



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SML	DATE	12/4/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 201.07000004

DESCRIPTION: CLEARING AND GRUBBING

QUANTITY: 739 SY

Subtotal

Location MP 353.63:

Outlet: 30 SY (Assumed)

30.0

Location MP 355.20:

Outlet: 30 SY (Assumed)

30.0

Location MP 357.67:

Inlet: 30 SY (Assumed)

30.0

Outlet: 30 SY (Assumed)

30.0

Location MP 367.17:

Outlet: 30 SY (Assumed)

30.0

Haul Road 203.61000125:

Assumed Length: 140 FT

Assumed Width: 20 FT

Total: 311 SY

311.1

Haul Road 203.61000225:

Assumed Length: 125 FT

Assumed Width: 20 FT

Total: 278 SY

277.8

[Summary](#)

Total = 738.9
Total = 739



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 3
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	UNCLASSIFIED EXCAVATION AND DISPOSAL	ITEM NO.	203.02
		QUANTITY	118 CY

DWG. WZTC-11 (Fishers Road)

Reconstruction areas = Southern area 21.5' (+/-) W x 41' L = 880 SF
Northern area 21.5' (+/-) W x 41' L = 885 SF
= 1,765 SF
1,765 SF x 1.8 FT depth / 27 SF/CF = 118 CY

Total = 118 CY

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 05/01/2026 By JEA Check 06/05/2026 By AVL
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 3 of 3

Item 203.02

UNCLASSIFIED EXCAVATION AND DISPOSAL

Unit: **CY**

Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Depth (in)	PAYMENT (CY)	NOTE
M-1	GNP-16	EB	LT	375.0	140	4	15	25.9	Concrete Median Barrier
WL-2	GNP-16	WB	LT	375.0	130	4	15	24.1	Concrete Median Barrier
M-2	GNP-20	EB	LT	374.1	150	4	15	27.8	Concrete Median Barrier
WL-3	GNP-20	WB	LT	374.1	140	4	15	25.9	Concrete Median Barrier
EL-2	GNP-28	EB	LT	372.4	140	4	15	25.9	Concrete Median Barrier
WL-4	GNP-28/29	EB	LT	372.4	140	4	15	25.9	Concrete Median Barrier
ER-9	GNP-36	EB	RT	370.8	100	4	15	18.5	Half Section Pier Protection
M-3	GNP-36	EB	LT	370.8	120	4	15	22.2	Concrete Median Barrier
WL-6	GNP-36	WB	LT	370.8	110	4	15	20.4	Concrete Median Barrier
ER-17A	GNP-65	EB	RT	364.8	90	4	15	16.7	Half Section Pier Protection
EL-5	GNP-65	EB	LT	364.8	130	4	15	24.1	Concrete Median Barrier
WL-14	GNP-65	WB	LT	364.8	130	4	15	24.1	Concrete Median Barrier
WR-16A	GNP-65	WB	RT	364.8	70	4	15	13.0	Half Section Pier Protection
EL-6	GNP-75	EB	LT	362.7	160	4	15	29.6	Concrete Median Barrier
M-7a	GNP-75	WB	LT	362.7	200	4	15	37.0	Concrete Median Barrier
M-7b	GNP-76	EB	LT	362.4	150	4	15	27.8	Concrete Median Barrier
M-8a	GNP-76/77	WB	LT	362.4	150	4	15	27.8	Concrete Median Barrier
M-8b	GNP-77	EB	LT	362.3	290	4	15	53.7	Concrete Median Barrier
M-9a	GNP-77	WB	LT	362.3	290	4	15	53.7	Concrete Median Barrier
ER-21	GNP-78	EB	RT	362.1	70	4	15	13.0	Half Section Pier Protection
M-9b	GNP-78	EB	LT	362.1	120	4	15	22.2	Concrete Median Barrier
WL-15	GNP-78	WB	LT	362.1	140	4	15	25.9	Concrete Median Barrier
WR-19A	GNP-78	WB	RT	362.1	60	4	15	11.1	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	4	15	13.0	Half Section Pier Protection
EL-8	GNP-89	EB	LT	359.8	120	4	15	22.2	Concrete Median Barrier
WL-18	GNP-89	WB	LT	359.8	120	4	15	22.2	Concrete Median Barrier
WR-21A	GNP-89	WB	RT	359.8	70	4	15	13.0	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	4	15	13.0	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	4	15	13.0	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	4	15	11.1	Half Section Pier Protection
EL-12	GNP-124	EB	LT	352.3	130	4	15	24.1	Concrete Median Barrier
M-12	GNP-124	WB	LT	352.3	130	4	15	24.1	Concrete Median Barrier
WR-33A	GNP-124	WB	RT	352.3	80	4	15	14.8	Half Section Pier Protection
SubTotal:								766.7	CY

ITEM NO. 203.03

DESCRIPTION: EMBANKMENT IN PLACE

QUANTITY: 119 CY

Subtotal

Volume for CMP calculated by finding the cross-sectional area between 4" below finished grade (accomodating for topsoil) to the top of select granular fill (12" above top of pipe), multiplied by trench width for pipe excavation and anchor excavation.

Location MP 355.20 Outlet:

Trench width 1 = 9.5 LF
Area above pipe = 144.7 SF
Volume 1 = 1374.7 CF

Trench width 2 = 13.083 LF
Area above anchor = 45 SF
Volume 2 = 588.74 CF

Total Volume = 1963.4 CF
72.718 CY

72.7

Location MP 367.17 Inlet:

Trench width = 11.5 LF
Area above pipe = 4.5 SF
Volume = 51.75 CF

Total Volume = 1.9167 CY

1.9

Page Total = 74.6
Sub-Total = 74.6

ITEM NO. 203.03

Volume for RCP locations calculated by measuring area of fill around the pipe after select granular fill along the length of the pipe, plus the cross-sectional area between 4" below finished grade (accomodating for topsoil, multiplied by trench width for pipe excavation. Volume for the anchor determined by measuring area of fill on the sides of the anchor after select granular fill along the length of the anchor, plus the cross-sectional area between 4" below finished grade multiplied by trench width for anchor excavation.

Location MP 358.57 EB Inlet:

Area around pipe (pipe excavation) = 10.22 SF
 Area around pipe (anchor excavation) = 17.96 SF
 Area around anchor (anchor excavation) = 11.62 SF

Pipe Length (pipe excavation) = 8.5 LF
 Pipe Length (anchor excavation) = 4 LF
 Anchor Length (anchor excavation) = 3 LF

Pipe Volume (pipe excavation) = 86.87 CF
 Pipe Volume (anchor excavation) = 71.84 CF
 Anchor Volume (anchor excavation) = 34.86 CF

Trench width 1 = 8.83 LF
 Trench width 2 = 12.83 LF

Area above pipe (pipe excavation) = 2.01 SF
 Area above pipe (pipe at anchor excavation) = 1.90 SF
 Area above anchor (anchor+pipe) = 4.60 SF

Pipe Volume (pipe excavation) = 17.784 CF
 Pipe Volume (pipe at anchor excavation) = 24.313 CF
 Anchor + Pipe Volume = 58.967 CF

Total Volume = 294.63 CF
 10.91 CY

10.9

Page Total = 10.9
 Sub-Total = 85.5

ITEM NO. 203.03

Location MP 358.57 EB Outlet:

Area around pipe (pipe excavation) = 10.22 SF
 Area around pipe (anchor excavation) = 17.96 SF
 Area around anchor (anchor excavation) = 11.62 SF

Pipe Length (pipe excavation) = 7 LF
 Pipe Length (anchor excavation) = 4 LF
 Anchor Length (anchor excavation) = 3 LF

Pipe Volume (pipe excavation) = 71.54 CF
 Pipe Volume (anchor excavation) = 71.84 CF
 Anchor Volume (anchor excavation) = 34.86 CF

Trench width 1 = 8.83 LF
 Trench width 2 = 12.83 LF

Area above pipe (pipe excavation) = 1.02 SF
 Area above pipe (pipe at anchor excavation) = 1.64 SF
 Area above anchor (anchor+pipe) = 3.02 SF

Pipe Volume (pipe excavation) = 8.9625 CF
 Pipe Volume (pipe at anchor excavation) = 21.041 CF
 Anchor + Pipe Volume = 38.734 CF

Total Volume = 246.98 CF
 9.1473 CY

9.1

Page-Total = 9.1
 Sub-Total = 94.7

ITEM NO. 203.03

Location MP 358.57 WB Inlet:

Area around pipe (pipe excavation) = 10.22 SF
 Area around pipe (anchor excavation) = 17.96 SF
 Area around anchor (anchor excavation) = 11.62 SF

Pipe Length (pipe excavation) = 7 LF
 Pipe Length (anchor excavation) = 4 LF
 Anchor Length (anchor excavation) = 3 LF

Pipe Volume (pipe excavation) = 71.54 CF
 Pipe Volume (anchor excavation) = 71.84 CF
 Anchor Volume (anchor excavation) = 34.86 CF

Trench width 1 = 8.83 LF
 Trench width 2 = 12.83 LF

Area above pipe (pipe excavation) = 1.02 SF
 Area above pipe (pipe at anchor excavation) = 1.61 SF
 Area above anchor (anchor+pipe) = 3.91 SF

Pipe Volume (pipe excavation) = 8.9801 CF
 Pipe Volume (pipe at anchor excavation) = 20.669 CF
 Anchor + Pipe Volume = 50.101 CF

Total Volume = 257.99 CF
 9.5552 CY

9.6

Location MP 358.57 WB Outlet:

Area around pipe (pipe excavation) = 10.22 SF
 Area around pipe (anchor excavation) = 17.96 SF
 Area around anchor (anchor excavation) = 11.62 SF

Pipe Length (pipe excavation) = 18.5 LF
 Pipe Length (anchor excavation) = 4 LF
 Anchor Length (anchor excavation) = 3 LF

Pipe Volume (pipe excavation) = 189.07 CF
 Pipe Volume (anchor excavation) = 71.84 CF
 Anchor Volume (anchor excavation) = 34.86 CF

Page-Total = 9.6
 Sub-Total = 104.2

ITEM NO. 203.03

Location MP 358.57 WB Outlet (continued):

Trench width 1 = 8.83 LF

Trench width 2 = 12.83 LF

Area above pipe (pipe excavation) = 5.35 SF

Area above pipe (pipe at anchor excavation) = 1.87 SF

Area above anchor (anchor+pipe) = 2.53 SF

Pipe Volume (pipe excavation) = 47.214 CF

Pipe Volume (pipe at anchor excavation) = 24.043 CF

Anchor + Pipe Volume = 32.511 CF

Total Volume = 399.54 CF

14.798 CY

14.8

[Summary](#)

Page Total = 14.8

Sub-Total = 119.05

Total = 119



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JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	6
CALCULATED BY	EJB	DATE	10/6/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 203.07

DESCRIPTION: SELECT GRANULAR FILL

QUANTITY: 297 CY

Subtotal

Select granular fill volume calculated for CMP replacement by determining the area around the pipe to be filled and subtracting the area of the pipe, then multiplying it by the length of the pipe. Additional fill width is included in the widened area for the anchor and the pipe in the area of excavation around the anchor.

Location MP 355.20 Outlet:

Pipe Inner Dia. =	60	in, or	5.0	LF
Total Pipe Dia. =	5.08		LF	
Fill depth =	7.08		LF (+12" Above and below pipe)	
Fill width =	9.08		LF (+24" on both sides of pipe)	
Fill area =	64.34		SF	

Pipe area = 20.295 SF

Total Area = 44.046 SF (Fill area - Pipe area)

Pipe Length (before anchor) = 56.5 LF

Pipe Fill Volume = 2488.6 CF

Anchor Excavation Length = 13.08 LF

Anchor Excavation Width = 7 LF

Anchor Excavation Depth = 8.25 LF

Anchor Excavation Volume = 755 CF (X)

Anchor Length = 7 LF

Anchor Width = 3 LF

Anchor Depth = 8.25 LF

Anchor Volume = 173 CF (Y)

Pipe length in anchor excavation = 4.00 LF

Pipe volume in anchor excavation = 81.18 CF (Z)

Anchor fill volume = 500.94 CF (=X-Y-Z)

Total Volume = 2989.53 CF

110.72 CY

110.7

Page Total = 110.7

Sub-Total = 110.7

ITEM NO. 203.07

DESCRIPTION: SELECT GRANULAR FILL

				Subtotal
<u>Location MP 367.17 Inlet:</u>				
Pipe Inner Dia. =	36 in, or	3.0	LF	
Total Pipe Dia. =		3.08	LF	
Fill depth =		5.08	LF (+12" Above and below pipe)	
Fill width =		11.50	LF	
Fill area =		58.5	SF	
Pipe area (Twin Pipes) =		14.93	SF	
Total Area =		43.53	SF (Fill area - Pipe area)	
Length of Fill =		15.33	LF	
Fill Volume =		667.2	CF	
Fill Volume =		24.7	CY	24.7
<u>Location MP 367.17 Outlet:</u>				
Pipe Inner Dia. =	36 in, or	3.0	LF	
Total Pipe Dia. =		3.08	LF	
Fill depth =		5.08	LF (+12" Above and below pipe)	
Fill width =		12.50	LF	
Fill area =		63.5	SF	
Pipe area (Twin Pipes) =		14.93	SF	
Total Area =		48.61	SF (Fill area - Pipe area)	
Length of Fill =		10.08	LF	
Fill Volume =		490.1	CF	
Fill Volume =		18.2	CY	18.2
Page Total =				42.9
Sub-Total =				153.6

ITEM NO. 203.07

Select granular fill volume calculated for RCP replacement by determining the depth of fill around the pipe (0.6Bc per NYSDOT standards) plus additional depth and multiplying by the width of the trench (provided as an area in calculations), plus additional area of fill around the anchor and around the pipe in areas of excavation around the anchor. These are then multiplied by the length of anchor or pipe per that width of excavation.

Location MP 358.57 EB Inlet:

Area around pipe (pipe excavation) =	19.29	SF (8.3LF width)
Area around pipe (anchor excavation) =	46.19	SF (12.83LF width)
Area around anchor (anchor excavation) =	27	SF (12.83LF width)
Pipe Length (pipe excavation) =	8.5	LF
Pipe Length (anchor excavation) =	4	LF (2 before + 2 after anchor)
Anchor length (anchor excavation) =	3	LF
Pipe fill volume (pipe excavation) =	163.97	CF
Pipe fill volume (anchor excavation) =	184.76	CF
Anchor fill volume (anchor excavation) =	81	CF
Total Volume =	429.73	CF
	15.916	CY

15.9

Location MP 358.57 EB Outlet:

Area around pipe (pipe excavation) =	19.29	SF (8.3LF width)
Area around pipe (anchor excavation) =	46.19	SF (12.83LF width)
Area around anchor (anchor excavation) =	27	SF (12.83LF width)
Pipe Length (pipe excavation) =	7	LF
Pipe Length (anchor excavation) =	4	LF (2 before + 2 after anchor)
Anchor length (anchor excavation) =	3	LF
Pipe fill volume (pipe excavation) =	135.03	CF
Pipe fill volume (anchor excavation) =	184.76	CF
Anchor fill volume (anchor excavation) =	81	CF
Total Volume =	400.79	CF
	14.844	CY

14.8

Page Total =	30.8
Sub-Total =	184.3

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Location MP 358.57 WB Inlet:

Area around pipe (pipe excavation) = 19.29 SF (8.3LF width)
 Area around pipe (anchor excavation) = 46.19 SF (12.83LF width)
 Area around anchor (anchor excavation) = 27 SF (12.83LF width)

Pipe Length (pipe excavation) = 7 LF
 Pipe Length (anchor excavation) = 4 LF (2 before + 2 after anchor)
 Anchor length (anchor excavation) = 3 LF

Pipe fill volume (pipe excavation) = 135.03 CF
 Pipe fill volume (anchor excavation) = 184.76 CF
 Anchor fill volume (anchor excavation) = 81 CF

Subtotal Volume = 400.79 CF
 14.844 CY

14.8

Location MP 358.57 WB Outlet:

Area around pipe (pipe excavation) = 19.29 SF (8.3LF width)
 Area around pipe (anchor excavation) = 46.19 SF (12.83LF width)
 Area around anchor (anchor excavation) = 27 SF (12.83LF width)

Pipe Length (pipe excavation) = 18.5 LF
 Pipe Length (anchor excavation) = 4 LF (2 before + 2 after anchor)
 Anchor length (anchor excavation) = 3 LF

Pipe fill volume (pipe excavation) = 356.87 CF
 Pipe fill volume (anchor excavation) = 184.76 CF
 Anchor fill volume (anchor excavation) = 81 CF

Subtotal Volume = 622.63 CF
 23.06 CY

23.1

Page Total = 37.9
 Sub-Total = 222.3

ITEM NO. 203.07

Location MP 354.10 Repair Field Inlet

Length	4.60	FT	3.6'+ 2-6" walls
Width	2.00	FT	
Depth	2.70	FT	
Total Volume	24.84	CF	
Total Volume	0.92	CY	

0.9

Location MP 357.67:

Assumed equal to Item 206.01 - Structure Excavation

Volume = 34.25 FT

34.25

Location MP 358.13

New Type A DI With No. 3 Frame and Grate - WB Right Shoulder

Excavation size	8' x 8'	64	SF
Structure size out to out	4' x 4'	16	SF
Total area		48	SF
Total depth	3.27	Ft	2.6"+8"/12
Total Volume	156.96	CF	
Total Volume	5.81	CY	

5.8

New Type A DI With No. 3 Frame and Grate - Median

Excavation size	8' x 8'	64	SF
Structure size out to out	4' x 4'	16	SF
Total area		48	SF
Total depth	4.21	Ft	3.54"+8"/12
Total Volume	202.08	CF	
Total Volume	7.48	CY	

7.5

New 24" Pipe

Width Bc+2D 23"	6.50	Ft	(24" pipe+3"+3")+(2*2)
Length	6.00	CF	
Depth	1.40	CY	.6BC+3" or (1.5+(5"/12)*(.6)+3"/12 bed
Total Volume	54.60	CF	
Total Volume	2.02	CY	

2.0

Page Total = 50.5

Sub-Total = 273

ITEM NO. 203.07

Location MP 362.08

18" RCP

Trench width =	4.92	FT	BC+2D or 18" or $(1.5+2(2.5"/12)) + 2*1.5$
Trench Depth =	1.4	SF	.6BC+3" or $(1.5+(2(2.5"/12)*(.6)+3"/12)$ bed
Pipe Area =	1.77	SF	
Select Fill Area =	5.12		
Trench length =	30	LF	
Total volume =	5.69	CY	

5.69

FI West 54' west pf the cl of the uturn area with frame and grate #3

FI Size=	18.778	SF	4.33' x 4.33'
FI Opening =	69.444	SF	8.33' x 8.33'
Excavation Area =	50.667	SF	
Depth =	3.7	LF	
Total volume =	6.9432	CY	

6.9

FI East 24' west of the cl of the uturn area with Frame and Cover MH)

FI Size=	18.778	SF	4.33' x 4.33'
FI Opening =	69.444	SF	8.33' x 8.33'
Excavation Area =	50.667	SF	
Depth =	5.97	LF	
Total volume =	11.20	CY	

11.20

[Summary](#)

Page Total =	23.8
Sub-Total =	296.6
Total =	297

ITEM 203.21 - SELECT STRUCTURAL FILL

QUANTITY: 985 CY

• QUANTITY NOTES

The vertical pay limits for the wingwall select structural fill are from the top of footing to the bottom of topsoil on the slope. The horizontal pay limit is the area between the existing and proposed wingwalls at all four corners.

• QUANTITY CALCULATIONS

Wingwalls

$$H_{MAX} := 21.5 \text{ ft}$$

$$H_{MIN} := 9.75 \text{ ft}$$

$$H_{avg} := \frac{H_{MAX} + H_{MIN}}{2} = 15.63 \text{ ft}$$

$$A := 370 \text{ ft}^2$$

$$V := H_{avg} \cdot A = 214.12 \text{ yd}^3$$

$$A_{backfill} := 424 \text{ ft}^2$$

soil to be replaced under wingwall footings

$$t_{backfill} := 2 \text{ ft}$$

$$V_{backfill} := A_{backfill} \cdot t_{backfill} = 31.41 \text{ yd}^3$$

$$V_{Total} := \text{Ceil}(4 \cdot V + 4 \cdot V_{backfill}, 5 \text{ yd}^3) = 985.00 \text{ yd}^3$$

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R		Date 05/01/2026 By JEA Check 06/05/2026 By AVL
	BUFFALO DIVISION		Sheet 1 Of 1
	Stantec Project # 192810522		

Item 203.24000025

SHOULDER BACKUP MATERIAL

Unit: TON

Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Depth (in)	Volume (CF)	Pay Factor (Ton/CF)	PAYMENT (TON)	NOTE
M-1	GNP-16	EB	LT	375.0	140	1	4	46.7	0.05	2.3	Concrete Median Barrier
					140	1	4	46.7	0.05	2.3	Concrete Median Barrier
WL-2	GNP-16	WB	LT	375.0	130	1	4	43.3	0.05	2.2	Concrete Median Barrier
					130	1	4	43.3	0.05	2.2	Concrete Median Barrier
M-2	GNP-20	EB	LT	374.1	150	1	4	50.0	0.05	2.5	Concrete Median Barrier
					150	1	4	50.0	0.05	2.5	Concrete Median Barrier
WL-3	GNP-20	WB	LT	374.1	140	1	4	46.7	0.05	2.3	Concrete Median Barrier
					140	1	4	46.7	0.05	2.3	Concrete Median Barrier
EL-2	GNP-28	EB	LT	372.4	140	1	4	46.7	0.05	2.3	Concrete Median Barrier
					140	1	4	46.7	0.05	2.3	Concrete Median Barrier
WL-4	GNP-28/29	EB	LT	372.4	140	1	4	46.7	0.05	2.3	Concrete Median Barrier
					140	1	4	46.7	0.05	2.3	Concrete Median Barrier
ER-9	GNP-36	EB	RT	370.8	100	0.67	4	22.3	0.05	1.1	Half Section Pier Protection
M-3	GNP-36	EB	LT	370.8	120	1	4	40.0	0.05	2.0	Concrete Median Barrier
					120	1	4	40.0	0.05	2.0	Concrete Median Barrier
WL-6	GNP-36	WB	LT	370.8	110	1	4	36.7	0.05	1.8	Concrete Median Barrier
					110	1	4	36.7	0.05	1.8	Concrete Median Barrier
ER-17A	GNP-65	EB	RT	364.8	90	0.67	4	20.1	0.05	1.0	Half Section Pier Protection
EL-5	GNP-65	EB	LT	364.8	130	1	4	43.3	0.05	2.2	Concrete Median Barrier
					130	1	4	43.3	0.05	2.2	Concrete Median Barrier
WL-14	GNP-65	WB	LT	364.8	130	1	4	43.3	0.05	2.2	Concrete Median Barrier
					130	1	4	43.3	0.05	2.2	Concrete Median Barrier
WR-16A	GNP-65	WB	RT	364.8	70	0.67	4	15.6	0.05	0.8	Half Section Pier Protection
EL-6	GNP-75	EB	LT	362.7	160	1	4	53.3	0.05	2.7	Concrete Median Barrier
					160	1	4	53.3	0.05	2.7	Concrete Median Barrier
M-7a	GNP-75	WB	LT	362.7	200	1	4	66.7	0.05	3.3	Concrete Median Barrier
					200	1	4	66.7	0.05	3.3	Concrete Median Barrier
M-7b	GNP-76	EB	LT	362.4	150	1	4	50.0	0.05	2.5	Concrete Median Barrier
					150	1	4	50.0	0.05	2.5	Concrete Median Barrier
M-8a	GNP-76/77	WB	LT	362.4	150	1	4	50.0	0.05	2.5	Concrete Median Barrier
					150	1	4	50.0	0.05	2.5	Concrete Median Barrier
M-8b	GNP-77	EB	LT	362.3	290	1	4	96.7	0.05	4.8	Concrete Median Barrier
					290	1	4	96.7	0.05	4.8	Concrete Median Barrier
M-9a	GNP-77	WB	LT	362.3	290	1	4	96.7	0.05	4.8	Concrete Median Barrier
					290	1	4	96.7	0.05	4.8	Concrete Median Barrier
ER-21	GNP-78	EB	RT	362.1	70	0.67	4	15.6	0.05	0.8	Half Section Pier Protection
M-9b	GNP-78	EB	LT	362.1	120	1	4	40.0	0.05	2.0	Concrete Median Barrier
					120	1	4	40.0	0.05	2.0	Concrete Median Barrier
WL-15	GNP-78	WB	LT	362.1	140	1	4	46.7	0.05	2.3	Concrete Median Barrier
					140	1	4	46.7	0.05	2.3	Concrete Median Barrier
WR-19A	GNP-78	WB	RT	362.1	60	0.67	4	13.4	0.05	0.7	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	0.67	4	15.6	0.05	0.8	Half Section Pier Protection
EL-8	GNP-89	EB	LT	359.8	120	1	4	40.0	0.05	2.0	Concrete Median Barrier
					120	1	4	40.0	0.05	2.0	Concrete Median Barrier
WL-18	GNP-89	WB	LT	359.8	120	1	4	40.0	0.05	2.0	Concrete Median Barrier
					120	1	4	40.0	0.05	2.0	Concrete Median Barrier
WR-21A	GNP-89	WB	RT	359.8	70	0.67	4	15.6	0.05	0.8	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	0.67	4	15.6	0.05	0.8	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	0.67	4	15.6	0.05	0.8	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	0.67	4	13.4	0.05	0.7	Half Section Pier Protection
EL-12	GNP-124	EB	LT	352.3	130	1	4	43.3	0.05	2.2	Concrete Median Barrier
					130	1	4	43.3	0.05	2.2	Concrete Median Barrier
M-12	GNP-124	WB	LT	352.3	130	1	4	43.3	0.05	2.2	Concrete Median Barrier
					130	1	4	43.3	0.05	2.2	Concrete Median Barrier
WR-33A	GNP-124	WB	RT	352.3	80	0.67	4	17.9	0.05	0.9	Half Section Pier Protection

SubTotal: 120.0 TON



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SML	DATE	10/6/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 203.61000125

DESCRIPTION: TEMPORARY HAUL ROAD(S)

QUANTITY: 1 LS

Subtotal

Temporary Haul Road is a Lump Sum Item.

