AMERICAN STRUCTUREPOINT HAM-74-0358 Quantities Tracings

ITEM#	DESCRIPTION	QUANTITY	UNIT
202E11203	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LS	LS
202E22900	APPROACH SLAB REMOVED	133	SY
202E23500	WEARING COURSE REMOVED	133	SY
202E98200	REMOVAL MISC.: PORTIONS OF STRUCTURE REMOVED, BULB ANGLE, AS PER PLAN	499	FT
503E11101	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	LS	LS
	UNCLASSIFIED EXCAVATION	LS	LS
	PILE DRIVING EQUIPMENT MOBILIZATION	LS	LS
507E00500	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	1,760	FT
507E00550	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	2,140	FT
	EPOXY COATED STEEL REINFORCEMENT	223,132	LB
	CONCRETE REINFORCEMENT. REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT. AS PER PLAN	500	LB
	GALVANIZED STEEL REINFORCEMENT	4.763	LB
	NO. 4 DEFORMED GFRP REINFORCEMENT	4,763	IFT
	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	238	EACH
	SEMI-INTEGRAL DIAPHRAGM GUIDE	236	EACH
	CLASS QC2 CONCRETE WITH QC/QA. BRIDGE DECK	631	CY
	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	45	CY
	CLASS QC2 CONGRETE WITH QC(QA, BRIDGE BECK (PARAPET) CLASS QC1 CONCRETE WITH QC(QA, PIER ABOVE FOOTINGS	158	CY
	CLASS QC1 CONCRETE WITH QC(QA, FIER ABOVE FOOTING)	67	CY
	CLASS QC1 CONCRETE WITH QC/QA, ABOTMENT NOT INCLODING FOOTING	130	CY
	CLASS QC2 CONCRETE WITH QC/QA. SIDEWALK	57	CY
	SEALING OF CONCRETE SURFACES (NON-EPOXY)	222	SY
	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	1.059	SY
	CONCRETE REPAIR BY EPOXY INJECTION	100	FT
	STRUCTURAL STEEL MEMBERS. LEVEL 3	268.700	LB
	WELDED STUD SHEAR CONNECTORS	8.952	EACH
	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	4.400	SF
	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	4,400	SF
	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	19.680	SF
	FIELD PAINTING STRUCTURAL STEEL. FINISH COAT	19,680	SF
	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	10	MNHR
	FINAL INSPECTION REPAIR	9	EACH
	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL. AS PER PLAN	56	SF
	FIELD PAINTING. MISC.: COATING OF BEAM ENDS	251	SF
	ARMORLESS PREFORMED JOINT SEAL	148	FT
516E13600	1" PREFORMED EXPANSION JOINT FILLER	13	SF
516E13900	2" PREFORMED EXPANSION JOINT FILLER	86	SF
	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	171	FT
516E44201	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (14" x 20" x 3.128")	27	EACH
	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11" x 13" x 3.607")	18	EACH
516E47001	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	LS	LS
517E75122	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING AND VANDAL PROTECTION FENCE)	300	FT
518E21200	POROUS BACKFILL WITH GEOTEXTILE FABRIC	288	CY
	6" PERFORATED CORRUGATED PLASTIC PIPE	180	FT
518E40010	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	100	FT
519E11101	PATCHING CONCRETE STRUCTURE, AS PER PLAN	100	SF
	DYNAMIC LOAD TESTING	2	EACH
526E25010	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	411	SY
526E90030	TYPE C INSTALLATION	148	FT
601E20000	CRUSHED AGGREGATE SLOPE PROTECTION	271	SY
607E39900	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	249	FT
607E39930	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC	249	FT
625E33000	STRUCTURE GROUNDING SYSTEM	1	EACH
		•	

202E11203 PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN LS LS

DECK:

