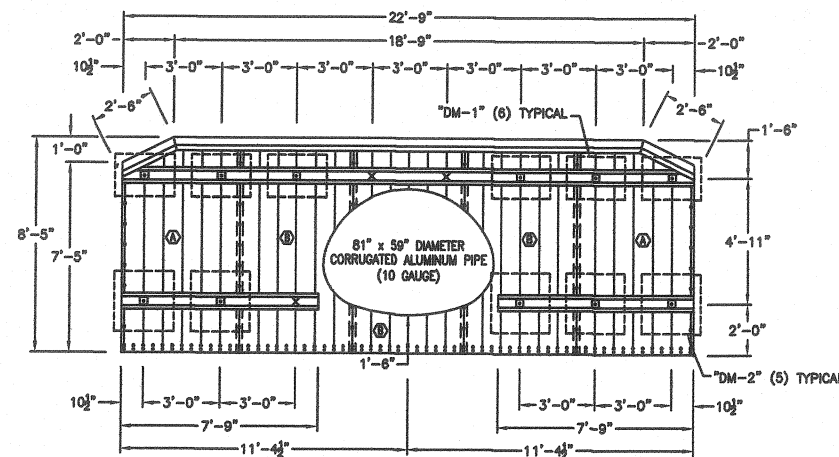


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with their signature on that page.**

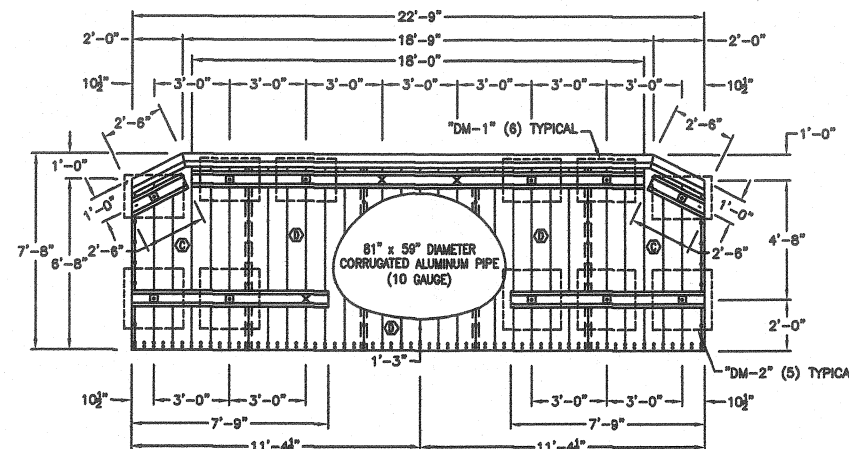
**This file or an individual page
shall not be considered a certified document.**

TYPE VI STIFFENING RIB BOLTED TO THE TOP
AND BOTTOM ON SOIL SIDE OF EACH HEADWALL

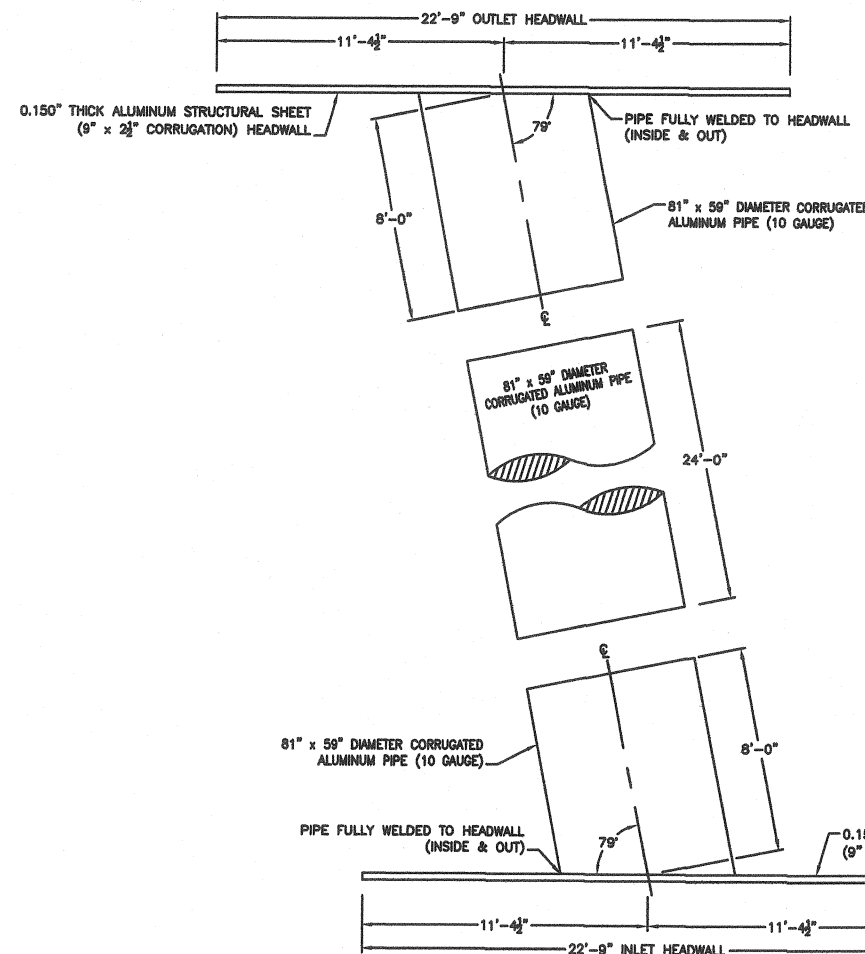


ELEVATION VIEW
-INLET-

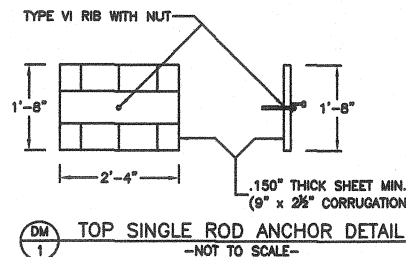
"X" DENOTES ROD ATTACHMENT TO PIPE



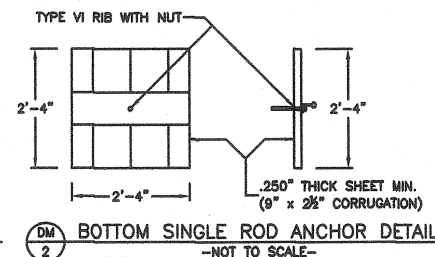
ELEVATION VIEW
-OUTLET-



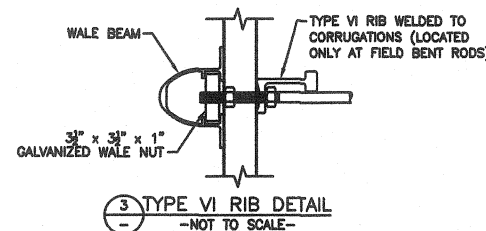
PLAN VIEW
-INLET & OUTLET-



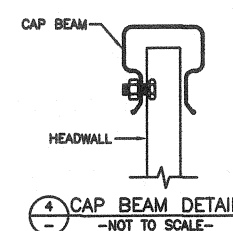
DM 1 TOP SINGLE ROD ANCHOR DETAIL
-NOT TO SCALE-



DM 2 BOTTOM SINGLE ROD ANCHOR DETAIL
-NOT TO SCALE-



3 TYPE VI RIB DETAIL
-NOT TO SCALE-



4 CAP BEAM DETAIL
-NOT TO SCALE-

ASSEMBLY REQUIREMENTS-HEADWALLS							
HEAT NO.	RADIUS	MK	PIECES	SHIP "N"	LENGTH	T	REMARKS
X	FLAT	(A)	2	10	8.42'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	3	10	8.42'	.150"	PIPE WELDED TO PLATE
X	FLAT	(C)	2	10	7.67'	.150"	BEVEL CUT ON TOP
X	FLAT	(D)	3	10	7.67'	.150"	PIPE WELDED TO PLATE
		DM1	12	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	10	3	2.33'	.250"	DEADMAN WITH TYPE VI
			2		18.75'		ALUMINUM CAP BEAMS
			4		2.50'		ALUMINUM CAP BEAMS
			1		22.75'		ALUMINUM WALE BEAMS
			1		18.00'		ALUMINUM WALE BEAMS
			4		7.75'		ALUMINUM WALE BEAMS
			2		2.50'		ALUMINUM WALE BEAMS
			28				WALE NUTS
			22		3/4" DIA. STRAIGHT RODS FOR DEADMAN ANCHORS		
			6		3/4" DIA. BENT RODS USED AT ARCH TO HEADWALL		

SHIPMENT SUMMARY:

SPECIFICATIONS:	AASHTO M219	GAGE:
APPROXIMATE SHIPPING WEIGHT:		TOP:
CUSTOMER:		SIDES:
		CORNER:
		BOTTOM:

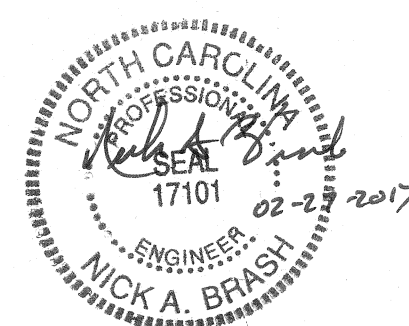
PROJECT: SR1146 (1628 FLOODS STORE ROAD)
HALIFAX COUNTY, NC
HEADWALLS (0.150" THICKNESS)
81" X 59" PIPE, 3" X 1" CORRUGATION, 10 GAUGE

DRAWN BY: JCH	REVISIONS:			
CHECKED BY:	NO.	DATE	BY	NOTES
APPROVED BY:	1			
DATE: 2/24/2017	2			
SCALE: NTS	LANE METAL PRODUCTS DIVISION			BID #:
	of LANE ENTERPRISES, INC.			---
	CAMP HILL, PA			LANE PROJECT NUMBER:

NOTES:

- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-6" (Inlet) & 2'-0" (Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Bottom Deadman Anchor is 5'-4" (Inlet) & 4'-6" (Outlet) From Top of Road.
- 4.) All Deadman Anchor Rods are to be 14'-0" Long (Inlet) & 13'-0" Long (Outlet). Use Deadman Anchors or Full Length Rod.
- 5.) All Backfill Material in the Structural Zone is to be #57 Stone.
- 6.) All Rods to be Installed Parallel to Pipe to Prevent Conflict, Bend Rods in the Field (USE NO HEAT).

