

The updated workups contained within this file named "Updated and KC Workups for TAA 23-25B_est_brd_PSE 12-13-2023.pdf" are intended to supplement or replace specific item workups found in the file named "TAA 23-25B_est_brd__PS&E Quantity Backup_FP_12-11-23".

The updated information is the following:

Page 2 - The KC Engineering and Land Surveying, P.C. (KC) estimate is to go after the workups for Item 559.09, found on page 18 of 56.

Page 3, 4 – Page 2 **Replaces** the previous workup for Item 556.0203, found on page 19 of 56. Page 3 is the KC estimate that is to go after the workups for the replaced workups for Item 556.0203.

Page 5, 6, 7 – Page 4 **Replaces** the previous workup for Item 559.02, found on page 26 of 56. Pages 5 and 6 are the KC estimate that are to go after the workups for the replaced workups for Item 559.02.

Pages 8, 9 – Are the KC estimate that are to go after the workups for Item 559.04, found on page 27.

Page 10 - Is the KC estimate to go after the workups for Item 565.1523, found on page 32 of 56.

Page 11 - Is the KC estimate to go after the workups for Item 565.1723, found on page 33 of 56.

Page 12 - Is the KC estimate to go after the workups for Item 565.2034, found on page 34 of 56.

Page 13, 14, 15 - Are the KC estimate to go after the workups for Item 580.01, found on page 42 of 56.

Page 16 - Is the KC estimate to go after the workups for Item 582.05, found on page 43 of 56.

Page 17 - Is the KC estimate to go after the workups for Item 582.06, found on page 44 of 56.

Page 18 - Is the KC estimate to go after the workups for Item 586.0201, found on page 45 of 56.

Pages 19, 20 – Page 19 **Replaces** the previous workup for Item 586.0301, found on page 46 of 56 and Page 20 is the KC estimate to go after the workup for Item 586.0301.

Page 21 – Is a new quantity workup for Item 660.61002025, Reimbursement to Adesta, An Allied Universal Company for Furnishing Utility Services. This workup would have been inserted after the workup for Item 620.0801, found on page 53 of 56.

ITEM 555.09 (CY)										
CONCRETE FOR STRUCTURES - CLASS HP										
SR. NUMBER	STATION	ELEMENT LOCATION	Nos.	LENGTH (OUTSIDE) (FT)	AREA (SQ. FT.)	WALL THICKNESS (FT)	WIDTH (OUTSIDE) (FT)	BASE THICKNESS (FT)	HEIGHT (FT)	TOTAL VOLUME (CY)
1	2799+51.08	South Abutment Backwall	1	124.25			1.00		6.86	31.60
2	2803+06.38	North Abutment Backwall	1	125.54			1.00		6.70	31.20
3	2799+51.08	South Abutment Pedestal - G2-G5 and G11-G12	6	4.17			3.67		0.47	1.60
4	2799+51.08	South Abutment Pedestal - G1	1		14.38				0.41	0.30
5	2799+51.08	South Abutment Pedestal - G14 (Shim Plate)	1		20.25				0.00	0.00
6	2803+06.38	North Abutment Pedestal - G2 through G13	12	4.00			3.67		0.82	5.40
7	2803+06.38	North Abutment Pedestal - G1	1		20.13				0.92	0.70
8	2803+06.38	North Abutment Pedestal - G14	1		21.72				0.54	0.50
9	2800+28.31	Pier-1 - G2-G7, G10-G13	10	4.00			4.00		1.56	9.30
10	2800+28.31	Pier-1 Pedestals - G1,G7, G8 and G14	4	4.50			4.00		1.27	3.40
11	2802+28.39	Pier-2 - G2-G7, G10-G13	10	4.00			4.00		1.90	11.30
12	2802+28.39	Pier-2 Pedestals - G1,G7-G8, G9 and G14	4	4.50			4.00		1.60	4.30
13	2799+51.08	East Fascia Wingwall @ South Abutment (SE WW)	1	14.31			0.67		1.97	0.90
14	2799+51.08	West Fascia Wingwall @ South Abutment (SW WW)	1	5.59			0.67		2.28	0.40
15	2803+06.38	East Fascia Wingwall @ North Abutment (NE WW)	1	15.96			0.67		2.00	1.00
16	2803+06.38	West Fascia Wingwall @ North Abutment (NW WW)	1	14.48			0.67		2.29	1.00
TOTAL:										102.90
Added for unanticipated field conditions:										5.20
SAY:										109

