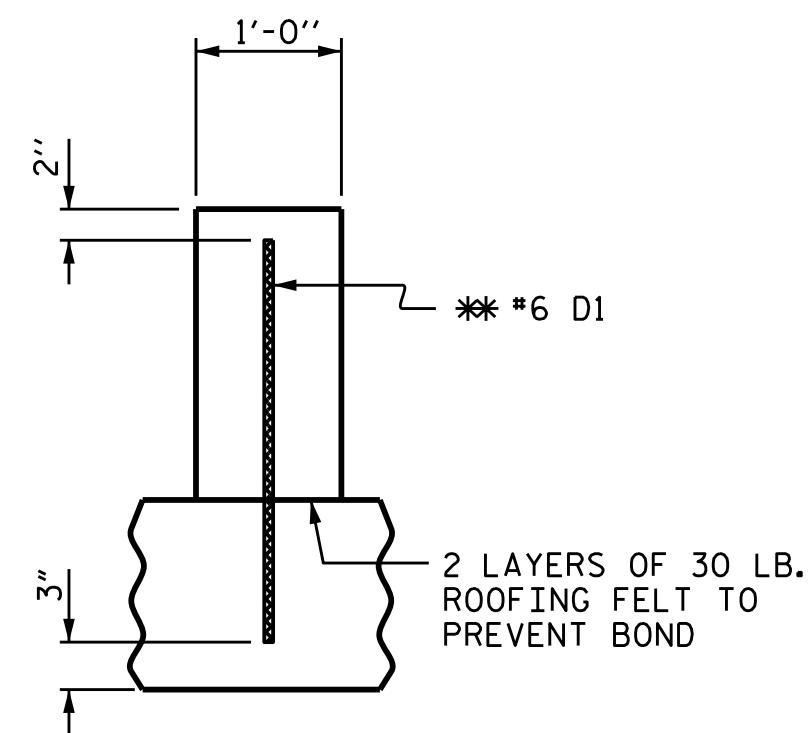
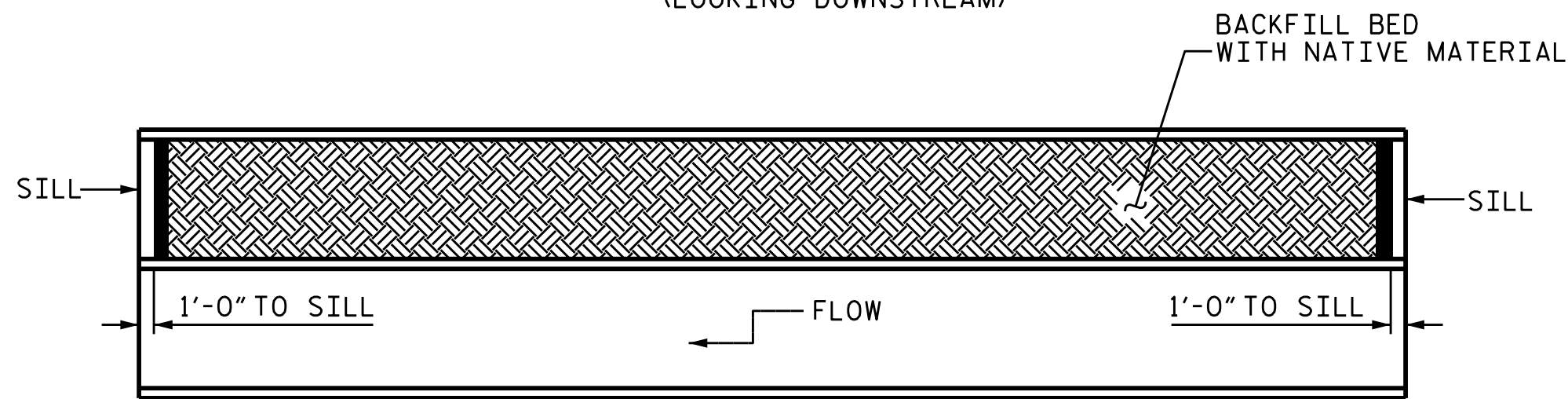


ELEVATION
ONE SILL AT INLET AND OUTLET END (LOOKING DOWNSTREAM)



