August 11, 2017

Dear Sir:

Attached is Addendum No. 3 dated August 11, 2017 to the Specifications for The Manitoba Water Services Board Contract No. M.W.S.B. 1374, Town of Stonewall Wastewater Treatment Lagoon Upgrade. Please verify receipt of this Addendum for our records by fax to (204) 726-6290.

*** ACKNOWLEDGEMENT OF RECEIPT OF ALL ADDENDUMS MUST BE INCLUDED IN THE TENDER SUBMISSION.**

Failure to include acknowledgement shall cause the tender to be rejected. If Tender is submitted before Addendum is issued, the Board will accept a faxed acknowledgement prior to the tender closing.

Yours truly,

R. Lytle
Construction Manager

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The Manitoba Water Services Board
Unit #1A - 2010 Currie Blvd.
Brandon, MB R7B 4E7

Dear Sir:

We have received Addendum No. 3 dated August 11,2017 to the Specifications for The Manitoba Water Services Board Contract No. M.W.S.B. 1374, Town of Stonewall Wastewater Treatment Lagoon Upgrade.

Yours truly,

_____
Company

_____
Per

# TOWN OF STONEWALL WASTEWATER TREATMENT LAGOON UPGRADE

## MWSB #1374

## 734-1615360100-TS-C0004-00

## ADDENDUM NO.3

*Please note the changes, corrections, additions, deletions, information, and/or instructions in connection with the work to be done under this Contract, and submit prices and be governed accordingly. This Addendum shall be incorporated with the specifications and shall form part of the Contract Documents.*

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Please acknowledge receipt of this Addendum in the Bid Form.

FAILURE TO ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE BID FORM MAY RENDER THE BID INFORMAL.

Date _____ Signature _____

**ADDENDUM NUMBER:** 3

**DATE OF ISSUE:** August 11, 2017

**ISSUED BY:** Brian McIntosh, P.Eng.
Telephone: 204.954.6876

This Addendum forms part of the Contract Documents and amends the original Specifications, dated July, 2017.

This Addendum consists of 13 pages, including the signature page.

Ensure that all parties submitting bids are aware of all items included in this Addendum.

## ITEM 1 CLARIFICATION FOR SCHEDULE OF PRICES

13. Removal of Existing Fence: Refers to the fence between the new Settling Cell and the Existing Secondary Cell as specified on drawing C0004.
14. Replacement of Existing Perimeter Fence: The fence around the current Primary Cell is to be replaced. Work to be performed in accordance with MWSB fencing specifications Section 027110 and detail drawings.

## ITEM 2 SEWAGE FORCEMAIN

Section 333400R1 - Sewage Forcemain and Drawing C0009 R1 are to replace the existing Section 333400 - Sewage Forcemain and Drawing C0009

130 metres of 400 mm PVC DR41 forcemain crossing the Grassmere Drain will be replaced with 450 mm HDPE DR17 pipe with fittings as per the attached revised Drawing C0009 and revised Section.

Addition of a new 1200mm MH is shown on Drawing C0010 R1.

## ITEM 3 SCHEDULE OF PRICES

1. The existing Schedule of Prices R1 is to be replaced with the updated Schedule of Prices R2 attached to this Addendum. The following items have been added to the table:
    a. “7.b. 450 mm HDPE DR17” - 130 lin.m; and
    b. “7.d. Cleanout” – 1 ea

2. The following estimated quantities have been revised:
    a. Item 7.a. “Forcemain - 400 mm PVC DR41” - estimated quantities changed from 1,176 lin.m. to 1,046 lin.m.
    b. Item 10.a “Manholes - 1200 mm Diameter” - estimated quantities changed from 12 vt.m. to 18 vt.m.

**END OF ADDENDUM No. 3**

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

.1 Materials and installation for sewage forcemains.

### 1.2 RELATED SECTIONS

.1 Section 01150 – Measurement and Payment

.2 Section 01330 - Submittals.

.3 MWSB Section 033000 - Cast-in-Place Concrete.

.4 Section 02701 - Aggregate General.

.5 Section 02315 – Excavating, Trenching and Backfilling.

.6 Section 33 05 14 – Manholes and Chambers.

