						<u></u> ר												SEE	1
	P.5	P.7	P.12	P.13	<i>P.14</i>	P.72	P.73	P.74	P.91	P.92	01/IMS/13	02/IMS/13 03/I	IMS/05	ITEM	ITEM EXT.	GRAND TOTAL	UNI	IT DESCRIPTION DESCRIPTION SHEET NO.	
																		ROADWAY	-
						135	103	<b>504</b>					238	202	30700	238	FT	CONCRETE BARRIER REMOVED	_
						2	576	567				7	1640 4	202 202	<u> </u>	1640	FI FA	A ANCHOR ASSEMBLY REMOVED	-
						2	1	1					4	202	47000	4	EA	A BRIDGE TERMINAL ASSEMBLY REMOVED	1
							1						1	202	47800	1	EA	A IMPACT ATTENUATOR REMOVED	_
						1	2						3	202	58200	3	FΔ		-
						47	51	51					149	202	20001	149	CY	<pre>/ EMBANKMENT, AS PER PLAN</pre>	-
						503	547.5	550				16	600.5	606	15050	1600.5	FT	GUARDRAIL, TYPE MGS	
						1		1					1	606 606	26150	1	EA	A ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) A ANCHOR ASSEMBLY, MGS TYPE T	-
													2	000	20000				-
						1	1						2	606	35002	2	EA	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
						1	1	1					2	606	35102	2	EA	A MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	-
						131	22.9					1	153.9	606	10060	153.9	EA FT	CONCRETE BARRIER. SINGLE SLOPE. TYPE B	-
						2	2						4	622	10200	4	EA	A BARRIER TRANSITION	-
																			_
							1.3.3						1.3.3	601	.32204	1.33	CY	DRAINAGE	-
							0.25						0.25	602	20000	0.25	CY	<pre>/ CONCRETE MASONRY</pre>	1
						5	151						156	611	05900	156	FT	T 15" CONDUIT, TYPE B	
						1	67						67	611	06700	67	FT	15" CONDUIT, TYPE F	S A I
15													<u> </u>	611	99094	15	EA EA	INLET NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B INLET ADJUSTED TO GRADE	ĮĮ
																		PAVEMENT	
<sub>Б</sub> <b>2400</b>												2	2400	251	01041	2400	SY	Y     PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN, (T = 4.0")     P.4	J S -
P"100	7	30											30 7	253 301	56000	30	CY	/ PAVEMENT REPAIR, AS PER PLAN / ASPHALT CONCRETE BASE_PG 64-22 (449)	┤┙┕
	/					995	3313					4	4308	407	20000	4308	GAL	L NON-TRACKING TACK COAT	I & II
96+S						308	1024					Ĩ	1332	424	14001	1332	CY	/ FINE GRADED POLYMER ASPHALT CONCRETE SURFACE COURSE, TYPE B, AS PER PLAN (T = 1")	
Sh€						11030	36789					4	7819	442 897	01010	47819	SY	<pre>/ ANTI-SEGREGATION EQUIPMENT // P.4</pre> / PAVEMENT PLANING. ASPHALT CONCRETE. CLASS A. (T = 1") P.5	Ū
Jw dy	4782											4	4782	897	02000	4782	SY	/     PATCHING PLANED SURFACE     P.5	
Roac																			_
/ bu									18		Q	6	3	625	00470	18	ΕΔ		-
									8		5	2	1	625	10490	8	EA	A     LIGHT POLE, CONVENTIONAL, DESIGNA15BB40	-
									24		12	8	4	625	10614	24	EA	A LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
100-E									<b>5100</b>		2000	4000	750	005	22200	5400			-
641									1260		630	420	210	625	23200	1260	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	-
									16		10	4	2	625	26250	16	EA	A LUMINAIRE, CONVENTIONAL, SOLID STATE, TYPE II, LED, 480 V	
-ic+0									6		3	2	1	625	29920	6	EA	A STRUCTURE JUNCTION BOX	_
ens Distr									1				1	625	32000	1	FA		-
dick										8	5	2	1	625	75401	8	EA	A LIGHT POLE REMOVED, AS PER PLAN P.93	-
s > 00										16	10	4	2	625	75507	16	EA	A LUMINAIRE REMOVED, AS PER PLAN P.93	
ject										2	1	1		625	75800	2	EA	A DISCONNECT CIRCUIT, AS PER PLAN P.93	-
M A A C C C C C C C C C C C C C C C C C																		TRAFFIC CONTROL	-
0H\01						90		36				12	114	621	00100	126	EA	A RPM	
			20	110		90		36			100	12	114	621	54000	126	EA	A RAISED PAVEMENT MARKER REMOVED	-
Р ПСШР ПСШР			32	140	28	154		.37.3			126	44	30 527	630 644	00720	200 527	SF FT	- SIGN, TEMPORARY OVERLAY CHEVRON MARKING P4	-
24 s\Co						0.07	0.42				0.34	0.15		807	12010	0.49	MILL	E WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6", YELLOW P.4	-
5/20 ient:																			
. 6/2 ocur						0.11	0.38				0.34	0.15		807 807	12010	0.49		E       WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6", WHITE       P.4         F       WET REFLECTIVE EPOXY PAVEMENT MARKING LANELINE 6"       P.4	DESIGN AGENCY
)ATE: )3\D(				-		0.21	0.94	$+\cdots$	+	$\uparrow$		pri king the second second	1.49	807	14010	1.49	MILL	E WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", YELLOW P.4	-
						0.37	0.55	0.71					1.63	807	14010	1.63	MILL	E WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", WHITE P.4	Michael Bak
2 (i) - ns-							*						2 0 2	007	11110				
34×2.						( 1.21 ( 823	2.28	<i>U.34</i> <i>22<u>9</u>9</i>					3122	807 807	14110	3.83 3122		WET REFLECTIVE THERMOPLASTIC PAVEIVIENT WARKING, LANE LINE, 6" P.4 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING. CHANNELINE, 12" P.4	-
ZE X COL						2.13	3.77	1.05					6.95	850	10010	6.95	MILL	E GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
PERSI						823		2299				3	3122	850	10130	3122	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	DESIGNER
PAF w.ber					(		1.56		$+\cdots$		1.36	0.59		850	20010	1.95		E  GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	REVIEWER
																			KMD 10/31/
																			111641
M://																			
ΣQ																			F./U P.1/

