUIRED SHALL BE REMOVED BACK TO EXISTING PANEL. ALL EXISTING DISCONNECTED CIRCUITS NOT BEING REUSED SHALL BE TURNED OFF AND LABELED "SPARE". WHERE CONDUITS ARE INACCESSIBLE, REMOVE WIRE AND ABANDON CONDUITS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY POWER IS BEING PROVIDED TO ALL EXISTING EQUIPMENT REQUIRED TO REMAIN IN SERVICE. RECONNECT ALL DISTURBED FACILITIES WHICH ARE EXISTING TO REMAIN AND PLACE THEM IN OPERATIONAL CONDITION.
5. REMOVE ALL WIRING DEVICES FROM WALLS TO BE DEMOLISHED. REMOVE EXISTING LIGHT SWITCHES WHERE NO LONGER REQUIRED. REUSE ALL EXISTING CONCEALED CONDUIT AND RECESSED DEVICE BOXES WHERE POSSIBLE. ABANDON BOXES IF THEY ARE IN EXISTING WALLS TO REMAIN. PATCH WALLS OVER ABANDONED BOXES TO MATCH ADJACENT SURFACES.
6. REMOVE ABANDONED OUTLET BOXES, SURFACE METAL RACEWAY AND CONDUIT THAT WOULD BE EXPOSED, AND REPAIR DISTURBED SURFACES TO MATCH ADJACENT AREAS.
7. MAJOR PIECES OF EQUIPMENT ARE TO BE TURNED OVER TO THE OWNER FOR HIS USE, OR AT THE OWNER'S DISCRETION, REMOVED FROM THE SITE AND DISPOSED OF, IF NO LONGER REQUIRED.
8. PATCH ALL WALLS TIGHT AT REMOVALS. MAINTAIN FIRE RATINGS AS REQUIRED.
9. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXTENT OF WALL FINISHES AND CEILING TO BE REPLACED. ALL EXISTING DEVICES TO REMAIN SHALL BE TEMPORARILY DISCONNECTED AND REINSTALLED, WHERE TEMPORARY REMOVAL IS NOT POSSIBLE THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT OF EXISTING EQUIPMENT IN PLACE.



DRAWING DATE:	11 DEC 2019
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DRAWN BY:	LA
COMMISSION NO.:	5596E

ELECTRICAL SYMBOL LIST	
	LIGHT FIXTURE - SEE LIGHT FIXTURE SCHEDULE
	EMERGENCY BATTERY PACK - SEE LIGHT FIXTURE SCHEDULE
	EXIT SIGN - SEE LIGHT FIXTURE SCHEDULE
	REMOTE HEAD - SEE LIGHT FIXTURE SCHEDULE
	208/120 VOLT PANELBOARD
	DUPLEX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE, GROUNDED, GFI INDICATES GROUND FAULT INTERRUPTION
	DOUBLE DUPLEX (QUAD) RECEPTACLE
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER HEIGHT
	SPECIAL PURPOSE RECEPTACLE, COORDINATE NEMA CONFIGURATION WITH EQUIPMENT
	VOICE/DATA OUTLET
	SINGLE POLE LIGHT SWITCH
	THREE WAY LIGHT SWITCH
	MOTOR
	UNFUSED DISCONNECT
	COMBINATION STARTER CIRCUIT BREAKER
	MOTORIZED DOOR OPERATOR
	TRANSFORMER
	WIRE & CONDUIT, EXPOSED INSIDE BUILDING
	HOME RUN TO PANEL, NUMERAL INDICATES CIRCUIT NUMBER
	CONNECTION TO EQUIPMENT
	EXISTING TO REMAIN
	EXISTING TO BE RELOCATED, CAREFULLY REMOVE AND STORE ON SITE, DISCONNECT AND SAFE-OFF ALL WIRING FOR FUTURE EXTENSION TO NEW LOCATION
	RELOCATE EXISTING TO THIS LOCATION, COORDINATE EXACT LOCATION IN FIELD, PROVIDE NEW WIRING TO EXTEND EXISTING WIRING AS REQUIRED, MATCH EXISTING WIRING TYPE AND SIZE
	WEATHERPROOF

