Docusign Envelope ID: 0600034A-885F-4357-A445-5A2AB2861A10

BILL OF MATERIAL

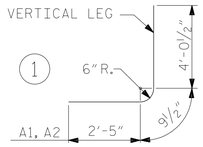
STAGE I

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	130	#4	1	7'-3"	630	A400	50	#6	STR	17'-8"	1327
A2	130	#4	1	7'-3"	630	A401	2	#6	STR	17'-1"	51
						A402	2	#6	STR	16'-3"	49
A100	50	#6	STR	17'-8"	1327	A403	2	#6	STR	15'-5"	46
A101	2	#6	STR	17'-1"	51	A404	2	#6	STR	14'-6"	44
A102	2	#6	STR	16'-3"	49	A405	2	#6	STR	13'-8"	41
A103	2	#6	STR	15'-5"	46	A406	2	#6	STR	12'-9"	38
A104	2	#6	STR	14'-6"	44	A407	2	#6	STR	11'-11"	36
A105	2	#6	STR	13'-8"	41	A408	2	#6	STR	11'-1"	33
A106	2	#6	STR	12'-9"	38	A409	2	#6	STR	10'-2"	31
A107	2	#6	STR	11'-11"	36	A410	2	#6	STR	9'-4"	28
A108	2	#6	STR	11'-1"	33	A411	2	#6	STR	8'-6"	26
A109	2	#6	STR	10'-2"	31	A412	2	#6	STR	7'-7"	23
A110	2	#6	STR	9'-4"	28	A413	2	#6	STR	6'-9"	20
A111	2	#6	STR	8'-6"	26	A414	2	#6	STR	5'-10"	18
A112	2	#6	STR	7'-7"	23	A415	1	#6	STR	5'-0"	8
A113	2	#6	STR	6'-9"	20	A416	1	#6	STR	4'-2"	6
A114	2	#6	STR	5'-10"	18	A417	1	#6	STR	3'-3"	5
A115	1	#6	STR	5'-0"	8	A418	1	#6	STR	2'-5"	4
A116	1	#6	STR	4'-2"	6						
A117	1	#6	STR	3'-3"	5	B1	66	#4	STR	6'-7"	290
A118	1	#6	STR	2'-5"	4	B3	66	#4	STR	6'-7"	290
A200	50	#6	STR	17'-8"	1327	C1	63	#4	STR	35'-5"	1490
A201	2	#6	STR	17'-1"	51						
A202	2	#6	STR	16'-3"	49	D1	8	#6	STR	1'-7"	19
A203	2	#6	STR	15'-5"	46	D2	4	#6	STR	2'-7"	16
A204	2	#6	STR	14'-6"	44						
A205	2	#6	STR	13'-8"	41	G1	4	#5	STR	20'-4"	85
A206	2	#6	STR	12'-9"	38						
A207	2	#6	STR	11'-11"	36	S2	6	#8	STR	20'-4"	326
A208	2	#6	STR	11'-1"	33	S3	12	#8	STR	20'-4"	651
A209	2	#6	STR	10'-2"	31						
A210	2	#6	STR	9'-4"	28	REINFORCING STEEL					11,763 LBS.
A211	2	#6	STR	8'-6"	26	SILL FOR TWO BARRELS					
A212	2	#6	STR	7'-7"	23						
A213	2	#6	STR	6'-9"	20	CLASS A CONCRETE					
A214	2	#6	STR	5'-10"	18	LOW FLOW SILL					0.3 C.Y.
A215	1	#6	STR	5'-0"	8	HIGH FLOW SILL					0.7 C.Y.
A216	1	#6	STR	4'-2"	6	BAFFLE					0.3 C.Y.
A217	1	#6	STR	3'-3"	5	EDGE BEAM					1.6 C.Y.
A218	1	#6	STR	2'-5"	4	TOTAL					2.9 C.Y.
A300	50	#6	STR	17'-8"	1327						
A301	2	#6	STR	17'-1"	51						
A302	2	#6	STR	16'-3"	49						
A303	2	#6	STR	15'-5"	46						
A304	2	#6	STR	14'-6"	44						
A305	2	#6	STR	13'-8"	41						
A306	2	#6	STR	12'-9"	38						
A307	2	#6	STR	11'-11"	36						
A308	2	#6	STR	11'-1"	33						
A309	2	#6	STR	10'-2"	31						
A310	2	#6	STR	9'-4"	28						
A311	2	#6	STR	8'-6"	26						
A312	2	#6	STR	7'-7"	23						
A313	2	#6	STR	6'-9"	20						
A314	2	#6	STR	5'-10"	18						
A315	1	#6	STR	5'-0"	8						
A316	1	#6	STR	4'-2"	6						
A317	1	#6	STR	3'-3"	5						
A318	1	#6	STR	2'-5"	4						

