

BY	NDB	DATE	8/4/2023	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



ITEM	203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL				
UNIT: ( CY )						
Existing pavement section is 23" thick.						
Assume 24" of unclassified excavation for the 12" approach slab and 12" of subbase.						
Assume 15'-0" approach slab and 40 feet of pavement reconstruction beyond approach slabs.						
Crossover areas within the median are taken from Microstation.						
Mainline Roadway Reconstruction:						
Roadway width =	53.17	FT	(Proposed Plans)			
Excavation depth =	24.00	IN	(Assumed)			
Approach slab length =	15.00	FT	(Proposed Plans)			
Sleeper slab length =	2.00	FT	(NSYDOT BD-SA2E, expansion side only)			
Pavement recon length =	40.00	FT	(Proposed Plans, Approximate)			
Subtotal =	11909.33	CF	=	441.09	CY per bridge	
No. =	2	Bridges				
Total =	882.17	CY				
Crossover Roadway Construction: From Ravi 11/8/2023						
Total =		2407.00	CY			
203.02 UNCLASSIFIED EXCAVATION AND DISPOSAL (CY)						
See Attached End area Volumes						
Volume := 2407.31 yd <sup>3</sup> = 2407 yd <sup>3</sup>						
Median Restoration:						
Cross Sectional Area =	40.00	SF				
Length =	1108.00	FT				
Total =	1641.48	CY				
			Sheet Subtotal	4952.32	CY	
			Add 10%	495.23	CY	
			Total Quantity	5447.55	CY	
			Use	5450	CY	
U-Turn Culvert Restoration:						
Cross Sectional Area =	9.75	SF				
Length =	60.00	FT				
Total =	21.67	CY				
			SUB-TOTAL =		5450	CY
			(THIS SHT. ONLY)			
			TOTAL QUANTITY =		5450	CY
			(FINAL ITEM SHT. ONLY)			

BY	CGS	DATE	1/4/2024	CKD	MJY	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



**ITEM 203.03 EMBANKMENT IN PLACE**

**UNIT: ( CY )**

*Assume 1:1.5 triangular slope layback behind the new backwall for the length of the abutment.  
For simplicity of calculations, use the highest backwall elevation and apply to all 4 abutments.*

Abutment length =	55.78	FT	(Proposed Plans)
Demo elevation =	428.50		(Proposed Plans)
Top of backwall elevation =	434.87		(Proposed Plans)
Height of fill =	6.37	FT	
Width of fill =	9.56	FT	(Assumed)
Subtotal =	1697.41	CF =	62.87 CY per abutment
No. of abutments =	4		(1952 Record Plans)
Total =	251.47	CY	

Crossover Roadway Construction: From Ravi 11/9/2023

**Total = 109.00 CY**

203.03 Embankment In Place (CY)

See Attached End area Volumes

*Volume := 109.12 yd<sup>3</sup> = 109 yd<sup>3</sup>*

Median restoration:

Cross Sectional Area =	20.00	SF	(Proposed Plans)
Length =	1108.00	FT	(Proposed Plans)
Total =	820.74	CY	

Sheet Subtotal	1181.21	CY
Add 15%	177.18	CY
Total Quantity	1358.39	CY
Use	1360	CY

**SUB-TOTAL = 1360 CY  
(THIS SHT. ONLY)**

**TOTAL QUANTITY = 1360 CY  
(FINAL ITEM SHT. ONLY)**

BY	NDB	DATE	8/4/2023	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



## ITEM 304.12 SUBBASE COURSE, TYPE 2

UNIT: ( CY )

Assume 15'-0" approach slab and 40 feet of pavement reconstruction beyond approach slabs.

Crossover areas within the median are taken from Microstation.

### Mainline Roadway Reconstruction:

Thickness =	12.00	IN	(Assumed)
Roadway width =	55.17	FT	(Proposed plans, assume additional 1'-0" on each side)
Approach slab length =	15.00	FT	(Proposed Plans)
Sleeper slab length =	2.00	FT	(NSYDOT BD-SA2E, expansion side only)
Pavement recon length =	40.00	FT	(Proposed Plans, Approximate)
Subtotal =	6178.67	CF	= 228.84 CY per bridge
No. =	2	Bridges	
Total =	457.68	CY	

### Crossover Roadway Construction: From Ravi 11/8/2023

Total = 2513.00 CY

### 304.12 SUBBASE COURSE, TYPE 2

See Attached End area Volumes

Volume := 2512.5 yd<sup>3</sup> = 2513 yd<sup>3</sup>

### U-Turn Culvert Restoration:

Cross Sectional Area =	9.75	SF
Length =	60.00	FT
Total =	21.67	CY

Sheet Subtotal	2992.35	CY
Add 10%	299.23	CY
Total Quantity	3291.58	CY
Use	3295	CY

SUB-TOTAL = 3295 CY  
(THIS SHT. ONLY)

TOTAL QUANTITY = 3295 CY  
(FINAL ITEM SHT. ONLY)

BY	DATE	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO. 19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT NYSTA					
SUBJECT PS&E Estimate					



ITEM 404.017901 TRUE & LEVELING F9, WMA, 70 SERIES COMPACTION					UNIT: ( T )
Assume 1/2" thick on 50% of milled area.					
Roadway mill area =	20820.00	SF	(Proposed Plans, Approximate)		
Thickness =	0.50	IN	(Assumed)		
Volume =	867.50	CF			
Density =	144.10	LB/CF			
Subtotal =	31.25	TON per approach			
No. =	4	Approaches			
Total =	125.01	TON			
Sheet Subtotal					125.01 T
Add 10%					12.50 T
Total Quantity					137.51 T
Use					140 T
SUB-TOTAL =					140 T
(THIS SHT. ONLY)					
TOTAL QUANTITY =					140 T
(FINAL ITEM SHT. ONLY)					

