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* CONTRACTOR SHALL VERIFY FIELD MEASUREMENTS BEFORE ORDERING REINFORCING STEEL. AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE H1, H2 AND H4 BARS WITH A 2'-0" LAP SPLICE, AT NO ADDITIONAL COST TO THE DEPARTMENT. DIMENSIONS MAY BE ADJUSTED IN THE FIELD, BUT REINFORCEMENT SIZE AND SPACING SHALL BE ACCORDING TO PLAN.

BAR TYPES

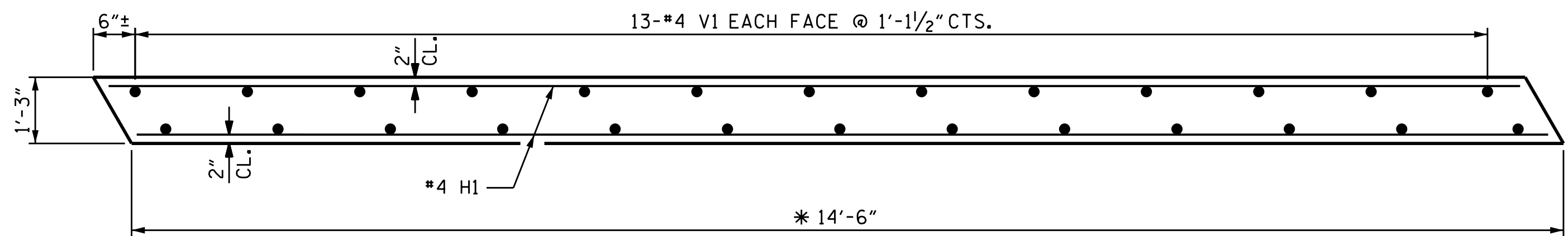
ALL BAR DIMENSIONS ARE OUT TO OUT.

①

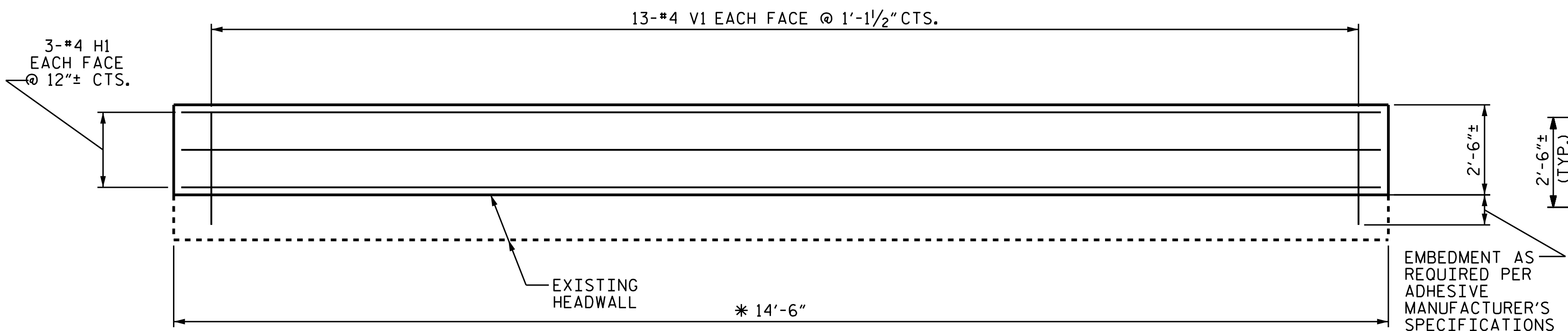
MAY BE FIELD BENT AS REQUIRED

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	12	#4	STR	14'-0"	112
H2	12	#4	STR	4'-6"	36
H3	8	#4	1	3'-3"	17
H4	12	#4	STR	11'-2"	90
H5	8	#4	1	3'-3"	17
V1	52	#4	STR	3'-0"	104
V2	72	#4	STR	3'-0"	144
REINFORCING STEEL				520 LBS	
FOR 4 WINGS AND 2 HEADWALLS					
CLASS A CONCRETE					
4 WINGS				3.3 CY	
2 HEADWALLS				3.4 CY	
TOTAL				6.7 CY	

