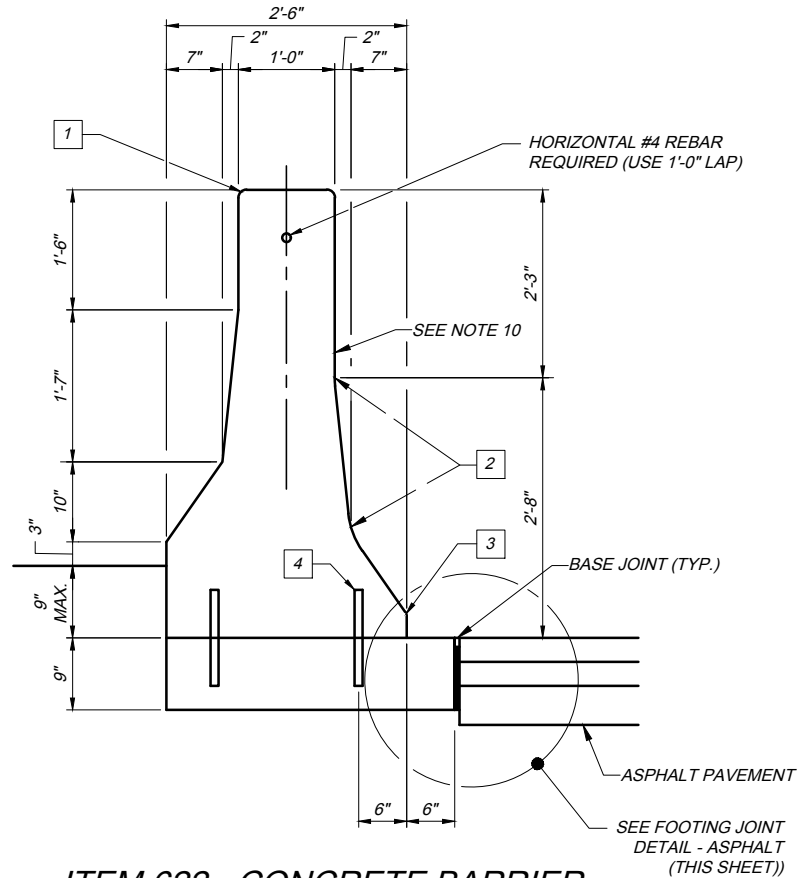


**ITEM 622 - CONCRETE BARRIER,  
TYPE B-50, AS PER PLAN**



**ITEM 622 - CONCRETE BARRIER,  
TYPE C-50, AS PER PLAN**

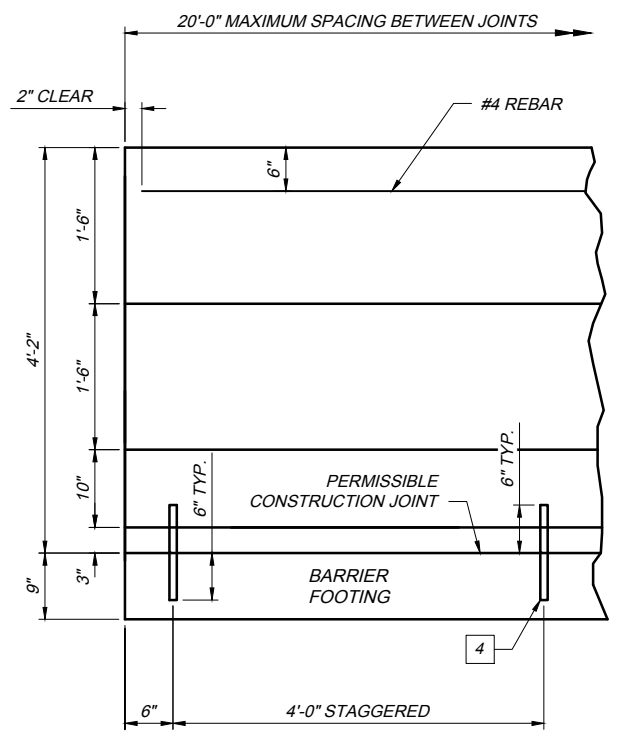
**NOTES:**

- CONCRETE BARRIER, MAY BE CAST IN PLACE OR SLIP FORMED AND SHALL BE BUILT IN LOCATIONS SPECIFIED IN THE PLANS. WHERE A BRIDGE FALLS WITHIN THE LIMITS OF THE CONCRETE BARRIER, THE BARRIER HEIGHT AND WIDTH SHALL BE ADJUSTED ON THE APPROACH SLAB, TO MATCH THE HEIGHT, WIDTH, AND SHAPE OF THE PROPOSED BARRIER ON THE ABUTMENT OR BRIDGE. FOR DETAILS, REFER TO OTIC STANDARD DRAWING AS-1.
- MATERIALS: CONSTRUCT USING CONCRETE WITH A MINIMUM DESIGN STRENGTH OF 4000 PSI CONFORMING TO THE REQUIREMENTS OF SECTION 499 OF THE CMS. CONSTRUCT TOP AND END EDGES WITH EITHER A 1" RADIUS OR 3/4" CHAMFER, EXCEPT AT LIGHT POLE FOUNDATIONS.
- JOINTS: UNSEALED CONTRACTION JOINTS SPACED AT 20 FEET ON-CENTER (MAXIMUM SPACING) FOR CONCRETE BARRIER, TYPE B-50 OR C-50, SHALL BE CONSTRUCTED THROUGHOUT THE RUN OF CONCRETE BARRIER EXCEPT THAT EXPANSION JOINTS SHALL BE USED AT THE CENTER LINE OF AND AROUND EACH BRIDGE PIER COLUMN AND ON EITHER SIDE OF OVERHEAD SIGN SUPPORTS, INLETS, LIGHT POLE FOUNDATIONS, CHANGES IN MEDIAN BARRIER TYPE OR DIMENSIONS, AND AT APPROACH SLABS. IF THE INLET TOP IS SLIP FORMED, THE EXPANSION JOINTS ADJACENT TO IT MAY BE OMITTED.
- CONTRACTION JOINTS MAY BE CONSTRUCTED WITH METAL INSERTS INSIDE THE FORMS, PREFORMED FULL WIDTH JOINT FILLER, A GROOVING TOOL, OR BY SAWING. INSERTS, TOOLED JOINTS, AND SAWED JOINTS SHALL HAVE A 3 INCH MINIMUM DEPTH. ALL JOINTS SHALL BE CONSTRUCTED FOR THE FULL HEIGHT OF THE BARRIER INCLUDING THE FOOTING. SAWING SHALL BE DONE AS SOON AS CURING WILL ALLOW, TO PREVENT SPALLING.
