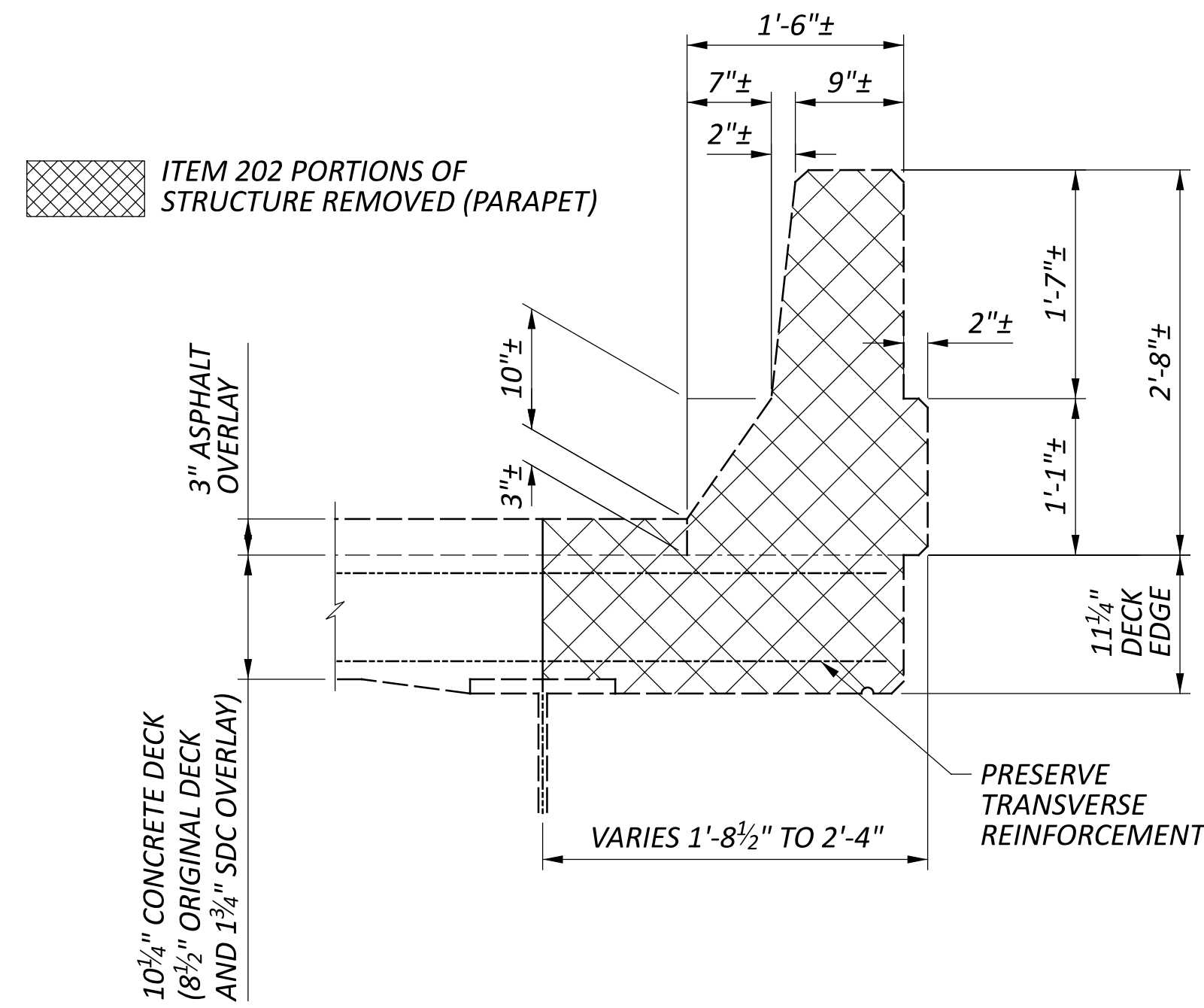


**9 ITEM 202 - PORTIONS OF STRUCTURE REMOVED (PARAPET)**

THIS WORK CONSISTS OF THE REMOVAL OF THE PARAPET AND DECK EDGE AS SHOWN ON THIS SHEET AND THE PARAPET DETAIL SHEETS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED IN THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING PARAPET REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED I.E. EXISTING BRIDGE DECK, EXISTING RESTEEL, AND EXISTING BEAMS. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 85-POUND CLASS. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

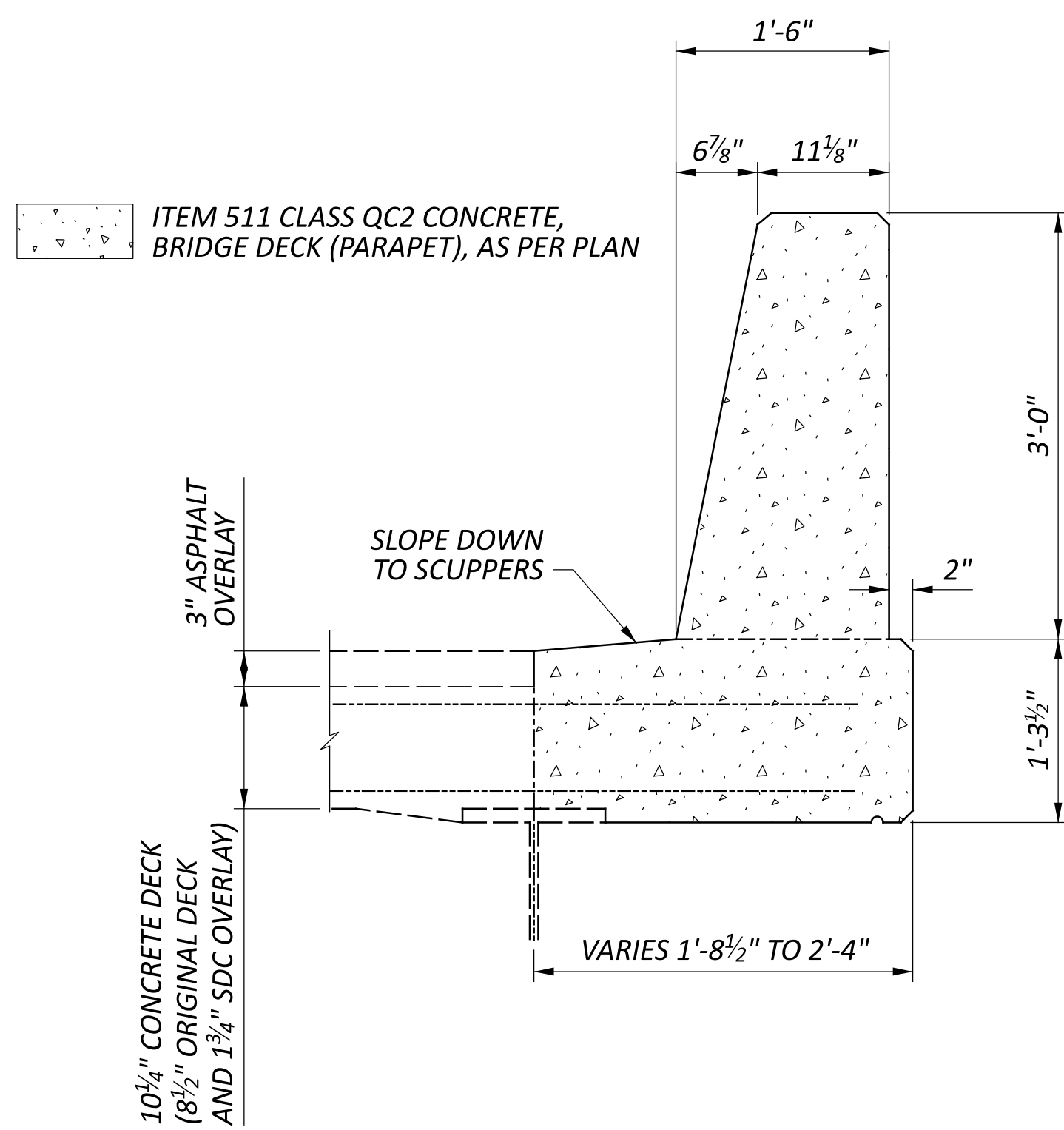
THE DEPARTMENT WILL MEASURE QUANTITY OF REMOVALS ON A CUBIC YARD BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED (PARAPET).



