

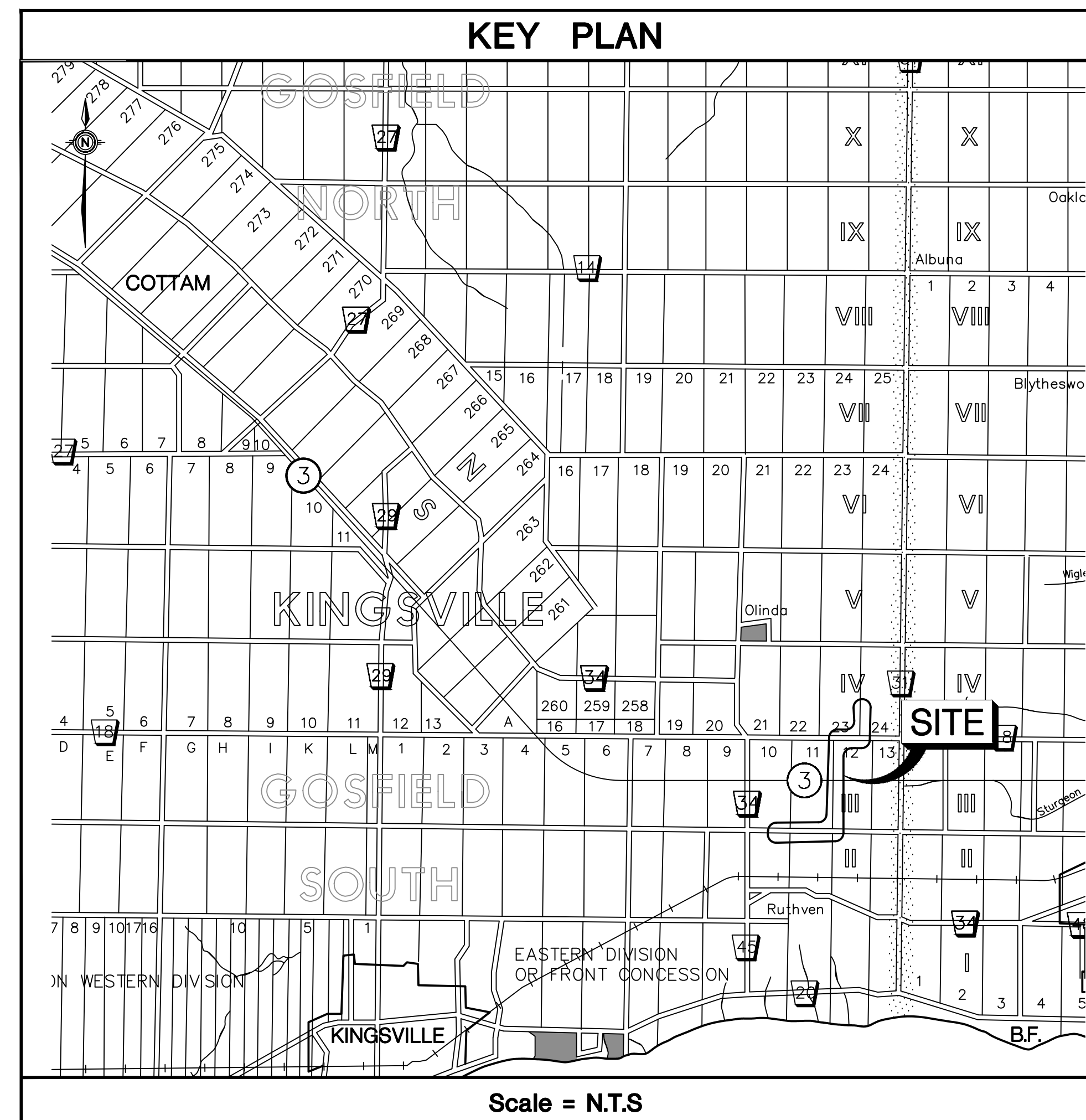
MASTRON SEWAGE FORCEMAIN

in the MUNICIPALITY OF KINGSVILLE COUNTY OF ESSEX

N.J. Peralta Engineering Ltd.
45 Division St. N.
Kingsville, Ontario

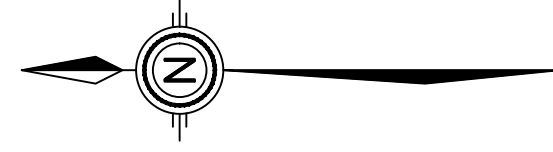
SITE BENCHMARKS		
B.M. #1	TOP NUT OF FIRE HYDRANT ON SOUTH SIDE OF ROAD 3 EAST, LOCATED APPROX. 70m EAST OF DIMAR DRIVE.	ELEVATION = 215.108m
B.M. #2	TOP NUT OF FIRE HYDRANT ACROSS FROM M.N. 1770, LOCATED ON THE SOUTH SIDE OF ROAD 3 EAST APPROXIMATELY 225m FROM DIMAR DRIVE	ELEVATION = 217.225m
B.M. #3	TOP NUT OF FIRE HYDRANT K038 LOCATED ON SOUTH SIDE OF ROAD 3 EAST, APPROX. 165m FROM SPINKS DRIVE AND IN FRONT OF M.N. 1851.	ELEVATION = 220.572m
B.M. #4	TOP NUT OF FIRE HYDRANT K174 LOCATED ON NORTH SIDE OF ROAD 3 EAST, APPROX. 28m FROM SPINKS DRIVE.	ELEVATION = 220.043m
B.M. #5	TOP NUT OF FIRE HYDRANT K036 LOCATED ON WEST SIDE OF SPINKS ROAD, APPROX 325m NORTH OF ROAD 3 EAST IN FRONT OF M.N. 2005.	ELEVATION = 223.323m
B.M. #6	TOP NUT OF FIRE HYDRANT K176 LOCATED ON WEST SIDE OF SPINKS ROAD, APPROX 640m NORTH OF ROAD 3 EAST IN FRONT OF M.N. 2035.	ELEVATION = 223.921m
B.M. #7	TOP NUT OF FIRE HYDRANT LOCATED ON M.N. 1941, APPROX 168m NORTH OF KINGS HIGHWAY NO.3.	ELEVATION = 222.645m
B.M. #8	TOP OF NAIL ON HYDRO POLE LOCATED ON SOUTH SIDE OF COUNTY RD. 18, IN FRONT OF M.N. 1931, 29m FROM M.N.1979 ADJOINING PROPERTY LINE.	ELEVATION = 223.573m
B.M. #9	TOP NUT OF FIRE HYDRANT K199 ON SOUTH SIDE OF COUNTY ROAD 18, LOCATED ON WEST SIDE OF SUBJECT SITE M.N. 2100.	ELEVATION = 213.783m
B.M. #10	TOP OF NAIL SET IN HYDRO POLE ON EAST SIDE OF EXISTING PARKING LOT, 45m SOUTH OF EXISTING BUNKHOUSE.	ELEVATION = 213.513m

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
UNDERGROUND BELL	— BB —	
UNDERGROUND HYDRO	— H —	
UNDERGROUND DUCTS	— D —	— D —
STORM SEWER	— 300mm ⁴ PVC —	— 300 ST —
SANITARY SEWER	— 200mm ⁴ PVC —	— 200 SAN —
SANITARY SEWER FORCE MAIN	— 250mm ⁴ PVC FM —	— 250 SAN FM —
UNDERGROUND TV CABLE	— TV —	
WATERMAIN	— 150mm ⁴ Ductile Iron —	— 150W —
GASMAIN	— GAS —	— G —
BELL MANHOLE	○ BMH	
HYDRO MANHOLE	○ HMH	
TRAFFIC MANHOLE	○ TMH	
SEWER MANHOLE	○ SMH	● MH
WATER VALVE & CURB STOP	⊗ WV ⊙ CS	⊗ WV ● W
FIRE HYDRANT & VALVE	⊗ FH	⊗ FH
GAS VALVE	⊗ GV	
CATCH BASIN & DOUBLE CATCH BASIN	□ CB □ DCB	■ CB ■ DCB
BELL PEDESTAL	⊠ Bped	⊠ Bped
HYDRO POLE LIGHT STANDARD	● HPLS	
ROAD SIGN	⊥ RS	
FENCE	— C.L.F. or W.D.F. —	
CONCRETE	— CONC. —	
ASPHALT or TAR and CHIP	— ASPH. —	
GRAVEL	— GRV. —	
SIDEWALK (concrete or asphalt)	— CSW or ASW —	
CULVERT	— C.S.P. —	
PROPERTY BAR	■ RB ● RB	



SHEET INDEX	
SHT. No.	DESCRIPTION
1	COVER
2	SITE PLAN
PLAN VIEWS	
3	PLAN VIEW — ROAD 3 EAST
4	PLAN VIEW — SPINKS DRIVE
5	PLAN VIEW — COUNTY ROAD 18
6	PLAN VIEW — MASTRON SITE
DETAILS	
7	KINGS HIGHWAY NO.3 CROSSING PLAN & PROFILE
8	DETAILS
9	STANDARD DETAILS
PROJECT NO. E17-104	

**PRELIMINARY
NOT FOR CONSTRUCTION**



NOTES:
1. THE ACCURACY OF THE UTILITIES SHOWN ON THESE DRAWINGS ARE NOT GUARANTEED BY THE OWNER OR N. J. PERALTA ENGINEERING LTD. OTHER UTILITIES MAY BE PRESENT OR THE UTILITIES SHOWN MAY DIFFER IN SIZE OR LOCATION SHOWN.

