GENERAL NOTES

1.) CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK. VERIFY ALL DIMENSIONS WITH STRUCTURAL DRAWINGS.

2.) GUYING, SHORING AND BRACING DURING CONSTRUCTION IS ENTIRELY THE RESPONSIBILITY OF THE CONTRACTOR.

3.) SHOULD SITE CONDITIONS VARY FROM THOSE INDICATED ON THE DRAWINGS, THE ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.

4.) STRUCTURAL DRAWINGS SHOW THE COMPLETED STRUCTURE, THEY DO NOT SHOW COMPONENTS WHICH MAY BE NECESSARY FOR SAFETY DURING CONSTRUCTION. EACH SUBTRADE IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION. CONFORM TO THE LATEST REGULATIONS OF THE PROVINCIAL "BUILDING PROTECTION ACT" AND PROVIDE ALL NECESSARY SAFETY EQUIPMENT AS REQUIRED THEREUNDER, AND NOTIFY THE LOCAL AUTHORITIES AS REQUIRED BY LAW.

5.) DESIGN LIVE LOADS SHALL NOT BE EXCEEDED AT ANY TIME DURING CONSTRUCTION.

6.) DO NOT SCALE DRAWINGS.

7.) MODIFICATIONS, ALTERATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE DESIGN ENGINEER.

8) THE GENERAL CONTRACTOR SHALL LOCATE ALL EXISTING SITE SERVICES PRIOR TO CONSTRUCTION.

9.) FOR OPENINGS IN SLAB, FLOOR, WALLS, ROOF, ETC. REFER TO STRUCTURAL, MECHANICAL, AND/OR OTHER PERTINENT DRAWINGS.

10.) LOCATION OF CONSTRUCTION JOINTS IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR BUT THE APPROVAL MUST BE OBTAINED FROM THE DESIGN ENGINEER BEFORE PROCEEDING.

11.) THE GENERAL CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AT LEAST 48 HOURS (72 HOURS FOR OUT OF TOWN PROJECTS) PRIOR TO ALL CONCRETE POURS.

12.) ALL CODES REFERENCED IN THESE NOTES SHALL BE THE LATEST REVISION.

13.) STRUCTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ALL DISCREPANCIES AND AMBIGUITIES IN STRUCTURAL FRAMING TO THE DESIGN ENGINEER BEFORE PROCEEDING WITH THE WORK. NO MODIFICATION, ALTERATION OR SUBSTITUTION SHALL BE DONE WITHOUT WRITTEN APPROVAL.

14.) VISIT SITE TO DETERMINE EXISTING CONDITIONS AND REQUIREMENTS FOR PROTECTION OF ADJACENT WORK, AND ACCEPT SITE AND EXISTING WORK AS IT EXISTS AT TIME OF COMMENCEMENT OF WORK VERIFY ALL DIMENSIONS AT THE SITE.

15.) SUBMIT SHOP DRAWINGS OF REINFORCING STEEL FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS (EXCEPT REINFORCING STEEL) SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.

CONCRETE NOTES

1.) SITE LAYOUT FOR EXCAVATION AND PILING SHALL BE DONE BY CONCRETE SUBTRADE. REFER TO PILE NOTES FOR PLACING TOLERANCES.

2.) EACH PIER SHALL BE PLACED NOT MORE THAN 2% ITS LENGTH OUT OF PLUMB AND SHALL BE POSITIONED NOT MORE THAN 50mm (2 in.) FROM THE LOCATION SHOWN ON THE PLAN. PIERS NOT MEETING THESE REQUIREMENTS WILL BE REPLACED AT NO COST TO THE OWNER.

3.) ALL CONCRETE TO BE IN ACCORDANCE WITH C.S.A. STANDARD A23.3
CONCRETE SCHEDULE:

A. GRADE BEAMS----------CLASS F-2 EXPOSURE (25MPA MIN. STRENGTH @ 28 DAYS)
B. INTERIOR SLABS ON GRADE--- CLASS N EXPOSURE (25MPA MIN. STRENGTH @ 28 DAYS) (INCLUDING TOPPING)
C. INTERIOR STRUCTURAL SLABS---CLASS N EXPOSURE (25PMA MIN. STRENGTH @ 28 DAYS)
D. EXTERIOR SLABS ON GRADE ---CLASS C-2 EXPOSURE (32PMA MIN. STRENGTH @ 56 DAYS) (SIDEWALKS, CURBS, TOPPING, PADS)
E. EXTERIOR STRUCTURAL SLABS---CLASS C-1 EXPOSURE (32MPA MIN. STRENGTH @ 56 DAYS)
F. PILE CAPS----------CLASS S-2 EXPOSURE (32MPA MIN. STRENGTH @ 56 DAYS)
G. PILES----------CLASS S-2 EXPOSURE (32MPA MIN. STRENGTH @ 56 DAYS)

4.) ALL CONCRETE IN CONTACT WITH SOIL AND NOT PROTECTED BY DAMP PROOFING TO BE MADE WITH SULFATE RESISTANT CEMENT.

