	ESTIMATED QUANTITIES								
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION					
202	11203	LS	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					
202	11305	1,814	SY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN					
202	22901	766	SY	APPROACH SLAB REMOVED, AS PER PLAN					
257	10001	100	SY	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PLAN					
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING					
503	21101	68	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN					
509	10000	466,071	LB	EPOXY COATED REINFORCING STEEL					
510	10000	2.500	EACH	DOWEL HOLES WITH MONSHIPMY MONMETALLIS OPOUT					
510	10000	2,500	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT					
511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE. AS PER PLAN					
511	34413	172	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN					
511	34447	1.038	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN					
511	34451	189	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN					
511	50211	68	CY	CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN					
011	00211		· ·	SE SEC 461 SONONE12, SOSSON SONONE1, NO 1 EN 1 E M					
512	10101	2,432	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN					
512	33300	11	SY	TYPE A WATERPROOFING					
513	20000	12,832	EACH	WELDED STUD SHEAR CONNECTORS					
513	95030	85	EACH	STRUCTURAL STEEL, MISC.: INTERMEDIATE CROSSFRAMES					
513	95030	240	EACH	STRUCTURAL STEEL, MISC.: FATIGUE RETROFIT					
513	95030	19	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY CROSSFRAMES FOR MAINTENANCE OF TRAFFIC					
514	00050	38,603	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL					
514	00056	38,603	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT					
514	00060	38,603	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT					
514	00067	38,603	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN					
514	00504	65	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL					
514	10000	37	EACH	FINAL INSPECTION REPAIR					
516	10010	298	FT	ARMORLESS PREFORMED JOINT SEAL					
516	10011	298	FT	ARMORLESS PREFORMED JOINT SEAL, AS PER PLAN					
516	13600	42	SF	1" PREFORMED EXPANSION JOINT FILLER					
516	13900	1,550	SF	2" PREFORMED EXPANSION JOINT FILLER					
516 516	25000 44201	980 32	SF EACH	NYLON REINFORCED NEOPRENE SHEETING					
516 516	44201 44201	32 48	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3.128"x9.5"x18") ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3.128"x14"x18")					
516	47001	48 LS	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE. AS PER PLAN					
510	7,001			STATE THE TENT OF THE OTHER OF THE STATE OF					
518	21200	164	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC					
518	40000	307	FT	6" PERFORATED CORRUGATED PLASTIC PIPE					
518	40010	73	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS					
519	11101	250	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN					
526	25001	786	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN					
526	90030	298	FT	TYPE C INSTALLATION					
601	20000	6	SY	CRUSHED AGGREGATE SLOPE PROTECTION					
601	21001	150	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN					
SPECIAL	60610920	3,262	SF	NOISE BARRIER, BRIDGE MOUNTED					
SPECIAL	60610920	1,250	SF	NOISE BARRIER, GROUND MOUNTED					

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	202E11203
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

PAY UNIT LS

Description.		
Description:		
Lump		
'		
Sheet Total =		0
Item Total =	0	
item rotal =	0	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	202E11305
CHK'D BY:	FJG	DATE:	4/20/18	PAGE NUMBER:	



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME PORTIONS OF STRUCTURE REMOVED, AS PER PLAN PAY UNIT SY

West Underpass: Lane Width = 56.00 ft 10' Overhang Each Side of Lane = 20.00 ft Framing Length Along Skew = 141.87 ft	1,199	
Lane Width = 56.00 ft 10' Overhang Each Side of Lane = 20.00 ft Framing Length Along Skew = 141.87 ft	1,199	
10' Overhang Each Side of Lane = 20.00 ft Framing Length Along Skew = 141.87 ft	1,199	
Framing Length Along Skew = 141.87 ft	1,199	
	1,199	
	1,199	
Total = 10782.12 sq ft = 1198.01 sq yd		
East Underpass:		
Lane Width = 19.00 ft		
10' Overhang Each Side of Lane = 20.00 ft		
Framing Length Along Skew = 141.87 ft		
Total = 5532.93 sq ft = 614.77 sq yd	615	
Sheet Total =		1,814
Item Total =	1,814	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	202E22901
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ΤΕΜ ΝΔΜΕ	APPROACH S	— SLAR REMO	VED AS PER PLAN		PAY LINIT	SY	

Door Ammussah Clak								
Rear Approach Slab:	A Clab MC lib	22.50	۲.					
	Approach Slab Width =		ft					
	Approach Slab Length =							
	Total =	3442.26	sq ft	=	382.47	sq yd	383	
Forward Approach Slab								
	Approach Slab Width =	23.50	ft					
	Approach Slab Length =	146.48	ft					
	Total =	3442.26	sq ft	=	382.47	sq yd	383	
					Çh.	eet Total =		766
						em Total =	766	700
					Į (.cm Total –	700	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	257E10001
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PAY UNIT SY
PLAN