### 1.3 REFERENCES

.1 American National Standards Institute/American Society of Mechanical Engineers (ANSI/ASME)

.1 ANSI/AWWA C111/A2.11 - Fitting Ends

.2 American National Standards Institute/American Water Works Association (ANSI/AWWA)

.1 AWWA C900 Polyvinylchloride (PVC) Pressure Pipe and Fabricated Fittings 100mm through 1500mm.

.2 ANSI/AWWA C509-09: Standard for Resilient-Seated Gate Valves for Water Supply Service.

.3 American Society for Testing and Materials International, (ASTM)

### 1.4 SUBMITTALS

.1 ASTM D1784 – Standard Specification for Rigid Polyvinylchloride Compounds and Chlorinated Polyvinylchloride Compounds Pipe and Fittings Material ASTM D3139 to Polyethylene (PVC) Plastic Pipe (DR41) Submittals

.2 Submit samples in accordance with Section 01330 - Submittals.

.3 Provide Engineer at least 2 weeks prior to beginning Work, with proposed source of bedding materials and provide access for sampling if requested.

.4 Submit manufacturer's test data and certification at least 2 weeks prior to beginning Work in accordance with Section 01330 - Submittals.

.5 Certification to be marked on pipe.

### 1.5 SCHEDULING

.1 Schedule Work to minimize interruptions to existing services.

.2 Submit schedule of expected interruptions and adhere to schedule approved by Contract Administer.

.3 Notify Contract Administrator a minimum of 48 h in advance of interruption in service.

## PART 2 PRODUCTS

### 2.1 PIPE

.1 400 mm Rigid Polyvinylchloride (PVC) conforming to:

.1 AWWA C900 NSF 14 and NSF 61

.2 Type 1, Grade 1, Polyvinylchloride (PVC) materials with a Cell Classification of 12454-B as per ASTM D1784.

.3 Polyvinylchloride virgin resin and meet the physical and chemical properties as defined in ASTM D1784 in accordance with AWWA C900.

.2 Polyvinylchloride Fittings for PVC Pipe

.1 AWWA C907 NSF 14 and NSF 61

.2 Type 1, Grade 1, Polyvinylchloride (PVC) materials with a Cell Classification of 12454-B as per ASTM D1784.

.3 Polyvinylchloride virgin resin and meet the physical and chemical properties as defined in ASTM D1784 in accordance with AWWA C900.

.3 450 mm High Density Polyenthylene (HDPE) conforming to:

.1 Conduit classification ASTM1248 Type III Class A, Category 5, Grade P34 and ASTMD3350-PE34543A High Density Polyethylene (HDPE) 400 mm ID SDR17.

.2 Polyethylene piping to be thermal butt fusion welded. Flanged connections permitted at fitting locations. Flanged connections to AWWA-C110 with Class 150 cast iron backing flanges and rubber gasket cut to fit the joint.

.4 High Density Polyenthylene (HDPE) Fittings for HDPE Pipe

.1 All fittings shall be AWWA C906-15 Polyethylene (PE) Pressure Pipe Fittings 4 Inch through 65 Inch (100 mm - 1650 mm), for Waterworks made from materials conform to standard PE materials ASTM D3350 Standard Specification for Polyethylene Plastic Pipe and Fitting Materials.

.5 The proposed 400 mm forcemain to be installed shall be C900 Class 100 (DR41) push on bell and spigot joints. Ipex Centurion AWWA C900 or equivalent.

### 2.2 GATE VALVES AND VALVE BOXES

.1 Gate Valves: Resilient Seated Gate Valve to AWWA C509 , rated at 1000 kPa (water) or 700 kPa (forecemain), ends to ANSI/AWWA C111/A21.11, Class 125,

non-rising stem, epoxy coated body complying with AWWA C550 and be NSF 61 approved. Gate valves are to be equipped with a 50 mm square operating nut.

.1 Acceptable product: As per the Manitoba Water Service Board List of Approved Products Part 9 Gate Valves.

.1 Clow Canada 2640 AWWA C509 or equivalent.

.2 Valves to close in clockwise direction.

## 2.3 BOLTS

.1 All nuts and bolts used below grade shall be stainless steel Type 316 to ANSI 303 and ASTM A320. Marking requirements for Type 316 stainless steel shall conform to the Manitoba Water Services Board standards.