						1		-	-	-		1			1		1	1			1			1			1				1	1							
							202	202	202	202	202	203	407	424	442	606	606	606	606	606	611	611	621	621	622	622	644	807	807	807	807	807	807	807	850	850	850	897	
						REA						AN		PHALT IRSE, = 1")		S	λ,	×.			B		EMOVED			0		'EMENT HITE	'EMENT 'HITE	'EMENT 'LLOW	LASTIC 12", WHITE	LASTIC HITE	LASTIC IHITE	LASTIC	SED HALT)	SED SRETE)	SSED HALT)	A (T= 1")	
						ATEDAF	EMOVEL	ARRIER ED	R MOVED	MINAL	OVED	S PER PI	KING AT	MERASi CE COU 'LAN (T =	GATION INT	YPE MG:	SSEMBL H 2016)	SSEMBL	ERMINA TYPE 1	ERMINA TYPE 2	R SINGL R, TYPE	TYPE B	RKER R		NOITISN	ARRIER, ;, TYPE E	ARKING	<i>JXY PAV VE, 6", W</i>	<i>ОХҮ РА</i> V VE, 6", И	DXY PAV E, 6", YE	ERMOP. NT GLINE,	ERMOP. NT VE, 6", W	ЕЕМОР. NT NE, 6", И	ERMOP NT E, 6", YE	" RECES IG, (ASPI	" RECES 5, (CONC	" RECES G, (ASPI	ANING, CLASS,	
	REF. NO.	SHEET NO.	STATION 1	O STATION	SIDE	GENER	RAIL R	RETE B. REMOVI	ANCHO ABLY RE	GE TER ABLY RE	ET REM	IENT, A	N-TRAC ACK CC	D POLY SURFA S PER F	SEGRE	RAIL, T	CHOR A E (MAS	CHORA TYPE	RIDGE T EMBLY,	RIDGE T	IO. 3 FO BARRIE	NDUIT,	ENT MA	RPM	ER TRA	RETE B, E SLOPE	RONM	IVE EP	EDGE LI	TIVE EP	TIVE TH PAVEME NELIZIN	TIVE TH AVEME ANE LII	TIVE TH PAVEME EDGE LI	TIVE TH AVEME DGE LIN	5 FOR 6 MARKIN	5 FOR 6 IARKING	FOR 12 MARKIN	AENT PL	
						CADD	GUARD	CONC	ASSEA	BRID ASSEA	INLE	IBANKN	NOI T	GRADE ICRETE PE B, A	ANT/-, E(	GUARD	IGS AN( TYPE	<i>IGS AN</i> (	MGS BF ASSE	MGS BF ASSE	NLET, N	15" CC	PAVEM		BARRII	CONC	CHEV	EFLECT RKING, L	EFLECI KKING, E	EFLECT KING, EL	REFLEC F CHANI	REFLEC F RKING, L	REFLEC P KING, E	REFLEC F KING, El		DOVING NENT M		PAVEN LT CON	
												EV		FINE CON TY			~	~					RAISED					WET R MAF	WET R MAF	WET R MARI	WET F ARKING	WET F MAF	WET F MAF	WET F MARI	GR	GR	GRC PAVE	ASPHA	
_			FROM	ТО	_	SF	FT	FT	EA	EA	EA	CY	GAL	CY	CY	EA	FT	EA	EA	EA	EA	FT	EA	EA	EA	FT	FT	MILE	MILE	MILE	FT	MILE	MILE	MILE	<i>MILE</i>	MILE	) <i>FT</i>	SY	
_	LL-1	P.75	317+00.00	341+27.75	5 RT																		21	21								0.47			0.47		₹		
-	LL-2	P.75	323+22.84	341+12.08	RT																		15	15								0.35			0.35	^	₹	<u> </u>	
-	ELY-1	P.75	323+22.84	340+95.75																			11	11							111			0.34	0.34		1 111		
	СН-1 СН-2	P.76 P.76	328+45.39 328+45.39	332+54.36	6 R7 6 RT																		11	11 11							411 412						411 412		E.
-	СМ-1	P.76	328+45.39	332+54.36	RT																						154								ţ	i i		}	
_	ELW-1	1 P.77	332+54.36	341+43.30	RT																												0.18		0.18	<mark>ل</mark> ـــــــــــ	<u>f</u>		Э Н Э
-	ELY-2	P.77	333+00.00	340+61.58	$\frac{1}{2}$																		7	7								0.14		0.15	0.15		\$		
ngb.l	LL-3 LL-4	P.77 P.77	333+00.00	340+27.29	/ L7 / LT																		7	7 7								0.14			0.14	 			1AR T 1 (
GSOO	ELW-2	? P.77	333+00.00	340+07.16	S LT																												0.14		0.14		$\overline{\left\{ \begin{array}{c} \end{array}\right\} }$		Ч
ll64I_		P.77	333+07.13	340+61.81	LT	40331							404	125	125																				¥		1	4482	D II