TOTAL: 8507.00 SQ FT ~measured in CAD

TOTAL: \$250,000 LS

202E22900 APPROACH SLAB REMOVED 133 SY

COUNT: 2.00 EACH
LENGTH: 25.00 FT
WIDTH: 24.00 FT

TOTAL: 133.3 SY

202E23500 WEARING COURSE REMOVED 133 SY

TOTAL: 133.3 SY

202E98200 REM	OVAL MISC.:	PORTIONS O	OF STRUCTURE RE	MOVED, BULB ANGLE, AS PER PLAN	499	FT
					•	
	COUNT:	2	EACH			
	LENGTH:	249.50	FT	_		
	TOTAL:	499.00	FT			
	TOTAL:	499	FT]		
503E11101 COF	FERDAMS AN	ND EXCAVAT	ION BRACING, AS	PER PLAN	1	LS
				-	<u> </u>	
	TOTAL:	1.0	LS	1		
503E21300 UNC	LASSIFIED E	XCAVATION			1	LS
	TOTAL:	1.0	LS]		
505E11100 PILE	DRIVING EQ	IIIPMENT MC	ORIL IZATION		1 1	LS
OCCLITICO FIEL				_	<u> </u>	120
	TOTAL:	1.0	LS	1		
507E00500 12"	CAST-IN-PLA	CE REINFOR	CED CONCRETE P	ILES, DRIVEN	1760	FT
ABU	JTMENTS:					
	COUNT:	4.00	EACH	~number of proposed abutment locations		
	COUNT:	7.00	EACH	~number of proposed piles each location		
	LENGTH:	20	FT	_		
S	SUB-TOTAL:	560.00	FT			
PIEF						
	COUNT:	6.00	EACH	~number of proposed pier locations		
	COUNT:	8.00	EACH	~number of proposed piles each location		
	LENGTH: SUB-TOTAL:	25 1200.00	FT FT	_		
	TOTAL:	1760	FT	٦		
	TOTAL:	1760	FT	1		
507E00550 12" (FT CED CONCRETE P	ILES, FURNISHED	2140	FT
				ILES, FURNISHED	2140	FT
	CAST-IN-PLA			ILES, FURNISHED ~number of proposed abutment locations	2140	FT
	CAST-IN-PLA	CE REINFOR	CED CONCRETE P		2140	FT
ABU	CAST-IN-PLACE JTMENTS: COUNT: COUNT: LENGTH:	4.00 7.00 25	CED CONCRETE PI EACH EACH FT	~number of proposed abutment locations	2140	 FT
ABU	CAST-IN-PLACE JTMENTS: COUNT: COUNT:	4.00 7.00	CED CONCRETE PI EACH EACH	~number of proposed abutment locations ~number of proposed piles each location	2140	FT .
ABU	CAST-IN-PLACE TIMENTS: COUNT: COUNT: LENGTH: SUB-TOTAL: RS:	4.00 7.00 25 700.00	EACH EACH FT FT	~number of proposed abutment locations ~number of proposed piles each location ~ friction pile estimated length (draft geotech report)	2140	FT
ABU	CAST-IN-PLACE TIMENTS: COUNT: COUNT: LENGTH: BUB-TOTAL: RS: COUNT:	4.00 7.00 25 700.00	EACH EACH FT FT	~number of proposed abutment locations ~number of proposed piles each location ~ friction pile estimated length (draft geotech report) ~number of proposed pier locations	2140	FT
ABU	CAST-IN-PLAGE COUNT: COUNT: LENGTH: BUB-TOTAL: RS: COUNT: COUNT:	4.00 7.00 25 700.00	EACH EACH FT FT EACH EACH	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location	2140	FT
ABU S PIEF	CAST-IN-PLACE TIMENTS: COUNT: COUNT: LENGTH: BUB-TOTAL: RS: COUNT:	4.00 7.00 25 700.00	EACH EACH FT FT	~number of proposed abutment locations ~number of proposed piles each location ~ friction pile estimated length (draft geotech report) ~number of proposed pier locations	2140	FT
ABU S PIEF	CAST-IN-PLAGE COUNT: COUNT: LENGTH: BUB-TOTAL: RS: COUNT: COUNT: LENGTH:	4.00 7.00 25 700.00 6.00 8.00 30	EACH EACH FT FT EACH EACH EACH	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location	2140	FT
ABU S PIEF	CAST-IN-PLACE COUNT: COUNT: LENGTH: GUB-TOTAL: RS: COUNT: COUNT: LENGTH: SUB-TOTAL: TOTAL:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00	EACH EACH FT FT EACH EACH FT FT FT FT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
ABU S PIEF	CAST-IN-PLACE COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: COUNT: LENGTH: SUB-TOTAL:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00	EACH EACH FT FT EACH EACH FT FT FT FT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location	2140	FT LB
### ABU S PIEF S S S S S S S S S	CAST-IN-PLAGE COUNT: COUNT: LENGTH: GUB-TOTAL: COUNT: COUNT: LENGTH: SUB-TOTAL: TOTAL: OXY COATED S	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140	EACH EACH FT FT EACH EACH FT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
ABU S PIEF S 509E10000 EPO FRE REAR A	CAST-IN-PLACE COUNT: COUNT: LENGTH: GUB-TOTAL: COUNT: LENGTH: FOUNT: LENGTH: COUNT: LENGTH: DUB-TOTAL: TOTAL: OM PLANS: ABUTMENT:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF	EACH EACH FT FT FT FT FT EORCEMENT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
### ABU S PIEF S S S S S S S S S	CAST-IN-PLACE COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: COUNT: LENGTH: SUB-TOTAL: TOTAL: OM PLANS: ABUTMENT: ABUTMENT:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF	EACH EACH FT FT FT FT EACH EACH FT FT EACH EACH FT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
ABU S PIEF S 509E10000 EPO FRORWARD A	CAST-IN-PLACE JTMENTS: COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: SUB-TOTAL: TOTAL: DXY COATED S ABUTMENT: PIERS:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF	EACH EACH FT FT FT FT EORCEMENT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
ABU S PIEF S 509E10000 EPO FROWARD A SUPERST	CAST-IN-PLACE JTMENTS: COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: SUB-TOTAL: TOTAL: DXY COATED S ABUTMENT: PIERS: TRUCTURE:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF	EACH EACH FT FT FT FT EACH EACH FT FT EACH EACH FT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
SUPERST	CAST-IN-PLACE COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: SUB-TOTAL: TOTAL: OXY COATED S ABUTMENT: ABUTMENT: PIERS: TRUCTURE: PARAPETS:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF 4254.00 4537.00 30112.00 171579.00 12650.00	EACH EACH FT FT FT EORCEMENT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
SUPERST	CAST-IN-PLACE JTMENTS: COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: SUB-TOTAL: TOTAL: DXY COATED S ABUTMENT: PIERS: TRUCTURE:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF 4254.00 4537.00 30112.00 171579.00	EACH EACH FT FT FT FT EORCEMENT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
ABU S PIEF S 509E10000 EPO FRA REAR A FORWARD A SUPERST	CAST-IN-PLACE COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: COUNT: LENGTH: SUB-TOTAL: TOTAL: OXY COATED S ABUTMENT: PIERS: TRUCTURE: PARAPETS:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF 4254.00 4537.00 30112.00 171579.00 12650.00	EACH EACH FT FT FT FT FT EORCEMENT	~number of proposed abutment locations ~number of proposed piles each location _~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location		
ABU S PIEF S 509E10000 EPO FRA REAR A FORWARD A SUPERST	CAST-IN-PLACE COUNT: COUNT: LENGTH: SUB-TOTAL: COUNT: LENGTH: COUNT: LENGTH: SUB-TOTAL: TOTAL: OXY COATED S ABUTMENT: PIERS: TRUCTURE: PARAPETS:	4.00 7.00 25 700.00 6.00 8.00 30 1440.00 2140 STEEL REINF 4254.00 4537.00 30112.00 171579.00 12650.00	EACH EACH FT FT FT FT FT EORCEMENT	~number of proposed abutment locations ~number of proposed piles each location ~ friction pile estimated length (draft geotech report) ~number of proposed pier locations ~number of proposed piles each location ~ friction pile estimated length (draft geotech report)	223132	LB