PREPARED BY: CV
CHECKED BY: JB
COMP DATE: 12/06/2023



PROJECT: Assignment No. 1 - Bridge Preservation

JMT ID: 21-03935-001

LOC.: MP 81.71 I-87 over Wallkill River

Done By: ADD 7/6/2023

CLIENT: NYS Thruway Authority

Check By: RDH 11/16/2023

CLIENT ID:

Correct By: TRB 11/20/2023

SUBJECT: ENGINEER'S ESTIMATE - ITEM QUANTITY

Verify By: GMP 11/21/2023

Item No.: 556.0203

Unit: LB

Desc.: Galvanized Bar Reinforcement for Structures

CALCULATED QUANTITY: 67035 LB

ESTIMATED QUANTITY: 67035 LB

See KC estimate (based on bar list)

Abutments 15916

Piers 3845

Wingwall 423

Counterweight 43213

63397

Unanticipated Field Conditions 3170

NOTE: superstructure slab, approach & sleeper slabs, and barrier will have their rebar paid for in respective items

Drill & Grout bars @ temporary tie-downs

Number of tie-down locations 14

Number per location 16

Length 2 ft

Bar size (wt per ft.) 1.044 lb/ft

468 lb

NOTE: anchor connections for lagging wall is included in lagging item

ITEM 556.0203 (LB)								
GALVANIZED BAR REINFORCEMENT FOR STRUCTURES								
STRUCTURE	STATION	OFFSET	SIDE	BAR SIZE	LB/LF	LENGTH (FT)	# OF BARS	WEIGHT (LB)
Total Rebar Quantity Abutments (Refer ST-62 for Bar Qty.)								15,916.00
Total Rebar Quantity Piers (Refer ST-62 for Bar Qty.)								3,845.00
Total Rebar Quantity for Counterweight (Begin & End Abt. NB & SB) (Refer ST-64 for Bar Qty.)								43,213.00
Total Rebar Quantity for Wingwall (Begin & End Abt. NB & SB) (Refer ST-62 for Bar Qty.)								423.00
TOTAL								63,397.00
Added for unanticipated field conditions:								3,170
SAY:								66,567

.....	BAR DIA (in)	LB / LF
2	0.250 = 1/4"	0.167
3	0.375 = 3/8"	0.376
4	0.500 = 1/2"	0.668
5	0.625 = 5/8"	1.043
6	0.750 = 3/4"	1.502
7	0.875 = 7/8"	2.044
8	1.000 = 1"	2.670
9	1.128 = 1 1/8"	3.400
10	1.270 = 1 1/4"	4.303
11	1.410 = 1 3/8"	5.313
14	1.693 = 1 3/4"	7.650
18	2.257 = 2 1/4"	13.600

PREPARED BY: CV
CHECKED BY: JB
COMP DATE: 12/06/2023



PROJECT: Assignment No. 1 - Bridge Preservation

JMT ID: 21-03935-001

LOC.: MP 81.71 I-87 over Wallkill River

Done By: RCD 7/20/2023

CLIENT: NYS Thruway Authority

Check By: TRB 11/16/2023

CLIENT ID:

Correct By: TRB 11/20/2023

SUBJECT: ENGINEER'S ESTIMATE - ITEM QUANTITY

Verify By: GMP 11/21/2023

Item No.: 559.02

Unit: SF

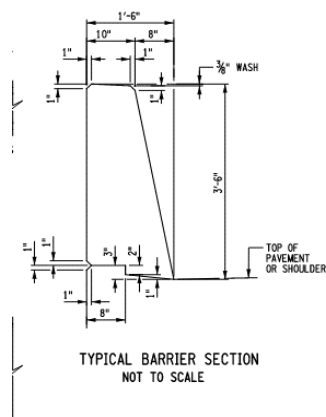
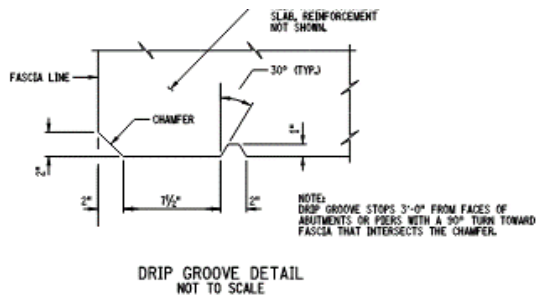
Desc.: Protective Sealing of New Structural Concrete