- SEALING JOINTS: THE VERTICAL BARRIER WALL OR BARRIER FOOTING SHALL BE SPRAYED WITH SP 404A SEALING MATERIAL ADJACENT TO SP 404 AND SP 402 LAYERS. SEALING MATERIAL SHALL BE IN ACCORDANCE WITH SP 404A.
- CONSTRUCTION JOINTS: BARRIER RUNS WITH ABUTTING VERTICAL SURFACES AT EITHER REQUIRED OR PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE DOWELED TO EACH OTHER BY USE OF 3/4" DIAMETER, BY 18" LONG EPOXY COATED DEFORMED DOWEL BARS AS PER CMS 622.02. BARS ARE TO BE PLACED AS SHOWN ON THE B-50 OR C-50 DOWEL BAR PLACEMENT DETAILS ON SHEET 3 OF 3. PROVIDE A 4" CLEARANCE TO BARRIER SURFACES AND TO ANY RACEWAYS.
- CURING AND SEALING: IN LIEU OF THE CURING COMPOUNDS SPECIFIED IN CMS 622.07, THE CONCRETE BARRIER SHALL BE CURED AND SEALED BY CMS 511.14 METHOD B, MEMBRANE CURING UTILIZING CHEMMASTERS SILENCE-A OR AN APPROVED EQUAL. MATERIAL APPLICATION SHALL BE AS PER THE RECOMMENDATIONS OF THE MANUFACTURER. ALL OTHER PROVISIONS OF SECTION 622 OF THE CMS SHALL APPLY.
- TRANSITIONS: MAKE LINEAR TRANSITIONS BETWEEN THE DIFFERENT TYPES OF BARRIER WITHIN A 20' LENGTH.
- BARRIER REFLECTORS: BARRIER REFLECTORS SHALL BE INSTALLED AND PAID FOR IN ACCORDANCE WITH SP 626.
- MEASUREMENT: ITEM 622 - CONCRETE BARRIER, TYPE B-50 OR C-50, AS PER PLAN, INCLUDING TRANSITIONS AND PIER SECTIONS AS DETAILED ON SHEET 2 OF 3 ARE PAID FOR AT THE UNIT PRICE BID PER FOOT, WITH APPROPRIATE DEDUCTIONS FOR OTHER ITEMS SUCH AS:
 

