

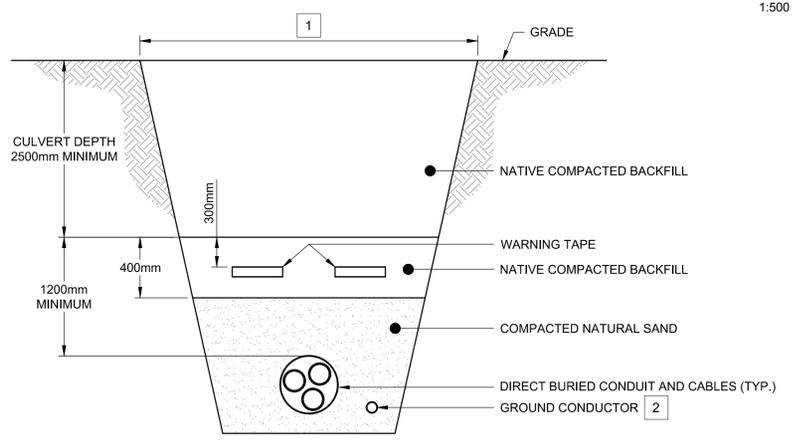
- GENERAL NOTES: (WEST SHED - ELECTRICAL)**
1. REPLACE CABLES GOING OUT OF WEST SHED RTU CONTROL PANEL TO THE RIVER LEVEL SENSOR MOUNTED ON THE THROUGH PLATE GIRDER BRIDGE (LE/77B) AND TO BH 77.67 (LE/77A), (ZS/77B), (ZS/77A), (LE/77). PROVIDE A JUNCTION BOX IN BH77.67 TO SPLICE NEW CABLES WITH EXISTING RIVER CROSSING CABLES (EAST OF BH 77.67), LEVEL SENSOR ENCLOSURE CABLES (WEST OF BH 77.67), AND ANY OTHER CABLES WITHIN BOATHOUSE BH 77.67.
 2. EXISTING CABLES CROSSING BOGGY RIVER FROM BH77.67 TO BH77.63 TO REMAIN AT A MINIMUM BRING ACROSS THE CULVERT THE FOLLOWING CABLES:
 - 1 - 3C-#2 TECK90 CU TO EXISTING JB IN BH 77.67 FROM DIST. PANELBOARD IN WEST SHED 50A GFI BREAKER
 - POWER CABLES FROM DIST. PANELBOARD 4-1P 15A GFI BREAKERS IN WEST SHED:
 - TO 270W LEVEL ENCLOSURE HEAT TRACING AT LE-77
 - TO 305W LEVEL ENCLOSURE HEAT TRACING AT LE-77A
 - TO 270W LEVEL ENCLOSURE HEAT TRACING AT LE-77B
 - CONTROL CABLES (MIN. #16/2 TSP TECK90 PER SIGNAL) OUT OF CONTROL PANEL CP-77.63 TO LE-77, LE-77A, LE-77B, ZS-77A, AND ZS-77B

WEST SHED - ELECTRICAL
1:100

NOTES (SITE PLAN - ELECTRICAL)