Lump Sum: 1.0 LS

1.0

This temporary haul road is located at MP 367.17 along I-90 EB.

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SML	DATE	10/6/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 203.61000225

DESCRIPTION: TEMPORARY HAUL ROAD(S)

QUANTITY: 1 LS

Subtotal

Temporary Haul Road is a Lump Sum Item.

Lump Sum: 1.0 LS

1.0

This temporary haul road is located at MP 357.67 along I-90 EB.

[Summary](#)

Total =	1.0
Total =	1

ITEM 206.01 - STRUCTURE EXCAVATION

QUANTITY: 1660 CY

- **QUANTITY NOTES**

Structural excavation will primarily be from existing ground to bottom of proposed footing.

- **QUANTITY CALCULATIONS**

Wingwalls

$$A_{Excavation} := 1400 \text{ ft}^2$$

$$D_{avg} := 8 \text{ ft}$$

$$V := A_{Excavation} \cdot D_{avg} = 414.81 \text{ yd}^3$$

$$V_{Total} := \text{Ceil}(4 \cdot V, 5 \text{ yd}^3) = 1660.00 \text{ yd}^3$$



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SM	DATE	10/7/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 206.01

DESCRIPTION: STRUCTURE EXCAVATION

QUANTITY: 34 CY

Subtotal

Location MP 357.67:

Average Height of Excavation = 4 FT
Slope of WW = 0.33 FT/FT
Slope of Excavation = 1.5 FT/FT

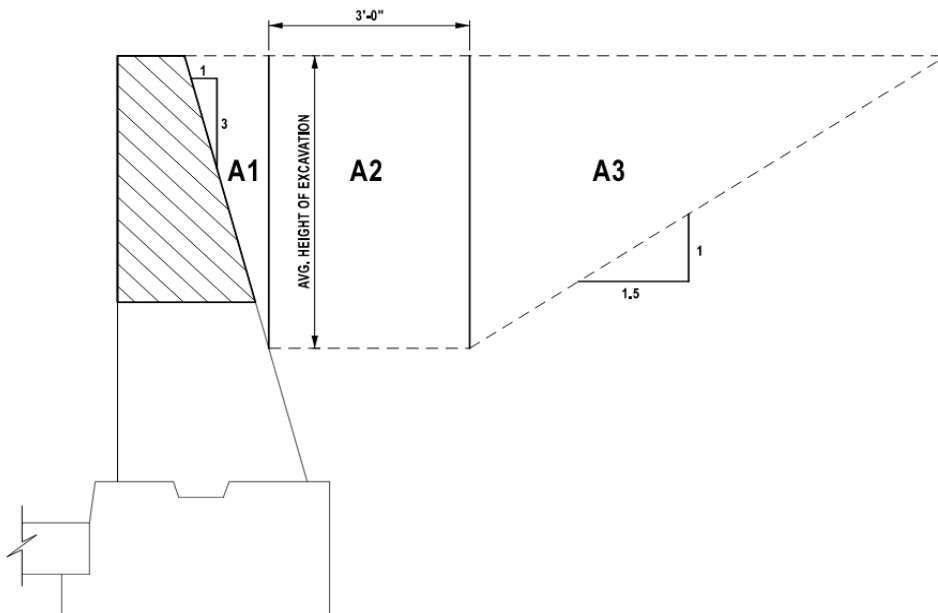
Max. Width of A1 = 1.33 FT
Width of A2 = 3.00 FT
Width of A3 = 6.00 FT

Area of A1 = 2.67 SF
Area of A2 = 12.00 SF
Area of A3 = 12.00 SF

Total Area = 26.67 SF
Avg. Length of WW = 8.67 LF
Number of WW = 4.00 EA

Total Excavation = 924.8 CF
Total Excavation = 34.25 CY

34.3



Total = 34.3
Total = 34

[Summary](#)



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	EJB	DATE	10/6/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 206.0201

DESCRIPTION: TRENCH AND CULVERT EXCAVATION

QUANTITY: 559 CY

Subtotal

Excavation quantity determined through measuring cross-sectional area of each culvert replacement location, separated by width of the trench at that area. Cross-sectional area determined as the area between existing grade and bottom of excavation, including cut-off wall and ending 2LF beyond the limits of the anchor unit.

Location MP 355.20 Outlet:

Trench width 1 = 9.5 LF
Trench width 2 = 13.08 LF

Trench area 1 = 623.11 SF
Trench area 2 = 103.55 SF

Trench volume 1 = 5919.5 CF
Trench volume 2 = 1354.4 CF
Total volume = 7274 CF
269.41 CY

269.4

Location MP 358.57 EB Inlet:

Trench width 1 = 8.83 LF
Trench width 2 = 12.83 LF

Trench area 1 = 48.03 SF
Trench area 2 = 56.66 SF

Trench volume 1 = 424.1 CF
Trench volume 2 = 726.95 CF
Total volume = 1151.1 CF
42.632 CY

42.6

[Summary](#)

Page Total = 312.0
Sub-Total = 312.0

ITEM NO. 206.0201

Location MP 358.57 EB Outlet:

Trench width 1 = 8.83 LF
Trench width 2 = 12.83 LF

Trench area 1 = 45.39 SF
Trench area 2 = 51.87 SF

Trench volume 1 = 400.79 CF
Trench volume 2 = 665.49 CF
Total volume = 1066.3 CF
39.492 CY

39.5

Location MP 358.57 WB Inlet:

Trench width 1 = 8.83 LF
Trench width 2 = 12.83 LF

Trench area 1 = 71.64 SF
Trench area 2 = 56.49 SF

Trench volume 1 = 632.58 CF
Trench volume 2 = 724.77 CT
Total volume = 1357.3 CF
50.272 CY

50.3

Location MP 358.57 WB Outlet:

Trench width 1 = 8.83 LF
Trench width 2 = 12.83 LF

Trench area 1 = 94.12 SF
Trench area 2 = 45.18 SF

Trench volume 1 = 831.08 CF
Trench volume 2 = 579.66 CT
Total volume = 1410.7 CF
52.25 CY

52.2

Location MP 354.10

Repair Field Inlet

Est. by HRR

Length 4.60 FT 3.6'+ 2-6" walls
Width 2.00 FT
Depth 2.70 FT
Total Volume 24.84 CF
Total Volume 0.92 CY

0.9

Page Total = 142.9
Sub-Total = 454.972
Total = 455

ITEM NO. 206.0201

Location MP 358.13

Note: Remove existing structures under Item 603.97010025 which includes excavation and preparation for new structure. No T&C Excavation

New 24" Pipe

Width Bc+2D	6.50	Ft	(24" pipe+3"+3")+(2*2)	
Length	6.00	CF		
Depth	2.50	CY		
Total Volume	97.50	CF		
Total Volume	3.61	CY		3.6

Location MP 362.08

New 18" RCP

Trench width =	4.92	FT	(18" pipe+2.5"+2.5")+(2*1.5)	
Trench Depth =	5.82	SF	5.97+5.67/2=82	
Trench length =	30	LF		
Total volume =	859.03	CF		
Total volume =	31.82	CY		31.8

FI West 54' west pf the cl of the urn area with frame and grate #3

FI Size=	18.778	SF	4.33' x 4.33'	
FI Opening =	69.444	SF	8.33' x 8.33'	
Excavation Area =	69.444	SF		
Depth =	6.34	LF	(536.52-532.85)+8"/12 footer+2' overburden	
Total volume =	440.28	CY		
Total volume =	16.31			16.3

FI East 24' west of the cl of the urn area with Frame and Cover MH)

Note: Remove existing buried structure under Item 603.97010025 which includes excavation and preparation for new structure. No T&C Excavation

Location MP 367.17:

Avg. Trench width Inlet =	16.5	LF		
Trench area Inlet =	61	SF		
Trench width Outlet =	12.5	LF		
Trench area Outlet =	32.5	SF		
Total volume =	52.324	CY		52.3

Summary

Page Total = 104.1
Sub-Total = 559.058
Total = 559



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/29/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION **TEST PIT EXCAVATION**

ITEM NO. **206.05**

QUANTITY **5 EA**

Total = 5 EA

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>SM</u>	DATE	<u>12/8/2025</u>
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CHECKED BY SML DATE 12/8/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 206.05

DESCRIPTION: TEST PIT EXCAVATION

QUANTITY: 1 EACH

Subtotal

Use test pit to locate existing buried drainage structure

1.0

Location MP 362.08

FI East 24' west of the cl of the uturn area

Total =	1.0
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Total =	1
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Summary

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>SM</u>	DATE	<u>10/7/2025</u>
---------------	-----------	------	------------------

CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 207.20

DESCRIPTION: GEOTEXTILE BEDDING

QUANTITY: 24 SY

Subtotal

Location MP 367.17:

Apron Area = 89.3 SF (From CADD)
Number of Aprons = 2.00 EA
Area = 19.84 SY

Add 20% = 3.97 SY

Total Area = 23.81 SY

23.8

Summary

Total =	23.8
Total =	24

ITEM 207.27 - PREFABRICATED COMPOSITE STRUCTURAL DRAIN

QUANTITY: 195 SY

- QUANTITY NOTES**

The PCSD on the wingwalls extend from top of footing to 1'-8" from the top of wingwall elevation and in plan they terminate 1'-0" from the wingwall end. Refer to Wingwall Section Sheet.

- QUANTITY CALCULATIONS**

Wingwall

$$A := 231 \text{ ft}^2 + 207 \text{ ft}^2 = 48.7 \text{ yd}^2$$

Total Area

$$AREA := \text{Ceil} (4 \cdot A, 5 \text{ yd}^2) = 195 \text{ yd}^2$$



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	EJB	DATE	10/6/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 209.13

DESCRIPTION: SILT FENCE-TEMPORARY

QUANTITY: 627 LF

Subtotal

Location MP 355.20 Outlet:

Assumed Length: 176 FT

176.0

Location MP 358.57 EB Inlet:

Assumed Length: 77 FT

77.0

Location MP 358.57 EB Outlet:

Assumed Length: 68 FT

68.0

Location MP 358.57 WB Inlet:

Assumed Length: 67 FT

67.0

Location MP 358.57 WB Outlet:

Assumed Length: 97 FT

97.0

Location MP 367.17 Inlet:

Assumed Length: 82 FT

82.0

Location MP 367.17 Outlet:

Assumed Length: 60 FT

60.0

[Summary](#)

Total =	627.0
Total =	627



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/2/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 209.22

DESCRIPTION: STABILIZED CONSTRUCTION ACCESS

QUANTITY: 288 SY

Subtotal

Location MP 367.17

Length:	50.00	FT	STD. SHT. 209-05
Width:	24.00	FT	STD. SHT. 608-03
Flared Length:	12.00	FT	STD. SHT. 209-05
Flared Width:	8.00	FT	STD. SHT. 209-05
Area:	1296.00	SF	
Area:	144.00	SY	
Quantity:	1.00	EA	
Total Area:	144.00	SY	

144.0

Location MP 357.67

Length:	50.00	FT	STD. SHT. 209-05
Width:	24.00	FT	STD. SHT. 608-03
Flared Length:	12.00	FT	STD. SHT. 209-05
Flared Width:	8.00	FT	STD. SHT. 209-05
Area:	1296.00	SF	
Area:	144.00	SY	
Quantity:	1.00	EA	
Total Area:	144.00	SY	

144.0

[Summary](#)

Total =	288.0
Total =	288



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	SML	DATE	12/5/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 209.23000009

DESCRIPTION: TEMPORARY GROUND PROTECTION MAT

QUANTITY: 3,000 SF

Subtotal

250 SF of mat is assumed at all locations with proposed work within a wetland. An additional 750 SF is assumed at locations with a proposed haul road.

Location MP 353.63:

Area: 250.0 SF

250.0

Location MP 357.67:

Area: 1000.0 SF

1,000.0

Location MP 358.57 WB:

Area: 250.0 SF

250.0

Location MP 360.60:

Area: 250.0 SF

250.0

Location MP 367.17:

Area: 1000.0 SF

1,000.0

Location MP 368.57:

Area: 250.0 SF

250.0

[Summary](#)

Total =	3,000.0
Total =	3,000



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 2
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **SUBBASE COURSE, TYPE 2**

ITEM NO. **304.12**

QUANTITY **66 CY**

DWG. WZTC-11 (Fishers Road)

Reconstruction areas = Southern area 21.5' (+/-) W x 41' L = 880 SF
Northern area 21.5' (+/-) W x 41' L = 885 SF
= 1,765 SF

1,765 SF x 1 FT depth / 27 SF/CF = 66 CY

Total = 66 CY

 Stantec	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90	Date 05/04/2026
	MP 351.40 TO MP 378.20	By JEA
	TAB 26-6R	Check 06/05/2026
		By AVL
BUFFALO DIVISION		Sheet 2 of 2
Stantec Project # 192810522		

Item 304.12 SUBBASE COURSE, TYPE 2 Unit: CY

Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Depth (in)	PAYMENT (CY)	NOTE
M-1	GNP-16	EB	LT	375.0	140	1	5	2.2	Concrete Median Barrier
					140	4	6	10.4	Concrete Median Barrier
					140	1	5	2.2	Concrete Median Barrier
WL-2	GNP-16	WB	LT	375.0	130	1	5	2.0	Concrete Median Barrier
					130	4	6	9.6	Concrete Median Barrier
					130	1	5	2.0	Concrete Median Barrier
M-2	GNP-20	EB	LT	374.1	150	1	5	2.3	Concrete Median Barrier
					150	4	6	11.1	Concrete Median Barrier
					150	1	5	2.3	Concrete Median Barrier
WL-3	GNP-20	WB	LT	374.1	140	1	5	2.2	Concrete Median Barrier
					140	4	6	10.4	Concrete Median Barrier
					140	1	5	2.2	Concrete Median Barrier
EL-2	GNP-28	EB	LT	372.4	140	1	5	2.2	Concrete Median Barrier
					140	4	6	10.4	Concrete Median Barrier
					140	1	5	2.2	Concrete Median Barrier
WL-4	GNP-28/29	EB	LT	372.4	140	1	5	2.2	Concrete Median Barrier
					140	4	6	10.4	Concrete Median Barrier
					140	1	5	2.2	Concrete Median Barrier
ER-9	GNP-36	EB	RT	370.8	100	0	0	0.0	Half Section Pier Protection
					100	4	6	7.4	Half Section Pier Protection
					100	0.67	5	1.0	Half Section Pier Protection
M-3	GNP-36	EB	LT	370.8	120	1	5	1.9	Concrete Median Barrier
					120	4	6	8.9	Concrete Median Barrier
					120	1	5	1.9	Concrete Median Barrier
WL-6	GNP-36	WB	LT	370.8	110	1	5	1.7	Concrete Median Barrier
					110	4	6	8.1	Concrete Median Barrier
					110	1	5	1.7	Concrete Median Barrier
ER-17A	GNP-65	EB	RT	364.8	90	0	0	0.0	Half Section Pier Protection
					90	4	6	6.7	Half Section Pier Protection
					90	0.67	5	0.9	Half Section Pier Protection
EL-5	GNP-65	EB	LT	364.8	130	1	5	2.0	Concrete Median Barrier
					130	4	6	9.6	Concrete Median Barrier
					130	1	5	2.0	Concrete Median Barrier
WL-14	GNP-65	WB	LT	364.8	130	1	5	2.0	Concrete Median Barrier
					130	4	6	9.6	Concrete Median Barrier
					130	1	5	2.0	Concrete Median Barrier
WR-16A	GNP-65	WB	RT	364.8	70	0	0	0.0	Half Section Pier Protection
					70	4	6	5.2	Half Section Pier Protection
					70	0.67	5	0.7	Half Section Pier Protection
EL-6	GNP-75	EB	LT	362.7	160	1	5	2.5	Concrete Median Barrier
					160	4	6	11.9	Concrete Median Barrier
					160	1	5	2.5	Concrete Median Barrier
M-7a	GNP-75	WB	LT	362.7	200	1	5	3.1	Concrete Median Barrier
					200	4	6	14.8	Concrete Median Barrier
					200	1	5	3.1	Concrete Median Barrier
M-7b	GNP-76	EB	LT	362.4	150	1	5	2.3	Concrete Median Barrier
					150	4	6	11.1	Concrete Median Barrier
					150	1	5	2.3	Concrete Median Barrier
M-8a	GNP-76/77	WB	LT	362.4	150	1	5	2.3	Concrete Median Barrier
					150	4	6	11.1	Concrete Median Barrier
					150	1	5	2.3	Concrete Median Barrier
M-8b	GNP-77	EB	LT	362.3	290	1	5	4.5	Concrete Median Barrier
					290	4	6	21.5	Concrete Median Barrier
					290	1	5	4.5	Concrete Median Barrier
M-9a	GNP-77	WB	LT	362.3	290	1	5	4.5	Concrete Median Barrier
					290	4	6	21.5	Concrete Median Barrier
					290	1	5	4.5	Concrete Median Barrier
ER-21	GNP-78	EB	RT	362.1	70	0	0	0.0	Half Section Pier Protection
					70	4	6	5.2	Half Section Pier Protection
					70	0.67	5	0.7	Half Section Pier Protection
M-9b	GNP-78	EB	LT	362.1	120	1	5	1.9	Concrete Median Barrier
					120	4	6	8.9	Concrete Median Barrier
					120	1	5	1.9	Concrete Median Barrier
WL-15	GNP-78	WB	LT	362.1	140	1	5	2.2	Concrete Median Barrier
					140	4	6	10.4	Concrete Median Barrier
					140	1	5	2.2	Concrete Median Barrier
WR-19A	GNP-78	WB	RT	362.1	60	0	0	0.0	Half Section Pier Protection
					60	4	6	4.4	Half Section Pier Protection
					60	0.67	5	0.6	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	0	0	0.0	Half Section Pier Protection
					70	4	6	5.2	Half Section Pier Protection
					70	0.67	5	0.7	Half Section Pier Protection
EL-8	GNP-89	EB	LT	359.8	120	1	5	1.9	Concrete Median Barrier
					120	4	6	8.9	Concrete Median Barrier
					120	1	5	1.9	Concrete Median Barrier
WL-18	GNP-89	WB	LT	359.8	120	1	5	1.9	Concrete Median Barrier
					120	4	6	8.9	Concrete Median Barrier
					120	1	5	1.9	Concrete Median Barrier
WR-21A	GNP-89	WB	RT	359.8	70	0	0	0.0	Half Section Pier Protection
					70	4	6	5.2	Half Section Pier Protection
					70	0.67	5	0.7	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	0	0	0.0	Half Section Pier Protection
					70	4	6	5.2	Half Section Pier Protection
					70	0.67	5	0.7	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	0	0	0.0	Half Section Pier Protection
					70	4	6	5.2	Half Section Pier Protection
					70	0.67	5	0.7	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	0	0	0.0	Half Section Pier Protection
					60	4	6	4.4	Half Section Pier Protection
					60	0.67	5	0.6	Half Section Pier Protection
EL-12	GNP-124	EB	LT	352.3	130	1	5	2.0	Concrete Median Barrier
					130	4	6	9.6	Concrete Median Barrier
					130	1	5	2.0	Concrete Median Barrier
M-12	GNP-124	WB	LT	352.3	130	1	5	2.0	Concrete Median Barrier
					130	4	6	9.6	Concrete Median Barrier
					130	1	5	2.0	Concrete Median Barrier
WR-33A	GNP-124	WB	RT	352.3	80	0	0	0.0	Half Section Pier Protection
					80	4	6	5.9	Half Section Pier Protection
					80	0.67	5	0.8	Half Section Pier Protection
SubTotal:								417.8	CY



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SM	DATE	10/7/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 304.12

DESCRIPTION: SUBBASE COURSE, TYPE 2

QUANTITY: 10 CY

Location MP 367.17:

Apron Area =	89.3	SF (From CADD)
Depth =	1	FT
Number of Aprons =	2.00	EA
Volume =	6.61	CY
Assumed:	10	CY

Subtotal

10.0

[Summary](#)

Total =	10.0
Total =	10



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 2
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	9.5 F2 TOP COURSE ASPHALT, 80 SERIES COMPACTION	ITEM NO.	404.0982
		QUANTITY	80 TN

DWG. WZTC-11 (Fishers Road)

$21.5' (+/-) \text{ w} \times 392' \text{ L} = 8,430 \text{ SF} \times 0.125 \text{ FT depth} \times 144.4 \text{ LBS/CF} / 2000 \text{ LBS/TN} = 76.1 \text{ TN}$

Tolerance: $76.1 \text{ Tons} \times 0.05 = 3.8 \text{ Tons}$

Total = 80 TN

 Stantec	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 05/01/2026 By JEA Check 06/05/2026 By AVL
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 2 of 2

Item 404.0982

**9.5 F2 TOP COURSE ASPHALT, 80 SERIES
COMPACTION**

Unit: **TON**

Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Depth (in)	Volume (CF)	Conv Factor LBS/CF	Volume (TON)	NOTE
ER-9	GNP-36	EB	RT	370.8	100	2	2	33.4	144.4	2.4	Half Section Pier Protection
ER-17A	GNP-65	EB	RT	364.8	90	2	2	30.0	144.4	2.2	Half Section Pier Protection
WR-16A	GNP-65	WB	RT	364.8	70	2	2	23.4	144.4	1.7	Half Section Pier Protection
ER-21	GNP-78	EB	RT	362.1	70	2	2	23.4	144.4	1.7	Half Section Pier Protection
WR-19A	GNP-78	WB	RT	362.1	60	2	2	20.0	144.4	1.4	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	2	2	23.4	144.4	1.7	Half Section Pier Protection
WR-21A	GNP-89	WB	RT	359.8	70	2	2	23.4	144.4	1.7	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	2	2	23.4	144.4	1.7	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	2	2	23.4	144.4	1.7	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	2	2	20.0	144.4	1.4	Half Section Pier Protection
WR-33A	GNP-124	WB	RT	352.3	80	2	2	26.7	144.4	1.9	Half Section Pier Protection
SubTotal:										19.5	TON



Stantec

Project No. 192800522 Sheet: 1 of 2
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	<u>19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION</u>	ITEM NO.	<u>404.1989</u>
		QUANTITY	<u>23 TN</u>

DWG. WZTC-11 (Fishers Road)

Southern area 21.5' (+/-) W x 41' L = 880 SF

Northern area 21.5' (+/-) W x 41' L = 885 SF

=1,765 SF

$1,765 \text{ SF} \times 0.167 \text{ FT depth} \times 146.8 \text{ LBS/CF} / 2000 \text{ LBS/TN} = 21.6 \text{ TN}$

Tolerance: $21.6 \text{ Tons} \times 0.05 = 1.1 \text{ Tons}$

Total = 23 TN

 Stantec	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 05/01/2026 By JEA Check 06/05/2026 By AVL
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 2 of 2

