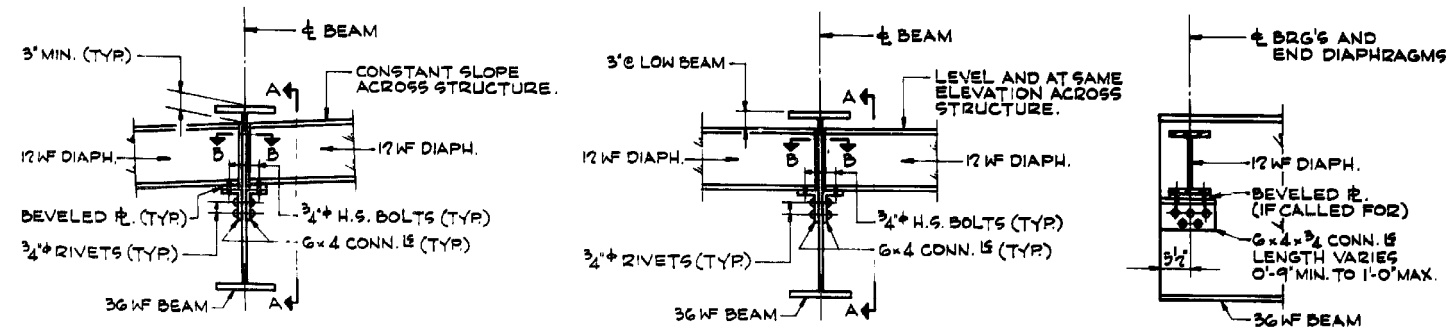


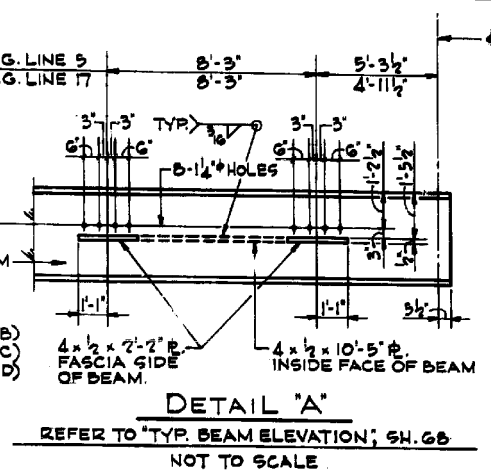
FIELD SPLICE DETAILS - UNIT 'E'
FOR SPLICE TYPE LOCATION SEE 'FRAMING PLAN - UNIT 'E'', SH. 71
SCALE: 3/4" = 1'-0"



DETAILS OF END DIAPHRAGMS - FOR ALL UNITS
SEAT ANGLES MAY BE SHOP CONNECTED WITH 3/4" H.S. BOLTS OR 1/4" C.F.W. IN LIEU OF 3/4" RIVETS
FOR DIAPHRAGM LOCATIONS, SEE FRAMING PLANS
FOR INTERMEDIATE DIAPHRAGM DETAILS, SEE SH. 74
SCALE: 3/4" = 1'-0"

NOTE:
FOR LOCATION OF HOLES TO BE PROVIDED IN END DIAPHRAGMS @ PIERS 16 & 35 FOR FINGER PL. STOODS, SEE SH. 84 & 85.

DE LEW, CATHER & CO. ENGINEERS
DESIGNED BY T. BRUNOVSKI
DRAWN BY J. A. CHALIKIS
CHECKED BY W. P. KESSLER
IN CHARGE E. S. MARTINS
APPROVED L. N. RIAN



PROPERTIES - UNIT 'E' - 5 SPAN CONTINUOUS INTERIOR BEAMS

SPAN	11-12 @ 30-31	30-31	15-16	15-16	15-16	15-16
STRINGER LINE	57 THRU 64	65, 66, 67	67, 68	69, 60, 61	62 THRU 69	66, 67
STEEL SECTION						
I _s	11940	12326	13237	12700	11940	10470
S _{ts}	607	613	628	619	607	579
S _{bc}	706	742	829	777	706	579
COMPOSITE SECTION						
I _c	26030	27099	29696	28191	26030	22140
S _{tc}	17243	17535	18199	17811	17243	16067
S _{bc}	930	975	1091	1022	930	767

