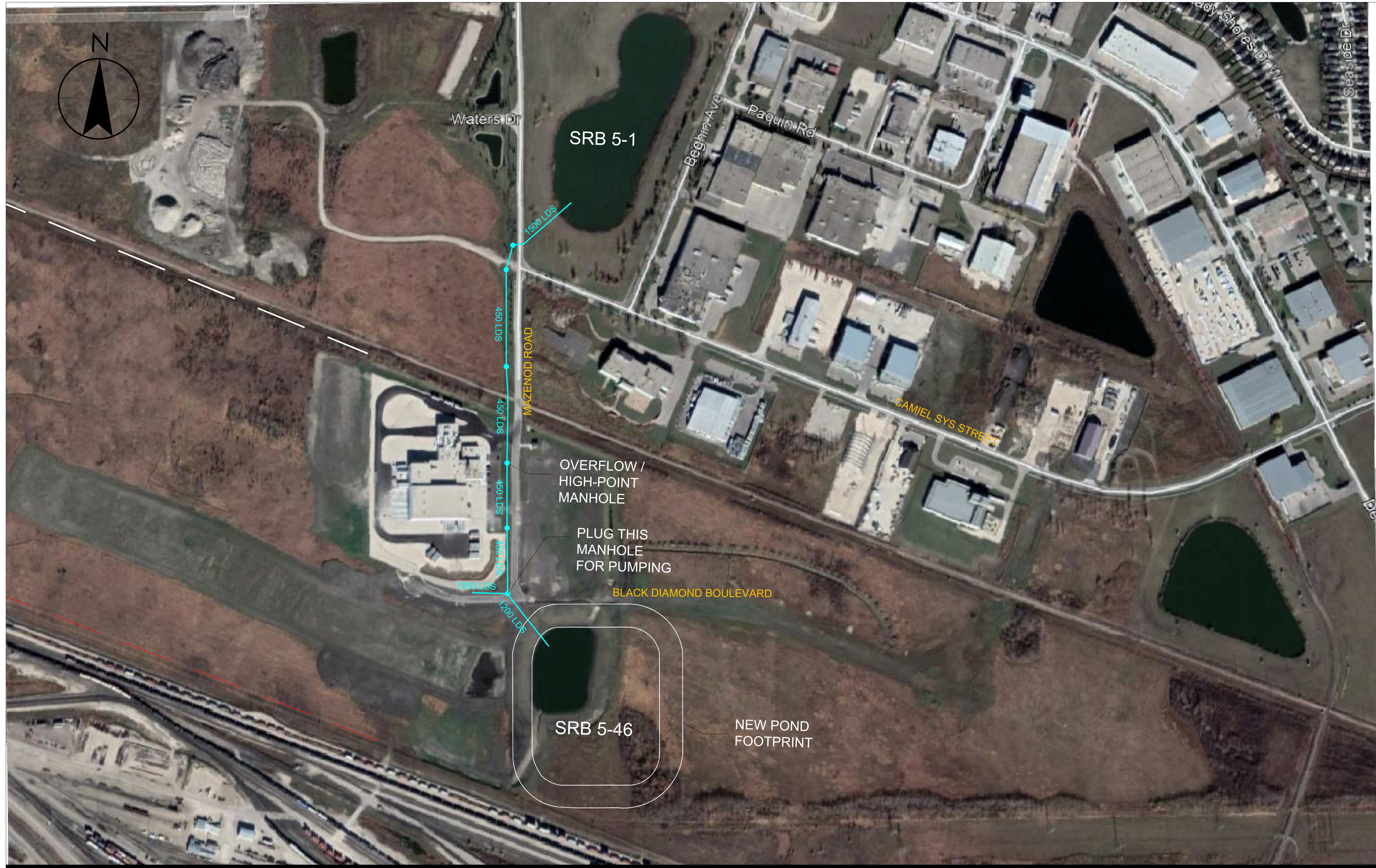


APPENDIX 'A'

WATER LEVEL MANAGEMENT

DRAWINGS

V:\168\active\116809351\0300_drawing\0301_sketches\09351_SRB-plan_2020-07-15.dwg Figure_1.0
2020/07/29 10:54 AM By: Kellias Jordan



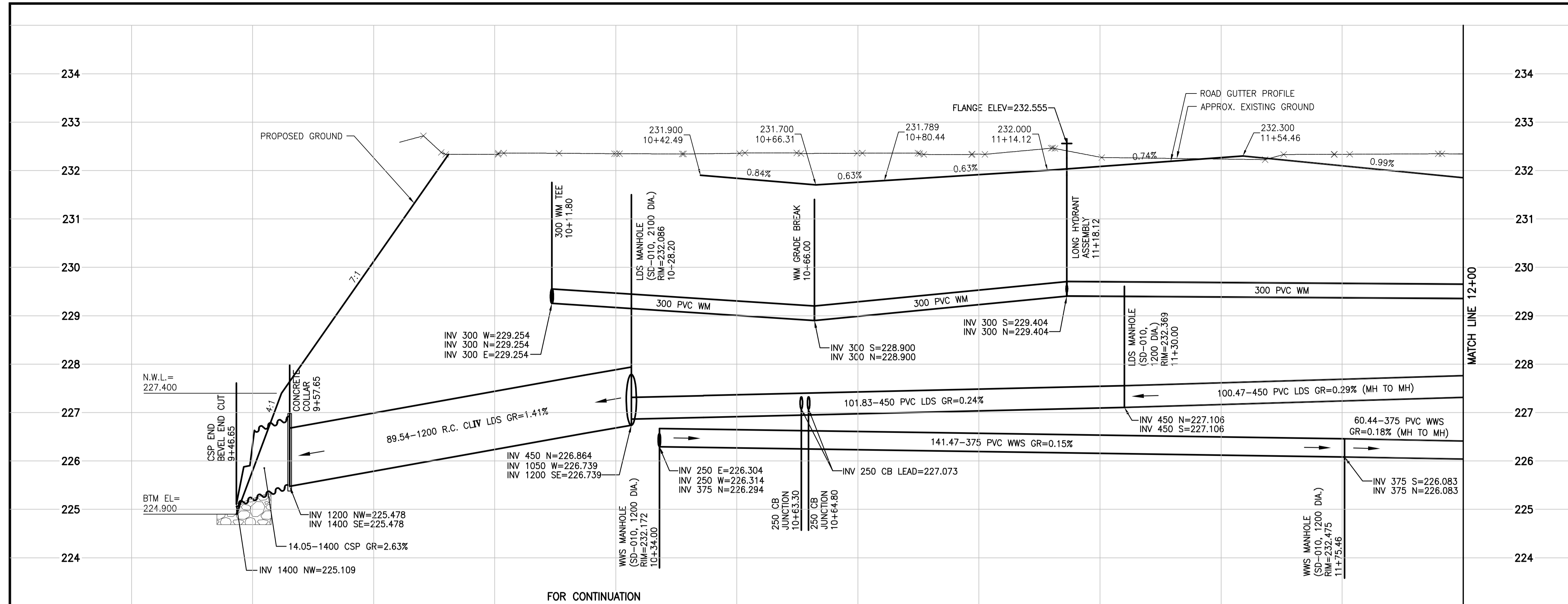
July, 2020
116809351



Stantec Consulting Ltd.
Suite 500, 311 Portage Avenue
Winnipeg MB Canada R3B 2B9
Tel. 204.489.5900 Fax. 204.453.9012
www.stantec.com