Item 404.1989

**19 F9 BINDER COURSE ASPHALT, 80 SERIES
COMPACTION**

Unit: **TON**

Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Depth (in)	Volume (CF)	Conv Factor LBS/CF	Volume (TON)	NOTE
ER-9	GNP-36	EB	RT	370.8	100	2	3	50.0	146.8	3.7	Half Section Pier Protection
ER-17A	GNP-65	EB	RT	364.8	90	2	3	45.0	146.8	3.3	Half Section Pier Protection
WR-16A	GNP-65	WB	RT	364.8	70	2	3	35.0	146.8	2.6	Half Section Pier Protection
ER-21	GNP-78	EB	RT	362.1	70	2	3	35.0	146.8	2.6	Half Section Pier Protection
WR-19A	GNP-78	WB	RT	362.1	60	2	3	30.0	146.8	2.2	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	2	3	35.0	146.8	2.6	Half Section Pier Protection
WR-21A	GNP-89	WB	RT	359.8	70	2	3	35.0	146.8	2.6	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	2	3	35.0	146.8	2.6	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	2	3	35.0	146.8	2.6	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	2	3	30.0	146.8	2.2	Half Section Pier Protection
WR-33A	GNP-124	WB	RT	352.3	80	2	3	40.0	146.8	2.9	Half Section Pier Protection
SubTotal:										29.7	TON



Stantec

Project No. 192800522 Sheet: 1 of 2
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	<u>37.5 F9 BASE COURSE ASPHALT, 80 SERIES COMPACTION</u>	ITEM NO.	<u>404.3789</u>
		QUANTITY	<u>70 TN</u>

DWG. WZTC-11 (Fishers Road)

Southern area 21.5' (+/-) W x 41' L = 880 SF

Northern area 21.5' (+/-) W x 41' L = 885 SF

=1,765 SF

1,765 SF x 0.50 FT depth x 149.2 LBS/CF / 2000 LBS/TN = 65.8 TN

Tolerance: 65.8 Tons x 0.05 = 3.3 Tons

Total = 70 TN

 Stantec	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 05/04/2026 By JEA Check 06/05/2026 By AVL
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 2 of 2

Item 404.3789

**37.5 F9 BASE COURSE ASPHALT, 80 SERIES
COMPACTION**

Unit: **TON**

Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Depth (in)	Volume (CF)	Conv Factor LBS/CF	Volume (TON)	NOTE
ER-9	GNP-36	EB	RT	370.8	100	2	4	66.7	149.2	5.0	Half Section Pier Protection
ER-17A	GNP-65	EB	RT	364.8	90	2	4	60.0	149.2	4.5	Half Section Pier Protection
WR-16A	GNP-65	WB	RT	364.8	70	2	4	46.7	149.2	3.5	Half Section Pier Protection
ER-21	GNP-78	EB	RT	362.1	70	2	4	46.7	149.2	3.5	Half Section Pier Protection
WR-19A	GNP-78	WB	RT	362.1	60	2	4	40.0	149.2	3.0	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	2	4	46.7	149.2	3.5	Half Section Pier Protection
WR-21A	GNP-89	WB	RT	359.8	70	2	4	46.7	149.2	3.5	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	2	4	46.7	149.2	3.5	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	2	4	46.7	149.2	3.5	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	2	4	40.0	149.2	3.0	Half Section Pier Protection
WR-33A	GNP-124	WB	RT	352.3	80	2	4	53.4	149.2	4.0	Half Section Pier Protection
SubTotal:										40.3	TON



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 2
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **DILUTED TACK COAT**

ITEM NO. **407.0102**

QUANTITY **100 GAL**

DWG. WZTC-11 (Fishers Road)

Top Course

Milled area = Southern area $21.5'(+/-) \times 100'$ L = 2,155 SF

Bridge area $21.5'(+/-) \times 110'$ L = 2,375 SF

Northern area $21.5'(+/-) \times 100'$ L = 2,135 SF

= 6,665 SF / 9 SF/SY x 0.09 GAL/SY = 67 GAL

Reconstruction area = Southern area $21.5'(+/-) \times 41'$ L = 880 SF

Northern area $21.5'(+/-) \times 41'$ L = 885 SF

= 1,765 SF / 9 SF/SY x 0.055 GAL/SY = 11 GAL

Binder Course = Southern area $21.5'(+/-) \times 41'$ L = 880 SF

Northern area $21.5'(+/-) \times 41'$ L = 885 SF

= 1,765 SF / 9 SF/SY x 0.055 GAL/SY = 11 GAL

Base Course = Southern area $21.5'(+/-) \times 41'$ L = 880 SF

Northern area $21.5'(+/-) \times 41'$ L = 885 SF

= 1,765 SF / 9 SF/SY x 0.055 GAL/SY = 11 GAL

Total = 100 GAL



Stantec Project # 192810522

Sheet 2 of 2

Unit: GAL

New Pavement											
Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Width (Ft)	Area (SY)	Conv Factor GAL/SY	# Lifts	PAY Volume (GAL)	NOTE
ER-9	GNP-36	EB	RT	370.8	100	2	22.2	0.06	2	2.7	Half Section Pier Protection
ER-17A	GNP-65	EB	RT	364.8	90	2	20.0	0.06	2	2.4	Half Section Pier Protection
WR-16A	GNP-65	WB	RT	364.8	70	2	15.6	0.06	2	1.9	Half Section Pier Protection
ER-21	GNP-78	EB	RT	362.1	70	2	15.6	0.06	2	1.9	Half Section Pier Protection
WR-19A	GNP-78	WB	RT	362.1	60	2	13.3	0.06	2	1.6	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	2	15.6	0.06	2	1.9	Half Section Pier Protection
WR-21A	GNP-89	WB	RT	359.8	70	2	15.6	0.06	2	1.9	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	2	15.6	0.06	2	1.9	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	2	15.6	0.06	2	1.9	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	2	13.3	0.06	2	1.6	Half Section Pier Protection
WR-33A	GNP-124	WB	RT	352.3	80	2	17.8	0.06	2	2.1	Half Section Pier Protection
Vertical Surfaces											
Run	DWG.	Direction	Side	Approx MP	Length (Ft)	Height (in)	Area (SY)	Conv Factor GAL/SY	# of Surfaces	PAY Volume (GAL)	NOTE
ER-9	GNP-36	EB	RT	370.8	100	9	8.3	0.11	2	1.8	Half Section Pier Protection
ER-17A	GNP-65	EB	RT	364.8	90	9	7.5	0.11	2	0.8	Half Section Pier Protection
WR-16A	GNP-65	WB	RT	364.8	70	9	5.8	0.11	2	0.6	Half Section Pier Protection
ER-21	GNP-78	EB	RT	362.1	70	9	5.8	0.11	2	0.6	Half Section Pier Protection
WR-19A	GNP-78	WB	RT	362.1	60	9	5.0	0.11	2	0.6	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	9	5.8	0.11	2	0.6	Half Section Pier Protection
WR-21A	GNP-89	WB	RT	359.8	70	9	5.8	0.11	2	0.6	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	9	5.8	0.11	2	0.6	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	9	5.8	0.11	2	0.6	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	9	5.0	0.11	2	0.6	Half Section Pier Protection
WR-33A	GNP-124	WB	RT	352.3	80	9	6.7	0.11	2	0.7	Half Section Pier Protection
Perpendicular Sawcut on either end of each run of					22.0	9	1.8	0.11	2	0.2	2 ft at each end of each run
SubTotal:										30.1	GAL



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1

By: SAR Date: 12/18/25

Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **ASPHALT PAVEMENT JOINT ADHESIVE**

ITEM NO. **418.7603**

QUANTITY **395 LF**

DWG. WZTC-11 (Fishers Road)

395 LF of CL = 395 LF

Total = 395 LF



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION		ITEM NO.	490.30
		QUANTITY	937 SY

MISCELLANEOUS COLD MILLING OF BITUMINOUS
PAVEMENT

DWG. WZTC-11 (Fishers Road)

21.5' (+/-) w x 392' L = 8,430 SF/ 9 SF/SY = 937 SY

Total = 937 SY



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	EJB	DATE	10/6/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 552.17

DESCRIPTION: SHIELDS AND SHORING

QUANTITY: 3,752 SF

Subtotal

Shielding and shoring quantity determined through measuring cross-sectional area of each each culvert replacement location, separated by width of the trench at that area. Cross-sectional area determined as the area between existing grade and bottom of excavation, starting at where the pipe end section is attached to the pipe and ending 2LF beyond the limits of the anchor unit. Additional areas included for locations where excavation widens for anchor unit excavation.

Location MP 355.20 Outlet:

Cross-sectional area = 700.21 SF

Side = 2.00 EA

Side area = 1400.42 SF (X)

Height @ Excavation Limit = 15.33 LF

Width @ Excavation Limit = 13.083 LF

Area @ Excavation Limit = 200.57 SF (A)

Existing Pipe Internal Dia. = 60.00 in, or 5 LF

External Dia. = +1 in, or 5.0833 LF

Existing Pipe Area = 20.29 SF (B)

Total Area @ Excavation Limit = 180.27 SF (=A-B), (Y)

Trench Height @ Widening = 14.31 LF

Trench Width Increase = 3.67 LF

Additional Area = 52.46 SF (Z)

Total Area = 1633.15 SF (=X+Y+Z)

1,633.2

Page Total = 1,633.2

Sub-Total = 1,633.2

ITEM NO. 552.17

Location MP 358.57 EB Inlet:

Cross-sectional area =	78.48	SF	
Side =	2.00	EA	
Side area =	156.96	SF (X)	
Height @ Excavation Limit =	8.67	LF	
Width @ Excavation Limit =	12.83	LF	
Area @ Excavation Limit =	111.24	SF (A)	
Existing Pipe Internal Dia. =	48.00	in, or 4	LF
External Dia. =	+5 in, or	4.8333	LF
Existing Pipe Area =	18.35	SF (B)	
Total Area @ Excavation Limit =	92.89	SF (=A-B), (Y)	
Trench Height @ Widening =	6.58	LF	
Trench Width Increase =	4.00	LF	
Additional Area =	26.32	SF (Z)	
Total Area =	276.17	SF (=X+Y+Z)	276.2

Location MP 358.57 EB Outlet:

Cross-sectional area =	88.01	SF	
Side =	2.00	EA	
Side area =	176.02	SF (X)	
Height @ Excavation Limit =	8.17	LF	
Width @ Excavation Limit =	12.83	LF	
Area @ Excavation Limit =	104.82	SF (A)	
Existing Pipe Internal Dia. =	48.00	in, or 4	LF
External Dia. =	+5 in, or	4.8333	LF
Existing Pipe Area =	18.35	SF (B)	
Total Area @ Excavation Limit =	86.47	SF (=A-B), (Y)	
Trench Height @ Widening =	6.90	LF	
Trench Width Increase =	4.00	LF	
Additional Area =	27.6	SF (Z)	
Total Area =	290.09	SF (=X+Y+Z)	290.1

Page Total =	566.3
Sub-Total =	2,199.4

ITEM NO. 552.17

Location MP 358.57 WB Inlet:

Cross-sectional area = 94.07 SF
Side = 2.00 EA
Side area = 188.14 SF (X)

Height @ Excavation Limit = 8.5 LF
Width @ Excavation Limit = 12.83 LF
Area @ Excavation Limit = 109.06 SF (A)

Existing Pipe Internal Dia. = 48.00 in, or 4 LF
External Dia. = +5 in, or 4.8333 LF
Existing Pipe Area = 18.35 SF (B)

Total Area @ Excavation Limit = 90.71 SF (=A-B), (Y)

Trench Height @ Widening = 6.60 LF
Trench Width Increase = 4.00 LF
Additional Area = 26.4 SF (Z)

Total Area = 305.25 SF (=X+Y+Z)

305.2

Location MP 358.57 WB Outlet:

Cross-sectional area = 126.32 SF
Side = 2.00 EA
Side area = 252.64 SF (X)

Height @ Excavation Limit = 7 LF
Width @ Excavation Limit = 12.83 LF
Area @ Excavation Limit = 89.81 SF (A)

Existing Pipe Internal Dia. = 48.00 in, or 4 LF
External Dia. = +5 in, or 4.8333 LF
Existing Pipe Area = 18.35 SF (B)

Total Area @ Excavation Limit = 71.46 SF (=A-B), (Y)

Trench Height @ Widening = 5.30 LF
Trench Width Increase = 4.00 LF
Additional Area = 21.2 SF (Z)

Total Area = 345.30 SF (=X+Y+Z)

345.3

Page Total = 650.5

Sub-Total = 2,850.0

ITEM NO. 552.17

Location MP 367.17 Inlet:

Cross-sectional area =	42.80	SF	
Side =	2.00	EA	
Side area =	85.60	SF (X)	
Height @ Excavation Limit =	6.750	LF	
Width @ Excavation Limit =	11.5	LF	
Area @ Excavation Limit =	77.625	SF (A)	
Existing Pipe Internal Dia. =	36.00	in, or	3 LF
Existing Pipe Area (Twin Pipes) =	14.14	SF (B)	
Total Area @ Excavation Limit =	63.49	SF (=A-B), (Y)	
Total Area =	149.09	SF (=X+Y)	149.1

Location MP 362.08

FI Median West With Rectangular Grate No. 3

FI Depth =	6.64	FT	(537.69-532.72)+1 sump +8/12 footer	
FI Opening =	7	FT	7' x 7' excavation for a 3' x 3' Structure	
Excavation Area =	46.48	SF	One side	
Sides =	4	EA		
Total Area =	185.92	SF		185.9

FI FI Median East (With Frame and Cover MH)

FI Depth =	6.34	FT	(536.52-532.85)+8/12 footer+2'overburden	
FI Opening =	7	FT	7' x 7' excavation for a 3' x 3' Structure	
Excavation Area =	44.38	SF	One side	
Sides =	4	EA		
Total Area =	177.52	SF		177.5
18" RCP Installation				
Ave Dept =	6.49	FT		389.4
Lenght =	30	FT		
Sides =	2	EA		
Total Area =	389.4	SF		

Summary

Page Total = 901.9
 Sub-Total = 3,751.9
Total = 3,752



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030001

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 368.57:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030002

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 367.17:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>ARJ</u>	DATE	<u>10/1/2025</u>
---------------	------------	------	------------------

CHECKED BY SML DATE 10/7/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 553.030003

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Subtotal

Location MP 367.17:

Quantity: 1.00 EA

1.0

Summary

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030004

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 360.60:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030005

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 358.57 EB:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030006

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 358.57 WB:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030007

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 357.67:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030008

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 355.20:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/1/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 553.030009

DESCRIPTION: TEMPORARY WATERWAY DIVERSION STRUCTURE

QUANTITY: 1 EACH

Location MP 353.63:

Quantity: 1.00 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1

ITEM 555.0011 - FOOTING CONCRETE, PERFORMANCE**QUANTITY: 158 CY****• QUANTITY NOTES**

The footing volume shall be computed assuming a 2'-6" thickness.

• QUANTITY CALCULATIONS

Footing Thickness $t_{ftg} := 2 \text{ ft} + 6 \text{ in}$

Area of Begin Abutment Footing $A := 424 \text{ ft}^2$

Total Volume $VOLUME := \text{Ceil} \left(4 \cdot t_{ftg} \cdot A, 1 \text{ yd}^3 \right) = 158 \text{ yd}^3$

ITEM 555.0021 - CONCRETE FOR STRUCTURES, PERFORMANCE**QUANTITY: 119 CY****• QUANTITY NOTES**

Refer to Wingwall elevations and Wingwall Sections Sheet and for elevations.

• QUANTITY CALCULATIONS**WINGWALLS**

$$A_1 := 262 \text{ ft}^2$$

$$A_2 := 248 \text{ ft}^2$$

$$t_{wingwall} := 1.5 \text{ ft}$$

$$V := (A_1 + A_2) \cdot t_{wingwall} = 765.00 \text{ ft}^3$$

Headwalls

$$A_{headwall} := 42 \text{ ft}^2$$

$$t_{headwall} := 19.5 \text{ in}$$

$$V_{headwall} := A_{headwall} \cdot t_{headwall} = 68.25 \text{ ft}^3$$

TOTAL

Total Volume

$$VOLUME := \text{Ceil} (4 \cdot V + 2 \cdot V_{headwall}, 1 \text{ yd}^3) = 119 \text{ yd}^3$$



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	9/15/2024
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 555.0021

DESCRIPTION: CONCRETE FOR STRUCTURES, PERFORMANCE

QUANTITY: 25 CY

Subtotal

Location MP 353.63:

Volume of Concrete: 2.00 CY (per Table 1 on Std. Sht. 603-04)

Location MP 355.20:

Volume of Concrete: 2.29 CY (per Table 1 on Std. Sht. 603-04)

Location MP 358.57 WB:

Volume of Concrete: 3.30 CY (per Table 2 on Std. Sht. 603-04)

Location MP 358.57 EB:

Volume of Concrete: 3.30 CY (per Table 2 on Std. Sht. 603-04)

Location MP 367.17 (Done By SM):

Headwall height = 5.6 FT

Headwall width = 1 FT

Headwall Length= 11.2 FT

Headwall Vol. 62.4 Cubic ft.

Pipe diameter = 3 FT

Void volume= 14.1 Cubic ft.

Vol. of 1 headwall = 1.8 CY

No. of headwalls = 2

Total volume of HW: 3.6 CY

Apron Area = 87.0 SQ. FT (From CADD)

Apron height = 0.8 FT

Apron Vol. = 2.7 CY

Cut-off wall length = 17.5 FT

Cut-off wall height = 1.9 FT

Cut-off wall width = 1.0 FT

Vol. of cut-off wall = 1.2 CY

No. of Aprons = 2

Vol. of cutoff wall & apron: 7.9 CY

Wingwall Area = 16.9 SQ. FT (From CADD)

Wingwall width = 1.0 FT

Wingwall Vol. = 0.6 CY

No. of WW's = 4

Total volume of WW = 2.5

Total volume for the culvert: 14.0 CY

[Summary](#)

Total = 14.0

Total = 24.9

Total = 25



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/29/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION		ITEM NO.	
	PERFORMANCE CONCRETE QUALITY ADJUSTMENT –		555.9901
	FOOTING CONCRETE	QUANTITY	1 QU

Total = 1 QU

555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SML	DATE	11/19/2024
CHECKED BY	NXA	DATE	11/21/2024
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 555.9902

DESCRIPTION: PERFORMANCE CONCRETE QUALITY ADJUSTMENT - CONCRETE FOR STRUCTURES

QUANTITY: 1 QU

Subtotal

Per MP 501-4, section IX, quality adjustments should have an initial quantity of 1.

1.0

Summary

Total =	1.0
Total =	1

ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES

QUANTITY: 27500 LB

- **QUANTITY NOTES**

Reinforcement weight is taken from the Barlists

- **QUANTITY CALCULATIONS**

$weight_{wing} := 26501 \text{ } \textcolor{blue}{lbf}$

$weight_{head} := 356 \text{ } \textcolor{blue}{lbf}$

$weight_{joint} := 196 \text{ } \textcolor{blue}{lbf}$

Item 556.0203 Total Weight
(See notes)

$WEIGHT := \text{Ceil} (weight_{wing} + weight_{head} + weight_{joint}, 500 \text{ } \textcolor{blue}{lbf}) = 27500 \text{ } \textcolor{blue}{lbf}$



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	SM	DATE	11/4/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 556.0203

DESCRIPTION: GALVANIZED BAR REINFORCEMENT FOR STRUCTURES

QUANTITY: 2,057 LB

Subtotal

Location MP 357.67 Inlet:

Front face main bars avg. length:	3.2	FT	
Quantity:	7	EA.	
Horizontal bars avg Length:	5.5	FT	
Quantity:	8	EA.	
Diagonal bar Length:	8.5	FT	
Quantity:	2	EA.	
Fill face main bars avg Length:	3.2	FT	
Quantity:	8	EA.	
Length:	108.4	FT	
Unit Weight:	1.043	LB/FT	
No Of Wingwalls:	2	EA.	
Weight:	226.0	LB	
Additional Steel for Laps (3%):	6.8	LB	(Assumed)
Total weight:	232.8	LB	232.8

Location MP 357.67 Outlet:

Outlet reinforcement is same as inlet

Total Outlet weight=	232.8	LB	232.8
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Page Total =	465.6
Sub-Total =	465.6

ITEM NO. 556.0203

Location MP 367.17 Inlet:

Apron Reinforcement:

Avg. Longitudinal bar length:	14.1	FT
Quantity:	8	EA.
Transverse bars:	6.6	FT
Quantity:	12	EA.
Avg. Transverse end bar length:	2.3	FT
Quantity:	8	EA.
Angled bar length:	6.2	FT
Quantity:	2	EA.
Length:	222.4	FT
Unit Weight:	0.668	LB/FT
No. of mats:	2	EA.
Weight:	297.1	LB

297.1

Cut-off wall Reinforcement:

Avg. Longitudinal bar length:	16.9	FT
Quantity:	3	EA.
Transverse bars:	2.4	FT
Quantity:	20.0	EA.
Length:	99.0	FT
Unit Weight:	0.668	LB/FT
No. of faces:	2	LB/FT
Weight:	132.2	LB

132.2

WW Reinforcement:

Avg. Longitudinal bar length:	5.4	FT
Quantity:	5	EA.
Avg. Vertical bar length:	4.2	FT
Quantity:	8	EA.
Angled bar length:	4.9	FT
Quantity:	1	EA.

Page Total =	429.3
Sub-Total =	894.9

ITEM NO. 556.0203

Length:	65.6	FT
Unit Weight:	0.668	LB/FT
No. of faces:	2	LB/FT
No. of WW's:	2	EA.
Weight:	175.2	LB

175.2

HeadWall Reinforcement:

Longitudinal bar length:	10.8	FT
Quantity:	5	EA.
Vertical bar length:	5.3	FT
Quantity:	9	EA.
Avg. Angled bar length:	3.1	FT
Quantity:	8	EA.

Length:	125.9	FT
Unit Weight:	0.668	LB/FT
No. of faces:	2	LB/FT
Weight:	168.2	LB

168.2

Additional Lap Reinforcement Adjustment:

Assumed 3% added for lap length:	23.2	LB
----------------------------------	------	----

23.2

Location MP 367.17 Outlet:

Outlet reinforcement is same as inlet

Apron Reinforcement:	297.1	LB
Cut-off wall Reinforcement:	132.2	LB
WW Reinforcement:	175.2	LB
HW Reinforcement:	168.2	LB
Assumed 3% added for lap length:	23.2	LB

Total =	795.8	LB
---------	-------	----

795.8

Summary

Page Total =	1,162.4
Sub-Total =	2,057.3
TOTAL =	2,057

ITEM 558.02 - LONGITUDINAL SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE

QUANTITY: 1172 SY

- QUANTITY NOTES**

Note that the quantity for sawcut grooving is taken as the sum of the approach slab areas and the total deck slab area minus the plan area of the railings on either side of the deck.

- QUANTITY CALCULATIONS**

Deck Grooving Area

$$A_{deck} := 7438.71 \text{ ft}^2 = 826.5 \text{ yd}^2$$

Begin Approach Slab Area

$$A_{BEGIN} := 1591.28 \text{ ft}^2 = 176.8 \text{ yd}^2$$

End Approach Slab Area

$$A_{END} := 1510.72 \text{ ft}^2 = 167.9 \text{ yd}^2$$

Total Area

$$AREA := \text{Ceil}(A_{deck} + A_{BEGIN} + A_{END}, 1 \text{ yd}^2) = 1172 \text{ yd}^2$$

ITEM 567.60 ARMORLESS BRIDGE JOINT SYSTEM

QUANTITY: 66 LF

- **QUANTITY NOTES**

WB armorless joint system to be replaced.

- **QUANTITY CALCULATIONS**

$$W_{bridge} := 56 \text{ ft} + 6 \text{ in}$$
$$skew := 30 \text{ deg}$$

Total Length

$$L := \frac{W_{bridge}}{\cos(skew)} = 65.24 \text{ ft}$$

ITEM 567.63 BRIDGE JOINT SEAL

QUANTITY: 132 LF

- **QUANTITY NOTES**

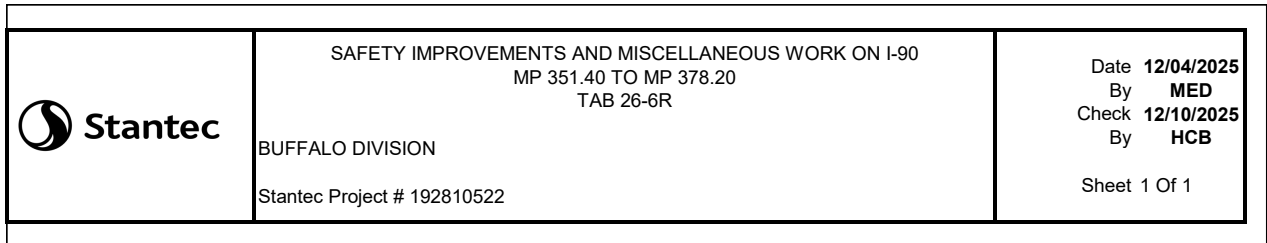
EB joint seals to be replaced.