**9 ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN**

THIS WORK CONSISTS OF CONSTRUCTING THE PROPOSED PARAPETS AND DECK EDGES AS SHOWN ON THIS SHEET AND THE PARAPET DETAIL SHEETS.

THE DEPARTMENT WILL MEASURE QUANTITY ON A CUBIC YARD BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE BID FOR ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN.



**10 ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)**

AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 1, FOR REMOVAL OF SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION BY THE ENGINEER. FLAME OR SAW CUT THE EXISTING MEMBERS TO WITHIN 1/8 INCH OF THE EXISTING MAIN MATERIAL USING A MECHANICAL GUIDE ACCORDING TO C&MS 513.12 PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT REMAIN. GRIND THE EXISTING MAIN OR SECONDARY MEMBER SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FILLET WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIALS). DETERMINE FINAL QUANTITIES BY FIELD MEASUREMENTS. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 202 - PORTIONS OF SECONDARY MEMBERS REMOVED, AS PER PLAN: POUND.

**11 ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN**

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED, SEALED AND DATED, ACCORDING TO S1002, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE MEMBERS INCLUDED IN THIS ITEM ARE PROVIDED IN TABLE 1. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: POUND.

**12 ITEM 513 - STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS, FILLET WELDING**

PERFORM 5/16 INCH FILLET WELDS ACCORDING TO ITEM 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. WELD EACH APPROPRIATE SECONDARY MEMBER ACCORDING TO PLAN DETAILS. MAGNETIC PARTICLE INSPECT ALL FILLET WELDS ACCORDING TO C&MS 513.25B. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS MANAGEMENT. THE DEPARTMENT WILL INCLUDE ALL MATERIALS; TOOLS; LABOR; EQUIPMENT; AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED SECONDARY MEMBERS: FILLET WELDING: FOOT.

**13 ITEM 514 - FIELD PAINTING, MISC.: SECONDARY MEMBERS**

THIS ITEM SHALL INCLUDE PAINTING AS WELL AS THE SURFACE PREPARATION OF THE SECONDARY MEMBERS IN THE FIELD WITH PRIME, INTERMEDIATE AND SURFACE COATS AS DIRECTED BY THE ENGINEER. THE PAINT MAY BE APPLIED BY BRUSH ACCORDING TO 514.17.E. SOLVENT CLEAN THE APPROPRIATE SECONDARY MEMBERS AS PER SSPC-SP 1 AND SSPC-SP 2, RESPECTIVELY, PRIOR TO PAINTING ACCORDING TO ITEM 514. CONTRACTOR SHALL PROVIDE CONTAINMENT TO MAINTAIN PROPER CURING TEMPERATURES. THE CONTRACTOR WILL PAINT THE NEW STIFFENERS, AN ESTIMATED 6" AREA AROUND THE NEW STIFFENER ON THE WEB OF BEAM, AN ESTIMATED 6" AROUND THE WELD REPAIR AREA, AND ANY LOCATIONS WHERE GRINDING WAS REQUIRED.

THE FINISH COAT COLOR SHALL BE LIGHT BLUE AMS-STD-15526.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND CONTAINMENT FOR CURING SHALL BE INCLUDED IN THE SQUARE FOOT CONTRACT BID FOR ITEM 514 FIELD PAINTING, MISC.: SECONDARY MEMBERS.

**16 ITEM SPECIAL - SEALING - LIQUID FLEXIBLE SEALANT**

THIS ITEM SHALL INCLUDE SURFACE PREPARATION AND SEALING OF CONCRETE SURFACES WITH A LIQUID FLEXIBLE SEALANT AS SHOWN ON BRIDGE DETAIL SHEETS. SEALANT SHALL BE FLEX SEAL LIQUID (OR APPROVED EQUAL) APPLIED IN TWO COATS. THE FIRST COAT SHALL BE CLEAR AND THE SECOND COAT SHALL BE GRAY OR WHITE. PERFORM SURFACE PREP AND SEALANT APPLICATION ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND UNDER THE OBSERVATION OF THE ENGINEER.

**A. PREPARATION:**  
 REMOVE DUST, DIRT, OIL, WAX, CURING COMPOUNDS, EFFLORESCENCE, LAITANCE, LOOSE OR PEELING COATINGS AND OTHER FOREIGN MATERIALS FROM SURFACES TO BE SEALED. EXISTING COATINGS DO NOT NEED TO BE FULLY REMOVED, ONLY LOOSE OR PEELING COATINGS. ENSURE THAT ALL WASTE GENERATED BY THE SURFACE PREPARATION OPERATION IS MANAGED IN ACCORDANCE WITH 107.19.

