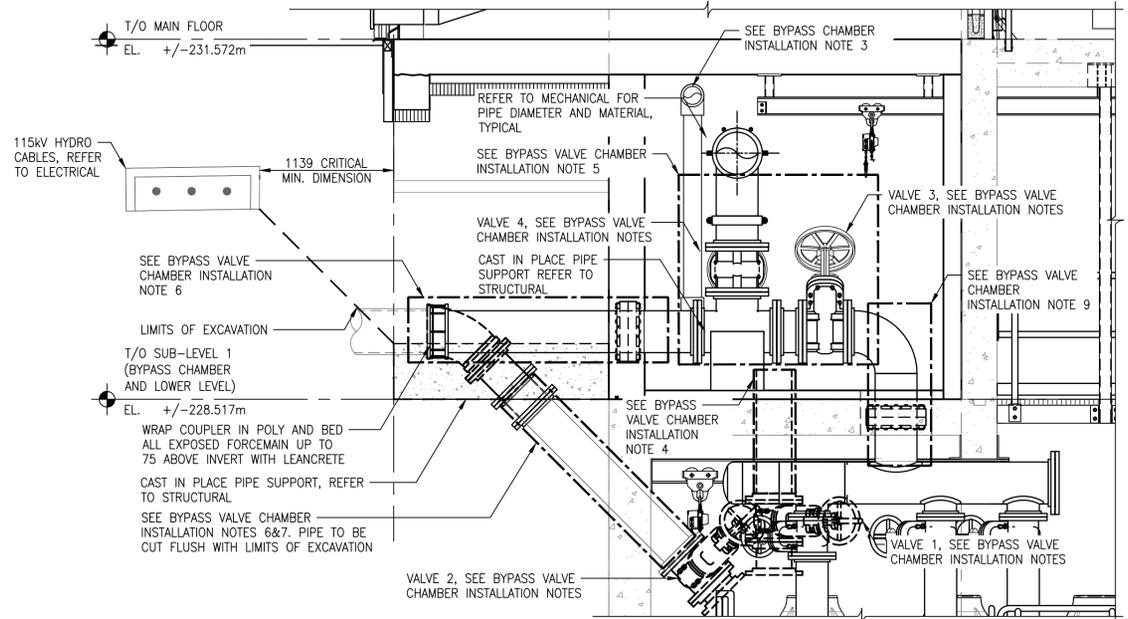


LAST SAVE: 2026/03/09 - 11:27am  
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 A1 SIZE - 594mm x 841mm



**1** BYPASS CHAMBER SECTION  
REF. 1 SCALE: 1:30

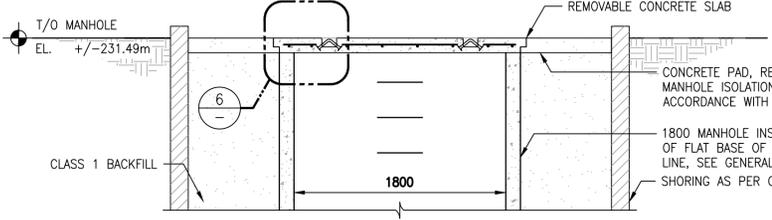
**BYPASS VALVE CHAMBER INSTALLATION NOTES:**

