

GENERAL NOTES:

- ALL STANDARDS AND CODES SPECIFIED SHALL BE THE LATEST REVISION AVAILABLE.
- DO NOT SCALE THE DRAWINGS. VERIFY ALL DIMENSIONS, ELEVATIONS, DETAILS, WITH ARCHITECTURAL PRIOR TO START OF CONSTRUCTION OR FABRICATION OF ANY STRUCTURAL COMPONENT.
- THE STRUCTURAL DRAWINGS SHOW THE COMPLETED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY AND SAFETY OF THE STRUCTURE DURING CONSTRUCTION. THE CONSTRUCTIONS LOADS SHALL NOT EXCEED THE LOADS SHOWN ON THE STRUCTURAL DRAWINGS.
- DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL ENSURE THAT ALL BURIED SERVICES ARE LOCATED AND MARKED PRIOR TO EXCAVATION.
- REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS AND SLEEVES NOT SHOWN ON STRUCTURAL DRAWINGS.
- REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR THE LOCATIONS AND DIMENSIONS OF PITS, EQUIPMENT BASES, SUMP PITS, DEPRESSIONS, GROOVES, CURBS, CHAMFERS AND SLABS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SHIP, STORE, HANDLE, ERECT, INSTALL, ETC. ALL BUILDING MATERIALS, COMPONENTS, FIXTURES, EQUIPMENT, ETC. AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR SITE REVIEWS AT LEAST 48 HOURS PRIOR TO CONCEALING THE STRUCTURAL SCOPE OF WORK.
- DESIGN OF NON-STRUCTURAL OR SECONDARY STRUCTURAL ELEMENTS ARE NOT PART OF THE STRUCTURAL DESIGN SHOWN ON THE STRUCTURAL DRAWINGS. THE DESIGN AND FIELD REVIEW SHALL BE COMPLETED BY A THIRD PARTY STRUCTURAL ENGINEER SPECIALIZING IN THESE ELEMENTS. PREPARE ALL SUBMITTALS UNDER SEAL AND SIGNATURE AND PROVIDE REQUIRED LETTERS TO BUILDING PERMIT AUTHORITIES. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:
 - ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, STAIRS, LADDERS, CEILING, MILLWORK, FLAG POSTS, ETC.
 - LANDSCAPING ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.
 - CLADDING, GLAZING, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.
 - ARCHITECTURAL PRECAST CLADDING.
 - MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS AND ALL ATTACHMENTS.
 - FALL PROTECTION AND FALL ARREST SYSTEMS AND ALL ATTACHMENTS.
 - BRICK AND BLOCK VENEERS AND ALL ATTACHMENTS.
 - DESIGN AND SITE REVIEW OF SEISMIC RESTRAINT FOR SECONDARY STRUCTURAL ELEMENTS OF MECHANICAL AND ELECTRICAL EQUIPMENT.
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE PROJECT TECHNICAL SPECIFICATIONS AND ALL OTHER CONTRACT DRAWINGS AND DOCUMENTS.
- THE ENGINEER OF RECORD SHALL REVIEW SHOP DRAWINGS PERTAINING TO THE WORK SHOWN ON THESE DRAWINGS. THE REVIEW OF THE SHOP DRAWINGS IS FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND IS NOT AN APPROVAL OF THE DETAILED DESIGN INHERENT IN THE SHOP DRAWINGS. THE SHOP DRAWINGS SHALL BE COMPLETED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE PROVINCE OR TERRITORY IN WHICH THE PROJECT IS LOCATED AND SHALL BE APPROVED BY THE CONTRACTOR, PRIOR TO SUBMITTAL.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR EXACT LOCATIONS OF REQUIRED FIRE RESISTANCE RATINGS.

EXCAVATION & BACKFILL:

- REMOVE ALL FILL MATERIALS, DELETERIOUS SOILS AND ORGANICS IN AREAS REQUIRING GRANULAR BASE MATERIALS. COMPACT SUBGRADE AS INDICATED IN THE GEOTECHNICAL REPORT. SUB-EXCAVATE AND REPAIR ALL AREA EXHIBITING UNSUITABLE DEFLECTIONS.
- GRANULAR BASE TO BE PLACED ON GRADE SHALL BE COMPACTED AS PER INSTRUCTIONS IN THE GEOTECHNICAL REPORT.
- DO NOT COMPACT FROZEN BACKFILL OR PLACE ON FROZEN SUBGRADE.
- REFER TO GEOTECHNICAL REPORT FOR GRANULAR MATERIAL SPECIFICATION.
- SUBGRADE AND BASE COURSE INSTALLATION SHALL BE INSPECTED AND APPROVED BY PROFESSIONAL GEOTECHNICAL ENGINEER. WHERE POSSIBLE, BACKFILL WALLS FROM BOTH SIDES. SIMULTANEOUSLY TO EQUALIZE SOIL PRESSURE. WALLS RESISTING LATERAL PRESSURE ARE NOT TO BE BACKFILLED UNTIL THE MAIN FLOOR IS INSTALLED.

FOUNDATIONS (CONCRETE FOOTINGS):

- FOUNDATIONS SHALL BE CAST-IN-PLACE CONCRETE FOOTINGS AS SHOWN ON DRAWINGS.
- THE CONCRETE FOOTINGS HAVE BEEN DESIGNED FOR FACTORED ULS OF 320 kPa AND SLS OF 210 kPa FOR PAD FOOTINGS, AND FACTORED ULS OF 235 kPa AND SLS OF 155 kPa FOR CONTINUOUS STRIP FOOTINGS AS OUTLINED BY KGS GROUP GEOTECHNICAL REPORT DATED MARCH 27, 2026.
- THE BEARING SURFACE MUST BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL UNDERGROUND SERVICES PRIOR TO CONSTRUCTION.
- FOOTINGS SHALL NOT BE MORE THAN 50mm OUT OF POSITION Laterally, AND NOT MORE THAN 2% OUT OF LEVEL.
- FOOTINGS SHALL NOT BE INSTALLED ON FROZEN GROUND.
- FOOTING LEVELS SHOWN ARE APPROXIMATED FROM THE GEOTECHNICAL REPORT AND MAY VARY ACCORDING TO SITE CONDITIONS. EXTEND ALL FOOTINGS TO A BEARING LAYER APPROVED BY THE GEOTECHNICAL ENGINEER.

REINFORCING STEEL:

- REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BARS CONFORMING TO CSA G30.18-09 (R2014). GRADE TO BE 400 MPa.
- REINFORCING STEEL SHALL BE CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH THE CONCRETE.
- SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, SPACINGS, LOCATIONS & QUANTITIES OF REINFORCING STEEL, BENDING & CUTTING SCHEDULES, SUPPORTING & SPACING DEVICES, ETC. FOR REVIEW PRIOR TO FABRICATION. DETAIL, FABRICATE AND PLACE REINFORCING IN ACCORDANCE WITH CSA A23.1-19, CSA A23.3-19 AND ACI SP-66 (2004) UNLESS NOTED.
- BEND ALL HORIZONTAL REINFORCING 305mm AROUND CORNERS OR PROVIDE ADDITIONAL 610mm X 610mm ANGLE BARS.
- PROVIDE AT EACH FACE, 2-15M EXTRA BARS ALONG ALL SIDES, AND 2-15M DIAGONAL BARS AT ALL CORNERS OF OPENINGS UNLESS NOTED. PROJECT ALL BARS 610mm PAST CORNERS.
- TIE, SUPPORT AND SPACE ALL REINFORCING STEEL WITH PROPER APPROVED DEVICES DESIGNED FOR USE IN REINFORCED CONCRETE. TO PREVENT DISPLACEMENT OF REINFORCING AND ENSURE SPECIFIED CONCRETE COVER.
- PROVIDE MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:

| EXPOSURE CONDITION | EXPOSURE CLASS | | |
|-------------------------------|----------------|--------------------|-----------------|
| | N | F-1, F-2, S-1, S-2 | C-XL, C-1, C-2, |
| PIERS, FOOTINGS | 75mm | 75mm | 75mm |
| GRADE BEAMS, FOUNDATION WALLS | 30mm | 40mm | 60mm |
| SLABS | 20mm | 40mm | 60mm |

- CONCRETE COVER TO BE AS PER TABLE 17 OF THE CSA A23.1-19
- CONCRETE COVER FOR EXPOSURE CLASSES NOT NOTED ABOVE TO BE 40mm.
- ALL BEAM STIRRUPS AND COLUMN / WALL / PILASTER TIES SHALL HAVE 135 DEGREE TAILS. 90 DEGREE TAILS ARE NOT PERMITTED FOR STIRRUPS OR TIES.

CONCRETE:

- CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CSA A23.1-19.
- ADMIXTURES SHALL NOT BE USED UNLESS SPECIFIED HEREIN OR APPROVED BY THE ENGINEER OF RECORD. CALCIUM CHLORIDE SHALL NOT BE USED.
- DESIGN, FABRICATE AND ERECT FORMWORK/SHORING IN ACCORDANCE WITH CAN/CSA-S269.1-16.
- CONCRETE FINISHING SHALL MEET THE REQUIREMENTS OF CSA A23.1-19.
- FORM RELEASE AGENT SHALL BE BIODEGRADABLE, NON-STAINING AND NON-VOLATILE.
- PROVIDE ADEQUATE COLD/HOT WEATHER PROTECTION AS REQUIRED DURING CURING PERIOD.
- PLACE AND SECURE ALL EMBEDDED ANCHORS, WELD PLATES, SLEEVES, BUCKS, DOWELS, INSERTS, WATERSTOPS, ETC., PRIOR TO PLACING CONCRETE. CO-ORDINATE WITH ALL TRADES FOR EMBEDDING OF ALL OTHER, CONDUIT, SERVICES, BLOCKING, ETC.
- LOCATE AND FABRICATE ALL CONSTRUCTION JOINTS, CONTROL JOINTS AND EXPANSION JOINTS AS DETAILED ON THE DRAWINGS. JOINTS NOT SHOWN SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACEMENT OF CONCRETE.
- ALL EXPOSED CORNERS TO HAVE 25mm CHAMFER FILLET UNLESS NOTED.
- EXPANSION ANCHORS SHALL BE HILTI KWIK-BOLTS OR APPROVED EQUAL. UNLESS NOTED. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
- ADHESIVE ANCHORS SHALL BE HILTI HIT-HY 200 UNLESS NOTED OTHERWISE. ANCHOR INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BY PERSONNEL TRAINED IN ANCHOR INSTALLATION. PROVIDE TRAINING COMPLETION CERTIFICATES PRIOR TO COMMENCEMENT OF THE WORK.
- THE CONCRETE SUPPLIER SHALL BE CERTIFIED TO MEET THE REQUIREMENTS OF CSA A23.1-19.
- THE CONCRETE SUPPLIER SHALL SUBMIT CONCRETE MIX DATA SUBMISSION FORMS FOR EACH TYPE OF CONCRETE SPECIFIED FOR REVIEW PRIOR TO BATCHING ANY CONCRETE.
- CONCRETE STRENGTH TESTS SHALL BE ARRANGED BY THE CONTRACTOR. PROVIDE ONE SET OF TEST CYLINDERS IN ACCORDANCE WITH CSA A23.1-19 FOR EVERY 50 CUBIC METERS OF CONCRETE PLACED AND A MINIMUM OF ONE SET PER STRUCTURAL COMPONENT.
- VOID FORM MATERIAL SHALL BE BIODEGRADABLE CARDBOARD PRODUCT. REQUIRED TOTAL / FINAL VOID THICKNESS MUST BE AS OUTLINED IN GEOTECHNICAL REPORT.
- UNDERSLAB RIGID INSULATION TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:
 - SIDEWALKS AND PUBLIC USE: STYROFOAM XPS SM
 - VEHICLES NOT EXCEEDING 4000 KGS: XPS HI-40
 - VEHICLES EXCEEDING 4000 KGS: XPS HI-60

CONCRETE MIX DESIGNS:

CONCRETE MIX DESIGN SHALL BE PROPORTIONED TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:

FOOTINGS, PIERS & FOUNDATION WALLS:

| EXPOSURE CLASS | S-2 |
|----------------------------|--------|
| MIN. 56 DAY COMP. STRENGTH | 32 MPa |

INTERIOR SLABS:

| EXPOSURE CLASS | N |
|----------------------------|--------|
| MIN. 28 DAY COMP. STRENGTH | 30 MPa |

EXTERIOR SLABS:

| EXPOSURE CLASS | C-2 |
|----------------------------|--------|
| MIN. 28 DAY COMP. STRENGTH | 32 MPa |

SLAB-ON-GRADE MOVEMENT:

- SLAB ON GRADE FLOORS EXPERIENCE SOME LEVEL OF MOVEMENT AND CRACKING. THE STABILITY OF A SLAB ON GRADE IS PRIMARILY DETERMINED BY THE CHARACTERISTICS OF THE UNDERLYING SOIL. THEREFORE, MOVEMENT LEADING TO DISPLACEMENT AND CRACKING OF THE SLAB ON GRADE IS TO BE EXPECTED. IT IS NOT POSSIBLE TO PRECISELY DEFINE THE LIMITS OF MOVEMENT, AS FACTORS SUCH AS SOIL MOISTURE CONTENT, WATER TABLE, AND THE PRESENCE OF SILT POCKETS, AMONG OTHERS, CAN SIGNIFICANTLY IMPACT THE SUPPORTING SOIL. THE OWNER ASSUMES FULL RESPONSIBILITY FOR ANY RISKS RELATED TO A SLAB ON GRADE.

