GENERAL

1. THIS IS A METRIC PROJECT. UNLESS OTHERWISE NOTED, ALL LENGTHS ARE IN MILLIMETERS.
2. PRIOR TO CONSTRUCTION, REVIEW STRUCTURAL DRAWINGS IN CONJUNCTION WITH DRAWINGS PROVIDED BY ALL OTHER CONSULTANTS. CONFIRM ALL DIMENSIONS, ELEVATIONS AND HEADROOM CLEARANCES, AND COORDINATE ALL OPENINGS, SLEEVES AND EMBEDDED ITEMS.
3. REPORT ANY DISCREPANCIES OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
4. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION FROM DEPARTMENTAL REPRESENTATIVE.
5. VERIFY EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO CONSTRUCTION.
6. DO NOT USE INFORMATION ON THESE DRAWINGS FOR ANY OTHER PROJECT OR WORKS.
7. DO NOT SCALE THESE DRAWINGS.
8. UNLESS OTHERWISE NOTED ON DRAWINGS, FOLLOW TYPICAL DETAILS DRAWING SERIES. TYPICAL DETAILS SHOW STRUCTURAL INTENT RATHER THAN ACTUAL CONDITIONS FOR THIS PROJECT.
9. ALL SECTIONS, DETAILS AND STATEMENTS NOTED AS "TYPICAL" APPLY TO LIKE / SIMILAR CONDITIONS IN THE STRUCTURE.
10. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED FIRE RATING, SPRAYED FIREPROOFING, INTUMESCENT PAINTING AND ALL OTHER MEASURES REQUIRED TO ACHIEVE IT.
11. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR WATERPROOFING, SEALERS, ETC.
12. REFER TO GEOTECHNICAL REPORT AND ARCHITECTURAL / CIVIL DRAWINGS AND SPECIFICATIONS FOR ALL SOIL WORKS.
13. DRAWINGS SHOW COMPLETED STRUCTURE ONLY. THEY DO NOT SHOW TEMPORARY WORKS FOR WHICH THE CONTRACTOR IS RESPONSIBLE AND WHICH MAY BE REQUIRED FOR EXECUTION OF THE PROJECT, INCLUDING TEMPORARY SHORING, BRACING, GUYS AND TIE DOWNS. THE CONTRACTOR TO ESTABLISH CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE WHOLE STRUCTURE AND ALL ITS COMPONENTS DURING ERECTION.
14. DESIGN OF ALL TEMPORARY WORKS TO BE CARRIED OUT BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED.
15. ANCHOR BOLTS AND OTHER EMBEDDED ITEMS ARE DESIGNED FOR LOADS ACTING ON THE COMPLETED STRUCTURE ONLY AND ARE NOT TO BE USED OR RELIED UPON FOR TEMPORARY SUPPORT OR BRACING DURING ERECTION UNLESS REVIEWED AND APPROVED BY THE CONTRACTOR'S ENGINEER RESPONSIBLE FOR THE ERECTION PROCEDURES.
16. CONSTRUCTION LOADS ON COMPLETED STRUCTURE NOT TO EXCEED DESIGN LOADS INDICATED ON DRAWINGS. FULL DESIGN LOADS MAY ONLY BE APPLIED AFTER THE CONCRETE REACHES ITS DESIGN STRENGTH.
17. IN CASE OF DISCREPANCY BETWEEN GENERAL NOTES, DRAWINGS AND SPECIFICATIONS, COMPLY WITH THE MOST STRINGENT REQUIREMENTS.

DESIGN DATA

1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2015 NATIONAL BUILDING CODE OF CANADA (NBC).
2. CONCRETE ELEMENTS ARE DESIGNED PER CSA A23.3-14 - DESIGN OF CONCRETE STRUCTURES.
3. STEEL ELEMENTS ARE DESIGNED PER CSA S16-14 - LIMIT STATE DESIGN OF STEEL STRUCTURES.
4. THE VALUES FOR CLIMATIC DATA USED IN THE DETERMINATION OF DESIGN LOADS HAVE BEEN OBTAINED FROM THE 2015 NBC FOR THE SPECIFIC LOCATION OF PORT HARDY.
5. BASED ON THE USE AND OCCUPANCY, THE BUILDING IS DESIGNED TO THE REQUIREMENTS OF A NORMAL IMPORTANCE CATEGORY.
6. SELF WEIGHT (SWT) IS DUE TO THE WEIGHT OF THE STRUCTURE ITSELF. IT VARIES WITH THE STRUCTURAL SYSTEM, AND INCLUDES CONCRETE TOPPINGS ON STEEL DECK.
7. SUPERIMPOSED DEAD LOADS (SDL) ARE NON-STRUCTURAL DEAD LOADS DUE TO NON-STRUCTURAL TOPPINGS, FINISHES, PARTITIONS, ROOFING MATERIALS, SUSPENDED EQUIPMENT, PAVERS, SOIL, ETC.
8. DEAD LOAD (DL) IS THE SELF WEIGHT OF THE STRUCTURE PLUS THE SUPERIMPOSED DEAD LOAD.
9. UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN ON DRAWINGS ARE SPECIFIED (UNFACTORED) LOADS, TO BE USED FOR ULS DESIGN. FOR SLS DESIGN, THESE LOADS CAN BE REDUCED BY MULTIPLYING WITH THE RATIO OF APPROPRIATE IMPORTANCE FACTORS Ix(SLS) / Ix(ULS) GIVEN BELOW.
10. FOUNDATIONS HAVE BEEN DESIGNED FOR THE LOADS SHOWN ON THE DRAWINGS BASED ON A PRELIMINARY DESIGN AND AN ASSUMED SUPER-STRUCTURE CONFIGURATION. FOUNDATIONS HAVE BEEN DESIGNED FOR THE SEISMIC LOADS MULTIPLIED BY Rd = 1.5, ASSUMING CONVENTIONAL CONSTRUCTION. IF A HIGHER DUCTILITY SYSTEM IS UTILIZED (Rd GREATER THAN OR EQUAL TO 2.0), FOUNDATION LOADS BASED ON THE MOMENT-RESISTING AND BRACED FRAME CAPACITIES ARE TO BE PROVIDED. FINAL LOADS FROM PRE-ENGINEERED BUILDING MANUFACTURER TO BE REVIEWED BY DEPARTMENTAL REPRESENTATIVE WITH RESPECT TO THE FOUNDATION AND ANCHOR BOLT DESIGN. THE DEPARTMENTAL REPRESENTATIVE WILL REVISE THE FOUNDATION AND ANCHOR BOLT DESIGN TO SUIT THE FINAL DESIGN OF THE PRE-ENGINEERED BUILDING. THE ASSUMED SUPER-STRUCTURE IS AS FOLLOWS:

   MOMENT-RESISTING FRAMES ON GRIDS 2, 3, 4, 5, 6, AND 7.
   MOMENT-RESISTING FRAME ON GRID 7 PROVIDES LATERAL SUPPORT FOR LEVEL 2 FLOOR.
   BRACED FRAMES ON GRIDS 1 AND 8.
   BRACED FRAME ON GRID 8 PROVIDES LATERAL SUPPORT FOR LEVEL 2 FLOOR.
   PORTAL FRAMES ON GRIDS A AND C BETWEEN GRIDS 1 - 2 AND GRIDS 7 - 8.
   BRACED FRAME ON GRID A+8580mm BETWEEN 7+3200mm AND 8 PROVIDING LATERAL SUPPORT OF LEVEL 2 FLOOR.
   INTERMEDIATE COLUMNS ALONG GRID 7 SUPPORTING LEVEL 2 FLOOR.

11. SNOW:
   Ss = 0.9 kPa   Sr = 0.4 kPa   Is (ULS) = 1.0   Is (SLS) = 0.9
   MINIMUM UNFACTORED SNOW LOAD = 1.12 kPa
12. MAIN FLOOR LOADS
   OFFICE AREA: LL = 4.8 kPA   PARTITION DL = 1.0 kPA
   SHOP AREA: LL = 12.0 kPa
13. SECOND FLOOR LOADS
   OFFICE AREA: LL = 2.4 kPA   PARTITION DL = 1.0 kPA
   EXIT STAIRS AND CORRIDORS: LL = 4.8 kPa
   MECHANICAL & ELECTRICAL ROOMS: LL = 3.6 kPa
14. WIND:
   q50 = 0.52 kPa   Iw (ULS) = 1.0   Iw (SLS) = 0.75
   BUILDING IS: LOW RISE
   TERRAIN TYPE: OPEN
   INTERNAL PRESSURE CATEGORY: 3
15. SEISMIC:
   Sa(0.2) = 0.700   PGA = 0.320   IeFaSa(0.2) = 0.700
   Sa(0.5) = 0.659   PGv = 0.543   SITE CLASSIFICATION = C
   Sa(1.0) = 0.447   Rd = 1.5 (ASSUMED FOR FOUNDATION DESIGN)
   Sa(2.0) = 0.272   Ro = 1.3 (ASSUMED FOR FOUNDATION DESIGN)
   Sa(5.0) = 0.091   Ie = 1.0

   SEISMIC FORCE RESISTING SYSTEM (SFRS): CONVENTIONAL CONSTRUCTION STEEL MOMENT-RESISTING FRAMES AND BRACED FRAMES (ASSUMED FOR FOUNDATION DESIGN)
16. NON-STRUCTURAL ELEMENTS
   1. UNLESS NOTED OTHERWISE, DESIGN AND DETAIL NON STRUCTURAL ELEMENTS AND THEIR CONNECTIONS TO BE ABLE TO ACCOMMODATE THE FOLLOWING MAXIMUM MOVEMENTS OF THE SUPPORTING STRUCTURE ("L" IS THE CLEAR SPAN OF THE SUPPORTING STRUCTURAL ELEMENT, "H" IS THE STORY HEIGHT):
      - VERTICAL DEFLECTION OF STEEL FRAMED FLOORS AND ROOFS: L/360
      - INTERSTORY WIND DRIFT: H/400
      - INTERSTORY SEISMIC DRIFT H/40
   2. DESIGN AND DETAILING OF SEISMIC RESTRAINTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT (INCLUDING ALL MACHINERY, FIXTURES, DUCTS, CABLE TRAYS, ETC) IS NOT WITHIN THE SCOPE OF WORK SHOWN ON THESE DRAWINGS. SEISMIC RESTRAINTS TO BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER SPECIALIZED IN THAT TYPE OF WORK.

SHOP DRAWINGS

1. REFER TO SPECIFICATIONS FOR SHOP DRAWINGS WHICH NEED TO BE SUBMITTED FOR REVIEW.
2. REVIEW OF SHOP DRAWINGS BY DEPARTMENTAL REPRESENTATIVE IS ON A SAMPLING BASIS, FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS. IT IS NOT A DETAILED CHECK AND MUST NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO MAKE THE WORK ACCURATE AND IN CONFORMITY WITH ALL THE CONTRACT DOCUMENTS, TO REVIEW SHOP DRAWINGS AND TO COORDINATE WORK OF INTERFACING TRADES AND MANUFACTURE OF INTERFACING PRODUCTS.
3. REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS.
4. ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS . ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED. SUBMIT IN GENERAL CONFORMITY WITH THE SEQUENCE OF CONSTRUCTION INTENDED.
5. AFTER REVIEW, THE DRAWINGS WILL BE STAMPED AND RETURNED. DO NOT COMMENCE FABRICATION UNTIL RETURNED SHOP DRAWINGS HAVE BEEN EXAMINED.
6. SHOP DRAWINGS MARKED " **REVIEWED**" CAN BE USED FOR FABRICATION. DO NOT MAKE ANY CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE DEPARTMENTAL REPRESENTATIVE.
7. SHOP DRAWINGS MARKED " **REVIEWED AS NOTED** " CAN BE USED FOR FABRICATION AFTER THE REVISIONS NOTED ARE IMPLEMENTED. DO NOT MAKE ANY FURTHER CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE DEPARTMENTAL REPRESENTATIVE.
8. SHOP DRAWINGS MARKED " **REVISE AND RESUBMIT** " REQUIRE SUBSTANTIAL REVISIONS AND MUST BE RESUBMITTED FOR ADDITIONAL REVIEW PRIOR TO FABRICATION. ALL CHANGES AND ADDITIONS TO THE PREVIOUS SUBMISSION TO BE CLEARLY IDENTIFIED ON THE RESUBMITTED DRAWINGS.
9. SHOP DRAWINGS MARKED " **REVIEWED FOR IMPACT ON BASE STRUCTURE ONLY** " SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES BUT AFFECT BEHAVIOUR OF THE BASE STRUCTURE. DEPARTMENTAL REPRESENTATIVE WILL NOT REVIEW DESIGN OF THESE WORKS AND ASSUMES THAT THE INDICATED WEIGHTS AND ALL OTHER LOADS IMPOSED ON THE BASE STRUCTURE ARE CORRECTLY IDENTIFIED BY THE DESIGNER / SUPPLIER OF THESE ELEMENTS.
10. DRAWINGS MARKED " **NOT REVIEWED**" SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES AND DO NOT IMPACT THE BASE BUILDING STRUCTURE.
11. DEPARTMENTAL REPRESENTATIVE WILL NOT REVIEW DESIGN AND IMPLEMENTATION OF ANY TEMPORARY WORKS, NOR ASSESS IMPACT OF THESE WORKS ON THE BASE STRUCTURE. THE CONTRACTOR AND / OR THE PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR MUST ENSURE THAT THE BASE STRUCTURE IS NOT ADVERSELY AFFECTED BY THE TEMPORARY WORKS AND CONSTRUCTION PROCESS AND THAT TEMPORARY LOADS DO NOT EXCEED THE DESIGN LOADS INDICATED ON STRUCTURAL DRAWINGS.
12. DO NOT USE SHOP DRAWINGS AS A MEANS TO PROPOSE SUBSTITUTIONS OR ALTERNATIVES TO THE MATERIALS, PRODUCTS OR DETAILS INDICATED IN CONTRACT DOCUMENTS. SUCH SHOP DRAWINGS WILL BE MARKED "REVISE AND RESUBMIT".
13. PROVIDE FINAL RECORD DRAWINGS AFTER ALL CORRECTIONS ARE MADE.

FIELD REVIEW

1. DEPARTMENTAL REPRESENTATIVE WILL PROVIDE PERIODIC FIELD REVIEW OF A REPRESENTATIVE SAMPLE OF THE STRUCTURAL WORKS DETAILED ON THESE DRAWINGS FOR GENERAL CONFORMANCE WITH CONTRACT DOCUMENTS. THESE REVIEWS DO NOT REPLACE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND MAINTAIN A QUALITY CONTROL PROGRAM, AND DO NOT MAKE DEPARTMENTAL REPRESENTATIVE A GUARANTOR OF THE CONTRACTOR'S WORK.
2. CONSTRUCTION REVIEW REPORTS WILL OUTLINE ANY DEFICIENCIES FOUND.
3. ASSIST DEPARTMENTAL REPRESENTATIVE DURING FIELD REVIEW, AND PROVIDE SAFE ACCESS TO WORK AREAS AS REQUIRED.
4. CHECK THE WORK PRIOR TO FIELD REVIEW TO CONFIRM IT IS COMPLETED AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
5. BRING TO THE ATTENTION OF DEPARTMENTAL REPRESENTATIVE ANY DEFICIENCIES FOUND IN THE WORK TOGETHER WITH A PROPOSAL FOR REMEDY. DEPARTMENTAL REPRESENTATIVE WILL DECIDE WHAT CORRECTIVE ACTION MAY BE TAKEN AND ISSUE THE NECESSARY INSTRUCTIONS.
6. PROVIDE REASONABLE NOTICE (NOT LESS THAN 5 BUSINESS DAYS) TO ALLOW FOR THE FIELD REVIEW OF THE FOLLOWING:

1.	CONCRETE WALLS, BEAMS AND COLUMNS	BEFORE CLOSING FORMS
2.	ALL OTHER CONCRETE	BEFORE EACH CONCRETE POUR
3.	STRUCTURAL STEEL	BEFORE COVERING UP OR PLACING STEEL DECK
4.	METAL FLOOR DECK	BEFORE PLACING REINFORCING
5.	METAL ROOF DECK	BEFORE ROOFING

7. SCHEDULE REVIEW WORK TO OCCUR DURING NORMAL BUSINESS HOURS.
8. ORGANIZE FOR FIELD REVIEW OF ALL PROPRIETARY PRODUCTS AND OTHER STRUCTURAL WORKS DESIGNED BY SPECIALTY ENGINEERS. THE REVIEW TO BE BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN OR BY OTHER ENGINEERS DESIGNATED BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN AND LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED. SUBMIT CONSTRUCTION REVIEW REPORTS.

FOUNDATIONS

1. STRUCTURAL DESIGN IS BASED ON THE GEOTECHNICAL REPORT PREPARED BY WSP CANADA INC., DATED MARCH 14, 2017.
2. FOUNDATIONS WILL BE SUPPORTED BY COMPACT NATURAL SAND AND GRAVEL OR DENSE NATURAL GLACIAL TILL. REFER TO THE GEOTECHNICAL REPORT FOR DETAILED INFORMATION ON GEOTECHNICAL CONDITIONS, FOUNDATION RECOMMENDATIONS, AND FOR ALL EARTHWORK INCLUDING EXCAVATION, BACKFILL AND SUBGRADE PREPARATION.
3. ASSUMED FOOTING BEARING RESISTANCE:
   225 kPa AT ULS (ULTIMATE LIMIT STATES DESIGN)
   150 kPa AT SLS (SERVICEABILITY LIMIT STATES DESIGN)
4. CONSTRUCT ALL FOOTINGS ON STRATA CAPABLE TO PROVIDE THE BEARING RESISTANCE NOTED, BUT NOT ABOVE THE ELEVATIONS INDICATED ON DRAWINGS.
5. STRUCTURAL DRAWINGS SHOW FOOTINGS AT ELEVATIONS WHERE THE REQUIRED BEARING RESISTANCE IS ANTICIPATED. DEPARTMENTAL REPRESENTATIVE TO REVIEW AND APPROVE IN WRITING ALL BEARING SURFACES PRIOR TO CONSTRUCTING FOOTINGS.
6. IF THE ASSUMED BEARING RESISTANCE IS NOT OBTAINED AT THE UNDERSIDE OF FOOTING ELEVATION INDICATED ON DRAWINGS, EXTEND EXCAVATION UNTIL COMPETENT SOIL IS REACHED, AND PROVIDE LEAN CONCRETE FILL (OR CONCRETE SAME AS SPECIFIED FOR THE FOOTING) TO UNDERSIDE OF FOOTING. DO NOT DROP DOWELS; MAINTAIN THE SPECIFIED PROJECTION REQUIRED FOR LAPS.
7. PROVIDE MIN. 50 DEEP MUD SLAB AS REQUIRED TO PROTECT BOTTOM OF EXCAVATION AND PLACE REBAR, AND IN ALL CASES WHERE RECOMMENDED IN GEOTECHNICAL REPORT OR SHOWN ON DRAWINGS.
8. FOR FROST PROTECTION, MINIMUM DISTANCE FROM FINISHED GRADE TO UNDERSIDE OF FOOTINGS, AT BUILDING PERIMETER AND IN UNHEATED AREAS TO BE NOT LESS THAN 600mm.
9. UNLESS OTHERWISE NOTED, CENTRE FOOTINGS UNDER CENTROID OF FOUNDATION PIERS.
10. MODULUS OF SUBGRADE REACTION ASSUMED FOR DESIGN OF SLABS ON GRADE IS 54 MPa/m. CONSTRUCT SUBGRADE IN ACCORDANCE WITH GEOTECHNICAL REPORT.
11. LOCATE ALL EXISTING UNDERGROUND SERVICES PRIOR TO EXCAVATION.
12. KEEP EXCAVATION DRAINED AND FREE OF WATER AT ALL TIMES.
13. PROTECT FOOTINGS, PIERS, GRADE BEAMS, FOUNDATION WALLS, SLABS-ON-GRADE AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION. DO NOT POUR CONCRETE AGAINST FROZEN EARTH.
14. DO NOT USE EARTH FORMS UNLESS APPROVED IN WRITING BY DEPARTMENTAL REPRESENTATIVE. FOR ELEMENTS APPROVED TO BE CAST AGAINST SOIL, INCREASE FOOTING SIZE SHOWN ON DRAWINGS AS REQUIRED TO OBTAIN 75 CONCRETE COVER AGAINST SOIL.
15. UNLESS OTHERWISE NOTED, LAP ALL HORIZONTAL GRADE BEAM REINFORCEMENT WITH CLASS B LAPS. CARRY CONTINUOUSLY THROUGH PIERS AND PILE CAPS WHERE APPLICABLE.
16. PLACE ANCHOR RODS AND DOWELS BEFORE CONCRETE IS CAST. USE TEMPLATES TO KEEP IN POSITION.
17. UNLESS NOTED OTHERWISE, PROVIDE DRAINAGE WITH WEEPING TILE TIED INTO MECHANICAL DRAINAGE SYSTEM AT ALL FOUNDATION WALLS. REFER TO GEOTECHNICAL REPORT FOR FREE DRAINING BACKFILL REQUIREMENTS AND GROUND WATER FLOW.
18. FOR ELEMENTS THAT ARE TO BE BACKFILLED ON BOTH SIDES, PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES SUCH THAT HEIGHTS DO NOT VARY BY MORE THAN 600 FROM ONE SIDE TO THE OTHER.