- GENERAL NOTES:**
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE CITY OF WINNIPEG REPRESENTATIVE BEFORE STARTING ANY WORK.
 2. ELECTRICAL CONTRACTOR TO COORDINATE WORKS BEFORE AND DURING CONSTRUCTION WITH OTHER PARTIES INVOLVED IN THE PROJECT.
 3. ALL INSTALLATIONS MUST COMPLY WITH THE LATEST EDITION OF THE CEC AND LOCAL AMENDMENTS.
 4. ENSURE ALL WALL PENETRATIONS ARE PROPERLY SEALED USING SEALING MATERIAL FIRE RESISTANT AND NOT CONTAINING ANY COMPOUNDS WHICH WILL CHEMICALLY AFFECT THE WIRING JACKET OR INSULATING MATERIAL. ALL SEALANTS SHALL BE APPLIED PER THE MANUFACTURERS RECOMMENDATION. SUBMIT SEALANT SHOP DRAWING PRIOR TO APPLYING IT.
- DRAWING NOTES:**
1. REPLACE CABLE TERMINATED IN A JUNCTION BOX WITH SAME OR BETTER MIN. SIZE #16 AWG TECK. EXISTING CABLES EAST AND WEST OF BOATHOUSE BH77.67 TO BE SPLIT IN THE NEW JUNCTION WITH NEW CABLES BROUGHT ACROSS THE CULVERT AND INSIDE NEW JB.
 2. REPLACE CABLE TERMINATED ON RIVER LEVEL DEVICE LE/77B WITH SAME OR BETTER MIN. SIZE #16 AWG TECK.
 3. EXPOSE CABLES AT TURNING POINT BEFORE PERFORMING DIRECTIONAL BORING ACROSS THE CULVERT TO MINIMIZE RISK OF DAMAGING REMAINING CABLES.
 4. EXPOSE CABLES BY VACUUM EXCAVATING TO ENSURE CABLES ARE NOT DAMAGED WHEN DEMOLISHING EXISTING CULVERT AND CONSTRUCTING NEW ONE.
 5. BEFORE PROCEEDING WITH THE WORKS, EMPLOY A CABLE LOCATOR TO KNOW EXACT UNDERGROUND CABLE LOCATIONS AND TO ENSURE CABLES (EAST & WEST CP-77.63 IN WEST SHED) REMAIN UNDAMAGED.
 6. VACUUM EXPOSE CABLES BEFORE COMMENCING ANY WORK AND IDENTIFY ALL CABLES LISTED IN WEST SHED - ELECTRICAL DETAIL NOTES. IF ADDITIONAL CABLES ARE REQUIRED, INFORM THE CITY OF WINNIPEG BEFORE PROCEEDING WITH THE WORKS.
 7. MINIMUM CABLE SIZE #16 AWG. REPLACE ALL CABLES WITH SAME OR BETTER TYPE.

SITE PLAN - ELECTRICAL
1:500



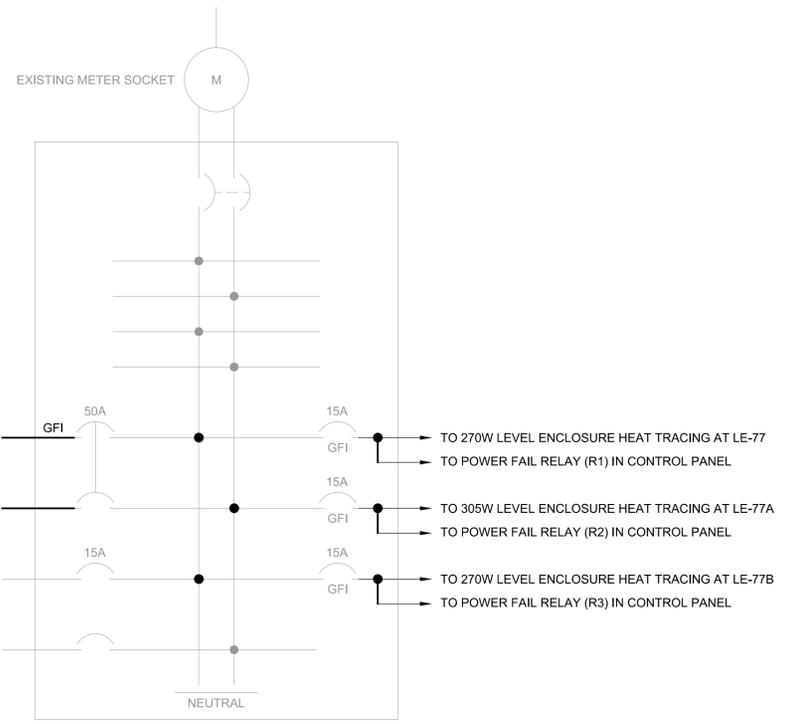
DIRECT BURIED TRENCH
N.T.S.