1. ENSURE VALVE 1 IS CLOSED. VALVE 2 SHOULD BE NORMALLY OPEN.\*
  2. EXCAVATE AREA DOWN TO TOP SLAB OF MOTOR ROOM BELOW.\* EXCAVATION TO NOT EXCEED T/O SUB-LEVEL 1 (BYPASS CHAMBER AND LOWER LEVEL).
  3. DIVERT THE 150mm WET WELL VENT PASSING THROUGH EXCAVATION.\*
  4. CUT AND REMOVE PIPING ABOVE VALVE 1 CORRESPONDING TO THIS NOTE AND PATCH CONCRETE.
  5. COMPLETE VALVE CHAMBER CONSTRUCTION AND/OR 250mm PIPES AND VALVES WITHIN CORRESPONDING TO THIS NOTE. LEAVE VALVES 3 AND 4 CLOSED.\* TEMPORARILY SUPPORT PIPING DURING CONSTRUCTION.
  6. COORDINATE SHUT DOWN OF FIXED LENGTH (BASED ON WET WELL STORAGE) WITH CITY\* AND:  
 - SUBMIT OSS IN ACCORDANCE WITH THE REQUIREMENTS OF E9.1.3. OF TENDER 1042-2025.  
 - CONSTRUCT A WEIR ACCORDING TO E9.1.4. OF TENDER 1042-2025 TO PROVIDE 2 HOURS AND 45 MINUTES TIME TO OVERFLOW.  
 - CLOSE VALVE 2.  
 - DISCONNECT 300mm STEEL DISCHARGE PIPING FROM 350mm AC FM.  
 - INSTALL PIPEWORK AND COUPLER CORRESPONDING TO THIS NOTE.  
 - IF THIS WORK IS DONE PRECEDING BYPASS PUMPING\*\*, OPEN VALVE 4 TO FACILITATE BYPASS PUMPING, BUT ENSURE VALVE 3 REMAINS CLOSED.  
 - IF THIS WORK IS DONE OUTSIDE OF THE ALLOWABLE BYPASS PUMPING DATES\*, TEMPORARILY CONNECT THE DISCHARGE AT VALVE 2 TO VALVE 4 TO FACILITATE CONTINUED USE OF EXISTING LIFT PUMPS UNTIL BYPASS PUMPING OPERATIONS BEGIN\*\*, ENSURE VALVE 3 REMAINS CLOSED.
  7. CUT AND ABANDON OLD STEEL DISCHARGE PIPEWORK CORRESPONDING TO THIS NOTE ONCE IT IS NO LONGER IN USE. FILL WITH GROUT OR CAP TO ABANDON. CUT TO BE FLUSH WITH EXTENTS OF EXCAVATION.\*
  8. IF NOT ALREADY DONE, CAST THE CHAMBER AS SHOWN IN STRUCTURAL DRAWINGS, COMPLETE WITH NEW CONCRETE BENCH PIPE SUPPORTS, FLOOR DRAIN, CONNECT TO HEADER BELOW\*\* AND BYPASS PUMPING CONNECTION IN NEW MANHOLE.\*
  9. THE CHAMBER IS NOW READY TO BE USED FOR FULL STATION BYPASS DURING PUMP AND PROCESS PIPING REPLACEMENTS.\*\* PIPEWORK TO BE COMPLETED DURING THIS PERIOD FOR CONNECTION TO NEW HEADER.
  10. WATER AND GAS UTILITIES NOT SHOWN FOR CLARITY.
- \* ACTION CAN BE DONE AT ANY TIME OF YEAR  
 \*\* ACTION MUST BE COMPLETED BETWEEN NOVEMBER 14, 2026 AND FEBRUARY 28, 2027  
 CONTRACTOR MAY PROPOSE ALTERNATIVE PLAN FOR APPROVAL.

