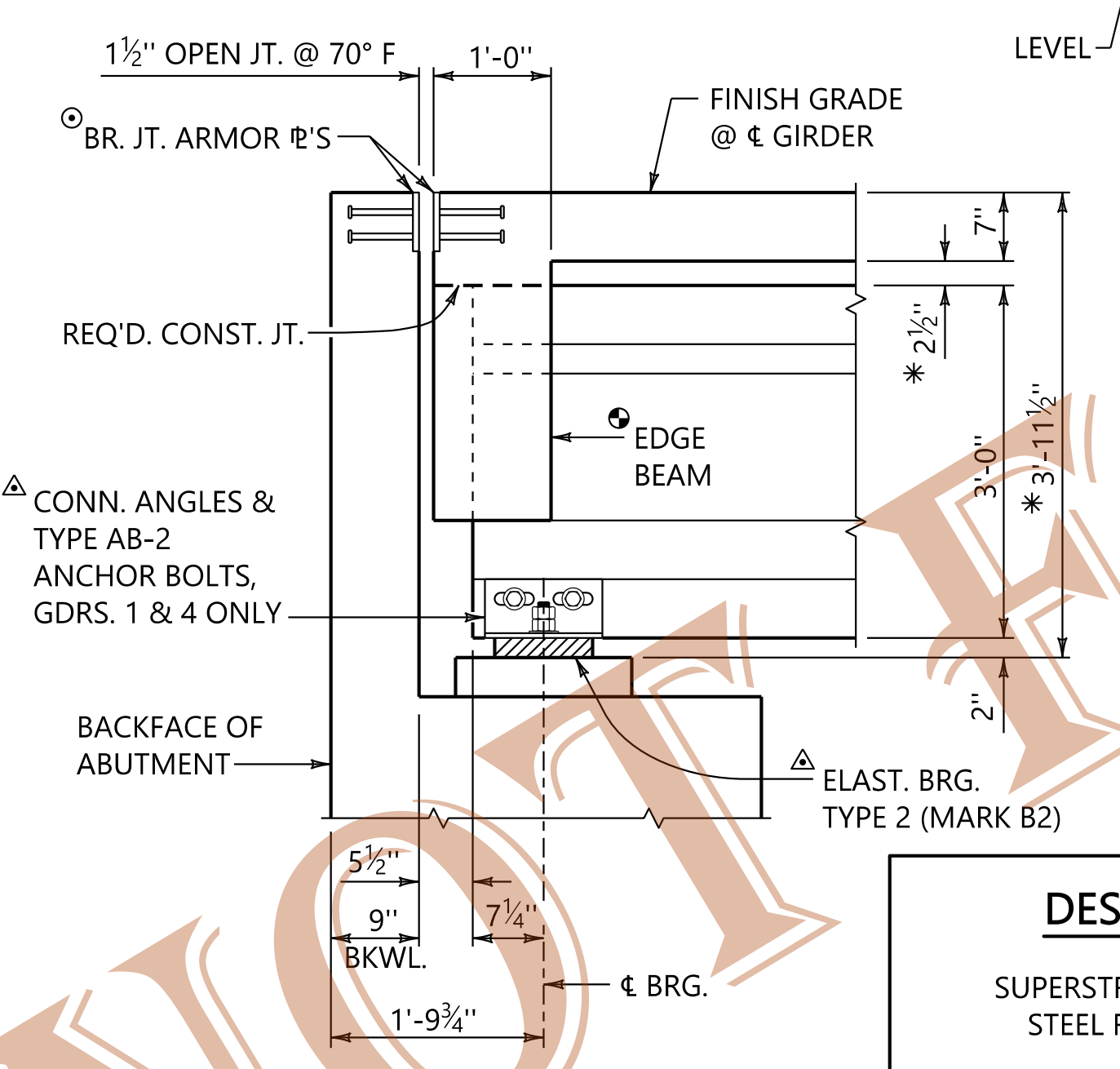
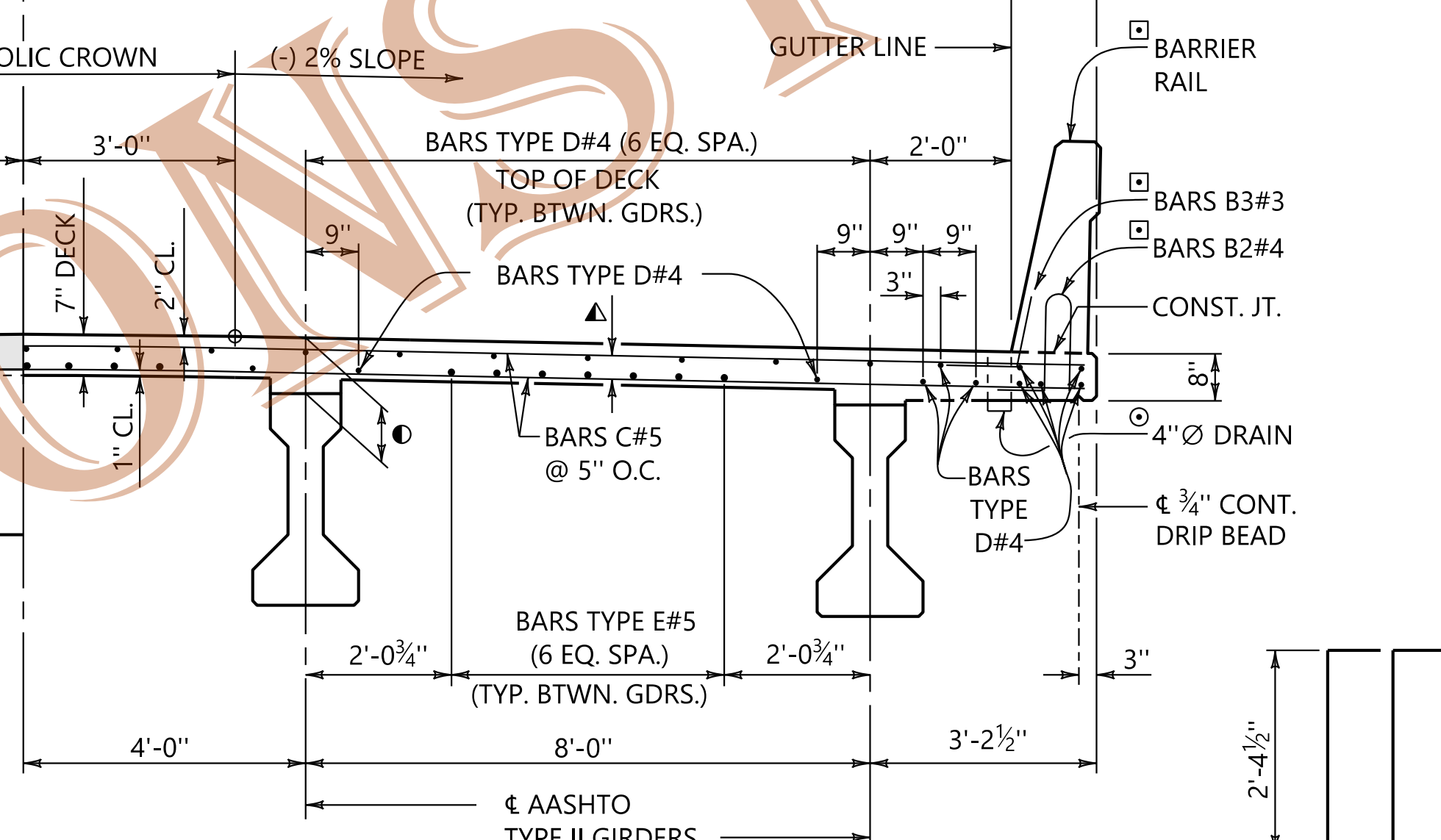