<u>PLAN</u>						
Bridge Deck (Left Struct. Only)						
Length:	= 247.79	ft				
Width:	= 3.00	ft				
Total :	= 743.37	sf	82.60	sq yd	83	
Approach Slabs						
Length :		ft				
Width:	= 3.00	ft				
No. of Slabs	= 2.00	ea				
Total :	= 150.00	sf	16.67	sq yd	17	
			CI	neet Total =		100
				tem Total =	100	100
			I	com rotar –	100	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	503E11100
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410	
ITEM NAME	COFFERDAM	S AND EXC	AVATION BRACING		PAY UNIT	LS

Description:		
Lump		
Sheet Total =		0
Item Total =	0	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	503E21101
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME UNCLASSIFIED EXCAVATION, AS PER PLAN PAY UNIT CY

Behind Semi Integral Diaphragm:								
Rear Right and Fwd. Left	Area =	73.60	sf					
	Height =	4.08	ft					
	Locations =	2.00	ea					
	Total =	601.07	cu ft	=	22.26	cu yd	23	
Rear Left and Fwd. Right	Area =	73.60	sf					
	Height =	4.08	ft					
	Locations =	2.00	ea					
	Total =	601.07	cu ft	=	22.26	cu yd	23	
Wingwalls does not include ar	ea for wall							
Rear Right and Fwd. Left								
Front:	Area =	62.13	sf					
	Depth =	1.00	ft					
	Locations =	2.00	ea					
	Total =	124.26	cu ft	=	4.60	cu yd	5	
Behind:	Area =	70.56	sf					
	Depth =	1.00	ft					
	Locations =	2.00	ea					
	Total =	141.12	cu ft	=	5.23	cu yd	6	
Rear Left and Fwd. Right								
Front:	Area =	63.81	sf					
	Depth =	1.00	ft					
	Locations =	2.00	ea					
	Total =	127.62		=	4.73	cu yd	5	
						<u> </u>		
Behind:	Area =	71.12	sf					
	Depth =	1.00	ft					
	Locations =	2.00	ea					
	Total =	142.24	cu ft	=	5.27	cu yd	6	
						neet Total =	a-	68
					ľ	tem Total =	68	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	509E10000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ΙΤΕΜ ΝΔΜ	Ε ΕΡΩΧΥ ΓΩΔ	TED REINEO	RCING STEEL		PAYLINIT	IR	

<u>Abutments</u>						
Abutments	Rear =	1628	Ib			
	Forward =		Ib			
		3256.0			3,256	
<u>Superstructure</u>	10tai	3230.0			3,230	
<u></u>	Weight from Schedule =	427608	lb		427,608	
					<u> </u>	
Railing (General)						
	Weight from Schedule =	28490	lb		28,490	
<u>Piers</u>						
	Weight from Schedule =	6717	lb		6,717	
-						
			Shoc	et Total =		466,071
				n Total =	466,071	400,071
			1101	Julia	.50,071	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	510E10000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT PAY UNIT EACH

Abutment Wingwalls						
Abdement wingwans						
Rear Right and Fwd. Left						
12 sets of 3	Amount =	36.00	ea			
12 sets of 2	Amount =	24.00	ea			
N	o. Wingwalls =	2.00	ea			
	Total =	120.00	ea		120	
Rear Left and Fwd. Right						
12 sets of 3	Amount =	36.00	ea			
13 sets of 2	Amount =	26.00	ea			
	o. Wingwalls =	2.00	ea			
	Total =	124.00	ea		124	
Abutment Diaphragm Guide						
5 DG601 x 2 sides	Amount =	10.00	ea			
7 DG801 x 2 sides	Amount =	14.00	ea			
	No. Guides =	4.00	ea			
	Total =	96.00	ea		96	
Superstructure - Median Barrier						
267 - R514 BARS	Amount -	267.00				
267 - R514 BARS	Amount =	267.00	ea			
207 - K313 BAR3	Amount = Sides =	2.00	ea			
		1068.00	ea ea		1,068	
				,		
<u> Approach Slab - Median Barrier</u>						
24 - R508 BARS	Amount =	24.00	ea			
24 - R509 BARS	Amount =	24.00	ea			
	Sides =	2.00	ea			
Ар	proach Slabs =	2.00	ea			
	Total =	192.00	ea		192	
				Sheet Total =		1,600
				Item Total =	1,600	1,000