- **QUANTITY CALCULATIONS**

$$\begin{aligned}W_{bridge} &:= 56 \text{ ft} + 6 \text{ in} \\ skew &:= 30 \text{ deg}\end{aligned}$$

Total Length

$$L := 2 \cdot \text{Ceil}\left(\frac{W_{bridge}}{\cos(skew)}, 1 \text{ ft}\right) = 132.00 \text{ ft}$$



	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 12/04/2025 By MED Check 12/10/2025 By HCB
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 1 Of 1

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 12/04/2025 By MED Check 12/10/2025 By HCB
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 1 Of 1

Unit: LF

Total:	126	LF
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ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

QUANTITY: 44 CY

• QUANTITY NOTES

The existing wingwalls need to be cut down 2'-0" below proposed grade

• QUANTITY CALCULATIONS

Wingwall

$$t_{wingwall} := 1 \text{ ft} + 6 \text{ in}$$

$$L_{wingwall} := 32 \text{ ft}$$

$$h_{removed} := 4 \text{ ft}$$

$$V_{wing} := t_{wingwall} \cdot L_{wingwall} \cdot h_{removed} = 7.11 \text{ yd}^3$$

Headwall

$$t_{headwall} := 1 \text{ ft} + 6 \text{ in}$$

$$L_{headwall} := 28 \text{ ft}$$

$$h_{removed} := 1 \text{ ft}$$

$$V_{headwall} := t_{headwall} \cdot L_{headwall} \cdot h_{removed} = 1.56 \text{ yd}^3$$

Footing

$$t_{footing} := 3 \text{ ft}$$

Average thickness

$$L_{footing} := 4.75 \text{ ft}$$

$$W_{footing} := 5.75 \text{ ft}$$

$$V_{footing} := t_{footing} \cdot L_{footing} \cdot W_{footing} = 3.03 \text{ yd}^3$$

Total Area

$$AREA := \text{Ceil} \left(4 \cdot V_{wing} + 2 \cdot V_{headwall} + 4 \cdot V_{footing}, 1 \text{ yd}^3 \right) = 44 \text{ yd}^3$$



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SML	DATE	10/8/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 580.01

DESCRIPTION: REMOVAL OF STRUCTURAL CONCRETE, CONCRETE COLLARS

QUANTITY: 16 CY

Subtotal

Depth of collar: 3 FT

Location MP 355.20:

Outside Diameter of Pipe:	5.08	FT
Height & Width of collar:	7.08	FT
Volume of collar:	3.32	CY
Quantity:	1	EA
Volume of concrete:	3.32	CY

3.3

Location MP 358.57 EB:

Outside Diameter of Pipe:	4.83	FT
Height & Width of collar:	6.83	FT
Volume of collar:	3.15	CY
Quantity:	2	EA
Volume of concrete:	6.30	CY

6.3

Location MP 358.57 WB:

Outside Diameter of Pipe:	4.83	FT
Height & Width of collar:	6.83	FT
Volume of collar:	3.15	CY
Quantity:	2	EA
Volume of concrete:	6.30	CY

6.3

Summary

Total =	15.9
Total =	16



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SM	DATE	9/26/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 582.0051

DESCRIPTION: REMOVAL AND REPLACEMENT OF STRUCTURAL CONCRETE

QUANTITY: 6 CY

Subtotal

Location MP 357.67:

Location	Area (SF)	Avg. Width (FT.)	Volume (CY)
SW Inlet	20.14	1.89	1.4
SE Inlet	20.14	1.89	1.4
NW Outlet	20.14	1.89	1.4
NE Interior Barrel	0.44	0.50	0.1
NE Outlet	20.14	1.89	1.4
NW Interior Barrel	0.58	0.50	0.1
TOTAL =			5.8

5.8

[Summary](#)

Total =	5.8
Total =	6

ITEM 586.0201 DRILLING AND GROUTING OF BOLTS/REINFORCING

QUANTITY: 102 EA

- **QUANTITY NOTES**

Assume bars drilled and grouted at 18" O.C. , staggered, in both headwall faces. Assume headers bars are spaced at 2'-0".

- **QUANTITY CALCULATIONS**

Joint header L bars

$$N_{bars} := 33$$

$$N_{headers} := 2$$

Headwall connection

$$N_{bars_headwall} := 18$$

$$N_{headwall} := 2$$

Total drilled and grouted bars

$$Total := N_{bars} \cdot N_{headers} + N_{bars_headwall} \cdot N_{headwall} = 102$$

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>SM</u>	DATE	<u>10/1/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 586.0201

DESCRIPTION: DRILLING AND GROUTING BOLTS OR REINFORCEMENT BARS

QUANTITY: 88 EACH

Subtotal

Location MP 357.67:

Quantity per WW: 22 EA

No. of wingwalls: 4 EA

TOTAL: 88 EA

88.0

Summary

Total =	88.0
---------	------

Total =	88
----------------	-----------

595.50000018 Sheet-Applied Waterproofing Membrane**Total: 56 SF**

Headwall:

$$Splice := 9 \text{ in}$$

Splice length of membrane

Width of membrane (ST-7)

$$W_{hw} := 3 \text{ in} + Splice$$

Height of membrane
(ST-7)

$$L_{hw_1} := 28 \text{ ft}$$

Length of membrane along
the headwall

$$A_{hw} := W_{hw} \cdot L_{hw_1} = 28 \text{ ft}^2$$

$$n_{headwall} := 2$$

$$Total := n_{headwall} \cdot A_{hw} = 56 \text{ ft}^2$$



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	SM	DATE	10/7/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.071812

DESCRIPTION: CORRUGATED STEEL PIPE, FULLY PAVED (2-2/3"X1/2")CORRUGATIONS) 36 INCH DIAMETER, 12 GAUGE

QUANTITY: 16 LF

Location MP 367.17 Outlet:

Length:	8	LF
Quantity:	2	EA.
Total:	16	LF

Subtotal

16.0

[Summary](#)

Total =	16.0
Total =	16



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/6/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.172012

DESCRIPTION: GALVANIZED STEEL END SECTIONS-PIPE (2-2/3" X 1/2" CORRUGATIONS) 48 INCH DIAMETER, 12 GAUGE

QUANTITY: 1 EACH

Location MP 353.63:

Quantity: 1 EA.

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	EJB	DATE	10/6/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.172212

DESCRIPTION: GALVANIZED STEEL END SECTIONS-PIPE (2-2/3" X 1/2" CORRUGATIONS) 60 INCH DIAMETER, 12 GAUGE

QUANTITY: 1 EACH

Location MP 355.20 Outlet:

Quantity: 1 EA.

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	HRR	DATE	10/1/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.6003

DESCRIPTION: REINFORCED CONCRETE PIPE CLASS III, 18 INCH DIAMETER

QUANTITY: 30 LF

Subtotal

Location MP 362.08

Length:	30	LF
Number of pipes:	1	EA.
Length:	30	LF

30.0

Estimated from Blue Beam needs to be refined based on survey and final design

[Summary](#)

Total =	30.0
Total =	30

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>HRR</u>	DATE	<u>10/1/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 603.6005

DESCRIPTION: REINFORCED CONCRETE PIPE CLASS III, 24 INCH DIAMETER

QUANTITY: 6 LF

Subtotal

Location MP 358.13

Length:	6	LF
Number of pipes:	1	EA.
Length:	6	LF

6.0

Summary

Total =	6.0
Total =	6



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	EJB	DATE	10/6/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.6011

DESCRIPTION: REINFORCED CONCRETE PIPE CLASS III, 48 INCH DIAMETER

QUANTITY: 47 LF

Subtotal

Location MP 358.57 WB:

Inlet Length:	8.5	LF
Quantity:	1	EA.
Outlet Length:	20	LF
Quantity:	1	EA.
Total Length:	28.5	LF

28.5

Location MP 358.57 EB:

Inlet Length:	10	LF
Quantity:	1	LF
Outlet Length:	8.5	LF
Quantity:	1	EA.
Length:	18.5	LF

18.5

[Summary](#)

Total =	47.0
Total =	47



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	9/9/2025
CHECKED BY	EJB	DATE	10/6/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.7311

DESCRIPTION: REINFORCED CONCRETE PIPE END SECTIONS 48 INCHDIAMETER

QUANTITY: 4 EACH

Location MP 358.57 WB:

Quantity: 2 EA.

Location MP 358.57 EB:

Quantity: 2 EA.

[Summary](#)

Total =	4.0
Total =	4

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>ARJ</u>	DATE	<u>9/9/2025</u>
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CHECKED BY	EJB	DATE	10/6/2025
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REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 603.77

DESCRIPTION: CONCRETE COLLARS

QUANTITY: 5 EACH

Subtotal

Location MP 355.20:

Number of Extensions: 1 EA.

1.0

Location MP 358.57 EB:

Number of Extensions: 2 EA.

2.0

Location MP 358.57 WB:

Number of Extensions: 2 EA.

2.0

Summary

Total =	5.0
Total =	5



Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>HRR</u>	DATE	<u>10/1/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 603.97010025

DESCRIPTION: REMOVAL OF EXISTING DRAINAGE STRUCTUES

QUANTITY: 3 EACH

Subtotal

Location MP 358.13

Shoulder	1	EA
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1.0

Median	1	EA
--------	---	----

1.0

Location MP 362.08

Buried Field Inlet	1	EA
--------------------	---	----

1.0

Summary

Total =	3.0
Total =	3



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	EJB	DATE	10/7/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 603.9860

DESCRIPTION: SMOOTH INTERIOR POLYETHYLENE CULVERT PIPE AND STORM DRAINPIPE - 60 INCH DIAMETER

QUANTITY: 60 LF

Location MP 355.20

Pipe Length: 60 LF

Subtotal

60.0

[Summary](#)

Total =	60.0
Total =	60

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>HRR</u>	DATE	<u>10/1/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 604.070401

DESCRIPTION: ALTERING DRAINAGE STRUCTURES, LEACHING BASINS AND MANHOLES

QUANTITY: 1 EACH

Subtotal

Location MP 354.10

Shoulder	FI	1	EA
----------	----	---	----

1.0

Summary

Total =	1.0
Total =	1

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>HRR</u>	DATE	<u>10/1/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 604.070402

DESCRIPTION: ALTERING DRAINAGE STRUCTURES, LEACHING BASINS AND MANHOLES

QUANTITY: 2 EACH

Subtotal

Location MP 369.15

Median	FI	1	EA
315' East of U-turn CL			

1.0

Location MP 369.07

Median	FI	1	EA
720' East of U-turn CL			

1.0

Summary

Total =	2.0
Total =	2



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	HRR	DATE	10/1/2025
CHECKED BY	EJB	DATE	12/10/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 604.300103

DESCRIPTION: RECTANGULAR DRAINAGE STRUCTURE (TYPE A) FOR #3 WELDED FRAME

QUANTITY: 12 LF

Subtotal

Location MP 358.13

Shoulder	FI	3.27	LF	2.6+8"	3.3
median	FI	4.21	LF	3.54+8"	4.2

(depth subject to revision based on survey)

Location MP 362.08

TG 536.52 assumed 8" base slab
Inv. 532.85 assumed

$536.52 - 532.85 = 3.67 + 8" / 12$

Median	FI	4.34	LF	4.3
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(Depth subject to revision based on final design and survey)

[Summary](#)

Total =	11.8
Total =	12



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	HRR	DATE	10/1/2025
CHECKED BY	EJB	DATE	12/10/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 604.310132

DESCRIPTION: RECTANGULAR DRAINAGE STRUCTURE TYPE A WITH ROUND OPTIONFOR
ROUND MANHOLE FRAME

QUANTITY: 7 LF

Subtotal

Location MP 362.08

TG 537.69 assumed

Inv. 532.72 assumed

Sum: 1'

$537.69 - 532.72 = 4.97 + 1 = 5.97 + 8" / 12$ base slab

Median FI 6.64 LF

6.64

(Depth subject to revision based on final design and survey)

Summary

Total =	6.6
Total =	7



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date **12/04/2025**
By **MED**
Check **12/10/2025**
By **HCB**

Sheet 1 Of 1

Item 606.10

BOX BEAM GUIDE RAILING

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-8	GNP 45	RT	GNP 45	RT	WB	368.895 TO 368.95	504.0	
WR-27	GNP 108	RT	GNP 109	RT	WB	355.680 TO 355.711	360.0	
WR-33	GNP 123	RT	GNP 123	RT	WB	352.690 TO 352.710	172.8	1.3 PAY FACTOR OVER CULVERT
ER-3	GNP 20	RT	GNP 20	RT	EB	374.209 TO 374.155	216.0	
ER-5	GNP 24	RT	GNP 24	RT	EB	373.351 TO 373.330	39.0	
ER-10	GNP 45	RT	GNP 45	RT	EB	369.090 TO 368.85	489.0	
ER-22	GNP 75	RT	GNP 75	RT	EB	362.835 TO 362.805	84.0	
ER-28	GNP 108	RT	GNP 108	RT	EB	355.775 TO 355.690	378.0	
ER-36	GNP 123	RT	GNP 123	RT	EB	352.710 TO 352.690	172.8	1.3 PAY FACTOR OVER CULVERT
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	18.0	
FISHER NB RIGHT	GNP 123	RT	GNP 123	RT	NB		18.0	
FISHER SB RIGHT	GNP 123	RT	GNP 123	RT	SB		18.0	

Total: 2,470 LF

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date 12/04/2025 By MED Check 12/10/2025 By HCB
	BUFFALO DIVISION Stantec Project # 192810522	Sheet 1 Of 1

Item 606.100002 BOX BEAM GUIDE RAILING (SHOP BENT OR SHOP MITERED) Unit: LF

RUN	GNP	SIDE	GNP	SIDE	DIRECTION	MP TO MP	QUANTITY (LF)	
ER-10	GNP 45	RT	GNP 45	RT	EB	369.090 TO 368.85	72.0	
ER-22	GNP 75	RT	GNP 75	RT	EB	362.835 TO 362.805	72.0	
FISHER NB RIGHT	GNP 123	RT	GNP 123	RT	NB		15.0	
FISHER SB RIGHT	GNP 123	RT	GNP 123	RT	SB		21.0	

Share 1

Total: 180 LF

Sheet: 1 Of 1

Unit: EA

	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
RUN #	GNP	SIDE	GNP	SIDE				
WR-8	GNP 45	RT	GNP 45	RT	WB	368.895 TO 368.95	1	
WR-27	GNP 108	RT	GNP 109	RT	WB	355.680 TO 355.711	1	
ER-10	GNP 45	RT	GNP 45	RT	EB	369.090 TO 368.85	1	
ER-28	GNP 108	RT	GNP 108	RT	EB	355.775 TO 355.690	1	

Total:	4	EA
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Sheet: 1 Of 1

Unit: EA

[illegible]

Total:	2	EA
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SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/02/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

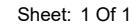
Item 606.1203

BOX BEAM END ASSEMBLY, TYPE III

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-4	GNP 16	RT	GNP 16	RT	WB	374.956 TO 374.965	1	
WR-5	GNP 21	RT	GNP 21	RT	WB	374.060 TO 374.065	1	
WR-8	GNP 45	RT	GNP 45	RT	WB	368.895 TO 368.95	1	
WR-25	GNP 105	RT	GNP 105	RT	WB	356.466 TO 356.471	1	
WR-27	GNP 108	RT	GNP 109	RT	WB	355.680 TO 355.711	1	
WR-28	GNP 111	RT	GNP 111	RT	WB	355.166 TO 355.175	1	
WL-19	GNP 90	LT	GNP 90	LT	WB	359.560 TO 359.575	1	
ER-2	GNP 16	RT	GNP 16	RT	EB	375.105 TO 375.100	1	
ER-3	GNP 20	RT	GNP 20	RT	EB	374.209 TO 374.155	1	
ER-4	GNP 23	RT	GNP 23	RT	EB	373.563 TO 373.558	1	
ER-6	GNP 28	RT	GNP 28	RT	EB	372.501 TO 372.496	1	
ER-8	GNP 36	RT	GNP 36	RT	EB	370.888 TO 370.883	1	
ER-17	GNP 65	RT	GNP 65	RT	EB	364.840 TO 364.835	1	
ER-24	GNP 90	RT	GNP 90	RT	EB	359.663 TO 359.653	1	
ER-28	GNP 108	RT	GNP 108	RT	EB	355.775 TO 355.690	1	
ER-33	GNP 122	RT	GNP 122	RT	EB	352.945 TO 352.935	1	
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	1	
EL-9	GNP 90	LT	GNP 90	LT	EB	359.678 TO 359.668	1	
EL-11	GNP 102	LT	GNP 102	LT	EB	357.071 TO 357.061	1	

Total: 19 EA



Unit: EA

Total:	1	EA
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SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/02/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.1403

BOX BEAM MEDIAN BARRIER END ASSEMBLY TYPE C

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-18	GNP 89	LT	GNP 89	LT	WB	359.750 TO 359.800	1	
WL-22	GNP 111	LT	GNP 111	LT	WB	355.115 TO 355.125	1	
EL-8	GNP 89	LT	GNP 89	LT	EB	359.810 TO 359.759	1	

Total: 3 EA

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R		Date 12/02/2025 By MED Check 12/10/2025 By HCB
	BUFFALO DIVISION Stantec Project # 192810522		Sheet 1 Of 1

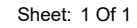
Item 606.180001

WEAK-POST, CORRUGATED BEAM GUIDE RAIL (SHOP CURVED)

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
ER-11	GNP 52	RT	GNP 52	RT	EB	367.610 TO 367.510	62.5	

Total: 63 LF



Unit: EA

Total:	1	EA
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555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	<u>D214811 - Assign #5 - MP 351.04 to MP 378.5</u>		
SHEET NO.	<u>1</u>	OF	<u>1</u>
CALCULATED BY	<u>NXA</u>	DATE	<u>11/19/2025</u>
CHECKED BY	<u>SML</u>	DATE	<u>12/5/2025</u>
REMARK	<u>PDG - PS&E ESTIMATE - DRAINAGE</u>		

ITEM NO. 606.23

DESCRIPTION: ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING(DRIVEWAYS, WALKWAYS, AND OTHER OPENINGS)

QUANTITY: 4 EACH

Subtotal

Location MP 357.67:

Quantity: 2 EA

2.0

Location MP 367.17:

Quantity: 2 EA

2.0

Summary

Total =	4.0
Total =	4

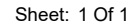
	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/02/2025 By: MED Check: 12/10/2025 By: HCB
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

Item 606.24 ANCHORAGE UNITS FOR CORRUGATED BEAM MEDIAN BARRIER

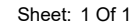
Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-11	GNP 108	LT	GNP 110	LT	WB/EB	355.336 TO 355.711	1	

Total: 1 EA



Total:	11	EA
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	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
RUN #	GNP	SIDE	GNP	SIDE				
M-4	GNP 41	LT	GNP 44	LT	WB/EB	369.850 TO 369.215	862.5	
WR-6	GNP 23	RT	GNP 23	RT	WB	373.586 TO 373.636	200.0	
WR-12	GNP 54	RT	GNP 54	RT	WB	367.125 TO 367.140	50.0	
WR-20	GNP 79	RT	GNP 79	RT	WB	361.905 TO 362.005	50.0	
WR-23	GNP 97	RT	GNP 98	RT	WB	357.956 TO 358.095	50.0	
WR-24	GNP 99	RT	GNP 100	RT	WB	357.583 TO 357.800	50.0	
WL-10	GNP 56	LT	GNP 57	LT	WB	366.430 TO 366.585	94.0	
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	86.0	
WL-20	GNP 96	LT	GNP 97	LT	WB	358.208 TO 358.255	225.0	
ER-11	GNP 52	RT	GNP 52	RT	EB	367.610 TO 367.510	425.0	
ER-12	GNP 52	RT	GNP 53	RT	EB	367.499 TO 367.429	400.0	
ER-13	GNP 53	RT	GNP 56	RT	EB	367.384 TO 367.615	3932.2	
ER-35	GNP 125	RT	GNP 126	RT	EB	352.250 TO 352.075	50.0	
ER-36	GNP 126	RT	GNP 128	RT	EB	352.050 TO 351.670	50.0	



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/02/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.2703 ANCHORAGE UNITS FOR HPBO (MOD.) CORRUGATED BEAM GUIDE
RAILING

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-20	GNP 96	LT	GNP 97	LT	WB	358.208 TO 358.255	1.0	

Total: 1 EA



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/04/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.28 **HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED BEAM MEDIAN**
BARRIER END TERMINAL (ENERGY ABSORBING) Unit: **EA**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	1	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	1	
EL-3	GNP-33	LT	GNP-35	LT	EB	371.000 TO 371.433	1	

Total: **3 EA**



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
BUFFALO DIVISION

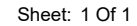
 Stantec Project # 192810522

Date: 12/4/2025
By: MED
Check: HCB
Sheet: 1 of 1

Item 606.2801 **HPBO (MOD.) CORRUGATED BEAM MEDIAN BARRIER** **Unit: LF**

RUN #	GNP	Side	GNP	Side	DIRECTION	MP TO MP	QUANTITY
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	62.5
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	937.5
M-4	GNP 41	LT	GNP 44	LT	WB/EB	369.850 TO 369.215	2562.5
M-5	GNP 44	LT	GNP 45	LT	WB/EB	369.205 TO 368.990	1152.5
M-6	GNP 66	LT	GNP 72	LT	WB/EB	363.437 TO 364.510	100.0
M-7	GNP 75	LT	GNP 76	LT	WB/EB	362.786 TO 362.410	1439.0
M-8	GNP 76	LT	GNP 77	LT	WB/EB	362.420 TO 362.240	448.0
M-9	GNP 77	LT	GNP 78	LT	WB/EB	362.295 TO 362.125	450.0
WL-6	GNP 35	LT	GNP 40	LT	WB	370.069 TO 370.944	3675.0
WL-7	GNP 44	LT	GNP 45	LT	WB	368.950 TO 369.145	175.0
WL-8	GNP 46	LT	GNP 52	LT	WB	367.495 TO 368.760	6625.0
WL-9	GNP 53	LT	GNP 56	LT	WB	366.625 TO 367.375	3350.0
WL-10	GNP 56	LT	GNP 57	LT	WB	366.430 TO 366.585	800.0
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	912.5
WL-12	GNP 59	LT	GNP 60	LT	WB	365.865 TO 366.101	875
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	25.0
EL-3	GNP-33	LT	GNP-35	LT	EB	371.000 TO 371.433	2287.5
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	50.0
EL-10	GNP 95	LT	GNP 97	LT	EB	358.473 TO 358.204	1415.0
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	50

Total: 27392.0 LF



Total:	2	EA
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SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/04/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.3042

SINGLE-SLOPE CONCRETE MEDIAN BARRIER

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	120.0	
M-2	GNP 17	LT	GNP 20	LT	WB/EB	374.757 TO 374.125	130.0	
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	100.0	
M-7	GNP 75	LT	GNP 76	LT	WB/EB	362.786 TO 362.410	310.0	
M-8	GNP 76	LT	GNP 77	LT	WB/EB	362.420 TO 362.240	400.0	
M-9	GNP 77	LT	GNP 78	LT	WB/EB	362.295 TO 362.125	370.0	
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	110.0	
WL-2	GNP 16	LT	GNP 17	LT	WB	374.782 TO 375.040	110.0	
WL-3	GNP 20	LT	GNP 21	LT	WB	373.990 TO 374.150	120.0	
WL-4	GNP 28	LT	GNP 29	LT	WB	372.380 TO 372.426	120.0	
WL-6	GNP 35	LT	GNP 40	LT	WB	370.069 TO 370.944	90.0	
WL-14	GNP 65	LT	GNP 65	LT	WB	364.710 TO 364.755	100.0	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	120.0	
WL-18	GNP 89	LT	GNP 89	LT	WB	359.750 TO 359.800	100.0	
EL-2	GNP 28	LT	GNP 29	LT	EB	372.535 TO 372.390	120.0	
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	100.0	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	140.0	
EL-8	GNP 89	LT	GNP 89	LT	EB	359.810 TO 359.759	100.0	
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	110.0	

