U.I.P. AND REHABILITATE EXISTING (X'-X'-X') ____ SPANS

	Estimated Quantit
	Item
Total Surface Hydro	Demolition
Removal of Concrete	Wearing Surface
Removal of Existing	Deck Repair
as * Supplementary Wearin	g Surface Material
required — Latex Modified Concr	ete Wearing Surface
Substructure Repair	(Formed)
Substructure Repair	(Unformed)
Superstructure Repai	r (Unformed)
Halt-Sole Repair	
Full Depth Repair	• >
Stab Edge Repair (Br	
Cleaning and Epoxy c	outing
B3.8 * Supplementary wearing the fixed unit price Note B3.9 if required	g surface material for monolithic in accordance with Sec 109. d
General Notes:	
A1.1 Design Specifications	3:
2002 AASTHO LFD (17†) Bridge Deck Rating =	n Ed.) Standard Specifications
A1.2 Design Loading:	/— Year
HS20-44 Modified () and Military 24,000 lb Tander
A1 3 Design Unit Strosser	•
Alto Design unit Shesses.	,
Class <u>B-2</u> Concrete (1	talt-Sole and Full Depth Repair)
Miscellaneous:	
I1.0.1Roadway surfacing ad (roadway item).	jacent to bridge ends shall match
I1.0.3 (If I1.0.2AII concrete repairs	shall be in accordance with Sec
I1.1 Outline of existing v	work is indicated by light dashed
new work,	
I1.2 Contractor shall ver	ify all dimensions in field befor
II.10 In order to maintain plans it may be neces locations throughout wearing surface will including all addition of wearing surface.	grade and a minimum thickness or ssary to use additional quantitie the structure. The cost of furn be considered completely covered onal labor, materials or equipmen
Traffic Handling:	
A3.8 <u>Structure to be close</u> construction. See roo construction details	ad during construction. Iraffic - adway plans for traffic control_(
	REPAIRS TO BRIDGE: OVER *
	ROUTE 米 FROM 米 TO 米

	SEC/SUR *	TWP	*	R	SE 🗶				Ļ
									\leq
									ND
									2
									0 >
						DA	TE PREPA	RED	C I I
						9.	/8/20	21	TDO
						*		MO	C L
						DISTRI	CT SF	HEET NO.	Ē
						ВК	COUNTY	1	
							*		U V
							JOB NO. *	·	-
						со	NTRACT	ID.	- -
								10	
							.03201 1		C C
						В	BRIDGE NO.		
								<u>-</u>	ł
						_ 			ΗN
Estimated C	uantities								L U L
Item		10.01		T	Total	┥┃ _┛ ││			00
nolition ring Surface	216	S-10.01	sq.	yard foot	× ×				C -
k Repair	216	5-15.02	sq.	foot	X				V
urface Material	505	o-00.04	cu y	yard	Х	SCR			U V
Wearing Surface	505	5-20.00	sq.	yard	X	<u> </u>			Ĺ
formed)	704	1-01.01	sq.	+00+ f00+	× ×				ľ
Unformed)	704	-01.03	sq.	foot	X				
	704	-01.04	sq.	foot	Х				
>	704	-01.06	sq.	foot	X	-			
ina	704	-01.13	sa.	foot	× ×	DAT			
						┤┠ <u>┤</u> └			
								TOL 102 36)	
						- I		AP I 65 -66	
								т с мО 275	
accordance with Sec	monolifnic deck 2 109.	repair	WIII D	e pai	a tor a	SPI		WE S TY. 88-	
						ZAN		05 CI 1-8	
						UN I		1 SON	
						AND		FER ADDC	
d.) Standard Speciti	cations					NI S		ЦЧ ЧЧ	
Year		Y	ear			NAY Com		8-AS	
and Military 24,000) lb Tandem Axle					CHI	X	-88	
						Η		∦∕∣	
f-Sole and Full Dept	h_Repair) f'c	= 4,000	psi			ا 🖫 ۲	2	(r')	
						no	20		
ent to bridge ends s	hall match new l	bridge we	earing	surf	ace	ISS			
						ΣĽ			
all be in accordance	with Sec 704,	unless o	therwi	se no	ted.				
k is indicated by li	ght dashed line	s. Heavy	lines	indi	cate				
all dimensions in f	ield before ord	ering new	v mate	rial.					
ade and a minimum th	ickness of wear	ing surfo	ice as	show	n on				
ry to use additional e structure, The cos	quantities of stores of stores of stores of furnishing	wearing s and ins	surtac tallin	e at g the	various				
considered complete	ly covered in fl	he contro	ns in	it pr	ice, kness				
		• G. TGTT							
during construction.	Iraffic to be	maintaine	ed on	du	ring_				
		eer no.	10	siuge	<u> </u>				
REPAIRS TO BI	RIDGE: ROUT	E 米							
UVEK *									
ROUTE * FROM * TO :	*								
BEGINNING STATION	± (Mata	h Existi	ng)						