5.) CONCRETE COVER TO MAIN REINFORCING STEEL:

75	(3")	-PIERS/FOOTINGS
75	(3")	-GRADE BEAM (BOTTOM)
50	(2")	-GRADE BEAM SIDES
25	(1")	-SLAB BOTTOM
18	(3/4")	-SLAB TOP STEEL

6.) ALL CONCRETE IN CONTACT WITH SOIL SHALL BE MADE WITH TYPE 50 SULFATE RESISTANT CEMENT. ALL CONCRETE FOR CAST-IN-PLACE CONCRETE PILES SHALL BE MADE WITH TYPE 50 SULFATE RESISTANT CEMENT HAVING A MINIMUM CEMENT CONTENT OF 340 kg/m3, WATER CEMENT RATIO 0.45 AND SHALL CONTAIN A WATER REDUCING ADMIXTURE. CONCRETE TO BE CONSOLIDATED WITH AN INTERNAL VIBRATOR.

7.) REINFORCING STEEL SHALL BE NEW BILLET GRADE 300 DEFORMED BARS WITH A MINIMUM YIELD STRENGTH OF 300 MPa ACCORDING TO THE CURRENT EDITION OF CSA SPECIFICATION G30.12. ALL REINFORCING STEEL SHALL BE FREE OF RUST, MUD, OIL OR OTHER COATINGS THAT WOULD REDUCE THE CONCRETE BOND.

8.) SAW CUTS SHOWN ON DRAWINGS SHALL BE MADE NO LATER THAN 24 HOURS FOLLOWING CONCRETE POUR. SAW CUT CONTROL JOINTS SHALL BE CAULKED/SEALED WITH 'QUICK JOINT UVR" OR EQUAL. APPLY/INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.

9.) COLD WEATHER PROTECTION REQUIREMENTS FOR CONCRETE PLACING WILL BE STRICTLY ENFORCED.

(CONTINUATION)

10.) PROVIDE 150mm (6 INCHES) VOID UNDER ALL CONCRETE BEAMS, WALLS, STRUCTURAL SLABS, ETC.

11.) INSPECTION AND TESTING OF CONCRETE AND MATERIALS SHALL BE DONE BY A TESTING AGENCY APPROVED BY THE ENGINEER AND PAID FOR BY THE OWNER. TESTS SHALL BE IN ACCORDANCE WITH C.S.A. SPECIFICATION A23.1 AND A23.2. SAMPLES SHALL BE TAKEN AND HANDLED ONLY BY THE INSPECTION FIRM. AT LEAST THREE (3) CYLINDER TESTS SHALL BE TAKEN FROM EACH CONCRETE POUR.

12.) TAKE ONE ADDITIONAL TEST CYLINDER DURING COLD WEATHER CONCRETING. CURE CYLINDER ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS. MAKE AT LEAST ONE SLUMP TEST FOR EACH SET OF TEST CYLINDERS TAKEN.

13.) PROVIDE FORMED OPENINGS WHERE REQUIRED FOR PIPES, CONDUITS, SLEEVES AND OTHER WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.

14.) SLAB FINISHES: CONCRETE SLAB SHALL BE TREATED WITH "SEAL CURE" BY W.R. MEADOWS (OR EQUAL). APPLICATION RATE AS PER MANUFACTURES RECOMMENDATIONS. PLAIN CONCRETE FLOORS SHALL BE SMOOTH STEEL TROWEL FINISH. FLOOR VERTICAL TOLERANCE: 1/4" IN 10'-0" RADIUS. CONFIRM WITH ARCHITECT.

15.) CO-ORDINATE WORK OF OTHER SECTIONS AND CO-ORDINATE WITH TRADE INVOLVED IN FORMING AND/OR SETTING OPENINGS, SLOTS, DOVETAIL ANCHOR SLOTS FOR MASONRY, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS AND OTHER INSERTS. DO NOT PERFORM WORK UNLESS SPECIFICALLY INDICATED ON DRAWINGS OR APPROVED PRIOR TO INSTALLATION.

