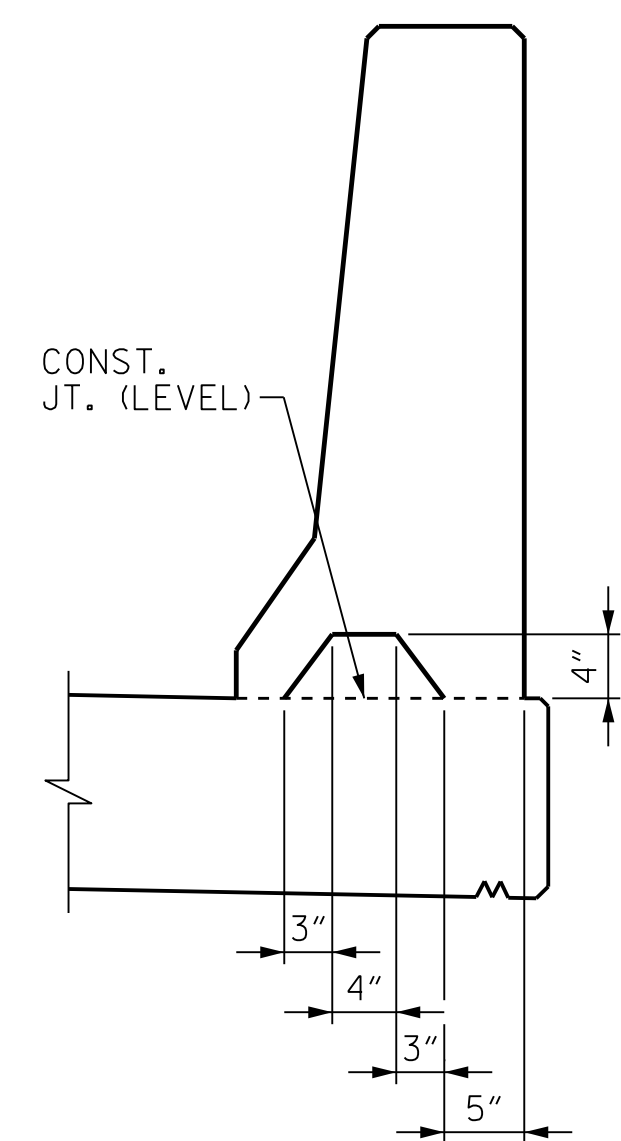