l∕s+e		P.77	333+07.13	341+60.20	P RT	46348	105		1	1			464	144	144																				<u>{</u>		<b>↓</b>	5150	
Shee	GR-1	P.78	337+48.82	339+95.53	$\frac{1}{2} = \frac{1}{2}$		195					18				195		1		1															<b>{</b>		<u>}</u>		D 1
~yow																,		-																	ξ		5		0)
load	<i>R-2</i>	P.78	338+17.77	341+60.20	RT		308		1	1																									ζ		3		
ng∖F	GR-2	P.78	337+74.00	341+60.20	RT							29				308	1		1																¥		1		
ieeri	ELW-3	B P.79	340+07.16	341+73.23	$B \mid LT$																		2	2				0.04	0.04						<u>{</u>	0.04	<u>↓</u>		
- Ingin	LL-5 LL-6	P.79 P.79	340+27.29	347+89.30	' L' ! LT																		2	2				0.04							{	0.04	}	+	
100-E																																			8		3		
641/4	BR-1	P.79	340+50.00	345+61.00	) _																				2	131									ξ		3		
)6 \ III	<i>R-3</i>	P.79	340+50.00	345+61.00	) _			23																											¥	·	2		
-ic+(	ELY-3	P.79	340+61.81	342+17.74	LT																									0.04					<u>{</u>		\$		
ens Disti	LL-7	P.79	341+12.08	342+44.45	, <u> </u>																		2	2				0.03		0.03					{	0.03	}	+	
																								_											ξ		3		
т. X0 1 8/0	LL-8	P.79	341+27.75	342+71.04	RT																		2	2				0.03							ξ	0.03	3		
USE Djec <sup>-</sup>	ELW-4	4 <i>P.79</i>	341+43.30	342+85.06	RT	0000									01														0.03						ξ	0.03	2	750	
≥ d -	FI W_4	P.79 5 P 79	341+62.71	343+41.98		6803							69	21	21																		0.03		× 0.03	·		/56	
	LL-9	P.79	341+89.30	343+15.05	5 LT																		2	2								0.03	0.00		0.03		2		
E: 3:( bus_																																			8		3		
MII olum	LL-10	P.79	342+03.64	343+24.71	LT																		2	2								0.03			0.03		3		
:024 †s\C	ELY-5	5 P.79	342+17.74	343+34.27	$\frac{1}{1}$			440																										0.03	0.03		<u>}</u>		
	<i>R-4</i>	P.79	342+31.41	343+43.41	' - ? RT	5777		112					58	18	18																				<u>}</u>			642	
E: 6/ Docl	D-1	P.79	342+		RT						1			10							1	5													{		2		DESIGN AGENCY
-03\																																			8		3		
∩") 2-D≪	ELY-6	5 P.79	342+44.45	343+52.86	RT																													0.03	0.03		<u> </u>		Michael Baker
1) 22 (1 1) - di	LL-11	P.79	342+57.75	343+62.23	RT																		1	1								0.03			0.03		2		INTERNATIONA
: 54x om:m	LL-12	P.19	342+/1.04	343+71.52 3122075	RT RT																		1	1								0.02	ົດດາ		$\sqrt{0.02}$		¥	+	
{SIZE ey.c	ELW-7	P.79	343+04.24	344+86.38	$\frac{r(r)}{R} = \frac{r(r)}{LT}$																								0.04				0.02			0.04	Υ	+	DESIGNER
'APEF ventl	/																																		ξ		3		JTS
+ - D % -	LL-13	P.79	343+15.05	344+95.82	P LT																		2	2				0.04							ξ	0.04	<u> </u>		KEVIEWER KMD 10/31/23
shee	LL-14	P.79	343+24.71	345+04.32	P LT																		2	2				0.04							ξ	0.04	) }	Ļ	PROJECT ID
)EL: ( //mt		TOTALS	CARRIED TO	GENERAL S	UMMAF	RY	503	135	2	2	1	47	995	308	308	503	1	1	1	1	1	5	90	90	2	131	154	0.21	0.11	0.07	823	1.21	0.37	0.55	2.13	0.39	¢ 823	211030	SHEET TOTAI
MUL PW:																																			lun		Ju	<u>بر</u>	P.72 P.179