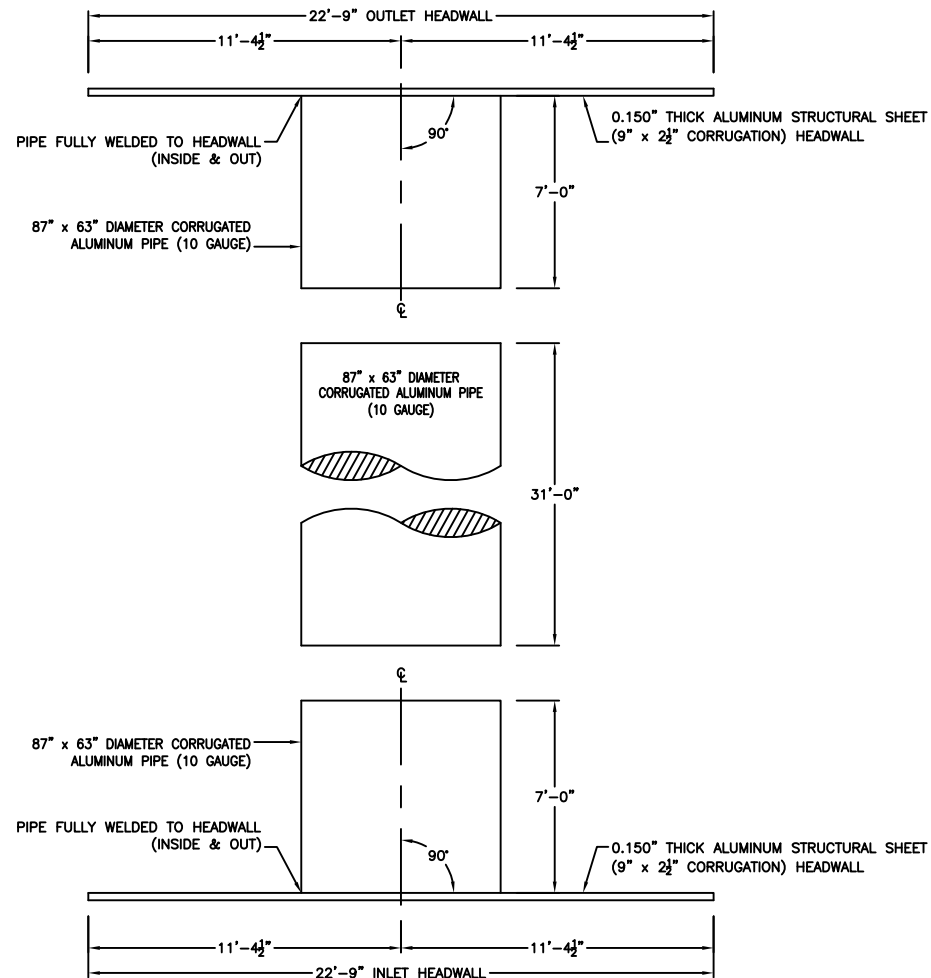
Brash Construction Consulting, Inc.
P. O. Box 4241 / 1326 Grandin Road
Roanoke, VA 24015
License No.: C-2875



The elevation view shows the bridge structure with the following dimensions and components:

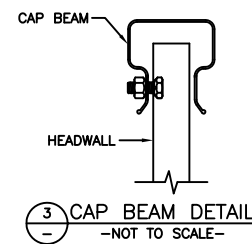
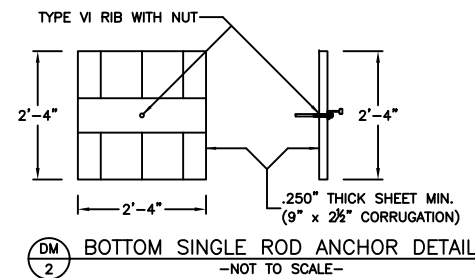
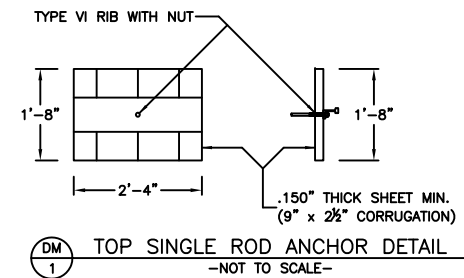
- Overall Width:** 22'-9"
- Top Chord Spacing:** 18'-9" (between main vertical lines), with 2'-0" end sections and 10 1/2" overhangs.
- Top Chord Height:** 2'-6" (typical)
- Top Chord Components:** "DM-1" (6) TYPICAL
- Side Chord Height:** 1'-0" TYPICAL
- Side Chord Components:** "DM-2" (6) TYPICAL
- Bottom Chord Height:** 8'-5" (total), 7'-5" (typical)
- Bottom Chord Components:** "DM-1" (6) TYPICAL, "DM-2" (6) TYPICAL
- Bottom Chord Spacing:** 11'-4 1/2" (typical), 7'-6" (typical), 10 1/2" (typical)
- Internal Components:** 87" x 63" DIAMETER CORRUGATED ALUMINUM PIPE (10 GAUGE)
- Labels:** (A), (B), (C), (D), (E), (F), (G), (H), (I), (J), (K), (L), (M), (N), (O), (P), (Q), (R), (S), (T), (U), (V), (W), (X), (Y), (Z)

ELEVATION VIEW
-INLET & OUTLET-

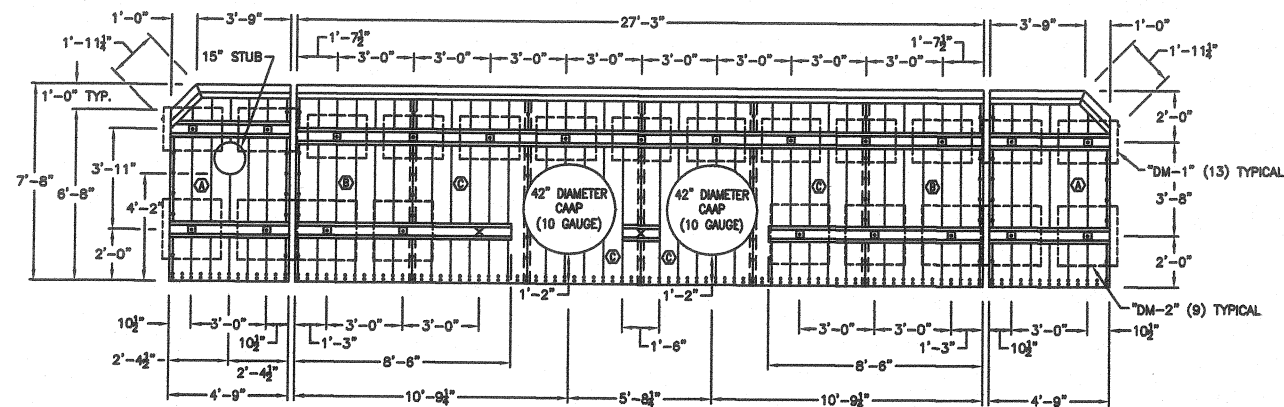


NOTES:

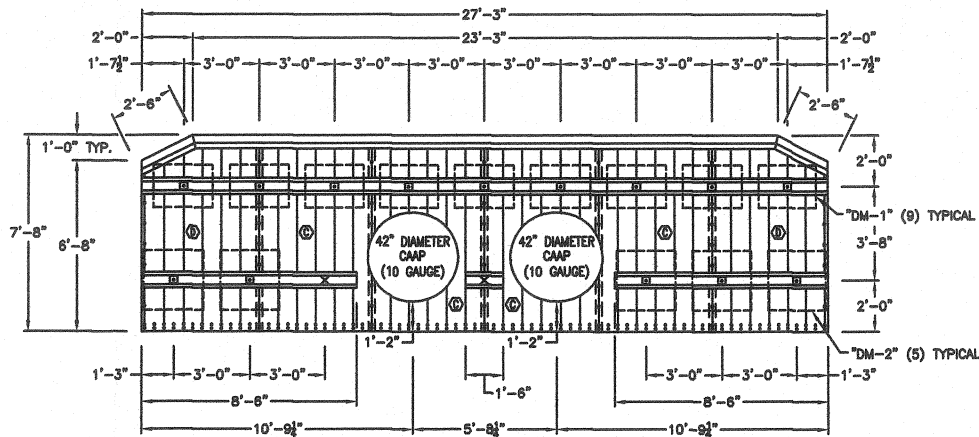
- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-6" (Inlet & Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Bottom Deadman Anchor is 5'-4" (Inlet & Outlet) From Top of Road.
- 4.) All Deadman Anchor Rods are to be 14'-0" Long (Inlet & Outlet). Use Deadman Anchors or Full Length Rod.
- 5.) All Backfill Material in the Structural Zone is to be #57 Stone.

[illegible]

TYPE VI STIFFENING RIB BOLTED TO THE TOP
AND BOTTOM ON SOIL SIDE OF EACH HEADWALL

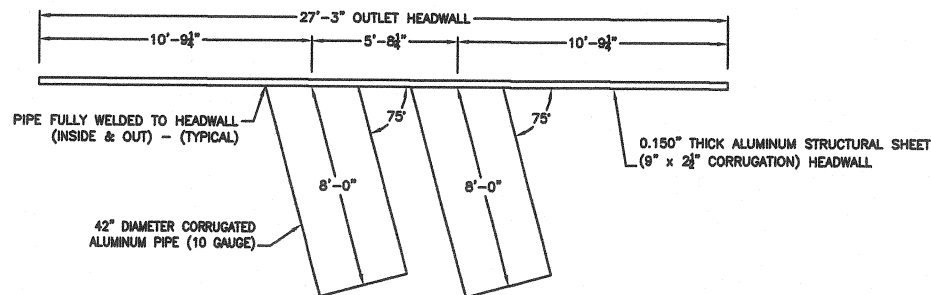


ELEVATION VIEW
-INLET-

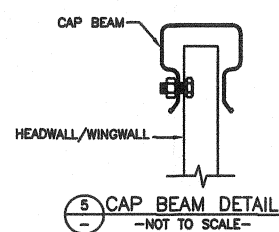
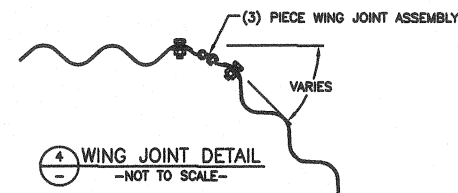
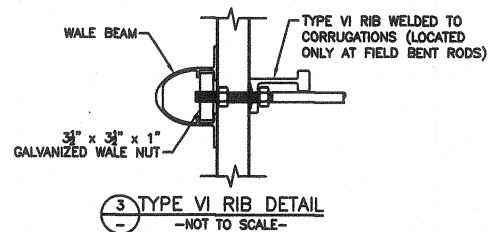
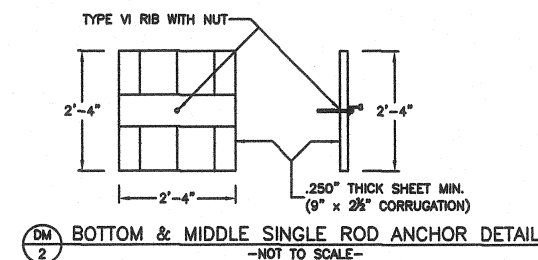
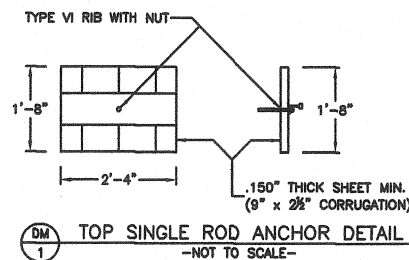