TOTAL:

631.00

CU YD

000 GALVANIZED STE	EL REINFO	RCEMENT		4763	LB
					•
FROM PLANS:					
REAR ABUTMENT:	549.00	LB			
RWARD ABUTMENT:	549.00	LB			
PIERS:	3665.00	LB			
PLAN TOTAL:	4763.0	LB			
NO. 4 DEFORMED	GFRP REIN	IFORCEMENT		4256	FT
_					
PLAN TOTAL:	4255.7	FT			
DOWEL HOLES W	ITH NONSH	RINK, NONMET	ALLIC GROUT, AS PER PLAN	238	EACH
ADJITMENTS:					
ABUTMENTS: COUNT:	2	EACH	-# abutmente		
# DOWELS:	32	EAUT	~# abutments		
ABUT TOTAL:	64.00	EACH			
,	2 7.00				
PIERS:	•	FACU	# piers		
COUNT:	3	EACH	~# piers		
# DOWELS: PIER TOTAL:	58 174.00	EACH			
FILK TOTAL:	174.00	LAUT			
TOTAL:	238.00	EACH			
TOTAL:				2	EACH
SEMI-INTEGRAL D	DIAPHRAGM	I GUIDE	GE DECK		•
	DIAPHRAGM	I GUIDE	GE DECK	2 631	EACH
SEMI-INTEGRAL DECK:	DIAPHRAGM	I GUIDE I QC/QA, BRIDO	GE DECK		•
SEMI-INTEGRAL DECK: COUNT:	DIAPHRAGM CRETE WITH	I GUIDE I QC/QA, BRIDO	GE DECK		•
SEMI-INTEGRAL DECK: COUNT: LENGTH:	DIAPHRAGM CRETE WITH 1 249.50	I GUIDE H QC/QA, BRIDG EACH FT	GE DECK		•
SEMI-INTEGRAL DECK: COUNT: LENGTH: WIDTH:	CRETE WITH 1 249.50 73.83	EACH FT	GE DECK		•
SEMI-INTEGRAL DECK: COUNT: LENGTH: WIDTH: DEPTH:	1 249.50 73.83 0.73	EACH FT FT			•
SEMI-INTEGRAL DECK: COUNT: LENGTH: WIDTH:	CRETE WITH 1 249.50 73.83	EACH FT	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT		•
SEMI-INTEGRAL DECK: COUNT: LENGTH: WIDTH: DEPTH:	1 249.50 73.83 0.73	EACH FT FT			•
SEMI-INTEGRAL DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL:	1 249.50 73.83 0.73	EACH FT FT			•
SEMI-INTEGRAL DE CLASS QC2 CONCENTE COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES:	1 249.50 73.83 0.73 497.49	EACH FT FT FT CU YD			•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT:	1 249.50 73.83 0.73 497.49	EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: UDTH: UDTH: UDTH: UDTH: UDTH: UDTH: UDTH: UDEPTH:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18	EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: WIDTH: WIDTH: WIDTH: WIDTH: WIDTH: WIDTH: WIDTH: WIDTH:	1 249.50 73.83 0.73 497.49 9 243.00 1.01	EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex)		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: UDTH: UDTH: UDTH: UDTH: UDTH: UDTH: UDTH: UDEPTH:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18	EACH FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex)		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: SUB-TOTAL: OVERHANG: COUNT:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74	EACH FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex)		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: SUB-TOTAL:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74	EACH FT CU YD EACH FT FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing, ~f/f of abutment diaphragms		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: SUB-TOTAL: OVERHANG: COUNT:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74	EACH FT CU YD EACH FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing,		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: DEPTH: SUB-TOTAL:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74	EACH FT CU YD EACH FT FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing, ~f/f of abutment diaphragms		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74	EACH FT CU YD EACH FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing, ~f/f of abutment diaphragms ~edge of flange to out of deck		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: DEPTH: SUB-TOTAL:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74 2 243.00 2.42 0.18 7.85	EACH FT CU YD EACH FT FT CU YD EACH FT FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing, ~f/f of abutment diaphragms ~edge of flange to out of deck		•
DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: SUB-TOTAL:	1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74 2 243.00 2.42 0.18 7.85	EACH FT FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing, ~f/f of abutment diaphragms ~edge of flange to out of deck		•
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DECK: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: HAUNCHES: COUNT: LENGTH: WIDTH: DEPTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: SUB-TOTAL: OVERHANG: COUNT: LENGTH: WIDTH: SUB-TOTAL: ENGTH: WIDTH: COUNT: LENGTH: WIDTH: SUB-TOTAL: COUNT: COUNT: COUNT: COUNT: COUNT: COUNT: COUNT: COUNT: COUNT:	0IAPHRAGN 1 249.50 73.83 0.73 497.49 9 243.00 1.01 0.18 14.74 2 243.00 2.42 0.18 7.85	EACH FT FT CU YD EACH FT FT CU YD EACH FT FT CU YD	1 EACH x 249.5 FT x 73.83 FT x 0.73 FT x 1CU YD/27CU FT ~f/f of abutment diaphragms ~width of flange W36x182 and W36x194 (ex) ~2" average haunch over proposed beams, 4" over existing, ~f/f of abutment diaphragms ~edge of flange to out of deck		•
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		I QC/QA, BRIDGE			CY
DADADET				·	_
<i>PARAPET:</i> COUNT:	4	EACH			
LENGTH:	1 271.50	FT	~Bridge Limits + 6" on either side - 14'-0" Transitions (STD. DWG. SBR-1-20)		
AREA:	4.08	SF	~STD. DWG. SBR-1-20		
SUB-TOTAL:	41.06	CY	1 EACH x 271.5 FT x 4.08 SF x 1CY/27CF		
OOD-TOTAL.	41.00	O1	1 LAGITX 27 1.31 1 X 4.00 SI X 101/27 CI		
TRANSITIONS:					
COUNT:	2	EACH	~2 per side x 2 sides		
VOLUME:	1.82	CU YD	(STD. DWG. SBR-1-20)		
SUB-TOTAL:	3.64	CY	2 EACH x 1.82 CU YD		
TOTAL	44.70	0)/	_		
TOTAL:	44.70	CY	⊣		
CLASS QC1 CONC	RETE WITH	I QC/QA, PIER AB	OVE FOOTINGS	158	CY
		•			
WEST PIER CAPS:					
COUNT:	3.00	EACH			
AREA:	170.00	SF	~taken from plans, measured about centerline of existing column 2		
THICKNESS:	3.00	FT	2 EACH v 170 SE v 2 ET v 1 CH VD / 27 CH ET		
SUB-TOTAL:	56.67	CU YD	3 EACH x 170 SF x 3 FT x 1 CU YD / 27 CU FT		
EAST PIER CAPS:					
COUNT:	3.00	EACH			
AREA:	155.00	SF	~taken from plans, measured about centerline of existing column 2		
THICKNESS:	3.00	FT	•		
SUB-TOTAL:	51.67	CU YD	3 EACH x 155 SF x 3 FT x 1 CU YD / 27 CU FT		
PIER COLUMNS:					
COUNT:	12.00	EACH			
PLAN AREA:	7.07	SF			
HEIGHT: SUB-TOTAL:	15.50	FT	~average		
SUB-TUTAL.	48.69	CU YD	12 EACH x 7.07 SF x 15.5 FT x 1 CU YD / 27 CU FT		
TOTAL:	158.00	CU YD			
CLASS QC1 CONC	RETE WITH	I QC/QA, ABUTME	NT NOT INCLUDING FOOTING	67	CY
		I QC/QA, ABUTME	INT NOT INCLUDING FOOTING	67	CY
ABUTMENT STEMS	<u>S:</u>			67	CY
ABUTMENT STEMS AREA:	<u>):</u> 190.00	SF	~R.A. avg, measured in CAD	67	CY
ABUTMENT STEMS AREA: AREA:	5 <u>:</u> 190.00 197.00	SF SF		67	CY
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ABUTMENT STEMS AREA: AREA: THICKNESS:	3: 190.00 197.00 3.75	SF SF FT	~R.A. avg, measured in CAD	67	СҮ
ABUTMENT STEMS AREA: AREA: THICKNESS: SUB-TOTAL:	3: 190.00 197.00 3.75	SF SF FT	~R.A. avg, measured in CAD	67	СҮ
ABUTMENT STEMS AREA: AREA: THICKNESS: SUB-TOTAL: WINGWALLS: AREA: AREA:	190.00 197.00 3.75 53.75	SF SF FT CU YD SQ FT SQ FT	~R.A. avg, measured in CAD ~F.A. avg, measured in CAD	67	СҮ
ABUTMENT STEMS AREA: AREA: THICKNESS: SUB-TOTAL: WINGWALLS: AREA: AREA: THICKNESS:	190.00 197.00 3.75 53.75 106.00 130.00 1.50	SF SF FT CU YD SQ FT SQ FT FT	~R.A. avg, measured in CAD ~F.A. avg, measured in CAD ————————————————————————————————————	67	СҮ
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ABUTMENT STEMS AREA: AREA: THICKNESS: SUB-TOTAL: WINGWALLS: AREA: AREA: THICKNESS: SUB-TOTAL:	190.00 197.00 3.75 53.75 106.00 130.00 1.50	SF SF FT CU YD SQ FT SQ FT FT CU YD	~R.A. avg, measured in CAD ~F.A. avg, measured in CAD ————————————————————————————————————	67	CY
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JOB# 2022.02375

