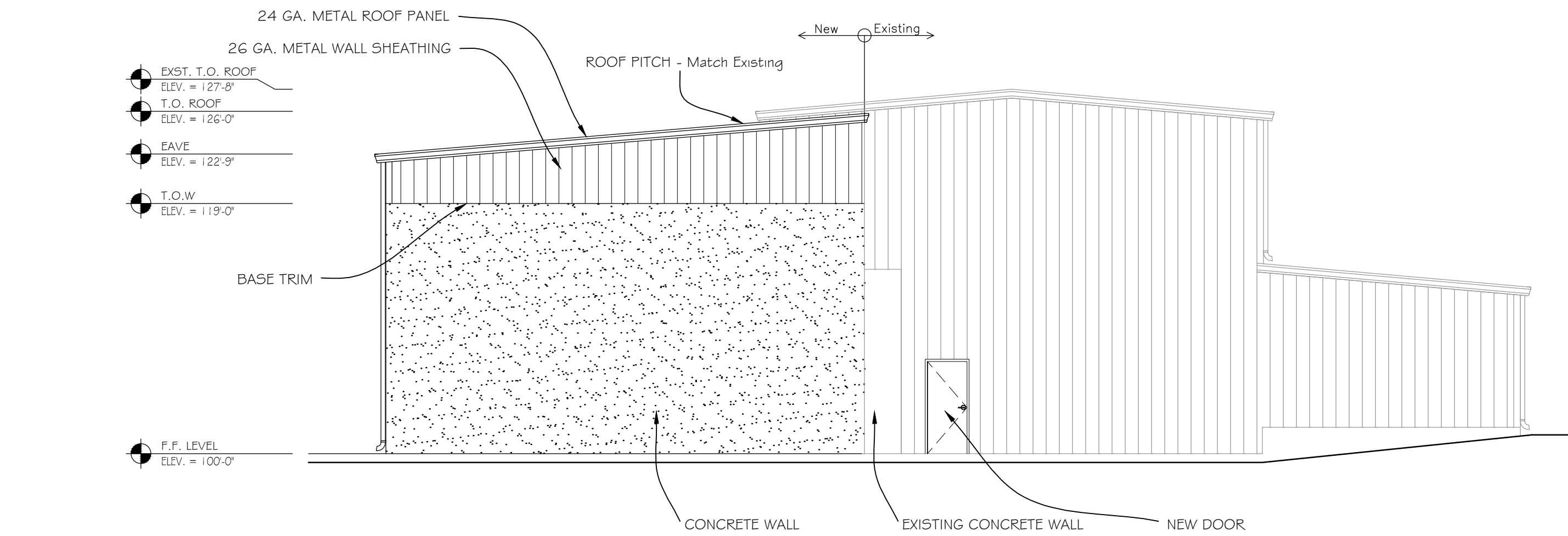
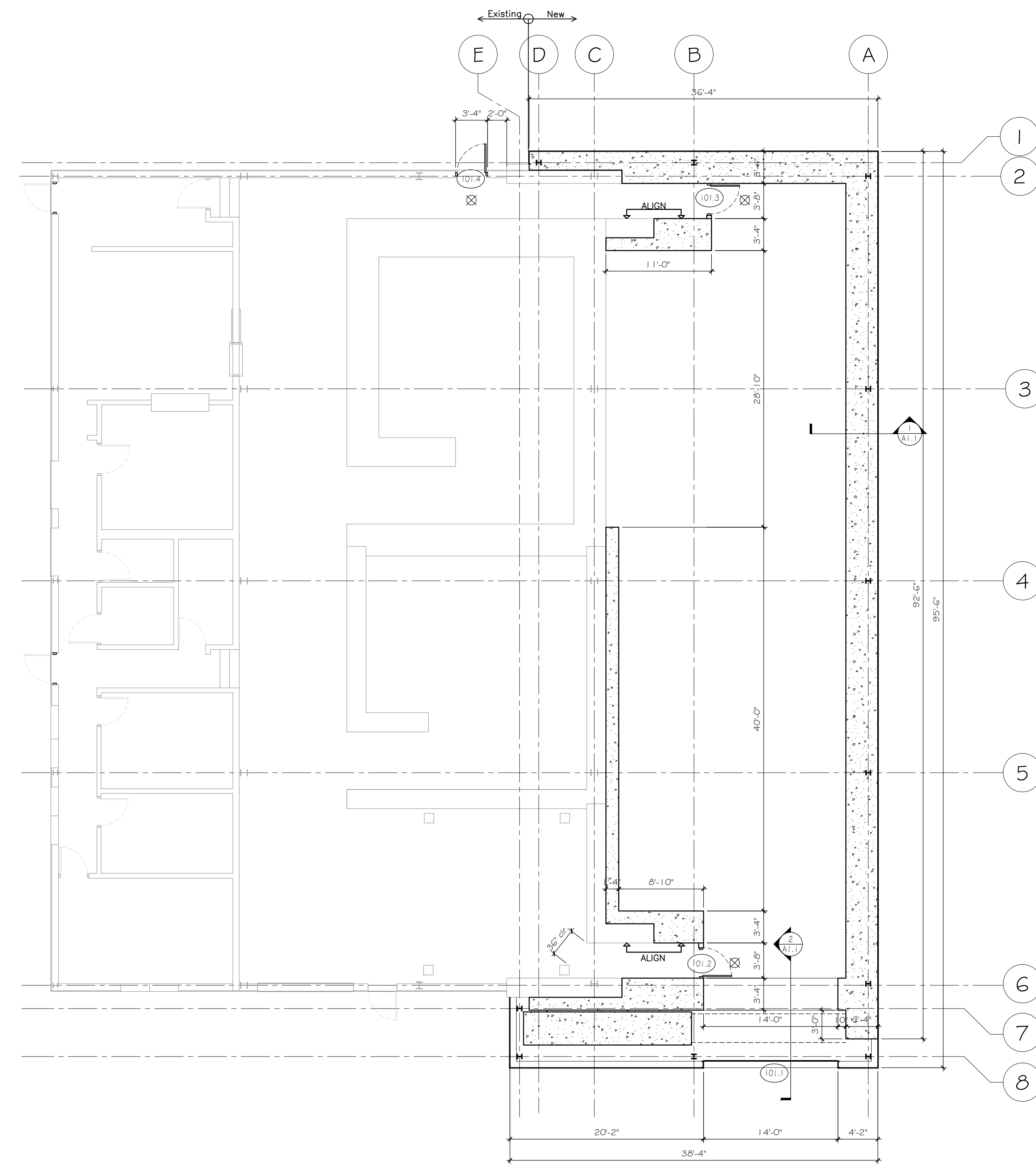


GENERAL NOTES

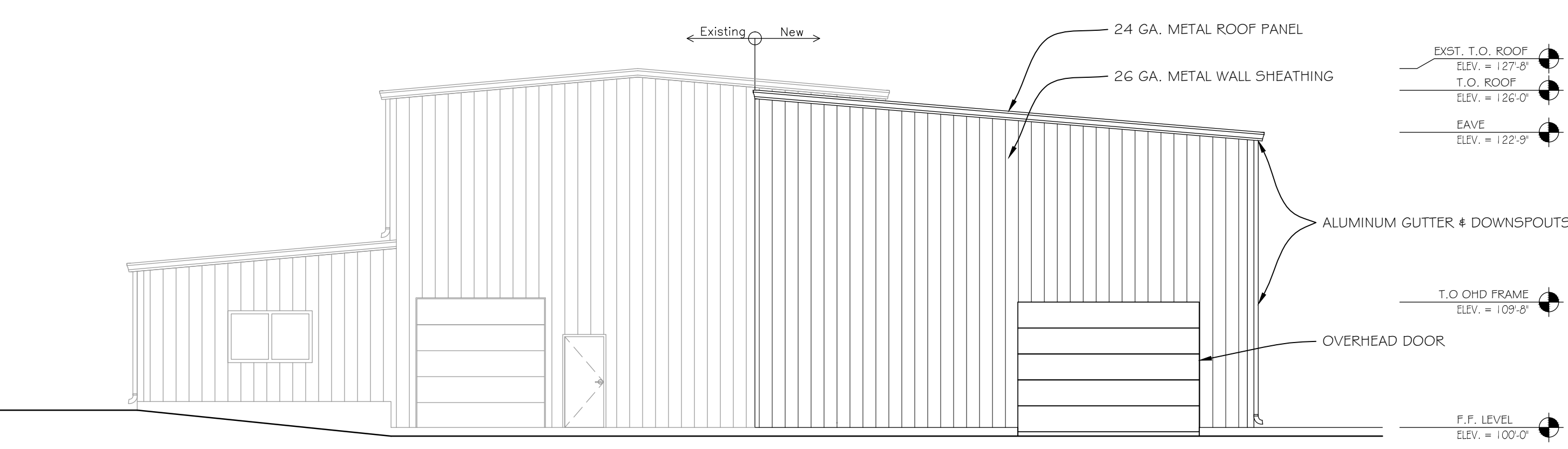
1. STUD FRAMING EXTENDED TO STRUCTURE ABOVE. ALL WALLS ARE TO BE 2x4 STUDS @ 24" o/c, FULL HEIGHT TO DECK, 5/8" TYPE X BOTH SIDES WITH SOUND BATT INSULATION. CONTRACTOR OPTION TO USE 3 1/2" METAL STUDS @ 24" o/c.
2. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE ARCHITECTS ATTENTION PRIOR TO START OF FABRICATION / CONSTRUCTION.
3. A) PROVIDE 5/8" TYPE X GYPSUM BOARD AT ALL LOCATIONS UNLESS OTHERWISE NOTED. B) PROVIDE 5/8" TYPE X MOISTURE RESISTANT GYPSUM BOARD AT PLUMBING PARTITIONS AND PARTITION FACE WITHIN 6'-0" OF ALL PLUMBING FIXTURES. C) PROVIDE CEMENT BOARDS AS BACK-UP AT ALL CERAMIC WALL TILE LOCATIONS.
4. HOLD 5/8" CLEARANCE BETWEEN FLOOR AND GYPSUM BOARD. FILL GAP BETWEEN BOTTOM EDGE OF GYPSUM BOARD AND FLOOR WITH MOISTURE RESISTANT MASTIC CAULKING. STRIKE COMPOUND SMOOTH AND FLUSH WITH FACE OF PARTITION. REMOVE EXCESS MASTIC CAULKING FROM PARTITION AND FLOOR.
5. CHANGES IN FLOOR MATERIALS SHALL BE LOCATED AT THE CENTERLINE OF DOORS UNLESS NOTED OTHERWISE.
6. VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR ACCESS TO MECHANICAL AND ELECTRICAL ITEMS.
7. SEAL PENETRATIONS IN FIRE RATED ASSEMBLIES AND SMOKE BARRIERS TO MEET REQUIRED RATINGS. UTILIZE UL APPROVED METHODS.
8. PROVIDE 1/8" GAUGE SHEET METAL BANDING AS REQUIRED TO SUPPORT ALL CABINETS, SHELVES, BUILT-INS, EQUIPMENT OR ACCESSORIES. COORDINATE WITH VENDOR DOCUMENTS WHERE SUCH CONDITIONS APPLY.
9. NOTIFY THE ARCHITECT IF ELECTRICAL / COMMUNICATION / HVAC / PLUMBING / ITEMS DEPICTED CONFLICT WITH ADA REQUIREMENTS OR INDUSTRY STANDARDS PRIOR TO INSTALLATION. NOTE: ALL DEVICES AND CONTROLS TO BE INSTALLED WITHIN A MAXIMUM OF 4" OF EACH OTHER HORIZONTALLY (NOT 16" O.C.) AND ALIGN THE BOTTOMS OF EACH ITEM. IN THE VERTICAL POSITION ALIGN THE ITEMS ON CENTERLINES.
10. DURING CONSTRUCTION, AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS.
11. LIGHTING, EXIT LIGHTING INFORMATION, ELECTRICAL, DATA AND TELEPHONE INFORMATION SHOWN ARE FOR ELECTRICAL CONTRACTORS REFERENCE ONLY. CONTRACTOR SHALL ENSURE COORDINATION OF ELECTRICAL ITEMS WITH BUILDING CONSTRUCTION AND EQUIPMENT AND SHALL OBTAIN THE NEEDED INFORMATION TO PROVIDE A COMPLETE AND WORKING INSTALLATION.
12. CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES.
13. FOR OUTLETS ADDED TO EXTERIOR WALLS, REPAIR VAPOR BARRIER & MAKE AIR TIGHT. REPAIR INSULATION AND PATCH GYPSUM BOARD TO MATCH ADJACENT FINISHED SURFACES.
14. PROVIDE GFI ELECTRICAL OUTLETS AT LOCATIONS REQUIRED BY CODE.
15. SALVAGED MATERIAL SHALL BE CLEANED AND RETURNED TO THE OWNER AS DIRECTED.
16. CONTRACTOR TO INSTALL EQUIPMENT PER MANUFACTURERS REQUIREMENTS.
17. ALL DOOR HARDWARE TO BE ADA-APPROVED LEVER SETS.
18. PROVIDE CONTINUOUS 6 mil VAPOR BARRIER (ON WARM SIDE OF WALL) ALONG ENTIRE PERIMETER OF EXTERIOR WALL FROM FLOOR TO ROOF DECK. ALL PENETRATIONS TO BE MADE AIR TIGHT.
19. PATCH NEW FINISHES TO MATCH EXISTING. THE CONTRACTOR SHALL FIELD VERIFY EXISTING FINISH TYPES AND COLORS PRIOR TO ORDERING.