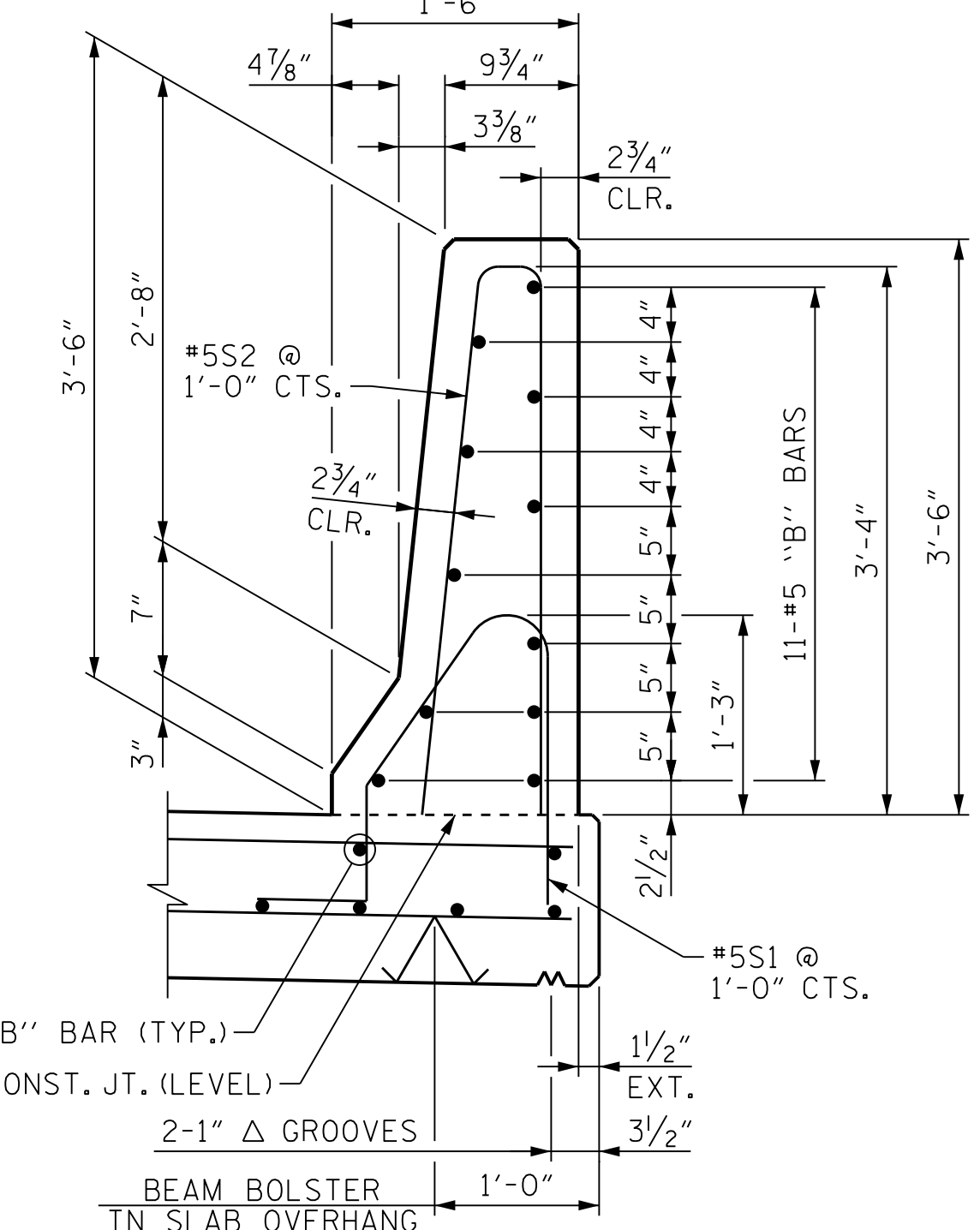


