

**DIMENSION 'E'**

GRADE	'D'=15°		'D'=20°	
	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END
0%	2 3/8"	2 3/8"	2 3/8"	2 3/8"
Over 0% to 1%	2 1/4"	2 5/8"	2 1/2"	2 5/8"
Over 1% to 2%	1 3/4"	3"	1 1/2"	3 1/8"
Over 2% to 3%	1 3/8"	3 1/2"	1"	3 3/4"
Over 3% to 4%	1"	3 3/8"	3/8"	4 1/4"

**NOTES**

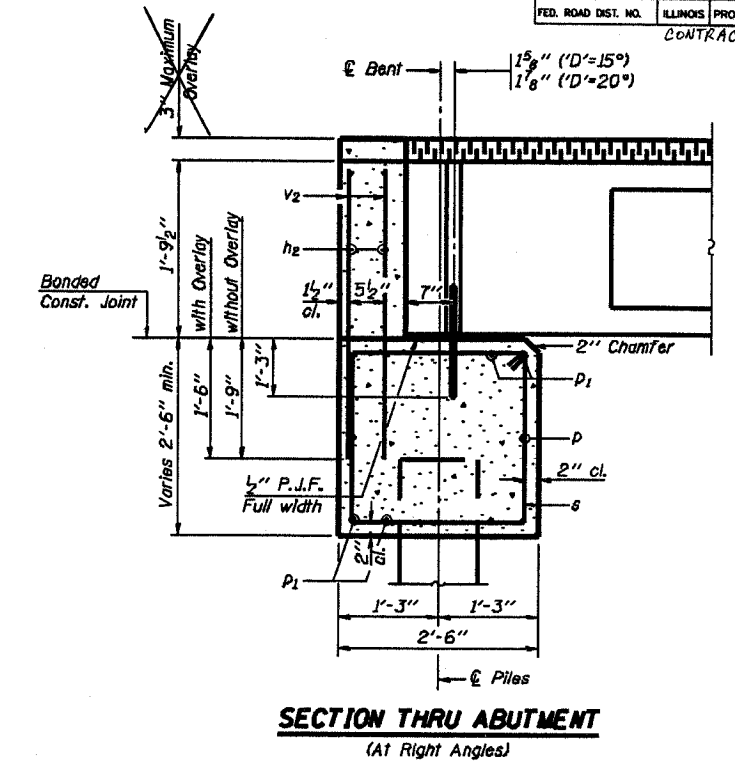
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to A.A.S.H.T.O. M-31, M-42 or M-53, Grade 60.

**MAXIMUM PILE LOADS**

SPAN	TONS
30'	27
35'	30
40'	32
50'	37

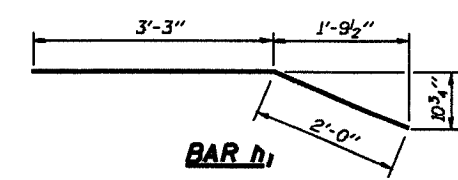
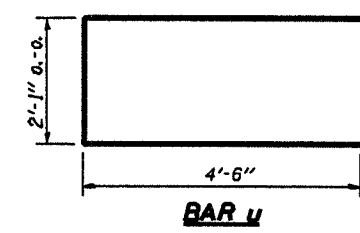
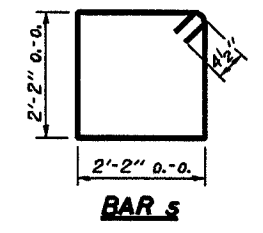
**DESIGN STRESSES**

f'c = 3,500 psi  
fy = 60,000 psi



**BILL OF MATERIAL FOR ONE ABUTMENT**

Bar	No.	Size	Length	Shape
h	16	#4	5'-0"	
h1	4	#4	5'-3"	
h2	6	#4	26'-5"	
d	2	#5	26'-5"	
p1	8	#6	26'-5"	
s	30	#4	9'-5"	□
u	8	#6	11'-1"	□
v	8	#4	2'-8"	
v1	8	#4	3'-8"	
v2	54	#4	3'-5"	
Concrete Structures			9.2 Cu. Yds.	
Reinforcement Bars			1020 Lbs.	



Illinois Department of Transportation  
PASSED November 1, 1995  
APPROVED November 1, 1995  
Engineer of Bridge Design  
Engineer of Bridges and Structures

**P.P.C. DECK BEAMS  
PILE BENT ABUTMENT**  
24' RDWY. 21" BMS. 'D'=15° OR 20°  
STANDARD CA-2421-20