Total: 2,870.0 LF

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R		Date: 12/04/2025 By: MED Check: 12/18/2025 By: AVL
	BUFFALO DIVISION Stantec Project # 192810522		Sheet: 1 Of 1

Item 606.3062 SINGLE-SLOPE CONCRETE HALF SECTION BARRIER (PRECAST)

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES		
	GNP	SIDE	GNP	SIDE						
WR-16 A	GNP 65	RT	GNP 65	RT	WB	364.726 TO 364.745	50.0			
WR-19 A	GNP 78	RT	GNP 78	RT	WB	362.105 TO 362.124	40.0			
WR-21 A	GNP 89	RT	GNP 89	RT	WB	359.769 TO 359.788	50.0			
WR-30 A	GNP 116	RT	GNP 116	RT	WB	354.106 TO 354.126	50.0			
WR-33 A	GNP 124	RT	GNP 124	RT	WB	352.348 TO 352.378	40.0			
ER-9	GNP 36	RT	GNP 36	RT	EB	370.819 TO 370.795	70.0			
ER-17 A	GNP 65	RT	GNP 65	RT	EB	364.768 TO 364.749	50.0			
ER-21	GNP 78	RT	GNP 78	RT	EB	362.145 TO 362.125	50.0			
ER-23 A	GNP89	RT	GNP 89	RT	EB	359.819 TO 359.799	50.0			
ER-30 A	GNP 116	RT	GNP 116	RT	EB	354.108 TO 354.088	50.0			
ER-34A	GNP 124	RT	GNP 124	RT	EB	352.356 TO 352.339	40.0			

Total: 540.0 LF

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/02/2025 By: MED Check: 12/10/2025 By: HCB
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

Item 606.4809 I-BEAM POSTS FOR EXISTING BOX BEAM GUIDE RAILING Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-3	GNP 15	RT	GNP 15	RT	WB	375.175 TO 375.195	8	

Total: 8 EA

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90	Date 12/04/2025
	MP 351.40 TO MP 378.20	By MED
	TAB 26-6R	Check 12/10/2025
		By HCB
BUFFALO DIVISION		Sheet 1 Of 1
Stantec Project # 192810522		

Item 606.51

RESETTING CORRUGATED BEAM GUIDE RAILING

Unit: LF

RUN #	FROM		TO		DIRECTION	MP TO MP	QUANTITY	NOTE
	GNP	SIDE	GNP	SIDE				
WR-26	GNP 107	RT	GNP 108	RT	WB	355.830 TO 356.078	50.0	
WL-17	GNP 85	LT	GNP 86	LT	WB	360.505 TO 360.595	413.0	

Total: 463 LF



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	NXA	DATE	12/1/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 606.5148

DESCRIPTION: RESETTING CORRUGATED BEAM GUIDE RAILING (NEW POSTS)

QUANTITY: 176 LF

Location MP 357.67:

Length: 88 LF

Location MP 367.17:

Length: 88 LF

[Summary](#)

Total =	176.0
Total =	176

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90		Date 12/04/2025 By MED Check 12/10/2025 By HCB Sheet 1 Of 1
	MP 351.40 TO MP 378.20		
	TAB 26-6R		
	BUFFALO DIVISION		
Stantec Project # 192810522			

Item 606.52

RESETTING CORRUGATED BEAM MEDIAN BARRIER

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
M-2	GNP 17	LT	GNP 20	LT	WB/EB	374.757 TO 374.125	775.0	
M-10	GNP 104	LT	GNP 108	LT	WB/EB	355.745 TO 356.585	800.0	
M-11	GNP 108	LT	GNP 110	LT	WB/EB	355.336 TO 355.711	1000.0	
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	750.0	
WL-2	GNP 16	LT	GNP 17	LT	WB	374.782 TO 375.040	1125.0	
WL-3	GNP 20	LT	GNP 21	LT	WB	373.990 TO 374.150	487.5	
EL-2	GNP 28	LT	GNP 29	LT	EB	372.535 TO 372.390	425.0	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	150.0	

Total: 5,513 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISON

Stantec Project # 192810522

Date: **12/04/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

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Item 606.53

RESETTING BOX BEAM GUIDE RAILING

Unit: **LF**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-14	GNP 65	LT	GNP 65	LT	WB	364.710 TO 364.755	18.0	
ER-9	GNP 36	RT	GNP 36	RT	EB	370.819 TO 370.795	54.0	

Total: **72.0 LF**



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISON

Stantec Project # 192810522

Date: **12/04/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

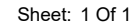
Item 606.58

**RESETTING HEAVY POST BLOCKED OUT (MOD.) CORRUGATED
BEAM GUIDE RAILING**

Unit: **LF**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-1	GNP 4	RT	GNP 4	RT	WB	377.437 TO 377.487	275.0	
WR-2	GNP 9	RT	GNP 9	RT	WB	376.503 TO 376.513	50.0	
WR-7	GNP 34	RT	GNP 35	RT	WB	371.159 TO 371.169	50.0	
WR-9	GNP 52	RT	GNP 52	RT	WB	367.100 TO 367.200	50.0	
WR-10	GNP 53	RT	GNP 52	RT	WB	367.400 TO 367.491	475.0	
WR-11	GNP 53	RT	GNP 53	RT	WB	367.345 TO 367.355	50.0	
WR-14	GNP 57	RT	GNP 58	RT	WB	366.305 TO 366.395	451.0	
WR-15	GNP 58	RT	GNP 58	RT	WB	366.171 TO 366.235	362.5	
WR-16	GNP 64	RT	GNP 64	RT	WB	365.005 TO 365.015	25.0	
WR-17	GNP 69	RT	GNP 69	RT	WB	363.893 TO 363.898	50.0	
WR-18	GNP 71	RT	GNP 71	RT	WB	363.637 TO 363.672	50.0	
WR-19	GNP 74	RT	GNP 74	RT	WB	363.021 TO 363.031	50.0	
WL-1	GNP 9	LT	GNP 9	LT	WB	376.424 TO 376.434	50.0	
WL-5	GNP 30	LT	GNP 30	LT	WB	372.061 TO 372.076	50.0	
WL-13	GNP 64	LT	GNP 64	LT	WB	364.995 TO 365.005	25.0	
ER-1	GNP 7	RT	GNP 7	RT	EB	376.840 TO 376.820	100.0	
ER-7	GNP 34	RT	GNP 34	RT	EB	371.311 TO 371.302	50.0	
ER-13	GNP 53	RT	GNP 56	RT	EB	367.384 TO 367.615	50.0	
ER-16	GNP 64	RT	GNP 64	RT	EB	365.111 TO 365.106	25.0	
ER-18	GNP 68	RT	GNP 68	RT	EB	364.255 TO 364.245	50.0	
ER-19	GNP 73	RT	GNP 73	RT	EB	363.180 TO 363.170	50.0	
EL-1	GNP 7	LT	GNP 7	LT	EB	376.919 TO 376.905	75.0	
EL-4	GNP 64	LT	GNP 64	LT	EB	365.121 TO 365.111	25.0	

Total: 2,489 LF



Total:	2	EA
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	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R		Date: 12/05/2025 By: MED Check: 12/10/2025 By: HCB
	BUFFALO DIVISION Stantec Project # 192810522		Sheet: 1 Of 1

Item 606.71 REMOVING AND DISPOSING CORRUGATED BEAM GUIDE RAILING

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	342.0	
ER-13	GNP 53	RT	GNP 56	RT	EB	367.384 TO 367.615	1,225.0	

Total: 1,567.0 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: 12/05/2025
By: MED
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By: HCB

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Item 606.7101 REMOVING AND DISPOSING HEAVY POSTS BLOCKED OUT (MOD.)
CORRUGATED BEAM GUIDE RAILING

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	89.0	
M-4	GNP 41	LT	GNP 44	LT	WB/EB	369.850 TO 369.215	837.5	
M-5	GNP 44	LT	GNP 45	LT	WB/EB	369.205 TO 368.990	100.0	
M-7	GNP 75	LT	GNP 76	LT	WB/EB	362.786 TO 362.410	179.2	
M-8	GNP 76	LT	GNP 77	LT	WB/EB	362.420 TO 362.240	389.0	
M-9	GNP 77	LT	GNP 78	LT	WB/EB	362.295 TO 362.125	363.0	
WR-6	GNP 23	RT	GNP 23	RT	WB	373.586 TO 373.636	200.0	
WR-12	GNP 54	RT	GNP 54	RT	WB	367.125 TO 367.140	50.0	
WR-20	GNP 79	RT	GNP 79	RT	WB	361.905 TO 362.005	50.0	
WR-23	GNP 97	RT	GNP 98	RT	WB	357.956 TO 358.095	50.0	
WR-24	GNP 99	RT	GNP 100	RT	WB	357.583 TO 357.800	50.0	
WL-10	GNP 56	LT	GNP 57	LT	WB	366.430 TO 366.585	455.0	
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	643.0	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	116.0	
ER-11	GNP 52	RT	GNP 52	RT	EB	367.610 TO 367.510	514.0	
ER-12	GNP 52	RT	GNP 53	RT	EB	367.499 TO 367.429	400.0	
ER-13	GNP 53	RT	GNP 56	RT	EB	367.384 TO 367.615	2700.0	
ER-36	GNP 125	RT	GNP 126	RT	EB	352.250 TO 352.075	50.0	
ER-37	GNP 126	RT	GNP 128	RT	EB	352.050 TO 351.670	50.0	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	114.3	

Total: 7,400.0 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
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By: **HCB**

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Item 606.72 REMOVING AND DISPOSING CORRUGATED BEAM MEDIAN BARRIER

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	248.8	
M-2	GNP 17	LT	GNP 20	LT	WB/EB	374.757 TO 374.125	281.0	
M-11	GNP 108	LT	GNP 110	LT	WB/EB	355.336 TO 355.711	162.5	
WL-2	GNP 16	LT	GNP 17	LT	WB	374.782 TO 375.040	262.5	
WL-3	GNP 20	LT	GNP 21	LT	WB	373.990 TO 374.150	267.5	
WL-4	GNP 28	LT	GNP 29	LT	WB	372.380 TO 372.426	257.0	
WL-8	GNP 46	LT	GNP 52	LT	WB	367.495 TO 368.760	1212.5	
WL-9	GNP 53	LT	GNP 56	LT	WB	366.625 TO 367.375	3400.0	
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	437.5	
WL-12	GNP 59	LT	GNP 60	LT	WB	365.865 TO 366.101	750.0	
WL-21	GNP 110	LT	GNP 110	LT	WB	355.265 TO 355.290	50.0	
EL-2	GNP 28	LT	GNP 29	LT	EB	372.535 TO 372.390	250.0	
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	400.0	

Subtotal: 7,979.3 LF

Total: 7,980 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: 12/05/2025
By: MED
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By: HCB

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Item 606.7201 REMOVING AND DISPOSING CORRUGATED BEAM MEDIAN BARRIER

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	62.5	
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	183.0	
M-4	GNP 41	LT	GNP 44	LT	WB/EB	369.850 TO 369.215	2450.0	
M-5	GNP 44	LT	GNP 45	LT	WB/EB	369.205 TO 368.990	186.0	
M-6	GNP 66	LT	GNP 72	LT	WB/EB	363.437 TO 364.510	100.0	
M-7	GNP 75	LT	GNP 76	LT	WB/EB	362.786 TO 362.410	1736.0	
M-8	GNP 76	LT	GNP 77	LT	WB/EB	362.420 TO 362.240	634.0	
M-9	GNP 77	LT	GNP 78	LT	WB/EB	362.295 TO 362.125	631.0	
WL-6	GNP 35	LT	GNP 40	LT	WB	370.069 TO 370.944	4883.0	
WL-7	GNP 44	LT	GNP 45	LT	WB	368.950 TO 369.145	1187.0	
WL-8	GNP 46	LT	GNP 52	LT	WB	367.495 TO 368.760	5462.5	
WL-10	GNP 56	LT	GNP 57	LT	WB	366.430 TO 366.585	619.0	
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	125.0	
WL-12	GNP 59	LT	GNP 60	LT	WB	365.865 TO 366.101	125.0	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	148.0	
WL-20	GNP 96	LT	GNP 97	LT	WB	358.208 TO 358.255	225.0	
EL-3	GNP-33	LT	GNP-35	LT	EB	371.000 TO 371.433	2300.0	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	210.8	
EL-10	GNP 95	LT	GNP 97	LT	EB	358.473 TO 358.204	1415.0	
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	50.0	

Total: 22,733 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/18/2025**
By: **AVL**

Sheet: 1 Of 1

Item 606.73

REMOVING AND DISPOSING BOX BEAM GUIDE RAILING

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-16 A	GNP 65	RT	GNP 65	RT	WB	364.726 TO 364.745	102.0	
WR-19 A	GNP 78	RT	GNP 78	RT	WB	362.105 TO 362.124	92.0	
WR-21 A	GNP 89	RT	GNP 89	RT	WB	359.769 TO 359.788	102.0	
WR-30 A	GNP 116	RT	GNP 116	RT	WB	354.106 TO 354.126	96.0	
WR-33	GNP 123	RT	GNP 123	RT	WB	352.690 TO 352.710	162.0	
WR-33 A	GNP 124	RT	GNP 124	RT	WB	352.348 TO 352.378	144.0	
WL-14	GNP 65	LT	GNP 65	LT	WB	364.710 TO 364.755	194.0	
ER-3	GNP 20	RT	GNP 20	RT	EB	374.209 TO 374.155	216.0	
ER-9	GNP 36	RT	GNP 36	RT	EB	370.819 TO 370.795	159.0	
ER-17 A	GNP 65	RT	GNP 65	RT	EB	364.768 TO 364.749	102.0	
ER-20	GNP 75	RT	GNP 75	RT	EB	362.835 TO 362.805	147.0	
ER-21	GNP 78	RT	GNP 78	RT	EB	362.145 TO 362.125	63.0	
ER-23 A	GNP89	RT	GNP 89	RT	EB	359.819 TO 359.799	102.0	
ER-30 A	GNP 116	RT	GNP 116	RT	EB	354.108 TO 354.088	102.0	
ER-34	GNP 123	RT	GNP 123	RT	EB	352.710 TO 352.690	162.0	
ER-34A	GNP 124	RT	GNP 124	RT	EB	352.356 TO 352.339	93.0	
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	216.0	
FISHER NB RIGHT	GNP 123	RT	GNP 123	RT	NB		124.0	
FISHER SB RIGHT	GNP 123	RT	GNP 123	RT	SB		119.1	

Subtotal: 2,497.1 LF

Total: 2,498.0 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

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Item 606.74

REMOVING AND DISPOSING BOX BEAM MEDIAN BARRIER

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
M-10	GNP 104	LT	GNP 108	LT	WB/EB	355.745 TO 356.585	36.0	
M-11	GNP 108	LT	GNP 110	LT	WB/EB	355.336 TO 355.711	264.0	
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	376.0	
WL-18	GNP 89	LT	GNP 89	LT	WB	359.750 TO 359.800	198.0	
WL-21	GNP 110	LT	GNP 110	LT	WB	355.265 TO 355.290	114.0	
EL-8	GNP 89	LT	GNP 89	LT	EB	359.810 TO 359.759	192.0	

Total: 1,180.0 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/18/2025**
By: **HC**
Check: **12/18/2025**
By: **AVL**

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Item 606.75

REMOVING AND DISPOSING CONCRETE BARRIER

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-16 A	GNP 65	RT	GNP 65	RT	WB	364.726 TO 364.745	100.0	
WR-19 A	GNP 78	RT	GNP 78	RT	WB	362.105 TO 362.124	80.0	
WR-21 A	GNP 89	RT	GNP 89	RT	WB	359.769 TO 359.788	90.0	
WR-30 A	GNP 116	RT	GNP 116	RT	WB	354.106 TO 354.126	80.0	
WR-33 A	GNP 124	RT	GNP 124	RT	WB	352.348 TO 352.378	80.0	
ER-17 A	GNP 65	RT	GNP 65	RT	EB	364.768 TO 364.749	100.0	
ER-23 A	GNP89	RT	GNP 89	RT	EB	359.819 TO 359.799	80.0	
ER-30 A	GNP 116	RT	GNP 116	RT	EB	354.108 TO 354.088	80.0	
ER-34A	GNP 124	RT	GNP 124	RT	EB	352.356 TO 352.339	80.0	

Total: 770.0 LF



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: 12/04/2025
By: MED
Check: 12/10/2025
By: HCB

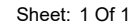
Sheet: 1 Of 1

Item 606.7510 REMOVING AND DISPOSING CONCRETE BARRIER - HALF SECTION

Unit: LF

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (LF)	NOTES
	GNP	SIDE	GNP	SIDE				
ER-21	GNP 78	RT	GNP 78	RT	EB	362.145 TO 362.125	79.0	

Total: 79.0 LF



Total:	9	EA
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SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
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By: **HCB**

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Item 606.7911

REMOVING AND DISPOSING WEAK AND HEAVY POST
CORRUGATED BEAM ENERGY ABSORBING TERMINALS

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	1	
M-5	GNP 44	LT	GNP 45	LT	WB/EB	369.205 TO 368.990	1	
WR-6	GNP 23	RT	GNP 23	RT	WB	373.586 TO 373.636	1	
WR-20	GNP 79	RT	GNP 79	RT	WB	361.905 TO 362.005	1	
WR-23	GNP 97	RT	GNP 98	RT	WB	357.956 TO 358.095	1	
WR-24	GNP 99	RT	GNP 100	RT	WB	357.583 TO 357.800	1	
WR-29	GNP 112	RT	GNP 112	RT	WB	354.860 TO 354.970	1	
WR-35	GNP 127	RT	GNP 128	RT	WB	351.638 TO 351.808	1	
WL-6	GNP 35	LT	GNP 40	LT	WB	370.069 TO 370.944	1	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	1	
WL-20	GNP 96	LT	GNP 97	LT	WB	358.208 TO 358.255	1	
ER-22	GNP 78	RT	GNP 79	RT	EB	362.079 TO 361.978	1	
ER-23	GNP 85	RT	GNP 85	RT	EB	360.674 TO 360.567	1	
ER-35	GNP 125	RT	GNP 126	RT	EB	352.250 TO 352.075	1	
ER-36	GNP 126	RT	GNP 128	RT	EB	352.050 TO 351.670	1	
EL-3	GNP-33	LT	GNP-35	LT	EB	371.000 TO 371.433	1	
EL-7	GNP 85	LT	GNP 85	LT	EB	360.668 TO 360.562	1	

Total: 17 EA



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

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Item 606.7920 REMOVING AND DISPOSING BOX BEAM GUIDE RAILING TURNED
DOWN TERMINAL Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-14	GNP 65	LT	GNP 65	LT	WB	364.710 TO 364.755	1	
ER-5	GNP 24	RT	GNP 24	RT	EB	373.351 TO 373.330	1	
ER-9	GNP 36	RT	GNP 36	RT	EB	370.819 TO 370.795	1	
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	1	
FISHER NB RIGHT	GNP 123	RT	GNP 123	RT	NB		2	
FISHER SB RIGHT	GNP 123	RT	GNP 123	RT	SB		2	

Total: 8 EA



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

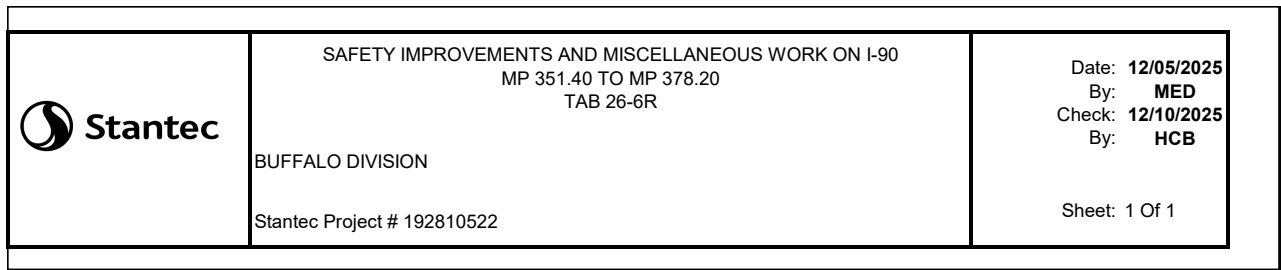
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Item 606.7921 **REMOVING AND DISPOSING BOX BEAM GUIDE RAILING ENERGY**
ABSORBING TERMINAL Unit: **EA**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WR-4	GNP 16	RT	GNP 16	RT	WB	374.956 TO 374.965	1	
WR-5	GNP 21	RT	GNP 21	RT	WB	374.060 TO 374.065	1	
WR-25	GNP 105	RT	GNP 105	RT	WB	356.466 TO 356.471	1	
WR-28	GNP 111	RT	GNP 111	RT	WB	355.166 TO 355.175	1	
WL-19	GNP 90	LT	GNP 90	LT	WB	359.560 TO 359.575	1	
ER-2	GNP 16	RT	GNP 16	RT	EB	375.105 TO 375.100	1	
ER-3	GNP 20	RT	GNP 20	RT	EB	374.209 TO 374.155	1	
ER-4	GNP 23	RT	GNP 23	RT	EB	373.563 TO 373.558	1	
ER-6	GNP 28	RT	GNP 28	RT	EB	372.501 TO 372.496	1	
ER-8	GNP 36	RT	GNP 36	RT	EB	370.888 TO 370.883	1	
ER-17	GNP 65	RT	GNP 65	RT	EB	364.840 TO 364.835	1	
ER-24	GNP 90	RT	GNP 90	RT	EB	359.663 TO 359.653	1	
ER-33	GNP 122	RT	GNP 122	RT	EB	352.945 TO 352.935	1	
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	1	
EL-9	GNP 90	LT	GNP 90	LT	EB	359.678 TO 359.668	1	
EL-11	GNP 102	LT	GNP 102	LT	EB	357.071 TO 357.061	1	

Total: **16** EA



	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/05/2025 By: MED Check: 12/10/2025 By: HCB
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	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/05/2025 By: MED Check: 12/10/2025 By: HCB
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	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/05/2025 By: MED Check: 12/10/2025 By: HCB
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	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/05/2025 By: MED Check: 12/10/2025 By: HCB
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	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/05/2025 By: MED Check: 12/10/2025 By: HCB
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

Item 606.7930	REMOVING AND DISPOSING BOX BEAM MEDIAN BARRIER END ASSEMBLY- TYPE A	Unit:	EA
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	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
RUN #	GNP	SIDE	GNP	SIDE				
WL-18	GNP 89	LT	GNP 89	LT	WB	359.750 TO 359.800	1	

Total:		1	EA
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SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.7931 REMOVING AND DISPOSING BOX BEAM MEDIAN BARRIER END
ASSEMBLY- TYPE B

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	1	
EL-8	GNP 89	LT	GNP 89	LT	EB	359.810 TO 359.759	1	

Total: 2 EA



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.7932 REMOVING AND DISPOSING BOX BEAM MEDIAN BARRIER END
ASSEMBLY- TYPE C

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-10	GNP 104	LT	GNP 108	LT	WB/EB	355.745 TO 356.585	1	
M-11	GNP 108	LT	GNP 110	LT	WB/EB	355.336 TO 355.711	1	
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	1	
WL-18	GNP 89	LT	GNP 89	LT	WB	359.750 TO 359.800	1	
WL-22	GNP 111	LT	GNP 111	LT	WB	355.115 TO 355.125	1	
EL-8	GNP 89	LT	GNP 89	LT	EB	359.810 TO 359.759	1	

Total: 6 EA



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

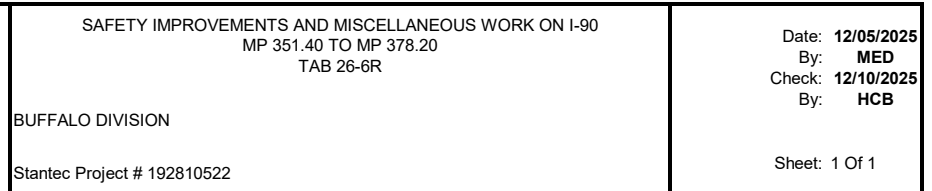
Sheet: 1 Of 1

Item 606.7941 **REMOVING AND DISPOSING ANCHORAGE UNITS FOR HEAVY
POSTS BLOCKED OUT (MOD.) CORRUGATED BEAM GUIDE RAILING**