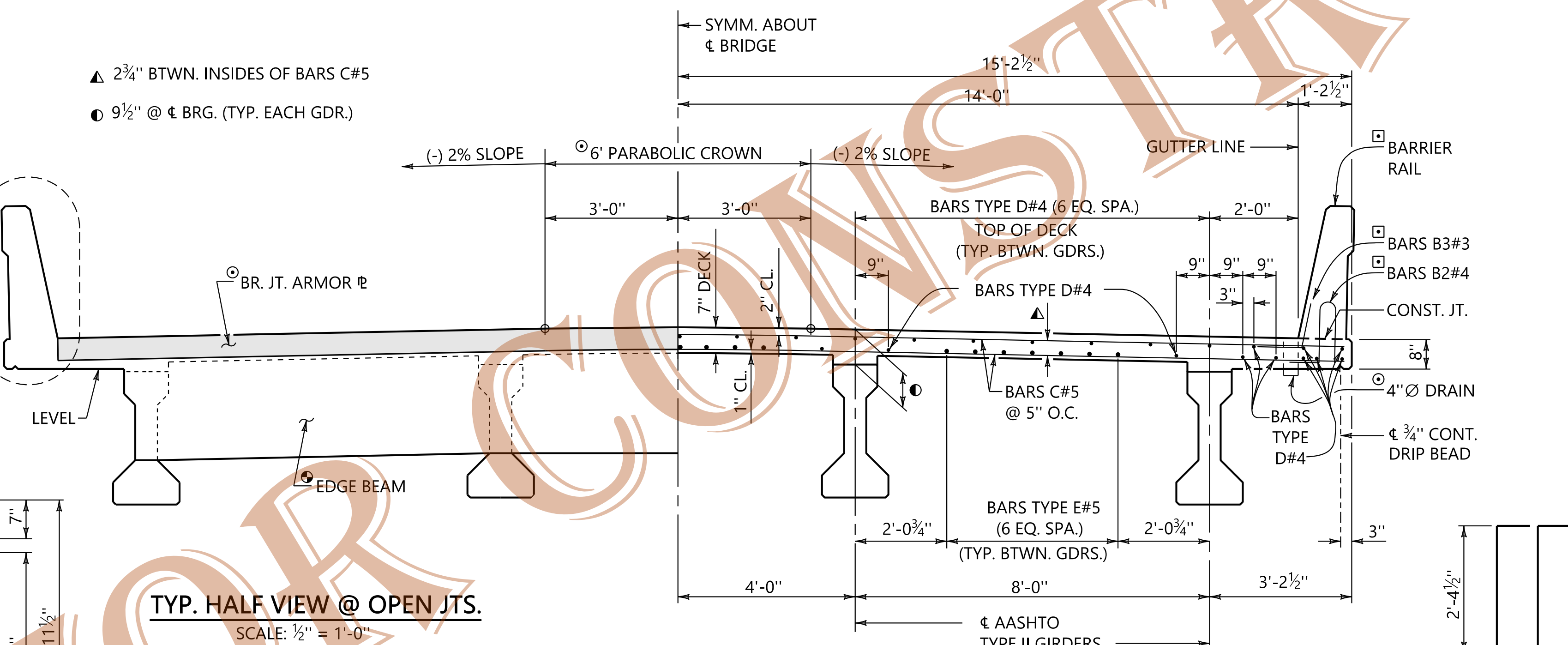
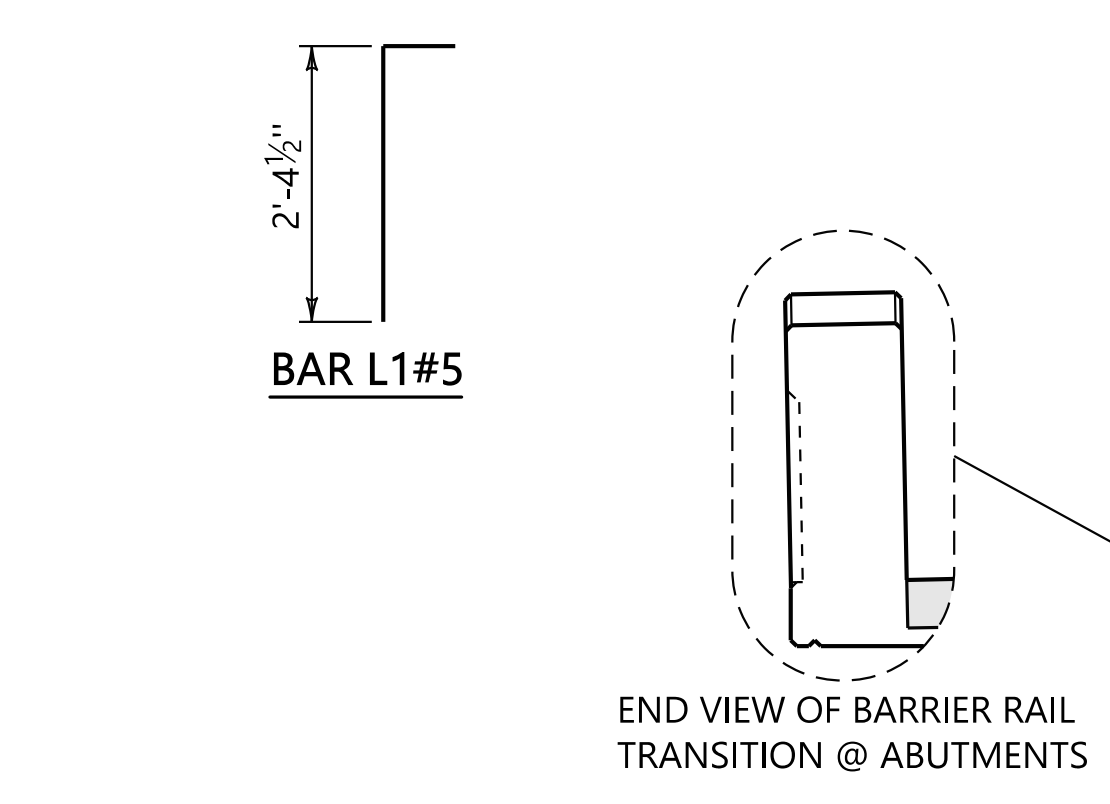