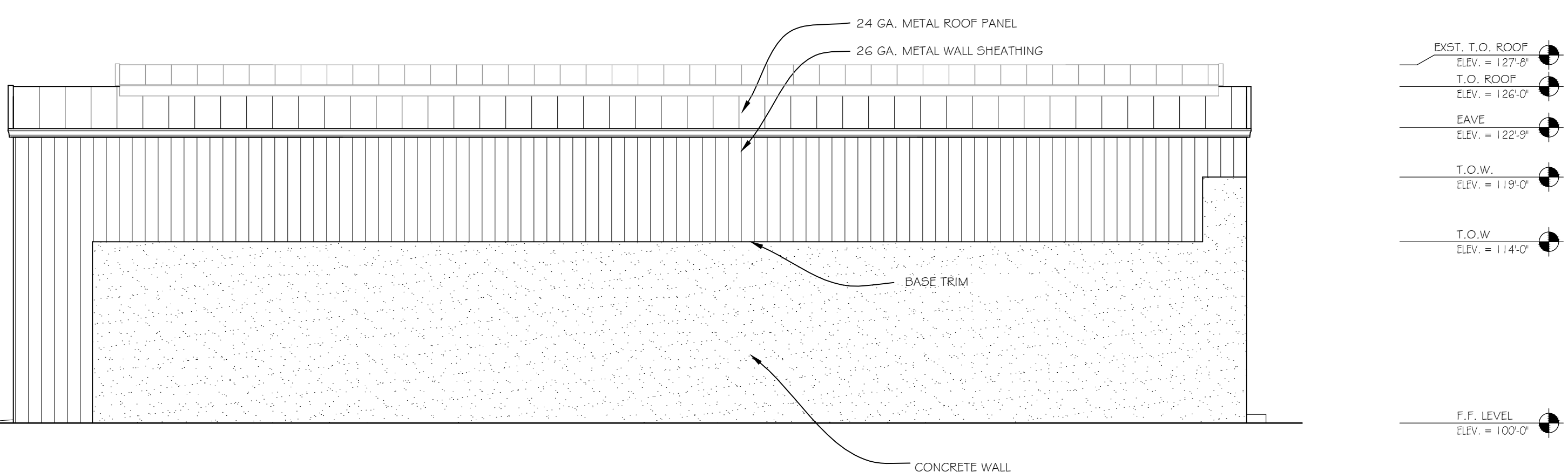
1 East Elevation - Additional Entry Door



4 Floor Plan



2 West Elevation



3 South Elevation

MetalTek
905 E. St. Paul Ave
Waukesha, WI

INFORMATION ON THIS DRAWING TAKES PRECEDENCE OVER THE SPECIFICATIONS MANUAL IF THE DOCUMENTS HAVE CONFLICTING INFORMATION.

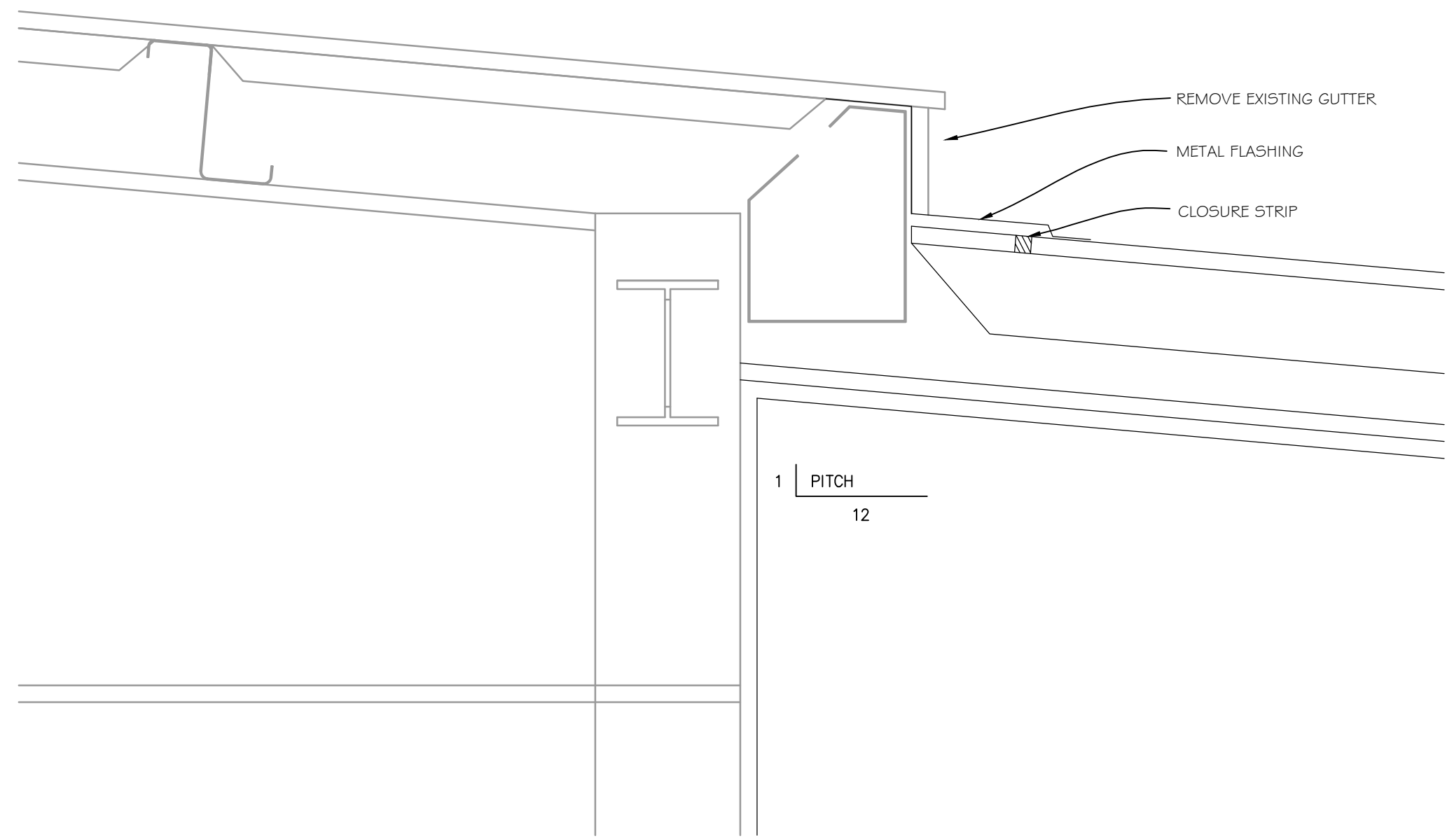
NO.	DATE	BY	DESCRIPTION

PROJECT #: XXXX
DRWN BY:
DATE: September 18th, 2013

Floor Plans

SHEET:

A1.0



3 WALL SECTION DETAIL
EXISTING TO NEW ROOF TRANSITION

SCALE: 1/12" = 1'-0"

DOOR & FRAME GENERAL NOTES

- HOLLOW METAL FRAMES SHALL BE WELDED AND GROUND FRAMES ONLY, WITH 3 CUSHIONS ON THE LATCH SIDE.
- HOLLOW METAL FRAMES AND SIDELIGHT FRAMES SHALL BE PAINTED, UNLESS NOTED OTHERWISE.
- TYPICAL HOLLOW METAL FRAME TO BE DOUBLE RABBETED WITH 1/2" RETURN ON EACH SIDE.
- GLASS IN SIDELIGHTS AND DOORS SHALL BE 1/4" TEMPERED AT INTERIOR APPLICATIONS, AND 1" INSULATING, TEMPERED AT EXTERIOR APPLICATIONS, UNLESS NOTED OTHERWISE.
- DOORS AND FRAMES AT RATED ASSEMBLIES SHALL MEET ALL CODES AND "UL" REQUIREMENTS AND BE PROPERLY LABELED FOR THE REQUIRED RATING.
- ALL DOORS TO BE 1 3/4" THICK UNLESS NOTED OTHERWISE.
- WOOD DOORS SHALL BE SOLID CORE WITH STAINED VENEER UNLESS OTHERWISE NOTED.
- BRING ANY UNUSUAL DIMENSIONS, HEIGHTS, HARDWARE AND/OR CONDITIONS TO ARCHITECTS ATTENTION PRIOR TO CONSTRUCTION.
- PROVIDE WEATHER-STRIPPING, THRESHOLD AND SWEEP AT ALL EXTERIOR DOORS.
- DOOR HARDWARE SHALL BE COMPLIANT W/ CURRENT ACCESSIBILITY CODES, INCLUDING LEVER HANDLE LATCH AND LOCK SETS, AND DELAY ADJUSTABLE CLOSERS AS REQUIRED.
- HOLLOW METAL DOOR FRAMES AND SIDELIGHT FRAMES SHALL BE PAINTED, UNLESS NOTED OTHERWISE.
- CENTER MULLIONS AT DOUBLE DOOR (IF APPLICABLE) ARE TO BE REMOVABLE.
- TYPICAL HOLLOW METAL FRAME TO BE 2" WIDE AND DOUBLE RABBETED WITH 1/2" RETURN ON EACH SIDE.
- SEE OVERALL FLOOR PLANS FOR INTEGRAL SIDELIGHTS 4/ OR TRANSOM WINDOW LOCATIONS.
- 1/2" MAX. THRESHOLD FOR ALL DOORS