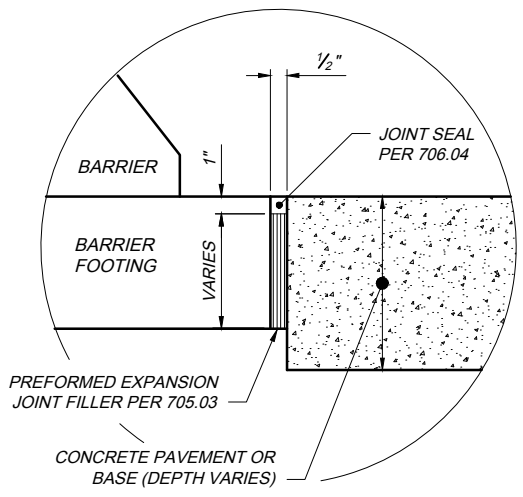
SP 611 MEDIAN INLET	20 FEET
ITEM 630 OVERHEAD SIGN SUPPORT FOUNDATION	10 FEET
ITEM 630 BARRIER WALL ASSEMBLY	10 FEET
- BASIS OF PAYMENT: ITEM 622 - CONCRETE BARRIER, TYPE B-50 OR C-50, AS PER PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THIS OTIC STANDARD DRAWING AND SECTION 622 OF THE CMS.
- PAYMENT FOR ANY REINFORCED END ANCHORS, AS SHOWN ON THE END ANCHORAGE DETAILS SHOWN ON SHEET 3 OF 3, WILL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED. THIS INCLUDES ALL MATERIALS, LABOR, AND OTHER INCIDENTALS NECESSARY TO CONSTRUCT THIS ANCHOR.

**LEGEND:**

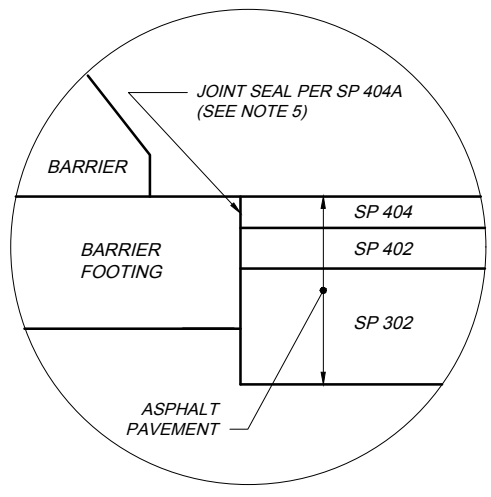
- |   |   |
|---|---|
| 1 | 1 INCH RADIUS OR 3/4 INCH CHAMFER   |
| 2 | PERMISSIBLE 10 INCH RADIUS  |
| 3 | PERMISSIBLE 1 INCH RADIUS   |
| 4 | #8 EPOXY COATED DEFORMED STEEL BARS, 12 INCH LONG, SPACED 4 FEET BETWEEN SUCCESSIVE BARS ON A STAGGERED PATTERN. START AND END DOWELS 6 INCHES FROM BARRIER CONTRACTION JOINTS. OMIT DOWELS WHEN TOP IS CONSTRUCTED INTEGRAL WITH THE BASE. |