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	510E10000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT PAY UNIT EACH

Pier Cap		
150 - P501 BARS Amount = 150.00 ea		
No. of Sides (e.f.) = 2.00 ea		
No. of Piers = 3.00 ea		
Total = 900.00 ea	900	
	_	
	_	
Sheet Total =		900
Item Total =	2,500	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	511E33501
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ITEM NAME	SEMI-INTEGE	– RAL DIAPHR	AGM GUIDE, AS PER	PAY UNIT	EACH		

Rear and Forward Abutments:		
Total = 4.00 ea.	4	
Sheet Total =		4
Item Total =	4	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	511E34413
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ITEM NAME	CLASS QC2 C	ONCRETE V	VITH QC/QA, SUPERS	STRUCTURE, AS	PER PLAN	PAY UNIT	CY

End Diaphragms:							
Length =	74.49	ft					
Width =	4.00	ft					
Depth (avg) =	3.97	ft					
No. of diaphragms =	4.00	ea					
	4736.05						
Deduct for End Diaphragm Guide =	24.00	cf					
Number of End Diaphragms =	4.00	ea					
	96.00	cf					
Total =	4640.05	cu ft	=	171.85	cu yd	172	
							472
					neet Total =	472	172
				1	tem Total =	172	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	511E34447
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN PAY UNIT CY

Main Dock Area							
Main Deck Area	220.24	r.					
	238.21						
Depth =	0.73	ft					
Total =	24723.70	cu ft	=	915.69	cu yd	916	
Deck Haunch Area							
Length =	240.33	ft					
Haunch Area (from cad) =	0.43	sf					
Number of Beams =		ea					
Total =	1653.47		=	61.24	cu yd	62	
Deck Area at End Diaphragm and 1 Foot Beyond							
Length per Each Quadrant =	74.49	ft					
End Diaphragm Section Area (from cad) =	5.36	sf					
Number of End Diaphragm Quadrants =	4.00	ea					
Total =	1597.06	cu ft	=	59.15	cu yd	60	
					neet Total =		1,038
				ŀ	tem Total =	1,038	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	511E34451
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PAY UNIT CY
PLAN

<u>PLAN</u>								
Median Railing								
Bridge Deck	Length =	247.79	ft					
	Area (from cad) =	6.16	sf					
	Number of Railings =	2.00	ea					
		3052.77	cu ft	=	113.07	cu yd	114	
Outside Railing								
	Length =	247.79	ft					
	Area (from cad) =	4.08	sf					
	Number of Railings =		ea					
		2021.97		=	74.89	cu yd	75	
						, ,	-	
					S۲	eet Total =		189
						tem Total =	189	103
L					- '	.c Otal =	107	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	511E50211
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN PAY UNIT CY

Abutment Wingwalls							
Rear Right and Fwd. Left							
Area above ex footing =	25.09	sf					
Width =	0.83	ft					
No. of Walls =	2.00	ft					
Total =	41.82	cu ft	=	1.55	cu yd	2	
Area above ex beam seat =	60.33	sf					
Width =	1.50	ft					
No. of Walls =	2.00	ft					
Total =	180.99	cu ft	=	6.70	cu yd	7	
Rear Left and Fwd. Right							
Area above ex footing =	28.32	sf					
Width =	0.83	ft					
No. of Walls =	2.00	ft					
Total =	47.20	cu ft	=	1.75	cu yd	2	
Area above ex beam seat =	62.17	sf					
Width =	1.50	ft					
No. of Walls =	2.00	ft					
Total =	186.51	cu ft	=	6.91	cu yd	7	
Pier Caps							
Height (avg) =	1.01	ft					
Width =	3.00	ft					
Length =	148.5	ft					_
No. of Piers =	3.00	ft					
Total =	1349.87	cu ft	=	50.00	cu yd	50	
			-				
					neet Total =		68
				<u> </u>	tem Total =	68	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	512E10101
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN PAY UNIT SY