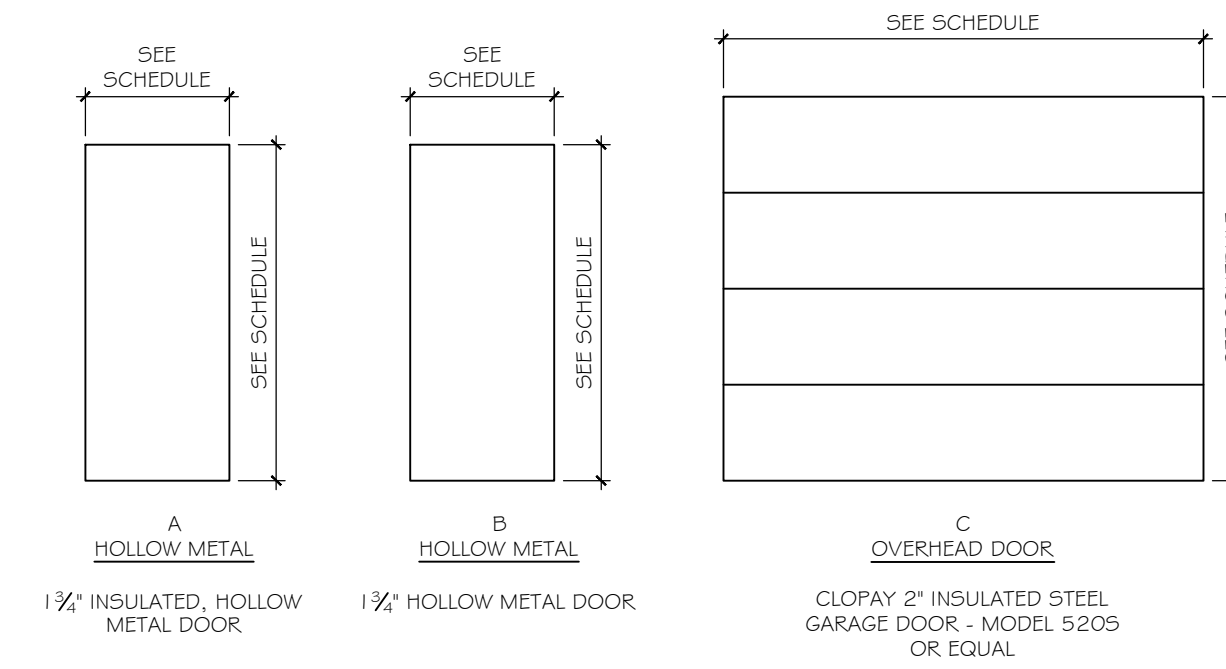
HARDWARE SETS

- | | |
|-----------------------|-----------------------|
| HARDWARE SET 1 | HARDWARE SET 2 |
| LEVER HANDLES | CYLINDER LOCK |
| BUTTS | LEVER HANDLES |
| STOP | BUTTS |
| KICK PLATE | CLOSER |
| | STOP |
| | KICK PLATE |
| | WEATHER-STRIPPING |
| | THRESHOLD |
| | SWEEP |

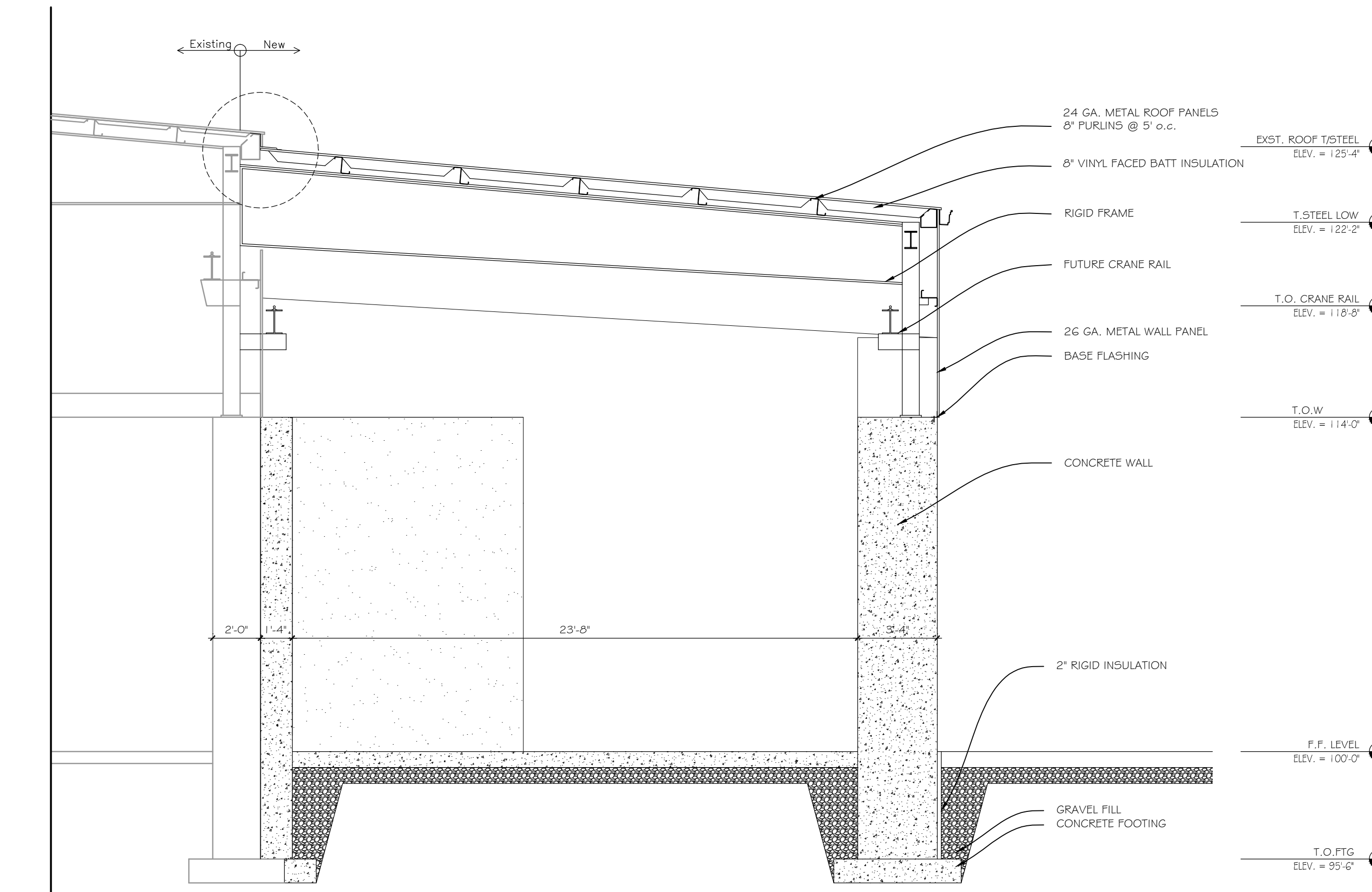
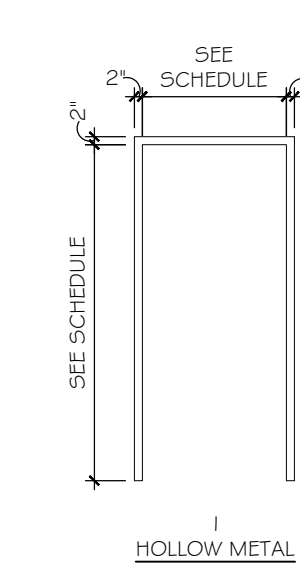
DOOR SCHEDULE

DOOR NO.	ROOM NAME	DOOR SIZE			DOOR INFORMATION			FRAME INFORMATION			HARDWARE	DETAILS	RATING (MIN.)	NOTES
		WIDTH	HEIGHT	THICKNESS	MATERIAL	TYPE	FINISH	MATERIAL	TYPE	FINISH				
BASEMENT														
101.1	X-RAY ROOM	14'-0"	10'-0"	2	H.M.	C	PRIME # PAINT	-	-	-	-	-	-	-
101.2	X-RAY ROOM	3'-0"	7'-0"	1 3/4"	H.M.	B	PRIME # PAINT	H.M.	1	PRIME # PAINT	1	-	-	-
101.3	X-RAY ROOM	3'-0"	7'-0"	1 3/4"	H.M.	B	PRIME # PAINT	H.M.	1	PRIME # PAINT	1	-	-	-
101.4	X-RAY ROOM	3'-0"	7'-0"	1 3/4"	H.M.	A	PRIME # PAINT	H.M.	1	PRIME # PAINT	2	-	-	-

DOOR TYPES

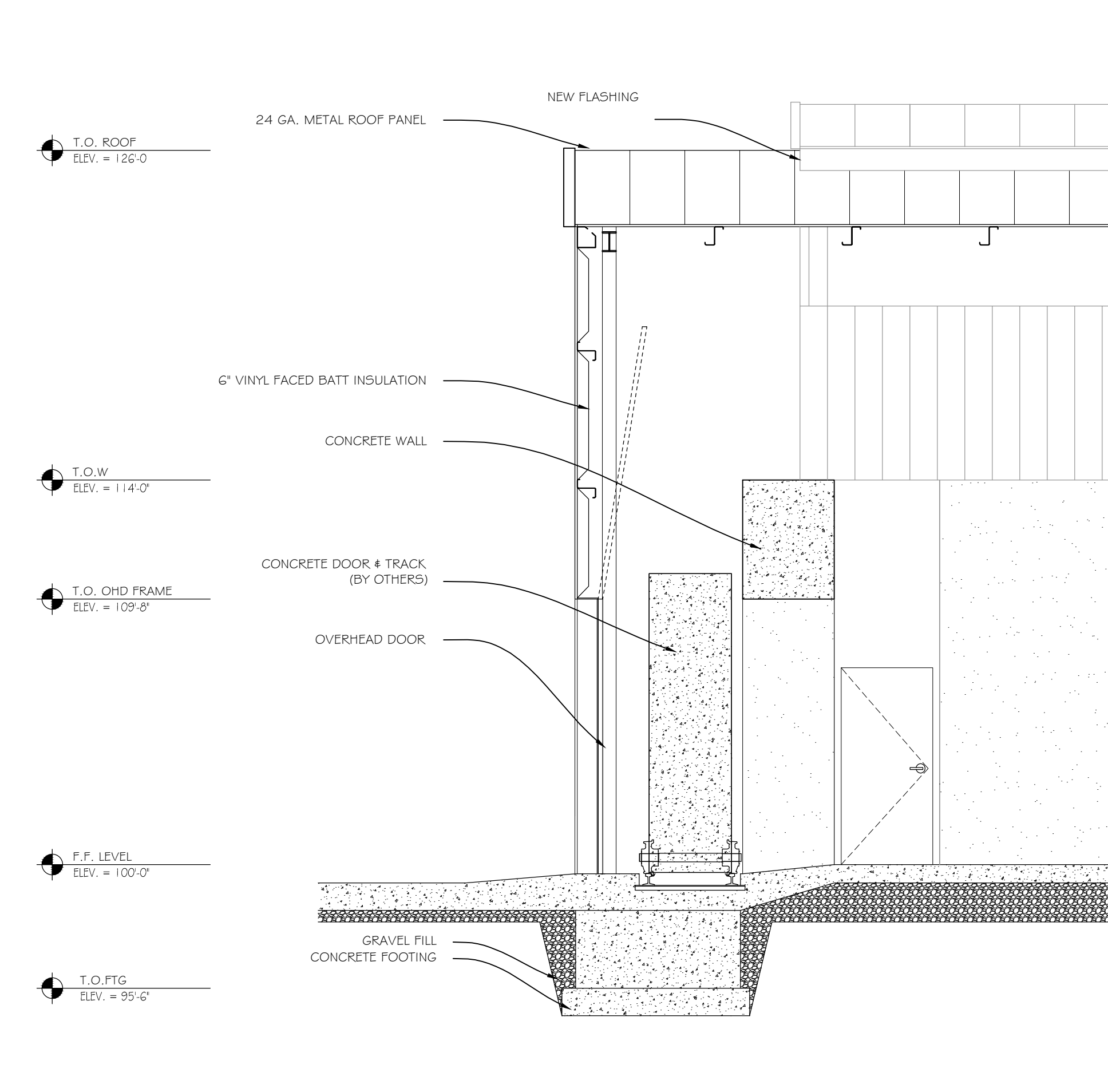


FRAME TYPES



1 WALL SECTION
TEXT

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



2 WALL SECTION
TEXT

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

MetalTek
905 E. St. Paul Ave
Waukesha, WI

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NO.	DATE	BY	DESCRIPTION

PROJECT #: XXXX
DRWN BY:
DATE: September 18th, 2013

Floor Plans

SHEET:

A1.1

DESIGN CRITERIA

- 1. BUILDING CODE - INTERNATIONAL BUILDING CODE (IBC) 2009 / ASCE7-05
2. ROOF LIVE LOADS 20 PSF
3. FLOOR LIVE LOADS
STORAGE (HEAVY) 250 PSF
4. SNOW LOADS
GROUND SNOW Pg 30 PSF
EXPOSURE FACTOR Ce 1.0
TEMPERATURE FACTOR Ct 1.0
IMPORTANCE FACTOR Is 1.0
FLAT ROOF SNOW Pf 21.0 PSF
SLOPED ROOF SNOW Ps 21.0 PSF
DRIFTING SNOW, PER ASCE 7 AS REQUIRED, SEE PLANS AND/OR CALCULATIONS
5. WIND LOADS
BASIC WIND SPEED V 90 MPH
OCCUPANCY CATEGORY II
IMPORTANCE FACTOR Iw 1.0
EXPOSURE CATEGORY C
INTERNAL PRESSURE COEFFICIENT Gcpi +/- 0.18

COMPONENTS & CLADDING NOT DESIGNED BY THE ENGINEER OF RECORD SHALL BE DESIGNED FOR THE WIND PRESSURE LISTED BELOW. PRESSURES ARE BASED ON A TRIBUTARY AREA OF 10 SQUARE FEET. WIND PRESSURES FOR LARGER TRIBUTARY AREAS MAY BE USED BASED ON DELEGATED DESIGN CALCULATIONS.