**BARRIER ELEVATION**

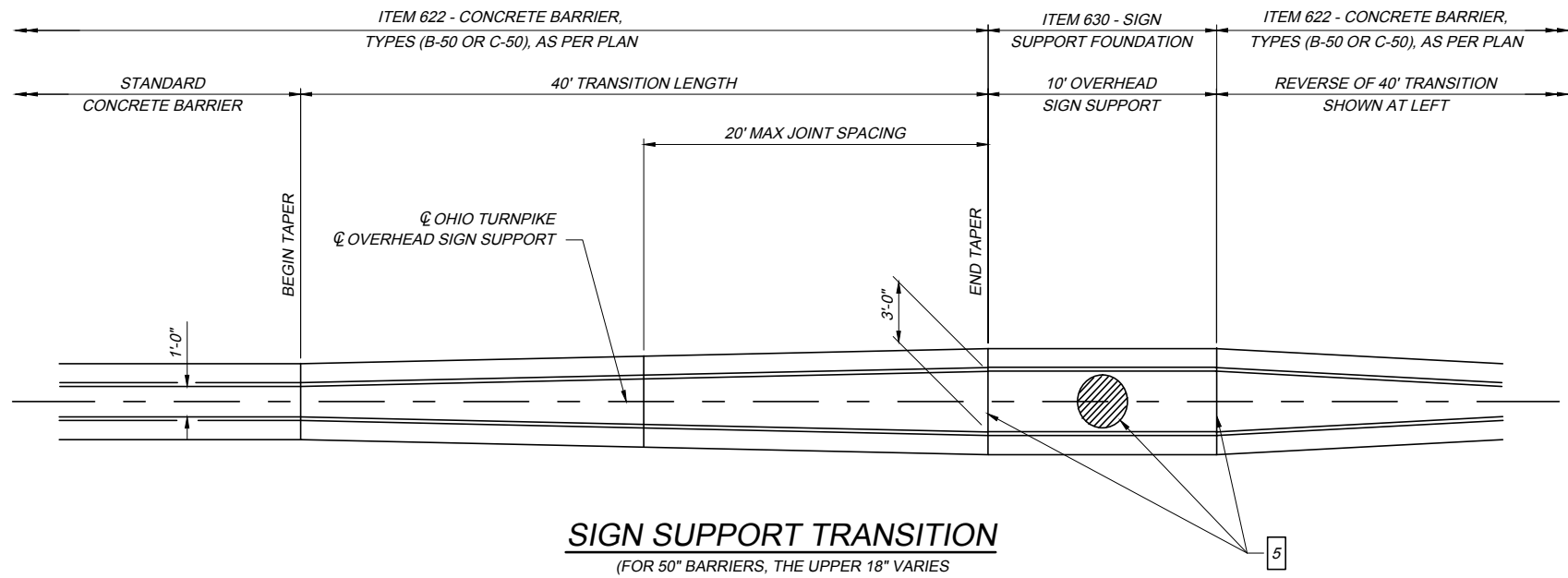


**FOOTING JOINT DETAIL -  
CONCRETE**

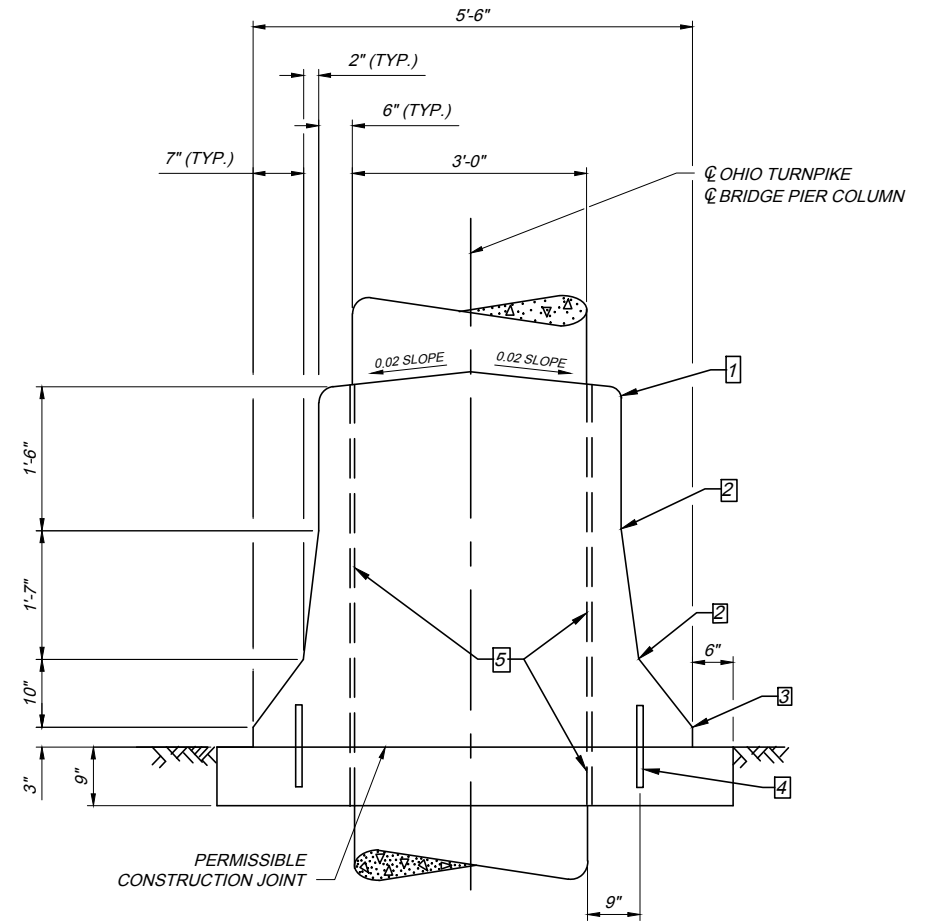


**FOOTING JOINT DETAIL -  
ASPHALT**

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**SIGN SUPPORT TRANSITION**  
 (FOR 50" BARRIERS, THE UPPER 18" VARIES FROM 12" TO 36" IN WIDTH.)