ELEVATION VIEW
-OUTLET-

"X" DENOTES ROD ATTACHMENT TO PIPE



PLAN VIEW
-INLET & OUTLET-



ASSEMBLY REQUIREMENTS-HEADWALLS & WINGWALLS							
HEAT NO.	RADIUS	MK	SHIP			T	REMARKS
			PIECES	N	LENGTH		
X	FLAT	(A)	2	10	7.67'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	2	10	7.67'	.150"	FULL PLATE
X	FLAT	(C)	8	10	7.67'	.150"	PIPE WELDED TO PLATE
X	FLAT	(D)	2	10	7.67'	.150"	BEVEL CUT ON TOP
		DM1	22	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	14	3	2.33'	.250"	DEADMAN WITH TYPE VI
			1		27.25'		ALUMINUM CAP BEAMS
			1		23.25'		ALUMINUM CAP BEAMS
			2		3.75'		ALUMINUM CAP BEAMS
			2		2.50'		ALUMINUM CAP BEAMS
			2		1.94'		ALUMINUM CAP BEAMS
			2		27.25'		ALUMINUM WALE BEAMS
			4		8.50'		ALUMINUM WALE BEAMS
			4		4.75'		ALUMINUM WALE BEAMS
			2		1.50'		ALUMINUM WALE BEAMS
			40				WALE NUTS
			36		3/4" DIA. STRAIGHT RODS FOR DEADMAN ANCHORS		
			4		3/4" DIA. BENT RODS USED AT ARCH TO HEADWALL		
			2		3-PIECE WING ASSEMBLY		

SHIPMENT SUMMARY:

SPECIFICATIONS:	AASHTO M219	GAGE:
APPROXIMATE SHIPPING WEIGHT:		TOP:
CUSTOMER:		SIDES:
		CORNER:
		BOTTOM:

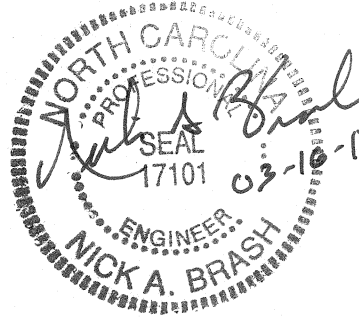
PROJECT: 2520 FAITH BAPTIST CHURCH ROAD
EDGECOMBE COUNTY, NC
HEADWALLS & WINGWALLS (0.150" THICKNESS)
42" PIPE, 2 2/3" x 1/2" CORRUGATION, 10 GAUGE

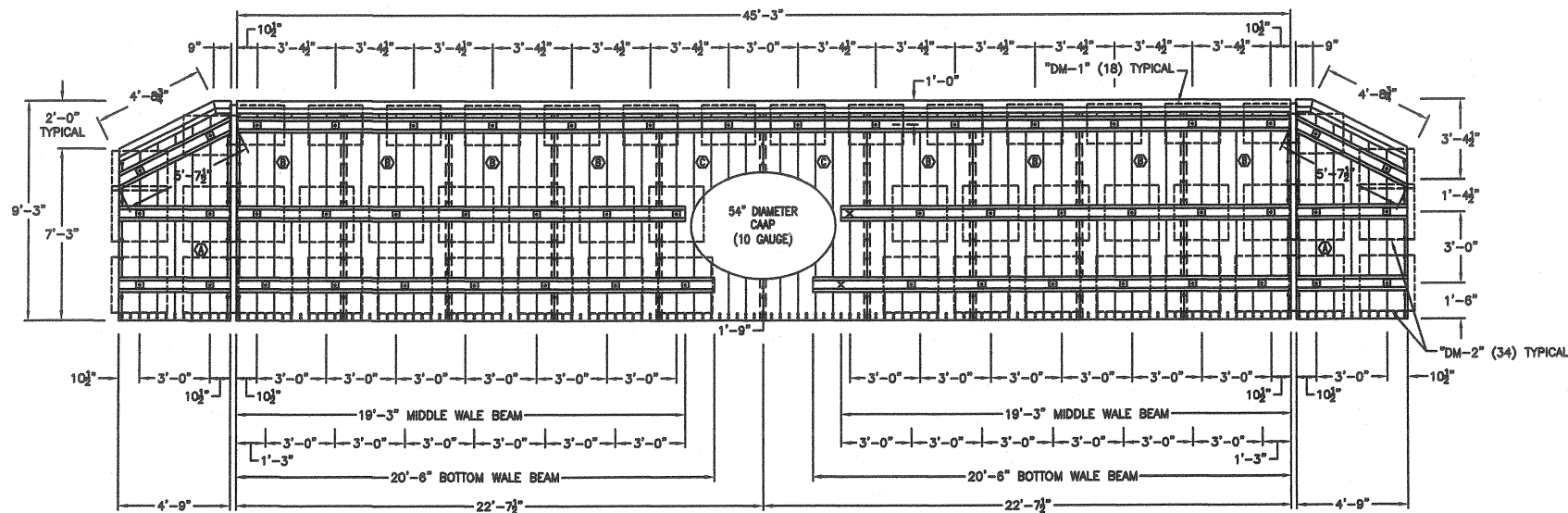
DRAWN BY: JCH	REVISIONS:			
CHECKED BY:	NO.	DATE	BY	NOTES
APPROVED BY:	1			
DATE: 3/15/2017	2			
SCALE: NTS	LANE METAL PRODUCTS DIVISION			BID #:
	of LANE ENTERPRISES, INC.			---
	CAMP HILL, PA			LANE PROJECT NUMBER:

NOTES:

- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-6" (Inlet & Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Bottom Deadman Anchor is 5'-0" (Inlet & Outlet) From Top of Road.
- 4.) All Deadman Anchor Rods are to be 15'-0" Long (Inlet & Outlet). Use Deadman Anchors or Full Length Rod.
- 5.) All Backfill Material in the Structural Zone is to be #57 Stone.
- 6.) All Rods to be Installed Parallel to Pipe to Prevent Conflict, Bend Rods in the Field (USE NO HEAT).

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Roanoke, VA 24015
License No.: C-2875