CALCULATED QUANTITY: 13811.97 SF

ESTIMATED QUANTITY: 13812 SF

	Transverse (FT)	Length (FT)	Quantity	Area (SF)
Concrete Barrier				
NB Right	4.33	393.34	1.00	1704.34
NB Median	4.33	395.92	1.00	1714.33
SB Median	4.33	395.92	1.00	1714.33
SB Left	4.33	382.44	1.00	1655.97
Span 1 overhang	5.50	78.00	2.00	858.00

Lengths measured in CADD



KC Quantity

6165 SF

ITEM 559.02 (SF)						
PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE						
DESCRIPTION	COMMENTS	NO.	LENGTH (LF)	WIDTH (LF)	HEIGHT (LF)	TOTAL AREA (SF)
Backwall @ South Abutment						
Skewed Backwall, Above G14	Front Face + Back Face	2		3.92	6.43	51.00
From G14 to G12 top of crown	Front Face + Back Face	2		20.70	6.69	277.00
From G12 to G8, lowest backwall elv	Front Face + Back Face	2		36.17	6.61	479.00
From G8 to G3 top of crown	Front Face + Back Face	2		39.52	6.71	531.00
From G3 to G1	Front Face + Back Face	2		20.31	6.94	282.00
Skewed Backwall, Above G1	Front Face + Back Face	2		3.36	6.71	46.00
Side Face of Backwall at G1		1		1.00	6.39	7.00
Side Face of Backwall at G14		1		1.00	6.71	7.00
				123.97		
Pedestals @ South Abutment (Pedestal Top+Side Faces)						
G1 @ South Abutment	(Perimeter = 15.17 ft) (Area=14.38 sq ft)	1	15.17		0.41	21.00
G2 @ South Abutment	N(L X W) + (N X 2 X (L+W) X H)	1	4.17	3.67	0.55	24.00
G3 @ South Abutment		1	4.17	3.67	0.70	27.00
G4 @ South Abutment		1	4.17	3.67	0.65	26.00
G5 @ South Abutment		1	4.17	3.67	0.45	23.00
G11 @ South Abutment		1	4.17	3.67	0.45	23.00
G12 @ South Abutment		1	4.17	3.67	0.50	24.00
SE Wingwall						
	Side Faces	2	21.33		1.37	59.00
	Top Face	1	21.33	0.67		15.00
SW Wingwall						
	Side Faces	2	13.88		1.77	50.00
	Top Face	1	13.88	0.67		10.00
Pedestals @ Pier 1 (Top of pedestal + Side surface)						
Pier-1 - G2-G7, G10-G13	N(L X W) + (N X 2 X (L+W) X H)	10	4.00	4.00	2.00	480.00
Pier-1 Pedestals - G1, G8, G9 and G14		4	4.00	4.50	2.00	208.00
Pedestals @ Pier 2 (Top of pedestal + Side surface)						
Pier-1 - G2-G4	(L X W) + (N X 2 X (L+W) X H)	10	4.00	4.00	2.24	519.00
Pier-1 Pedestals - G1, G5 - G14		4	4.00	4.50	2.00	208.00
Backwall @ North Abutment						
Skewed Backwall, Above G1	Front Face + Back Face	2		3.58	6.90	50.00
From G1 to G3 top of crown	Front Face + Back Face	2		20.96	7.10	298.00
From G3 to G7, lowest backwall elv	Front Face + Back Face	2		37.08	8.00	594.00
From G7 to G11 top of crown	Front Face + Back Face	2		34.46	7.50	517.00
From G11 to G14	Front Face + Back Face	2		25.50	8.00	408.00
Skewed Backwall, Above G14	Front Face + Back Face	2		3.96	6.42	51.00
Side Face of Backwall at G1		1		1.00	7.00	7.00
Side Face of Backwall at G14		1		1.00	7.00	7.00

