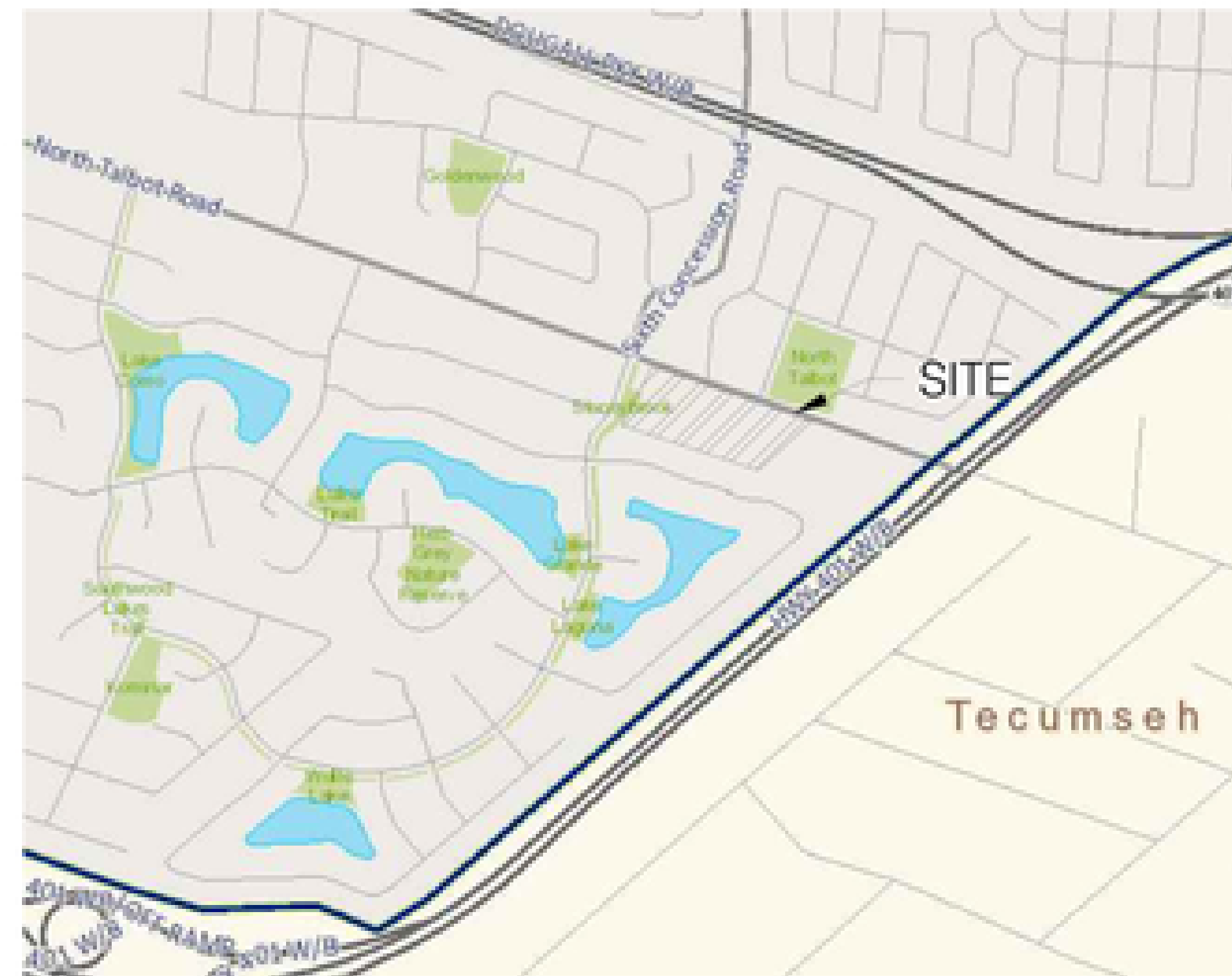
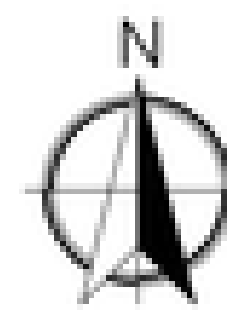


NORTH TALBOT DEVELOPMENT

1095 NORTH TALBOT ROAD, WINDSOR

LEGEND		
DESCRIPTION	EXISTING	NEW
STORM SEWER		---
SANITARY SEWER		---
WATER MAIN		---
STORM SERVICE		○
SANITARY SERVICE		○
WATER SERVICE		○
FIRE HYDRANT & WATER VALVE	○	○
GAS MAIN		---
CATCH BASIN	□	■
CURB INLET		■
STORM MANHOLE	●	●
SANITARY MANHOLE	●	●
WATER VALVE	⊗	⊗
EP ELEVATIONS		▽
STREET LIGHTS		*



KEY PLAN
N.T.S

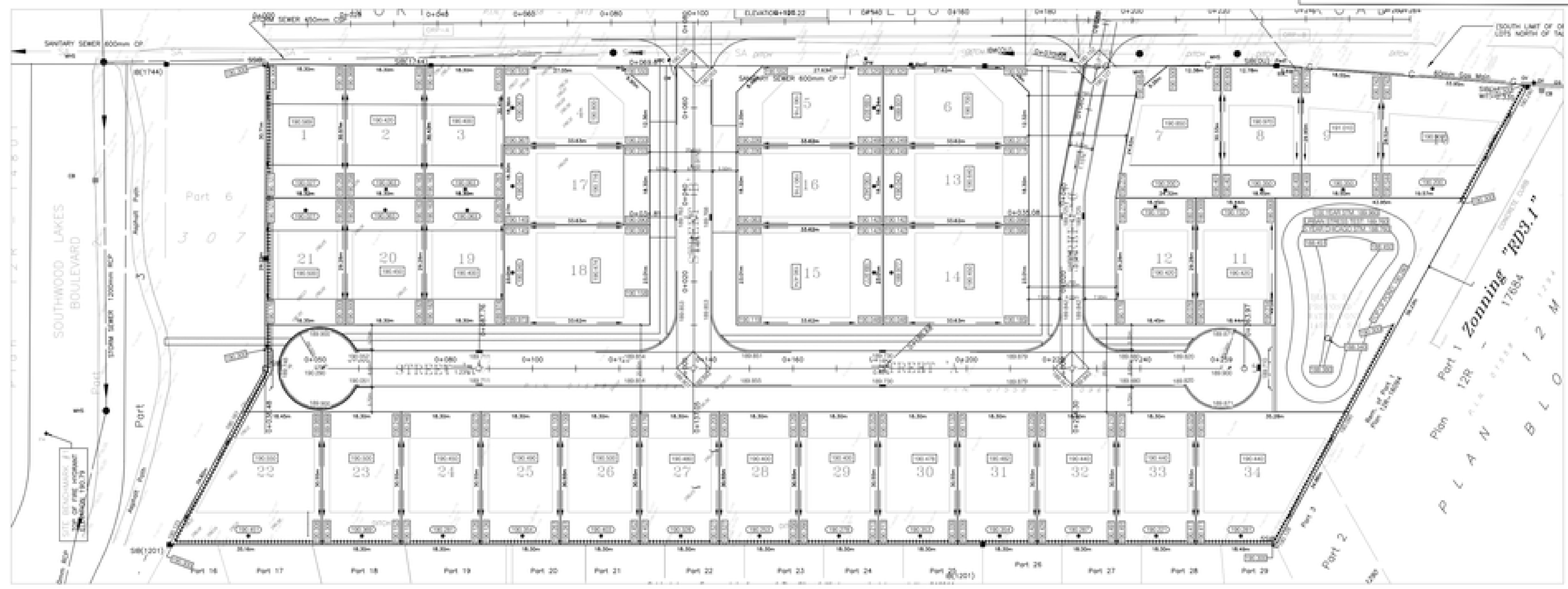
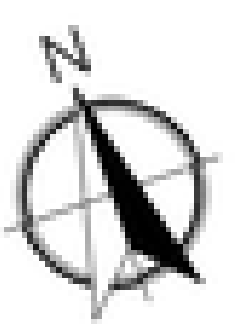
Sheet List Table	
Sheet Number	Sheet Title
--	TITLE PAGE
1	GRADING PLAN
2	OVERLAND FLOW ROUTE
3	SERVICING LAYOUT PLAN
4	STREET 'A' PLAN AND PROFILE 0+000 TO 0+170
5	STREET 'A' PLAN AND PROFILE 0+170 TO 0+310
6	STREET 'B' PLAN AND PROFILE 0+000 TO 0+108
7	STREET 'C' PLAN AND PROFILE 0+000 TO 0+105
8	POND PLAN AND PROFILE 0+000 TO 0+043
9	STORM DRAINAGE AREA PLAN
10	SANITARY DRAINAGE AREA PLAN
11	DETAILS 1
12	DETAILS 2

NOTE:
ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER: *****
ISSUED DATE: *****

ATTENTION
CONTRACTOR IS RESPONSIBLE FOR CONFIRMING
THE EXACT LOCATION AND PROTECTION OF EXISTING
UTILITIES DURING CONSTRUCTION.

BENCH MARK
CITY OF WINDSOR BENCH MARK 1083 ELEVATION 191.32
M.B. 1185 NORTH OF TALBOT ROAD: THE PLATE IS LOCATED ON THE WEST WALL OF THE CHIMNEY, 0.09 METER FROM THE SOUTH WALL OF THE CHIMNEY AND 0.43 METER ABOVE GRADE.
SITE BENCH MARK #1 ELEVATION 190.79
TOP OF FIRE HYDRANT AT SOUTHWEST CORNER OF PARCEL.
SITE BENCH MARK #2 ELEVATION 191.22
TOP OF FIRE HYDRANT AT NORTHEAST CORNER OF NORTH TALBOT ROAD AND PIONEER AVENUE.

GRADING NOTES	
	DIRY LAND FLOW DIRECTION
	PROPOSED SLOPE
	PROPOSED ELEVATION
	SPOT OF ORIGINAL ELEVATION
	EXISTING ELEVATION
	TOP OF MANHOLE
	BOTTOM OF MANHOLE



DATE MAY 27, 2022
 SHEET TITLE
 GRADING PLAN

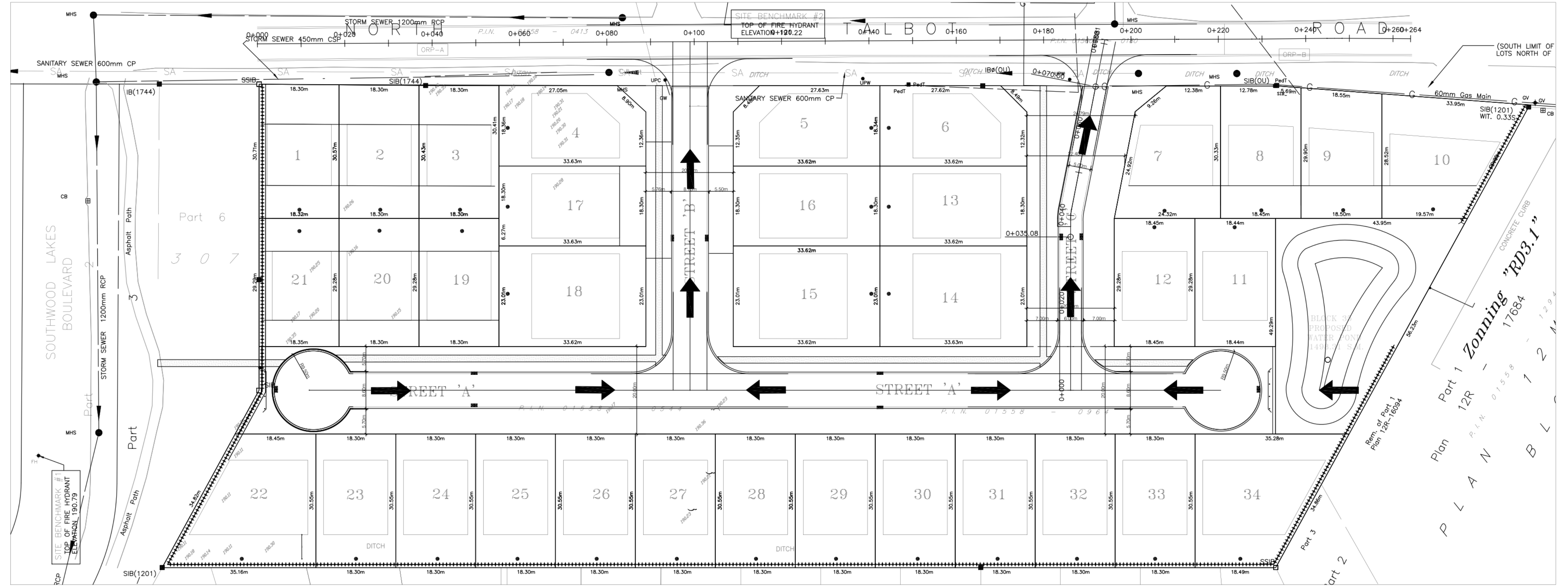
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05/14/2021	SUBMITTED FOR APPROVALS
06/09/2021	REVISED AS PER ENRVA COMMENTS
20/04/2022	REVISED AS PER ENRVA COMMENTS
27/05/2022	REVISED AS PER CITY COMMENTS



PROJECT TITLE
NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE
GRADING PLAN

DATE MAY 27, 2022	PROJECT NO. 21-021
SCALE 1:500	
DRAWN BY S.T.	SHEET NO. 1
CHECKED BY S.T.	