					202	202	202	202	202	202	203	407	424	442	601	602	606	606	606	611	611	611	622	622	807	807	807	807	807	807	850	850	897	
				DAREA	VED	IER	VED	AL VED	EMOVED	Q	R PLAN	()	ASPHALT COURSE, (T = 1")	NO	N, TYPE C WITH RIC	NRY	MGS	E 1	<sup>-</sup> OR, 65 MPH, 96")	VGLE VPE B	ΈB	ΈF	NOL	IER, PE B	PAVEMENT 8", WHITE	PAVEMENT 5", WHITE	PAVEMENT ', YELLOW	10PLASTIC 3", WHITE	10PLASTIC 8", WHITE	10PLASTIC	CESSED ASPHALT)	CESSED ONCRETE)	NG, ISSA (T= 1")	
REF. SHEET NO. NO.	T STATION	TO STATION	SIDE	NERATE	NIL REMO	TE BARR NOVED	CHOR Y REMO	Y REMO	UATOR F	REMOVE	VT, AS PE	RACKINC K COAT	POL YMER JRFACE ( ER PLAN	GREGATI IPMENT	DTECTIO TILE FAB	TE MASO	IL, TYPE	GE TERM BLY, TYPI	TTENUA1 STIONAL,	3 FOR SI RRIER, TY	DUIT, TYF	UIT, TYF	TRANSI	TE BARR LOPE, TY	E EPOXY JE LINE, 6	E EPOXY 3E LINE, (	E EPOXY E LINE, 6'	THERN EMENT UE LINE, 6	E THERN EMENT SE LINE, (	'E THERN 'EMENT E LINE, 6'	JR 6" RE RKING, (i	DR 6" RE KING, (C	VT PLANI PETE, CLA	
				DD GE	IRDR/	NCRE	AN	RIDGE	ATTEN	NLET .	IKMEN	VON-7 TAC	DED F ETE SU 3, AS P	TI-SE EQU	EL PR(	VCRE	RDRA	: BRID SSEMI	ACTA DIREC	T, NO. PE BAI	CONI	CONI	RIER	NCRE 3LE SI	ECTIVI G, LAN	ECTIVI 3, EDQ		ECTIV PAV G, LAN	ECTIV PAV 3, EDQ	ECTIV PAV FDG	ING Fo	ING Fu T MAR	/EMEI ONCR	
				CAI	<i>GU</i>	CO	ASS	BI ASS	IPACT /		EMBAN		VE GRA ONCRE TYPE E	AA	HANNE GE	COI	GUA	MGS	IMP 3 (UNI	SLOP	15"	15'	BAF	CO' SIN(	r REFLH IARKIN	r REFLE IARKINU	r REFLE ARKING	T REFL IARKIN	T REFL IARKINU	T REFL	SROOV AVEMEI	3ROOV /EMEN	PAI HALT C	
									N N				E E C		ROCK C				TYPE						ME N	WE M	WE1 M	WE	ME	WE		PAN	ASP	
	FROM	<i>TO</i>		SF	FT	FT	EA	EA	EA	EA	CY	GAL	CY	CY	CY	CY	EA	EA	EA	EA	FT	FT	EA	FT	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE)	SY	
ELY-8 P.79	343+52.86	345+28.76	RT																						0.04		0.04				Ę	0.04 2		
LL-15 P.79 LL-16 P.79	343+62.23 343+71.52	345+36.85 345+44.85	RI RT																						0.04						E	0.04 2		
ELW-8 P.79	343+80.75	345+52.14	RT																							0.04					<u>{</u>	0.04 2		
P.79 ELW-9 P.79	344+79.96 344+86.38	348+14.83 347+52.23	8 <i>LT</i> 8 <i>LT</i>	15323.8								154	48	48															0.06	2	{ { { 0.06		1703	HEI 3)
LL-17 P.79	344+95.82 344+85 77	347+70.17	LT												1.33	0.25						67						0.06		)	\$ 0.06			S × O ⊓
	245+04-22	247,00.07														0.20												0.00						AR F 2
<i>ELY-9 P.80</i>	345+04.32 345+12.69	347+86.27 348+02.00	LT																									0.06		0.06	0.06			M M M
R-5         P.80           P.80         P.80	345+20.61 345+21.68	345+61.00 348+88.59	0 <i>LT</i> 0 <i>RT</i>	17683.3		40						177	55	55																	E E		1965	USH S
<i>ELY-10 P.80</i>	345+28.65	348+31.84	RT																											0.06	ζ <i>Σ</i> 0.06			
D-3 P.80	345+30.39 345+68.24	344+85.77	r RT							1										1	74 72										E	3		0)
LL-19 P.80	345+36.85	348+46.93	RT																									0.06			( 0.06			
LL-20 P.80	345+44.85	348+61.79	RT																									0.07			¢ ¢ 0.07			
<i>ELW-10 P.80</i>	345+52.14 347+52.23	348+76.00 356+26.32	$\frac{P}{P} = \frac{R}{LT}$																							0.17			0.07		\sum 0.07	0.17		
LL-21         P.80           BR-2         P.80	347+70.17 347+75.00	356+42.08 357+15.00	8 <i>LT</i> 9 <i>RT</i>																				2	22.9	0.17						<u>}</u>	0.17		
00+01-11 <i>R-6 P.80</i>	347+75.00	348+17.53	? _			43																									8			
<i>LL-22 P.80</i>	347+86.27	356+57.92	$\frac{P}{P} LT$																						0.17		0.17				E	0.17		
D-5 P.80	348	+16.67	RT							1										1	5						0.17				Ę	0.17		
	340+31.04	357+07.00																									0.17							
LL-23 P.80 LL-24 P.80	348+46.93 348+61.79	357+24.30 357+41.45	RT     F   RT																						0.17 0.17						{ { {	0.17		
ELW-12         P.80           R-7         P.82	348+76.20 356+07.08	357+58.55 361+77.43	5 <i>RT</i> 8 <i>LT</i>		576		1	1	1																	0.17					E E	0.17		
GR-3 P.82	356+13.79	361+77.43	B LT								51						547.5	1	1												Ę			
<i>P.82</i>	356+15.80	378+27.54 378+27.54	LT	146856								1469	454	454														f	0.42		6		16317	DESIGN AGENCY
LL-25 P.82	356+42.08	399+15.00																										0.81		3	0.42			
<i>LL-26 P.82</i> <i>ELY-13 P.82</i>	356+57.92	378+27.54 378+27.54	LI LT																									0.42		0.41	¢ 0.42 ¢ 0.41			Michael Bake
<b><i>R-8 P.82</i></b>	356+88.50	357+15.00	) _			20																									<u>}</u>			
P.82       P.82       ELY-14       P.82	356+92.95 357+07.00	378+27.54 378+27.54	RT RT	151239								1513	467	467																( 0.41 -	{ ( 0.41		16804	DESIGNER JTS
LL-27 P.82	357+24.30	378+27.54	RT																									( 0.40	}	- UU	<i>E</i> 0.40			REVIEWER KMD 10/31/2
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<u>STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS</u> REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):
AS-1-15DATED (REVISED)1/20/2023AS-2-15DATED (REVISED)7/21/2023EXJ-2-81DATED (REVISED)7/15/2022EXJ-4-87DATED (REVISED)7/21/2023GSD-1-19DATED (REVISED)1/15/2021PCB-91DATED (REVISED)7/17/2020RB-1-55DATED (REVISED)7/19/2013SBR-1-20DATED (REVISED)7/21/2023
AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:800DATED (REVISED)844DATED (REVISED)848DATED (REVISED)848DATED (REVISED)1/15/2021AND TO THE FOLLOWING PROPOSAL NOTES:PN519DATED (REVISED)7/21/2017
<u>DESIGN SPECIFICATIONS:</u> THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.
<u>OPERATIONAL IMPORTANCE:</u> A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.
<u>DESIGN LOADING</u> VEHICULAR LIVE LOAD: HL-93
<u>DESIGN DATA</u> CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE) REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI STRUCTURAL STEEL - ASTM A709 GRADE (5): YIELD STRENGTH =4 KSI
<u>DECK PROTECTION METHOD:</u> 2" LATEX MODIFIED CONCRETE OVERLAY ON SUPERSTRUCTURE.
EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