Notes

Client/Project
THE CITY OF WINNIPEG
ST. BONIFACE INDUSTRIAL PARK
PHASE 2 - STAGE 2 AND 3
Figure No.
APPENDIX A
Title
SRB PLAN

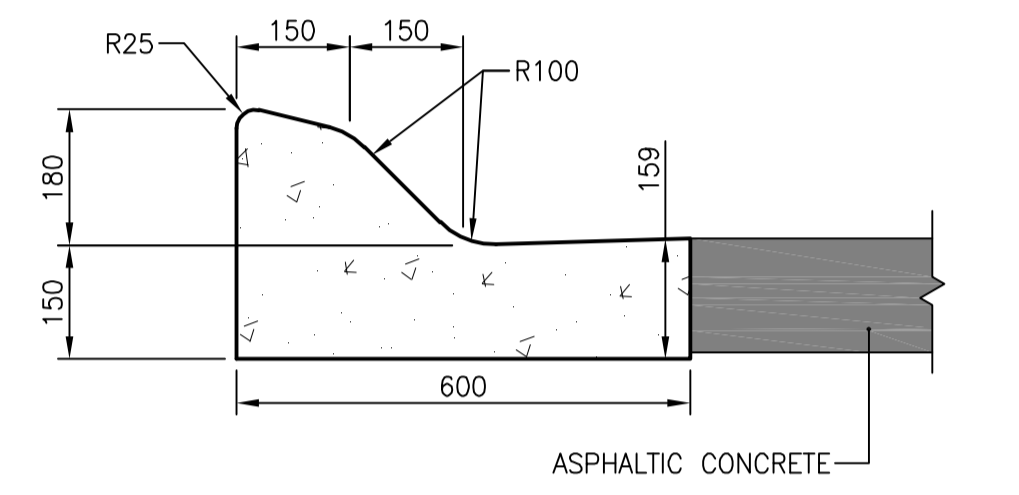


FOR MATERIALS LIST SEE DWG. D-14962

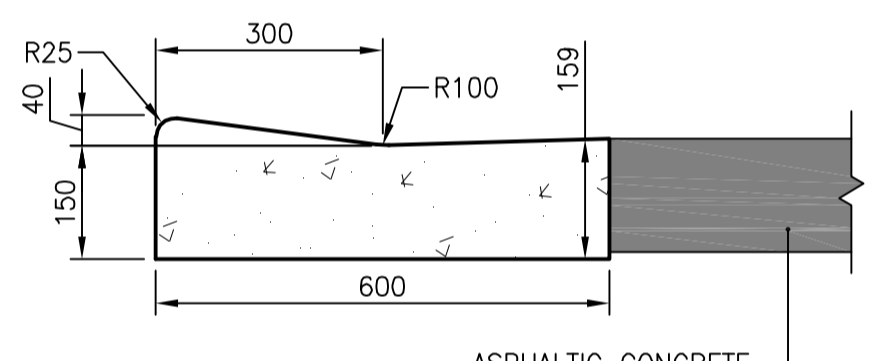
NOTE: ALL GATE VALVES WERE INSTALLED CLOCKWISE TO CLOSE

RECORD DRAWING
 BY L.D. DATE 17/12/20
 CHECKED BY A.M.