STRUCTURAL AND MISCELLANEOUS STEEL:

- STRUCTURAL AND MISCELLANEOUS STEEL FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH CAN/CSA S16.
 - STRUCTURAL STEEL SECTIONS SHALL BE NEW AND CONFORM TO THE FOLLOWING:
 - W & WT SHAPES CSA G40.21-13 GR. 345W
 - C, HP, L, M, MC, MT & S SHAPES CSA G40.21-13 GR. 350W
 - RECT., SQUARE & ROUND HSS CSA G40.21-13 GR. 350W CLASS C
 - ROLLED PLATES & BARS CSA G40.21-13 GR. 300W
 - ANCHOR BOLTS CSA G40.21-13 GR. 300W OR ASTM F1554 GR. 36
 - ALL OTHERS NOT SHOWN ABOVE TO CONFORM TO CSA G40.21-13 GR. 350W
 - PROVIDE MINIMUM 25mm THICK SIKKA 212 HIGH STRENGTH NON-SHRINK GROUT 56 MPa @ 28 DAYS, OR APPROVED EQUIVALENT, BENEATH ALL COLUMN BASE PLATES, TYPICAL UNLESS NOTED OTHERWISE.
 - ALL WELDERS AND WELDING PROCEDURES TO BE CERTIFIED BY CANADIAN WELDING BUREAU.
 - EXPOSED STEEL TO BE GALVANIZED, UNLESS NOTED OTHERWISE.
 - PROVIDE STIFFENER PLATES TO BOTH SIDES AT WEBS OF BEAMS BEARING OVER COLUMNS. THE PLATES ARE TO BE OF THE SAME THICKNESS AS COLUMN FLANGES FOR W-SHAPES, COLUMN WALL FOR HSS SHAPES OR 9mm, WHICHEVER IS GREATER.
 - INSPECTION OF BOLTS/WELDS/OTHER CONNECTIONS TO BE COMPLETED BY AN APPROVED, QUALIFIED INDEPENDENT THIRD PARTY.
 - DESIGN STEEL BEAM CONNECTIONS, UNLESS NOTED OTHERWISE, TO THE GREATER OF THE SHEAR CAPACITIES CORRESPONDING TO THE TOTAL UNIFORMLY DISTRIBUTED FACTORED LOADS FOR Laterally SUPPORTED BEAMS AS PUBLISHED BY CISC OR 1/12 OF THE STEEL BEAM MEMBER.
 - SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION AND ERECTION. SHOP DRAWINGS ARE TO INCLUDE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT PROVINCE, INCLUDING LAYOUT PLAN, ERECTION PLAN AND DESIGN OF COMPONENTS AND CONNECTIONS AS REQUIRED.
 - UPON COMPLETION OF THE STRUCTURAL STEEL INSTALLATION, STRUCTURAL STEEL SUPPLIER SHALL PROVIDE A LETTER OF CERTIFICATION CONFIRMING THAT THE STRUCTURAL STEEL AND ASSOCIATED COMPONENTS WERE INSTALLED IN ACCORDANCE WITH THE DESIGN DOCUMENTS, SHOP DRAWINGS AND SPECIFICATIONS.
- STEEL DECK:**
- FABRICATE STEEL DECK IN ACCORDANCE WITH ASTM A653M-13 WITH A ZF75 GALVANEAL COATING.
 - THE THICKNESS SPECIFIED REFERS TO THE NOMINAL BASE STEEL THICKNESS EXCLUSIVE OF ANY COATINGS.
 - INSTALL IN ACCORDANCE WITH CSA S136 (2007) AND MANUFACTURER'S INSTRUCTIONS.
 - STEEL ROOF DECK FASTENER SPECIFICATIONS MAY REQUIRE PRE-DRILLING AT GLULAM BEAM CONNECTIONS.
 - ROOF DECK: TO BE 38mm DEEP (20 GA.), ZINC COATED, ZF75 (A25), 12x160mm ASSY KOMBI LT AT 150mm O/C AT ALL GLULAM SUPPORTS AND SIDE LAP BUTTON PUNCH AT 300mm O/C TYPICAL. ROOF DECK IN EXTERIOR EXPOSURE SETTINGS OR CORROSIVE ENVIRONMENTS TO E ZINC COATED Z275 (G90)
 - COMPOSITE FLOOR DECK: TO BE 38mm DEEP (22 GA.) COMPOSITE, ZINC COATED, Z275 (G90) 19mm DIAMETER FUSION WELDS AT 300 O/C AT ALL SUPPORTS AND BUTTON PUNCH SIDE-LAP FASTENERS AT 600 O/C, U.N.O.
 - COMPOSITE DECK TO BE REINFORCED WITH WELDED WIRE MESH 152X152 MW9.1/9.1 U.N.O. ON PLAN.
 - STEEL DECK SUPPLIER TO SUBMIT SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO FABRICATION. THE STEEL DECK SHOP DRAWINGS ARE TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE PROVINCE OR TERRITORY IN WHICH THE PROJECT IS LOCATED.

GLUE LAMINATED (GLULAM) BEAMS:

- GLUE-LAMINATED MEMBERS TO BE MANUFACTURED IN ACCORDANCE WITH CSA-0122.
- GLUE-LAMINATED MEMBERS TO BE MANUFACTURED IN A PLANT CERTIFIED IN ACCORDANCE WITH CSA-0177.
- GLUE-LAMINATED SUPPLIER TO DESIGN AND FABRICATE ALL GLULAM CONNECTIONS. GLULAM TO STEEL CONNECTION TO BE CERTIFIED IN ACCORDANCE WITH CSA W47.1
- VISIBLE GLULAM MEMBERS TO BE FINISHED TO ARCHITECTURAL "QUALITY" APPEARANCE GRADE.
- NON-VISIBLE GLULAM MEMBERS TO BE FINISHED TO FINISHED TO "INDUSTRIAL" GRADE.
- GLULAM TO GLULAM AND GLULAM TO STEEL CONNECTIONS TO BE DESIGNED AND SUPPLIED BY GLULAM SUPPLIER. CONNECTIONS TO BE DESIGNED TO CSA-086 AND CSA-S16 TO RESIST THE FULL SHEAR CAPACITY OF THE GLUE-LAMINATED MEMBER.
- LAMINATING STOCK TO BE SPRUCE-PINE-FIR WITH LUMBER STRESS GRADE TO BE 24F-ES/NPG.
- GLULAM BEAM CONNECTION TO BE HIDDEN AND FLUSH FRAMED U.N.O. ALL BOLTS TO BE COUNTERSUNK AND HOLES PLUGGED AFTER ERECTION. PLUGS TO MATCH STRUCTURAL MEMBERS. APPLY SEALED TO ALL SIDES AND ENDS OF MEMBERS U.N.O.
- GLULAM MEMBERS TO RECEIVE MINIMUM ON COAT OF SEALER.
- ADHESIVE SHALL CONFORM TO THE APPROPRIATE SERVICE GRADE AND CONFORM TO CSA-0122.
- SUPPLIER TO SUBMIT SEALED SHOP AND ERECTION DRAWINGS PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL CLEARLY INDICATE THE STRESS GRADE, SERVICE GRADE, APPEARANCE GRADE, SIZES, FINISH, CAMBER, AND CONNECTION DETAILS. THE SHOP DRAWINGS SHALL BE SEALED BY AN ENGINEER REGISTERED IN THE PROVINCE OR TERRITORY IN WHICH THE PROJECT IS LOCATED.
- UPON COMPLETION OF THE INSTALLATION, THE GLULAM SUPPLIER SHALL PROVIDE A LETTER OF CERTIFICATION CONFIRMING THAT THE GLULAM MEMBERS AND ASSOCIATED COMPONENTS WERE INSTALLED IN ACCORDANCE WITH THE SEALED HOPS DRAWINGS AND SPECIFICATION.

STEEL STUD FRAMING:

GENERAL

- SHOP DRAWINGS FOR ALL EXTERIOR & INTERIOR FRAMING TO BE PROVIDED FOR REVIEW. DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE PROVINCE OR TERRITORY IN WHICH THE PROJECT IS LOCATED. SHOP DRAWINGS TO INCLUDE DESIGN OF SIZE, SPACING, AND CONNECTIONS OF ALL STEEL STUDS.
- INTERIOR WALL FRAMING
- PROVIDE LONG-LEGGED DOUBLE TOP TRACKS AT TOP OF ALL FULL HEIGHT WALL FRAMING TO ALLOW 6mm DEFLECTION FOR FIRE-RATED PARTITIONS. INSTALL TOP OF STUDS AN ADDITIONAL 6mm SHORT WITHIN LOWER TRACK OF THE DOUBLE TRACK ASSEMBLY (TO ALLOW FOR 13mm TOTAL EXPANSION).
- USE 0.836mm (20 GA.) THICK STUDS FOR ALL WALLS TO RECEIVE CEMENT BOARD, DOUBLE LAYER GYPSUM BOARD OR CERAMIC TILE FINISH.
- PROVIDE DOUBLE FULL HEIGHT 20 GA. STUDS AT ALL DOORS, AND OTHER OPENINGS REQUIRED A STUD TO BE INTERRUPTED. PROVIDE 20 GA. (1.0mm) THICK HEAD AND SILL FRAMING AT THESE OPENINGS.
- FRAME ALL FIRE-RATED AND SOUND CONTROL (INTERIOR ASSEMBLIES CONTAINING MINERAL FIBER SOUND BLANKET) ASSEMBLIES TO ALLOW GYPSUM BOARD TO BE INSTALLED SO AS NOT TO COMPROMISE THE INTEGRITY OF THE ASSEMBLY RATING.
- FRAME ALL OPENINGS IN FIRE-RATED ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA (2020).

- STEEL DECK SUPPLIER TO SUBMIT SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO FABRICATION. THE STEEL DECK SHOP DRAWINGS ARE TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE PROVINCE OR TERRITORY IN WHICH THE PROJECT IS LOCATED.

