

GENERAL

- THIS SET OF DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE STRUCTURAL SPECIFICATIONS AND WITH THE DRAWINGS AND SPECIFICATIONS FROM ALL OTHER CONSULTANTS. ANY DISCREPANCIES NOTED SHALL BE REPORTED IMMEDIATELY FOR CLARIFICATION.
- THIS SET OF DRAWINGS SHOWS THE COMPLETED STRUCTURE AND DOES NOT SHOW WORK WHICH MAY BE REQUIRED FOR SAFETY DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR GENERAL SAFETY ON AND ABOUT THE JOB SITE DURING THE CONSTRUCTION PERIOD AND FOR DESIGN AND ERECTION OF ALL FALSEWORK, SHORING, BRACING ETC. TO ENSURE THE SAFETY OF ALL CONSTRUCTION TEMPORARY LOADS AND TO COMPLETE THE WORK. ALL TEMPORARY WORKS AND SHORING ETC. SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA. ADHERE STRICTLY TO ALL REQUIREMENTS OF THE WORKSAFE BRITISH COLUMBIA.
- ALL CODE REFERENCES ARE TO LATEST EDITIONS REFERENCED IN THE NATIONAL BUILDING CODE OF CANADA 2015.

FIELD REVIEW:

- DEPARTMENTAL REPRESENTATIVE THROUGH CWMM CONSULTING ENGINEERS PROVIDES FIELD REVIEW FOR THE WORK.
- ALL NON CONFORMING WORKS THAT REQUIRE REMEDIAL ACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY EXTRA TIME OR COST INCURRED TO PWGSC IN RECTIFYING THE WORK SHALL BE BORNE BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT.
- ENSURE THAT WORK TO BE INSPECTED IS COMPLETE AT THE TIME OF INSPECTION AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ADDITIONAL INSPECTIONS REQUIRED DUE TO INCOMPLETE WORK OF POORLY EXECUTED WORKS, AS JUDGED BY DEPARTMENTAL REPRESENTATIVE, AS WELL AS ADDITIONAL DESIGN OR REMEDIAL WORK CAUSED BY DEVIATIONS FROM THESE DRAWINGS, MAY BE CHARGED TO THE CONTRACTOR.
- A MINIMUM 48 HOURS NOTICE SHALL BE GIVEN TO THE DEPARTMENTAL REPRESENTATIVE BY THE CONTRACTOR FOR ANY INSPECTION TO BE CARRIED OUT.

NON-STRUCTURAL COMPONENTS:

- NON-STRUCTURAL COMPONENTS ARE NOT THE RESPONSIBILITY OF THE DEPARTMENTAL REPRESENTATIVE. SUCH COMPONENTS OF THE PROJECT ARE DESIGNED, DETAILED, SPECIFIED AND REVIEWED IN THE FIELD BY OTHERS. LETTERS OF CERTIFICATION OF ADEQUACY, INSTALLATION ETC. OF SUCH COMPONENTS ARE BY OTHERS.
- MANUFACTURERS OF NON-STRUCTURAL COMPONENTS WHICH AFFECT THE STRUCTURAL FRAMING SHALL SUBMIT SHOP DRAWINGS TO DEPARTMENTAL REPRESENTATIVE FOR REVIEW. THE SHOP DRAWINGS SHALL CLEARLY INDICATE LOADS IMPOSED ON THE STRUCTURE. REVIEW WILL BE LIMITED TO THE EFFECT OF THE COMPONENTS ON THE STRUCTURAL FRAMING.
- EXAMPLES OF NON-STRUCTURAL COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO:
 - ARCHITECTURAL COMPONENTS SUCH AS HANDRAILS, GUARDRAILS, RAILINGS, FLAG POST, REMOVABLE CANOPIES, CEILINGS, VEHICLE PROTECTION SYSTEMS, ORNAMENTAL COMPONENTS, ETC.
 - ARCHITECTURAL PRECAST CONCRETE AND ITS ATTACHMENTS.
 - ARCHITECTURAL GLASS BLOCKS AND THEIR ATTACHMENTS.
 - BRICK AND BLOCK VENEERS, THEIR REINFORCING IF ANY AND TIES
 - LANDSCAPING COMPONENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.
 - CURTAIN WALL SYSTEMS, CLADDING, SKYLIGHT, WINDOW MULLIONS, ETC.
 - INTERIOR AND EXTERIOR NON-LOAD BEARING STEEL STUD WALLS.
 - SUPPORT AND BRACING OF MECHANICAL AND ELECTRICAL SYSTEMS AND EQUIPMENTS FOR NON-GRAVITY AND SEISMIC LOADS.
 - WINDOW WASHING EQUIPMENTS AND ITS ATTACHMENT.
 - ELEVATORS, ESCALATORS AND OTHER CONVEYING SYSTEMS, INCLUDING PROPRIETARY SUPPORT BEAMS AND THEIR ATTACHMENTS.
 - NON-STRUCTURAL MASONRY.

EXISTING STRUCTURES:

- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS TO AND OF EXISTING STRUCTURES. NOTIFY DEPARTMENTAL REPRESENTATIVE IMMEDIATELY IF DISCREPANCIES ARE NOTED.
- THE CONTRACTOR SHALL AT HIS OWN EXPENSE REPAIR AND MAKE GOOD ANY DAMAGE TO THE EXISTING STRUCTURE, EQUIPMENT AND FINISHES CAUSED BY THE CONSTRUCTION ACTIVITIES. REPAIRS SHALL BE TO THE SATISFACTION OF THE ARCHITECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY SUPPORT OF ANY ADJACENT EXISTING STRUCTURES DURING CONSTRUCTION. UNDERPINNING OR BRACING SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA. 4 COPIES OF SIGNED AND SEALED DESIGN DRAWINGS TO DEPARTMENTAL REPRESENTATIVE. FOR REVIEW OF CONFORMANCE WITH GENERAL DESIGN CRITERIA.

DRAWING LIST (STRUCTURAL)	
S101	GENERAL NOTES
S102	TYPICAL DETAILS
S201	FOUNDATION & MAIN FLOOR PLAN, ROOF PLAN
S301	SECTIONS & DETAILS

DESIGN LOADS:

- THIS STRUCTURE HAS BEEN DESIGNED FOR SNOW, WIND AND SEISMIC FORCES IN SUBSTANTIAL COMPLIANCE WITH THE PROVISIONS SET FORTH IN THE NATIONAL BUILDING CODE OF CANADA 2015.

GROUND SNOW:	Ss =	1.1 kPa
RAIN LOAD:	Sr =	0.2 kPa
IMPORTANCE FACTORS FOR SNOW	Is = 1.0 FOR STRENGTH	
	Is = 0.9 FOR SERVICEABILITY	
WIND LOAD:	PROBABILITY 1/10 =	0.33 kPa
	PROBABILITY 1/50 =	0.42 kPa
IMPORTANCE FACTORS FOR WIND	Iw = 1.00 FOR STRENGTH	
	Iw = 0.75 FOR SERVICEABILITY	
EARTHQUAKE FACTORS:		

Sa(0.2)	Sa(0.5)	Sa(1.0)	Sa(2.0)	PGA
1.23	1.11	0.64	0.38	0.59

I_E = 1 FOR STRENGTH
I_E = 1 FOR SERVICEABILITY

(CLAUSE 4.1.8.13 FOR SERVICEABILITY)

F(0.2) = 1 F(0.5) = 1

R_d = 2.5 R_o = 1.7

- SITE CLASS C
- SPECIFIED UNIFORM SUPERIMPOSED DEAD LOADS ON ROOF AND FLOORS:

ROOF (GREEN ROOF)	1.5 kPa
MAIN FLOOR	1.0 kPa
EXTERIOR WALLS	ACTUAL WEIGHT

 - MAIN FLOOR LOADS INCLUDE GENERAL PARTITION LOAD OF 1.0kPa
 - THESE LOADS DO NOT INCLUDE SELFWEIGHT OF STRUCTURE, WEIGHT OF MASONRY PARTITIONS, WEIGHTS OF MECHANICAL EQUIPMENT AND CONCRETE EQUIPMENT PADS.
 - SPECIFIED UNIFORM LIVE LOADS ON FLOORS:

MAIN FLOOR	4.8 kPa
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 - DESIGN SPECIFIED CONCENTRATED LIVE LOADS ON ROOF AND FLOORS:

ROOF	1.3 kN
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 - WORST CASE OF UNIFORM OR CONCENTRATED LIVE LOADS WILL BE USED FOR DESIGN OF STRUCTURAL MEMBERS.

CONSTRUCTION LOADS:

- CONSTRUCTION LOADS ON COMPLETED FLOORS MUST NOT EXCEED THE LOAD CARRYING CAPACITY OF FLOOR AT THE TIME OF THE LOADING UNLESS IT IS PROPERLY SHORED TO SUPPORT THE INTENDED LOAD. MOVING OF HEAVY EQUIPMENT AND PILING UP OF MATERIAL SHALL NOT BE PERMITTED UNLESS DESIGNED SHORING IS IN PLACE.
- SHORING DESIGN BY CONTRACTOR. INFORM DEPARTMENTAL REPRESENTATIVE PRIOR TO LOAD APPLICATION.

FOUNDATION AND SITE WORK

- REFER TO GEOTECHNICAL REPORT PREPARED BY RYZUK GEOTECHNICAL DATED SEPT. 09, 2019 AND ALL ITS SUPPLEMENTS AND AMENDMENTS FOR EXCAVATION, BACKFILLING, FILL MATERIALS, COMPACTION, FROST PROTECTION AND OTHER SITE PREPARATION REQUIREMENTS NOT SHOWN ON THESE DRAWINGS.
- DESIGN SOIL BEARING CAPACITIES (AS PER GEOTECHNICAL REPORT):

PAD / STRIP FOOTINGS	SLS = 150 kPa
	ULS = 225 kPa
SEISMIC ELEMENT FOOTING (UNDER FACTORED LOADS)	225 kPa
- ANY FOOTING ELEVATIONS INDICATED ON THE DRAWINGS ARE GENERAL AND SHALL BE USED FOR ESTIMATING AND BIDDING PURPOSES. FOOTINGS MAY HAVE TO BE PLACED AT DIFFERENT ELEVATIONS AS A RESULT OF LOCAL SOILS CONDITIONS, UNDERGROUND SERVICES AND TO ACCOMMODATE OTHER MECHANICAL AND ELECTRICAL SERVICES. FOLLOW TYPICAL DETAILS SHOWN ON THESE DRAWINGS FOR FOOTING PLACEMENT RELATIVE TO ADJACENT FOOTINGS, SUMP AND OTHER EXCAVATED STRUCTURES AND LOCATE AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE.
- THE BASES OF FOUNDATIONS SHALL BE PROTECTED FROM RAIN, SNOW AND ANY WATER INFILTRATION.
- NO FOUNDATIONS MAY BE POURED BEFORE THE BEARING MATERIAL HAS BEEN INSPECTED BY DEPARTMENTAL REPRESENTATIVE. NOTIFY DEPARTMENTAL REPRESENTATIVE MINIMUM 24 HOURS BEFORE INSTALLATION OF FOOTING REINFORCEMENT.
- IMMEDIATELY AFTER INSPECTION AND APPROVAL BY DEPARTMENTAL REPRESENTATIVE, THE BEARING SURFACE SHALL BE COVERED BY A 50mm THICK CONCRETE GROUND SEAL OF 10MPa STRENGTH.
- COORDINATE CONSTRUCTION WITH UNDERSLAB SERVICES AS SHOWN ON MECHANICAL, ELECTRICAL, ARCHITECTURAL AND LANDSCAPING DRAWINGS.
- REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SITE DRAINAGE, GROUND ELEVATIONS AND DRAINAGE SLOPES.
- CENTRE ALL FOOTINGS UNDER COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR WATERPROOFING AND SEALING REQUIREMENTS.

REINFORCED CONCRETE

- REFER TO SPECIFICATIONS FOR CONCRETE STRENGTH, EXPOSURE CLASS & OTHER REQUIREMENTS.
- REINFORCING BARS f_y = 400 MPa. ALL DOWELS ANCHOR BOLTS AND INSERTS SHALL BE PLACED BEFORE THE CONCRETE IS POURED.
- PROVIDE MINIMUM CONCRETE COVER TO REINFORCEMENT AS FOLLOWS:

CAST AGAINST EARTH	75mm
EXPOSED TO EARTH OR WEATHER:	50mm
ELSEWHERE:	40mm

UNLESS NOTED OTHERWISE, PROVIDE MINIMUM SPLICE LENGTHS TO REINFORCEMENT AND MINIMUM EMBEDMENT LENGTH FOR DOWELS AS FOLLOWS:		
BAR	SPLICE LENGTH	EMBEDMENT LENGTH
10M	600mm	400mm
15M	800mm	600mm
20M	1000mm	800mm
25M	1600mm	1200mm

- CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO A MATERIALS CONSULTANT FOR APPROVAL AND TO DEPARTMENTAL REPRESENTATIVE FOR REVIEW PRIOR TO ANY CONCRETE WORK.
- CONCRETE AND MATERIALS TESTING AGENCY MUST BE CSA CERTIFIED. SUBMIT ALL CONCRETE TEST RESULTS TO DEPARTMENTAL REPRESENTATIVE.
- DESIGNATION OF REINFORCING BARS:

3-10M600	MEANS THREE 10M BARS 600mm LONG
2-C10M1500	MEANS TWO 10M BARS, EACH WITH A 90° STANDARD HOOK ONE END AND A TOTAL LENGTH OF 1500mm
----	Denotes BOTTOM BARS
----	Denotes TOP BARS
- LOCATIONS OF CONSTRUCTION JOINTS SHALL BE SUBMITTED TO DEPARTMENTAL REPRESENTATIVE FOR REVIEW IN ADVANCE AND PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- REFER TO ARCHITECTURAL DRAWINGS FOR REVEALS, RECESSES, CHAMFERS, FINISHES AND OTHER ARCHITECTURAL REQUIREMENTS NOT INDICATED ON THESE DRAWINGS.
- SUPPLY AND SET ANCHOR BOLTS, SLEEVES, PIPE HANGERS, EXPANSION JOINTS AND OTHER INSERTS AND OPENINGS AS INDICATED IN THESE DRAWINGS AND THEIR ACCOMPANYING SPECIFICATIONS OR IN DOCUMENTS BY OTHER CONSULTANTS.
- ALL DOWELS, ANCHOR BOLTS, EMBEDDED PLATES AND OTHER INSERTS SHALL BE PLACED BEFORE THE CONCRETE IS POURED.
- SLAB ON GRADE JOINTS SHALL HAVE 35mm DEEP SAWCUTS SPACED MAXIMUM 4500mm APART, LAYOUT OF JOINTS SHALL BE APPROVED BY THE ARCHITECT, SEAL WITH FLEXIBLE JOINT SEALER TO PREVENT INGRESS OF WATER.
- REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF CURBS AND EQUIPMENT PADS.

