

**PLAN OF FLOOR SILL/BAFFLE LAYOUT**

MATERIAL EXCAVATED FROM THE EXISTING BED SHALL BE STOCKPILED FOR USE IN THE PROPOSED CULVERT AND SHALL PROVIDE A CONTINUOUS LOW FLOW CHANNEL BETWEEN THE SILLS AS SHOWN. THE MATERIAL SHALL BE NATURAL STONE WITH A GRADATION SIZE SIMILAR TO THAT OF CLASS B RIP RAP. STONES LARGER THAN 6 INCHES SHALL NOT BE PLACED WITHIN THE LOW FLOW CHANNEL. BED MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

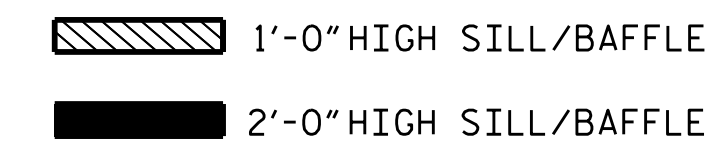
BED MATERIAL SHALL BE SUPPLEMENTED BY CLASS B RIP RAP AS NECESSARY.

THE TOP OF LOW FLOW SILLS SHOULD MATCH THE STREAM BED ELEVATION IN THE LOW FLOW CHANNEL OF THE STREAM.

THE ENTIRE COST OF WORK REQUIRED TO PLACE EXCAVATED MATERIAL OR SUPPLEMENTAL MATERIAL AS SHOWN ON THE PLANS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE BID FOR CULVERT EXCAVATION.

THE ENTIRE COST OF WORK REQUIRED TO CONSTRUCT THE SILLS SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.

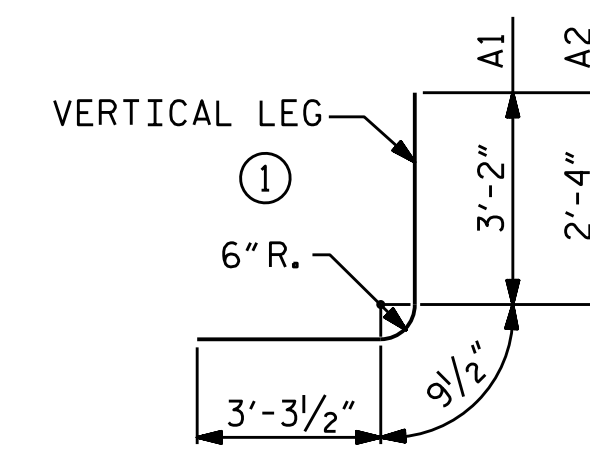
THE STOCKPILED MATERIAL SHALL BE PLACED TO PROVIDE A 1 FOOT DEPTH LOW FLOW CHANNEL BETWEEN THE LOW FLOW SILLS, AND SHALL BE PLACED TO THE LEVEL OF 2'-0" BETWEEN THE HIGH FLOW SILLS.



| REINFORCING BAR SCHEDULE |     |      |      |         |        |
|--------------------------|-----|------|------|---------|--------|
| BAR                      | NO. | SIZE | TYPE | LENGTH  | WEIGHT |
| A1                       | 702 | #4   | 1    | 7'-3"   | 3400   |
| A2                       | 702 | #4   | 1    | 6'-5"   | 3009   |
| A100                     | 381 | #6   | STR  | 10'-1"  | 5770   |
| A200                     | 381 | #6   | STR  | 10'-1"  | 5770   |
| B1                       | 380 | #4   | STR  | 9'-3"   | 2348   |
| B2                       | 702 | #4   | STR  | 6'-4"   | 2970   |
| C1                       | 350 | #4   | STR  | 28'-11" | 6761   |
| D1                       | 30  | #6   | STR  | 2'-11"  | 131    |
| D2                       | 30  | #6   | STR  | 1'-11"  | 86     |
| F1                       | 39  | #4   | STR  | 4'-7"   | 119    |
| G1                       | 4   | #4   | STR  | 10'-2"  | 27     |

REINFORCING STEEL 30,391 LBS.

