

GENERAL NOTES:

GENERAL

- ALL WORK SHALL MEET OR EXCEED MINIMUM REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA 2020, ASSOCIATED STANDARDS REFERENCED IN THAT CODE, AND LOCAL STANDARDS AND BYLAWS AS APPLICABLE.
- READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER PERTINENT CONTRACT DOCUMENTS. ENSURE THAT RELEVANT STATUTORY PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING SITE WORKS.
- ALL DIMENSIONS ARE IN METRIC UNITS UNLESS NOTED. VERIFY DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING. DO NOT SCALE DRAWINGS.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PROCESS DRAWINGS FOR LOCATION OF RECESSES, INSERTS, SLEEVES, ETC. WHICH MUST BE CAST OR FORMED IN THE CAST-IN-PLACE CONCRETE.
- REFER TO ALL OTHER RELEVANT DRAWINGS (E.G., ARCHITECTURAL, MECHANICAL AND ELECTRICAL) FOR LOCATIONS AND DIMENSIONS OF EQUIPMENT BASE, PITS, DEPRESSIONS, OPENINGS, SLEEVES AND OTHER BUILDING COMPONENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REPORT DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR TO CONFIRM DIMENSIONS AND ALL OTHER CRITICAL DETAILS WITH EQUIPMENT SUPPLIERS PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES AND OBTAIN APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
- DO NOT RELY ON ACCURACY OF ANY AS-BUILT RECORDS PROVIDED. SURVEY AND VERIFY ACTUAL DIMENSIONS AND LAYOUT.
- NOTIFY THE STRUCTURAL ENGINEER OF RECORD 48 HOURS IN ADVANCE FOR SITE REVIEW OF STRUCTURAL WORK.
- THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING, BRACING, AND SHORING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, ADEQUACY, AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE APPROVAL OF THE CONSULTANT.
- ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
- LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. DESIGN LOADS ARE INDICATED WITHIN THESE NOTES. DO NOT APPLY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED AND TEMPORARY BRACING IS IN PLACE.
- SUBMITTALS:
 - SUBMIT THE FOLLOWING SHOP DRAWINGS, SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA, PRIOR TO FABRICATION:
 - SHORING
 - CONCRETE MIX DESIGNS
 - PRECAST CONCRETE
 - CONCRETE REINFORCING
 - FULLY DETAIL SHOP DRAWINGS SHOWING ALL INFORMATION NECESSARY FOR FABRICATION AND INSTALLATION IN ACCORDANCE WITH INDUSTRY STANDARDS. ALL SHOP DRAWING SUBMITTALS TO BE IN METRIC UNITS INCLUDING DIMENSIONS, REINFORCING, BOLTS, AND STRUCTURAL STEEL SIZES.
 - IMPROPERLY PREPARED SHOP DRAWINGS ARE SUBJECT TO REJECTION AND, ON THAT BASIS, ARE TO BE WITHDRAWN AND RESUBMITTED.
 - DO NOT COMMENCE FABRICATION UNTIL REVIEWED SUBMITTAL HAS BEEN RETURNED. REVIEW OF SUBMITTALS DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- REPORT TO THE CONSULTANT ALL WORKS THAT DO NOT COMPLY WITH THE PROJECT REQUIREMENTS AND SUBMIT REMEDIAL WORKS PROPOSAL FOR COMMENT / AGREEMENT. DEFECTIVE WORK AND SUBSTANDARD MATERIALS SHALL BE RECTIFIED SATISFACTORILY OR REMOVED FROM SITE.
- SUBMIT METHOD STATEMENTS TO CONSULTANTS WHEN REQUESTED FOR INFORMATION / COMMENT / AGREEMENT:
 - CONTRACTOR'S QUALITY / INSPECTION PROCEDURES
 - CONCRETE REPAIR PROCEDURES
 - HOT / COLD WEATHER CONCRETING PROCEDURE