anel_Deck_on_Girders.dgn

11:01:07 AM

STANDARD DRAWING GUIDANCE do not show on plans

This is an index of Standard Drawing details. Draw typical section as required and scale to fit within attached border. Use appropriate deck repair details and modify as required (match orientation of actual reinforcement).

For bridges with epoxy coated steel, see Sec 710 for repairing bars and add notes as necessary. See SPM,

Wearing surface thickness can vary according to grade elevation requirements and minimum barrier curb height requirements. Maximum thickness should be limited to 3" (Ref. Organizational Results Research Report ORO6.004, May 2006). Limit excludes reinforced concrete slab wearing surfaces.

Will need to adjust wearing surface thickness when detailing a thin wearing surface (1" or less), but it is a preferred detailing practice to show a discernable thickness on the plans. No thickness is shown for crack filler application.

Consideration shall be made for additional notes for repairing deterioration of the precast prestressed panels. See SPM.

The Prestressed Panel Joint Repair detail is shown transverse because typically deterioration follows the strand closest to the panel edge, referred to as a "joint".

(A)Show difference as plus/minus X"±, see Bridge Memo or SPM.

e.g. Match existing grade plus $2\frac{1}{4}$ " ±

(B)Identify new wearing surface (See Bridge Memo or SPM). Specify minimum thickness in deck details.

C)Identify existing wearing surface and thickness, see Bridge Memo or existing plans.

D See Bridge Memo or SPM, typically 1/2". Use 1" if more than 30% of existing deck need repair. Verify there will be a minimum of 1/2" of concrete above the top bars after scarification.

(E)See Bridge Memo or SPM, typically 1/2".

(F)See existing plans.

(G)Use appropriate reference (& Structure, & Roadway, & Median, etc.)

(H) Cleaning and epoxy coating is preferred because of the relative short life of slab edge repair and unformed repair especially when over traffic. However in urban regions repairing the overhang may be preferred. Consult with SPM or SLE. -



(1)Scarification prior to adding first wearing surface or removing a portion of the deck when removing an existing wearing surface is not required for seal coat, asphalt, UBAWS, epoxy polymer or MMA polymer slurry wearing surfaces

(J)The following note will be required if concrete removal exposing prestressing strands is anticipated.

Adequate precaution shall be taken to prevent any nicks or cuts of the prestressing strands.

If full depth repair thru panels is anticipated additional deck repair details will be required. Details shown are for conventional deck repair post-hydro demolition when adding first wearing surface. Details for other cases are similar.



If severe panel deterioration is anticipated at the strand ends (within the development lengths of the strands) either at a transverse joint or in the interior between transverse joints, a repair method will need to be expertly developed. Contact the Development Section and/or reference similar repairs to Bridge A4729. One solution is to show the limits of strand development and require a hold point on the plans for engineer review when panel deterioration is discovered within these limits.

Add note: (5) One inch vertical side shall be established outside the deteriorated area. See Sec 704.