WALLS:
MAIN AREA: POSITIVE 18.0 PSF, NEGATIVE 19.5 PSF
CORNERS: POSITIVE 18.0 PSF, NEGATIVE 24.0 PSF
ROOF: MAIN AREA: POSITIVE 10.0 PSF, NEGATIVE 21.3 PSF
EDGES: POSITIVE 18.0 PSF, NEGATIVE 24.7 PSF
CORNERS: POSITIVE 10.0 PSF, NEGATIVE 33.0 PSF

6. SEISMIC LOADS:
OCCUPANCY CATEGORY II
IMPORTANCE FACTOR Ie 1.0
SITE CLASS D
MAPPED SPECTRAL RESPONSE ACCELERATIONS Ss 0.111, S1 0.045
SPECTRAL RESPONSE COEFFICIENTS SDS 0.118, SD1 0.072
SEISMIC DESIGN CATEGORY B
SEISMIC FORCE RESISTING SYSTEM STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
RESPONSE MODIFICATION FACTOR R 3.0
RESPONSE COEFFICIENT Cs 0.039
ANALYSIS PROCEDURE PER PEMB MFG

GENERAL REQUIREMENTS

- 1. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE METHOD OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING, LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK. OBSERVATION VISITS TO THE SITE BY STRUCTUREENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
2. THE ARCHITECT AND/OR ENGINEER OF RECORD SHALL NOT HAVE CONTROL OVER OR BE IN CHARGE OF, AND SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ANY CONSTRUCTION ACTIVITIES, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.
3. SUBMITTALS PREPARED BY SUBCONTRACTORS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMITTING TO ARCHITECT/ENGINEER.
4. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS AT THE JOB SITE. ANY DISCREPANCIES BETWEEN THE CONDITIONS FOUND AND THOSE INDICATED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
5. SEE DOCUMENTS FROM OTHER DISCIPLINES FOR FLOOR, WALL, AND ROOF OPENINGS, TRENCHES, PITS, PIPE SLEEVES, EQUIPMENT PADS, METAL PAN STAIRS, MISCELLANEOUS IRON, ETC.
6. DO NOT PLACE PIPES, DUCTS, CHASES, ETC. IN STRUCTURAL BEAM AND COLUMN MEMBERS. DO NOT CUT ANY STRUCTURAL MEMBER FOR PIPES, DUCTS, ETC., UNLESS NOTED OTHERWISE. NOTIFY STRUCTURAL ENGINEER WHEN DOCUMENTS BY OTHER DISCIPLINES SHOW OPENINGS, POCKETS, ETC. NOT INDICATED IN THE STRUCTURAL DRAWINGS BUT ARE LOCATED IN THE STRUCTURAL MEMBERS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM STRUCTURAL ENGINEER FOR INSTALLATION OF SUCH PIPES, DUCTS, CHASES, ETC.
7. DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE LOCATIONS SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR CONDITIONS.
8. CONTRACTOR DESIGNED ELEMENTS SHALL BE DESIGNED BY LICENSED PROFESSIONAL ENGINEERS REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, DESIGN LOAD DATA, SUPPORT REACTIONS, AND CERTIFICATION THAT ELEMENTS WERE DESIGNED FOR LOADS SPECIFIED IN THE CONTRACT DOCUMENTS OR IN THE BUILDING CODE. ALL DOCUMENTS NOTED SHALL BE SEALED BY THE LICENSED ENGINEER. IF CRITERIA INDICATED ARE NOT SUFFICIENT, SUBMIT A WRITTEN REQUEST FOR ADDITIONAL INFORMATION TO THE ARCHITECT. THE FOLLOWING ELEMENTS AND THEIR CONNECTIONS SHALL BE CONTRACTOR DESIGNED:

A. PREFABRICATED METAL BUILDING

SPREAD FOUNDATIONS

- 1. FOUNDATIONS ARE DESIGNED TO BE SUPPORTED ON APPROVED EXISTING SUBGRADE OR APPROVED COMPACTED STRUCTURAL FILL HAVING A PRESUMED MINIMUM ALLOWABLE BEARING CAPACITY OF 2,000 PSF.
2. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE VALIDITY OF THE SUBSURFACE CONDITIONS DESCRIBED IN THE DRAWINGS, SPECIFICATIONS, TEST BORINGS OR GEOTECHNICAL REPORTS. THIS DATA IS INCLUDED TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION, AND TO REPRESENT CONDITIONS ONLY AT SPECIFIC LOCATIONS AT THE PARTICULAR TIME THE OBSERVATIONS WERE MADE.
3. ALL EXTERIOR FOUNDATIONS SHALL BEAR ON APPROVED SUBGRADE AT MINIMUM DEPTH OF 4'-0" BELOW ADJACENT FINISH EXTERIOR GRADE.
4. FOOTING ELEVATIONS SHOWN ON THE DRAWINGS REPRESENT ESTIMATED DEPTHS AND ARE NOT TO BE CONSTRUED AS LIMITING THE AMOUNT OF EXCAVATION REQUIRED TO REACH SUITABLE BEARING MATERIAL.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORTS IN ALL EXCAVATIONS AS REQUIRED TO PREVENT HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OF SURROUNDING SOIL AND/OR PROPERTY WHICH WILL ENDANGER LIVES OR PROPERTY.
6. THE CONTRACTOR SHALL PROVIDE CONTROL OF SURFACE AND SUBSURFACE WATER PROMPTLY TO ENSURE THAT ALL FOUNDATION WORK IS PERFORMED IN A DRY CONDITION.
7. FOUNDATIONS SHALL NOT BE PLACED ON FROZEN SUBGRADE.
8. THE CONTRACTOR SHALL PROTECT IN-PLACE FOUNDATIONS AND SLABS-ON-GRADE FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETE.
9. FOUNDATION WALLS SHALL BE BRACED DURING BACKFILLING AND COMPACTION OPERATIONS. BRACING SHALL BE LEFT IN PLACE UNTIL PERMANENT STRUCTURAL SUPPORT SYSTEM IS INSTALLED AND APPROVED BY THE ENGINEER.
10. WHERE FOUNDATION WALLS HAVE FILL ON BOTH SIDES, BACKFILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF THE WALL.

CONCRETE

- 1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARDS:
A. ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
B. ACI MCP - "MANUAL OF CONCRETE PRACTICE".
C. ACI 318 - "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
D. ACI 318.1 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL PLAIN CONCRETE".
2. CONCRETE SHALL HAVE A MINIMUM 28 - DAY ULTIMATE COMPRESSIVE STRENGTH AS FOLLOWS:
FOOTINGS 3,000 PSI
SLAB ON GRADE 4,000 PSI
WALLS/GRADE BEAMS 4,000 PSI
3. CONCRETE MIX DESIGN (INCLUDING AGGREGATE SIZE, WATER CEMENT RATIO, AIR ENTRAINMENT, ADMIXTURES, SLUMP AND HISTORY OF BREAK TESTS) SHALL BE SUBMITTED TO THE EOR FOR APPROVAL PRIOR TO THE COMMENCEMENT OF ANY WORK.
MAXIMUM WATER/CEMENT RATIO PERMITTED IS:
0.50 FOR SLABS ON GRADE
0.54 FOR BELOW GRADE CONCRETE
0.45 FOR EXPOSED CONCRETE
4. CONCRETE WHICH WILL BE EXPOSED TO THE WEATHER SHALL HAVE AIR-ENTRAINING ADMIXTURE AS REQUIRED TO PROVIDE 4 - 6 % AIR ENTRAINMENT.
5. MAXIMUM AGGREGATE SIZE SHALL BE AS FOLLOWS:
3/4" FOR SLABS ON GRADE, WALLS, BEAMS & COLUMNS
1" FOR FOOTINGS
3/8" FOR TOPPING SLABS
6. AT THE OWNERS OPTION, THE CONTRACTOR SHALL MAKE PROVISIONS TO ALLOW AN INDEPENDENT TESTING AGENCY HIRED BY THE OWNER, TO CAST 4 TEST CYLINDERS FOR EACH 50 CUBIC YARDS OF CONCRETE PLACED, OR FOR ANY DAY'S OPERATION. THE TESTING AGENCY SHALL BE RESPONSIBLE FOR CASTING AND CURING SPECIMENS IN COMPLIANCE TO ASTM C31 AND CASTING TESTING SPECIMENS IN COMPLIANCE TO ASTM C39.
7. CONSTRUCTION JOINTS SHOWN ON THE CONTRACT DRAWINGS SHALL NOT BE ALTERED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
8. DRAWINGS SHOWING THE LOCATION OF CONSTRUCTION JOINTS, CONTROL JOINTS, AND PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE PREPARATION OF REINFORCING SHOP DRAWINGS.
9. GROUT USED TO SET PLATES SHALL BE NON-SHRINK AND NON-METALLIC.
10. THE CONTRACTOR SHALL USE SMOOTH FORMS FOR EXPOSED CONCRETE SURFACES. BOARD FORMS MAY BE USED FOR UNEXPOSED CONCRETE SURFACES. EARTH FORMS ARE FORBIDDEN.
11. PROVIDE A MINIMUM OF 6" OF COMPACTED GRANULAR FILL UNDER ALL SLABS ON GRADE.
12. FLOOR FLATNESS AND LEVELNESS OF SLAB ON GRADE CONCRETE SHALL HAVE A MINIMUM F-NUMBER OF F125/F20 AS RECOGNIZED BY THE MOST CURRENT VERSION OF ASTM E 1155 AND ACI 302.1. SEE SPECIFICATION FOR FURTHER REQUIREMENTS.