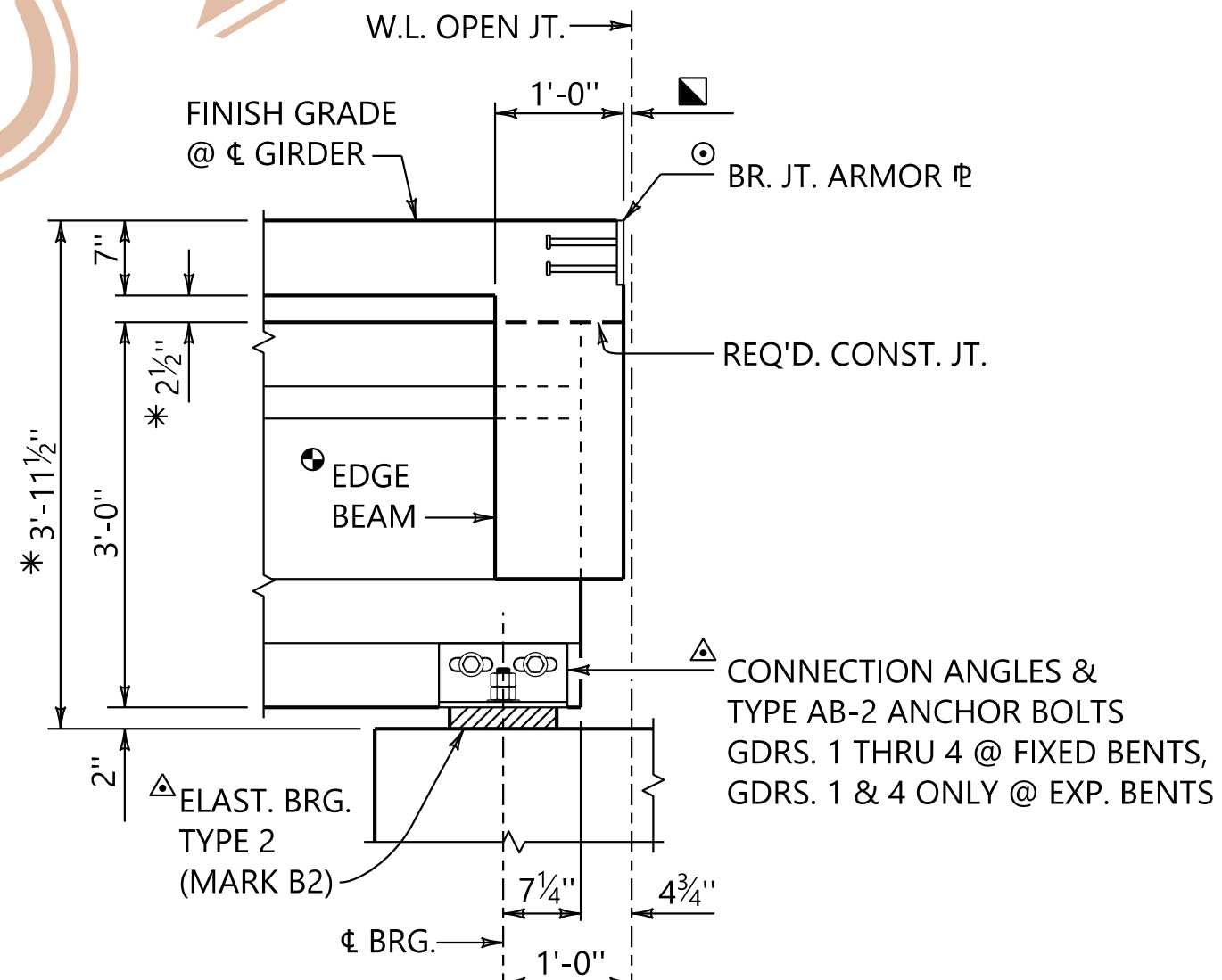