DESIGN CRITERIA

- DESIGN STANDARDS:
 - GENERAL: NATIONAL BUILDING CODE OF CANADA, 2020
 - CONCRETE: CSA STANDARDS A23.1, A23.2 AND A23.3
 - STRUCTURAL STEEL: CSA STANDARD S16
 - FOUNDATIONS: GEOTECHNICAL INVESTIGATION AND REPORT BY: GEOTECH DATA REPORT DATED APRIL 11, 2025.
- DESIGN LOADS:
 - IMPORTANCE CATEGORY: POST DISASTER
 - DEAD LOADS: SELF WEIGHT
 - ADDITIONAL LOADS: REFER TO PLANS
 - LIVE LOADS: REFER TO PLANS
 - SNOW LOADS: IMPORTANCE FACTORS:
 - Is = 1.25 (ULS), 0.9 (SLS)
 - Ss = 1.9
 - Sr = 0.2
 - GROUND SNOW LOAD: ASSOCIATED RAIN LOAD: SNOW LOAD FACTORS Cb, Cw, Cs, Ca, AND DRIFT LOADS IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA 2020.

SHORING

- PROVIDE SHORING AS INDICATED ON THE DRAWINGS AND WHERE REQUIRED TO MEET OCCUPATION HEALTH AND SAFETY REQUIREMENTS.
- REFER TO CONTRACT SPECIFICATIONS.
- SHORING SHALL BE DESIGNED BY AND BEAR THE SEAL OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA. SUBMIT TO CONSULTANT FOR REVIEW.
- REMOVE THE TOP OF SHORING TO A MINIMUM DEPTH OF 1.5 m BELOW FINISHED GRADE AFTER COMPLETION OF FOUNDATION WALL BACKFILLING UNLESS OTHERWISE STATED IN CONTRACT SPECIFICATIONS.

EXCAVATION AND BACKFILL

- REFER TO SPECIFICATION SECTION E16 - EXCAVATION AND BACKFILL.
- ENSURE THAT THE INTEGRITY OF EXISTING UNDERGROUND SERVICES / STRUCTURES ARE MAINTAINED AT ALL TIMES DURING THE WORK. REPAIR / RECTIFY IMMEDIATELY ANY DAMAGE / DISRUPTION TO THE CLIENT'S SATISFACTION AND AT THE CONTRACTOR'S OWN COST.
- EXCAVATIONS SHALL BE IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
- THE CONTRACTOR SHALL THAT MAINTAIN A DRY EXCAVATION DURING THE ENTIRE PERIOD OF CONSTRUCTION.
- BACKFILL MATERIALS AS SHOWN ON DRAWINGS.
- TO AVOID DIFFERENTIAL LATERAL PRESSURES, BACKFILL SHALL BE BROUGHT UP EVENLY AROUND THE WALLS. ONLY HAND OPERATED COMPACTION SHOULD BE EMPLOYED WITHIN 600 mm OF THE CONCRETE WALLS.
- BACKFILLING SHALL NOT BE COMPLETED UNTIL THE MAIN FLOOR SLAB HAS ACHIEVED 70% OF THE DESIGN COMPRESSIVE STRENGTH.
- DO NOT PLACE BACKFILL ON FROZEN GROUND OR WATER LOGGED GROUND, NOR USE FROZEN MATERIAL.
- MAINTAIN TO WITHIN +/- 1% OPTIMUM MOISTURE CONTENT TO PERMIT COMPACTION TO ATTAIN SPECIFIED DENSITIES. PROTECT BACKFILLED GRADE DURING AND AFTER COMPLETION OF BACKFILL OPERATION FROM SOFTENING DUE TO EXCESS MOISTURE.
- FENCE OFF OR MAKE INACCESSIBLE ALL EXCAVATIONS IF LEFT UNATTENDED.