CONCRETE REINFORCING

- 1. DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING:
A. ACI 315 - "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT".
B. ACI 318 - "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
C. MSP2 - "CRSI MANUAL OF STANDARD PRACTICE".
D. AWS D1.4 - "STRUCTURAL WELDING CODE - REINFORCING STEEL".
E. WRI - "WELDED WIRE FABRIC MANUAL OF STANDARD PRACTICE".
2. STEEL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60, DEFORMED, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
3. THE REINFORCEMENT FABRICATOR SHALL PROVIDE AND SCHEDULE ON SHOP DRAWINGS ALL REQUIRED REINFORCING STEEL AND NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN PLACE AT THE CORRECT LOCATIONS.
4. UNLESS SHOWN ON THE DRAWINGS OTHERWISE, THE REQUIRED CLEARANCE FOR REINFORCEMENT SHALL BE PER ACI 318:
A. CONCRETE PLACED DIRECTLY ON EARTH 3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER #6 & LARGER 2" #5 & SMALLER 1 1/2"
C. CONC. NOT EXPOSED TO EARTH OR WEATHER #14 & LARGER 1 1/2" #11 & SMALLER 3/4"
5. THE CONTRACTOR SHALL REFER TO TYPICAL DETAILS SHOWN ON THE CONTRACT DRAWINGS FOR ADDITIONAL REINFORCING REQUIREMENTS.
6. WHERE REINFORCEMENT IS REQUIRED IN SECTIONS, REINFORCEMENT IS CONSIDERED TYPICAL WHERE EVER THE SECTION APPLIES.
7. WELDED WIRE FABRIC SHALL HAVE A MINIMUM OF 6" LAP AND BE TIED TOGETHER.
8. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF COMPLETION OF REINFORCEMENT INSTALLATION AND ALLOW AT LEAST 24 HOURS BEFORE SCHEDULED CONCRETE PLACEMENT FOR THE ARCHITECT TO INSPECT REINFORCEMENT.

STRUCTURAL STEEL

- 1. STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING LATEST EDITION:
A. AISC - "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS".
B. AISC - "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
C. AWS D1.1 - "STRUCTURAL WELDING CODE -STEEL".
D. AISC - "STRUCTURAL STEEL DETAILING MANUAL".
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
HOT ROLLED W AND WT SHAPES ASTM A992 (Fy = 50 KSI)
ANGLES, CHANNELS, AND PLATES ASTM A36 (Fy = 36 KSI)
S, M, & HP SHAPES ASTM A36 (Fy = 36 KSI)
STEEL PIPE ASTM A53 GR B (Fy = 35 KSI)
RECTANGULAR HSS ASTM A500 GR B (Fy = 46 KSI)
ROUND HSS ASTM A500 GR B (Fy = 42 KSI)
HIGH STRENGTH BOLTS ASTM A5325
HEAVY HEX NUTS ASTM A563
HARDENED STEEL WASHERS ASTM F436
ANCHOR RODS ASTM F1554 GR 36 (Fy = 36 KSI)
THREADED RODS ASTM A36 (Fy = 36 KSI)
HEADED STUD ANCHORS ASTM A108
3. PROVIDE 2 MIL THICKNESS RED OR GREY OXIDE PRIMER ON ALL STEEL SURFACES UNLESS NOTED.
4. ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AND FASTENERS HOT DIPPED GALVANIZED PER ASTM A153.
5. ANCHOR RODS SHALL BE PRESET WITH TEMPLATES.
6. LEVELING PLATES AND BEARING PLATES SHALL BE SET IN A FULL BED OF NON-SHRINK GROUT.
7. CONNECTIONS MAY BE BOLTED OR WELDED AT THE FABRICATORS OPTION. BOLTED CONNECTIONS SHALL BE AS FOLLOWS:
A. MINIMUM BOLT DIAMETER OF 3/4" UNLESS NOTED.
B. HIGH STRENGTH BOLTS IN SINGLE OR DOUBLE SHEAR UNLESS NOTED.
C. SIMPLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION PER AISC REQUIREMENTS FOR UNRESTRAINED MEMBERS.
8. THE MINIMUM FILLET WELD SIZE SHALL NOT BE LESS THAN 3/16" UNLESS NOTED.
9. ALL WELDS SHALL USE WELD METAL CONFORMING TO E70XX AND CONFORMING TO AWS WELDING PROCEDURES AND STANDARDS.
10. ALL WELDS SHALL BE MADE BY AWS CERTIFIED WELDERS CERTIFIED IN THE POSITION IN WHICH THE WELD IS TO BE MADE.
11. THE ERECTION OF ANY STRUCTURAL STEEL MEMBERS SHALL NOT COMMENCE UNTIL ALL SUPPORTING CONCRETE/MASONRY ELEMENTS HAVE ATTAINED AT LEAST 75% OF THEIR INTENDED MINIMUM COMPRESSIVE STRENGTH.
12. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS AS REQUIRED FOR THE SAFE ERECTION OF ALL STEEL. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT BRACING HAS BEEN INSTALLED AND FLOOR SLAB CONCRETE HAS ATTAINED 75% OF ITS REQUIRED STRENGTH.
13. STRUCTURAL STEEL SHALL BE TRUE AND PLUMB BEFORE FINAL BOLTING OR WELDING OF CONNECTIONS.
14. THE CONTRACTOR SHALL NOT MODIFY OR CUT ANY STRUCTURAL STEEL WITHOUT WRITTEN APPROVAL FROM THE EOR.
15. THE CONTRACTOR SHALL FIELD TOUCH UP ALL ABRASIONS, BURNS, AND SIMILAR DEFECTS IN PAINT OF STRUCTURAL STEEL.

METAL BUILDING SYSTEM

- 1. METAL BUILDING WORK SHALL CONFORM TO THE FOLLOWING LATEST EDITION:
A. AISC - "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS".
B. AISC - "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
C. AWS D1.1 - "STRUCTURAL WELDING CODE -STEEL".
D. AISC - "STRUCTURAL STEEL DETAILING MANUAL".
E. MBMA - "METAL BUILDING SYSTEMS MANUAL".
F. DESIGN LOADS AND CODE AS NOTED ON THESE DRAWINGS.
2. THE METAL BUILDING SHALL BE DESIGNED AND FABRICATED BY A MBMA MEMBER MANUFACTURER.
3. THE METAL BUILDING MANUFACTURER (MBM) SHALL PROVIDE STAMPED DRAWINGS AND CALCULATIONS BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
4. THE MBM SHALL CONFORM TO THE FOLLOWING DEFLECTION CRITERIA:
AISC - "DESIGN GUIDE #3 SERVICEABILITY DESIGN CONSIDERATIONS FOR STEEL BUILDING" UNLESS NOTED ON THE DRAWINGS.
5. ANCHOR RODS SHALL BE PRESET WITH TEMPLATES.
6. LEVELING PLATES AND BEARING PLATES SHALL BE SET IN A FULL BED OF NON-SHRINK GROUT.
7. THE MBM SHALL BE RESPONSIBLE FOR ALL CONNECTIONS, STIFFENERS, AND ETC. REQUIRED TO SAFELY ERECT THE BUILDING. THE MBM IS RESPONSIBLE FOR ANY REQUIRED HOLES SHOWN PASSING THROUGH THE MBM STEEL ON THE DRAWINGS.
8. THE MBM SHALL PROVIDE FOUNDATION REACTIONS, COLUMN LOCATIONS AND BASE PLATE SIZES TO THE ENGINEER IN A TIMELY MANNER. CHANGES TO, OR OMISSIONS OF REACTIONS, ETC. BY THE MBM THAT REQUIRE REDESIGN OF THE FOUNDATIONS WILL REQUIRE ADDITIONAL ENGINEERING FEES.
9. ALL WELDS SHALL USE WELD METAL CONFORMING TO E70XX AND CONFORMING TO AWS WELDING PROCEDURES AND STANDARDS.
10. ALL WELDS SHALL BE MADE BY AWS CERTIFIED WELDERS CERTIFIED IN THE POSITION IN WHICH THE WELD IS TO BE MADE.
11. THE ERECTION OF ANY STRUCTURAL STEEL MEMBERS SHALL NOT COMMENCE UNTIL ALL SUPPORTING CONCRETE/MASONRY ELEMENTS HAVE ATTAINED AT LEAST 75% OF THEIR INTENDED MINIMUM COMPRESSIVE STRENGTH.
12. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS AS REQUIRED FOR THE SAFE ERECTION OF ALL STEEL. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT BRACING HAS BEEN INSTALLED AND FLOOR SLAB CONCRETE HAS ATTAINED 75% OF ITS REQUIRED STRENGTH.
13. STRUCTURAL STEEL SHALL BE TRUE AND PLUMB BEFORE FINAL BOLTING OR WELDING OF CONNECTIONS.
14. THE CONTRACTOR SHALL NOT MODIFY OR CUT ANY STRUCTURAL STEEL WITHOUT WRITTEN APPROVAL FROM THE EOR AND MBM.
15. THE CONTRACTOR SHALL FIELD TOUCH UP ALL ABRASIONS, BURNS, AND SIMILAR DEFECTS IN PAINT OF STRUCTURAL STEEL.

REINFORCEMENT DEVELOPMENT AND SPLICE LENGTH SCHEDULE
Fy=60 KSI Fc=3000 PSI
BAR SIZE #3 #4 #5 #6 #7 #8 #9 #10 #11
CLASS A TOP BARS 22 29 36 43 63 72 81 91 101
SPLICE LENGTH OTHERS 17 22 29 33 48 55 62 70 78
CLASS B TOP BARS 28 37 47 56 81 93 105 118 131
SPLICE LENGTH OTHERS 22 29 36 43 63 72 81 91 101

REINFORCEMENT DEVELOPMENT AND SPLICE LENGTH SCHEDULE
Fy=60 KSI Fc=4000 PSI
BAR SIZE #3 #4 #5 #6 #7 #8 #9 #10 #11
CLASS A TOP BARS 19 25 31 37 54 62 70 79 87
SPLICE LENGTH OTHERS 15 19 24 29 42 48 54 61 67
CLASS B TOP BARS 24 32 40 48 70 80 91 102 113
SPLICE LENGTH OTHERS 19 25 31 37 54 62 70 79 87

NOTES: (APPLY TO BOTH 3000 PSI & 4000 PSI CONCRETE)
1. ALL SPLICE LENGTHS SHALL BE CLASS B UNLESS NOTED OTHERWISE.
2. TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.
3. TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS ARE CALCULATED PER ACI 318-05, SECTIONS 12.2.5, RESPECTIVELY. TABULATED VALUES FOR BEAMS AND COLUMNS ARE BASED ON TRANSVERSE REINFORCING AND CONCRETE COVER MEETING MIN. CODE REQUIREMENTS. LENGTHS ARE IN INCHES.
4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
5. SPLICE AND DEVELOPMENT LENGTHS IN THIS SCHEDULE ARE BASED ON CASE 1 PER CRSI (1996):
BEAMS OR COLUMNS: COVER AT LEAST 1.0 BAR DIA. AND C.C. SPACING AT LEAST 2.0 BAR DIA.
ALL OTHERS: COVER AT LEAST 1.0 BAR DIA. AND C.C. SPACING AT LEAST 3.0 BAR DIA.



| Client-focused | Creative | Collaborative | Communicative |

METAL TEK X-RAY LONG VAULT
985 E. ST. PAUL AVE.
WAUKESHA, WI 53188

INFORMATION ON THIS DRAWING TAKES PRECEDENCE OVER THE SPECIFICATIONS MANUAL IF THE DOCUMENTS HAVE CONFLICTING INFORMATION.

NO. DATE BY DESCRIPTION
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PROJECT #: 14046
DRWN BY:
DATE: 7/18/14

GENERAL STRUCTURAL NOTES

SHEET:

S1.0

BID & PERMIT SET

STRUCTURAL DRAWING INDEX
SHEET NUMBER SHEET NAME
S1.0 GENERAL STRUCTURAL NOTES
S2.0 FOUNDATION PLAN
S3.0 ROOF FRAMING PLAN
S4.0 STRUCTURAL BUILDING SECTIONS
S5.0 STRUCTURAL DETAILS

INFORMATION ON THIS DRAWING TAKES PRECEDENCE OVER THE SPECIFICATIONS MANUAL IF THE DOCUMENTS HAVE CONFLICTING INFORMATION.