PREPARED BY: CV
 CHECKED BY: JB
 COMP DATE: 12/06/2023

ITEM 559.02 (SF)						
PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE						
DESCRIPTION	COMMENTS	NO.	LENGTH (LF)	WIDTH (LF)	HEIGHT (LF)	TOTAL AREA (SF)
Pedestals @ North Abutment (Pedestal Top+Side Faces)						
G1 @ North Abutment	(Perimeter = 17.65 ft)	1	17.65		0.92	37.00
G2 @ North Abutment	(L X W) + (N X 2 X (L+W) X H)	1	4.00	3.67	1.06	31.00
G3 @ North Abutment		1	4.00	3.67	1.21	34.00
G4 @ North Abutment		1	4.00	3.67	1.14	33.00
G5 @ North Abutment		1	4.00	3.67	0.94	30.00
G6 @ North Abutment		1	4.00	3.67	0.75	27.00
G7 @ North Abutment		1	4.00	3.67	0.56	24.00
G8 @ North Abutment		1	4.00	3.67	0.44	22.00
G9 @ North Abutment		1	4.00	3.67	0.58	24.00
G10 @ North Abutment		1	4.00	3.67	0.72	26.00
G11 @ North Abutment		1	4.00	3.67	0.87	29.00
G12 @ North Abutment		1	4.00	3.67	0.93	29.00
G13 @ North Abutment		1	4.00	3.67	0.74	27.00
G14 @ North Abutment	(Perimeter = 19.40 ft)	1	19.40		0.54	26.00
NE Wingwall						
Side Faces	(20'-7.5")*(202.61-200.61)	2	21.63		2.00	87.00
Top Face	(8")*(20'-7.5")	1	21.63	0.67		15.00
NW Wingwall						
Side Faces	(21'-5")*(201.21-200.61)	2	21.42		0.60	26.00
Top Face	(8")*(21'-5")	1	21.42	0.67		15.00
TOTAL:						5,871.00
(Added for unanticipated field conditions):						294
SAY:						6,165

PREPARED BY: CV
 CHECKED BY: JB
 COMP DATE: 12/06/2023

ITEM 559.04 (SF)						
PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER						
DESCRIPTION	COMMENTS	NO.	LENGTH (LF)	WIDTH (LF)	HEIGHT (LF)	TOTAL AREA (SF)
Abutment Stem @ South Abutment						
Abutment Stem	The height is considered from the top of abutment seat and lowest point of elevation in the profile cut section	1	124.38		7.00	871.00
Abutment Stem Top = Total area of Abutment Stem - Pedestal Area		1	115.55	3.67		248.00
Pedestal Area = (12' 4" * 3.67')	-For abutment stem top the length is considered from the inner edge of pedestal G1 to inner edge of G14					
SE Wingwall (Wingwall Elevations are taken from CT 53-10 record plans)						
CT-53-10: View A-A (10' Section) (Height till headway's construction joint) (S.No. 163)	(203.28-194.00)*10'	1	10.00		9.28	93.00
CT-53-10: View A-A (11'-4" Section) (Height till headway's construction joint) (S.No. 163)	(203.28-(190.24-189.50))*(11'-4")	1	11.33		13.78	157.00
Cheekwall (1' width face)	(203.28-194.00)*1'	1	1.00		9.28	10.00
Cheekwall inside face	(1.75')*(203.28-194.00)	1	1.75		9.28	17.00
Cheekwall inside face above bridge seat	(203.28-197.10)*(4'-2.25")	1	4.19		6.18	26.00
SW Wingwall (Wingwall Elevations are taken from CT 53-10 record plans)						
CT-53-10: View B-B (13'-10.5" Section) (Height till headway's construction joint) (S.No. 163)	(203.28-194.25)*(13'-10.5")	1	13.88		9.03	126.00
Cheekwall (1' width face)	(203.28-194.25)*1'	1	1.00		9.03	10.00
Cheekwall inside face	(5.75'-2.125')*(203.28-194.25)	1	3.63		9.03	33.00
Cheekwall inside face above bridge seat	(203.28-197.10)*(3'-8")	1	3.67		6.18	23.00
Columns @ Pier 1						
C1-C8 (H = 192.69 - 174 - (5'-8"))	(N X 2 X (L+W) X H)	8	4.00	4.00	13.03	1,668.00
Pier Cap @ Pier 1						
Pier Cap Top surface = Total Area - Pedestal Area		2	61.25	4.00		490.00
Surface Area of Pier Cap Sides	(N X 2 X (L+W) X H)	2	61.25	4.00	5.67	1,479.00
Surface Area of Pier Cap Bottom = Surface area of bottom - N*Area of Column (8' 4" * 4')	(N X L X W) - (8' 4" * 4')	2	61.25	4.00		362.00
Footing Cap @ Pier 1						
Surface Area of Footing Sides		2	61.25		2.00	245.00
Surface Area of Footing End Sides		2	4.00		2.00	16.00
Surface Area of footing Top		3	16.42	4.00		198.00
Columns @ Pier 2						
C1-C8 (H = 190.98 - 174 - (5'-8"))	(N X 2 X (L+W) X H)	8	4.00	4.00	11.32	1,449.00
Pier Cap @ Pier 2						
Pier Cap Top surface = Total Area - Pedestal Area		2	61.25	4.00		490.00
Surface Area of Pier Cap Sides	(N X 2 X (L+W) X H)	2	61.25	4.00	5.67	1,479.00
Surface Area of Pier Cap Bottom = Surface area of bottom - N*Area of Column (8' 4" * 4')	(N X L X W) - (8' 4" * 4')	2	61.25	4.00		362.00
Footing Cap @ Pier 2						
Surface Area of Footing Sides		2	61.25		2.00	245.00
Surface Area of Footing End Sides		2	4.00		2.00	16.00
Surface Area of footing Top		3	16.42	4.00		198.00