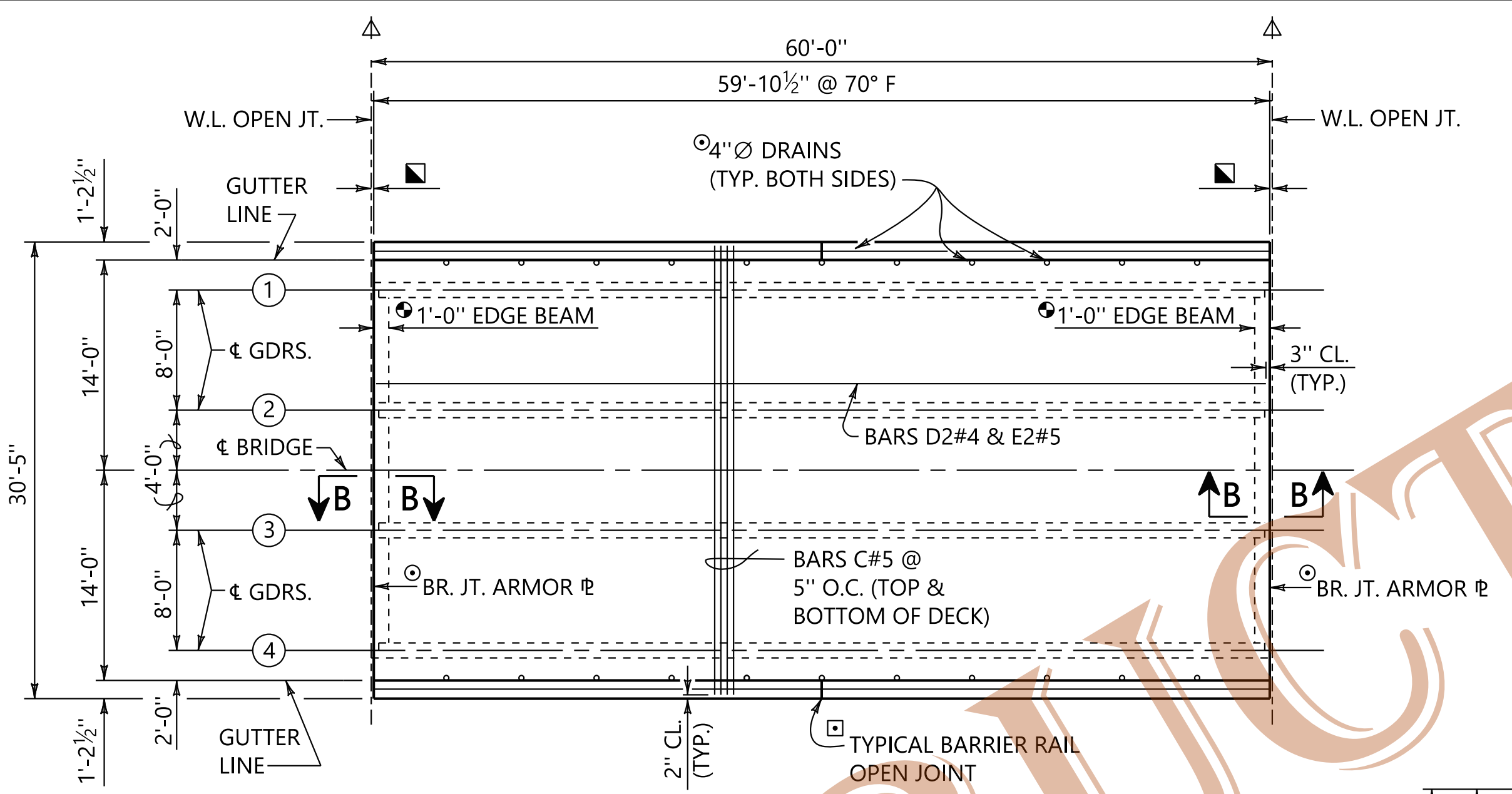
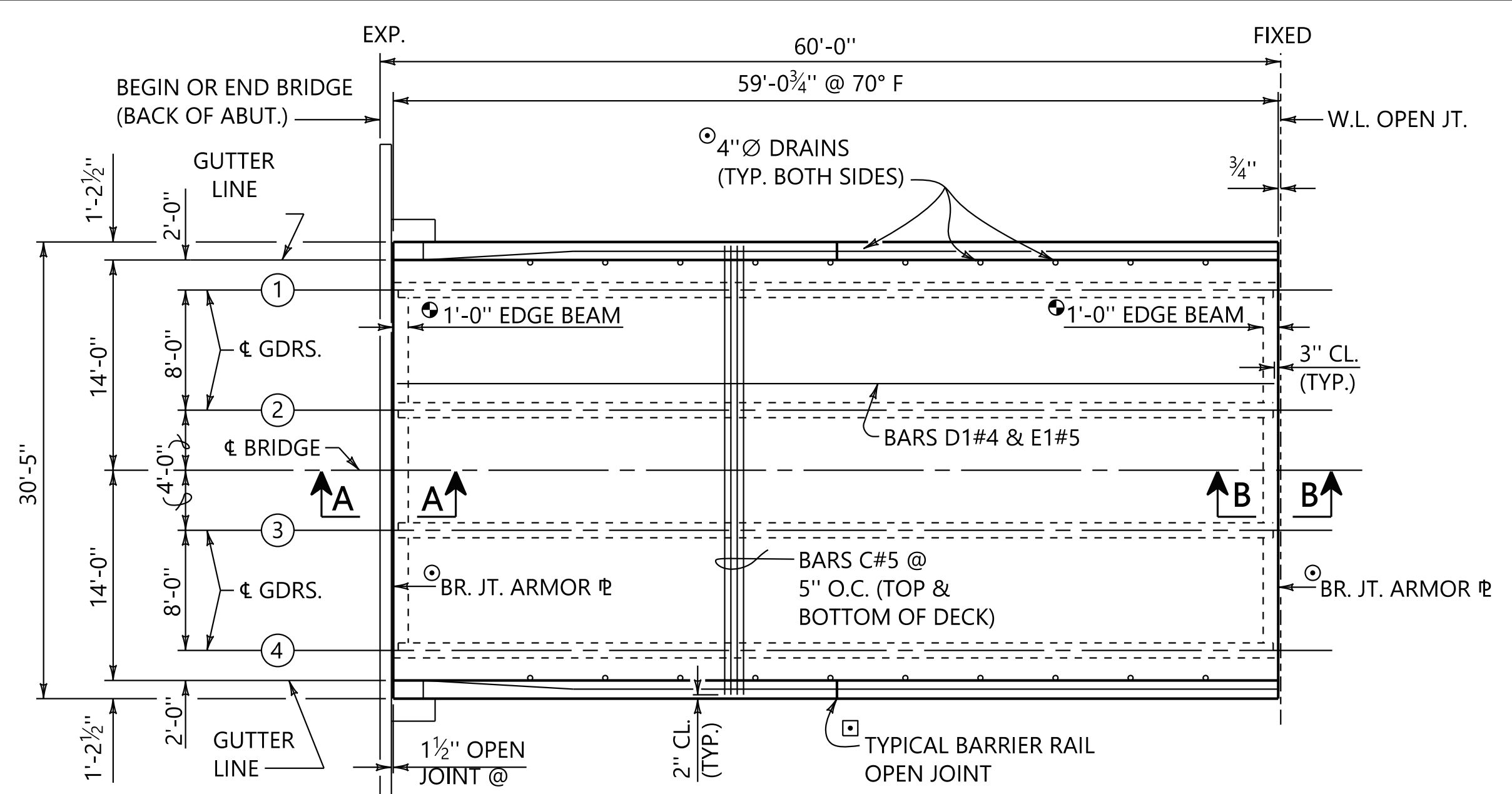