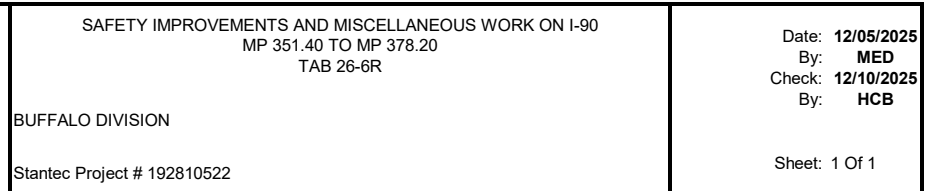
Unit: **EA**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	1	
M-7	GNP 75	LT	GNP 76	LT	WB/EB	362.786 TO 362.410	2	
M-8	GNP 76	LT	GNP 77	LT	WB/EB	362.420 TO 362.240	2	
M-9	GNP 77	LT	GNP 78	LT	WB/EB	362.295 TO 362.125	2	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	1	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	1	

Total: **9 EA**



	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
RUN #	GNP	SIDE	GNP	SIDE				
M-5	GNP 44	LT	GNP 45	LT	WB/EB	369.205 TO 368.990	1	
Total:							1	EA



Sheet: 1 Of 1

Unit: EA

Total:	2	EA
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	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/05/2025 By: MED Check: 12/18/2025 By: AVL
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

Item 606.8803 **TRANSITION BETWEEN BOX BEAM GUIDE RAIL AND SINGLE SLOPE**
HALF SECTION CONCRETE BARRIER (ONE OR TWO WAY OPERATION) Unit: **EA**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-14	GNP 65	LT	GNP 65	LT	WB	364.710 TO 364.755	1	
WR-16A	GNP 65	RT	GNP 65	RT	WB	364.726 TO 364.745	1	
WR-19A	GNP 78	RT	GNP 78	RT	WB	362.105 TO 362.124	1	
WR-21A	GNP 89	RT	GNP 89	RT	WB	359.769 TO 359.788	1	
WR-30A	GNP 116	RT	GNP 116	RT	WB	354.106 TO 354.126	1	
WR-33A	GNP 124	RT	GNP 124	RT	WB	352.348 TO 352.378	2	
ER-9	GNP 36	RT	GNP 36	RT	EB	370.819 TO 370.795	1	
ER-17A	GNP 65	RT	GNP 65	RT	EB	364.768 TO 364.749	2	
ER-21	GNP 78	RT	GNP 78	RT	EB	362.145 TO 362.125	1	
ER-23A	GNP89	RT	GNP 89	RT	EB	359.819 TO 359.799	1	
ER-30A	GNP 116	RT	GNP 116	RT	EB	354.108 TO 354.088	1	
ER-34A	GNP 124	RT	GNP 124	RT	EB	352.356 TO 352.339	1	
EL-5	GNP 65	LT	GNP 65	LT	EB	364.770 TO 364.735	1	
Total:							15	EA



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

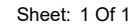
Sheet: 1 Of 1

Item 606.8805 TRANSITION BETWEEN BOX BEAM MEDIAN BARRIER AND SINGLE
SLOPE CONCRETE MEDIAN BARRIER

Unit: EA

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
WL-18	GNP 89	LT	GNP 89	LT	WB	359.750 TO 359.800	1	
EL-8	GNP 89	LT	GNP 89	LT	EB	359.810 TO 359.759	1	

Total: 2 EA



Total:	1	EA
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SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

Sheet: 1 Of 1

Item 606.8905 **TRANSITION: HEAVY POSTS BLOCKED OUT (MOD.) CORRUGATED
BEAM MEDIAN BARRIER TO WEAK POST CORRUGATED BEAM
MEDIAN BARRIER**

Unit: **EA**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	1	
M-2	GNP 17	LT	GNP 20	LT	WB/EB	374.757 TO 374.125	1	
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	1	
WL-2	GNP 16	LT	GNP 17	LT	WB	374.782 TO 375.040	1	
WL-3	GNP 20	LT	GNP 21	LT	WB	373.990 TO 374.150	1	
WL-4	GNP 28	LT	GNP 29	LT	WB	372.380 TO 372.426	1	
WL-8	GNP 46	LT	GNP 52	LT	WB	367.495 TO 368.760	1	
WL-9	GNP 53	LT	GNP 56	LT	WB	366.625 TO 367.375	1	
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	2	
EL-2	GNP 28	LT	GNP 29	LT	EB	372.535 TO 372.390	1	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	1	
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	1	

Total: **13** **EA**



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date: **12/05/2025**
By: **MED**
Check: **12/10/2025**
By: **HCB**

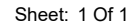
Sheet: 1 Of 1

Item 606.8906 **TRANSITION HEAVY POSTS BLOCKED OUT (MOD.) CORRUGATED**
BEAM MEDIAN BARRIER TO SINGLE SLOPE CONCRETE MEDIAN
BARRIER

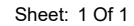
Unit: **EA**

RUN #	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	PAYMENT (EA)	NOTES
	GNP	SIDE	GNP	SIDE				
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	1	
M-2	GNP 17	LT	GNP 20	LT	WB/EB	374.757 TO 374.125	1	
M-3	GNP 35	LT	GNP 36	LT	WB/EB	370.994 TO 370.780	1	
M-7	GNP 75	LT	GNP 76	LT	WB/EB	362.786 TO 362.410	2	
M-8	GNP 76	LT	GNP 77	LT	WB/EB	362.420 TO 362.240	2	
M-9	GNP 77	LT	GNP 78	LT	WB/EB	362.295 TO 362.125	2	
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	1	
WL-2	GNP 16	LT	GNP 17	LT	WB	374.782 TO 375.040	1	
WL-3	GNP 20	LT	GNP 21	LT	WB	373.990 TO 374.150	1	
WL-4	GNP 28	LT	GNP 29	LT	WB	372.380 TO 372.426	1	
WL-6	GNP 35	LT	GNP 40	LT	WB	370.069 TO 370.944	1	
WL-15	GNP 78	LT	GNP 78	LT	WB	362.050 TO 362.125	1	
EL-2	GNP 28	LT	GNP 29	LT	EB	372.535 TO 372.390	1	
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	1	
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	1	

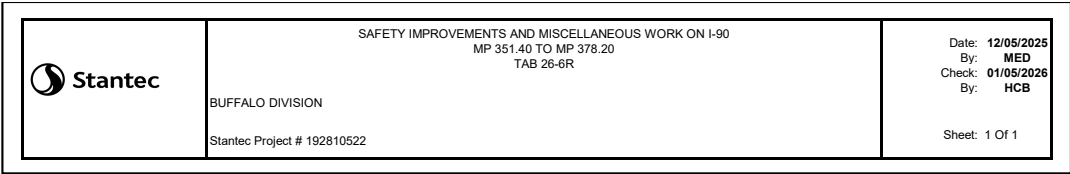
Total: 18 EA



Total:	1	EA
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Total:	2	EA
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REPLACE GUIDE RAIL SPLICE BOLTS

52,474 Unit: EA

	START		END		DIRECTION	APPROX. MILEPOST TO MILEPOST	LENGTH OF REPLACEMENT ¹ (LF)	SPlice COUNT [(LENGTH/12.5)*1]	PAYMENT ² (EA)	NOTES
RUN #	GNP	SIDE	GNP	SIDE						
M-1	GNP 11	LT	GNP 16	LT	WB/EB	375.995 TO 375.030	4698.5	377	4,826	16 bolts per splice (assume 80% of all splices, per RSAR)
M-2	GNP 17	LT	GNP 20	LT	WB/EB	374.757 TO 374.125	2387.0	192	3,072	16 bolts per splice
M-4	GNP 41	LT	GNP 44	LT	WB/EB	369.850 TO 369.215	837.5	68	544	8 bolts per splice
M-6	GNP 66	LT	GNP 72	LT	WB/EB	363.437 TO 364.510	5509.5	442	7,072	16 bolts per splice
M-10	GNP 104	LT	GNP 108	LT	WB/EB	355.745 TO 356.585	3631.0	292	4,672	16 bolts per splice
M-11	GNP 108	LT	GNP 110	LT	WB/EB	355.336 TO 355.711	1204.5	98	1,568	16 bolts per splice
M-12	GNP 124	LT	GNP 129	LT	WB/EB	352.375 TO 351.402	4071.0	327	5,232	16 bolts per splice
WR-13	GNP 56	RT	GNP 57	RT	WB	366.430 TO 366.585	828.5	68	544	8 bolts per splice
WR-20	GNP 79	RT	GNP 79	RT	WB	361.905 TO 362.005	431.0	36	288	8 bolts per splice
WR-21	GNP 85	RT	GNP 86	RT	WB	360.500 TO 360.595	511.5	42	336	8 bolts per splice
WR-22	GNP 90	RT	GNP 90	RT	WB	359.570 TO 359.650	426.5	36	288	8 bolts per splice
WR-23	GNP 97	RT	GNP 98	RT	WB	357.956 TO 358.095	611.0	50	400	8 bolts per splice
WR-24	GNP 99	RT	GNP 100	RT	WB	357.583 TO 357.800	941.5	77	616	8 bolts per splice
WR-26	GNP 107	RT	GNP 108	RT	WB	355.830 TO 356.078	1253.5	102	816	8 bolts per splice
WR-29	GNP 112	RT	GNP 112	RT	WB	354.860 TO 354.970	476.5	40	320	8 bolts per splice
WR-30	GNP 115	RT	GNP 115	RT	WB	354.220 TO 354.325	561.5	46	368	8 bolts per splice
WR-31	GNP 118	RT	GNP 119	RT	WB	353.475 TO 353.635	848.5	69	552	8 bolts per splice
WR-32	GNP 119	RT	GNP 120	RT	WB	353.255 TO 353.390	637.5	52	424	8 bolts per splice
WR-34	GNP 125	RT	GNP 126	RT	WB	352.044 TO 352.165	549.0	45	360	8 bolts per splice
WR-35	GNP 127	RT	GNP 128	RT	WB	351.638 TO 351.808	625.0	51	408	8 bolts per splice
WL-4	GNP 28	LT	GNP 29	LT	WB	372.380 TO 372.426	417.0	35	560	16 bolts per splice
WL-11	GNP 57	LT	GNP 59	LT	WB	366.135 TO 366.400	360.5	30	480	16 bolts per splice
WL-12	GNP 59	LT	GNP 60	LT	WB	365.865 TO 366.101	414.5	35	560	16 bolts per splice
WL-16	GNP 78	LT	GNP 82	LT	WB	361.322 TO 362.050	3830.0	308	4,928	16 bolts per splice
WL-17	GNP 85	LT	GNP 86	LT	WB	360.505 TO 360.595	50.0	5	40	8 bolts per splice
ER-14	GNP 56	RT	GNP 57	RT	EB	366.591 TO 366.451	779.5	64	512	8 bolts per splice
ER-15	GNP 57	RT	GNP 58	RT	EB	366.411 TO 366.315	495.5	41	328	8 bolts per splice
ER-22	GNP 78	RT	GNP 79	RT	EB	362.079 TO 361.978	500.0	41	328	8 bolts per splice
ER-23	GNP 85	RT	GNP 85	RT	EB	360.674 TO 360.567	513.5	43	344	8 bolts per splice
ER-25	GNP 97	RT	GNP 98	RT	EB	358.082 TO 357.920	842.0	69	552	8 bolts per splice
ER-26	GNP 98	RT	GNP 100	RT	EB	357.813 TO 357.533	1436.5	116	928	8 bolts per splice
ER-27	GNP 106	RT	GNP 107	RT	EB	356.208 TO 355.979	1187.5	96	776	8 bolts per splice
ER-29	GNP 109	RT	GNP 109	RT	EB	355.639 TO 355.482	812.0	66	528	8 bolts per splice
ER-30	GNP 112	RT	GNP 112	RT	EB	355.049 TO 354.923	562.0	46	368	8 bolts per splice
ER-31	GNP 118	RT	GNP 118	RT	EB	353.733 TO 353.604	625.0	51	408	8 bolts per splice
ER-32	GNP-119	RT	GNP 120	RT	EB	353.534 TO 353.335	1092.5	89	712	8 bolts per splice
ER-35	GNP 125	RT	GNP 126	RT	EB	352.250 TO 352.075	813.5	67	536	8 bolts per splice
ER-36	GNP 126	RT	GNP 128	RT	EB	352.050 TO 351.670	1926.0	156	1,248	8 bolts per splice
EL-6	GNP 74	LT	GNP 75	LT	EB	362.971 TO 362.760	686.5	56	896	16 bolts per splice
EL-7	GNP 85	LT	GNP 85	LT	EB	360.668 TO 360.562	511.0	42	336	8 bolts per splice
EL-12	GNP 121	LT	GNP 125	LT	EB	353.070 TO 352.305	3424.5	275	4,400	16 bolts per splice

(1) MEASURED IN CADD

(2) SPlice COUNT * BOLTS PER SPlice NOTED



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **TURF ESTABLISHMENT - PERFORMANCE**

ITEM NO. **610.1605**

QUANTITY **528 SY**

DWG. WZTC-11 (Fishers Road)

SW Quad = 1,185 SF

SE Quad = 1,210 SF

NW Quad = 1,180 SF

NE Quad = 1,175 SF

= 4,750 SF / 9 SF/SY = 528 SY

Total = 528 SY



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	2
CALCULATED BY	SML	DATE	12/5/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 610.1605

DESCRIPTION: TURF ESTABLISHMENT PERFORMANCE

QUANTITY: 578 SY

Subtotal

Location MP 355.20 Outlet:

Collar Width: 13.08 FT
Collar Length: 7.00 FT
Pipe Width: 9.50 FT
Pipe Length: 56.50 FT

Area: 69.81 SY

69.8

Location MP 358.57 EB Inlet:

Collar Width: 12.83 FT
Collar Length: 7.00 FT
Pipe Width: 8.83 FT
Pipe Length: 7.00 FT

Area: 16.85 SY

16.9

Location MP 358.57 EB Outlet:

Collar Width: 12.83 FT
Collar Length: 7.00 FT
Pipe Width: 8.83 FT
Pipe Length: 5.50 FT

Area: 15.38 SY

15.4

Location MP 358.57 WB Inlet:

Collar Width: 12.83 FT
Collar Length: 7.00 FT
Pipe Width: 8.83 FT
Pipe Length: 5.50 FT

Area: 15.38 SY

15.4

Page Total = 117.4
Sub-Total = 117.4

ITEM NO. 610.1605

Location MP 358.57 WB Outlet:

Collar Width: 12.83 FT
 Collar Length: 7.00 FT
 Pipe Width: 8.83 FT
 Pipe Length: 17.00 FT
 Area: 26.67 SY

26.7

Location MP 367.17 Inlet:

Pipe Width: 11.50 FT
 Pipe Length: 15.33 FT
 Area: 19.59 SY

19.6

Location MP 367.17 Outlet:

Pipe Width: 12.50 FT
 Pipe Length: 10.08 FT
 Area: 14.00 SY

14.0

Assumed disturbed areas by item 621.51970008 (See Dwg DD-1):

MP 353.63: 50.00 SY
 MP 355.20: 50.00 SY
 MP 357.67: 50.00 SY
 MP 358.57 EB: 50.00 SY
 MP 358.57 WB: 50.00 SY
 MP 360.60: 50.00 SY
 MP 367.17: 50.00 SY
 MP 368.57: 50.00 SY

Total Assumed Area: 400.00 SY

400.0

[Summary](#)

Page Total = 460.3
 Sub-Total = 577.7
Total = 578



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/16/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **TREE REMOVAL OVER 12 IN TO 18 IN DIA BREAST HEIGHT** ITEM NO. **614.060303**
- STUMPS CUT TO BELOW GRADE QUANTITY **2 EA**

See table on dwg. MST-14

TREE REMOVAL TABLE			
ITEM NO.	DESCRIPTION		PAY UNIT
614.060303	TREE REMOVAL OVER 12 INCHES TO 18 INCHES DIAMETER BREAST HEIGHT - STUMPS CUT TO BELOW GRADE		EA
614.060403	TREE REMOVAL OVER 18 INCHES TO 24 INCHES DIAMETER BREAST HEIGHT - STUMPS CUT TO BELOW GRADE		EA
LOCATION	614.060303 (EA)	614.060403 (EA)	REMARKS
WESTBOUND RIGHT	MP 358.451 (2)	MP 358.451 (2)	
TOTALS:	2	2	

NOTES:

1. THE TREE REMOVAL TABLE HAS BEEN DEVELOPED AS A GUIDE AND IT IDENTIFIES DEAD TREES ONLY. ALL TREE REMOVALS SHALL BE APPROVED BY THE EIC PRIOR TO ANY TREE REMOVAL ACTIVITIES.
2. THE CONTRACTOR SHALL NOTE THAT TREE REMOVALS FROM MP 351.40 TO MP 378.20 ARE REQUIRED TO BE CLEARED BETWEEN NOVEMBER 01, 2026 AND MARCH 30, 2027. ALL OTHER TREES CAN BE CLEARED AT ANY TIME.

Total = 2 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/16/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **TREE REMOVAL OVER 18 IN TO 24 IN DIA BREAST HEIGHT** ITEM NO. **614.060403**
- STUMPS CUT TO BELOW GRADE QUANTITY **2 EA**

See table on dwg. MST-14

TREE REMOVAL TABLE			
ITEM NO.	DESCRIPTION		PAY UNIT
614.060303	TREE REMOVAL OVER 12 INCHES TO 18 INCHES DIAMETER BREAST HEIGHT - STUMPS CUT TO BELOW GRADE		EA
614.060403	TREE REMOVAL OVER 18 INCHES TO 24 INCHES DIAMETER BREAST HEIGHT - STUMPS CUT TO BELOW GRADE		EA
LOCATION	614.060303 (EA)	614.060403 (EA)	REMARKS
WESTBOUND RIGHT	MP 358.451 (2)	MP 358.451 (2)	
TOTALS:	2	2	

NOTES:

1. THE TREE REMOVAL TABLE HAS BEEN DEVELOPED AS A GUIDE AND IT IDENTIFIES DEAD TREES ONLY. ALL TREE REMOVALS SHALL BE APPROVED BY THE EIC PRIOR TO ANY TREE REMOVAL ACTIVITIES.
2. THE CONTRACTOR SHALL NOTE THAT TREE REMOVALS FROM MP 351.40 TO MP 378.20 ARE REQUIRED TO BE CLEARED BETWEEN NOVEMBER 01, 2026 AND MARCH 30, 2027. ALL OTHER TREES CAN BE CLEARED AT ANY TIME.

Total = 2 EA



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	SML	DATE	12/5/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 617.01020024

DESCRIPTION: CONTROLLING INVASIVE PLANT SPECIES BY PULLING

QUANTITY: 2,000 SF

Subtotal

250 square feet of Item 617.01020024 is assumed at every culvert.

Location MP 353.63:

Volume: 250.0 SF

250.0

Location MP 355.20:

Volume: 250.0 SF

250.0

Location MP 357.67:

Volume: 250.0 SF

250.0

Location MP 358.57 EB:

Volume: 250.0 SF

250.0

Location MP 358.57 WB:

Volume: 250.0 SF

250.0

Location MP 360.60:

Volume: 250.0 SF

250.0

Location MP 367.17:

Volume: 250.0 SF

250.0

Location MP 368.57:

Volume: 250.0 SF

250.0

Summary

Total =	2,000.0
Total =	2,000



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	SML	DATE	12/5/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 617.01030024

DESCRIPTION: CONTROLLING INVASIVE PLANT SPECIES BY EXCAVATION

QUANTITY: 80 CY

Subtotal

10 cubic yard of Item 617.01030024 is assumed at every culvert.

Location MP 353.63:

Volume: 10.0 CY

10.0

Location MP 355.20:

Volume: 10.0 CY

10.0

Location MP 357.67:

Volume: 10.0 CY

10.0

Location MP 358.57 EB:

Volume: 10.0 CY

10.0

Location MP 358.57 WB:

Volume: 10.0 CY

10.0

Location MP 360.60:

Volume: 10.0 CY

10.0

Location MP 367.17:

Volume: 10.0 CY

10.0

Location MP 368.57:

Volume: 10.0 CY

10.0

Summary

Total =	80.0
Total =	80



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	3
CALCULATED BY	SML	DATE	10/7/2025
CHECKED BY	SM	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 617.10000024

DESCRIPTION: DISPOSAL OF MATERIAL CONTAINING INVASIVE PLANT SPECIES

QUANTITY: 80 CY

Subtotal

Seven cubic yard of Item 617.10000024 is assumed at every culvert.

Location MP 353.63:

Volume: 10.0 CY

10.0

Location MP 355.20:

Volume: 10.0 CY

10.0

Location MP 357.67:

Volume: 10.0 CY

10.0

Location MP 358.57 EB:

Volume: 10.0 CY

10.0

Location MP 358.57 WB:

Volume: 10.0 CY

10.0

Location MP 360.60:

Volume: 10.0 CY

10.0

Location MP 367.17:

Volume: 10.0 CY

10.0

Location MP 368.57:

Volume: 10.0 CY

10.0

[Summary](#)

Total =	80.0
Total =	80

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214829 - NYSTA Assignment 1 - OSS

SHEET NO. 1 OF 1

CALCULATED BY	<u>SML</u>	DATE	<u>12/5/2025</u>
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CHECKED BY SM DATE 12/8/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 617.11000024

DESCRIPTION: EQUIPMENT CLEANING FOR INVASIVE PLANT SPECIES

QUANTITY: 1 LS

Subtotal

Equipment Cleaning for Invasive Plant Species is a Lump Sum Item.