16.) SUPPLY AND INSTALL INSULATION TO INSIDE/OUTSIDE FACE OF GRADE BEAMS AS DETAILED ON THE ARCHITECTURAL DRAWINGS.

17.) INSTALL ALL CONCRETE ACCESSORIES IN ACCORDANCE WITH DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS STRAIGHT, LEVEL AND PLUMB. ENSURE ITEMS ARE NOT DISTURBED DURING CONCRETE PLACEMENT.

18.) MAINTAIN ACCURATE RECORDS OF POURED CONCRETE ITEMS TO INDICATE DATE, LOCATION OF POUR, QUALITY OF AIR TEMPERATURE AND TEST SAMPLES TAKEN.

19.) USE OF CALCIUM CHLORIDE NOT PERMITTED.

20.) MISCELLANEOUS CONCRETE ELEMENTS (PIT, TRENCHES, ETC.) TO BE MINIMUM 150mm THICK REINFORCED WITH 10M @ 12" O.C. EACH WAY UNLESS NOTED OTHERWISE.

REINFORCING STEEL

1.) REINFORCING STEEL SHALL BE NEW BILLET, DEFORMED BARS IN ACCORDANCE WITH CSA STANDARD CAN.CSA-G30.18. MINIMUM YIELD STRENGTH TO BE 400MPa, EXCEPT 10M BARS FOR STIRRUPS AND COLUMN TIES MAY BE 300MPa.

2.) REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST RSIC REINFORCING STEEL MANUAL OF STANDARD PRACTICE.

3.) LAP TOP BARS AT CENTRE SPAN AND BOTTOM BARS OVER SUPPORTS.

4.) ALL REINFORCING TO BE HELD IN AND TIED BY THE USE OF PROPER ACCESSORIES SUCH AS HI-CHAIRS, SPACERS, ETC., TO BE SUPPLIED BY THE REINFORCING STEEL FABRICATOR.

5.) REINFORCING IN CONCRETE BEAMS/WALLS AND MASONRY BOND BEAMS TO BE BENT 600mm AROUND CORNERS, OR USE 900x900 CORNER BARS.

6.) FRAME OPENINGS IN CONCRETE BEAMS, WALLS AND/OR SLABS WITH 2-20M BARS (EXTRA) ALL 4 SIDES. EXTEND BARS 600mm BEYOND EDGES OF OPENING EXCEPT AS NOTED.

7.) SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, GRADE, SPACING, HOOKS, BENDS AND SUPPORTING/SPACING DEVICES, ETC., FOR REVIEW TO THE DEIGN ENGINEER PRIOR TO FABRICATION OF THE REINFORCING STEEL.

8.) HOUSEKEEPING PADS SHALL BE A MINIMUM OF 100mm THICK AND REINFORCED WITH 10M @300o/c EACH WAY AT CENTRE UNLESS OTHERWISE SHOWN.

9.) PRIOR TO PLACING CONCRETE, ENSURE THAT ALL REINFORCING STEEL IS CLEAN, FREE OF LOOSE SCALE, RUST, MUD, OIL, OR OTHER FOREIGN MATERIAL WHICH WOULD REDUCE BOND.

10.) HEATING, QUENCHING AND BENDING OF REINFORCING STEEL ON SITE IS NOT ALLOWED.

11.) REINFORCING IN BEAMS TO BE BENT 300mm (12 INCHES) AROUND CORNERS OR USE 900mm (36 INCHES) X 900mm (36 INCHES) CORNER BARS.

12.) FRAME ALL OPENINGS IN CONCRETE BEAMS AND/OR SLABS WITH 2 - #15 BARS (EXTRA) EACH SIDE OF OPENING EXCEPT AS NOTED. EXTEND BARS 600mm (24 INCHES) BEYOND EDGES OF OPENING EXCEPT AS NOTED.

13.) EXTERIOR SLABS ON GRADE SHALL BE REINFORCED WITH #10 @ 400mm (16 INCHES) O/C EXCEPT WHERE NOTED OTHERWISE.

14.) TYPICAL EXTERIOR CURB REINFORCING - PROVIDE 1 - #15 CONTINUOUS FOR EVERY 0.030m2 (0.32 sq. ft.) OF CURB AREA.

15.) DESIGN AND DETAIL LAP LENGTHS AND BAR DEVELOPMENT LENGTHS TO CSA/CAN3-A23.3, UNLESS OTHERWISE INDICATED.

16.) CLEAN REINFORCING BEFORE PLACING CONCRETE.