<u>SPAN, AS PER PLAN:</u>

THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECK INCLUDING PARAPETS, RAILINGS, JOINTS, AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT THE PROTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED. DRAW THE OUTLINE OF THE PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. IF HAND CHIPPING OR PRESERVATION OF REINFORCING STEEL IS NOT SPECIFIED AT THE LOCATION. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: WHERE HAND CHIPPING IS NOT SPECIFIED. THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISTEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PEROFRMING REPAIR WORK. SUBMIT A PROPOSED REPAIR PLAN. DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN IN ADDITION TO THE PROVISIONS OF ITEM 509. FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO C&MS 709.00.

ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO REMOVE THE EXISTING JOINT SEALER AND REPLACE IN KIND. THE PROPOSED SEALER SHALL BE INSTALLED IN ONE CONTINUOUS STRIP FOR THE ENTIRE LENGTH OF THE BRIDGE JOINT

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# ITEM 202 - PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT

### ITEM 516 - EXPANSION JOINT, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO REMOVE THE EXISTING STRIP SEAL, WELD AND GRIND PLATE EXTENSIONS, AND REPLACE THE STRIP SEAL. ALL MATERIALS AND LABOR REQUIRED TO COMPLETE THE WORK AS DESCRIBED IN THESE PLANS SHALL BE INCLUDED WITH ITEM 516 - EXPANSION JOINT. AS PER PLAN.

#### ITEM 519 - PATCHING CONCRETE STRUCTURE:

REMOVE AND REPAIR CONCRETE AS SHOWN ON THE PLANS PER ITEM 519 AS SPECIFIED IN THE C&MS. AN ADDITIONAL ESTIMATED QUANTITY OF 20 SQ. FT. HAS BEEN PROVIDED AS A CONTINGENCY TO BE DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL PAY FOR THE WORK DESCRIBED IN C&MS 519 UNDER ITEM 519 - PATCHING CONCRETE STRUCTURE (SQ. FT.).

PRIOR TO THE SURFACE CLEANING SPECIFIED IN CM&S 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL. BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED STEEL REINFORCEMENT. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER. ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

#### ITEM 848 - LATEX MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (VARIABLE THICKNESS):

PRIOR TO PLACING PROPOSED OVERLAY. THE PROJECT ENGINEER MUST DOCUMENT THE APPROXIMATE VARIABLE DEPTH LOCATIONS ON THE DECK AND TAKE PICTURES OF THESE LOCATIONS AND OTHER SIGNIFICANT FINDINGS. ADDITIONALLY, DOCUMENT THE AS BUILT OVERLAY THICKNESS AND TOTAL AMOUNT OF VARIABLE DEPTH USED. PROVIDE THIS DOCUMENTATION TO THE ODOT BRIDGE ENGINEER TO BE KEPT ON FILE FOR FUTURE POSSIBLE OVERLAYS.

### SUGGESTED SEQUENCE OF CONSTRUCTION:

SEE STAGED CONSTRUCTION DETAIL SHEETS FOR SUGGESTED SEQUENCE OF CONSTRUCTION.

#### CUT LINE CONSTRUCTION JOINT PREPERATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRETE REINFORCEMENT. IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING STEEL REINFORCEMENT DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

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ABBREVIATIONS:         THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT         THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN         THE SELLOW:         ABUT. = ABUTMENT         ADT = AVERAGE DAILY TRAFFIC         ADTT. = AVERAGE DAILY TRUCK TRAFFIC         ADT = AVERAGE DAILY TRUCK TRAFFIC         APP. = APPROACH         BRGS = BEARINGS         BJ. = BACK FACE         C.J. = CONSTRUCTION JOINT         CLR = CLEAR         CMMS = CONSTRUCTION & MATERIALS SPECIFICATIONS         CONST. = CONSTRUCTION & MATERIALS SPECIFICATIONS         CONST. = CONSTRUCTION         DIA. = DIAMETER         EA = EACH         EF. = EACH FACE         EL. = ELEVATION         EQ. = EOUAL         EX. = EXISTING         F.A. = FORWARD ABUTMENT         FF = FACH FACE         F/F = FACE-TO-FACE         F/F = FACE-TO-FACE         F/F = FACE-TO-FACE         F/F = FACE-TO-FACE         F/F = FACH FACE         F/F = FORWARD         FWS = FUTURE WEARING SURFACE         GRHP = GLASS FIBER REINFORCED POLYMER         HW = HEADWATER         KIPS = KILOPOUNDS         KSE = KIPS PER SQUARE FOOT         KSI = KIPS PER	GENERAL NOTES BRIDGE NO. FRA-670-0018 1-670 OVER I-70
<u>ROCKERS AND BOLSTERS</u>	SFN 2504340
AND BOLSTERS FOR EACH SUPPORT	DESIGN AGENCY
REAR ABUTMENT B-150 FORWARD ABUTMENT R-150	ENGINEERING
	REVIEWER
	RDH 10/31/23 PROJECT ID
	111641 SUBSET TOTAL
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P.98 P.179

<u>ABBREVIATIONS:</u> THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW <sup>;</sup>	ROCKERS AND BOLSTERS         THE FOLLOWING ARE THE MODEL NUMBERS FOR THE ROCKERS         AND BOLSTERS FOR EACH SUPPORT
ABUT. = ABUTMENT	REAR ABUTMENT     B-150       FORWARD ABUTMENT     R-150
ADT = AVERAGE DAILY TRAFFIC ADTT = AVERAGE DAILY TRUCK TRAFFIC	
APP. = APPROACH BRGS. = BEARINGS B.E. = BACK FACE	
BOT. = BOTTOM	
C.J. = CONSTRUCTION JOINT	