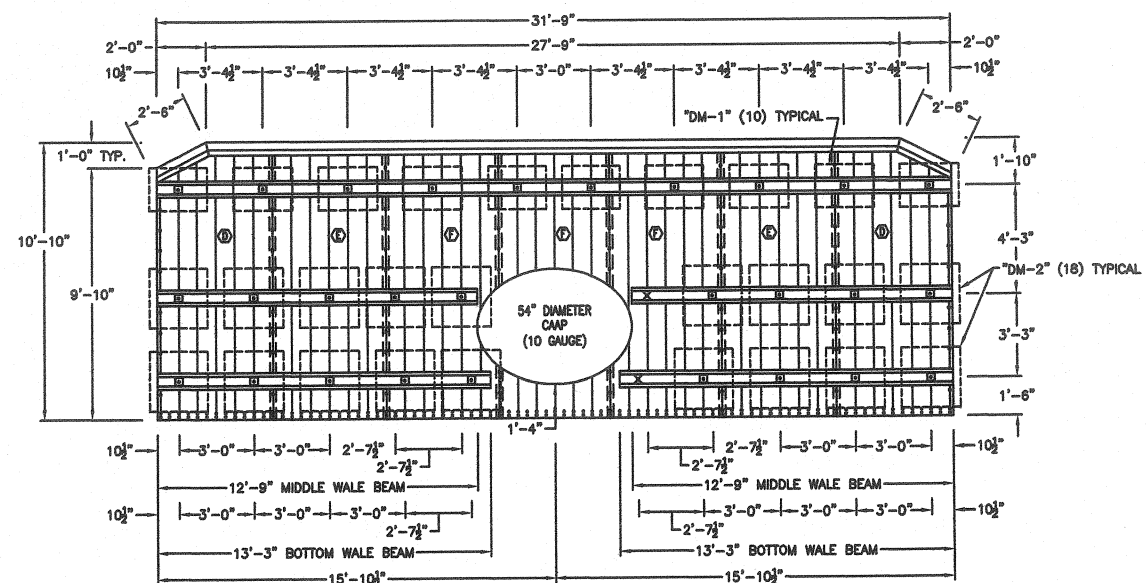




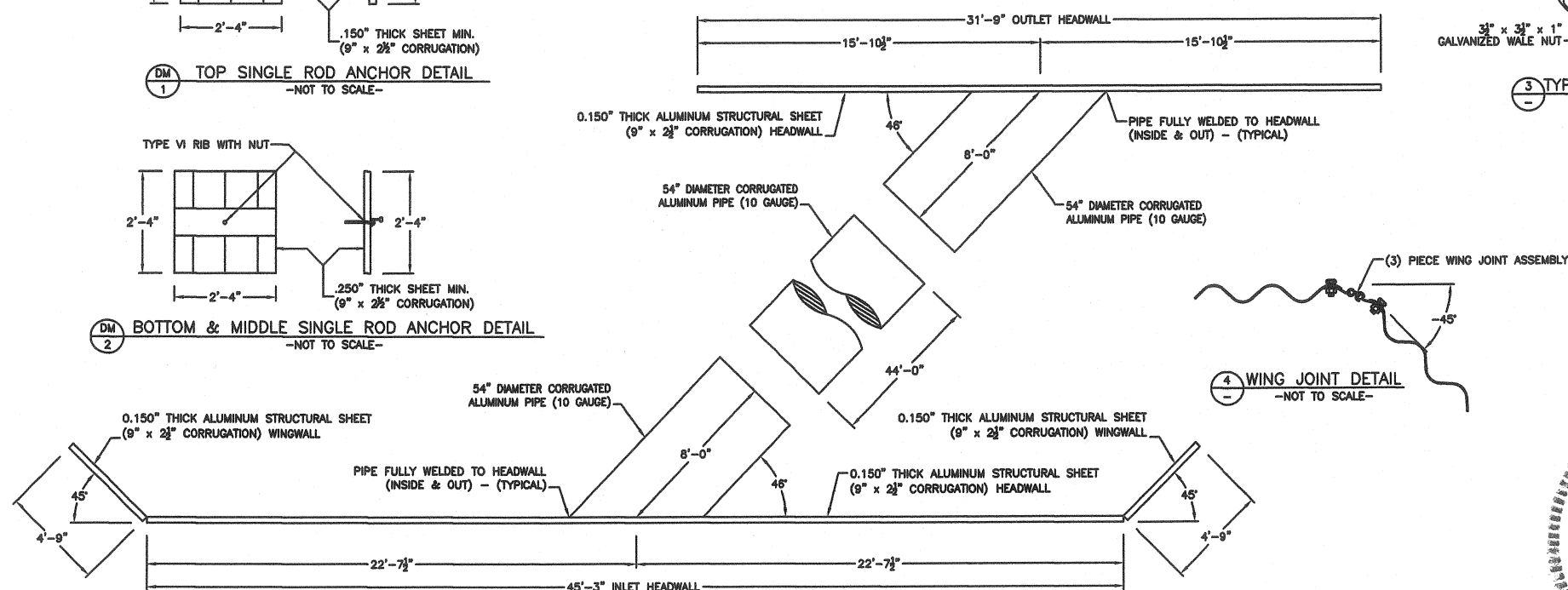
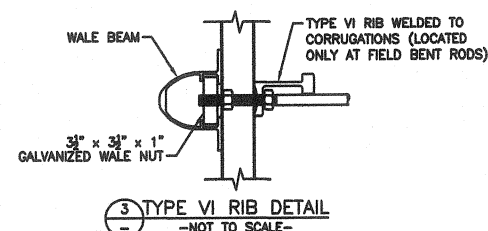
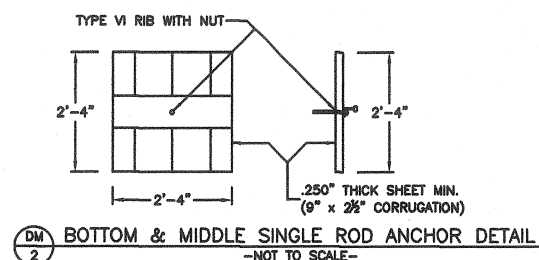
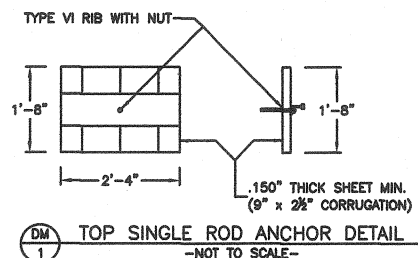
"X" DENOTES ROD ATTACHMENT TO PIPE

ELEVATION VIEW
-INLET-

TYPE VI STIFFENING RIB BOLTED TO THE TOP
AND BOTTOM ON SOIL SIDE OF EACH HEADWALL



ELEVATION VIEW
-OUTLET-



NOTES:

- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-0" (Inlet) & 3'-0" (Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Middle Deadman Anchor is 4'-8" (Inlet) & 5'-4" (Outlet) From Top of Road.
- 4.) The Minimum Burial Depth for the Bottom Deadman Anchor is 8'-0" (Inlet) & 8'-8" (Outlet) From Top of Road.
- 5.) All Deadman Anchor Rods are to be 13'-6" Long (Inlet) & 18'-0" (Outlet). Use Deadman Anchors or Full Length Rod.
- 6.) All Backfill Material in the Structural Zone is to be #57 Stone.
- 7.) All Rods to be Installed Parallel to Pipe to Prevent Conflict, Bend Rods in the Field (USE NO HEAT).

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P. O. Box 4241 / 1326 Grandin Road
Roanoke, VA 24015
License No.: C-2875

ASSEMBLY REQUIREMENTS-HEADWALLS & WINGWALLS									
HEAT NO.	RADIUS	MK	SHIP		T	REMARKS			
			PIECES	IN	LENGTH				
X	FLAT	(A)	2	11	9.25'	.150"	BEVEL CUT ON TOP		
X	FLAT	(B)	8	11	9.25'	.150"	FULL PLATE		
X	FLAT	(C)	2	11	9.25'	.150"	PIPE WELDED TO PLATE		
X	FLAT	(D)	2	13	10.83'	.150"	BEVEL CUT ON TOP		
X	FLAT	(E)	2	13	10.83'	.150"	FULL PLATE		
X	FLAT	(F)	3	13	10.83'	.150"	PIPE WELDED TO PLATE		
		DM1	28	2	1.67'	.150"	DEADMAN WITH TYPE VI		
		DM2	52	3	2.33'	.250"	DEADMAN WITH TYPE VI		
			1		45.25'		ALUMINUM CAP BEAMS		
			1		27.75'		ALUMINUM CAP BEAMS		
			2		4.73'		ALUMINUM CAP BEAMS		
			2		2.50'		ALUMINUM CAP BEAMS		
			2		0.75'		ALUMINUM CAP BEAMS		
			1		45.25'		ALUMINUM WALE BEAMS		
			1		31.75'		ALUMINUM WALE BEAMS		
			2		20.50'		ALUMINUM WALE BEAMS		
			2		19.25'		ALUMINUM WALE BEAMS		
			2		13.25'		ALUMINUM WALE BEAMS		
			2		12.75'		ALUMINUM WALE BEAMS		
			2		5.63'		ALUMINUM WALE BEAMS		
			4		4.75'		ALUMINUM WALE BEAMS		
			84				WALE NUTS		
			80		3/4" DIA. STRAIGHT RODS FOR DEADMAN ANCHORS				
			4		3/4" DIA. BENT RODS USED AT ARCH TO HEADWALL				
			2		3-PIECE WING ASSEMBLY				

SHIPMENT SUMMARY:

SPECIFICATIONS:	AASHTO M219	GAGE:
APPROXIMATE SHIPPING WEIGHT:		TOP:
CUSTOMER:		SIDES:
		CORNER:
		BOTTOM:

PROJECT: 748 FAITH BAPTIST CHURCH ROAD
EDGEcombe COUNTY, NC
HEADWALLS & WINGWALLS (0.150" THICKNESS)
54" PIPE, 3" x 1" CORRUGATION, 10 GAUGE

DRAWN BY: JCH		REVISIONS:			
CHECKED BY:	NO.	DATE	BY	NOTES	
APPROVED BY:	1				
DATE: 3/16/2017	2				
SCALE: NTS	LANE METAL PRODUCTS DIVISION				BID #:
	of LANE ENTERPRISES, INC.				---
	CAMP HILL, PA				LANE PROJECT NUMBER:

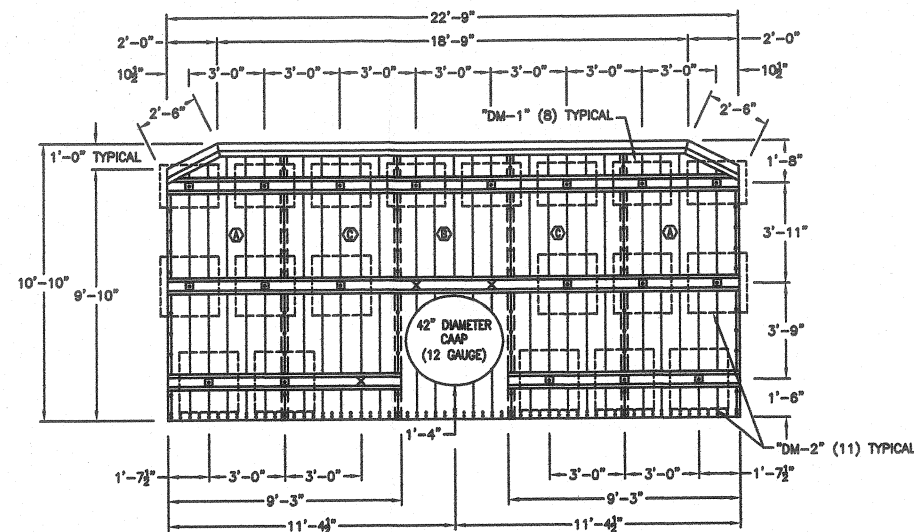


Technical drawing of a building frame showing dimensions and structural details. The drawing includes a side elevation on the left and a front elevation on the right. Dimensions are given in feet and inches. Key features include a 42-inch diameter cap (12 gauge) and typical dimensions for DM-1 (9) and DM-2 (15) members.

Dimensions:

- Side Elevation (Left):**
 - Overall height: 10'-10"
 - Roof slope: 9'-7 1/2"
 - Roof pitch: 8'-10 3/4"
 - Vertical dimensions: 2'-0", 1'-8", 1'-11", 3'-9", 1'-6"
- Front Elevation (Right):**
 - Overall height: 9'-10"
 - Vertical dimensions: 1'-8", 3'-11", 3'-9", 1'-6"
 - Horizontal dimensions: 16'-3", 16'-3", 2'-0", 1'-7 1/2"
 - Typical dimensions: DM-1 (9) TYPICAL, DM-2 (15) TYPICAL
- Internal Details:**
 - 42" DIAMETER CAP (12 GAUGE)
 - DM-1 (9) TYPICAL
 - DM-2 (15) TYPICAL

"X" DENOTES ROD ATTACHMENT TO PIPE



22'-9" OUTLET HEADWALL

11'-4 1/2"

11'-4 1/2"

PIPE FULLY WELDED TO HEADWALL (INSIDE & OUT)

8'-0"

65°

0.150" THICK ALUMINUM STRUCTURAL SHEET (9" x 2 1/2" CORRUGATION) HEADWALL

42" DIAMETER CORRUGATED ALUMINUM PIPE (12 GAUGE)

44'-0"

42" DIAMETER CORRUGATED ALUMINUM PIPE (12 GAUGE)

42" DIAMETER CORRUGATED ALUMINUM PIPE (12 GAUGE)

8'-0"

65°

0.150" THICK ALUMINUM STRUCTURAL SHEET (9" x 2 1/2" CORRUGATION) HEADWALL

PIPE FULLY WELDED TO HEADWALL (INSIDE & OUT)

18'-3" INLET HEADWALL

14'-3"

4'-0"