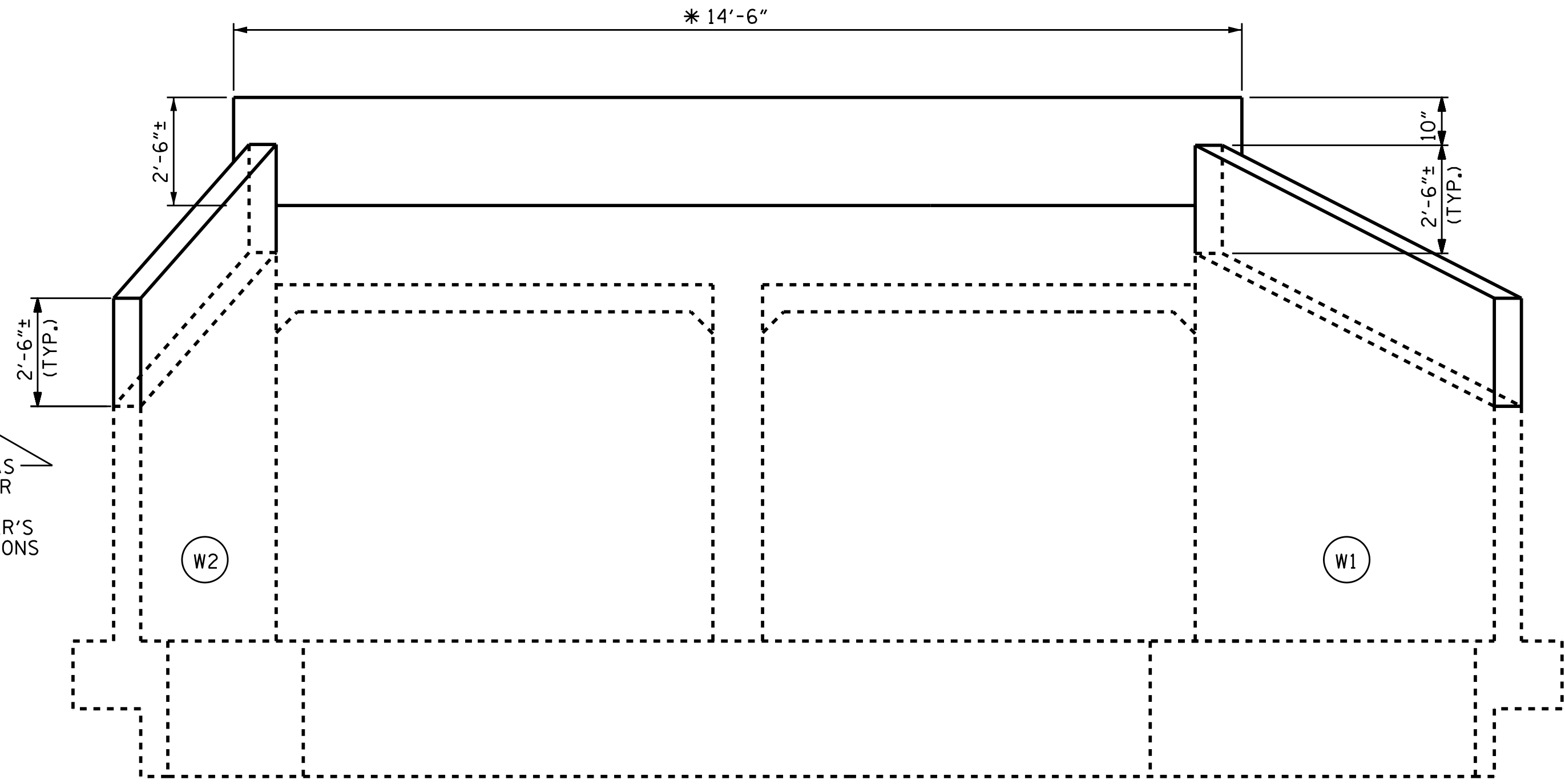


HEADWALL PLAN

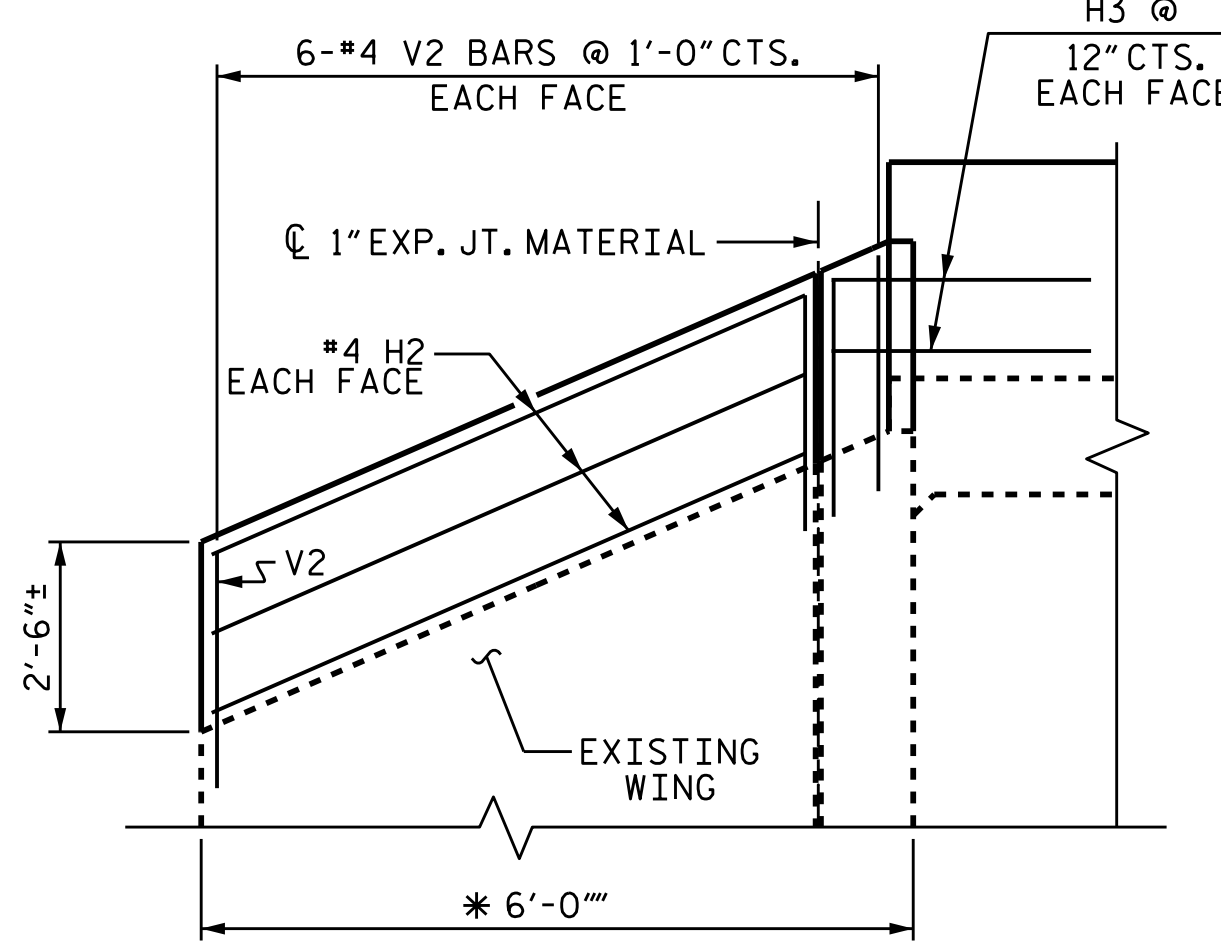


HEADWALL ELEVATION