RAFT FOUNDATIONS

- RAFT FOUNDATION SLABS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT.
- THE RAFT FOUNDATION SHALL BE FOUNDED ON UNDISTURBED, COMPETENT, NATURALLY DEPOSITED GLACIAL TILL THAT IS ADEQUATELY PROTECTED FROM FREEZING, WETTING, SOFTENING AND DISTURBANCE. THE BEARING SOIL SHOULD BE INSPECTED AND APPROVED BY QUALIFIED GEOTECHNICAL PERSONNEL.
- TO PRESERVE SOIL DENSITY AND TO MINIMIZE DISTURBANCE TO THE FOUNDING SOILS, PLACE MINIMUM 100 mm THICK LEAN MIX CONCRETE SLABS BELOW THE RAFT SLABS.
- DISTURBED FOUNDATION SOILS, AND SOILS EXPOSED TO FREEZING OR WETTING SHALL BE REMOVED AND REPLACED WITH LEAN MIX CONCRETE FILL.

- PROTECT THE PREPARED FOUNDATION SOILS AND MUD SLAB FROM FREEZING PRIOR TO, DURING AND AFTER CONSTRUCTION OF THE RAFT SLABS.

- RAFT SLABS HAVE BEEN DESIGNED FOR THE FOLLOWING LIMIT STATES DESIGN PARAMETERS:

DOWNSTREAM (EAST) SIPHON CHAMBER:

GEOTECHNICAL RESISTANCE FACTOR: 0.5
 FACTORED BEARING RESISTANCE: 500 kPa
 SERVICEABILITY LIMIT PRESSURE: N/A
 UPLIFT PRESSURE DUE TO BUOYANCY: 102.9 kPa

UPSTREAM (WEST) SIPHON CHAMBER:

GEOTECHNICAL RESISTANCE FACTOR: 0.5
 FACTORED BEARING RESISTANCE: 190 kPa
 SERVICEABILITY LIMIT PRESSURE: 170 kPa
 UPLIFT PRESSURE DUE TO BUOYANCY: 34.3 kPa

DISCHARGE CHAMBER:

GEOTECHNICAL RESISTANCE FACTOR: 0.5
 FACTORED BEARING RESISTANCE: 159 kPa
 SERVICEABILITY LIMIT PRESSURE: 150 kPa
 UPLIFT PRESSURE DUE TO BUOYANCY: 14.1 kPa

FOUNDATION WALLS

- FOUNDATION WALLS HAVE BEEN DESIGNED FOR LATERAL EARTH PRESSURES DETERMINED IN ACCORDANCE WITH THE FOLLOWING:

$$P = K (\gamma H + q) \quad \text{WHERE: } K = 0.71$$

$$\gamma = 18 \text{ kN / m}^3$$

$$q = 12 \text{ kPa}$$

- BACKFILL MATERIALS AS SHOWN ON DRAWINGS.
- TO AVOID DIFFERENTIAL LATERAL PRESSURES, BACKFILL SHALL BE BROUGHT UP EVENLY AROUND THE WALLS. ONLY HAND OPERATED COMPACTION SHOULD BE EMPLOYED WITHIN 600 mm OF THE FOUNDATION WALLS.
- BACKFILL WITHIN 600 mm OF THE FOUNDATION WALLS SHALL BE COMPACTED TO 95 PERCENT OF THE SPMD (STANDARD PROCTOR MAXIMUM DRY DENSITY). THIS MATERIAL SHALL NOT BE OVER-COMPACTED.
- BACKFILLING SHALL NOT BE COMPLETED UNTIL THE FLOOR SLAB AND STRUCTURE ARE COMPLETE AND HAVE ACHIEVED 70% OF THE DESIGN COMPRESSIVE STRENGTH.