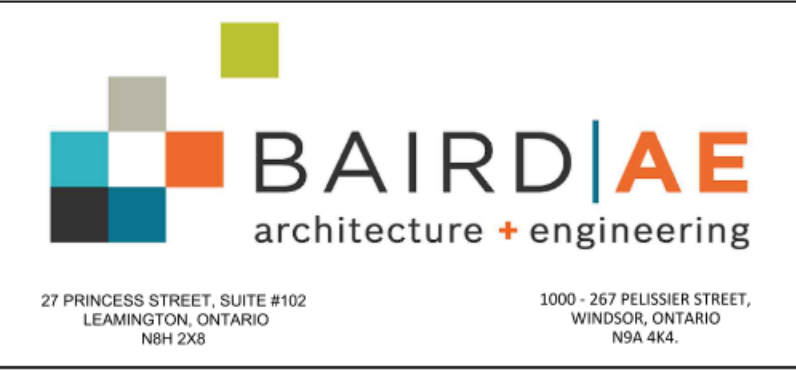
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2.5%	-
186.563	-
186.563	-
+	186.563
186.563	-
186.563	-



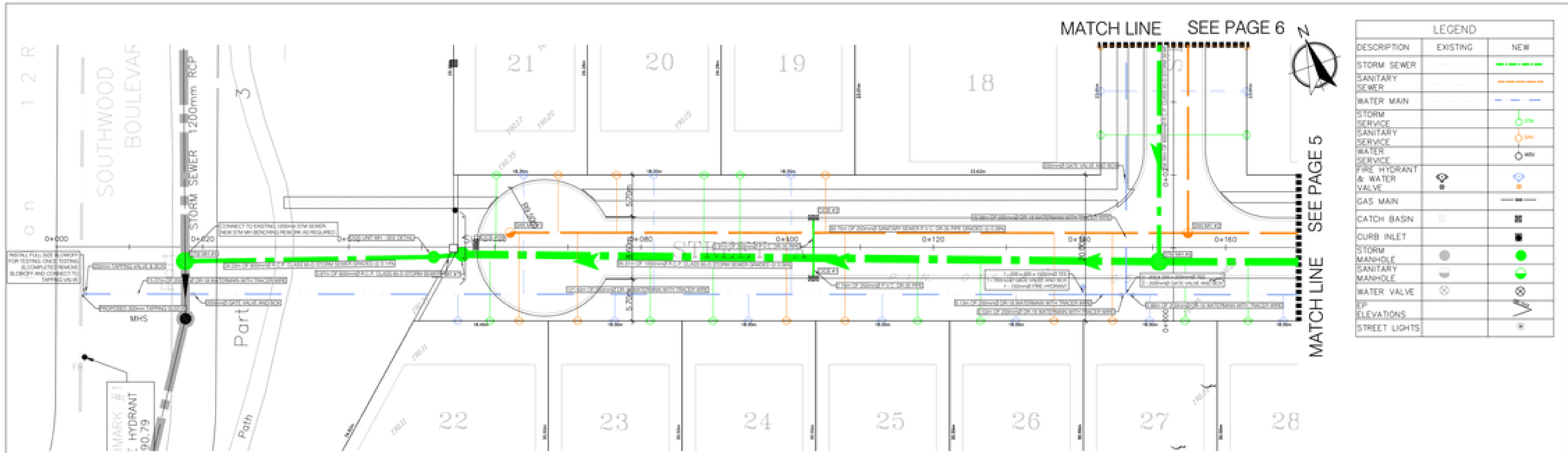
DATE: MAY 27, 2022

SHURJHEEL TUNIO, P.ENG.

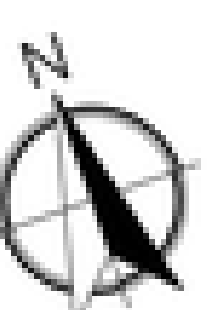
DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVALS
06/29/2021	REVISED AS PER ENWIN COMMENTS
22/04/2022	REVISED AS PER ERCA COMMENTS
27/05/2022	REVISED AS PER CITY COMMENTS
---	---
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PROJECT TITLE: NORTH TALBOT DEVELOPMENT	DATE: MAY 27, 2022	PROJECT NO: 21-021
1095 NORTH TALBOT ROAD, WINDSOR	SCALE: 1:500	
SHEET TITLE: OVERLAND FLOW ROUTE	DRAWN BY: B.T.	SHEET NO: 2
	CHECKED BY: S.T.	

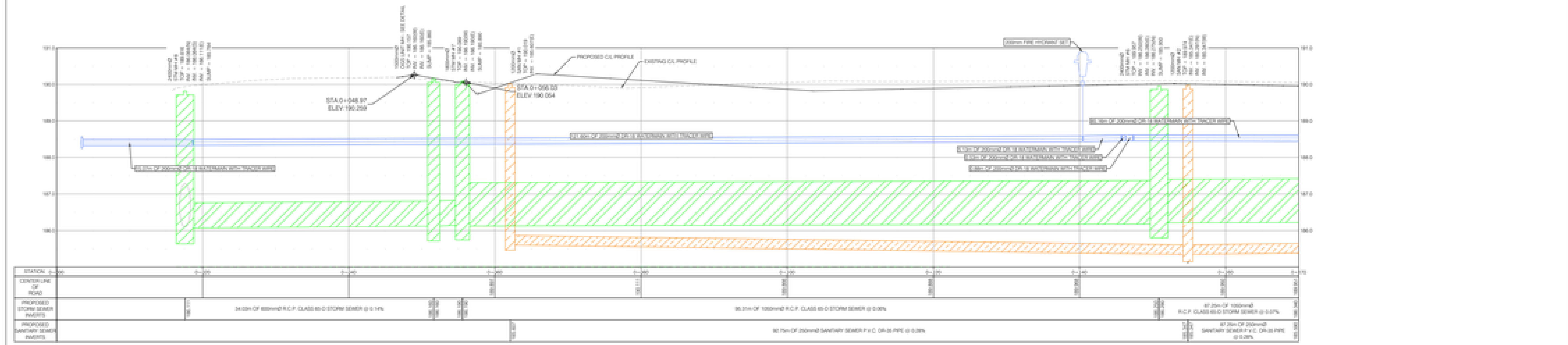


MATCH LINE SEE PAGE 6



MATCH LINE SEE PAGE 5

DESCRIPTION	LEGEND	
	EXISTING	NEW
STORM SEWER		
SANITARY SEWER		
WATER MAIN		
STORM SERVICE		
SANITARY SERVICE		
WATER SERVICE		
FIRE HYDRANT & WATER VALVE		
GAS MAIN		
CATCH BASIN		
CURB INLET		
STORM MANHOLE		
SANITARY MANHOLE		
WATER VALVE		
IP ELEVATIONS		
STREET LIGHTS		



DATE: MAY 27, 2022
 PROJECT NO: 21-021
 SHEET NO: 4

DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVAL
06/04/2021	REVISED AS PER ENR/C COMMENTS
20/04/2022	REVISED AS PER ENR/C COMMENTS
21/05/2022	REVISED AS PER CITY COMMENTS



PROJECT TITLE: NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE: STREET 'A' PLAN AND PROFILE 0+00 TO 0+170

DATE	PROJECT NO.
MAY 27, 2022	21-021
SCALE: HOR: 1:250 VER: 1:50	
DRAWN BY: B.T.	
CHECKED BY: S.T.	

4

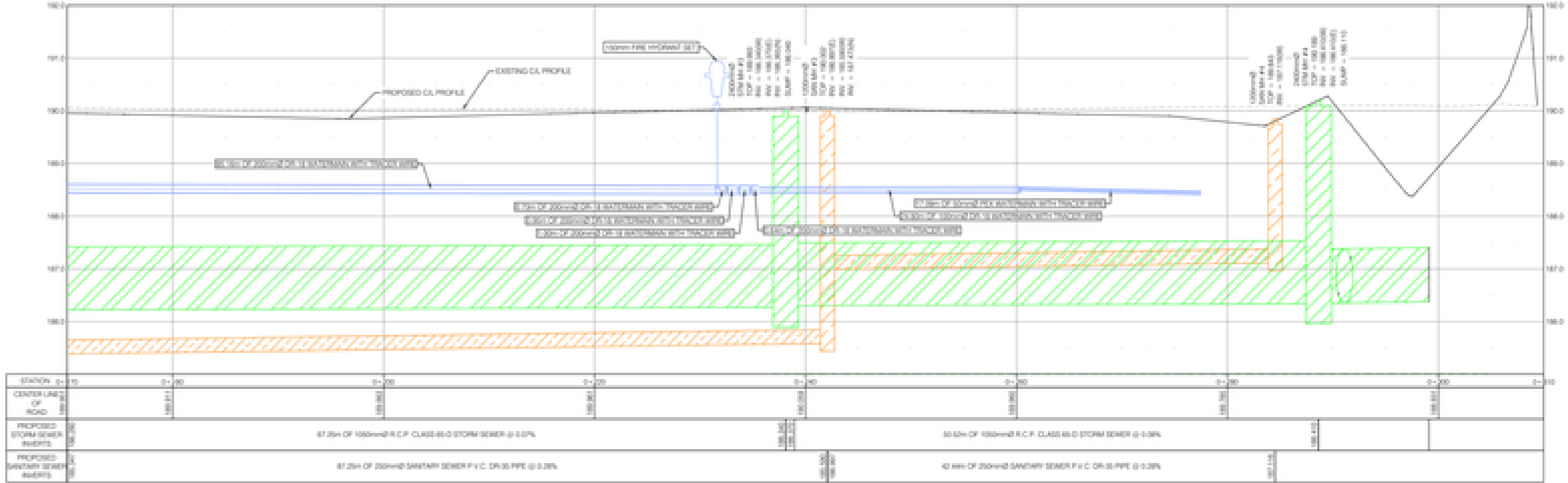
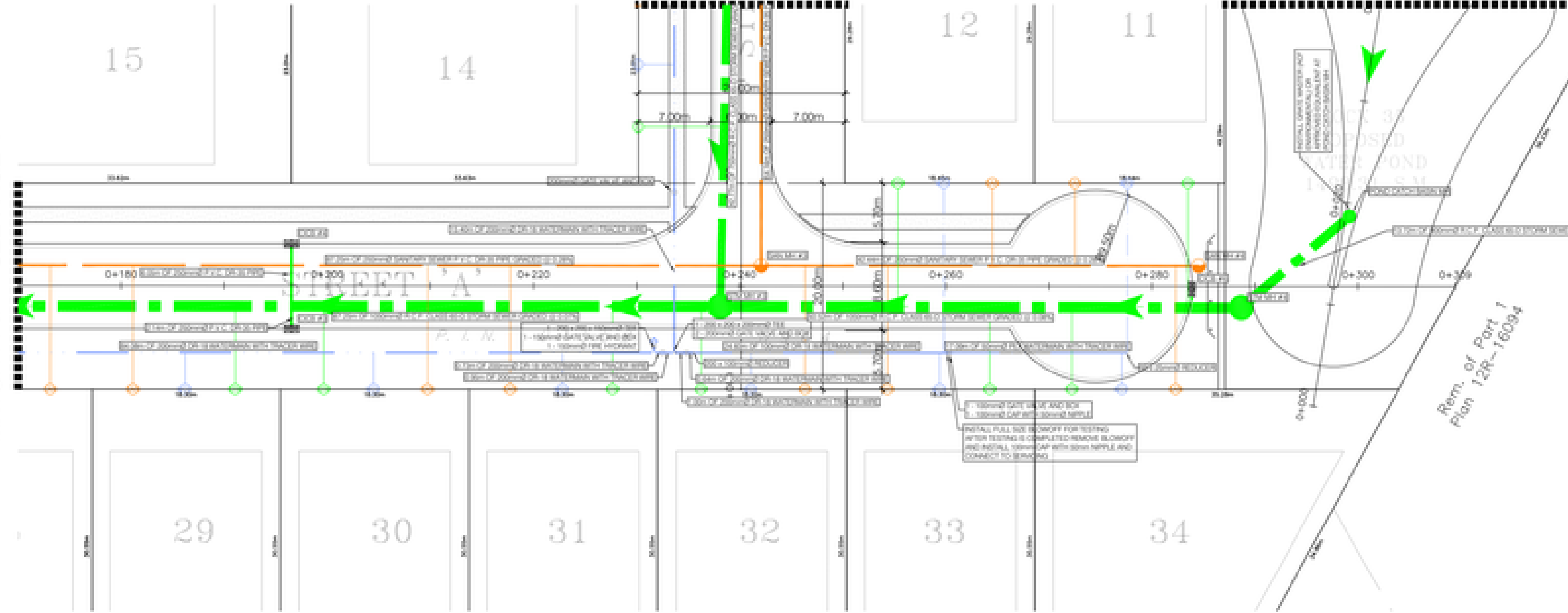
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MATCH LINE SEE PAGE 8



