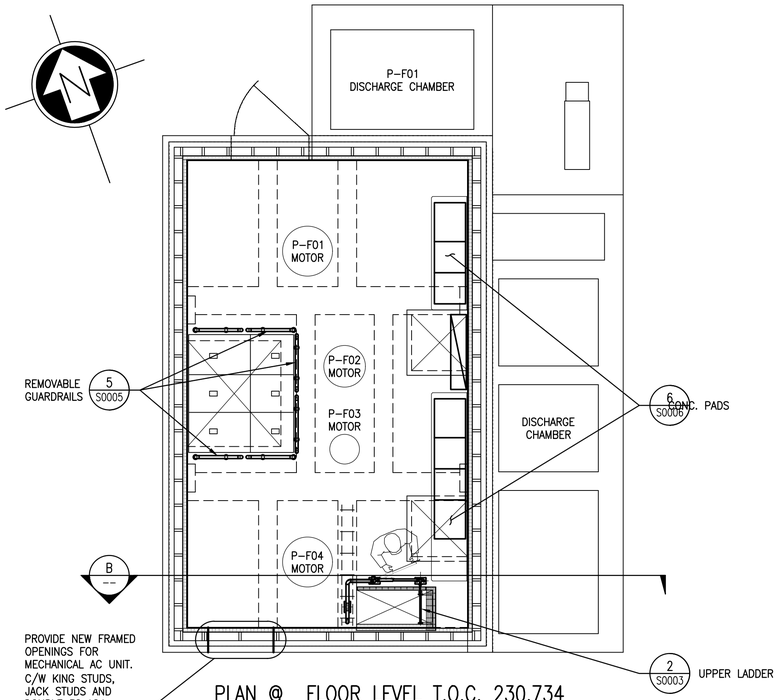
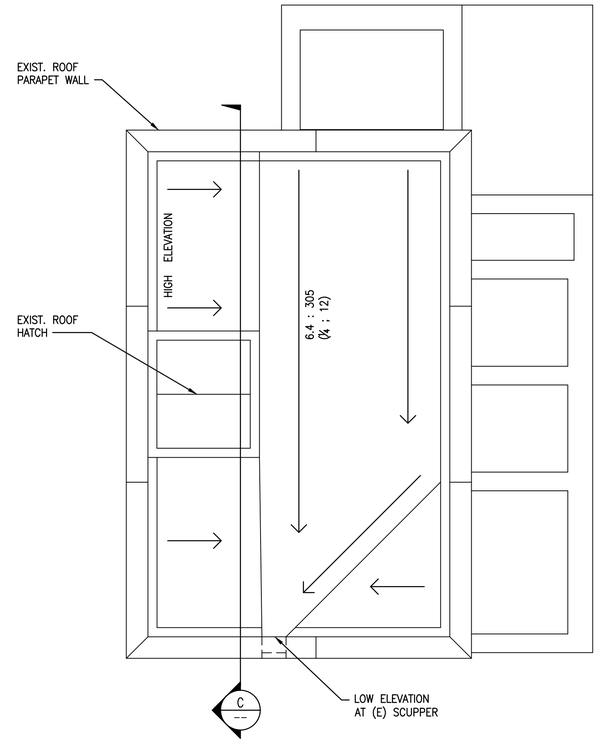
A1 SIZE – 594mm x 841mm