GENERAL NOTES:

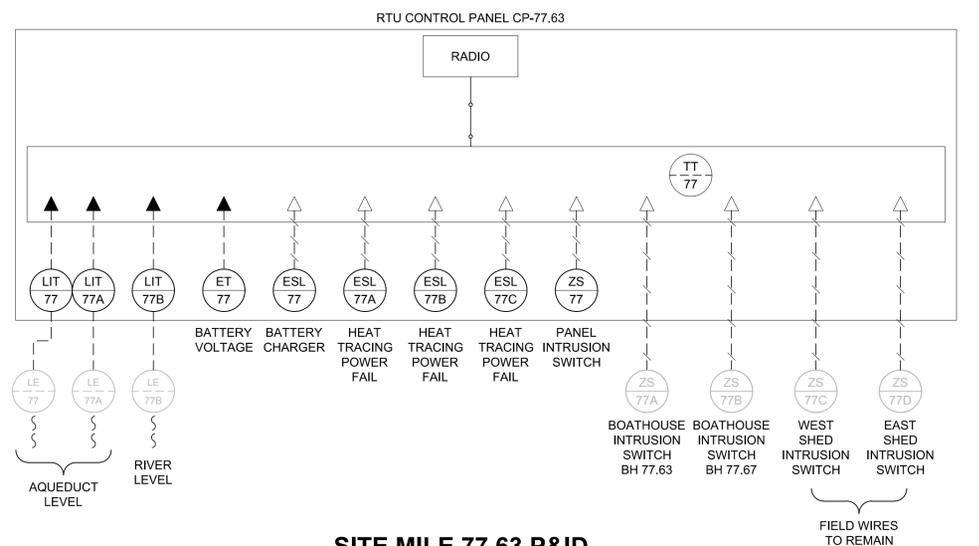
1. PROVIDE 38mm x 180mm PRESSURE TREATED (PWF) TIMBERS, EDGE TO EDGE, SUFFICIENT TO COVER BURIED CABLES BELOW VEHICULAR CROSSINGS EXCEPT WHERE SPECIFIED OTHERWISE. INSTALL TIMBER APPROXIMATELY 150mm ABOVE THE CONDUITS AND CABLES. INSTALL TIMBER UNDER ALL LANES OF ROADWAY. EXTEND TIMBERS 1M BEYOND THE SIDES OF ROAD AND A MINIMUM OF 3M ON EACH SIDE OF ROADWAY CENTRE LINE.
2. DETAIL APPLIES TO CONDUIT/CABLES UNDERNEATH THE CULVERT. FOR OTHER LOCATIONS TREAT THE CULVERT DEPTH AS FINISHED GRADE, APPLYING THE RULES AND REGULATIONS OF LATEST CEC AND ITS LOCAL AMENDMENTS.
3. INSTALL SCH40 RIGID PVC CONDUIT, MINIMUM SIZE AS PER CEC.

DRAWING NOTES:

1. TRENCH WIDTH TO SUIT NUMBER AND SIZE OF CONDUITS OR CABLES AS PER CEC. MINIMUM 150mm.
2. GROUND CONDUCTOR REQUIRED ONLY IF A POWER CONDUIT OR CABLE IS BURIED.



SITE MILE 77.63 DISTRIBUTION PANELBOARD POWER WIRING REPLACEMENT
N.T.S.



SITE MILE 77.63 P&ID
N.T.S.

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: 08/28/2020

TENDER No. 577-2020



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

WARNING
IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

LOCATION APPROVED UNDERGROUND STRUCTURES
SUPV. U/G STRUCTURES COMMITTEE DATE
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 UTILITIES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.		CONSTRUCTION COMPLETION DATE: YYYY MM DD	
NO.	ISSUED FOR CONSTRUCTION	DATE	BY
0	ISSUED FOR CONSTRUCTION	2020/08/28	ADL/KLC
REVISIONS		DATE	BY

AECOM

DESIGNED BY: JR	CHECKED BY: CP
DRAWN BY: RC/KLC	APPROVED BY: CCM
SCALE: HORIZONTAL 1:500, VERTICAL 1:50	RELEASED FOR CONSTRUCTION: 2020-08-28
DATE: 2020 09 01	DATE: 2020-08-28

ENGINEER'S SEAL
PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
J. RUIZ
Member 34443
2020-08-27
CONSULTANT DRAWING NUMBER: 60532607-SHT-30-Tsk11-E-4001

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

SHOAL LAKE AQUEDUCT
MILE 77.6 G.W.W.D RAILWAY YARD
LAND DRAINAGE IMPROVEMENTS
ELECTRICAL PLAN & DETAILS

SHEET 4 OF 4
CITY DRAWING NUMBER: 1-0751R-E0001-001