CAST-IN-PLACE CONCRETE

1. UNLESS NOTED OTHERWISE, CONCRETE TO BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

ELEMENT	COMPRESSIVE STRENGTH (MPa) AT 28 DAYS	EXPOSURE CLASS	SPECIAL REQUIREMENTS & REMARKS
FOOTINGS	25	N	
GRADE BEAMS	25	N	
EXTERIOR FOUNDATION WALLS AND PIERS	30	F-2	
INTERIOR FOUNDATION WALLS AND PIERS	30	N	
SLAB-ON-GRADE, TRENCHES (INTERIOR)	25	N	CONCRETE COVER NOT TO BE LESS THAN 40mm
SLAB-ON-GRADE, TRENCHES (HEATED VEHICLE ACCESSIBLE AREAS)	30	C-4	CONCRETE COVER NOT TO BE LESS THAN 60mm
SLAB-ON-GRADE, TRENCHES (UNHEATED VEHICLE ACCESSIBLE AREAS), SIDEWALKS	32	C-2	CONCRETE COVER NOT TO BE LESS THAN 60mm
CONCRETE TOPPING ON STEEL DECK	20	N	
NON-STRUCTURAL TOPPINGS, HOUSEKEEPING PADS	20	N	NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE: 10mm FOR TOPPINGS BETWEEN 25mm AND 35mm THICK, 14mm FOR TOPPINGS BETWEEN 35mm AND 60mm THICK
LEAN CONCRETE, MUDSLABS	10	N	

NOTES:
1. LIMIT NOMINAL MAXIMUM AGGREGATE SIZE TO 10mm FOR COLUMNS WITH SMALLEST DIMENSION LESS THAN 300mm AND FOR WALLS LESS THAN 200mm. THICK
2. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. CONVEY CONCRETE FROM TRUCK TO FINAL LOCATION BY METHODS WHICH WILL PREVENT SEPARATION OR LOSS OF MATERIAL. MAXIMUM FREE FALL NOT TO EXCEED 1.5m. CONSOLIDATE CONCRETE USING MECHANICAL VIBRATORS.
3. PLACE CONCRETE AS CLOSE AS POSSIBLE TO FINAL LOCATION TO AVOID SEGREGATION. VIBRATE ALL CONCRETE.
4. PROTECT CONCRETE FROM FREEZING. DO NOT PLACE CONCRETE AGAINST FROZEN GROUND. USE COLD WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.
5. PROTECT CONCRETE FROM EXCESSIVE HEAT AND DRYING. USE HOT WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.
6. SLABS ON GRADE
   1. DO NOT USE STEEL TROWEL TO FINISH AIR-ENTRAINED CONCRETE.
   2. MAXIMUM OUTSIDE DIAMETER OF ANY CONDUIT OR PIPE EMBEDDED IN SLAB NOT TO EXCEED ONE THIRD OF THE SLAB THICKNESS.
   3. FOR SLABS-ON-GRADE, LOCATE ALL CONDUITS, PIPES, OR HEATING CABLES EMBEDDED IN CONCRETE CLEAR OF THE TOP ONE THIRD OF THE SLAB THICKNESS TO AVOID DAMAGE DURING SAWCUTTING.
7. CONSTRUCTION & CONTROL JOINTS
   1. PROVIDE JOINTS WHERE SPECIFIED OR SHOWN ON DRAWINGS. LOCATE SO AS NOT TO IMPAIR THE REQUIRED STRENGTH OF THE STRUCTURE. SUBMIT JOINT LAYOUT FOR - DEPARTMENTAL REPRESENTATIVE REVIEW AND APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO POURING CONCRETE. REFER TO TYPICAL DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
   2. UNLESS OTHERWISE NOTED, PROVIDE STANDARD CONTINUOUS 38x89 FORMED KEYS AT ALL CONSTRUCTION JOINTS. CENTER AT JOINTS AND CHAMFER SIDES.
   3. NON-STRUCTURAL SLABS ON GRADE AND UNBONDED TOPPINGS: UNLESS NOTED OTHERWISE, PROVIDE CONSTRUCTION JOINTS AT 30m MAXIMUM IN BOTH DIRECTIONS, WITH CONTROL JOINTS (SAWCUT JOINTS) IN BETWEEN AT 25 TIMES THE SLAB THICKNESS, BUT NOT MORE THAN 5m. LONGER DIMENSION OF ANY SOG SEGMENT CREATED BY CONSTRUCTION AND CONTROL JOINTS NOT TO EXCEED 1.25 TIMES THE SHORTER DIMENSION OF THE SEGMENT. CONSIDER SLAB DEPRESSIONS AND PITS WHEN PROPOSING LAYOUT, AND SHOW ON LAYOUT DRAWINGS. COMPLETE SAWCUTTING WITHIN 6 TO 18 HOURS OF PLACING CONCRETE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
   4. FOUNDATION WALLS AND GRADE BEAMS: PROVIDE VERTICAL CONSTRUCTION JOINTS AT 30m MAXIMUM.

CONCRETE REINFORCEMENT

1. REINFORCEMENT TO CONFORM TO THE FOLLOWING STANDARDS:
   DEFORMED BARS - CSA G30.18, GRADE 400R OR 400W,. WHERE REBAR ARE SHOWN TO BE WELDED USE ONLY GRADE 400W.
   WELDED WIRE FABRIC - ASTM A1064/A1064M, YIELD STRENGTH 450 MPA, SUPPLIED IN FLAT SHEETS ONLY.
2. BARS MARKED CONTINUOUS TO BE TERMINATED IN STANDARD HOOKS AT ENDS AND SPLICED USING CLASS B LAPS.
3. ALL REBAR HOOKS TO BE STANDARD LENGTH 90° OR 180° HOOKS.
4. UNLESS A SPECIFIC STIRRUP SHAPE IS INDICATED ON PLANS OR SCHEDULES.
5. LAP WELDED WIRE FABRIC SHEETS BY ONE SPACING OF CROSS WIRES + 50 mm, MEASURED BETWEEN THE OUTERMOST CROSS WIRES IN EACH SHEET.
6. PROVIDE ADDITIONAL SUPPORT BARS AS REQUIRED TO ADEQUATELY SUPPORT AND SECURE ALL REINFORCEMENT AND PREVENT MOVEMENT WHEN PLACING CONCRETE.
7. PROVIDE SUFFICIENT CHAIRS TO REINFORCING TO MAINTAIN SPECIFIED CONCRETE COVER.
8. PROVIDE ADEQUATE CHAIRS TO KEEP IN SPECIFIED POSITION. LIFTING WWF AFTER CONCRETE IS POURED TO BRING IT IN POSITION IS NOT ACCEPTABLE.
9. ALL REINFORCING TO BE CLEAN, FREE OF LOOSE SCALE, OIL, DIRT, RUST, AND ANY OTHER FOREIGN COATING THAT AFFECT BONDING CAPACITY.
10. MINIMUM CLEAR SPACING BETWEEN ADJACENT BARS TO BE AT LEAST 1.4 TIMES THE BAR DIAMETER OR 1.4 TIMES THE NOMINAL MAXIMUM SIZE OF THE COARSE AGGREGATE, WHICHEVER IS MORE.
11. UNLESS NOTED OTHERWISE ON DRAWINGS MINIMUM CONCRETE COVER TO PRINCIPAL REINFORCEMENT TO BE AS FOLLOWS :
   SURFACES PLACED IN CONTACT WITH GROUND = 75mm
   FORMED SURFACES EXPOSED TO GROUND OR WEATHER = 50mm
12. UNLESS OTHERWISE NOTED, HOOK AND LAP LENGTHS TO BE AS FOLLOWS:

BAR SIZE	VERTICAL LAP	HORIZONTAL LAP	HOOK LENGTH
10M	430mm	500mm	180mm
15M	600mm	800mm	250mm
20M	750mm	1000mm	300mm
25M	1200mm	1550mm	400mm

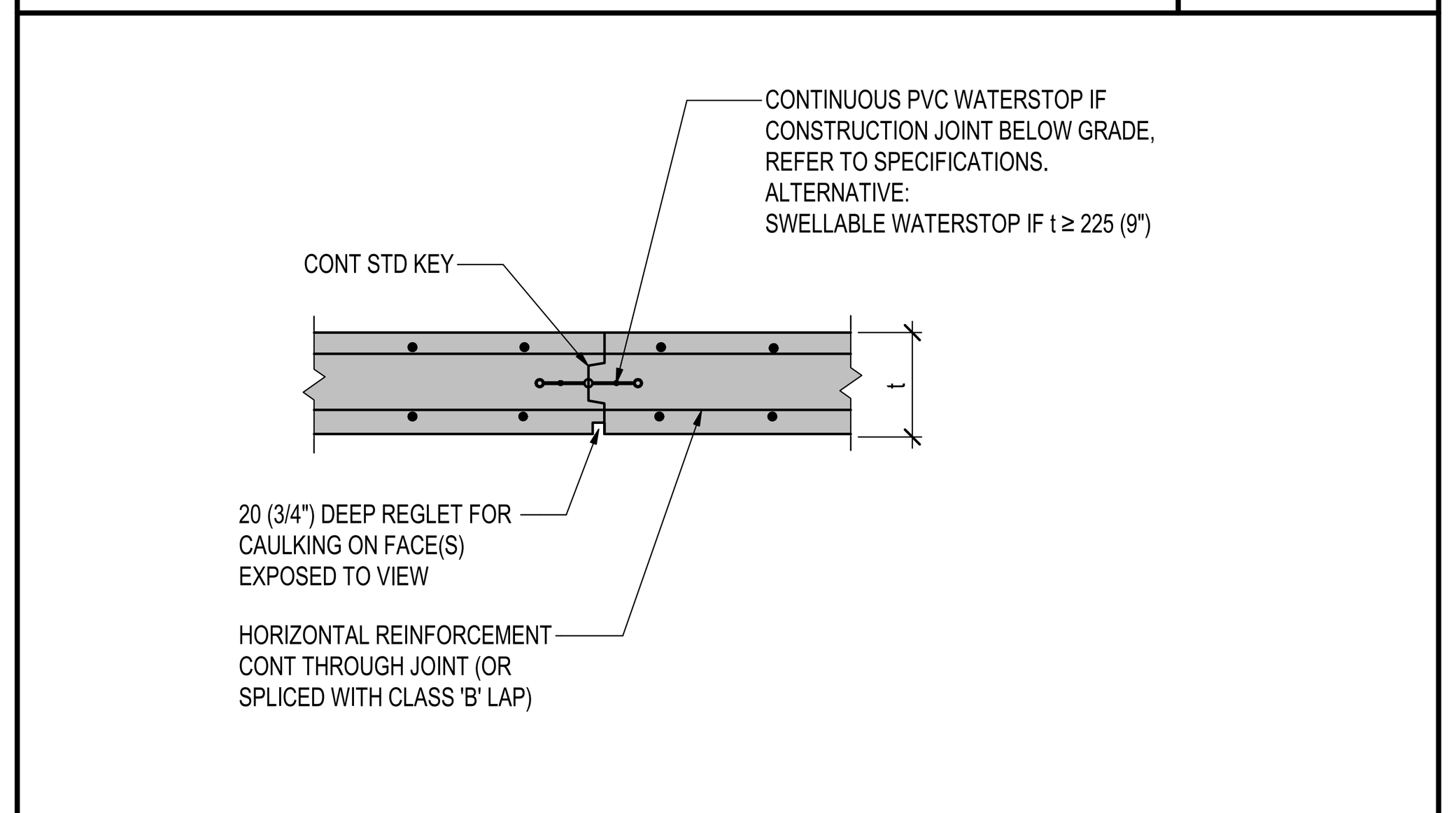
13. WALLS
   1. UNLESS OTHERWISE NOTED ON DRAWINGS, SCHEDULES OR NOTES, MINIMUM REINFORCEMENT FOR CONCRETE WALLS TO BE AS FOLLOWS:
      150mm MAXIMUM WALL: 15M @ 450mm H + 15M @ 450mm V IN CENTRE
      200mm MAXIMUM WALL: 15M @ 500mm H + 15M @ 500mm V IN CENTRE
      250mm MAXIMUM WALL: 15M @ 500mm H E.F. + 15M @ 500mm V E.F.
      300mm MAXIMUM WALL: 15M @ 500mm H E.F. + 15M @ 500mm V E.F.
   2. REFER TO TYPICAL DETAIL TC-WALL-01 FOR REINFORCING REQUIRED AT WALL CORNERS AND INTERSECTIONS.
   3. FOR OPENINGS LARGER THAN 400 x 400, PROVIDE ADDITIONAL REINFORCING AS SHOWN ON TYPICAL DETAIL TC-WALL-31.

Foundation Design Load Summary

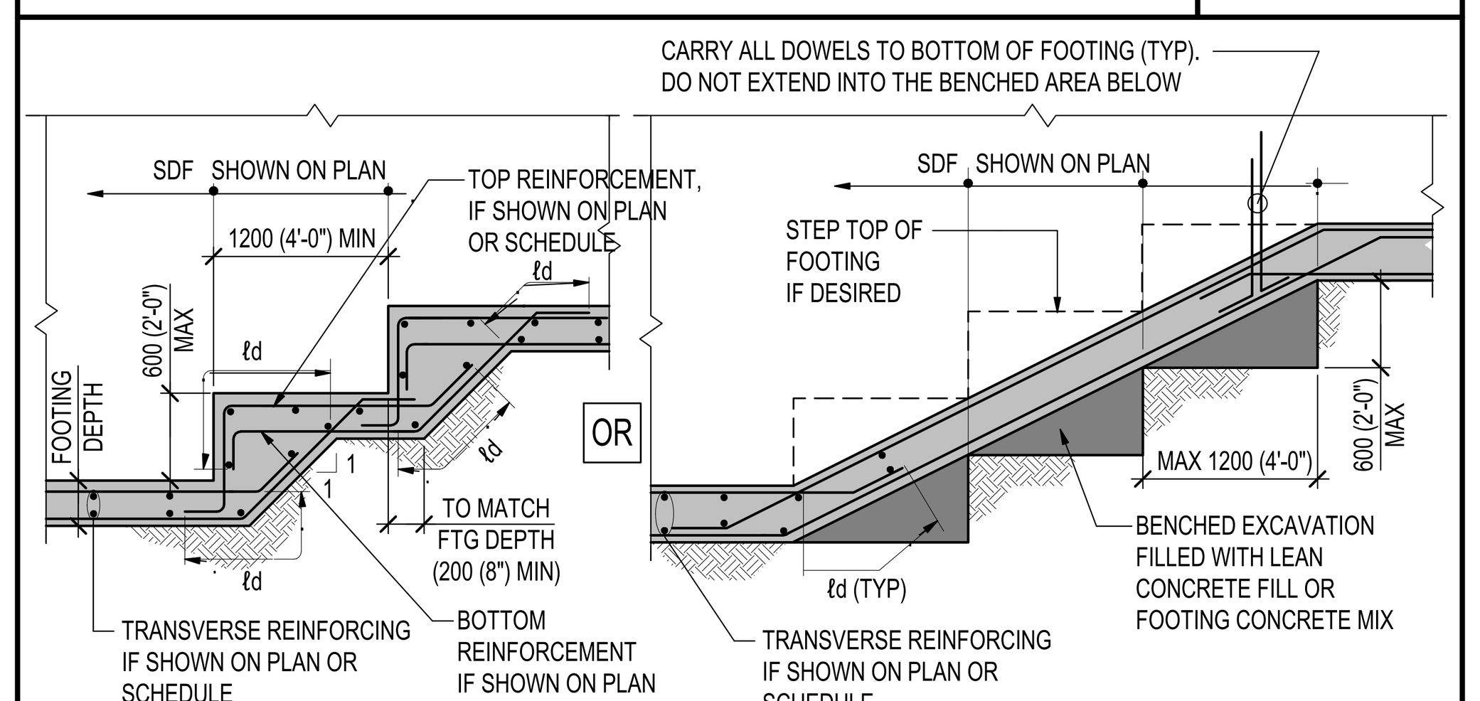
Column Location	Load Combination	Factored Column Loads (kN) Vertical V	Horizontal H-NS	Horizontal H-EW	Remarks
Grid A-1	1.25D + 1.5S	45	-	-	End wall column
	0.9D + 1.4W	15	-	20	End wall column
	D + 0.25S + E	660	-	-160	Portal frame along Grid A. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-660	-	160	Portal frame along Grid A. Loads include amplification by Rd = 1.5
Grid A-2	1.25D + 1.5S	230	-95	-	
	0.9D + 1.4W	-110	80	-	
	D + 0.25S + E	180	-110	-	Moment-resisting frame along Grid 2. Loads include amplification by Rd = 1.5
	D + 0.25S + E	660	-	160	Portal frame along Grid A. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-660	-	-160	Portal frame along Grid A. Loads include amplification by Rd = 1.5
Grid A-3, A-4, A-5, and A-6	1.25D + 1.5S	270	-110	-	
	0.9D + 1.4W	-130	95	-	
	D + 0.25S + E	210	-130	-	Moment-resisting frame along Grids 3, 4, 5, and 6. Loads include amplification by Rd = 1.5
Grid 1-A+4350mm and 1-A+8830mm	1.25D + 1.5S	65	-	-	
	0.9D + 1.4W	35	-	40	
Grid 1-A+13310mm	1.25D + 1.5S	65	-	-	
	0.9D + 1.4W	35	-	40	
	D + 0.25S + E	95	-	-	Braced frame supporting roof along Grid 1.
	D + 0.25S + E	-30	65	-	Braced frame supporting roof along Grid 1.
Grid 1-A+17790mm	1.25D + 1.5S	65	-	-	
	0.9D + 1.4W	35	-	40	
	D + 0.25S + E	20	35	-	Braced frame supporting roof along Grid 1.
	D + 0.25S + E	20	-35	-	Braced frame supporting roof along Grid 1.
Grid C-1	1.25D + 1.5S	45	-	-	End wall column
	0.9D + 1.4W	15	-	20	End wall column
	D + 0.25S + E	520	-	-160	Portal frame along Grid C. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-520	-	160	Portal frame along Grid C. Loads include amplification by Rd = 1.5
	D + 0.25S + E	85	-	-	Braced frame supporting roof along Grid 1.
	D + 0.25S + E	-40	-65	-	Braced frame supporting roof along Grid 1.
Grid C-2	1.25D + 1.5S	230	95	-	
	0.9D + 1.4W	-90	-55	-	
	D + 0.25S + E	190	145	-	Moment-resisting frame along Grid 2. Loads include amplification by Rd = 1.5
	D + 0.25S + E	520	-	160	Portal frame along Grid C. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-520	-	-160	Portal frame along Grid C. Loads include amplification by Rd = 1.5
Grid C-3, C-4, C-5, and C-6	1.25D + 1.5S	270	110	-	
	0.9D + 1.4W	-105	-65	-	
	D + 0.25S + E	225	170	-	Moment-resisting frame along Grids 3, 4, 5, and 6. Loads include amplification by Rd = 1.5
Grid A-7	1.25D + 0.5L + 1.5S	330	-100	-	
	0.9D + 1.4W	-120	90	-	
	D + 0.25S + E	195	-120	-	Moment-resisting frame along Grid 7. Loads include amplification by Rd = 1.5
	D + 0.25S + E	600	-	-215	Portal frame along Grid A. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-600	-	215	Portal frame along Grid A. Loads include amplification by Rd = 1.5
Grid A-8	1.25D + 1.5L + 0.5S	80	-	-	End wall column
	D + 0.25S + E	600	-	215	Portal frame along Grid A. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-600	-	-215	Portal frame along Grid A. Loads include amplification by Rd = 1.5
Grid 7-A+4350mm, 7-A+8830mm, 7-A+13310mm, and 7-A+16990mm	1.25D + 1.5S	150	-	-	
Grid 8-A+4350mm	1.25D + 1.5L + 0.5S	250	-	-	
	0.9D + 1.4W	65	-	20	
Grid 8-A+8830mm	1.25D + 1.5L + 0.5S	250	-	-	
	0.9D + 1.4W	65	-	20	
	D + E	250	-	-	Braced Frame supporting Level 2 floor along Grid A+8830mm. Loads include amplification by Rd = 1.5
	D + E	-110	-	-225	Braced Frame supporting Level 2 floor along Grid A+8830mm. Loads include amplification by Rd = 1.5
Grid 8-A+13310mm	1.25D + 1.5L + 0.5S	250	-	-	
	0.9D + 1.4W	65	-	20	
	D + 0.25S + E	230	-	-	Braced frame supporting roof and Level 2 floor along Grid 8.
	D + 0.25S + E	-100	220	-	Braced frame supporting roof and Level 2 floor along Grid 8.
Grid 8-A+17790mm	1.25D + 1.5L + 0.5S	250	-	-	
	0.9D + 1.4W	65	-	20	
	D + 0.25S + E	65	110	-	Braced frame supporting roof and Level 2 floor along Grid 8.
	D + 0.25S + E	65	110	-	Braced frame supporting roof and Level 2 floor along Grid 8.
Grid C-7	1.25D + 1.5L +	330	100	-	
	0.9D + 1.4W	-70	60	-	
	D + 0.25S + E	195	-120	-	Moment-resisting frame. Loads include amplification by Rd = 1.5
	D + 0.25S + E	480	-	-215	Portal frame along Grid C. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-480	-	215	Portal frame along Grid C. Loads include amplification by Rd = 1.5
Grid C-8	1.25D + 1.5L + 0.5S	80	-	-	End wall column
	D + 0.25S + E	480	-	215	Portal frame along Grid C. Loads include amplification by Rd = 1.5
	D + 0.25S + E	-480	-	-215	Portal frame along Grid C. Loads include amplification by Rd = 1.5
	D + 0.25S + E	200	-	-	Braced frame supporting roof and Level 2 floor along Grid 8.
	D + 0.25S + E	-130	-	-220	Braced frame supporting roof and Level 2 floor along Grid 8.
Grid A+8830mm-7+3000mm	1.25D + 1.5L	50	-	-	
	D + E	200	-	-	Braced frame supporting Level 2 floor along Grid A+8830mm. Loads include amplification by Rd = 1.5
	D + E	-160	-	225	Braced frame supporting Level 2 floor along Grid A+8830mm. Loads include amplification by Rd = 1.5