STAGE II

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	66	#4	1	7'-3"	320	A400	13	#6	STR	17'-8"	345
A2	66	#4	1	7'-3"	320	A401	2	#6	STR	17'-1"	51
						A402	2	#6	STR	16'-3"	49
A100	13	#6	STR	17'-8"	345	A403	2	#6	STR	15'-5"	46
A101	2	#6	STR	17'-1"	51	A404	2	#6	STR	14'-6"	44
A102	2	#6	STR	16'-3"	49	A405	2	#6	STR	13'-8"	41
A103	2	#6	STR	15'-5"	46	A406	2	#6	STR	12'-9"	38
A104	2	#6	STR	14'-6"	44	A407	2	#6	STR	11'-11"	36
A105	2	#6	STR	13'-8"	41	A408	2	#6	STR	11'-1"	33
A106	2	#6	STR	12'-9"	38	A409	2	#6	STR	10'-2"	31
A107	2	#6	STR	11'-11"	36	A410	2	#6	STR	9'-4"	28
A108	2	#6	STR	11'-1"	33	A411	2	#6	STR	8'-6"	26
A109	2	#6	STR	10'-2"	31	A412	2	#6	STR	7'-7"	23
A110	2	#6	STR	9'-4"	28	A413	2	#6	STR	6'-9"	20
A111	2	#6	STR	8'-6"	26	A414	2	#6	STR	5'-10"	18
A112	2	#6	STR	7'-7"	23	A415	2	#6	STR	5'-0"	15
A113	2	#6	STR	6'-9"	20	A416	2	#6	STR	4'-2"	13
A114	2	#6	STR	5'-10"	18	A417	1	#6	STR	3'-3"	5
A115	2	#6	STR	5'-0"	15	A418	1	#6	STR	2'-5"	4
A116	2	#6	STR	4'-2"	13						
A117	1	#6	STR	3'-3"	5	B1	34	#4	STR	6'-7"	150
A118	1	#6	STR	2'-5"	4	B3	34	#4	STR	6'-7"	150
A200	13	#6	STR	17'-8"	345	C2	63	#4	STR	16'-7"	698
A201	2	#6	STR	17'-1"	51						
A202	2	#6	STR	16'-3"	49	D1	4	#6	STR	1'-7"	10
A203	2	#6	STR	15'-5"	46	D2	4	#6	STR	2'-7"	16
A204	2	#6	STR	14'-6"	44						
A205	2	#6	STR	13'-8"	41	G1	4	#5	STR	20'-4"	85
A206	2	#6	STR	12'-9"	38						
A207	2	#6	STR	11'-11"	36	S2	6	#8	STR	20'-4"	326
A208	2	#6	STR	11'-1"	33	S3	12	#8	STR	20'-4"	651
A209	2	#6	STR	10'-2"	31						
A210	2	#6	STR	9'-4"	28	REINFORCING STEEL					6,190 LBS.
A211	2	#6	STR	8'-6"	26	SILL FOR TWO BARRELS					
A212	2	#6	STR	7'-7"	23						
A213	2	#6	STR	6'-9"	20	CLASS A CONCRETE					
A214	2	#6	STR	5'-10"	18	LOW FLOW SILL					0.3 C.Y.
A215	2	#6	STR	5'-0"	15	HIGH FLOW SILL					0.7 C.Y.
A216	2	#6	STR	4'-2"	13	BAFFLE					0.0 C.Y.
A217	1	#6	STR	3'-3"	5	EDGE BEAM					1.6 C.Y.
A218	1	#6	STR	2'-5"	4	TOTAL					2.6 C.Y.
A300	13	#6	STR	17'-8"	345						
A301	2	#6	STR	17'-1"	51						
A302	2	#6	STR	16'-3"	49						
A303	2	#6	STR	15'-5"	46						
A304	2	#6	STR	14'-6"	44						
A305	2	#6	STR	13'-8"	41						
A306	2	#6	STR	12'-9"	38						
A307	2	#6	STR	11'-11"	36						
A308	2	#6	STR	11'-1"	33						
A309	2	#6	STR	10'-2"	31						
A310	2	#6	STR	9'-4"	28						
A311	2	#6	STR	8'-6"	26						
A312	2	#6	STR	7'-7"	23						
A313	2	#6	STR	6'-9"	20						
A314	2	#6	STR	5'-10"	18						
A315	2	#6	STR	5'-0"	15						
A316	2	#6	STR	4'-2"	13						
A317	1	#6	STR	3'-3"	5						
A318	1	#6	STR	2'-5"	4						