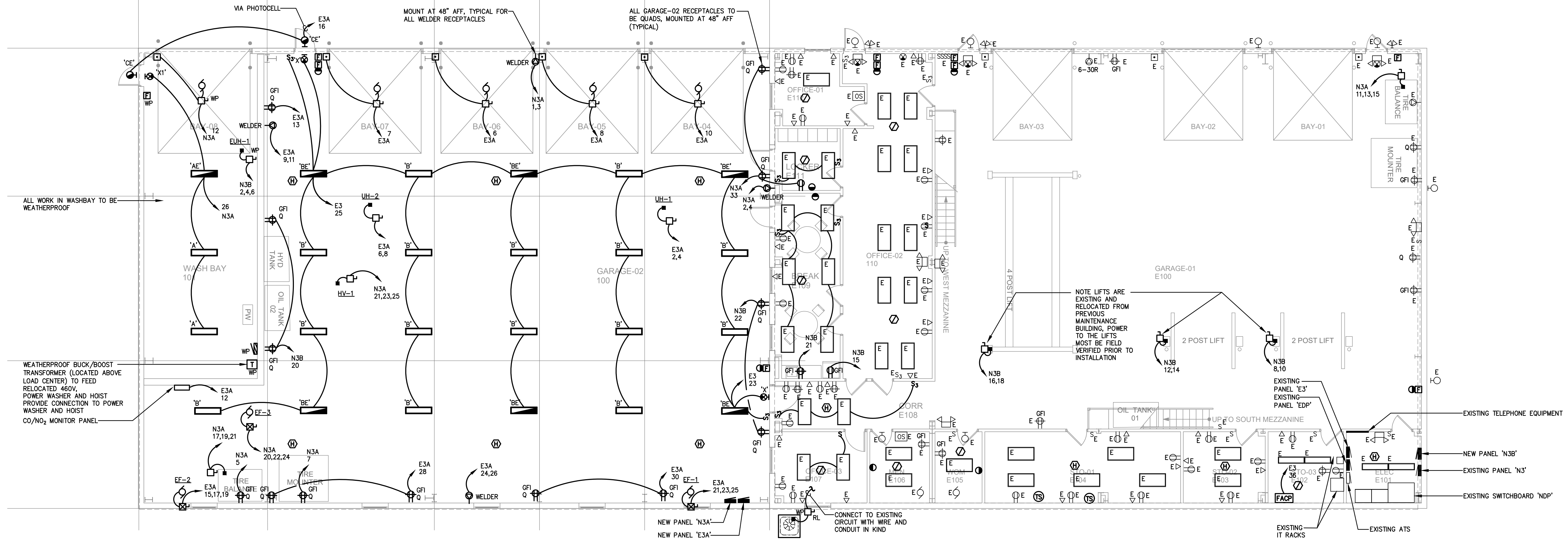


1 MEZZANINE PLAN - ELECTRICAL
E-1 SCALE 1/8" = 1'-0"

LIGHTING FIXTURE SCHEDULE					
ID	LAMPS	MANUF.	CAT. NO.	MOUNTING	DESCRIPTION
A	88W LED SPX 35	FAILSAFE	HDF-4-LDF-2-STD-35-120-EDC1 (OR APPROVED EQUAL)	PENDANT	1' X 4' WASHDOWN FIXTURE 120V INPUT
AE	88W LED SPX 35	FAILSAFE	HDF-4-LDF-2-STD-35-120-EDC1-ELIOW (OR APPROVED EQUAL)	PENDANT	1' X 4' WASHDOWN FIXTURE WITH 90 MINUTE BATTERY BACKUP, 120V INPUT
B	53W LED SPX 35	METALUX	SNLED-LD1-52-UNV-LW-LB35-CD2-U	PENDANT	3"W X 4"L LENSED FIXTURE, DIE FORMED PRIME STEEL REFLECTOR, BACKED WHITE ENAMEL FINISH, 120V INPUT
BE	53W LED SPX 35	METALUX	SNLED-LD1-52-UNV-EL14W-LW-LB35-CD2-U	PENDANT	3"W X 4"L LENSED FIXTURE, DIE FORMED PRIME STEEL REFLECTOR, BACKED WHITE ENAMEL FINISH, 90 MINUTE BATTERY BACKUP, 120V INPUT
CE	29W LED SPX 35	LUMARK	LD-WP-FC-38-120-EMLED-CD (OR APPROVED EQUAL)	SURFACE	16-5/8"W X 10"H FULL CUT OFF, EXTERIOR WALL PACK, WITH COLD TEMPERATURE 90 MINUTE BATTERY BACKUP, 120V INPUT
X	LED	EMERG-LITE	WW-PDN-1R	SURFACE	EXIT SIGN, WITH 6" RED LETTERS, 90 MINUTE BATTERY BACKUP, 120V INPUT
X1	LED	EMERG-LITE	WW-SVXN-1R-4X	SURFACE	WEATHERPROOF EXIT SIGN, WITH 6" RED LETTERS, 90 MINUTE BATTERY BACKUP, 120V INPUT

- LIGHTING FIXTURE NOTES:
- ALL FIXTURES SPECIFIED WITH EMERGENCY BACKUP SHALL BE PROVIDED WITH AN ADDITIONAL 120V/1P SIGNAL TO MONITOR NORMAL POWER FAILURE.
 - CONNECT ALL EXIT SIGNS AHEAD OF ALL SWITCHING AND LIGHTING CONTROL.

NEW WEATHERPROOF LOADCENTER 'LC'																
480/277V, 3A, 4W, S/N, SURFACE, 60A MAIN LUGS ONLY, 42 KAIC																
CKT#	DESCRIPTION	LOAD KVA	OR BREAKER POLES	AMP	WIRE & CONDUIT	ØA	ØB	ØC	WIRE & CONDUIT	ØA	ØB	ØC	OR BREAKER POLES	LOAD KVA	DESCRIPTION	CKT#
1	POWER WASHER	8.7	3	30	3 #10 & 1 #10 GRD-3/4"				3 #10 & 1 #10 GRD-3/4"	30	3	20			HOST	2
3																4
5																6
7	SPACE		1										1		SPACE	8
9	SPACE		1										1		SPACE	10
11	SPACE		1										1		SPACE	12
SUB TOTAL KVA 8.7												20.0	SUB TOTAL KVA			
30 KVA												TOTAL CONNECTED LOAD				



2 FLOOR PLAN - ELECTRICAL
E-1 SCALE 1/8" = 1'-0"

- NOTES:
- ALL RECEPTACLE DEVICES SUPPLIED FROM GENERATOR BACKED PANELS E3 & E3A SHALL BE RED FOR EASY IDENTIFICATION.

