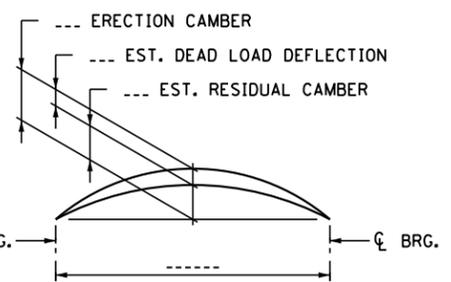


Y DISTANCES (INCHES)			
	NO.	CL SPAN	END
STRAIGHT STRANDS	----	----	----
DRAPED STRANDS	----	----	----
TOTAL STRANDS	----	----	----

Y = DISTANCE TO CENTER OF GRAVITY OF STRANDS FROM BOTTOM OF BEAM. ALL STRANDS SPACED 2" CENTER TO CENTER, HORIZONTALLY AND VERTICALLY, EXCEPT AS NOTED.

□ A TOLERANCE OF ± 1" WILL BE PERMITTED IN THIS DIMENSION.



CAMBER DIAGRAM

ERECTION CAMBER SHOWN IS AFTER DIAPHRAGMS ARE IN PLACE.

DEAD LOAD DEFLECTION SHOWN IS FOR WEIGHT OF SLAB, WEARING COURSE, BARRIER, SIDEWALK AND MEDIAN WHERE APPLICABLE.

CONTRACTOR WILL TAKE ELEVATIONS AT TOP OF BEAMS AFTER ERECTION AND WILL ALLOW FOR DEFLECTION SHOWN TO ENABLE BUILDING FORMS TO CORRECT GRADE AND SPECIFIED SLAB THICKNESS. PROVIDE COPY OF ELEVATIONS TO THE ENGINEER.

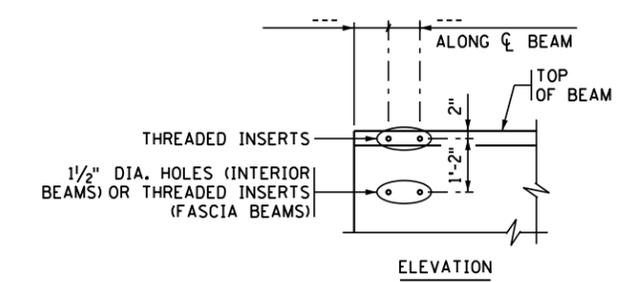
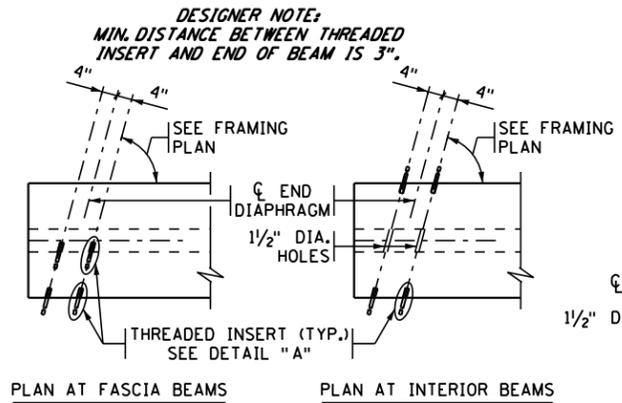
CALCULATED PRESTRESS LOSSES	
ELASTIC SHORTENING LOSS	--- KSI
LONG TERM LOSSES	--- KSI
TOTAL LOSSES	--- KSI

MINIMUM CONCRETE STRENGTH - KSI	
① f'c1	② f'c
--- KSI	--- KSI

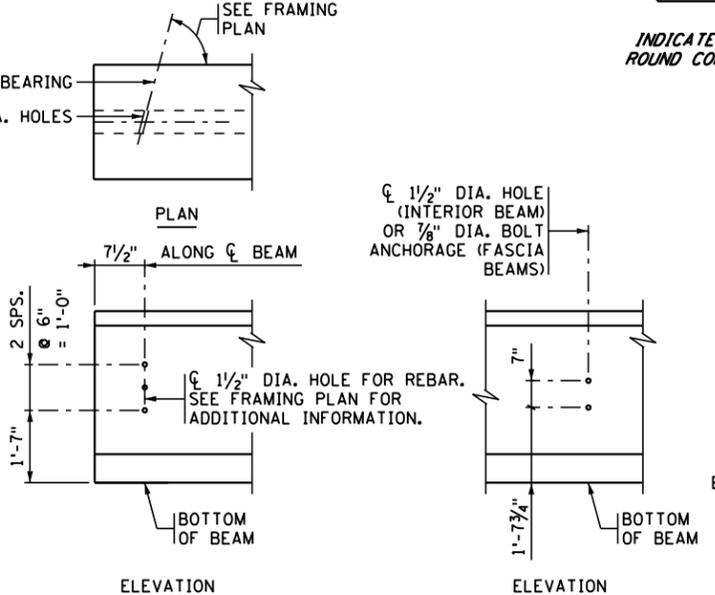
DESIGNER NOTE: INDICATE MIN. REQUIRED CONCRETE STRENGTH, ROUND CONCRETE STRENGTH TO ONE TENTH KSI.

