

DESIGNED BY R. W. KORNELSEN DATE Oct. 1972
 CHECKED BY P. F. COLE DATE Oct. 1972
 CHECKED BY H. H. HARRIS DATE Dec. 1970

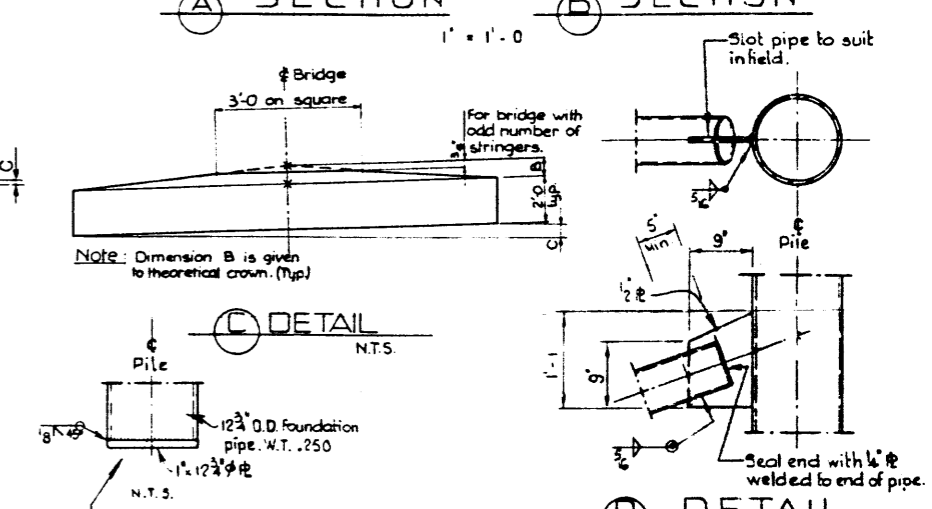
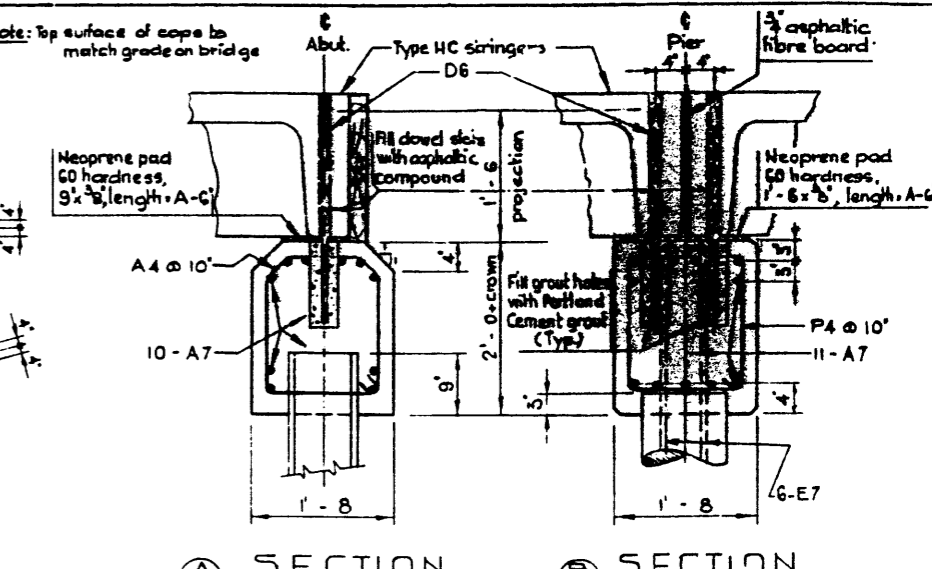