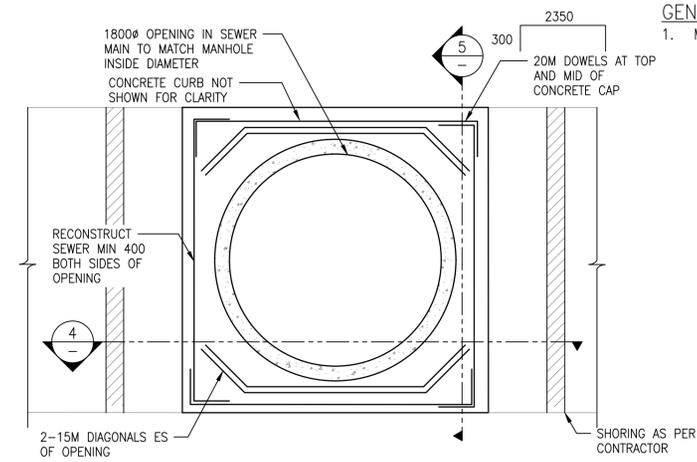
**TEMPORARY BYPASS PUMPING NOTES:**

1. BYPASS VAULT TO BE INSTALLED IN DRY WEATHER DURING A LOW-FLOW PERIOD AGREED UPON WITH THE CONTRACT ADMINISTRATOR AT LEAST 1 WEEK PRIOR TO THE WORK.
2. DURING THE INSTALLATION OF THE BYPASS VAULT, THE CSO GATES ARE TO BE CLOSED. CONTRACTOR TO CONSTRUCT A SANDBAG WEIR IN THE GATE STRUCTURE DOWNSTREAM OF THE GATES TO CONTAIN SEEPAGE THROUGH THE GATES. SEEPAGE CONTAINED BY THE SANDBAG WEIR IS TO BE REMOVED BY VACUUM TRUCK OR SUBMERSIBLE PUMPS. NO DISCHARGE TO THE RIVER IS PERMITTED DURING THIS OPERATION. CONTRACTOR TO CREATE A BYPASS PUMPING SUMP IN THE GATE CHAMBER WITH CAPACITY OF AT LEAST ONE (1) HOUR STORAGE TIME PRIOR TO AN OVERFLOW OCCURRING. SUMP IS TO BE CREATED BY RAISING WEIR HEIGHT AND CLOSING THE GATE VALVE IN THE COMMUNOTOR CHAMBER. SEE PLAN FOR PROPOSED LOCATION. CONCRETE SLEEPERS MAY BE LIFTED TO PROVIDE ADEQUATE SPACE FOR BYPASS PUMPING, HOWEVER, BARRIERS MUST BE USED TO MAINTAIN PUBLIC SAFETY. SEE NOTE 5 FOR PUMP DETAILS. PUMPING IS TO DISCHARGE TO THE BYPASS VAULT FORCE MAIN CONNECTION. FOLLOWING INSTALLATION OF THE BYPASS VAULT AND SOURCE SUMP, CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING OF FLOWS THROUGHOUT THE PROJECT AS REQUIRED. CONTRACTOR TO PROVIDE BYPASS PUMPING PLAN AND ONSITE SEWAGE SYSTEM TO CONTRACT ADMINISTRATOR FOR REVIEW A MINIMUM OF TWO (2) WEEKS PRIOR TO COMMENCEMENT OF ANY WORK.

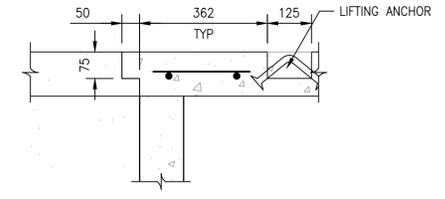
5. FOR TEMPORARY BYPASS PUMPING, TWO (2) ELECTRIC PUMPS SHALL BE PROVIDED WITH ONLY ONE (1) PUMP EVER NEEDED TO RUN. EACH BYPASS PUMP SHALL PROVIDE 105 L/S AT A TOTAL DYNAMIC HEAD TO BE DETERMINED BY THE BYPASS PUMPING SYSTEM DESIGNER.
6. PUMPS MUST BE SUBMERSIBLE.
7. TEMPORARY FITTINGS, WEIRS, PUMPS, OR APPURTENANCES INSTALLED TO SUPPORT INITIAL BYPASS PUMPING OPERATIONS SHALL BE REMOVED UPON THE COMPLETION OF THE UPGRADE PROJECT.
8. CONTRACTOR TO PROVIDE FULL-TIME AVAILABILITY TO ADDRESS, MINIMIZE, AND MITIGATE INTERRUPTIONS IN BYPASS PUMPING.
9. A BACKUP GENERATOR SUITABLE FOR POWERING ANY ONE OF THE BACKUP PUMPS, ALONG WITH TEMPORARY RTU PANEL AND CSO PANEL, MUST BE ONSITE AT ALL TIMES DURING BYPASS PUMPING OPERATIONS.



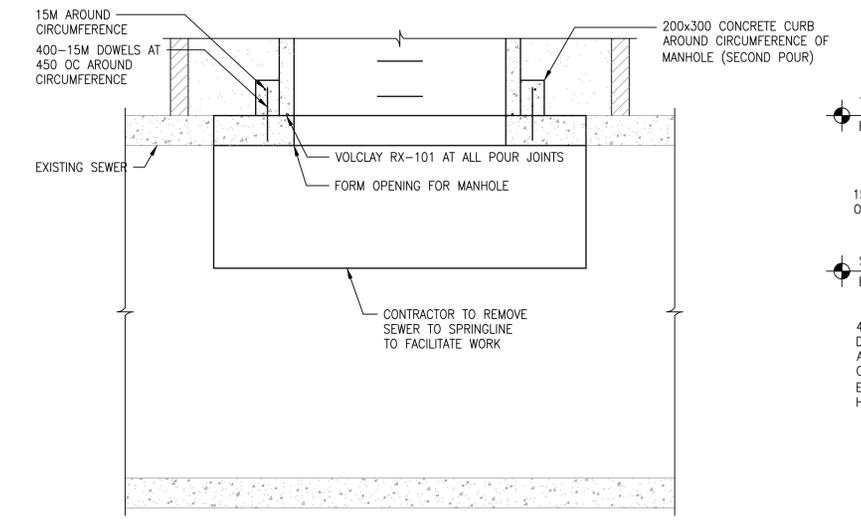
**2** REMOVABLE CONCRETE SLAB  
REF. 1,2 SCALE: 1:30