PREPARED BY: CV
CHECKED BY: JB
COMP DATE: 12/06/2023

ITEM 559.04 (SF)						
PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER						
DESCRIPTION	COMMENTS	NO.	LENGTH (LF)	WIDTH (LF)	HEIGHT (LF)	TOTAL AREA (SF)
Abutment Stem @ North Abutment	The height is considered from the top of abutment seat and lowest point of elevation in the profile cut section -For abutment stem top the length is considered from the edge inner edge of pedestal G1 to inner edge of G14					
Abutment Stem		1	124.38		17.08	2,125.00
Abutment Stem Top = Total area of Abutment Stem - Sum of area of pedestal		1	114.83	3.67		246.00
NE Wingwall (Wingwall Elevations are taken from CT 53-10 record plans)						
CT-53-10: View B-B (20'-7.5" Section) (Height till headway's construction joint) (S.No. 166)	(201.12-183.00)*(20'-7.5")	1	20.63		18.12	374.00
Cheekwall (1' width face)	(201.12-183.00)*1'	1	1.00		18.12	19.00
Cheekwall inside face above bridge seat	(201.12-194.96)*(3'-4.25")	1	3.35		8.32	28.00
NW Wingwall (Wingwall Elevations are taken from CT 53-10 record plans)						
CT-53-10: View A-A (13'-10.5" Section) (Height till headway's construction joint) (S.No. 166)	(201.12-175)*(21'-5")	1	21.42		26.12	560.00
Cheekwall (1' width face)	(201.12-175)*1'	1	1.00		26.12	27.00
Cheekwall inside face	(5.75'-2.125")*(201.12-175)	1	1.26		26.12	33.00
Cheekwall inside face above bridge seat	(201.12-194.96)*(4'-8.25")	1	4.69		8.32	39.00
TOTAL:						13,762.00
(Added for unanticipated field conditions):						689
SAY:						14,451

PREPARED BY: CV
 CHECKED BY: JB
 COMP DATE: 12/06/2023

ITEM 565.1523 (EACH)		
TYPE M.R. EXPANSION BEARING (451 to 675K)		
BEARING LINE STATION	LOCATION	QTY. (EA)
2800+38.31	Pier-1 Bearing Line	14
TOTAL:		14

Added for unanticipated field conditions:	
SAY:	14

PREPARED BY: CV**CHECKED BY: JB****COMP DATE: 12/06/2023**

ITEM 565.1723 (EACH) TYPE M.R. FIXED BEARING (451 to 675K)		
BEARING LINE STATION	LOCATION	QTY. (EA)
2802+28.39	Pier-2 Bearing Line	14
TOTAL:		14

Added for unanticipated field conditions:		
SAY:		14

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023

ITEM 565.2034 (EACH) TYPE E.B. EXPANSION BEARING (169 to 225K)		
BEARING LINE STATION	LOCATION	QTY. (EA)
2799+51.08	Bearing line on South Abutment	14
2803+06.38	Bearing Line over North Abutment	14
TOTAL:		28
Added for unanticipated field conditions:		
SAY:		28