CONSTRUCTION COMPLETION DATE - AUGUST 2017

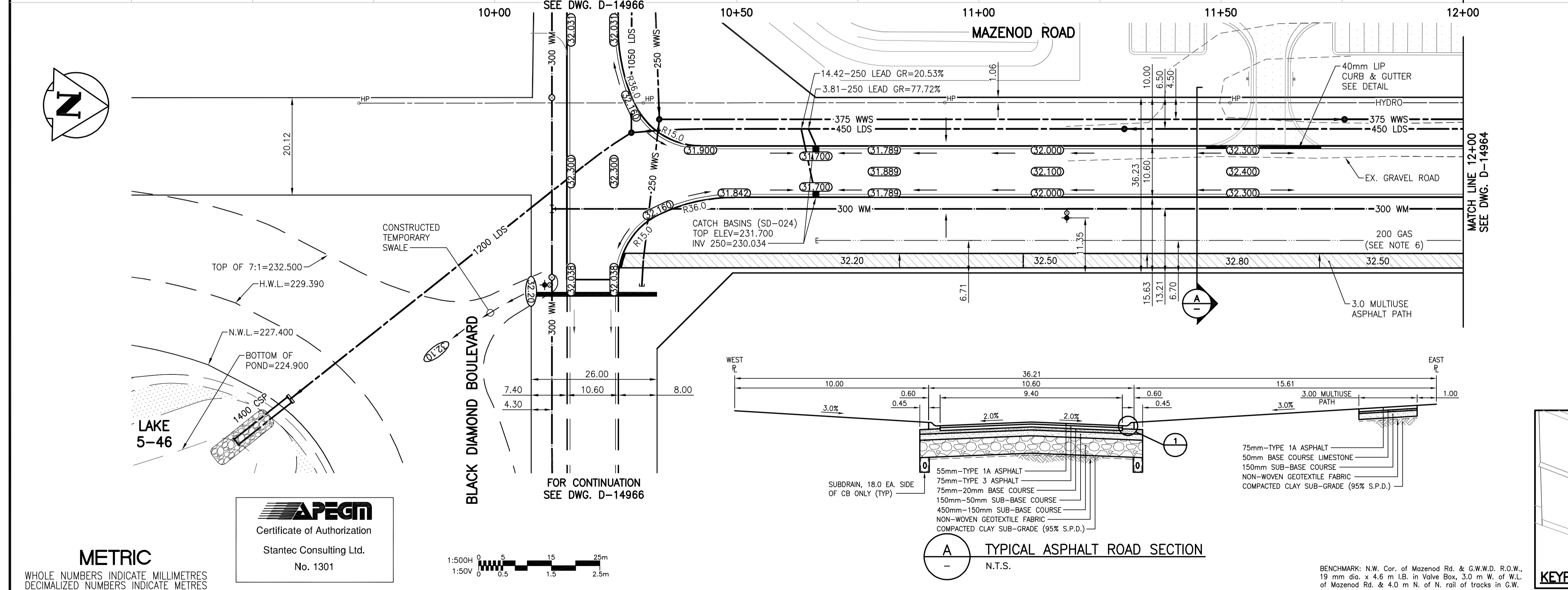


1 MODIFIED BARRIER CURB & GUTTER



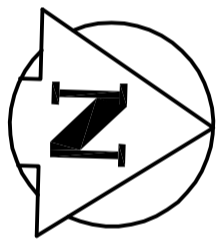
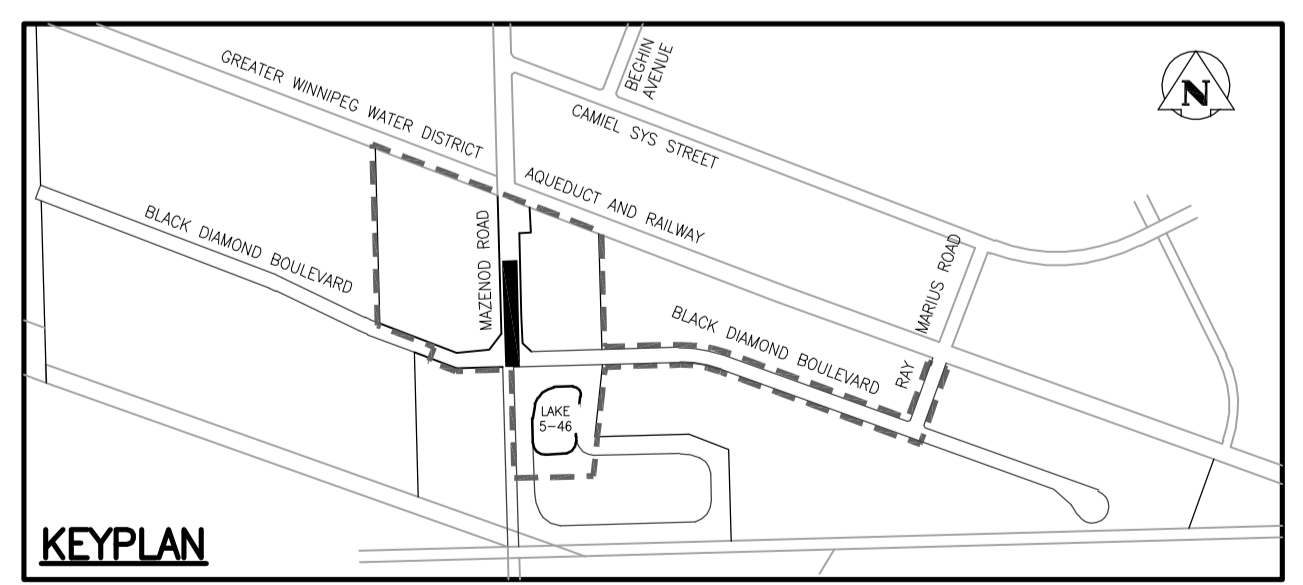
40mm LIP CURB & GUTTER SECTION AT 3 DRIVEWAYS
 N.T.S.

- NOTES:
- ALL INTERSECTION RADIUS ARE 7.50m AND ALL LANE RADIUS ARE 4.50m UNLESS NOTED OTHERWISE.
 - CHAINAGES SHOWN ARE ALONG CENTERLINE OF ROAD.
 - SUBDRAINS 18.00m EACH SIDE OF CATCH BASINS (SD-245).
 - ALL PIPE UNDER EXISTING AND FUTURE PAVEMENT ARE INSTALLED BY TRENCHLESS METHODS.
 - ALL LONG ASSEMBLY HYDRANTS (SD-006) ALL SHORT ASSEMBLY HYDRANTS (SD-007).
 - THE 200 GAS MAIN SHOWN WAS THE PROPOSED MAIN INSTALLED IN APPROXIMATELY LATE JUNE 2016 BY MANITOBA HYDRO.

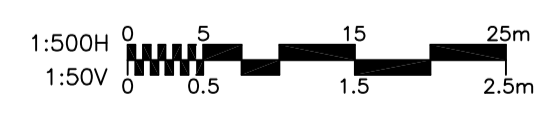


A TYPICAL ASPHALT ROAD SECTION
 N.T.S.

BENCHMARK: N.W. Cor. of Mazenod Rd. & G.W.W.D. R.O.W., 19 mm dia. x 4.6 m I.B. in Valve Box, 3.0 m W. of W.L. of Mazenod Rd. & 4.0 m N. of N. rail of tracks in G.W. W.D. R.O.W.



APEGM
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 Stantec Consulting Ltd.
 No. 1301



METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
150 WM	WATERMAIN	150 WM	WATERMAIN	150 WM	WATERMAIN	150 WM	WATERMAIN
+	HYDRANT	+	HYDRANT	+	HYDRANT	+	HYDRANT
○	VALVE	○	VALVE	○	VALVE	○	VALVE
300 LDS	LAND DRAINAGE SEWER	300 LDS	LAND DRAINAGE SEWER	300 LDS	LAND DRAINAGE SEWER	300 LDS	LAND DRAINAGE SEWER
250 WWS	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER
●	MANHOLE	●	MANHOLE	●	MANHOLE	●	MANHOLE
■	CATCH BASIN	■	CATCH BASIN	■	CATCH BASIN	■	CATCH BASIN
▽	CURB INLET	▽	CURB INLET	▽	CURB INLET	▽	CURB INLET
+	JUNCTIONS	+	JUNCTIONS	+	JUNCTIONS	+	JUNCTIONS
—	CULVERT	—	CULVERT	—	CULVERT	—	CULVERT
—	GAS	—	GAS	—	GAS	—	GAS
—	EXISTING LEGEND-PLAN	—	PROPOSED LEGEND-PLAN	—	EXISTING LEGEND-PLAN	—	PROPOSED LEGEND-PLAN

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 SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY	DATE	BY
5	RECORD DRAWING	17.12.20	P.J.S.		
4	ISSUED FOR CONSTRUCTION FOR "TEAM"	16.06.23	P.J.S.		
3	EXTENDED ROAD	16.05.24	P.J.S.		
2	ISSUED FOR CONSTRUCTION	16.01.04	P.J.S.		
1	SUBMITTED FOR CITY REVIEW	15.11.19	P.J.S.		

DESIGNED BY P.J.S.
 CHECKED BY D.P.M.
 DRAWN BY L.D.
 APPROVED BY P.J.S.
 HOR. SCALE: 1:500
 VERTICAL: 1:50
 RELEASED FOR CONSTRUCTION: DATE