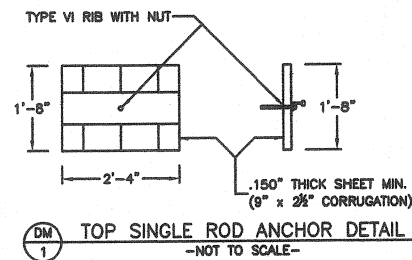
9'-3" WINGWALL

0.150" THICK ALUMINUM STRUCTURAL SHEET (9" x 2 1/2" CORRUGATION) WINGWALL

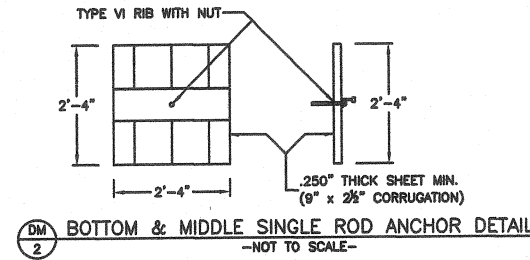
60°

PLAN VIEW
-INLET & OUTLET-

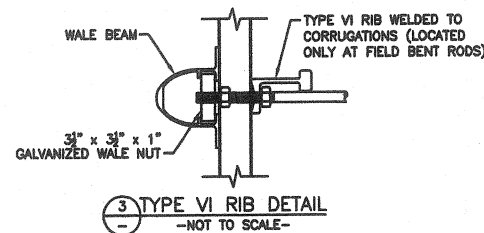
PLAN VIEW
-INLET & OUTLET-



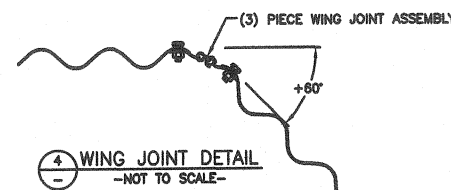
DM TOP SINGLE ROD ANCHOR DETAIL
1 -NOT TO SCALE-



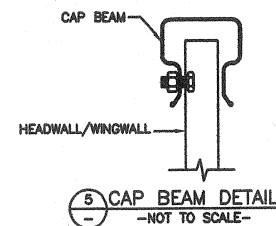
DM BOTTOM & MIDDLE SINGLE ROD ANCHOR DETAIL
2 -NOT TO SCALE-



3 TYPE VI RIB DETAIL
-NOT TO SCALE-



4 WING JOINT DETAIL
-NOT TO SCALE-



5 CAP BEAM DETAIL
- NOT TO SCALE -

- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-0" (Inlet & Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Middle Deadman Anchor is 4'-8" (Inlet & Outlet) From Top of Road.
- 4.) The Minimum Burial Depth for the Bottom Deadman Anchor is 8'-0" (Inlet & Outlet) From Top of Road.
- 5.) All Deadman Anchor Rods are to be 17'-0" Long (Inlet & Outlet). Use Deadman Anchors or Full Length Rod.
- 6.) All Backfill Material in the Structural Zone is to be #57 Stone.
- 7.) All Rods to be Installed Parallel to Pipe to Prevent Conflict, Bend Rods in the Field (USE NO HEAT).

Brash Construction Consulting, Inc.
P. O. Box 4241 / 1326 Grandin Road
Roanoke, VA 24015
License No.: C-2875

ASSEMBLY REQUIREMENTS—HEADWALLS & WINGWALL							
HEAT NO.	RADIUS	MK	SHIP			T	REMARKS
			PIECES	"N"	LENGTH		
X	FLAT	(A)	5	13	10.83'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	3	13	10.83'	.150"	PIPE WELDED TO PLATE
X	FLAT	(C)	3	13	10.83'	.150"	FULL PLATE
		DM1	17	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	26	3	2.33'	.250"	DEADMAN WITH TYPE VI
			1		18.75'		ALUMINUM CAP BEAMS
			1		16.25'		ALUMINUM CAP BEAMS
			1		8.85'		ALUMINUM CAP BEAMS
			3		2.50'		ALUMINUM CAP BEAMS
			1		0.75'		ALUMINUM CAP BEAMS
			2		22.75'		ALUMINUM WALE BEAMS
			2		18.25'		ALUMINUM WALE BEAMS
			1		12.25'		ALUMINUM WALE BEAMS
			1		9.60'		ALUMINUM WALE BEAMS
			4		9.25'		ALUMINUM WALE BEAMS
			1		2.00'		ALUMINUM WALE BEAMS
			48				WALE NUTS
			43		3/4" DIA.		STRAIGHT RODS FOR DEADMAN ANCHORS
			5		3/4" DIA.		BENT RODS USED AT ARCH TO HEADWALL
			1				3-PIECE WING ASSEMBLY

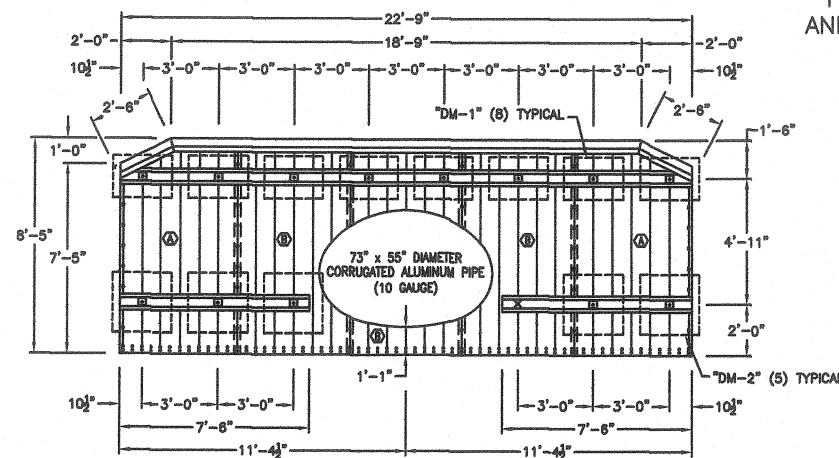
SR1604 (858 BROWN FARM ROAD) EDGEcombe COUNTY, NC
HEADWALLS & WINGWALL (0.150" THICKNESS)
42" DIAMETER PIPE, 2 2/3" x 1/2" CORRUGATION, 12 GAUGE



CAMP HILL, PA

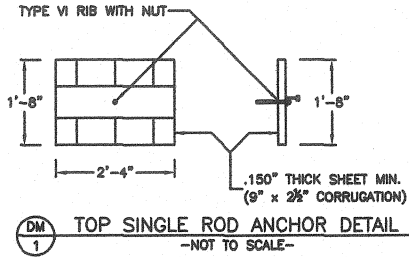
LANE PROJECT NUMBER:

TYPE VI STIFFENING RIB BOLTED TO THE TOP
AND BOTTOM ON SOIL SIDE OF EACH HEADWALL

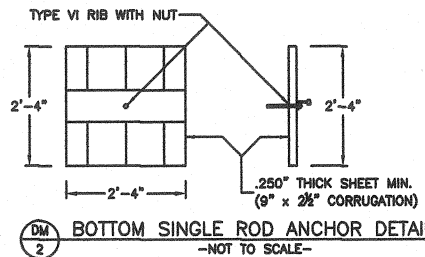


ELEVATION VIEW
-INLET & OUTLET-

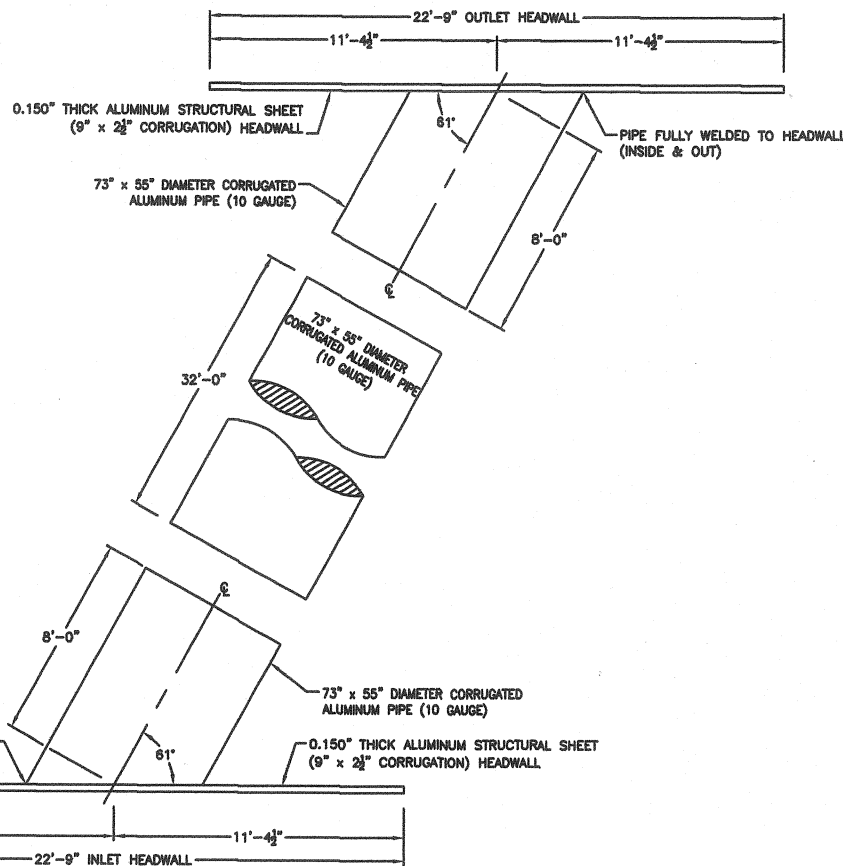
"X" DENOTES ROD ATTACHMENT TO PIPE



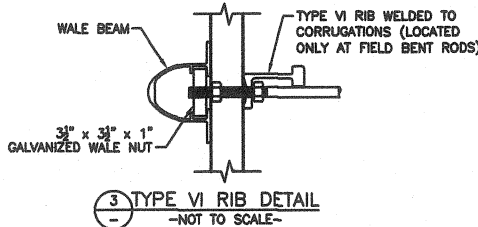
DM 1
TOP SINGLE ROD ANCHOR DETAIL
-NOT TO SCALE-



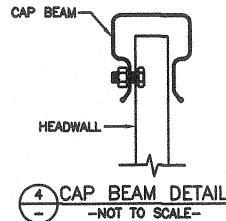
DM 2
BOTTOM SINGLE ROD ANCHOR DETAIL
-NOT TO SCALE-



PLAN VIEW
-INLET & OUTLET-



3 TYPE VI RIB DETAIL
-NOT TO SCALE-



4 CAP BEAM DETAIL
-NOT TO SCALE-

ASSEMBLY REQUIREMENTS-HEADWALLS

HEAT NO.	RADIUS	MK	SHIP			T	REMARKS
			PIECES	N	LENGTH		
X	FLAT	(A)	4	10	8.42'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	6	10	8.42'	.150"	PIPE WELDED TO PLATE
		DM1	16	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	10	3	2.33'	.250"	DEADMAN WITH TYPE VI
			2		18.75'		ALUMINUM CAP BEAMS
			4		2.50'		ALUMINUM CAP BEAMS
			2		22.75'		ALUMINUM WALE BEAMS
			4		7.50'		ALUMINUM WALE BEAMS
			28				WALE NUTS
			26		3/4" DIA. STRAIGHT RODS FOR DEADMAN ANCHORS		
			2		3/4" DIA. BENT RODS USED AT ARCH TO HEADWALL		

SHIPMENT SUMMARY:

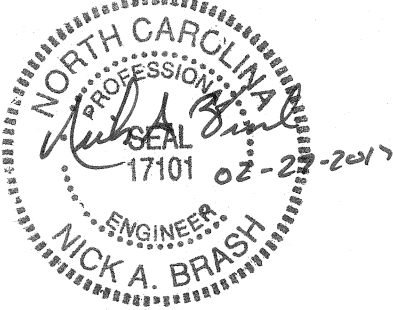
SPECIFICATIONS:	AASHTO M219	GAGE:
APPROXIMATE SHIPPING WEIGHT:		TOP:
CUSTOMER:		SIDES:
		CORNER:
		BOTTOM:

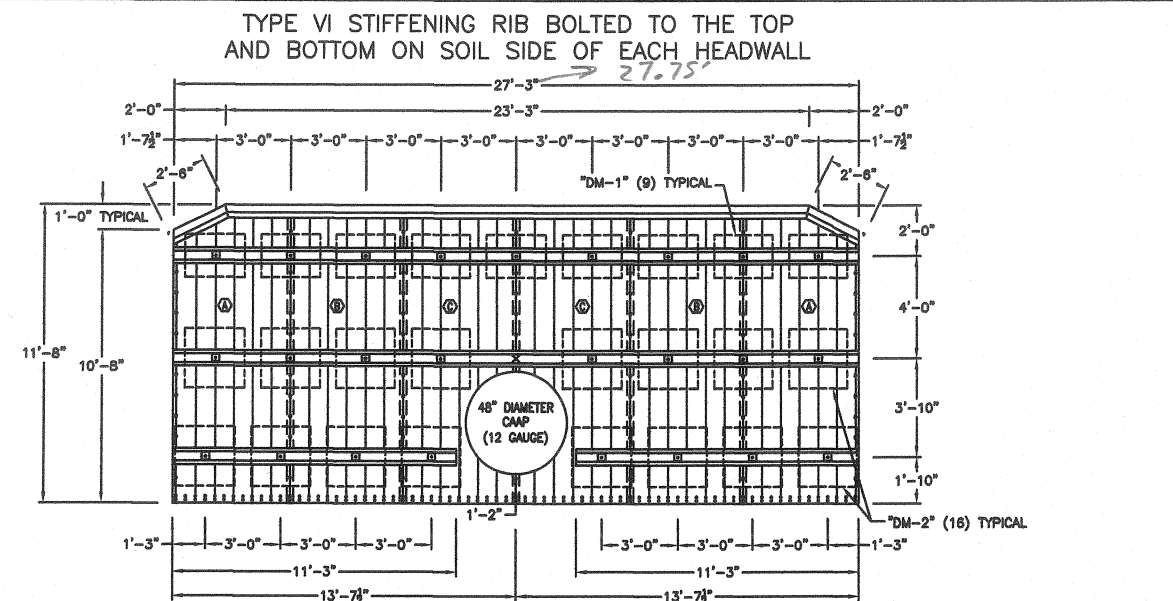
PROJECT: SR1146 (1180 FLOODS STORE ROAD)
HALIFAX COUNTY, NC
HEADWALLS (0.150" THICKNESS)
73" X 55" PIPE, 3" X 1" CORRUGATION, 10 GAUGE

DRAWN BY: JCH	REVISIONS:			
CHECKED BY:	NO.	DATE	BY	NOTES
APPROVED BY:	1			
DATE: 2/23/2017	2			
SCALE: NTS	LANE METAL PRODUCTS DIVISION			BID #:
	of LANE ENTERPRISES, INC.			---
	CAMP HILL, PA			LANE PROJECT NUMBER:

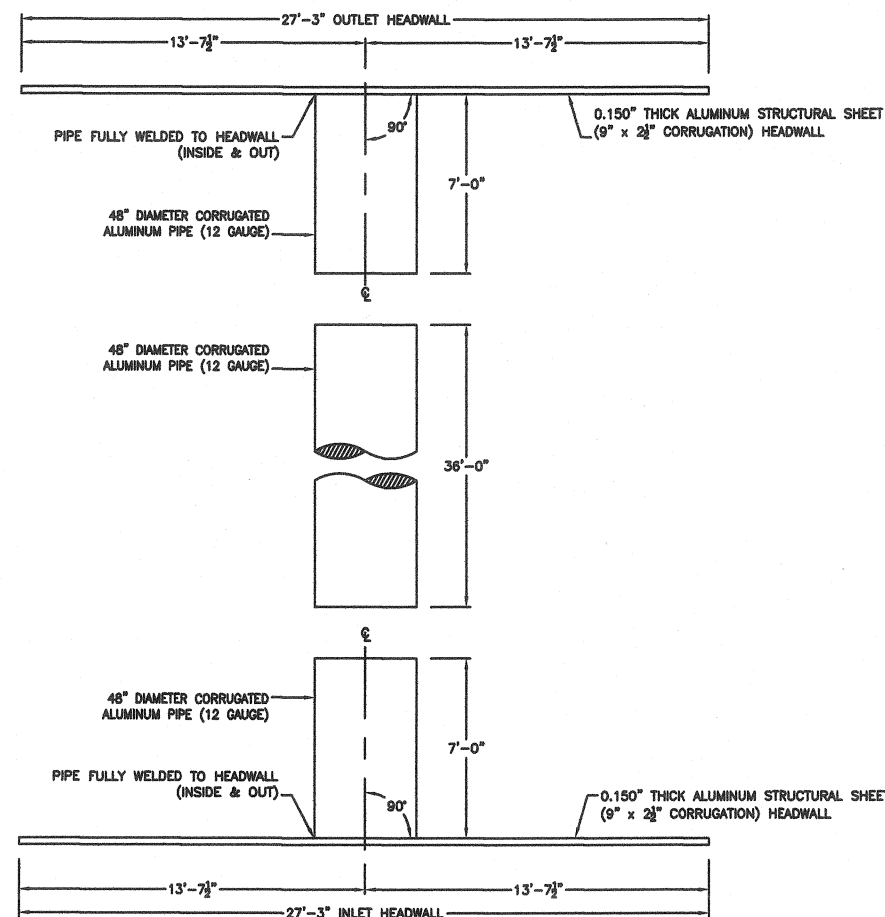
- NOTES:
- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
 - 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-8" (Inlet & Outlet) From Top of Road.
 - 3.) The Minimum Burial Depth for the Bottom Deadman Anchor is 5'-6" (Inlet & Outlet) From Top of Road.
 - 4.) All Deadman Anchor Rods are to be 14'-0" Long (Inlet & Outlet). Use Deadman Anchors or Full Length Rod.
 - 5.) All Backfill Material in the Structural Zone is to be #57 Stone.
 - 6.) All Rods to be Installed Parallel to Pipe to Prevent Conflict, Bend Rods in the Field (USE NO HEAT).

Brash Construction Consulting, Inc.
P. O. Box 4241 / 1326 Grandin Road
Roanoke, VA 24015
License No.: C-2875



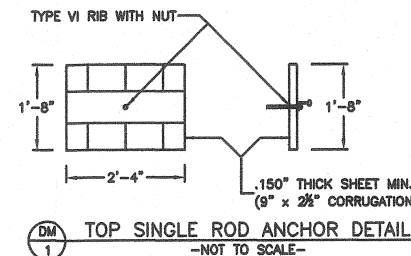


ELEVATION VIEW "X" DENOTES ROD ATTACHMENT TO PIPE
-INLET & OUTLET-

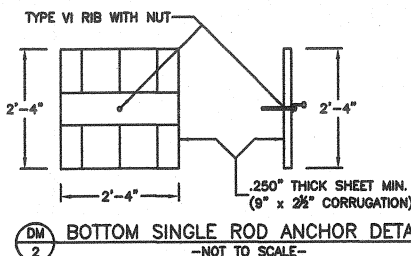


PLAN VIEW
-INLET & OUTLET-

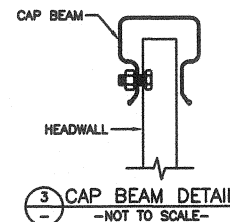
- NOTES:
- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
 - 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-0" (Inlet & Outlet) From Top of Road.
 - 3.) The Minimum Burial Depth for the Middle Deadman Anchor is 4'-10" (Inlet & Outlet) From Top of Road.
 - 4.) The Minimum Burial Depth for the Bottom Deadman Anchor is 8'-3" (Inlet & Outlet) From Top of Road.
 - 5.) All Deadman Anchor Rods are to be 17'-0" Long (Inlet & Outlet). Use Deadman Anchors or Full Length Rod.
 - 6.) All Backfill Material in the Structural Zone is to be #57 Stone.



