A GENERAL NOTES

1 THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH, AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH, THE NATIONAL BUILDING CODE OF CANADA 2010 (NBCC 2010) AND THE MANITOBA BUILDING CODE 2011 (MBC 2011).
2 DESIGN LOADS ARE INDICATED ON THE DRAWINGS.
3 DESIGN LIVE LOADS SHALL NOT BE EXCEEDED AT ANY TIME DURING CONSTRUCTION.
4 DO NOT SCALE DRAWINGS.
6 VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, DETAILS, CONDITIONS, ETC., SHOWN ON THE DRAWINGS AND VERIFIED WITH SITE CONDITIONS, PRIOR TO CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
7 MODIFICATIONS, ALTERNATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE CONTRACT ADMINISTRATOR.
8 LOCATE ALL EXISTING SUBGRADE SERVICES PRIOR TO CONSTRUCTION.
9 DESIGN AND INSTALL ALL NECESSARY SHORING, BRACING AND FORMWORK. FORMWORK FOR CONSTRUCTION SHALL BE BRIDGED OVER EXISTING SERVICES. PROCEDURE MUST BE APPROVED BY THE ENGINEER.
10 REVIEW LOCATION OF INTENDED AND PROPOSED CONSTRUCTION JOINTS WITH CONTRACT ADMINISTRATOR PRIOR TO PROCEEDING.
11 CONSTRUCTION SAFETY REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12 DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AT NO ADDITIONAL COST TO THE PROJECT.
13 NOTIFY THE DESIGN ENGINEER AT LEAST 48 HOURS PRIOR TO ALL CONCRETE PLACEMENT TO ALLOW FOR SITE INSPECTIONS.
14 WHERE THERE IS A DISCREPANCY BETWEEN DRAWINGS, SUBMIT A FORMAL RFI TO CONTRACT ADMINISTRATOR PRIOR TO MANUFACTURING OR INSTALLATION.
15 ALL SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO ENGINEER OF RECORD.