STRUCTURAL STEEL

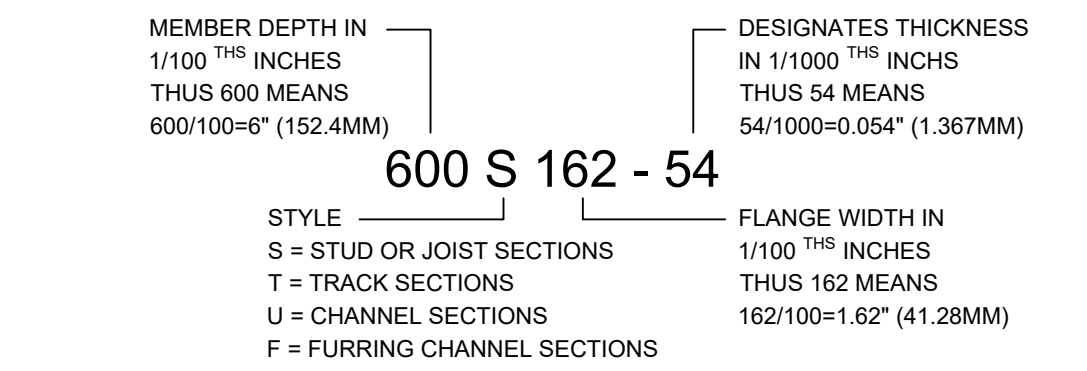
- REFER TO SPECIFICATIONS FOR STEEL WORK, STEEL CONFORMANCE, DESIGN CODE REFERENCES AND OTHER REQUIREMENTS.
- GRADES OF MATERIALS :

HOLLOW STRUCTURAL STEEL (HSS)	350W CLASS C
STRUCTURAL STEEL AND MISC. METAL	300W
BOLTS, NUTS AND WASHERS	ASTM A325
ANCHOR BOLTS:	ASTM A307
GROUT FOR BASE PLATE:	SEE SPECIFICATION
- DRAWINGS FROM ALL CONSULTANTS SHALL BE EXAMINED FOR EXACT LOCATIONS, DIMENSIONS AND ELEVATIONS.
- STEEL FABRICATORS AND CONTRACTOR SHALL CONFIRM ALL LOCATIONS, DIMENSIONS AND ELEVATIONS WITH ACTUAL SITE MEASUREMENTS BEFORE FABRICATION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY FABRICATION AND WORK DONE PRIOR TO REVIEW AND APPROVAL OF THE SHOP DRAWINGS.
- IMPERIAL SIZE BOLTS AND PLATE PRODUCTS ARE ACCEPTABLE ON AN EQUAL SIZE - EQUAL STRENGTH BASIS.
- INSTALL AND TORQUE ALL BOLTS AND DRILLED ANCHORS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND PROCEDURES.
- GROUT FOR COLUMN BASE PLATES SHALL BE SIKKA M-BED STANDARD, MASTERBUILDER'S MASTERFLOW 713 OR APPROVED EQUAL AND SHALL HAVE MINIMUM STRENGTH OF 50MPa AT 28 DAYS MIX TO FLUID CONSISTENCY.

STEEL STUDS:

- REFER TO SPECIFICATIONS FOR STEEL STUD DESIGN CODE REFERENCE AND OTHER REQUIREMENTS.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE DRAWINGS FROM ALL OTHER CONSULTANTS, ANY DISCREPANCIES SHALL BE REPORTED FOR CLARIFICATION, PRIOR TO PROCEEDING WITH ANY INSTALLATION.
- SHEET STEEL TO ASTM A446:
 - GRADE A (33 KSI MIN. YIELD) FOR MATERIAL 0.045" (1.22MM) AND THINNER.
 - GRADE D (50 KSI MIN. YIELD) FOR MATERIAL 0.054" (1.37MM) AND THICKER.

- STEEL STUDS, TRACKS, BRIDGING CHANNELS:
 - AS MANUFACTURED BY MANTANE CONSTRUCTION PRODUCTS LTD. OR CORUS METAL PROFILES LTD.
 - SUBSTITUTIONS REQUIRE ENGINEERING APPROVAL.
- SCREWS: BUILD EX TEK'S SELF-DRILLING SELF-TAPPING SHEET METAL SCREWS NO. 8-18 OR APPROVED EQUAL.
- FOR FASTENING TO STRUCTURAL STEEL FASTENERS: #12 (0.216" DIA.) MIN. SELF-DRILLING SCREW W/ #5 POINT, HILTI HWH SCREW, OR APPROVED EQUAL.
- FOR FASTENING TO CONCRETE USE DRILLED ANCHORS OF 1" (25MM) EMBEDMENT, MINIMUM, UNLESS NOTED OTHERWISE. RAMSET/RED HEAD REDI-DRIVE, HILTI ZAMAC PINBOLT OR PRE-APPROVED ALTERNATE ONLY. (1-1/8" OR 1-5/8" LENGTHS AS NOTED)
- SPECIFICATION FOR STUD OR TRACK SIZE AND THICKNESS:



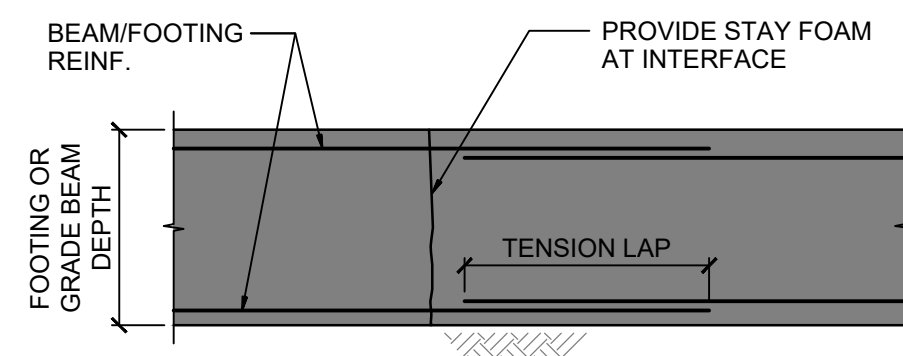
STEEL DECK:

- REFER TO SPECIFICATIONS FOR STEEL DECK DESIGN CODE REFERENCE AND OTHER REQUIREMENTS.
- STEEL DECKING SHALL BE DESIGNED BY THE MANUFACTURER FOR VERTICAL LOAD DUE TO WIND AND GRAVITY LOADS INDICATED IN THE GENERAL NOTES OF THESE DRAWINGS. MINIMUM DECK THICKNESS SHALL BE 0.91mm FOR ROOF DECK.
- PROVIDE ZF75 COATING FOR ROOF DECK AND FLOOR DECK IN CONCEALED AREAS NOT EXPOSED TO WEATHER. PROVIDE Z275 COATING FOR EXTERIOR SURFACES EXPOSED TO WEATHER.
- WHERE POSSIBLE, SUPPLY AND INSTALL DECKING IN LENGTH THAT WILL PERMIT CONTINUITY OVER A MINIMUM OF THREE SPANS.

ABBREVIATIONS

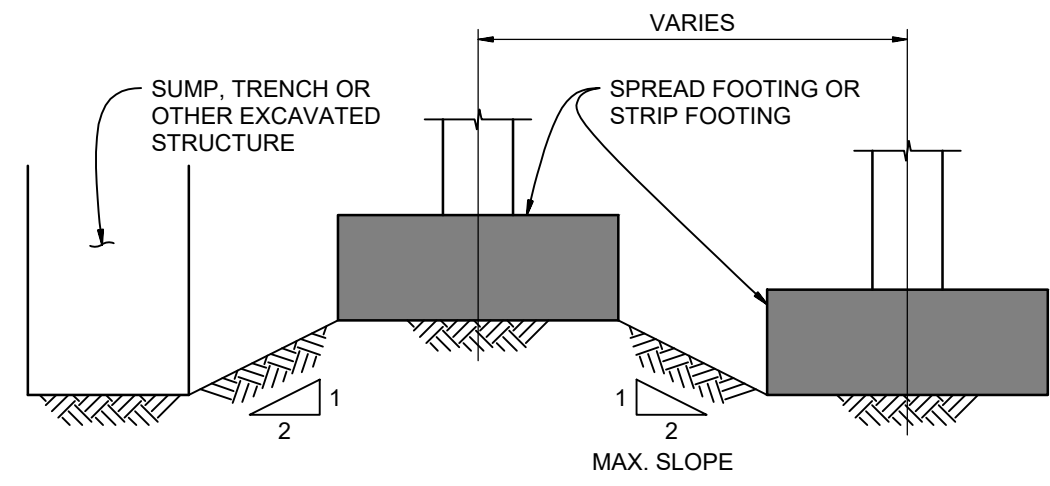
A.BOLT	ANCHOR BOLT
ALT.	ALTERNATE
ARCH. BLDG.	ARCHITECTURAL BUILDING
BOTT.	BOTTOM
BTW.	BETWEEN
C/C	CENTER TO CENTER
C/W	COMPLETE WITH
C.I.P.	CAST IN PLACE
CANT.	CANTILEVER
CL.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
DL	DEAD LOAD
DN	DOWN
DO.	DITTO
DP.	DEEP
DWG.	DRAWING
E.F.	EACH FACE
ELEC.	ELECTRICAL
ELEV.	ELEVATION
E.S.	EACH SIDE
E.W.	EACH WAY
EXIST.	EXISTING
EXT.	EXTERIOR
FL	FLOOR
F.S.	FAR SIDE
FDN.	FOUNDATION
FTG.	FOOTING
G.L.	GRID LINE
GEOTECH.	GEOTECHNICAL
GALV.	GALVANIZED
H1E	HOOK ONE END
H2E	HOOK TWO ENDS
H.D.G.	HOT DIP GALVANIZED
HL	HIGH LEVEL
HORIZ.	HORIZONTAL
INT.	INTERIOR
L.V.	LENGTH VARIES
LG.	LONG
LL	LOW LEVEL
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LSV	LONG SIDE VERTICAL
LSH	LONG SIDE HORIZONTAL
LONG.	LONGITUDINAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
N/A	NOT AVAILABLE
N.S	NEAR SIDE
N.STUD	NELSON STUD
N.T.S.	NOT TO SCALE
O./ALL	OVER ALL
O/C	ON CENTRES
OPP.	OPPOSITE HAND
OWSJ	OPEN WEB STEEL JOIST
P.C.	PRECAST CONCRETE
PL	PLATE
PLY.	PLYWOOD
PROJ.	PROJECTION
R/W	REINFORCED WITH
R/C	REINFORCED CONCRETE
S.O.G.	SLAB ON GRADE
SIM.	SIMILAR
STAGG.	STAGGERED
T&B	TOP AND BOTTOM
T&G	TONGUED & GROOVED
T.O.C/S	TOP OF CONCRETE/STEEL
THK.	THICK
TJ	TIE JOIST
TRAN.	TRANSVERSE
TYP.	TYPICAL
U/S	UNDERSIDE
N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL

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	START DATE
	DRAWING NUMBER S101 OF 4
GENERAL NOTES	REVISION

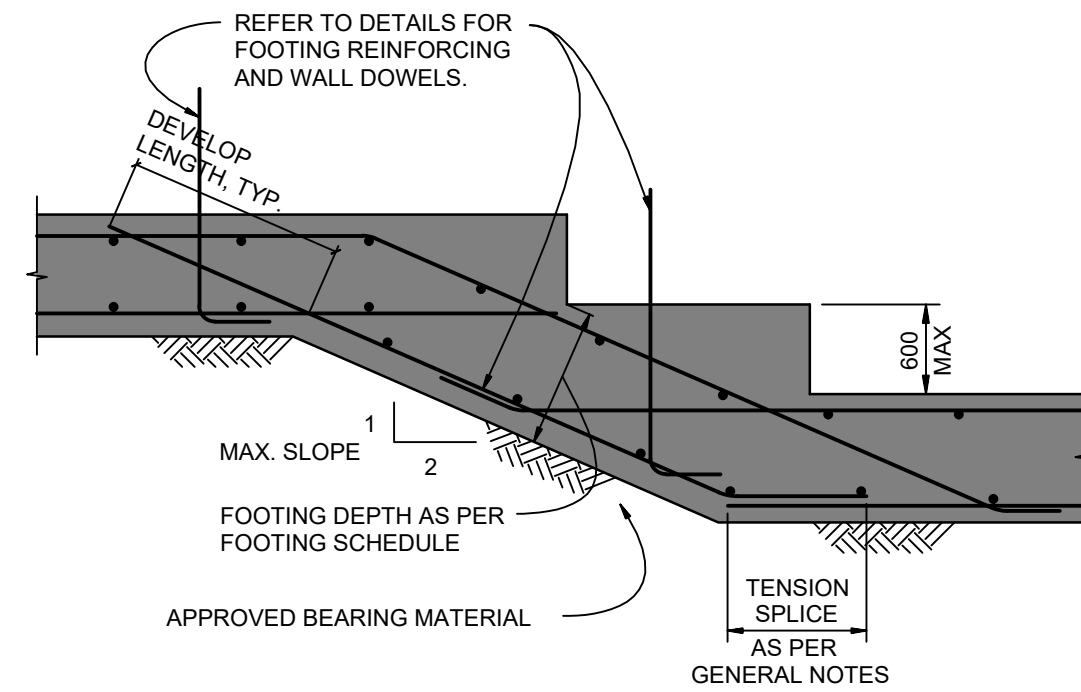


COORDINATE CONSTRUCTION JOINT LOCATIONS WITH DEPARTMENTAL REPRESENTATIVE BEFORE PLANNING ANY POURING SEQUENCE

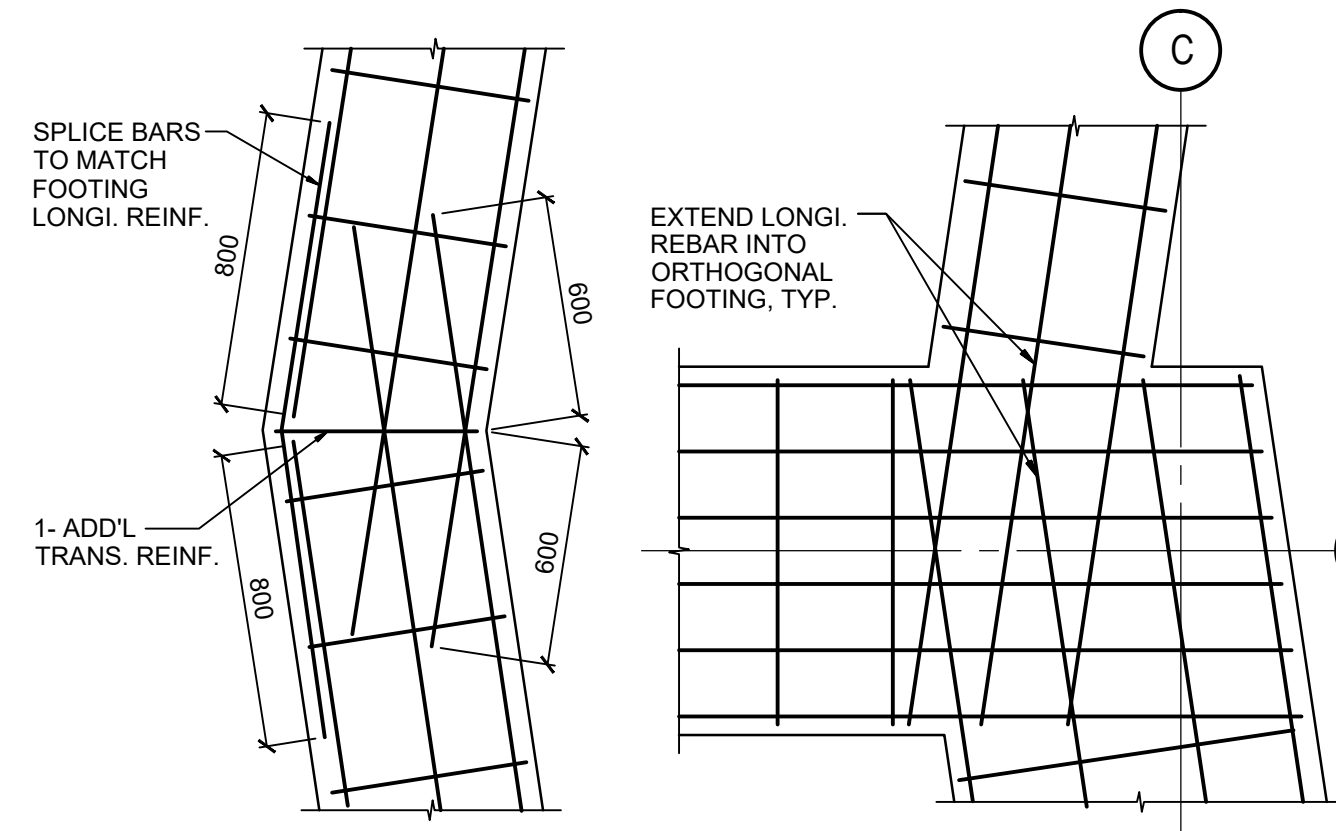
TYPICAL CONSTRUCTION JOINT DETAIL FOR FOOTING / GRADE BEAM



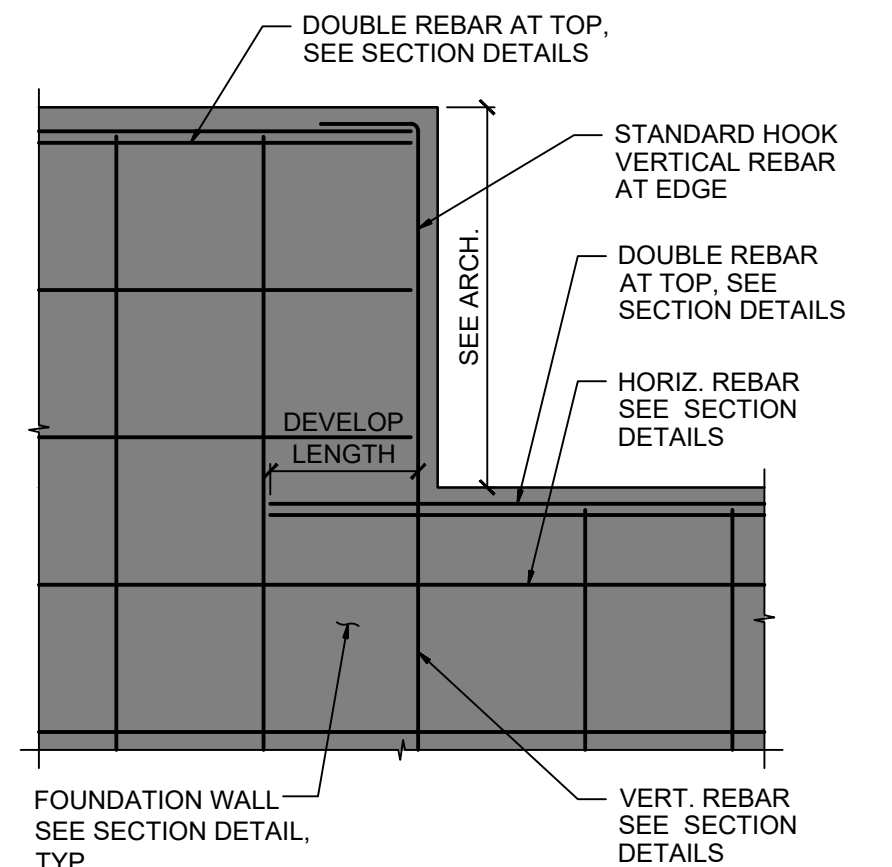
RELATIVE ELEVATIONS OF ADJACENT FOOTING



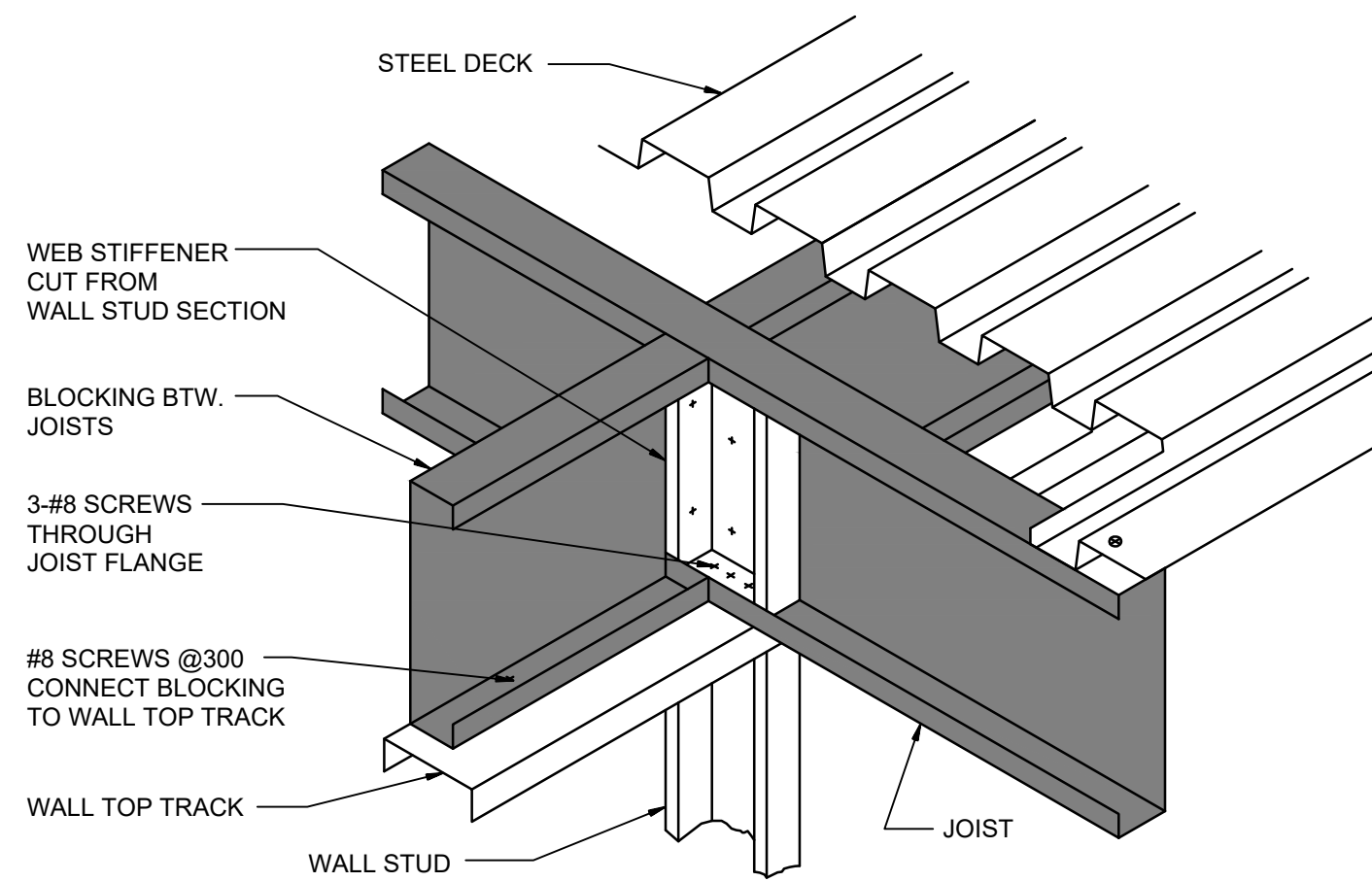
STEPPED STRIP FOOTING



TYPICAL FOOTING REINFORCING CONTINUITY PLAN DETAIL

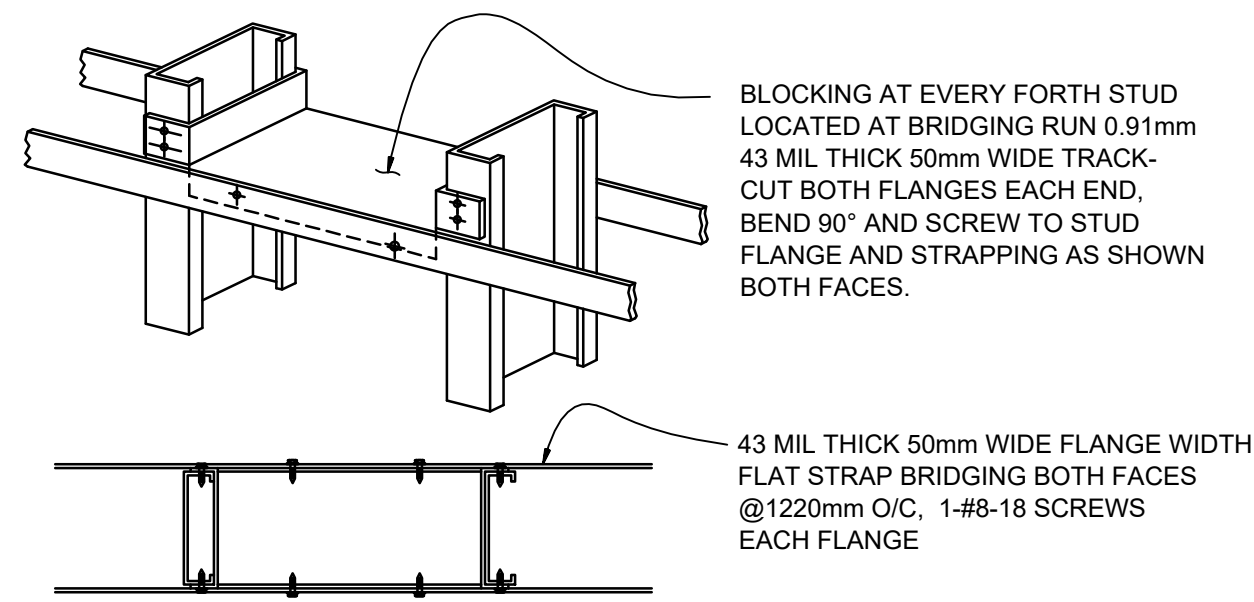


TYPICAL REINFORCING AT WALL STEP



TYPICAL ROOF JOIST SUPPORT DETAIL

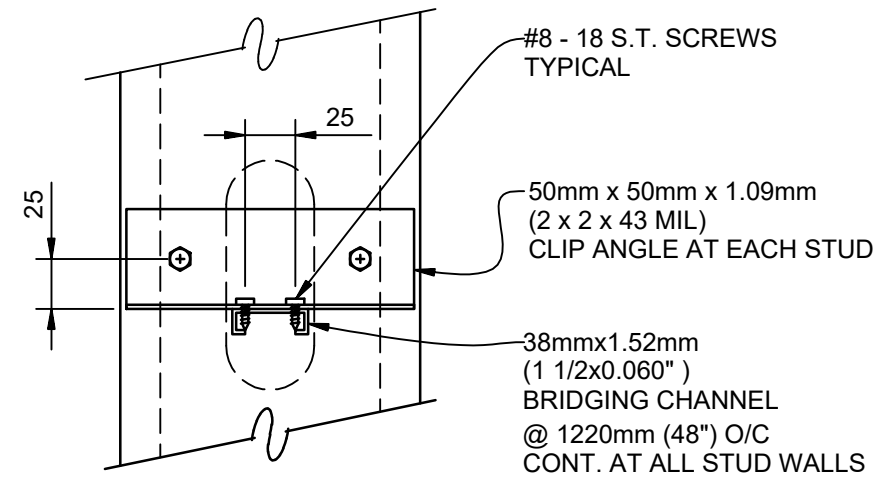
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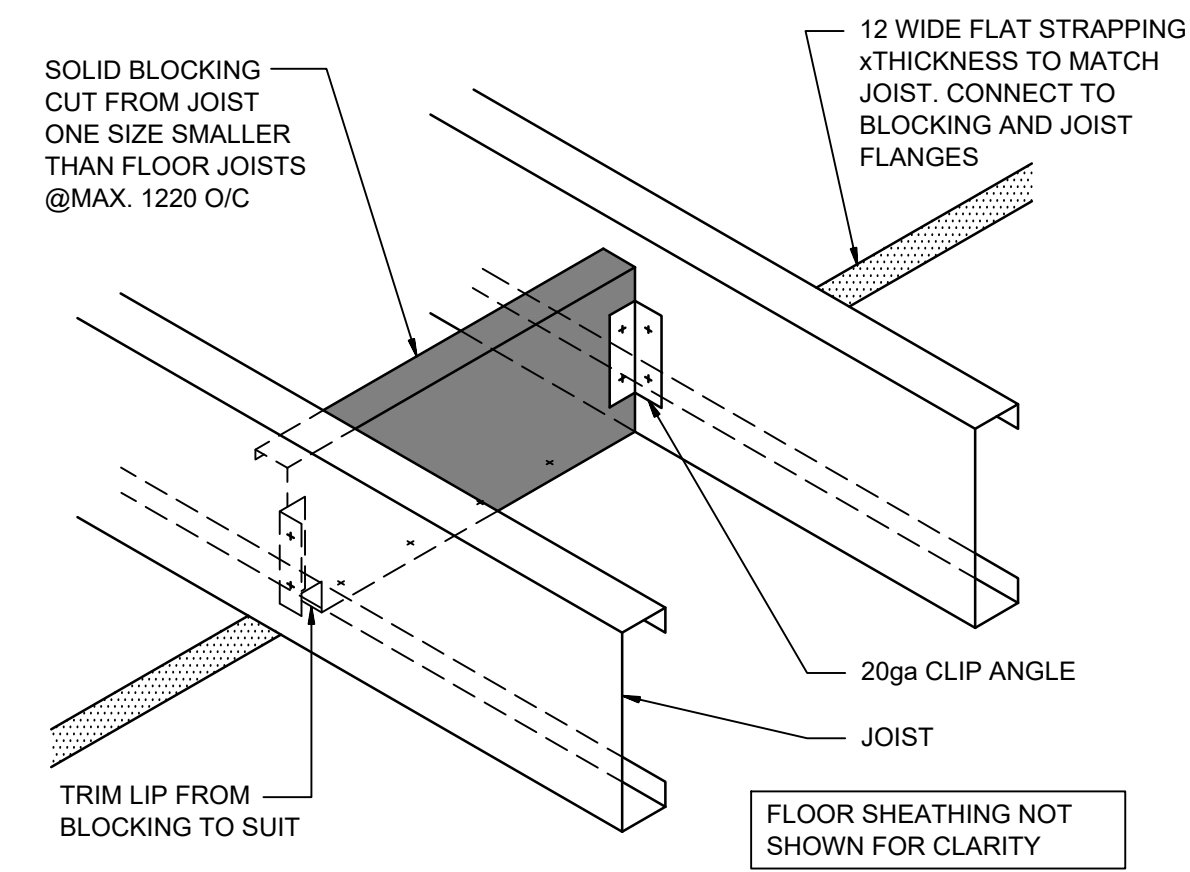
BRIDGING