DESIGN NOTES

1.) SCULTURE APPROXIMATE WEIGHT = 1500lb

THIS DESIGN CONFORMS WITH THE 2024 MBC (2020 NBCC PLUS AMENDMENTS)

FOUNDATION NOTES C.I.P PILES

1.) ALL PILES ARE DESIGNED AS CAST-IN PLACE FRICTION ELEMENTS ON FIRM MATERIAL 300 PSF ALLOWABLE FRICTION CAPACITY. THE OWNER/ CONTRACTOR IS RESPONSIBLE FOR VERIFYING THIS ASSUMPTION WITH A SOILS TEST. SIMS & ASSOCIATES LTD. ACCEPTS NO LIABILITY FOR THIS ASSUMPTION NOR FOR ANY REDESIGN OF THE FOUNDATION RESULTING FROM CONTRARY SOILS CONDITION.

2.) ALL HOLES SHALL BE DRILLED TO THE DEPTHS AND DIMENSIONS AS NOTED ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF IT IS IMPOSSIBLE TO ATTAIN THE DEPTHS INDICATED.

3.) CONCRETE FOR PILES SHALL BE 30 MPa @ 28 DAYS AND SHALL BE SULFATE RESISTANT WITH A SLUMP NOT EXCEEDING 5" (TYPE 50 CEMENT).

4.) THE CONTRACTOR SHALL VIBRATE THE TOP 10'-0" OF THE PILE AND SHALL KEEP THE TOP OF THESE PILES FROM FREEZING. IF NECESSARY, HEAT SHALL BE APPLIED TO THE TOP OF THESE PILES FOR 4 DAYS.

5.) CONCRETE PILES ARE DESIGNED FOR A SKIN FRICTION VALUE OF (ULS) 370psf and (SLS) 280 psf NEGLECT TOP 10'-0"

6.) INSTALLATION OF ALL CONCRETE PILES SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER, REGISTERED IN THE PROJECT PROVINCE, PRIOR TO PLACEMENT OF CONCRETE. A LETTER OF CERTIFICATION SHALL BE ISSUED TO THE DESIGN ENGINEER UPON COMPLETION OF THE FOUNDATION. THE COST OF THIS SERVICE SHALL BE INCLUDED IN THE PILING CONTRACT.

7.) PILES SHALL NOT BE MORE THAN, 50mm OUT OF POSITION SHOWN ON THE FOUNDATION PLAN.

8.) REFER TO "PILE SCHEDULE" AND "TYPICAL PILE DETAIL" FOR ADDITIONAL INFORMATION.

9.) REFER TO "CONCRETE" AND "REINFORCING STEEL" NOTES FOR MATERIAL SPECIFICATIONS AND REQUIREMENTS.

10.) VIBRATE THE TOP 3m OF CONCRETE OF ALL CAST-IN-PLACE PILES.

11.) EXTEND VERTICAL PILE REINFORCING STEEL 450mm INTO THE STRUCTURAL CONCRETE MEMBERS SUPPORTED.

FIELD REVIEW BY SAE ENGINEERS

1.) SAE ENGINEERS PROVIDE FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE STRUCTURAL DRAWINGS.THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS A PERIODIC REVIEW AT THE SOLE DISCRETION OF SAE ENGINEERS IN ORDER TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY SAE ENGINEERS. FIELD REVIEW BY SAE ENGINEERS IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENIFIT, NON DOES IT MAKE SAE ENGINEERS GUARANTORS OF THE CONTRACTORS WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. SAE ENGINEERS SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SAE ENGINEERS WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON SAE ENGINEERS DRAWINGS. THE EXTENT OF THIS REVIEW IS AT THE SOLE DISCRETION OF SAE ENGINEERS AND IS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN CONCEPT. THE REVIEW IS NOT AN APPROVAL OF THE DESIGN, DETAILS AND DIMENSIONS INHERENT IN THE SHOP DRAWINGS. RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OF FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

PROVINCE OF MANITOBA
P.T. SIMS
April 28, 2025
REGISTERED PROFESSIONAL ENGINEER

APEGM
Certificate of Authorization
SAE|SIMS & Associates Engineers Ltd.
No.354 Expiry: April 30, 2026

ISSUED FOR CONSTRUCTION

FILE: 2025511
DWG: DS-2
DATE: 04/28/2025
SCALE: AS NOTED
DRAWN: R.C.M.
CHECKED: P.T.S.
SHEET TITLE: CONSTRUCTION NOTES
JOB TITLE: STAINLESS STELL CONCEPTS "GATHER YOUR HEART" SCULPTURE ODEON PARK PUBLIC ART

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