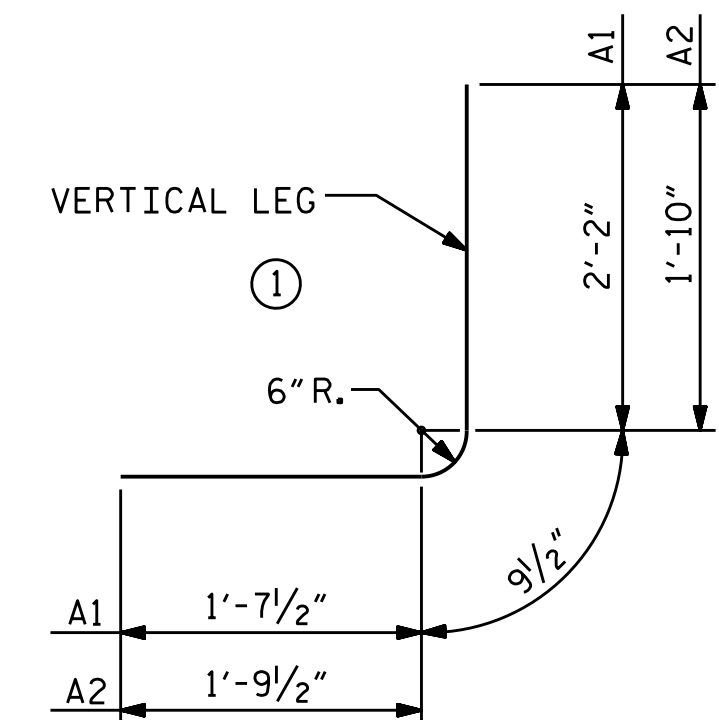
SECTION THROUGH SILL
* DOWELS MAY BE PUSHED INTO GREEN CONCRETE AFTER SLAB HAS BEEN FLOAT FINISHED.



PLAN

SILL DETAILS

NATIVE MATERIAL SHALL BE PLACED BETWEEN SILLS IN THE CULVERT TO PROVIDE A CONTINUOUS LOW FLOW CHANNEL. NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED OR FLOODPLAIN AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. ONLY MATERIAL THAT IS EXCAVATED FROM THE STREAM BED MAY BE USED TO LINE THE LOW FLOW CULVERT BARREL. RIP RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARREL. IF RIP RAP IS USED TO LINE THE HIGH FLOW CULVERT BARREL, NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.



BAR TYPE
BAR DIMENSIONS ARE OUT TO OUT

SPLICE LENGTH CHART		
BAR	SIZE	SPLICE LENGTH
B1, B3	#4	1'-5"
C1, C2	#4	1'-11"

BILL OF MATERIAL

STAGE I

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	122	#4	1	4'-7"	374
* A2	164	#5	1	4'-5"	755
* A100	122	#4	STR.	17'-7"	1433
* A200	82	#5	STR.	17'-7"	1504
* A300	61	#5	STR.	17'-7"	1119
* A400	122	#5	STR.	17'-7"	2237
* B1	122	#4	STR.	7'-0"	570
* B2	122	#4	STR.	5'-4"	435
* B3	122	#4	STR.	7'-0"	570
* C1	198	#4	STR.	22'-3"	2943
* D1	3	#6	STR.	2'-4"	11
* G1	4	#5	STR.	17'-8"	74

* EPOXY COATED REINF. STEEL = 12,025 LBS

STAGE II

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	146	#4	1	4'-7"	447
* A2	196	#5	1	4'-5"	903
* A100	146	#4	STR.	17'-7"	1715
* A200	98	#5	STR.	17'-7"	1797
* A300	73	#5	STR.	17'-7"	1339
* A400	146	#5	STR.	17'-7"	2678
* B1	146	#4	STR.	7'-0"	683
* B2	146	#4	STR.	5'-4"	520
* B3	146	#4	STR.	7'-0"	683
* C2	198	#4	STR.	25'-7"	3384
* D1	3	#6	STR.	2'-4"	11
* G1	4	#5	STR.	17'-8"	74

* EPOXY COATED REINF. STEEL = 14,234 LBS

PROJECT NO. R-5021
BRUNSWICK COUNTY
 STATION: 83+76.00 -L-

SHEET 3 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**DOUBLE 8 FT. X 6 FT.
 CONCRETE BOX CULVERT
 90° SKEW**

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	C2-3	
1			3			TOTAL SHEETS	5
2			4				

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : WFP / OTN DATE : 11-17
 CHECKED BY : P.K. NEWTON DATE : 12/2/18
 DESIGN ENGINEER OF RECORD: Z. MALIK DATE : 12/4/18