NO.	DATE	BY	DESCRIPTION

PROJECT #: 14046
DRWN BY: 7/18/14
DATE: 7/18/14

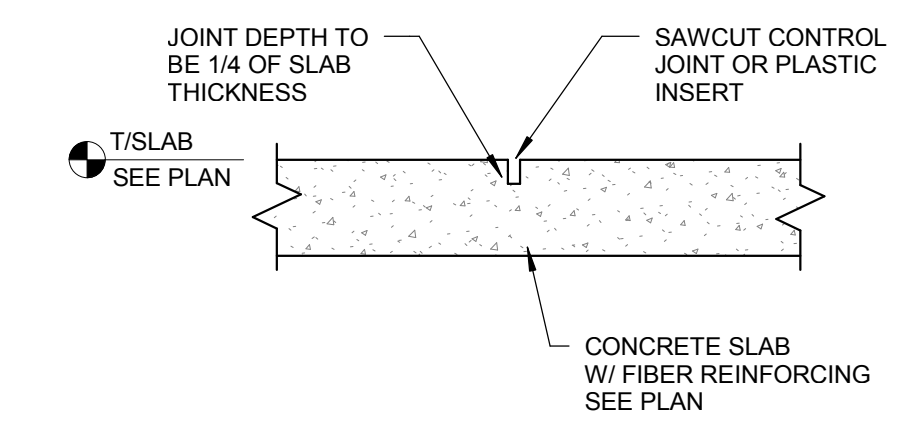
STRUCTURAL DETAILS

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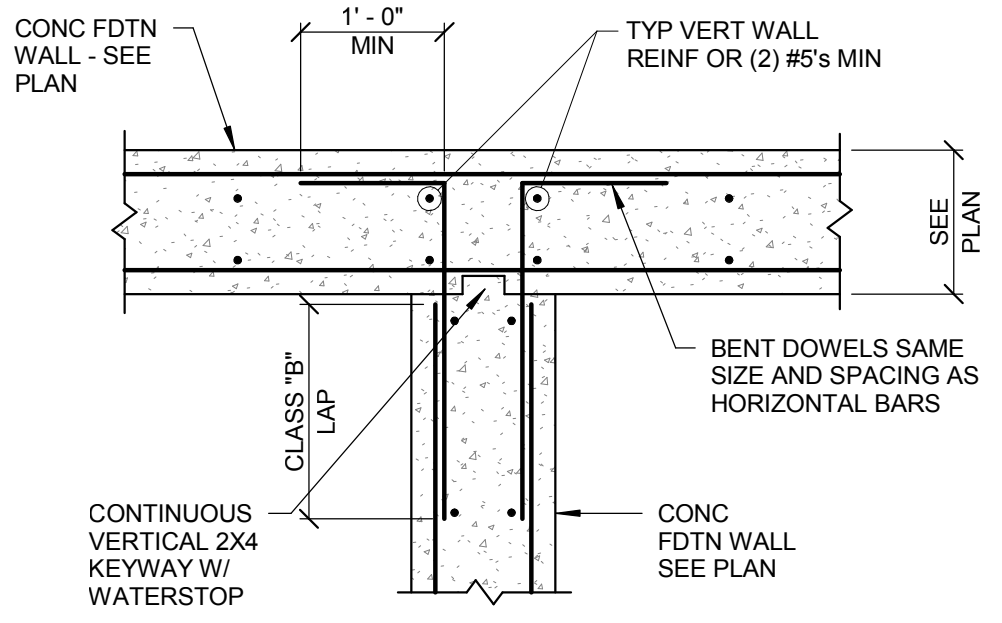
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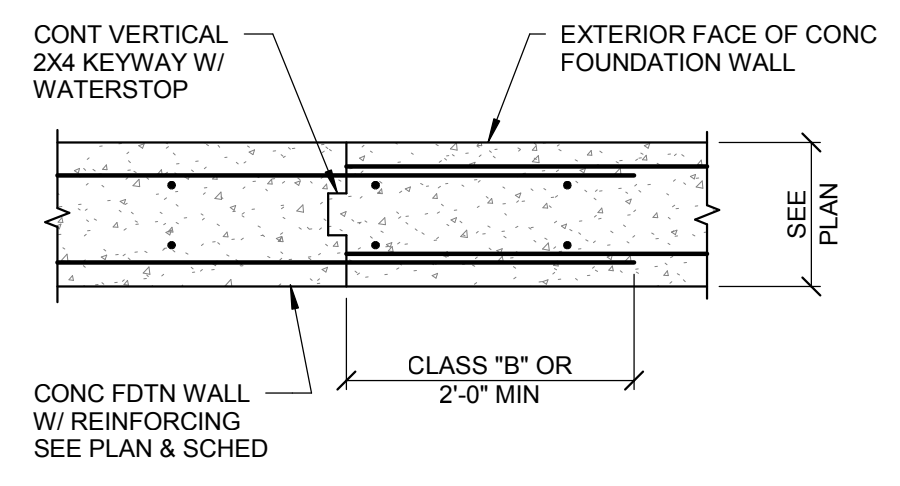
4 TYP SLAB CONTROL JOINT
S5.0 1 1/2" = 1'-0"



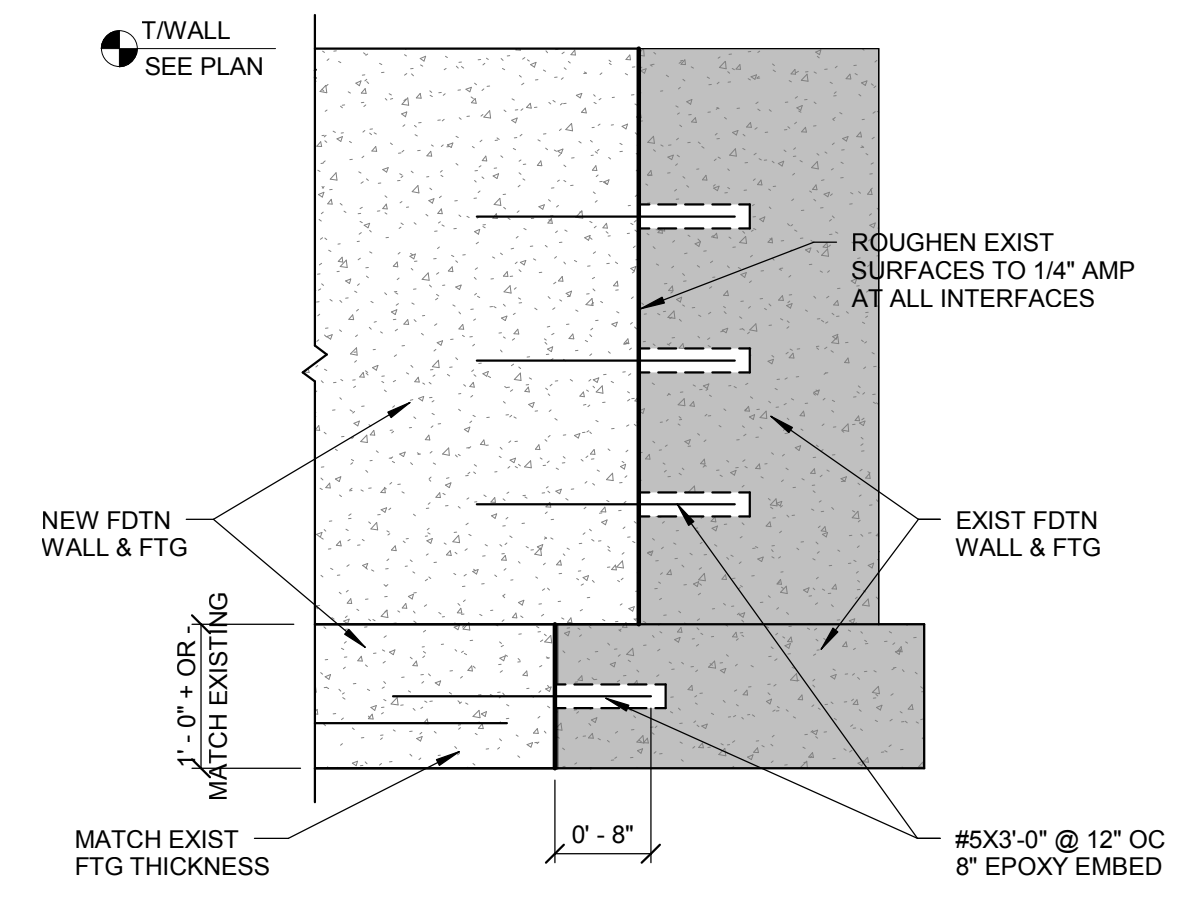
3 TYP WALL INTERSECTION REINF
S5.0 3/4" = 1'-0"



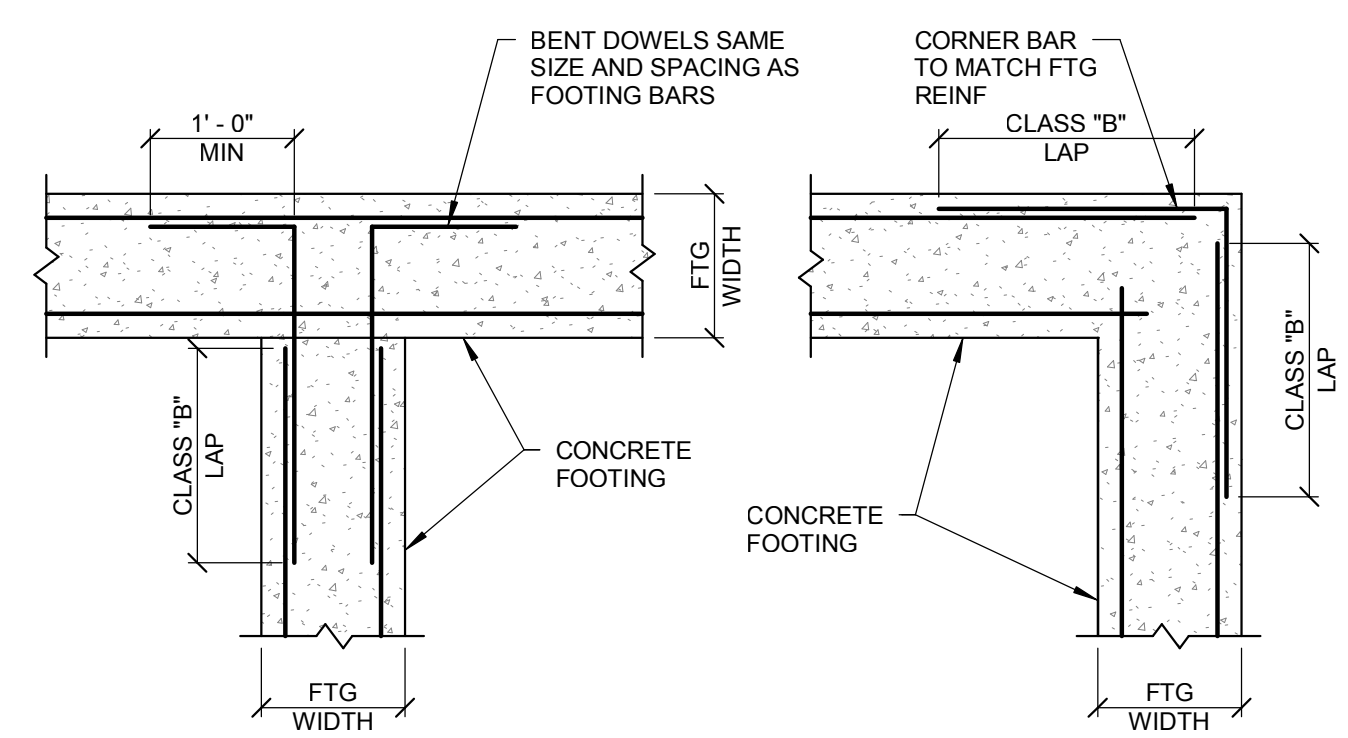
2 TYP CONC WALL CONSTR JOINT
S5.0 3/4" = 1'-0"