FILLED JOINT DETAILS FOR ALL APPLICATIONS







SECTION THRU JOINT (ASPHALTIC CONCRETE WEARING SURFACE)

If severe panel deterioration is anticipated outside the development lengths of the strands at a transverse joint, it is advisable to consider full depth repair even if not required from above. If only cleaned and coated, there is a chance new reflection cracks will appear and the strand deterioration will accelerate due to chlorides being trapped behind the epoxy.

Silicone Exp. Joint Sealant <— € Existing (See Sec 717) Joint Seal Wearina -<u>↓</u>" R. (Typ.) Surface └─ Top of Exist. Deck - Exist. It. Backer Rod-····· Filler

SECTION THRU JOINT (EPOXY POLYMER OR MMA POLYMER SLURRY)



Hydro Demolition Case 1:

STANDARD DRAWING GUIDANCE (do not show on plans):

Monolithic Deck Repair After Hydro Demolition

RHB02

- B 1 3/4" to 3" Latex Modified
- 2 1/4" to 3" Silica Fume 1 3/4" to 3" Latex Modified Very Early Strength
- 1 3/4" to 3" CSA Cement Very Early Strength
- 3" to 4" Steel Fiber Reinforced
- May be used with the following concrete wearing surfaces: If optional concrete wearing surface is specified and either low slump or 1 3/4" to 3" Latex Modified
 - Use appropriate details below on first sheet and add a sheet title using the allowed options for the below details,
 - e.g. "LATEX MODIFIED CONCRETE DETAILS"



(Replacing Existing Wearing Surface)



Conventional Deck Repair After Hydro Demolition Hydro Demolition Case 2: STANDARD DRAWING GUIDANCE (do not show on plans):

May be used with the following concrete wearing surfaces: (B) 2 1/4" to 3" Low Slump

3/4" to 3" Polyester Polymer

If optional concrete wearing surface is specified and either low slump or polyester polymer is an option:

Use appropriate details below on second sheet and add a sheet title using the allowed options for the below details.

e.g. "LOW SLUMP CONCRETE DETAILS"



(Replacing Existing Wearing Surface)



(6) Remove all deteriorated concrete at transverse joint between prestressed panels and coat with epoxy.

Conventional Deck Repair Only

STANDARD DRAWING GUIDANCE (do not show on plans):

- May be used with all wearing surfaces.
- B2 1/4" to 3" Low Slump Concrete
 - 1 3/4" to 3" Latex Modified Concrete
 - 2 1/4" to 3" Silica Fume Concrete
 - 1 3/4" to 3" Latex Modified Very Early Strength Concrete
- 1 3/4" to 3" CSA Cement Very Early Strength Concrete
- 3" to 4" Steel Fiber Reinforced Concrete
- 1/4" Epoxy Polymer
- 3/4" to 3" Polyester Polymer Concrete
- 3/8" MMA Polymer Slurry
- 4" to 5" Reinforced Concrete Slab
- 3/8" Chip Seal Grade A1
- 1" to 3" Alternate Asphaltic Concrete
- 1/2" to 3/4" Alternate Ultrathin Bonded Asphalt

Scarification not required with the following wearing surfaces: Seal Coat

RHB02

- Asphalt UBAWS
- Epoxy Polymer MMA Polymer Slurry
- Or when applying concrete crack filler.

(Adding First Wearing Surface or Applying Concrete Crack Filler)



(Replacing Existing Wearing Surface)



Wearing









- de shall be established outside the rea. (2)
- B." minimum _____ (3) _____ wearing surface
- (4) Original depth of deck minus previous scarification.
- (5) Remove all deteriorated concrete at transverse joint between prestressed panels and coat with epoxy.

SDG: For seal coat, asphalt, UBAWS, epoxy polymer or MMA polymer slurry:

- Delete existing line inside wearing surface
 Adjust top of the original depth dimension to botom of new wearing surface
 Adjust depth for thin wearing surfaces