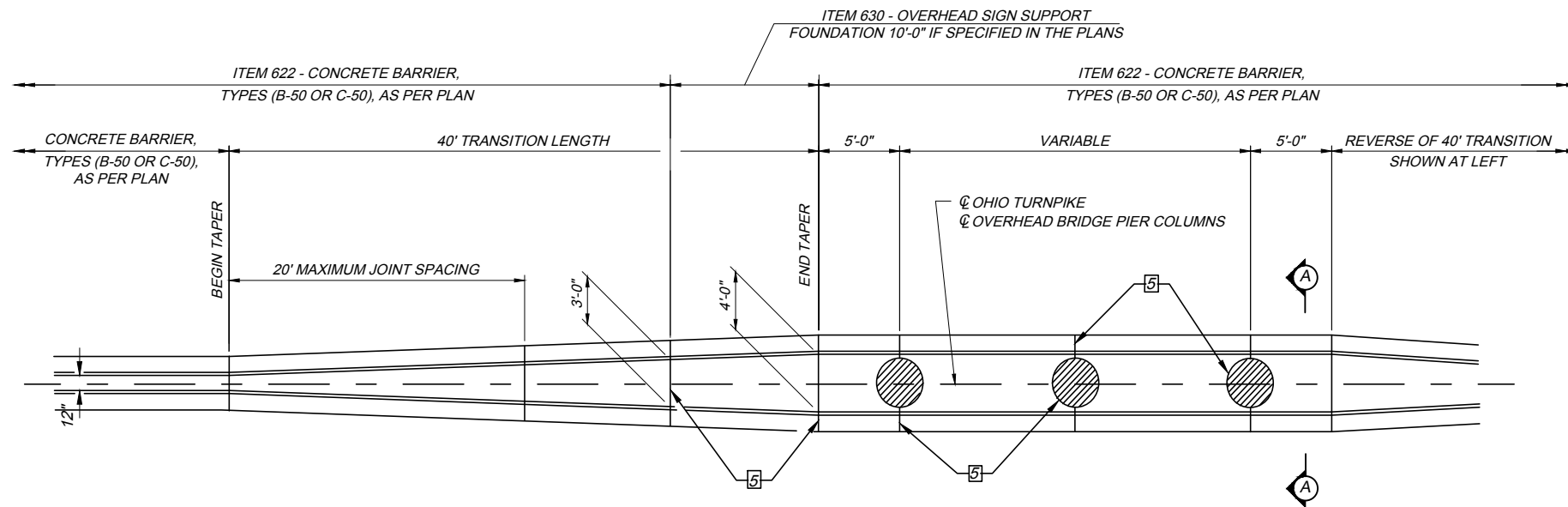
**SECTION A-A**

**NOTES:**

1. STANDARD BARRIERS: ITEM 622 - CONCRETE BARRIER, TYPE B-50 OR C-50, AS PER PLAN SHALL BE CONSTRUCTED AS SHOWN ON THE SHEET 1 OF 3 OR AS DETAILED IN THE PLANS.
2. FOR SIGN SUPPORT FOUNDATION DETAILS, SEE ODOT STANDARD CONSTRUCTION DRAWING TC-21.50.
3. FOR ADDITIONAL NOTES, SEE SHEETS 1 AND 3 OF 3.

