GENERAL

1. THIS IS A METRIC PROJECT. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN MILLIMETERS AND ALL FORCES ARE IN METRIC UNITS (PER TG-ABBR-02).
2. "WSP-S" REFERS TO WSP CANADA STRUCTURAL CONSULTANT.
3. PROVIDE ALL MATERIAL AND LABOUR REQUIRED FOR COMPLETION OF THE WORK.
4. PRIOR TO CONSTRUCTION, REVIEW STRUCTURAL DRAWINGS IN CONJUNCTION WITH DRAWINGS PROVIDED BY ALL OTHER CONSULTANTS, AND WITH EXISTING CONDITIONS.
5. REPORT DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
6. VERIFY EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO CONSTRUCTION.
7. USE THESE DRAWINGS ONLY FOR THE PURPOSE IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION".
8. DO NOT USE INFORMATION ON THESE DRAWINGS FOR ANY OTHER PROJECT OR WORKS.
9. DO NOT SCALE THESE DRAWINGS.
10. ALL SECTIONS, DETAILS, AND STATEMENTS NOTED AS "TYPICAL" APPLY TO LIKE/SIMILAR CONDITIONS IN THE STRUCTURE.
11. 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. THE CONTRACTOR TO ESTABLISH CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE WHOLE STRUCTURE AND ALL ITS COMPONENTS DURING ERECTION.
12. MAKE ADEQUATE PROVISIONS FOR ALL LOADS ACTING ON THE STRUCTURE DURING ERECTION. PROVIDE TEMPORARY SHORING AND BRACING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT DURING CONSTRUCTION.
13. DESIGN AND CONSTRUCTION REVIEW 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.
14. DESIGN OF NON-STRUCTURAL AND SECONDARY STRUCTURAL ELEMENTS (SUCH AS MISCELLANEOUS STEEL STAIRS, RAILINGS AND GUARDRAILS, PARTITIONS, CLADDING, BULKHEADS, ETC.) IS THE RESPONSIBILITY OF SPECIALTY PROFESSIONAL ENGINEERS ENGAGED BY THE CONTRACTOR OR THE SUPPLIERS; IT IS NOT WITHIN THE SCOPE OF SERVICES PROVIDED BY WSP-S AND WILL NOT BE REVIEWED BY WSP-S.
15. 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.

DESIGN CRITERIA

1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2020 NATIONAL BUILDING CODE (NBC) SUPPLEMENTED BY THE USER'S GUIDE — NBC 2015 STRUCTURAL COMMENTARIES.
2. ALL REFERENCED STANDARDS SHALL BE THE CURRENT EDITION UNLESS DIFFERENT EDITION IS REFERENCED BY THE APPLICABLE BUILDING CODE NOTED ABOVE.
3. THE VALUES FOR CLIMATIC DATA USED IN THE DETERMINATION OF DESIGN LOADS HAVE BEEN OBTAINED FROM THE 2020 NBC] FOR THE SPECIFIC LOCATION OF WINNIPEG, MANITOBA.
4. BASED ON THE USE AND OCCUPANCY, THE BUILDING IS DESIGNED TO THE REQUIREMENTS OF A LOW IMPORTANCE CATEGORY.
5. 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.
6. SUPERIMPOSED DEAD LOADS (SDL) ARE NON-STRUCTURAL DEAD LOADS DUE TO NON-STRUCTURAL TOPPINGS, FINISHES, PARTITIONS, ROOFING MATERIALS, SUSPENDED EQUIPMENT, PAVERS, SOIL, ETC.
7. DEAD LOAD (DL) IS THE SELF WEIGHT OF THE STRUCTURE PLUS THE SUPERIMPOSED DEAD LOAD.
8. 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.
9. IF ONLY ONE VALUE IS GIVEN FOR A LOAD, CONSIDER IT LIVE LOAD.
10. FOR CONNECTION LOADS, "+" SIGN INDICATES TENSION AND "-" SIGN INDICATES COMPRESSION, EXCEPT FOR COLUMN LOADS WHERE "+" SIGN INDICATES COMPRESSION AND "-" SIGN INDICATES TENSION.
11. SNOW: Ss = 1.9 kPa; Sr = 0.2 kPa; Is (ULS) = 0.8; Is (SLS) = 0.9