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023

ITEM 580.01 (CY)						
REMOVAL OF STRUCTURAL CONCRETE						
DESCRIPTION	NUMBER	LENGTH (FT)	WIDTH (FT)	AREA (SQ.FT)	DEPTH / HEIGHT (IN)	VOLUME (CY)
Backwall @ South Abutment	1	124.25	1.67		74.16	47.40
Backwall @ North Abutment	1	125.54	1.67		73.92	47.80
Pedestals @ South Abutment (Assuming 4' X 3' for G2 - G13) (Assuming Area similar to proposed G1 & G14 to be conservative)						5.00
G1 @ South Abutment	1			14.38	9.00	0.40
G2 @ South Abutment	1	4.00	3.00		10.50	0.40
G3 @ South Abutment	1	4.00	3.00		11.50	0.50
G4 @ South Abutment	1	4.00	3.00		10.25	0.40
G5 @ South Abutment	1	4.00	3.00		9.00	0.40
G6 @ South Abutment	1	4.00	3.00		6.38	0.30
G7 @ South Abutment	1	4.00	3.00		4.75	0.20
G8 @ South Abutment	1	4.00	3.00		4.50	0.20
G9 @ South Abutment	1	4.00	3.00		5.38	0.20
G10 @ South Abutment	1	4.00	3.00		7.00	0.30
G11 @ South Abutment	1	4.00	3.00		8.50	0.40
G12 @ South Abutment	1	4.00	3.00		9.25	0.40
G13 @ North Abutment	1	4.00	3.00		7.50	0.30
G14 @ South Abutment	1			20.25	9.00	0.60
Pedestals @ North Abutment (Assuming 4' X 3' for G2 - G13) (Assuming Area similar to proposed G1 & G14 to be conservative)						5.10
G1 @ North Abutment	1			20.13	9.00	0.60
G2 @ North Abutment	1	4.00	3.00		10.00	0.40
G3 @ North Abutment	1	4.00	3.00		11.50	0.50
G4 @ North Abutment	1	4.00	3.00		10.50	0.40
G5 @ North Abutment	1	4.00	3.00		8.50	0.40
G6 @ North Abutment	1	4.00	3.00		6.50	0.30
G7 @ North Abutment	1	4.00	3.00		5.00	0.20
G8 @ North Abutment	1	4.00	3.00		4.38	0.20
G9 @ North Abutment	1	4.00	3.00		5.50	0.30
G10 @ North Abutment	1	4.00	3.00		7.00	0.30
G11 @ North Abutment	1	4.00	3.00		8.50	0.40
G12 @ North Abutment	1	4.00	3.00		9.50	0.40

ITEM 580.01 (CY) REMOVAL OF STRUCTURAL CONCRETE						
DESCRIPTION	NUMBER	LENGTH (FT)	WIDTH (FT)	AREA (SQ.FT)	DEPTH / HEIGHT (IN)	VOLUME (CY)
G13 @ North Abutment	1	4.00	3.00		7.50	0.30
G14 @ North Abutment	1			21.72	5.50	0.40
Pedestals @ Pier-1						2.70
G1	1	3.00	2.17		8.50	0.20
G2	1	3.00	2.17		9.75	0.20
G3	1	3.00	2.17		11.50	0.30
G4	1	3.00	2.17		9.50	0.20
G5	1	3.00	2.17		7.75	0.20
G6	1	3.00	2.17		5.75	0.20
G7	1	3.00	2.17		3.75	0.10
G8	1	3.00	2.17		4.00	0.10
G9	1	3.00	2.17		5.50	0.20
G10	1	3.00	2.17		6.50	0.20
G11	1	3.00	2.17		7.75	0.20
G12	1	3.00	2.17		8.25	0.20
G13	1	3.00	2.17		7.00	0.20
G14	1	3.00	2.17		5.25	0.20
Pedestals @ Pier-2						2.50
G1	1	3.00	2.17		8.50	0.20
G2	1	3.00	2.17		9.50	0.20
G3	1	3.00	2.17		10.75	0.30
G4	1	3.00	2.17		9.75	0.20
G5	1	3.00	2.17		7.88	0.20
G6	1	3.00	2.17		6.00	0.20
G7	1	3.00	2.17		4.00	0.10
G8	1	3.00	2.17		4.25	0.10
G9	1	3.00	2.17		4.63	0.10
G10	1	3.00	2.17		6.50	0.20
G11	1	3.00	2.17		7.50	0.20
G12	1	3.00	2.17		8.13	0.20
G13	1	3.00	2.17		6.50	0.20
G14	1	3.00	2.17		4.38	0.10

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023

ITEM 580.01 (CY) REMOVAL OF STRUCTURAL CONCRETE						
DESCRIPTION	NUMBER	LENGTH (FT)	WIDTH (FT)	AREA (SQ.FT)	DEPTH / HEIGHT (IN)	VOLUME (CY)
East Fascia Wingwall Key @ South Abutment (4'-7")	1	14.31	4.58		23.64	4.80
West Fascia Wingwall Key @ South Abutment (4'-7")	1	5.59	4.58		27.36	2.20
East Fascia Wingwall Key @ North Abutment (4'-7")	1	15.96	4.58		24.00	5.50
West Fascia Wingwall Key @ North Abutment (4'-7")	1	14.48	4.58		27.48	5.70
TOTAL:						129