MASONRY:

- MASONRY UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH CAN/CSA A165.1. CONSTRUCT MASONRY IN ACCORDANCE WITH CAN/CSA A371. CONNECTORS SHALL BE IN ACCORDANCE WITH CAN/CSA A370.
 - ALL CONCRETE MASONRY TO BE AS NOTED AND DETAILED. NORMAL WEIGHT HOLLOW, LOADBEARING UNITS SHALL BE H/15/A/M.
 - MORTAR SHALL BE TYPE 'S' AND MANUFACTURED TO CAN/CSA A179. ADMIXTURES SHALL NOT BE USED WITHOUT WRITTEN APPROVAL FROM THE DESIGN ENGINEER.
 - GROUT IN-FILL SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 12.5 MPa AT 28 DAYS BY CYLINDER TEST AS PER CAN/CSA A179; MAXIMUM AGGREGATE SIZE 10mm; SLUMP 200mm.
 - PROVIDE CLEAN-OUTS AT BOTTOM OF ALL FILLED CORE LIFTS. REMOVE ALL MORTAR FLASH AND DROPPINGS FROM CORES PRIOR TO IN-FILLING. VIBRATE OR TAMP ALL GROUT FILL. LIFTS SHALL NOT EXCEED 2000mm UNLESS APPROVED BY KGS GROUP.
 - PROVIDE 3.89mm (9 GA.) LADDER TYPE 'DUR-O-WAL' (OR EQUAL) HORIZONTAL JOINT REINFORCEMENT AT EVERY SECOND COURSE. EXTERIOR WALL/VENEER REINFORCEMENT TO BE HOT-DIPPED GALVANIZED. MINIMUM JOINT REINF.G. LAP 150mm. DISCONTINUE JOINT REINF.G. AT CONTROL JOINTS.
 - UNLESS NOTED OTHERWISE, PROVIDE VERTICAL CONTROL JOINTS AT 6000mm O/C MAX. FOR EXTERIOR WALLS.
 - INSTALL ALL BLOCK IN RUNNING BOND PATTERN. TOOL ALL MORTAR JOINTS TO MATCH EXISTING.
 - MASONRY CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, SUPPLY AND ERECTION OF ALL TEMPORARY GUYING AND BRACING REQUIRED TO STABILIZE MASONRY WALLS. BRACING SHALL REMAIN IN PLACE UNTIL AFTER STEEL DECKING/PLYWOOD ROOF SHEATHING HAVE BEEN INSTALLED.
 - MASONRY VENEER OVER OPENINGS SHALL BE SUPPORTED BY STEEL ANGLES CONFORMING TO THE TABLE BELOW:
- TYPICAL MASONRY LINTELS UNLESS NOTED ON DRAWINGS:
- | CLEAR SPAN | SIZE | REINF. |
|--------------|-------------|--------------------|
| UP TO 1200mm | 200 U-BLOCK | 2-15M CONT. BOTTOM |
| UP TO 2000mm | 400 U-BLOCK | 2-15M CONT. BOTTOM |
- PROVIDE MINIMUM 200mm BEARING AT EACH END.
- STEEL ANGLES SHALL BE HOT-DIP GALVANIZED.
 - INTERIOR MASONRY BLOCK TO BE H/15/A/M UNITS, TYPE S MORTAR. INSTALL GROUTED BOND BEAM AT TOP OF WALLS TYP. PROVIDE 10M DOWELS FORM CONCRETE TO MASONRY WALL AT 812mm O/C CENTRE TYP.

DESIGN CRITERIA:

THIS COMPLETED STRUCTURE HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 4 OF THE MANITOBA BUILDING CODE-2024, NATIONAL BUILDING CODE OF CANADA-2020.

LOCATION: GRUNTHAL, MANITOBA

IMPORTANCE CATEGORY: NORMAL

1-IN-50 YEAR GROUND SNOW LOAD: Ss=2.0 kPa

1-IN-50-YEAR ASSOCIATED RAIN LOAD: Sra=0.2 kPa

1-IN-50-YEAR REFERENCE VELOCITY WIND PRESSURE: q=0.4 kPa

EXPOSURE FACTOR: TERRAIN ROUGH

INTERNAL PRESSURE COEFFICIENT: CAT. 2

SITE CLASS: C

SEISMIC DESIGN DATA:

S_d(0.2,X_c) = 0.0822 g
S_d(0.5,X_c) = 0.0501 g
S_d(1.0,X_c) = 0.0237 g
S_d(2.0,X_c) = 0.00931 g
S_d(5.0,X_c) = 0.00188 g
S_d(10.0,X_c) = 0.000623 g
PGA(X_c) = 0.0396 g
PGV(X_c) = 0.0262 m/s

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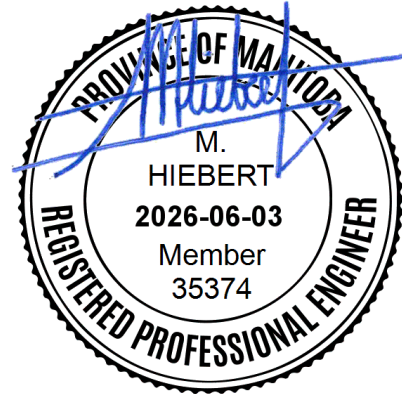
CONSULTANTS



NOTES

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| 0 | 26/06/03 | ISSUED FOR TENDER/PERMIT |
| REV | DATE | DESCRIPTION |

PERMIT / STAMP



OWNER

VERNE REIMER
ARCHITECTURE

PROJECT NAME & ADDRESS

GRUNTHAL ARENA ADDITION
63 ALBERT AVE.,
GRUNTHAL, MANITOBA

TITLE

SOUTH ADDITION
GENERAL NOTES

SCALE
PROJECT NUMBER
DRAWN BY

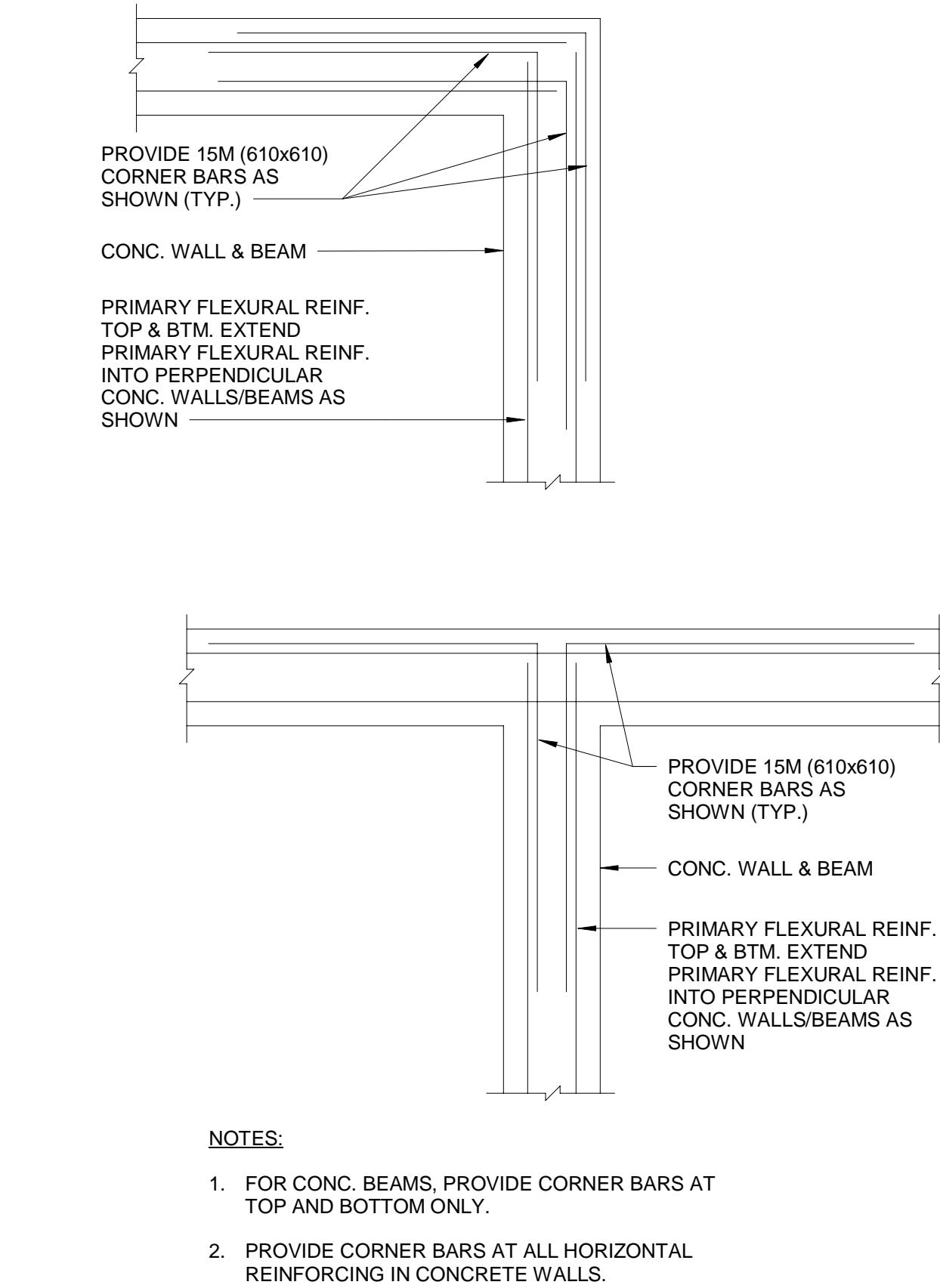
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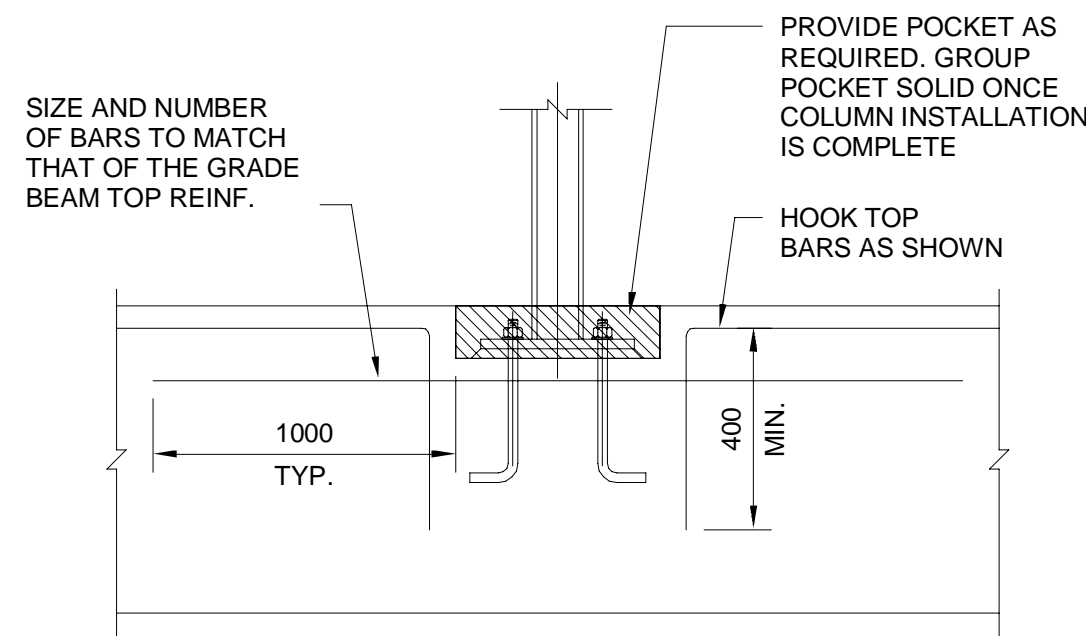
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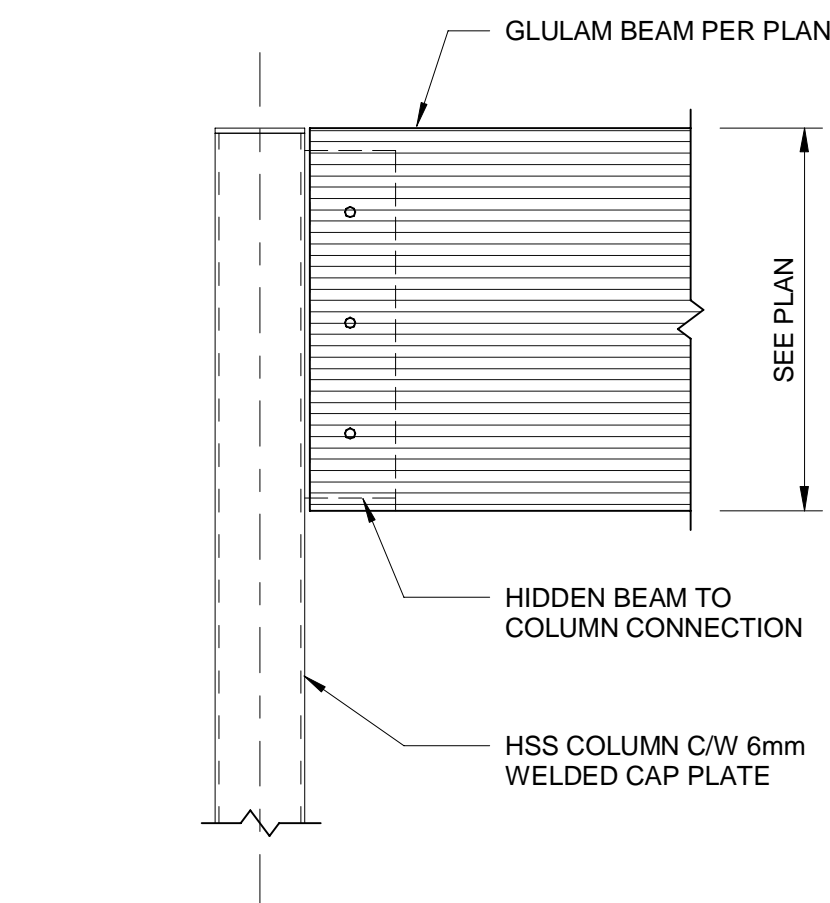
NOTES