ADT = AVERAGE DAILY TRAFFIC ADTT = AVERAGE DAILY TRUCK APP. = APPROACH BRGS. = BEARINGS B.F. = BACK FACE BOT. = BOTTOM C/C = CENTER-TO-CENTER C.J. = CONSTRUCTION JOINT CLR. = CLEAR C&MS = CONSTRUCTION & MATERIALS SPECIFICATIONS CONST. = CONSTRUCTION CY = CUBIC YARD DIA. = DIAMETER EA = EACH E.F. = EACH FACEEL. = ELEVATION EQ. = EQUAL E.S.= EACH SIDE EX. = EXISTING F.A. = FORWARD ABUTMENT FF = FRONT FACE F/F = FACE-TO-FACE F.F. = FAR FACE FWD. = FORWARD FWS = FUTURE WEARING SURFACE GFRP = GLASS FIBER REINFORCED POLYMER HW = HEADWATER KIPS = KILOPOUNDS KSF = KIPS PER SQUARE FOOT KSI = KIPS PER SQUARE INCH LT. = LEFT MAX. = MAXIMUM MIN. = MINIMUM N.F. = NEAR FACE OHWM = ORDINARY HIGH WATER MARK *0/0 = 0UT-T0-0UT PCB = PORTABLE CONCRETE BARRIER* PEJF = PREFORMED EXPANSION JOINT FILLER PROP. = PROPOSED *PSF = POUNDS PER SQUARE FOOT* R.A. = REAR ABUTMENT REQ'D = REQUIRED RT. = RIGHT SER. = SERIES SPA. = SPACES STD. = STANDARD STA. = STATION T/S = TOP OF SLOPE T/T = TOE-TO-TOE TYP. = TYPICAL U.N.O. = UNLESS NOTED OTHERWISE

GENERAL NOTES BRIDGE NO. FRA-670-0021 I-670 OVER MCKINLEY AVENUE
SFN 2504367 DESIGN AGENCY
Michael Baker International Designer Checker JMM PJL
REVIEWER NCK 10/31/23 PROJECT ID 111641 SUBSET TOTAL 3 20 SHEET TOTAL P.117 P.179

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:	ITEM 202 - PORTIONS OF STR
AS-1-15 DATED (REVISED) 1/20/2023	<u>SPAN, AS PER PLAN:</u>
AS-2-15 DATED (REVISED) 7/21/2023	THIS WORK SHALL CONSIST
BR-1-13 DATED(REVISED) $1/17/2014$	DECK INCLUDING PARAPETS
EXJ-2-01 DATED (REVISED) 7/13/2022 FXJ-4-87 DATED (REVISED) 7/21/2023	PROVISIONS OF ITEM 202 AP
GSD-1-19 DATED (REVISED) 1/15/2021	FOLLOWING NOTES. PERFOR
PCB-91 DATED (REVISED) 7/17/2020	DECK REMOVALS TO PROTE
RB-1-55 DATED (REVISED) 7/19/2013	THAT ARE TO BE SALVAGED
SBR-1-20 DATED (REVISED) 7/21/2023	PROPOSED STRUCTURE. TH
VPF-1-90 DATED (REVISED) 7/21/2023	BALLS, AND/OR HOE RAM TY SUBMIT CONSTRUCTION PLA
AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:	
800 DATED (REVISED) 1/21/2022 844 DATED (REVISED) 4/20/2018	CUTTING IS PERMITTED DR
848 DATED (REVISED) 1/15/2021	STEEL MEMBERS IN CONTAC
	THE SURFACE OF THE DECK
ND TO THE FOLLOWING PROPOSAL NOTES:	2 INCHES OUTSIDE THESE LI
PN519 DATED (REVISED) 7/21/2017	FLANGE EDGES. DECK CUTS
	EDGES SHALL NOT EXTEND
	DECK SLAB REINFORCING S
THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "I RED	HAND CHIPPING OR PRESE
BRIDGE DESIGN SPECIFICATIONS" ADOPED BY THE AMERICAN	NOT SPECIFIED AT THE LOC
ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION	DURING CUTTING OF THE DE
OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.	MEMBERS THAT ARE TO BE I
	STRUCTURE. REPLACE OR F
<u>OPERATIONAL IMPORTANCE:</u>	THE DECK SLAB CUTTING O
A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN	PROJECT. AT LEAST 7 DAYS
JE THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRED BRIDGE DESIGN SPECIFICATIONS ARTICLE 135 AND THE ODOT	WUKK, SUBMII A PROPOSEL
BRIDGE DESIGN MANUAL	ENGINEER ORTAIN THE ENG
	PERFORMING REPAIR.
DESIGN LOADING:	
NO EWS INCLUDED	THE CONTRACTOR MAY REA
NOT WS INCLODED	BY MEANS OF HAND OPERA
DESIGN DATA:	EMPLOYING POINTED OR BL
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI	REMOVALS OVER STRUCTU
(SUPERSTRUCTURE)	MAY USE A HAMMER HEAVIE
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI	EXCEED 90 POUNDS UNLES
(SUBSTRUCTURE)	REMOVAL METHODS OVER S
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI	ENSURE ADEQUATE DEPTH
	UR GUUGING THE PRIMARY
<u>2" LATEX MODIFIED CONCRETE OVERIAY ON</u>	MACHINE SCUPPER AND EC
SUPERSTRUCTURE.	STRUCTURAL MEMBERS. PE
	DECK REMOVAL TO AVOID D
EXISTING STRUCTURE VERIFICATION:	THAT ARE TO REMAIN. REPL
DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING	MEMBERS DAMAGED BY THE
TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS	COST TO THE PROJECT. AT
UF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS	REPAIR WORK, SUBMIT A PR
AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE DRODOGED MODK	BY AN UHIU KEGISTERED PH ENGINEER ORTAIN THE ENG
RUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE	PEREORMING REPAIR
THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05. 105.02.	
AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF	<u>ITEM 509 - EPOXY COATED R</u>
THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID	IN ADDITION TO THE PROVIS
EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE	FIELD CUT THE REINFORCIN
DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON	AS NECESSARY, IN ORDER 1
ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN	CLEARANCES AND BAR SPA
THE FIELD.	C&MS 709.00.
	ITEM 516 - ELASTOMERIC ST
	EXTRUSIONS, AS PER PLAN
	EXTRUSIONS, AS PER PLAN THIS ITEM SHALL INCLUDE A
	EXTRUSIONS, AS PER PLAN THIS ITEM SHALL INCLUDE A MATERIALS NECESSARY TO AND REPLACE IN KIND. THF
	EXTRUSIONS, AS PER PLAN THIS ITEM SHALL INCLUDE A MATERIALS NECESSARY TO AND REPLACE IN KIND. THE INSTALLED IN ONE, CONTINU