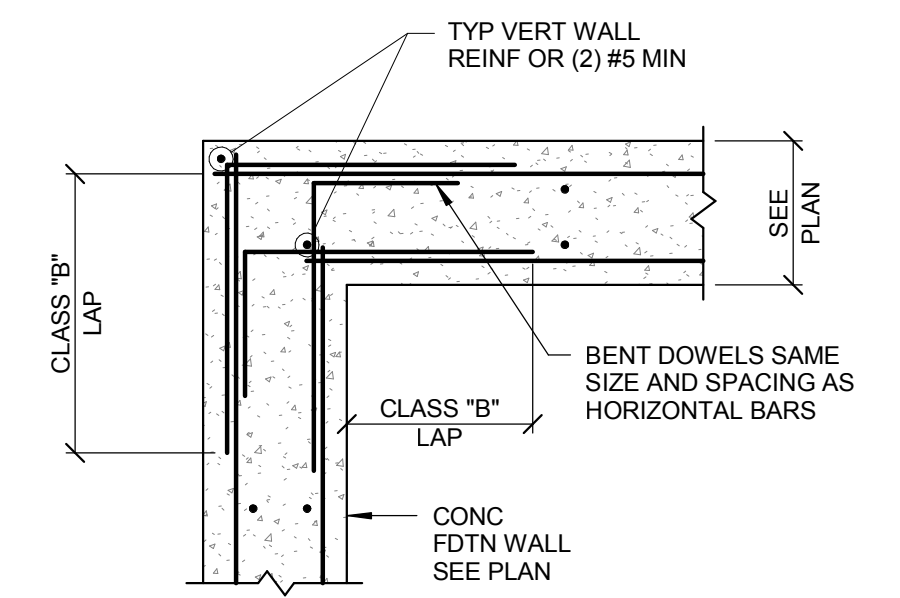
7 TYP EXISTING FDN INTERSECTION
S5.0 3/4" = 1'-0"



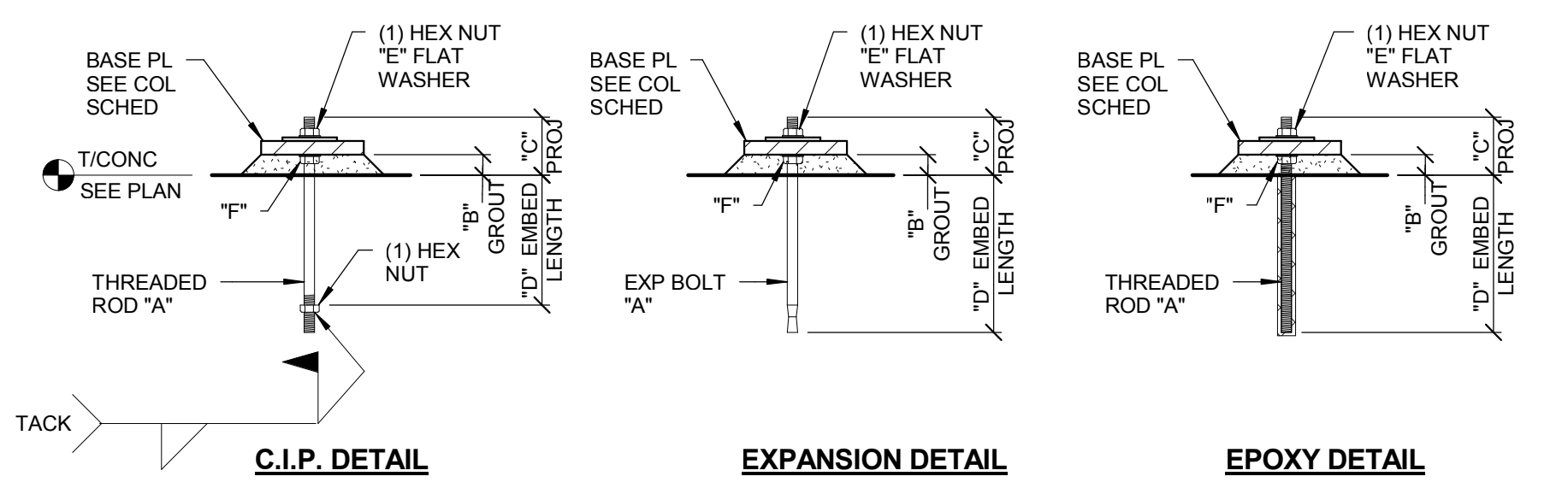
6 TYP WALL FTG REINFORCING
S5.0 3/4" = 1'-0"



5 TYP WALL CORNER REINF
S5.0 3/4" = 1'-0"



1 ANCHOR BOLT DETAIL
S5.0 1" = 1'-0"



ANCHOR BOLT SCHEDULE

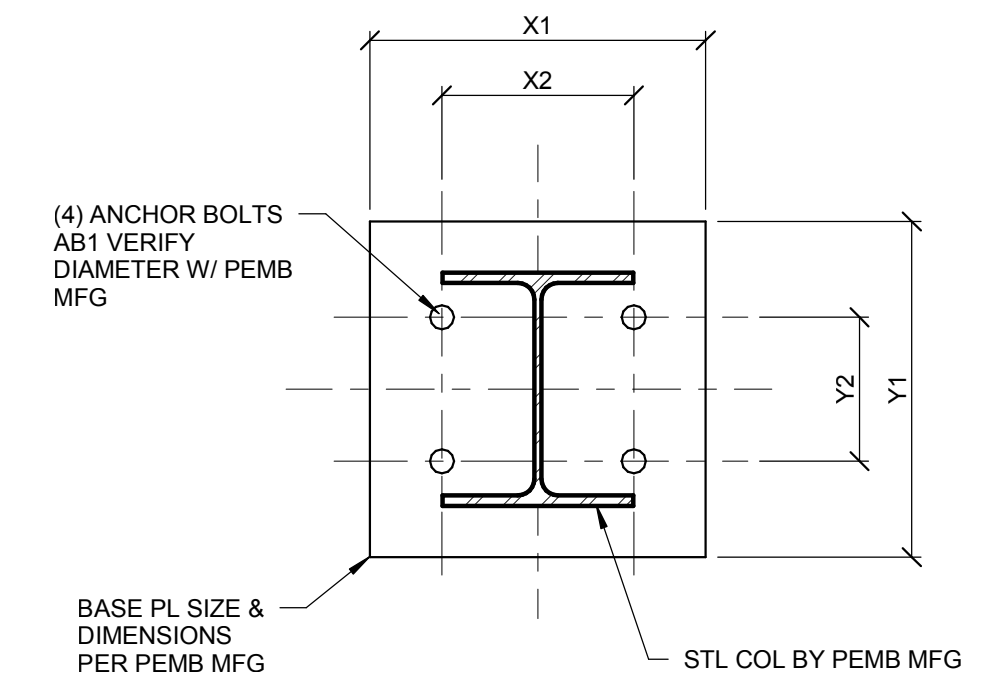
MARK	DIAMETER 'A' (INCHES)	GRADE/ MFR.	GROUT 'B' (INCHES)	PROJECTION 'C' (INCHES)	EMBEDMENT 'D' (INCHES)	PLATE WASHER 'E'	HEX LEVELING NUT OR LEVELING PL 'F'	DETAIL
AB1	3/4	F1554	0	4	12	TABLE 1	REQUIRED	C.I.P.

PER OSHA SECTION 1926.755(a)(2) ALL ANCHOR BOLTS SHALL BE PROOF LOADED TO 900 LBS BEFORE STEEL ERECTION CAN BEGIN.

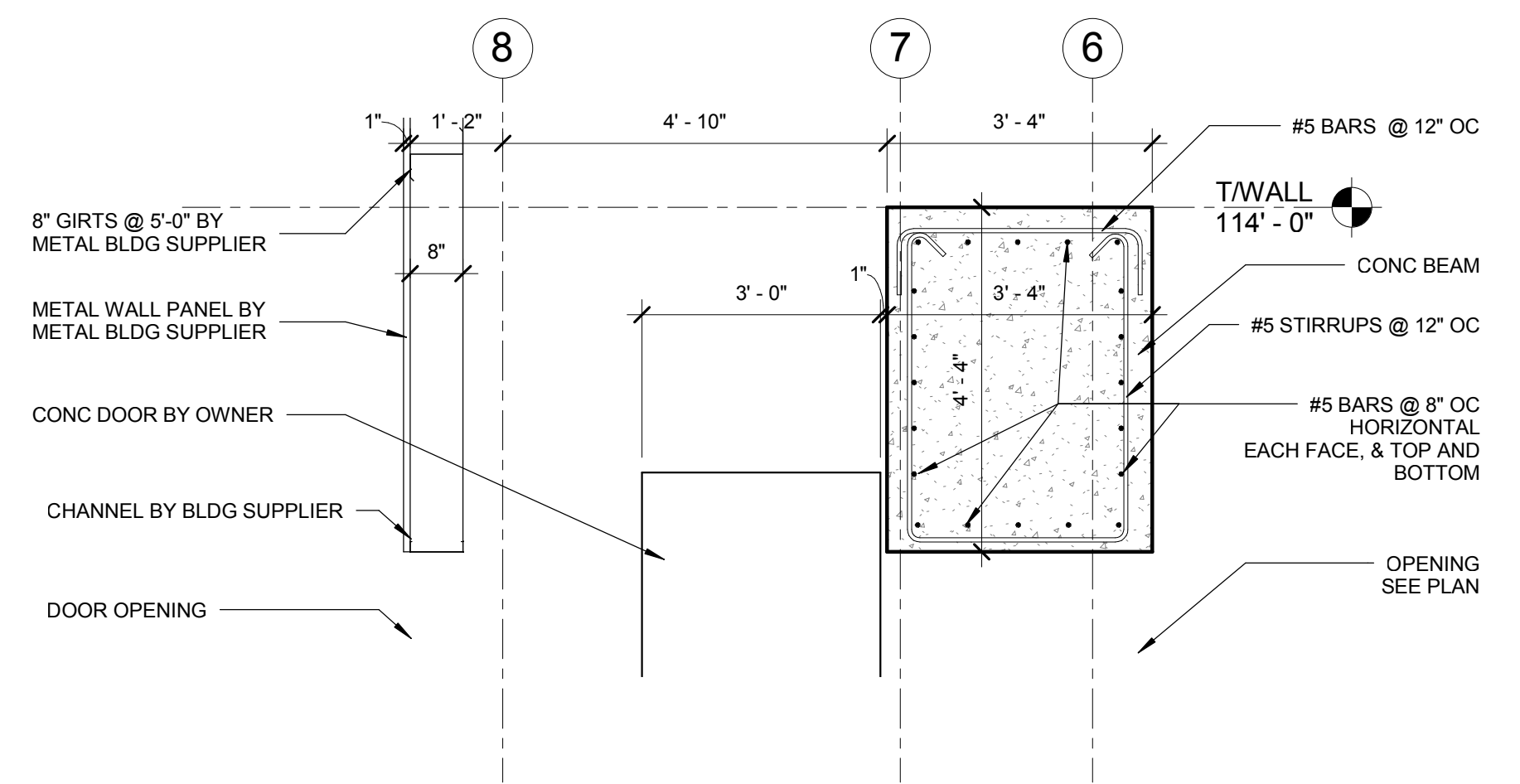
TABLE 1 - PLATE WASHER REQMTS

BOLT DIA. (INCHES)	MINIMUM WASHER SIZE (IN)	MINIMUM WASHER THICKNESS (IN)	MAXIMUM HOLE SIZE (IN)
<=3/4	2	1/4	1 5/16
7/8	2 1/2	5/16	1 9/16
1	3	3/8	1 13/16
1 1/4	3	1/2	2 1/16
1 1/2	3 1/2	1/2	2 5/16
1 3/4	4	5/8	2 3/4
2	5	3/4	3 1/4
2 1/2	5 1/2	7/8	3 1/4