LEGEND		
DESCRIPTION	EXISTING	NEW
STORM SEWER		
SANITARY SEWER		
WATER MAIN		
STORM SERVICE		
SANITARY SERVICE		
WATER SERVICE		
FIRE HYDRANT & WATER VALVE		
GAS MAIN		
CATCH BASIN		
CURB INLET		
STORM MANHOLE		
SANITARY MANHOLE		
WATER VALVE		
EP		
ELEVATIONS		
STREET LIGHTS		

MATCH LINE SEE PAGE 4



DATE: MAY 27, 2021
 DRAWN BY: S. TURNO
 CHECKED BY: S.T.

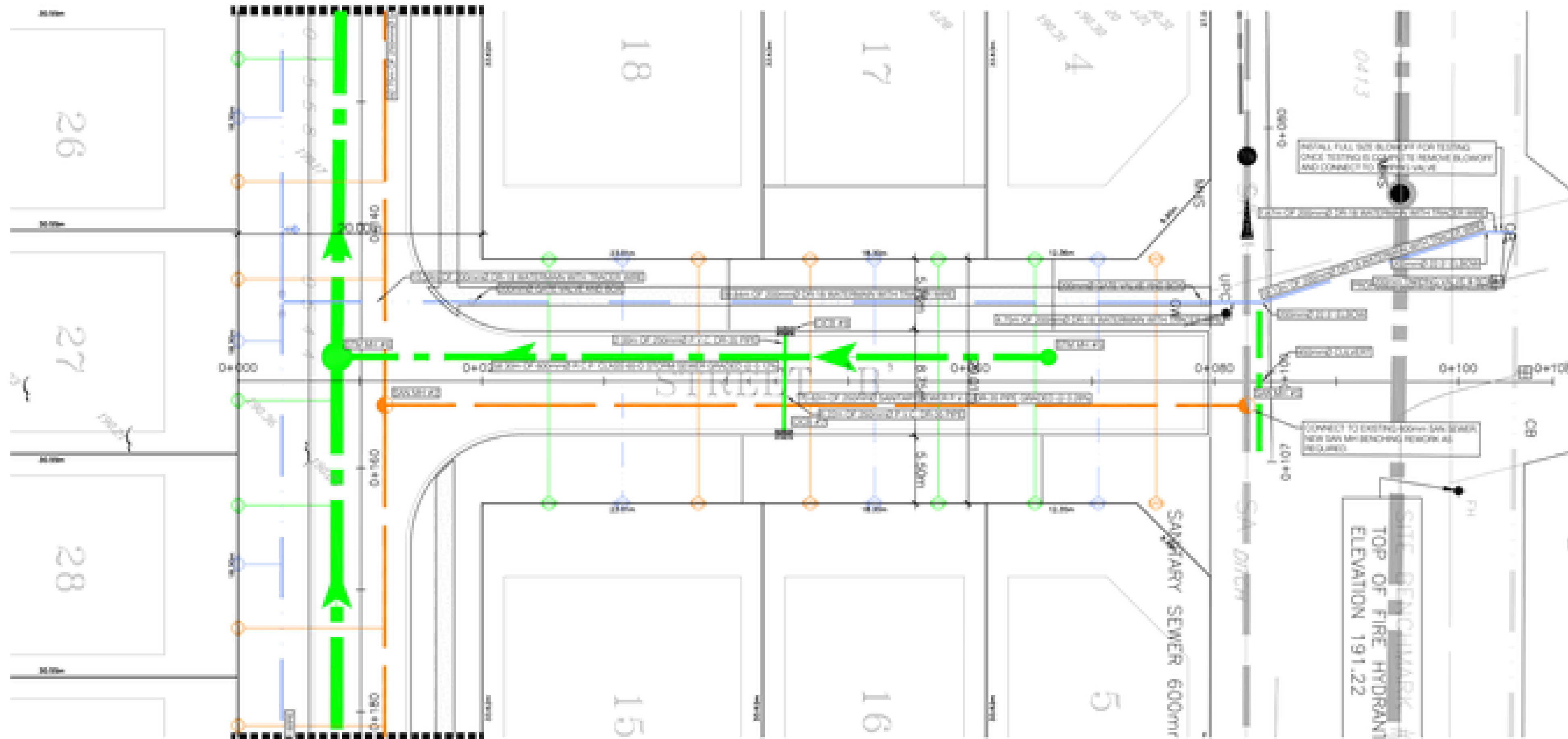
DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVAL
06/09/2021	REVISED AS PER DPRA COMMENTS
07/04/2021	REVISED AS PER DPRA COMMENTS
07/06/2021	REVISED AS PER CITY COMMENTS



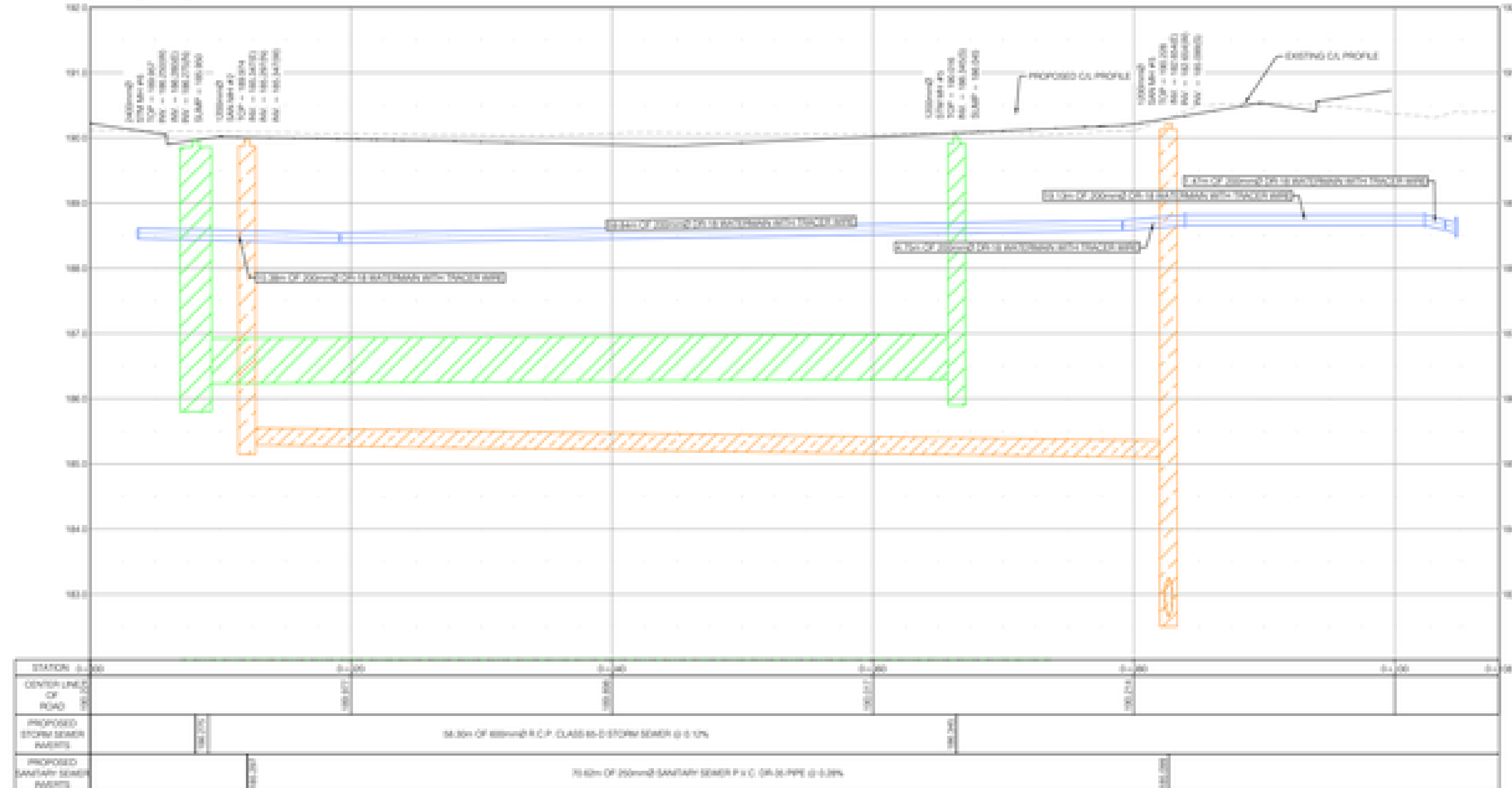
PROJECT TITLE: NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE: STREET 'A' PLAN AND PROFILE 0+170 TO 0+310

DATE: MAY 27, 2021	PROJECT NO: 21-021
SCALE: HOR: 1:250 VER: 1:50	
DRAWN BY: S.T.	SHEET NO: 5
CHECKED BY: S.T.	