**B. COVERAGE:**  
 APPLY SEALER ON HORIZONTAL AND VERTICAL SURFACES BY ROLLING OR BRUSH OPERATION AT A RATE OF A MINIMUM, ONE GALLON FOR EACH 100 SQUARE FEET. COAT ENTIRE SURFACE UNTIL ALL CRACKS AND HOLES ARE COMPLETELY FILLED.

**C. PAYMENT:**  
 PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE SQUARE FOOT CONTRACT BID FOR ITEM SPECIAL - SEALING - LIQUID FLEXIBLE SEALANT.

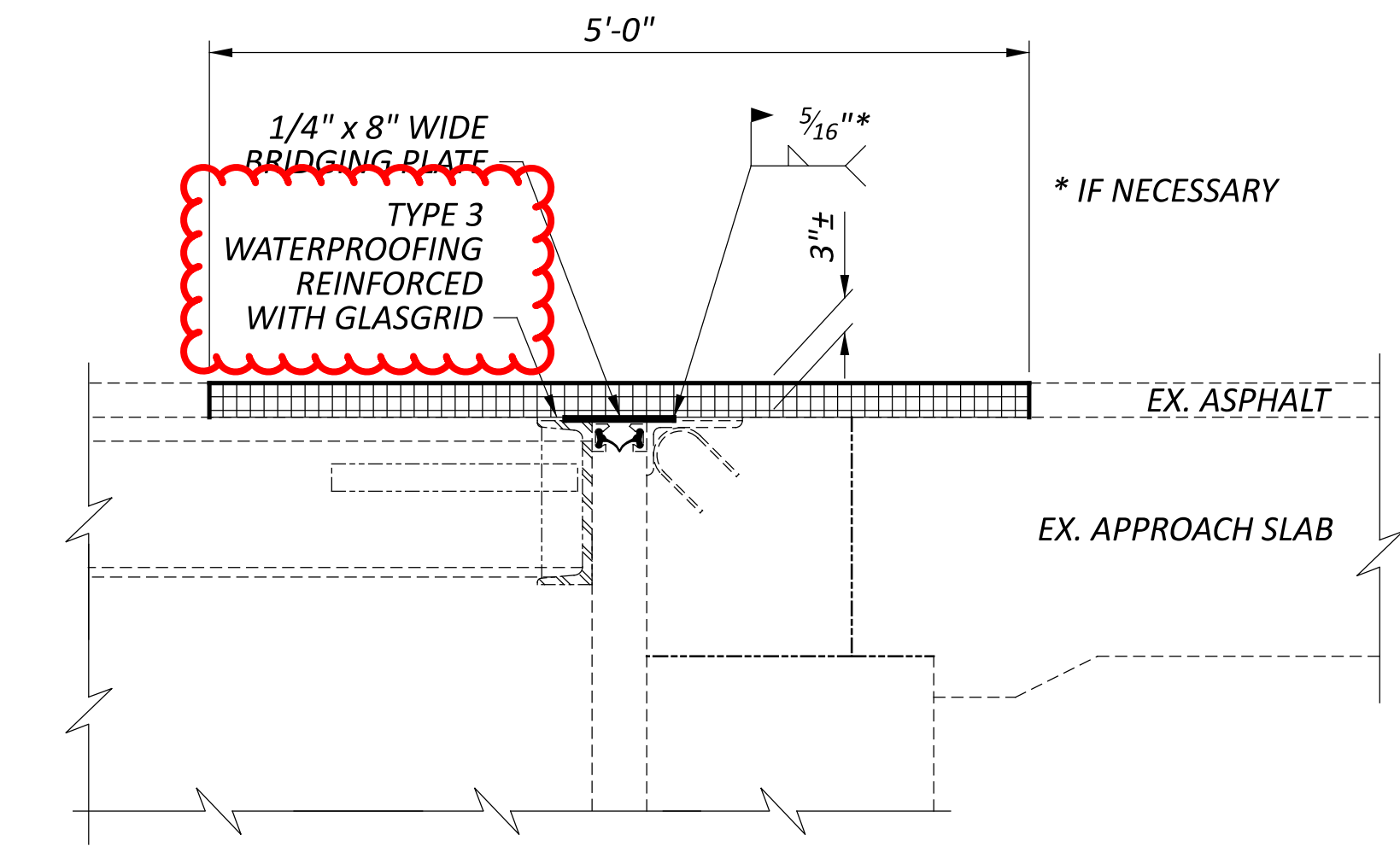
**14 ITEM 251 - PARTIAL DEPTH REPAIR, MISC.: EXPANSION JOINT**

AN ESTIMATED QUANTITY FOR PARTIAL DEPTH PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED ALONG THE CENTER LINE OF THE EXPANSION JOINT.

THE ROADWAY SHALL BE PLANED 3"± DEEP AND 5 FEET WIDE CENTERED ABOUT THE CENTER LINE OF THE EXPANSION JOINT. AFTER PLANING THE REPAIR AREA, IF THE EXISTING STEEL PLATE IS NOT FULLY INTACT AND SECURELY WELDED, PLACE A 1/4" THICK BY 8" WIDE STEEL PLATE THE ENTIRE LENGTH OF THE EXPANSION JOINT. THE STEEL PLATE SHALL BE WELDED TO THE EXISTING END DAM ON THE ABUTMENT. PRIOR TO PLACING AND COMPACTION OF 3.0" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22, (449), THE TOP FACE OF THE REPAIR SHALL BE COATED WITH ITEM 407, NON-TRACKING TACK COAT ALONG WITH THE TOP OF THE STEEL BRIDGING PLATE AND ITEM 512 TYPE 3 WATERPROOFING OVER TOP OF THE STEEL BRIDGING PLATE. WATERPROOFING SHALL BE REINFORCED WITH GLASGRID CG200 OR EQUIVALENT, PLACED ACCORDING TO THIS NOTE AND MANUFACTURERS SPECIFICATIONS.

THE PERIMETER OF ALL REPAIR AREAS SHALL BE SEALED IN ACCORDANCE WITH CMS 401.17.

ALL PLANING, MATERIALS (INCLUDING GLASGRID), LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 251 PARTIAL DEPTH REPAIR, MISC.: EXPANSION JOINT.