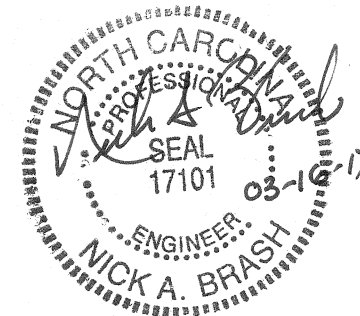
DM 1 TOP SINGLE ROD ANCHOR DETAIL
-NOT TO SCALE-



DM 2 BOTTOM SINGLE ROD ANCHOR DETAIL
-NOT TO SCALE-

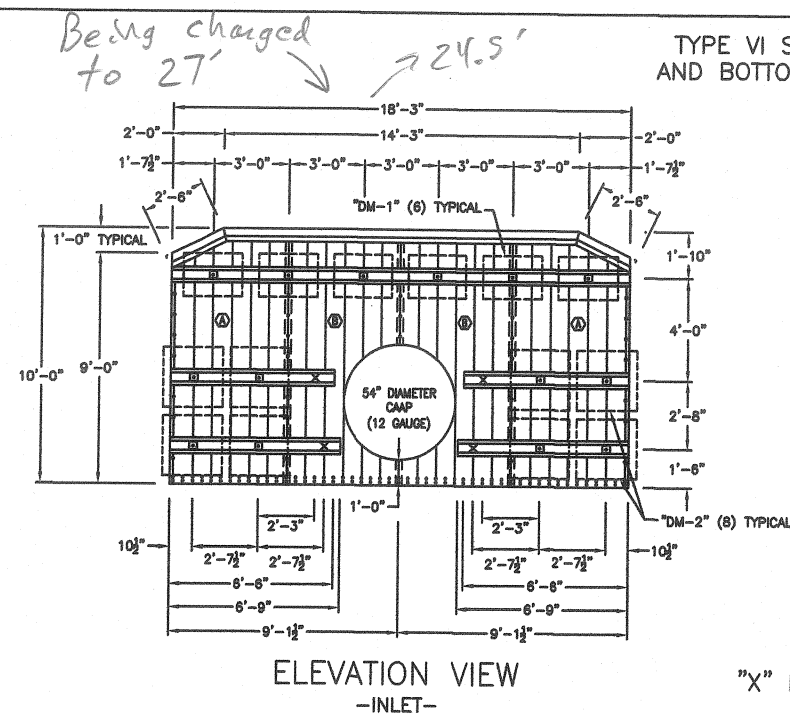


3 CAP BEAM DETAIL
-NOT TO SCALE-

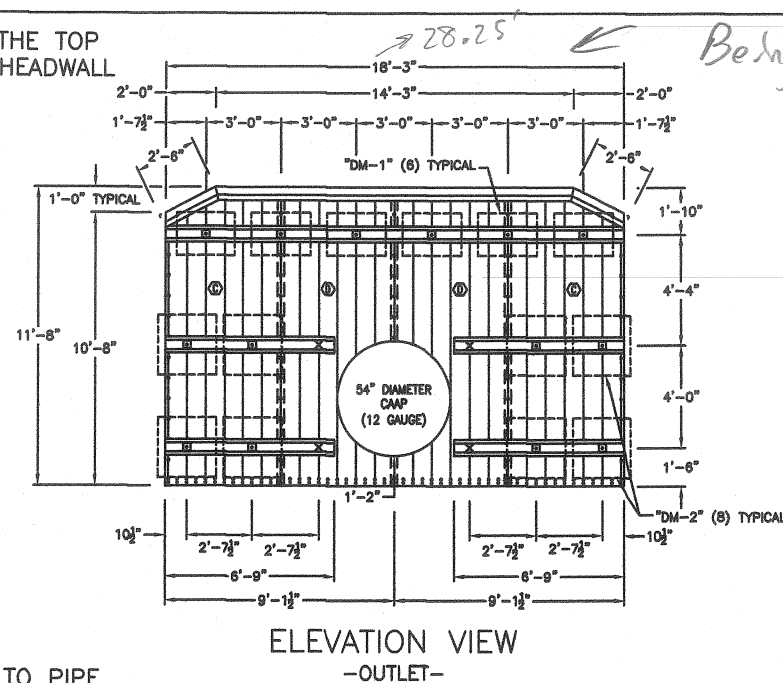


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License No.: C-2875

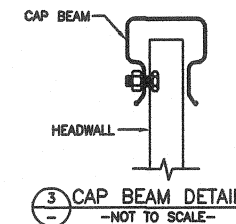
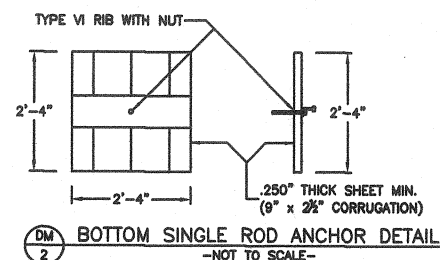
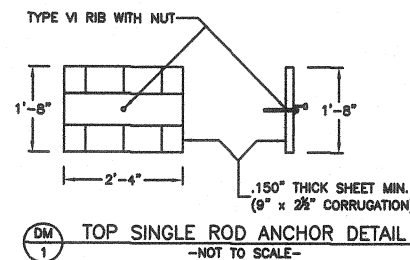
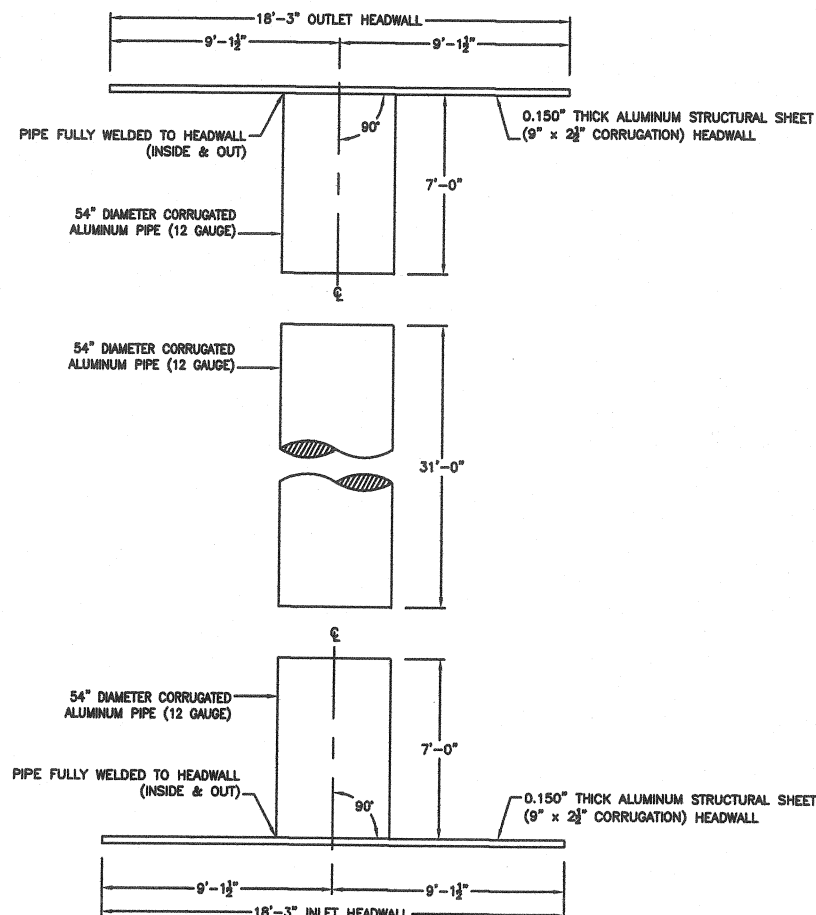
ASSEMBLY REQUIREMENTS-HEADWALLS							
HEAT NO.	RADIUS	MK	SHIP			T	REMARKS
			PIECES	"N"	LENGTH		
X	FLAT	(A)	4	15	11.67'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	4	15	11.67'	.150"	FULL PLATE
X	FLAT	(C)	4	15	11.67'	.150"	PIPE WELDED TO PLATE
		DM1	18	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	32	3	2.33'	.250"	DEADMAN WITH TYPE VI
			2		23.25'		ALUMINUM CAP BEAMS
			4		2.50'		ALUMINUM CAP BEAMS
			4		27.25'		ALUMINUM WALE BEAMS
			4		11.25'		ALUMINUM WALE BEAMS
			52				WALE NUTS
			50	3/4"	DIA. STRAIGHT RODS FOR DEADMAN ANCHORS		
			2	3/4"	DIA. BENT RODS USED AT ARCH TO HEADWALL		
SHIPMENT SUMMARY:							
SPECIFICATIONS: AASHTO M219						GAGE:	
APPROXIMATE SHIPPING WEIGHT:						TOP:	
CUSTOMER:						SIDES:	
						CORNER:	
						BOTTOM:	
PROJECT: 3315 CALHOUN ROAD (SR1140) EDGEcombe COUNTY, NC HEADWALLS (0.150" THICKNESS) 48" PIPE, 2 2/3" x 1/2" CORRUGATION, 12 GAUGE							
DRAWN BY: JCH			REVISIONS:				
CHECKED BY:			NO.	DATE	BY	NOTES	
APPROVED BY:			1				
DATE: 3/14/2017			2				
SCALE: NTS			LANE METAL PRODUCTS DIVISION				BID #:
			of LANE ENTERPRISES, INC.				---
			CAMP HILL, PA				LANE PROJECT NUMBER:



TYPE VI STIFFENING RIB BOLTED TO THE TOP AND BOTTOM ON SOIL SIDE OF EACH HEADWALL



"X" DENOTES ROD ATTACHMENT TO PIPE



ASSEMBLY REQUIREMENTS-HEADWALLS							
HEAT NO.	RADIUS	MK	PIECES	SHIP	LENGTH	T	REMARKS
X	FLAT	(A)	2	12	10.00'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	2	12	10.00'	.150"	PIPE WELDED TO PLATE
X	FLAT	(C)	2	15	11.67'	.150"	BEVEL CUT ON TOP
X	FLAT	(D)	2	15	11.67'	.150"	PIPE WELDED TO PLATE
		DM1	12	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	16	3	2.33'	.250"	DEADMAN WITH TYPE VI
			2		14.25'		ALUMINUM CAP BEAMS
			4		2.50'		ALUMINUM CAP BEAMS
			2		18.25'		ALUMINUM WALE BEAMS
			6		6.75'		ALUMINUM WALE BEAMS
			2		6.50'		ALUMINUM WALE BEAMS
			34				WALE NUTS
			28		3/4" DIA. STRAIGHT RODS FOR DEADMAN ANCHORS		
			8		3/4" DIA. BENT RODS USED AT ARCH TO HEADWALL		

SHIPMENT SUMMARY:

SPECIFICATIONS:	AASHTO M219	GAGE:
APPROXIMATE SHIPPING WEIGHT:		TOP:
CUSTOMER:		SIDES:
		CORNER:
		BOTTOM:

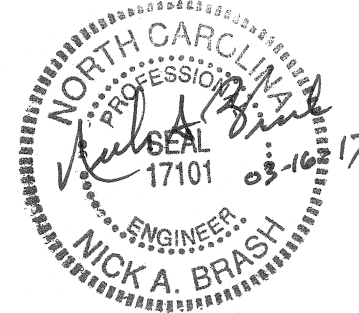
PROJECT: 1989 SILENT NIGHT HILL ROAD (SR 1205)
EDGEcombe COUNTY, NC
HEADWALLS (0.150" THICKNESS)
54" PIPE, 3" x 1" CORRUGATION, 12 GAUGE

DRAWN BY: JCH	REVISIONS:			
CHECKED BY:	NO.	DATE	BY	NOTES
APPROVED BY:	1			
DATE: 3/16/2017	2			
SCALE: NTS	LANE METAL PRODUCTS DIVISION			BID #:
	of LANE ENTERPRISES, INC.			---
	CAMP HILL, PA			LANE PROJECT NUMBER:

NOTES:

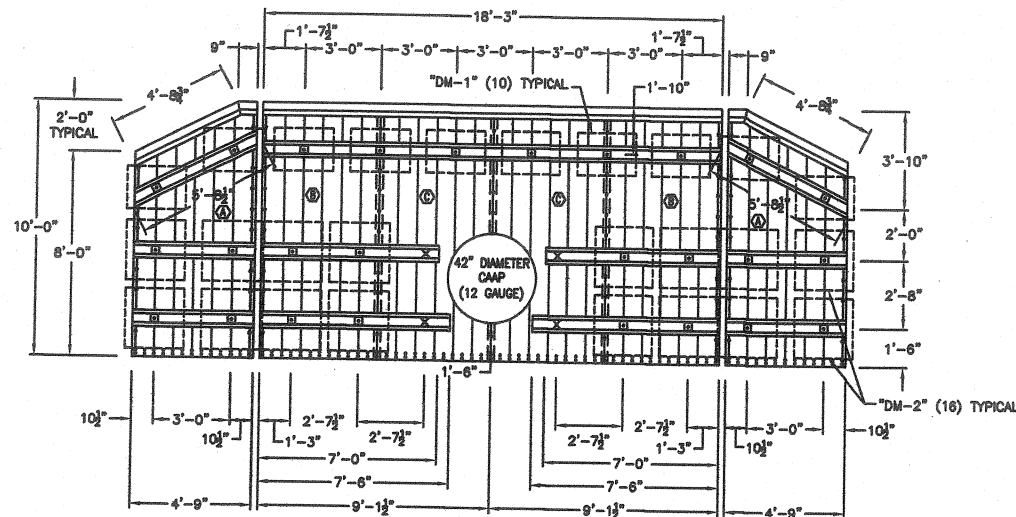
- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-0" (Inlet & Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Middle Deadman Anchor is 4'-8" (Inlet & Outlet) From Top of Road.
- 4.) The Minimum Burial Depth for the Bottom Deadman Anchor is 8'-0" (Inlet & Outlet) From Top of Road.
- 5.) All Deadman Anchor Rods are to be 16'-6" Long (Inlet) & 19'-0" (Outlet). Use Deadman Anchors or Full Length Rod.
- 6.) All Backfill Material in the Structural Zone is to be #57 Stone.