B CAST-IN-PLACE CONCRETE

1 ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH CSA A23.1-14/CSA A23.2 CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION / METHODS OF TEST AND STANDARD PRACTICES FOR CONCRETE.
2 SUPPLEMENTARY CEMENTITIOUS MATERIAL TO CSA-A3000-18 CEMENTITIOUS MATERIALS COMPENDIUM.
3 CHEMICAL ADMIXTURES TO ASTM C494/C494M-16 AND ASTM C1017/C1017M-13e1.
4 GENERAL CONTRACTOR TO PROVIDE PROPRIETARY MIX DESIGN PERFORMANCE RECORD AS REQUIRED BY CONCRETE MANITOBA.
5 SUBMIT CONCRETE MIX DESIGN STATEMENTS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA, TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
6 CONCRETE SPECIFICATIONS:
REFER TO TABLE B.1
7 CONSTRUCT FORMWORK, SHORING AND BRACING TO MEET DESIGN, CODE AND CSA A23.1-14 REQUIREMENTS. CONSTRUCT ACCURATELY, SO THAT RESULTING FINISHED CONCRETE CONFORMS TO SHAPES, LINES, AND DIMENSIONS INDICATED ON THE DRAWINGS.
8 VIBRATE ALL CONCRETE WORK WITH APPROPRIATE INTERNAL VIBRATORS.
9 CONCRETE WORKING TIME, FROM BATCHING TO PLACEMENT AND CONSOLIDATION, SHALL NOT EXCEED 2 HOURS.
10 CONTRACTOR SHALL ACCURATELY PLACE AND SECURE ALL COMPONENTS TO BE EMBEDDED IN THE CONCRETE (ie. DOWELS FOR CONCRETE, ANCHOR BOLTS, ETC.). SEE STRUCTURAL, LANDSCAPE, AND ANY OTHER PERTINENT DRAWINGS.
11 CLEAR CONCRETE COVER TO REINFORCING STEEL:
REFER TO TABLE B.2.
12 SEE LANDSCAPE DRAWINGS FOR SURFACE FINISHES, EDGE TREATMENTS, ETC.
13 CONCRETE TESTING SHALL BE PERFORMED BY A CSA APPROVED TESTING COMPANY. A MINIMUM OF THREE (3) CONCRETE TEST CYLINDERS AND ONE (1) SLUMP TEST SHALL BE TAKEN FOR EVERY 75 (OR LESS) CUBIC METERS OF EACH CLASS OF CONCRETE PLACED, OR FOR EACH DAY CONCRETE IS PLACED, WHICHEVER IS GREATER. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH CSA A23.2-14, AND THE RESULTS SHALL BE FORWARDED TO THE ENGINEER.
14 ALL FORMWORK TO BE REMOVED UPON COMPLETION.
15 ALL HOLES NOT SHOWN ON THE DRAWINGS TO BE CORED THROUGH REINFORCED CONCRETE TO BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO CORING.
16 CONCRETE PLACEMENT SCHEDULING, AND WORK PROCEDURES SHALL BE DISCUSSED WITH THE ENGINEER PRIOR TO COMMENCING CONSTRUCTION.
17 FOR COLD WEATHER CONCRETE WORK, ALL ICE, SNOW, AND FROST SHALL BE REMOVED FROM FORMWORK AND THE TEMPERATURE OF ALL CONTACT SURFACES SHALL BE RAISED ABOVE 10C FOR 24 HOURS PRIOR TO PLACING CONCRETE. CONCRETE SHALL BE NOT LESS THAN 20 DEGREES CELSIUS NOR MORE THAN 30 DEGREES CELSIUS WHEN DEPOSITED. CONCRETE SHALL BE ENCLOSED AND THE SPACE SHALL HAVE A TEMPERATURE OF NOT LESS THAN 20 DEGREES CELSIUS FOR THREE (3) DAYS AND NOT LESS THAN 5C FOR AN ADDITIONAL FOUR (4) DAYS.
18 NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO ALL CONCRETE PLACEMENT TO ALLOW FOR SITE OBSERVATIONS.
19 A WOOD TEMPLATE FOR ANCHOR BOLT PLACEMENT IS TO BE USED TO ACCURATELY PLACE ANCHOR BOLTS IN CONCRETE.

C CONCRETE SLAB-ON-GRADE

1 SUB-BASE PREPARATION:
-REMOVE ALL TOPSOIL, SILT, LOOSE FILL, DEBRIS, ORGANIC MATERIAL, ETC.
- FILL ALL VOIDS AND LOW AREAS WITH CLEAN WELL GRADED GRANULAR FILL COMPACTED TO A MINIMUM 98% STANDARD PROCTOR DENSITY. INSTALL AND COMPACT IN 150mm (6") HIGH LIFTS.
2 GRANULAR BASE - INSTALL A BASE OF CLEAN WELL GRADED GRANULAR FILL COMPACTED TO MINIMUM 100% STANDARD PROCTOR DENSITY. INSTALL AND COMPACT IN 150mm (6") HIGH LIFTS TO THE THICKNESS SPECIFIED ON THE DRAWINGS.
3 IF REQUESTED BY THE ENGINEER, SAMPLES OF PROPOSED GRANULAR BASE AND SUB-BASE MATERIAL SHALL BE SUBMITTED TO GEOTECHNICAL ENGINEER FOR REVIEW AND APPROVAL.
4 THAW ALL FROZEN AREAS PRIOR TO INSTALLING GRANULAR MATERIAL.
5 COMPACTION TESTS SHALL BE PERFORMED BY AN INDEPENDENT TESTING COMPANY DURING THE INSTALLATION OF ALL GRANULAR MATERIAL. THE RESULTS SHALL BE FORWARDED TO THE ENGINEER.
6 PROVIDE A FULL AND CONTINUOUS 12mm (1/2") WIDE FLEXCELL JOINT BETWEEN THE EDGE OF SLAB AND ALL OTHER STRUCTURAL ELEMENTS (I.E., GRADE BEAMS, FOUNDATIONS, RETAINING WALLS, COLUMNS, ETC.) UNLESS NOTED OTHERWISE.
7 REFER TO LANDSCAPE DRAWINGS FOR SURFACE LEVEL TOLERANCES, SLOPES, FINISHES, SURFACE SEALERS OR HARDENERS, ETC.