BR. NO. GUE-70-0994L

(EXISTING TYP. ABUTMENT SECTION IN LANES)

**15 ITEM 519 - SPECIAL - PATCHING CONCRETE STRUCTURE (FULL DEPTH BRIDGE DECK)**

THIS ITEM SHALL INCLUDE REMOVAL OF CONCRETE AND ASPHALT FOR THE FULL THICKNESS OF THE EXISTING DECK AND ASPHALT WEARING SURFACE (APPROXIMATELY 13" ±). ASPHALT AND CONCRETE SHALL BE REMOVED BY HAND TOOLS. AFTER REMOVAL, CONCRETE AND EXPOSED STEEL SHALL BE BLASTED CLEAN TO REMOVE REMANING LOOSE CONCRETE. NECESSARY FALSEWORK FOR CONCRETE REMOVAL AND REPLACEMENT SHALL ALSO BE INCLUDED FOR PAYMENT IN THIS ITEM.

TO EXPEDITE WORK, CLASS QC2 CONCRETE WITH ACCELERATING ADMIXTURE SIKA RAPID-1 OR ANY APPROVED EQUIVALENT ADMIXTURE SHALL BE USED TO ACHIEVE 3,000 PSI COMPRESSIVE STRENGTH IN 12 HOURS. USE A NON-CHLORIDE ACCELERATING ADMIXTURE AND PROVIDE DOCUMENTATION THAT THE MIX WILL ACHIEVE THE REQUIRED STRENGTH IN THE SPECIFIED TIME.

PERFORM THIS WORK PRIOR TO ASPHALT RESURFACING. POUR NEW CONCRETE ALL THE WAY TO THE SURFACE OF THE EXISTING ASPHALT AND MILL THROUGH AT THE SAME DEPTH AS THE SURROUNDING ASPHALT PAVEMENT WHEN RESURFACING.

THIS ITEM SHALL CONFORM TO PN 512 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

AT LEAST 5 DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A SCHEDULE OF REPAIR WORK ITEMS TO BE COMPLETED. THE SCHEDULE SHALL INCLUDE A BREAKDOWN OF ALL MAJOR WORK ACTIVITIES ON AN HOURLY BASIS. REPAIR WORK SHALL NOT BEGIN UNTIL THE SCHEDULE IS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL CONTINUE THE WET CURE FOR THE MAXIMUM NUMBER OF HOURS POSSIBLE DURING THE PERMITTED LANE CLOSURE. TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED CONCRETE SURFACE UNTIL AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 400 PSI. ONE HOUR BEFORE THE PERMITTED LANE CLOSURE PERIOD ENDS, CONTRACTOR SHALL DRY THE NEW CONCRETE SURFACE AND APPLY A MEMBRANE CURING COMPOUND. DRYING METHODS INTRODUCING EXTERNAL HEAT (I.E. WEED BURNERS, TORCHES) WILL NOT BE PERMITTED.

SEAL ALL EXPOSED CONSTRUCTION JOINTS WITH HMWM SEALER.

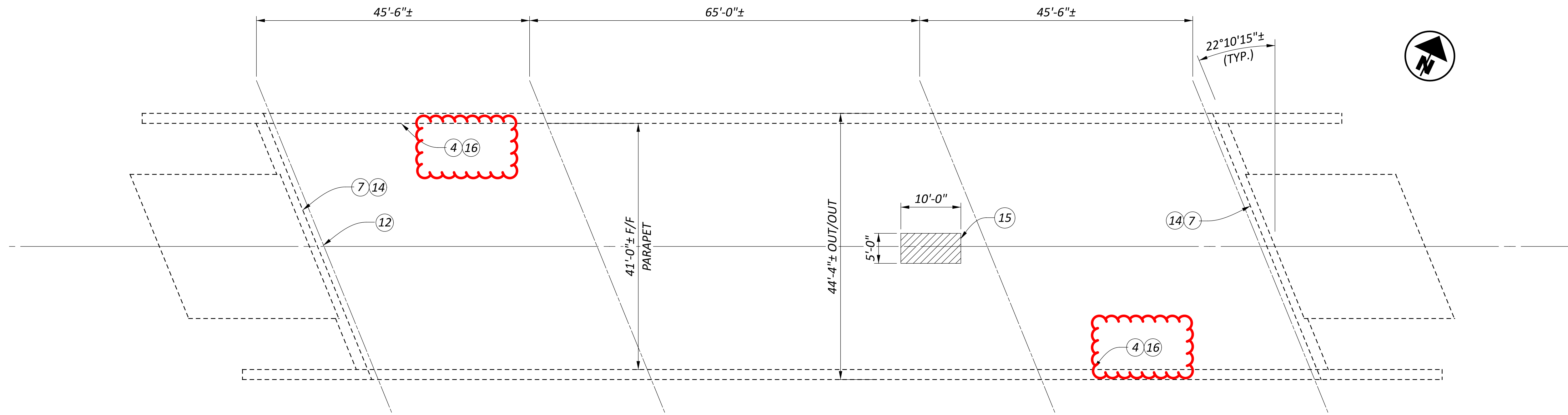
PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR, EQUIPMENT, FALSEWORK, AND MATERIALS WILL BE MADE AT THE CUBIC YARD CONTRACT PRICE BID FOR ITEM 519 - SPECIAL - PATCHING CONCRETE STRUCTURE (FULL DEPTH BRIDGE DECK).

