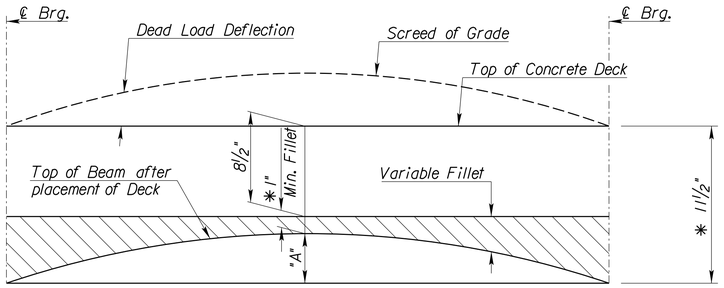


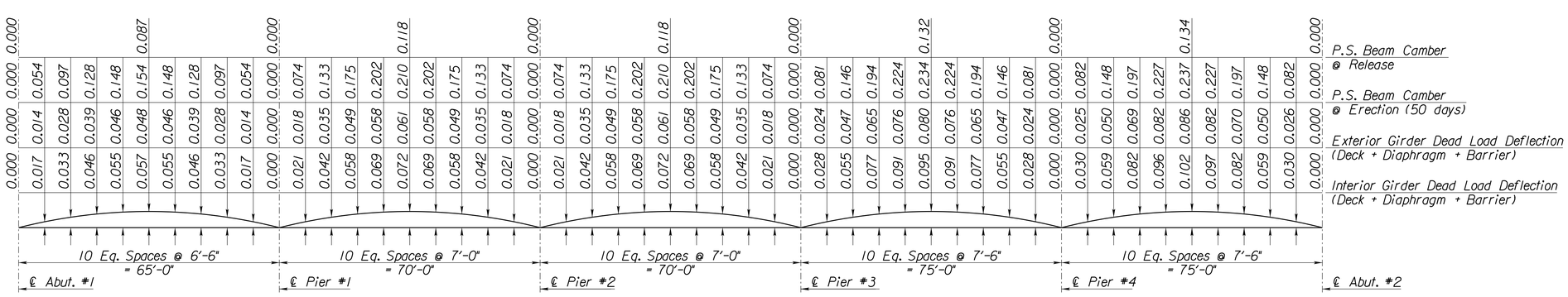
Dimension "A" = (Camber @ 50 days) - Dead Load Deflection (Deck + Diaphragm + Barrier)
Total Thickness @ ℄ Brg. = (Dimension "A") + (Total Deck Thickness) + (1" Min. Fillet)

CAMBER DIAGRAM SHOWING VARIABLE FILLET THICKNESS

* Dimensions shown are along ℄ of the Beam.
Theoretical fillet depth at mid-span is
2¼"± (Span #1), 1⅞"± (Span #2-#3),
1 15/16"± (Span #4), and 1⅞"± (Span #5).

CAMBER: Construct the finished deck to plan grade by varying the depth of the fillet over the beam to provide for prestress camber, concrete dead load deflection and vertical curvature. After the prestressed beams are erected measure the camber in the field by taking a profile of each beam. Correct any variation between the actual camber and concrete dead load deflection shown in the plans by varying the depth of the concrete fillets over the beam so that the finished floor is constructed to the theoretical grade. The minimum depth of the deck over the beam shall be 8½" @ ℄ beam (not including fillets). Prior to shipping, the camber shall be no greater than the design camber +½". The design camber is equal to the 50 day camber shown in the plans.

The theoretical amount of concrete required for the fillets is 69.30 C.Y. This amount of concrete is included in the Summary of Quantities. Any additional concrete required to construct the fillets will be subsidiary.



NU35-1 BEAM CAMBER AND DEAD LOAD DEFLECTION

Measure beam camber at midspan by the Contractor at the project site at time of delivery. Submit a copy of the field notes of measured beam camber to the Engineer not more than 5 working days after delivery of the beams to the site. Beam camber shall meet the tolerance specified on the "Standard Prestressed Concrete Beam Details" Sh. # 58.

Ordinates are in feet

Beam Concrete: Ei= 4,592 ksi (f'ci = 5.0 ksi)
Ef= 4,877 ksi (f'c = 6.0 ksi)

Note:
Camber is Upward
Deflection is Downward

CITY OF WICHITA

wsp

HARRY STREET BRIDGE
OVER ARKANSAS RIVER

BEAM AUXILIARY DETAILS

STRUCTURE NO. 430400876 30AR40

REVISIONS			
NO.	DATE	DESCRIPTION	

PROJ NO:	35838B
SCALE:	AS NOTED
DATE:	-
DESIGNED BY:	--
DRAWN BY:	--
CHECKED BY:	-
YEAR:	2019

SHEET NO
64
SHEET 64 OF 135

Plotted : 10/3/2019 2:14:46 PM File : T:\35838A-COW_HarrySt Bridge\Cadd\Sheets\Structures\838BMAX1.dgn