    MINIMUM UNFACTORED SNOW LOAD = 1.72 kPa x Is
12. RAIN: 24 HOUR RAINFALL = 108 mm
13. LATERAL LOADS IN THIS STRUCTURE ARE RESISTED BY CANTILEVER COLUMNS FIXED AT BASE, AND ARE DETERMINED BASED ON THE WIND AND SEISMIC DATA BELOW.
14. WIND : q50 = 0.45 kPa; Iw (ULS) = 0.8; Iw (SLS) = 0.75

    TERRAIN TYPE: OPEN

    INTERNAL PRESSURE CATEGORY: N/A

SHOP DRAWINGS

1. SUBMIT 4 HARD COPIES OR PDF'S OF SHOP DRAWINGS FOR REVIEW BEFORE START OF WORK. PACKAGES TO BE SUBMITTED ARE NOTED IN THE RELEVANT SECTIONS BELOW.
2. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND STAMPED BY THE CONTRACTOR PRIOR TO DISTRIBUTION TO CONSULTANTS. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. REVIEW OF SHOP DRAWINGS BY WSP-S 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 THE CONTRACTOR'S 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.
4. 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 THESE DRAWINGS.
5. ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS IN THE WSP-S OFFICE. ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED. SUBMIT IN GENERAL CONFORMITY WITH THE SEQUENCE OF CONSTRUCTION INTENDED.
6. AFTER REVIEW, SHOP DRAWINGS WILL BE STAMPED AND RETURNED. DO NOT COMMENCE FABRICATION UNTIL RETURNED SHOP DRAWINGS HAVE BEEN EXAMINED. IF FABRICATION BEGINS PRIOR TO EXAMINATION OF RETURNED SHOP DRAWINGS, THE COST ASSOCIATED WITH ANY REQUIRED REPLACEMENT OR REWORK OF FABRICATED ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. SHOP DRAWINGS MARKED "**REVIEWED**" CAN BE USED FOR FABRICATION. DO NOT MAKE ANY CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE CONSULTANT.
8. 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 CONSULTANT.
9. 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. ONLY THE IDENTIFIED CHANGES WILL BE REVIEWED ON RE-SUBMISSION.
10. 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. WSP-S WILL NOT REVIEW 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.
11. DRAWINGS MARKED "**NOT REVIEWED**" SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES.
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. WSP-S 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 WSP-S A GUARANTOR OF THE CONTRACTOR'S WORK.
2. ASSIST WSP-S DURING FIELD REVIEW AND PROVIDE SAFE ACCESS TO WORK AREAS AS REQUIRED.
3. CHECK THE WORK PRIOR TO FIELD REVIEW TO CONFIRM IT IS COMPLETED AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
4. NOTIFY WSP-S 48 HOURS PRIOR TO CONCRETE POURS, BACKFILLING, AND COVERING UP THE STRUCTURE WITH FINISHES.