SFN	
DESIGN AGENCY	
DESIGNER	CHECKER
MHK	TAG
REVIEWER	
JKS	9/3/24
PROJECT ID	
101012	
SUBSET	TOTAL
3	24
SHEET	
23	44

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
REAR ABUT	FWD ABUT	SUPERSTR	GENERAL								01/IMS/05	02/IMS/13						
		31										31	202	11401	31	LB	<b>STRUCTURE REPAIR (GUE-70-09.43A OR SFN 3001202)</b> PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)	3
	91											91	511	81500	91	CF	CONCRETE, MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR	2
		1,111										1,111	512	10300	1,111	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
		31										31	513	10201	31	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	3
		4										4	513	95000	4	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS, FILLET WELDING	3
		15										15	514	27700	15	SF	FIELD PAINTING, MISC.: SECONDARY MEMBERS	3
	27											27	516	31011	27	FT	2" DEEP JOINT SEALER, AS PER PLAN (B)	2
	81											81	519	11101	81	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2
		51										51	519	12300	51	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	
																	<b>STRUCTURE REPAIR (GUE-70-09.43L OR SFN 3001237)</b>	
	125											125	511	81500	125	CF	CONCRETE, MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR	2
		1,241										1,241	512	10300	1,241	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
	37											37	516	31011	37	FT	2" DEEP JOINT SEALER, AS PER PLAN (B)	2
		61										61	519	12300	61	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	
																	<b>STRUCTURE REPAIR (GUE-70-09.43R OR SFN 3001261)</b>	
	116											116	511	81500	116	CF	CONCRETE, MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR	2
		1,271										1,271	512	10300	1,271	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
	34											34	516	31011	34	FT	2" DEEP JOINT SEALER, AS PER PLAN (B)	2
		63										63	519	12300	63	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	
																	<b>STRUCTURE REPAIR (GUE-70-09.94L OR SFN 3001350)</b>	
		3										3	251	98000	3	CY	PARTIAL DEPTH REPAIR, MISC.: EXPANSION JOINT	3
		3,023										3,023	SPECIAL	51275010	3,023	SF	SEALING: LIQUID FLEXIBLE SEALANT	3
		3										3	513	95000	3	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS, FILLET WELDING	3
26	26											52	516	31011	52	FT	2" DEEP JOINT SEALER, AS PER PLAN (C)	2
		2										2	SPECIAL	51911900	2	CY	PATCHING CONCRETE STRUCTURE (FULL DEPTH BRIDGE DECK)	3
		222										222	843	50000	222	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
																	<b>STRUCTURE REPAIR (GUE-70-09.94R OR SFN 3001385)</b>	
271	271											542	511	81500	542	CF	CONCRETE, MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR	2
		1,128										1,128	512	10300	1,128	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
		2,778										2,778	SPECIAL	51275010	2,778	SF	SEALING: LIQUID FLEXIBLE SEALANT	3
		12										12	516	14500	12	SF	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EXPANDING FOAM	2
80	81											161	516	31011	161	FT	2" DEEP JOINT SEALER, AS PER PLAN (B)	2
294	312											606	519	11101	606	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2
		46										46	519	12300	46	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	
		204										204	843	50000	204	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	

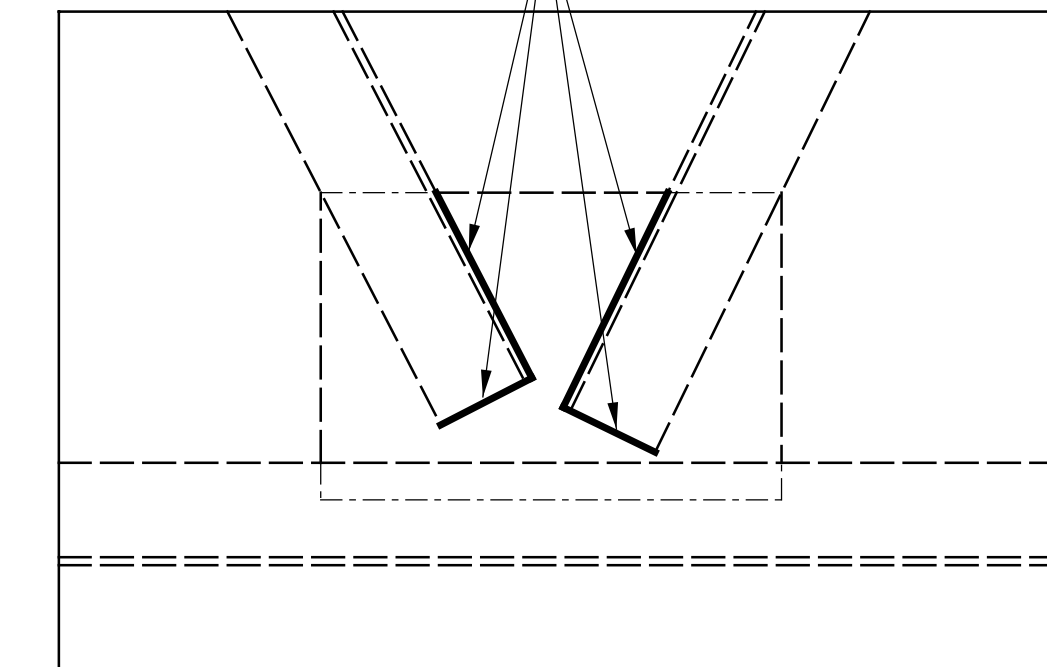
BRIDGE GENERAL SUMMARY

SFN	
DESIGN AGENCY	
DESIGNER	CHECKER
MHK	TAG
REVIEWER	
JKS 9/3/24	
PROJECT ID	
101012	
SUBSET	TOTAL
4	24
SHEET	TOTAL
24	44