AMERICAN STRUCTUREPOINT HAM-74-0358 **Quantities Tracings**

511E51512 CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK 57 CY

SIDEWALK:

COUNT: EACH

299.50 LENGTH: FT ~bridge limits + approach slabs

WIDTH: 7.00 FT ~includes area under railing, SBR-1-20 doesn't include are under railing

AVE. DEPTH: 0.73 FT ~8" curb w/ 0.0156 x-slope

CU YD SUB-TOTAL: 56.62 1 EACH x 299.5 FT x 7 FT x 0.73 FT x 1CU YD/27CU FT

TOTAL: 57.00 CU YD

512E10050 SEALING OF CONCRETE SURFACES (NON-EPOXY)

222 SY

SIDEWALK

PERIMETER: 6.67 FT ~walkable area of sidewalk width + 8" curb

LENGTH: 299.50 FT ~o/o bridge + 25' approach slabs

TOTAL: 221.85 SY

512E10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

1060 SY

PIER COLUMNS:

COUNT: 3.00 EACH ~# of piers NUMBER: 4.00 EACH ~columns/pier

HEIGHT: 12.50 FT ~average exposed height

DIAMETER: FT 3.00 SUB-TOTAL: 117.81 SY

PIER CAPS:

EACH COUNT: 3.00 ~# of piers

AREA: 656.27 SF ~area of flat cap faces + curved portions at edges

COUNT: 3.00 FACH ~# of piers AREA: 161.28 SF ~cap underside SUB-TOTAL: 272.52 SY

SY

PIER TOTAL: 391 SY

DIAPHRAGMS:

2.00 EACH COUNT: LENGTH: 73.83 FT

77.11

HEIGHT: 4.70 FT ~exposed diaphragm under bridge SUB-TOTAL:

ABUTMENT STEMS

COUNT: 2.00 EACH LENGTH: 39.67 FT

HEIGHT: 2.00 ~exposed height of abutment, 1.7' @ RA, 2.2' @ FA SUB-TOTAL: 17.63 SY

WINGWALLS:

EACH COUNT: 2.00 AREA: 62.00 SQ FT

~RA, measured in CAD, exposed face + 1' on top COUNT: 2.00 EACH AREA: 76.00 SQ FT ~FA, measured in CAD, exposed face + 1' on top

SUB-TOTAL: 30.67 SY

ABUT TOTAL: 125 SY

AMERICAN STRUCTUREPOINT HAM-74-0358 Quantities Tracings

PARAPET AND EDGE OF DECK:

~BR-2-15 railing PERIMETER: 7.35 FT ~bridge limits + approach slabs - (2) 6' transitions LENGTH: 249.50 FT PERIMETER: 5.00 ~BR-2-15 railing without edge of deck, sidewalk or underside ~approach slabs - (2) 6' transitions LENGTH: 38.00 FT PERIMETER: 9.00 FT ~BR-2-15 railing transitions LENGTH: 12.00 FT ~(2) 6' transitions PERIMETER: 9.46 FT ~SBR-1-20 railing LENGTH: 249.50 FT ~bridge limits

PERIMETER: 7.89 FT ~SBR-1-20 railing without edge of deck, sidewalk or underside 22.00 I FNGTH: FT ~bridge limits

PERIMETER: 7.89 ~SBR-1-20 railing transitions

LENGTH: 28.00 FT ~(2) 14' transitions

SUPERSTRUCTURE TOTAL: 543 SY

> TOTAL: 1059.38 SY

512E10600 CONCRETE REPAIR BY EPOXY INJECTION 100 FT

TOTAL: 100.00 ~estimate

EACH

513E10260 STRUCTURAL STEEL MEMBERS, LEVEL 3 268700 LB

BEAMS:

COUNT: EACH LENGTH: 246.5 FT LB/FT ~W36x182 (existing beams W36x150 & W36x194) WEIGHT: 182.0 SUB-TOTAL: 224315 LB

CROSS-FRAMES:

COUNT:

BEAMS C/C S: 7.1 FT HEIGHT: FT 3 STRAIGHT LENGTH: 6.3 FT ~flange to flange measurement - 1.5" from edge of flange at each beam FT DIAGONAL LENGTH: 6.6 ~assume members starts average of 6" from inside of flanges WEIGHT: 16.2 LB/FT ~5x5x1/2 members

~at 7.1' c/c spacing

SUB-TOTAL: 15501 LB

CROSS-FRAMES:

COUNT: EACH ~at 9.33' c/c spacing BEAMS C/C S: 9.1 FT FT HFIGHT: 3 STRAIGHT LENGTH: 8.3 FT ~flange to flange measurement - 1.5" from edge of flange at each beam DIAGONAL LENGTH: 8.5 FT ~assume members starts average of 6" from inside of flanges ~5x5x1/2 members WFIGHT: 16.2 I B/FT

SUB-TOTAL: 13584 LB

EACH

CROSS-FRAMES PLATES: COUNT:

~stiffener plates HEIGHT: 2.8 FT WIDTH: 0.60 FT ~assume plates protrude 1.5" from edge of flange THICKNESS: 0.38 IN **UNIT WEIGHT:** 490.0 LBS/CU FT

SUB-TOTAL: 4254 LB

164

DIAPHRAGM PLATES:

COUNT: EACH ~top plates HEIGHT: 0.75 FT ~plate measurements based on beam design sketches WIDTH: 1.17 FT THICKNESS: 0.38 IN LBS/ CU FT DENSITY: 490.0 ~density of steel SUB-TOTAL: 2197 LB

DIAPHRAGM PLATES:

COUNT: 164 EACH ~bottom plates HEIGHT: 1.0 FT ~plate measurements based on beam design sketches FT WIDTH: 1.17 THICKNESS: 0.38 IN DENSITY: 490.0 LBS/ CU FT ~density of steel SUB-TOTAL: 2930 ΙB

EACH

8952

4400

4400

SF

SF

BY: BWJ DATE: 3/7/2025 CHK: ABD DATE: 3/20/2025 (rev. tracings 8/23/2025)

AMERICAN STRUCTUREPOINT HAM-74-0358 Quantities Tracings

SPLICE PLATES:

	# BEAMS:	5	EACH	
	# SPLICES	3	# SPLICES/BEAM	_
	# SPLICES:	15	EACH	
	COUNT:	2	EACH	~web plate
	HEIGHT:	2.5	FT	
	WIDTH:	1.56	FT	
	THICKNESS:	0.50	IN	
	DENSITY:	490.0	LBS/ CU FT	_
	SUB-TOTAL:	160	LB	
	COUNT:	4	EACH	~inner flange plate couple
	LENGTH:	1.56	FT	
	WIDTH:	0.40	FT	
	THICKNESS:	0.88	IN	
	DENSITY:	490.0	LBS/ CU FT	<u>_</u> .
	SUB-TOTAL:	88	LB	
	COUNT:	2	EACH	~outer flange plate couple
	LENGTH:	1.56	FT	
	WIDTH:	1.00	FT	
	THICKNESS:	0.75	IN	
	DENSITY:	490.0	LBS/ CU FT	
	SUB-TOTAL:	96	_ LB	
SPLICE	E PLATE TOTAL:	5150	LB	

BOLTS:

PLATES: 10277 LBS 7% SUB-TOTAL: 719 LB ~diaphragm and splice plate weight

~percentage of total plate weight to account for bolts, note: plate steel areas not reduced for bolt holes.