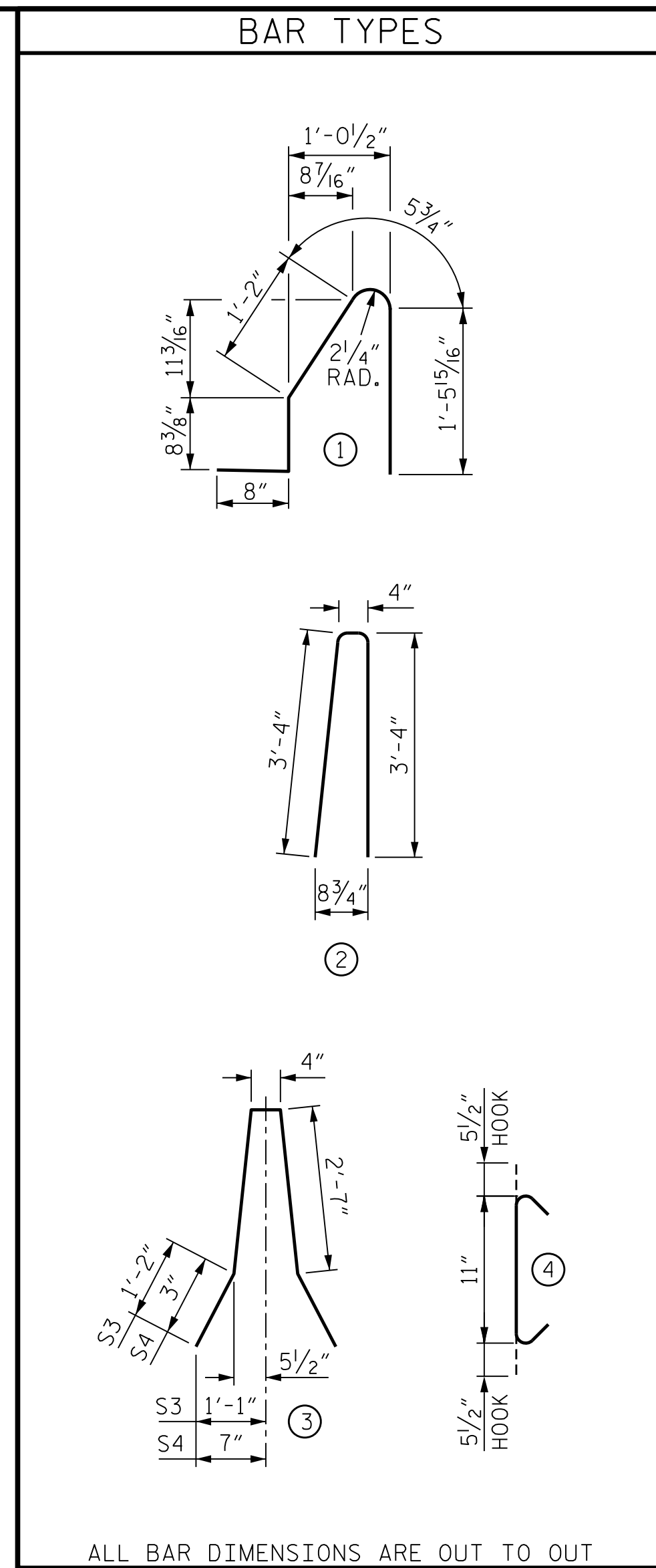
ELEVATION AT EXPANSION JOINTS



SECTION A-A
(AT DAM IN OPEN JOINT)
(THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)



SECTION THROUGH RAIL



ALL BAR DIMENSIONS ARE OUT TO OUT

- QUANTITY FOR BARRIER RAILS ON APPROACH SLAB NOT INCLUDED. SEE APPROACH SLAB DETAILS.
- ▲ INCLUDES QUANTITIES FOR MEDIAN BARRIER ON APPROACH SLAB.

NOTES

THE BARRIER RAIL AND CONCRETE MEDIAN BARRIER IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN THE BARRIER RAILS AND CONCRETE MEDIAN BARRIER RAIL SHALL BE EPOXY COATED.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND CONCRETE MEDIAN BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

THE #5 "S" BARS MAY BE SHIFTED SLIGHTLY AS NECESSARY IN ORDER TO MAINTAIN A 2" MINIMUM CLEARANCE TO THE 1/2" EXPANSION JOINT MATERIAL IN THE BARRIER RAIL AND CONCRETE MEDIAN BARRIER.

THE #5 "S" BARS MAY BE SHIFTED SLIGHTLY IN ORDER TO MAINTAIN A 2" MINIMUM CLEARANCE TO THE EXPANSION JOINT COVER PLATE ASSEMBLY IN THE CONCRETE MEDIAN BARRIER AT THE END BENTS.

BILL OF MATERIAL

■ FOR STAGE I CONCRETE BARRIER RAIL ONLY

| BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT |
|-----|-----|------|------|--------|--------|
| *B1 | 44 | #5 | STR | 25'-7" | 1175 |
| *B2 | 33 | #5 | STR | 24'-7" | 847 |
| *B3 | 22 | #5 | STR | 15'-2" | 349 |
| *B4 | 22 | #5 | STR | 13'-5" | 308 |
| *S1 | 230 | #5 | 1 | 4'-6" | 1080 |
| *S2 | 230 | #5 | 2 | 7'-0" | 1680 |

* EPOXY COATED REINFORCING STEEL 5439 LBS.
CLASS AA CONCRETE 31.3 CU. YDS.
CONCRETE BARRIER RAIL 229.8 LIN. FT.