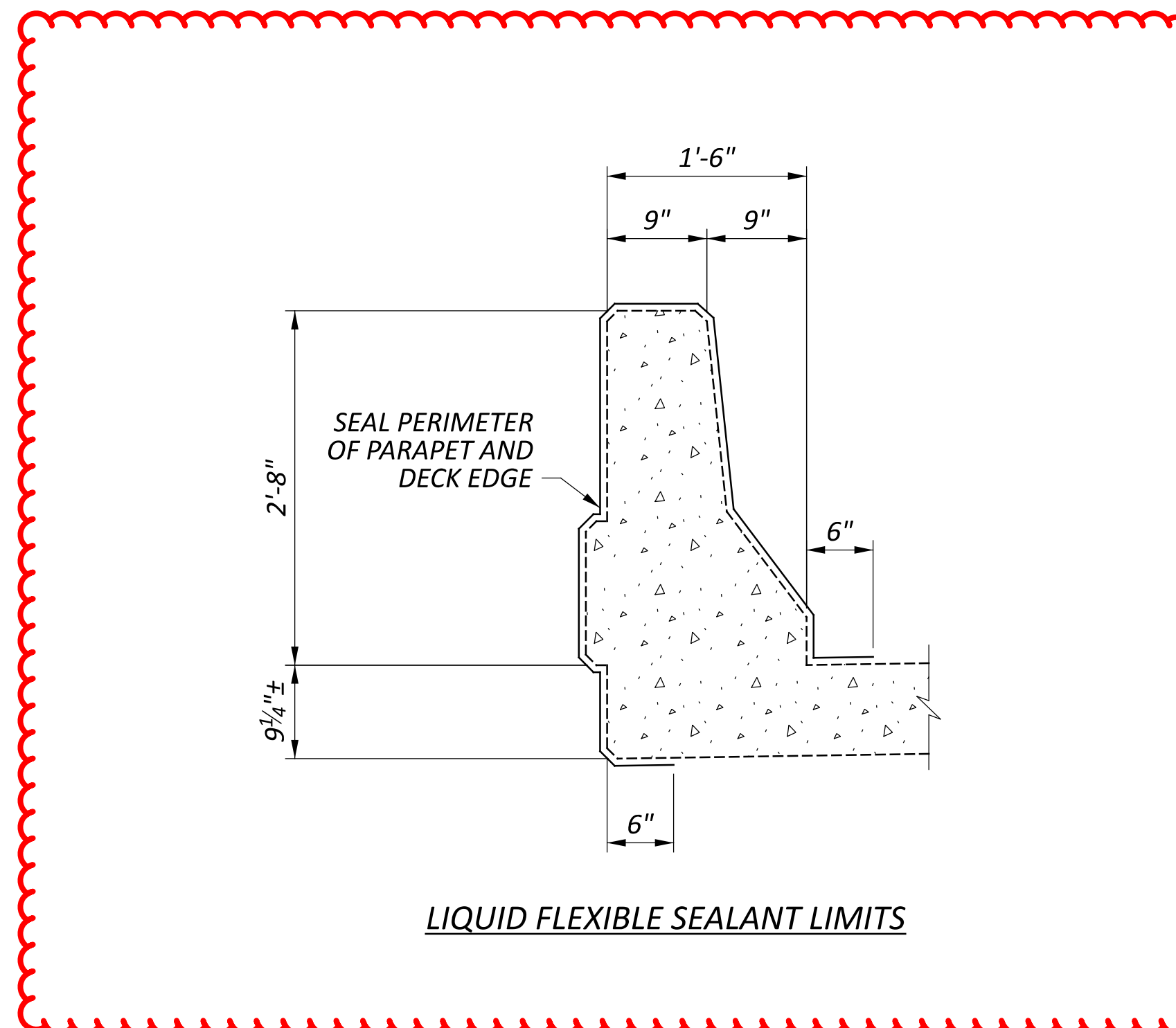
GENERAL PLAN

FILLET WELD TOP AND END OF ANGLES



FILLET WELD REPAIR DETAIL  
 REAR ABUTMENT BAY 3 (CENTER BAY) END CROSSFRAME LOWER GUSSET PLATE  
 SEE GSD-1-19 FOR MORE DETAILS

- ① ITEM 511 - CONCRETE MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR
- ② ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN
- ③ ITEM 519 - SPECIAL - PATCHING BRIDGE DECKS, TYPE B
- ④ **ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR**
- ⑤ ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
- ⑥ ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (B)
- ⑦ **ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (C)**
- ⑧ ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC. (EXPANDING FOAM)
- ⑨ ITEM 202 - REMOVAL MISC.: PORTIONS OF PARAPET REMOVED  
 ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN
- ⑩ ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)
- ⑪ ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN
- ⑫ **ITEM 513 - STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS, FILLET WELDING**
- ⑬ ITEM 514 - FIELD PAINTING, MISC.: SECONDARY MEMBERS
- ⑭ **ITEM 251 - PARTIAL DEPTH REPAIR, MISC.: EXPANSION JOINT**
- ⑮ **ITEM 519 - SPECIAL - PATCHING CONCRETE STRUCTURE (FULL DEPTH BRIDGE DECK)**
- ⑯ **ITEM 512 - SPECIAL - SEALING - LIQUID FLEXIBLE SEALANT**



LIQUID FLEXIBLE SEALANT LIMITS

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM  
 WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 45'-6"±, 65'-0"±, 45'-6"± C/C BEARINGS

ROADWAY: 39'-8"± F/F 1'2" SAFETY CURBS WITH CONCRETE PARAPETS

LOADING: HS-20

SKEW: 22°10'15"± RIGHT FORWARD

WEARING SURFACE: 3"± BITUMINOUS CONCRETE

APPROACH SLABS: 25'-0"± LONG (AS-1-54)

ALIGNMENT: TANGENT

CROWN: 0.0156± FT/FT (SUPERELEVATED)

STRUCTURE FILE NUMBER: 3001350

DATE BUILT: 1965

DISPOSITION: EXISTING DECK TO BE PATCHED AS NEEDED AND SEALED  
 REPAIR BACKWALL, WINGWALL, AND APPROACH SLAB

SFN 3001350	
DESIGN AGENCY	
DESIGNER	CHECKER
MHK	TAG
REVIEWER	
JKS	9/3/24
PROJECT ID	
101012	
SUBSET	TOTAL
14	24
SHEET	TOTAL
34	44

**ITEM 251 - PARTIAL DEPTH REPAIR, MISC.: EXPANSION JOINT**

DESCRIPTION	#	L	W	T	C.F.	CY
Rear and Forward	2	x 26	x 5	x 0.25	÷ 27 =	2.4
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>						3

**ITEM 512 - SPECIAL - SEALING - LIQUID FLEXIBLE SEALANT**

DESCRIPTION	#	L	W	T	C.F.	FT
Parapet perimeter	2	x 185	x 8.17	x	÷ 1 =	3022.9
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>						3023.0

**ITEM 513 - STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS, FILLET WELDING**

DESCRIPTION	#	L	W	T	C.F.	FT
Rear Abutment Bay 3	1	x 3	x	x	÷ 1 =	3.0
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>						3.0

**ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (C)**

DESCRIPTION	#	L	W	T	C.F.	FT
Both Approaches	2	x 26	x	x	÷ 1 =	52.0
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>						52