NO.	DATE	DESCRIPTION

**N. J. Peralta
Engineering Ltd.**
Consulting Engineers

Kingsville Ontario

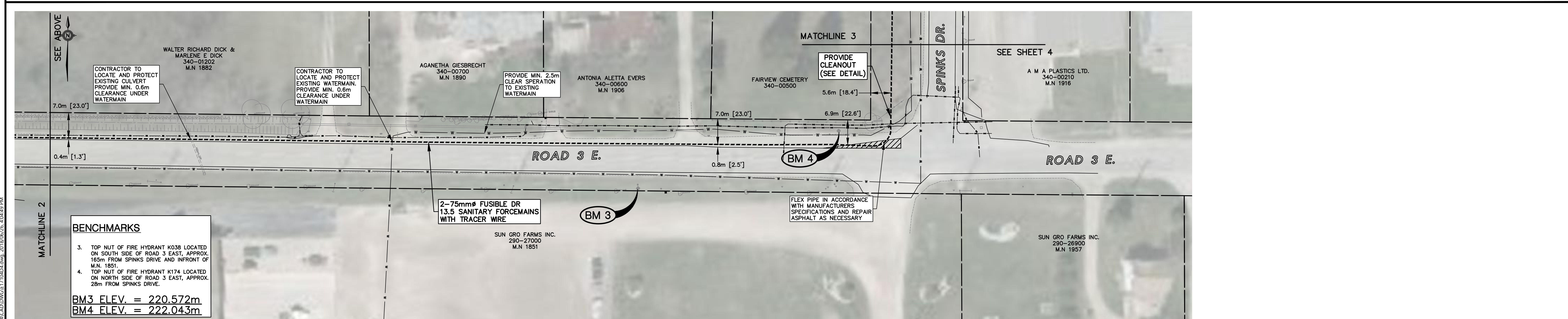
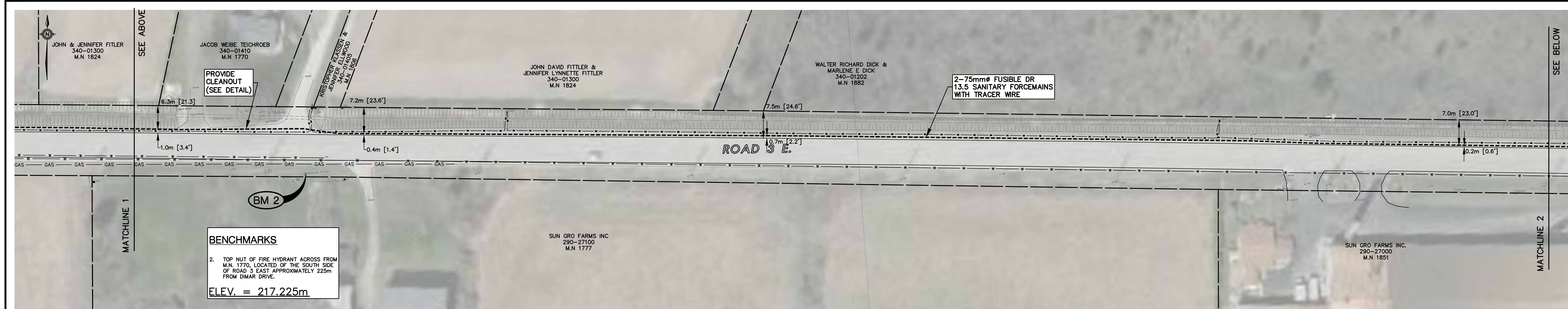
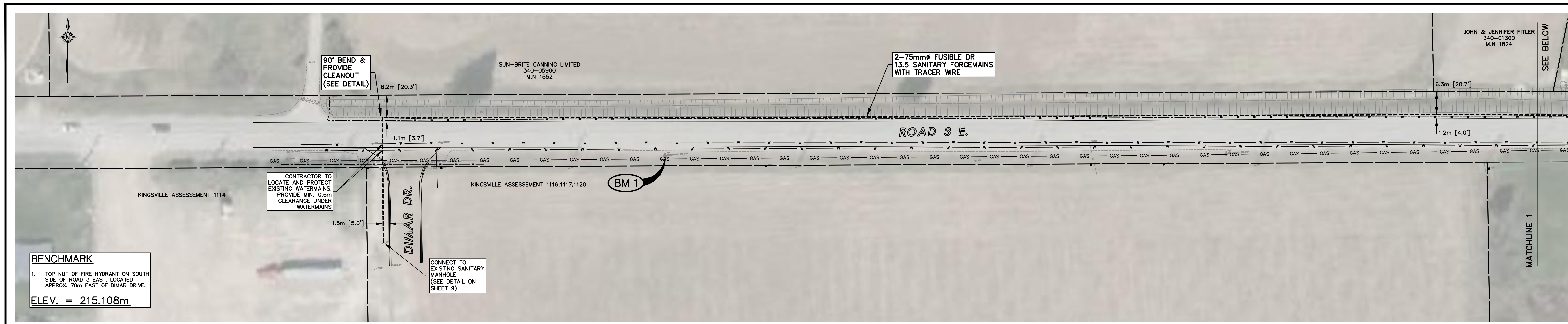
**PRELIMINARY
NOT FOR
CONSTRUCTION**

**MASTRON SEWAGE
FORCEMAIN**

In the
MUNICIPALITY OF KINGSVILLE

SHEET TITLE:
SITE PLAN

DESIGNED BY: J.J.K.	DATE: APR. 13, 2018
DRAWN BY: J.J.K.	SCALE: 1: 3000
SHEET No.: 2	OF: 9
PROJECT No.: E17-104	



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2. CONTRACTOR TO LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION.

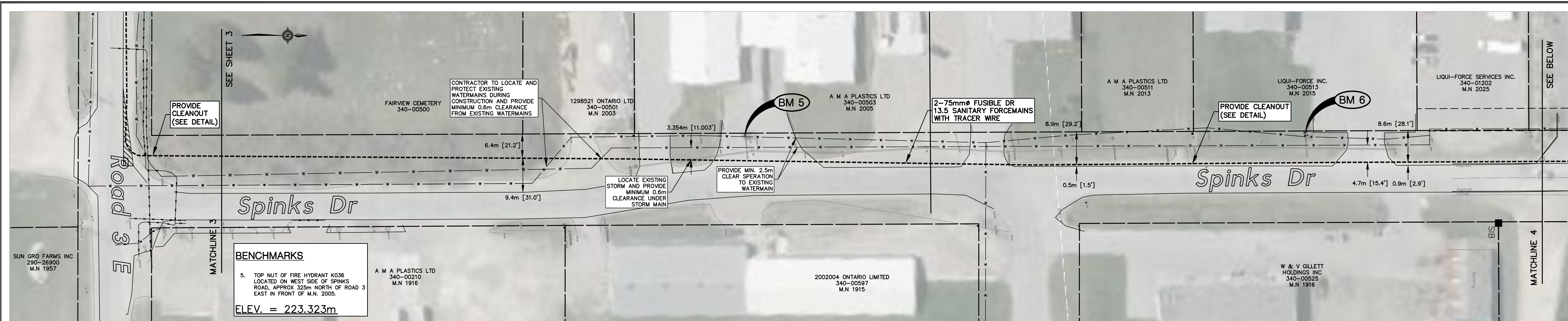
N. J. Peralta Engineering Ltd.
Consulting Engineers
Kingsville 733-6587 Ontario

The Corporation of the
TOWN OF KINGSVILLE

DESIGN:	JJK
DRAWN:	JJK
CHECKED:	
DATE:	APR. 13, 2018
ISSUED FOR:	

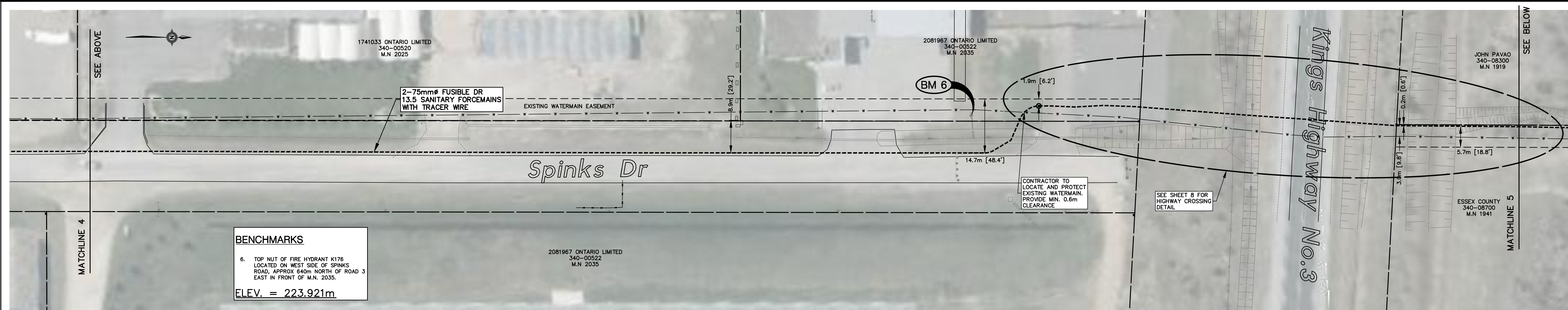
ROAD 3 EAST SANITARY FORCEMAIN
PLAN VIEW

PROJECT No.: E17-104
SCALE: 1:500
SHEET No.: 3 of 9



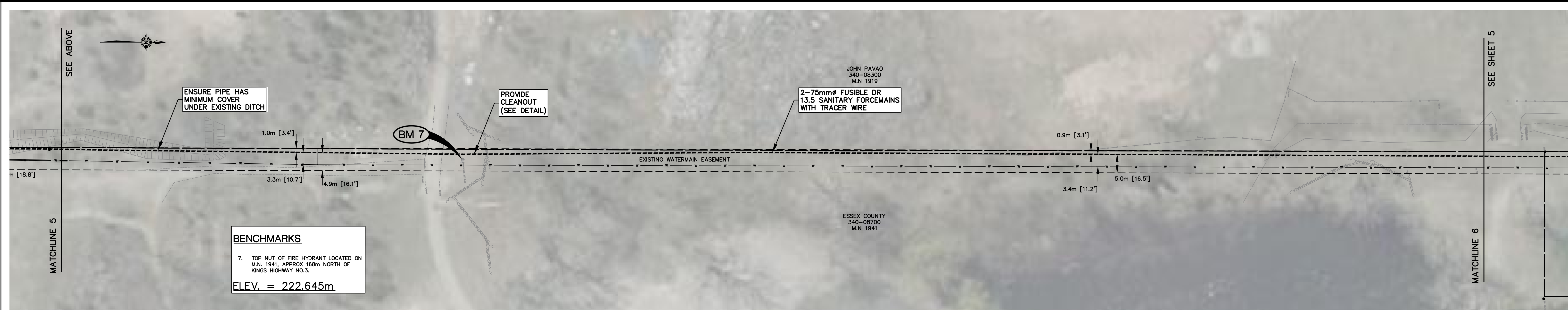
BENCHMARKS

5. TOP NUT OF FIRE HYDRANT K036
 LOCATED ON WEST SIDE OF SPINKS
 ROAD, APPROX 325m NORTH OF ROAD 3
 EAST IN FRONT OF M.N. 2005.
ELEV. = 223.323m