TYPICAL BRIDGING DETAIL OF STUD WALLS

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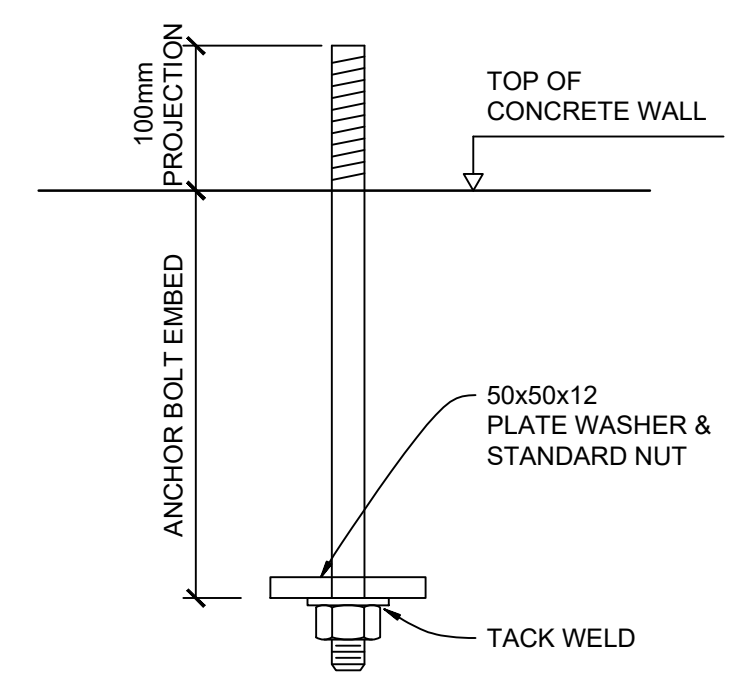


ALTERNATE BRIDGING

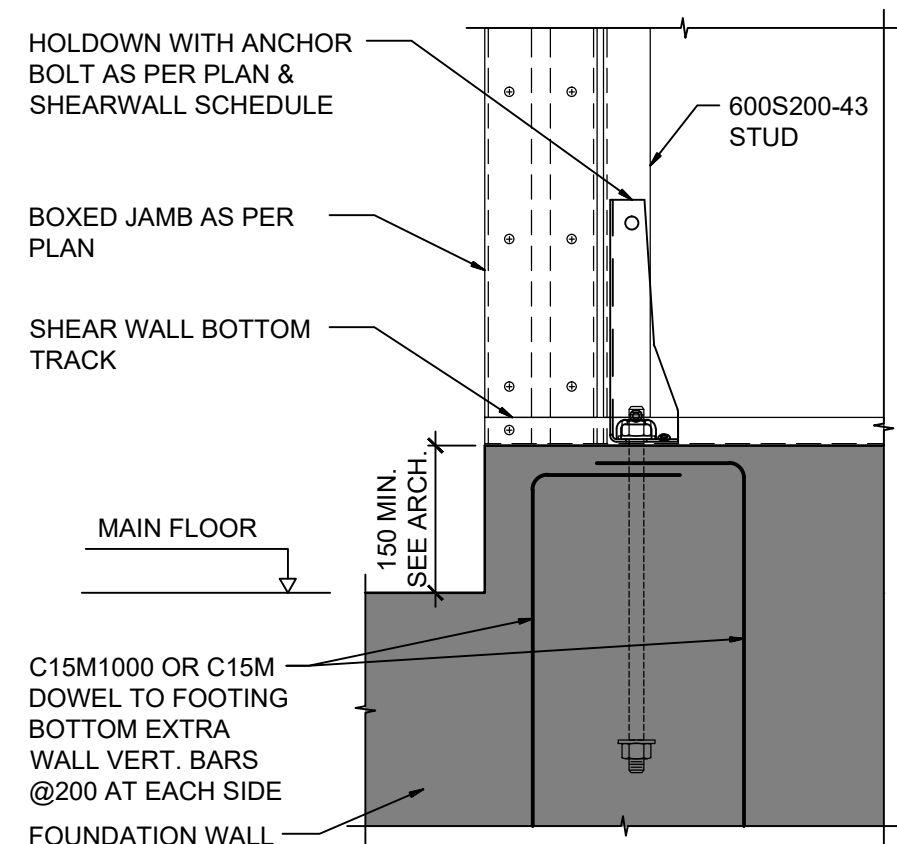


TYPICAL ROOF JOIST BLOCKING DETAIL

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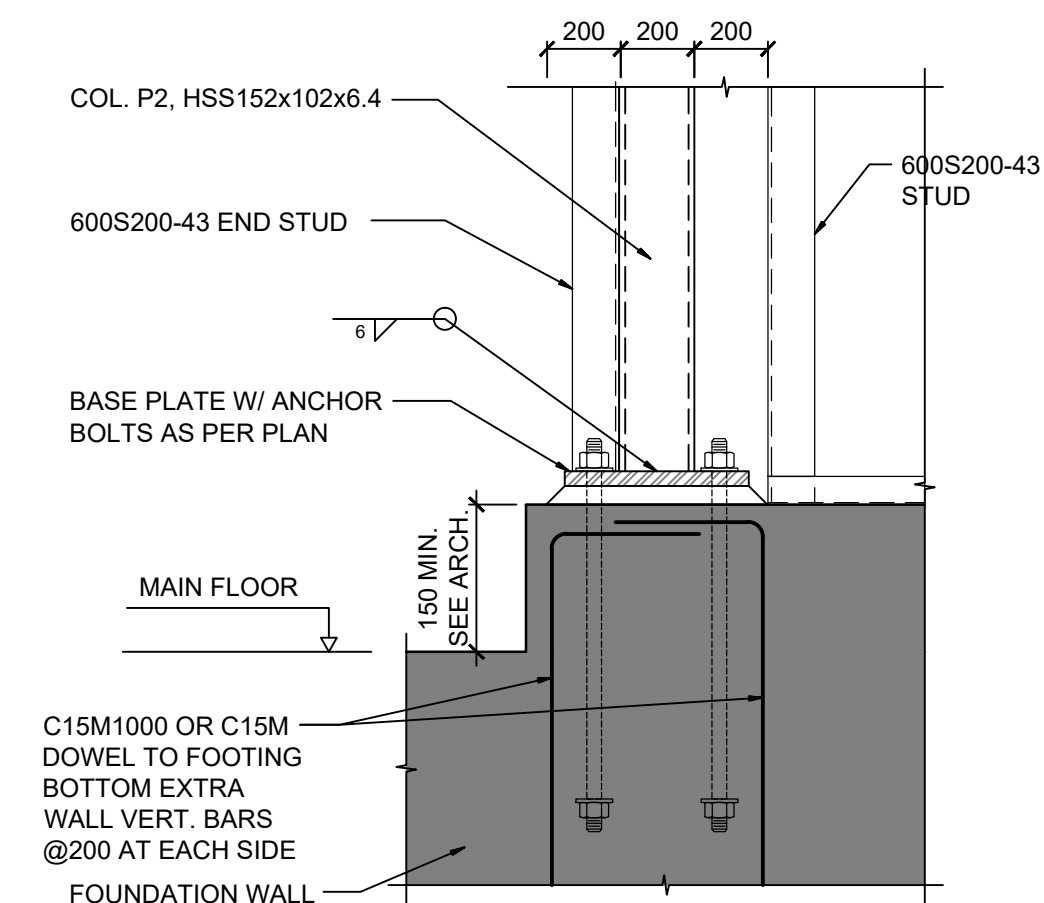


TYPICAL ANCHOR BOLT DETAIL



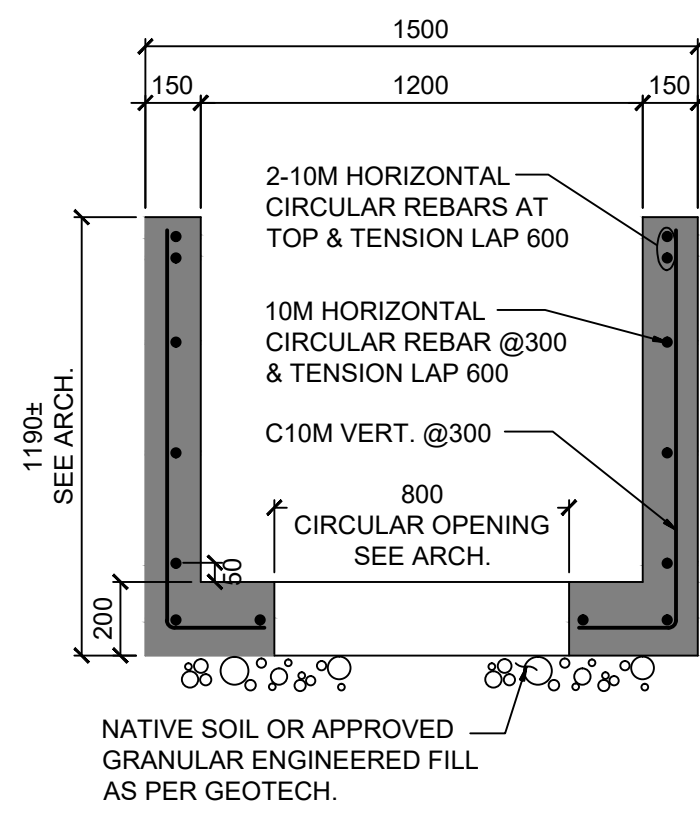
TYPICAL SHEAR WALL HOLDOWN DETAIL

N.T.S.



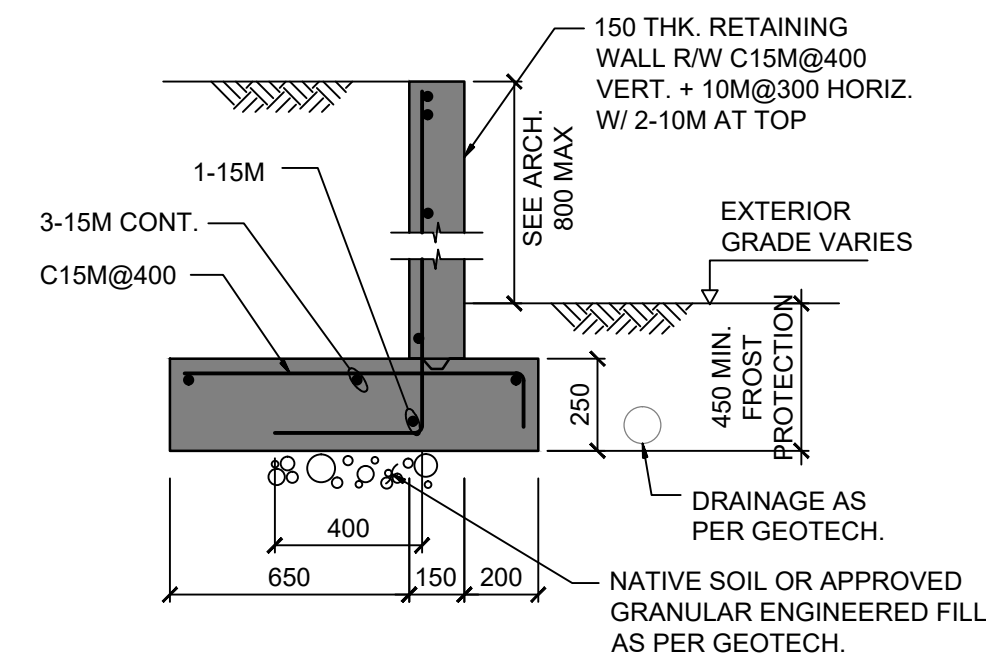
TYPICAL HSS COLUMN BASE CONNECTION DETAIL

N.T.S.



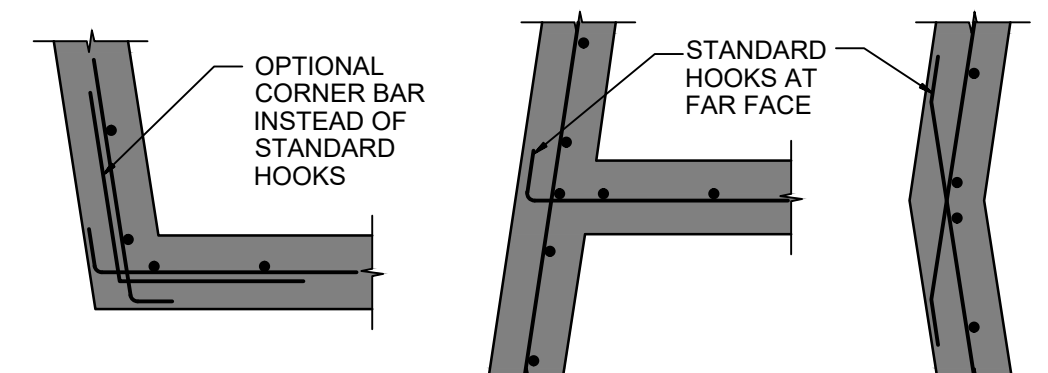
TYPICAL PLANTER DETAIL

N.T.S.