## 2.4 JOINT HARNESSES AND TIE RODS

.1 Where tie rods are required to be connected to PVC fittings, they shall be affixed by means of a joint harness (restrainer) conforming to ASTM F1674.

.2 The joint harness shall be protected against corrosion by wrapping all exposed ductile iron surfaces in accordance with AWWA C217. Acceptable product, Denso Tape System No. T-1 (LT) Petroleum Tape.

.3 All fasteners, tie rods, clamps, nuts, and bolts used to prevent movement shall be stainless steel conforming to ASTM Specification A320 (AISI Type 316). Marking requirements for Type 316 stainless steel shall conform to the Manitoba Water Services Board standards.

## 2.5 COUPLINGS

.1 All couplings shall be of epoxy coated, to type approved for use in the Manitoba Water Services Board. .

## 2.6 PIPE INSULATION

.1 Sewage forcemains that have been identified on the drawings shall include a 50 mm nominal thickness (as noted on the drawings) of rigid board insulation.

.2 To Section 33 65 24 – Board Insulation

## 2.7 CONNECTION TO MANHOLES

.1 Pipe penetration

.1 Pipe entrance through the manhole wall shall be cored using a waterproof wall seal designed for underground applications, such as Link Seal Model C (EPDM), NPC Kor-N-Seal pipe-to-manhole connector or similar.

## PART 3 EXECUTION

### 3.1 PREPARATION

.1 Pipes and fittings to be clean and dry.

.2 Prior to installation, obtain Engineer approval of pipes and fittings.

### 3.2 TRENCHLESS INSTALLATION

.1 Trenchless installation of sewage forcemain is required at all crossings beneath the Grassmere Drain.

### 3.3 TRENCHING

.1 Do trenching Work, in accordance with Section 02 31 50 - Excavating, Trenching and Backfill.

.2 Trench alignment and depth require approval from Engineer prior to placing bedding material or pipe.

### 3.4 PIPE BEDDING AND INITIAL BACKFILL

.1 Place granular bedding bedding in accordance with Section 02 31 50 - Excavating, Trenching and Backfill.

.2 Place bedding materials to full trench width and specified thickness as noted on details.

.3 Shape bed true to grade to provide continuous uniform bearing surface for pipe exterior. Do not use blocks when bedding pipe

.4 Shape transverse depressions in bedding as required to make joints.

.5 Compact for full width of trench and ensure pipe is uniformly supported throughout its length.

.6 Install continuity bonding wire as required when connecting to existing metallic watermains or fittings.

.7 Fill any excavation below level of bottom of specified bedding (i.e. over-excavation, whether inadvertent or due to the removal of unsuitable material) with granular material in maximum 150 mm lifts compacted to 90% of Standard Proctor.

.8 Ensure sufficient cover on pipe to permit backfilling without damage being caused to pipe or initial backfill.

### 3.5 LINE AND GRADE

.1 The pipe shall be installed to the line and grade shown on the Drawings and as laid out in the field by the Engineer.

.2 Vertical variance from grade shall not exceed 50 mm and horizontal variance from line shall not exceed 100 mm. Sharp bends will not be permitted even though the pipe remains within these tolerances.

## 3.6 PIPE INSTALLATION

.1 Lay pipes in accordance with manufacturer's recommendations.

.2 Join pipes in accordance with manufacturer’s recommendations for each type of joint.

.3 Avoid damage to machined ends of pipes in handling and moving pipe.

.4 Maintain grade and alignment of pipes.

.5 Align pipes carefully before jointing.

.6 Do not exceed maximum joint deflection recommended by pipe manufacturer.

.7 Support pipe firmly over entire length, except for clearance necessary at couplings. Do not use blocks to support pipe.

.8 Keep pipe and pipe joints free from foreign material.

.9 Protect insulation on both ends of pipe from moisture and sunlight by 3 mm thick continuous concentration of black asphalt mastic compound.

.10 Avoid bumping gasket and knocking it out of position, or contaminating with dirt or other foreign material. Remove disturbed gaskets clean, lubricate and replace before jointing is attempted.

.11 Support pipes using hand slings or crane as required to minimize lateral pressure on gasket and maintain concentricity until gasket is properly positioned.

.12 Apply sufficient pressure in making joint to ensure that joint is complete to manufacturer's recommendations.