D FOUNDATIONS

1 PLACE FOOTINGS ON CLEAN UNDISTURBED SOIL CAPABLE OF SUSTAINING SLS =1200 PSF (58.0kPa) AND ULS =1700 PSF (82.0kPa) BEARING PRESSURE. WHERE BEARING MATERIAL IS DISTURBED OR SOFT, REMOVE UNSUITABLE MATERIAL AND BACKFILL WITH LOW STRENGTH 1000 PSI CONCRETE FILL TO THE APPROVAL OF THE CONSULTANT.
2 ALL BEARING SURFACES TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE. GEOTECHNICAL ENGINEER TO BE PROCURED AND PAID FOR BY THE CONTRACTOR AND COMPACTION RESULTS FORWARDED TO THE CONTRACT ADMINISTRATOR.
3 DUE TO THE NATURE OF SHALLOW TYPE FOUNDATION SYSTEMS, STRUCTURES DETAILED HERE ARE SUBJECT TO SEASONAL MOVEMENTS.

E REINFORCING STEEL

1 REINFORCING STEEL SHALL BE NEW BILLET, DEFORMED BARS WITH A MINIMUM SPECIFIED YIELD STRENGTH OF 400MPa IN ACCORDANCE WITH CSA G30.18-09 (R2014).
2 REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST RSIC REINFORCING STEEL MANUAL OF STANDARD PRACTICE.
3 ALL REINFORCING TO BE HELD IN PLACE AND TIED BY THE USE OF PROPER ACCESSORIES SUCH AS HI-CHAIRS, SPACERS, ETC.
4 SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, GRADE, SPACING, HOOKS, BENDS, SUPPORTING/SPACE DEVICES, ETC. FOR REVIEW TO CONTRACT ADMINISTRATOR PRIOR TO FABRICATION.
5 PRIOR TO PLACING CONCRETE, ENSURE THAT ALL REINFORCING STEEL IS CLEAN, FREE OF LOOSE SCALE, RUST, MUD, OIL, OR OTHER FOREIGN MATERIAL THAT WOULD REDUCE BOND.
6 HEATING, QUENCHING, AND BENDING OF REINFORCING STEEL ON THE SITE IS NOT ALLOWED.

TABLE B.1

READ IN CONJUNCTION WITH DESIGN LOAD PARAMETERS

CLIMATIC INFORMATION

NOTE	VALUE
SNOW LOAD (1/50), Ss	1.9 kPa
SNOW LOAD (1/50), Sr	0.2 kPa
HOURLY WIND PRESSURE (1/10)	0.35 kPa
HOURLY WIND PRESSURE (1/50)	0.45 kPa

2019-06-13
115418015

ORIGINAL SHEET - ISO 11x17 - v17.05

U:\0208\projects\115419009\0300_drawings\0320_sheet_files\0323_structural\19009_S-101.dwg S-101
2019/06/13 9:56 AM By: Rossnagel, Ian

Stantec
Stantec Consulting Ltd.
Suite 500, 311 Portage Avenue
Winnipeg MB Canada R3B 2B9
Tel. 204.489.5900 Fax. 204.453.9012
www.stantec.com

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301

PROVINCE OF MANITOBA
J.P. CAVERZAN HUNTER
Member 38317
REGISTERED PROFESSIONAL ENGINEER
JUN 13 19

E				
D				
C				
B				
A	ISSUED FOR CONSTRUCTION	DS	JCH	2019.06.13
Issued		By	Appd.	YY.MM.DD

Client/Project
CITY OF WINNIPEG PLANNING, PROPERTY & DEVELOPMENT
WINNIPEG PUBLIC LIBRARIES BICYCLE FACILITY RENOVATION
Winnipeg, Manitoba

Figure No.
S-001

Title
OSBORNE LIBRARY GENERAL NOTES