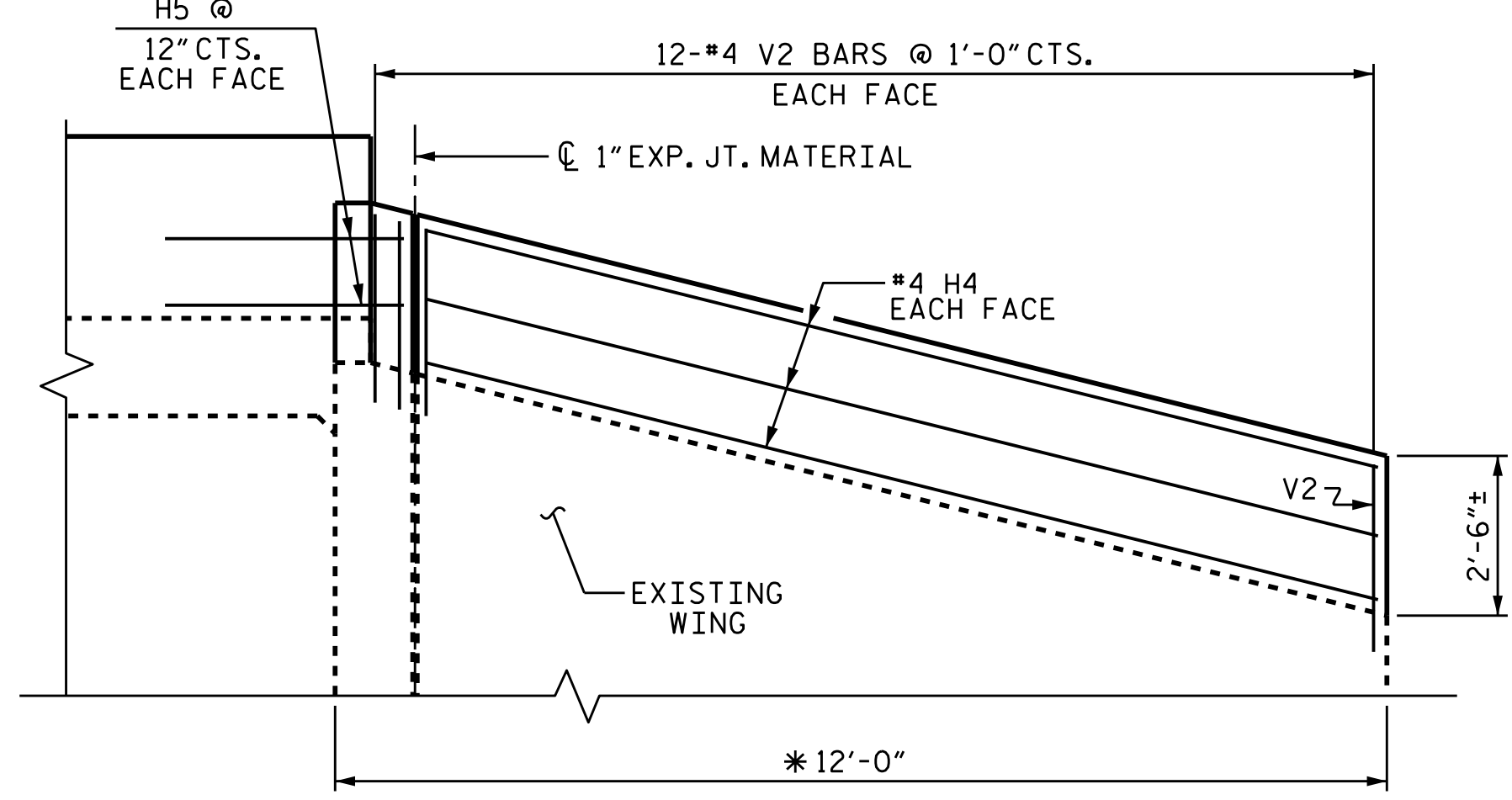
NOTE: THE #4 V1 AND #4 V2 BARS ARE TO BE ADHESIVELY ANCHORED INTO THE EXISTING CULVERT. NO FIELD TESTING WILL BE REQUIRED AND THE YIELD LOAD OF THE #4 "V" BARS IS 12 KIPS.