MATCH LINE SEE PAGE 4



MATCH LINE SEE PAGE 5



DATE: MAY 27, 2022
 S. TURIO
 PROFESSIONAL ENGINEER
 ONTARIO

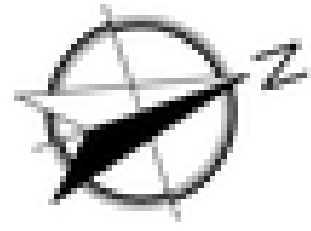
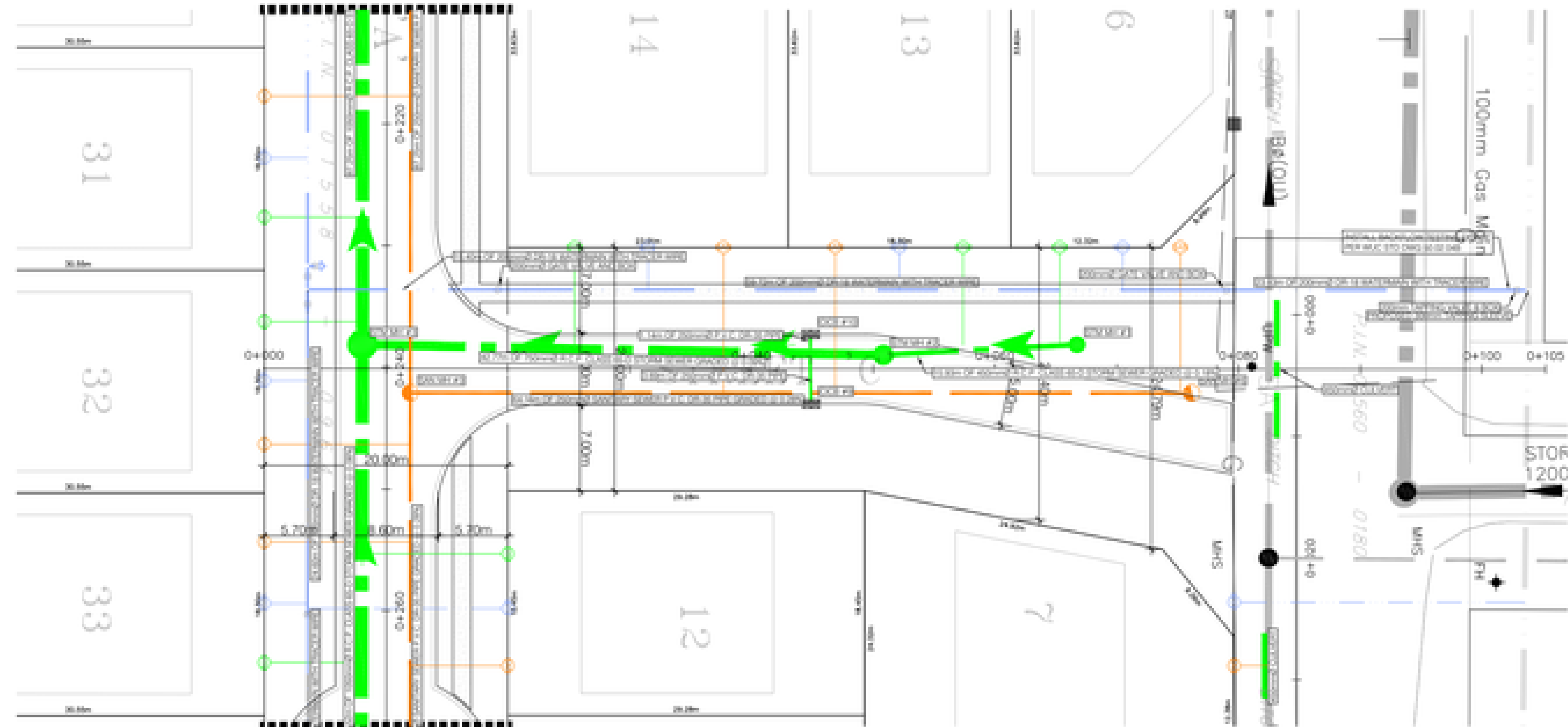
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06/04/2021	REVISED AS PER ENR/C COMMENTS
05/24/2022	REVISED AS PER ENR/C COMMENTS
05/26/2022	REVISED AS PER CITY COMMENTS



PROJECT TITLE: NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE: STREET 'B' PLAN AND PROFILE 0+000 TO 0+108

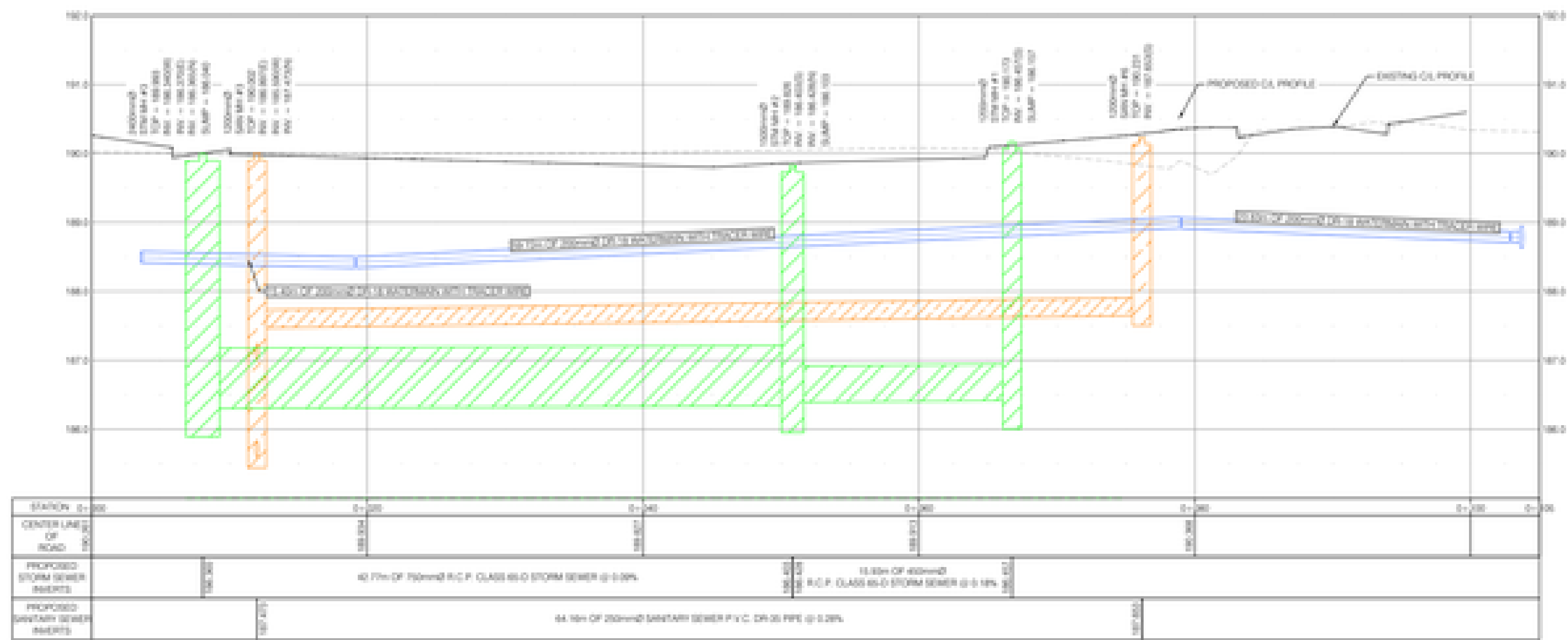
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SCALE: HOR: 1:250 VER: 1:50	
DRAWN BY: B.T.	SHEET NO: 6
CHECKED BY: S.T.	

MATCH LINE SEE PAGE 5



DESCRIPTION	LEGEND	
	EXISTING	NEW
STORM SEWER		
SANITARY SEWER		
WATER MAIN		
STORM SERVICE		
SANITARY SERVICE		
WATER SERVICE		
FIRE HYDRANT & WATER VALVE		
GAS MAIN		
CATCH BASIN		
CURB INLET		
STORM MANHOLE		
SANITARY MANHOLE		
WATER VALVE		
EP ELEVATIONS		
STREET LIGHTS		

MATCH LINE SEE PAGE 5



DATE: MAY 27, 2021
 S. TURNO
 SHARON TURNO P. ENG.

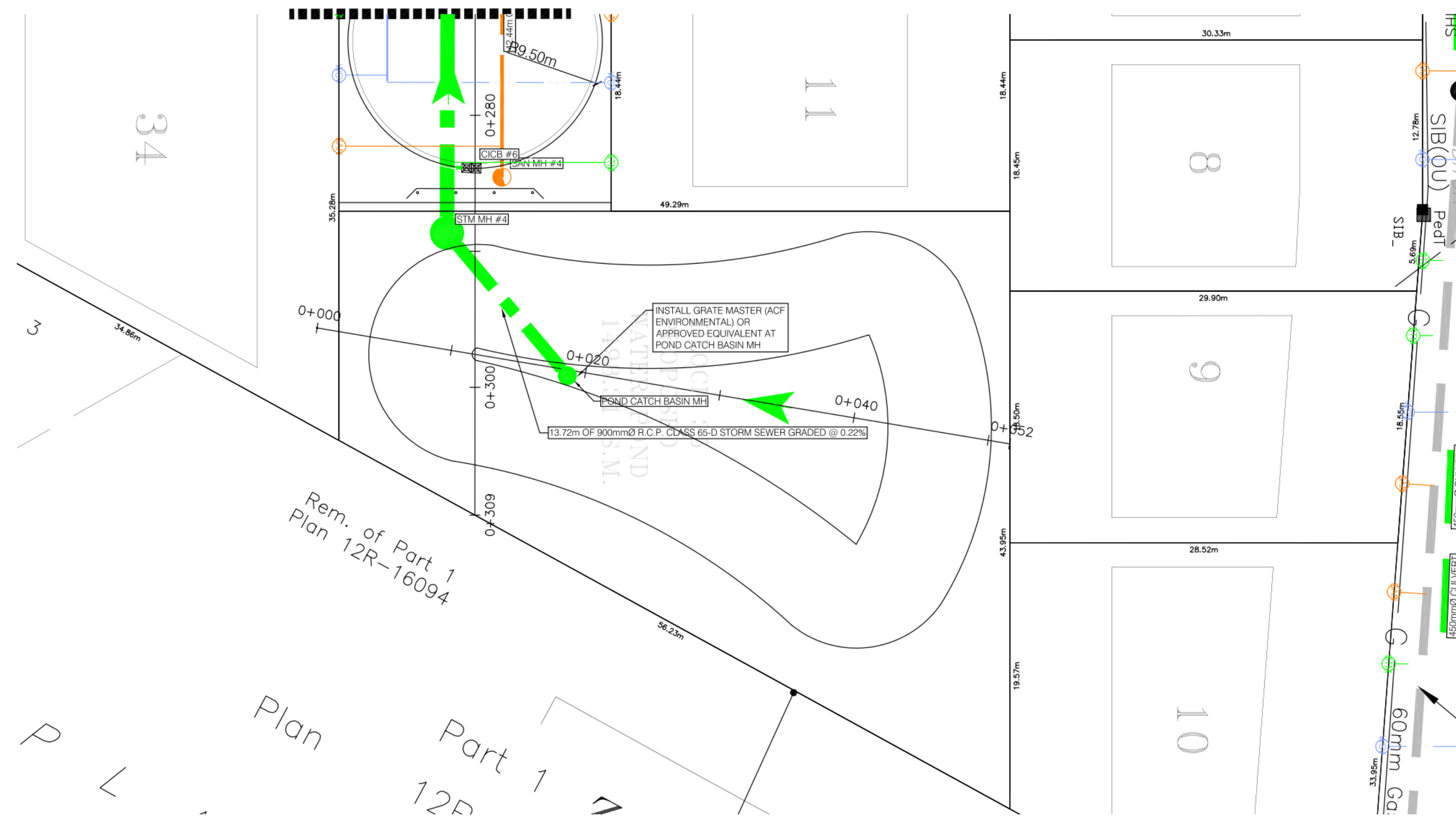
DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVALS
06/09/2021	REVISED AS PER ENRAC COMMENTS
20/06/2021	REVISED AS PER ENRAC COMMENTS
21/06/2021	REVISED AS PER CITY COMMENTS