EXISTING STRUCTURE

1. EXISTING STRUCTURAL INFORMATION IS BASED UPON DRAWINGS PREPARED BY SMITH CARTER ARCHITECTURE, DATED MARCH 18TH 2008.
2. DESIGN OF STRUCTURAL WORKS RELATED TO THE EXISTING STRUCTURE HAS BEEN CARRIED OUT AS FAR AS PRACTICAL, GIVEN LIMITED AVAILABILITY OF THE EXISTING DRAWINGS AND LIMITED RECORDS OF THE STRUCTURAL MODIFICATIONS LIKELY TO HAVE BEEN MADE THROUGH THE LIFE OF THE BUILDING. MODIFICATIONS TO THE PROPOSED STRUCTURAL FRAMING AND / OR DETAILS MAY BE REQUIRED IF EXISTING CONDITIONS ARE FOUND TO BE DIFFERENT FROM THOSE ASSUMED AND SHOWN ON DRAWINGS.
3. EXISTING CONDITIONS ARE ASSUMED. SURVEY THE EXISTING STRUCTURE AFTER REMOVING FINISHES AND REPORT ANY VARIATIONS TO WSP-S BEFORE PROCEEDING WITH THE WORK.
4. TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE EXISTING STRUCTURE DURING CONSTRUCTION.
5. SCHEDULE WORK TO MINIMIZE EFFECT ON THE EXISTING BUILDING OPERATION. USE EQUIPMENT AND PROCEDURES TO MINIMIZE NOISE, DUST AND VIBRATIONS. SUBMIT PROPOSED SCHEDULE FOR REVIEW BY THE CONSULTANT AND THE OWNER.
6. DO NOT PERMIT LOADS FROM CONCRETE FORMWORK TO BE TRANSMITTED TO ADJACENT EXISTING STRUCTURES.
7. ALL DEMOLITION, SHORING, AND OTHER TEMPORARY WORKS TO BE DESIGNED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED. PREPARE DRAWINGS SIGNED AND SEALED BY THAT ENGINEER SHOWING DEMOLITION PROCEDURE AND SEQUENCE AND ALL THE NECESSARY SHORING.
8. UNDERTAKE CHIPPING, CUTTING, CORING, REPAIRS, PATCHING, AND REMOVAL OF DEBRIS. MAKE CUTS WITH THE PROPER SAWS AND BITS WHEN A CLEAN LINE IS REQUIRED.
9. DO NOT ALTER MATERIAL PROPERTIES OF THE STRUCTURAL STEEL WHICH IS TO REMAIN BY CUTTING AND DEMOLITION PROCEDURE.
10. MAKE GOOD ALL EXISTING WORK DISTURBED BY SHORING OPERATIONS, EXCAVATION AND OTHER CONSTRUCTION PROCEDURES.

FOUNDATIONS

1. LOCATE ALL EXISTING UNDERGROUND SERVICES PRIOR TO EXCAVATION AND/OR PILE INSTALLATION.
2. KEEP EXCAVATION DRAINED AND FREE OF WATER AT ALL TIMES.
3. PROTECT FOOTINGS, PIERS, PILE TOPS, PILE CAPS, 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.
4. DO NOT PLACE CONCRETE IN WATER OR ON FROZEN SOIL.