BENCHMARKS

6. TOP NUT OF FIRE HYDRANT K176
 LOCATED ON WEST SIDE OF SPINKS
 ROAD, APPROX 640m NORTH OF ROAD 3
 EAST IN FRONT OF M.N. 2035.
ELEV. = 223.921m

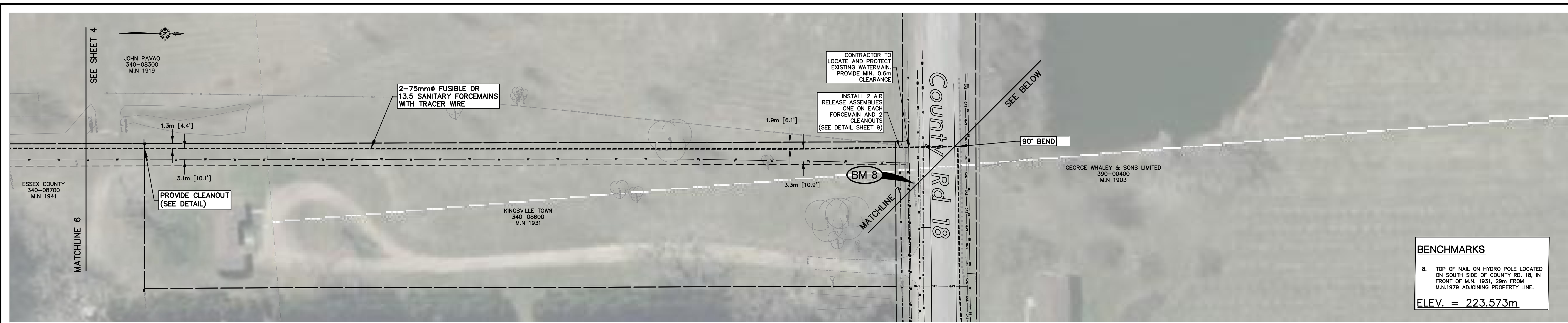


BENCHMARKS

7. TOP NUT OF FIRE HYDRANT LOCATED ON
 M.N. 1941, APPROX 168m NORTH OF
 KINGS HIGHWAY NO.3.
ELEV. = 222.645m

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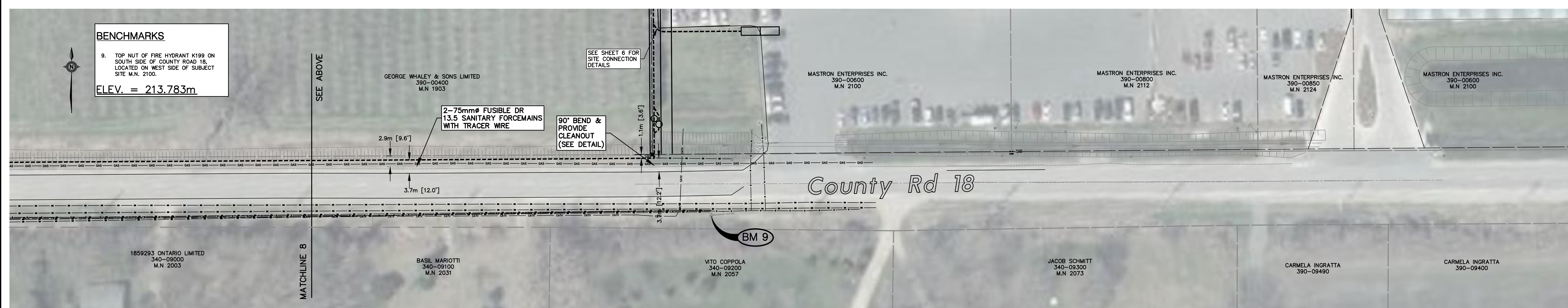
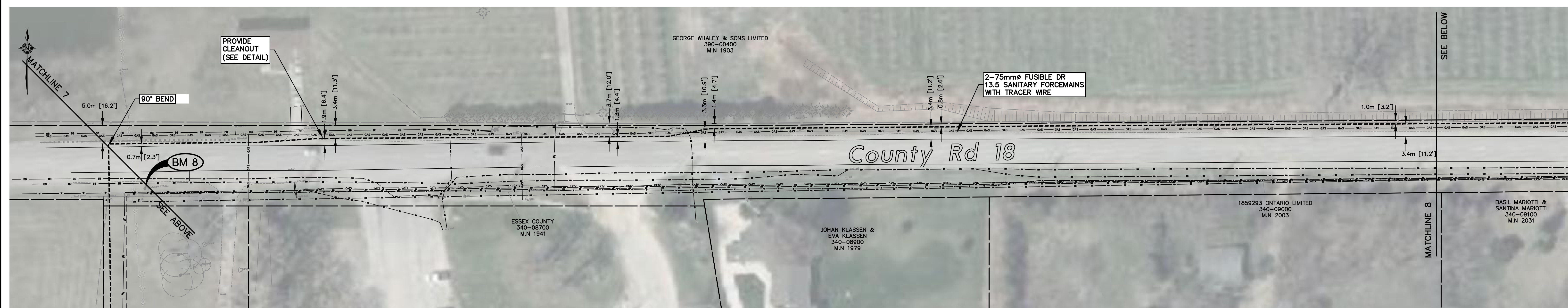
PRELIMINARY NOT FOR CONSTRUCTION	NOTES: 1. THE ACCURACY OF THE UTILITIES SHOWN ON THESE DRAWINGS ARE NOT GUARANTEED BY THE OWNER OR N. J. PERALTA ENGINEERING LTD. OTHER UTILITIES MAY BE PRESENT OR THE UTILITIES SHOWN MAY DIFFER IN SIZE OR LOCATION SHOWN. 2. CONTRACTOR TO LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION.	N. J. Peralta Engineering Ltd. Consulting Engineers Kingsville 733-6587 Ontario	The Corporation of the TOWN OF KINGSVILLE	DESIGN: JJK	PROJECT No.: E17-104
				DRAWN: JJK	
				CHECKED:	PLAN VIEW
				DATE: APR. 13, 2018	
		1. MTO/COUNTY COMMENTS		DATE: 18/06/26	
		No. ISSUED FOR:		DATE: BY:	



BENCHMARKS

8. TOP OF NAIL ON HYDRO POLE LOCATED ON SOUTH SIDE OF COUNTY RD. 18, IN FRONT OF M.N. 1931, 29m FROM M.N.1979 ADJOINING PROPERTY LINE.

ELEV. = 223.573m



BENCHMARKS

9. TOP NUT OF FIRE HYDRANT K199 ON SOUTH SIDE OF COUNTY ROAD 18, LOCATED ON WEST SIDE OF SUBJECT SITE M.N. 2100.

ELEV. = 213.783m

NOTES:

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- CONTRACTOR TO LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION.

N. J. Peralta Engineering Ltd.

Consulting Engineers

Kingsville 733-6587 Ontario

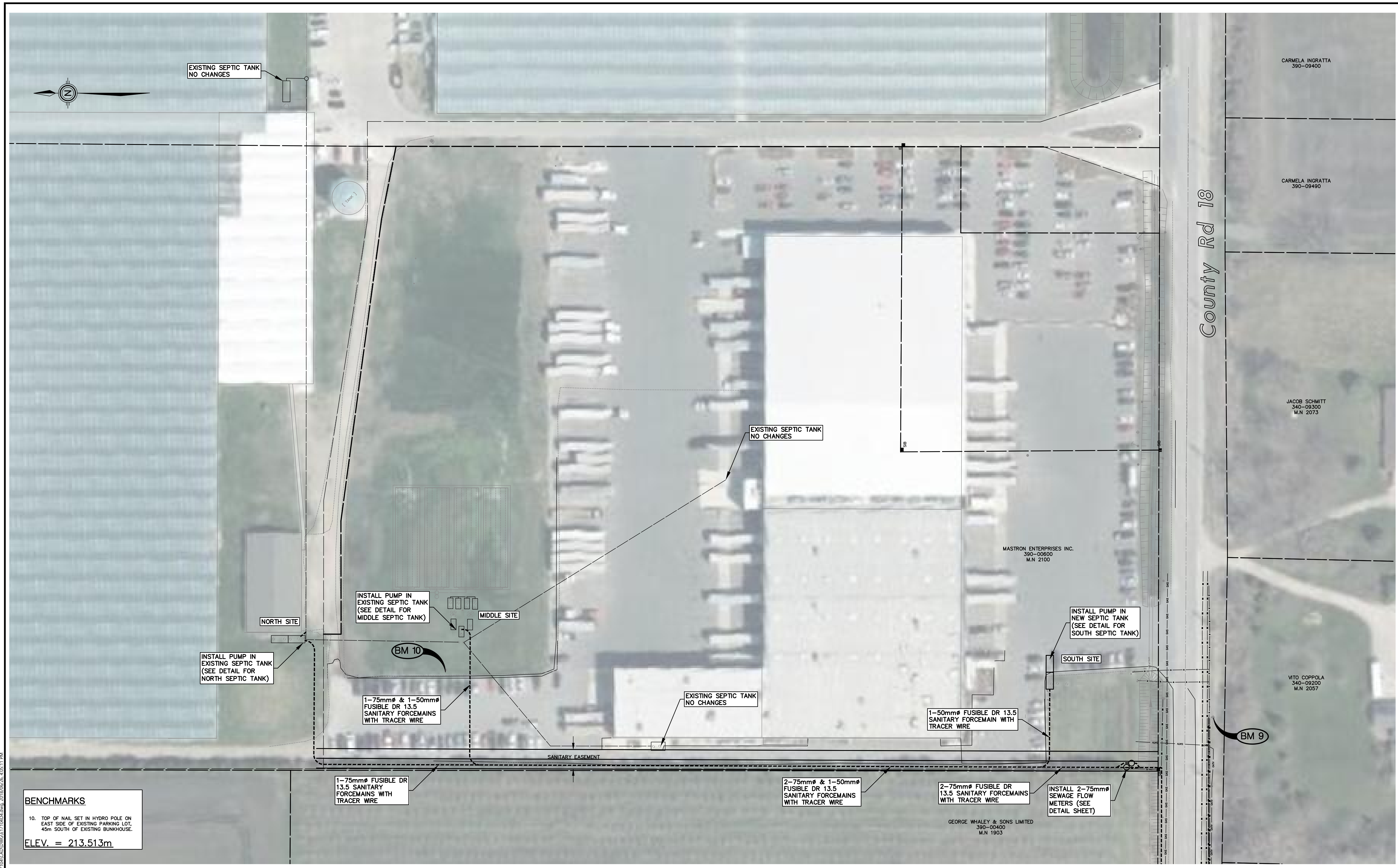
The Corporation of the

TOWN OF KINGSVILLE

DESIGN:	JJK
DRAWN:	JJK
CHECKED:	
DATE:	APR. 13, 2018
ISSUED FOR:	

PROJECT No.:	E17-104
SCALE:	1:500
SHEET No.:	5 of 9

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BENCHMARKS

10. TOP OF NAIL SET IN HYDRO POLE ON EAST SIDE OF EXISTING PARKING LOT, 45m SOUTH OF EXISTING BUNKHOUSE.

ELEV. = 213.513m

NOTES:

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N. J. Peralta Engineering Ltd.