.13 Apply restraint to pipe to ensure that joints when completed are held in place, by tamping fill material under and alongside pipe, or otherwise as approved by Engineer.

.14 When stoppage of Work occurs, block pipe as directed by Engineer to prevent creep during downtime.

## 3.7 THRUST RESTRAINT

.1 Install joint harnesses and steel tie rods as indicated on drawings.

.2 Install concrete thrust blocks to Manitoba Water Services Board specifications at all tees and horizontal bends.

**3.8 BACKFILL**

.1 Place backfill material in accordance with Section 02 31 50 - Excavating, Trenching and Backfill.

.2 Do not place backfill in frozen condition.

**3.9 RIGID BOX INSULATION**

.1 Supply and install rigid box insulation at locations identified on the Drawings or where directed by the Engineer.

.2 Construct as noted on Detail Drawings in accordance with Section 33 65 24 – Board Insulation.

**3.10 SURFACE RESTORATION**

.1 Restore existing surface grading and drainage to original or better condition in accordance with Section 02311 - Site Grading.

.2 Revegetate in accordance with MWSB Section 024850 – Topsoil and Finish Grading and MWSB Section 024860 Seeding.

**3.11 CONNECTION TO EXISTING PIPE**

.1 Notify the Town 72 hours in advance that forcemain closure is required. Forcemain closure is not permitted on Saturday, Sunday or Statutory Holidays.

.2 Provide for temporary pumping of lift station or any sewers impacted by the closure for during connection to existing pipe.

.3 Isolate the forcemain by closing available valves. Isolate gravity sewers by installing inflatable dams.

.4 Excavate and expose existing forcemain at locations shown on the Drawings or as directed by the Engineer and remove existing fitting, valve, plug, concrete thrust block and required length of pipe to make the connection.

.5 Dewater existing pipe, transporting sewage to the Town Lagoon. Do not dispose of wastewater from dewatering into a lift station, due to potential for excessive sediment and debris.

.6 Measure and remove section of pipe using equipment as recommended by the manufacturer for the specific type of pipe involved. The cuts shall be made so as to leave a smooth end at right angles to the axis of the bore, and the end shall be bevelled or finished as required to make the joint without risk of damage to gasket.

.7 Install a new gasket in the bell of the existing pipe or fitting if connection is completed with bell and spigot connection.

.8 Do not permit excavation to drain into exposed pipe. Temporarily plug cut ends of pipe to prevent water and debris from entering pipe.

.9 Install pipe bedding.

.10 Connect to existing PVC DR41 using coupling, piping, and valves to manufacturer's recommendations and as approved by the Engineer. Remove all foreign material from inside of piping and coupling before assembly. Support coupling as per manufacturer's recommendations.

.11 Backfill pipe surround and excavation in accordance with this specification.

## 3.12 FIELD TESTING OF FORCEMAIN

.1 Hydrostatic testing will be required in accordance to the Manitoba Water Services Board Standard Construction Specifications Section 027060 Pressure Pipelines.

.2 The test pressure for the forcemain shall be 700kPa.

**END OF SECTION**

D (863.6 x 558.8)

SW 35-13-1 EPM

SE 35-13-1 EPM

SEE DRAWING C0008

MATCH LINE 6+70

SEE DRAWING C0010

MATCH LINE 9+80

EXISTING PRIMARY CELL
BOT EL 244.08

GRASSMERE DRAIN

EXTEND 400Ø FORCEMAIN

FLANGE TO COUPLING ADAPTER (FLANGE ON HDPE) TO PVC C/W JOINT HARNESS.

450 HDPE FORCEMAIN

30° BEND

400 FORCEMAIN

FLANGE TO COUPLING ADAPTER (FLANGE ON HDPE) TO PVC C/W JOINT HARNESS.