CONCRETE REINFORCING

- REFER TO SPECIFICATION SECTION E24 - REINFORCING STEEL.
- REINFORCING WORK SHALL BE IN ACCORDANCE WITH CSA A23.1, ACI 315, AND THE RSIC REINFORCING STEEL MANUAL OF STANDARD PRACTICE.
- ALL REINFORCING TO BE CONTINUOUS. SPLICE ONLY AS DETAILED OR APPROVED BY THE CONSULTANT. UNLESS DETAILED OTHERWISE, ALL LAP SPLICES SHALL BE CLASS B TENSION SPLICES.
- WHERE NOT SPECIFICALLY DETAILED, REINFORCING STEEL SHALL BE PROTECTED BY CONCRETE COVER AS FOLLOWS:
 CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 75mm
 OTHERWISE: 60mm
- MATERIALS SHALL CONFORM TO THE FOLLOWING:
 REINFORCING STEEL: CSA G30.18, GRADE 400, PLAIN FINISH, DEFORMED BARS
 WELDABLE REINFORCING STEEL: CSA G30.18, GRADE 400W, PLAIN FINISH, DEFORMED BARS
- SUBMIT REINFORCING STEEL SHOP DRAWINGS TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
- CHAIR SLAB REINFORCING NOT FURTHER THAN 1000mm IN EITHER DIRECTION. SUPPLY SUPPORT BARS, CHAIRS, AND CARRIERS AS NECESSARY.
- DOWELS AND ANCHOR BOLTS SHALL BE SECURED IN POSITION BY MEANS OF TEMPLATES BEFORE CONCRETE IS POURED. WHERE DOWELS OR ANCHOR BOLTS ARE TO BE EXPOSED FOR LONGER THAN 1 MONTH AFTER INSTALLATION, PROVIDE WRAPPING AND COVERING AS PROTECTION.
- 90° HOOKS AND 180° HOOKS WHERE SHOWN SHALL BE DETAILED AS STANDARD HOOKS UNLESS NOTED OTHERWISE.
- REPLACE BARS THAT DEVELOPED SPLITS OR CRACKS.
- REINFORCING SHOWN ON STRUCTURAL DETAILS ARE SCHEMATIC ONLY AND MAY NOT SHOW THE ACTUAL NUMBER OF REBARS.

CONCRETE ACCESSORIES

- APPLY APPROVED NON-METALLIC HARDENER OR SEALER TO AREAS SHOWN ON ARCHITECTURAL FLOOR FINISH SCHEDULE. HARDENER AND SEALER SHALL BE FROM SAME MANUFACTURER (TARGET, GRACE, STERNSON, MASTER BUILDERS OR DIAMEG). HARDENER AGGREGATE SHALL BE APPLIED IN TWO SHAKES TO 4.0 KG/SQ M. TO MANUFACTURER'S RECOMMENDATIONS.
- GROUT: NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM STRENGTH AT THREE DAYS OF 20 MPA AND MINIMUM STRENGTH AT 28 DAYS OF 40 MPA. EPOXY GROUT SHALL BE USED FOR VIBRATING EQUIPMENT BASE WHERE SPECIFIED. APPLY GROUT STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- BONDING AGENTS: THREE COMPONENT, WATER BASED, EPOXY RESIN / CEMENT BONDING AGENT
- ASPHALTIC FIBREBOARD: ASPHALT SATURATED FIBRE BOARD CONFIRMING TO ASTM D1751.
- STEEL BAR SUPPORT/CHAIRS: GALVANIZED/STAINLESS STEEL OR PLASTIC. DO NOT USE ROCK, BRICKS OR CONCRETE FRAGMENTS.
- INSULATION: RIGID STYROFOAM H-40 BY DOW OR APPROVED EQUIVALENT.
- CURING COMPOUNDS SHALL NOT BE USED OVER CONCRETE SURFACE DESIGNATED TO RECEIVE PROTECTION COATING OR PAINTED FINISH.