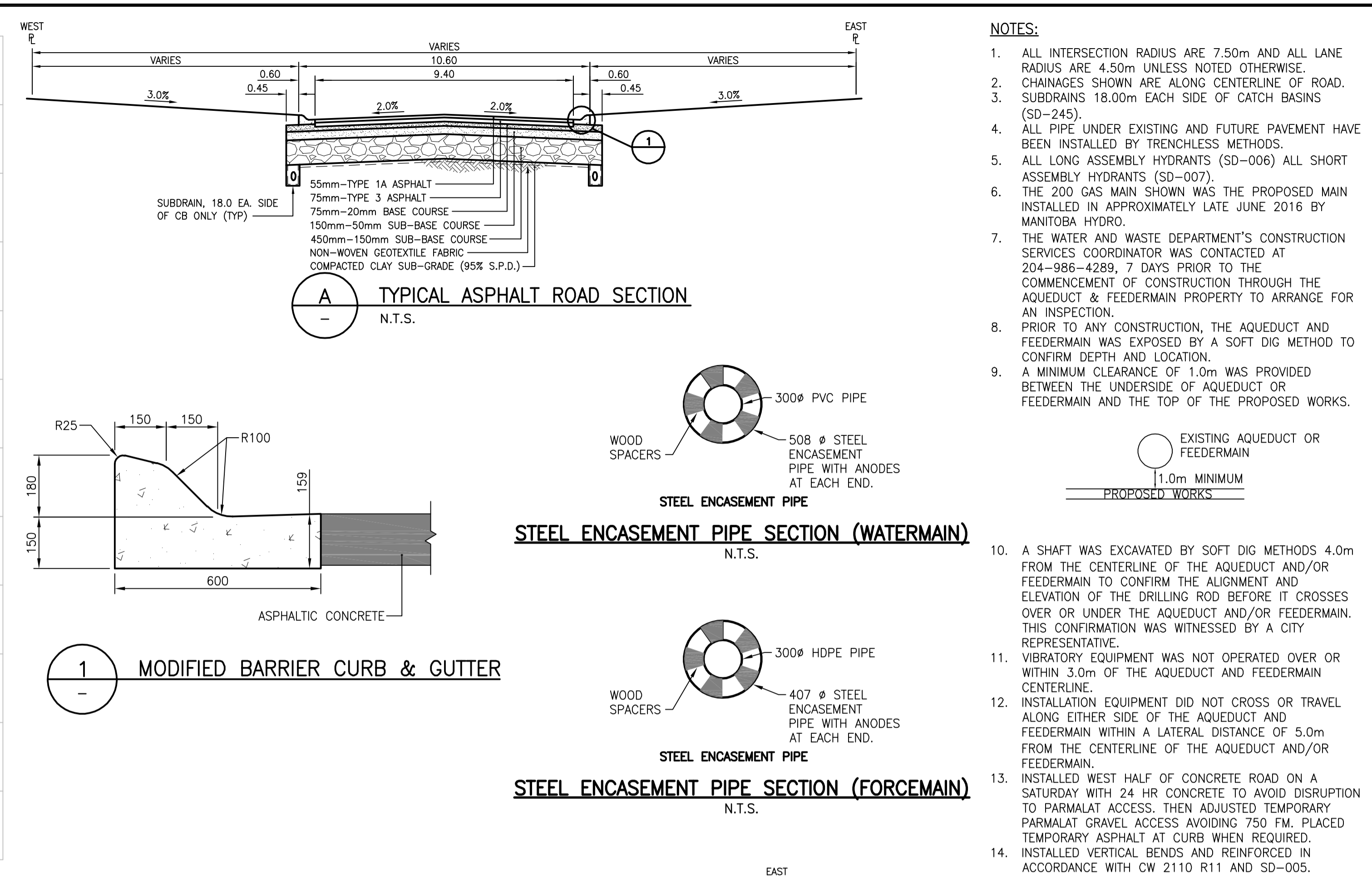
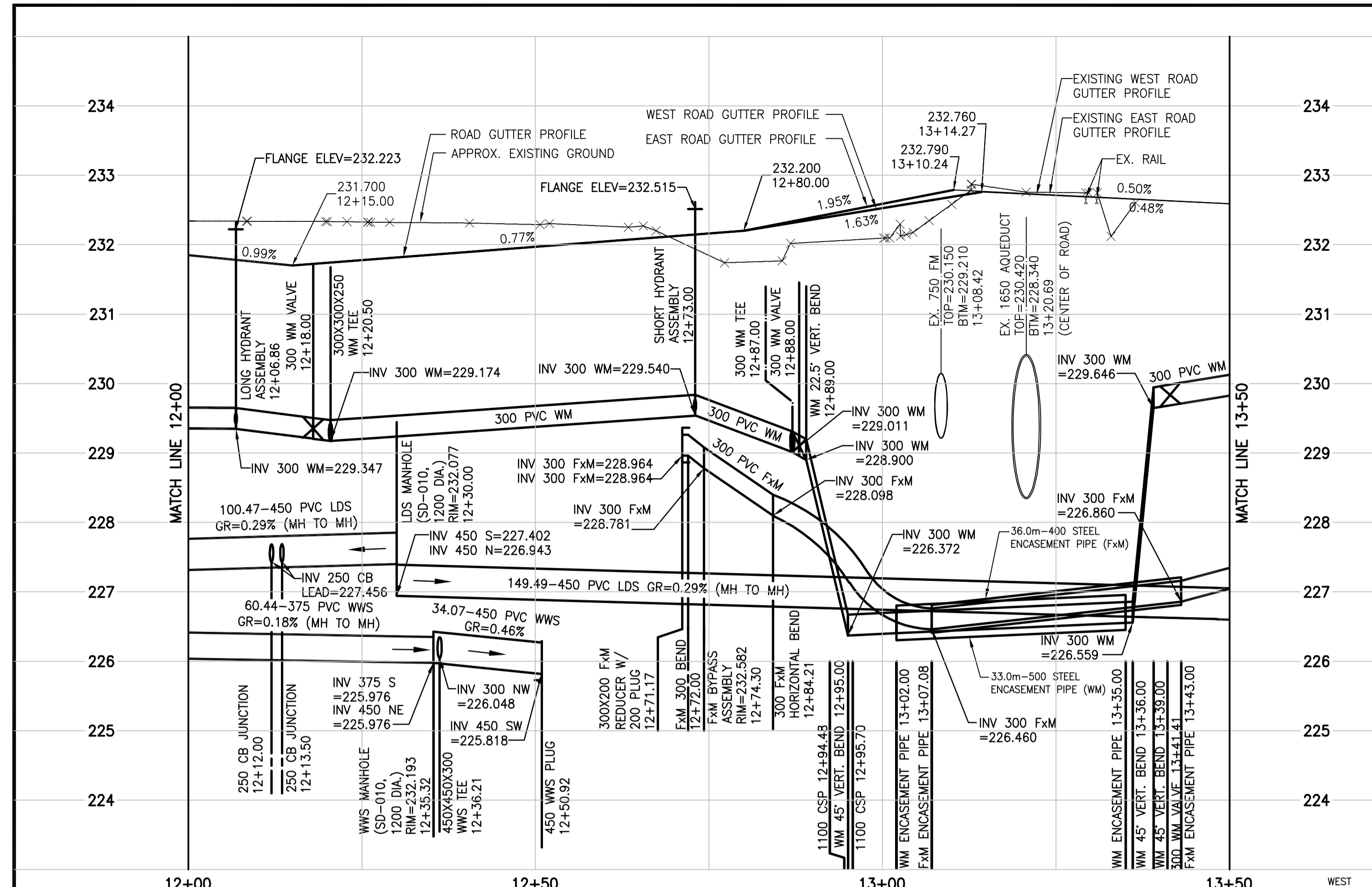
Stantec
 500 - 311 Portage Avenue, Winnipeg MB Canada R3B 2B9
 Tel. 204.489.5900 Fax. 204.453.9012 www.stantec.com