Outside Wingwalls and App	r Slab							
	<u></u>							
Rear Right and Fwd. Left	Area =	50.69	sf					
_	No. of Sides =	2.00	ea					
	Total =	101.38	sf		11.26	sq yd	12	
Rear Left and Fwd. Right	Area =	54.83	sf					
	No. of Sides =	2.00	ea					
	Total =	109.66	sf		12.18	sq yd	13	
<u>Piers</u>								
Cap Top	Length =	150.00						
	Width =	3.00	ft					
	No. of Piers =	3.00	ea					
	Total =	1350.00	sf	=	150.00	sy	150	
Cap Sides and Ends	Area per Side =		sf					
	No. of Sides =	4.00	ea					
	No. of Piers =	3.00	ea					
	Total =	4611.12	st	=	512.35	sy	513	
Can Dath	l anath	150.00	<u> </u>					
Cap Bott	Length = Width =	150.00 3.00	ft					
	No. of Piers =	3.00						
		1350.00	ea					
Min	us Area of Column =	7.07	sf					
IVIIII								
	No. of Columns =	36.00 1095.48	ea	=	121.72	614	122	
	TOtal –	1033.46	31		121.72	Зу	122	
Columns	Height (avg) =	10.50	ft					
22.3	Distance Around =	9.42	ft					
	No. of Columns =	12.00	ea					
	No. of Piers =	3.00	ea					
		3560.76	sf	=	395.64	sy	396	
						eet Total =		1,206
					lt	tem Total =	1,206	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	512E10101
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN PAY UNIT SY

Abutment Diaphragms								
Rear Right and Fwd. Left assume top/	conc	slone nro	ام – +	607 50				
Area at Fa				007.50				
No. of Abutmen		2.00	ea					
		976.72		=	108.52	CV	109	
10	tai –	370.72	31		106.32	ЗУ	109	
Rear Left and Fwd. Right assume top/	conc	slope pro	t = el	608.00				
Area at Fa	ce =	452.58	sf					
No. of Abutmen	ts =	2.00	ea					
То	tal =	905.16	sf	=	100.57	sy	101	
Transverse Section								
Outside Railings Leng	th =	247.79	ft					
Wid		10.56	ft					
No. of Railin	gs =	2.00	ft					
	tal =	5233.32	sf	=	581.48	SV	582	
						,		
Median Railing Leng	th =	247.79	ft					
Wid		11.47	ft					
То	tal =	2842.15	sf	=	315.79	sy	316	
Approach Slabs								
Outside Railings ** Leng	th =	15.00	ft					
Wid		7.99	ft					
No. of Railin		4.00	ft					
		479.40	sf	=	53.27	sy	54	
10	tai –	473.40	31		33.27	Зу	54	
Median Railing Leng	th =	25.00	ft					
	th =		ft					
No. of Railin		2.00	ft					
	tal =	573.50		=	63.72	sy	64	
** used normal perimeter in transitions -	. tano	r is neglig	ihla					
useu normai perimeter in transitions	tape	ו וא וופצווצ	יטופ					
					Sł	neet Total =		1,226
					ľ	tem Total =	2,432	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	512E33300
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME TYPE A WATERPROOFING PAY UNIT SY

								I
Abutment Diaphragms	(at phase constinints)							
Abutilient Diaphragins	(at phase const joints) Width =	3.00	ft					
	Height =	4.08	ft					
		8.00	ea					
	Total =		sq ft		10.90	caud	11	
	TOLAI –	96.00	sq It	_	10.69	sq yd	11	
						neet Total =		11
					I	tem Total =	11	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	513E20000
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME WELDED STUD SHEAR CONNECTORS PAY UNIT EACH

Beams:

Beams:		
No. of Beams = 16.00 ea		
No. of Rows = 2.00 ea		
Studs per Row = 401.00 ea		
Total = 12832.00 ea	12,832	
Sheet Total =		12,832
Item Total =	12,832	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	513E95040
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410 ITEM NAME STRUCTURAL STEEL, MISC.: INTERMEDIATE CROSSFRAMES PAY UNIT EACH (removed and replaced) Near Pier No. 1 Left Structure = 12.00 ea Right Structure = 13.00 ea Total = 25 25.00 (removed and replaced) Near Pier No. 2 Left Structure = 16.00 ea Right Structure = 16.00 ea Total = 32.00 ea 32 (removed and replaced) Near Pier No. 3 Left Structure = 14.00 ea Right Structure = 14.00 ea Total = 28.00 28 ea Sheet Total = 85 Item Total = 85

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	513E95030
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME STRUCTURAL STEEL, MISC.: FATIGUE RETROFIT PAY UNIT EACH

<u>Piers</u>		
No. of Piers = 3.00 ea		
No. of Beams = 16.00 ea		
Retrofits per Location = 5.00 ea		
Total = 240.00 ea	240	
Sheet Total =		240
Item Total =	240	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	513E95050
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410 ITEM NAME STRUCTURAL STEEL, MISC.: TEMPORARY CROSSFRAMES FOR PAY UNIT EACH **MAINTENANCE OF TRAFFIC** Between Beams H and J Total = 19.00 ea 19 Sheet Total = 19 Item Total = 19