CAST-IN-PLACE CONCRETE

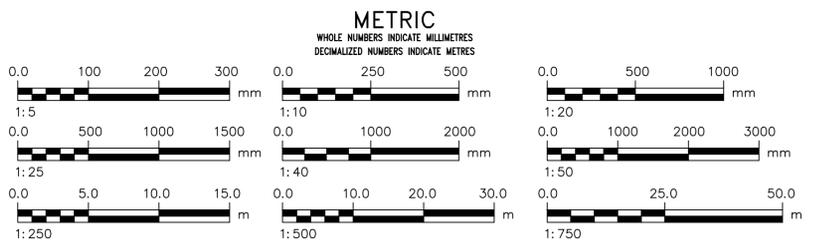
- REFER TO SPECIFICATION SECTIONS E23 - CAST-IN-PLACE CONCRETE, E25 - CONCRETE PROTECTIVE LINERS.
- CAST-IN-PLACE CONCRETE WORK SHALL BE IN ACCORDANCE WITH CSA A23.1.
- MATERIALS SHALL CONFORM TO THE FOLLOWING:
 CEMENT: CSA A3001
 WATER: CSA A23.1/A23.2
 AGGREGATES: CSA A23.1/A23.2
 ADMIXTURES: AIR ENTRAINING ADMIXTURE TO ASTM C260
 CHEMICAL ADMIXTURES TO ASTM C494
 WATERPROOFING ADMIXTURE: SPG VAPOR LOCK 20/21
 GROUT: PREMIXED, NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM STRENGTH AT 4 DAYS OF 20 MPA, AND AT 28 DAYS OF 40 MPA
- SUPPLEMENTARY CEMENTING MATERIALS WITH A MAXIMUM OF 20 PERCENT TYPE F FLY ASH REPLACEMENT BY MASS OF TOTAL CEMENTITIOUS MATERIALS, IN ACCORDANCE WITH CSA A3001, IS PERMITTED.
- THE USE OF ACCELERATING OR SET RETARDING ADMIXTURES DURING HOT AND COLD WEATHER SHALL BE APPROVED BY THE CONSULTANT. ADMIXTURES CONTAINING CALCIUM CHLORIDE ARE NOT PERMITTED.
- CONCRETE MIXES SHALL BE DESIGNED TO MEET THE FOLLOWING PERFORMANCE CRITERIA IN ACCORDANCE WITH CSA A23.1 TABLE 5, ALTERNATIVE 1:

TYPE	CSA EXPOSURE CLASS	CEMENT TYPE	MINIMUM COMPRESSIVE STRENGTH (MPa)	MAX W/C RATIO	MAX AGGREGATE SIZE (mm)	AIR CONTENT RANGE (%)	WATERPROOFING ADMIX	LOCATION
A	S-1	HS/HSb	35 AT 28 DAYS	0.4	20	5-8	NO	DISCHARGE ROOF SLAB, WALLS, RAFT SLAB. DOWNSTREAM SIPHON CHAMBER ROOF SLAB, WALLS, RAFT SLAB. UPSTREAM SIPHON CHAMBER ROOF SLAB, WALLS, RAFT SLAB.
B	-	GUL	1.5-2.5 AT 28 DAYS	-	5	~ 20	-	IF APPLICABLE, FLOWABLE CEMENT STABILIZED FILL AROUND CHAMBERS

- MAINTAIN ACCURATE RECORDS OF POURED CONCRETE ITEMS TO INDICATE DATE, LOCATION OF POUR, AIR TEMPERATURE, AND TEST SAMPLES TAKEN. SUBMIT RECORDS TO ENGINEER UPON REQUEST.
- PROTECT CONCRETE FROM PREMATURE DRYING. CURE CONCRETE IN ACCORDANCE WITH CSA-A23.1. PROVIDE ADDITIONAL CURING MEASURES OR PROTECTION DURING HOT OR COLD WEATHER IN ACCORDANCE WITH CSA-A23.1.
- DO NOT PLACE CONCRETE WHEN WEATHER IS NOT SUITABLE (E.G. DURING RAIN, SNOW) UNLESS ADEQUATE PRECAUTIONARY MEASURES ARE IN PLACE.
- FILL TIE HOLES IN ACCORDANCE WITH CSA-A23.1.
- REPAIR HONEYCOMBED AND DEFECTIVE CONCRETE AT CONTRACTOR'S OWN COST. PROPOSED METHOD STATEMENT AND MATERIAL FOR REPAIR SHALL BE SUBMITTED TO THE CONSULTANT FOR APPROVAL.