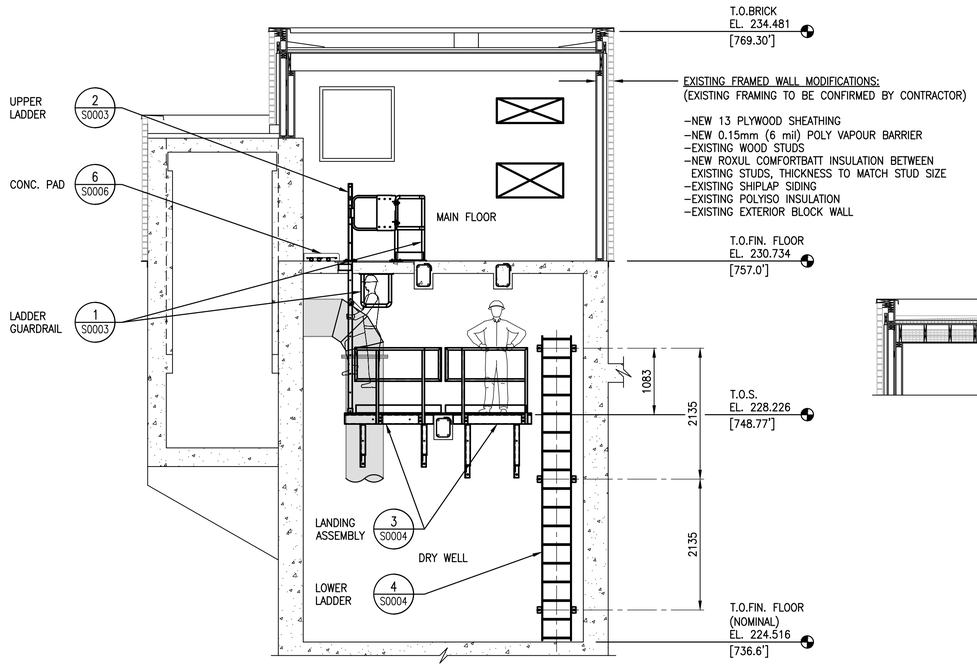
PLAN @ FLOOR LEVEL T.O.C. 230.734

SCALE: 1 : 50



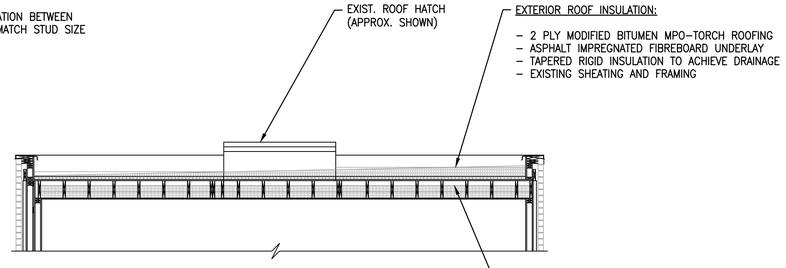
ROOF PLAN

SCALE: 1 : 50



B -- ELEVATION

SCALE: 1 : 50



C -- ELEVATION

SCALE: 1 : 50

GENERAL NOTES:

1. THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATION.
2. THESE NEW INSTALLATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA AND AS REVISED BY THE MANITOBA BUILDINGS AND MOBILE HOMES ACT (C.C.S.M.C. B93), MR 118, REGULATION 31 AS AMENDED (MBC).
3. REFERENCE OR COMPLIANCE WITH A STANDARD SHALL MEAN REFERENCE TO THE CURRENT EDITION OF THAT STANDARD AS WELL AS SUPPLEMENTS AND ALL DOCUMENTS REFERENCED THEREIN UNLESS REFERENCE TO A SPECIFIC DOCUMENT VERSION IS MADE.
4. THE CONTRACTOR SHALL COMPLY WITH ALL HEALTH AND SAFETY REQUIREMENTS AND REGULATIONS FOR THE PROVINCE OF MANITOBA.
5. THE DRAWINGS SHOW THE COMPLETED STRUCTURAL SYSTEM; THEY DO NOT SHOW WHICH MAY BE NECESSARY FOR SAFETY DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND AROUND THE JOB SITE.
6. ALL WORK IN THE FIELD TO INCORPORATE PROPER SAFETY PRECAUTIONS TO ENSURE THE SAFETY OF THE WORKERS AND PREVENT DAMAGE TO ALL EXISTING EQUIPMENT AND STRUCTURES.
7. DO NOT SCALE DRAWINGS
8. VERIFY ALL DIMENSIONS, ELEVATIONS AND EXTENT OF WORK WITH DRAWINGS AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE CONTRACT ADMINISTRATOR PRIOR TO PROCEEDING WITH CONSTRUCTION. DO NOT DIMENSION FROM ELECTRONIC DRAWINGS. REWORK OF ITEMS FABRICATED PRIOR TO IDENTIFICATION OF DISCREPANCIES AND/OR CONFLICTS SHALL BE AT NO ADDITIONAL COST TO THE CITY.
9. LOCATE SERVICES AND PROTECT THEM AT ALL TIMES DURING CONSTRUCTION.
10. STRUCTURAL INTEGRITY OF EXISTING STRUCTURES TO BE MAINTAINED DURING CONSTRUCTION.
11. REPORT ANY UNSOUND CONDITIONS OBSERVED OR CREATED IMMEDIATELY TO THE CONTRACT ADMINISTRATOR.
12. MODIFICATIONS, ALTERATIONS, OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE CONTRACT ADMINISTRATOR PRIOR TO ANY FABRICATION OR ERECTION.
13. ALL CONTRACTOR MEANS AND METHODS, INCLUDING TEMPORARY SCAFFOLDING SHALL BE ERECTED AND REMOVED BY AN APPROPRIATELY EXPERIENCED INSTALLATION CONTRACTOR IN ACCORDANCE WITH MANITOBA REGULATION 217. SCAFFOLDING TO BE DESIGNED AND APPROVED FOR USE IN ACCORDANCE WITH 217.
14. SUBMIT SHOP DRAWINGS FOR REVIEW.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL ANGLES AND PLATES TO BE IN ACCORDANCE WITH CSA G40.21 GRADE 300W, ALL OTHERS MEMBERS TO BE GRADE 350W UNLESS OTHERWISE NOTED.
2. DETAILING, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH CSA–S16.
3. ALL WELDING TO CONFORM TO CSA W47.1 & W59.
4. INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.
5. WELDING SHOPS TO BE CERTIFIED TO DIVISION 1 OR 2 OF CSA W47.1 BY THE CANADIAN WELDING BUREAU. ALL WELDING TO BE PERFORMED BY CWB CERTIFIED WELDERS.