V: + compression, - tension (uplift)
H-NS: + north, - south
H-EW: + east, - west

CONSTRUCTION JOINT IN WALL — TC-WALL-21

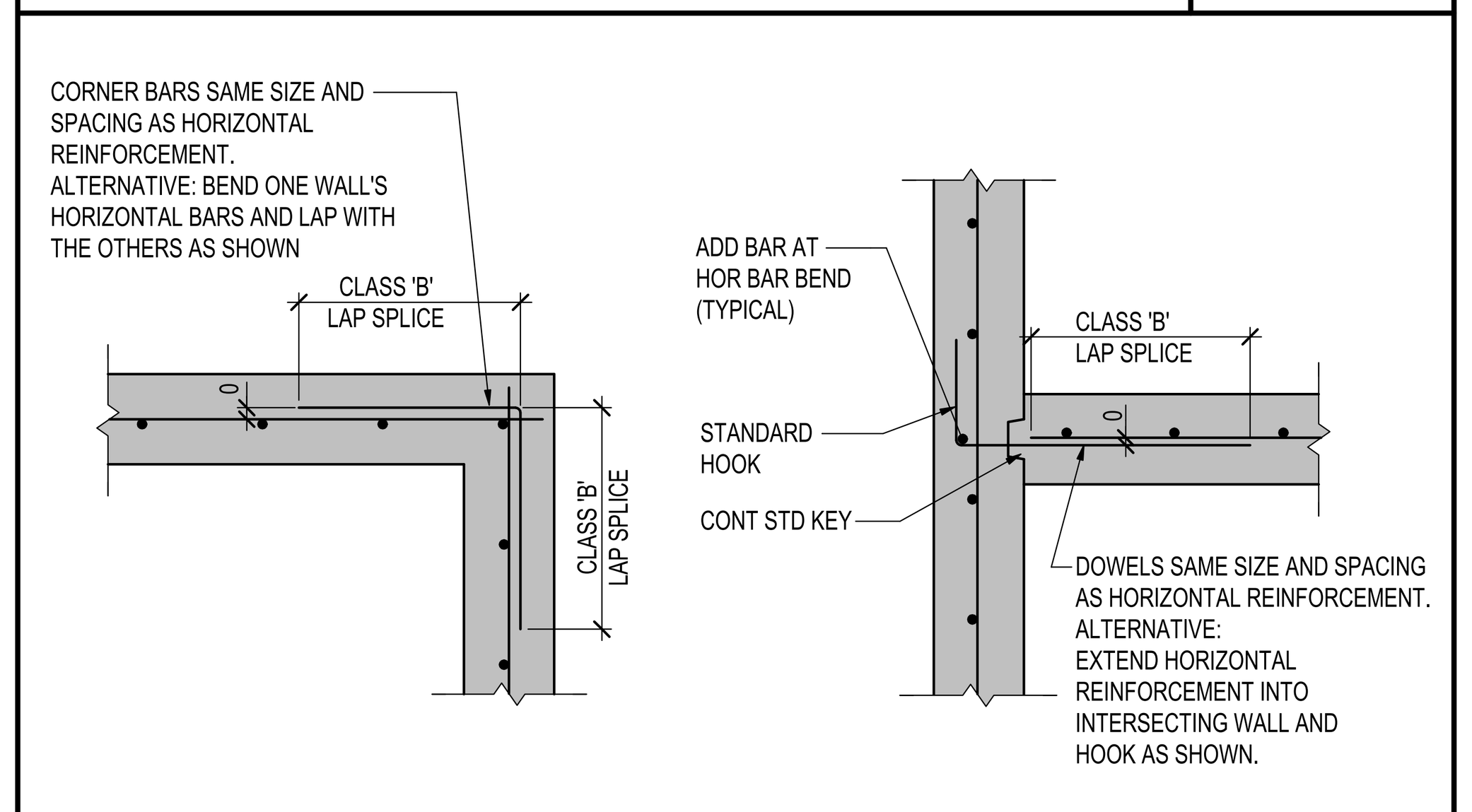


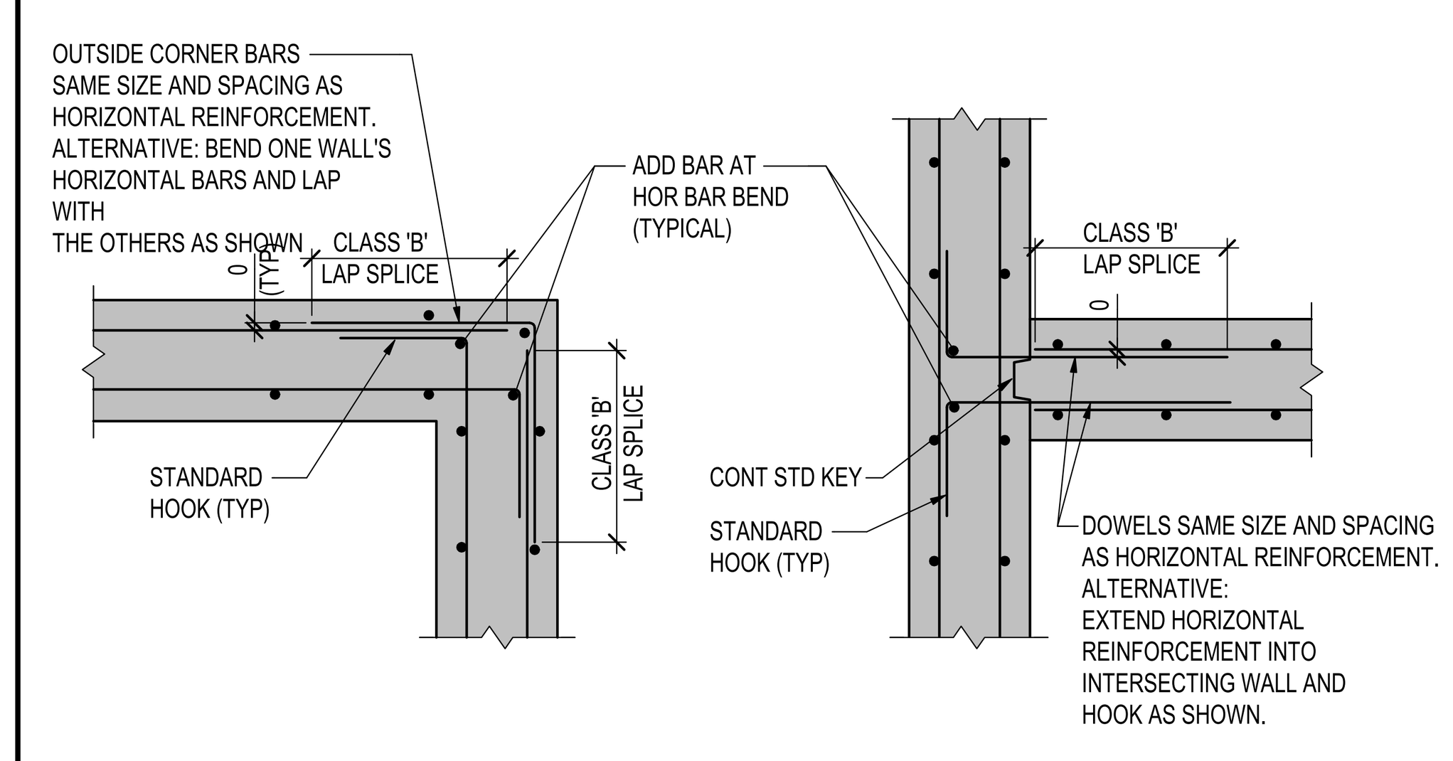
STEPS IN STRIP OR PAD FOOTING — TC-FDN-33



NOTE:
IF REINFORCING IS LOCATED AT FOOTING MIDHEIGHT, DETAIL REBAR SPLICE AS IF THEY WERE BOTTOM BARS

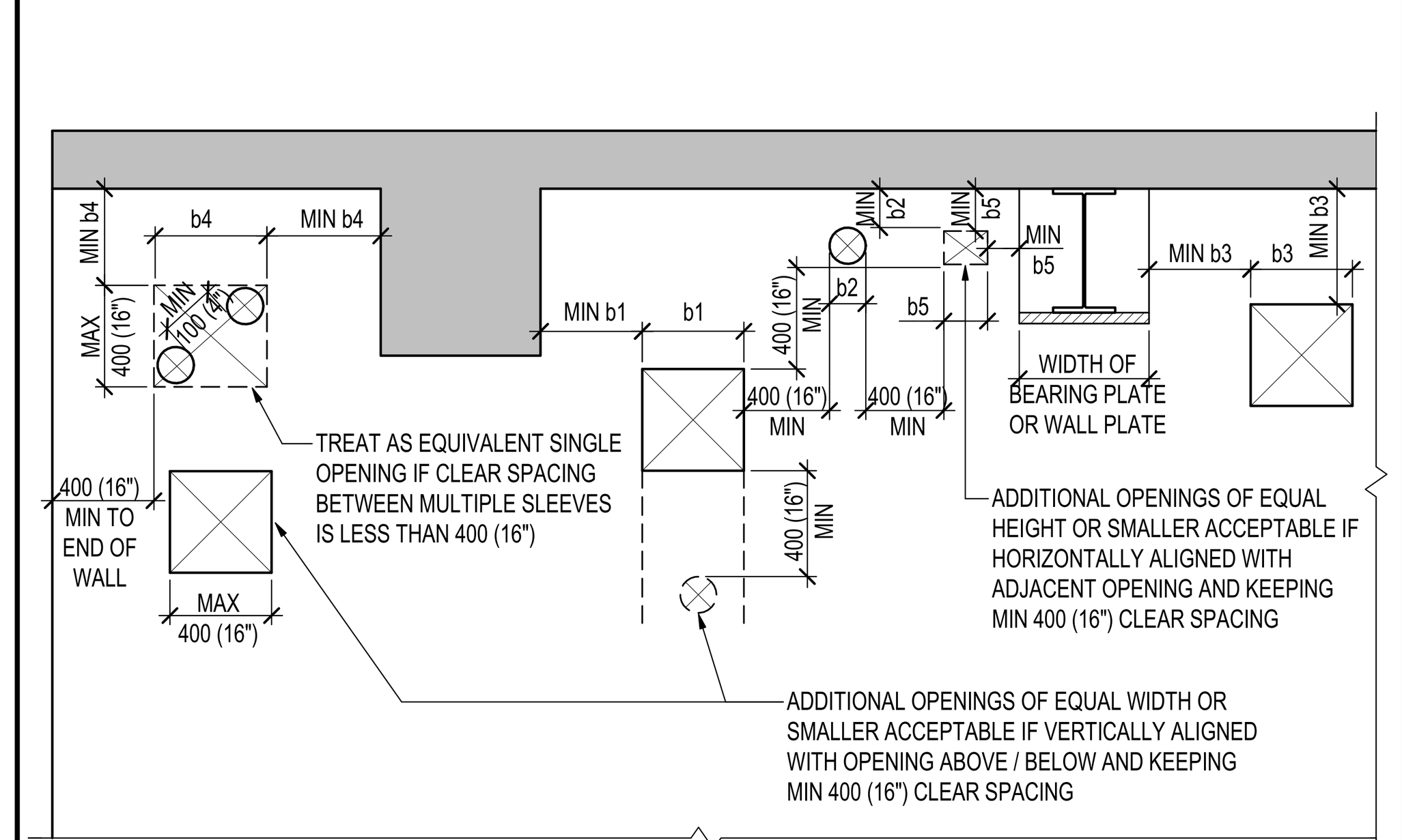
CONCRETE WALL CORNERS AND INTERSECTIONS — TC-WALL-01





NOTES:
1. IF WALLS ARE NOT PERPENDICULAR TO EACH OTHER, ALL BAR BENDS TO MATCH THE WALL INTERSECTION ANGLE.

GUIDELINES FOR WALL SLEEVES AND OPENINGS LESS THAN 400 x 400 (16" x 16") / 400 (16")Ø — TC-WALL-31



NOTES:
1. SUBMIT COMPOSITE SLEEVING DRAWINGS SHOWING SIZE AND LOCATION OF ALL WALL SLEEVES AND OPENINGS.
2. THIS DRAWING SHOWS ONLY GENERAL GUIDELINES FOR PLACING SLEEVES AND OPENINGS THROUGH WALLS. FOR ANY SPECIFIC JOB, OPENINGS AS SHOWN ON THIS DETAIL MAY NOT BE ACCEPTABLE OR MAY REQUIRE ADDITIONAL REINFORCING. DO NOT INSTALL ANY SLEEVES AND OPENINGS PRIOR TO REVIEWING RETURNED SLEEVING DRAWINGS.
3. RESPACE WALL REINFORCEMENT AS REQUIRED TO CLEAR OPENINGS.
4. NO OPENING CAN INTERFERE WITH ANY REINFORCEMENT SHOWN TO BE IN ADDITION TO UNIFORMLY DISTRIBUTED WALL REINFORCEMENT.
5. AT SHEAR WALLS, ALL OPENINGS TO STAY MIN 1000 (3'-4") CLEAR OF CONCENTRATED (ZONE) REINFORCEMENT.
6. SUM OF THE WIDTHS OF ALL SLEEVES AND OPENINGS IN ANY 3000 (10') LONG WALL SEGMENT NOT TO EXCEED 750 (2'-6"), EXCEPT AT SHEAR WALLS WHERE THAT SUM SHOULD NOT EXCEED 400 (16").