TABLE OF MOMENTS AND REACTIONS - UNIT 'E' - 5 SPAN CONTINUOUS INTERIOR BEAMS

	MOMENTS*												REACTIONS*					
	4 SPAN 11-12 @ 30-31	PIER 12 PIER 31	5 SPAN 12-13 @ 31-32	PIER 13 PIER 32	5 SPAN 13-14 @ 32-33	PIER 14 PIER 33	5 SPAN 14-15 @ 33-34	PIER 15 PIER 34	6 SPAN 15-16 @ 34-35	PIER 11 PIER 30	PIER 12 PIER 31	PIER 13 PIER 32	PIER 14 PIER 33	PIER 15 PIER 34	PIER 16 PIER 35			
STRINGER LINE 57, 58	D.L.	371	337	151	-422	228	-380	105	-700	550	76.0	74.6	63.1	61.8	55.5			
	S.D.L.	83	-94	36	-87	42	-81	30	-110	112	5.3	14.4	13.1	12.6	13.6			
	L.L.	636	-440	442	-452	451	-449	439	-501	745	41.4	56.5	55.3	55.1	59.6			
	IMP.	157	-109	108	-112	112	-111	109	-125	189	10.2	14.0	13.6	13.6	15.3			
	TOTAL COMPOSITE	878								1107								
	TOTAL STEEL	391	-1180	737	-1073	833	-1021	683	-1455	550	82.9	139.5	147.1	143.1	178.4			
STRINGER LINE 59, 60, 61	D.L.	391	-357	151	-422	228	-380	105	-670	550	76.0	74.6	63.1	61.8	55.5			
	S.D.L.	83	-94	36	-87	42	-81	30	-110	110	5.3	14.4	13.1	12.6	13.6			
	L.L.	636	-440	442	-452	451	-449	439	-501	745	41.4	56.5	55.3	55.1	59.6			
	IMP.	157	-109	108	-112	112	-111	109	-121	175	10.2	14.0	13.6	13.6	14.3			
	TOTAL COMPOSITE	878								1030								
	TOTAL STEEL	391	-1180	737	-1073	833	-1021	683	-1402	516	82.9	139.5	147.1	143.1	171.6			
STRINGER LINE 62	D.L.	385	-563	147	-414	222	-414	147	-588	410	23.7	75.3	64.1	64.1	77.4			
	S.D.L.	85	-97	35	-85	41	-85	35	-99	86	5.3	14.5	12.9	12.9	14.7			
	L.L.	634	-455	438	-447	451	-447	438	-462	661	41.4	56.9	55.1	55.1	57.4			
	IMP.	156	-112	107	-111	111	-111	107	-114	183	10.2	14.0	13.6	13.6	14.0			
	TOTAL COMPOSITE	875								910								
	TOTAL STEEL	385	-1227	727	-1057	825	-1057	727	-1263	410	82.6	160.7	145.7	145.7	163.9			
STRINGER LINE 63, 64	D.L.	385	-563	147	-414	222	-414	147	-563	385	23.7	75.3	64.1	64.1	75.3			
	S.D.L.	85	-97	35	-85	41	-85	35	-97	85	5.3	14.5	12.9	12.9	14.5			
	L.L.	634	-455	438	-447	451	-447	438	-455	634	41.4	56.9	55.1	55.1	56.9			
	IMP.	156	-112	107	-111	111	-111	107	-112	156	10.2	14.0	13.6	13.6	14.0			
	TOTAL COMPOSITE	875								873								
	TOTAL STEEL	385	-1227	727	-1057	825	-1057	727	-1227	385	82.6	160.7	145.7	145.7	160.7			
STRINGER LINE 65	D.L.	440	-633	161	-426	227	-432	157	-502	328	29.3	84.3	67.2	65.3	73.3			
	S.D.L.	82	-97	36	-83	41	-87	36	-93	76	5.3	14.5	12.9	13.0	14.5			
	L.L.	760	-524	508	-480	475	-464	436	-423	565	31.1	66.2	60.1	56.6	56.9			
	IMP.	188	-129	126	-119	117	-114	108	-105	140	12.6	16.7	14.9	14.1	13.3			
	TOTAL COMPOSITE	1030								873								
	TOTAL STEEL	440	-1383	831	-1108	860	-1097	737	-1227	328	98.3	181.7	155.1	149.0	160.7			
STRINGER LINE 66, 67	D.L.	440	-633	161	-426	227	-432	157	-502	328	29.3	84.3	67.2	65.3	73.3			
	S.D.L.	82	-97	36	-83	41	-87	36	-93	76	5.3	14.5	12.9	13.0	14.5			
	L.L.	760	-524	508	-480	475	-464	436	-423	565	31.1	66.2	60.1	56.6	56.9			
	IMP.	188	-129	126	-119	117	-114	108	-105	140	12.6	16.7	14.9	14.1	13.3			
	TOTAL COMPOSITE	1030								781								
	TOTAL STEEL	440	-1383	831	-1108	860	-1097	737	-1123	328	98.3	181.7	155.1	149.0	151.4			

* MOMENTS ARE IN FT.-KIPS.
REACTIONS ARE IN KIPS.
FOR MEANING OF SYMBOLS USED IN TABLES OF MOMENTS, REACTIONS & PROPERTIES SEE LEGEND, SH. 70.

NOTE:
FOR BILL OF MATERIAL SEE SH. 63, 68, 69 & 71.

ILLINOIS DIVISION OF HIGHWAYS
SOUTHWEST EXPRESSWAY
LAWDALE AVE. VIADUCT
MISCELLANEOUS STEEL DETAILS AND TABLES
SCALE: AS NOTED DATE: 11-25-63

FILE NAME =	USER NAME = tjenicke	DESIGNED - FSM	REVISED -
		CHECKED - RMM	REVISED -
		DRAWN - FSM	REVISED -
		CHECKED - RMM	REVISED -
PLOT DATE = 12/28/2013			

FOR INFORMATION ONLY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-038B-R	COOK	821	481
			CONTRACT NO. 60J16	
ILLINOIS FED. AID PROJECT				

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