Added for unanticipated field conditions:	7
SAY:	136

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023

ITEM 582.05 (CY)							
REMOVAL OF STRUCTURAL CONCRETE AND REPLACEMENT WITH CLASS A CONCRETE							
DESCRIPTION	COMMENTS	NO.	LENGTH (LF)	WIDTH (LF)	DEPTH (IN)	AREA (SF)	VOLUME (CY)
Below G7 @ Begin Abutment Stem	Spall with exposed rebar	1	5	1.83	8.00		0.30
Cheekwall @ Begin Abutment	Spall with exposed rebar	1			5.00	13	0.30
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
							0.00
TOTAL:							0.60
(Added for unanticipated field conditions):							0.4
SAY:							1

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023

ITEM 582.06 (SF)					
REMOVAL OF STRUCTURAL CONCRETE AND REPLACEMENT WITH CLASS D CONCRETE					
DESCRIPTION	COMMENTS	NO.	LENGTH (LF)	WIDTH (LF)	AREA (SF)
G-14-G12 @ Begin Abutment Stem	Map Cracks	1	20	7.5	150.00
G12 @ Begin Abutment Stem	Horizontal Crack	1	1	1	1.00
G12 @ Begin Abutment Stem	Horizontal Crack	1	2	1	2.00
G10 @ Begin Abutment Stem	Horizontal Crack	1	2	2	4.00
G9-G8 @ Begin Abutment Stem	Map Cracks	1	7	3	21.00
G6-G5 @ Begin Abutment Stem	Horizontal Crack	1	1	0.5	0.50
G4-G1 @ Begin Abutment Stem	Map Cracks	1	29	7	203.00
Stepped Footing @ Begin Abutment	Map Cracks	1	24	3.58	86.00
Cheekwall @ Begin Abutment	Vertical Crack	1	6.50	1.00	6.50
Seat G12-G11@Begin Abutment	Spall	1	1.50	3.33	5.00
C1 @ P1 Begin Face	Delamination	1	3.00	1.00	3.00
Pier Cap above C2 @ P1 Begin Face	Horizontal Crack	1	1.00	0.50	0.50
C4 @ P1 Begin Face	Spall				1.00
C4 @ P1 End Face	Vertical Crack	1	1.00	1.00	1.00
Under PD1, Pier cap top@ P1 End Face	Spall	1	5.21	1.01	5.50
At foot of C1 @ P1 End Face	Spall	1	1.00	0.50	0.50
Right Face C1 @ P1 End Face	Delamination	1	0.50	1.00	0.50
Under PD1@ P1 End Face	Crack	1	1.00	0.50	0.50
C1 @ P1 End Face	Spall and Delamination	1	3.00	2.17	6.50
Pier Cap above C1 @P1 End Face	Delamination	1	7.50	5.50	41.50
C1 @ P1 End Face	Vertical Crack	1	1.00	1.00	1.00
C1 Side Face @ P1 End Face	Delamination	1	14.50	2.48	36.00
C1 Side Face @ P1 End Face	Delamination				9.00
C4 Side Face @ P2 Begin Face	Crack and Delamination				4.00
C4 Pier Cap Edge @ P2 Begin Face	Spall	1	1.50	1.00	1.50
C4 Side Face @ P2 Begin Face	Spall	1	2.00	0.33	1.00
C5 Side Face @ P2 Begin Face	Spall	1	1.00	0.50	0.50
C5 @ P2 Begin Face	Delamination	1	5.00	0.58	3.00
C5 Side Face @ P2 Begin Face	Delamination	1	5.00	0.58	3.00
C5 Side Face @ P2 Begin Face	Delamination	1	7.00	1.00	7.00
C5 @ P2 End Face	Crack and Delamination	1			6.00
C5 @ P2 End Face	Delamination				10.00
C5 @ P2 End Face	Vertical Crack	1	1.00	1.00	1.00
C5 Side Face @ P2 End Face	Delamination	1			8.00
C5 Side Face @ P2 End Face	Crack	1	2.00	1.00	2.00
C5 Pier Cap Side Face @ P2 End Face	Spall	1	1.58	2.00	3.50
G1-G7 @ End Abutment	Map Cracks	1	54.50	4.00	218.00
G12 @ End Abutment	Delamination				3.00
G12 @ End Abutment	Vertical Crack	1	1.00	1.00	1.00
G13-G14 @ End Abutment	Map Cracks	1	14.00	4.00	56.00
G13 @ End Abutment	Spall and Delamination	1	2.50	6.00	15.00
G6-G7 Seat @ End Abutment	Spall				2.00
G10-G11 Seat @ End Abutment	Horizontal Crack	1	1.50	1.00	1.50
G12-G13 Seat @ End Abutment	Horizontal Crack	1	1.00	1.00	1.00
TOTAL:					933.50