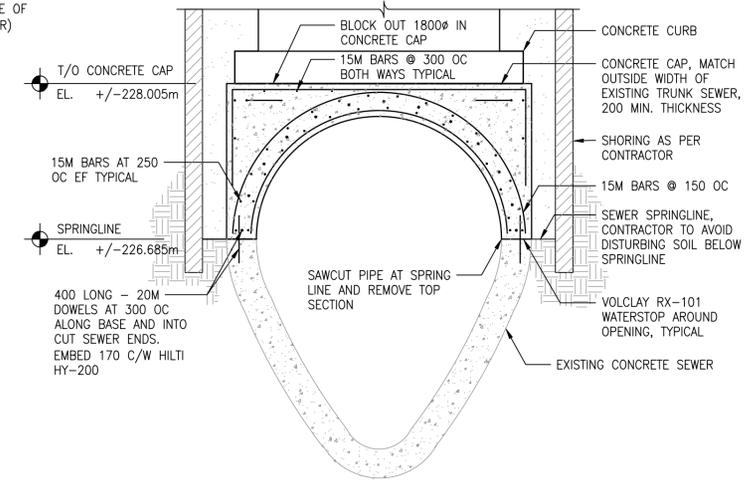
**3** MANHOLE CONSTRUCTION DETAIL  
REF. 1 SCALE: 1:30



**6** REMOVABLE SLAB CONNECTION DETAIL  
SCALE: 1:10

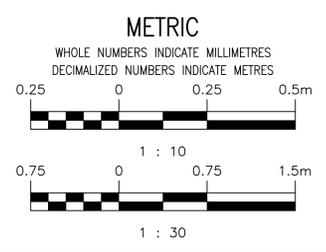


**4** SEWER RECONSTRUCTION SECTION  
SCALE: 1:30



**5** SEWER RECONSTRUCTION DETAIL  
SCALE: 1:30

9		
8		
7		
6		
5		
4		
3		
2	1-0193L-C0001-002	CIVIL LOT GRADING PLAN AND SITE DRAINAGE
1	1-0193L-C0001-001	CIVIL SITE SERVICES PLAN
NO.	DRAWING NUMBER	REFERENCE DRAWINGS TITLE



**ENGINEERS GEOSCIENTISTS MANITOBA**  
 Certificate of Authorization  
 MPE, a division of Englobe Corp.  
 No. 4968 Date: MAR 09, 2026

NO.	REVISIONS	DATE	DESIGN	CHECK
02	REISSUED FOR CONSTRUCTION, B.O. 1042-2025	2026-03-09	MJB	MJB
01	REISSUED FOR CONSTRUCTION, B.O. 1042-2025	2026-02-20	MJB	MJB
00	ISSUED FOR CONSTRUCTION, B.O. 1042-2025	2026-01-09	MJB	MJB

**MPE**  
 a division of Englobe

DESIGNED BY: N. FALK  
 CHECKED BY: M. BAKER  
 DRAWN BY: D. MCMILLAN  
 APPROVED BY: M. BAKER

SCALE: AS NOTED  
 DATE: 2026-01-09  
 CONSULTANT NO.: 8400-011-00

ENGINEER'S SEAL  
**M.J. BAKER**  
 Member 43540  
 REGISTERED PROFESSIONAL ENGINEER  
 2026-03-09

**THE CITY OF WINNIPEG**  
 WATER AND WASTE DEPARTMENT

TYLEHURST LIFT STATION  
 2026 UPGRADES  
 CIVIL BYPASS PUMPING AND DETAILS  
 PLANS AND SECTIONS

CITY DRAWING NUMBER: 1-0193L-C0003  
 SHEET: 001  
 REV: 02  
 SIZE: A1