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### OF STRUCTURE REMOVED OVER 20 FOOT

INSIST OF THE REMOVAL OF CONCRETE RAPETS, RAILINGS, JOINTS, AND OTHER OM STEEL SUPPORTING SYSTEMS. THE 202 APPLY EXCEPT AS SPECIFIED BY THE PERFORM WORK CAREFULLY DURING PROTECT THE PORTIONS OF SUCH SYSTEMS AGED AND INCORPORATED INTO THE JRE. THE USE OF EXPLOSIVES. HEADACHE RAM TYPE OF EQUIPMENT IS PROHIBITED. ON PLANS ACCORDING TO C&MS 501.05.

EL SUPPORT SYSTEMS: BEFORE DECK SLAB ED. DRAW THE OUTLINE OF THE PRIMARY CONTACT WITH THE BOTTOM OF THE DECK ON DECK. DRILL SMALL DIAMETER PILOT HOLES HESE LINES TO CONFIRM THE LOCATION OF CUTS OVER OR WITHIN 2 INCHES OF FLANGE (TEND LOWER THAN THE BOTTOM LAYER OF CING STEEL. CUTS MADE OUTSIDE 2 INCHES OF EXTEND THE FULL DEPTH OF THE DECK. IF RESERVATION OF REINFORCING STEEL IS IE LOCATION. PERFORM WORK CAREFULLY THE DECK TO AVOID DAMAGING STEEL TO BE INCORPORATED INTO THE PROPOSED E OR REPAIR STEEL MEMBERS DAMAGED BY TING OPERATIONS AT NO COST TO THE 7 DAYS BEFORE PERFORMING REPAIR POSED REPAIR PLAN, DEVELOPED BY AN ROFESSIONAL ENGINEER TO THE *IE ENGINEER'S APPROVAL BEFORE* 

WHERE HAND CHIPPING IS NOT SPECIFIED. AY REMOVE CONCRETE BY CUTTING AND DPERATED PNEUMATIC HAMMERS OR BLUNTED CHISTEL TYPE TOOLS. FOR RUCTURAL MEMBERS THE CONTRACTOR IEAVIER THAN 35 POUNDS BUT NOT TO UNLESS APPROVED BY THE ENGINEER. OVER STRUCTURAL MEMBERS SHALL DEPTH CONTROL AND PREVENT NICKING MARY STRUCTURAL MEMBERS. DUE TO ENCE OF ATTACHMENTS (E.G., FINISHING AND FORM SUPPORTS. ETC.) TO EXISTING RS. PERFORM WORK CAREFULLY DURING VOID DAMAGING STRUCTURAL MEMBERS REPLACE OR REPAIR STRUCTURAL BY THE REMOVAL OPERATIONS AT NO CT. AT LEAST 7 DAYS BEFORE PEROFRMING IT A PROPOSED REPAIR PLAN. DEVELOPED RED PROFESSIONAL ENGINEER TO THE HE ENGINEER'S APPROVAL BEFORE

ATED REINFORCING STEEL, AS PER PLAN: PROVISIONS OF ITEM 509, FIELD BEND AND/OR ORCING STEEL DESIGNATED IN THE PLANS, RDER TO MAINTAIN THE REQUIRED AR SPACINGS. REPAIR ALL DAMAGE TO THE RESULT OF THIS WORK, ACCORDING TO

# RIC STRIP STEAL WITHOUT STEEL

LUDE ALL LABOR, EQUIPMENT, AND RY TO REMOVE THE EXISTING JOINT SEALER ). THE PROPOSED SEALER SHALL BE ONTINUOUS STRIP FOR THE ENTIRE LENGTH

ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN: THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514. REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (C&MS 711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60° F, LUBRICATING SLIDING SURFACES. AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES. AS PER PLAN.

A QUANTITY OF 5 EACH HAS BEEN PROVIDED AS A CONTINGENCY TO BE DIRECTED BY THE ENGINEER.

### <u>ITEM 516 - RESET BEARING DEVICES, AS PER PLAN:</u>

FOLLOW THE PROVISIONS OF C&MS ITEM 516 EXCEPT THE CONTRACTOR SHALL FIELD VERIFY THE TILT OF ALL EXPANSION BEARINGS. IF A BEARING IS MEASURED TO BE BEYOND RECALL, DEFINED AS TITLED BEYOND 15 DEGREES. THE BEARING SHALL BE REFURBISHED. ADDITIONAL BEARING REFURBISHMENTS SHALL BE PAID FOR AT THE UNIT PRICE RATE FOR ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN.

ITEM 516 - STRUCTURAL STEEL EXPANSION JOINT, AS PER PLAN: THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO REMOVE THE EXISTING JOINT, WELD AND GRIND PLATE EXTENSIONS, AND REPLACE THE STRIP SEAL. ALL MATERIALS AND LABOR REQUIRED TO COMPLETE THE WORK AS DESCRIBED IN THESE PLANS SHALL BE INCLUDED WITH ITEM 516 - STRUCTURAL STEEL EXPANSION JOINT, AS PER PLAN.

ITEM 519 - SPECIAL - COMPOSITE FIBER WRAP SYSTEM: THERE MUST BE A MINIMUM OF 30 DAYS CURE TIME AFTER COMPLETION OF PATCHING WORK ON PIER COLUMNS PRIOR TO COMMENCING FIBER WRAPPING WORK! REFER TO PROPOSAL NOTE 519 FOR ITEM SPECIFICATIONS NOT GIVEN HEREIN.