SHOP WELDED CONNECTIONS:

1. ALL SHOP WELDING SHALL CONFORM TO CSA W59. CONTRACTOR TO BE CERTIFIED IN ACCORDANCE WITH CSA W47.1, DIVISION 1 OR 2. ALL WELDERS TO BE CWB CERTIFIED FOR THE REQUIRED WELDS.
2. ALL WELDS TO BE CONTINUOUS FILLET OR GROOVE SEAL WELDS. GROOVE WELDS TO BE DETAILED AS FULL PENETRATION WELDS WITH BACKER PLATE.

FINISHES:

1. ALL LADDER COMPONENTS, SUPPORT CHANNELS AND ANGLES ARE TO BE HOT DIPPED GALVANIZED FINISHESS TO MATCH EXISTING (EXCEPT ITEMS NOTED.)
2. ALL GUARDRAILS AND RETURNS ARE TO BE SSPC–SP6 BLAST CLEANED THEN COATED WITH 'FORMULA 2' PER SPECIFICATION 099123. COLOUR: SAFETY YELLOW.
3. MAIN FLOOR WALLS ARE TO BE PAINTED AND CEILING TO BE CLEANED AND REPAINTED WITH 'FORMULA 1' PER SPECIFICATION 099123. COLOUR: ANSI 70.
4. TOUCH UP ALL FIELD WELDS AND DAMAGED AREAS WITH ZINC RICH PRIMER OR PRIMER AND TOPCOAT FOR HDG OR PAINTED SURFACES, RESPECTIVELY.

DESIGN OF BOLTED CONNECTIONS:

1. DESIGN ALL BOLTED CONNECTIONS IN ACCORDANCE WITH CSA–S16 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
2. ALL CONNECTIONS SHALL BE DESIGNED AND DETAILED BY THE STEEL FABRICATOR. CONNECTION CONFIGURATIONS SHALL (IN GENERAL) CONFORM WITH THE DETAILS PROVIDED. SUBMIT SHOP DRAWINGS OF ALL MEMBERS AND CONNECTIONS. DRAWINGS MUST BE SEALED BY PROFESSIONAL ENGINEER REGISTERED IN MANITOBA. THE STEEL FABRICATOR SHALL ADVISE THE ENGINEER IN WRITING WHEN DEVIATION FROM THE APPROVED CONNECTION CONFIGURATION DETAILS IS REQUIRED.
3. OVERSIZED HEAVY DUTY 60mm DIA. x 5mm THICK HARDENED PLATE WASHERS REQUIRED AT ALL SLOTTED/BOLTED CONNECTION LOCATIONS.

