BIOFILTER SYSTEM NOTES PROVIDED BY WATERLOO BIOFILTER SYSTEMS INC.:

1. THE PEAK DESIGN FLOW FOR THIS SYSTEM IS 69,212 L/DAY.
2. ALL NON–DISHWASHER WASTEWATER FROM THE GROCERY STORE DELI/FOOD PRODUCTION SINK(S) FLOWS BY GRAVITY INTO AN EXTERIOR OIL/GREASE INTERCEPTOR(S) (SIZING BY OTHERS – GREEN TURTLE OR EQUIVALENT RECOMMENDED). EACH COMPARTMENT IN THE OIL/GREASE INTERCEPTOR(S) MUST BE VENTED AS PER MANUFACTURERS RECOMMENDATIONS.
3. ALL NON–DISHWASHER WASTEWATER FROM THE RESTAURANTS FLOWS BY GRAVITY INTO AN EXTERIOR OIL/GREASE INTERCEPTOR(S) (SIZING BY OTHERS – GREEN TURTLE OR EQUIVALENT RECOMMENDED). EACH COMPARTMENT IN THE OIL/GREASE INTERCEPTOR(S) MUST BE VENTED AS PER MANUFACTURERS RECOMMENDATIONS.
4. ANY DISHWASHER WASTEWATER, SANITARY WASTEWATER FROM ALL UNITS, AND THE OIL/GREASE INTERCEPTOR(S) EFFLUENT FLOWS BY GRAVITY INTO A 22,500 L TRASH TANK.
5. THE TRASH TANK EFFLUENT FLOWS BY GRAVITY INTO A 45,400 L AERATION TANK EQUIPPED WITH DIFFUSERS. THE DIFFUSERS ARE POWERED BY A BLOWER (NOT SHOWN) LOCATED IN A SMALL ABOVE GROUND CONTROL BUILDING.
6. THE AERATION TANK EFFLUENT FLOWS BY GRAVITY INTO THREE (3) 45,400 L TANKS INSTALLED IN SERIES. MULTIPLE, LONG, LINEAR TANKS ARE PREFERRED TO PREVENT SHORT–CIRCUITING AND IMPROVE TREATMENT. THE INLET OF SEPTIC TANK #2 & #3 IS TO BE EQUIPPED WITH ONE (1) SUBMERGED MEDIA CHAMBER. THE OUTLET OF SEPTIC TANK #2 & #3 IS TO BE EQUIPPED WITH TWO (2) EFFLUENT FILTERS.
7. THE WASTEWATER FLOWS THROUGH THE EFFLUENT FILTERS AND INTO TWO (2) 36,000 L BALANCE TANKS INSTALLED IN PARALLEL TO PROVIDE 72,000 L OF STORAGE. THE INLET TO BALANCE TANK #1 CONTAINS A DIRECTED FLOW ATTACHED MEDIA PIPE. BALANCE TANK #2 IS EQUIPPED WITH TWO (2) PAIRS OF SUBMERSIBLE EFFLUENT PUMPS OPERATING ON AN ALTERNATING QUADRUPLEX TIMED DOSING SCHEDULE AND A SUBMERSIBLE EFFLUENT PUMP OPERATING ON AN INDEPENDENT SIMPLEX TIMED DOSING SCHEDULE.
8. THE SIMPLEX PUMP IN BALANCE TANK #2 PUMPS A MAXIMUM OF 20,000 L/DAY TO A BELOW GROUND CLOSED LOOP BIOFILTER. THE CLOSED LOOP BIOFILTER CONSISTS OF A 27,000 L CONCRETE TANK BULK FILLED WITH BIOFILTER MEDIUM. THE TANK IS FILLED WITH APPROXIMATELY 26.8 m3/ CUBIC METRES OF BIOFILTER MEDIUM. THE WASTEWATER IS EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM IN THE CLOSED LOOP TANK BY HELICAL SPRAY NOZZLES AND TREATED AS IT TRICKLES THROUGH THE INTERIOR OF THE MEDIUM. AIR FAN ASSEMBLIES LOCATED WITHIN THE ABOVE GROUND CONTROL BUILDING BLOW AIR INTO THE TANK, ENSURING AEROBIC CONDITIONS. THE CLOSED LOOP EFFLUENT COLLECTS ON THE FLOOR OF THE TANK AND DRAINS BY GRAVITY BACK TO BALANCE TANK #2.
9. THE TWO (2) PAIRS OF PUMPS IN THE BALANCE TANK EACH PUMP THE WASTEWATER TO TWO (2) BELOW GROUND NITRIFYING BIOFILTERS. EACH NITRIFYING BIOFILTER CONSISTS OF A 45,400 L CONCRETE TANK HOUSING THREE (3) NITRIFYING WIRE MESH BASKETS. EACH BASKET IS FILLED WITH APPROXIMATELY 9.68 CUBIC METRES (116.1 CUBIC METRES TOTAL) OF MEDIUM. THE WASTEWATER IS EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM IN THE NITRIFYING BASKETS BY HELICAL SPRAY NOZZLES AND TREATED AS IT TRICKLES THROUGH THE INTERIOR OF THE MEDIUM. AIR FAN ASSEMBLIES LOCATED WITHIN THE ABOVE GROUND CONTROL BUILDING BLOW AIR INTO THE TANKS, ENSURING AEROBIC CONDITIONS. THE TANKS ARE CONNECTED BY BOTTOM DRAINS WITH THE TREATED EFFLUENT FROM TANK #4, TANK #3 & TANK #2 FLOWING INTO TANK #1. NITRIFYING BIOFILTER TANK #1 IS EQUIPPED WITH TWO (2) SUBMERSIBLE EFFLUENT PUMPS OPERATING ON AN ALTERNATING DUPLEX TIMED DOSING SCHEDULE AND A SUBMERSIBLE EFFLUENT PUMP OPERATING ON AN INDEPENDENT SIMPLEX TIMED DOSING SCHEDULE.
10. THE SIMPLEX PUMP IN NITRIFYING BIOFILTER TANK #1 RE–CIRCULATES A PORTION (PERCENTAGE TO BE DETERMINED DURING OPERATION) OF THE NITRIFIED EFFLUENT. THE RECIRCULATION FORCEMAIN IS SPLIT INSIDE THE TANK WITH A PORTION (PERCENTAGE IS VARIABLE) OF THE TOTAL RECIRCULATED EFFLUENT BEING PUMPED TO INLET OF SEPTIC TANK #3 AND A PORTION (PERCENTAGE IS VARIABLE) OF THE TOTAL RECIRCULATED EFFLUENT BEING PUMPED TO THE INLET OF BALANCE TANK #1. BOTH FORCEMAINS PASS THROUGH THE ABOVE GROUND CONTROL BUILDING. IF THERE IS INSUFFICIENT INITIAL ALKALINITY IN THE WASTEWATER FOR THOROUGH NITRIFICATION, ALKALINITY (A) IS ADDED TO THE SEPTIC TANK RECIRCULATION LINE. A CHEMICAL METERING PUMP AND THE ALKALINITY DOSING EQUIPMENT IS HOUSED IN THE ABOVE GROUND CONTROL BUILDING.
11. THE DUPLEX PUMPS IN NITRIFYING BIOFILTER TANK #1 PUMP THE NITRIFIED EFFLUENT TO THE FIRST COMPARTMENT OF A BELOW GROUND WATERNOx–S DENITRIFYING WATERLOO BIOFILTER. THE WATERNOx–S BIOFILTER CONSISTS OF A 45,400 L 2–COMPARTMENT CONCRETE TANK HOUSING EIGHT (8) WATERNOx–S DENITRIFYING CHAMBERS. THE FIRST COMPARTMENT IS ALSO EQUIPPED WITH TWO (2) SUBMERSIBLE EFFLUENT PUMPS OPERATING ON AN ALTERNATING DUPLEX TIMED DOSING SCHEDULE. THE PUMPS SEND THE WATER FROM THE BOTTOM OF THE CONCRETE TANK UP THROUGH SUBMERGED MEDIA IN EACH CHAMBER. IN THE EVENT OF LOW FLOW ONE (1) OR TWO (2) OF THE WATERNOx–S CHAMBERS CAN BE VALVED OFF. THE CONCRETE TANK IS SEALED TO ENSURE ANOXIC CONDITIONS. WHEN THE WATER IN THE CHAMBERS REACHES A CERTAIN HEIGHT IT FLOWS INTO THE SECOND COMPARTMENT OF THE CONCRETE TANK. THE SECOND COMPARTMENT IS EQUIPPED WITH TWO (2) SUBMERSIBLE EFFLUENT PUMPS OPERATING ON AN ALTERNATING DUPLEX TIMED DOSING SCHEDULE. THE OUTGOING FORCEMAIN IS PLUMBED TO ALLOW A PORTION OF THE DENITRIFIED EFFLUENT TO BE PUMPED THROUGH THE ABOVE GROUND CONTROL BUILDING AND ONTO THE SEPTIC TANK #3 INLET.
12. THE REMAINING DENITRIFIED EFFLUENT IS PUMPED TO TWO (2) BELOW GROUND POLISHING WATERLOO BIOFILTERS. EACH POLISHING BIOFILTER CONSISTS OF A 27,500 L CONCRETE TANK HOUSING TWO (2) POLISHING WIRE MESH BASKETS. EACH BASKET IS FILLED WITH APPROXIMATELY 9.07 CUBIC METRES (36.3 CUBIC METRES TOTAL) OF POLISHING MEDIUM. THE DENITRIFIED EFFLUENT IS EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM IN THE POLISHING BASKETS BY HELICAL SPRAY NOZZLES AND POLISHED AS IT TRICKLES THROUGH THE INTERIOR OF THE MEDIUM. AIR FAN ASSEMBLIES LOCATED WITHIN THE ABOVE GROUND CONTROL BUILDING BLOW AIR INTO THE TANKS, ENSURING AEROBIC CONDITIONS. THE TANKS ARE CONNECTED BY BOTTOM DRAINS WITH THE POLISHED EFFLUENT FROM TANK #2 FLOWING INTO TANK #1. POLISHING TANK #1 IS EQUIPPED WITH TWO (2) SUBMERSIBLE EFFLUENT PUMPS OPERATING ON AN ALTERNATING DUPLEX DEMAND DOSING SCHEDULE. THE OUTGOING FORCEMAIN IS PLUMBED TO ALLOW A PORTION OF THE POLISHED EFFLUENT TO BE PUMPED TO THE THE SEPTIC TANK #1 INLET.
13. THE REMAINING POLISHED EFFLUENT IS PUMPED THROUGH A FLOW METER LOCATED INSIDE THE ABOVE GROUND CONTROL BUILDING (NOT SHOWN) AND ON TO SUBSURFACE DISPOSAL (BY OTHERS).
14. THE OUTSIDE OF ALL CONCRETE TANKS ARE TO BE INSULATED WITH HI–40 INSULATION (BY OTHERS). THE UNDERSIDE OF ALL LIDS ARE ALSO TO BE INSULATED.
15. BY ADHERING TO BEST MANAGEMENT PRACTICES (PERFORMING ROUTINE MAINTENANCE, LIMITING TOXINS ENTERING THE SYSTEM) THE WATERLOO BIOFILTER TREATMENT SYSTEM OUTLINED IN THIS SCHEMATIC IS EXPECTED TO PRODUCE EFFLUENT WITH THE FOLLOWING PARAMETERS BASED ON EXTENSIVE TESTING AND EXPERIENCE.