**ITEM 519 - SPECIAL - PATCHING CONCRETE STRUCTURE (FULL DEPTH BRIDGE DECK)**

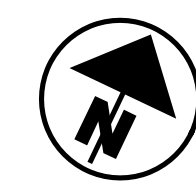
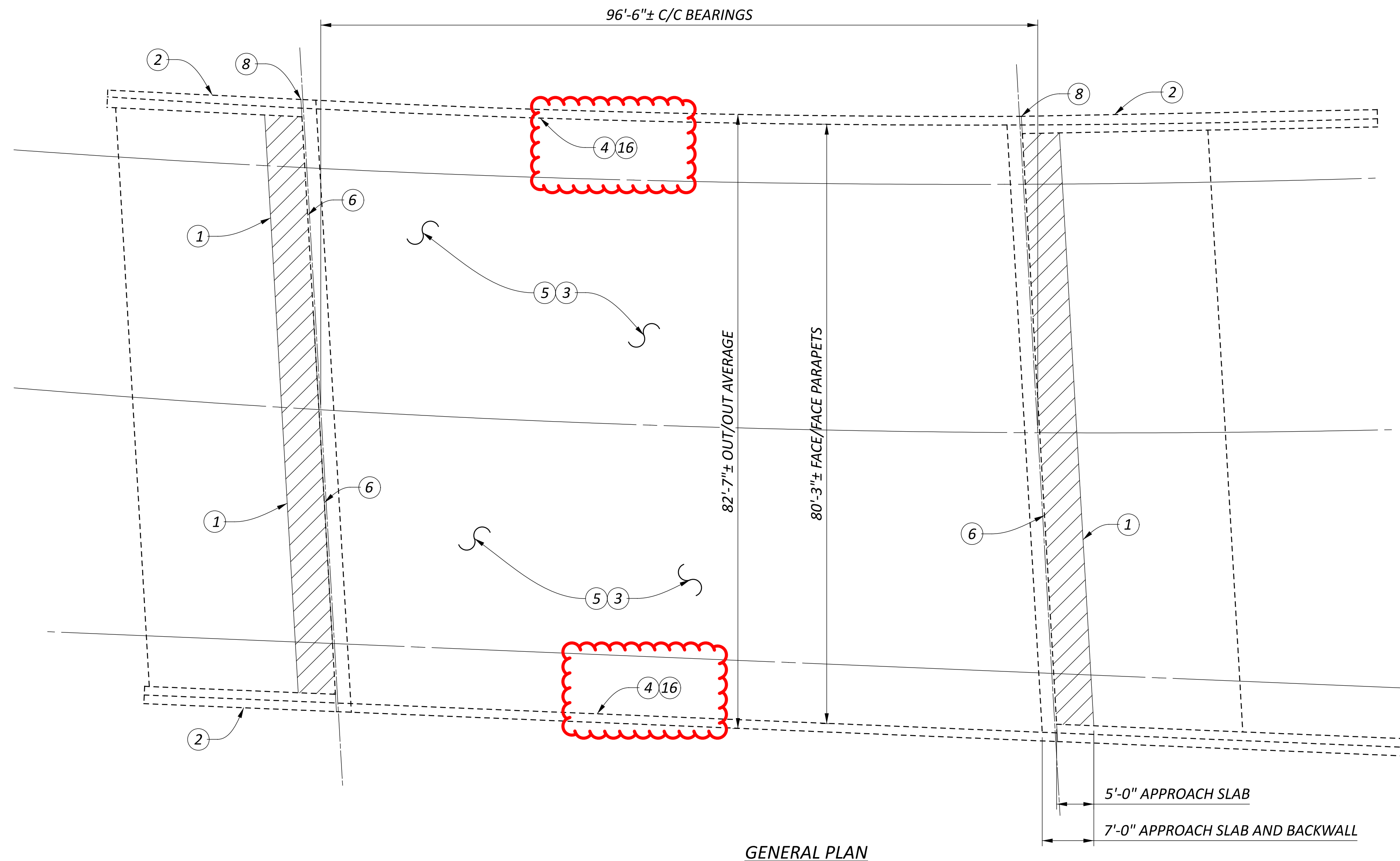
DESCRIPTION	#	L	W	T	C.F.	CY
Deck	1	x 10	x 5	x 1	÷ 27 =	1.9
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>						2.0

**ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR**

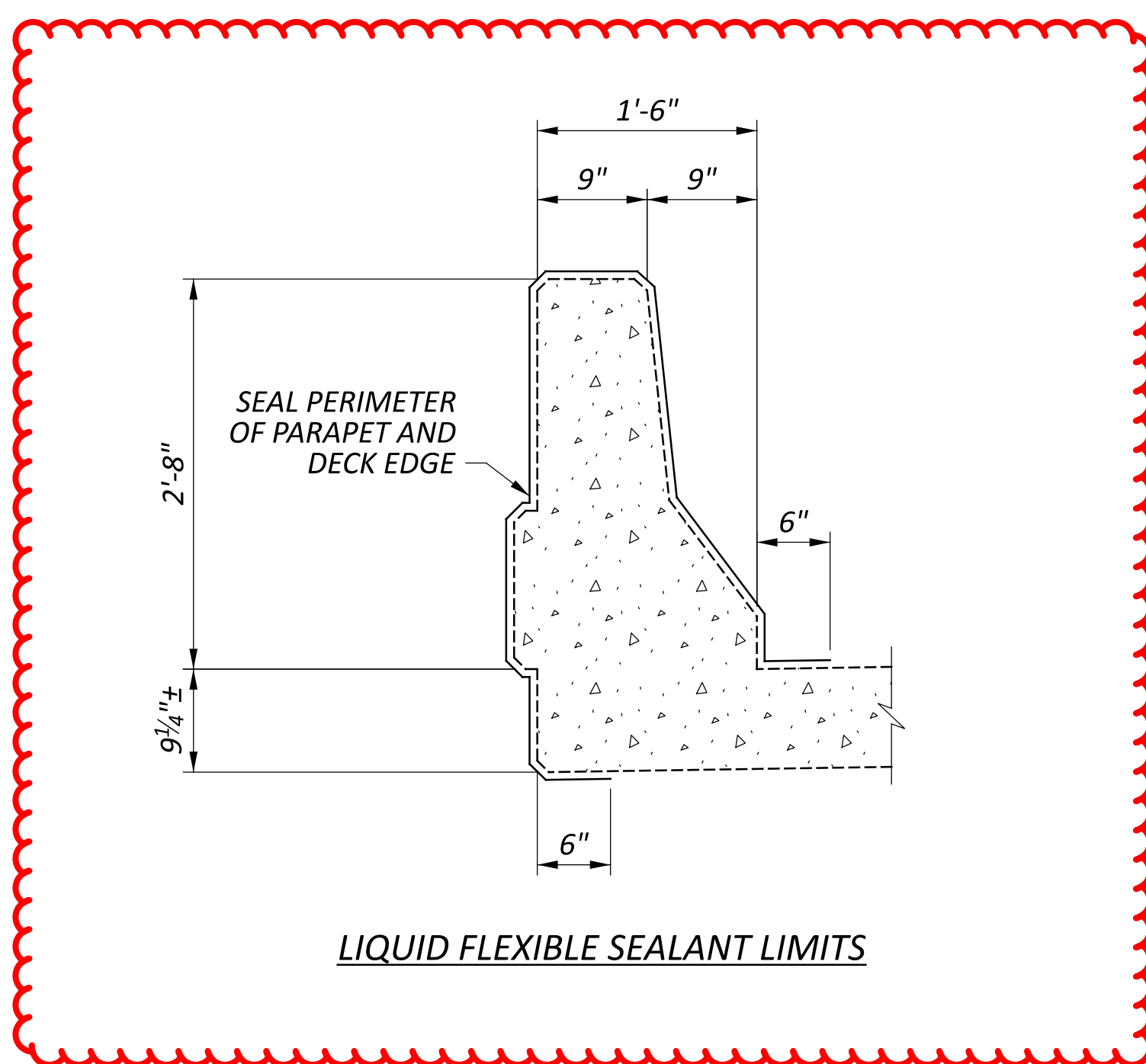
DESCRIPTION	#	L	W	T	C.F.	SF
Railing Both Sides	0.4	x 370	x 1.5	x	÷ 1 =	222.0
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>						222.0