TYPICAL RETAINING WALL DETAIL

N.T.S.



TYPICAL CONCRETE WALL INTERSECTION PLAN DETAILS

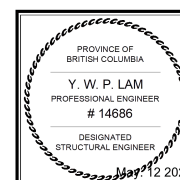
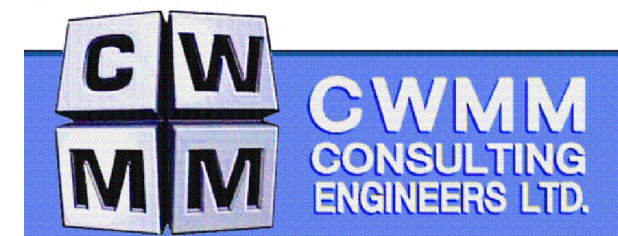
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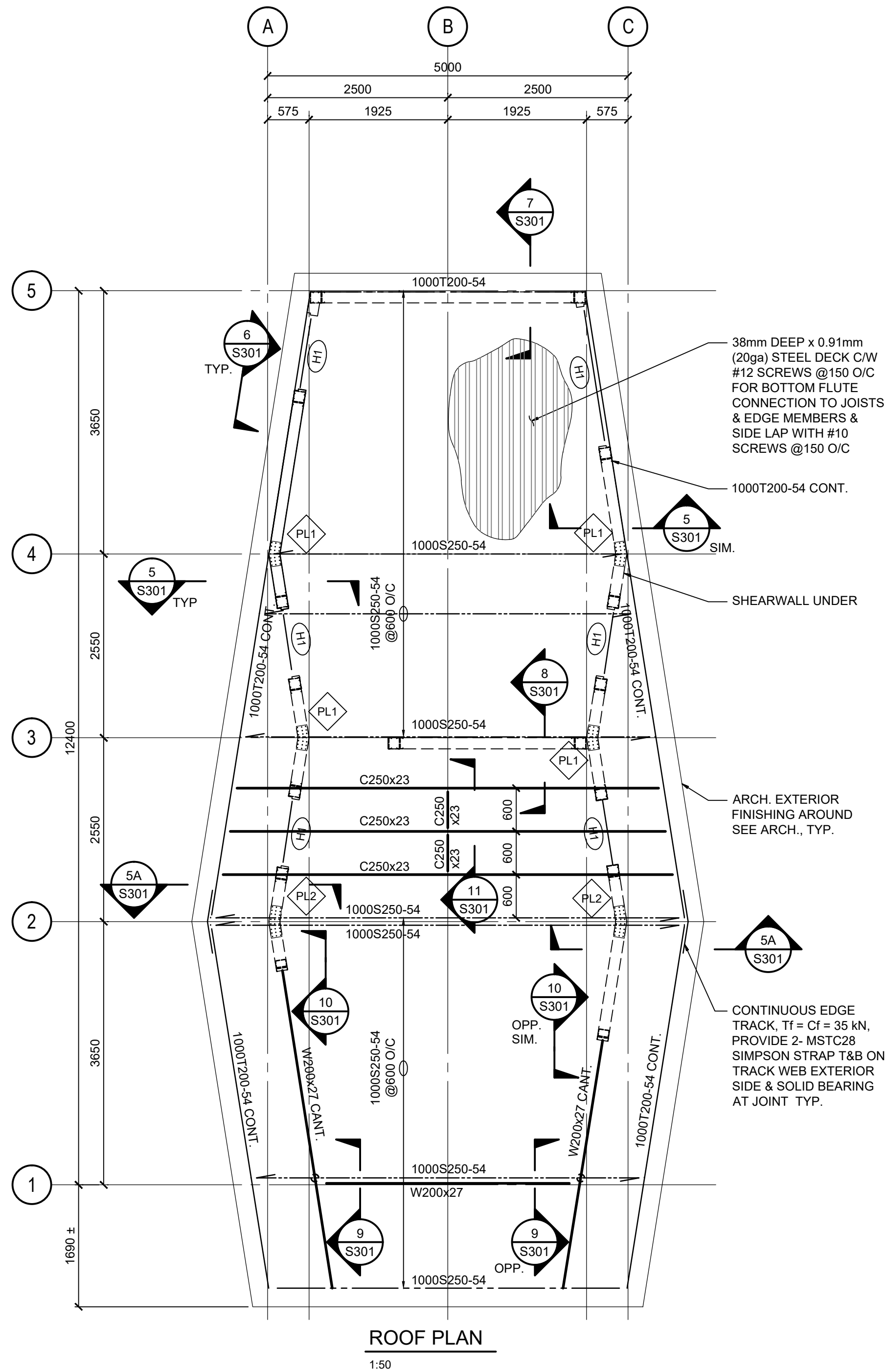
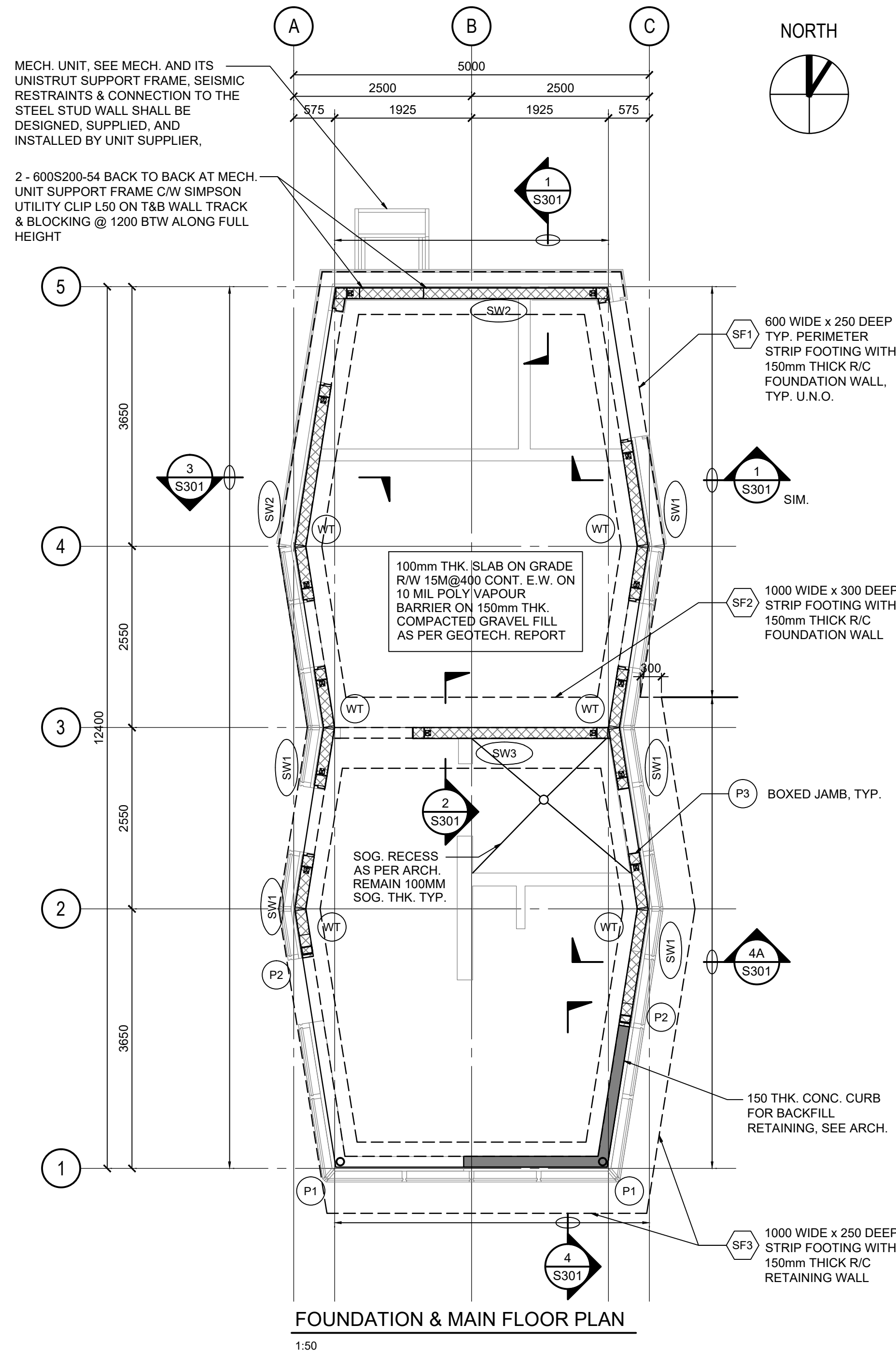
TYPICAL DETAILS

SCALE AS SHOWN
START DATE
DRAWING NUMBER **S102**
OF 4
REVISION

RATIO



DWG. NO.	DRAWING REFERENCES	NOTES	N.O.	DATE	REVISIONS	DESIGNED JL	DRAWN LH	CHECKED SZ	RECOMMENDED	APPROVED
					1 ISSUED FOR TENDER					2020-04-24



SHEARWALL SCHEDULE		
	TYPE	MAIN FLOOR - ROOF
SW-1	SHEATHING	16mm PLYWOOD EXTERIOR SIDE (BLOCKED)
	SCREW @ PANEL EDGE	#8 SCREWS @75mm O/C
	HOLD DOWN EACH END	SIMPSON HOLDOWN S/HDU9 OR APPROVED EQUIVALENT
	B.U. STUDS EACH END	P3 BOXED JAMB AS PER LEGEND BELOW
SW-2	WALL BOTTOM TRACK	12Ø ANCHOR BOLTS @200 O/C
	SHEATHING	16mm PLYWOOD EXTERIOR SIDE (BLOCKED)
	SCREW @ PANEL EDGE	#8 SCREWS @150mm O/C
	HOLD DOWN EACH END	SIMPSON HOLDOWN S/HDU6 OR APPROVED EQUIVALENT
SW-3	B.U. STUDS EACH END	P3 BOXED JAMB AS PER LEGEND BELOW
	WALL BOTTOM TRACK	12Ø ANCHOR BOLTS @600 O/C
	SHEATHING	12mm PLYWOOD BOTH SIDES (BLOCKED)
	SCREW @ PANEL EDGE	#8 SCREWS @100mm O/C
SW-4	HOLD DOWN EACH END	SIMPSON HOLDOWN S/HDU11 W/ HEAVY HEX NUT OR APPROVED EQUIVALENT
	B.U. STUDS EACH END	P3 BOXED JAMB AS PER LEGEND BELOW
	WALL BOTTOM TRACK	12Ø ANCHOR BOLTS @200 O/C

NOTES:

- ALL VERTICAL STEEL STUD SHALL BE 600S200-43 @600mm O/C. TOP AND BOTTOM TRACK SHALL BE 600T150-43.
- #8 SCREW @ 300 O/C ALONG ALL INTERMEDIATE MEMBERS, PROVIDE MINIMUM 43 MIL THICK 50mm WIDE FLANGE STEEL STUD BLOCKING ALONG ALL PLYWOOD PANEL EDGES FOR BLOCKED STEEL STUD PLYWOOD WALL.
- INSTALL ANCHOR BOLTS FOR WALL BOTTOM TRACK TO BE EMBED 100mm INTO CONCRETE CAST-IN-PLACE OR USE HILTI KWIK TZ BOLTS OR APPROVED EQUIVALENT.
- HOLD-DOWN ANCHOR TO BE CAST-IN-PLACE. MINIMUM DEPTH TO BE AS FOLLOWS:
S/HDU6 HOLD-DOWN: 16Ø ANCHOR BOLT EMBED 400mm INTO CONCRETE
S/HDU9 & S/HDU11 HOLD-DOWN: 22Ø ANCHOR BOLT EMBED 400mm INTO CONCRETE.
AT HOLD-DOWN ANCHOR LOCATION, PROVIDE EXTRA CONCRETE WALL VERTICAL BARS 2-C15M x 1000 LONG @ 200 (STANDARD HOOK AT TOP) AT EACH SIDE OF ANCHOR, REFER TO TYPICAL DETAIL ON DWG. S102.
- ALL SCREWS SHALL CONFIRM TO ASTM C1513.

LEGEND:

SW1 DENOTES STEEL STUD SHEARWALL TYPE, SEE SCHEDULE ON THIS DRAWING

SF1 DENOTES FOOTING TYPE, SEE S301 FOR REINFORCEMENT DETAIL

H1 DENOTES BOXED STEEL STUD HEADER:
2-1000S250-54 STUDS + 600T200-43 TRACK T&B,
C/W #10 SCREWS @300 O/C. REFER TO TYPICAL
HEADER CONNECTION DETAIL 9 / S301

P1 DENOTES HSS 114Øx9.5 COLUMN,
6mm FILLET WELD ON 20mm THICK EMBEDDED
BASE PLATE FLUSH TO WALL CONC. TOP C/W
3-15M X 450mm LG. WELDABLE REBARS FULL
WELDED TO EMBEDDED BASE PLATE

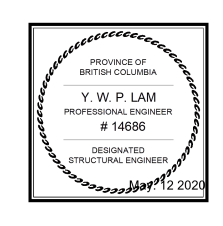
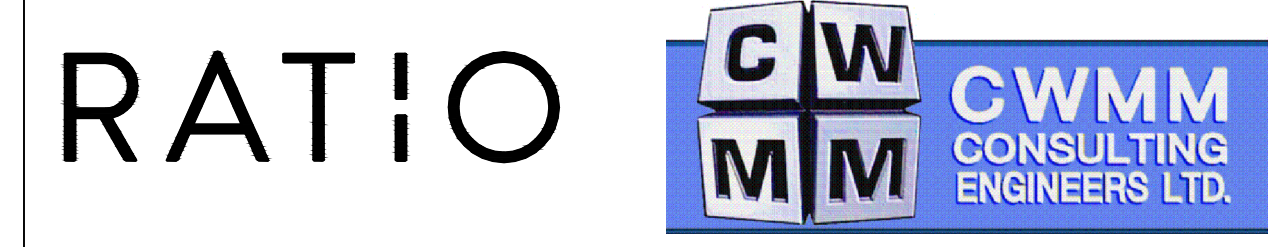
P2 DENOTES HSS 152x102x6.4 COLUMN,
6mm FILLET WELD ON 20mm THICK BASE PLATE
C/W 2-19Ø ANCHOR BOLTS EMBED 400mm INTO
CONCRETE. CAST-IN-PLACE
PROVIDE 25mm NON-SHRINK GROUT,
PROVIDE EXTRA CONCRETE WALL VERTICAL
BARS 2-C15M x 1000 LONG (STANDARD HOOK AT
TOP) @ 200 AT EACH SIDE OF ANCHORS. REFER
TO TYP. BASE CONNECTION DETAIL ON S102

P3 DENOTES BOXED STEEL STUD JAMB AT
OPENING OF SHEAR WALL END:
2- 600S200-43 STUDS +
2- 600T200-43 TRACKS,
C/W #10 SCREWS @200 O/C AT ALL FLANGES.