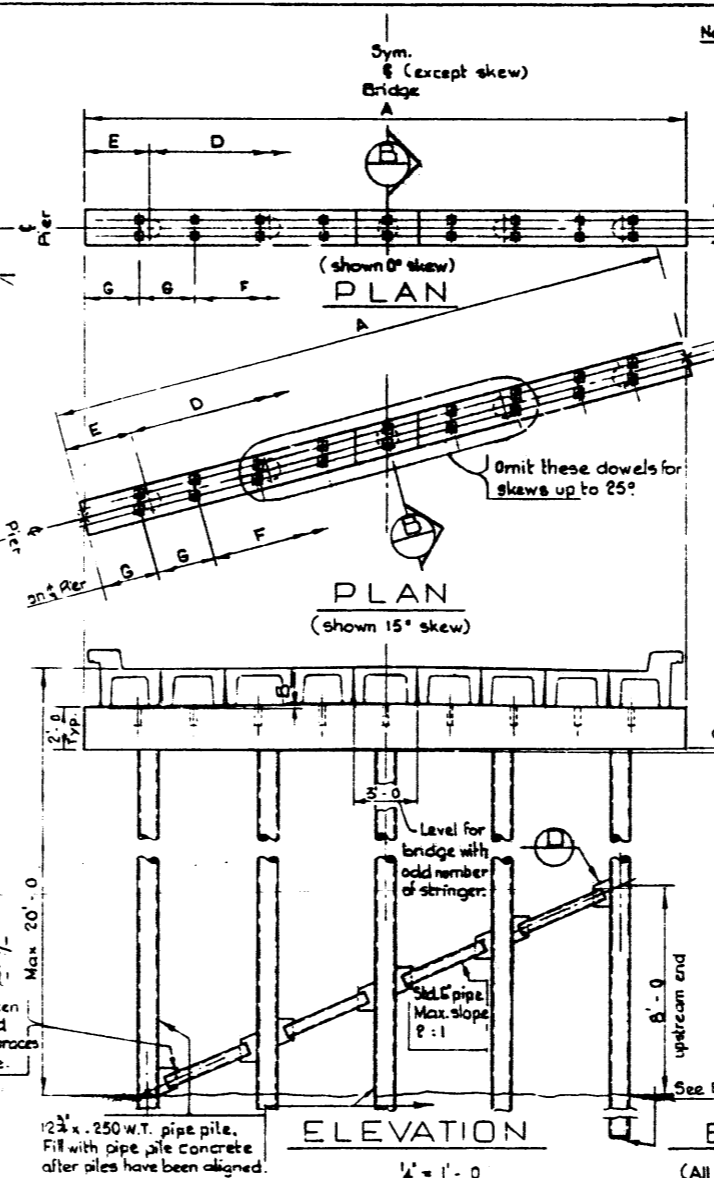
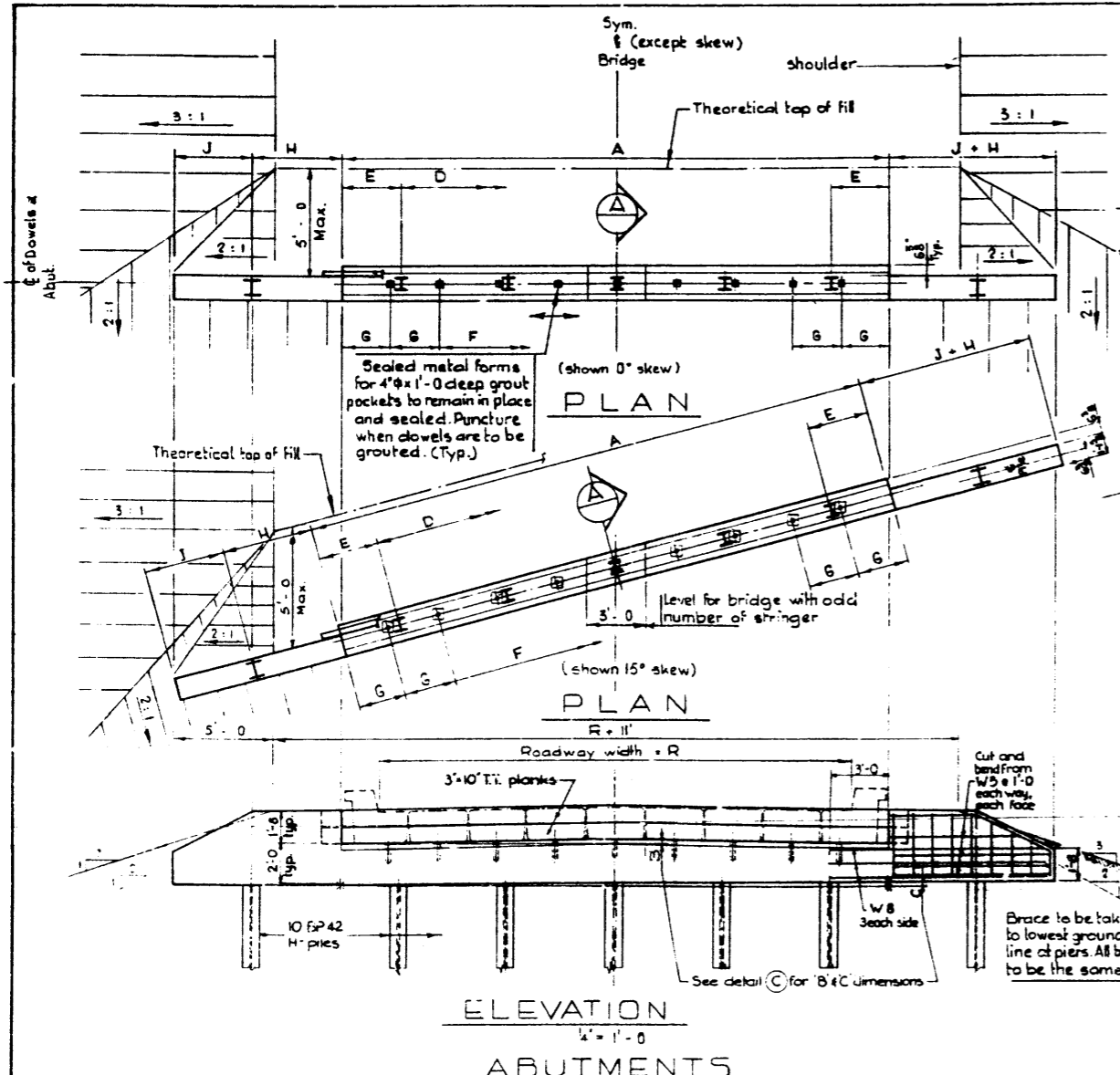