TOTAL: 268651 LB

513E20000 WELDED STUD SHEAR CONNECTORS

PROPOSED BEAMS:

BEAMS: 5.00 EACH
ROWS: 368.00 EACH
COUNT: 3.00 STUDS/ROW
SUB-TOTAL: 5520.00 EACH

EXISTING BEAMS:

BEAMS: 4.00 EACH
ROWS: 286.00 EACH
COUNT: 3.00 STUDS/ROW

SUB-TOTAL: 3432.00 EACH

TOTAL: 8952 EACH

514E00050 SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL

EXISTING BEAMS:

COUNT: 2 EACH LENGTH: 241.50 FT

PERIMETER: 9.11 FT ~2*beam height + 3* flange width, W36x194

~exterior existing beams

TOTAL: 4399.3 SF

514E00056 FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT

EXISTING BEAMS:

COUNT: 2 EACH ~exterior existing beams

LENGTH: 241.50 FT
PERIMETER: 9.11 FT ~2*beam height + 3* flange width, W36x194

TOTAL: 4399.3 SF

SF

19680

BY: BWJ DATE: 3/7/2025 CHK: ABD DATE: 3/20/2025 (rev. tracings 8/23/2025)

514E00060 FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT

DIAGONAL LENGTH: 6.6	EACH FT FT SF SF SF SF SF SF FACH FT FT SF SF SF SF FT FT SF SF SF FT SF SF SF SF SF	~beam length minus area contained in semi-integral diaphragm ~W36x182 (existing beams W36x150 & W36x194) ~existing exterior beams —2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members ~at 9.33' c/c spacing
COUNT: 5 LENGTH: 241.5 PERIMETER: 9.1' SUB-TOTAL: 1099 EXISTING BEAMS: COUNT: 2 LENGTH: 241.5 PERIMETER: 9.1' SUB-TOTAL: 439: CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 8.3 STRAIGHT LENGTH: 8.3 STRAIGHT LENGTH: 3 STRAIGHT LENGTH: 3 STRAIGHT LENGTH: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.36 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7' WIDTH: 1.11 THICKNESS: 0.36	FT FT FT FT FT SF SF SF SF SF FACH FT FT FT SF	~W36x182 (existing beams W36x150 & W36x194) ~existing exterior beams ~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
LENGTH: 241.4 PERIMETER: 9.1' SUB-TOTAL: 1099 EXISTING BEAMS: COUNT: 2 LENGTH: 241.4 PERIMETER: 9.1' SUB-TOTAL: 4399 CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 1590 CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 1590 CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 1390 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.36 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7' WIDTH: 1.11 THICKNESS: 0.36	FT FT FT FT FT SF SF SF SF SF FACH FT FT FT SF	~W36x182 (existing beams W36x150 & W36x194) ~existing exterior beams ~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
PERIMETER: 9.1/ SUB-TOTAL: 1099	EACH FT FT SF SF SF SF SF SF FACH FT FT SF SF SF SF FT FT SF SF SF FT SF SF SF SF SF	~W36x182 (existing beams W36x150 & W36x194) ~existing exterior beams ~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
SUB-TOTAL: 1099 EXISTING BEAMS:	EACH FT FT SF EACH FT SF SF SF SF SF FT	~existing exterior beams ~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
EXISTING BEAMS: COUNT: 2 LENGTH: 241.4 PERIMETER: 9.1.7 SUB-TOTAL: 439: CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 133 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.33 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.33	EACH FT FT SF EACH FT SF SF SF SF SF FF FACH FT	~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
COUNT: 2 LENGTH: 241.9 PERIMETER: 9.1' SUB-TOTAL: 439: CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 139: CROSS-FRAMES: COUNT: 164 HEIGHT: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7' WIDTH: 1.17 THICKNESS: 0.38	FT FT SF SF SF SF SF	~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
COUNT: 2 LENGTH: 241.9 PERIMETER: 9.1' SUB-TOTAL: 439: CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 139: CROSS-FRAMES: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7' WIDTH: 1.11 THICKNESS: 0.38	FT FT SF SF SF SF SF	~2*beam height + 3* flange width, W36x194 ~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
PERIMETER: 9.1/ SUB-TOTAL: 439	EACH FT SF SF SF SF SF FT	~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
SUB-TOTAL: 439: CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7* WIDTH: 1.11 THICKNESS: 0.38	EACH FT FT SF SF SF SF SF	~at 7.1' c/c spacing ~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
CROSS-FRAMES: COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 1.7 SUB-TOTAL: 159 CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.33 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.33	EACH FT FT SF SF SF SF SF	~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	FT FT SF SF SF SF	~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
COUNT: 49 BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	FT FT SF SF SF SF	~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
BEAMS C/C S: 7.1 HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159 CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	FT FT SF SF SF SF	~flange to flange measurement - 1.5" from edge of flange at each beam ~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
HEIGHT: 3 STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159 CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 1399 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.36 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7* WIDTH: 1.11 THICKNESS: 0.36	FT SF SF SF SF EACH FT	~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