30° BEND

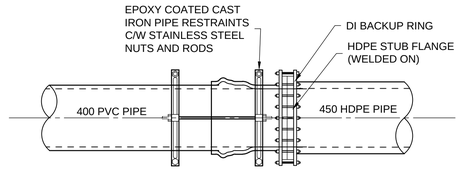
CO

EXISTING FENCE

3.00

PROPERTY LINE

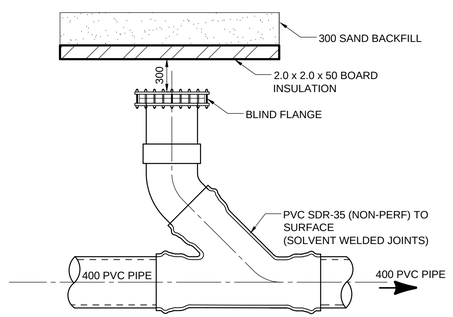
245.00 245.50 246.00 244.50 244.00 243.50




1 C0009 C0009

TRANSITION FROM 400 PVC TO 450 HDPE DR17

HOR 1 : 200, VER 1 : 50




2 C0009 C0009

BURIED CLEANOUT

HOR 1 : 200, VER 1 : 50

252.0 251.0 250.0 249.0 248.0 247.0 246.0 245.0 244.0 243.0 242.0 241.0 240.0 239.0 238.0 237.0 236.0 235.0 234.0

CLEANOUT 7+20.00

START OF 450 HDPE DR17 8+10.00

APPROX GR. CH. 8+49.60

END OF 450 HDPE DR17 9+40.00

EXISTING GROUND PROFILE

GRASSMERE DRAIN DYKE

GRASSMERE DRAIN BOTTOM

2.00 MIN. COVER

INSTALL 2.0 x 2.0 50 THICK BOARD INSULATION SEE DETAIL 2 ON THIS PAGE

603.73 OF 400 FORCEMAIN AT 0.09% (PVC DR 41)

89.99 OF 400 FORCEMAIN AT 0.09% (PVC DR 41)

130.00 OF 450 FORCEMAIN (DR17 HDPE)

294.95 OF 400 FORCEMAIN AT 0.02% (PVC DR 41)

130

INV 241.63

400 FCM INV 241.58

TRANSITION TO 450 HDPE DR17 SEE PVC TO HDPE DETAILS 1 ON THIS PAGE INV 241.50

400 FCM INV 240.61

TRANSITION TO 450 HDPE DR17 SEE PVC TO HDPE DETAILS 1 ON THIS PAGE INV 242.03

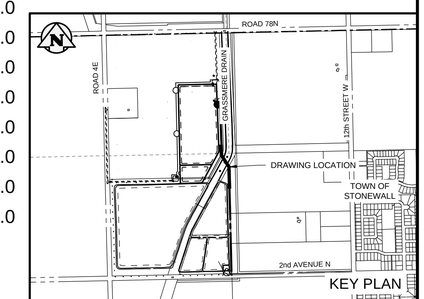
INV 242.04

7+00 7+50 8+00 8+50 9+00 9+50

## CONSTRUCTION NOTES:

1. CHAINAGE IS ALONG CENTRELINE OF PROPOSED 400Ø FORCEMAIN.
2. FORCEMAIN PIPE IS 400Ø PVC DR41.
3. MINIMUM PIPE COVER IS 2.5m OR AS SPECIFIED ON THE DRAWINGS.

1:500 10 0 10 20m




## METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

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|---|---|---|---|---|---|---|
| 1 | 17.08.11 | ADDENDUM NO# 3 | GMD | BLM | LVC | DRK |
| 0 | 17.07.28 | ISSUED FOR TENDER | GMD | BLM | LVC | DRK |
| REVISIONS/ISSUE | | | DRAFTING | | ENGINEERING | |

PERMIT STAMP

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Tetra Tech Canada Inc.
No. 6499

SEAL

PROVINCE OF MANITOBA — B.L. McINTOSH — Member 6532 — REGISTERED PROFESSIONAL ENGINEER

| DESIGNED BY: | DRAWN BY: | REVIEWED BY: |
|---|---|---|
| GWC / LVC | GMD | BLM |
| AUTHORIZED BY: | DATE: | SCALE: |
| DK | 2017-08-11 | Hor 1:500 Ver 1:100 |