Lump Sum: 1.0 LS

1.0

Summary

Total =	1.0
Total =	1



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 10/10/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	BASIC WORK ZONE TRAFFIC CONTROL	ITEM NO.	619.01
		QUANTITY	1 LS

Total = 1 LS



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	ITEM NO.
TYPE III CONSTRUCTION BARRICADES	619.04
	12 EA

DWG. WZTC-7 to WZTC-10 = 1 EA (Fishers Road)

3 EA per lane x 4 locations = 12 EA

Total = 12 EA



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	2
CALCULATED BY	NXA	DATE	12/3/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 619.08010325

DESCRIPTION: REMOVE PAVEMENT MARKING STRIPES (6 INCHES) (REMOVABLE TAPE)

QUANTITY: 1,970 LF

Subtotal

Centerline Stripe at MP 357.67:

Taper Length:	130	LF
Number of Tapers:	2	EA

Tangent Length:	500	LF
Tangent TPB Length:	140	LF

Total Length:	900	LF
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Striped Length:	225	LF
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225.0

Centerline Stripe at MP 367.17:

Taper Length:	130	LF
Number of Tapers:	2	EA

Tangent Length:	500	LF
Tangent TPB Length:	140	LF

Total Length:	900	LF
---------------	-----	----

Striped Length:	225	LF
-----------------	-----	----

225.0

Page Total =	450.0
Sub-Total =	450.0

ITEM NO. 619.08010325

Edge Stripe at MP 357.67:

Taper Length: 130 LF
 Number of Tapers: 2 EA

Tangent Length: 500 LF

Total Length: 760 LF

760.0

Edge Stripe at MP 367.17:

Taper Length: 130 LF
 Number of Tapers: 2 EA

Tangent Length: 500 LF

Total Length: 760 LF

760.0

[Summary](#)

Page Total = 1,520.0
 Sub-Total = 1,970.0
TOTAL = 1,970



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION		ITEM NO.	619.0803
		QUANTITY	600 LF

DWG. WZTC-7 = 150 LF x 2 stripes = 300 LF
DWG. WZTC-8 = 150 LF x 2 stripes = 300 LF
DWG. WZTC-9 = Same length of striping to stay covered as WZTC-7
DWG. WZTC-10 = Same length of striping to stay covered as WZTC-8

Total = 600 LF



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	ITEM NO.
TEMPORARY PAVEMENT MARKING STRIPES	619.0903
(REMOVABLE TAPE)	1,778 LF

DWG. WZTC-7

100 LF x 2 = 200 LF (Double yellow)

12 LF x 4.5 = 54 LF (18" Stop bar)

DWG. WZTC-7 & 8

100 LF + 435 LF + 100 LF = 635 LF (White stripe along barrier)

DWG. WZTC-8

12 LF x 4.5 = 54 LF (18" Stop bar)

100 LF x 2 = 200 LF (Double yellow)

DWG. WZTC-9 & 10

100 LF + 435 LF + 100 LF = 635 LF (White stripe along barrier)

Total = 1,778 LF



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214829 - NYSTA Assignment 1 - OSS		
SHEET NO.	1	OF	1
CALCULATED BY	NXA	DATE	12/3/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 619.10010425

DESCRIPTION: INTERIM PAVEMENT MARKINGS, STRIPES (6 INCHES) (REMOVABLE WET REFLECTIVE TAPE)

QUANTITY: 4,400 LF

Subtotal

Location MP 357.67:

End Length: 100 LF
Number of Ends: 2 EA

Taper Length: 130 LF
Number of Tapers: 2 EA

Tangent Length: 500 LF
Tangent TPB Length: 140 LF

Length of Each Stripe: 1100 LF

Number of Stripes: 2 EA

Total Length: 2200 LF

2,200.0

Location MP 367.17:

End Length: 100 LF
Number of Ends: 2 EA

Taper Length: 130 LF
Number of Tapers: 2 EA

Tangent Length: 500 LF
Tangent TPB Length: 140 LF

Length of Each Stripe: 1100 LF

Number of Stripes: 2 EA

Total Length: 2200 LF

2,200.0

Summary

Total = 4,400.0
Total = 4,400



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	<u>(PVMS) STANDARD SIZE – LINE OR CHARACTER MATRIX (LED)</u>	ITEM NO.	<u>619.111113</u>
	<u>NO OPTIONAL EQUIPMENT SPEC., CELL. COMM. W/NTCIP COMP</u>	QUANTITY	<u>2 EA</u>

DWG. WZTC-7 to WZTC-10 = 2 EA (Fishers Road)

Total = 2 EA



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	TEMPORARY TRAFFIC SIGNALS – PORTABLE TRAFFIC	ITEM NO.	619.130201
	SIGNAL SYSTEM	QUANTITY	1 ELOC

DWG. WZTC-7 to WZTC-10 = 1 EA (Fishers Road)

Total = 1 ELOC



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	NXA	DATE	12/3/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 619.1706 25

DESCRIPTION: LINEAR DELINEATION SYSTEM

QUANTITY: 91 LF

Subtotal

Location MP 357.67:

Length of TPB Adjacent to EOT:	140	LF
TPB Length:	20	LF
Number of TPB:	7	EA
Number of Delineators per TPB:	2	EA
Length of each Delineator:	34	IN
Total Length of Delineators:	40	LF

40

Location MP 362.08:

Length of TPB Adjacent to EOT:	40	LF
TPB Length:	20	LF
Number of TPB:	2	EA
Number of Delineators per TPB:	2	EA
Length of each Delineator:	34	IN
Total Length of Delineators:	11	LF

11

Location MP 367.17:

Length of TPB Adjacent to EOT:	140	LF
TPB Length:	20	LF
Number of TPB:	7	EA
Number of Delineators per TPB:	2	EA
Length of each Delineator:	34	IN
Total Length of Delineators:	40	LF

40

Summary

Total =	91.0
Total =	91



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	ITEM NO.
TEMPORARY POSITIVE BARRIER – CATEGORY 1	619.1711
(PINNING PROHIBITED)	1,714 LF

DWG. WZTC-4 = 462 LF (Eastbound over Fishers Road)
DWG. WZTC-5 = 462 LF (Westbound over Fishers Road)
DWG. WZTC-7 & 8 = 390 LF (Eastern lane closure Fishers Road)
DWG. WZTC-9 & 10 = 400 LF (Western lane closure Fishers Road)

Total = 1,714 LF

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>NXA</u>	DATE	<u>12/3/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 619.1711

DESCRIPTION: TEMPORARY POSITIVE BARRIER - CATEGORY 1 (PINNING PROHIBITED)

QUANTITY: 640 LF

Subtotal

Location MP 357.67:

Length: 340 LF

340.0

Location MP 367.17:

Length: 300 LF

300.0

Summary

Total =	640.0
Total =	640



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	HRR	DATE	12/11/2025
CHECKED BY	EJB	DATE	12/11/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 619.1715

DESCRIPTION: TEMPORARY POSITIVE BARRIER - CATEGORY 5 (PINNING PROHIBITED)

QUANTITY: 240 LF

Location MP 362.08:

Length: 240 LF

Subtotal

240.0

[Summary](#)

Total =	240.0
TOTAL =	240



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	ITEM NO.
TEMPORARY IMPACT ATTENUATOR – REDIRECTIVE	619.1803
(TEST LEVEL 3)	2 EA

DWG. WZTC-4 = 1 EA (Eastbound over Fishers Road)
DWG. WZTC-5 = 1 EA (Westbound over Fishers Road)

Total = 2 EA

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>NXA</u>	DATE	<u>12/3/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 619.1803

DESCRIPTION: TEMPORARY IMPACT ATTENUATOR - REDIRECTIVE (TEST LEVEL 3)

QUANTITY: 2 EACH

Subtotal

Location MP 357.67:

Quantity: 1 EA

1.0

Location MP 367.17:

Quantity: 1 EA

1.0

Summary

Total =	2.0
Total =	2



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/6/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 620.06520009

DESCRIPTION: RESET EXISTING STONE FILLING

QUANTITY: 210 SY

Location MP 360.60:

Area: 190.0 SY

Location MP 353.63:

Area: 20.0 SY

[Summary](#)

Total =	210.0
Total =	210



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	ARJ	DATE	10/6/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 621.01

DESCRIPTION: CLEANING CULVERTS WITH SPAN OF 50 IN. OR LESS

QUANTITY: 530 LF

Subtotal

Location MP 367.17:

Number of Pipes:	2	EA.
Length of Pipe:	220	LF

Total Length of Pipe:	440	LF
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440.0

Location MP 362.08

Number of Pipes:	1	EA.
Length of Pipe:	90	LF

Total Length of Pipe:	90	LF
-----------------------	----	----

90.0

Summary

Total =	530.0
Total =	530



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	HRR	DATE	12/2/2025
CHECKED BY	SML	DATE	12/8/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 621.51000015

DESCRIPTION: GRADING CLEANING AND RESHAPING EXISTING DITCHES

QUANTITY: 80 LF

Subtotal

Location MP 362.08

Median between proposed FI and existing FI to be replaced
West of new FI
See DD5

30

30.0

10

10.0

Location MP 369.15

Median FI 1 EA
315' East of U-turn CL
Grade 10' either side of Field Inlet

20

20.0

Location MP 369.07

Median FI 1 EA
720' East of U-turn CL
Grade 10' either side of Field Inlet

20

20.0

[Summary](#)

Page Total = 80.0

Sub-Total = 80.0

Total = 80



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	2
CALCULATED BY	ARJ	DATE	10/6/2025
CHECKED BY	SML	DATE	10/7/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 621.51970008

DESCRIPTION: GRADING, CLEANING AND RESHAPING EXISTING CHANNELS, DITCHES AND STREAMBEDS

QUANTITY: 640 LF

			Subtotal
<u>Location MP 353.63:</u>			
Inlet Cleaning/Ditching:	60	LF	
Outlet Cleaning/Ditching:	70	LF	
Length of Cleaning/Ditching:	130	LF	130.0
<u>Location MP 355.20:</u>			
Inlet Cleaning/Ditching:	0	LF	
Outlet Cleaning/Ditching:	30	LF	
Length of Cleaning/Ditching:	30	LF	30.0
<u>Location MP 357.67:</u>			
Inlet Cleaning/Ditching:	10	LF	
Outlet Cleaning/Ditching:	40	LF	
Length of Cleaning/Ditching:	50	LF	50.0
<u>Location MP 358.57 EB:</u>			
Inlet Cleaning/Ditching:	45	LF	
Outlet Cleaning/Ditching:	5	LF	
Length of Cleaning/Ditching:	50	LF	50.0
<u>Location MP 358.57 WB:</u>			
Inlet Cleaning/Ditching:	0	LF	
Outlet Cleaning/Ditching:	20	LF	
Length of Cleaning/Ditching:	20	LF	20.0
<u>Location MP 360.60:</u>			
Inlet Cleaning/Ditching:	85	LF	
Outlet Cleaning/Ditching:	100	LF	
Length of Cleaning/Ditching:	185	LF	185.0
Page Total =			465.0
Sub-Total =			465.0

ITEM NO. 621.51970008

Location MP 367.17:

Inlet Cleaning/Ditching:	60	LF	
Outlet Cleaning/Ditching:	35	LF	
Length of Cleaning/Ditching:	95	LF	95.0

Location MP 368.57:

Inlet Cleaning/Ditching:	80	LF	
Outlet Cleaning/Ditching:	0	LF	
Length of Cleaning/Ditching:	80	LF	80.0

[Summary](#)

Page Total =	175.0
Subtotal =	640.0
Total =	640

Date **12/15/2025**
By **AVL**
Check
By **BAW**

Sheet 1 Of 1

Unit: CY

[illegible]

Total:	316	CY
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Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR / BAW Date: 10/10/25
Ckd: JEA Date: 06-04-26

Quantity Computations

DESCRIPTION **SURVEY OPERATIONS**

ITEM NO. **625.01**

QUANTITY **1 LS**

% of Estimate Subtotal

Total = 1 LS



SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90
MP 351.40 TO MP 378.20
TAB 26-6R

BUFFALO DIVISION

Stantec Project # 192810522

Date **05/01/2026**
By **JEA**
Check **06/05/2026**
By **AVL**
Sheet 1 Of 1

Item 627.50140008

CUTTING PAVEMENT

Unit: LF

Run	DWG.	Direction	Side	Approx MP	Longitudinal Length (Ft)	Width of Pav't Area (Ft)		PAY LENGTH (LF)	NOTE
ER-9	GNP-36	EB	RT	370.8	100	2		104.0	Half Section Pier Protection
ER-17A	GNP-65	EB	RT	364.8	90	2		94.0	Half Section Pier Protection
WR-16A	GNP-65	WB	RT	364.8	70	2		74.0	Half Section Pier Protection
ER-21	GNP-78	EB	RT	362.1	70	2		74.0	Half Section Pier Protection
WR-19A	GNP-78	WB	RT	362.1	60	2		64.0	Half Section Pier Protection
ER-23A	GNP-89	EB	RT	359.8	70	2		74.0	Half Section Pier Protection
WR-21A	GNP-89	WB	RT	359.8	70	2		74.0	Half Section Pier Protection
ER-30A	GNP-116	EB	RT	354.1	70	2		74.0	Half Section Pier Protection
WR-30A	GNP-116	WB	RT	354.1	70	2		74.0	Half Section Pier Protection
ER-34A	GNP-124	EB	RT	352.3	60	2		64.0	Half Section Pier Protection
WR-33A	GNP-124	WB	RT	352.3	80	2		84.0	Half Section Pier Protection

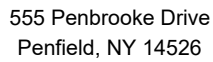
SubTotal: 854.0 LF

ITEM 637.04 - Concrete Cylinder Curing Equipment

QUANTITY: 1 (EA)

- **QUANTITY NOTES**

1 per Bridge



REMARK PDG - PS&E ESTIMATE - DRAINAGE

Total =	1.0
Total =	1



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR / BAW Date: 12/29/25
Ckd: JEA Date: 06-04-26

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	ENGINEER'S FIELD OFFICE – TYPE 2	ITEM NO.	637.12----25
		QUANTITY	20 MNTH

Total = 20 MNTH

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/12/2025 By: AVL Check: By: BAW
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

Item 645.51000125 INSTALL GROUND-MOUNTED SIGN PANELS (AUTHORITY SUPLIED)

Unit: SF

LOCATION	GNP	DIRECTION/ SIDE		WIDTH (FT)	HEIGHT (FT)	PAYMENT (SF)	NOTES
MP 360.01	88	EB RT		12	5.5	66.0	DISTANCE SIGN (SYRACUSE/ALBANY/NEW YORK)

Total: 66.0 SF



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION **TYPE A SIGN POSTS**

ITEM NO. **645.81**

QUANTITY **2 EA**

DWG. WZTC-11 = 2 EA (Fishers Road)

Total = 2 EA

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/12/2025 By: AVL Check: By: BAW
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

ITEM 645.830302 TYPE B SIGN POST, GALVANIZED, W6X12 SECTION,BI-DIRECTIONAL
BREAKAWAY BASE Unit: EA

LOCATION	GNP	DIRECTION/ SIDE				PAYMENT (EA)	NOTES
MP 360.01	88	EB RT				2.0	DISTANCE SIGN (SYRACUSE/ALBANY/NEW YORK)

Total: 2.0 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/17/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL DELINEATOR OR TENTH MILE MARKER ON POST** ITEM NO. **646.06030025**
QUANTITY **2,984 EA**

See table on dwg. MST-14

DELINEATOR & MILE MARKER TABLE							
ITEM NO.	DESCRIPTION						PAY UNIT
646.06030025	INSTALL DELINEATOR OR TENTH MILE MARKER ON POST						EA
646.06120025	INSTALL DELINEATOR OR TENTH MILE MARKER , BACK TO BACK, BAND OR BRACKET MOUNTED						EA
646.06260025	INSTALL MILE MARKER						EA
647.83001002	REMOVAL AND DISPOSAL OF DELINEATORS AND/OR MILE MARKERS WITH OR WITHOUT POSTS						EA
LOCATION				646.06030025	646.06120025	646.06260025	647.83001002
FROM		TO					
MILEPOST	OFFSET	MILEPOST	OFFSET				
WESTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	240	2		242
WHITE DELINEATORS							
351.40	RT	378.20	RT	721	5		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	510	27		537
BLUE DELINEATOR							
368.57	LT	368.57	RT	2	1		2
367.17	LT	367.17	RT	2	1		2
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
358.13	LT	358.13	RT	1	1		2
357.67	LT	357.67	RT	2	1		2
355.20	RT	355.20	RT	2			
354.10	LT	355.10	RT	1	2		
353.63	RT	353.63	RT	2			
EASTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	238	6		244
WHITE DELINEATORS							
351.40	RT	378.20	RT	723	3		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	511			511
BLUE DELINEATOR							
368.57	LT	368.57	RT	2			
367.17	LT	367.17	RT	2			
362.08	LT	362.08	RT	2	1		
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
357.67	LT	357.67	RT	2			
355.20	RT	355.20	RT	2			
354.10	RT	354.10	RT	1			
353.63	RT	353.63	RT	2			
TOTALS:				2,984	50	54	3,048

Total = 2,984 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
 By: SAR Date: 12/17/25
 Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL DELINEATOR OR TENTH MILE MARKER, BACK TO BACK, BAND OR BRACKET MOUNTED** ITEM NO. **646.06120025**
 QUANTITY **50 EA**

See table on dwg. MST-14

DELINEATOR & MILE MARKER TABLE							
ITEM NO.	DESCRIPTION						PAY UNIT
646.06030025	INSTALL DELINEATOR OR TENTH MILE MARKER ON POST						EA
646.06120025	INSTALL DELINEATOR OR TENTH MILE MARKER , BACK TO BACK, BAND OR BRACKET MOUNTED						EA
646.06260025	INSTALL MILE MARKER						EA
647.83001002	REMOVAL AND DISPOSAL OF DELINEATORS AND/OR MILE MARKERS WITH OR WITHOUT POSTS						EA
LOCATION				646.06030025	646.06120025	646.06260025	647.83001002
FROM		TO					
MILEPOST	OFFSET	MILEPOST	OFFSET				
WESTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	240	2		242
WHITE DELINEATORS							
351.40	RT	378.20	RT	721	5		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	510	27		537
BLUE DELINEATOR							
368.57	LT	368.57	RT	2	1		2
367.17	LT	367.17	RT	2	1		2
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
358.13	LT	358.13	RT	1	1		2
357.67	LT	357.67	RT	2	1		2
355.20	RT	355.20	RT	2			
354.10	LT	355.10	RT	1	2		
353.63	RT	353.63	RT	2			
EASTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	238	6		244
WHITE DELINEATORS							
351.40	RT	378.20	RT	723	3		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	511			511
BLUE DELINEATOR							
368.57	LT	368.57	RT	2			
367.17	LT	367.17	RT	2			
362.08	LT	362.08	RT	2	1		
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
357.67	LT	357.67	RT	2			
355.20	RT	355.20	RT	2			
354.10	RT	354.10	RT	1			
353.63	RT	353.63	RT	2			
TOTALS:				2,984	50	54	3,048

Total = 50 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/17/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL MILE MARKER**

ITEM NO. **646.06260025**

QUANTITY **54 EA**

See table on dwg. MST-14

DELINEATOR & MILE MARKER TABLE							
ITEM NO.	DESCRIPTION						PAY UNIT
646.06030025	INSTALL DELINEATOR OR TENTH MILE MARKER ON POST						EA
646.06120025	INSTALL DELINEATOR OR TENTH MILE MARKER , BACK TO BACK, BAND OR BRACKET MOUNTED						EA
646.06260025	INSTALL MILE MARKER						EA
647.83001002	REMOVAL AND DISPOSAL OF DELINEATORS AND/OR MILE MARKERS WITH OR WITHOUT POSTS						EA
LOCATION				646.06030025	646.06120025	646.06260025	647.83001002
FROM		TO					
MILEPOST	OFFSET	MILEPOST	OFFSET				
WESTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	240	2		242
WHITE DELINEATORS							
351.40	RT	378.20	RT	721	5		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	510	27		537
BLUE DELINEATOR							
368.57	LT	368.57	RT	2	1		2
367.17	LT	367.17	RT	2	1		2
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
358.13	LT	358.13	RT	1	1		2
357.67	LT	357.67	RT	2	1		2
355.20	RT	355.20	RT	2			
354.10	LT	355.10	RT	1	2		
353.63	RT	353.63	RT	2			
EASTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	238	6		244
WHITE DELINEATORS							
351.40	RT	378.20	RT	723	3		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	511			511
BLUE DELINEATOR							
368.57	LT	368.57	RT	2			
367.17	LT	367.17	RT	2			
362.08	LT	362.08	RT	2	1		
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
357.67	LT	357.67	RT	2			
355.20	RT	355.20	RT	2			
354.10	RT	354.10	RT	1			
353.63	RT	353.63	RT	2			
TOTALS:				2,984	50	54	3,048

Total = 54 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 3
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL SNOWPLOW MARKER, SINGLE UNIT** ITEM NO. **646.08010025**
QUANTITY **146 EA**

See table on dwg. MST-13

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION				PAY UNIT	
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT				EA	
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT				EA	
646.50000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS				EA	
LOCATION				646.08010025	646.08020025	646.50000025
FROM		TO				
MP	OFFSET	MP	OFFSET			
WESTBOUND						
351.39	LT	352.38	LT	1	4	1
351.64	RT	351.81	RT	1	2	5
352.04	RT	352.17	RT	1	1	3
352.28	RT	352.79	RT	1	2	5
352.29	LT	352.38	LT	-	-	5
353.26	RT	353.39	RT	1	2	4
353.48	RT	353.64	RT	1	1	3
354.04	RT	354.12	RT	1	1	3
354.07	LT	354.08	LT	1	2	5
354.11	RT	354.13	RT	1	-	1
354.22	RT	354.33	RT	1	2	5
354.86	RT	354.97	RT	1	2	5
355.12	LT	355.26	LT	1	2	4
355.17	RT	355.25	RT	1	2	3
355.23	LT	355.71	LT	2	2	5
355.64	RT	355.72	RT	1	2	-
355.69	LT	356.62	LT	2	2	5
355.83	RT	356.08	RT	1	1	3
356.47	RT	356.75	RT	1	2	5
356.63	LT	656.76	LT	1	1	3
357.58	RT	357.80	RT	1	2	5
357.73	LT	358.26	LT	1	3	6
357.96	RT	358.16	RT	1	2	5
358.56	LT	359.65	LT	1	2	5
359.57	RT	359.65	RT	1	1	3
359.70	RT	359.79	RT	1	2	5
359.75	LT	359.80	LT	1	2	5
359.77	RT	359.79	RT	1	-	1
360.49	RT	360.56	RT	1	2	5
360.50	LT	360.56	LT	1	2	5
361.31	LT	362.06	LT	1	3	5
361.54	RT	361.77	RT	1	1	3
361.91	RT	362.01	RT	1	2	5
362.04	RT	362.12	RT	1	1	5
362.05	LT	362.13	LT	1	2	5
362.11	LT	362.30	LT	2	2	2
362.11	RT	362.12	RT	1	-	1
362.24	LT	362.44	LT	2	2	2
362.35	RT	362.44	RT	1	1	4
362.43	LT	362.78	LT	2	2	2
362.70	RT	362.77	RT	1	1	3
363.01	RT	363.11	RT	1	2	5
363.43	LT	364.52	LT	2	3	4
363.63	RT	364.12	RT	1	2	5



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 2 of 3
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL SNOWPLOW MARKER, SINGLE UNIT** ITEM NO. **646.08010025**
QUANTITY **146 EA**

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION				PAY UNIT	
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT				EA	
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT				EA	
646.50000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS				EA	
WESTBOUND						
364.67	RT	364.75	RT	1	2	5
364.70	LT	374.76	LT	1	2	5
364.73	RT	364.75	RT	1	-	1
364.99	LT	365.08	LT	1	2	5
364.99	RT	365.09	RT	1	2	5
365.86	LT	366.11	LT	1	2	4
366.13	LT	368.85	LT	2	4	2
366.16	RT	366.92	RT	1	2	9
367.12	RT	367.53	RT	1	2	6
367.60	RT	367.76	RT	1	2	5
368.77	RT	368.86	RT	1	2	3
368.84	LT	368.90	LT	2	2	1
368.89	RT	368.99	RT	1	2	-
368.96	LT	369.21	LT	2	3	6
369.22	LT	369.88	LT	2	2	4
369.84	LT	370.79	LT	1	2	5
370.71	RT	370.79	RT	1	2	5
370.78	LT	371.00	LT	2	3	6
371.15	RT	371.23	RT	1	2	5
372.05	LT	372.43	LT	1	2	5
372.09	RT	372.26	RT	1	1	5
372.33	RT	372.41	RT	1	2	5
372.39	LT	374.11	LT	2	3	4
373.07	RT	373.52	RT	1	2	5
373.59	RT	373.73	RT	1	2	5
374.06	RT	374.14	RT	1	2	4
374.11	LT	374.76	LT	2	2	2
374.77	LT	375.04	LT	2	2	2
374.96	RT	375.04	RT	1	2	5
375.01	LT	375.97	LT	2	3	4
375.12	RT	375.20	RT	1	1	3
376.41	LT	376.83	LT	1	2	5
376.50	RT	376.84	RT	1	2	5
377.43	RT	377.74	RT	1	2	5
WESTBOUND SUBTOTAL:				92	145	315



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 3 of 3
 By: SAR Date: 12/18/25
 Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL SNOWPLOW MARKER, SINGLE UNIT** ITEM NO. **646.08010025**
 QUANTITY **146 EA**

SNOWPLOW MARKER TABLE					
ITEM NO.	DESCRIPTION				PAY UNIT
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT				EA
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT				EA
646.60000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS				EA
EA \$ TBOUND					
377.78	RT	377.78	RT	1	3
378.80	LT	378.41	LT	1	6
378.86	RT	378.31	RT	1	6
375.11	RT	375.03	RT	1	6
374.21	RT	374.13	RT	1	3
373.68	RT	373.61	RT	1	6
373.36	RT	373.34	RT	1	3
372.60	RT	372.42	RT	1	6
372.31	RT	372.30	RT	1	6
371.44	LT	371.01	LT	1	6
371.32	RT	371.22	RT	1	6
370.88	RT	370.79	RT	1	6
369.09	RT	368.98	RT	1	-
368.88	RT	368.84	RT	1	2
367.82	RT	367.88	RT	1	3
367.81	RT	368.21	RT	1	4
365.13	LT	365.06	LT	1	6
365.13	RT	365.06	RT	1	6
364.84	RT	364.71	RT	1	6
364.78	LT	364.74	LT	1	6
364.27	RT	363.78	RT	1	6
363.19	RT	363.10	RT	1	6
362.98	LT	363.78	LT	1	3
362.84	RT	362.78	RT	1	3
362.61	RT	362.43	RT	1	6
362.21	RT	362.12	RT	1	6
362.08	RT	361.88	RT	1	6
361.98	RT	361.81	RT	1	7
360.67	RT	360.67	RT	1	4
360.67	LT	360.68	LT	1	6
359.98	RT	359.77	RT	1	3
359.82	RT	359.80	RT	1	-
359.81	LT	359.78	LT	1	6
359.88	LT	359.68	LT	1	6
359.98	RT	359.67	RT	1	6
358.48	LT	358.09	LT	1	7
358.14	RT	357.82	RT	1	2
357.81	RT	357.63	RT	1	3
357.07	LT	356.83	LT	1	6
356.82	RT	356.80	RT	1	4
356.22	RT	356.98	RT	1	3
356.84	RT	356.48	RT	1	3
356.32	RT	356.30	RT	1	3
356.06	RT	354.82	RT	1	3
354.19	LT	354.10	LT	1	6
354.18	RT	354.10	RT	1	3
354.11	RT	354.09	RT	1	-
353.74	RT	353.80	RT	1	6
353.63	RT	353.34	RT	1	3
353.08	LT	352.34	LT	1	4
352.84	RT	352.38	RT	1	6
352.38	RT	352.34	RT	1	-
352.26	RT	352.08	RT	1	6
352.06	RT	351.87	RT	1	6
EA \$ TBOUND SUBTOTAL:				54	219
TOTALS:				146	534