WT DENOTES WALL TURNING INTERSECTION,
TYP. AT 6 LOCATIONS:
600S162-43 STEEL STUDS BACK TO BACK,
WALL,
ADD 43 MIL BENT PLATE ON OUTSIDE OF
WALL CORNER TURNS ALONG FULL HEIGHT
OF SHEAR WALL C/W #10 SCREW @ 75 ON
BOTH STEEL STUDS.

- NOTES:
- CONCRETE STRENGTH FOR FOOTING, FOUNDATION WALL AND SLAB ON GRADE SHALL BE 25MPa.
 - ALL PROPRIETARY PRODUCTS (eg. HILTI, SIMPSON) ARE BE APPROVED EQUIVALENT BY DEPARTMENTAL REPRESENTATIVE.
 - MECH. PIPING HUNG FROM ROOF (REFER TO MECH. DWG. FOR LOCATIONS):
 - FOR THE PIPES PARALLEL TO THE JOIST SPAN, LIMIT ONE PIPE TO BE HUNG FROM EACH ROOF JOIST WITH HUNG POINT NOT FURTHER THAN 1200mm APART.
 - FOR THE PIPES PERPENDICULAR TO THE JOIST SPAN, PROVIDE HUNG POINTS NOT GREATER THAN TWO JOIST SPACING.
 - THE HUNG CONNECTION TO THE ROOF JOISTS SHOULD BE CONNECTED TO THE JOIST WEB AND SHOULD BE ENGINEERED NOT TO COMPROMISE ROOF JOIST CAPACITY.

CONNECTION PLATE SCHEDULE		
PL1	54 MIL PLATE ON TOP OF WALL TOP TRACK	
PL2	54 MIL PLATE ON TOP OF WALL TOP TRACK	



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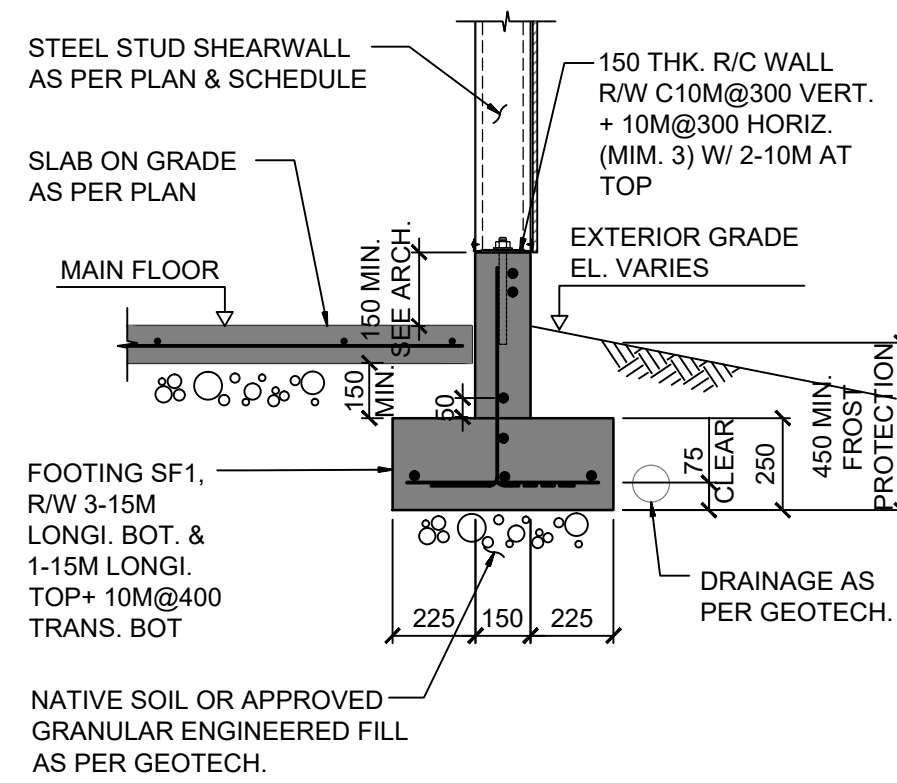
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START DATE

DRAWING NUMBER **S201**
OF 4

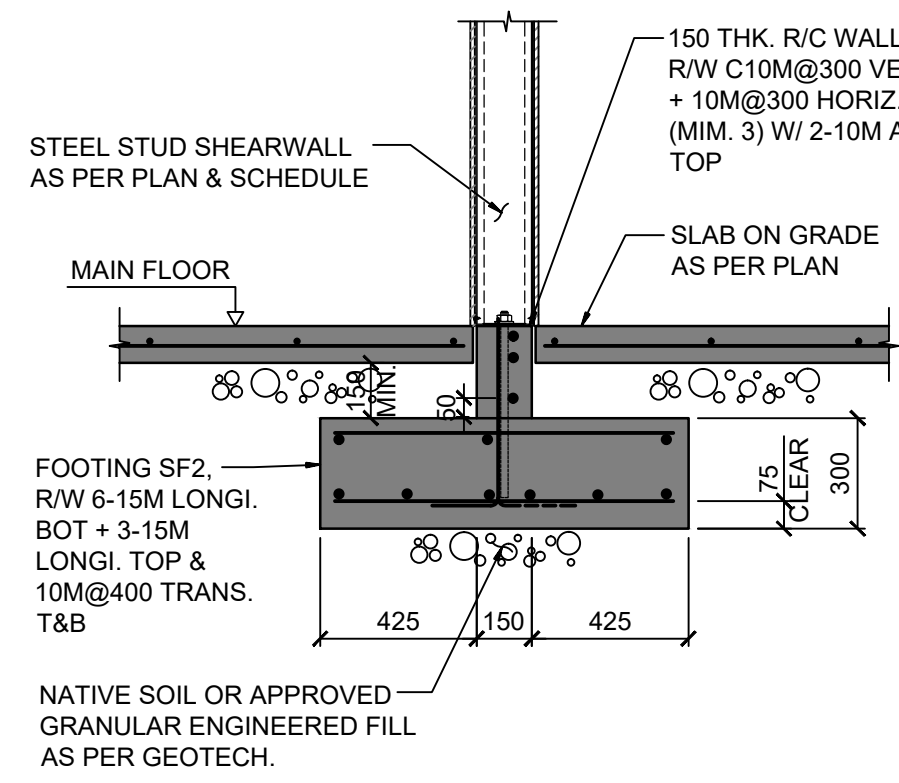
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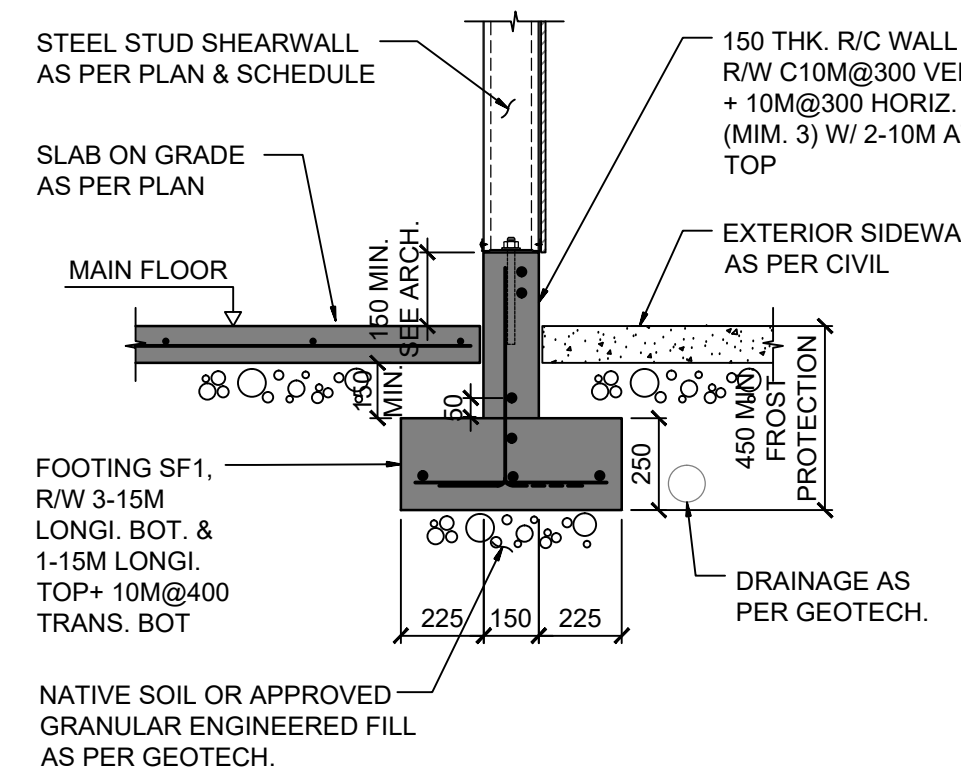
TYPICAL FOOTING SF1 SECTION AT NORTH & NORTH-EAST WALL

1
S201



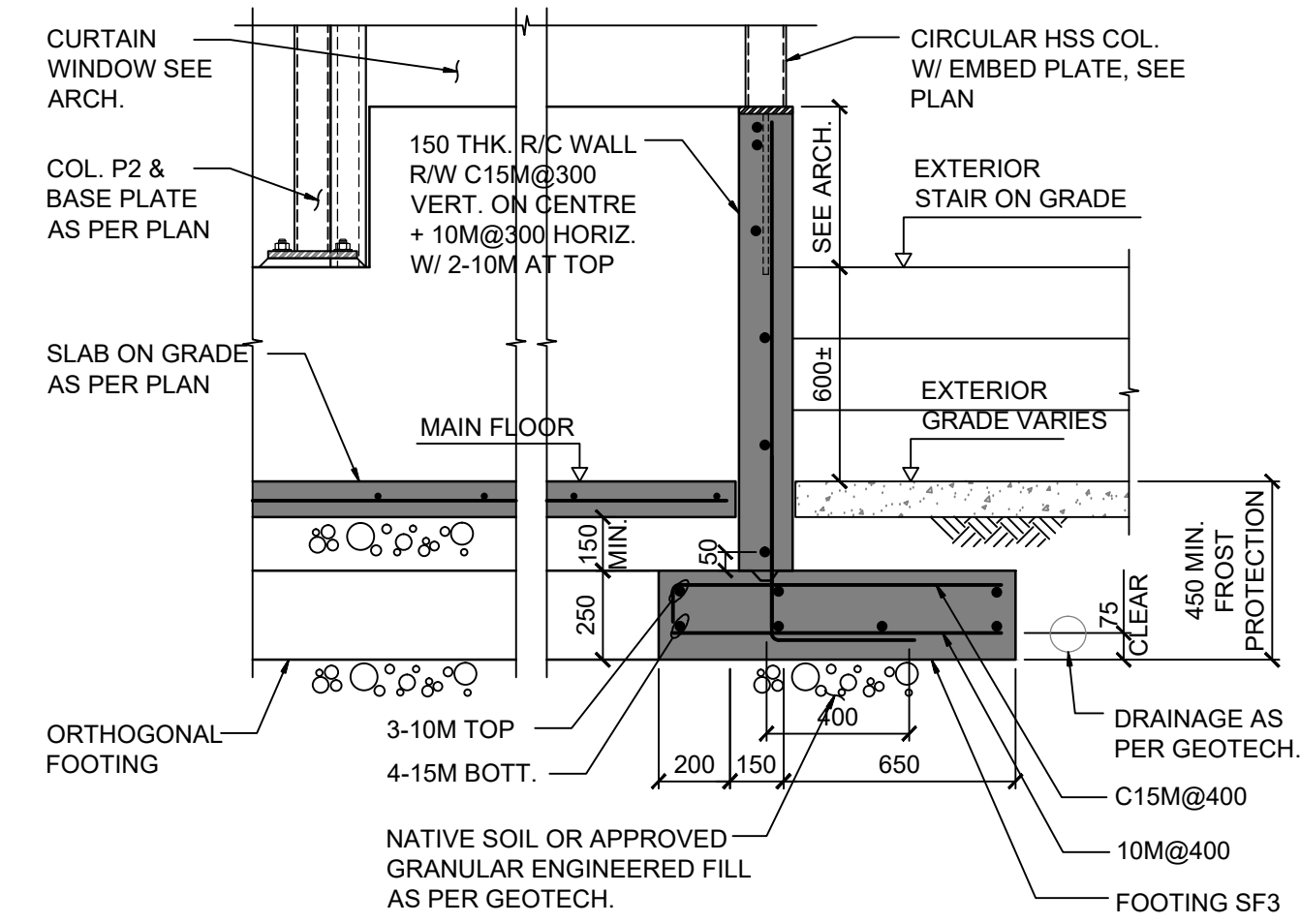
TYPICAL FOOTING SF2 SECTION

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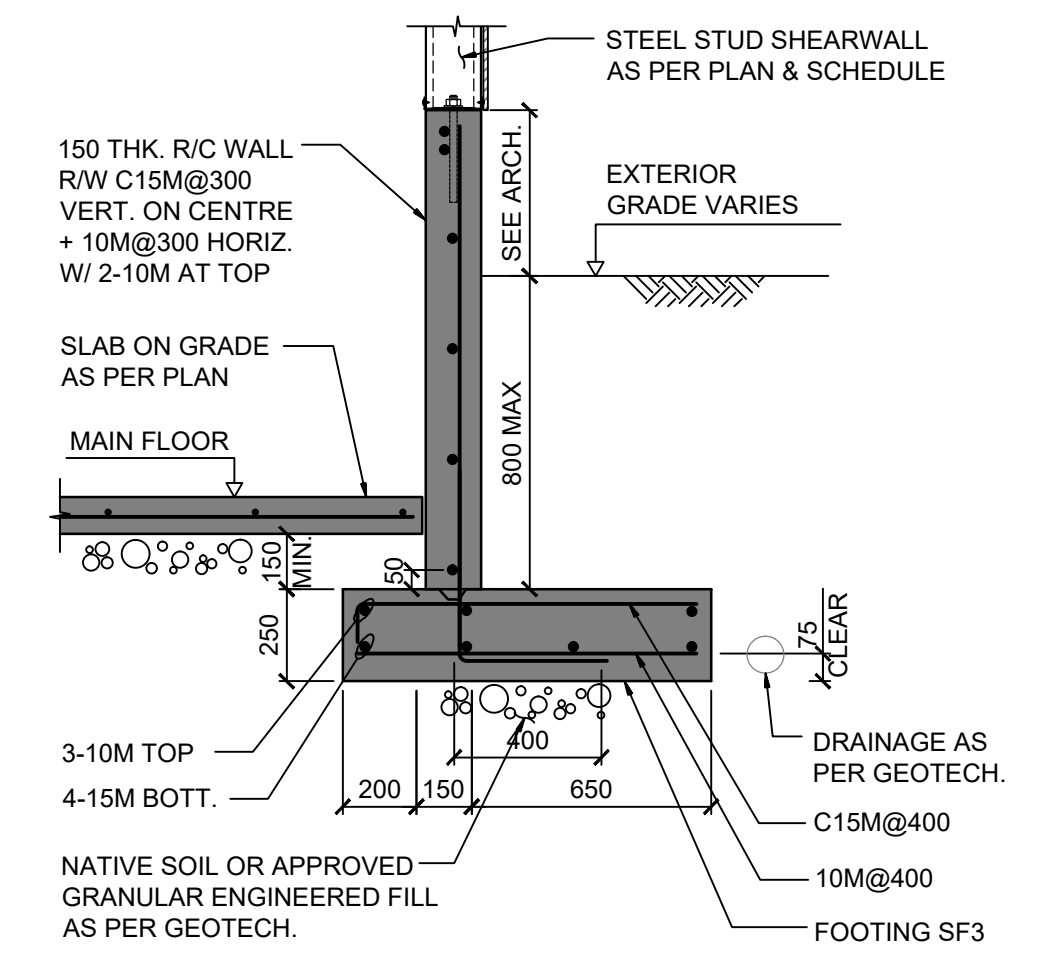
TYPICAL FOOTING SF1 SECTION AT WEST WALL