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E00050
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ITEM NAME	SURFACE PR	_ EPARATION	OF EXISTING STRUC	TURAL STEEL	PAY UNIT	SF	

Existing Beams (W36X150) Perimeter (2 x Web) + (3 x Flange) = 8.98 ft Length (span 1 or span 4) = 44.17 ft Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510		I	
Perimeter (2 x Web) + (3 x Flange) = 8.98 ft Length (span 1 or span 4) = 44.17 ft Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %	Existing Roams (W26V150)		
Length (span 1 or span 4) = 44.17 ft Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %			
Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698			
Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %			
Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %		12.698	
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %		,,,,,,	
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %			
Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %	Existing Beams (W36X230)		
Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %	Perimeter (2 x Web) + (3 x Flange) = 9.21 ft		
Total = 22394.59 sq ft	Length (span 2 or span 3) = 76.00 ft		
Crossframes including Incidentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %			
Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %	Total = 22394.59 sq ft	22,395	
Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %			
Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 %			
Percent of Beam Total = 0.10 %	Crossframes including Incidentals		
	Beam Total = 35092.08 sq ft		
Total = 3509.21 sq ft 3,510	Percent of Beam Total = 0.10 %		
	Total = 3509.21 sq ft	3,510	
Sheet Total = 38,603	Sheet Total =		38.603
			-,

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E00056
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT PAY UNIT SF

Existing Beams (W36X150)			
Perimeter (2 x Web) + (3 x Flange) = 8.98 ft			
Length (span 1 or span 4) = 44.17 ft			
Number of Beams = 32.00 ea			
Total = 12697.50 sq ft		12,698	
Existing Beams (W36X230)			
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft			
Length (span 2 or span 3) = 76.00 ft			
Number of Beams = 32.00 ea			
Total = 22394.59 sq ft		22,395	
Crosframes including Incedentals			
Beam Total = 35092.08 sq ft			
Percent of Beam Total = 0.10 %			
Total = 3509.21 sq ft		3,510	
10tal = 3303.21 Sq 1t		3,310	
	Sheet Total =		38,603
	Item Total =	38,603	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E00060
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT PAY UNIT SF

Esistina Danna (MACCVAEO)		
Existing Beams (W36X150)		
Perimeter (2 x Web) + (3 x Flange) = 8.98 ft		
Length (span 1 or span 4) = 44.17 ft		
Number of Beams = 32.00 ea		
Total = 12697.50 sq ft	12,698	
Existing Beams (W36X230)		
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft		
Length (span 2 or span 3) = 76.00 ft		
Number of Beams = 32.00 ea		
Total = 22394.59 sq ft	22,395	
<u>Crosframes including Incedentals</u>		
Beam Total = 35092.08 sq ft		
Percent of Beam Total = 0.10 %		
Total = 3509.21 sq ft	3,510	
Sheet T	otal =	38,603
Item T		

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E00067
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN PAY UNIT SF

Perimeter (2 x Web) + (3 x Flange) = 8.98 ft Length (span 1 or span 4) = 44.17 ft Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 3,510			
Perimeter (2 x Web) + (3 x Flange) = 8.98 ft Length (span 1 or span 4) = 44.17 ft Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 3,510			
Length (span 1 or span 4) = 44.17 ft Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510	Existing Beams (W36X150)		
Number of Beams = 32.00 ea Total = 12697.50 sq ft 12,698	Perimeter (2 x Web) + (3 x Flange) = 8.98 ft		
Total = 12697.50 sq ft 12,698 Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510	Length (span 1 or span 4) = 44.17 ft		
Existing Beams (W36X230) Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 3509.21 sq ft	Number of Beams = 32.00 ea		
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 38,603	Total = 12697.50 sq ft	12,698	
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 38,603			
Perimeter (2 x Web) + (3 x Flange) = 9.21 ft Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 38,603			
Length (span 2 or span 3) = 76.00 ft Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510 Sheet Total = 36083			
Number of Beams = 32.00 ea Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510			
Total = 22394.59 sq ft 22,395 Crosframes including Incedentals Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510			
Crosframes including Incedentals Beam Total = 35092.08 sq ft			
Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510	Total = 22394.59 sq ft	22,395	
Beam Total = 35092.08 sq ft Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510	Crosframos including Incodentals		
Percent of Beam Total = 0.10 % Total = 3509.21 sq ft 3,510			
Total = 3509.21 sq ft 3,510			
Sheet Total = 38,603		3.510	
		0,020	
	Sheet Tol	:al =	38.603
			12,000

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E00504
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL PAY UNIT MNHR