POST-INSTALLED ANCHORS AND DOWELS

1. IN ORDER TO BE ACCEPTED, ANY ALTERNATIVES TO THE HILTI PRODUCTS SPECIFIED ABOVE MUST BE ACCOMPANIED BY TESTING DATA AND ICC-ES REPORTS DEMONSTRATING THAT THEIR PERFORMANCE (INCLUDING SUITABILITY FOR SEISMIC APPLICATIONS, CAPACITY IN CRACKED CONCRETE AND CAPACITY REDUCTIONS DUE TO SPACING AND EDGE DISTANCE) IS EQUIVALENT TO THE PERFORMANCE OF HILTI PRODUCTS. IN ADDITION, THAT PERFORMANCE MUST BE ACHIEVED USING INSTALLATION TOOLS AND PROCEDURES WHICH DO NOT RQUIRE DRILLED HOLES TO BE CLEANED PRIOR TO ANCHOR INSTALLATION.
2. IF ANCHORS OTHER THAN THE HILTI PRODUCTS SPECIFIED ABOVE ARE APPROVED TO BE USED, ANCHOR SUPPLIER TO ESTABLISH THE EMBEDMENT LENGTHS REQUIRED TO ACHIEVE PERFORMANCE EQUIVALENT TO THE HILTI PRODUCTS EMBEDDED AS INDICATED IN THESE NOTES.
3. ANCHOR AND DOWEL CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND THEIR PROXIMITY TO CONCRETE AND MASONRY EDGES; THEREFORE, ALL ANCHORS MUST BE INSTALLED WITH CLEARANCES AND EDGE DISTANCES INDICATED ON DRAWINGS.
4. ANCHORS TO BE HOT DIP GALVANIZED.
5. USE DRILLING AND INSTALLATION TOOLS AND PROCEDURES PER MANUFACTURERS' RECOMMENDATIONS. DO NOT CORE DRILL UNLESS SPECIFICALLY NOTED ON DRAWINGS. HOLE DIAMETERS NOT TO EXCEED THOSE REQUIRED BY MANUFACTURER.
6. WHERE CORE DRILLING IS SPECIFIED, CLEAN AND ROUGHEN HOLES PER MANUFACTURER'S RECOMMENDATION.
7. DO NOT CUT REINFORCEMENT TO ACCOMMODATE DRILLED ANCHORS AND DOWELS.
8. ARRANGE FOR THE ANCHOR MANUFACTURER TO CONDUCT TRAINING FOR INSTALLATION OF ALL THE PRODUCTS SPECIFIED, AND FOR ALL CONDITIONS ENCOUNTERED (E.G. HORIZONTAL, INCLINED, OVERHEAD) PER CSA A23.3-19 ANNEX D. ALL INSTALLERS MUST COMPLETE THE SUPPLIER CERTIFIED INSTALLER TRAINING PROGRAM. SUBMIT COPIES OF COMPLETION CERTIFICATES FOR WSP-S RECORD.
9. WHEN OBSTRUCTIONS PREVENT DRILLING HOLES IN SPECIFIED LOCATIONS TO THE REQUIRED DEPTH, RELOCATE AT NO EXTRA COST TO THE CONTRACT. OBTAIN WSP-S APPROVAL OF NEW LOCATIONS BEFORE DRILLING; MODIFICATIONS TO CONNECTED MEMBERS AND ADDITIONAL ANCHORS / DOWELS MAT BE REQUIRED. FILL ABANDONED HOLES WHICH ARE CLOSER THAN 3 TIMES THE HOLE DIAMETER FROM THE RELOCATED ANCHORS WITH HILTI HIT-RE 100 ADHESIVE OR WITH 30MPa NON-SHRINK GROUT. DO NOT TIGHTEN ANCHORS UNTIL THE FILLER HAS FULLY CURED.
10. DO NOT BEND POST INSTALLED DOWELS AND RODS AFTER INSTALLATION.