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ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN: REMOVE AND REPAIR CONCRETE AS SHOWN ON THE PLANS PER ITEM 519 AS SPECIFIED IN THE C&MS. AN ADDITIONAL ESTIMATED QUANTITY OF 960 SQ. FT. HAS BEEN PROVIDED AS A CONTINGENCY TO BE DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL PAY FOR THE WORK DESCRIBED IN C&MS 519 UNDER ITEM 519 - PATCHING CONCRETE STRUCTURE (SQ. FT.).

PRIOR TO SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN (CONT.): THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AN ACCESS PLAN TO PERFORM THE REPAIRS, WHICH SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AT LEAST 14 DAYS PRIOR TO WORK COMMENCING, AT NO TIME SHALL THE CONTRACTOR ENCROACH ON THE RAILROAD RIGHT-OF-WAY. THE COSTS ASSOCIATED WITH DEVELOPING THIS ACCESS PLAN, FURNISHING AND INSTALLING EQUIPMENT, MATERIALS, ALL LABOR, AND ANY OTHER NECCESSARY WORK SHALL BE INCLUDED FOR PAYMENT WITH ITEM 519 - PATCHING CONCRETE STRUCTURES.	370
SUPERSTRUCTURE, AS PER PLAN: THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARINGPADS (C&MS 711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60° F, LUBRICATING SLIDINGSURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE"FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OFREFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTIONOF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516- REFURBISH BEARING DEVICES, AS PER PLAN. LOADD	GENERAL NOTES BRIDGE NO. FRA-670-0031 CSXT, SCIOTO RIVER, EB RAMP TO I-
LOADS: 56 KIP DEAD LOAD AT ABUTMENTS 177 LIVE LOAD AT ABUTMENTS 217 KIP DEAD LOAD AT PIERS 322 KIP LIVE LOAD AT PIERS 43 KIP DEAD LOAD AT PIERS 43 KIP DEAD LOAD AT HINGE NO JACKING UNDER LIVE LOAD AT HINGE ALLOWED THE BRIDGE WILL BE CARRYING LIVE LOAD DURING JACKING OPERATIONS, EXCEPT AT THE HINGE. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, IF CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPERATION OF THE CONCRETE DECK FROM BEAMS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION	I-670 OVER
OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPERATE IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP BASIS. THE DEPARTMENT	SFN 2504375 DESIGN AGENCY Michael Baker
WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.	DESIGNER CHECKER AJE PJL REVIEWER NCK 10/31/23 PROJECT ID 111641

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TOTAL

ITEM 848 - LATEX MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (VARIABLE THICKNESS MATERIAL ONLY): PRIOR TO PLACING PROPOSED OVERLAY, THE PROJECT ENGINEER MUST DOCUMENT THE APPROXIMATE VARIABLE DEPTH LOCATIONS ON THE DECK AND TAKE PICTURES OF THESE LOCATIONS AND OTHER SIGNIFICANT FINDINGS. ADDITIONALLY, DOCUMENT THE AS BUILT OVERLAY THICKNESS AND TOTAL AMOUNT OF VARIABLE DEPTH USED. PROVIDE THIS DOCUMENTATION TO THE ODOT BRIDGE ENGINEER TO BE KEPT ON FILE FOR FUTURE POSSIBLE OVERLAYS. **CONSTRUCTION CLEARANCE:** MAINTAIN A CONSTRUCTION CLEARANCE OF \* FEET HORIZONTALLY FROM THE CENTER OF THE TRACKS AND \* FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL AND \* FEET FROM THE CENTER OF THE TRACKS. AT ALL TIMES. SUGGESTED SEQUENCE OF CONSTRUCTION:

SEE STAGED CONSTRUCTION DETAIL SHEETS FOR SUGGESTED SEQUENCE OF CONSTRUCTION.

# ABBREVIATIONS:

THE FOLLOWING ABBREVIAT THESE PLANS TO INDICATE THE LEGEND BELOW:

ABUT. = ABUTMENT ADT = AVERAGE DAILY TRAF ADTT = AVERAGE DAILY TRU APP. = APPROACH BRGS. = BEARINGS B.F. = BACK FACE BOT. = BOTTOM C/C = CENTER-TO-CENTERC.J. = CONSTRUCTION JOINCLR. = CLEAR C&MS = CONSTRUCTION & MATERIALS SPECIFICATIONS CONST. = CONSTRUCTION CY = CUBIC YARD DIA. = DIAMETER EA = EACH E.F. = EACH FACE EL. = ELEVATION EQ. = EQUAL EX. = EXISTING F.A. = FORWARD ABUTMENT FF = FRONT FACE F/F = FACE-TO-FACEF.F. = FAR FACE FWD. = FORWARD FWS = FUTURE WEARING SURFACE GFRP = GLASS FIBER REINFORCED POLYMER HW = HEADWATER KIPS = KILOPOUNDS KSF = KIPS PER SQUARE FOOT KSI = KIPS PER SQUARE INCH LT. = LEFT MAX. = MAXIMUMMIN. = MINIMUMN.F. = NEAR FACE OHWM = ORDINARY HIGH WATER MARK 0/0 = *OUT-TO-OUT* PCB = PORTABLE CONCRETE BARRIER PEJF = PREFORMED EXPANSION JOINT FILLER PROP. = PROPOSED PSF = POUNDS PER SQUARE FOOT R.A. = REAR ABUTMENT REQ'D = REQUIRED RT. = RIGHT SER. = SERIES SPA. = SPACES STD. = STANDARD STA. = STATION T/S = TOP OF SLOPET/T = TOE-TO-TOE

TYP. = TYPICAL





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	GENERAL NOTES BRIDGE NO. FRA-670-0031 I-670 OVER CSXT, SCIOTO RIVER, EB RAMP TO I-670
00.07/	SFN 2504375 DESIGN AGENCY
— STA. 356+61.56	Michael Baker
€BRG F.A.	DESIGNER CHECKER AJE PJL REVIEWER NCK 10/31/23 PROJECT ID 111641 SUBSET TOTAL 5 45 SHEET TOTAL P.139 P.179