BY	NDB	DATE	8/4/2023	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



**ITEM 404.197901 19 F9 BINDER COURSE WMA, 70 SERIES COMPACTION**

**UNIT: ( T )**

*Assume 15'-0" approach slab and 40 feet of pavement reconstruction beyond approach slabs.*

Roadway width =	57.17	FT	(Proposed plans, assume additional 2'-0" on each side)
Pavement recon length =	40.00	FT	(Proposed Plans, Approximate)
Thickness =	3.00	IN	(Assumed)
Volume =	571.67	CF	
Density =	147.20	LBS/CF	
Subtotal =	42.07	TON per approach	
No. =	4	Approaches	
<b>Total =</b>	<b>168.30</b>	<b>TON</b>	

U-Turn Culvert Restoration:

Width	3.25	FT
Length =	35.00	FT
Thickness =	6.00	IN
Volume =	19.13	CF
Density =	144.10	LB/CF
<b>Total =</b>	<b>1.38</b>	<b>TON</b>

Sheet Subtotal	169.68	T
Add 10%	16.97	T
Total Quantity	186.64	T
Use	190	T

SUB-TOTAL =	190	T
(THIS SHT. ONLY)		
TOTAL QUANTITY =	190	T
(FINAL ITEM SHT. ONLY)		

BY	Ravi	DATE	11/3/2023	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



**ITEM 603.051116 CORRUGATED STEEL PIPE (2-2/3 IN X 1/2 IN) - 15 INCH, 16 GAUGE**

UNIT: ( LF )

From Ravi 11/3/2023

**Total = 104.00 FT**

**603.051116 - CORRUGATED STEEL PIPE (2-2/3 IN X 1/2 IN) - 15 INCH, 16 GAUGE**

See Drainage Table WZTC1-2 ✓

$DR_{1\_3} := 10\text{ ft} + 5\text{ ft} + 26\text{ ft} = 41\text{ ft}$  ✓

$DR_{1\_5} := 15\text{ ft} + 10\text{ ft} + 38\text{ ft} = 63\text{ ft}$  ✓

$Total := DR_{1\_3} + DR_{1\_5} = 104\text{ ft}$  ✓

U-Turn Culvert Restoration:

**Total = 60.00 FT**

Sheet Subtotal	164.00	LF
Add 0%	0.00	LF
Total Quantity	164.00	LF
Use	164	LF

**SUB-TOTAL = 164 LF**  
(THIS SHT. ONLY)

**TOTAL QUANTITY = 164 LF**  
(FINAL ITEM SHT. ONLY)

BY	Ravi	DATE	11/3/2023	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



<b>ITEM</b>	<b>603.171116</b>	<b>GALVANIZED STEEL END SECTION - PIPE (2-2/3 IN X 1/2 IN CORRUGATIONS ) - 15 INCH DIAMETER, 18 GAUGE</b>	<b>UNIT: ( EA )</b>
<p><i>From Ravi 11/3/2023</i></p> <p><b>Total = 4 EA</b></p> <p><u>603.171116 - GALVANIZED STEEL END SECTION - PIPE (2-2/3 IN X 1/2 IN CORRUGATIONS ) - 15 INCH DIAMETER, 18 GAUGE</u></p> <p><i>Total := 4      See Drainage Table WZTC1-2</i></p> <p><u>U-Turn Culvert Restoration:</u></p> <p><b>Total = 2.00 EA</b></p>			
		<b>Sheet Subtotal</b> <b>Add 0%</b> <b>Total Quantity</b> <b>Use</b>	<div style="display: flex; justify-content: space-between;"> <span>6.00</span> <span>EA</span> </div> <div style="display: flex; justify-content: space-between;"> <span>0.00</span> <span>EA</span> </div> <div style="display: flex; justify-content: space-between;"> <span>6.00</span> <span>EA</span> </div> <div style="display: flex; justify-content: space-between;"> <span>6</span> <span>EA</span> </div>
		<b>SUB-TOTAL = 6 EA</b> <b>(THIS SHT. ONLY)</b>	
		<b>TOTAL QUANTITY = 6 EA</b> <b>(FINAL ITEM SHT. ONLY)</b>	

BY	NDB	DATE	8/4/2023	CKD	CGS	DATE	1/4/2024
PROJECT NAME & NO.		19710.05 - MP 227.40 & MP 227.41 over Sterling Creek					
CLIENT		NYSTA					
SUBJECT		PS&E Estimate					



**ITEM 627.50140008 CUTTING PAVEMENT**

**UNIT: ( LF )**

Roadway width (length of cut) = 56.51 (Proposed Plans)

No. of cuts = 4

**Total = 226.03 FT**

Median restoration:

West Approach Length = 1008.00 FT (Proposed Plans)

East Approach Length = 1308.00 FT (Proposed Plans)

**Total = 2316.00 FT**

Sheet Subtotal	2542.03	LF
Add 10%	254.20	LF
Total Quantity	2796.23	LF
Use	2800	LF

**SUB-TOTAL = 2800 LF**  
**(THIS SHT. ONLY)**

**TOTAL QUANTITY = 2800 LF**  
**(FINAL ITEM SHT. ONLY)**