Consulting Engineers

Kingsville 733-6587 Ontario

The Corporation of the
TOWN OF KINGSVILLE

DESIGN:	JJK
DRAWN:	JJK
CHECKED:	
DATE:	APR 13, 2018
ISSUED FOR:	

MASTRON SANITARY FORCEMAIN

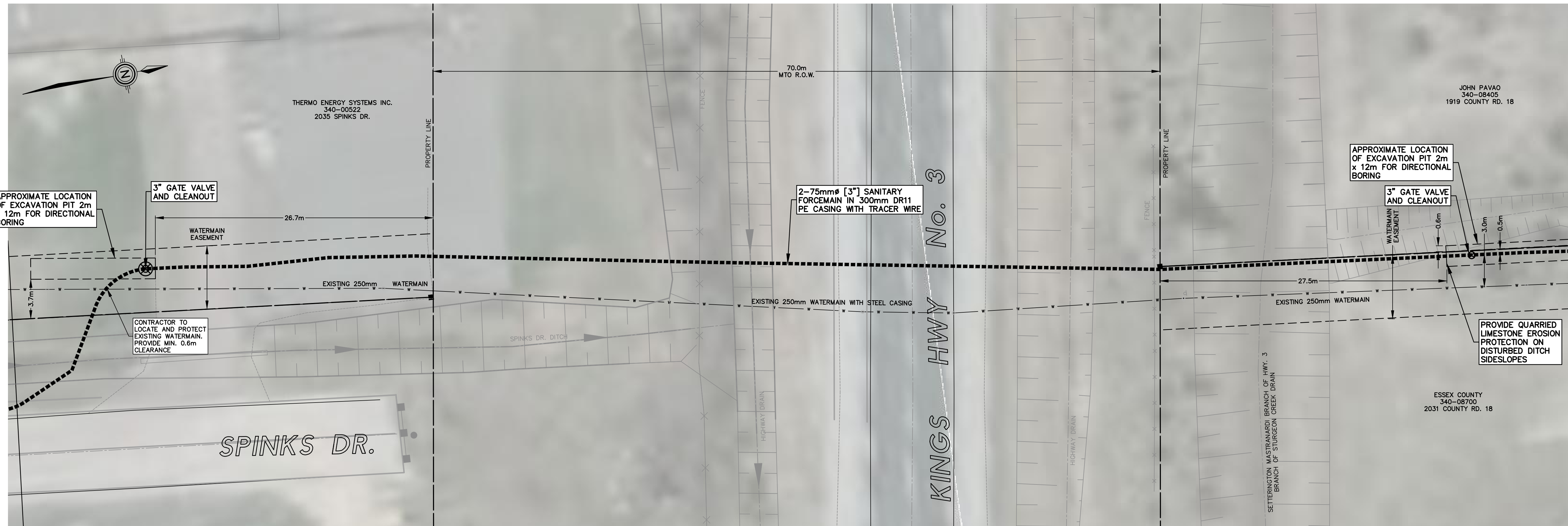
PLAN VIEW

PROJECT No.: E17-104

SCALE: 1:500

SHEET No.: 6 of 9

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JOHN PAVAO
340-08405
1919 COUNTY RD. 18

APPROXIMATE LOCATION OF EXCAVATION PIT 2m x 12m FOR DIRECTIONAL BORING

3\"/>

PROVIDE QUARRIED LIMESTONE EROSION PROTECTION ON DISTURBED DITCH SIDESLOPES

ESSEX COUNTY
340-08700
2031 COUNTY RD. 18

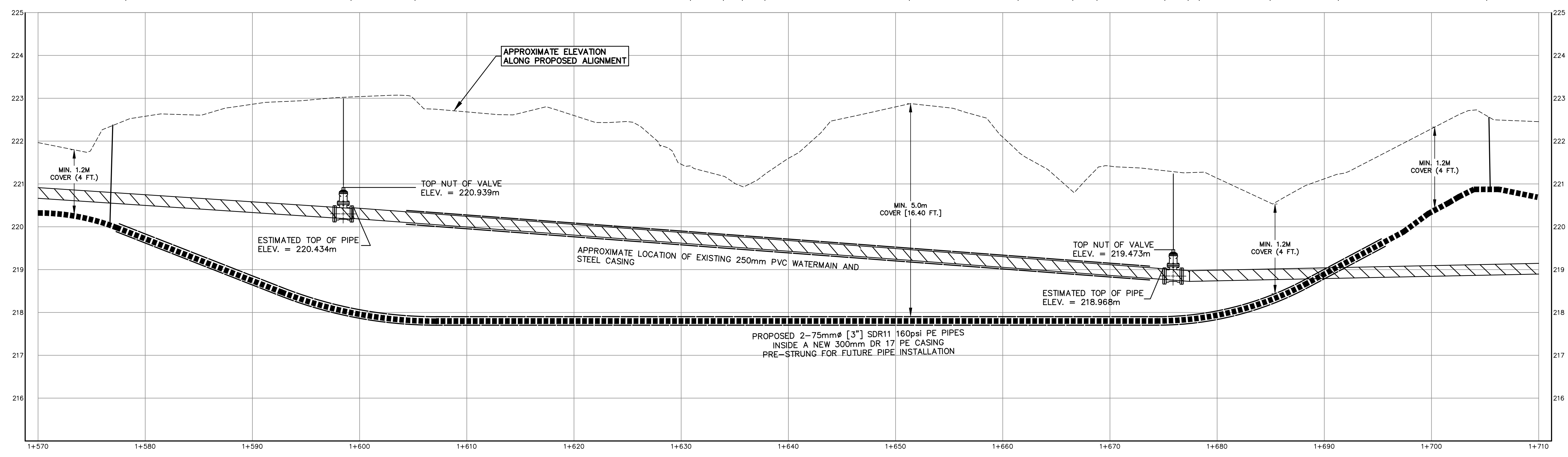
MTO/COUNTY COMMENTS	H.C.M.	18/06/26
ISSUED FOR:	BY	DATE
REVISIONS		

**N. J. Peralta
Engineering Ltd.**
Consulting Engineers
Kingsville Ontario

ENGINEERING STAMPS:

PLAN
Scale = 1:200

- 1+578.3 GATE VALVE LOCATION CLEANOUT TO SOUTH
- 1+599.3 SOUTH WATER VALVE
- 1+605.3 E BETWEEN HWY. 3 & 340-08800
- 1+631.0 FENCE
- 1+634.1 TOP OF BANK
- 1+635.8 E OF HWY. 3 DITCH
- 1+637.9 TOP OF BANK
- 1+651.4 E ROAD HWY. 3
- 1+661.6 TOP OF BANK
- 1+666.7 E OF HWY. 3 DITCH
- 1+668.9 TOP OF BANK
- 1+675.3 E BETWEEN HWY. 3 & 340-08700
- 1+677.4 NORTH WATER VALVE
- 1+678.5 TOP OF BANK
- 1+685.1 E OF MUNICIPAL DRAIN
- 1+691.4 TOP OF BANK
- CLEANOUT TO NORTH
- 1+705.3 GATE VALVE LOCATION