STRAIGHT LENGTH: 6.3 DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.33 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7 WIDTH: 1.11 THICKNESS: 0.33	SF SF SF SF EACH FT	~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
DIAGONAL LENGTH: 6.6 PERIMETER: 1.7 SUB-TOTAL: 159 CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	SF SF SF EACH FT	~assume members starts average of 6" from inside of flange top/bottom flanges ~5x5x1/2 members
PERIMETER: 1.7 SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	SF SF EACH FT	~5x5x1/2 members
SUB-TOTAL: 159: CROSS-FRAMES: COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	S SF EACH FT	
COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.36 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7 WIDTH: 1.11 THICKNESS: 0.36	FT	~at 9.33' c/c spacing
COUNT: 33 BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.36 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.77 WIDTH: 1.11 THICKNESS: 0.36	FT	~at 9.33' c/c spacing
BEAMS C/C S: 9.1 HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.33 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7 WIDTH: 1.17 THICKNESS: 0.38	FT	at 0.00 dr oppoung
HEIGHT: 3 STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7 WIDTH: 1.17 THICKNESS: 0.38		
STRAIGHT LENGTH: 8.3 DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	FT	
DIAGONAL LENGTH: 8.5 PERIMETER: 1.7 SUB-TOTAL: 139: CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.7* WIDTH: 1.17 THICKNESS: 0.38	FT	
PERIMETER: 1.7 SUB-TOTAL: 139 CROSS-FRAMES PLATES COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.75 WIDTH: 1.17 THICKNESS: 0.38	FT	
SUB-TOTAL: 139: CROSS-FRAMES PLATES: COUNT: 164 HEIGHT: 2.8 WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.77 WIDTH: 1.11 THICKNESS: 0.38	SF	~5x5x1/2 members
COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.33 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.79 WIDTH: 1.17 THICKNESS: 0.38		
COUNT: 164 HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.33 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.79 WIDTH: 1.17 THICKNESS: 0.38	•	
HEIGHT: 2.8 WIDTH: 0.60 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.79 WIDTH: 1.17 THICKNESS: 0.38		~stiffener plates
WIDTH: 0.66 THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.77 WIDTH: 1.17 THICKNESS: 0.38	FT	Suiterier places
THICKNESS: 0.38 SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.77 WIDTH: 1.11 THICKNESS: 0.38		~assume plates protrude 1.5" from edge of flange
SUB-TOTAL: 570 DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.73 WIDTH: 1.17 THICKNESS: 0.38		assume plates produce 1.0 IIOIII eage of halfye
DIAPHRAGM PLATES: COUNT: 164 HEIGHT: 0.79 WIDTH: 1.17 THICKNESS: 0.38		
COUNT: 164 HEIGHT: 0.78 WIDTH: 1.17 THICKNESS: 0.38		
HEIGHT: 0.79 WIDTH: 1.17 THICKNESS: 0.38	EACH	~diaphragm top plates
WIDTH: 1.17 THICKNESS: 0.38		~diaphragm plate measurements based on beam design sketches
THICKNESS: 0.38		, J ,
	SF	
DIAPHRAGM PLATES:		
COUNT: 164		~diaphragm bottom plates
HEIGHT: 1.0	FACH	~diaphragm plate measurements based on beam design sketches
WIDTH: 1.17		alaphragin plate measuremente basea en bealti design sketenes
THICKNESS: 0.38	FT	
SUB-TOTAL: 405	FT FT	
	FT FT IN	
TOTAL: 1967	FT FT IN SF	

TOTAL:	19672	SF

514E00504 GRINDING	G FINS, TEA	ARS, SLIV	ERS ON EXISTING	STRUCTURAL STEEL	10	MNHR
		,				
	OUNT:	2	EACH	~existing exterior beams		
	NGTH:	249.5	FT	**Existing exterior beams		
	ΓΟΤΑL:	499	FT	~assume 1hr per 50 ft.		
				=		
	OTAL:	10.0	MNHR	<u></u>		
514E10000 FINAL INS	SPECTION	REPAIR			9	EACH
				-		
C	OUNT:	7.0	EACH	~(5) proposed beams + (2) existing beams painted		
	NGTH:	246.5	FT			
FT/INSPEC		300.0	ш	~1 inspection/300' of beams per CM&S 514.21		
CROSS-FR	AIVIES:	82.0	#	~2.5% of all cross-frames		
T	OTAL:	9	EACH	7		
				_		
514E20001 FIELD PA	AINTING OF	DAMAGE	D STRUCTURAL ST	TEEL, AS PER PLAN	56	SF
C	OUNT:	5	EACH			
PERIM		9.00	SF	~W36x150		
	NGTH:	49.00	FT			
PERIM	METER: :NGTH:	9.11	FT FT	~W36x194		
LEI	ING I II.	196.00	FI			
_	%	0.5%		_~assume 1 in 200 SF needs repaired		
Т	OTAL:	56	SF	<u></u>		
514E27700 FIELD PA	INTING MI	SC · COAT	TING OF BEAM END	ns I	251	SF
						<u> 0.</u>
	ED BEAMS					
	OUNT:	10	EACH	~number of proposed beam ends		
PERIM	NGTH:	2.75 9.11	FT FT	~9" beam projection + 1' to edge of diaphragm + 1' past face of diaphragm per BDM ~top of top flange included in prime coat	1	
		• • • • • • • • • • • • • • • • • • • •		_ top or op nango moratou mpinno sout		
T	OTAL:	250.5	SF			
516E10010 ARMORLI	ESS PREF	DEMED IC	NINT SEAL		148	FT
DIOLIUUIU ARMORLI	LOGINEI	JINIED 30	JIN SEAL		140	ļr i
C	OUNT:	2	EACH			
LEI	NGTH:	73.83	FT	_		
Т.	OTAL:	147.7	FT	٦		
<u> </u>	OTAL.	147.7		_		
516E13600 1" PREFO	ORMED EXF	PANSION .	JOINT FILLER		13	SF
ATDACA	DETC:					
<u>AT PARA</u> NUI	MBER:	2	EACH			
PARAPET A		2.00	SF			
NUI PARAPET	MBER:	2 4.09	EACH SF			
PARAPET	AREA.	4.08	SF	_		
	AREA:	12.2	SF			
				_		
516E13900 2" PREFC	JKMED EXF	ANSION .	JOINT FILLER		86	SF
<u>WING</u> WA	LL/DIAPHR	AGM:				
C	OUNT:	4	EACH			
	WIDTH:	3.75	FT	P 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
HE	EIGHT:	5.68	FT	~average diaphragm height at wingwalls		
T	OTAL:	85.1	FT	٦		
SEMI-INT	EGRAL AB	UTMENT E	EXPANSION JOINT	SEAL	171	FT
0.	OLINT:	2	EACH			
	OUNT: NGTH:	2 73.8	EACH FT			
	EIGHT:	5.75	FT	~height of diaphragm		
				· · · ·		
T	OTAL:	170.7	FT			

