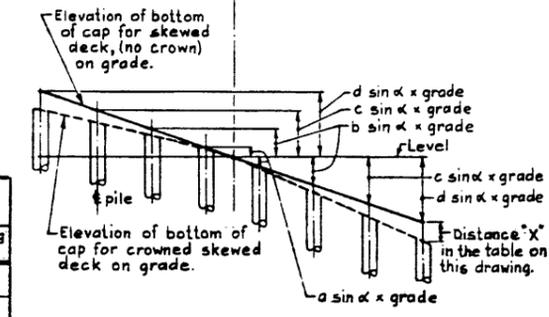
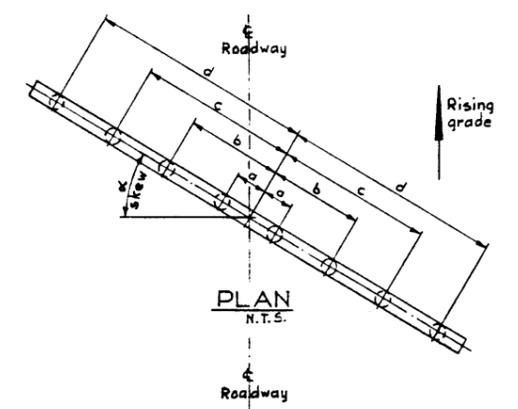


CAP SPLICE DETAIL
Crowned roadway with odd number of piles
N.T.S.

CAP SPLICE DETAIL
Crowned roadway with even number of piles
N.T.S.



NOTE:
Pile cutoffs for skewed crowned roadways on grade to be office designed. See drawings: 5-821, 5-822, 5-823, 5-824.