**MASTRON SEWAGE
FORCEMAIN**
In the
MUNICIPALITY OF KINGSVILLE

SHEET TITLE:
**HIGHWAY CROSSING
PLAN & PROFILE**

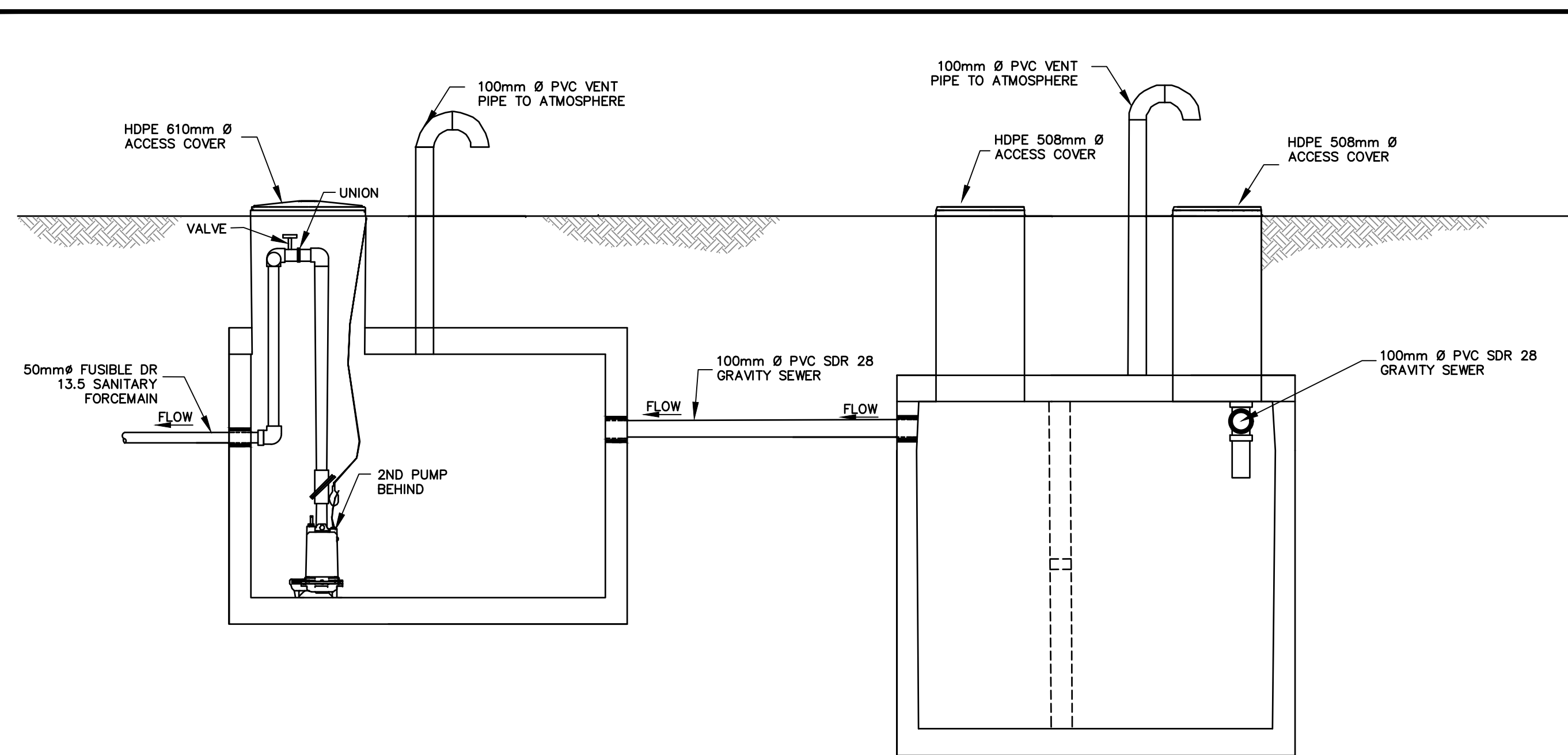
DESIGNED BY: J.J.K.	DATE: APR. 13, 2018
DRAWN BY: J.J.K.	SCALE: AS NOTED
SHEET No.: 7	OF: 9

PROJECT No.:
E17-104

PROFILE
Scale = Hor. 1:200
Vert. 1:50

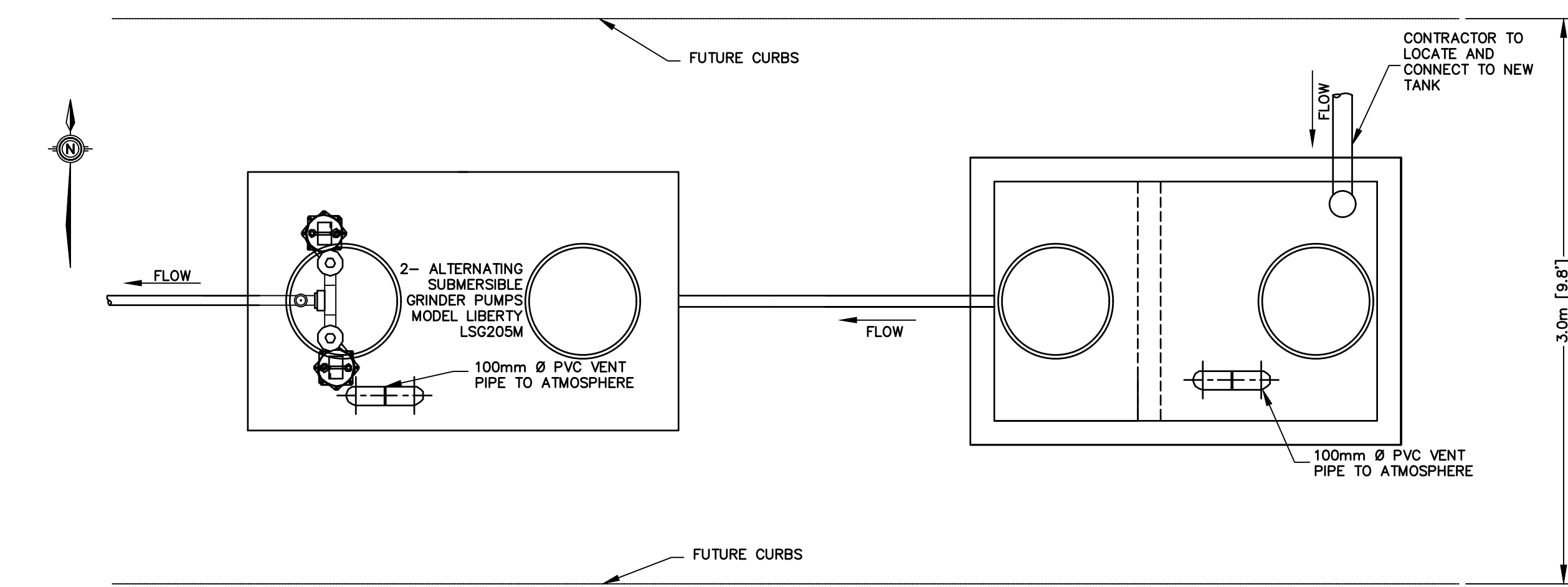
Existing Elevation Along Proposed Alignment	221.965	222.580	222.861	223.039	222.682	222.598	221.460	221.597	222.799	222.087	222.083	221.417	221.134	221.119	222.289	222.454	Existing Elevation Along Proposed Alignment
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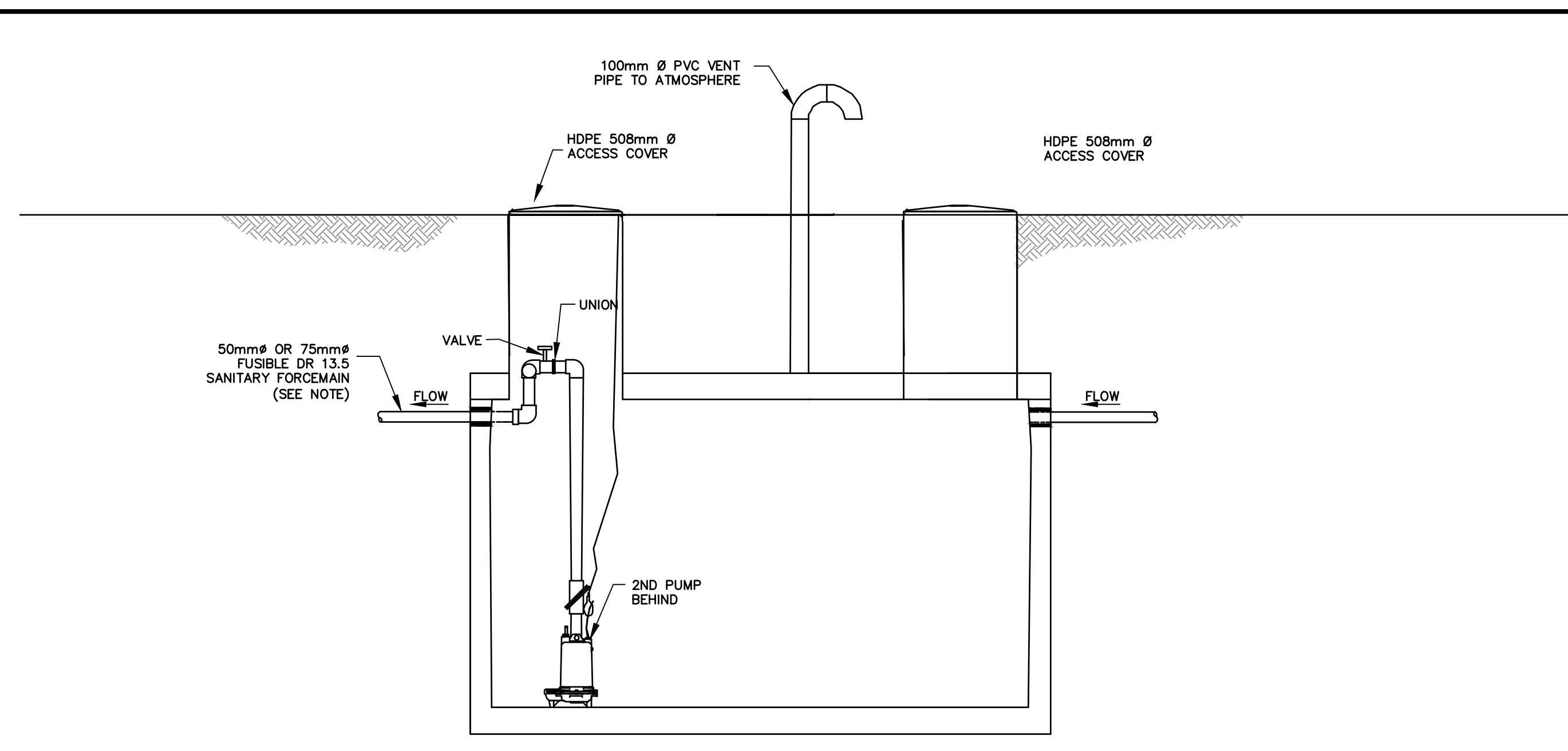


1 - PRECAST CONCRETE SEPTIC TANKS
400G (1800L)