TOTAL:

100.0

SF

516E44201	ELASTOMERIC BE	ARING WIT	H INTERNAL L	AMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (14" x 20" x 3.128")	27	EACH
_				, , , , , , , , , , , , , , , , , , , ,		
1	<u>PIERS:</u> BEAM LINES:	9.00	EACH	~14 X 20		
	LOCATIONS:	3.00	EACH	~pier 1, 2 and 3		
-	TOTAL:	27.00	EACH			
Г	TOTAL	07	FAOU			
L	TOTAL:	27	EACH			
516E44201	ELASTOMERIC BE	ARING WIT	H INTERNAL L	AMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11" x 13" x 3.607")	18	EACH
	ABUTMENTS:			~11 X 13		
<u> </u>	BEAM LINES:	9.00	EACH	11 // 10		
_	LOCATIONS:	2.00	EACH	~rear and forward abutments		
	TOTAL:	18.00	EACH			
Г	TOTAL:	18	EACH			
L	TOTAL.					
516E47001	JACKING AND TEI	MPORARY S	SUPPORT OF S	UPERSTRUCTURE, AS PER PLAN	LS	LS
4	<i>LOCATIONS:</i> TOTAL:	20.00	EA	- A existing beam lines * 5 substructures		
	TOTAL.	20.00	EA	~4 existing beam lines * 5 substructures		
	TOTAL:	\$25,000	LS			
-						
517E75122	RAILING (CONCRE	TE PARAP	ET WITH TWIN	STEEL TUBE RAILING AND VANDAL PROTECTION FENCE)	300	FT
	COUNT:	1	EACH			
	LENGTH:	299.50	FT			
_						
L	TOTAL:	300	FT			
518E21200	POROUS BACKFIL	L WITH GE	OTEXTILE FAB	RIC	288	CY
_						•
4	ABUTMENTS:	70	C.F.	DA habing avieting facting		
	AREA: AREA:	72 72	SF SF	~RA, behind existing footing ~FA, behind existing footing		
	AVG. HEIGHT:	5	FT	17t, berning feeling		
_	SUB-TOTAL:	80.00	CY			
	4051	440	0.5	DA 1 12 1 16 6		
	AREA: AREA:	113 121	SF SF	~RA, behind proposed footing ~FA, behind proposed footing		
	AVG. HEIGHT:	8	FT	i A, betilila proposed lootilig		
-	SUB-TOTAL:	208.00	CY			
ſ	TOTAL	200 0	CV			
L	TOTAL:	288.0	CY			
518E40000	6" PERFORATED (CORRUGAT	ED PLASTIC PI	PE	180	FT
	LENGTH: LENGTH:	90 90	FT FT	~RA ~FA		
=	LLING I IT.	30	1.1	10		
	TOTAL:	180.0	FT			
518E40010	6" NON-PERFORA	IED CORRI	JGATED PLAS	TIC PIPE, INCLUDING SPECIALS	100	FT
Г	TOTAL:	100.0	FT			
L						
			OTUDE AC DE	D DI AN	400	0.5
519E11101	PATCHING CONC	RETE STRU	CTURE, AS PER	RPLAN	100	SF

TOTAL:

TOTAL:

625E33000 STRUCTURE GROUNDING SYSTEM

249

FT

EACH

EACH

AMERICAN STRUCTUREPOINT HAM-74-0358 Quantities Tracings

523E20000 DYNAMIC LOAD TESTING EACH 2 COUNT: 2.00 EACH TOTAL: EACH 2.00 526E25010 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15") 411 SY COUNT: 2.00 EACH LENGTH: 25.00 FT WIDTH: FT 73.83 TOTAL: 410.18 SY 526E90030 TYPE C INSTALLATION 148 FT COUNT: 2 EACH LENGTH: 73.83 FT ~approach slab width TOTAL: 148 FT 601E20000 CRUSHED AGGREGATE SLOPE PROTECTION 271 SY AREA: 1032 SF ~RA AREA: 1400 SF ~FA TOTAL: 270.2 SY 607E39900 VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC 249 FT TOTAL: 249 FT 607E39930 VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC 249 FT