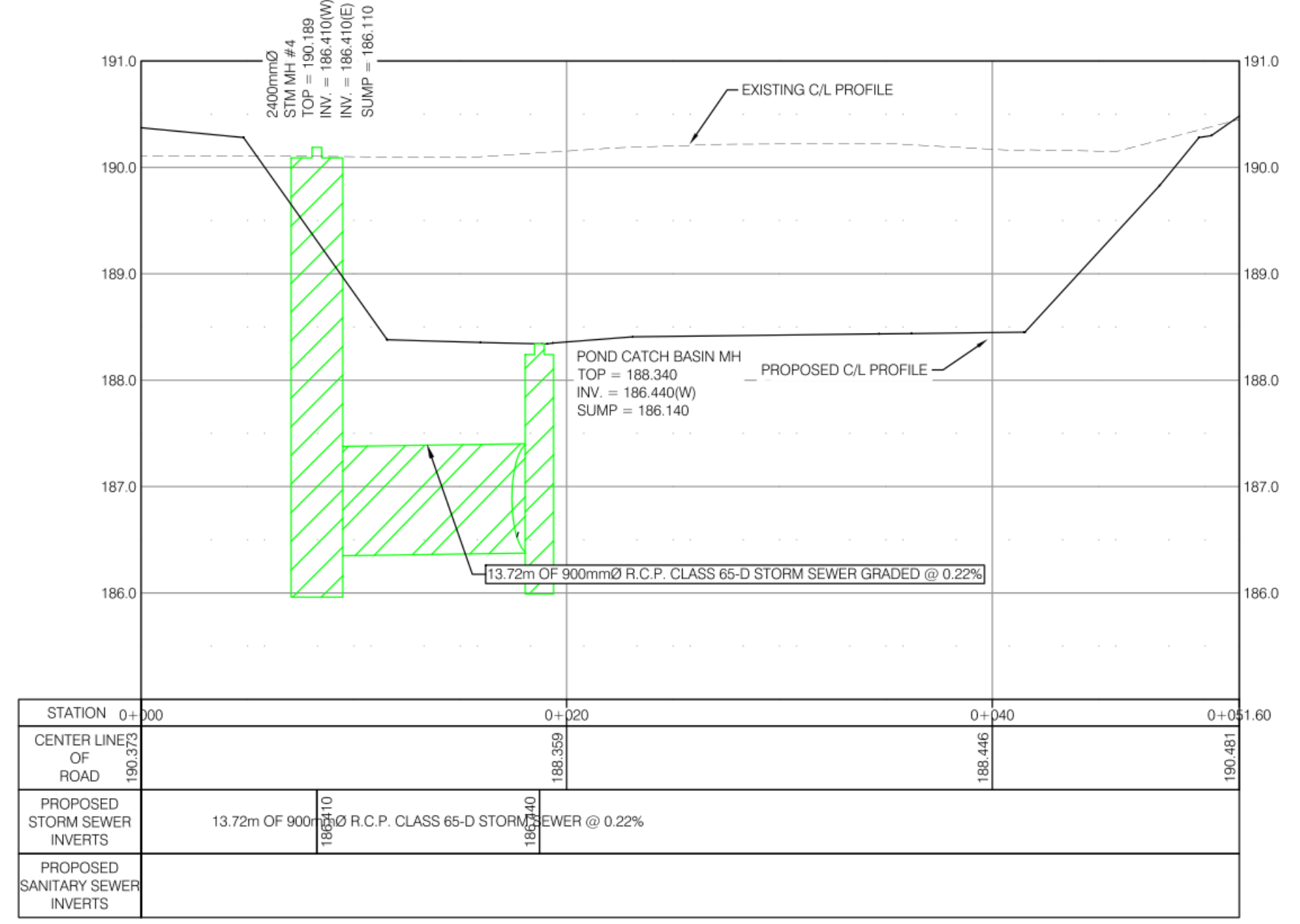
PROJECT TITLE
NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE
STREET 'C' PLAN AND PROFILE 0+000 TO 0+105

DATE MAY 27, 2021	PROJECT NO. 21-021
SCALE HOR: 1:250 VER: 1:50	
DRAWN BY B.T.	SHEET NO. 7
CHECKED BY S.T.	

MATCH LINE SEE PAGE 5



LEGEND		
DESCRIPTION	EXISTING	NEW
STORM SEWER	---	---
SANITARY SEWER	---	---
WATER MAIN	---	---
STORM SERVICE		STM
SANITARY SERVICE		SAN
WATER SERVICE		WSV
FIRE HYDRANT & WATER VALVE	⊗	⊗
GAS MAIN		GAS
CATCH BASIN	☐	☐
CURB INLET		⬛
STORM MANHOLE	●	●
SANITARY MANHOLE	●	●
WATER VALVE	⊗	⊗
EP ELEVATIONS		⚡
STREET LIGHTS		☀



MAY 27 2022



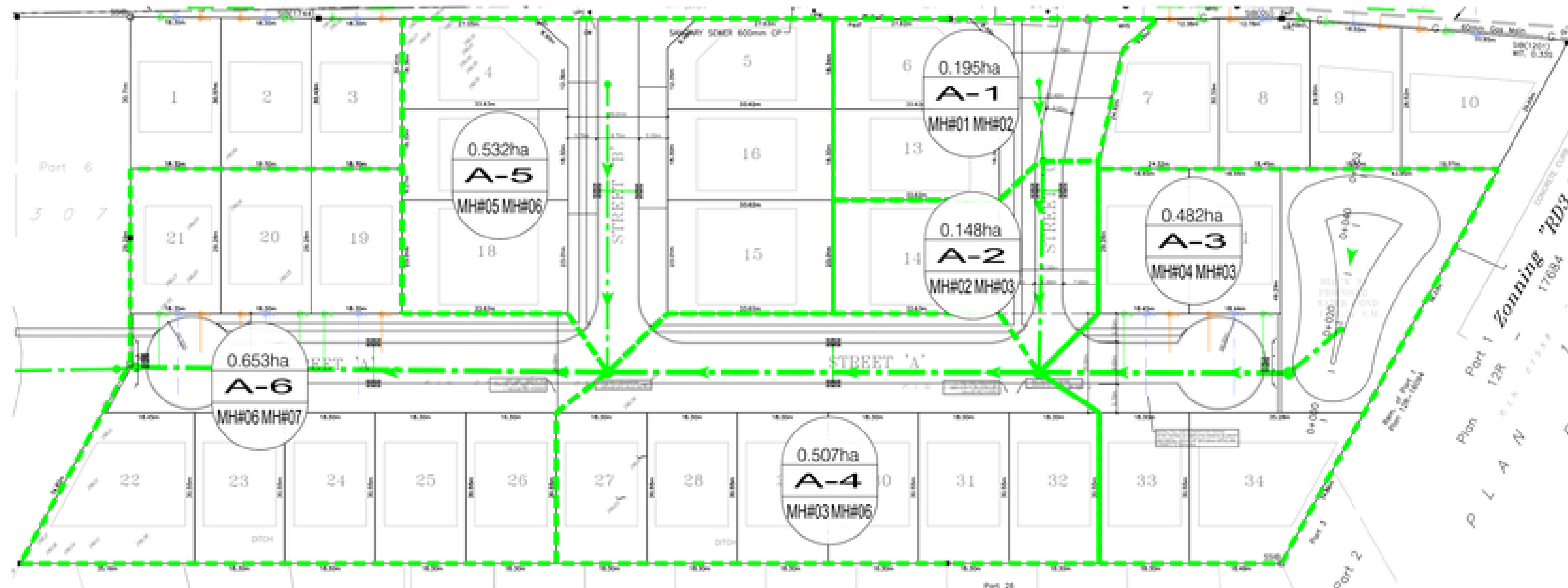
DATE: MAY 27, 2022

SHURJHEEL TUNIO, P. ENG.

DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVALS
06/29/2021	REVISED AS PER ENWIN COMMENTS
22/04/2022	REVISED AS PER ERCA COMMENTS
27/05/2022	REVISED AS PER CITY COMMENTS
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PROJECT TITLE: NORTH TALBOT DEVELOPMENT 1095 NORTH TALBOT ROAD, WINDSOR	DATE: MAY 27, 2022 SCALE: HOR: 1:250 VER: 1:50	PROJECT NO: 21-021
SHEET TITLE: POND PLAN AND PROFILE 0+000 TO 0+043	DRAWN BY: B.T. CHECKED BY: S.T.	SHEET NO: 8



1095 NORTH TALBOT ROAD STORM SEWER DESIGN SHEET (5-YEAR EVENT, Computed To)																									
LOCATION			AREA (ha)				FLOW						SEWER DATA							PROFILE					
Area ID	Area Included	From Node	To Node	C=	C=	C=	C=	Indiv 2.78 AC	Accum 5 2.78AC	Time of Conc.	Design Storm	Rainfall Intensity	Peak Flow (L/sec)	Total (L/s)	Dia. (m) Actual	Dia. (mm)	Type	Slope (%)	Length (m)	Capacity (L/s)	Velocity (m/s)	Flow Time (min)	Ratio Q/Q full	Upstream Elevation Invert (m)	Downstream Elevation Invert (m)
STREET 'C' MH#01 TO MH#02																									
A1	RESIDENTIAL	MH#01	MH#02		0.184			0.31	0.31	20.00	5	75.35	23.12	23.12	0.450	450	R.C.P.	0.18	15.96	120.9	0.78	0.35	19%	186.440	186.411
STREET 'C' MH#02 TO MH#03																									
A2	RESIDENTIAL	MH#02	MH#03		0.148			0.25	0.55	20.35	5	74.59	41.30	41.30	0.750	750	R.C.P.	0.18	42.39	472.1	1.07	0.66	9%	186.411	186.335
STREET 'A' MH POND TO MH#03																									
		POND	MH#04		0.000			0.00	0.00	20.00	5	75.35	0.00	0.00	0.900	900	R.C.P.	0.22	13.72	848.7	1.33	0.17	0%	186.440	186.410
A3	RESIDENTIAL	MH#04	MH#03		0.482			0.80	0.80	20.17	5	74.97	60.28	60.28	1.050	1050	R.C.P.	0.07	66.03	722.2	0.83	1.32	8%	186.410	186.364
STREET 'A' MH#03 TO MH#06																									
A4	RESIDENTIAL	MH#03	MH#06		0.507			0.85	2.20	21.49	5	72.22	159.17	159.17	1.050	1050	R.C.P.	0.07	87.25	722.2	0.83	1.74	22%	186.340	186.279
STREET 'B' MH#05 TO MH#06																									
A5	RESIDENTIAL	MH#05	MH#06		0.532			0.89	0.89	20.00	5	75.35	66.86	66.86	0.600	600	R.C.P.	0.12	58.30	212.6	0.75	1.29	31%	186.320	186.250
STREET 'A' MH#06 TO MH#07																									
A6	RESIDENTIAL	MH#06	MH#07		0.653			1.09	4.18	23.23	5	68.92	288.09	288.09	1.050	1050	R.C.P.	0.07	92.46	722.2	0.83	1.85	40%	186.250	186.185

Q = 2.78 AIR, where
 Q = Peak Flow in Litres per Second (l/s)
 A = Area in hectares (ha)
 I = Rainfall Intensity (mm/hr)
 R = Runoff Coefficient

1) Windsor Rainfall-Intensity Curve
 2) Min Pipe Velocity = 0.78 m/s
 3) Max pipe Velocity = 3.0 m/s
 4) Tc = 20 min (BASED ON 3.2.2.6 WERSM)M
 Intensity = $I = a/(T+0.7)^b$

A = 1259
 B = 8.8
 C = 0.838



Consultant: Baird AE - Architects & Engineers		
Date:	May 27, 2022	
Design:	BILL FUERTH	
Project No:	21-021	Stamp:
Design Reference:	1095 NORTH TALBOT	
		Stamp: BFUERTH

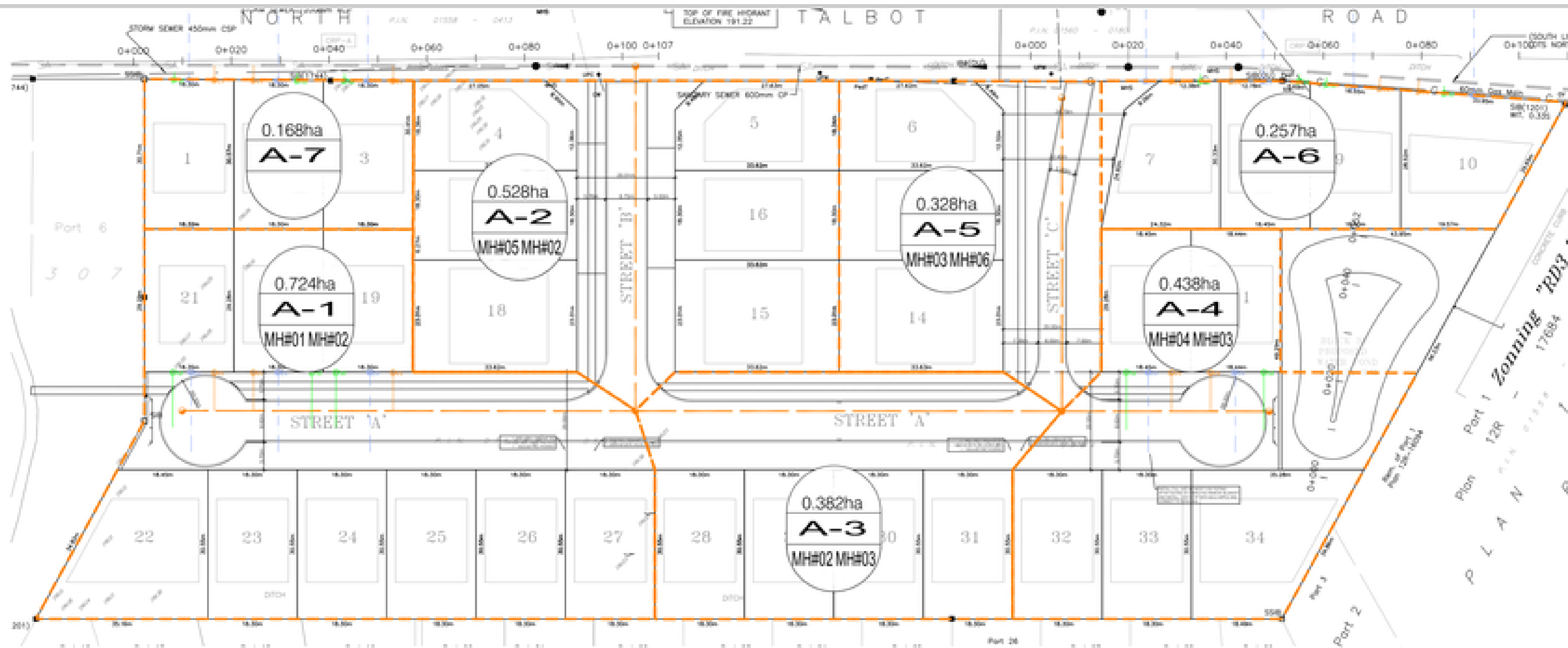


DATE	REVISIONS
20/04/2021	SUBMITTED FOR APPROVALS
26/04/2021	REVISED AS PER DMR COMMENTS
22/04/2022	REVISED AS PER EPCA COMMENTS
21/05/2022	REVISED AS PER CITY COMMENTS