    cBOD = 10 mg/L
    TSS = 10 mg/L
    NITRATE = 0.22 kg/day

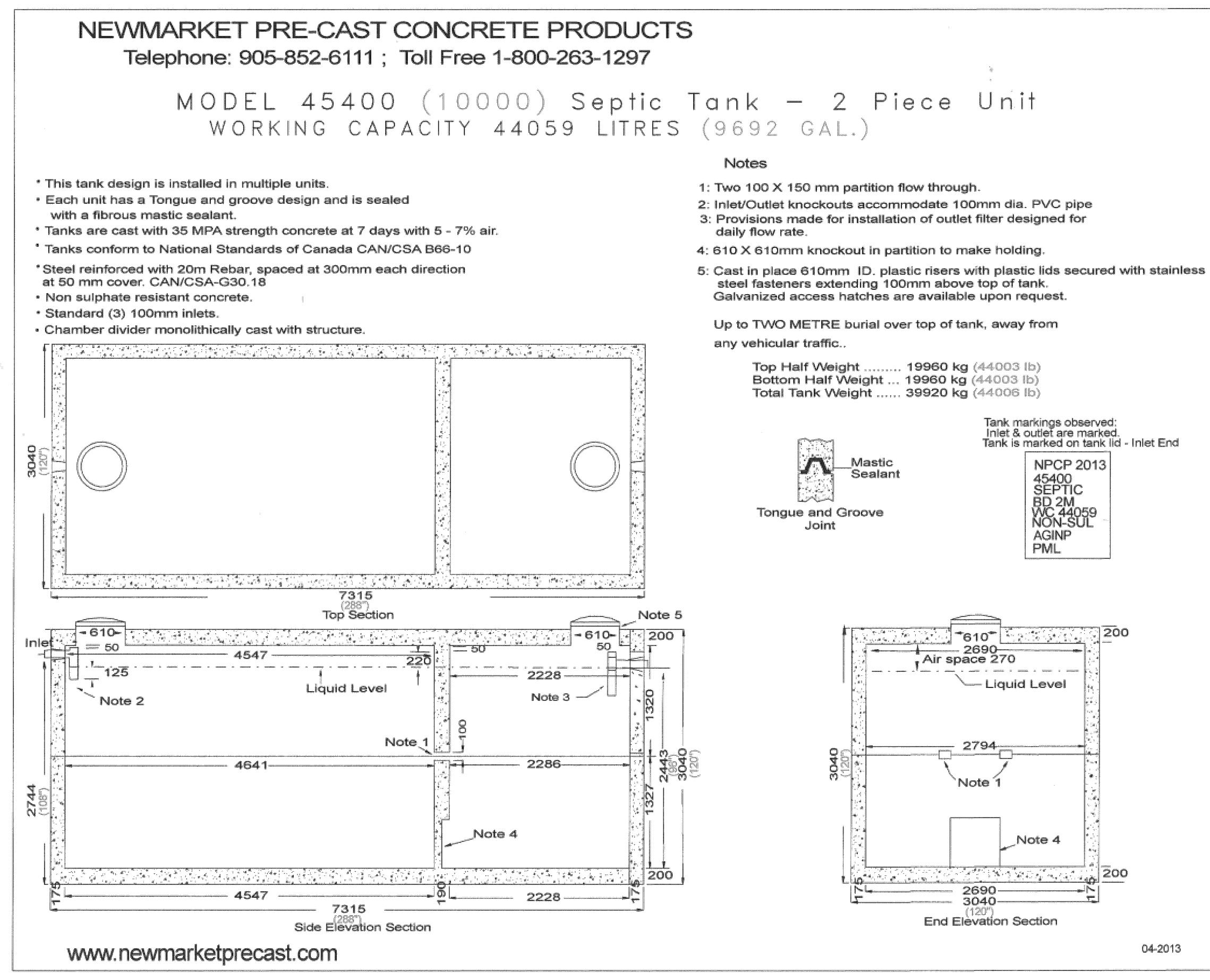
SEPTIC BED AREA NOTES PROVIDED BY WATERLOO BIOFILTER SYSTEMS INC.:

1. THE PEAK DESIGN FLOW FOR THIS SYSTEM IS 69,212 L/DAY.
2. THE OVERALL PERCOLATION RATE OF THE NATIVE SOILS IS 40 min/cm. NATIVE SOIL PERCOLATION RATE PROVIDED BY WILSON ASSOCIATES.
3. THE WATERLOO BIOFILTER AREA BED CONSISTS OF PERFORATED DISTRIBUTION PIPING WITHIN A LAYER OF STONE OVER TOP OF A LAYER OF SAND. THE STONE AND SAND LAYERS OF THE AREA BED ARE CALCULATED USING THE PEAK DESIGN FLOW, Q = 69,212 L/day, AND A PERCOLATION RATE OF THE NATIVE SOILS, T = 40 min/cm.

    MINIMUM STONE AREA = Q/50 = 69,212/50 = 1384 m^2
    PROPOSED DIMENSIONS: 87.5 m(W) x 16.1 m(L) x 0.25m(H)

    MINIMUM SAND AREA = QT/400 = (69,212)(40)/400 = 6921 m^2
    PROPOSED DIMENSIONS: 107.7 m(W) x 65 m(L) x 0.25 m (H)

4. THE PERFORATED DISTRIBUTION PIPING IS SPLIT INTO FOUR (4) PODS WITH EACH POD HAVING FIFTEEN (15) RUNS OF 20.5 m PIPE SPACED 1.0 m C/C. A 4–CAM INDEXING VALVE ALTERNATES DOSES BETWEEN THE PODS.
5. THE BASE OF THE SAND LAYER IS SLOPED 1–2% IN THE DIRECTION OF FLOW.
6. THE BOTTOM OF THE STONE LAYER MUST BE VERTICALLY SEPARATED AT LEAST 600 mm FROM THE HIGH GROUND WATER TABLE, ROCK OR SOIL WITH A T–TIME OF 6 min/cm OR LESS, OR GREATER THAN 50 min/cm. EXCEPT IF THE PERCOLATION RATE OF THE NATIVE SOILS IS BETWEEN 6 min/cm AND 50 min/cm THE BOTTOM OF THE STONE LAYER MUST BE VERTICALLY SEPARATED AT LEAST 450 mm TO ROCK, HIGH GROUND WATER TABLE, AND SOIL HAVING A T–TIME OF 50 min/cm.THE BOTTOM OF THE STONE LAYER MUST BE VERTICALLY SEPARATED AT LEAST 600 mm FROM THE HIGH GROUND WATER TABLE, ROCK OR SOIL WITH A T–TIME OF 6 min/cm OR LESS, OR
7. WHERE THE SAND LAYER IS INSTALLED IN OR ON SOIL HAVING A T–TIME > 15 min/cm, THE SAND LAYER SHALL BE EXTEND 15 m BEYOND THE PERIMETER OF THE DISTRIBUTION PIPING IN ANY DIRECTION THAT THE EFFLUENT ENTERING THE SOIL WILL MOVE HORIZONTALLY.
8. ESTABLISHED ONTARIO BUILDING CODE SETBACKS FOR CLASS 4 TREATMENT UNITS AND DISTRIBUTION PIPES (TABLES 8.2.1.6.A AND 8.2.1.6.B., RESPECTIVELY):



NEWMARKET PRE-CAST CONCRETE PRODUCTS
Telephone: 905-852-6111 ; Toll Free 1-800-263-1297

MODEL 45400 (10000) Septic Tank – 2 Piece Unit
WORKING CAPACITY 44059 LITRES (9692 GAL.)

- This tank design is installed in multiple units.
- Each unit has a Tongue and groove design and is sealed with a fibrous mastic sealant.
- Tanks are cast with 35 MPA strength concrete at 7 days with 5 - 7% air.
- Tanks conform to National Standards of Canada CAN/CSA B66-10
- Steel reinforced with 20m Rebar, spaced at 300mm each direction at 50 mm cover. CAN/CSA-G30.18
- Non sulphate resistant concrete.
- Standard (3) 100mm inlets.
- Chamber divider monolithically cast with structure.