Total = 146 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 3
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL SNOWPLOW MARKER, DOUBLE UNIT** ITEM NO. **646.08020025**
QUANTITY **236 EA**

See table on dwg. MST-13

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION					PAY UNIT
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT					EA
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT					EA
646.50000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS					EA

LOCATION				646.08010025	646.08020025	646.50000025
FROM		TO				
MILEPOST	OFFSET	MILEPOST	OFFSET			
WESTBOUND						
351.39	LT	352.38	LT	1	4	1
351.64	RT	351.81	RT	1	2	5
352.04	RT	352.17	RT	1	1	3
352.28	RT	352.79	RT	1	2	5
352.29	LT	352.38	LT	-	-	5
353.26	RT	353.39	RT	1	2	4
353.48	RT	353.64	RT	1	1	3
354.04	RT	354.12	RT	1	1	3
354.07	LT	354.08	LT	1	2	5
354.11	RT	354.13	RT	1	-	1
354.22	RT	354.33	RT	1	2	5
354.86	RT	354.97	RT	1	2	5
355.12	LT	355.26	LT	1	2	4
355.17	RT	355.25	RT	1	2	3
355.23	LT	355.71	LT	2	2	5
355.64	RT	355.72	RT	1	2	-
355.69	LT	356.62	LT	2	2	5
355.83	RT	356.08	RT	1	1	3
356.47	RT	356.75	RT	1	2	5
356.63	LT	656.76	LT	1	1	3
357.58	RT	357.80	RT	1	2	5
357.73	LT	358.26	LT	1	3	6
357.96	RT	358.16	RT	1	2	5
359.56	LT	359.65	LT	1	2	5
359.57	RT	359.65	RT	1	1	3
359.70	RT	359.79	RT	1	2	5
359.75	LT	359.80	LT	1	2	5
359.77	RT	359.79	RT	1	-	1
360.49	RT	360.56	RT	1	2	5
360.50	LT	360.56	LT	1	2	5
361.31	LT	362.06	LT	1	3	5
361.54	RT	361.77	RT	1	1	3
361.91	RT	362.01	RT	1	2	5
362.04	RT	362.12	RT	1	1	5
362.05	LT	362.13	LT	1	2	5
362.11	LT	362.30	LT	2	2	2
362.11	RT	362.12	RT	1	-	1
362.24	LT	362.44	LT	2	2	2
362.35	RT	362.44	RT	1	1	4
362.43	LT	362.78	LT	2	2	2
362.70	RT	362.77	RT	1	1	3
363.01	RT	363.11	RT	1	2	5
363.43	LT	364.52	LT	2	3	4
363.63	RT	364.12	RT	1	2	5



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 2 of 3
 By: SAR Date: 12/18/25
 Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL SNOWPLOW MARKER, DOUBLE UNIT** ITEM NO. **646.08020025**
 QUANTITY **236 EA**

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION					PAY UNIT
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT					EA
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT					EA
646.50000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS					EA
WE STBOUND						
364.67	RT	364.75	RT	1	2	5
364.70	LT	374.76	LT	1	2	5
364.73	RT	364.75	RT	1	-	1
364.99	LT	365.08	LT	1	2	5
364.99	RT	365.09	RT	1	2	5
365.86	LT	366.11	LT	1	2	4
366.13	LT	368.85	LT	2	4	2
366.16	RT	366.92	RT	1	2	9
367.12	RT	367.53	RT	1	2	6
367.60	RT	367.76	RT	1	2	5
368.77	RT	368.86	RT	1	2	3
368.84	LT	368.90	LT	2	2	1
368.89	RT	368.99	RT	1	2	-
368.96	LT	369.21	LT	2	3	6
369.22	LT	369.88	LT	2	2	4
369.84	LT	370.79	LT	1	2	5
370.71	RT	370.79	RT	1	2	5
370.78	LT	371.00	LT	2	3	6
371.15	RT	371.23	RT	1	2	5
372.05	LT	372.43	LT	1	2	5
372.09	RT	372.26	RT	1	1	5
372.33	RT	372.41	RT	1	2	5
372.39	LT	374.11	LT	2	3	4
373.07	RT	373.52	RT	1	2	5
373.59	RT	373.73	RT	1	2	5
374.06	RT	374.14	RT	1	2	4
374.11	LT	374.76	LT	2	2	2
374.77	LT	375.04	LT	2	2	2
374.96	RT	375.04	RT	1	2	5
375.01	LT	375.97	LT	2	3	4
375.12	RT	375.20	RT	1	1	3
376.41	LT	376.83	LT	1	2	5
376.50	RT	376.84	RT	1	2	5
377.43	RT	377.74	RT	1	2	5
WESTBOUND SUBTOTAL:				92	145	315



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 3 of 3
 By: SAR Date: 12/18/25
 Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **INSTALL SNOWPLOW MARKER, DOUBLE UNIT**

ITEM NO. **646.08020025**

QUANTITY **236 EA**

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION				PAY UNIT	
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT				EA	
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT				EA	
646.60000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS				EA	
EA \$ TBOUND						
377.78	RT	377.78	RT	1	1	3
378.86	LT	378.41	LT	1	2	5
378.86	RT	378.31	RT	1	2	5
376.11	RT	376.08	RT	1	2	5
374.21	RT	374.13	RT	1	2	3
373.68	RT	373.61	RT	1	2	5
373.36	RT	373.34	RT	1	1	3
372.60	RT	372.42	RT	1	2	5
372.31	RT	372.30	RT	1	2	5
371.44	LT	371.01	LT	1	3	5
371.32	RT	371.22	RT	1	2	5
370.89	RT	370.79	RT	1	2	5
369.09	RT	368.98	RT	1	1	-
368.88	RT	368.84	RT	1	2	2
367.82	RT	367.88	RT	1	2	3
367.81	RT	368.21	RT	1	1	4
365.13	LT	365.06	LT	1	2	5
365.13	RT	365.06	RT	1	2	5
364.84	RT	364.71	RT	1	2	5
364.79	LT	364.74	LT	1	2	5
364.27	RT	363.78	RT	1	2	5
363.19	RT	363.10	RT	1	2	5
362.99	LT	363.78	LT	1	2	3
362.84	RT	362.79	RT	1	1	3
362.61	RT	362.43	RT	1	2	5
362.21	RT	362.12	RT	1	2	5
362.08	RT	361.98	RT	1	2	5
361.88	RT	361.81	RT	1	2	7
360.67	RT	360.67	RT	1	2	4
360.67	LT	360.68	LT	1	2	5
359.88	RT	359.77	RT	1	1	3
359.82	RT	359.80	RT	1	-	1
359.81	LT	359.79	LT	1	2	5
359.88	LT	359.68	LT	1	2	5
359.88	RT	359.67	RT	1	2	5
358.48	LT	358.09	LT	1	3	7
358.14	RT	357.92	RT	1	2	2
357.81	RT	357.63	RT	1	1	3
357.07	LT	356.83	LT	1	2	5
356.82	RT	356.80	RT	1	1	4
356.22	RT	356.88	RT	1	2	3
356.84	RT	356.48	RT	1	1	3
356.32	RT	356.20	RT	1	1	3
356.06	RT	354.92	RT	1	1	3
354.19	LT	354.10	LT	1	2	5
354.18	RT	354.10	RT	1	1	3
354.11	RT	354.09	RT	1	-	1
353.74	RT	353.80	RT	1	2	5
353.63	RT	353.34	RT	1	1	3
353.08	LT	352.34	LT	1	2	4
352.94	RT	352.38	RT	1	2	5
352.38	RT	352.34	RT	1	-	1
352.26	RT	352.08	RT	1	2	5
352.06	RT	351.67	RT	1	2	5
EA \$ TBOUND SUBTOTAL:				54	91	219
TOTAL \$:				146	236	534

Total = 236 EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 3
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **REMOVE & DISPOSE OF DELINEATORS & MARKERS** ITEM NO. **646.50000025**
QUANTITY **534 EA**

See table on dwg. MST-13

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION					PAY UNIT
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT					EA
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT					EA
646.50000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS					EA
LOCATION				646.08010025	646.08020025	646.50000025
FROM		TO				
MILEPOST	OFFSET	MILEPOST	OFFSET			
WESTBOUND						
351.39	LT	352.38	LT	1	4	1
351.64	RT	351.81	RT	1	2	5
352.04	RT	352.17	RT	1	1	3
352.28	RT	352.79	RT	1	2	5
352.29	LT	352.38	LT	-	-	5
353.26	RT	353.39	RT	1	2	4
353.48	RT	353.64	RT	1	1	3
354.04	RT	354.12	RT	1	1	3
354.07	LT	354.08	LT	1	2	5
354.11	RT	354.13	RT	1	-	1
354.22	RT	354.33	RT	1	2	5
354.86	RT	354.97	RT	1	2	5
355.12	LT	355.26	LT	1	2	4
355.17	RT	355.25	RT	1	2	3
355.23	LT	355.71	LT	2	2	5
355.64	RT	355.72	RT	1	2	-
355.69	LT	356.62	LT	2	2	5
355.83	RT	356.08	RT	1	1	3
356.47	RT	356.75	RT	1	2	5
356.63	LT	656.76	LT	1	1	3
357.58	RT	357.80	RT	1	2	5
357.73	LT	358.26	LT	1	3	6
357.96	RT	358.16	RT	1	2	5
359.56	LT	359.65	LT	1	2	5
359.57	RT	359.65	RT	1	1	3
359.70	RT	359.79	RT	1	2	5
359.75	LT	359.80	LT	1	2	5
359.77	RT	359.79	RT	1	-	1
360.49	RT	360.56	RT	1	2	5
360.50	LT	360.56	LT	1	2	5
361.31	LT	362.06	LT	1	3	5
361.54	RT	361.77	RT	1	1	3
361.91	RT	362.01	RT	1	2	5
362.04	RT	362.12	RT	1	1	5
362.05	LT	362.13	LT	1	2	5
362.11	LT	362.30	LT	2	2	2
362.11	RT	362.12	RT	1	-	1
362.24	LT	362.44	LT	2	2	2
362.35	RT	362.44	RT	1	1	4
362.43	LT	362.78	LT	2	2	2
362.70	RT	362.77	RT	1	1	3
363.01	RT	363.11	RT	1	2	5
363.43	LT	364.52	LT	2	3	4
363.63	RT	364.12	RT	1	2	5



Stantec

Project No. 192800522 Sheet: 2 of 3
 By: SAR Date: 12/18/25
 Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION **REMOVE & DISPOSE OF DELINEATORS & MARKERS**

ITEM NO. **646.50000025**

QUANTITY **534 EA**

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION				PAY UNIT	
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT				EA	
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT				EA	
646.50000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS				EA	
WESTBOUND						
364.67	RT	364.75	RT	1	2	5
364.70	LT	374.76	LT	1	2	5
364.73	RT	364.75	RT	1	-	1
364.99	LT	365.08	LT	1	2	5
364.99	RT	365.09	RT	1	2	5
365.86	LT	366.11	LT	1	2	4
366.13	LT	368.85	LT	2	4	2
366.16	RT	366.92	RT	1	2	9
367.12	RT	367.53	RT	1	2	6
367.60	RT	367.76	RT	1	2	5
368.77	RT	368.86	RT	1	2	3
368.84	LT	368.90	LT	2	2	1
368.89	RT	368.99	RT	1	2	-
368.96	LT	369.21	LT	2	3	6
369.22	LT	369.88	LT	2	2	4
369.84	LT	370.79	LT	1	2	5
370.71	RT	370.79	RT	1	2	5
370.78	LT	371.00	LT	2	3	6
371.15	RT	371.23	RT	1	2	5
372.05	LT	372.43	LT	1	2	5
372.09	RT	372.26	RT	1	1	5
372.33	RT	372.41	RT	1	2	5
372.39	LT	374.11	LT	2	3	4
373.07	RT	373.52	RT	1	2	5
373.59	RT	373.73	RT	1	2	5
374.06	RT	374.14	RT	1	2	4
374.11	LT	374.76	LT	2	2	2
374.77	LT	375.04	LT	2	2	2
374.96	RT	375.04	RT	1	2	5
375.01	LT	375.97	LT	2	3	4
375.12	RT	375.20	RT	1	1	3
376.41	LT	376.83	LT	1	2	5
376.50	RT	376.84	RT	1	2	5
377.43	RT	377.74	RT	1	2	5
WESTBOUND SUBTOTAL:				92	145	315



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 3 of 3
 By: SAR Date: 12/18/25
 Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **REMOVE & DISPOSE OF DELINEATORS & MARKERS**

ITEM NO. **646.50000025**

QUANTITY **534 EA**

SNOWPLOW MARKER TABLE						
ITEM NO.	DESCRIPTION					PAY UNIT
646.08010025	INSTALL SNOWPLOW MARKER, SINGLE UNIT					EA
646.08020025	INSTALL SNOWPLOW MARKER, DOUBLE UNIT					EA
646.60000025	REMOVE AND DISPOSE OF DELINEATORS AND MARKERS					EA
EASTBOUND						
377.78	RT	377.78	RT	1	1	3
378.88	LT	378.41	LT	1	2	6
378.88	RT	378.31	RT	1	2	6
376.11	RT	376.08	RT	1	2	6
374.21	RT	374.13	RT	1	2	3
373.68	RT	373.61	RT	1	2	6
373.36	RT	373.24	RT	1	1	3
372.60	RT	372.42	RT	1	2	6
372.31	RT	372.20	RT	1	2	6
371.44	LT	371.01	LT	1	3	6
371.32	RT	371.22	RT	1	2	6
370.89	RT	370.79	RT	1	2	6
369.09	RT	368.98	RT	1	1	-
368.88	RT	368.84	RT	1	2	2
367.82	RT	367.88	RT	1	2	3
367.81	RT	368.21	RT	1	1	4
366.13	LT	366.06	LT	1	2	6
366.13	RT	366.06	RT	1	2	6
364.84	RT	364.71	RT	1	2	6
364.79	LT	364.74	LT	1	2	6
364.27	RT	363.78	RT	1	2	6
363.19	RT	363.10	RT	1	2	6
362.99	LT	363.78	LT	1	2	3
362.84	RT	362.78	RT	1	1	3
362.61	RT	362.43	RT	1	2	6
362.21	RT	362.12	RT	1	2	6
362.08	RT	361.98	RT	1	2	6
361.88	RT	361.81	RT	1	2	7
360.67	RT	360.67	RT	1	2	4
360.67	LT	360.68	LT	1	2	6
369.88	RT	369.77	RT	1	1	3
369.82	RT	369.80	RT	1	-	1
369.81	LT	369.78	LT	1	2	6
369.88	LT	369.68	LT	1	2	6
369.88	RT	369.67	RT	1	2	6
368.48	LT	368.09	LT	1	3	7
368.14	RT	367.82	RT	1	2	2
367.81	RT	367.63	RT	1	1	3
367.07	LT	368.83	LT	1	2	6
368.82	RT	368.80	RT	1	1	4
368.22	RT	366.88	RT	1	2	3
366.84	RT	366.48	RT	1	1	3
366.32	RT	366.20	RT	1	1	3
366.06	RT	364.92	RT	1	1	3
364.19	LT	364.10	LT	1	2	6
364.18	RT	364.10	RT	1	1	3
364.11	RT	364.09	RT	1	-	1
363.74	RT	363.80	RT	1	2	6
363.63	RT	363.34	RT	1	1	3
363.08	LT	362.34	LT	1	2	4
362.84	RT	362.38	RT	1	2	6
362.38	RT	362.34	RT	1	-	1
362.26	RT	362.08	RT	1	2	6
362.06	RT	361.87	RT	1	2	6
EASTBOUND SUBTOTAL:				54	91	219
TOTALS:				146	236	534

Total = 534 EA



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION	RELOCATE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE 1	ITEM NO.	647.31
	(UNDER 30 SQUARE FEET)	QUANTITY	2 EA

DWG. WZTC-11 = 2 EA (Fishers Road)

Total = 2 EA

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/12/2025 By: AVL Check: By: BAW
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

ITEM 647.53		REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE III (OVER 100 SQUARE FEET)					Unit: EA
LOCATION	GNP	DIRECTION/ SIDE				PAYMENT (EA)	NOTES
MP 360.01	88	EB RT				1.0	DISTANCE SIGN (SYRACUSE/ALBANY/NEW YORK)
Total:						1.0	EA

	SAFETY IMPROVEMENTS AND MISCELLANEOUS WORK ON I-90 MP 351.40 TO MP 378.20 TAB 26-6R	Date: 12/12/2025 By: AVL Check: 06/04/2026 By: JEA
	BUFFALO DIVISION Stantec Project # 192810522	Sheet: 1 Of 1

ITEM 647.65		REMOVE AND DISPOSE TYPE B GROUND MOUNTED SIGN SUPPORT AND FOUNDATION					Unit: EA
LOCATION	GNP	DIRECTION/ SIDE				PAYMENT (EA)	NOTES
MP 360.01	88	EB RT				2.0	DISTANCE SIGN (SYRACUSE/ALBANY/NEW YORK)
Total:						2.0	EA



Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
 By: SAR Date: 12/17/25
 Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **REMOVAL AND DISPOSAL OF DELINEATORS AND/OR** ITEM NO. **647.83001002**
MILE MARKERS WITH OR WITHOUT POSTS QUANTITY **3,048 EA**

See table on dwg. MST-14

DELINEATOR & MILE MARKER TABLE							
ITEM NO.	DESCRIPTION						PAY UNIT
646.06030025	INSTALL DELINEATOR OR TENTH MILE MARKER ON POST						EA
646.06120025	INSTALL DELINEATOR OR TENTH MILE MARKER , BACK TO BACK, BAND OR BRACKET MOUNTED						EA
646.06260025	INSTALL MILE MARKER						EA
647.83001002	REMOVAL AND DISPOSAL OF DELINEATORS AND/OR MILE MARKERS WITH OR WITHOUT POSTS						EA
LOCATION				646.06030025	646.06120025	646.06260025	647.83001002
FROM		TO					
MILEPOST	OFFSET	MILEPOST	OFF-SET				
WESTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	240	2		242
WHITE DELINEATORS							
351.40	RT	378.20	RT	721	5		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	510	27		537
BLUE DELINEATOR							
368.57	LT	368.57	RT	2	1		2
367.17	LT	367.17	RT	2	1		2
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
358.13	LT	358.13	RT	1	1		2
357.67	LT	357.67	RT	2	1		2
355.20	RT	355.20	RT	2			
354.10	LT	355.10	RT	1	2		
353.63	RT	353.63	RT	2			
EASTBOUND MAINLINE							
MILE MARKERS							
351.40	RT	378.20	RT			27	27
WHITE TENTH MILE MARKERS							
351.40	RT	378.20	RT	238	6		244
WHITE DELINEATORS							
351.40	RT	378.20	RT	723	3		726
YELLOW DELINEATOR							
351.40	LT	378.20	LT	511			511
BLUE DELINEATOR							
368.57	LT	368.57	RT	2			
367.17	LT	367.17	RT	2			
362.08	LT	362.08	RT	2	1		
360.60	LT	360.60	RT	4			
358.57	LT	358.57	RT	4			
357.67	LT	357.67	RT	2			
355.20	RT	355.20	RT	2			
354.10	RT	354.10	RT	1			
353.63	RT	353.63	RT	2			
TOTALS:				2,984	50	54	3,048

Total = 3,048 EA

555 Penbrooke Drive
Penfield, NY 14526

JOB NO. D214811 - Assign #5 - MP 351.04 to MP 378.5

SHEET NO. 1 OF 1

CALCULATED BY	<u>HRR</u>	DATE	<u>10/1/2025</u>
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CHECKED BY SML DATE 12/5/2025

REMARK PDG - PS&E ESTIMATE - DRAINAGE

ITEM NO. 655.1003

DESCRIPTION: WELDED FRAME AND RECTANGULAR GRATE 3

QUANTITY: 3 EACH

Subtotal

Location MP 358.13

Quantity: 2 EA

2.0

Location MP 362.08

New FI in median

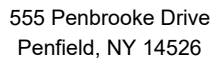
Quantity: 1 EA

1.0

Summary

Total =	3.0
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Total =	3
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REMARK PDG - PS&E ESTIMATE - DRAINAGE

Total =	2.0
Total =	2



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	HRR	DATE	10/1/2025
CHECKED BY	SML	DATE	12/5/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 655.1202

DESCRIPTION: MANHOLE FRAME AND COVER

QUANTITY: 1 EACH

Location MP 362.08
New MH in Median

1 EA

Subtotal

1.0

[Summary](#)

Total =	1.0
Total =	1



555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	D214811 - Assign #5 - MP 351.04 to MP 378.5		
SHEET NO.	1	OF	1
CALCULATED BY	MS	DATE	11/19/2025
CHECKED BY	SML	DATE	12/1/2025
REMARK	PDG - PS&E ESTIMATE - DRAINAGE		

ITEM NO. 670.88880025

DESCRIPTION: RELOCATING EXISTING FIBER OPTIC INFRASTRUCTURE

QUANTITY: 120 LF

Location MP 355.20

Quantity: 120 LF

Subtotal

120.0

[Summary](#)

Total =	120.0
TOTAL =	120

555 Penbrooke Drive
Penfield, NY 14526

JOB NO.	<u>D214811 - Assign #5 - MP 351.04 to MP 378.5</u>		
SHEET NO.	<u>1</u>	OF	<u>1</u>
CALCULATED BY	<u>SML</u>	DATE	<u>12/30/2025</u>
CHECKED BY	<u>SM</u>	DATE	<u>12/30/2025</u>
REMARK	<u>PDG - PS&E ESTIMATE - DRAINAGE</u>		

ITEM NO. 683.07207211

DESCRIPTION: TEMPORARY ITS FIBER OPTIC CABLE SUPPORT

QUANTITY: 1 LS

Subtotal

Temporary ITS Fiber Optic Cable Support is a Lump Sum Item.

Lump Sum: 1.0 LS

1.0

Summary

Total =	1.0
Total =	1



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 12/18/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES-20 MILS	ITEM NO.	685.1102
		QUANTITY	790 LF

DWG. WZTC-11 (Fishers Road)

395 LF x 2 sides = 790 FT

Total = 790 LF



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1

By: SAR Date: 12/18/25

Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION	<u>YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES</u>	ITEM NO.	<u>685.1202</u>
	<u>20 MILS</u>	QUANTITY	<u>790 LF</u>

DWG. WZTC-11 (Fishers Road)

395 LF x 2 = 790 FT

Total = 790 LF



Stantec

Project No. 192800522 Sheet: 1 of 1

By: SAR Date: 10/10/25

Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**

Buffalo Division

MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION **FIELD CHANGE ADJUSTMENT**

ITEM NO. **697.03**

QUANTITY **1 DC**

Use 5.0 % (min.) of Construction Subtotal Cost, Including LS Items except
699.04 Rounded to nearest 10,000

Total = 1 DC

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: KG Date: 08/13/26
Ckd: AM Date: 08/13/26

Quantity Computations

DESCRIPTION **ASPHALT PRICE ADJUSTMENT**

ITEM NO. **698.04**

QUANTITY **500 DC**

Use 500 DC for Asphalt Price Adjustment on a Dollar-Cents basis

Total = 500 DC



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1

By: SAR Date: 10/10/25

Ckd: AM (EQUAU) Date: 08/13/26

Quantity Computations

DESCRIPTION **FUEL PRICE ADJUSTMENT**

ITEM NO. **698.05**

QUANTITY **800 DC**

Use 800 DC for Fuel Price Adjustment on a Dollar-Cents basis

Total = 800 DC



Stantec

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 10/10/25
Ckd: BAW Date: 12/29/25

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Quantity Computations

DESCRIPTION **STEEL / IRON PRICE ADJUSTMENT**

ITEM NO. **698.06**

QUANTITY **100 DC**

Use 100 DC for Steel / Iron Price Adjustment on a Dollar-Cents basis

Total = 100 DC



Stantec

Project: **I-90 Roadside Safety Improvements**
Buffalo Division
MP 351.40 to MP 378.50

Project No. 192800522 Sheet: 1 of 1
By: SAR Date: 10/10/25
Ckd: BAW Date: 12/29/25

Quantity Computations

DESCRIPTION **MOBILIZATION**

ITEM NO. **699.04----25**

QUANTITY **1 LS**

Use 4.0% of Total Construction Cost

Total = 1 LS