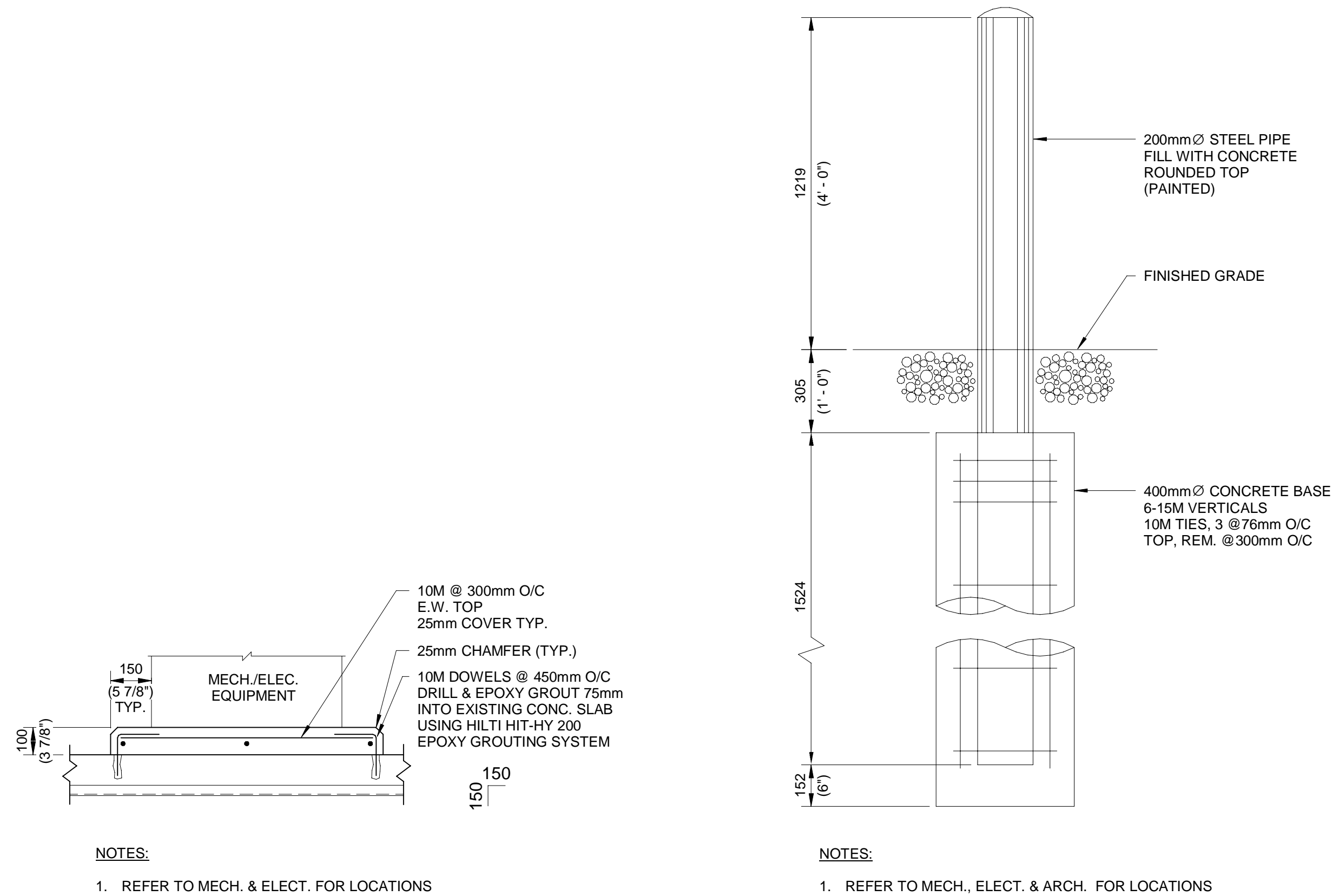
1 TYPICAL CORNER BARS DETAIL
SCALE: 1 : 15



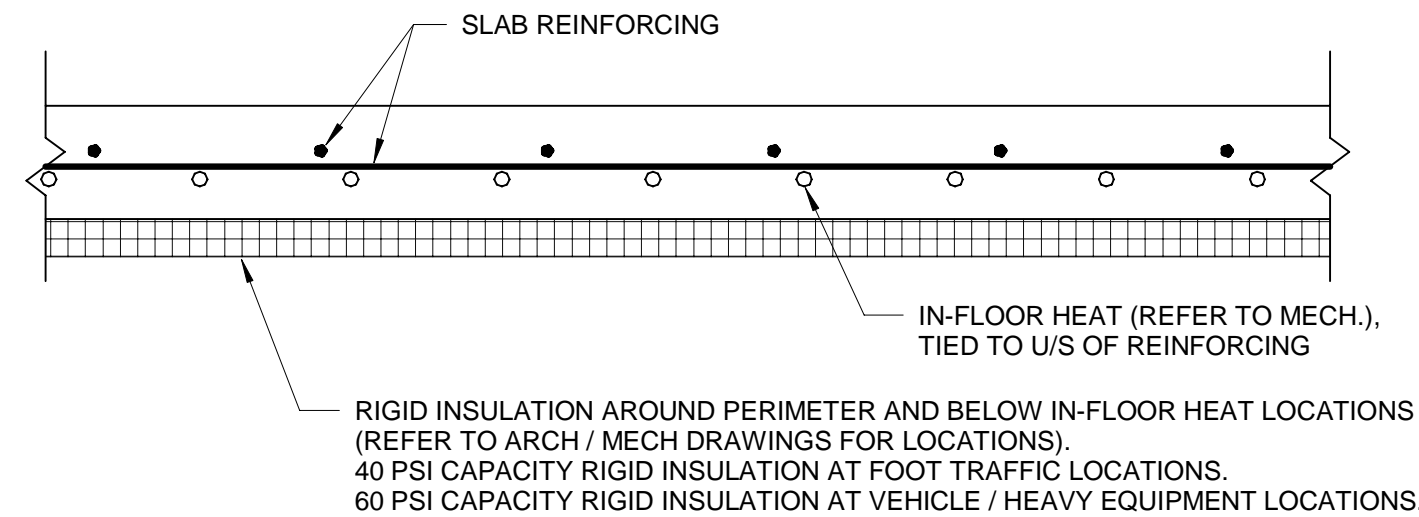
5 TYPICAL RECESS DETAIL
SCALE: 1 : 15



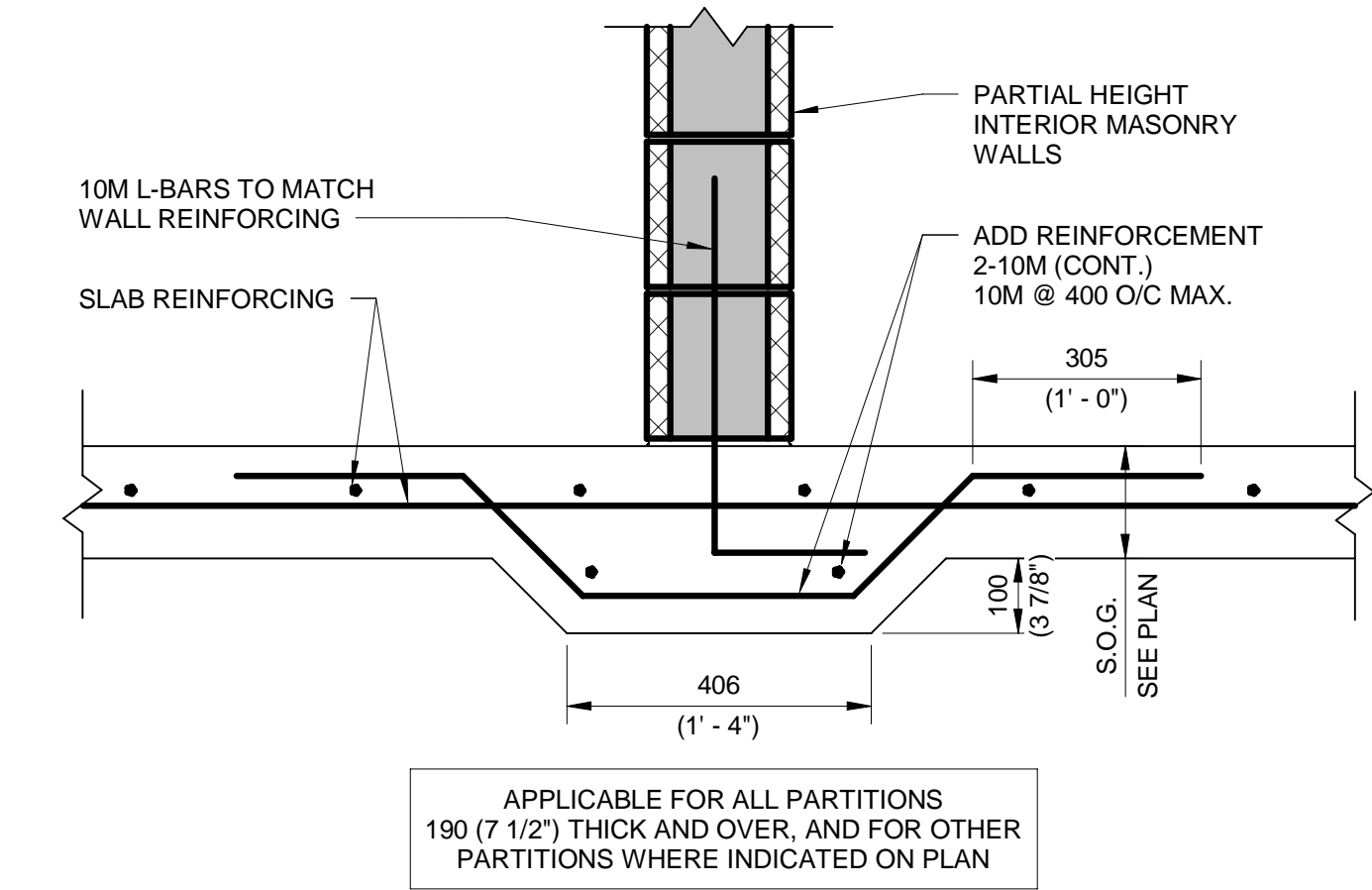
7 TYPICAL HSS COL./GLULAM BM. CONN.
SCALE: 1 : 15