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Règion de Pacifique

KEY PLAN

Kasian
Project No.: 180293

wsp
Project No.: 161-14582-00

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. G. EMERY #29024 — 2017-06-09

Revision Number	Description/Description	Date/Date
0	ISSUED FOR TENDER	2017.06.09

Client/client
TRANSPORT CANADA
Operations and Technical Services
#820 - 800 Burrard St.
Vancouver, BC V6Z 2J8

Project title/Titre du projet
PORT HARDY AIRPORT EQUIPMENT MAINTENANCE BUILDING
3675 BYNG ROAD
PORT HARDY, BC V0N 2P0

Consultant Signature Box Only

Designed by/Concept par: RANDALL EMERY
Approved by/Approuvée par: JIM GALLOWAY
Drawn by/Dessine par: GINA MAJOR
PWGSC Project Manager/Administrateur de Projets TPSGC: JIMMY WONG
PWGSC, Regional Manager, Architectural and Engineering. Gestionnaire régionale, Services d'architectural et de génie.: OREST KLUFAS

Drawing title/Titre du dessin
GENERAL NOTES AND TYPICAL DETAILS

Project No./No. du projet: R.077016.001
Sheet Feuill: S-001
Revision La Révision no.: 0

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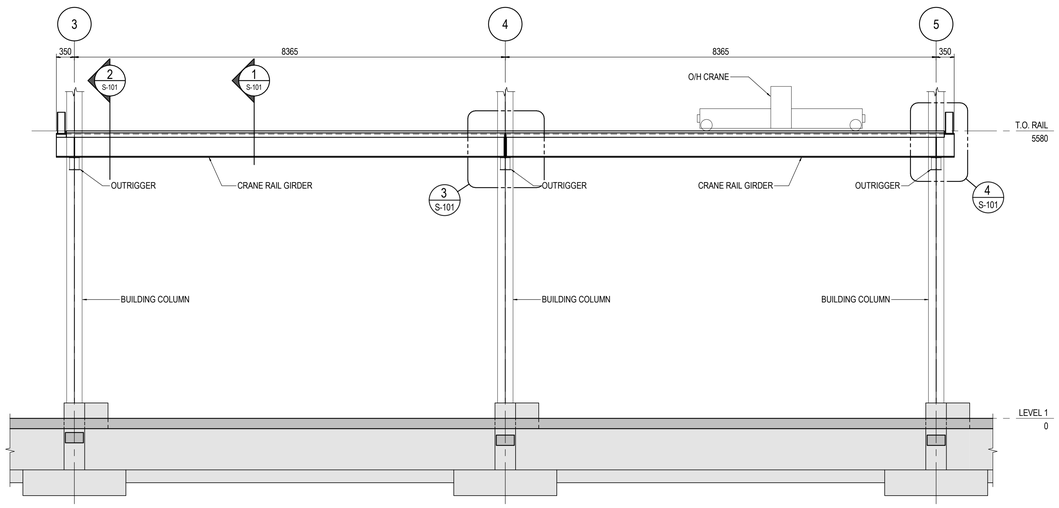
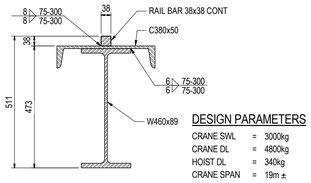


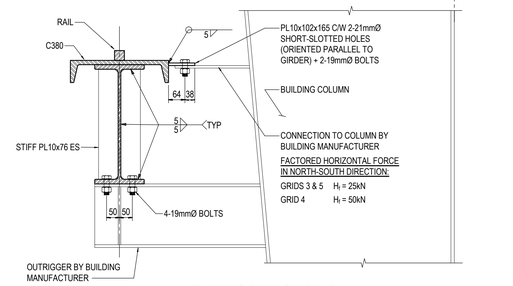
A S-101 CRANE RAIL GIRDER ELEVATION
1 : 50



DESIGN PARAMETERS

CRANE SWL	=	3000kg
CRANE DL	=	4800kg
HOIST DL	=	340kg
CRANE SPAN	=	19m ±
CRANE RAIL GIRDER SPAN	=	8.365m

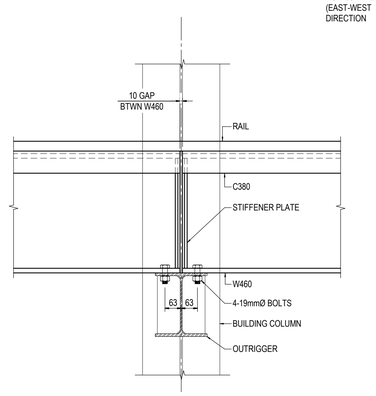
1 S-101 CRANE RAIL GIRDER
1 : 10



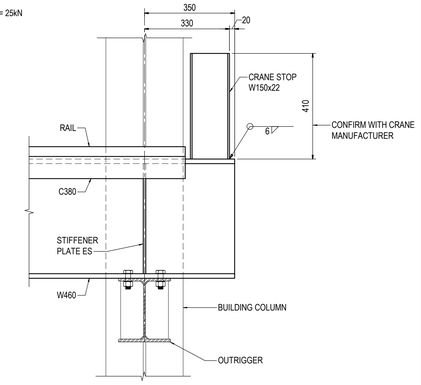
FACTORED GIRDER REACTION FORCES:

VERTICAL	P_f = 100kN
HORIZONTAL (EAST-WEST DIRECTION	H_f = 25kN

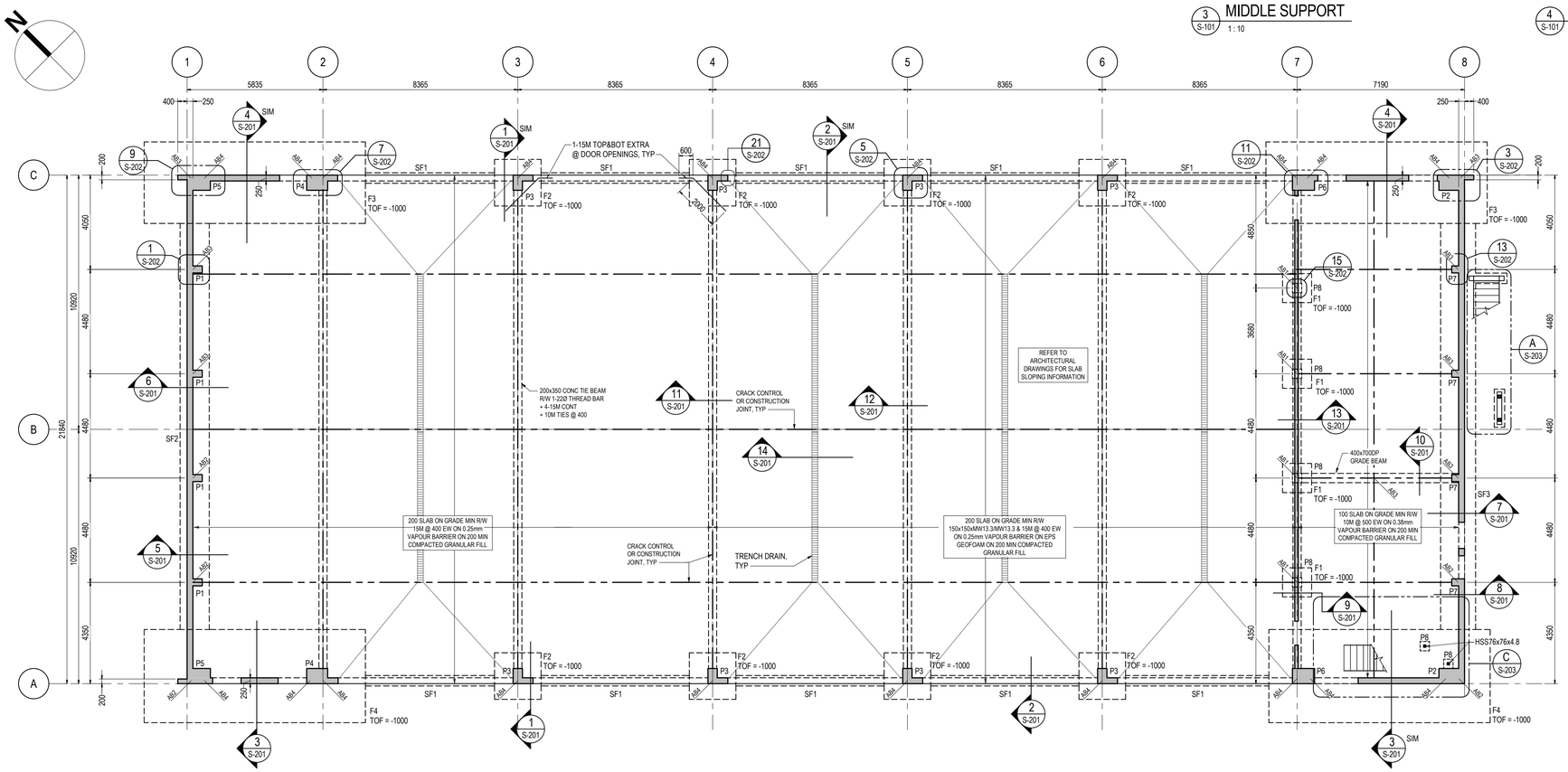
2 S-101 OUTRIGGER SECTION
1 : 10



3 S-101 MIDDLE SUPPORT
1 : 10



4 S-101 CRANE STOP
1 : 10



FOUNDATION AND LEVEL 1 FLOOR PLAN
1 : 100

PIER SCHEDULE

MARK	WIDTH	LENGTH	REINFORCEMENT
P1	300	650	8-20M VERT'S + 10M TIES @ 300 OC
P2	650	1100	14-25M VERT'S + 10M TIES @ 300 OC
P3	400	650	8-25M VERT'S + 10M TIES @ 300 OC
P4	650	900	14-25M VERT'S + 10M TIES @ 300 OC
P5	650	1000	14-25M VERT'S + 10M TIES @ 300 OC
P6	650	950	14-25M VERT'S + 10M TIES @ 300 OC
P7	300	550	6-20M VERT'S + 10M TIES @ 300 OC
P8	400	400	4-25M VERT'S + 10M TIES @ 300 OC

STRIP FOOTINGS SCHEDULE

MARK	WIDTH	DEPTH	REINFORCEMENT (BOT. U.N.O.)
SF1	450	250	2-15M CONT
SF2	1250	300	15Mx1150@300 BOT 15Mx1150@600 TOP 4-15M CONT TOP&BOT
SF3	1500	300	15Mx1400@300 BOT 15Mx1400@600 TOP 4-15M CONT TOP&BOT

FOOTING SCHEDULE

MARK	WIDTH	LENGTH	DEPTH	REINFORCEMENT
F1	1250	1250	300	5-15Mx1150LG EW BOT
F2	2000	2000	500	8-20Mx1900LG EW TOP 8-20Mx1900LG EW BOT
F3	3500	9500	750	29-25Mx9400LG TOP & BOT 11-25Mx9400LG TOP & BOT
F4	4000	9500	750	29-25Mx9400LG TOP & BOT 11-25Mx9400LG TOP & BOT

ANCHOR BOLT EMBEDMENT SCHEDULE

ANCHOR BOLT TYPE	MINIMUM EMBEDMENT LENGTH (mm)
AB1	300
AB2	400
AB3	600
AB4	1200

ANCHOR BOLT LAYOUT, SIZE, QUANTITY AND GRADE TO BE DESIGNED BY THE PRE-ENGINEERED BUILDING MANUFACTURER. THE ANCHOR BOLT LAYOUT AND EMBEDMENT WILL BE REVIEWED AND REVISED AS REQUIRED BASED ON THE FINAL DESIGN LOADS PROVIDED BY THE PRE-ENGINEERED BUILDING MANUFACTURER.

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PWGSC – 8.1 –

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Règin de Pacifique

KEY PLAN

kasian

Project No.: 180293

wsp

Project No.: 161-14582-00

PROFESSIONAL ENGINEER K. CHENERY 35524 BRITISH COLUMBIA ENGINEER 2017-06-09

Revision Number	Description/Description	Date/Date
0	ISSUED FOR TENDER	2017.06.09

Client/client

TRANSPORT CANADA

Operations and Technical Services
#820 - 800 Burrard St.
Vancouver, BC V6Z 2J8

Project title/Titre du projet

PORT HARDY AIRPORT EQUIPMENT MAINTENANCE BUILDING

3675 BYNG ROAD
PORT HARDY, BC V0N 2P0

Consultant Signature Box Only

Designed by/Concept par	Approved by/Approuvée par
RANDALL EMERY	JIM GALLOWAY

Drawn by/Dessine par
GINA MAJOR

PWGSC Project Manager/Administrateur de Projets TPSGC
JIMMY WONG

PWGSC, Regional Manager, Architectural and Engineering Gestionnaire régionale, Services d'architectural et de génie.
OREST KLUFAS

Drawing title/Titre du dessin

FOUNDATION AND LEVEL 1 FLOOR PLAN AND CRANE RAIL

Project No./No. du projet	Sheet Feuill	Revision Lo Révision no.
R.077016.001	S-101	0

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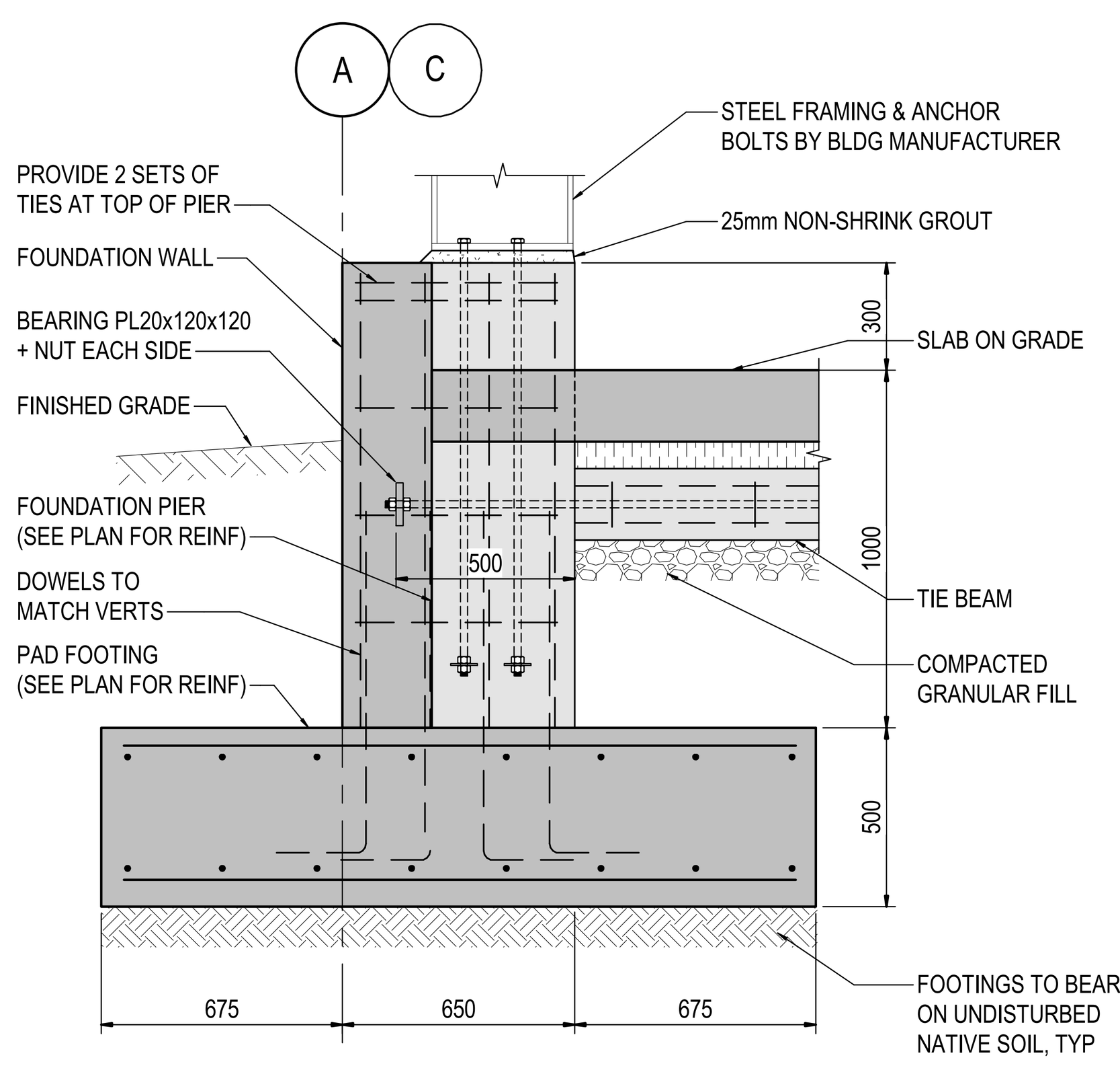
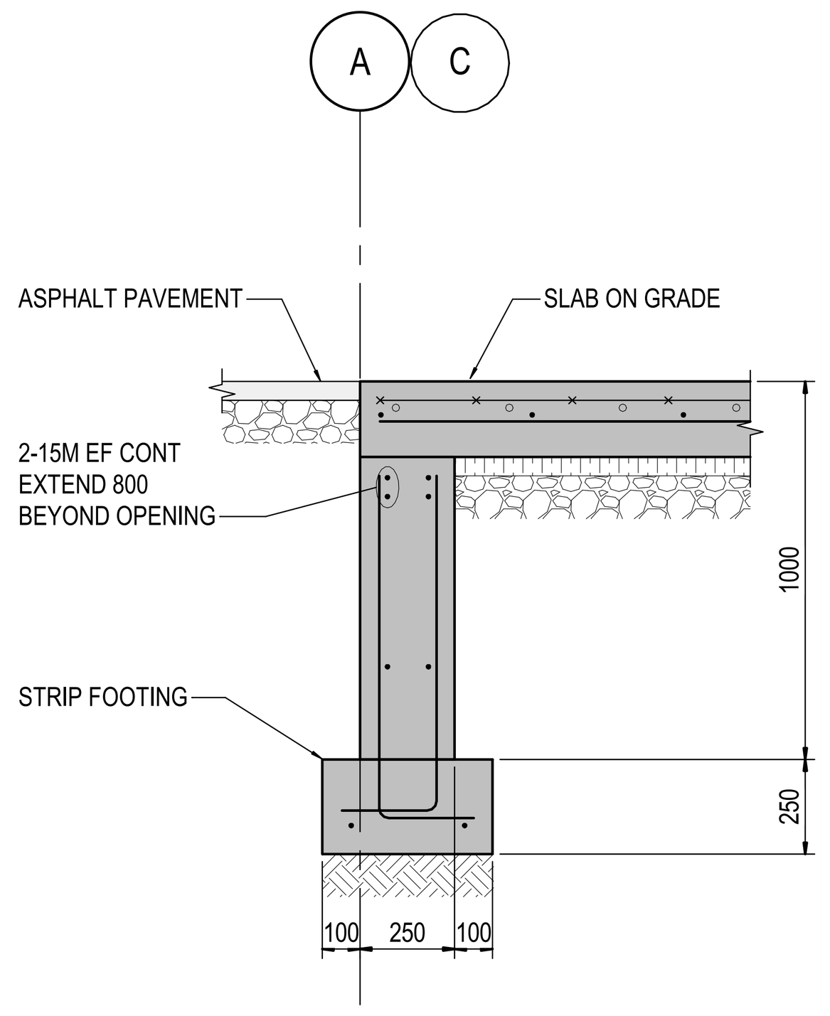
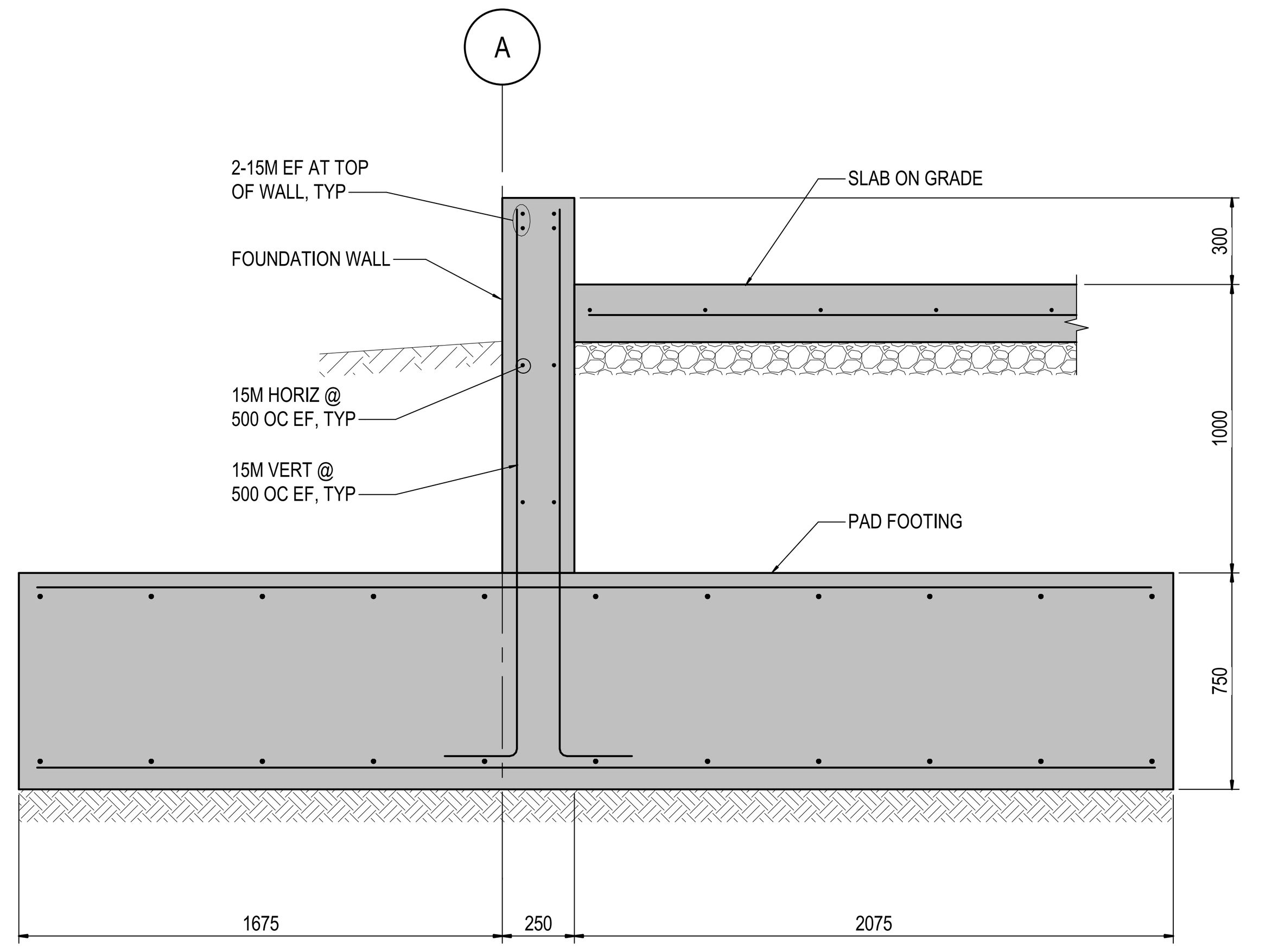