BILL OF MATERIAL

■ FOR STAGE II CONCRETE BARRIER RAIL ONLY

| BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT |
|-----|-----|------|------|---------|--------|
| *B1 | 44 | #5 | STR | 25'-7" | 1175 |
| *B2 | 33 | #5 | STR | 24'-7" | 847 |
| *B5 | 22 | #5 | STR | 14'-9" | 339 |
| *B6 | 22 | #5 | STR | 13'-10" | 318 |
| *S1 | 231 | #5 | 1 | 4'-6" | 1085 |
| *S2 | 231 | #5 | 2 | 7'-0" | 1687 |

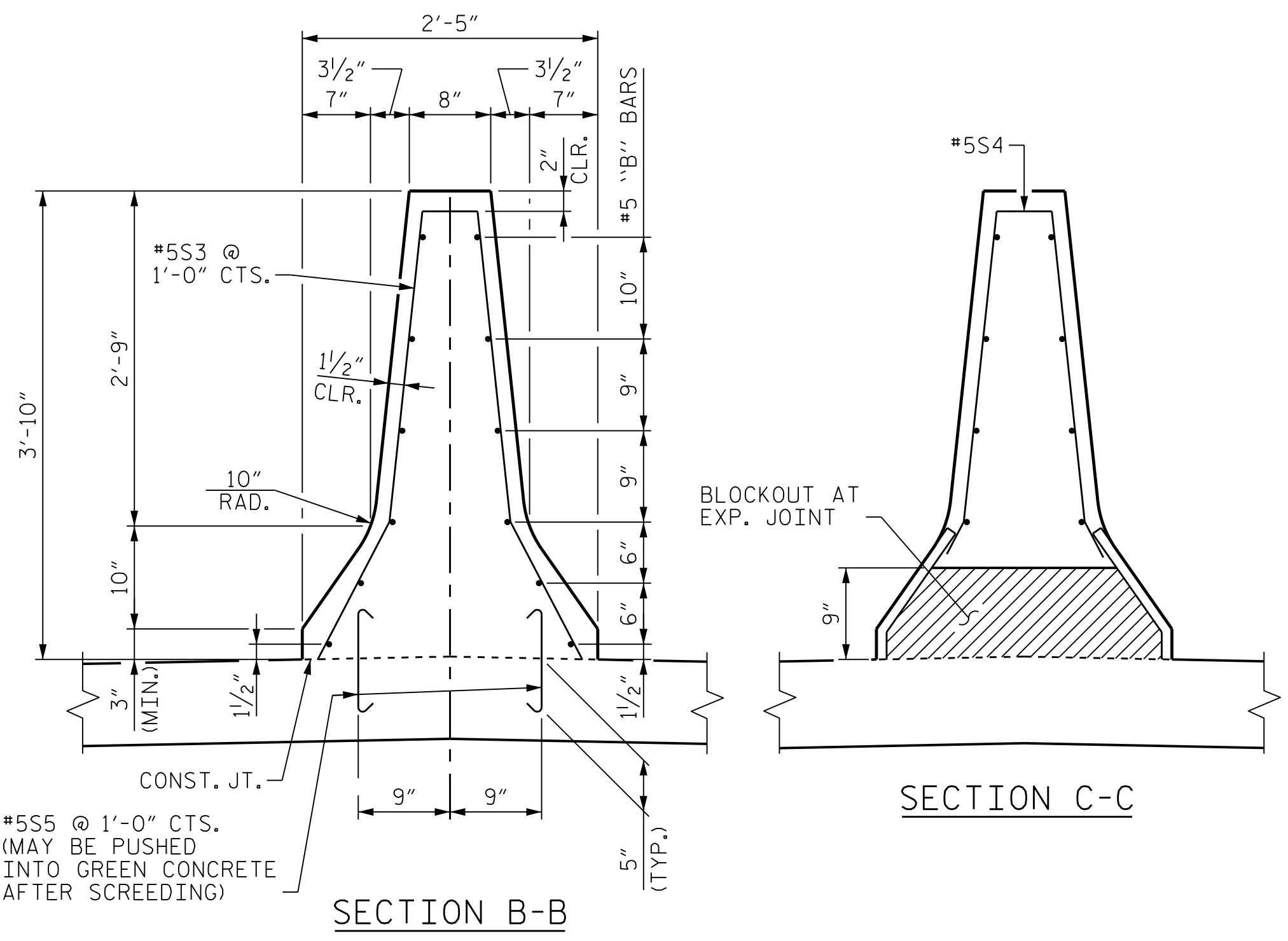
* EPOXY COATED REINFORCING STEEL 5451 LBS.
CLASS AA CONCRETE 31.3 CU. YDS.
CONCRETE BARRIER RAIL 229.8 LIN. FT.