			<u> </u>	
Exist Beams	Include 1 minute per linear foot of beam	/girder to be coated		
	6: 1.5	6.		
	Single Beam Length = 244.50			
	Minus Abut Diaphragms = 4.17	ft		
	Actual Length = 240.33			
	Total Beams = 16	ea		
	Total Feet = 3845.33			
	Divide by = 60.00	mins/hour		
	Total = 64.09	hours	65	
		Sheet Total =		65
		Item Total =		

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	514E10000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME FINAL INSPECTION REPAIR PAY UNIT EACH

Beams	remove a minimum of one lo	cation ne	r 150 linear feet of heam line		
<u>Dearns</u>	Single Beam Length =	244.50			
	Minus Abut Diaphragms =	4.17	ft		
	Actual Length =	240.33			
	Total Beams =	16	ea		
	Total Feet =	3845.33	ft		
	Divide by =	150.00	per location		
	Total =	25.64	ea	26	
	5 percent of all existing cross fra	ame asser	nblies		
	Left Struct Total Assemblies =	101.00	ea		
	Multiply by =	0.05	%		
	Total =	5.05	ea	6	
	Right Struct Total Assemblies =	99.00	ea		
	Multiply by =	0.05	%		
	Total =	4.95	ea	5	
			Sheet Total =		37
			Item Total =	37	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E10010
CHK'D BY	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME ARMORLESS PREFORMED JOINT SEAL PAY UNIT FT

Joint Seal @ Sleeper Slabs		
No. of Appr. Slabs = 2.00 ea		
Length = 148.96 ft		
Total = 297.91 ft	298	
10tal = 257.51 1t	230	
Ch. L.T. L.		200
Sheet Total =	26.5	298
Item Total =	298	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E10011
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ITEM NAME	ARMORLESS	– Preforme	ED JOINT SEAL, AS PE	R PLAN	PAY UNIT	FT	

Joint Seal @ Median Barrier Length = 297.79 ft 298			
	Joint Seal @ Median Barrier		
Length = 297.79 ft 298	<u> </u>		
	Length = 297.79 ft	298	
	zengan zarra te	230	
Sheet Total = 298			298
	Item Total =	298	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E13600
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME 1" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

Joint btwn Bridge Railing and Appr Slab Railing				
Median Railing				
Area (from cad) =	6.16	sf		
No. of Railings =	2.00	ea		
	2.00	ea		
Total =	24.64	sf	25	
Outside Railing				
Area (from cad) =	4.08	sf	1	
Number of Railings =	4.00	ea	1	
Total =	16.32	sf	17	
			1	
			-	
			-	
			1	
		Sheet Total		42
		Item Total :	42	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E13900
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME 2" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

						1
Btwn Abut Diaphragm	and Diaphragm Guide					
T- :-	147: Jtl-	2.00	r.			
Тор	Width =	3.00	ft			
	Length =	4.00	ft			
	Locations =	4.00	ea		40	
	Total =	48.00	sf		48	
Sides	Width =	4.26	ft			
sides		2.00	ft			
	Height =					
	Locations =	8.00	ea		CO	
	Total =	68.16	sf		69	
Btwn Median Barriers	on Bridge Dock					
DIWIT MEGIAN DATTIETS	on bridge Deck					
	Height =	4.50	ft			
	Length =	247.79				
		1115.06			1,116	
	Total	1113.00	<u> </u>		1,110	
Btwn Median Barriers	on Appr Slabs					
	Height =	4.50	ft			
	Length =	25.00	ft			
	Appr Slabs =	2.00	ea			
		225.00	sf		225	
Btwn Abut Diaphragm	and Wingwalls and at Med	<u>dian</u>				
	Height (avg) =		ft			
	Length =	4.25	ft			
	Locations =	6.00	ea			
	Total =	91.37	sf		92	
				Sheet Total =		1,550
				Item Total =	1,550	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E25000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ITEM NAME	NVI ON REIN	 JEORCED NE	OPRENE SHEETING		PAVIINIT	SF	

Semi Integral Abutment Joint				
Rear Right and Fwd. Left		6.		
	75.92	ft		
Height w/ 18" added for overlap =	5.58	ft		
	3.00	ft		
	2.00	ea	400	
Total = 4	489.02	<u>st</u>	490	
Rear Left and Fwd. Right				
	75.92	ft		
Height w/ 18" added for overlap =	5.58	ft		
Width =	3.00	ft		
No. of Abuts =	2.00	ea		
Total = 4	489.02	sf	490	
		Sheet Total =		980
		Item Total =	980	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E44201
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE PAY UNIT EACH (NEOPRENE), AS PER PLAN (3.128"x9.5"x18")