GENERAL NOTES

- PROVIDE HANDLING HOOKS OR DEVICES AS REQUIRED BY CONTRACTOR.
- MARK EACH BEAM SHOWING BRIDGE NUMBER, CASTING DATE, AND INDIVIDUAL IDENTIFICATION LETTERS AND NUMBERS ON THE FACE OF THE BEAM, NEAR THE END, SO LOCATED THAT THEY WILL BE EXPOSED AFTER THE END DIAPHRAGMS HAVE BEEN CAST. MARK FASCIA BEAMS ON THE INSIDE FACE. ENSURE ALL MARKINGS ARE STENCILED AND CLEARLY LEGIBLE. FOR LOCATION OF BEAMS, SEE FRAMING PLAN.
- ALL MATERIAL AND WORK SHOWN OR NOTED ON THIS SHEET IS INCLUDED IN UNIT PRICE BID FOR PRESTRESSED CONCRETE BEAMS. SEE SPEC. 2405.
- SEE FRAMING PLAN FOR BEAM END MARKED "X" AND DIAPHRAGM SPACING.
- AS AN ALTERNATE TO THE END DIAPHRAGM ANCHORAGES SHOWN, THE CONTRACTOR MAY SUBMIT DETAILS OF A CAST-IN-PLACE ANCHORAGE TO THE ENGINEER FOR APPROVAL. ANCHORAGE MUST PROVIDE AN ULTIMATE PULL OUT STRENGTH OF 15 KIPS PER ANCHORAGE.
- APPLY AN APPROVED SEALER TO THE SIDES OF THE BEAM NEAR EACH END PER THE SPECIAL PROVISIONS.
- ① MINIMUM CONCRETE STRENGTH AT TIME OF PRESTRESS TRANSFER.
- ② MINIMUM CONCRETE STRENGTH WHEN BEAM CAN BE TRANSPORTED AND INSTALLED.
- ③ DRAPED STRANDS.
- ④ STRAIGHT STRANDS.
- ⑤ USE 0.6" DIA. 7-WIRE LOW RELAXATION PRESTRESSING STRAND, CONFORMING TO ASTM A416, GRADE 270.
- ⑥ CENTER OF GRAVITY OF HOLD DOWNS WHEN MULTIPLE HOLD DOWNS ARE USED.
- ⑦ DIMENSION DETERMINED BY CONTRACTOR. MAINTAIN 2" MINIMUM CLEAR FROM STRANDS.
- ⑧ TWO INSIDE BARS MAY BE PLACED ADJACENT TO VERTICAL STIRRUP FOR TYING CONVENIENCE.
- ⑨ STEEL TROWEL TO SMOOTH FINISH AND APPLY BOND BREAKER PER APPROVED PRODUCTS LIST.
- ⑩ ROUGH FLOAT AND BROOM TRANSVERSELY FOR BOND IN ACCORDANCE WITH SPEC. 2405.3.D.
- ⑪ OPTIONAL: 3" MAX. DIA. SLEEVE FOR HAULING (AFTER INSTALLATION, COAT WITH APPROVED EPOXY BONDING AGENT & FILL WITH APPROVED NON-SHRINK GROUT).
- ⑫ TYP. CLR. FOR ENTIRE BOTTOM FLANGE.



CONCRETE END DIAPHRAGM
PARAPET ABUTMENT
(SEE DETAIL B814 FOR DIAPHRAGM DETAILS)

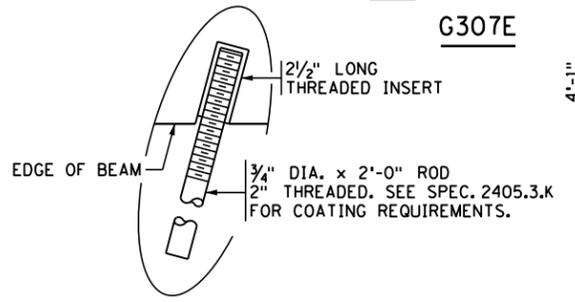


CONCRETE END DIAPHRAGM

STEEL INTERMEDIATE DIAPHRAGM

INTEGRAL & SEMI-INTEGRAL ABUTMENT. SEE SUPERSTRUCTURE DETAILS AND REINFORCEMENT FOR DIAPHRAGM DETAILS.

(SEE DETAIL B403 FOR DIAPHRAGM DETAILS)



DETAIL "A"

REVISED: OCTOBER 22, 2019
APPROVED: JANUARY 13, 2015
Nancy Dubenberger
STATE BRIDGE ENGINEER

CERTIFIED BY _____ DATE _____
LICENSED PROFESSIONAL ENGINEER
NAME: _____ LIC. NO. _____

TITLE: MN45" PRESTRESSED CONCRETE BEAM (PRETENSIONED) MN45-

BEAMS		FIG. 5-397.507	
DES ₁	DR ₁	APPROVED:	BRIDGE NO.
CHK ₁	CHK ₁	SHEET NO. OF SHEETS	