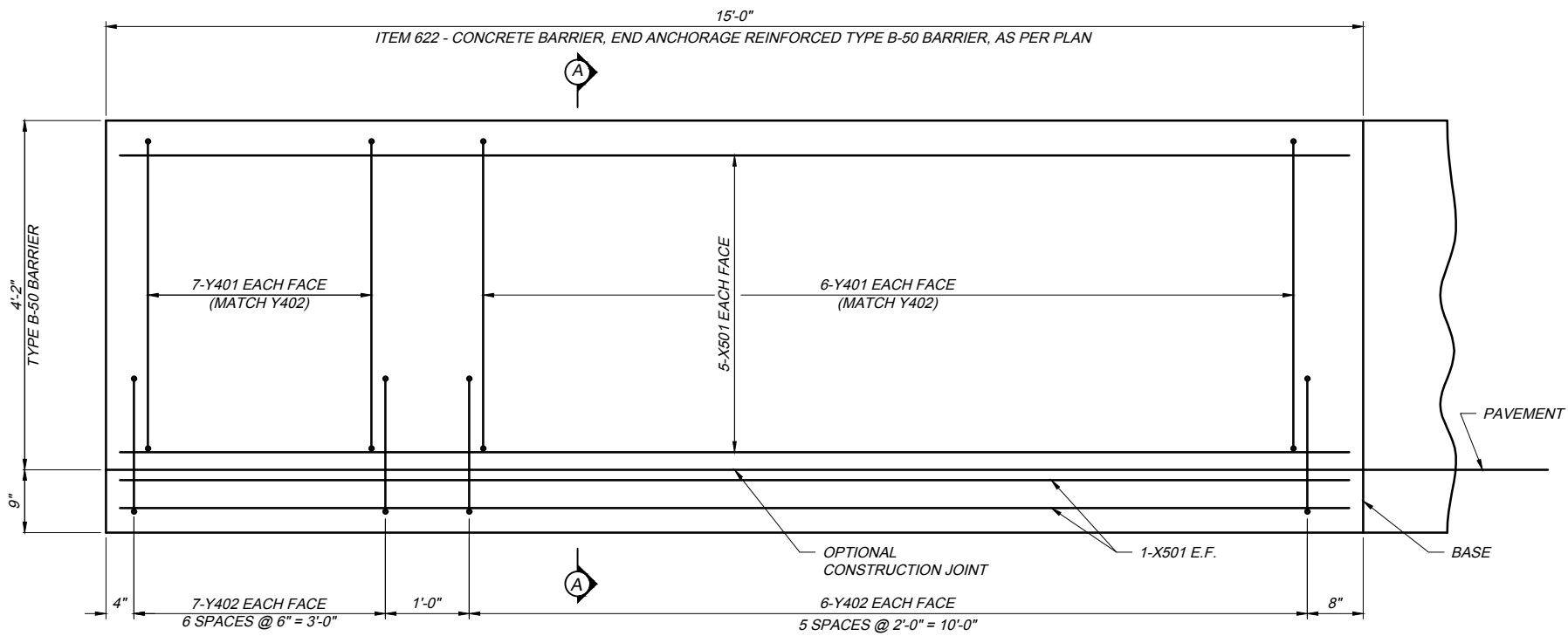
**LEGEND**

- 1 1" RADIUS OR 3/4" CHAMFER.
- 2 PERMISSIBLE 10" RADIUS.
- 3 PERMISSIBLE 1" RADIUS.
- 4 #8 EPOXY COATED DEFORMED STEEL BARS, 12" LONG, SPACED 2'-0" BETWEEN SUCCESSIVE BARS ON A STAGGERED PATTERN. DOWEL BARS SHALL BEGIN 4'-0" FROM THE LEADING EDGE OF THE END TERMINAL. OMIT DOWELS WHEN THE TOP IS CONSTRUCTED INTEGRALLY WITH THE BASE.
- 5 EXPANSION JOINT, 1" MIN. PREFORMED FILLER PER 705.03