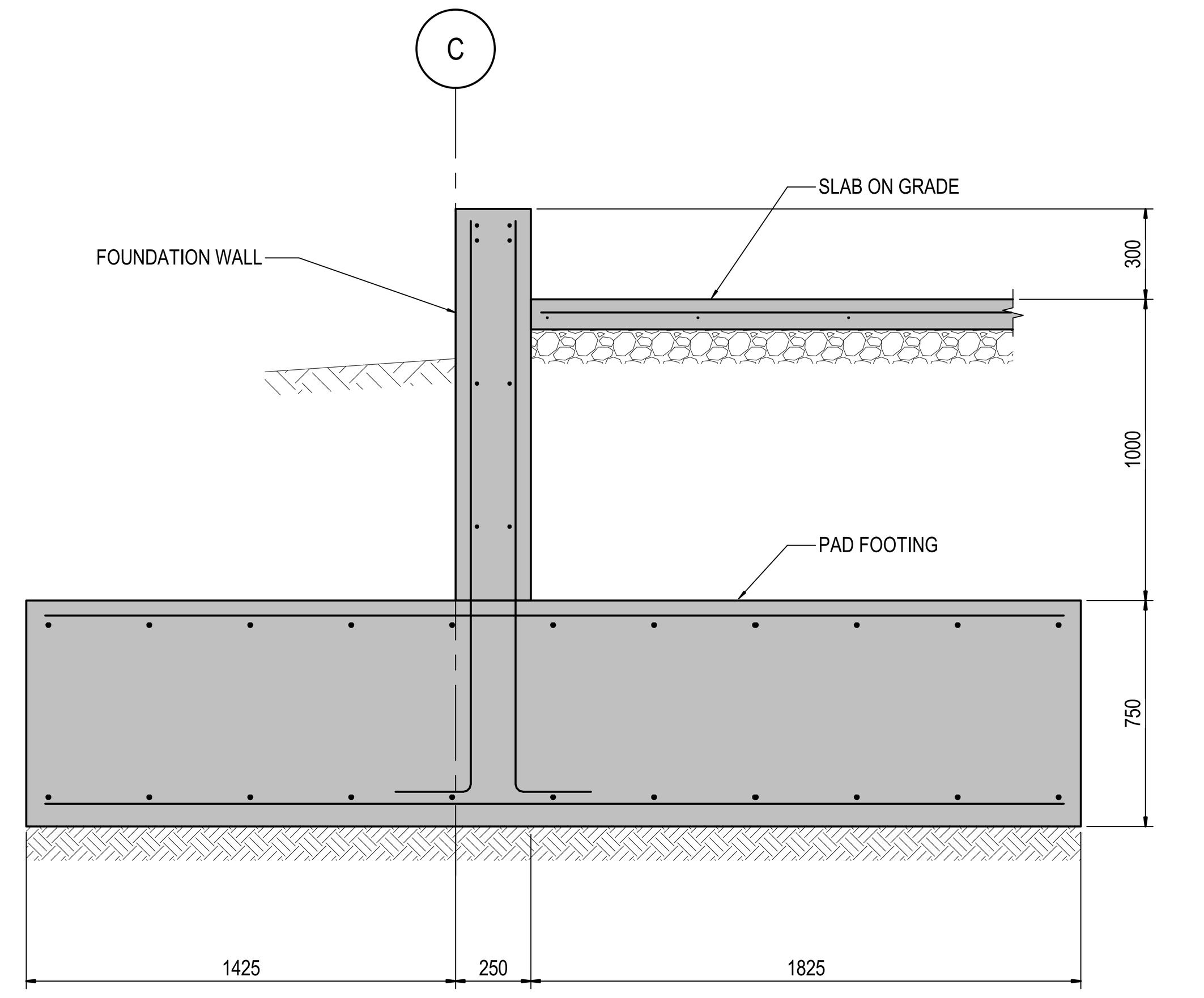
1 S-101 **SECTION AT F3** 1 : 20



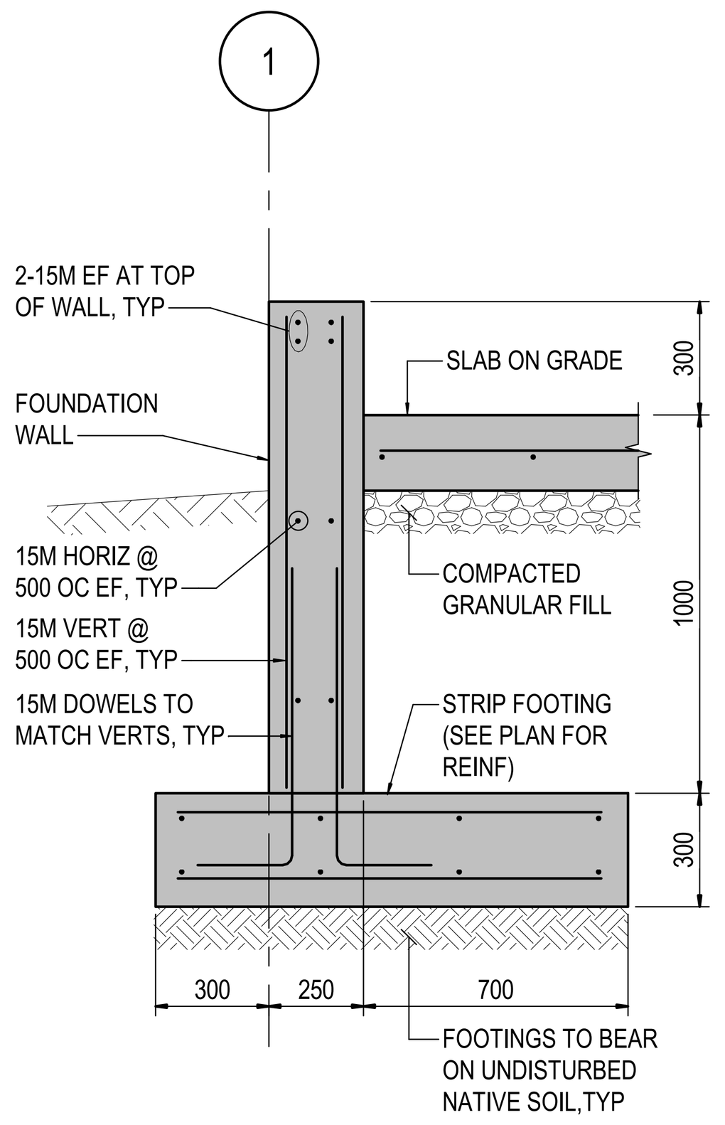
2 S-101 **SECTION DOOR OPENING** 1 : 20



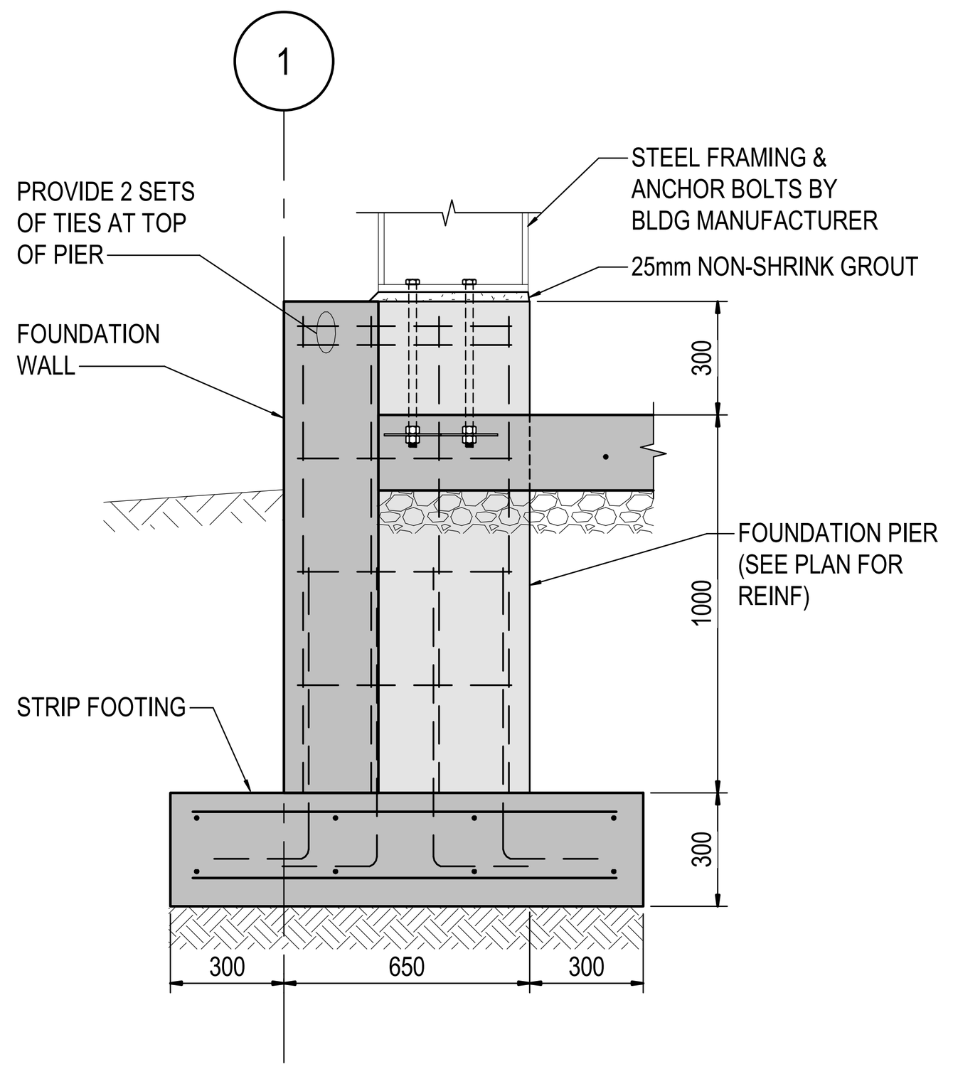
3 S-101 **SECTION AT F5** 1 : 20



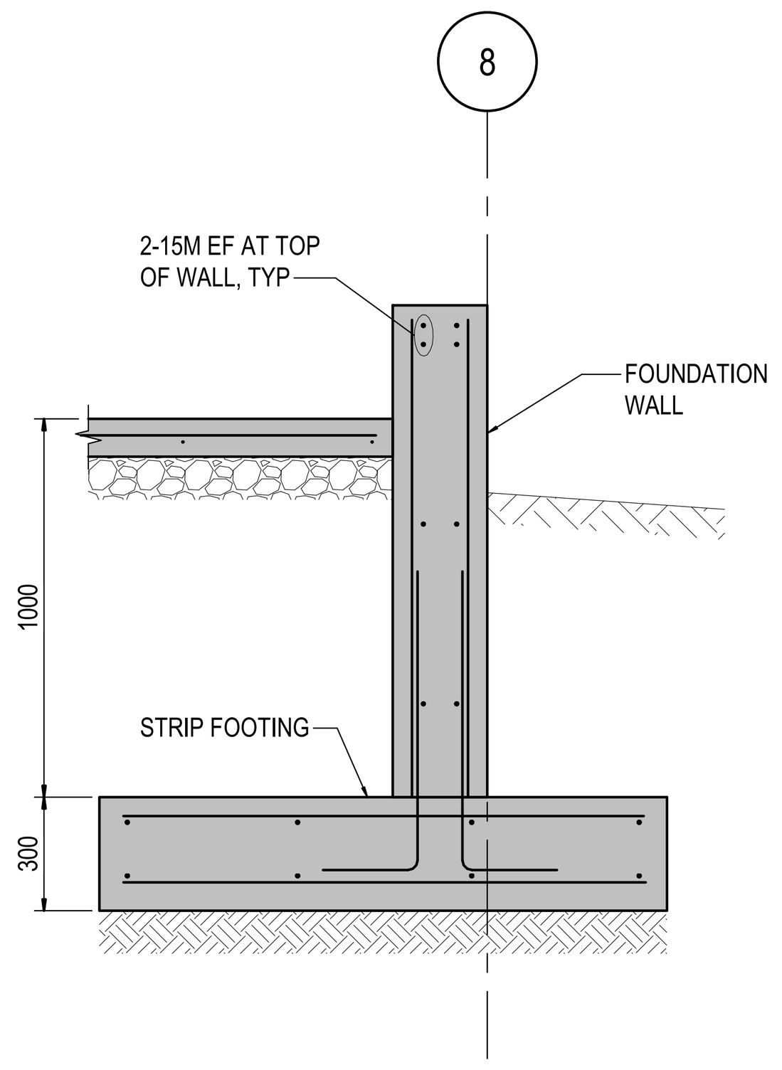
4 S-101 **SECTION AT F4** 1 : 20



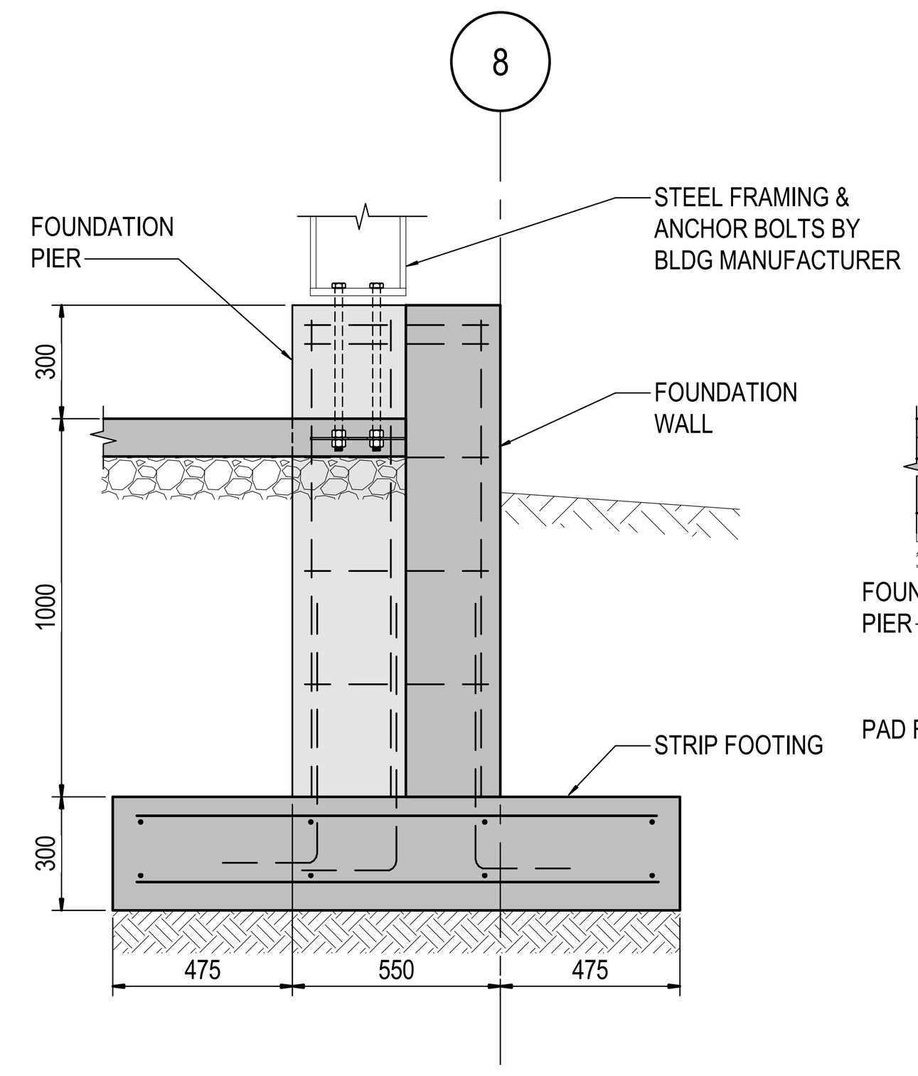
5 S-101 **SECTION AT SF2** 1 : 20



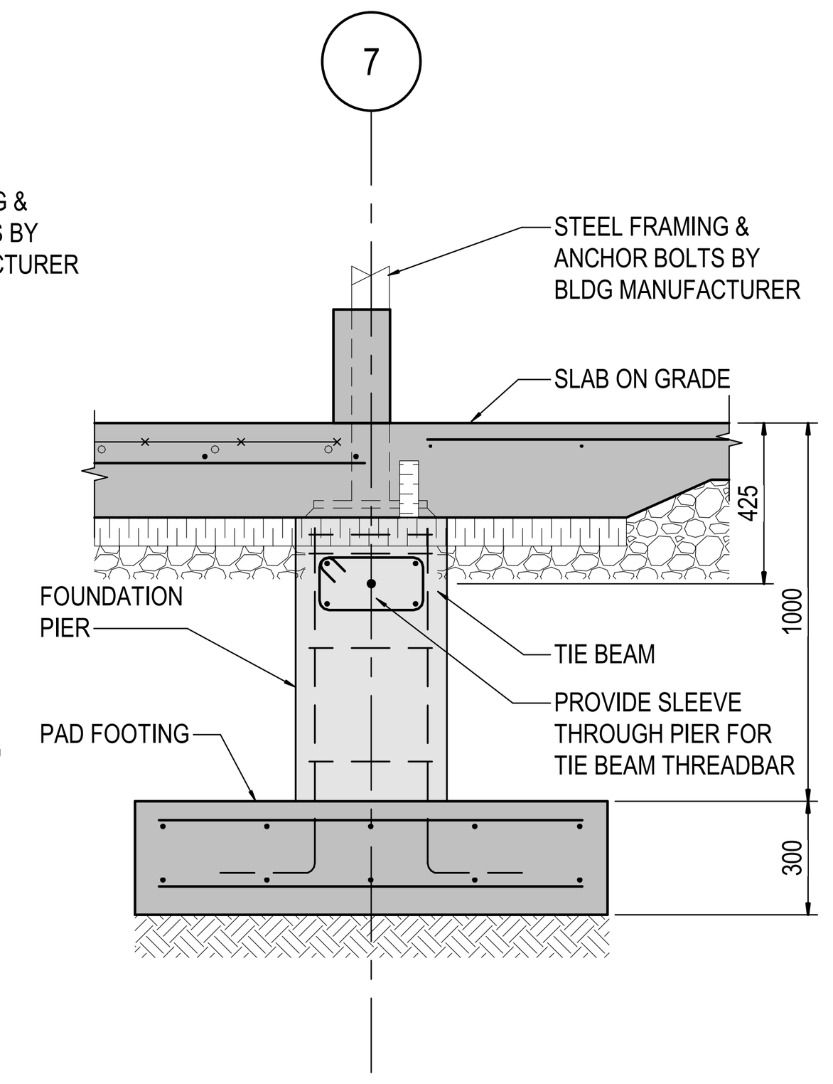
6 S-101 **SECTION AT P1** 1 : 20



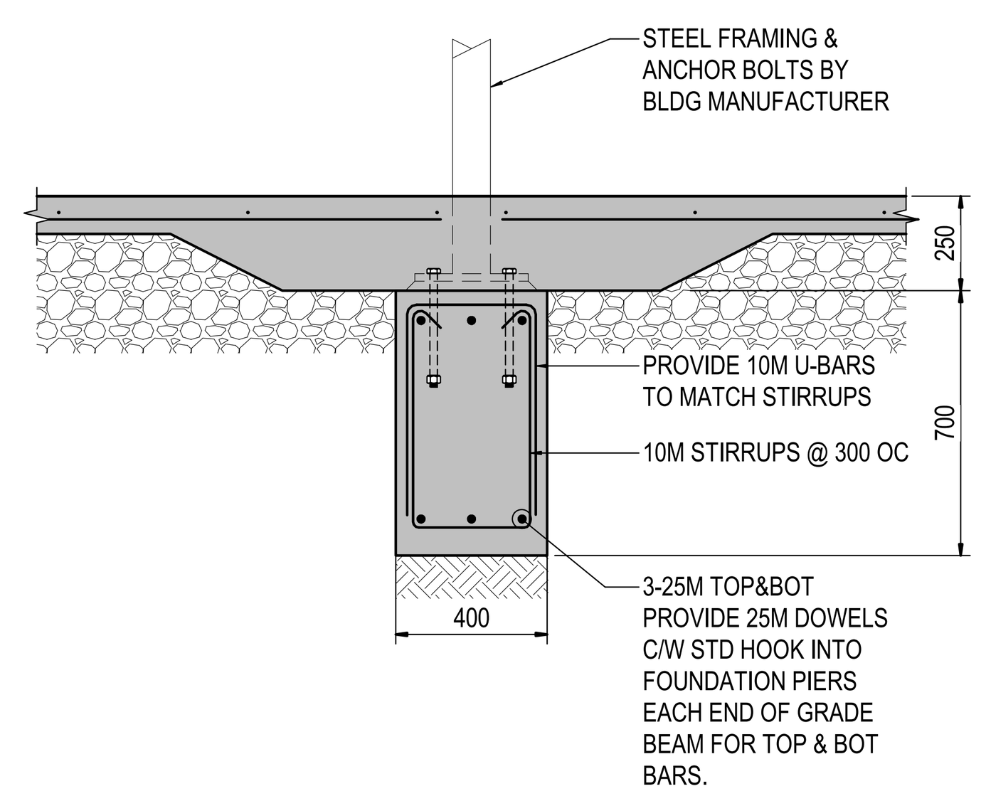
7 S-101 **SECTION AT SF3** 1 : 20



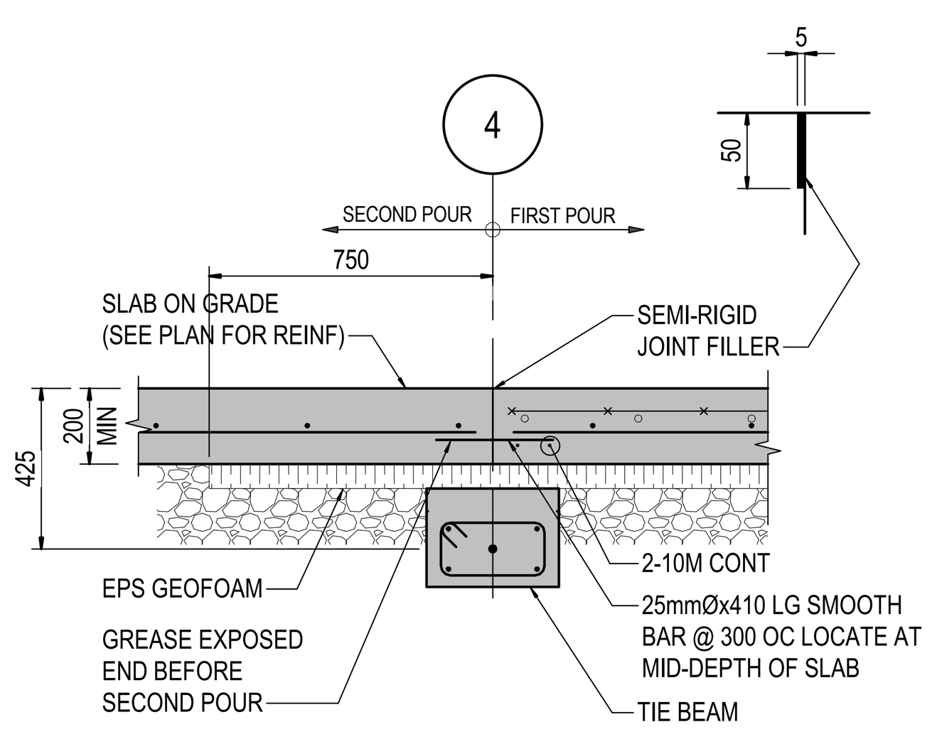
8 S-101 **SECTION AT P7** 1 : 20



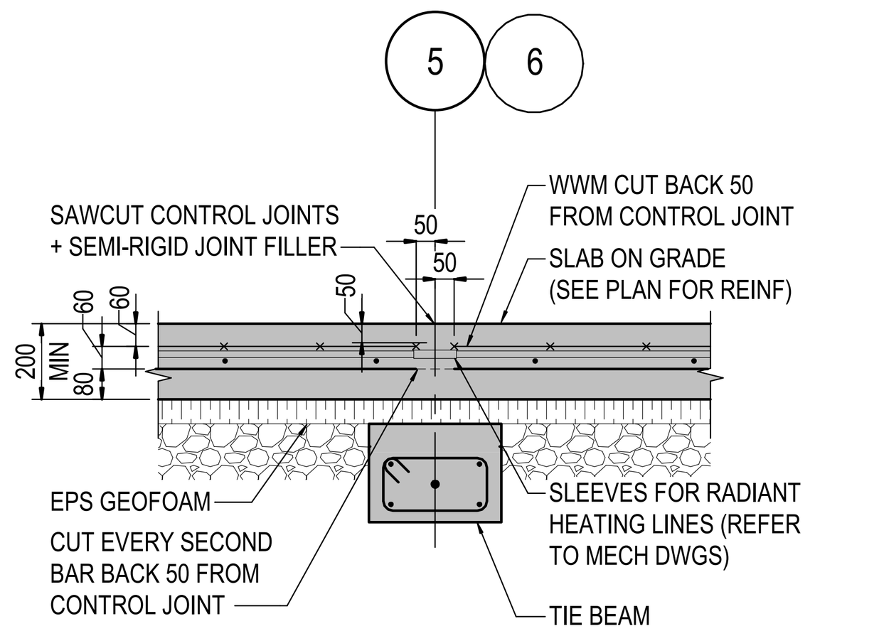
9 S-101 **SECTION AT P8** 1 : 20



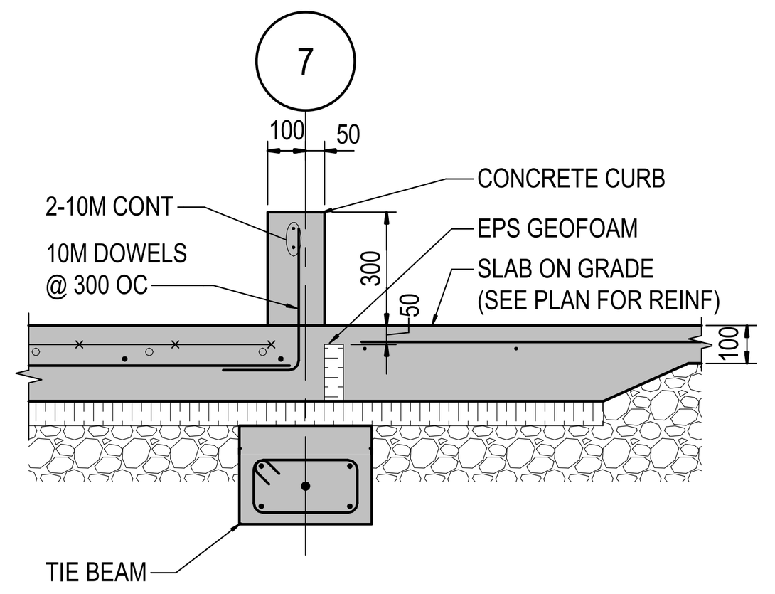
10 S-101 **SECTION AT GRADE BEAM** 1 : 20



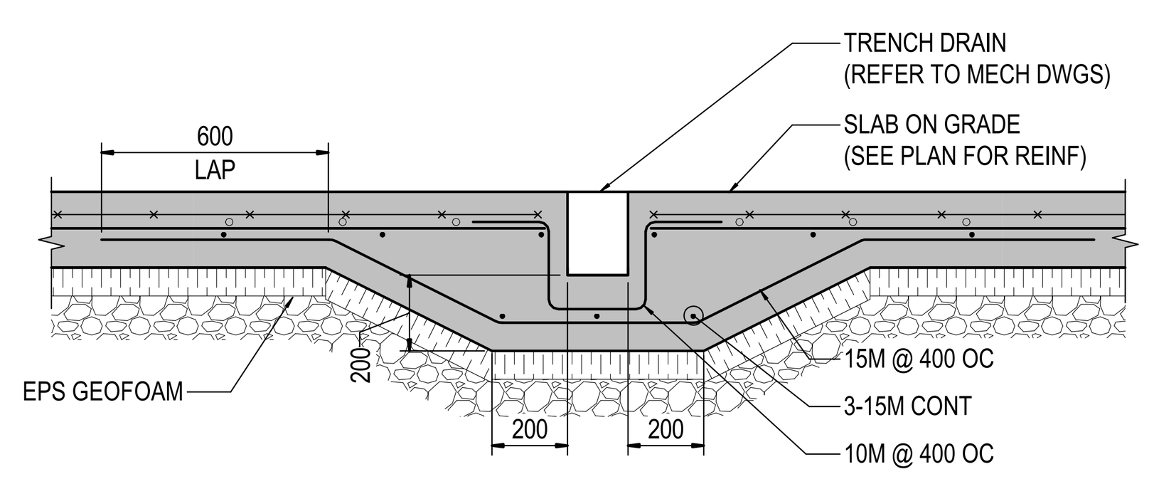
11 S-101 **SECTION AT CONSTRUCTION JOINT** 1 : 20



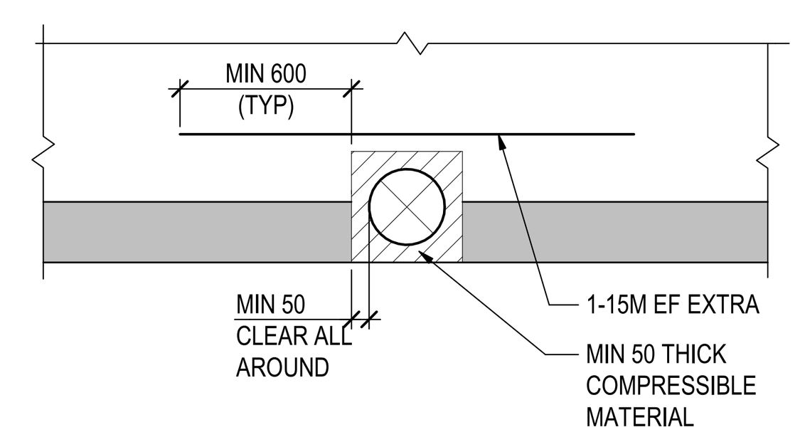
12 S-101 **SECTION AT CRACK CONTROL JOINT** 1 : 20



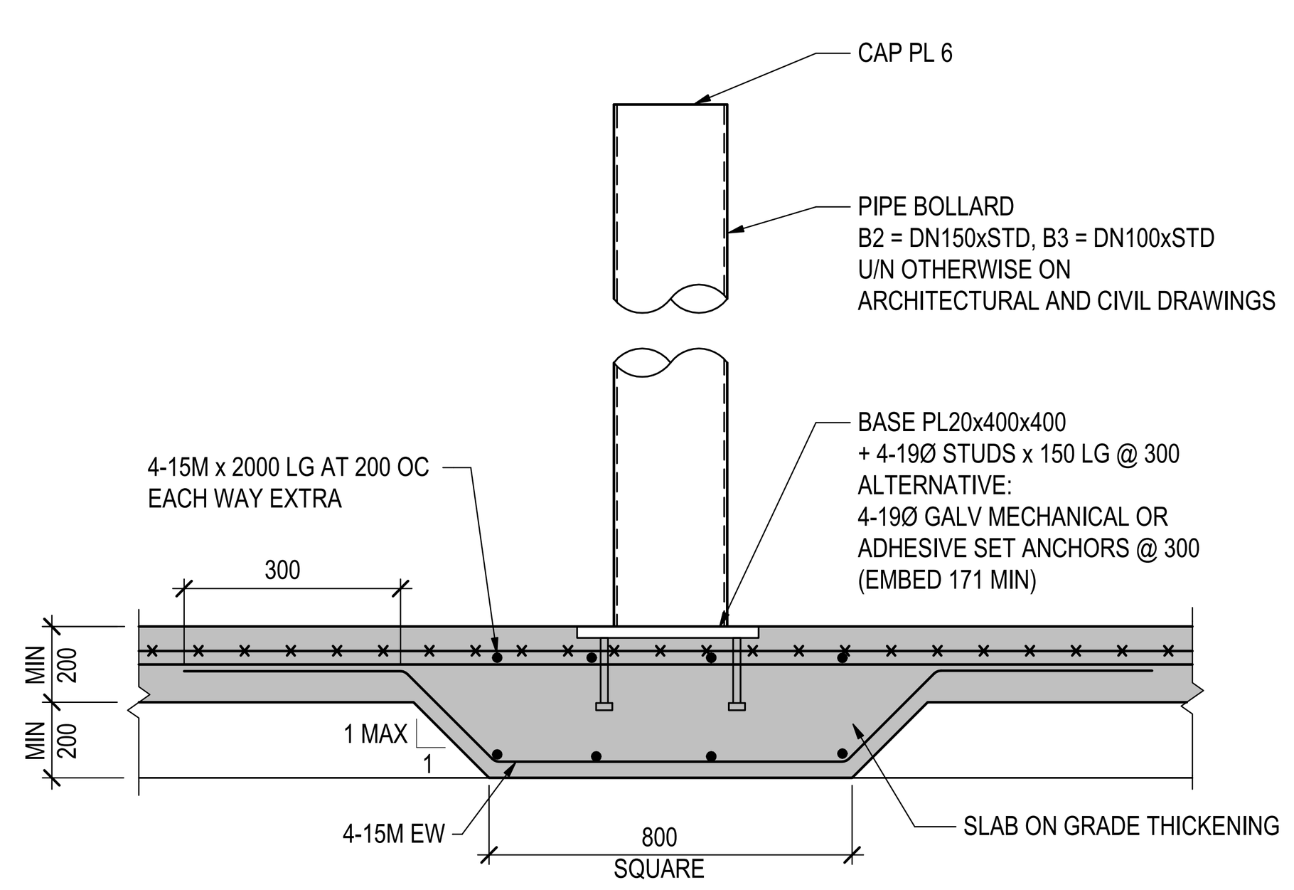
13 S-101 **SECTION AT CURB** 1 : 20



14 S-101 **SECTION AT TRENCH DRAIN** 1 : 20