Notes

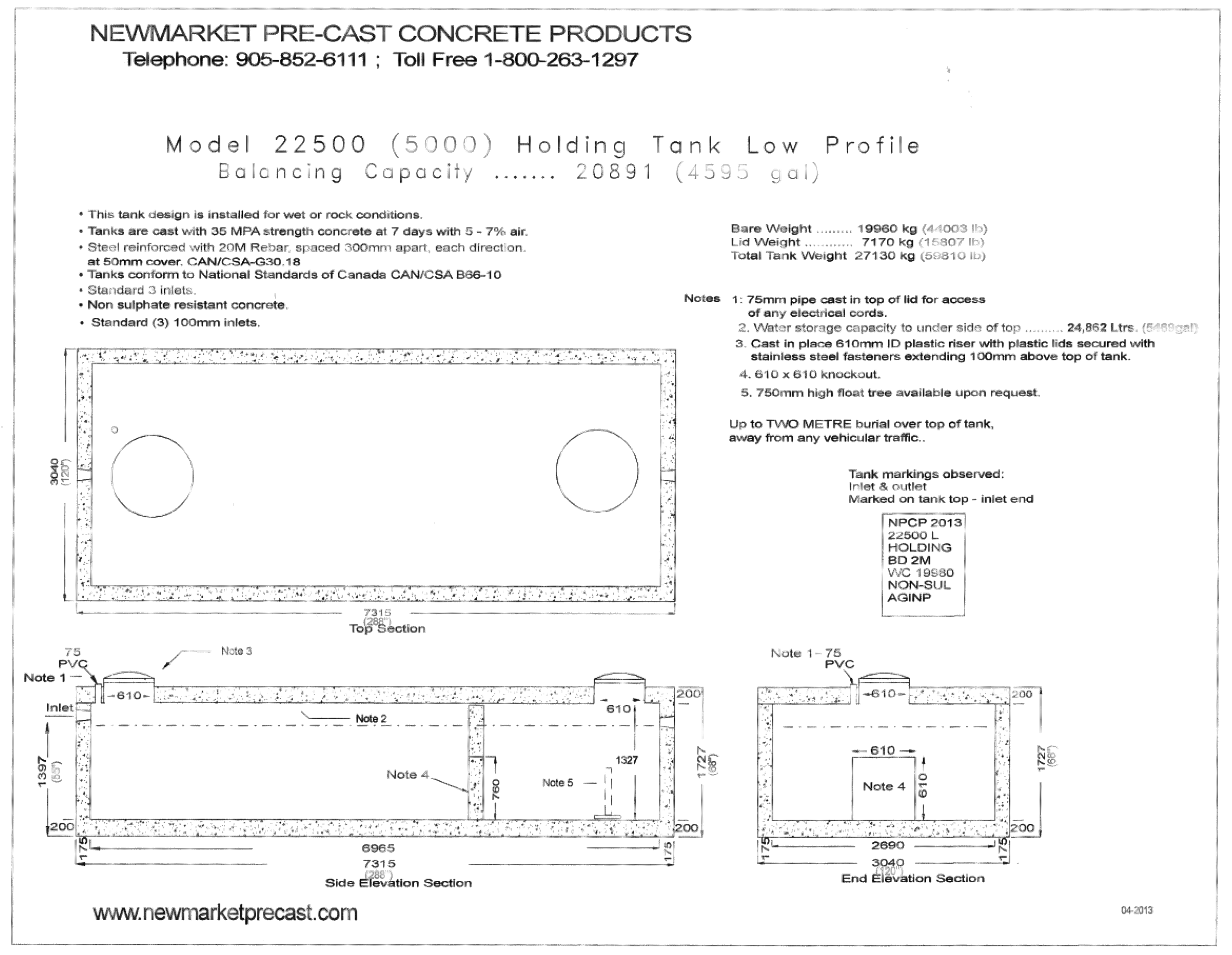
1: Two 100 X 150 mm partition flow through.
2: Inlet/Outlet knockouts accommodate 100mm dia. PVC pipe
3: Provisions made for installation of outlet filter designed for daily flow rate.
4: 610 X 610mm knockout in partition to make holding.
5: Cast in place 610mm ID. plastic risers with plastic lids secured with stainless steel fasteners extending 100mm above top of tank. Galvanized access hatches are available upon request.

Up to TWO METRE burial over top of tank, away from any vehicular traffic..

Top Half Weight .... 19960 kg (44003 lb)
Bottom Half Weight ... 19960 kg (44003 lb)
Total Tank Weight ...... 39920 kg (44006 lb)

Tank markings observed:
Inlet & outlet are marked.
Tank is marked on tank lid - Inlet End

NPCP 2013
45400
SEPTIC
BD 2M
WC 44059
NON-SUL
AGINP
PML



NEWMARKET PRE-CAST CONCRETE PRODUCTS
Telephone: 905-852-6111 ; Toll Free 1-800-263-1297

Model 22500 (5000) Holding Tank Low Profile
Balancing Capacity .... 20891 (4595 gal)

- This tank design is installed for wet or rock conditions.
- Tanks are cast with 35 MPA strength concrete at 7 days with 5 - 7% air.
- Steel reinforced with 20M Rebar, spaced 300mm apart, each direction. at 50mm cover. CAN/CSA-G30.18
- Tanks conform to National Standards of Canada CAN/CSA B66-10
- Standard 3 inlets.
- Non sulphate resistant concrete.
- Standard (3) 100mm inlets.

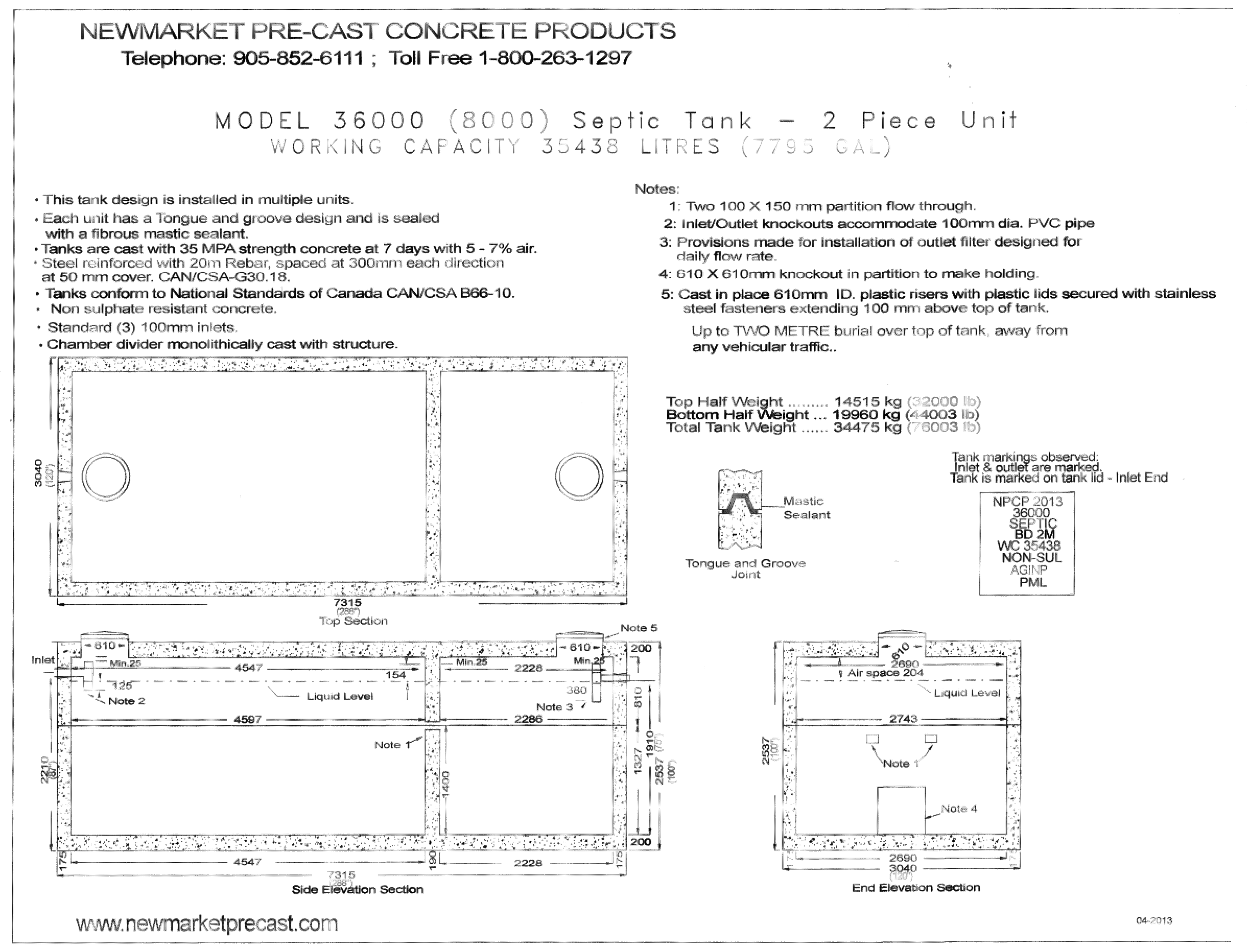
Bare Weight .... 19960 kg (44003 lb)
Lid Weight .... 7170 kg (15807 lb)
Total Tank Weight 27130 kg (59810 lb)