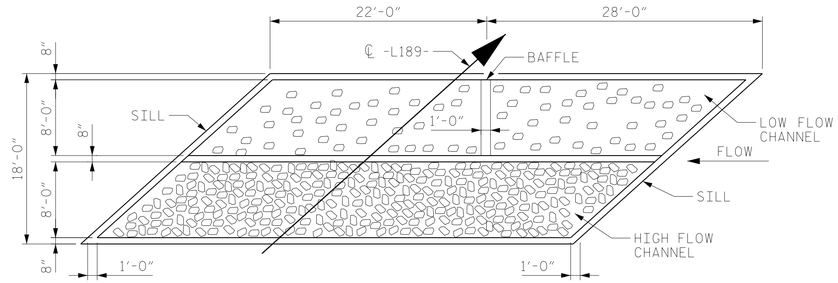
BAR TYPE



BAR DIMENSIONS ARE OUT TO OUT

SPLICE LENGTHS CHART

SIZE	SPLICE LENGTH
#4	2'-5"
#6	3'-7"



PLAN OF FLOOR SILL LAYOUT

BACKFILL ENTIRE CULVERT BED WITH NATIVE BED MATERIAL TO SILL HEIGHT

NOTES:

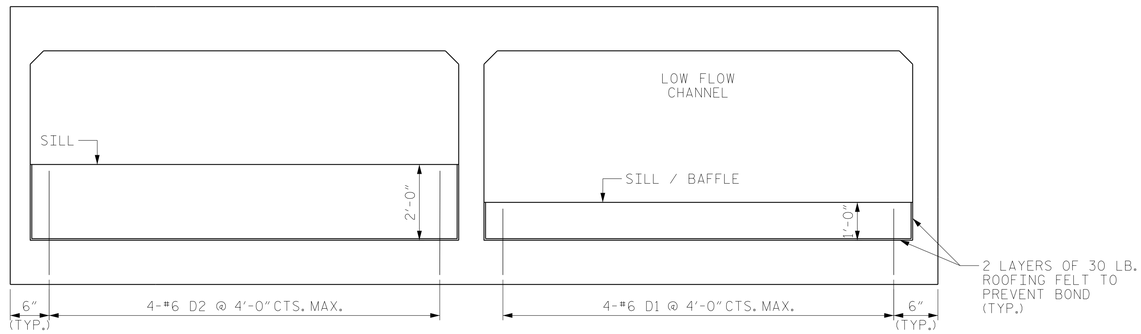
SILLS TO BE CONSTRUCTED AT INLET AND OUTLET AS SHOWN.

SILLS TO BE 1'-0" WIDE, CAST SEPARATELY AND ATTACHED BY DOWELS.

BACKFILL OVERFLOW BARREL AND LOW FLOW BARREL TO TOP OF SILL WITH NATIVE BED MATERIAL AND SUBSIZE WITH CLASS "II" RIP RAP IF NEEDED.

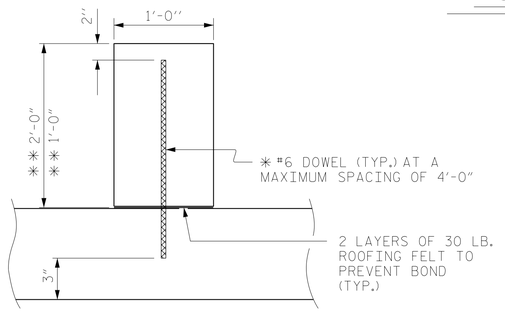
SEE "NATIVE BED MATERIAL" UNDER "ADDITIONAL INFORMATION AND COMPUTATIONS" OF THE CULVERT SURVEY & HYDRAULIC DESIGN REPORT.

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



CULVERT SILL / BAFFLE DETAILS

LOOKING DOWNSTREAM



SECTION THROUGH SILL

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

** SEE CULVERT SILL / BAFFLE DETAILS FOR LOCATION AND HEIGHT OF SILL

(SILL SHOWN, BAFFLE SIMILAR)

PROJECT NO. BP14.R002

HAYWOOD COUNTY

STATION: 11+46.15 -L189-

SHEET 6 OF 7

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 051677 MATTHEW R. ACOSTA
11/24/2025

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DOUBLE 8'-0" X 5'-0" CONCRETE BOX CULVERT DETAILS

60° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C3-6
1			3			TOTAL SHEETS
2			4			7

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : N. CUANY DATE : 02/2024
CHECKED BY : M. ACOSTA DATE : 02/2024
DESIGN ENGINEER OF RECORD: M. ACOSTA DATE : 08/2025

8/8/2025
\\rsandh.com\files\Transportation\P\1030014001_Div 14 Bridges_2016\1030014001_R.173 430187_188_189_190\Design\Structures\189\CAD\412_011_BP14.R002_SMU_CU_006_430189.dgn
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