THE CITY OF WINNIPEG
 ORIGINAL SEALED BY P.J. SUNDERLAND P. ENG. 16/01/04
 CONSULTANT DRAWING NO. C-201

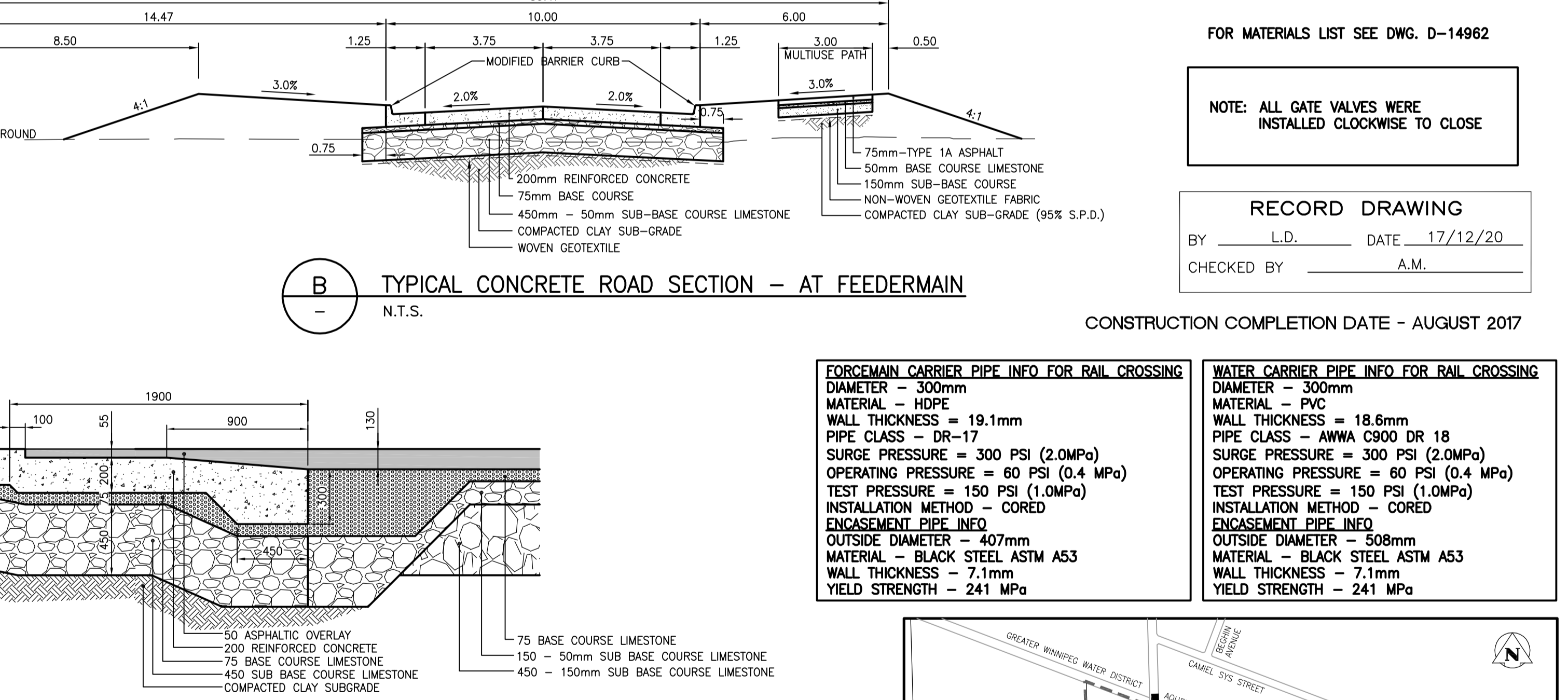
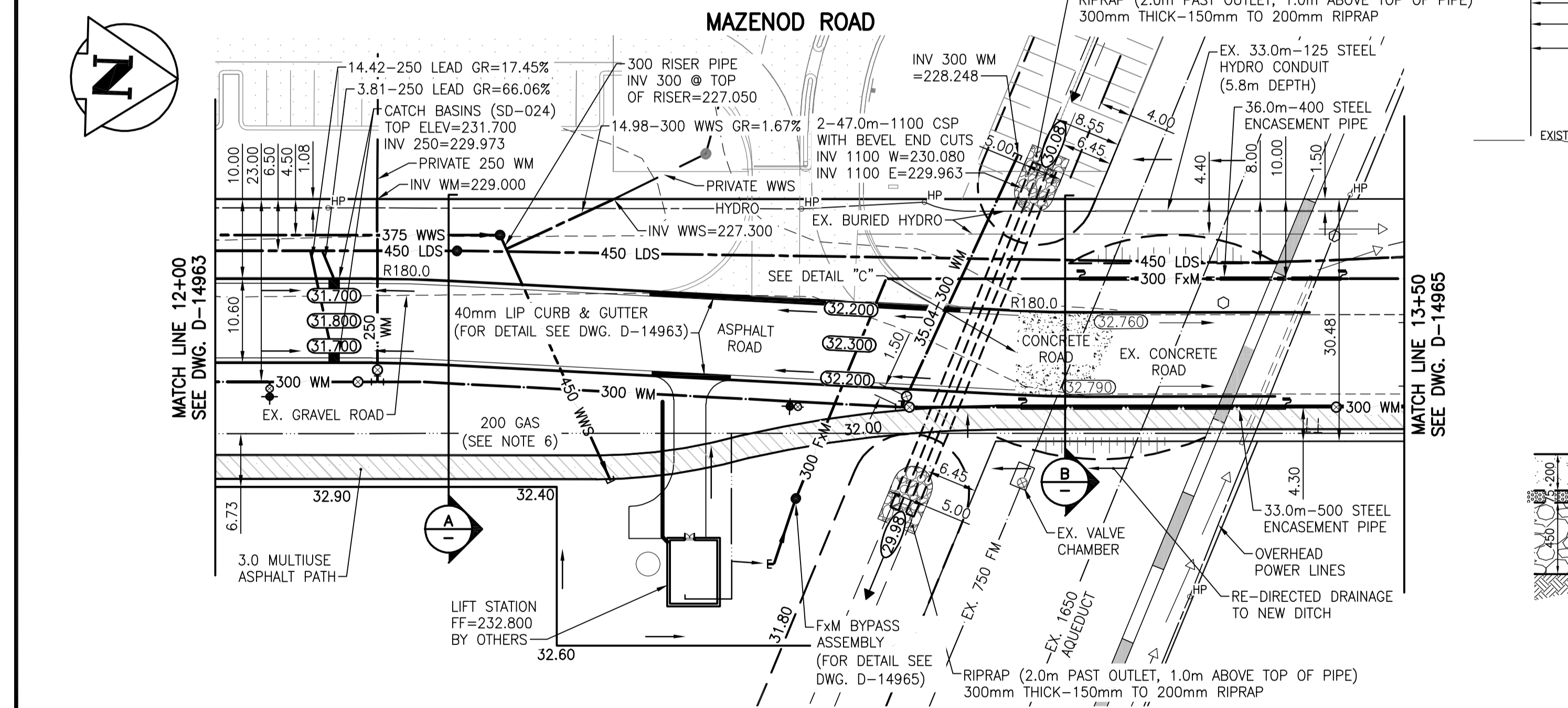
ST. BONIFACE INDUSTRIAL PARK - PHASE 2 - STAGE 1
MAZENOD ROAD
 BLACK DIAMOND BOULEVARD TO 175m N OF BLACK DIAMOND BOULEVARD