Notes
1: 75mm pipe cast in top of lid for access of any electrical cords.
2. Water storage capacity to under side of top .... **24,862 Ltrs.** (5469gal)
3. Cast in place 610mm ID plastic riser with plastic lids secured with stainless steel fasteners extending 100mm above top of tank.
4. 610 x 610 knockout.
5. 750mm high float tree available upon request.

Up to TWO METRE burial over top of tank, away from any vehicular traffic..

Tank markings observed:
Inlet & outlet
Marked on tank top - inlet end

NPCP 2013
22500 L
HOLDING
BD 2M
WC 19980
NON-SUL
AGINP



NEWMARKET PRE-CAST CONCRETE PRODUCTS
Telephone: 905-852-6111 ; Toll Free 1-800-263-1297

MODEL 36000 (8000) Septic Tank – 2 Piece Unit
WORKING CAPACITY 35438 LITRES (7795 GAL)

- This tank design is installed in multiple units.
- Each unit has a Tongue and groove design and is sealed with a fibrous mastic sealant.
- Tanks are cast with 35 MPA strength concrete at 7 days with 5 - 7% air.
- Steel reinforced with 20m Rebar, spaced at 300mm each direction at 50 mm cover. CAN/CSA-G30.18.
- Tanks conform to National Standards of Canada CAN/CSA B66-10.
- Non sulphate resistant concrete.
- Standard (3) 100mm inlets.
- Chamber divider monolithically cast with structure.

Notes:

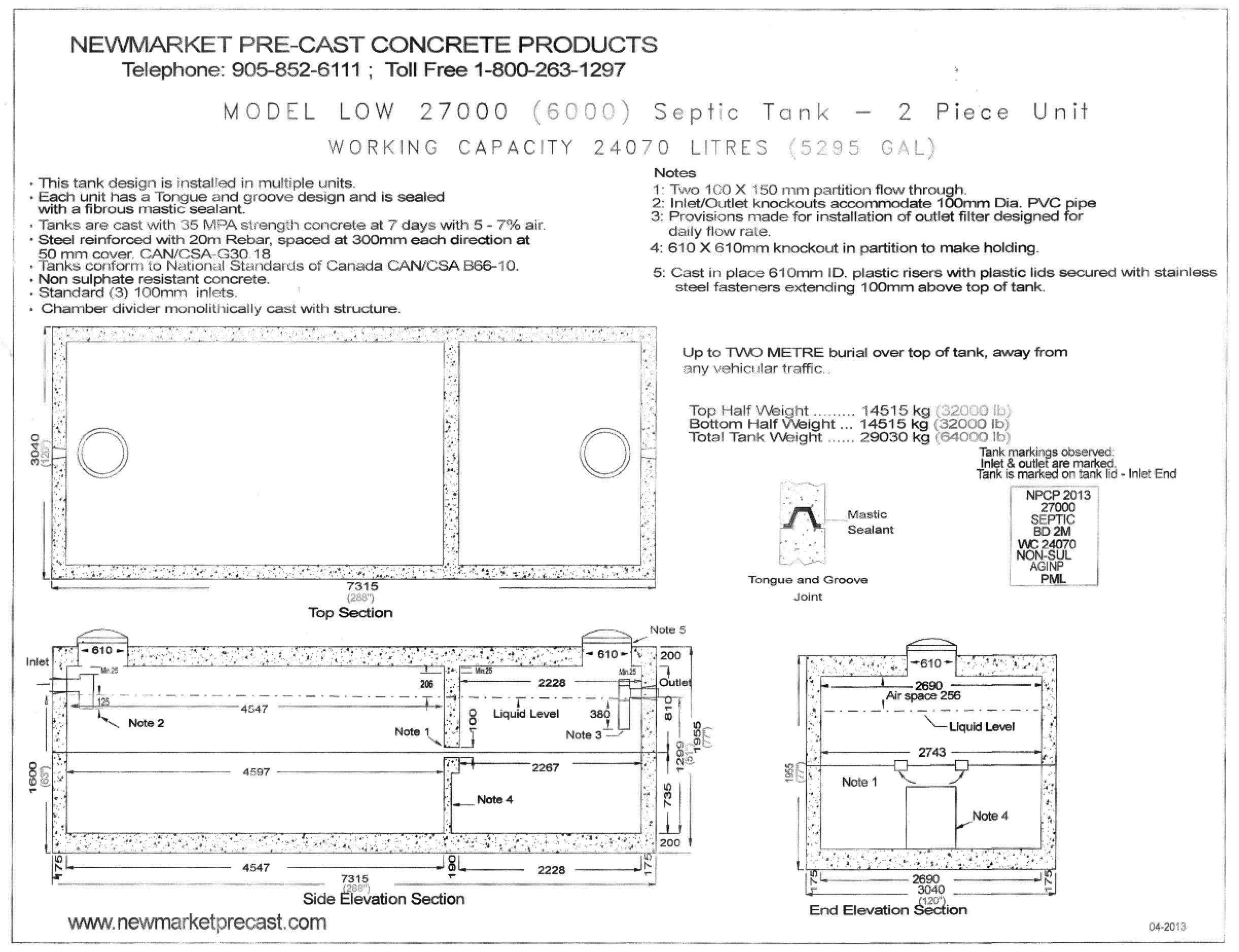
1: Two 100 X 150 mm partition flow through.
2: Inlet/Outlet knockouts accommodate 100mm dia. PVC pipe
3: Provisions made for installation of outlet filter designed for daily flow rate.
4: 610 X 610mm knockout in partition to make holding.
5: Cast in place 610mm ID. plastic risers with plastic lids secured with stainless steel fasteners extending 100 mm above top of tank.

Up to TWO METRE burial over top of tank, away from any vehicular traffic..