PROJECT TITLE: NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE: STORM DRAINAGE AREA PLAN

DATE: MAY 27, 2022	PROJECT NO: 21-021
SCALE: 1:500	
DRAWN BY: S.T.	SHEET NO: 9
CHECKED BY: S.T.	



1095 North Talbot Street
SANITARY SEWER DESIGN SHEET (Ultimate D.A. Design)

DESIGN CRITERIA FOR APARTMENTS

Residential =	90 persons/ha	AVERAGE DAILY PER CAPITA FLOW	363 Litres/day	According to City Windsor development manual = 0.0042 L/s/cap + 0.0040(2460/60) = 363 Litres/day
Commercial =	74 persons/ha	PEAK EXTREMEOUS FLOW	0.198 L/s/cap	
Low Density =	3.13 PPU	ULTIMATE FLOW FACTOR	6 for population below 1000 persons	
		VELOCITY RANGE	0.75 m/s to 2 m/s	
		MINIMUM PIPE SIZE	200 mm	

Project: 21-021 1095 NORTH TALBOT STREET
 Client:

DEVELOPMENT	Area Included	LOCATION		DESIGN AREA SERVED (ha)	DESIGN POPULATION (PERSONS)	ULTIMATE FLOW FACTOR	MAXIMUM FLOW			SEWER DATA							PROFILE				
		From Node	To Node				INFILTRATION (L/s)	SEWAGE (L/s)	TOTAL SEWAGE AND INFILTRATION (L/s)	Dia. (m) Actual	Dia. (mm)	Type	Manning's 'n'	Slope (%)	Length (m)	Capacity (L/s)	Velocity (m/s)	Ratio (%)	Upstream Elevation	Downstream Elevation	Average Cover (m)
SAN MH#1 TO MH#2																					
STREET 'W'	A1	SAN MH 1	SAN MH 2	0.724	36	6	0.113	0.91	1.03	0.250	250	PVC	0.013	0.28%	92.75	31.471	0.84	3.26	185.607	185.347	
SAN MH#1 TO MH#3																					
STREET 'W'	A4	SAN MH 4	SAN MH 3	0.438	22	6	0.368	0.55	0.62	0.250	250	PVC	0.013	0.28%	42.44	31.471	0.84	1.87	187.118	186.997	
SAN MH#4 TO MH#3																					
STREET 'C'	A5	SAN MH 5	SAN MH 3	0.328	16	6	0.291	0.41	0.46	0.250	250	PVC	0.013	0.28%	64.16	31.471	0.84	1.48	187.652	187.473	
SAN MH#3 TO MH#2																					
STREET 'W'	A3	SAN MH 3	SAN MH 2	0.382	19	6	0.179	1.45	1.63	0.250	250	PVC	0.013	0.28%	87.25	31.471	0.84	5.17	185.590	185.347	
SAN MH#2 TO MH#5																					
STREET 'W'	A2	SAN MH 2	SAN MH 5	0.528	26	6	0.374	3.03	3.40	0.250	250	PVC	0.013	0.28%	79.62	31.471	0.84	10.80	185.297	185.099	