BILL OF MATERIAL

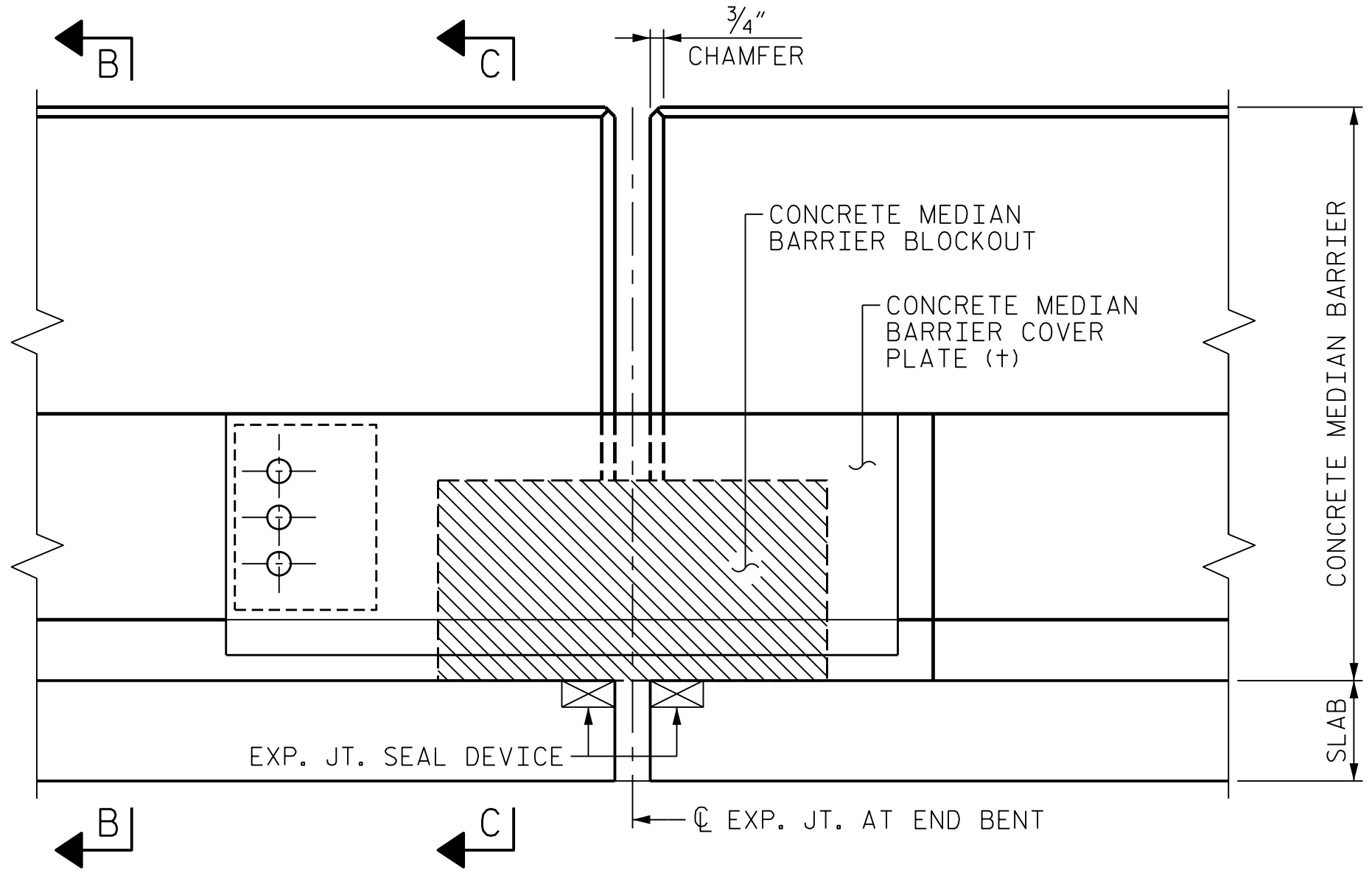
▲ FOR CONCRETE MEDIAN BARRIER ONLY

| BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT |
|------|-----|------|------|--------|--------|
| *B7 | 48 | #5 | STR | 25'-7" | 1281 |
| *B8 | 36 | #5 | STR | 24'-7" | 924 |
| *B9 | 24 | #5 | STR | 15'-1" | 378 |
| *B10 | 24 | #5 | STR | 13'-9" | 345 |
| *B11 | 48 | #5 | STR | 14'-9" | 739 |
| *S3 | 280 | #5 | 3 | 7'-10" | 2288 |
| *S4 | 4 | #5 | 3 | 6'-0" | 26 |
| *S5 | 560 | #5 | 4 | 1'-10" | 1071 |

* EPOXY COATED REINFORCING STEEL 7052 LBS.
CLASS AA CONCRETE 49.8 CU. YDS.
CONCRETE MEDIAN BARRIER 282.0 LIN. FT.

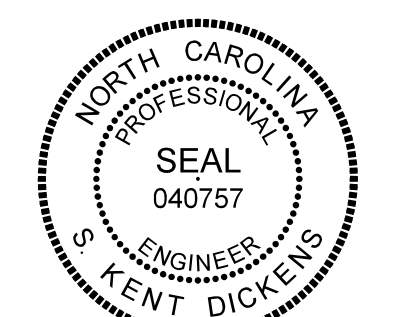


MEDIAN BARRIER DETAILS (TYPE T)



ELEVATION AT EXPANSION JOINT SEALS

(+) SEE "SUPERSTRUCTURE EXPANSION JOINT SEAL DETAILS FOR MEDIAN BARRIER" SHEET 3 OF 4 FOR COVER PLATE DETAILS



1/25/2022

PROJECT NO. B-3186/B-5898

HAYWOOD COUNTY

STATION: 42+71.13 -L-

SHEET 2 OF 2

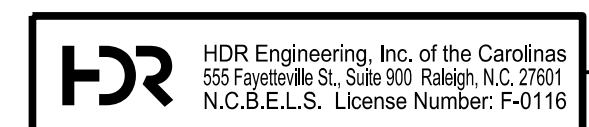
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
CONCRETE BARRIER
RAIL AND CONCRETE
MEDIAN BARRIER
DETAILS

REVISIONS

| NO. | BY: | DATE: | NO. | BY: | DATE: |
|-----|-----|-------|-----|-----|-------|
| 1 | -- | -- | 3 | -- | -- |
| 2 | -- | -- | 4 | -- | -- |

SHEET NO. 501-29
TOTAL SHEETS 59



HDR Engineering, Inc. of the Carolinas
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N.C.B.E.L.S. License Number: F-0116

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PLOT DRIVER: NCDOT STRUCTURES DEFAULT PLOTTER.plt PENTABLE: NCDOT STRUCTURES DEFAULT PEN.tbl
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FILE: ... \401.140.B5898B3186.SMU.BR.029.430168.dgn

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|-----------------------|-------------|----------------------|-------------|
| DES BY: H. ABU NIMEH | DATE: 05/21 | DWG BY: B. PETERSON | DATE: 05/21 |
| DES CHK: L. GUALTIERI | DATE: 06/21 | CHK BY: L. GUALTIERI | DATE: 06/21 |