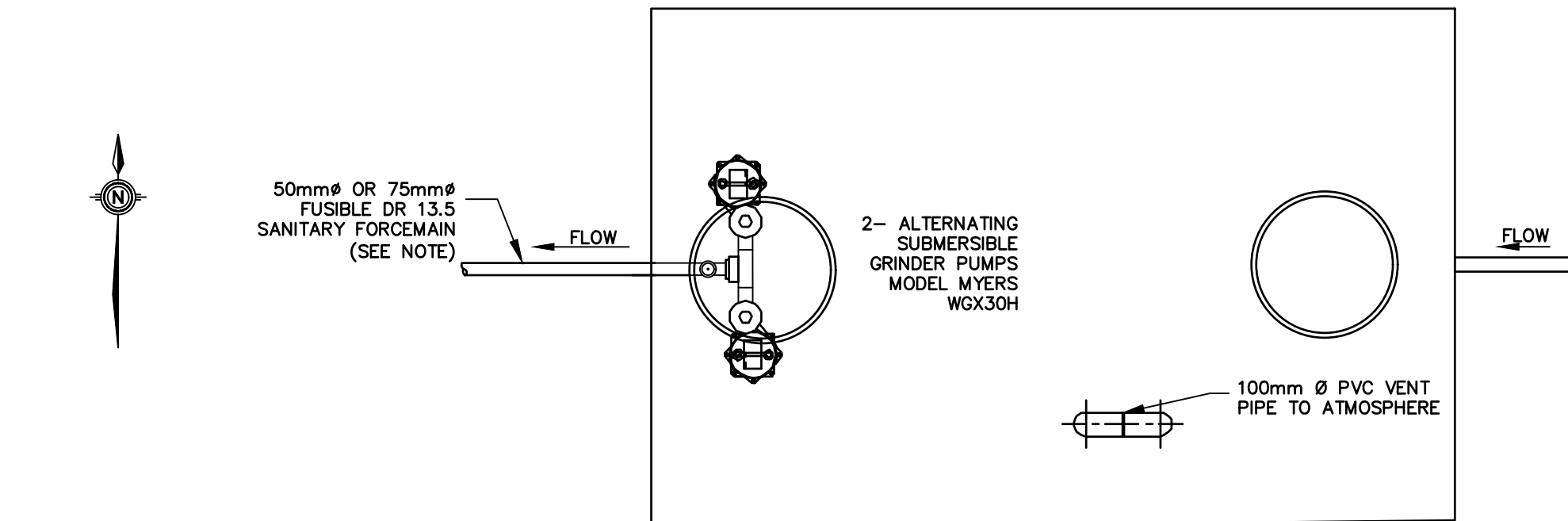
1 - PRECAST CONCRETE SEPTIC TANKS
800G (3600L)



SOUTH SEPTIC TANK DETAILS
SCALE = 1:25



1 - PRECAST CONCRETE SEPTIC TANKS
2000G (9100L)



NORTH AND MIDDLE SEPTIC TANK DETAILS
SCALE = 1:25

NOTE: EFFLUENT FLOW OUT FROM NORTH SEPTIC TANK TO BE WITH 75mm FUSIBLE DR13.5 FORCEMAIN. MIDDLE SEPTIC TANK TO BE 50mm FUSIBLE DR13.5 FORCEMAIN.

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2. CONTRACTOR TO LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION.

NO.	DATE	BY	REVISIONS

N. J. Peralta
Engineering Ltd.

Consulting Engineers

Kingsville Ontario

ENGINEERING STAMPS:

PRELIMINARY
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CONSTRUCTION

MASTRON SEWAGE
FORCEMAIN

In the
MUNICIPALITY OF KINGSVILLE

SHEET TITLE:

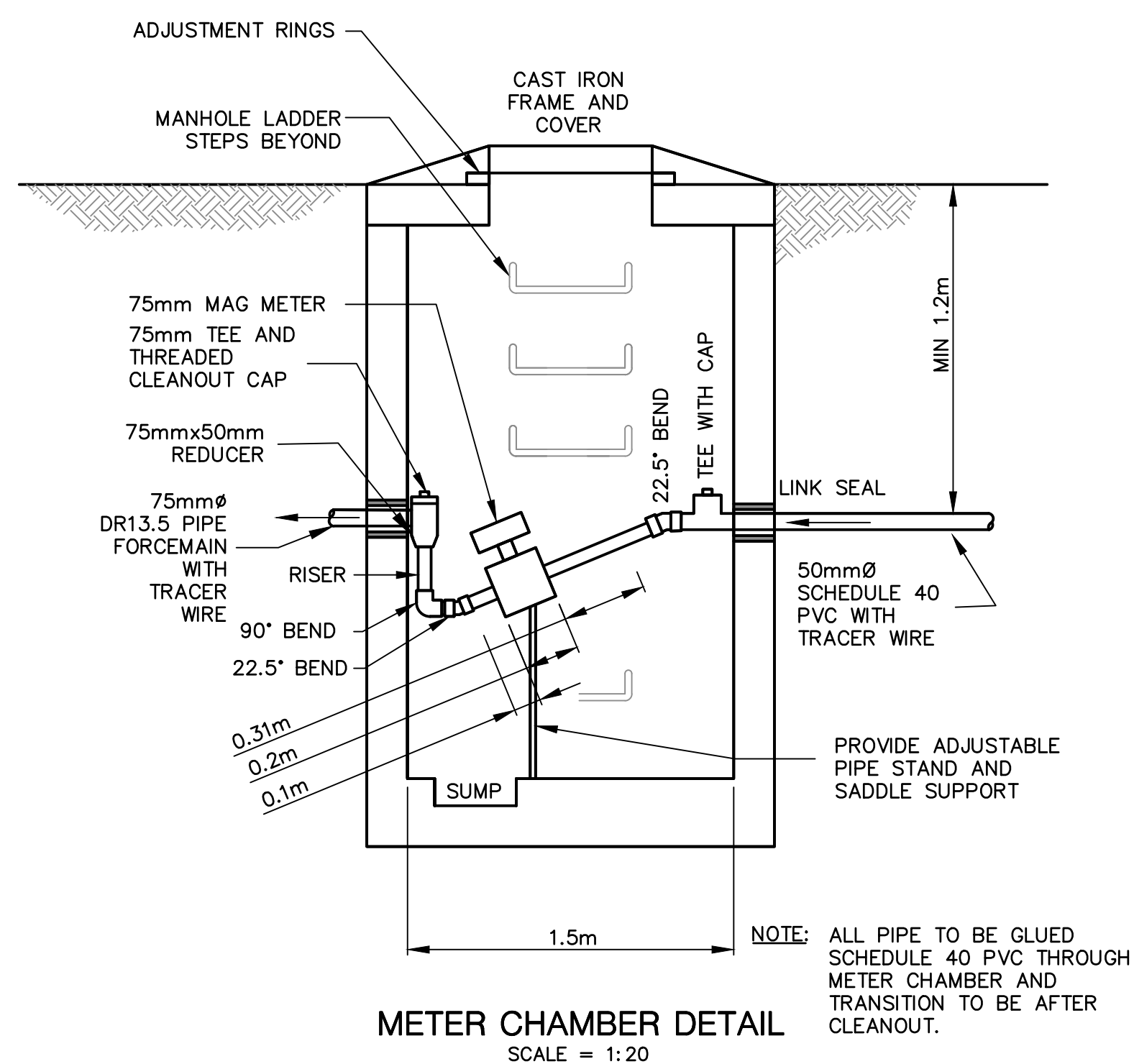
DETAILS

DESIGNED BY: J.J.K. DATE: APR. 13, 2018

DRAWN BY: J.J.K. SCALE: AS NOTED

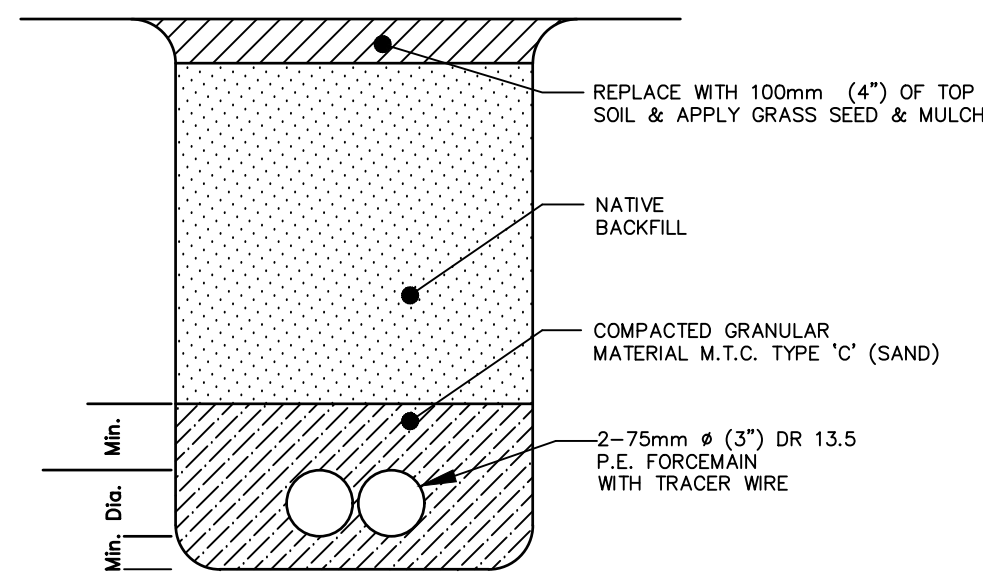
SHEET No.: 8 OF 9

PROJECT No.: E17-104

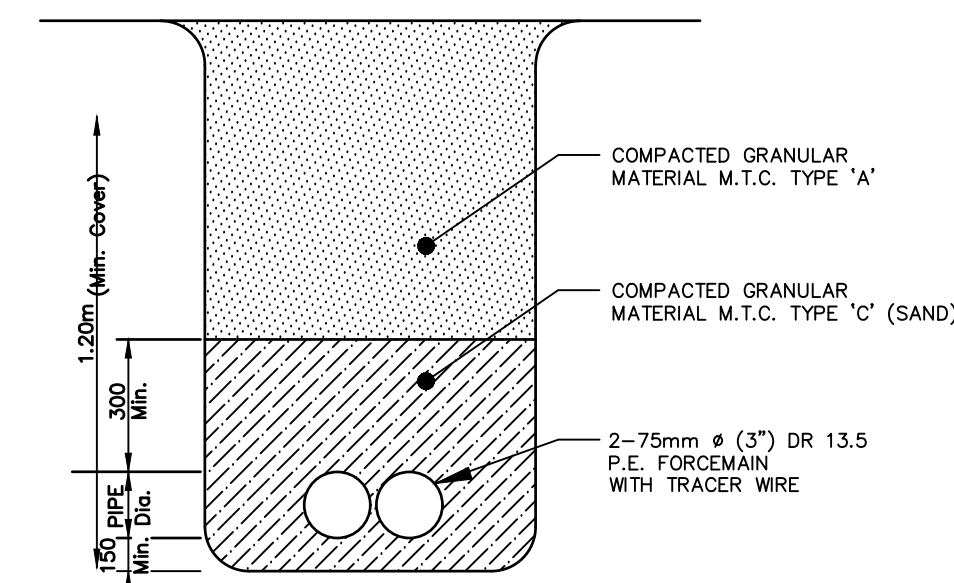


METER CHAMBER DETAIL
SCALE = 1:20

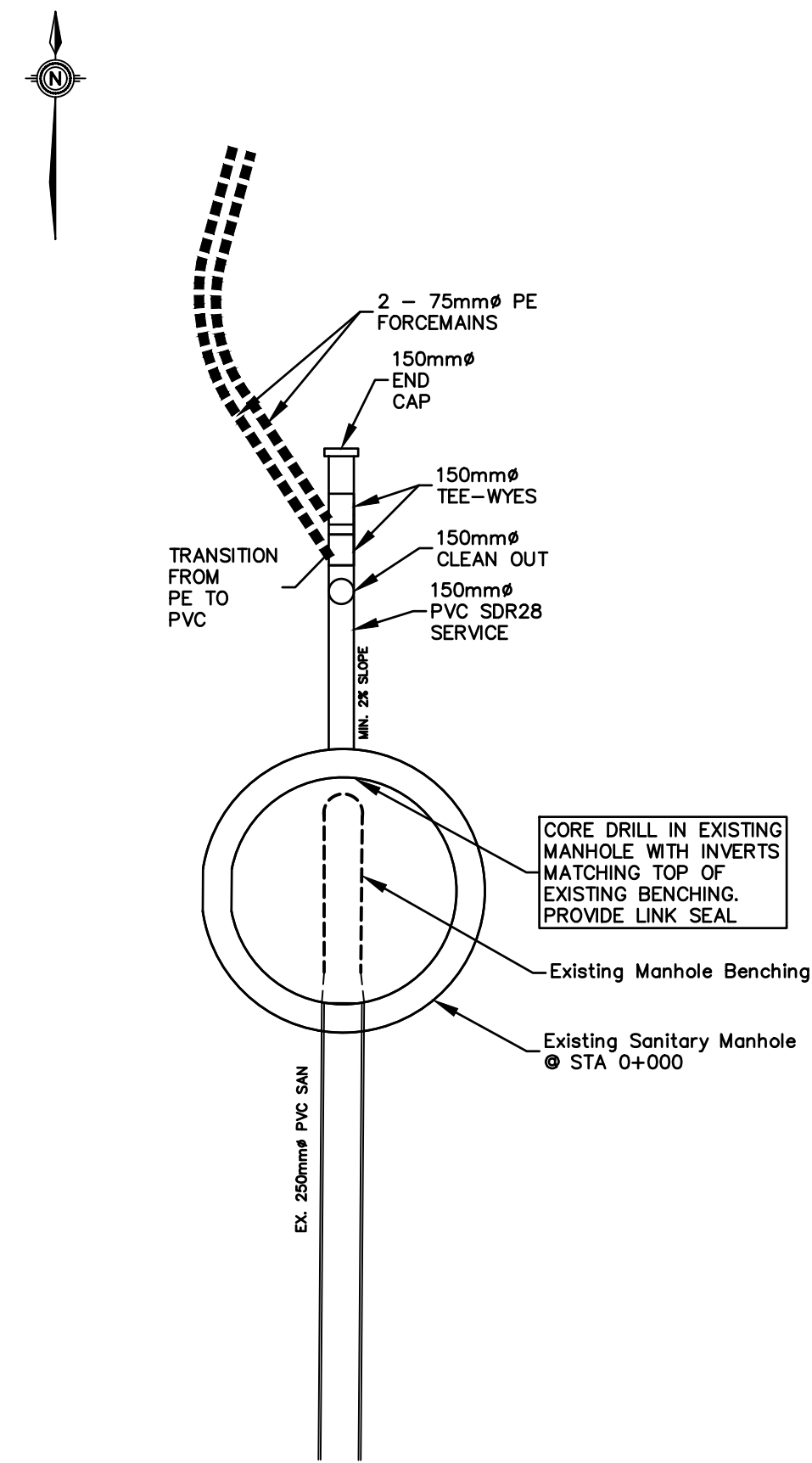
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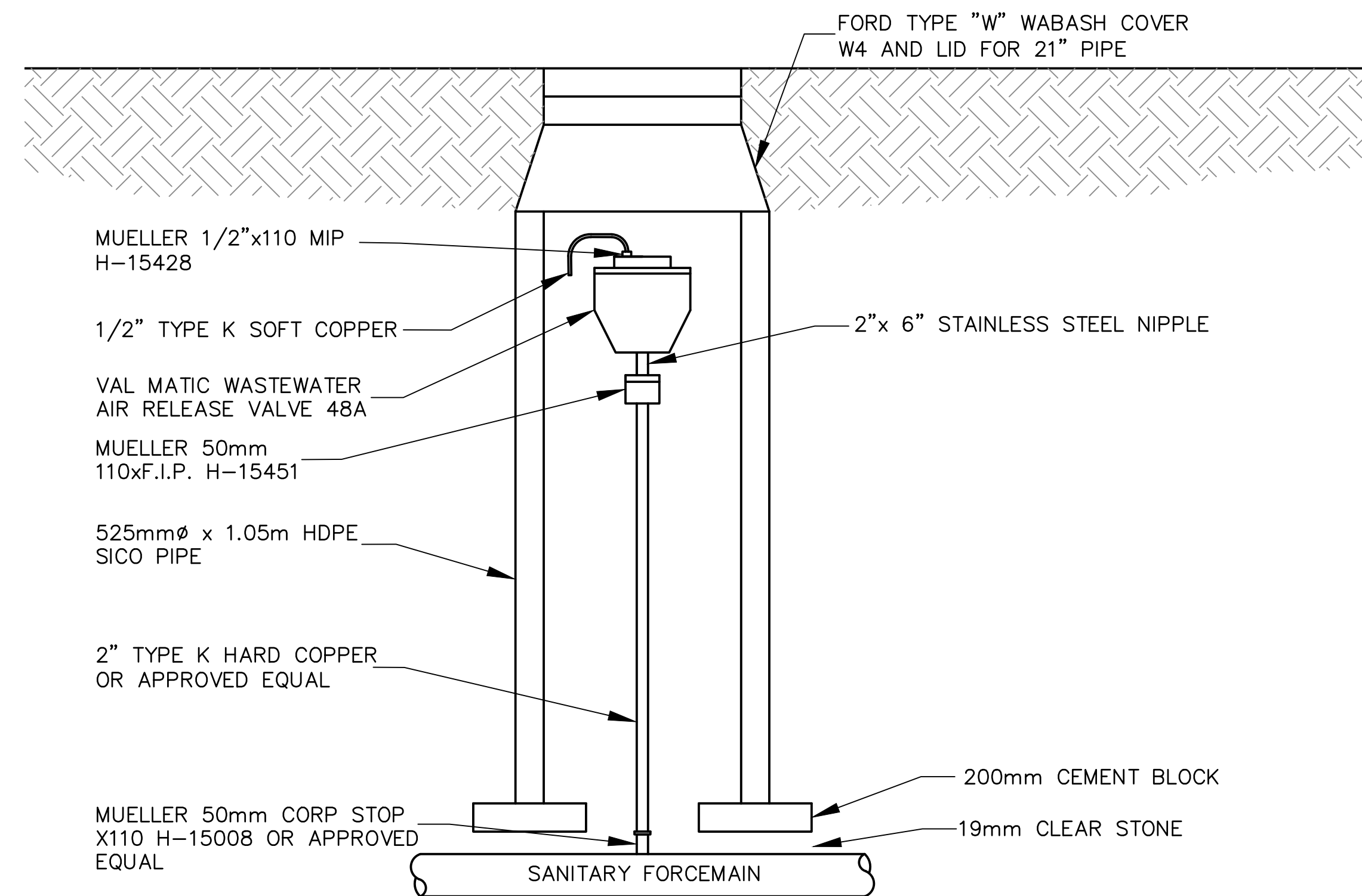
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 TYPICAL SANITARY FORCEMAIN TRENCH AND BEDDING DETAILS (IN BOULEVARD AND ON CR 18 MORE THAN 2.1m FROM EP)
 N.T.S.



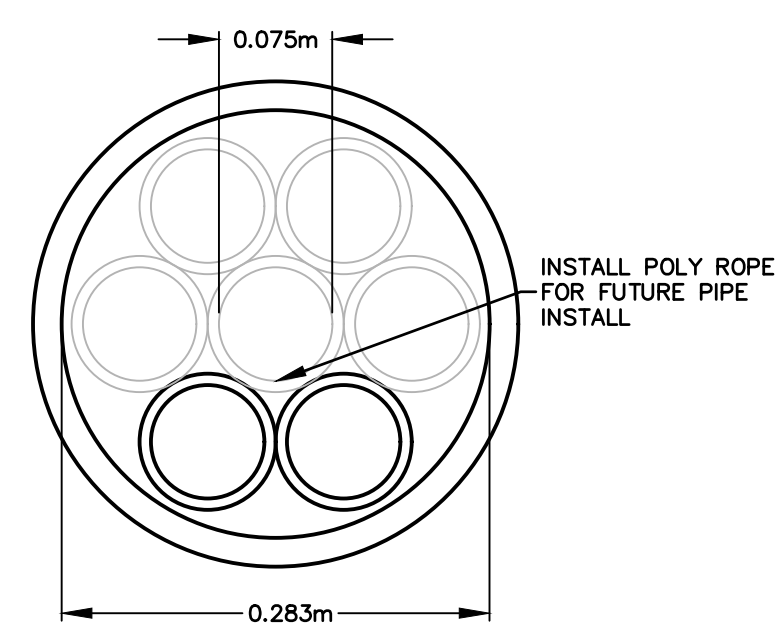
OPEN CUT OPTION
 TYPICAL SANITARY FORCEMAIN TRENCH AND BEDDING DETAILS (IN SHOULDER AND ON CR 18 IN BOULEVARD LESS THAN 2.1M FROM EP)
 N.T.S.