SKewed CROWNED RDWY. ON GRADE

Clear Roadway	Skew	Cap length	Dim. X	20' Span Abutment			28' Span Abutment			33' Span Abutment			38' Span Abutment			20'-20' Span Pier			20'-28' Span Pier			28'-28' Span Pier			28'-33' Span Pier			33'-33' Span Pier		
				No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths	No. of Piles	Pile spacing	Sheeting lengths
21'	0°	24'	2 1/2'	5	5'-3"	1e12, 1e22	5	5'-3"	1e12, 1e22	6	4'-2 1/2"	1e14, 1e20	6	4'-2 1/2"	1e14, 1e20	6	4'-2 1/2"	1e12, 1e18	6	4'-2 1/2"	1e12, 1e18	7	3'-6"	1e22	7	3'-6"	1e22	7	3'-6"	1e22
	15°	26'	2 1/2'	5	5'-5 1/4"	2e18	5	5'-5 1/4"	2e18	6	4'-4"	1e12, 1e22	6	4'-4"	1e12, 1e22	6	4'-4"	1e14, 1e20	6	4'-4"	1e14, 1e20	7	3'-7 1/2"	2e12	7	3'-7 1/2"	2e12	7	3'-7 1/2"	2e12
	30°	29'	2 1/2'	5	6'-0 1/2"	2e18	5	6'-0 1/2"	2e18	6	4'-10 1/4"	1e22, 1e16	6	4'-10 1/4"	1e22, 1e16	6	4'-10 1/4"	1e14, 1e20	6	4'-10 1/4"	1e14, 1e20	7	4'-0 1/2"	2e14	7	4'-0 1/2"	2e14	7	4'-0 1/2"	2e14
	45°	36'	2 1/2'	5	7'-5 1/2"	2e22	5	7'-5 1/2"	2e22	6	5'-11 1/4"	2e18, 1e18	6	5'-11 1/4"	2e18, 1e18	6	5'-11 1/4"	2e14, 1e18	6	5'-11 1/4"	2e14, 1e18	7	4'-11 1/2"	2e18	7	4'-11 1/2"	2e18	7	4'-11 1/2"	2e18
24'	0°	27'	3'	5	6'-0"	3e12	6	4'-9 3/4"	1e16, 1e22	7	4'-0"	1e14, 1e16	7	4'-0"	1e14, 1e16	6	4'-9 3/4"	1e20, 1e16	7	4'-0"	2e14	8	3'-5 1/2"	1e12, 1e16	8	3'-5 1/2"	1e12, 1e16	8	3'-5 1/2"	1e12, 1e16
	15°	29'	3'	5	6'-2 1/4"	1e12, 1e14	6	4'-11 1/2"	1e16, 1e22	7	4'-1 1/4"	2e18	7	4'-1 1/4"	2e18	6	4'-11 1/2"	1e16, 1e12	7	4'-1 1/4"	2e14	8	3'-6 3/4"	1e12, 1e16	8	3'-6 3/4"	1e12, 1e16	8	3'-6 3/4"	1e12, 1e16
	30°	32'	3'	5	6'-11 1/2"	2e20	6	6'-6 1/2"	1e18, 1e14	7	4'-7 1/2"	2e20	7	4'-7 1/2"	2e20	6	5'-6 1/2"	1e18, 1e12	7	4'-7 1/2"	2e16	8	3'-11 1/2"	1e18, 1e12	8	3'-11 1/2"	1e18, 1e12	8	3'-11 1/2"	1e18, 1e12
	45°	40'	3'	5	8'-5 1/4"	1e16, 1e18	6	6'-9 1/4"	1e20, 1e14	7	5'-7 1/2"	1e18, 1e12	7	5'-7 1/2"	1e18, 1e12	6	6'-9 1/4"	1e22, 1e16	7	5'-7 1/2"	3e12	8	4'-10 1/2"	1e16, 1e20	8	4'-10 1/2"	1e16, 1e20	8	4'-10 1/2"	1e16, 1e20
27'	0°	30'	3 1/2'	6	5'-4 1/4"	1e12, 1e18	7	4'-6"	2e20	7	4'-6"	2e20	8	3'-10 1/4"	1e14, 1e16	7	4'-6"	2e14	8	3'-10 1/4"	1e14, 1e16	8	3'-10 1/4"	1e14, 1e16	9	3'-4 1/2"	2e14	9	3'-4 1/2"	2e14
	15°	32'	3 1/2'	6	5'-7 1/4"	1e12, 1e18	7	4'-7 1/2"	2e20	7	4'-7 1/2"	2e20	8	3'-11 1/2"	1e18, 1e22	7	4'-7 1/2"	2e16	8	3'-11 1/2"	1e14, 1e18	8	3'-11 1/2"	1e14, 1e18	9	3'-5 1/2"	2e16	9	3'-5 1/2"	2e16
	30°	36'	3 1/2'	6	6'-2 1/4"	1e12, 1e20	7	5'-2 1/2"	2e22	7	5'-2 1/2"	2e22	8	4'-5 1/2"	1e14, 1e20	7	5'-2 1/2"	2e18	8	4'-5 1/2"	1e14, 1e20	8	4'-5 1/2"	1e14, 1e20	9	3'-7 1/2"	2e18	9	3'-7 1/2"	2e18