Manitoba Water Services Board

TETRA TECH
Complex World
Clear Solutions

TOWN OF STONEWALL
WASTEWATER TREATMENT LAGOON UPGRADE

DRAWING DESCRIPTION:
PROPOSED 400 FORCEMAIN
PLAN/PROFILE
STATION 6+70 TO STATION 9+80
(SHEET 3 OF 4)

| TETRA TECH DRAWING No: | MWSB No. | SHEET No. | REV: |
|---|---|---|---|
| 1615360100-DWG-C0009 | 1374 | C0009 | 1 |

X:\1H-MMANITOBA WATER SERVICES BOARD - 1536\734-161536\01.00 - STONEWALL - WWT LAGOON UPGRADE\CAD\CIVIL\PRODUCTION DRAWINGS\300\7-010 1615360100-DWG-C0007-C0010 FORCEMAIN PLAN_PROFILES.DWG 2017-08-11 12:02 PM Emmanuel, Jonathan

D (863.6 x 558.8)

NEW PRIMARY CELL
BOT EL 244.50

NW 35-13-1 EPM

SEE DRAWING C0009
MATCH LINE 9+70

TOE OF DYKE

TH 11

TOP OF DYKE EL 247.00

244.50
245.00
245.50
246.00
246.50
247.00
247.00
246.50
246.00
245.50

245.00

TH 18

TOP OF DYKE EL 247.00

1200Ø PUMPED DRAIN MANHOLE
RIM EL 246.99
150 INV 242.08
SUMP EL 241.08

FORCEMAIN SPLASH PAD
SEE SHEET C0023 FOR DETAIL

5.00

150Ø FLANGE
GATE VALVE

400Ø GATE VALVE

150 FLANGE
OFF 400 TEE

400 FORCEMAIN

3.00

4.00

NEW PERIMETER DITCH

EXTEND 400 FORCEMAIN

NEW PERIMETER
FENCE

45° BEND

4.00

252.0
251.0
250.0
249.0
248.0
247.0
246.0
245.0
244.0
243.0
242.0
241.0
240.0
239.0
238.0
237.0
236.0
235.0
234.0

EXISTING GROUND PROFILE

294.95 OF 400 FORCEMAIN AT 0.02% (PVC DR 41)

INV 242.04

45° BEND
12+35.00

150 x 450 TEE
12+55.36

400 GATE VALVE
12+62.52

45° VERT BEND
12+89.90

END OF PIPE
12+91.70

NEW PRIMARY
CELL

TOP OF DYKE 246.99

RIM 246.99
150 INV 242.08
SUMP EL 241.08

400 FCM INV 244.80

7.15 OF 400 FORCEMAIN AT
2.13% (PVC DR 41)

27.41 OF 400 FORCEMAIN AT
2.09% (PVC DR 41)

20.40 OF 400 FORCEMAIN AT
0.02% (PVC DR 41)

CELL BOTTOM
EL 244.50

45° BEND INV 242.08

400 FCM INV 242.75

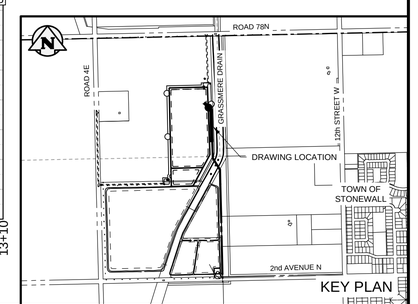
400 GATE VALVE INV 242.23

10+00
10+50
11+00
11+50
12+00
12+50
13+00
13+10

## CONSTRUCTION NOTES:

1. CHAINAGE IS ALONG CENTRELINE OF PROPOSED 400 FORCEMAIN.
2. FORCEMAIN PIPE IS 400Ø PVC DR41.
3. MINIMUM PIPE COVER IS 2.5 m OR AS SPECIFIED ON THE DRAWINGS.

1:500 10 0 10 20m




| NO. | DATE (yy.mm.dd) | DESCRIPTION | DRAWN | REVIEW | DESIGN | AUTHORIZE |
|---|---|---|---|---|---|---|
| 1 | 17.08.11 | ADDENDUM NO# 3 | GMD | BLM | LVC | DRK |
| 0 | 17.07.28 | ISSUED FOR TENDER | GMD | BLM | LVC | DRK |
| REVISIONS/ISSUE | | | DRAFTING | | ENGINEERING | |

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

PERMIT STAMP
ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
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No. 6499

SEAL
PROVINCE OF MANITOBA
B.L. McINTOSH
Member
6532
REGISTERED PROFESSIONAL ENGINEER

| DESIGNED BY: | DRAWN BY: | REVIEWED BY: |
|---|---|---|
| GWC / LVC | GMD | BLM |
| AUTHORIZED BY: | DATE: | SCALE: |
| DK | 2017-08-11 | Hor 1:500<br>Ver 1:100 |