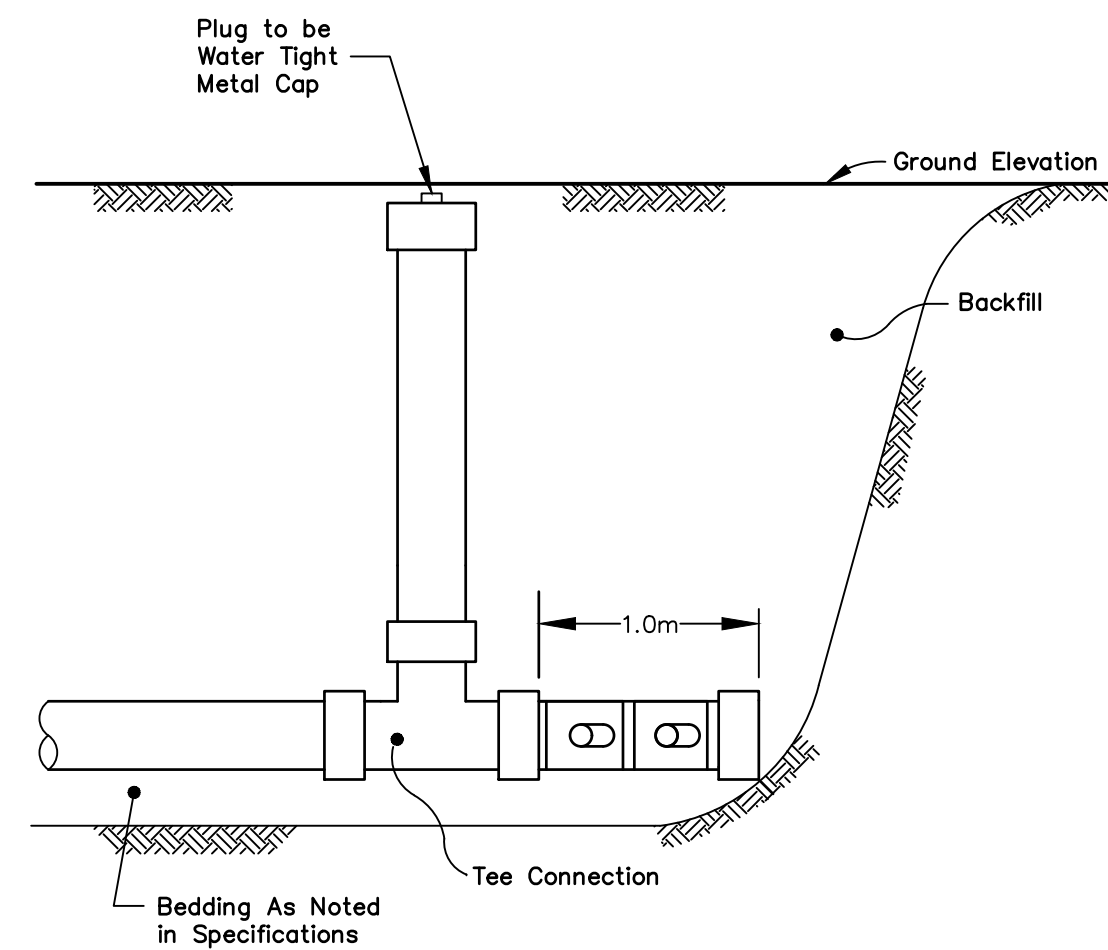
CONNECTION TO EXISTING SMH
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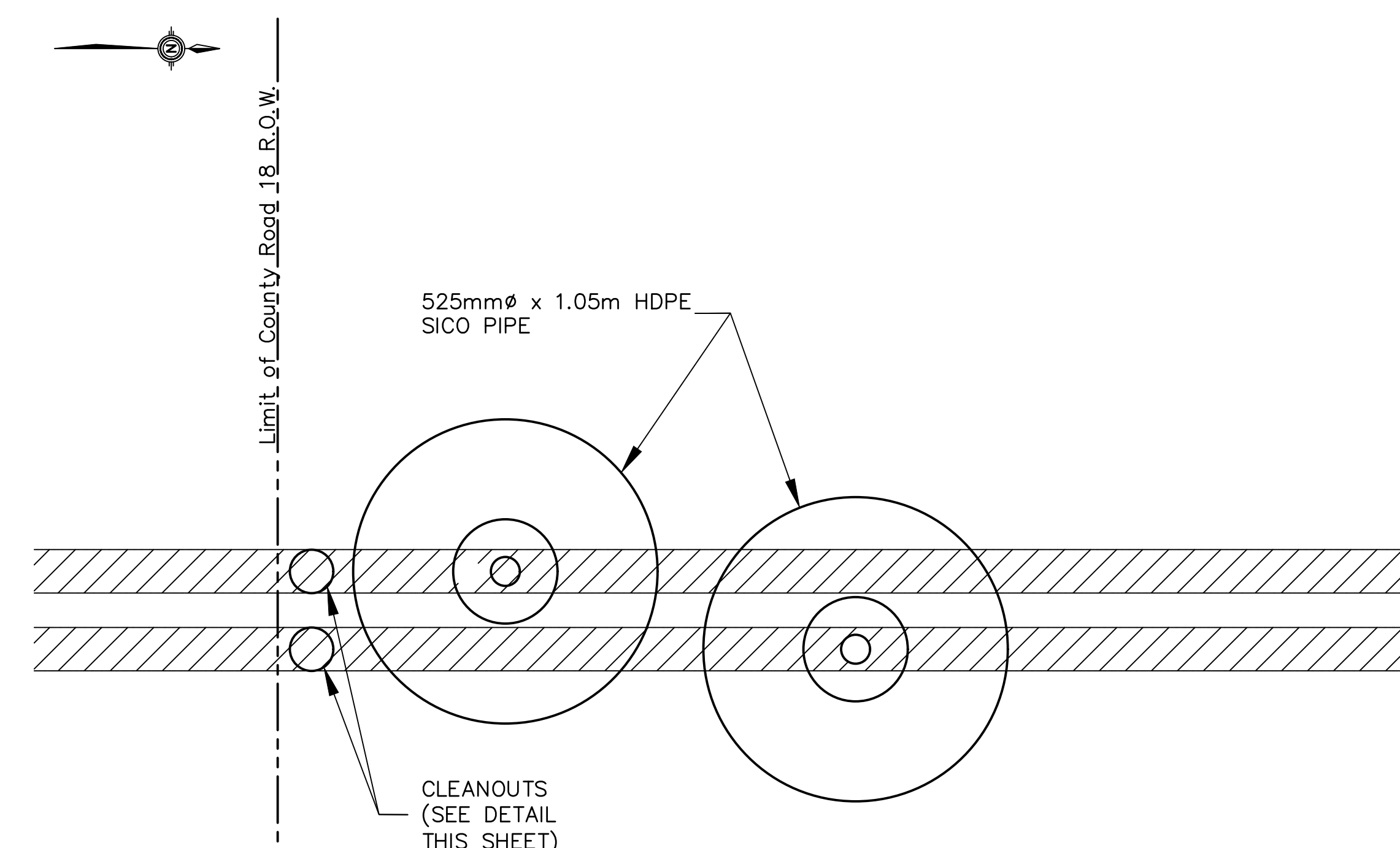
AIR RELEASE AND PIT DETAIL
 N.T.S.



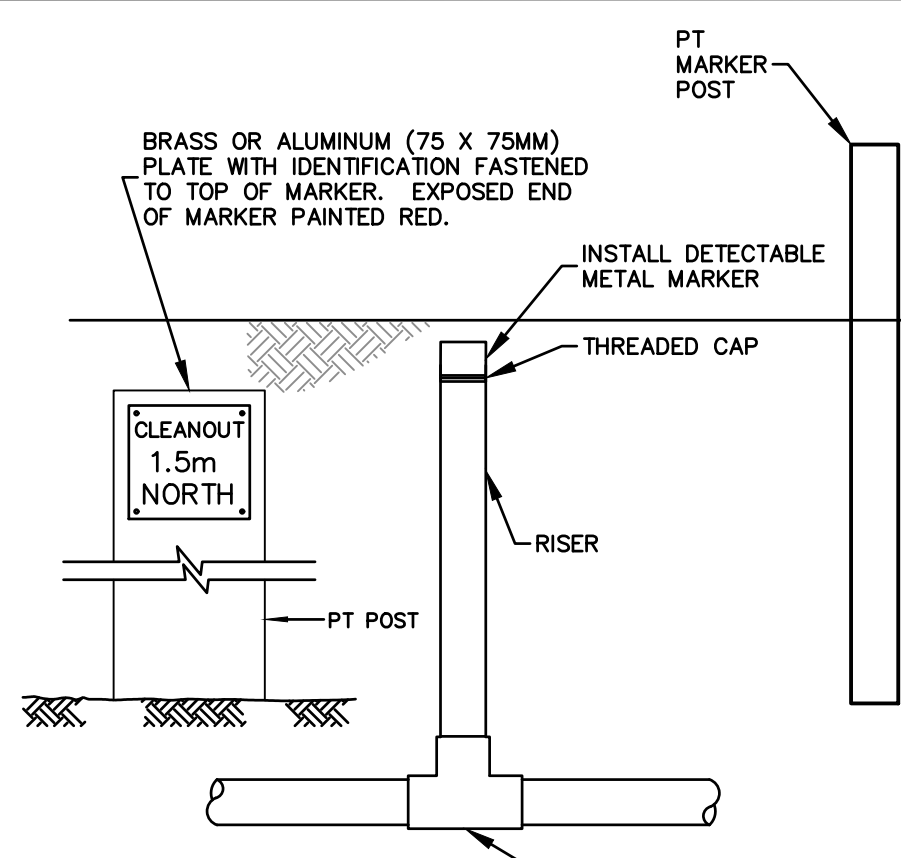
FORCEMAIN CASING DETAIL
 SCALE = 1:5



TYPICAL SERVICE CLEAN-OUT
 N.T.S.



AIR RELEASE AND PIT PLAN
 N.T.S.



TYPICAL CLEANOUT DETAIL
 N.T.S.

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NO.	DATE	REVISIONS

N. J. Peralta
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 Consulting Engineers
 Kingsville Ontario

ENGINEERING STAMPS:
PRELIMINARY
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MASTRON SEWAGE
FORCEMAIN
 In the
 MUNICIPALITY OF KINGSVILLE

SHEET TITLE:
STANDARD DETAILS

DESIGNED BY: J.J.K.	DATE: APR. 13, 2018
DRAWN BY: J.J.K.	SCALE: AS NOTED
SHEET No.: 9	OF: 9
PROJECT No.: E17-104	

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