	45°	44'	3 1/2'	6	7'-7 1/2"	1e22, 1e16	7	6'-4 1/2"	1e20, 1e12	7	6'-4 1/2"	1e20, 1e12	8	5'-5 1/2"	1e12, 1e20	7	6'-4 1/2"	3e14	8	5'-5 1/2"	1e12, 1e18	8	5'-5 1/2"	1e12, 1e18	9	4'-9 1/4"	2e20	9	4'-9 1/4"	2e20
30'	0°	33'	3 1/2'	6	6'-0"	1e12, 1e18	7	5'-0"	2e22	8	4'-3 1/2"	1e14, 1e14	8	4'-3 1/2"	1e14, 1e14	8	4'-3 1/2"	1e14, 1e18	8	4'-3 1/2"	1e14, 1e18	9	3'-9"	2e16	9	3'-9"	2e16	10	3'-4"	
	15°	35'	3 1/2'	6	6'-2 1/4"	1e12, 1e20	7	5'-2 1/2"	2e22	8	4'-5 1/4"	1e14, 1e14	8	4'-5 1/4"	1e14, 1e14	8	4'-5 1/4"	1e14, 1e20	8	4'-5 1/4"	1e14, 1e20	9	3'-10 1/4"	2e18	9	3'-10 1/4"	2e18	10	3'-5 1/4"	
	30°	39'	3 1/2'	6	6'-11 1/2"	1e20, 1e14	7	5'-9 1/4"	2e18, 1e12	8	4'-11 1/2"	3e16	8	4'-11 1/2"	3e16	8	4'-11 1/2"	1e16, 1e22	8	4'-11 1/2"	1e16, 1e22	9	4'-3 1/2"	1e18, 1e20	9	4'-3 1/2"	1e18, 1e20	10	3'-10 1/4"	
	45°	48'	3 1/2'	6	8'-5 1/4"	1e16, 1e18	7	7'-0 1/2"	1e20, 1e14	8	6'-0 1/2"	3e18	8	6'-0 1/2"	3e18	8	6'-0 1/2"	2e14, 1e18	8	6'-0 1/2"	2e14, 1e18	9	5'-3 1/2"	1e12, 1e22	10	4'-8 1/2"				
33'	0°	36'	4'	7	5'-6"	1e18, 1e12	8	4'-8 1/4"	3e16	9	4'-1 1/2"	1e12, 1e18	10	3'-8"	1e18, 1e12	8	4'-8 1/4"	1e20, 1e16	9	4'-1 1/2"	2e18	10	3'-8"	1e20, 1e16	10	3'-8"	1e20, 1e16	11	3'-3 1/2"	2e18
	15°	38'	4'	7	5'-8 1/2"	1e18, 1e12	8	4'-10 1/2"	1e12, 1e16	9	4'-3 1/2"	1e18, 1e12	10	3'-9 1/2"	1e18, 1e12	8	4'-10 1/2"	1e20, 1e16	9	4'-3 1/2"	2e18	10	3'-9 1/2"	1e20, 1e16	11	3'-4 1/2"	2e18			
	30°	43'	4'	7	6'-4 1/4"	1e20, 1e14	8	5'-5 1/4"	3e18	9	4'-9 1/4"	1e14, 1e20	10	4'-2 1/2"	1e16, 1e22	8	5'-5 1/4"	1e22, 1e18	9	4'-9 1/4"	2e20	10	4'-2 1/2"	1e22, 1e18	11	3'-9 1/4"	2e20			
	45°	53'	4'	7	7'-9 1/2"	1e22, 1e16	8	6'-8"	3e20	9	5'-10"	1e14, 1e20	10	5'-2 1/4"	2e12, 1e16	8	6'-8"	1e14, 1e20	9	5'-10"	1e14, 1e20	10	5'-2 1/4"	3e16	11	4'-8"	1e20, 1e14			
36'	0°	40'	4 1/2'	7	6'-0"	1e18, 1e12	8	5'-1 1/4"	3e16	9	4'-6"	1e14, 1e18	11	3'-7 1/4"	1e14, 1e22	9	4'-6"	2e18	10	4'-6"	1e18, 1e20	11	3'-7 1/4"	2e20	11	3'-7 1/4"	2e20			
	15°	41'	4 1/2'	7	6'-2 1/4"	1e12, 1e14	8	5'-3 1/2"	1e18, 1e16	9	4'-7 1/2"	1e12, 1e16	11	3'-8 1/4"	1e18, 1e16	9	4'-7 1/2"	2e20	10	4'-7 1/2"	1e18, 1e22	11	3'-8 1/4"	2e20	11	3'-8 1/4"	2e20			
	30°	46'	4 1/2'	7	6'-11 1/2"	1e20, 1e14	8	5'-11 1/4"	3e18	9	5'-2 1/2"	1e18, 1e20	11	4'-1 1/2"	4e14	9	5'-2 1/2"	2e22	10	4'-7 1/2"	1e14, 1e14	11	4'-1 1/2"	2e22	11	4'-1 1/2"	2e22			
	45°	57'	4 1/2'	7	8'-5 1/4"	1e16, 1e18	8	7'-3 1/4"	3e22	9	6'-4 1/2"	1e14, 1e20	11	5'-1 1/4"	4e16	9	6'-4 1/2"	1e20, 1e14	10	5'-7 1/2"	3e18	11	5'-1 1/4"	1e12, 1e16	11	5'-1 1/4"	1e12, 1e16			