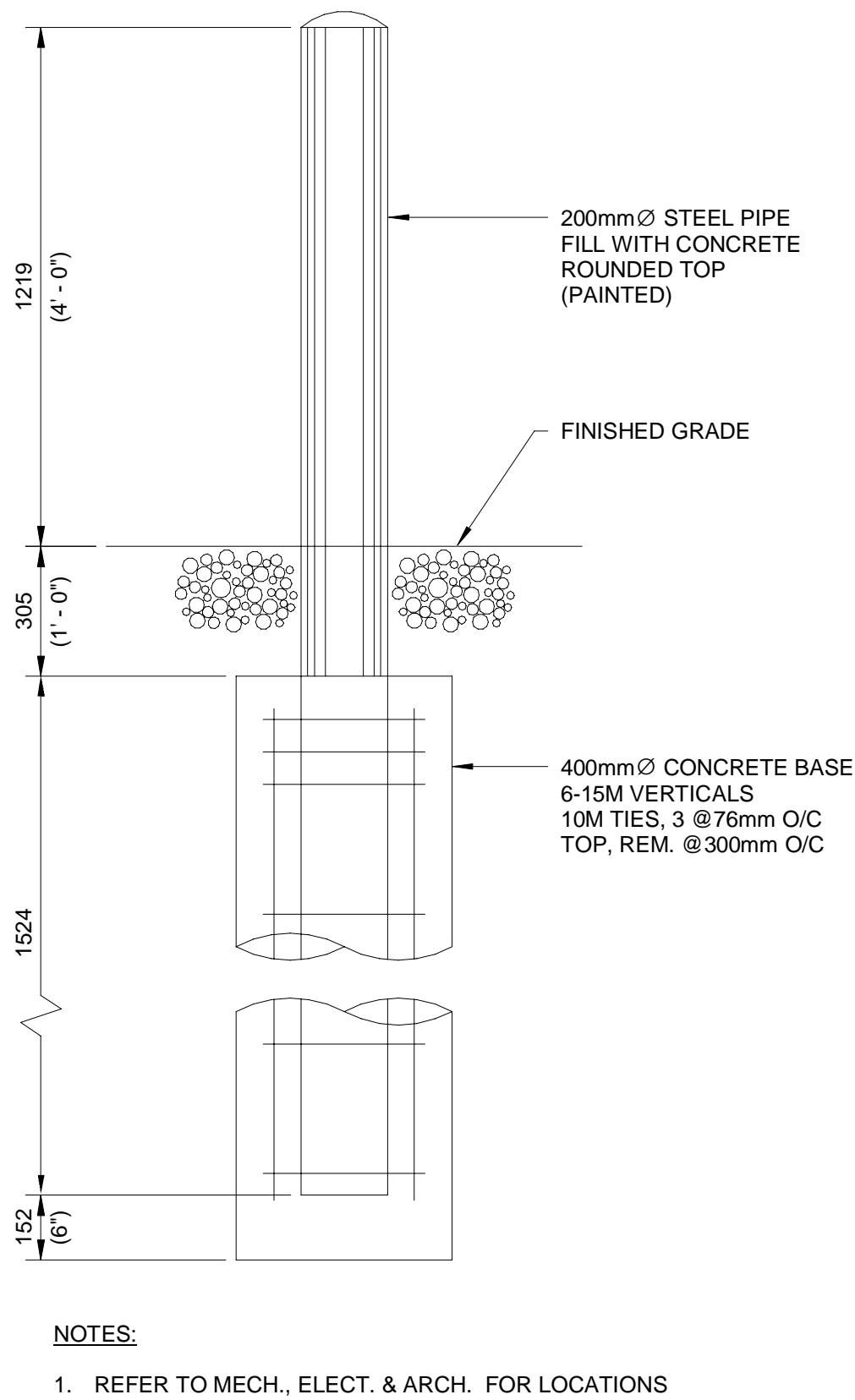
2 TYPICAL HOUSEKEEPING PAD DETAIL
SCALE: 1 : 15



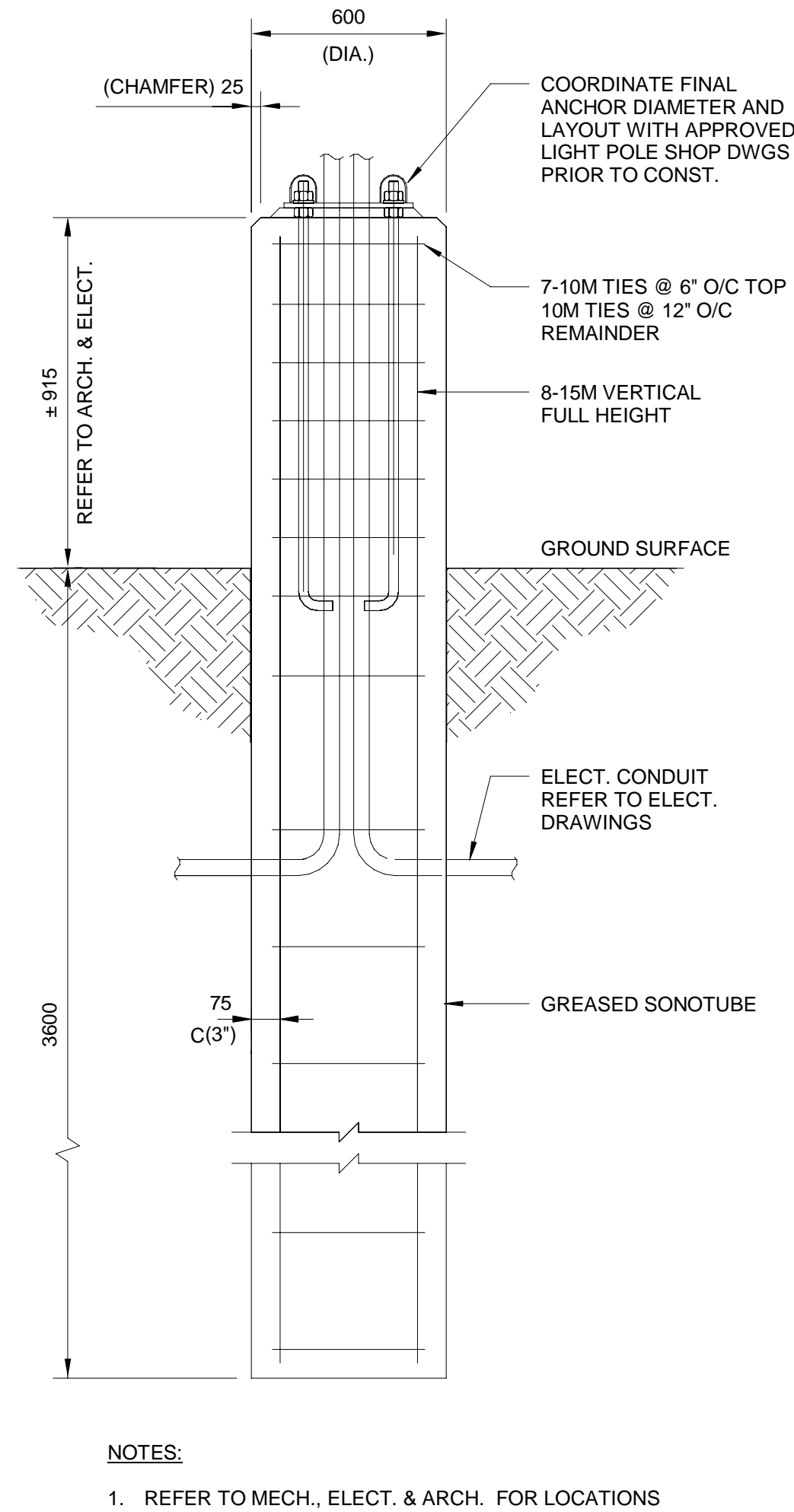
6 TYPICAL SLAB DETAIL AT INFLOOR HEAT
SCALE: 1 : 10



8 TYPICAL SLAB ON GRADE THICKENING UNDER MASONRY PARTITIONS
SCALE: 1 : 10



3 TYPICAL BOLLARD DETAIL
SCALE: 1 : 15



4 TYPICAL LIGHT STANDARD BASE
SCALE: 1 : 15

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VERNE REIMER
ARCHITECTURE

PROJECT NAME & ADDRESS
GRUNTHAL ARENA ADDITION
63 ALBERT AVE.,
GRUNTHAL, MANITOBA

TITLE
SOUTH ADDITION
TYPICAL DETAILS
SCALE
PROJECT NUMBER
DRAWN BY

As indicated
25-1962-003
MRB

ENGINEERS
GEOSCIENTISTS
MANITOBA
Certificate of Authorization
KGS Group
No. 245

S-2-101



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DEAD LOADS: SELF-WEIGHT + SUPERIMPOSED DEAD LOAD OF 1.8kPa
LIVE LOAD: 4.8 kPa

1. UNDERSIDE OF FOOTING ELEVATION: MIN. 1200mm BELOW FINAL GRADE.
2. UNDERSIDE OF EXTERIOR FOOTING ELEVATION: 2500mm BELOW FINAL GRADE.
3. FOOTING BEARING SURFACE MUST BE INSPECTED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO FOOTING INSTALLATION.
4. PERIMETER SPREAD FOOTINGS TO BE CENTERED ON PILASTER, UNLESS NOTED OTHERWISE.
5. TOP REINFORCING TO MATCH BOTTOM REINFORCING AT BRACE FRAME FOOTING LOCATIONS, TYPICAL.

1. DOWELS FROM FOOTING TO MATCH PIER OR PILASTER VERTICALS UNLESS NOTED OTHERWISE.
2. TOP 3 TIES AT 75mm O/C, TYPICAL.
3. EXTEND 4-20M x 1200mm LONG VERTICALS FROM PIER INTO GRADE BEAM / CONCRETE WALL, TYPICAL.

1. TOP THREE TIES AT 75mm O/C, TYPICAL

1. REFER TO ARCHITECTURAL DRAWINGS FOR SLAB ELEVATIONS, SLOPES, DRAIN AND CURB LOCATIONS

| | |
|----------------------|-----|
| INTERMEDIATE SECTION | N/A |
| | |



MEZZANINE DESIGN LOADS

DEAD LOADS: 2.6 kPa
LIVE LOAD: 4.8 kPa



SCALE:1 : 75

STANDS DESIGN LOADS

DEAD LOADS: 1.8 kPa
LIVE LOAD: 4.8 kPa



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|------------------------|--------------|
| TITLE | |
| SOUTH ADDITION | |
| MAIN FLOOR & MEZZANINE | |
| SCALE | As indicated |
| PROJECT NUMBER | 25-1962-003 |
| DRAWN BY | MRB |