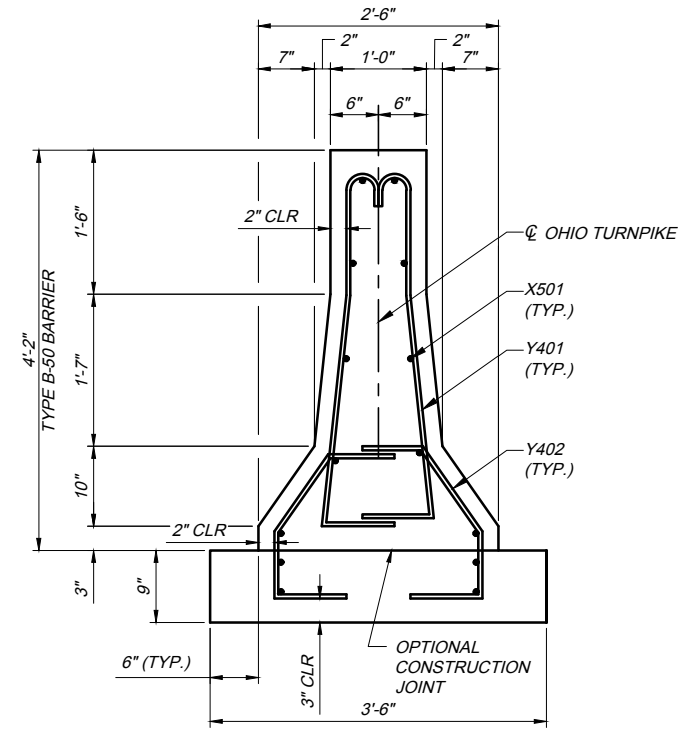


**BRIDGE PIER TRANSITION WITH SIGN SUPPORT**

CBR-1 2021.2.9.dwg: 2/11/21



ELEVATION



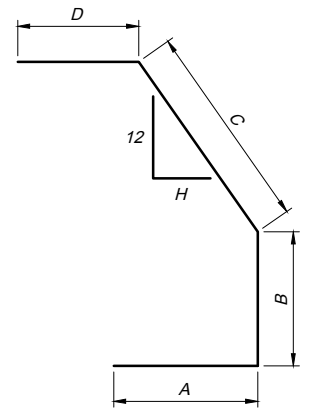
SECTION A-A

END ANCHORAGE, TYPE B-50

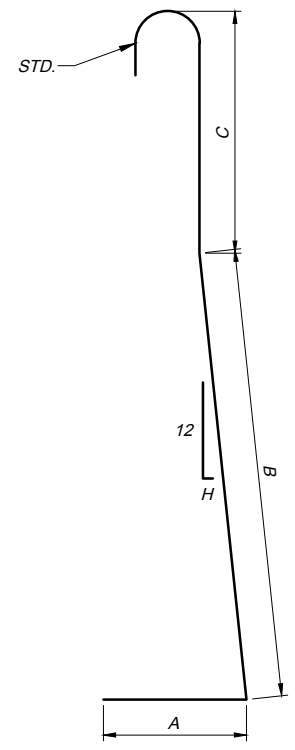
MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	H
Y401	26	4'-9"	83	84	8"	2'-6"	1'-4"		1 1/4"
Y402	26	3'-0"	52	43	8"	9"	12"	8"	8 1/2"
X501	14	14'-8"	214	STR.					
BARRIER TOTAL = 349 POUNDS									

NOTES:

- ALL REINFORCING BARS SHALL BE EPOXY COATED
- THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, Y401 IS A NUMBER 4 BAR. BAR DIMENSIONS SHOWN ARE OUT-TO-OUT UNLESS OTHERWISE NOTED.



TYPE 43



TYPE 84

NOTES:

- CONSTRUCTION JOINTS: BARRIER RUNS WITH ABUTTING VERTICAL SURFACES AT EITHER REQUIRED OR PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE DOWELED TO EACH OTHER BY USE OF 3/4" DIAMETER BY 18" LONG EPOXY COATED DEFORMED DOWEL BARS AS PER CMS 622.02. BARS ARE TO BE PLACED AS SHOWN ON THE DOWEL BAR PLACEMENT DETAIL ON THIS SHEET. IF THE CONTRACTOR ELECTS TO DRILL DOWELS, THE WORK SHALL BE COMPETED PER SECTION 510 OF THE CMS. GROUT SHALL BE NON-SHRINK, NON-METALLIC PER CMS 705.20. THIS WORK SHALL BE INCIDENTAL TO ITEM 622 PAY ITEMS.