STRUCTURAL STEEL

1. CONFORM TO CSA S16 "DESIGN OF STEEL STRUCTURES".
2. FABRICATOR TO BE CERTIFIED BY THE CANADIAN WELDING BUREAU UNDER REQUIREMENTS OF CSA W47.1, DIVISION 1 OR 2, AND/OR CSA W55.3.
3. WELDERS TO BE CWB CERTIFIED. WELDING TO BE IN ACCORDANCE WITH CSA W59.
4. MATERIALS (TO CSA G40.21 UNLESS NOTED OTHERWISE):
   - WIDE FLANGE SECTIONS, CHANNELS AND ANGLES: GRADE 350W
   - PLATES, BARS: GRADE 300W
   - HOLLOW STRUCTURAL SECTIONS (HSS): 350W CLASS "C" OR "H"; OR ASTM A500 GRADE C; OR ASTM A1085 GRADE 50 (345 MPa)
   - GALVANIZED HSS: 350W CLASS H; OTHER GRADES TO BE STRESS RELIEVED PRIOR TO GALVANIZING
   - PIPE: ASTM A53, 240W
   - BOLTS, NUTS AND WASHERS: ASTM F3125, GRADE A325
   - ANCHOR RODS: GRADE 300W; OR ASTM F1554 GRADE 36
   - WELDING MATERIALS: CSA W48 AND CSA W59
   - HOT DIP GALVANIZING: ASTM A123/A123M
5. SHOP DRAWINGS FOR STRUCTURAL STEEL, STEEL CONNECTIONS, AND STEEL JOISTS TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR DESIGN, RETAINED BY THE CONTRACTOR AND REGISTERED IN THE PLACE THE PROJECT IS LOCATED. ENGINEER TO CARRY MINIMUM $1,000,000 IN LIABILITY INSURANCE.
6. WHERE MOMENT CONNECTIONS ARE CALLED FOR BUT VALUES ARE NOT INDICATED, DESIGN FOR MOMENT CAPACITY OF THE SMALLER MEMBER IN THE CONNECTION.
7. WHERE SLOTTED CONNECTIONS ARE SHOWN ON STRUCTURAL DRAWINGS, FINGER TIGHTEN BOLTS TO A SNUG FIT AND BURR THREADS TO PREVENT NUTS FROM WORKING LOOSE.
8. DO NOT SPLICE SECTIONS WITHOUT PRIOR ACCEPTANCE BY THE CONSULTANT AND SUBMISSION OF PERTINENT SHOP DRAWINGS. ACCEPTED SPLICES TO DEVELOP THE FULL MOMENT CAPACITY OF THE SECTION. EACH SPLICE TO BE GIVEN A NON-DESTRUCTIVE TEST BY AN INDEPENDENT INSPECTION COMPANY ACCEPTABLE TO WSP-S. TESTING TO BE AT THE CONTRACTOR'S EXPENSE. EVALUATE RESULTS IN ACCORDANCE WITH CSA W59 AND REPORT TO WSP-S.
9. DO NOT CUT HOLES OR OTHERWISE MODIFY STRUCTURAL MEMBERS ON SITE.
10. DO NOT OVERSIZE ANCHOR ROD HOLES FOR SITE TOLERANCES. USE HOLE SIZES SUGGESTED IN THE CISC "HANDBOOK OF STEEL CONSTRUCTION".
11. PROTECT COMBUSTIBLE MATERIALS AND FINISHES DURING WELDING OPERATIONS.
12. DO NOT WELD IN AMBIENT TEMPERATURES BELOW -18°C. PREHEAT MATERIAL ADJACENT TO WELDING AREAS WHEN WELDING TEMPERATURE IS BETWEEN -18°C AND 0°C.
13. UNLESS OTHERWISE NOTED, CLEAN STEEL TO SSPC SP1 (SOLVENT CLEANING) AND APPLY ONE COAT OF SHOP PAINT.
14. CLEAN STEEL WHICH WILL RECEIVE A FINISHED COAT OF PAINT ON SITE TO SSPC SP7 (BRUSH OFF BLAST CLEANING) AND APPLY SHOP PRIMER.
15. CLEAN STEEL WHICH WILL RECEIVE ZRP TO SSPC SP10 (NEAR WHITE BLAST CLEANING), AND APPLY ZINC RICH PRIMER.
16. ALL STEEL TO BE HOT DIPPED GALVANIZED.
17. CLEAN SURFACES DOWN TO BARE METAL AND APPLY TWO COATS OF TOUCH-UP ZRP TO ANY GALVANIZED OR ZRP SURFACE THAT HAS BEEN DAMAGED OR FIELD WELDED.
18. IF STRUCTURAL STEEL IS IN DIRECT CONTACT WITH GROUND (E.I. COLUMN BASE IS NOT ENCASED IN CONCRETE), PROTECT WITH EPOXY PAINT.
19. PROVIDE VENT HOLES IN HSS SECTIONS WHERE REQUIRED FOR GALVANIZING PROCESS. MAXIMUM SIZE 16 (5/8") DIAMETER. FILL WITH VENT HOLE PLUGS AFTER GALVANIZING.
20. PROVIDE ALL ERECTION BRACING REQUIRED TO KEEP THE STRUCTURE STABLE AND IN ALIGNMENT DURING CONSTRUCTION.
21. PREMIXED GROUT: NON-SHRINK, MINIMUM STRENGTH 40 MPa AT 28 DAYS.
22. INSTALL GROUT UNDER BASE PLATES AS SOON AS STEEL WORK IS COMPLETE, IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. PROVIDE 100% CONTACT OVER GROUTED AREA. DO NOT APPLY ANY LOADS TO THE STEELWORK BEFORE GROUT ACHIEVES SUFFICIENT STRENGTH.