TABLE OF DIMENSIONS AND REINFORCEMENT

	Skew	24' ROADWAY				27' ROADWAY				30' ROADWAY				33' ROADWAY				
		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	
General																		
Overall Length	A	28'-0"	28'-11 3/4"	32'-4"	39'-7 1/8"	31'-0"	32'-1"	35'-9 1/2"	43'-10 1/8"	34'-0"	35'-2 1/4"	39'-3 1/8"	48'-1"	37'-0"	38'-3 1/2"	42'-8 3/4"	52'-4"	
Crown	B	3 3/8"	3 3/8"	3 3/8"	3 3/8"	3 3/4"	3 3/4"	3 3/4"	3 3/4"	4 1/16"	4 1/16"	4 1/16"	4 7/16"	4 7/16"	4 7/16"	4 7/16"	4 7/16"	
Differential for Roadway Grade of:	1k	C	0	0.08'	0.16'	0.28'	0	0.08'	0.18'	0.31'	0	0.09'	0.20'	0.34'	0	0.10'	0.21'	0.37'
	2	C	0	0.15'	0.32'	0.56'	0	0.17'	0.36'	0.62'	0	0.18'	0.39'	0.68'	0	0.20'	0.43'	0.74'
	3k	C	0	0.23'	0.48'	0.84'	0	0.25'	0.54'	0.93'	0	0.27'	0.59'	1.02'	0	0.30'	0.64'	1.11'
Piles																		
Number		5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	
Spacing	D	5'-6"	5'-8 5/16"	6'-4 3/16"	7'-9 5/16"	6'-3"	6'-5 5/8"	7'-2 5/8"	8'-10 1/16"	5'-7 3/16"	5'-9 9/16"	6'-5 5/8"	7'-11 1/16"	6'-2 3/8"	6'-5"	7'-1 15/16"	8'-9 3/16"	
End Distances	E	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	3'-1"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	
Dowels																		
Number per		9*	9*	9	9	10*	10*	10	10	11*	11*	11	11	12*	12*	12	12	
Spacing	F	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	3'-0"	3'-1 1/4"	3'-5 9/16"	4'-2 15/16"	
End Distances	G	2'-6"	2'-7 1/16"	2'-10 5/8"	3'-6 7/16"	2'-6"	2'-7 1/16"	2'-10 5/8"	3'-6 7/16"	2'-6"	2'-7 1/16"	2'-10 5/8"	3'-6 7/16"	2'-6"	2'-7 1/16"	2'-10 5/8"	3'-6 7/16"	
Abut. Wings																		
Wing Pile	H	4'-6"	4'-8"	5'-2"	6'-4"	4'-6"	4'-8"	5'-2"	6'-4"	4'-6"	4'-8"	5'-2"	6'-4"	4'-6"	4'-8"	5'-2"	6'-4"	
Wing Projection	J	4'-0"	4'-2"	4'-8"	5'-8"	4'-0"	4'-2"	4'-8"	5'-8"	4'-0"	4'-2"	4'-8"	5'-8"	4'-0"	4'-2"	4'-8"	5'-8"	
Reinforcing - Abut.																		
Number of Dowels - D6		9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	
Number of Stirrups A4		35	36	40	48	38	39	44	54	42	43	48	59	45	47	52	64	
Length of Main Bars A7	K	27'-8"	28'-7"	32'-0"	39'-3"	30'-1"	31'-9"	35'-5"	43'-6"	33'-8"	34'-10"	38'-11"	47'-9"	36'-8"	37'-11"	42'-4"	52'-0"	
Reinforcing - One Pier																		
Number of Dowels - D6		18*	18*	18	18	20*	20*	20	20	22*	22*	22	22	24*	24*	24	24	
Number of Dowels - E7		30	30	30	30	30	30	30	30	36	36	36	36	36	36	36	36	
Number of Stirrups P4		35	36	40	48	38	39	44	54	42	43	48	59	45	47	52	64	
Length of Main Bars A7	K	27'-8"	28'-7"	32'-0"	39'-3"	30'-8"	31'-9"	35'-5"	43'-6"	33'-8"	34'-10"	38'-11"	47'-9"	36'-8"	37'-11"	42'-4"	52'-0"	

BAR TYPES (All bar dimensions are out to out)

Mark	Size	Type	Length	Type
A4	4	A	6'-4"	
A7	7	B	K+1'-8"	
W5	5	Str.	40'-0"	
W8	8	Str.	11'-0"	
P4	4	C	6'-0"	
D6	6	Str.	2'-6"	
E7	7	Str.	3'-0"	

- GENERAL NOTES
- All reinforcement shall have a minimum clear concrete cover of 2".
 - All concrete to be Class B except pipe pile concrete.
 - All exposed corners to have 3/4" chamfer or fillet.
 - All exposed concrete shall be formed with oiled plywood or approved equivalent.
 - All surfaces except bearing surfaces and bottom and fill side of abutment to be given a Class 5 finish.
 - Pipe piles shall be given three (3) field coats of paint. Painting shall otherwise conform to the Bridge Branch Construction Specification for Painting Metal Structures.
 - Piles shall be driven to the following bearing values unless the required penetration is determined on the basis of a soil analysis:
 - Pier piles - 40 tons
 - Abutment piles - 30 tons
 - See Standard Drawing S-827 for Pipe Pile Splice Details.
 - For superstructure details not shown see Drawing S-860.
 - In using this plan the following limits shall not be exceeded:
 - Height of deck above streambed - 20 ft.
 - Top of fill to backwall - 5 ft.
 - Skew - 45°
 - Ice - usual ice load in small stream.

APPROVED *E. Johnson*
 BRIDGE ENGINEER
 March 26, 1973.

Also supply 8-W5 and 12-W8.
 4 dowels only per line required for piers skewed up to 25°

NOTE: Details shown are for field cast caps. For precast caps work this drawing in conjunction with Dwg. S-1085

CONCRETE SUBSTRUCTURE FOR 33' & 38' HC. BRIDGES

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

FILE NO. _____ REV. NO. _____ DATE _____
 DRAWING NO. S-1021-73

REVISIONS