NOTES

1. FOR LOCATION OF FIXED AND EXPANSION ENDS, SEE THE GENERAL PLAN AND ELEVATION SHEET.
2. DIMENSIONS SHOWN ARE AT ϵ BEARING ONLY. (SEE SHT. 2 OF 2)
3. FOR GUARDRAIL ANCHOR REQUIREMENTS, SEE ROADWAY PLANS AND BR. SPEC. PROJ. DWG. BBR-2 FOR DETAILS. QUANTITIES NOT INCLUDED ON THIS SPECIAL DRAWING.
4. SEE BR. SPEC. PROJ. DWG. SBD-1 FOR DETAILS.
5. SEE BR. SPEC. PROJ. DWG. BBR-2 FOR DETAILS.
6. SEE BR. SPEC. PROJ. DWG. EBEW2 FOR DETAILS.
7. SEE BR. SPEC. PROJ. DWG. SPGD-1 FOR DETAILS.
8. AT THE CONTRACTOR'S OPTION, BARS TYPE D & E MAY BE SPLICED 30 DIA. (MIN.). OPTIONAL SPLICE NOT INCLUDED IN BAR DIMENSIONS AND ESTIMATED QUANTITIES SHOWN.
9. STRUCTURAL STEEL QUANTITIES INCLUDE CONNECTION ANGLES, ANCHOR BOLTS AND BRIDGE JOINT ARMOR ϕ 'S.



SUPERSTRUCTURE DEADLOAD REACTIONS

EXTERIOR GIRDERS 1 & 4:	40.9 KIPS
INTERIOR GIRDERS 2 & 3:	44.2 KIPS

DESIGN PARAMETERS

SUPERSTRUCTURE CONCRETE: 4,000 PSI
STEEL REINFORCEMENT: GRADE 60

DESIGN CONFORMS TO THE 7TH EDITION OF THE AASHTO LRFD DESIGN SPECIFICATIONS.

GEOMETRIC PARAMETERS

ALIGNMENT: TANGENT GRADE: 0.00%
CROSS-SLOPE: 2.0% w/ 6' PARABOLIC CROWN

ADAPTATIONS TO THIS DRAWING MAY BE REQUIRED FOR OTHER GEOMETRIC CONDITIONS.

ESTIMATED QUANTITIES

END SPAN	INT. SPAN			
14,560	14,760	POUNDS	502B	STEEL REIN. FOR BR. SUPERSTR.
1,136	1,136	POUND	508A	STRUCTURAL STEEL
57.0	57.3	CUBIC YARDS	510C	BRIDGE CONCRETE SUPERSTR.

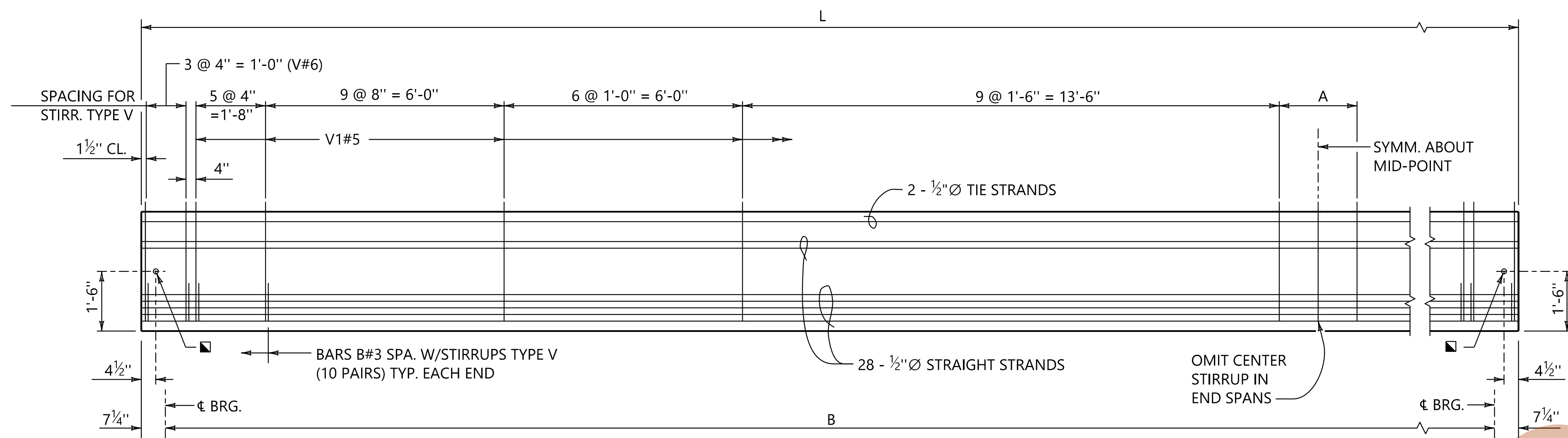
BILL OF REINFORCEMENT

MARK	SIZE	NUMBER PER SPAN		LENGTH	BENDING
		END	INT.		
BARRIER RAIL					
BL	4	16	16	□	STRAIGHT
B1	4	236	240	6'-0"	□
B2	4	236	240	3'-8 3/4"	□
B3	3	60	60	2'-0"	□
DECK					
C	5	284	288	30'-1"	STRAIGHT
D1	4	41	---	58'-6 3/4"	STRAIGHT
D2	4	---	41	59'-4 1/2"	STRAIGHT
E1	5	21	---	58'-6 3/4"	STRAIGHT
E2	5	---	21	59'-4 1/2"	STRAIGHT
EDGE BEAM					
L1	5	8	8	2'-10 1/2"	SEE DIAG.
R1	8	4	4	4'-6"	STRAIGHT
S1	5	42	42	6'-6"	SEE DIAG.
W1	5	4	4	24'-2"	STRAIGHT
W2	5	12	12	7'-2"	STRAIGHT