S-2-201

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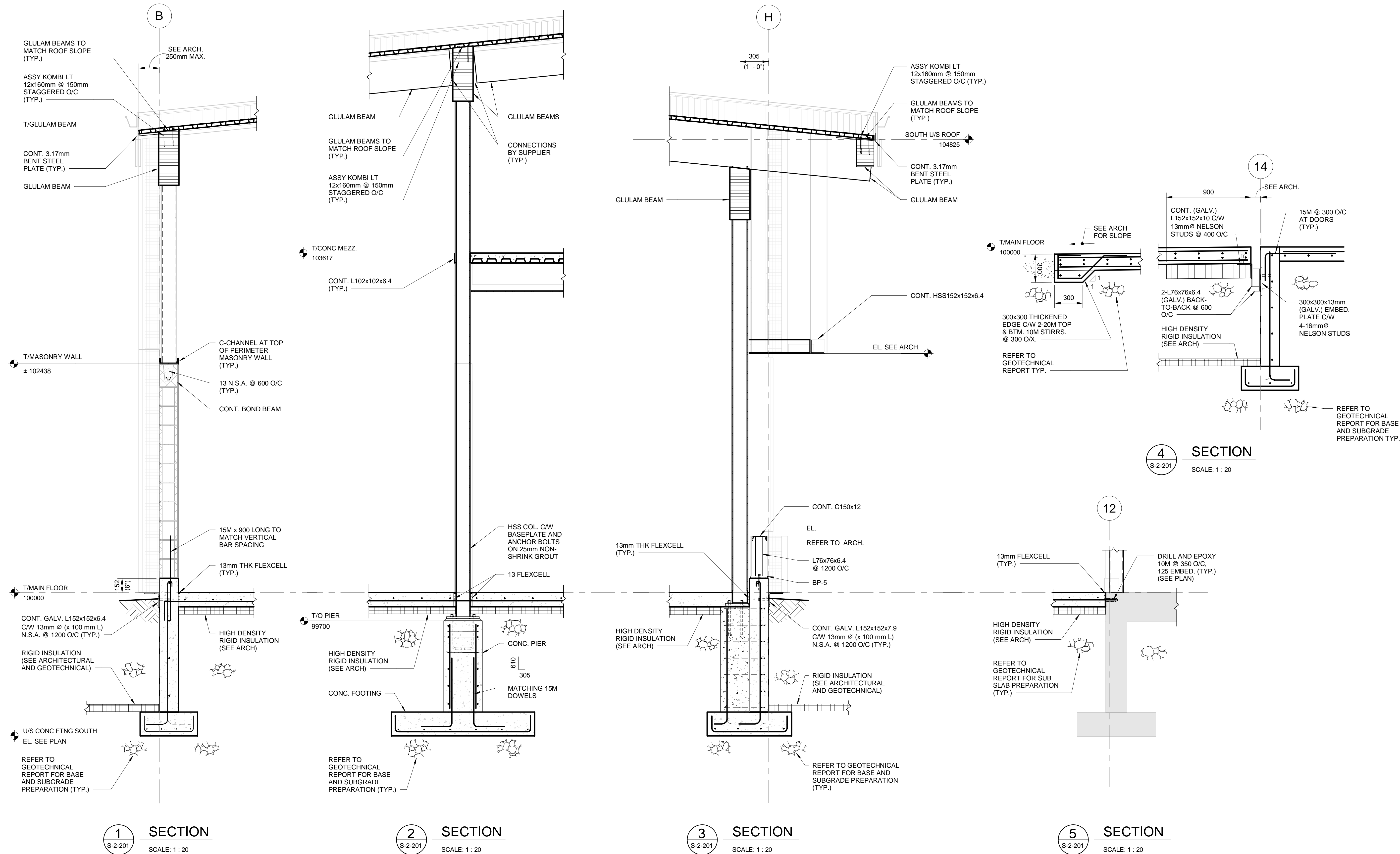
PROJECT NAME & ADDRESS
GRUNTHAL ARENA ADDITION
63 ALBERT AVE.,
GRUNTHAL, MANITOBA

TITLE
SOUTH ADDITION
SECTIONS
SCALE
PROJECT NUMBER
DRAWN BY

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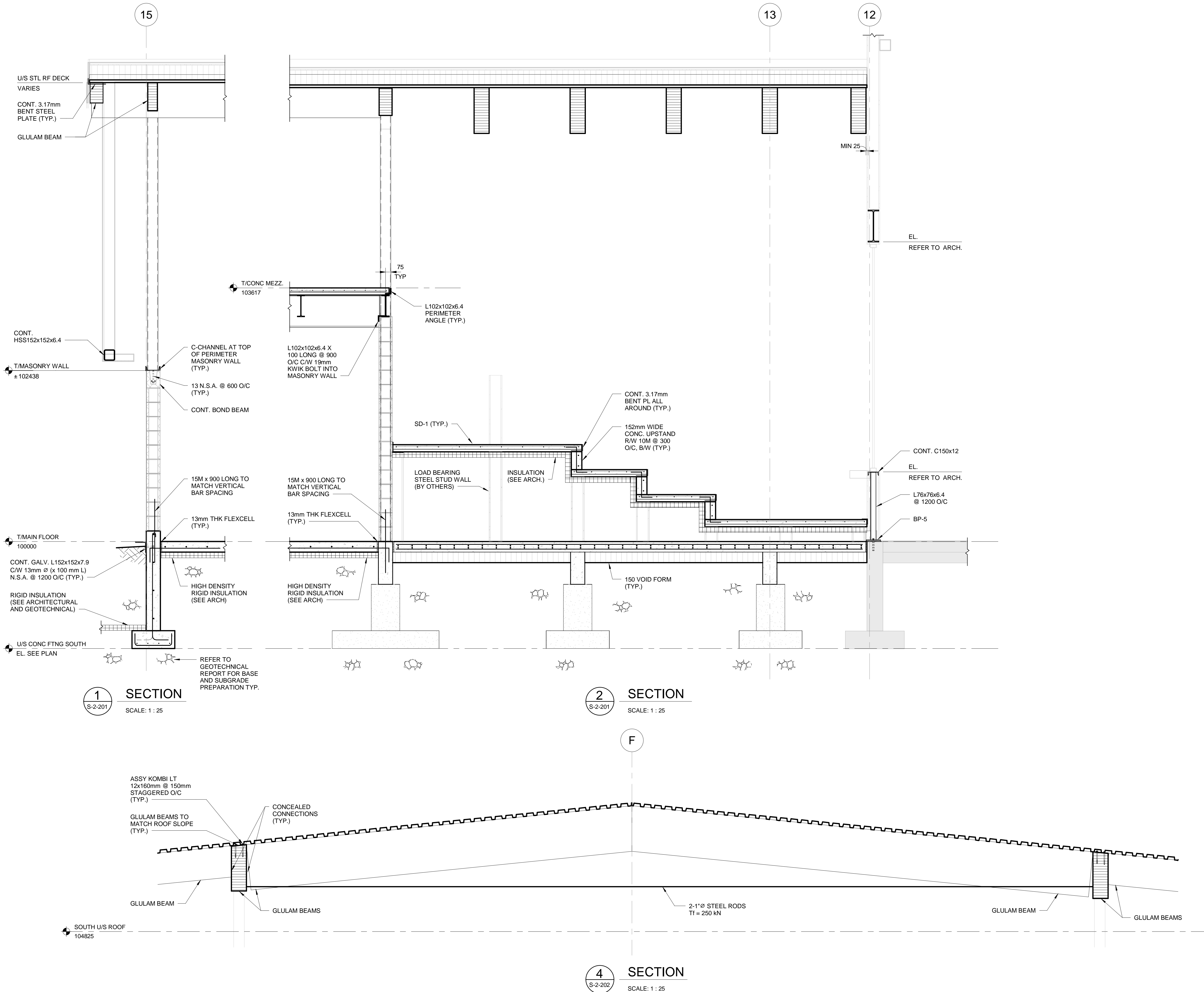
PROJECT NAME & ADDRESS
GRUNTHAL ARENA ADDITION
63 ALBERT AVE.,
GRUNTHAL, MANITOBA

TITLE
SOUTH ADDITION
SECTIONS
SCALE
PROJECT NUMBER
DRAWN BY

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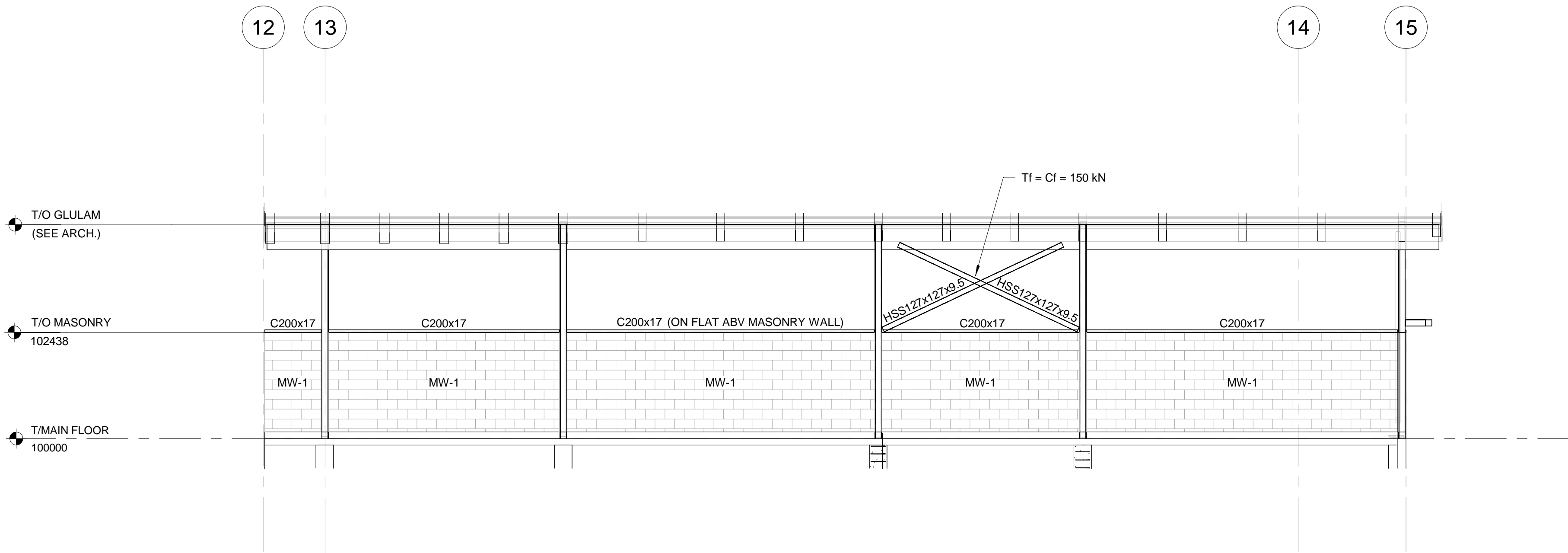
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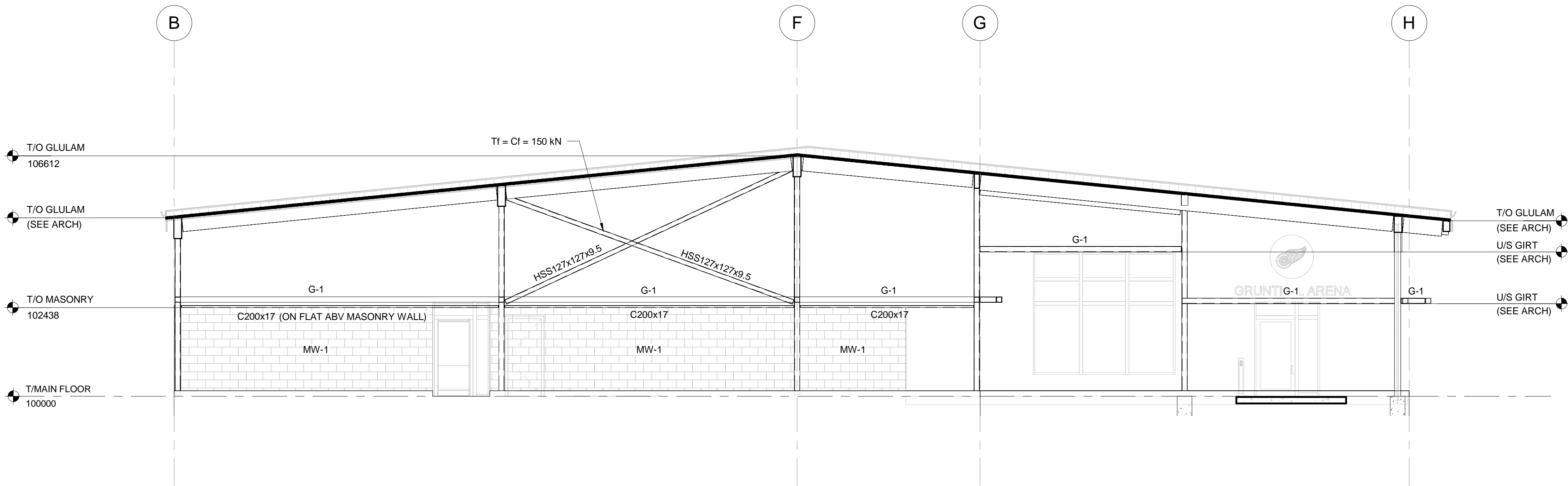
GROUP