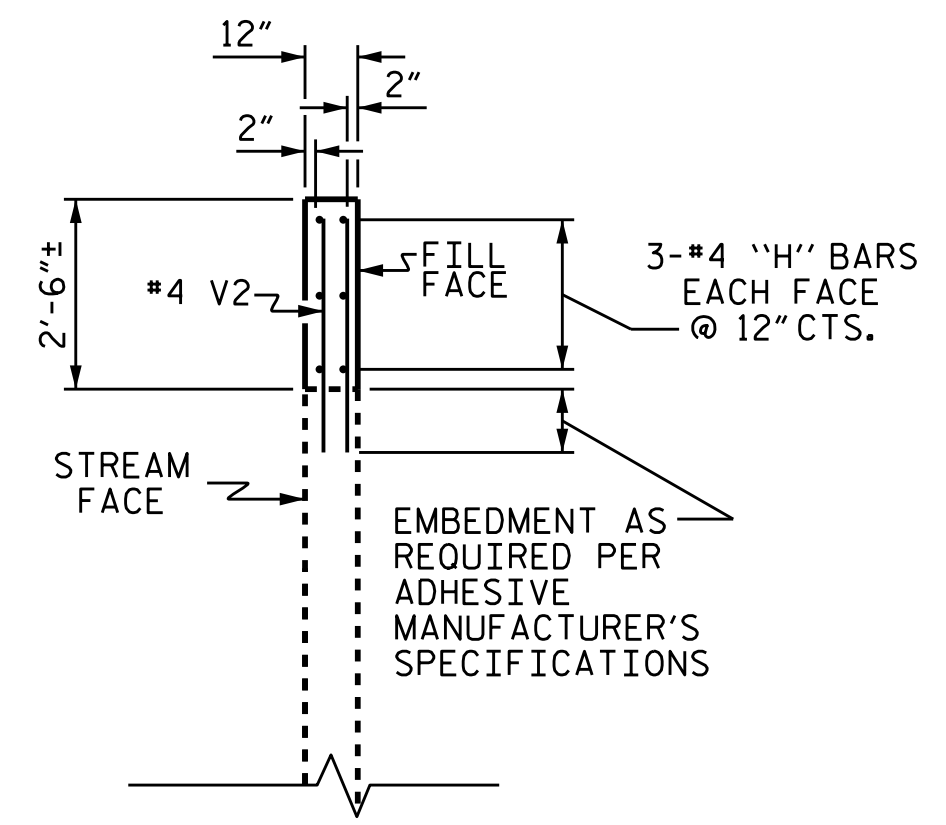
END ELEVATION NORMAL TO SKEW



ELEVATION W2



ELEVATION W1



TYPICAL WING SECTION

PROJECT NO. R-5749
COLUMBUS COUNTY
 STATION: CULVERT DETAIL

SHEET 1 OF 1



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**RAISING HEADWALLS
 AND WINGS FOR
 CONCRETE BOX CULVERT**

DRAWN BY: G. W. DICKEY DATE: 10/2017
 CHECKED BY: P. K. NEWTON DATE: 10/2017
 DESIGN ENGINEER OF RECORD: G. W. DICKEY DATE: 10/2017

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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