- PAYMENT FOR ALL REINFORCEMENT, CONCRETE FOOTING, AND ANY INCIDENTAL ITEMS REQUIRED TO CONSTRUCT THE CONCRETE BARRIER, END ANCHORAGE, REINFORCED AS SHOWN ON THIS SHEET WILL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED. THIS INCLUDES ALL MATERIALS, LABOR, AND OTHER INCIDENTALS NECESSARY TO CONSTRUCT THIS ANCHOR. IN ADDITION TO THE ANCHORAGE PAYMENT, THE CONTRACTOR WILL BE COMPENSATED FOR 15'-0" OF ITEM 622 - CONCRETE BARRIER, TYPE B-50 OR C-50, AS PER PLAN.
- REINFORCED END ANCHORAGES ARE REQUIRED AT THE ENDS OF CONCRETE BARRIER RUNS AND AT INTERRUPTIONS IN BARRIER CAUSED BY EXPANSION JOINTS. WHEN BARRIER DOES NOT ABUT ANOTHER BARRIER RUN, CONSTRUCT THE LAST 15' USING THE END ANCHORAGE DETAIL AS SHOWN HERE.
- AT EXPANSION JOINTS, CONSTRUCT AN END ANCHORAGE ON BOTH SIDES OF JOINT, WITH A MAXIMUM GAP OF 2" FOR THE OPEN JOINT. THE MAXIMUM EXPANSION JOINT SPACING SHALL BE 800'. THIS ANCHORAGE IS NOT NEEDED AT CONSTRUCTION JOINTS, PROVIDE DOWEL BAR CONNECTIONS INSTEAD. SEE CONSTRUCTION JOINT NOTE ON THIS SHEET FOR DOWELING DETAILS.
- AT MAINTENANCE CROSSOVERS, PROVIDE A HINGE BAR PLACEMENT PER OTIC STANDARD DRAWING XOY-3.
- GROUT INSTALLATION SHALL BE DONE IN ACCORDANCE WITH CMS 705.20 NON-SHRINK, NON-METALLIC MATERIAL. THE COST SHALL BE INCIDENTAL TO THIS STANDARD DRAWING.
- FOR ADDITIONAL NOTES, SEE SHEETS 1 AND 2 OF 3.