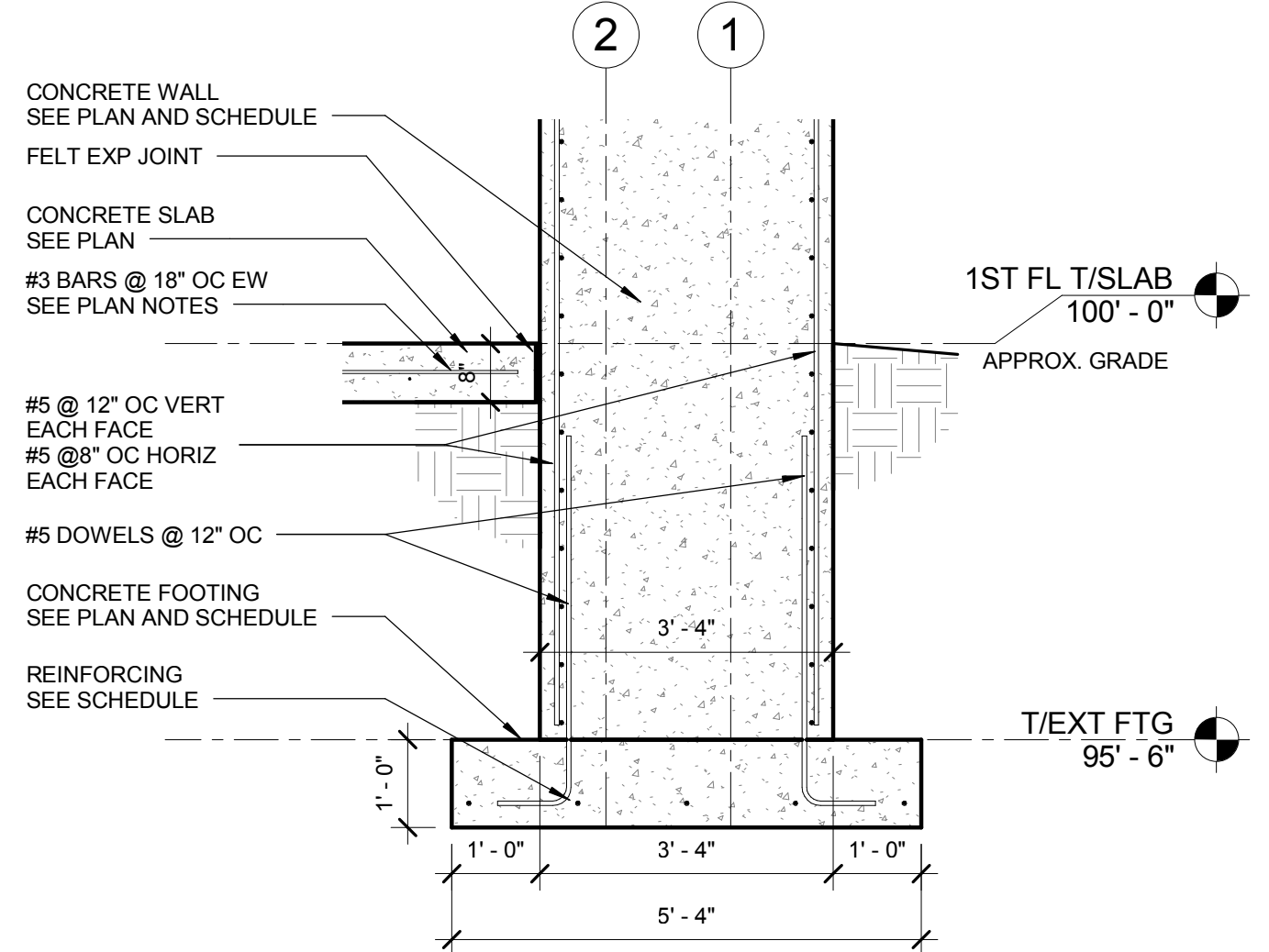
10 TYP BASE PLATE
S5.0 1 1/2" = 1'-0"



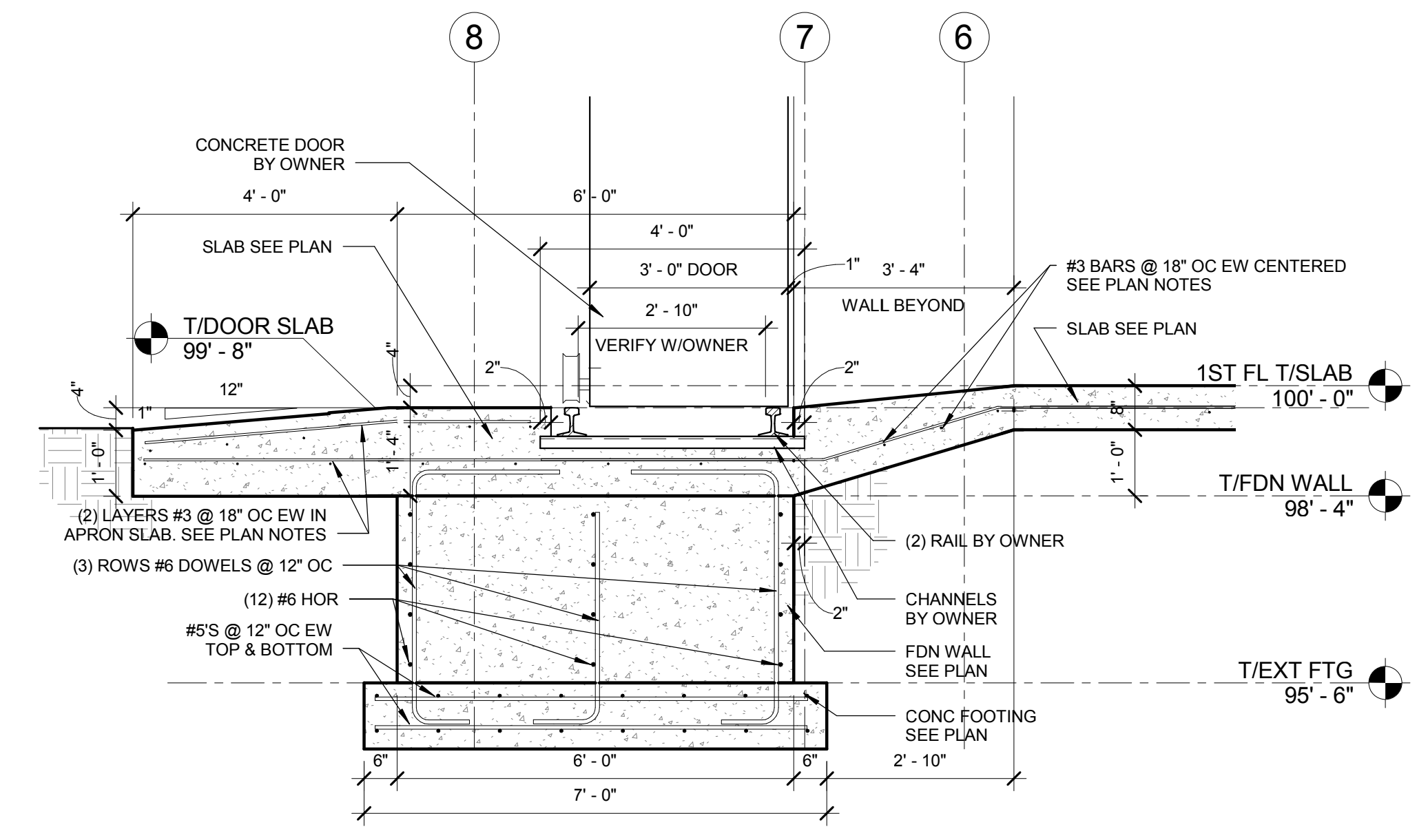
9 TOP DETAIL AT MAIN DOOR
S5.0 1/2" = 1'-0"



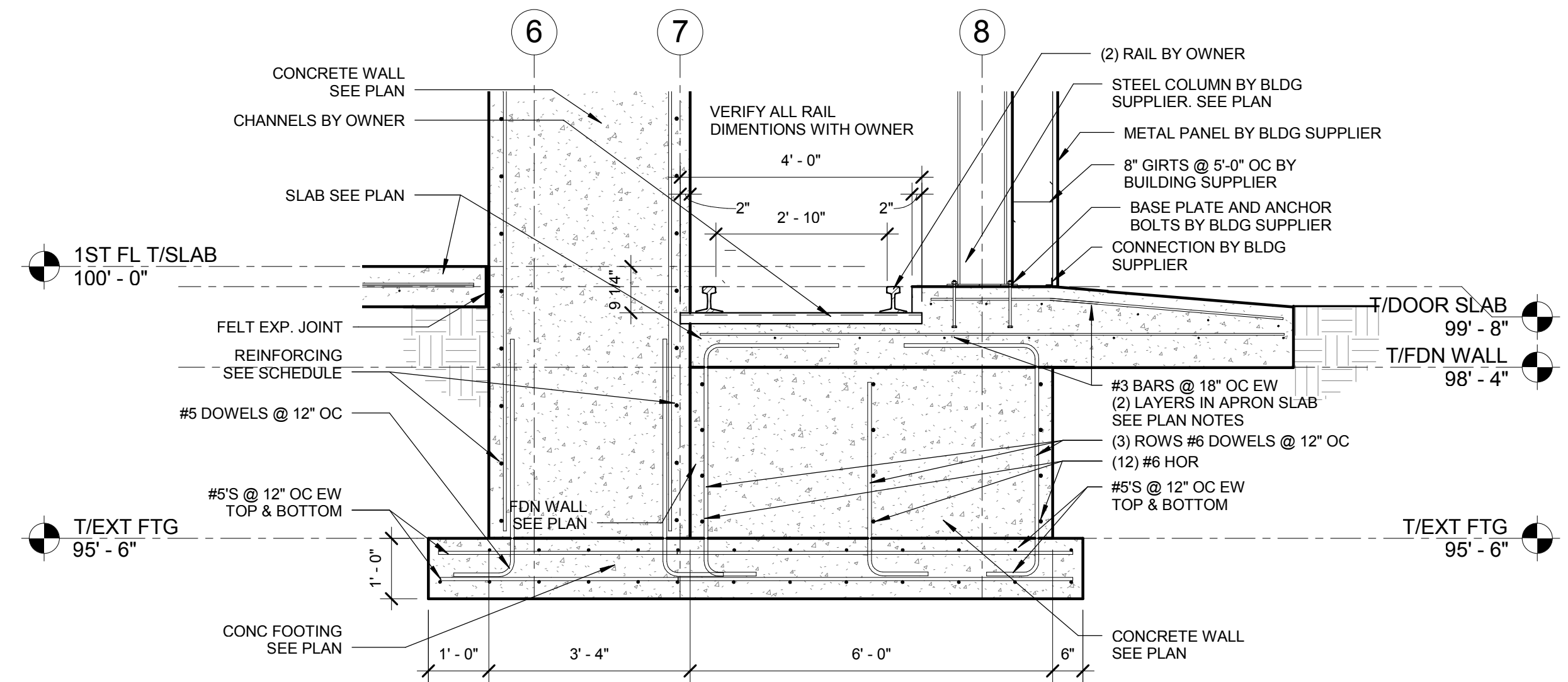
8 TYP EXTERIOR WALL FTG
S5.0 1/2" = 1'-0"



13 BOTTOM DETAIL AT MAIN DOOR
S5.0 1/2" = 1'-0"



12 WALL ADJACENT TO DOOR
S5.0 1/2" = 1'-0"



11 NEW TO EXISTING FOUNDATION
S5.0 1/2" = 1'-0"