Brash Construction Consulting, Inc.
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Roanoke, VA 24015
License No.: C-2875

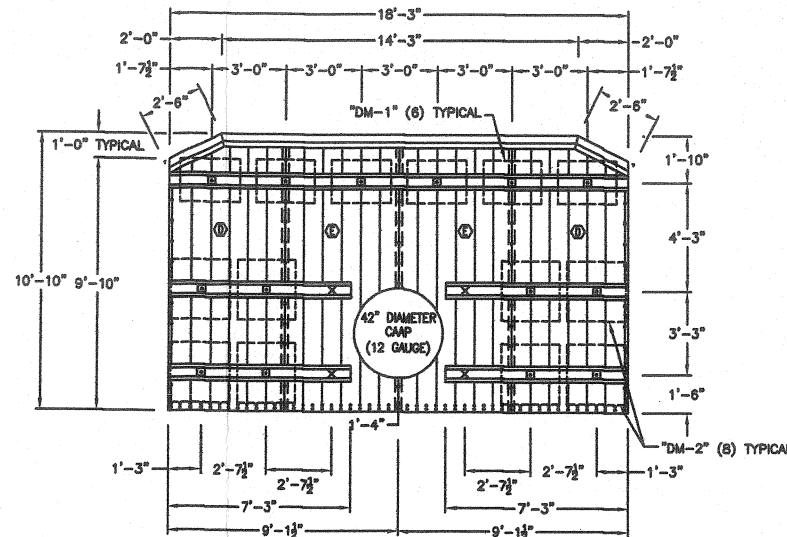


TYPE VI STIFFENING RIB BOLTED TO THE TOP
AND BOTTOM ON SOIL SIDE OF EACH HEADWALL

24'-9" ← Being changed to 27'

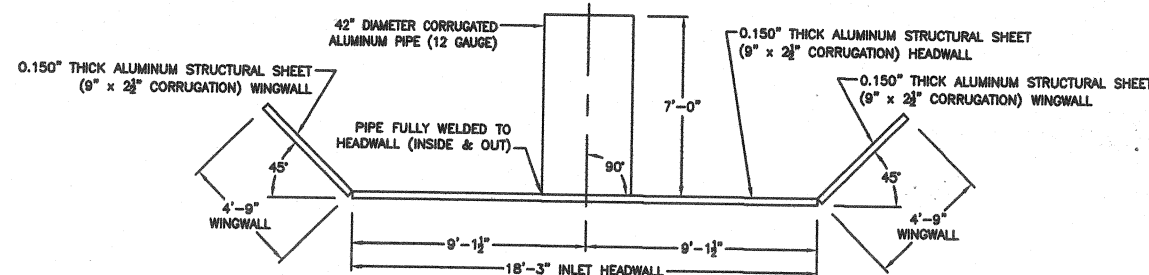
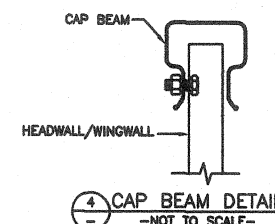
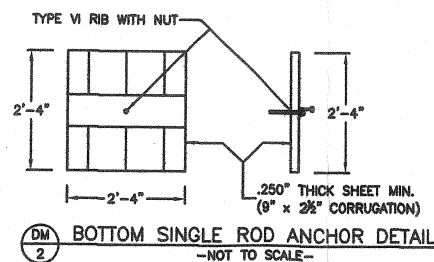
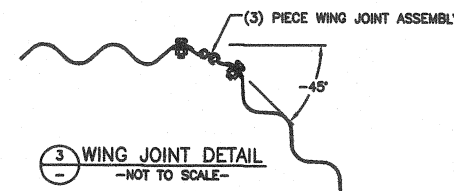
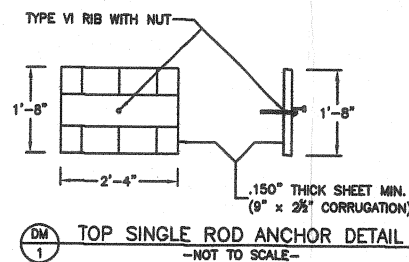
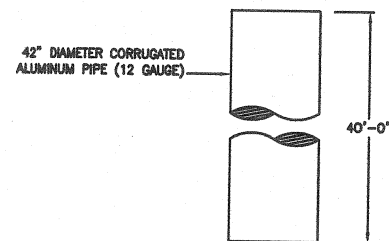
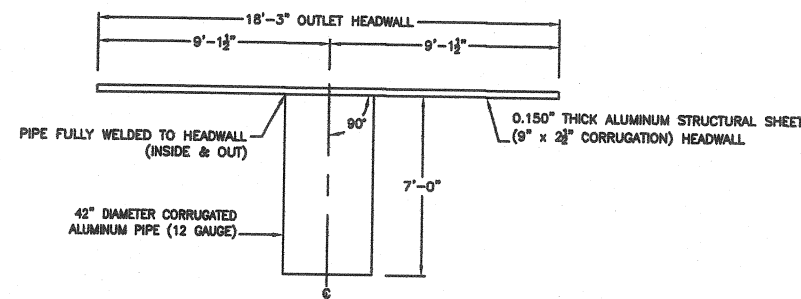


ELEVATION VIEW
-INLET-



ELEVATION VIEW
-OUTLET-

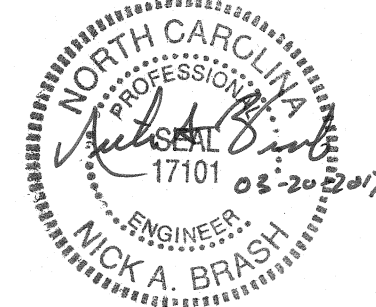
"X" DENOTES ROD ATTACHMENT TO PIPE



PLAN VIEW
-INLET & OUTLET-

NOTES:

- 1.) The Depth of Bury is Defined as the Amount of Soil Cover Above the Top of the Highest Point of the Deadman.
- 2.) The Minimum Burial Depth for the Top Deadman Anchor is 2'-6" (Inlet & Outlet) From Top of Road.
- 3.) The Minimum Burial Depth for the Middle Deadman Anchor is 5'-2" (Inlet) & 5'-4" (Outlet) From Top of Road.
- 4.) The Minimum Burial Depth for the Bottom Deadman Anchor is 8'-6" (Inlet) & 8'-8" (Outlet) From Top of Road.
- 5.) All Deadman Anchor Rods are to be 16'-6" Long (Inlet) & 17'-0" (Outlet). Use Deadman Anchors or Full Length Rod.
- 6.) All Backfill Material in the Structural Zone is to be #57 Stone.



Brash Construction Consulting, Inc.
P. O. Box 4241 / 1326 Grandin Road
Roanoke, VA 24015
License No.: C-2875

ASSEMBLY REQUIREMENTS-HEADWALLS & WINGWALLS

HEAT NO.	RADIUS	MK	PIECES	SHIP	LENGTH	T	REMARKS
X	FLAT	(A)	2	12	10.00'	.150"	BEVEL CUT ON TOP
X	FLAT	(B)	2	12	10.00'	.150"	FULL PLATE
X	FLAT	(C)	2	12	10.00'	.150"	PIPE WELDED TO PLATE
X	FLAT	(D)	2	13	10.83'	.150"	BEVEL CUT ON TOP
X	FLAT	(E)	2	13	10.83'	.150"	PIPE WELDED TO PLATE
		DM1	16	2	1.67'	.150"	DEADMAN WITH TYPE VI
		DM2	24	3	2.33'	.250"	DEADMAN WITH TYPE VI
			1		18.25'		ALUMINUM CAP BEAMS
			1		14.25'		ALUMINUM CAP BEAMS
			2		4.73'		ALUMINUM CAP BEAMS
			2		2.50'		ALUMINUM CAP BEAMS
			2		0.75'		ALUMINUM CAP BEAMS
			2		18.25'		ALUMINUM WALE BEAMS
			2		7.50'		ALUMINUM WALE BEAMS
			4		7.25'		ALUMINUM WALE BEAMS
			2		7.00'		ALUMINUM WALE BEAMS
			2		5.71'		ALUMINUM WALE BEAMS
			4		4.75'		ALUMINUM WALE BEAMS
			48				WALE NUTS
			40		3/4" DIA. STRAIGHT RODS FOR DEADMAN ANCHORS		
			8		3/4" DIA. BENT RODS USED AT ARCH TO HEADWALL		
			2		3-PIECE WING ASSEMBLY		

SHIPMENT SUMMARY:

SPECIFICATIONS:	AASHTO M219	GAGE:
APPROXIMATE SHIPPING WEIGHT:		TOP:
CUSTOMER:		SIDES:
		CORNER:
		BOTTOM:

PROJECT: 1993 SILENT NIGHT HILL ROAD (SR 1205)
EDGEcombe COUNTY, NC
HEADWALLS & WINGWALLS (0.150" THICKNESS)
42" PIPE, 2 2/3" x 1/2" CORRUGATION, 12 GAUGE

DRAWN BY: JCH		REVISIONS:		
CHECKED BY:	NO.	DATE	BY	NOTES
APPROVED BY:	1			
DATE: 3/20/2017	2			
SCALE: NTS		LANE METAL PRODUCTS DIVISION		
		of LANE ENTERPRISES, INC.		BID #: ---
		CAMP HILL, PA		LANE PROJECT NUMBER:



LANE METAL PRODUCTS DIVISION
of LANE ENTERPRISES, INC.
CAMP HILL, PA