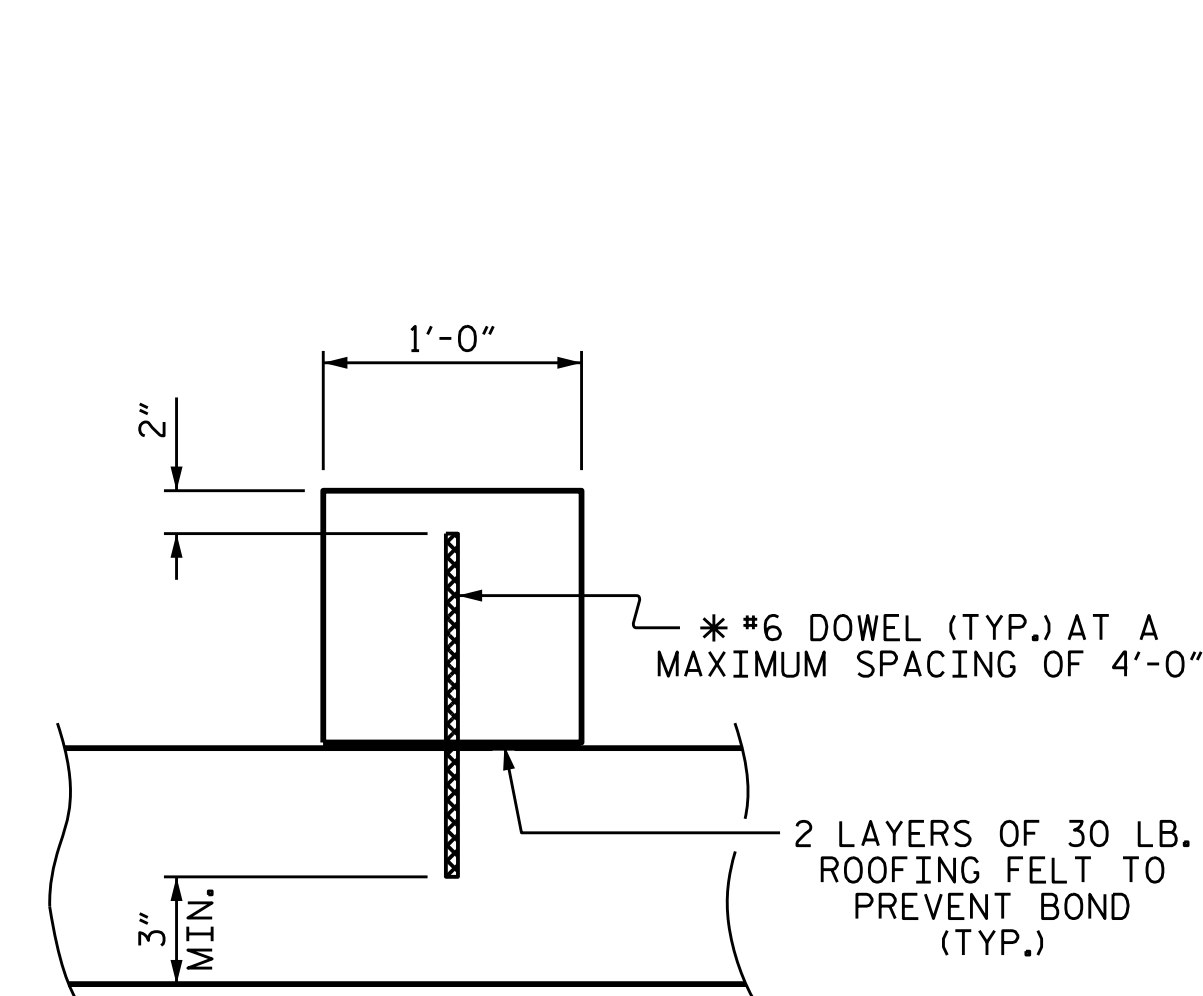
**BAR TYPE**



DIMENSIONS ARE OUT TO OUT

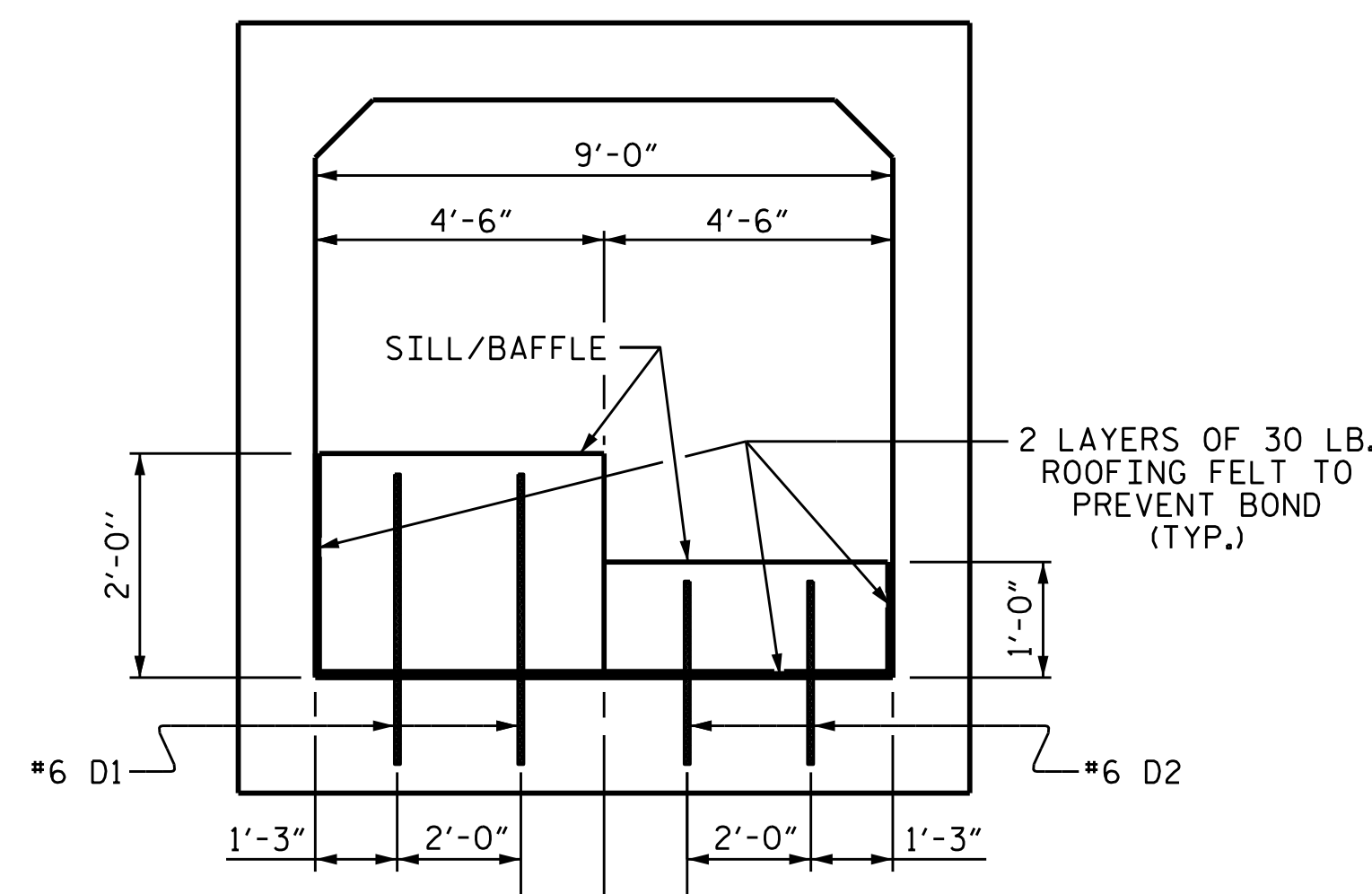
**SPLICE CHART**

| BAR | SIZE | SPLICE LENGTH |
|-----|------|---------------|
| B1  | #4   | 1'-5"         |
| C1  | #4   | 1'-11"        |