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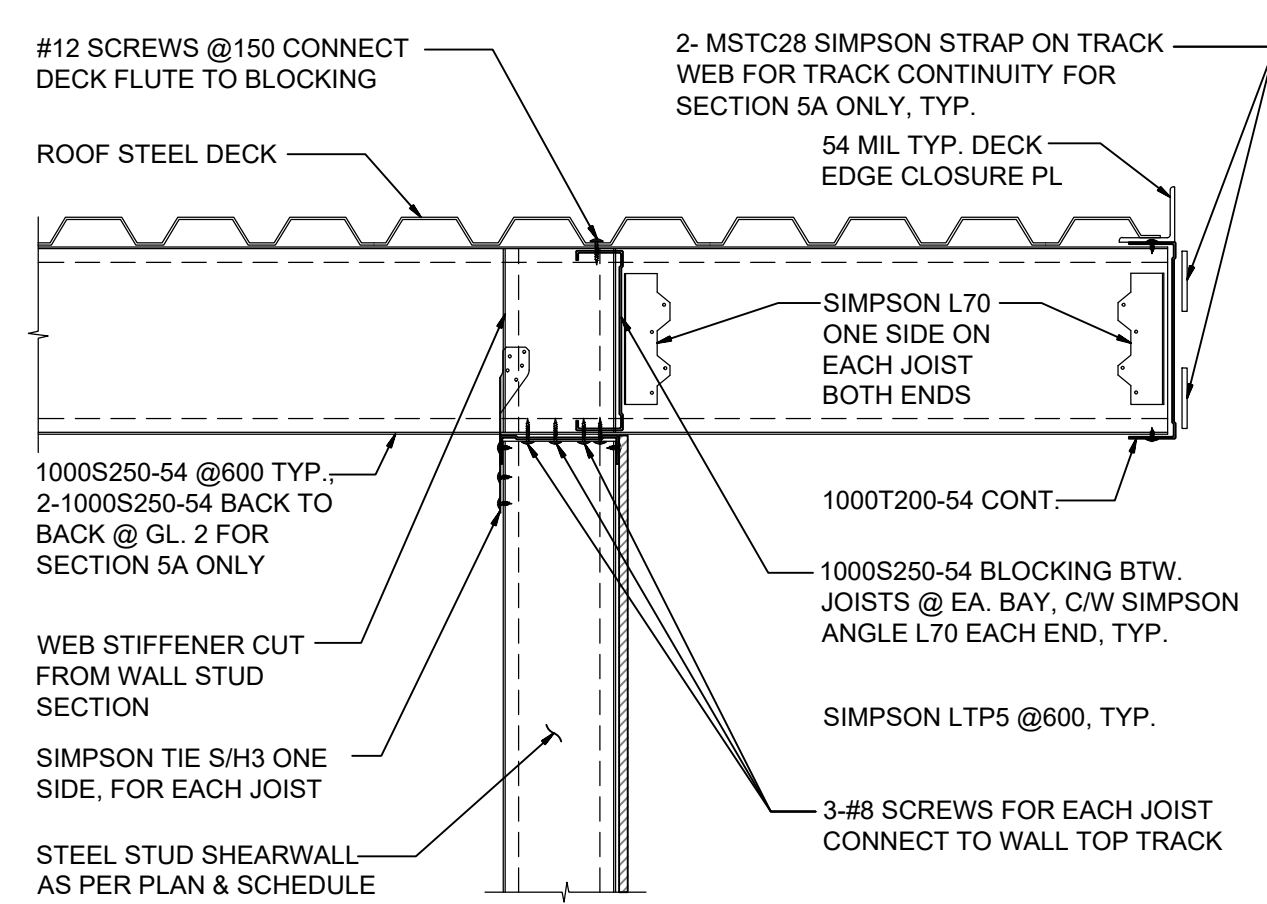
TYPICAL FOOTING SF3 SECTION AT SOUTH WALL

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S201



TYPICAL FOOTING SF3 SECTION AT NORTH-EAST WALL

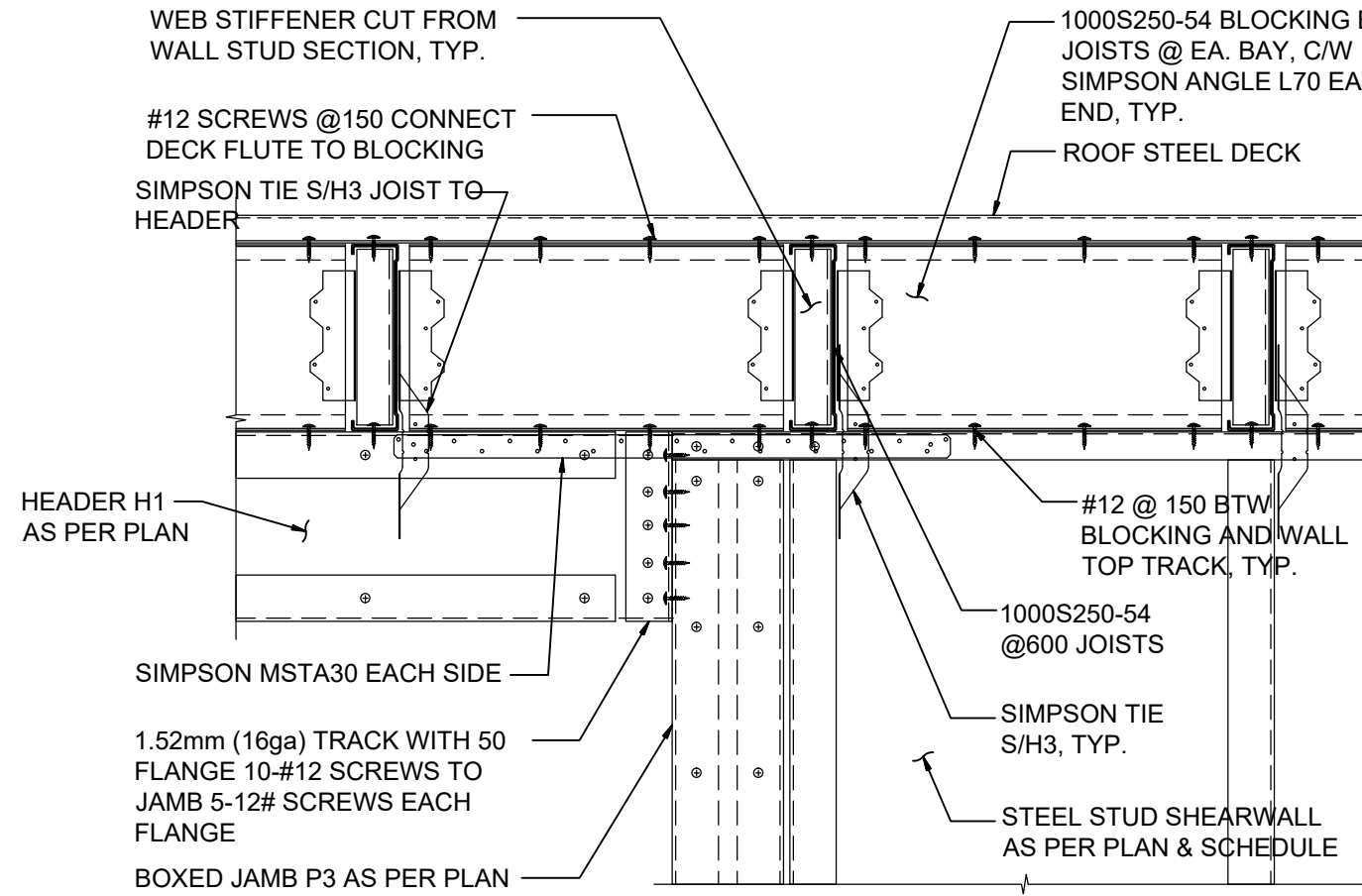
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TYPICAL SHEARWALL TOP CONNECTION DETAIL

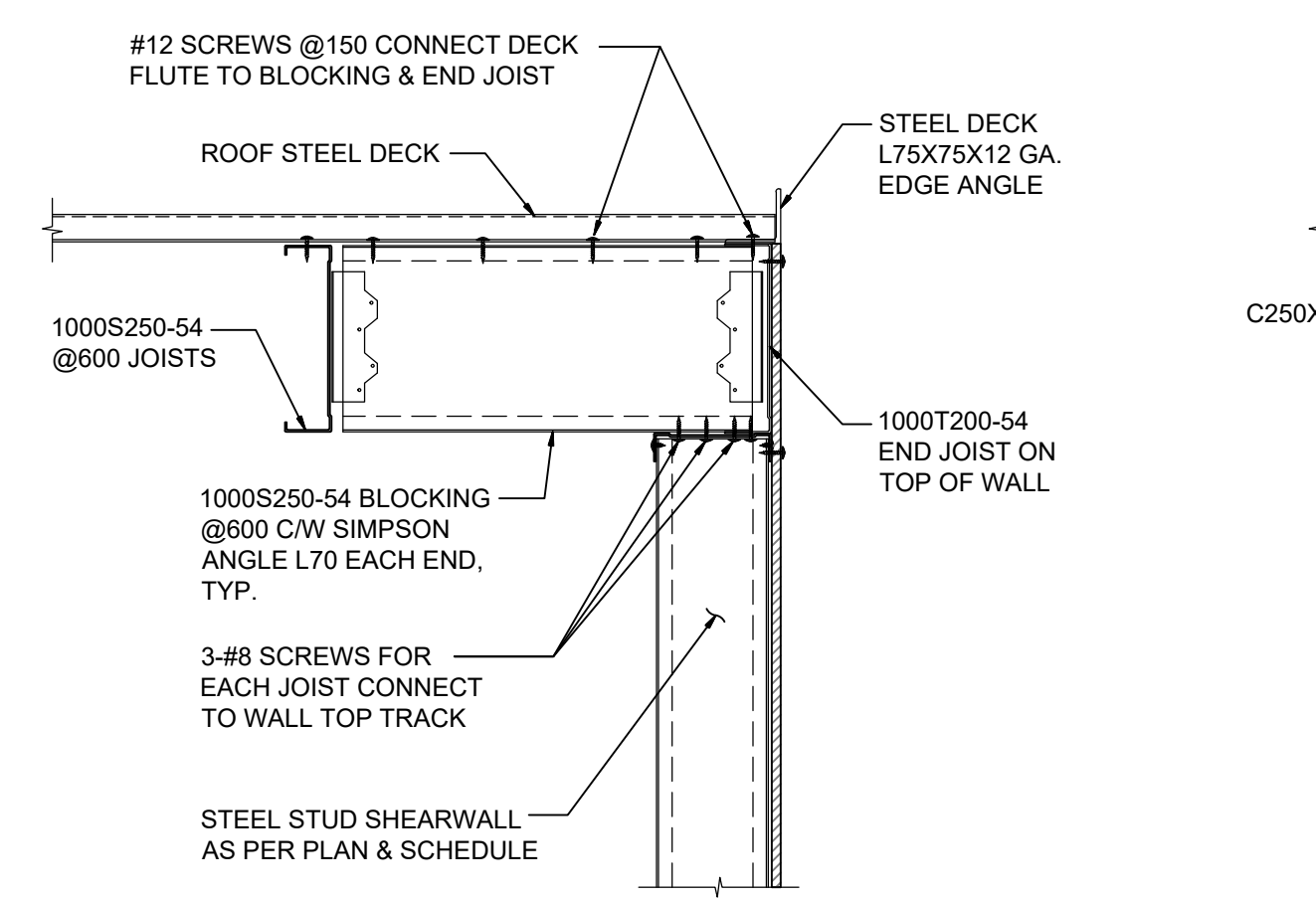
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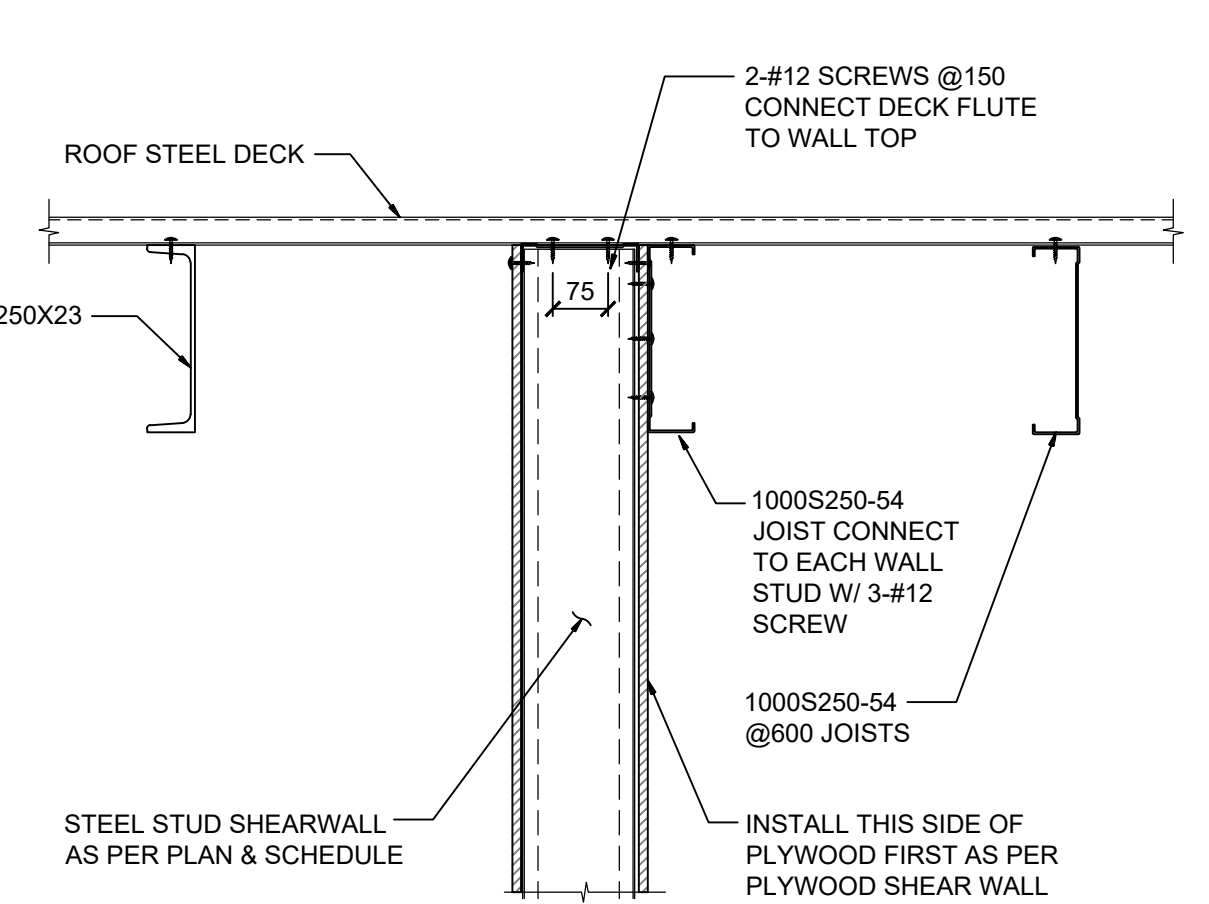
TYPICAL HEADER CONNECTION DETAIL