ASSISTANT BRIDGE ENGINEER: *[Signature]* 11/20/2020
BRIDGE ENGINEER: *[Signature]* 11/20/2020

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2'
1"
0'
SHEET REFERENCE

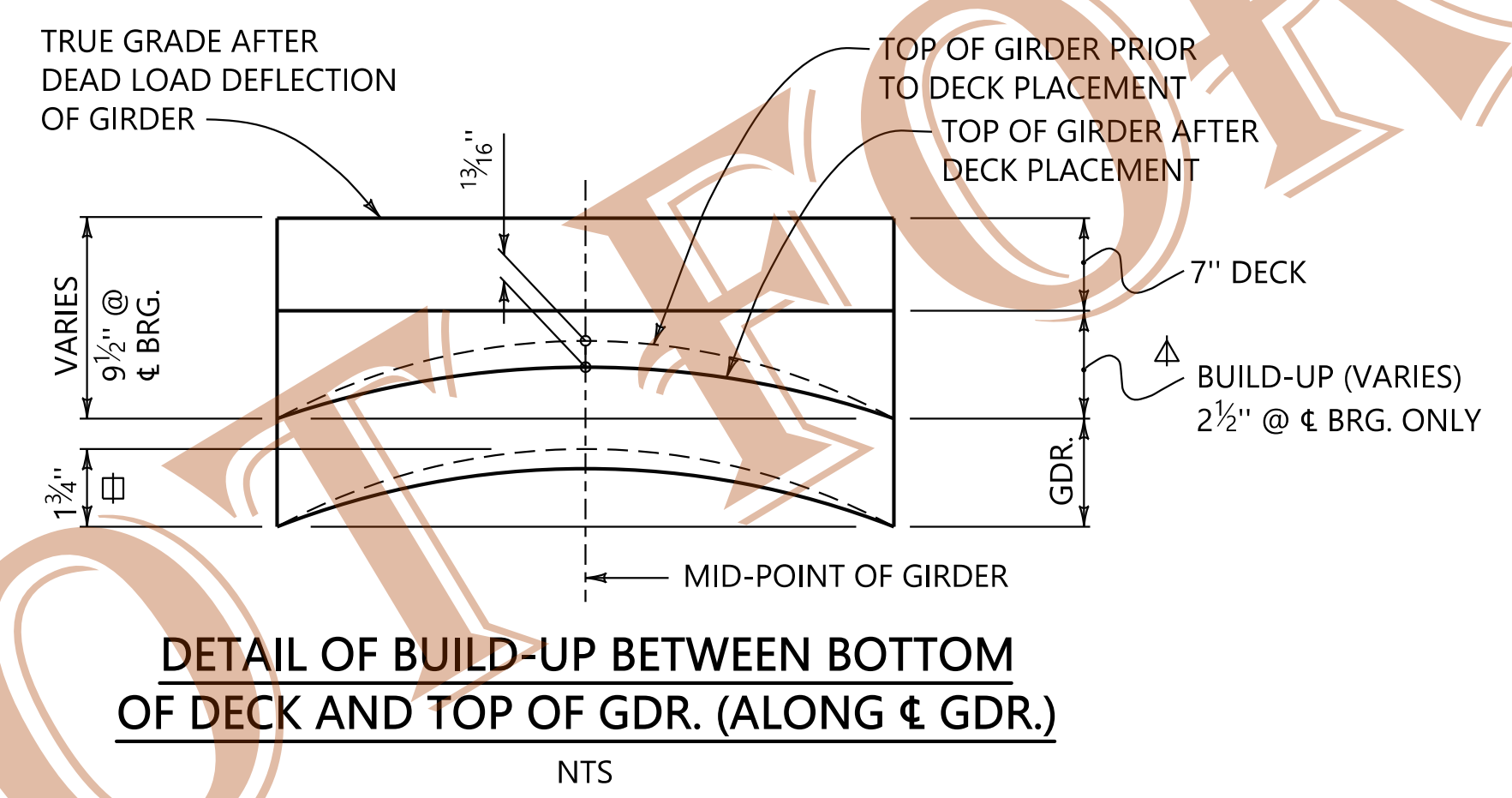
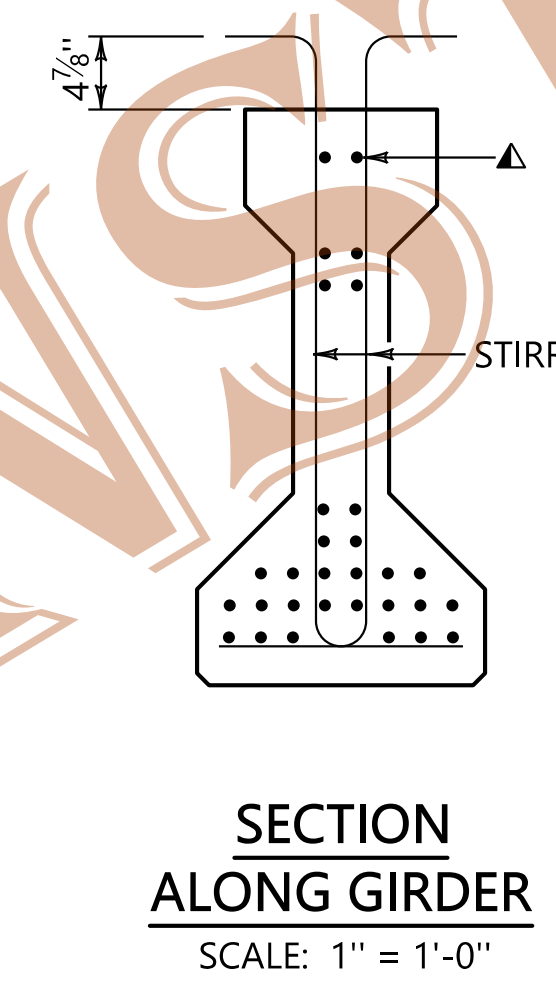
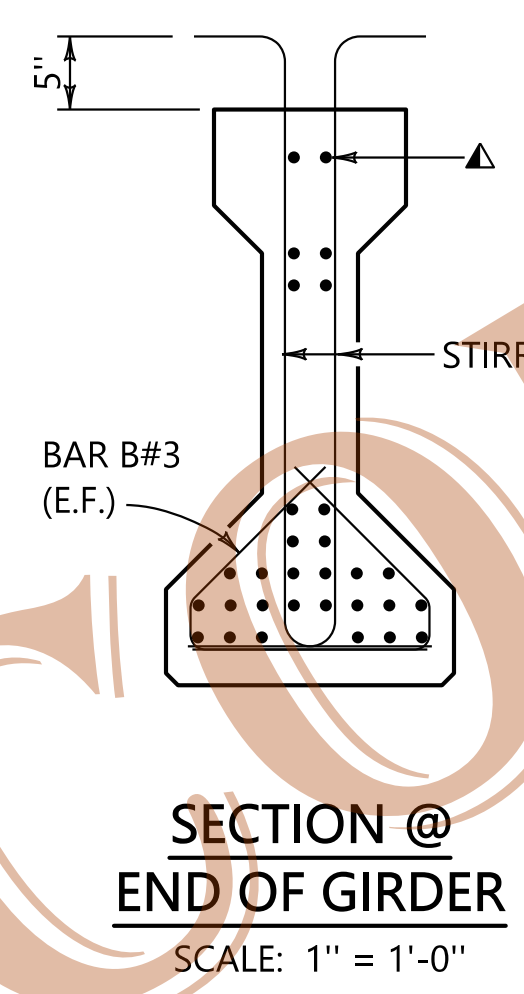
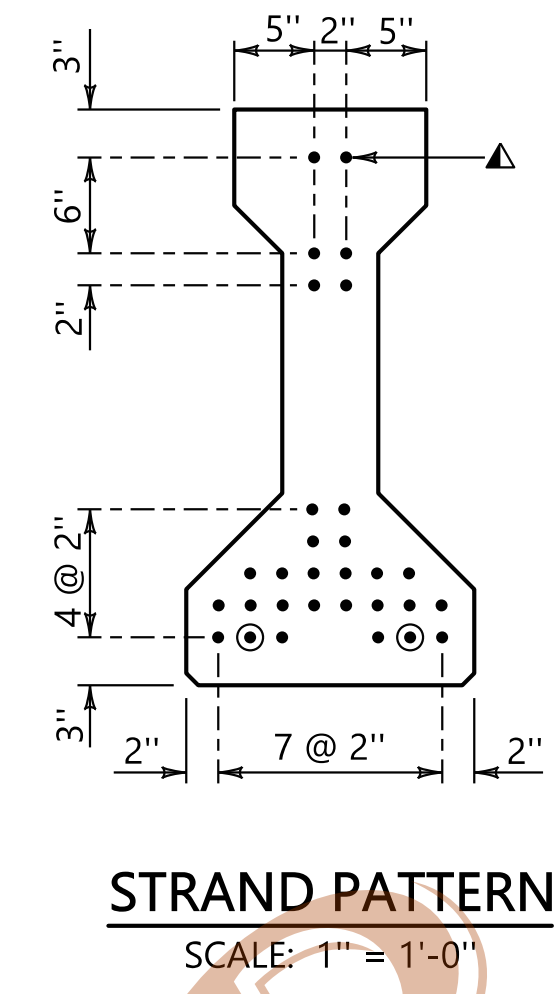
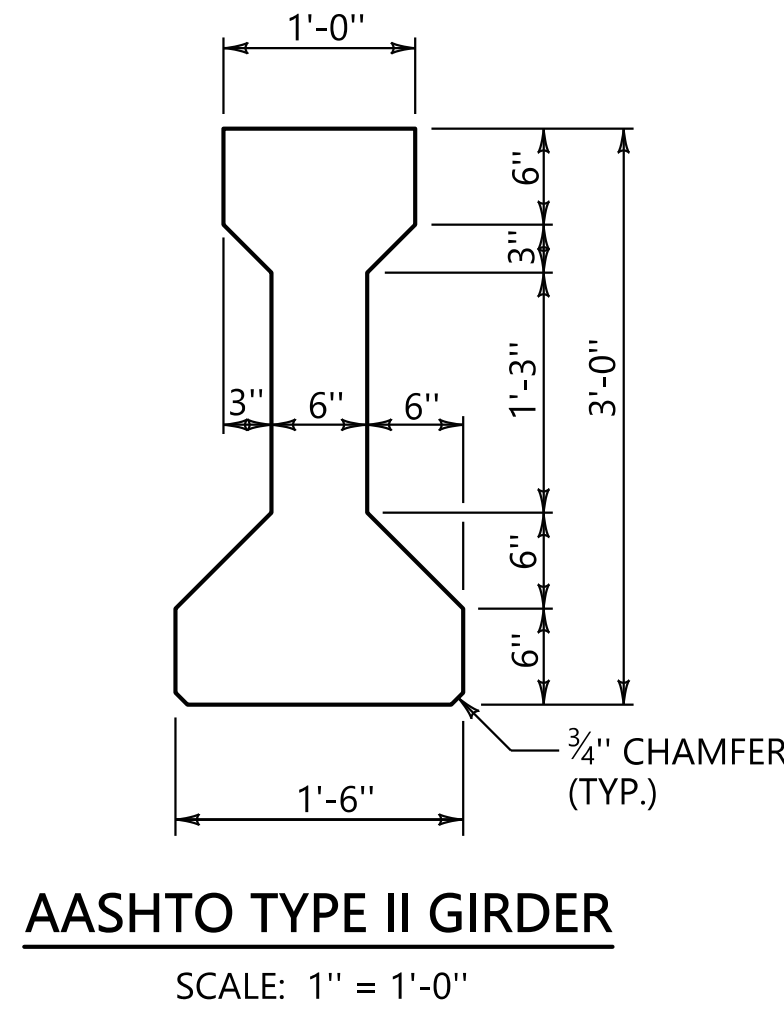