SHEET 6 OF 15
 CAD FILE DRAWING NUMBER 09351C-201-846.DWG
 CITY DRAWING NUMBER D-14963

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- NOTES:**
- ALL INTERSECTION RADIUS ARE 7.50m AND ALL LANE RADIUS ARE 4.50m UNLESS NOTED OTHERWISE.
 - CHAINAGES SHOWN ARE ALONG CENTERLINE OF ROAD.
 - SUBDRAINS 18.0m EACH SIDE OF CATCH BASINS (SD-245).
 - ALL PIPE UNDER EXISTING AND FUTURE PAVEMENT HAVE BEEN INSTALLED BY TRENCHLESS METHODS.
 - ALL LONG ASSEMBLY HYDRANTS (SD-006) ALL SHORT ASSEMBLY HYDRANTS (SD-007).
 - THE 200 GAS MAIN SHOWN WAS THE PROPOSED MAIN INSTALLED IN APPROXIMATELY LATE JUNE 2016 BY MANITOBA HYDRO.
 - THE WATER AND WASTE DEPARTMENT'S CONSTRUCTION SERVICES COORDINATOR WAS CONTACTED AT 204-986-4289, 7 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THROUGH THE AQUEDUCT & FEEDERMAIN PROPERTY TO ARRANGE FOR AN INSPECTION.
 - PRIOR TO ANY CONSTRUCTION, THE AQUEDUCT AND FEEDERMAIN WAS EXPOSED BY A SOFT DIG METHOD TO CONFIRM DEPTH AND LOCATION.
 - A MINIMUM CLEARANCE OF 1.0m WAS PROVIDED BETWEEN THE UNDERSIDE OF AQUEDUCT OR FEEDERMAIN AND THE TOP OF THE PROPOSED WORKS.
 - A SHAFT WAS EXCAVATED BY SOFT DIG METHODS 4.0m FROM THE CENTERLINE OF THE AQUEDUCT AND/OR FEEDERMAIN TO CONFIRM THE ALIGNMENT AND ELEVATION OF THE DRILLING ROD BEFORE IT CROSSES OVER OR UNDER THE AQUEDUCT AND/OR FEEDERMAIN. THIS CONFIRMATION WAS WITNESSED BY A CITY REPRESENTATIVE.
 - VIBRATORY EQUIPMENT WAS NOT OPERATED OVER OR WITHIN 3.0m OF THE AQUEDUCT AND FEEDERMAIN CENTERLINE.
 - INSTALLATION EQUIPMENT DID NOT CROSS OR TRAVEL ALONG EITHER SIDE OF THE AQUEDUCT AND FEEDERMAIN WITHIN A LATERAL DISTANCE OF 5.0m FROM THE CENTERLINE OF THE AQUEDUCT AND/OR FEEDERMAIN.
 - INSTALLED WEST HALF OF CONCRETE ROAD ON A SATURDAY WITH 24 HR CONCRETE TO AVOID DISRUPTION TO PARMALAT ACCESS. THEN ADJUSTED TEMPORARY PARMALAT GRAVEL ACCESS AVOIDING 750 FM. PLACED TEMPORARY ASPHALT AT CURB WHEN REQUIRED.
 - INSTALLED VERTICAL BENDS AND REINFORCED IN ACCORDANCE WITH CW 2110 R11 AND SD-005.



- FOR MATERIALS LIST SEE DWG. D-14962**
- NOTE: ALL GATE VALVES WERE INSTALLED CLOCKWISE TO CLOSE**
- RECORD DRAWING**
 BY: L.D. DATE: 17/12/20
 CHECKED BY: A.M.
- CONSTRUCTION COMPLETION DATE - AUGUST 2017**
- | FORCEMAIN CARRIER PIPE INFO FOR RAIL CROSSING | | WATER CARRIER PIPE INFO FOR RAIL CROSSING | |
|-----------------------------------------------|---------------------------------------|-------------------------------------------|---------------------------------------|
| DIAMETER - 300mm | MATERIAL - HDPE | DIAMETER - 300mm | MATERIAL - PVC |
| WALL THICKNESS - 19.1mm | PIPE CLASS - DR-17 | WALL THICKNESS - 18.6mm | PIPE CLASS - AWWA C900 DR 18 |
| SURGE PRESSURE = 300 PSI (2.0MPa) | OPERATING PRESSURE = 60 PSI (0.4 MPa) | SURGE PRESSURE = 300 PSI (2.0MPa) | OPERATING PRESSURE = 60 PSI (0.4 MPa) |
| TEST PRESSURE = 150 PSI (1.0MPa) | INSTALLATION METHOD - CORED | TEST PRESSURE = 150 PSI (1.0MPa) | INSTALLATION METHOD - CORED |
| ENCASEMENT PIPE INFO | ENCASEMENT PIPE INFO | ENCASEMENT PIPE INFO | ENCASEMENT PIPE INFO |
| OUTSIDE DIAMETER - 407mm | MATERIAL - BLACK STEEL ASTM A53 | OUTSIDE DIAMETER - 508mm | MATERIAL - BLACK STEEL ASTM A53 |
| WALL THICKNESS - 7.1mm | YIELD STRENGTH - 241 MPa | WALL THICKNESS - 7.1mm | YIELD STRENGTH - 241 MPa |

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

APECM
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 No. 1301

150 WM	150 WM	HYDRO	150 WM	WATERMAIN	150 WM
HYDRANT	HYDRANT	M.T.S.	HYDRANT, VALVE	HYDRANT, VALVE	HYDRANT, VALVE
VALVE	VALVE	CONCRETE	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER
300 LDS	300 LDS	ASPHALT	WASTE WATER SEWER	WASTE WATER SEWER	WASTE WATER SEWER
250 WWS	250 WWS	SIDEWALK	PROPERTY LINE	PROPERTY LINE	PROPERTY LINE
MANHOLE	MANHOLE	SURVEY BAR	NORTH OR WEST GUTTER	NORTH OR WEST GUTTER	NORTH OR WEST GUTTER
CATCH BASIN	CATCH BASIN	DITCH	SOUTH OR EAST GUTTER	SOUTH OR EAST GUTTER	SOUTH OR EAST GUTTER
CURB INLET	CURB INLET	ROAD ELEVATION	NORTH OR WEST DITCH	NORTH OR WEST DITCH	NORTH OR WEST DITCH
JUNCTIONS	JUNCTIONS		SOUTH OR EAST DITCH	SOUTH OR EAST DITCH	SOUTH OR EAST DITCH
CULVERT	CULVERT				
GAS	GAS				
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED

LOCATION APPROVED UNDERGROUND STRUCTURES

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 SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

BENCHMARK: N.W. Cor. of Mazenod Rd. & G.W.W.D. R.O.W., 19 mm dia. x 4.6 m I.B. in Valve Box, 3.0 m W. of W.L. of Mazenod Rd. & 4.0 m N. of N. rail of tracks in G.W. W.D. R.O.W.

SCALE: 1:500H, 1:500V

KEYPLAN

Stantec
 500-311 Portage Avenue, Winnipeg MB Canada R3B 2B9
 Tel. 204.489.5900 Fax. 204.453.9012 www.stantec.com

ENGINEER'S SEAL
ORIGINAL SEALED BY
P.J. SUNDERLAND
 P. ENG.
 16/01/04

THE CITY OF WINNIPEG
 ST. BONIFACE INDUSTRIAL PARK - PHASE 2 - STAGE 1
MAZENOD ROAD
 175m N OF BLACK DIAMOND BOULEVARD TO
 325m N OF BLACK DIAMOND BOULEVARD

SHEET 7 OF 15
 CAD FILE DRAWING NUMBER 09351C-201-846.DWG
 CITY DRAWING NUMBER D-14964

DESIGNED BY: P.J.S. **CHECKED BY:** D.P.M.
DRAWN BY: L.D. **APPROVED BY:** P.J.S.