**CALCULATIONS**  
 BRIDGE NO. GUE-70-09.94L  
 I-70 WEST OVER I-77 NORTH

SFN	
3001350	
DESIGN AGENCY	
DESIGNER	CHECKER
MHK	TAG
REVIEWER	
JKS 9/3/24	
PROJECT ID	
101012	
SUBSET	TOTAL
15	24
SHEET	TOTAL
35	44



- ① ITEM 511 - CONCRETE MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR
- ② ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN
- ③ ITEM 519 - SPECIAL - PATCHING BRIDGE DECKS, TYPE B
- ④ ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR
- ⑤ ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
- ⑥ ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (B)
- ⑦ ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (C)
- ⑧ ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC. (EXPANDING FOAM)
- ⑨ ITEM 202 - REMOVAL MISC.: PORTIONS OF PARAPET REMOVED  
ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN
- ⑩ ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)
- ⑪ ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN
- ⑫ ITEM 513 - STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS, FILLET WELDING
- ⑬ ITEM 514 - FIELD PAINTING, MISC.: SECONDARY MEMBERS
- ⑭ ITEM 251 - PARTIAL DEPTH REPAIR, MISC.: EXPANSION JOINT
- ⑮ ITEM 519 - SPECIAL - PATCHING CONCRETE STRUCTURE (FULL DEPTH BRIDGE DECK)
- ⑯ ITEM 512 - SPECIAL - SEALING - LIQUID FLEXIBLE SEALANT



EXISTING STRUCTURE	
TYPE:	WELDED GIRDER WITH REINFORCED COMPOSITE CONCRETE DECK AND SUBSTRUCTURE
SPANS:	96'-6"± C/C BEARINGS
ROADWAY:	VARIABLE F/F CONCRETE PARAPETS WITH ALUMINUM RAILING AND 1'-2" SAFETY CURBS
LOADING:	HS-20 WITH ALTERNATIVE MILITARY LOADING
SKEW:	3°19'19"± RIGHT FORWARD WITH RESPECT TO REFERENCE TANGENT
WEARING SURFACE:	2.5"± S.D.C. OVERLAY
APPROACH SLABS:	25'-0"± LONG (AS-1-54)
ALIGNMENT:	2°± CURVE AND SPIRAL
CROWN:	VARIES: 0.064± AT 248+00, 0.0156± FT/FT @ STA. 250+50 (SUPERELEVATED)
STRUCTURE FILE NUMBER:	3001385
DATE BUILT:	1965
DISPOSITION:	EXISTING DECK TO BE PATCHED AS NEEDED AND SEALED REPAIR WINGWALLS AND APPROACH SLAB

GENERAL PLAN  
 BRIDGE NO. GUE-70-09.94R  
 I-70 EAST OVER I-77 NORTH

SFN	3001385
DESIGN AGENCY	
DESIGNER	CHECKER
MHK	TAG
REVIEWER	
JKS	9/3/24
PROJECT ID	101012
SUBSET	TOTAL
16	24
SHEET	TOTAL
36	44

ITEM 511 - CONCRETE MISC.: CLASS QC2 WITH ACCELERATING ADMIXTURE, APPROACH SLAB AND BACKWALL REPAIR														
DESCRIPTION	#		L		W		T		C.F.		=	CF		
Approach Slabs	2	x	6.75		x	80.25		x	0.5		÷	1	=	541.7
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												542		
ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN														
DESCRIPTION	#		L		W		T		C.F.		=	SY		
Deck Area	1	x	8138		x			x			÷	9	=	904.2
Rear Approach Slab	1	x	25		x	80.25		x			÷	9	=	222.9
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												1128		
ITEM 512 - SPECIAL - SEALING - LIQUID FLEXIBLE SEALANT														
DESCRIPTION	#		L		W		T		C.F.		=	SY		
Parapet perimeter	2	x	170		x	8.17		x			÷	1	=	2777.8
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												2778		
ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: EXPANDING FOAM														
DESCRIPTION	#		L		W		T		C.F.		=	SF		
Left Side Parapet Gaps	4	x	3		x	1		x			÷	1	=	12.0
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												12		
ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (B)														
DESCRIPTION	#		L		W		T		C.F.		=	FT		
Rear Approach	1	x	80.25		x			x			÷	1	=	80.3
Forward Approach	1	x	80.25		x			x			÷	1	=	80.3
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												161		

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN (WINGWALLS)														
DESCRIPTION	#		L		W		T		C.F.		=	SF		
Rear Wingwalls	2	x	28		x	5.25		x			÷	1	=	294.0
Forward Wingwall	1	x	48		x	6.5		x			÷	1	=	312.0
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												606		
ITEM 519 - PATCHING CONCRETE BRIDGE DECK - TYPE B														
DESCRIPTION	#		L		W		T		C.F.		=	SY		
Estimated 5% of Deck Area	0.05	x	8138		x			x			÷	9	=	45.2
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												46		
ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR														
DESCRIPTION	#		L		W		T		C.F.		=	SF		
Railing Both Sides	0.4	x	340		x	1.5		x			÷	1	=	204.0
<b>TOTAL CARRIED TO GENERAL SUMMARY =</b>												204.0		

**CALCULATIONS**  
 BRIDGE NO. GUE-70-09.94R  
 I-70 EAST OVER I-77 NORTH

SFN	
3001385	
DESIGN AGENCY	
DESIGNER	CHECKER
MHK	TAG
REVIEWER	
JKS	9/3/24
PROJECT ID	
101012	
SUBSET	TOTAL
19	24
SHEET	TOTAL
39	44