*** TYPICAL GIRDER ELEVATION**
SCALE: 1/2" = 1'-0"

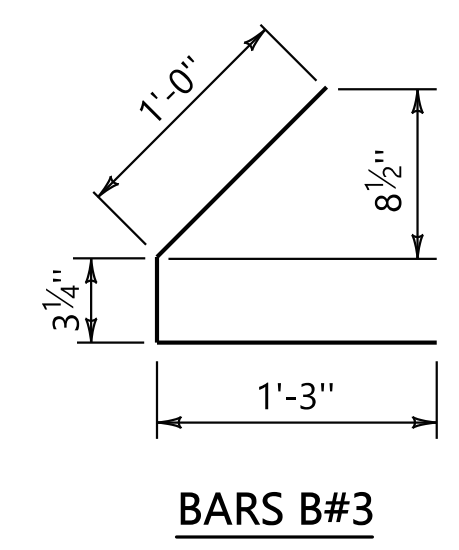
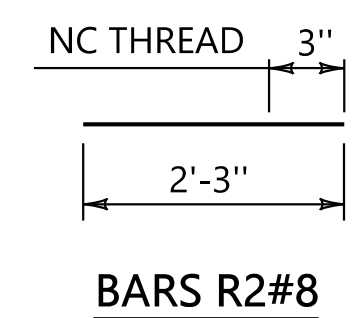
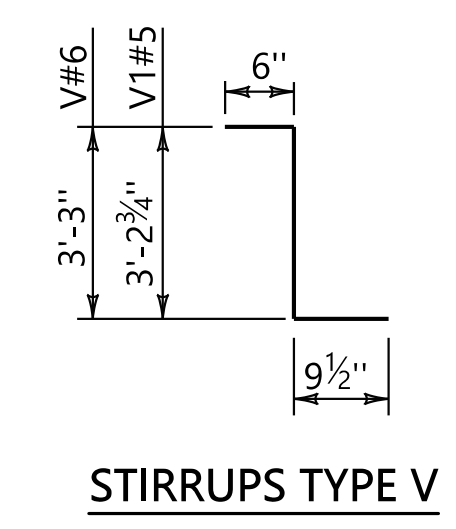
- NOTES**
- PRESTRESSING STRANDS SHALL BE 1/2" DIAMETER 270,000 PSI LOW RELAXATION WITH AN INITIAL TENSION OF 30,983 LBS./STRAND UNLESS OTHERWISE NOTED.
 - ALL STRANDS NOT TO BE ENCASED IN CONCRETE SHALL BE CUT FLUSH AT EACH END OF THE GIRDER. COAT GIRDER ENDS WHERE STRANDS ARE CUT WITH AN APPROVED EPOXY COATING. STRANDS TO BE ENCASED IN CONCRETE MAY EXTEND 2" FROM THE END OF THE GIRDER.
 - THE GIRDER CONCRETE SHALL HAVE A MINIMUM OF 6,500 PSI COMPRESSIVE STRENGTH PRIOR TO RECEIVING PRESTRESSING FORCE AND A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7,000 PSI.
 - THREADED BARS R2 AND THREADED INSERTS SHALL BE INCLUDED IN THE BID ITEM 513B, PRETENSIONED-PRESTRESSED CONCRETE GIRDERS, TYPE II.
 - GIRDER ENDS SHALL BE VERTICAL IN FINAL ERECTED POSITION.
 - STRANDS SHOWN THUS \odot 2 SHALL REMAIN UNBONDED BY USING PLASTIC SHEATHES AROUND CABLES FOR A DISTANCE OF 6'-0" FROM THE ENDS OF THE GIRDER.
 - UNLESS OTHERWISE SHOWN, STIRRUPS AND CONFINEMENT STEEL SHALL BE SECURELY TIED TO THE PRESTRESSING STRANDS TO PROVIDE A MINIMUM OF 1" CONCRETE COVER.
 - CONNECTION ANGLES ARE REQUIRED ON BOTH FACES OF ALL GIRDERS AT THE FIXED END AND BOTH FACES OF THE EXTERIOR GIRDERS ONLY AT THE EXPANSION END. SEE BRIDGE SPECIAL PROJECT DWG. SPGD-1 FOR DETAILS.
 - THE ENGINEER WILL CONSIDER ALTERNATE GIRDER REINFORCING UTILIZING WELDED WIRE FABRIC IN LIEU OF TIED REINFORCING FOR BARS B. THE EQUIVALENT AREA OF STEEL AND SPACING OF BARS SHALL BE MAINTAINED.

- 1 1/2" \odot HOLE (GDRS. 2 & 3) OR 1" \odot THREADED INSERT (INSIDE FACE ONLY, GDRS. 1 & 4)
- * DIMENSIONS SHOWN ARE ALONG ϵ GIRDER
- \blacktriangle 2 STRAIGHT 1/2" \odot PRESTRESSED STRANDS WITH INITIAL TENSION OF 5,000 LBS. PER STRAND. STIRRUPS TYPE V SHALL BE TIED IN PLACE TO THESE STRANDS.

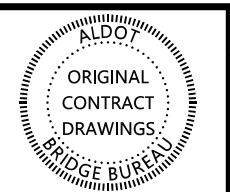
	END SPANS	INT. SPANS
L	58'-4 3/4"	59'-2 1/2"
B	57'-2 1/4"	58'-0"
A	1'-1 3/4"	2 SPA. @ 11 3/4"



- \square THEORETICAL CAMBER (UPWARD DEFLECTION) SHOWN. ACTUAL CAMBER OF GIRDER MAY VARY AND SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND SETTING FORMS.
- \blacktriangle ADJUSTMENT TO BUILD-UP MAY BE REQUIRED IF USED FOR BRIDGES IN EXTREME CREST OR SAG VERTICAL CURVE GRADES.



PLOTTED: 19-Nov-20 at 13:44



REVISIONS

THIS BRIDGE SPECIAL PROJECT DRAWING FOR USE ONLY ON:
PROJECT NO. _____
COUNTY(S) _____

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60'-0" SIMPLE AASHTO TYPE II GIRDER SPANS
HL 93 LOADING
(28'-0" ROADWAY, 0° SKEW)