Manitoba Water Services Board

TETRA TECH
Complex World
Clear Solutions

TOWN OF STONEWALL
WASTEWATER TREATMENT LAGOON UPGRADE

DRAWING DESCRIPTION:
PROPOSED 400 FORCEMAIN
PLAN/PROFILE
STATION 9+80 TO STATION 12+91.75
(SHEET 4 OF 4)

| TETRA TECH DRAWING No: | MWSB No. | SHEET No. | REV. |
|---|---|---|---|
| 1615360100-DWG-C0010 | 1374 | C0010 | 1 |

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## SCHEDULE OF PRICES R2

## PROJECT NO. MWSB 1374

| DESCRIPTION OF WORK | ESTIMATED QUANTITIES | UNIT | UNIT PRICE $0.00 | TOTAL $0.00 |
|---|---|---|---|---|
| 1. Clearing and Grubbing | 7,500 | $m^2$ | | |
| 2. Topsoil stripping and stockpiling | 28,950 | $m^3$ | | |
| 3. Excavation and Embankment | | | | |
| a. Common | 214,000 | $m^3$ | | |
| b. Unsuitable Material | 22,000 | $m^3$ | | |
| 4. Granular Material | | | | |
| a. Base Class A (200 mm thick) | 1,960 | $m^3$ | | |
| b. Subbase Class C (400 mm thick) with Geotextile | 3,920 | $m^3$ | | |
| 5. Rip Rap with Geotextile | 12,400 | $m^2$ | | |
| 6. Truck Dump Station and Splash Pad | 1 | l.s. | | |
| 7. Forcemain | | | | |
| a. 400 mm PVC DR41 | 1,046 | lin.m. | | |
| b. 450 mm HDPE DR17 | 130 | lin.m. | | |
| c. Connection to Existing Forcemain | 1 | ea | | |
| d. Cleanout | 1 | ea | | |
| 8. Inter-cell and Discharge Piping (300 mm): | 350 | lin.m. | | |
| a. Inter-cell piping between the new settling cell and the exiting primary cell (crossing under Grassmere Drain) | 119 | lin.m. | | |
| b. Other inter-cell and discharge piping | 231 | lin.m. | | |
| 9. Gate Valves: | | | | |
| a. 300 mm | 7 | ea | | |
| b. 400 mm | 1 | ea | | |
| 10. Manholes | | | | |
| a. 1200 mm Diameter | 18 | vt.m. | | |
| b. 1800 mm Diameter | 5 | vt.m. | | |
| c. 2100 mm Diameter | 7 | vt.m. | | |
| 11. Culverts (450 mm) | 26 | lin.m. | | |
| 12. Perimeter Fencing inc. Alum Building Access Gate | 1,680 | lin.m | | |
| 13. Removal of Existing Fence | 248 | lin.m. | | |
| 14. Replacement of Existing Perimeter Fence | 2,500 | lin.m. | | |
| 15. Sliding Gate to Truck Dump Station | 1 | l.s. | | |

## SCHEDULE OF PRICES R2

## PROJECT NO. MWSB 1374

| DESCRIPTION OF WORK | ESTIMATED QUANTITIES | UNIT | UNIT PRICE $0.00 | TOTAL $0.00 |
|---|---|---|---|---|
| 16. Site Lighting | 1 | l.s. | | |
| 17. Ditching | 6,020 | $m^3$ | | |
| 18. Alum Addition System inc. Building | 1 | l.s. | | |
| 19. Borrow Area Restoration | 45,000 | $m^3$ | | |
| 20. Topsoil and Seeding | 32,150 | $m^2$ | | |
| 21. Lagoon Signage | 1 | l.s. | | |
| | | | | |
| Cash Allowance – New Power Line | | | | $ 100,000 |
| Extra Work Allowance | | | | $ 200,000 |
| | | | | |
| | Subtotal | | | $ |
| | | | | |
| ***PST must be included in unit prices.** | Goods & Services Tax (5% of Subtotal) | | | $ |
| | | | | |
| | TOTAL TENDER PRICE | | | $ |