Top Half Weight .... 14515 kg (32000 lb)
Bottom Half Weight ... 19960 kg (44003 lb)
Total Tank Weight ...... 34475 kg (76003 lb)

Tank markings observed:
Inlet & outlet are marked.
Tank is marked on tank lid - Inlet End

NPCP 2013
36000
SEPTIC
BD 2M
WC 35438
NON-SUL
AGINP
PML



NEWMARKET PRE-CAST CONCRETE PRODUCTS
Telephone: 905-852-6111 ; Toll Free 1-800-263-1297

MODEL LOW 27000 (6000) Septic Tank – 2 Piece Unit
WORKING CAPACITY 24070 LITRES (5295 GAL)

- This tank design is installed in multiple units.
- Each unit has a Tongue and groove design and is sealed with a fibrous mastic sealant.
- Tanks are cast with 35 MPA strength concrete at 7 days with 5 - 7% air.
- Steel reinforced with 20m Rebar, spaced at 300mm each direction at 50 mm cover. CAN/CSA-G30.18
- Tanks conform to National Standards of Canada CAN/CSA B66-10.
- Non sulphate resistant concrete.
- Standard (3) 100mm inlets.
- Chamber divider monolithically cast with structure.

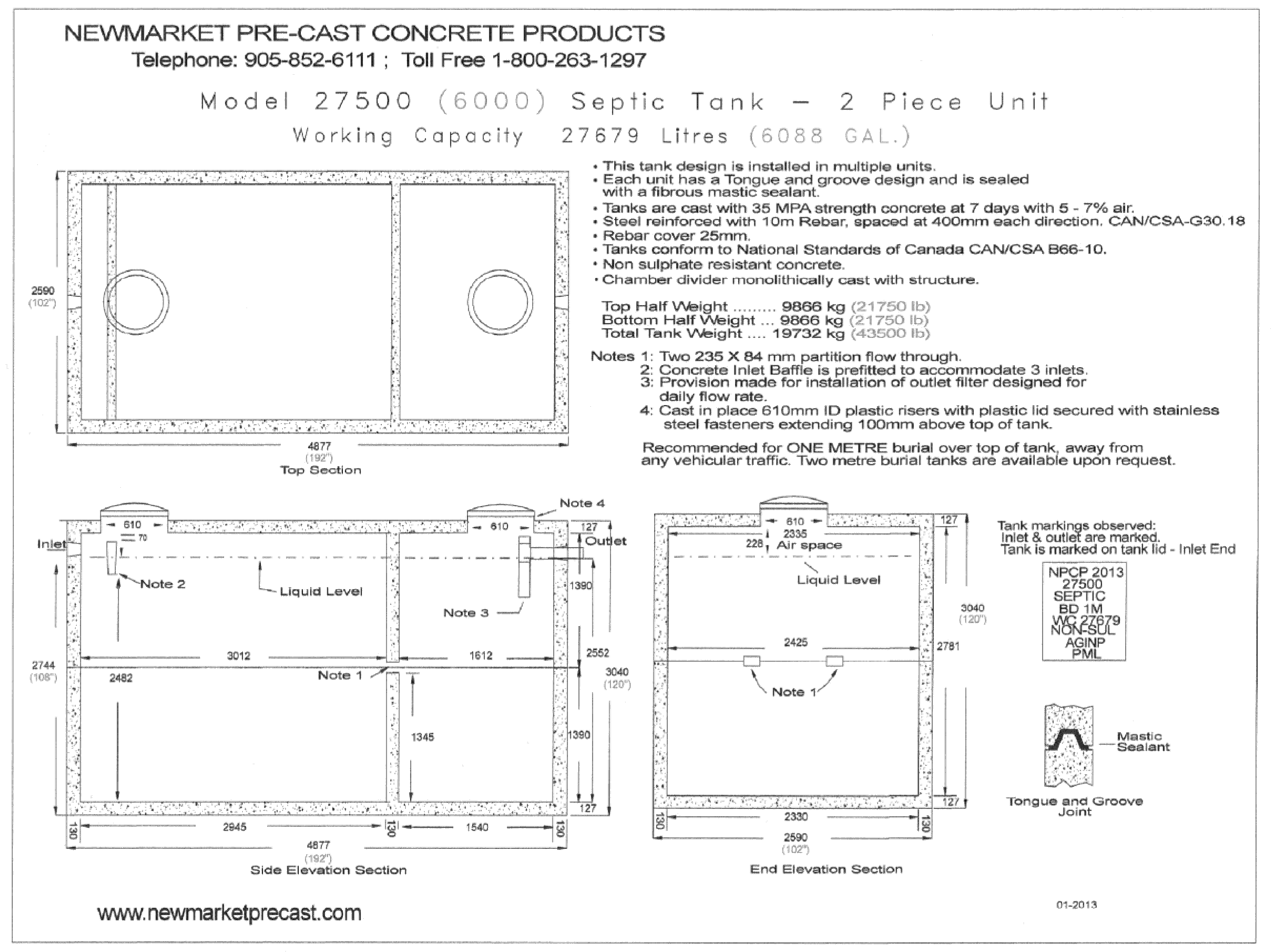
Notes
1: Two 100 X 150 mm partition flow through.
2: Inlet/Outlet knockouts accommodate 100mm Dia. PVC pipe
3: Provisions made for installation of outlet filter designed for daily flow rate.
4: 610 X 610mm knockout in partition to make holding.
5: Cast in place 610mm ID. plastic risers with plastic lids secured with stainless steel fasteners extending 100mm above top of tank.

Up to TWO METRE burial over top of tank, away from any vehicular traffic..

Top Half Weight .... 14515 kg (32000 lb)
Bottom Half Weight ... 14515 kg (32000 lb)
Total Tank Weight ...... 29030 kg (64000 lb)

Tank markings observed:
Inlet & outlet are marked.
Tank is marked on tank lid - Inlet End

NPCP 2013
27000
SEPTIC
BD 2M
WC 24070
NON-SUL
AGINP
PML



NEWMARKET PRE-CAST CONCRETE PRODUCTS
Telephone: 905-852-6111 ; Toll Free 1-800-263-1297

Model 27500 (6000) Septic Tank – 2 Piece Unit
Working Capacity 27679 Litres (6088 GAL.)

- This tank design is installed in multiple units.
- Each unit has a Tongue and groove design and is sealed with a fibrous mastic sealant.
- Tanks are cast with 35 MPA strength concrete at 7 days with 5 - 7% air.
- Steel reinforced with 10m Rebar, spaced at 400mm each direction. CAN/CSA-G30.18
- Rebar cover 25mm.
- Tanks conform to National Standards of Canada CAN/CSA B66-10.
- Non sulphate resistant concrete.
- Chamber divider monolithically cast with structure.