INSPECTION AND TESTING

1. PROVIDE INSPECTION REPORTS PREPARED BY AN INDEPENDENT INSPECTION AND TESTING AGENCY FOR THE SCOPES LISTED BELOW. THE COST OF THE INSPECTION WILL BE BORNE BY THE CONTRACTOR.
2. STRUCTURAL STEEL INSPECTION REPORTS TO INCLUDE VERIFICATION OF SPECIFIED MEMBER SIZES AND TOLERANCES AND INSPECTION OF WELDING AND BOLTING. INSPECTOR TO REVIEW WELDERS' CWB CERTIFICATION.
3. INSPECT POST INSTALLED ANCHORS INCLUDING DRILLED CONCRETE ANCHORS (DCA), DRILLED MASONRY ANCHORS (DMA), ADHESIVE CONCRETE ANCHORS (ACA), ADHESIVE MASONRY ANCHORS (AMA), AND REBAR DOWEL ANCHORS (RDA), RANDOMLY SELECT AND TEST 5% OF ALL OTHER TYPES / SIZES OF POST INSTALLED ANCHORS INSTALLED ON A WEEKLY BASIS, BUT NOT LESS THAN ONE ANCHOR OF EACH TYPE, SIZE, AND ORIENTATION. TEST LOADING AS FOLLOWS:
   - TORQUE TEST EXPANSION ANCHORS FOR COMPLIANCE WITH THE TORQUE SPECIFIED BY THE MANUFACTURER.
   - PULL TEST ADHESIVE ANCHORS IN CONFINED CONDITION IN ACCORDANCE WITH ASTM E3121 TO TWICE THE ALLOWABLE TENSILE LOAD OR 1.5 TIMES THE FACTORED RESISTANCE OF THE ANCHOR GIVEN BY THE MANUFACTURER.
   - PROVIDE FULL TIME INSPECTION DURING INSTALLATION OF ADHESIVE ANCHORS SUBJECT TO SUSTAINED TENSION LOADS INSTALLED IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS.
4. POST INSTALLED ANCHOR INSPECTION REPORTS TO INDICATE EACH ANCHOR LOCATION, TEST LOAD, AND MODE OF FAILURE IF APPLICABLE. NOTIFY WSP-S IMMEDIATELY IF ANY ANCHOR FAILS THE PULL TEST.

REJECTED WORK

1. DO NOT DELIVER MATERIALS WHICH ARE KNOWN NOT TO MEET THE REQUIREMENTS OF THE SPECIFICATIONS. IF REJECTED AFTER DELIVERY, REMOVE IMMEDIATELY FROM SITE.
2. ALL WORK NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

REVISIONS:

REV	DATE	DESCRIPTION	BY
0	2024-12-19	ISSUED FOR TENDER	KN

SEAL:

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
WSP Canada Inc.
No. 5750

ORIGINAL SCALE: NTS
APPROVED BY: KN
CHECKED BY: LJ
DRAWN BY: CV
DATE: 2024-12-16

IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.

25mm

DISCIPLINE: STRUCTURAL

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Winnipeg, MB, Canada, R3T 6B8
T 204-477-6650 | www.wsp.com

PROJECT NUMBER: CA0044374.3443

CLIENT: CITY OF WINNIPEG

CLIENT REF. #:

PROJECT: BRIDGWATER FOREST FOUNTAIN - PERGOLA PILLAR REINSTATEMENT

TITLE: GENERAL NOTES

DRAWING NUMBER: S100

REV.: 0