NOTES



FRAMING ELEVATION - GRID LINE B

SCALE:1 : 75



FRAMING ELEVATION - GRID LINE 15

SCALE:1 : 75

| | | |
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SOUTH ADDITION
ELEVATIONS
SCALE
PROJECT NUMBER
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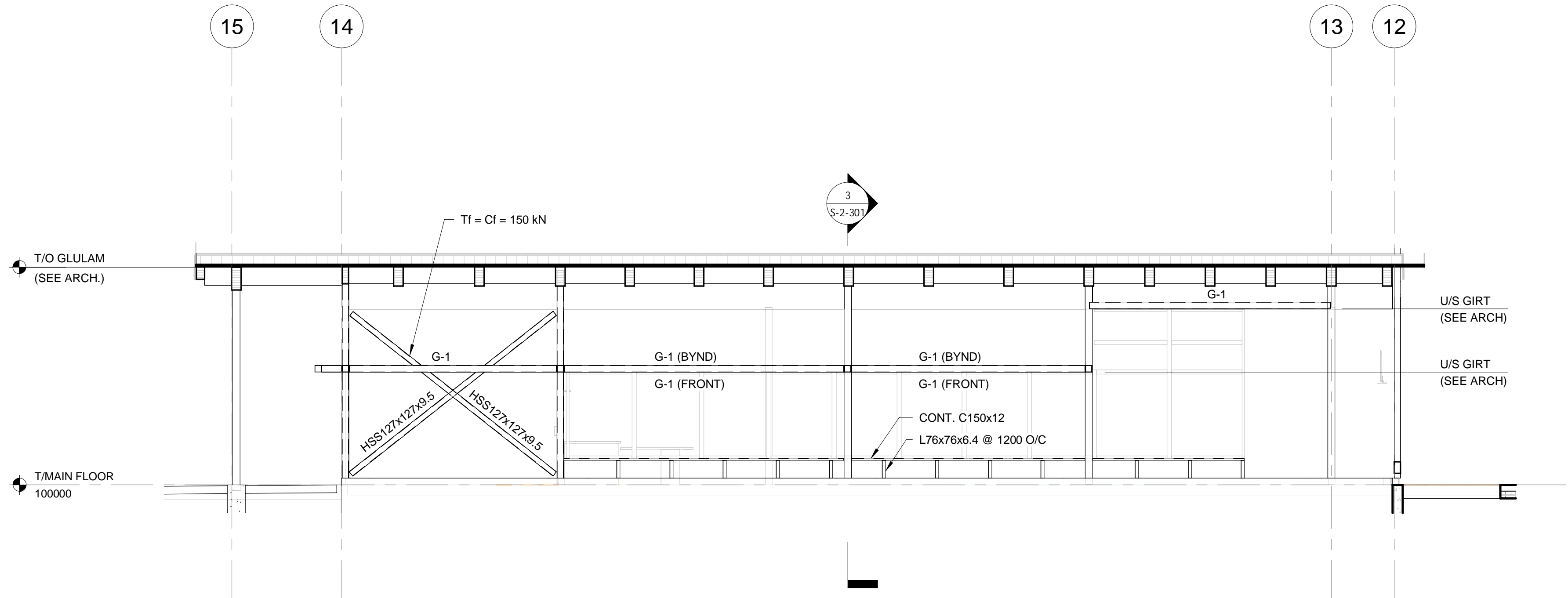
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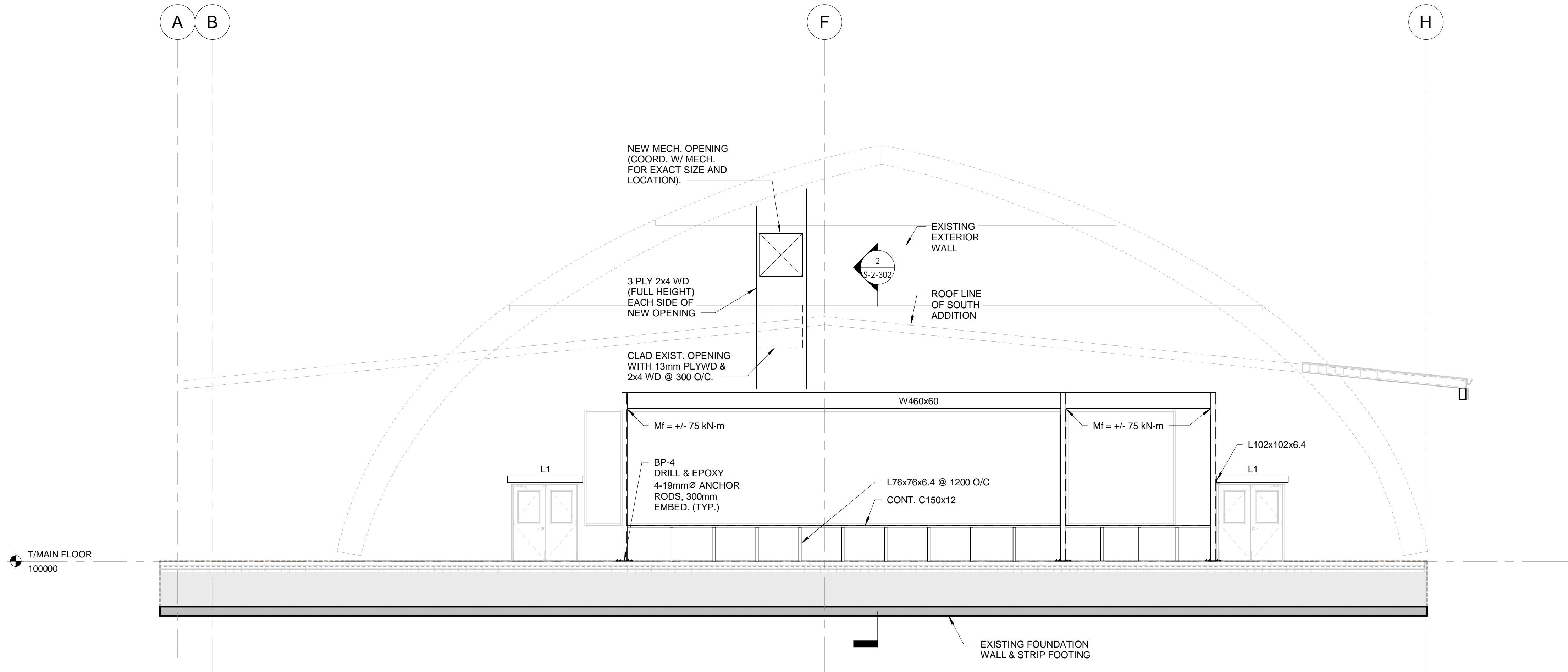
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FRAMING ELEVATION - GRID LINE H

SCALE:1 : 75



FRAMING ELEVATION - GRID LINE 12

SCALE:1 : 75

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**GRUNTHAL ARENA ADDITION
63 ALBERT AVE.,
GRUNTHAL, MANITOBA**

TITLE
**SOUTH ADDITION
ELEVATIONS**
SCALE
PROJECT NUMBER
DRAWN BY

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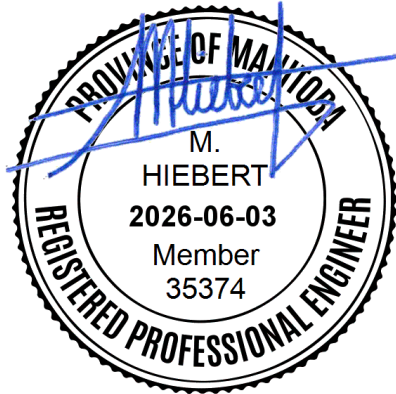
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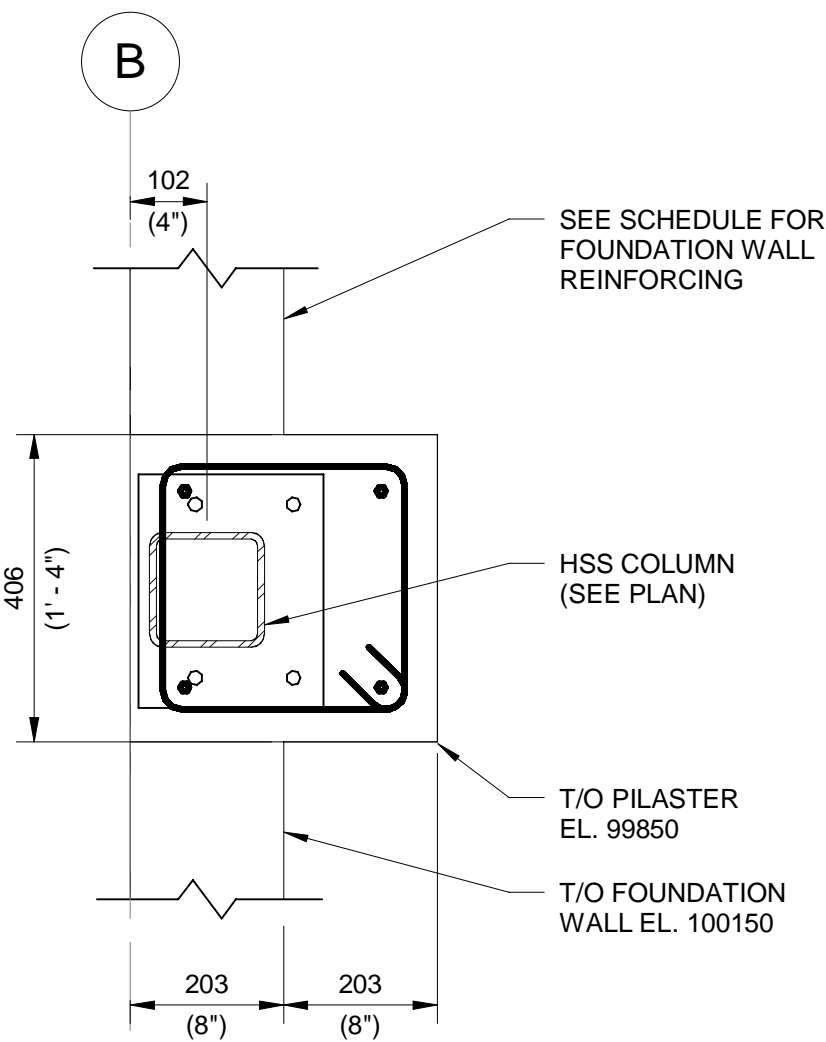
TITLE