15 S-201 **TYPICAL PIPE THROUGH STRIP FOOTING** 1 : 100



16 S-201 **TYPICAL SLAB ON GRADE AT BOLLARDS** 1 : 100

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

KEY PLAN

Kasian
Project No.: 180293

wsp
Project No.: 161-14582-00

Revision Number	Description/Description	Date/Date
0	ISSUED FOR TENDER	2017.06.09

Client/client
TRANSPORT CANADA

Operations and Technical Services
#820 - 800 Burrard St.
Vancouver, BC V6Z 2J8

Project title/Titre du projet
PORT HARDY AIRPORT EQUIPMENT MAINTENANCE BUILDING
3675 BYNG ROAD
PORT HARDY, BC V0N 2P0

Consultant Signature Box Only

Designed by/Concept par: RANDALL EMERY
Approved by/Approuvée par: JIM GALLOWAY
Drawn by/Dessiné par: GINA MAJOR
PWGSC Project Manager/Administrateur de Projets TPSGC: JIMMY WONG
PWGSC, Regional Manager, Architectural and Engineering: OREST KLUFAS

Drawing title/Titre du dessin
FOUNDATION SECTIONS

Project No./No. du projet: R.077016.001
Sheet Feuill: S-201
Revision La Révision no.: 0

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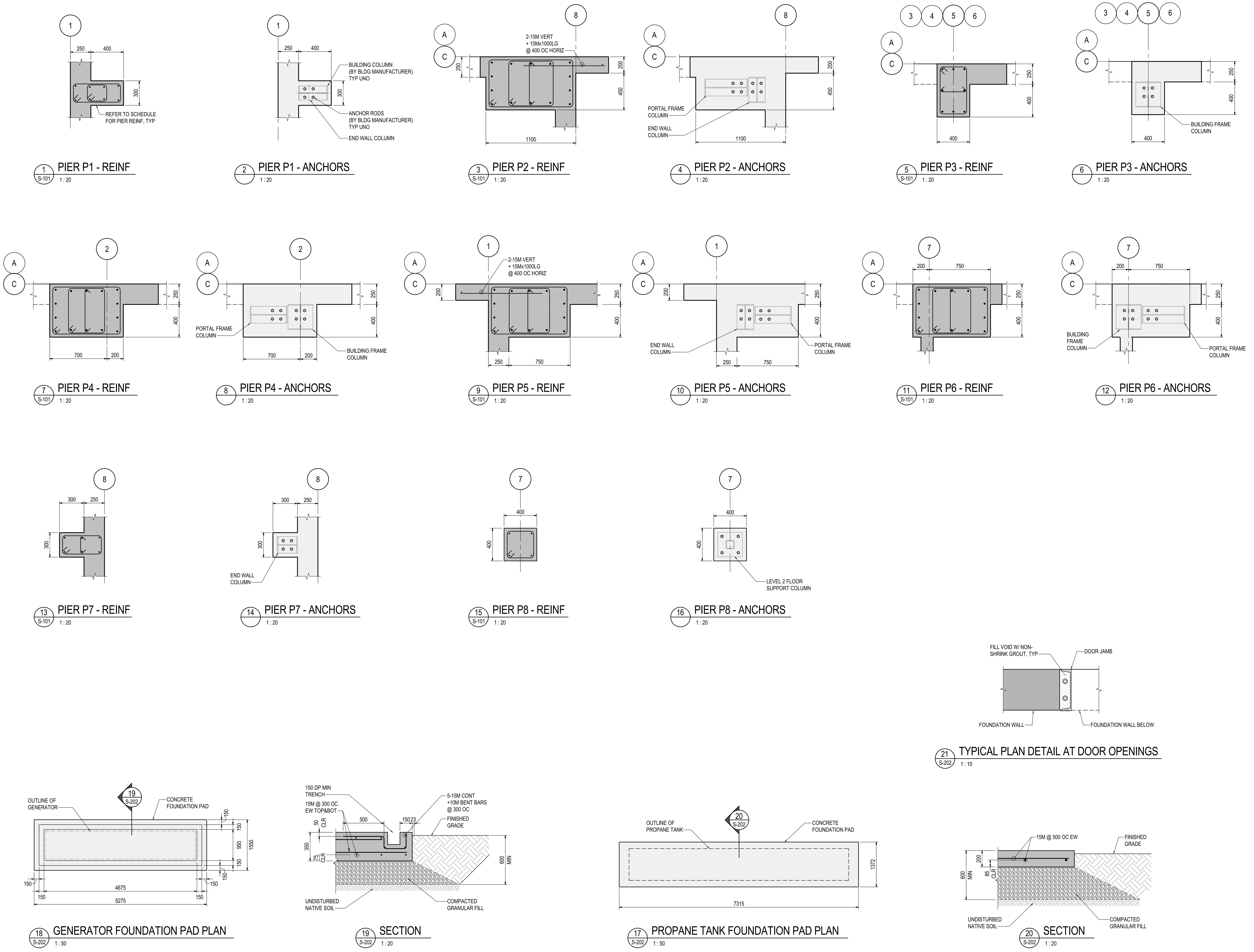