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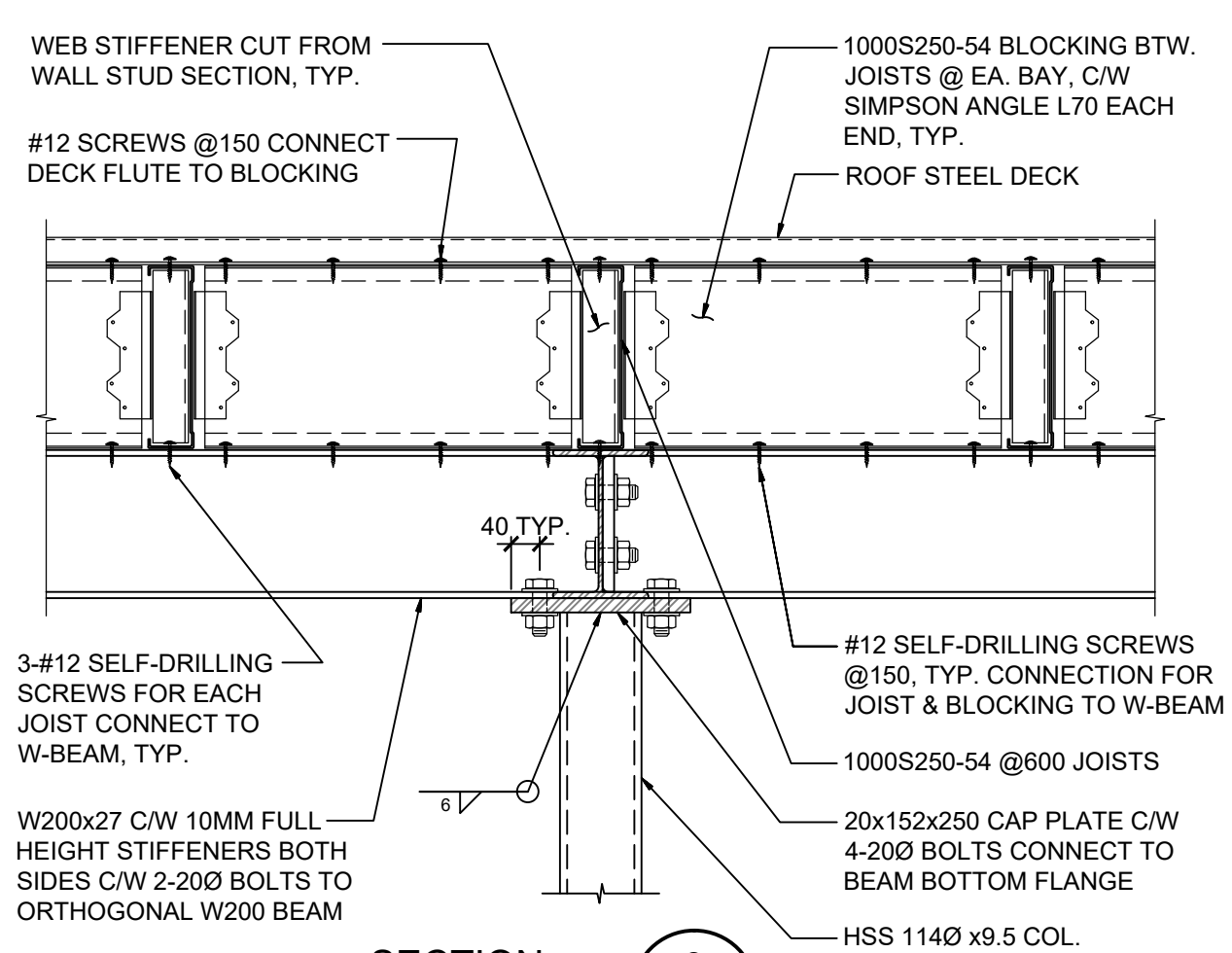
SECTION 7

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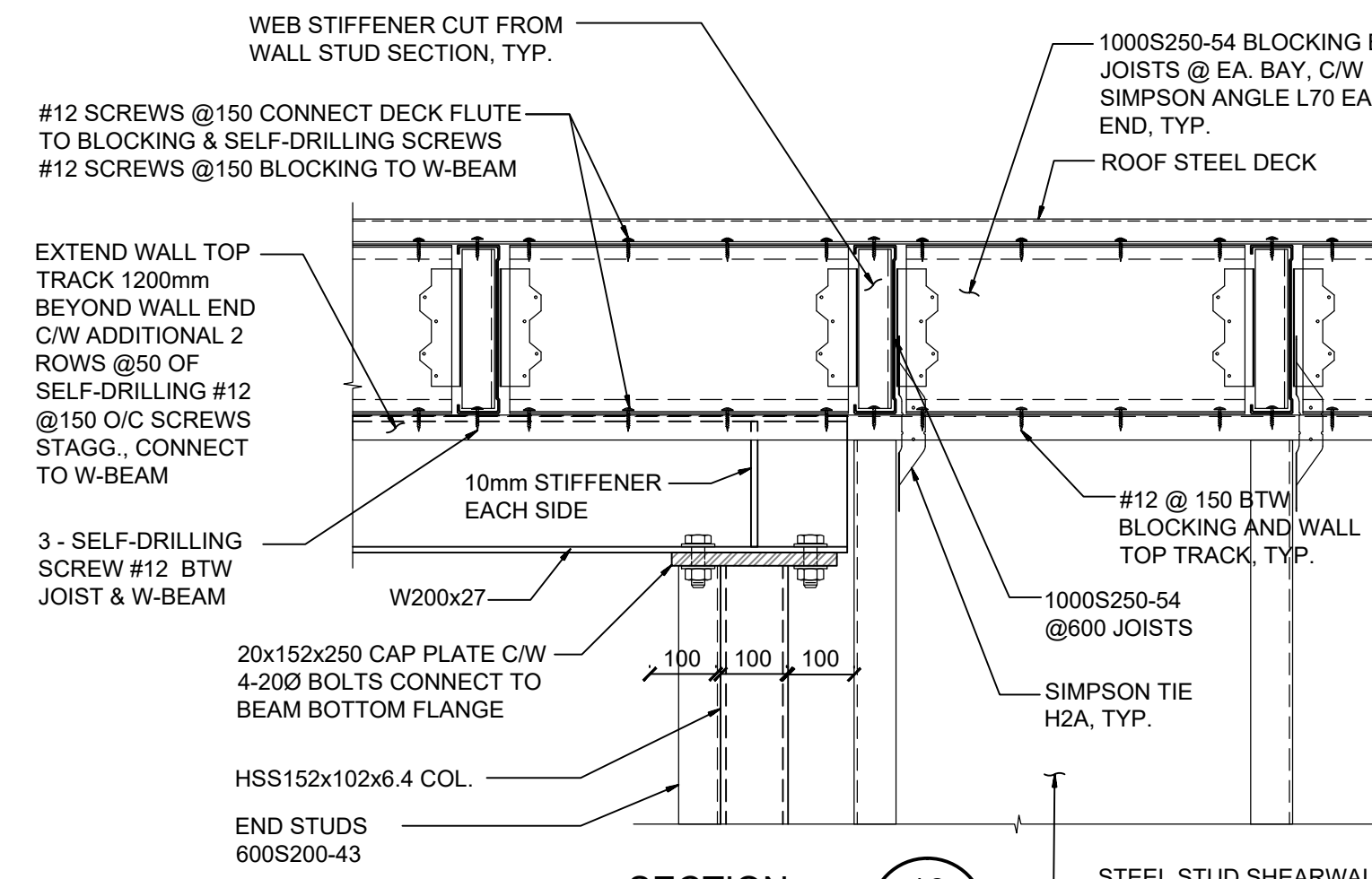
SECTION 8

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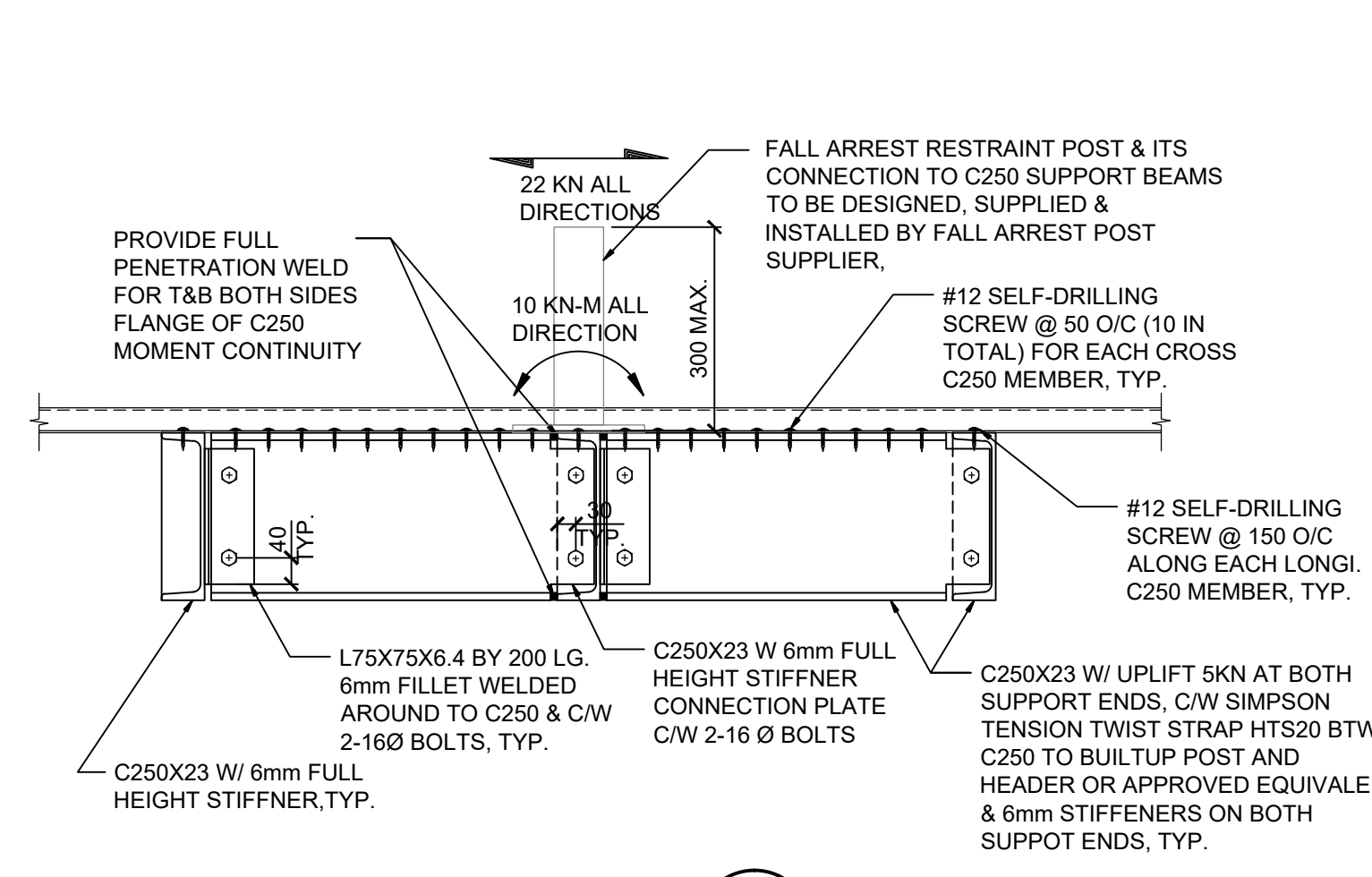
SECTION 9

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S201



SECTION 10

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SECTION 11

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S201

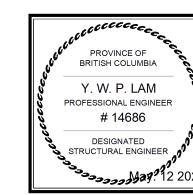
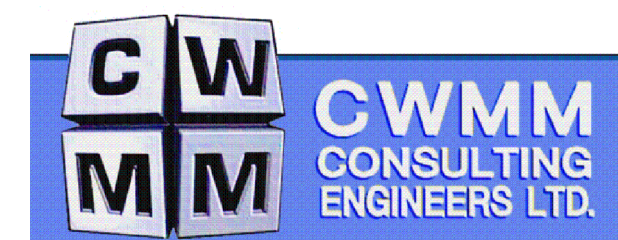
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					1 ISSUED FOR TENDER					2020-04-24