(Added for unanticipated field conditions):	47
SAY:	981

PREPARED BY: CV
 CHECKED BY: JB
 COMP DATE: 12/06/2023

ITEM 586.0201 (EA)				
DRILLING AND GROUTING VERTICAL BARS				
STATION	OFFSET	SIDE	COMMENTS	QTY. (EA)
2799+51.08			South Abutment Backwall Front Bars	166
2803+06.38			North Abutment Backwall Front Bars	168
2799+51.08			South Abutment Pedestals	113
2800+38.31			Pier-1 Pedestals	112
2802+28.39			Pier-2 Pedestals	112
2803+06.38			North Abutment Pedestals	116
TOTAL:				787

Added for unanticipated field conditions:	
SAY:	787

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023



PROJECT:	Assignment No. 1 - Bridge Preservation	JMT ID:	21-03935-001
LOC.:	MP 81.71 I-87 over Wallkill River	Done By:	TRB 7/6/2023
CLIENT:	NYS Thruway Authority	Check By:	RDH 7/16/2023
CLIENT ID:		Correct By:	GMP 11/20/2023
SUBJECT:	ENGINEER'S ESTIMATE - ITEM QUANTITY	Verify By:	TRB 11/21/2023

Item No.: 586.0301

Unit: EA

Desc.: Drilling and Grouting Bolts or Reinforcing Bars with Pullout Tests

CALCULATED QUANTITY: 529 EA

ESTIMATED QUANTITY: 529 EA

Drilled holes necessary to install the temporary tie-downs

No. of tie-downs See ST-57 - one per girder

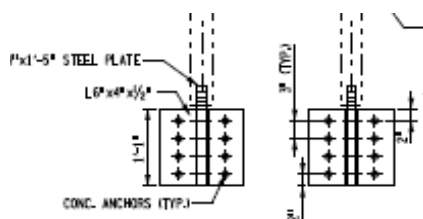
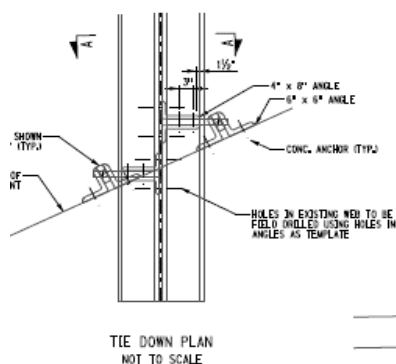
No. of angles attached to stem face See ST-57 - (4) per tiedown

No. of bolt hole columns per angle See ST-57 - Section A-A

No. of bolt hole rows per angle See ST-57 - Section A-A

Holes per Location 16 = Number Angles * Number Rows

No. holes for temporary tie-downs 224 = Number Tiedowns * Number per Location



Bars for rear face of backwall, KC estimate

Total bars

ITEM 586.0301 (EA)				
DRILLING AND GROUTING BOLTS OR REINFORCING BARS WITH PULLOUT TEST				
STATION	OFFSET	SIDE	COMMENTS	QTY. (EA)
2799+51.08			South Abutment Backwall Backbars	126
2803+06.38			North Abutment Backwall Backbars	127
2799+51.08			South Abutment Wingwall Backbars	21
2803+06.38			North Abutment Wingwall Backbars	31
TOTAL:				305

Added for unanticipated field conditions:	
SAY:	305

PREPARED BY: CV

CHECKED BY: JB

COMP DATE: 12/06/2023



PROJECT: Assignment No. 1 - Bridge Preservation

JMT ID: 21-03935-001

LOC.: MP 81.71 I -87 over Wallkill River

Done By: TRB 11/15/2023

CLIENT: NYS Thruway Authority

Check By: ADD 11/16/2023

CLIENT ID:

Correct By: GMP 11/20/2023

SUBJECT: ENGINEER'S ESTIMATE - ITEM QUANTITY

Verify By: TRB 11/21/2023

Item No.: 660.61002025

Unit: DC

Desc.: Reimbursement To Adesta, An Allied Universal Company For Furnishing Utility Services

CALCULATED QUANTITY: 1100000 DC

ESTIMATED QUANTITY: 1100000 DC

Value given from NYSTA