<u>butments</u>		
No. of Abutments = 2.00 each		
No. of Beams = 16.00 each		
Total = 32.00 each	32	
	1	
	1	
	1	
Chast Tatal		22
Sheet Total =		32
Item Total =	32	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E44201
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410 ITEM NAME <u>ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE</u> PAY UNIT EACH (NEOPRENE), AS PER PLAN (3.128"x14"x18") **Piers** No. of Piers = 3.00 each No. of Beams = 16.00 each Total = 48.00 each 48 Sheet Total = 48 Item Total = 48

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	516E47001
CHK'D BV	EIG	DATE:	1/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410 ITEM NAME

JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

PAY UNIT ______ LS **Description:** Lump Sum LS

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	518E21200
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME POROUS BACKFILL WITH GEOTEXTILE FABRIC PAY UNIT CY

<u>Abutments</u>								
Rear Right and Fwd. Left								
incl part of wingwall	Length =	77.37	ft					
	Height (avg) =	6.92	ft					
	Width =	2.00	ft					
	No. of Abuts =	2.00	ea					
	Total =	2141.60	cu ft	=	79.32	cu yd	80	
Behind New Wingwall above	e Exist Wingwall Remo	oval Line						
	Length =	5.25	ft					
	Height =	4.08	ft					
	Width =	0.83	ft					
	No. of Abuts =	2.00	ea					
	Total =	35.70	cu ft	=	1.32	cu yd	2	
Rear Left and Fwd. Right								
incl part of wingwall	Length =	76.36	ft					
mor part or wingwan	Height (avg) =	7.04	ft					
	Width =	2.00	ft					
	No. of Abuts =	2.00	ea					
		2150.30		=	79.64	cu yd	80	
Behind New Wingwall above	e Exist Wingwall Remo	oval Line						
	Length =	5.10	ft					
	Height =	4.08	ft					
	Width =	0.83	ft					
	No. of Abuts =	2.00	ea					
	Total =	34.68	cu ft	=	1.28	cu yd	2	
								464
					C I	neet Total =		164

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	518E40000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME 6" PERFORATED CORRUGATED PLASTIC PIPE PAY UNIT FT

<u>Abutments</u>			
Rear Right and Fwd. Left			
Length Rear = 77.37 ft			
Length Fwd = 77.37 ft			
Total = 154.74 ft		155	
Rear Left and Fwd. Right			
Length Rear = 75.71 ft			
Length Fwd = 75.71 ft			
Total = 151.42 ft		152	
	Sheet Total =		307
	Item Total =	307	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	518E40010
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ITEM NAME	6" NON-PERI	ORATED C	ORRUGATED PLASTIC	C PIPE, INCLUDI	NG SPECIALS	PAY UNIT	FT

		1
Abutments		
Rear Right Corner Drain		
Length = 17.00 ft		
Length - 17.00 It		
Total = 17.00 ft	17	
10tal = 17.00 It	17	
Rear Left Corner Drain		
Length = 18.50 ft		
zengan zoloo it		
Total = 18.50 ft	19	
10101 - 10.50 11	13	
Fwd Right Corner Drain		
Length = 20.20 ft		
Length - 20.20 It		
Total = 20.20 ft	21	
10101 20120 11		
Fwd Left Corner Drain		
Length = 15.30 ft		
Length 15.50 It		
Total = 15.30 ft	16	
75101 15105 11	10	
*** see calc plan sheets here ———> perf pipe		
Add four feet to get under wingwall		
Sheet Total =		73
Item Total =	73	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	519E11101
CHK'D BY:	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410	
ITEM NAME	PATCHING C	ONCRETE S	TRUCTURE, AS PER P	<u>LAN</u>	PAY UNIT	SF

Abutments and Piers				
Contin	gency Total = 250.00 sf		250	
	<u> </u>			
		Sheet Total =		250
		Item Total =	250	
			200	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	526E25001
CHK'D BV	FIG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410			
ITEM NAME	REINIEORCED		ADDROACH SLARS /	T-15") AS DER	DLAN	DAVIINIT	ς٧	

Description:		
Total Area 1 Approach Slab Quadrant = 1767.45 sf		
Number of Approach Slab Quadrants = 4.00 ea		
Total = 7069.80 sq ft = 785.53 sq yd	786	
Sheet Total =		786
Item Total =	786	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	526E90030
CHK'D BY	FIG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME TYPE C INSTALLATION PAY UNIT FT