SOUTH ADDITION FOUNDATION
DETAILS

SCALE 1 : 10

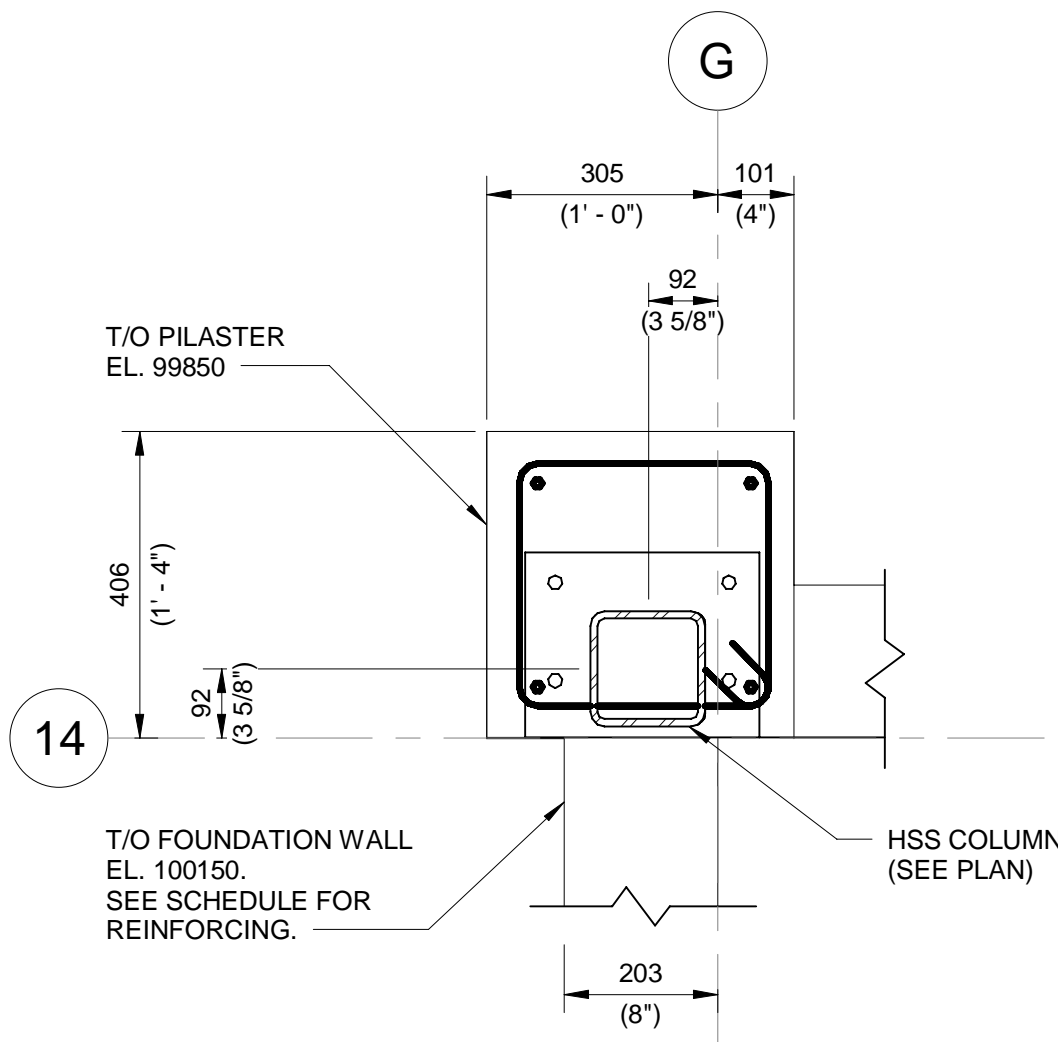
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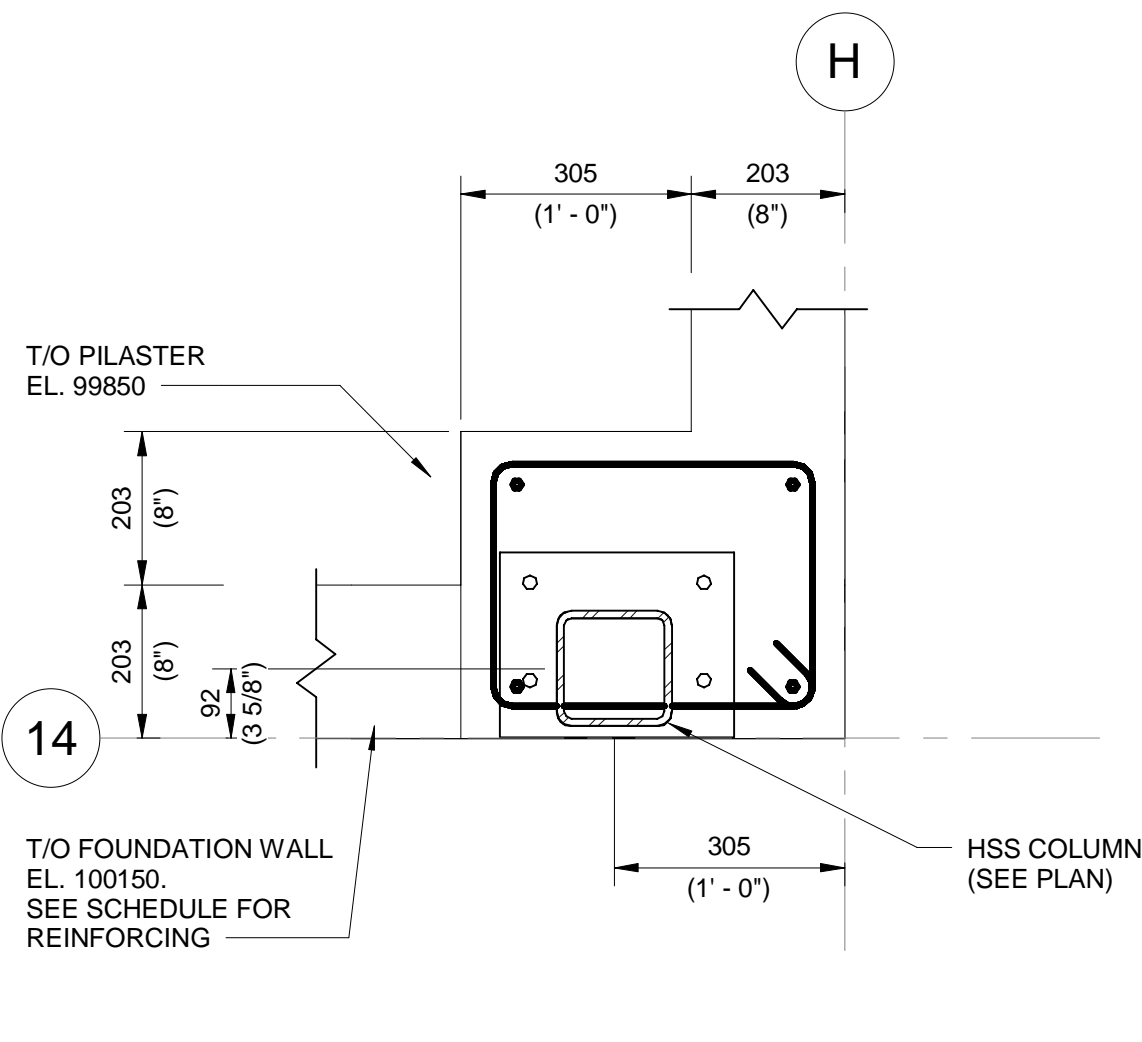
1 PLAN DETAIL

S-2-201 SCALE: 1 : 10



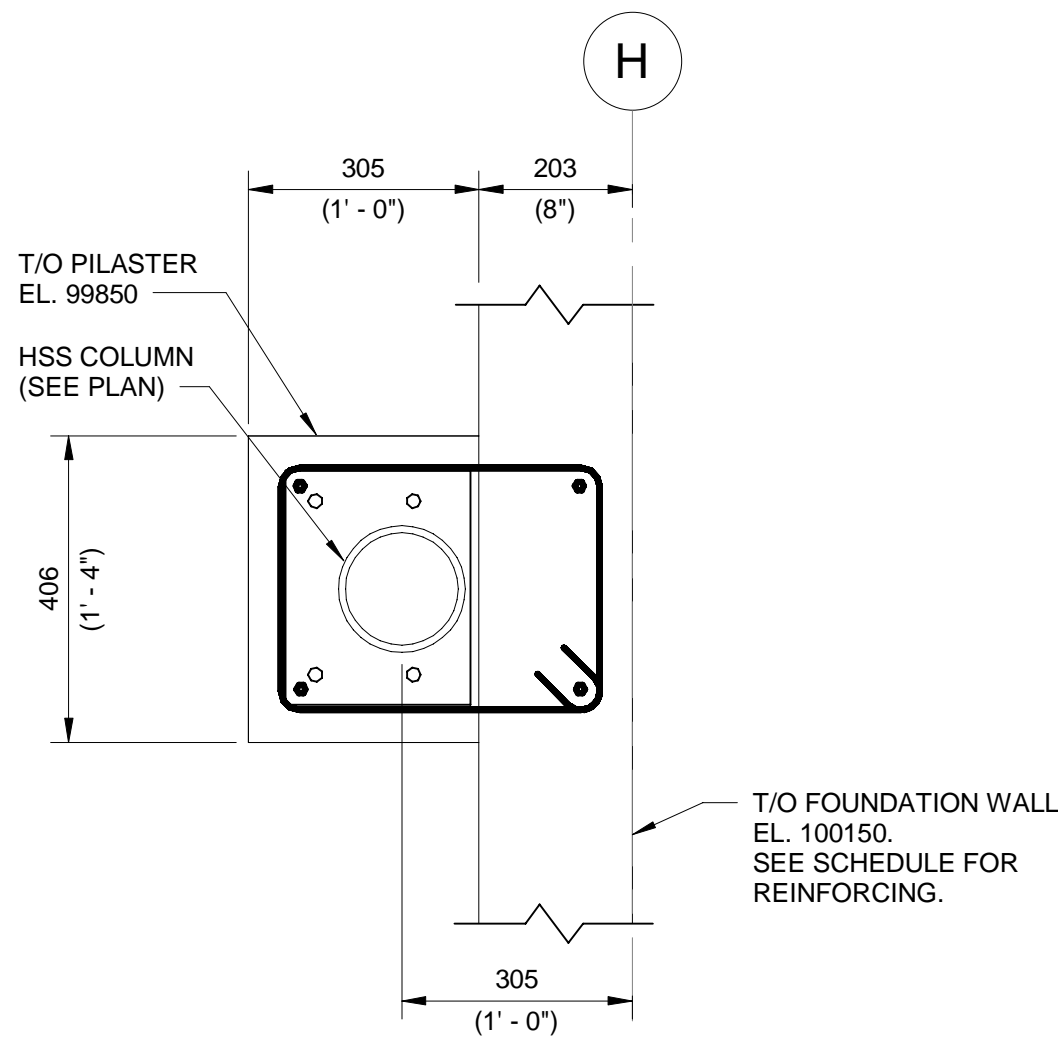
2 PLAN DETAIL

S-2-201 SCALE: 1 : 10



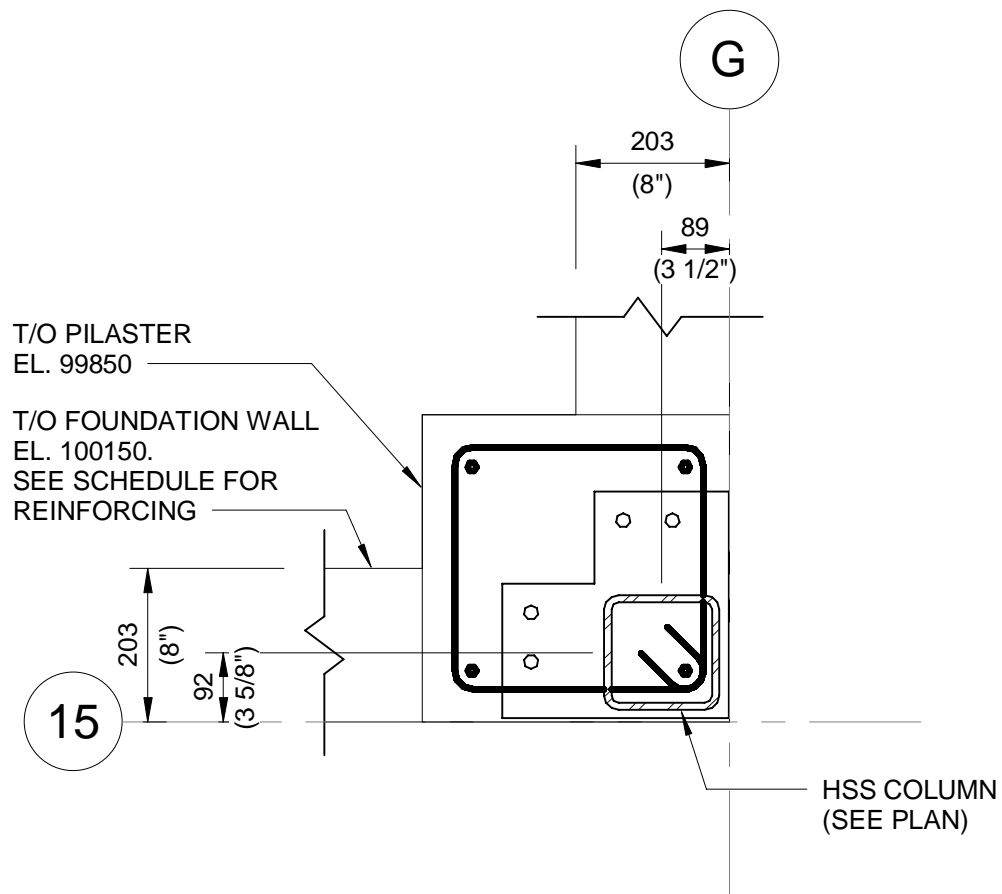
3 PLAN DETAIL

S-2-201 SCALE: 1 : 10



4 PLAN DETAIL

S-2-201 SCALE: 1 : 10



5 PLAN DETAIL

S-2-201 SCALE: 1 : 10