Design By: BILL FUERTH
 PROJECT NO: 21-021
 Checked and Stamped: BILL FUERTH



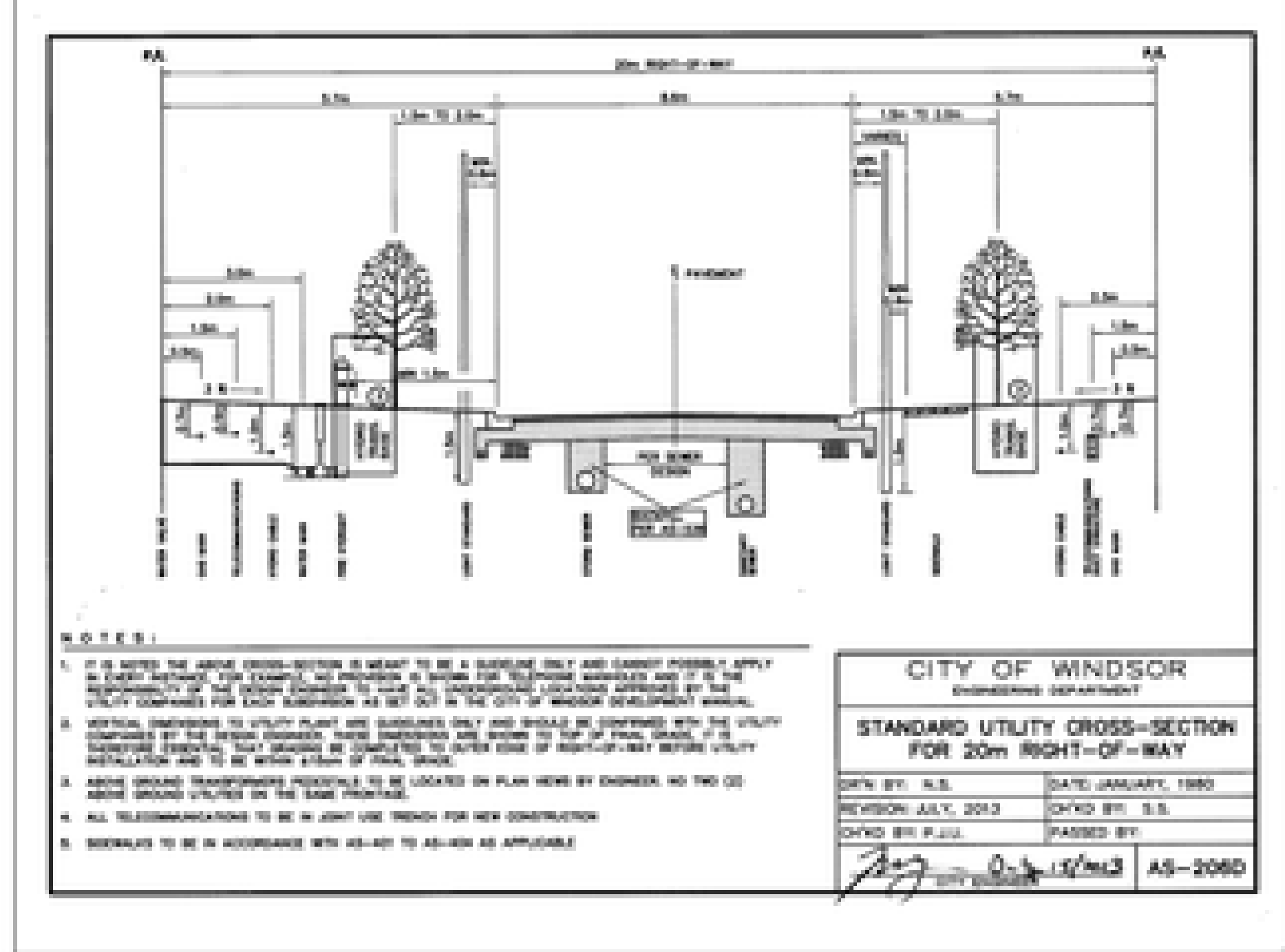
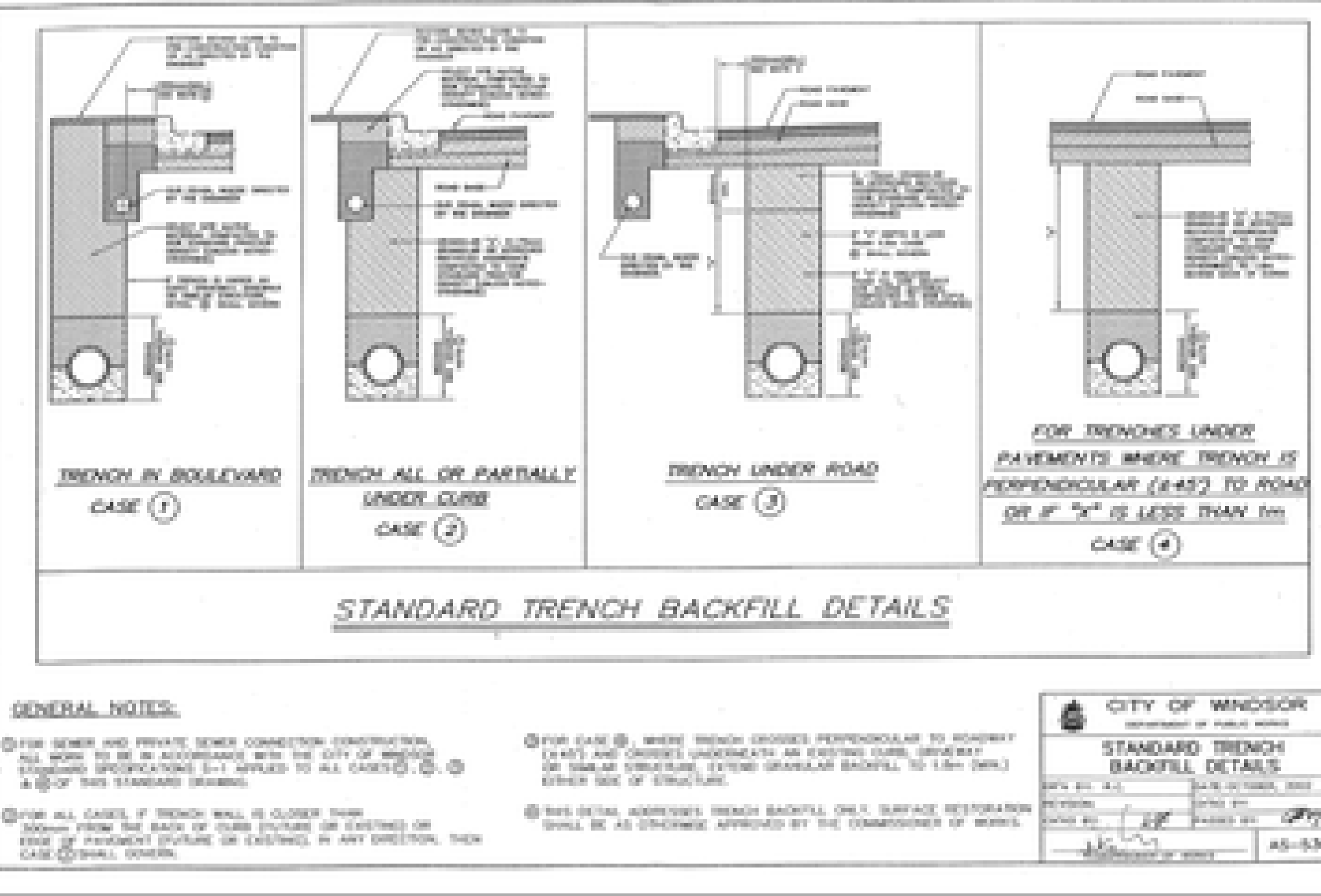
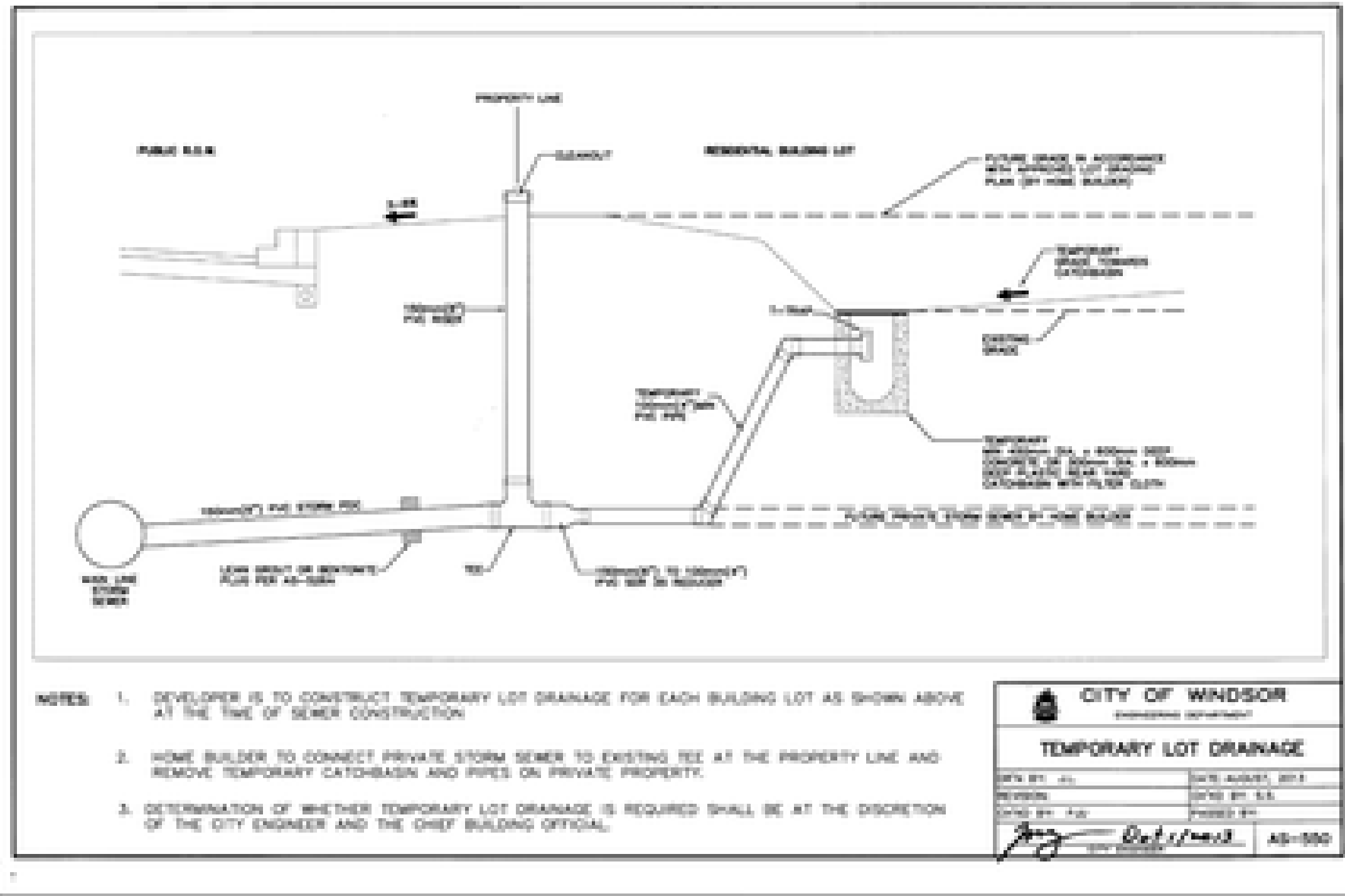
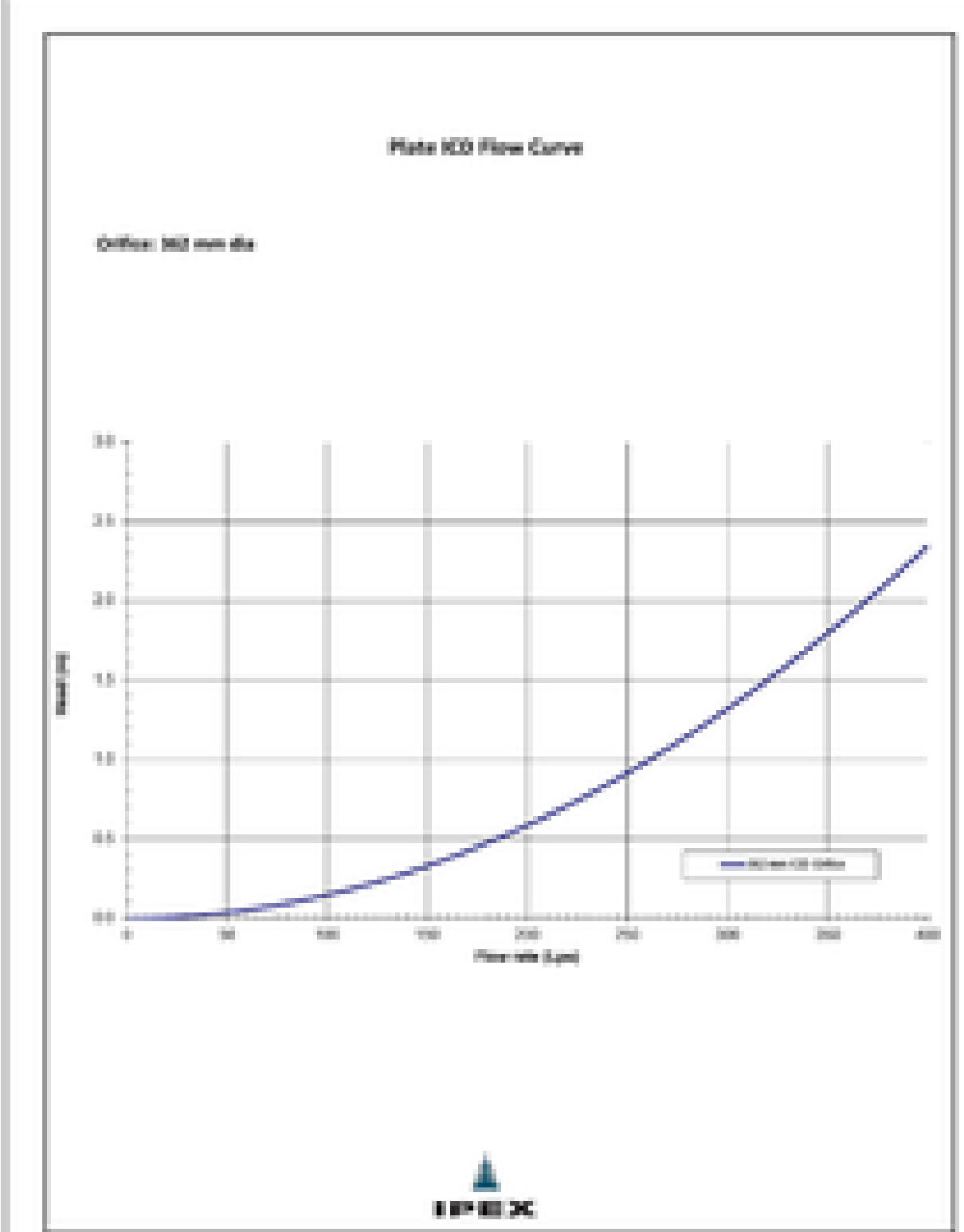
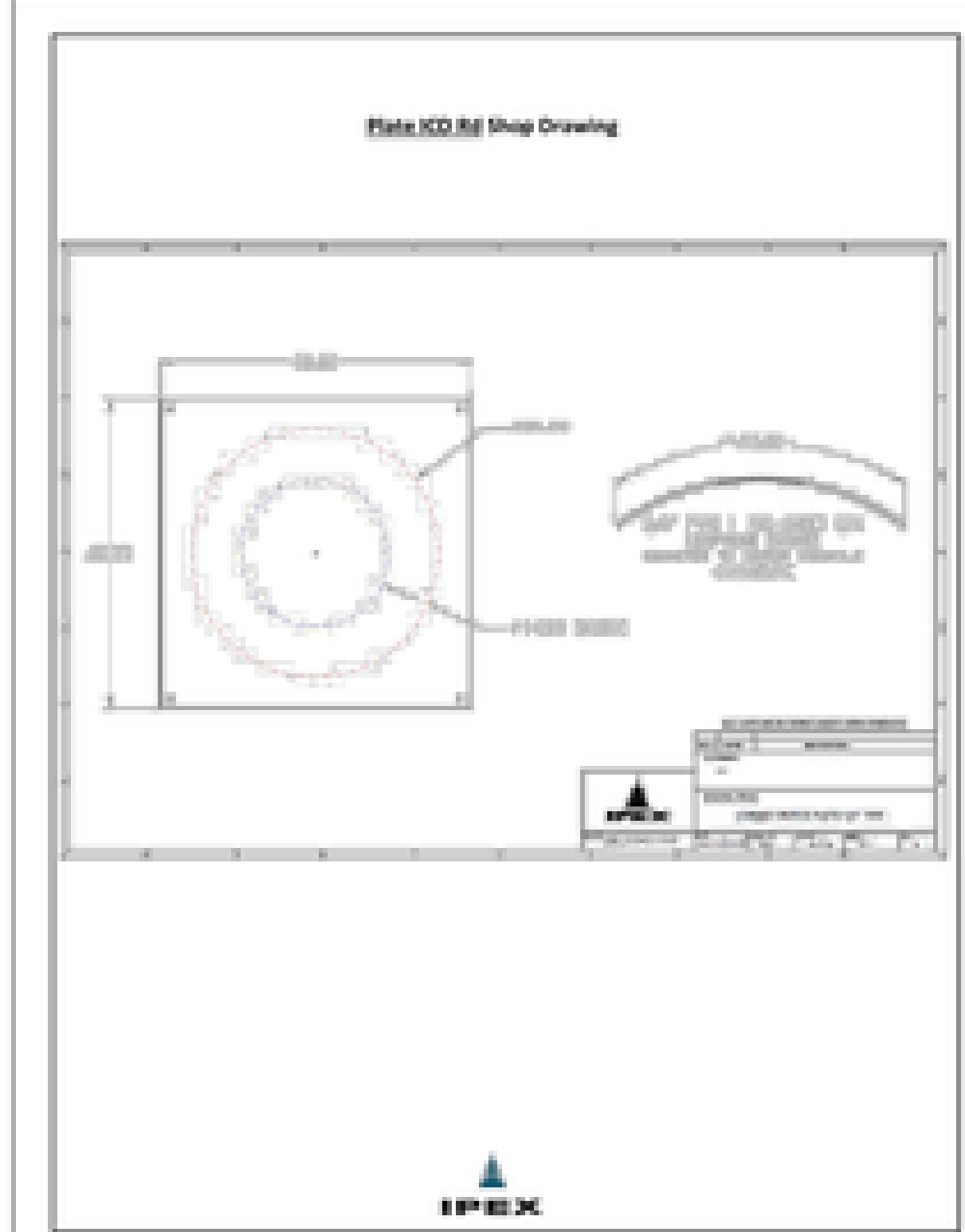
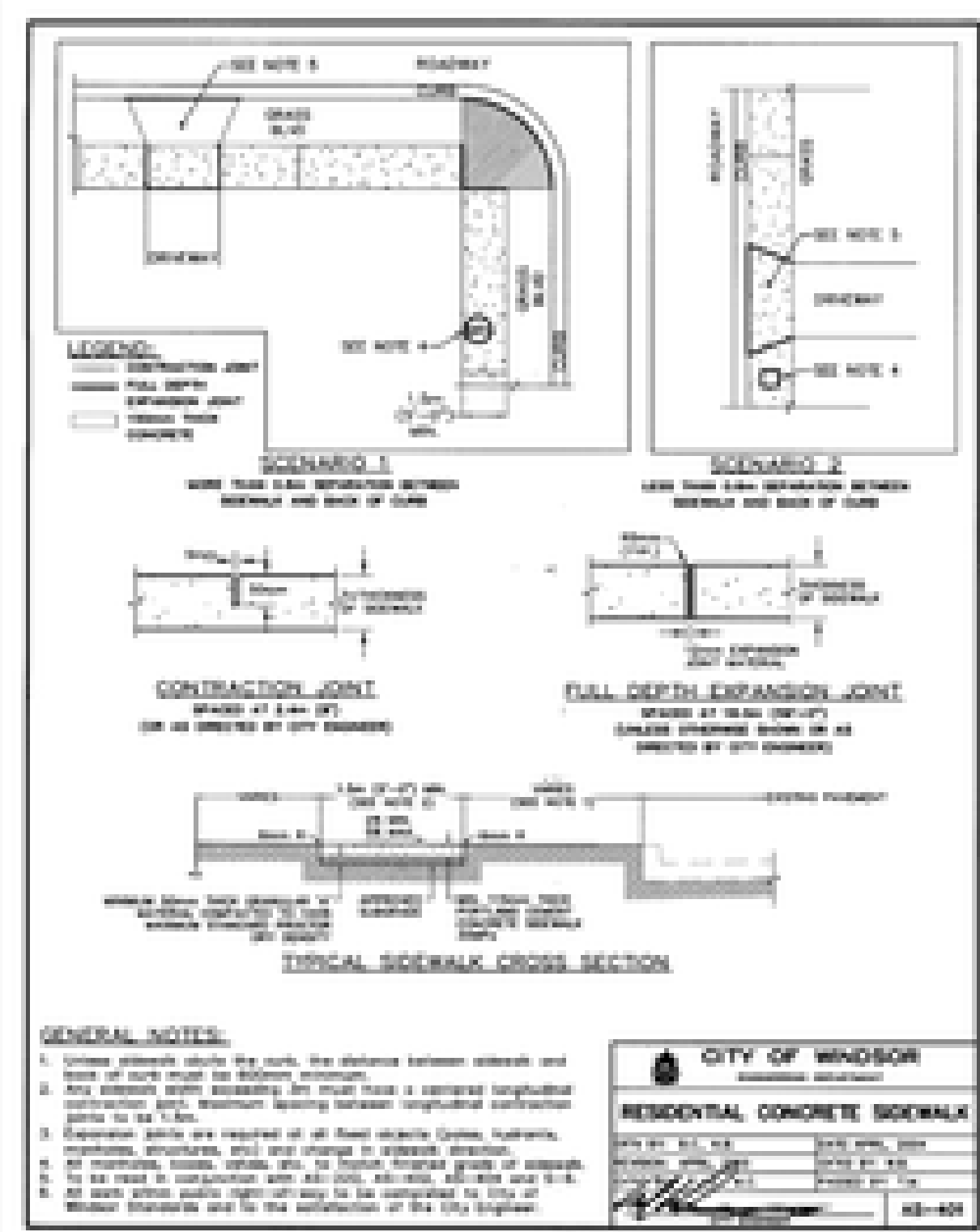
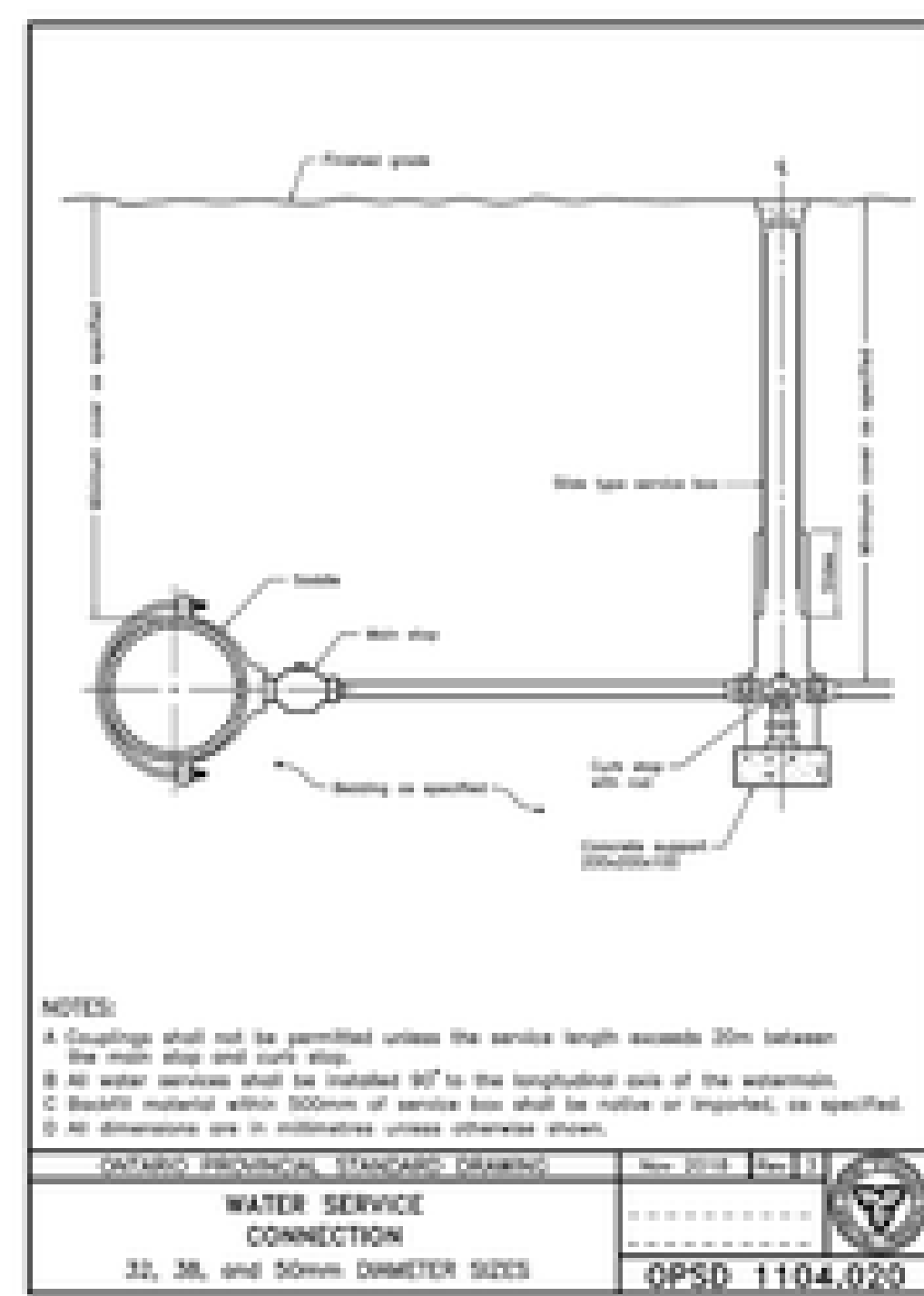
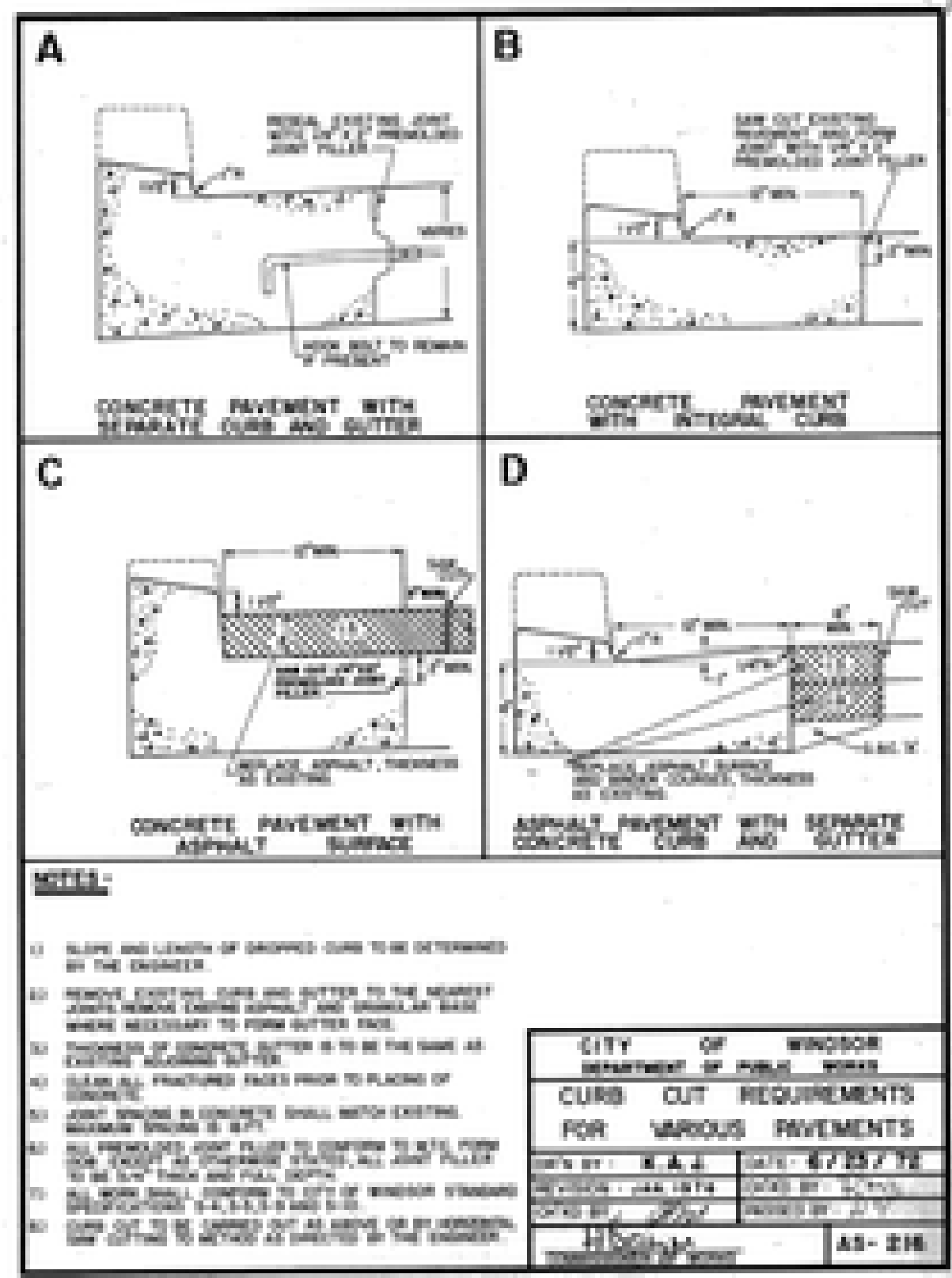
DATE: MAY 27, 2022
 SCALE: 1:500
 DRAWN BY: B.T.
 CHECKED BY: S.T.

DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVALS
06/09/2021	REVISED AS PER ENR/C COMMENTS
05/04/2022	REVISED AS PER ENR/C COMMENTS
05/05/2022	REVISED AS PER CITY COMMENTS



PROJECT TITLE: NORTH TALBOT DEVELOPMENT
 1095 NORTH TALBOT ROAD, WINDSOR
 SHEET TITLE: SANITARY DRAINAGE AREA PLAN

DATE: MAY 27, 2022
 SCALE: 1:500
 DRAWN BY: B.T.
 CHECKED BY: S.T.
 PROJECT NO: 21-021
 SHEET NO: 10



DATE: MAY 27, 2022

SCALE: N.T.S.

DRAWN BY: B.T.

CHECKED BY: S.T.

DATE	REVISIONS
05/14/2021	SUBMITTED FOR APPROVALS
06/09/2021	REVISED AS PER ENR COMMENTS
2024/02/02	REVISED AS PER ENR COMMENTS
01/09/2022	REVISED AS PER CITY COMMENTS



PROJECT TITLE:
NORTH TALBOT DEVELOPMENT

1095 NORTH TALBOT ROAD, WINDSOR

SHEET TITLE:
DETAILS 2

DATE: MAY 27, 2022

SCALE: N.T.S.

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