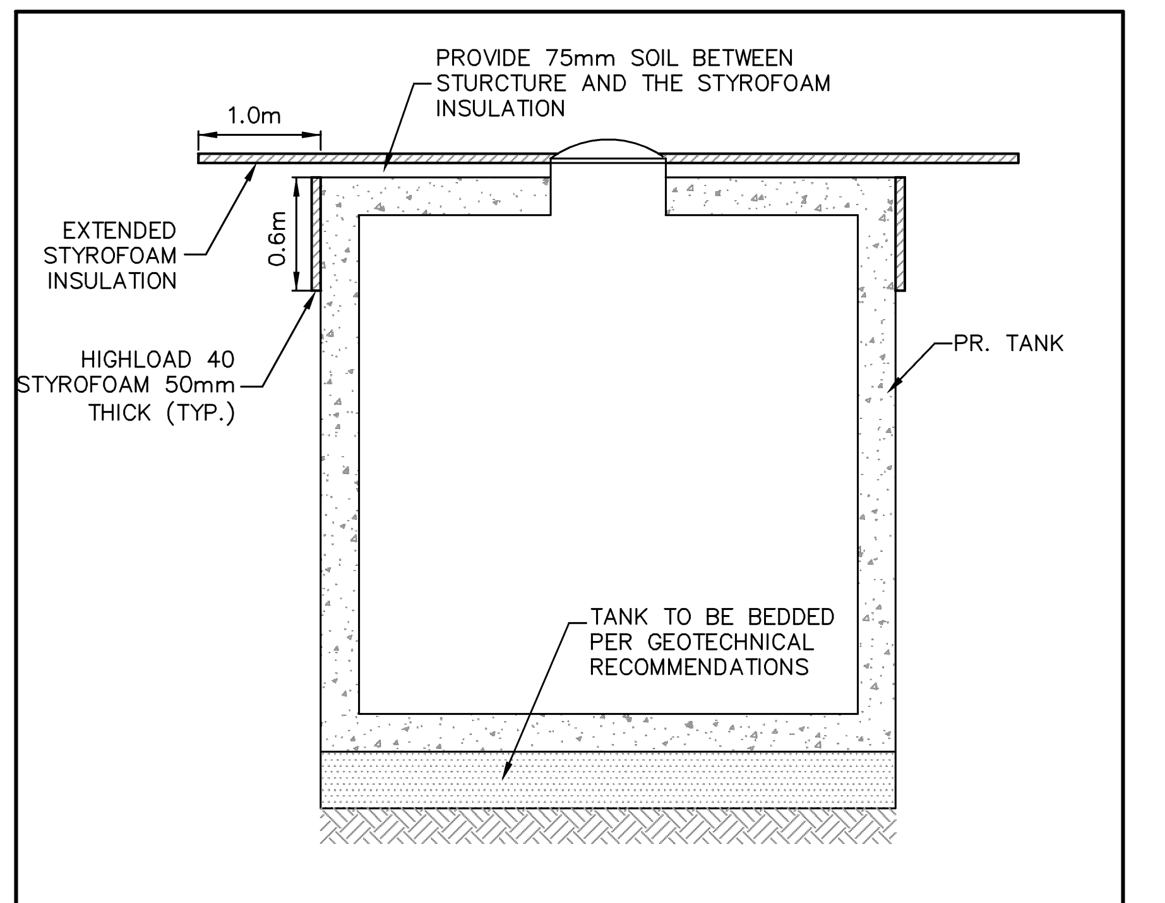
Top Half Weight .... 9866 kg (21750 lb)
Bottom Half Weight ... 9866 kg (21750 lb)
Total Tank Weight .... 19732 kg (43500 lb)

Notes 1: Two 235 X 84 mm partition flow through.
2: Concrete Inlet Baffle is prefitted to accommodate 3 inlets.
3: Provision made for installation of outlet filter designed for daily flow rate.
4: Cast in place 610mm ID plastic risers with plastic lid secured with stainless steel fasteners extending 100mm above top of tank.

Recommended for ONE METRE burial over top of tank, away from any vehicular traffic. Two metre burial tanks are available upon request.

Tank markings observed:
Inlet & outlet are marked.
Tank is marked on tank lid - Inlet End

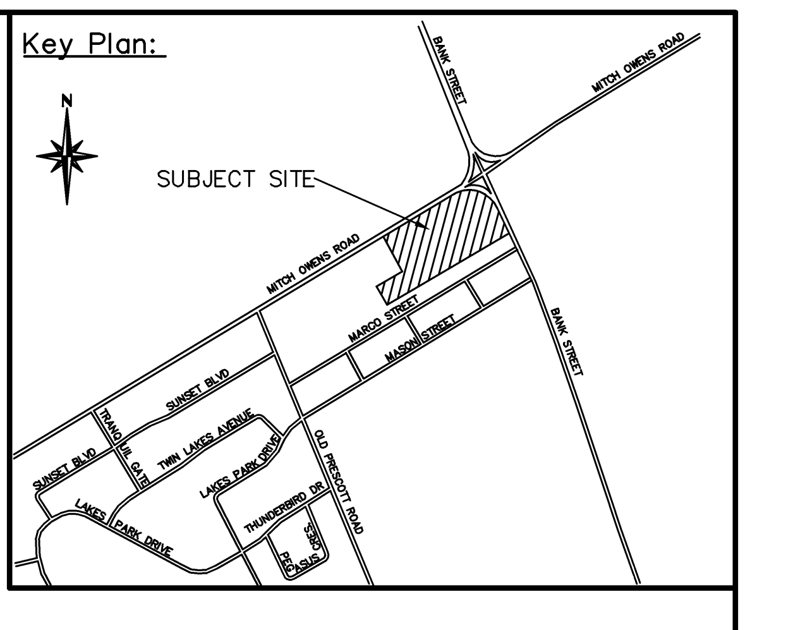
NPCP 2013
27500
SEPTIC
BD 1M
WC 27679
NON-SUL
AGINP
PML



STYROFOAM INSULATION DETAIL

N.T.S.

Key Plan:



CAUTION

CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

PUMP STATION NOTES:

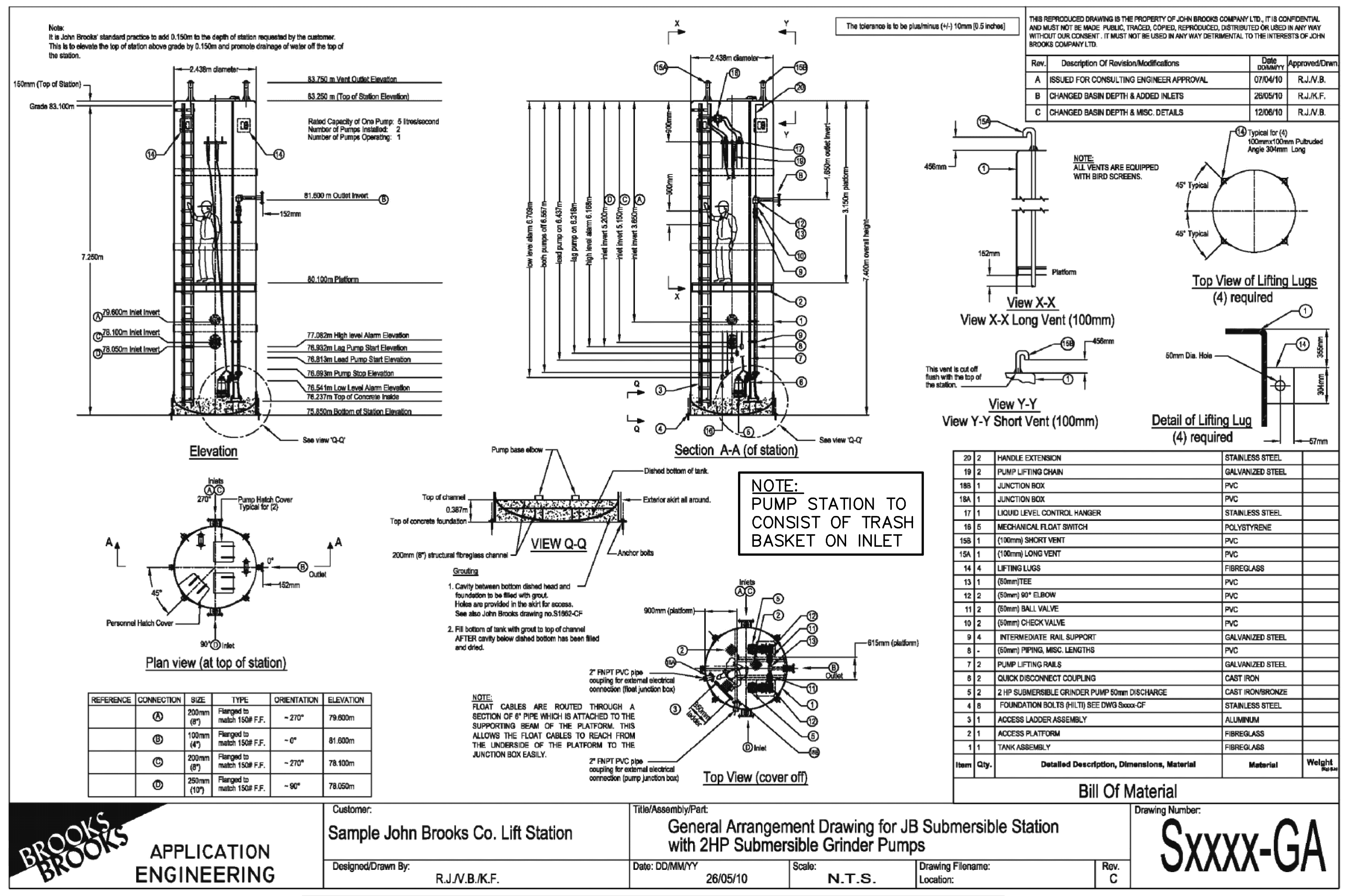
1. ALL DIMENSIONS FOR PUMP LOCATIONS, LIFTING RAILS & ACCESS DOOR TO BE CONFIRMED OR DETERMINED FROM MANUFACTURERS SHOP DRAWINGS.
2. LIFTING RAILS FOR PUMP SHALL BE SET PLUMB & SPACED SUCH THAT PUMPS LIFT W/O BINDING.
3. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT UPLIFT DURING CONSTRUCTION.
4. ELECTRICAL CONDUITS SHALL BE BURIED 0.9m MIN. BELOW FINISHED GRADE C/W TRACING WIRE.
5. DUTY : 2.4 L/S @ 2.88M – WE WILL BE LOOKING AT THE FOLLOWING:

ONE (1) JOHN BROOKS HIFLO DUPLEX SUBMERSIBLE GRINDER PUMP STATION WITH THE FOLLOWING COMPONENTS:

- (2) – JB SELECTED HIGH FLOW GRINDER PUMP 2HP/ 1PH / 230V / 2" DISCHARGE
- EACH PUMP WILL BE CAPABLE OF A PUMPING CAPACITY OF 2.4 L/S @ 2.9M OF TDH
- FOUR – MECHANICAL FLOAT ASSEMBLIES WITH 30FT CORDS.
- FOUR – FLOATATION WEIGHTS.
- TWO – SUITABLE LENGTHS OF GALVANIZED STEEL LIFTING CHAINS.
- TWO – JUNCTION BOX [WIRING BY OTHERS].
- ONE – DUPLEX CONTROLLER IN A NEMA 4 ENCLOSURE [POLE MOUNT STYLE _ (OUTDOOR), MOUNTING BY OTHERS.],
- LEVEL CONTROL BY 4 FLOATS. WITH PRESSURE
- HOUR METERS
- 6 FT DIAMETER X 96 " DEEP WET WELL
- UNLOADING AND INSTALLATION TO BE COMPLETED BY THE CONTRACTOR
- **ANTI–FLOAT CONCRETE BLOCK REQUIRED
  (PUMP STATION BALLAST TO BE DONE BY OTHERS)
- SUITABLE CONDUIT SEALS ARE TO BE SUPPLIED AND INSTALLED BETWEEN THE JUNCTION BOX AND THE PANEL AS REQUIRED BY THE CANADIAN ELECTRICAL CODE, THE ENGINEER OR THE AUTHORITY HAVING JURISDICTION

6. VENT PIPE ASSEMBLY AS PER DETAIL ON BROOKS DRAWING

7. ELECTRICAL WORK AND EQUIPMENT IN WET WELL TO COMPLY WITH THE CURRENT ONTARIO ELECTRICAL CODE



NOTE: CONTRACTOR TO ARRANGE WITH HYDRO RE: METERING REQUIREMENTS, METERING CABINET, MOUNTING & FINAL CONNECTION AT CONTROL PANEL. CONTRACTOR TO COORDINATE BELL CONNECTION FOR ALARM FOR PROPOSED SEWAGE PUMPING STATION

NOTE: FINAL SHOP DRAWINGS TO BE PROVIDED BY JOHN BROOKS COMPANY.

Notes:

1. Unless noted otherwise, the measurements and distances shown on this drawing are shown in meters.
2. Do not scale drawings.
3. It is the contractor's responsibility to verify all dimensions, levels and datums on site and report any discrepancies or omissions to WMI & Associates Ltd. prior to construction.
4. This drawing is to be read and understood in conjunction with all other relevant documents applicable to this project.
5. This drawing is the exclusive property of WMI & Associates Ltd. and the reproduction of any part of this document without prior written consent is strictly prohibited.

Benchmark: 113.99

#3 CONCRETE MONUMENT (001196530377).
NORTH SIDE OF MITCH OWENS ROAD
APPROXIMATELY 250m WEST OF THE
INTERSECTION OF MITCH OWENS ROAD AND
BANK STREET.

J.W.LIGHTHEART
100140403
May 22, 2015

No.	Issue / Revision	Date
1	1st Submisson	Feb. 4, 2014
2	2nd Submisson	May 22, 2015

Greely Commercial Center

BIOFILTER &
AREA BED
DETAILS & NOTES 1

Client:
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3338 Dufferin Street
Toronto, Ontario
M6A 3A4

WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By TG	Checked By JWL
Scale N.T.S.	Project No. 11–183

Drawing No. BIO 2