1 PIER P1 - REINF (S-101) 1 : 20

2 PIER P1 - ANCHORS 1 : 20

3 PIER P2 - REINF (S-101) 1 : 20

4 PIER P2 - ANCHORS 1 : 20

5 PIER P3 - REINF (S-101) 1 : 20

6 PIER P3 - ANCHORS 1 : 20

7 PIER P4 - REINF (S-101) 1 : 20

8 PIER P4 - ANCHORS 1 : 20

9 PIER P5 - REINF (S-101) 1 : 20

10 PIER P5 - ANCHORS 1 : 20

11 PIER P6 - REINF (S-101) 1 : 20

12 PIER P6 - ANCHORS 1 : 20

13 PIER P7 - REINF (S-101) 1 : 20

14 PIER P7 - ANCHORS 1 : 20

15 PIER P8 - REINF (S-101) 1 : 20

16 PIER P8 - ANCHORS 1 : 20

21 TYPICAL PLAN DETAIL AT DOOR OPENINGS (S-202) 1 : 10

18 GENERATOR FOUNDATION PAD PLAN (S-202) 1 : 50

19 SECTION (S-202) 1 : 20

17 PROPANE TANK FOUNDATION PAD PLAN (S-202) 1 : 50

20 SECTION (S-202) 1 : 20

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Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
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Operations and Technical Services
#820 - 800 Burrard St.
Vancouver, BC V6Z 2J8

Project title/Titre du projet

PORT HARDY AIRPORT EQUIPMENT MAINTENANCE BUILDING

3675 BYNG ROAD
PORT HARDY, BC V0N 2P0

Consultant Signature Box Only

Designed by/Concept par: RANDALL EMERY
Approved by/Approuvée par: JIM GALLOWAY
Drawn by/Dessiné par: GINA MAJOR
PWGSC Project Manager/Administrateur de Projets TPSGC: JIMMY WONG
PWGSC, Regional Manager, Architectural and Engineering: OREST KLUFAS

Drawing title/Titre du dessin

FOUNDATION PIER DETAILS AND EQUIPMENT PADS

Project No./No. du projet: R.077016.001
Sheet/Feuill: S-202
Revision/La Révision no.: 0

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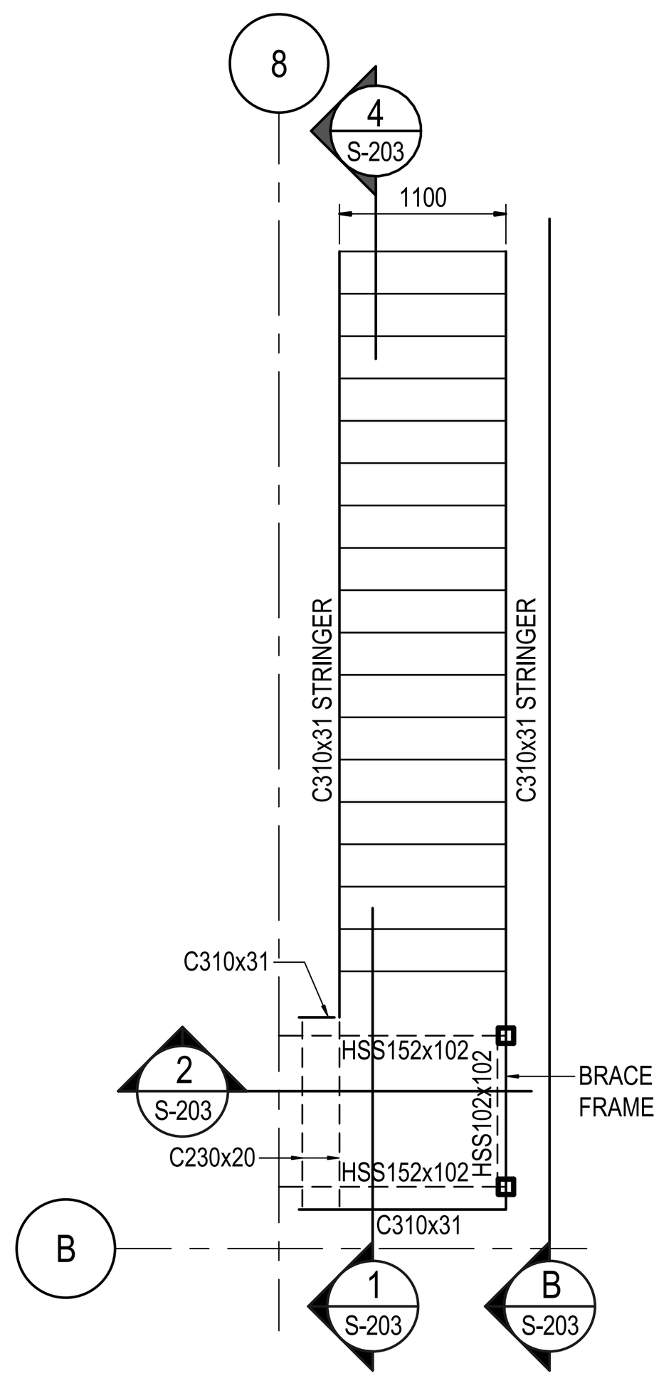
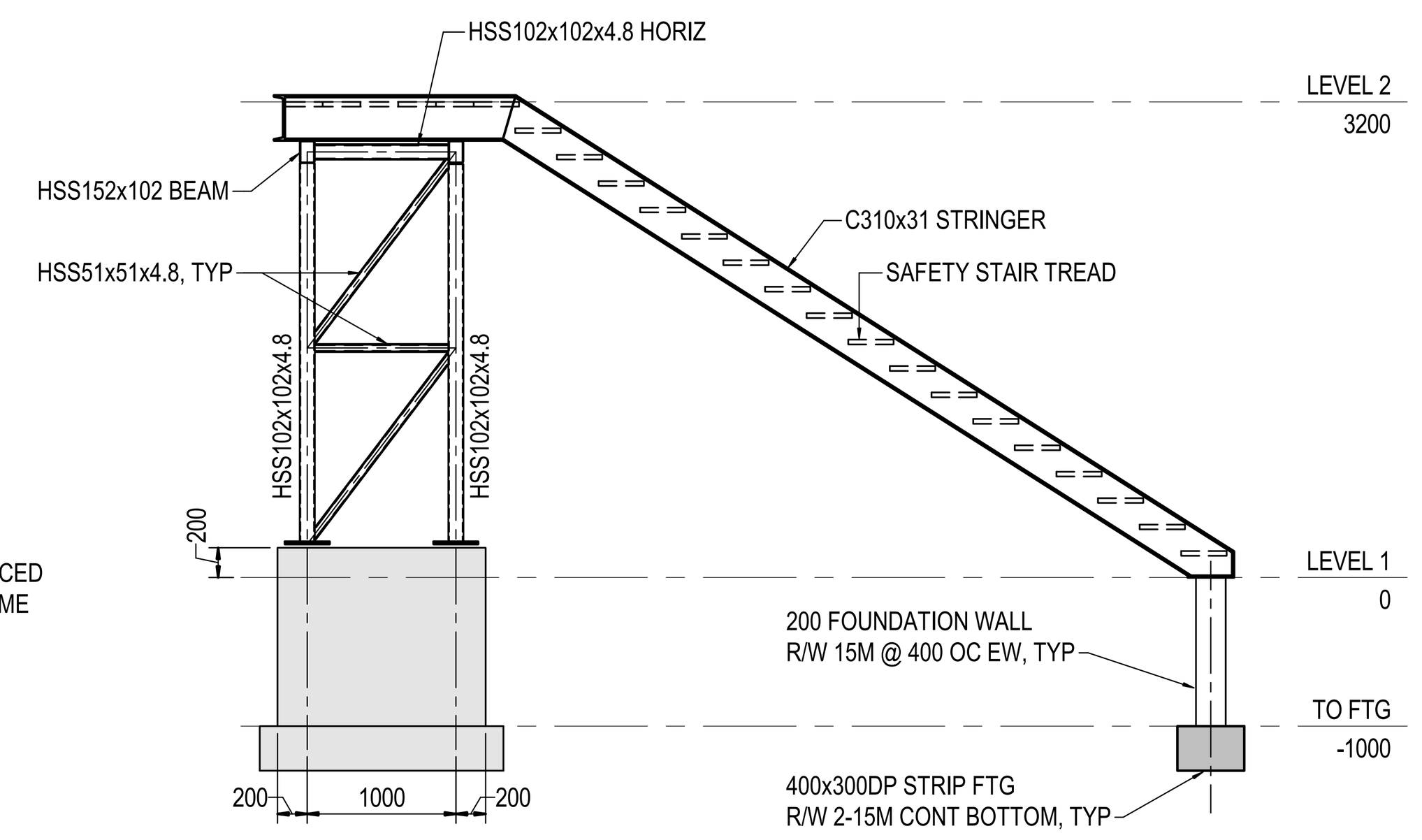


A S-203 EXTERIOR STAIR PLAN
1 : 50



B S-203 EXTERIOR STAIR ELEVATION
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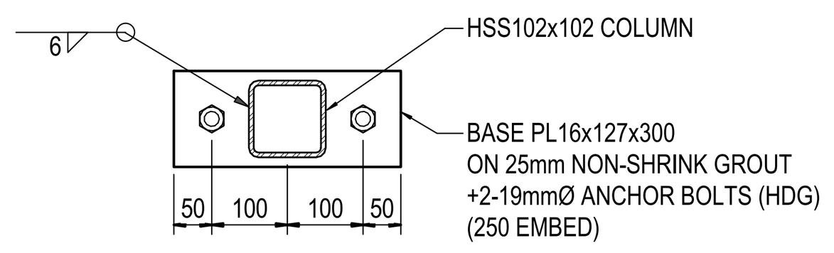
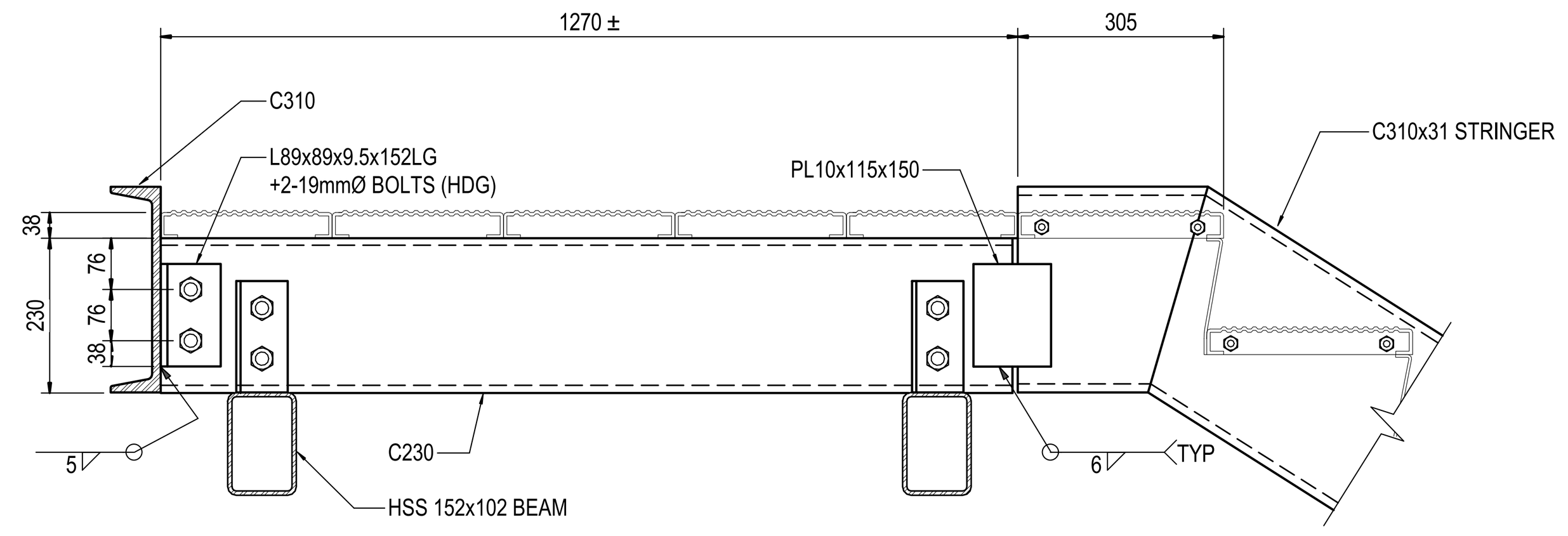


7 S-203 EXTERIOR STAIR BASE PLATE
1 : 10

ALL EXTERNAL STAIR STEEL TO BE HOT-DIPPED GALVANIZED



1 S-203 EXTERIOR STAIR SECTION
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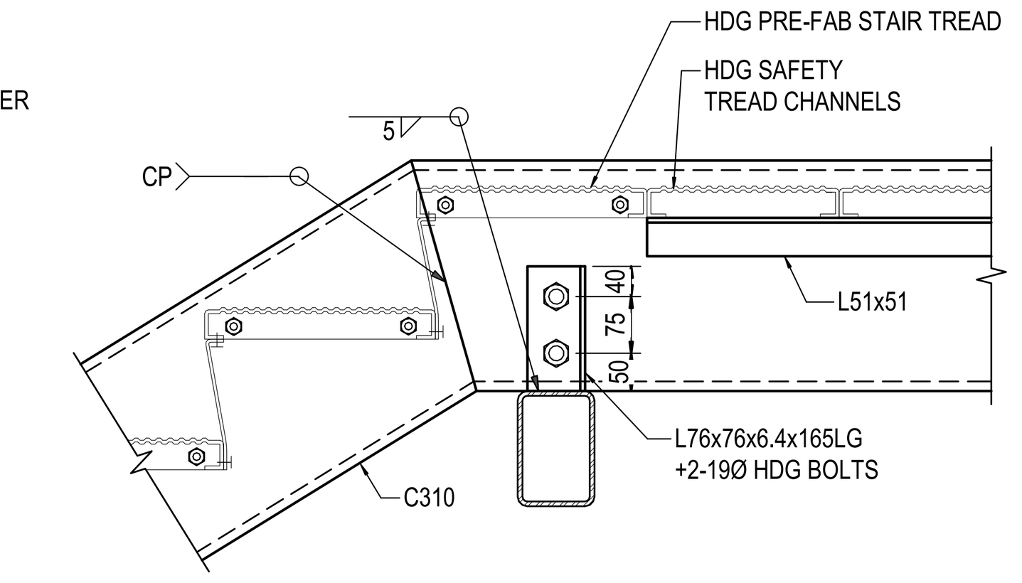

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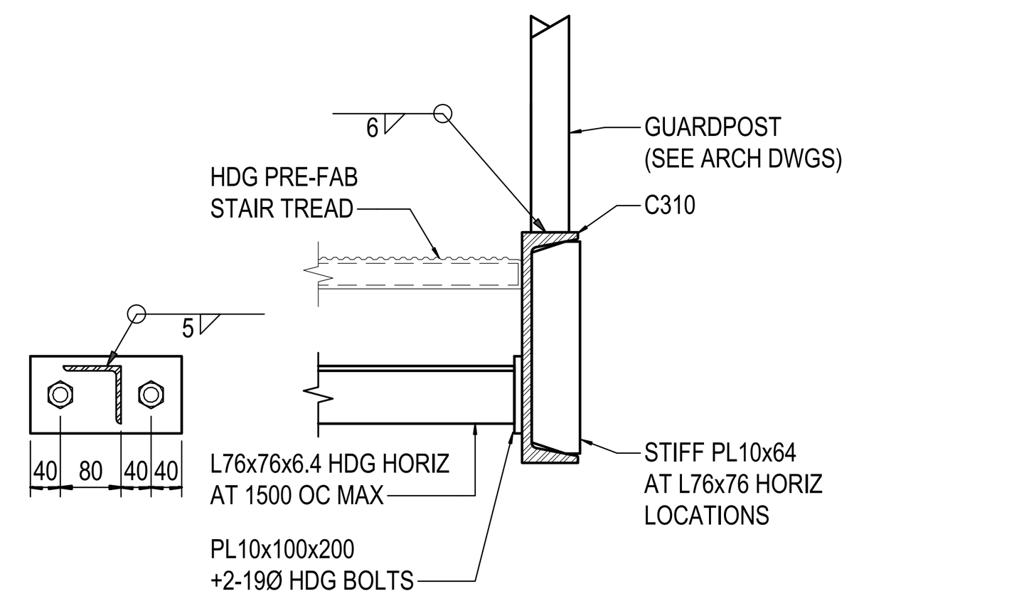

5 S-203 EXTERIOR STAIR GUARD POST CONNECTION
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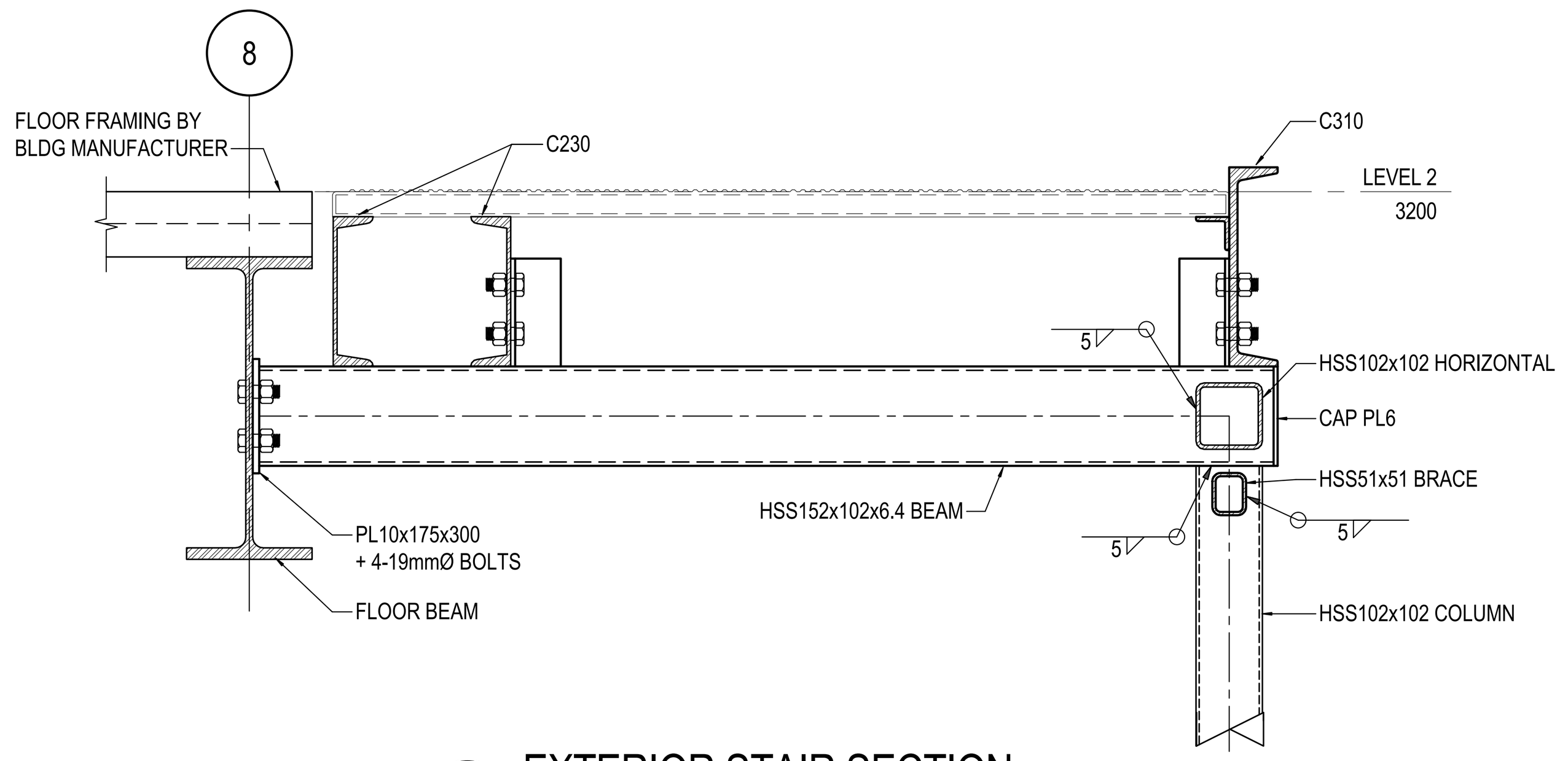