**SECTION THROUGH SILL/BAFFLE**

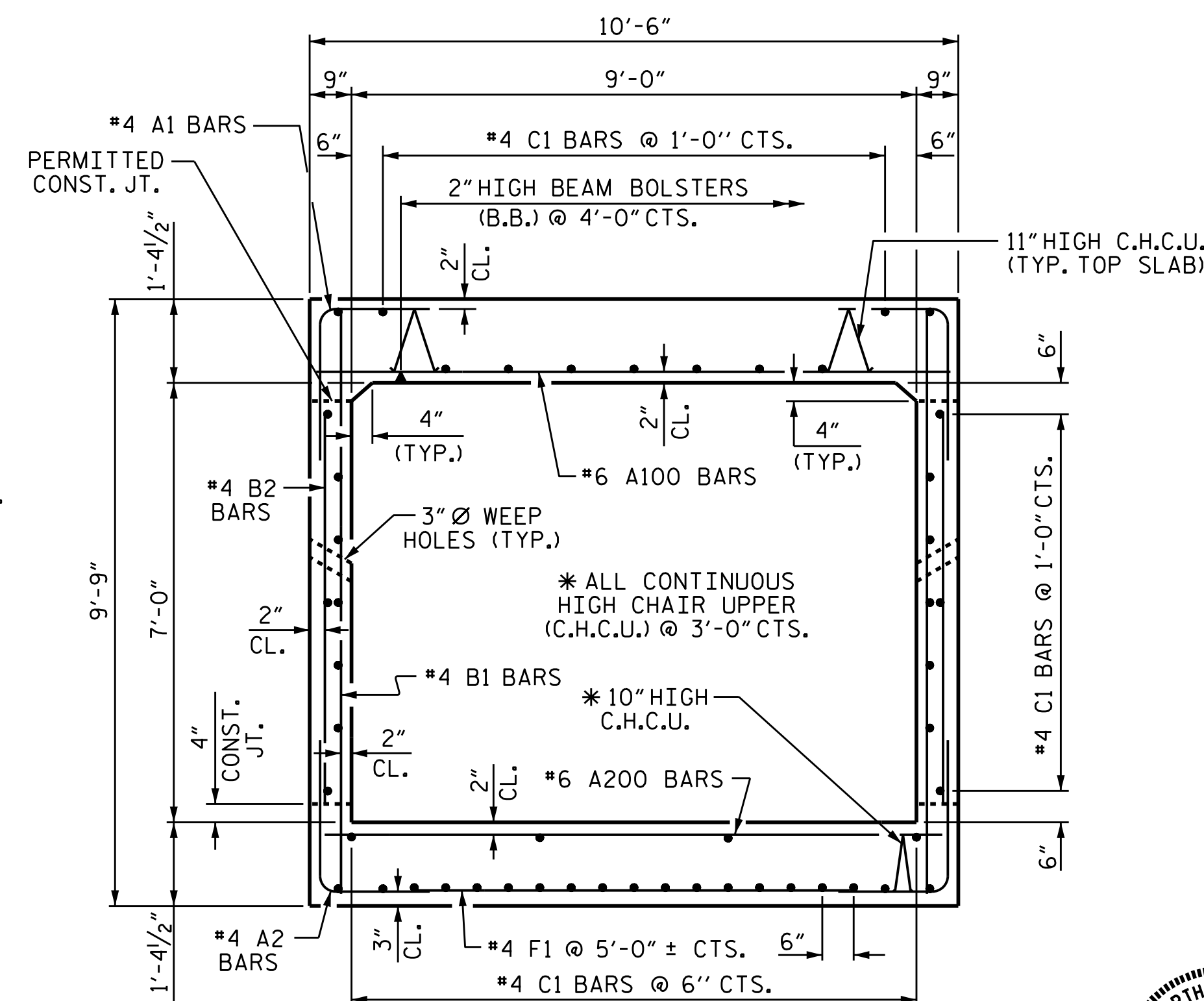
\* DOWELS MAY BE PUSHED INTO GREEN CONCRETE AFTER SLAB HAS BEEN FLOAT FINISHED.



**ELEVATION**

(LOOKING UPSTREAM OR DOWNSTREAM)

**CULVERT SILL/BAFFLE DETAILS**



**RIGHT ANGLE SECTION OF BARREL**

THERE ARE 50 "C" BARS IN SECTION OF BARREL

PROJECT NO. R-2915A  
WATAUGA/ASHE COUNTY  
 STATION: 16+10.00 -LPC- /  
16+87.00 -RPC-  
 SHEET 3 OF 5

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SINGLE 9 FT. X 7 FT.  
 CONCRETE BOX CULVERT**



| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | C-18         |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 20           |

DRAWN BY : M.K. BEARD DATE : 2/23/15  
 CHECKED BY : H.T. BARBOUR DATE : 3/20/15  
 DESIGN ENGINEER OF RECORD: J.P. MCCARTHA DATE : 4/14/15