Sleeper Slab			
No. of Slabs = 2.00 ea Length = 148.96 ft			
Length = 148.96 ft			
Total = 297.92 ft 298			
	Total = 297.92 ft	298	
l l			
Sheet Total = 298			298
Item Total = 298	Item Total =	298	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	601E20000
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
ΤΕΜ ΝΔΜΕ	CRUSHED AC	— GGREGATE '	SLOPE PROTECTION		PAYTINIT	SY	

End of Abutment Drains							
	Area =	12.57	sf				
	Depth =	1.00	ft				
	No. of Drains =	4	ea				
	Total =			 5.59	cavd	6	
	TOTAL -	30.26	sy it	 3.33	sq yd	O	
				 S	heet Total =		6
					Item Total =	6	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	601E21001
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO.	88348	JOB NO.	TOHODT11.FE08	STRUCTURE	CUY-90-2410		
TEM NAME	CONCRETE S	– LOPE PROT	FCTION. AS PER PLAN	1	PAY UNIT	SY	

Abutments		
<u>Abutments</u>		
Contingency Total = 1350.00 sf = 150.00 sy	150	
Contingency rotal – 1550.00 St – 150.00 Sy	150	
Sheet Total =		150
Item Total =	150	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	606E10920
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME SPECIAL - NOISE BARRIER, BRIDGE MOUNTED PAY UNIT SF

Noise Barrier - Left Structure					
6 Panels @ 7'-0" =	42.00	ft			
		ft			
Height =	4.50			100	
Total =	189.00	sq rt		189	
		6.			
5 Panels @ 7'-0" =	35.00	ft			
Height =	5.25	ft			
Total =	183.75	sq ft		184	
3 Panels @ 7'-0" =	21.00	ft			
Height =	6.00	ft			
Total =	126.00	sq ft		126	
2 Panels @ 8'-0" =	16.00	ft			
Height =	6.00	ft			
Total =	96.00	sq ft		96	
4 Panels @ 8'-0" =	32.00	ft			
Height =	6.75	ft			
Total =	216.00	sq ft		216	
2 Panels @ 8'-0" =	16.00	ft			
Height =	7.50	ft			
Total =	120.00	sq ft		120	
3 Panels @ 7'-0" =	21.00	ft			
Height =	7.50	ft			
	157.50	sq ft		158	
		-			
5 Panels @ 7'-0" =	35.00	ft			
Height =	8.00	ft			
Total =	280.00			280	
7 Panels @ 7'-0" =	49.00	ft			
Height =	8.50	ft			
	416.50			417	
			Sheet Total =		1,786
			Item Total =	1,786	
				,	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	606E10920
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410

ITEM NAME SPECIAL - NOISE BARRIER, BRIDGE MOUNTED PAY UNIT SE

Noise Barrier - Right Structure				
14 Panels @ 7'-0" =		ft		
Height =	6.50	ft		
Total =	637.00	sq ft	637	
8 Panels @ 8'-0" =		ft		
Height =	5.50	ft		
Total =	352.00	sq ft	352	
2 Panels @ 7'-0" =	14.00	ft		
Height =	5.50	ft		
Total =	77.00	sq ft	77	
13 Panels @ 7'-0" =		ft		
	4.50	ft		
Total =	409.50	sq ft	410	
		Sheet Total =		1,476
		Item Total =	3,262	

CALC. BY:	CAF	DATE:	4/20/18	ITEM NUMBER:	606E10930
CHK'D BY:	FJG	DATE:	4/20/18		



PID NO. 88348 JOB NO. TOHODT11.FE08 STRUCTURE CUY-90-2410 PAY UNIT ITEM NAME SPECIAL - NOISE BARRIER, GROUND MOUNTED SF **Noise Barrier - Rear Left Structure** 6 Panels @ 7'-0" = 42.00 ft Height = 8.00 Total = 336.00 sq ft 336 4 Panels @ 8'-0" = 32.00 ft Height = 8.00 Total = 256.00 sq ft 256 Noise Barrier - Fwd Left Structure 3 Panels @ 7'-0" = 21.00 ft Height = 12.00 ft Total = 252.00 sq ft 252 Noise Barrier - Rear Right Structure 1 Panel @ 7'-0" = 7.00 Height = 8.00 Total = 56.00 sq ft 56 2 Panels @ 7'-0" = 14.00 ft Height = 10.00 ft Total = 140.00 sq ft 140 Noise Barrier - Fwd Right Structure 3 Panels @ 7'-0" = 21.00 ft Height = 10.00 ftTotal = 210.00 sq ft 210 Sheet Total = 1,250 Item Total = 1,250