2 S-203 EXTERIOR STAIR SECTION
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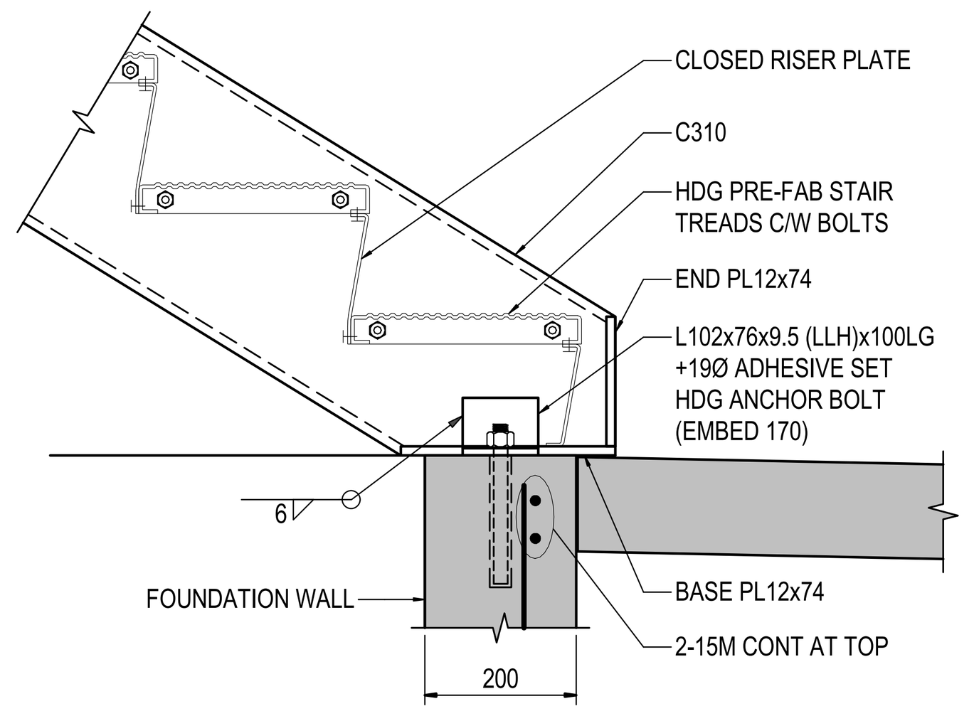
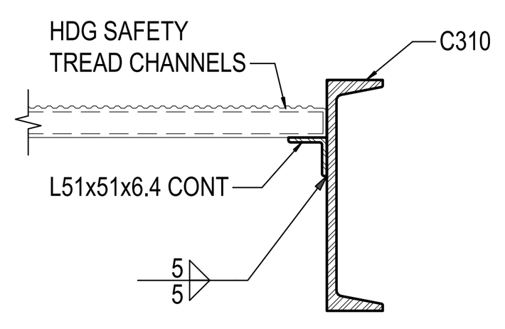


4 S-203 EXTERIOR STAIR SECTION AT BASE
1 : 10



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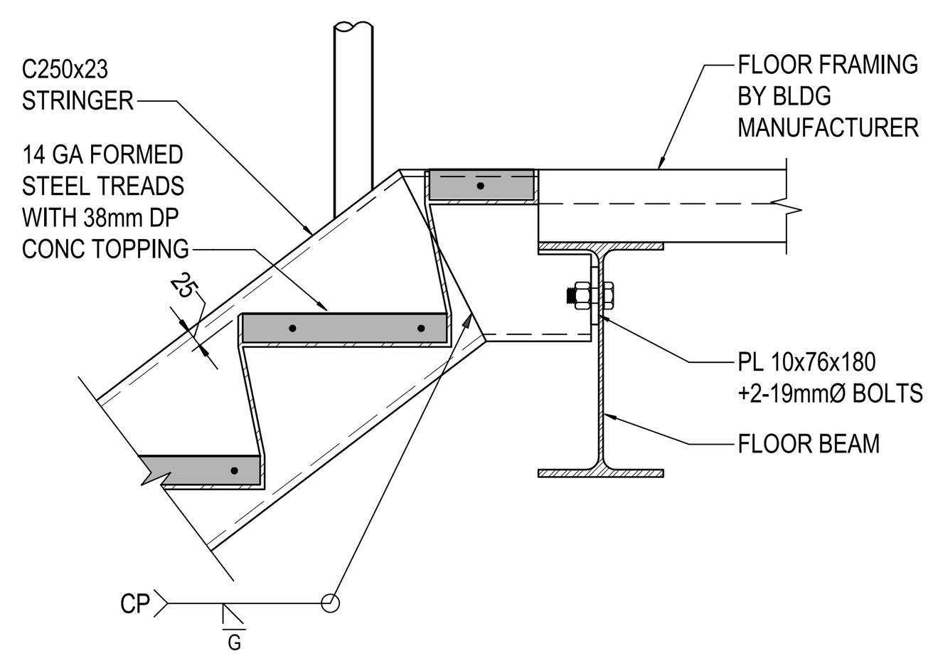

9 S-203 INTERIOR STAIR SECTION
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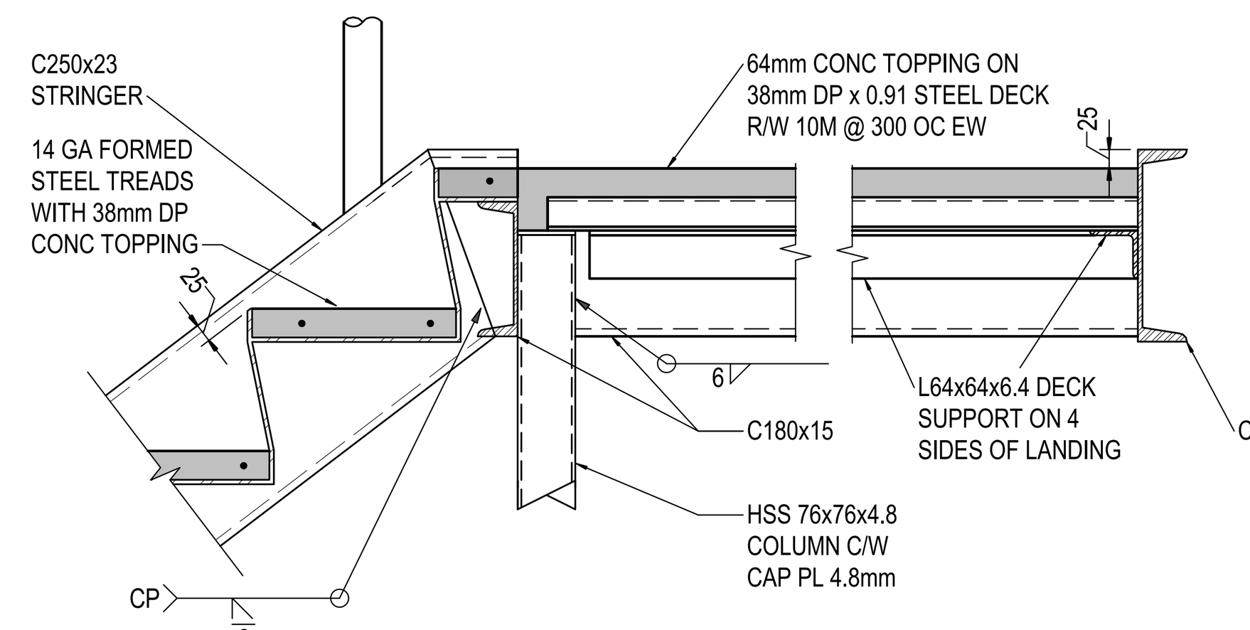

11 S-203 INTERIOR STAIR SECTION
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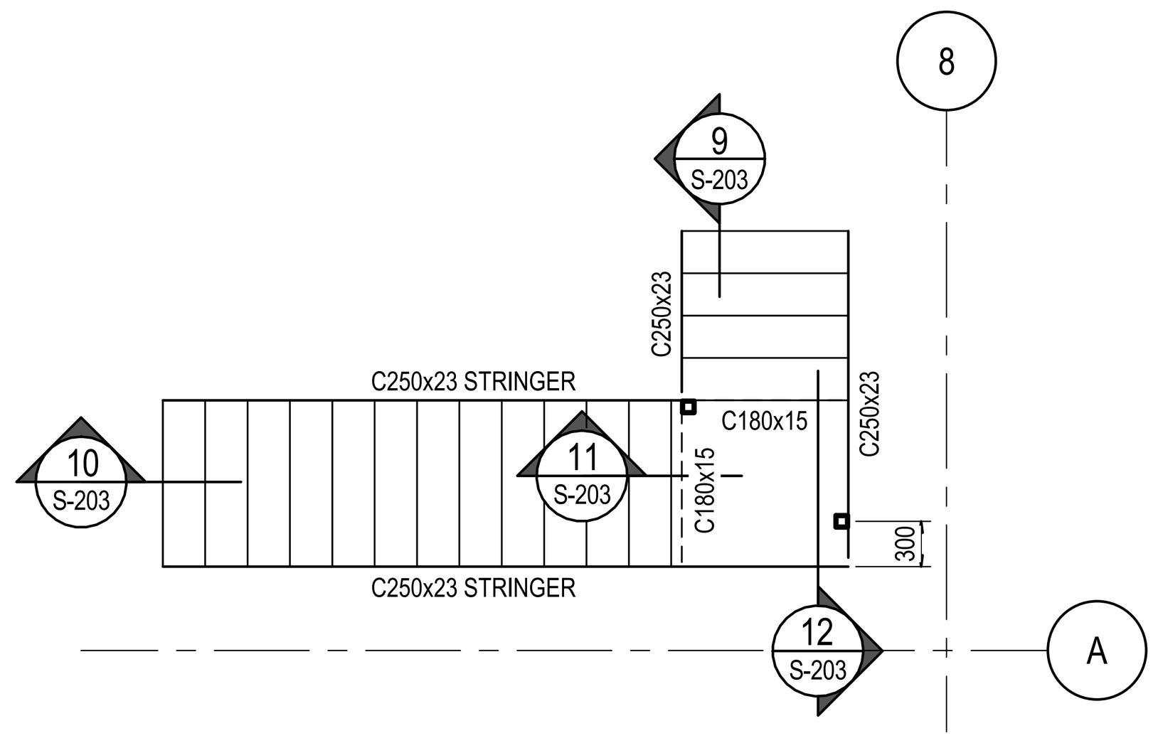

C S-203 INTERIOR STAIR PLAN
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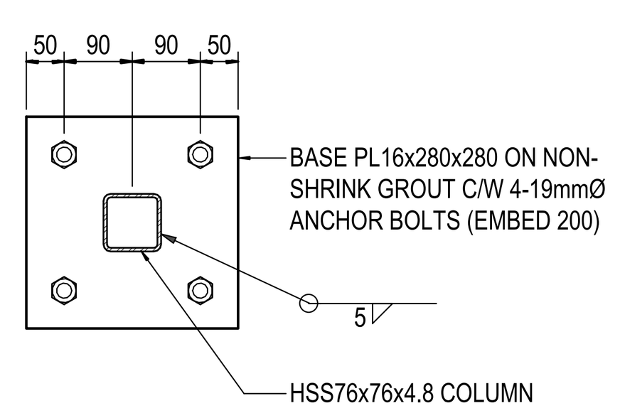
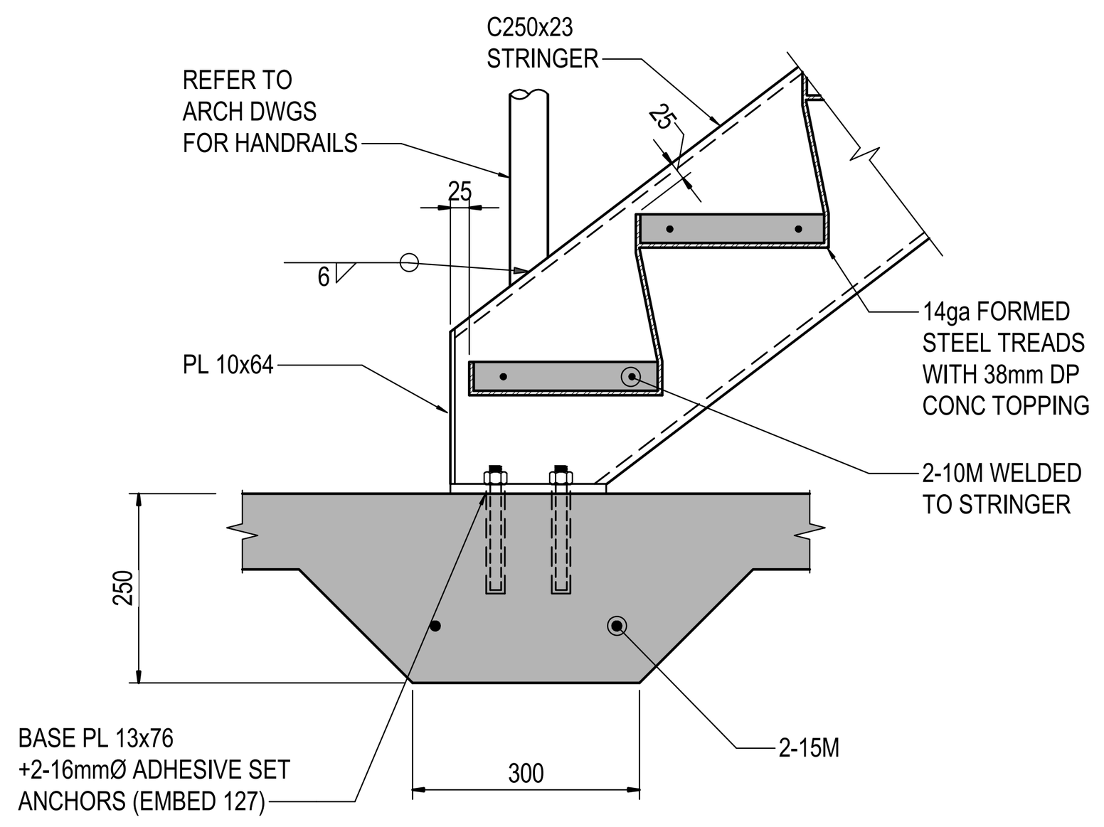


8 S-203 INTERIOR STAIR COLUMN BASE PLATE
1 : 10



10 S-203 INTERIOR STAIR SECTION AT BASE
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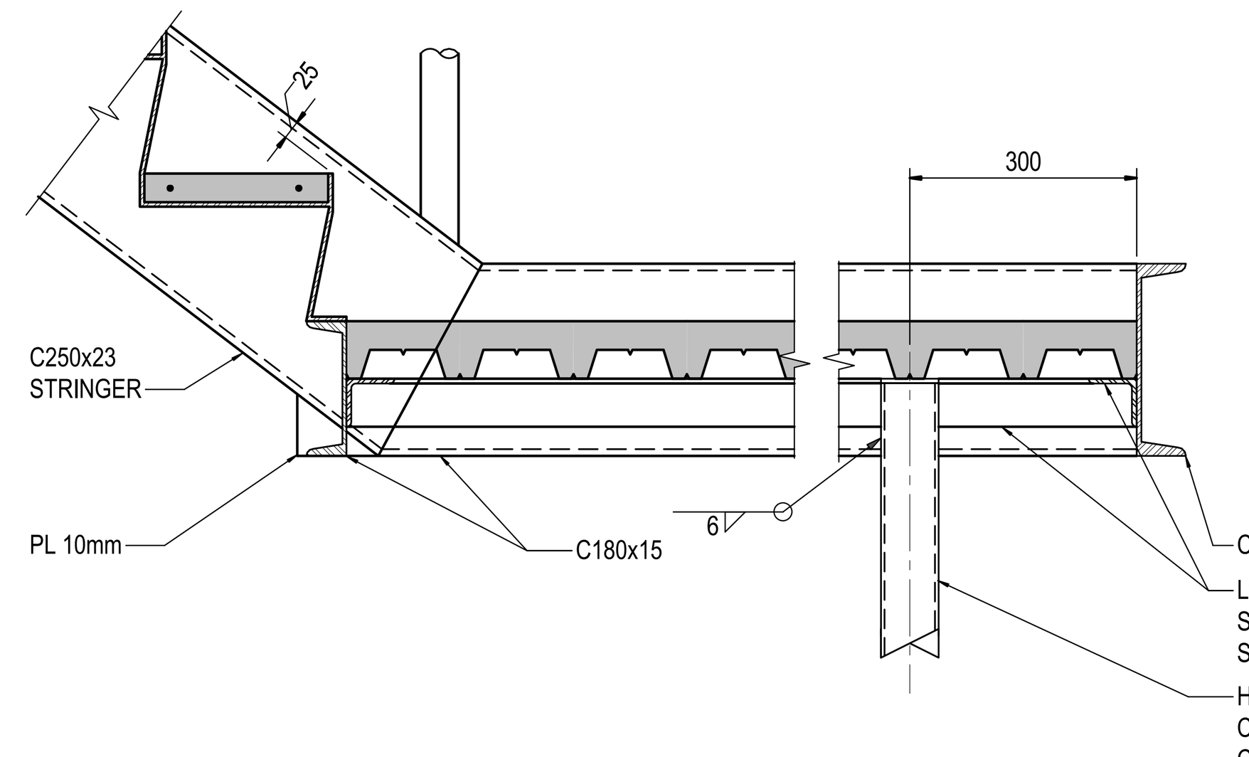

12 S-203 INTERIOR STAIR SECTION
1 : 10

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

KEY PLAN

Kasian

Project No.: 180293

wsp

Project No.: 161-14582-00

Revision Number	Description/Description	Date/Date
0	ISSUED FOR TENDER	2017.06.09

Client/client

TRANSPORT CANADA

Operations and Technical Services
#820 - 800 Burrard St.
Vancouver, BC V6Z 2J8

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PWGSC, Regional Manager, Architectural and Engineering / Gestionnaire régional, Services d'architectural et de génie: OREST KLUFAS

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STAIR PLANS, ELEVATION, SECTIONS AND DETAILS

Project No./No. du projet	Sheet Feuill	Revision La Révision no.
R.077016.001	S-203	0

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