FIELD ANCHORING:

1. LOCATE EXISTING REINFORCING IN THE CONCRETE ELEMENTS TO RECEIVE POST–FACTO ANCHORAGE AND POSITION HOLES FOR THE NEW ANCHORS CLEAR OF THE EXISTING REINFORCING.
2. DRILL HOLES INTO THE EXISTING CONCRETE ADVANCING THE DRILL BIT TO FULL DEPTH OF REQUIRED ANCHORAGE. IF REINFORCEMENT IS ENCOUNTERED, TERMINATE DRILLING THE HOLE AND RELOCATE THE ANCHORAGE CLEAR OF THE REINFORCING. USE A STANDARD HARDENED CARBIDE TIPPED CONCRETE BIT, DO NOT USE A CORE DRILL THAT CAN INTERCEPT AND CUT THE EXISTING REINFORCING – EXCEPT WHERE NOTED.
3. ALL BOLTS 16 (⅝") ø AND LARGER SHALL BE ASTM A325 WITH HOT DIP GALVANIZED FINISH. ALL BOLTS 13 (½") ø AND SMALLER SHALL BE SAE J429 GR. B WITH HOT DIP GALV. FINISH.
4. ADVISE THE CONTRACT ADMINISTRATOR IMMEDIATELY IF THE REQUIRED ANCHORAGE HOLE LOCATIONS CANNOT BE FIELD ADJUSTED TO CLEAR THE EXISTING REINFORCING AND AWAIT FURTHER INSTRUCTIONS. THE SITE ENGINEER WILL REVIEW THE SITUATION AND MAKE A DETERMINATION REGARDING HOW BEST TO INSTALL THE ANCHORS, GIVEN THE ACTUAL POSITIONS OF THE REINFORCING ENCOUNTERED.
5.. ALL ANCHORS MUST BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

LOADING: PER MBC/NBCC

GUARDS: 0.74 kN/m HORIZONTAL TOP RAIL OR
1.0 kN ANY DIRECTION ALL RAIL VERTICAL
LADDER: 1.0 kN EACH RUNG VERTICAL
4.45 kN MAIN RAIL VERTICAL
SNOW: Ss 1.9 kPa
Sr 0.2 kPa
S (ROOF SNOW) 1.72kPa
WIND: Q 1/50 0.45kPA
LIVE: 4.78 kPa (FLOOR)
DEAD: SELF–WEIGHT

LOADS INDICATED ARE FOR NEW COMPONENT INSTALLS ONLY. EXISTING BUILDING COMPONENTS NOT MODIFIED REMAIN PER ORIGINAL BUILDING DESIGN

DRAWING NUMBER	REFERENCE DRAWINGS
LD–5050	BANNATYNE PUMPING STATION – ARCHITECTURAL BUILDING SECTION
LD–5049	BANNATYNE PUMPING STATION – ARCHITECTURAL ELEVATIONS
LD–5048	BANNATYNE PUMPING STATION – ARCHITECTURAL PLANS, PLAN DETAILS & SCHEDULES
5–SD–10–1	BANNATYNE AVE. PUMPING STATION
5–SD–10	BANNATYNE AVE. PUMPING STATION

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

0.0 0.5 1.0 2.0 3.0

1:50

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION, TENDER 167–2023	2023/02/23	K.K.	D.S.

SNC·LAVALIN

SNC–LAVALIN INC.
148 Nature Park Way
Winnipeg, MB, Canada R3P 0X7
204–786–8080

DESIGNED BY: K. KOTYK	CHECKED BY: D. SIDHU
DRAWN BY: B. DICKSON	APPROVED BY: B. CLEVEN
SCALE: 1 : 50	ISSUED FOR CONSTRUCTION
DATE: 2022/07/05	BY: K. ZUREK DATE: 2023/02/23
CONSULTANT NO.:	

ENGINEER'S SEAL

PROVINCE OF MANITOBA
K. KOTYK
Member
21950
REGISTERED PROFESSIONAL ENGINEER

2023-02-24 REV. 00

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

BANNATYNE FLOOD PUMPING STATION
2023 UPGRADES
STRUCTURAL MODIFICATIONS
PLANS, ELEVATION AND NOTES

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0118F–S0002	001	00	A1

LAST SAVE: 2023/02/24 – 1:15pm
PATH: M:\691232\4ENG\42STR\DD – General DWG\1–0118F–S0002–001–00.dwg

1–0118F–S0002–001–00.dwg