CONCRETE TESTING

- INSPECTION AND TESTING OF CONCRETE MATERIALS WILL BE CARRIED OUT BY AN INDEPENDENT TESTING LABORATORY DESIGNATED AND PAID FOR BY THE OWNER, IN ACCORDANCE WITH CSA-A23.2.
- A STRENGTH TEST WILL CONSIST OF THREE (3) STANDARD CYLINDERS; ONE TESTED AT SEVEN (7) DAYS, AND TWO TESTED AT TWENTY-EIGHT (28) DAYS.
- A STRENGTH TEST FOR CONCRETE WITH 56-DAY STRENGTH SPECIFIED WILL CONSIST OF FOUR CYLINDERS; ONE TESTED AT SEVEN (7) DAYS, ONE TESTED AT TWENTY-EIGHT (28) DAYS, AND TWO TESTED AT FIFTY-SIX (56) DAYS.
- FREQUENCY OF CONCRETE TESTING WILL BE ONE SET OF CYLINDERS FOR EVERY 50 CUBIC METERS OR PART THEREOF OF EACH CONCRETE MIX POURED IN A DAY. THIS FREQUENCY MAY BE INCREASED OR DECREASED AT THE ENGINEER'S DISCRETION.
- TEST SLUMP AND AIR CONTENT EACH TIME CYLINDER SAMPLES ARE TAKEN. FOR CLASS F.1, C-X6, C-1 AND C-2 CONCRETE, EVERY LOAD OR BATCH OF CONCRETE SHALL BE TESTED FOR AIR CONTENT.
- THE TESTING LABORATORY WILL TAKE ADDITIONAL CYLINDERS DURING COLD WEATHER CONCRETING. CURE CYLINDERS ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE WHICH THEY REPRESENT.
- CONTRACTOR SHALL PROVIDE ACCESS TO ALL WORK BEING INSPECTED/TESTED.
- NON-DESTRUCTIVE METHODS OF TESTING CONCRETE SHALL BE IN ACCORDANCE WITH CSA-A23.2.
- INSPECTION OR TESTING BY TESTING LABORATORY WILL NOT AUGMENT OR REPLACE CONTRACTOR QUALITY CONTROL NOR RELIEVE HIM OF HIS CONTRACTUAL RESPONSIBILITY.
- CONCRETE FAILING TO MEET THE SPECIFIED REQUIREMENTS SHALL BE RETESTED, STRENGTHENED, OR REJECTED IN ACCORDANCE WITH THE CSA-A23.2. ALL ADDITIONAL TESTING, STRENGTHENING, AND/OR REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.



LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. xxxxxx ELEV. xxx.xxxm
SUPV. U/G STRUCTURES COMMITTEE	DATE	CONSTRUCTION COMPLETION DATE: YYYY MM DD
NOTE:	LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	
0	ISSUED FOR TENDER	25/05/14 MRK
NO.	REVISIONS	DATE BY

AECOM

DESIGNED BY: KB
 CHECKED BY: CK
 DRAWN BY: MRK
 APPROVED BY: MB
 SCALE: HORIZONTAL AS NOTED
 VERTICAL: -
 RELEASED FOR CONSTRUCTION: R. LUCKY
 DATE: 2025 05 14

ENGINEER'S SEAL

PROVINCE OF MANITOBA
 M.R. BROTHERTON
 Member 25515
 2025-05-14
 CONSULTANT DRAWING NUMBER: S-2001

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT
 ENGINEERING DIVISION

REPLACEMENT OF THE FORT GARY ST VITAL SIPHON
 DISCHARGE MANHOLE STRUCTURAL GENERAL NOTES

SHEET 27 OF 32
 CITY DRAWING NUMBER: S-2001

FOR INDEX SEE G-1001

ES ENGINEERING SOLUTIONS MANITOBA
 Certificate of Authorization
 AECOM Canada ULC
 No. 4671