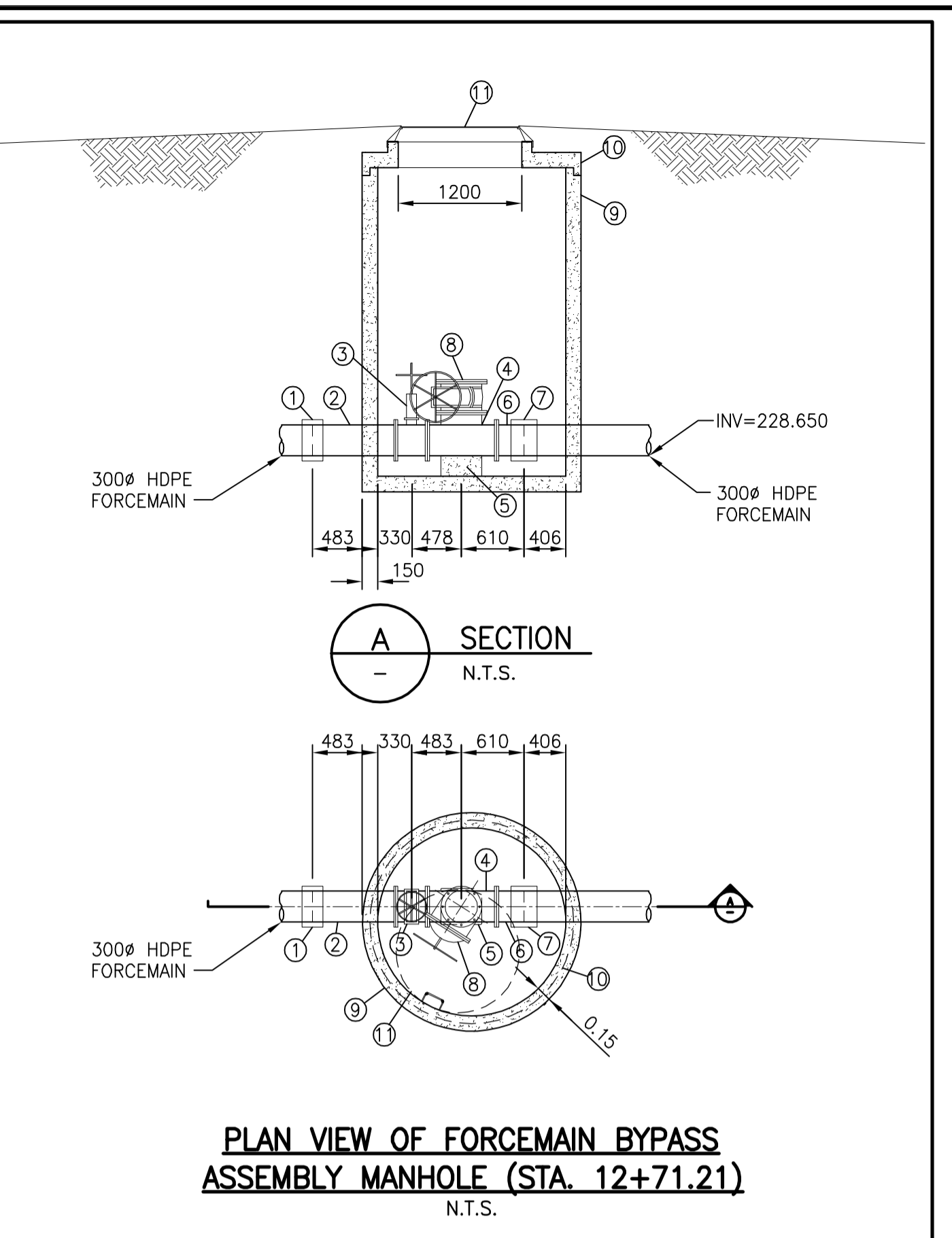
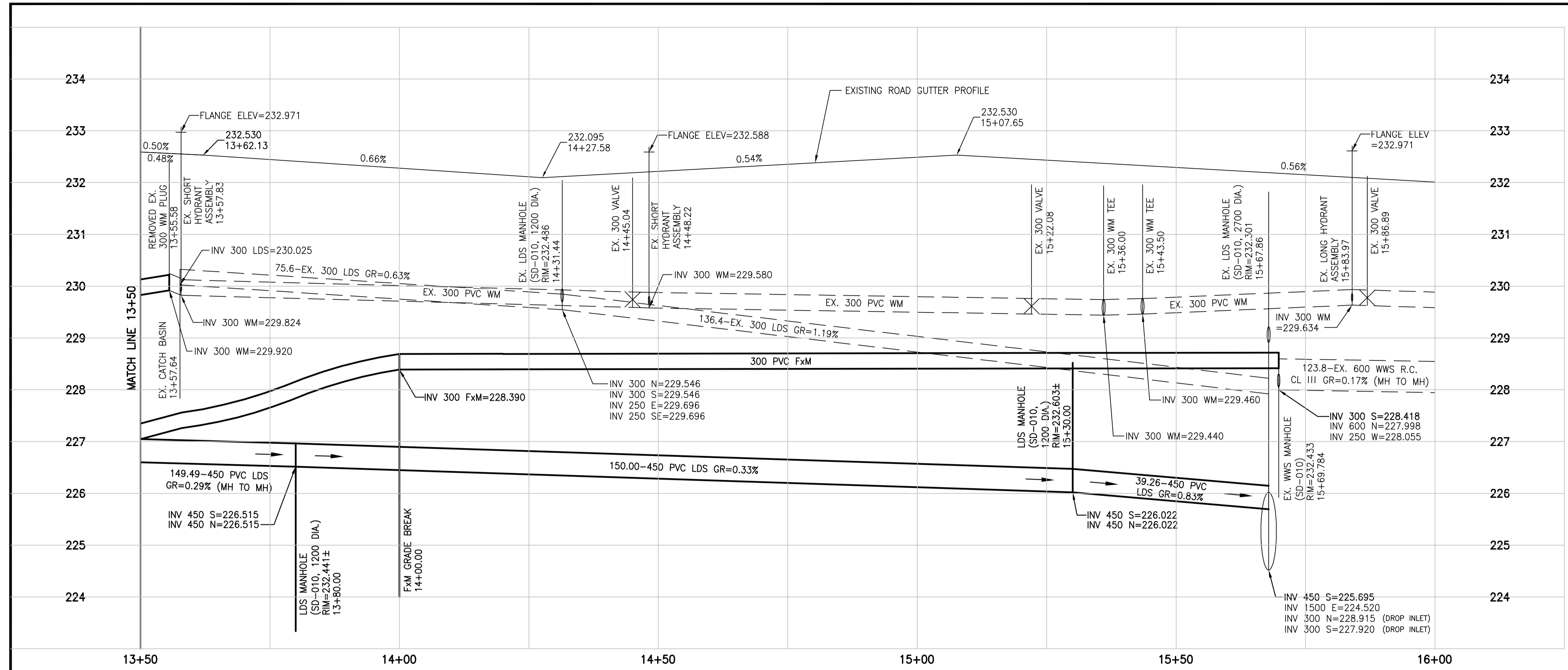
HOR. SCALE: 1:500
VERTICAL: 1:50

RELEASED FOR CONSTRUCTION:

CONSULTANT DRAWING NO. C-202

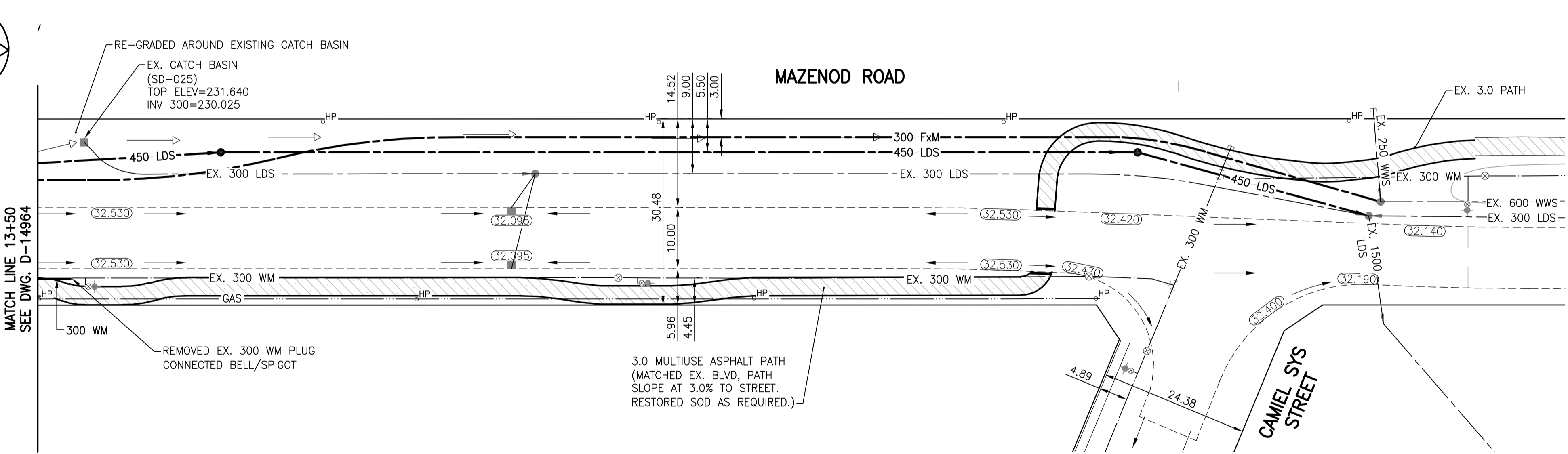
NO. REVISIONS: YY.MM.DD. BY DATE 2015 .08 .10

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 2018/04/08 08:23 AM By: bacak, lamanda



MATERIALS LIST

ITEM	DESCRIPTION	ENDS	LENGTH	QUANTITY
1	300 COUPLING	-	-	1
2	300# D.I. SPOOL	FL X PE	0.900	1
3	300# GATE VALVE - RISING STEM	FL X FL	-	1
4	300X300X150 C.I. TEE	-	-	1
5	CONCRETE SUPPORT	-	-	1
6	300# D.I. SPOOL	FL X PE	0.300	1
7	300# COUPLING	-	-	1
8	150 GATE VALVE (W/BLIND FLANGE)	FL X FL	-	1
9	1500 CONCRETE MANHOLE	-	-	1
10	1500X1200 REDUCER	-	-	1
11	TITAN TF48 1200 MANHOLE F&C	-	-	1



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 - SUBDRAINS 18.00m EACH SIDE OF CATCH BASINS (SD-245).
 - ALL PIPE UNDER EXISTING AND FUTURE PAVEMENT ARE INSTALLED BY TRENCHLESS METHODS.
 - ALL LONG ASSEMBLY HYDRANTS (SD-006) ALL SHORT ASSEMBLY HYDRANTS (SD-007).

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

LEGEND-PLAN

EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED
	WATERMAIN			HYDRO	
	HYDRANT			M.T.S.	
	VALVE			CONCRETE	
	300 LDS			ASPHALT	
	250 WWS			SIDEWALK	
	MANHOLE			PROPERTY LINE	
	CATCH BASIN			SURVEY BAR	
	CURB INLET			DITCH	
	JUNCTION			ROAD ELEVATION	
	CULVERT			NORTH OR WEST DITCH	
	GAS			SOUTH OR EAST DITCH	

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 SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

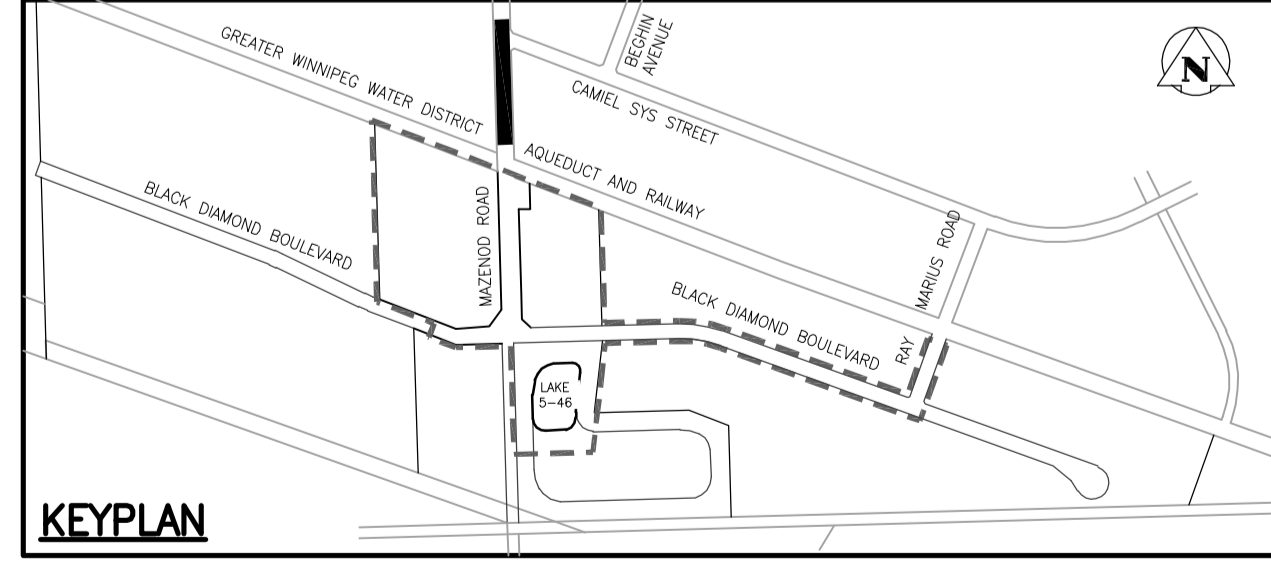
DESIGNED BY P.J.S. **CHECKED BY** D.P.M.

DRAWN BY L.D. **APPROVED BY** P.J.S.

HOR. SCALE: 1:500 **VERTICAL:** 1:50

REVISIONS:

NO.	REVISIONS	DATE	BY
3	RECORD DRAWING	17.12.20	P.J.S.
2	ISSUED FOR CONSTRUCTION	16.01.04	P.J.S.
1	SUBMITTED FOR CITY REVIEW	15.11.19	P.J.S.



ENGINEER'S SEAL

ORIGINAL SEALED BY
P. J. SUNDERLAND
P. ENG.
16/01/04

CONSULTANT DRAWING NO. C-203

THE CITY OF WINNIPEG

Winnipeg

ST. BONIFACE INDUSTRIAL PARK - PHASE 2 - STAGE 1

MAZENOD ROAD

325m N OF BLACK DIAMOND BOULEVARD TO CAMIEL SYS STREET

SHEET **8** OF **15**

CAD FILE DRAWING NUMBER **09351C-201-846.DWG**

CITY DRAWING NUMBER **D-14965**

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