42'	0°	46'	5 1/4'	8	6'-0"	3e18	9	5'-3"	1e12, 1e16	10	4'-8"	1e20, 1e14	11	4'-2 1/2"	2e12, 1e22	10	4'-8"	1e14, 1e14	11	4'-2 1/2"	2e22	12	3'-9 1/2"	1e16, 1e12	12	3'-9 1/2"	1e14, 1e12			
	15°	48'	5 1/4'	8	6'-2 1/4"	3e20	9	5'-5 1/4"	1e18, 1e22	10	4'-10"	1e22, 1e14	11	4'-4 1/2"	1e18, 1e20	10	4'-10"	3e16	11	4'-4 1/2"	1e14, 1e18	12	3'-11 1/4"	1e18, 1e12	13	3'-7 1/2"	1e18, 1e22			
	30°	53'	5 1/4'	8	6'-11 1/2"	1e20, 1e22	9	6'-0 1/2"	3e12	10	5'-4 1/4"	1e12, 1e16	11	4'-10 1/4"	1e22, 1e20	10	5'-4 1/4"	1e18, 1e16	11	4'-10 1/4"	3e16	12	4'-4 1/2"	1e14, 1e22	13	4'-0 1/2"	3e18			
	45°	66'	5 1/4'	8	8'-5 1/4"	1e16, 1e18	9	7'-5 1/2"	1e22, 1e16	10	6'-7 1/2"	2e20, 1e14	11	5'-11 1/4"	4e16	10	6'-7 1/2"	1e14, 1e20	11	5'-11 1/4"	1e14, 1e20	12	5'-4 1/2"	1e14, 1e20	13	4'-11 1/2"	1e22, 1e20			
45'	0°	48'	5 3/8'	9	5'-7 1/2"	1e12, 1e18	10	5'-0"	2e12, 1e20	11	4'-6"	1e20, 1e18	12	4'-1 1/4"	1e18, 1e22	11	4'-6"	1e20, 1e18	12	4'-1 1/4"	1e18, 1e14	13	3'-9"	3e16	13	3'-9"	3e16			
	15°	50'	5 3/8'	9	5'-9 1/2"	1e12, 1e18	10	5'-2 1/2"	1e22, 1e16	11	4'-7 1/2"	1e14, 1e14	12	4'-2 1/2"	1e14, 1e20	11	4'-7 1/2"	1e16, 1e20	12	4'-2 1/2"	1e14, 1e22	13	3'-10 1/4"	1e18, 1e16	14	3'-7"	1e18, 1e16			
	30°	56'	5 3/8'	9	6'-5 1/2"	1e14, 1e20	10	5'-9 1/4"	2e18, 1e12	11	5'-2 1/2"	1e22, 1e16	12	4'-8 1/4"	1e12, 1e20	11	5'-2 1/2"	1e12, 1e20	12	4'-8 1/4"	1e20, 1e14	13	4'-3 1/2"	4e14	14	3'-11 1/2"	1e22, 1e12			
	45°	70'	5 3/8'	9	7'-11 1/4"	1e22, 1e16	10	7'-0 1/2"	1e20, 1e22	11	6'-4 1/2"	1e12, 1e16	12	5'-9 1/4"	4e16	11	6'-4 1/2"	1e14, 1e20	12	5'-9 1/4"	1e14, 1e20	13	5'-3 1/2"	3e22	14	4'-10 1/4"	2e16, 1e20			

GENERAL NOTES

- Pile spacing design based on type 'HC' precast concrete stringers.
- Pile spacing dimensions given in the table to be measured along cap.
- A 12"x12" cap may be used for a 20' abutment span with a 21' clear roadway. A 12"x14" cap is used in all other cases.
- For square spans the pile cut offs in 0° skew table are applicable to any grade.
- Cap splice on uncrowned bridges is to be over any two piles.

**SUBSTRUCTURE LAYOUT
STANDARD PRECAST SPANS**

NO.	DATE	DESCRIPTION	BY
1	March 24/77	33' clear roadway added	T.S.
REVISIONS			

GOVERNMENT OF THE PROVINCE OF ALBERTA
DEPARTMENT OF HIGHWAYS
BRIDGE BRANCH, EDMONTON

FILE NO. _____ HWY. NO. _____ SHEET NO. _____
LOCATION _____ SCALE _____ 5-862-70
STREAM _____ SHEET OF _____

DESIGNED BY R. P. Parish
CHECKED BY R. Chwist
DATE June 19 54
DATE February 19 56