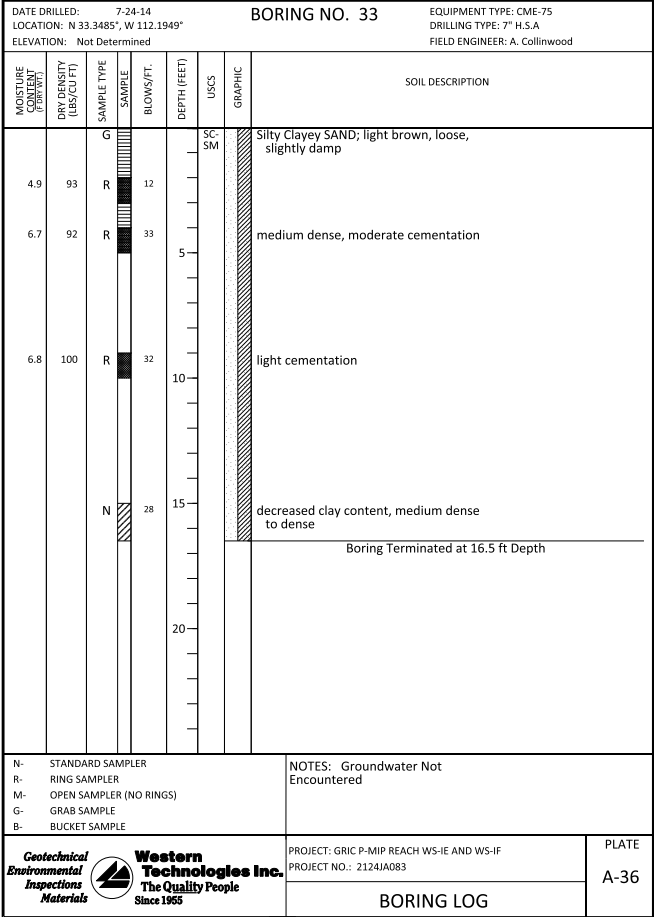
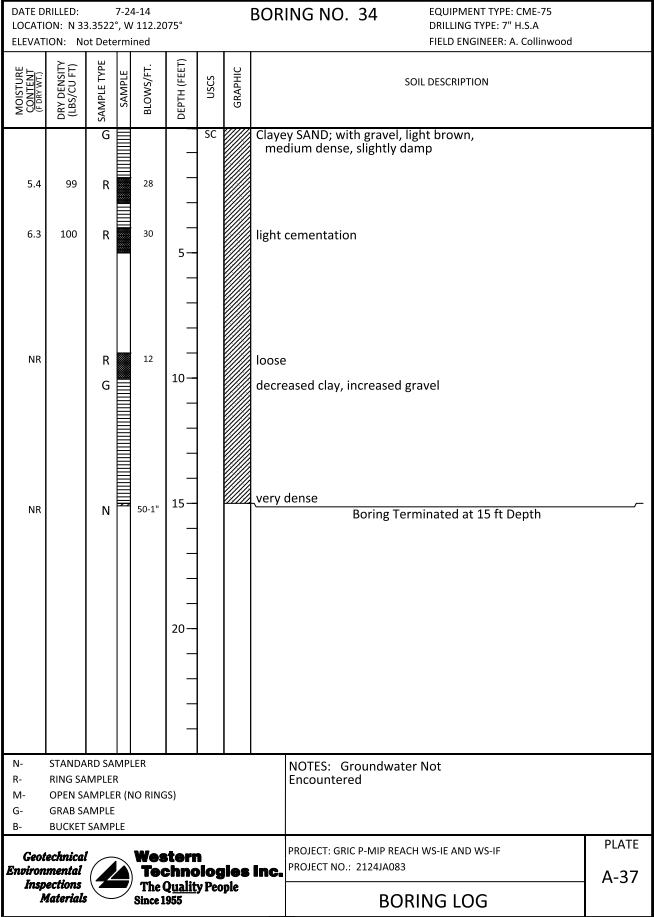


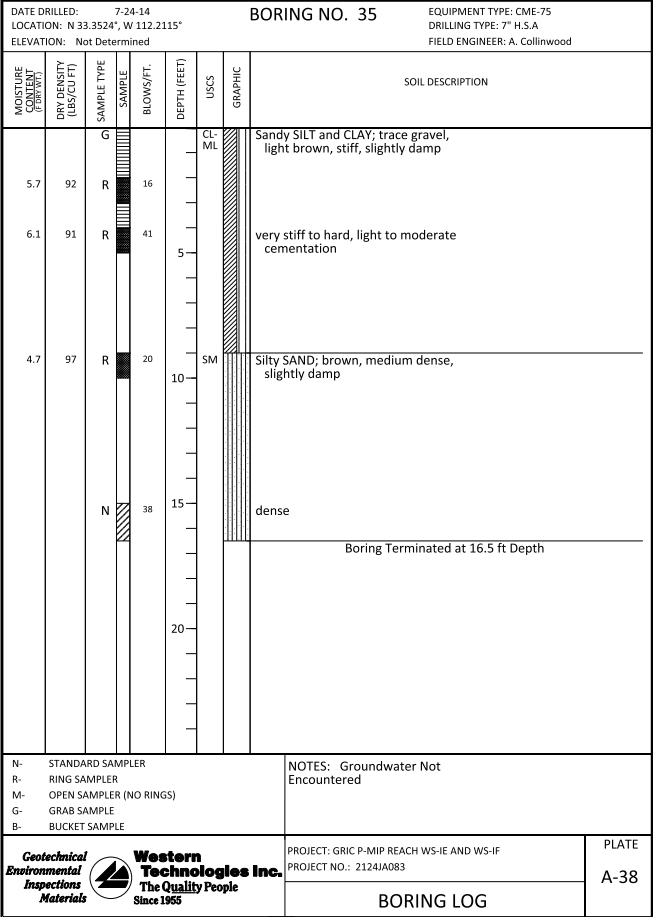
THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.



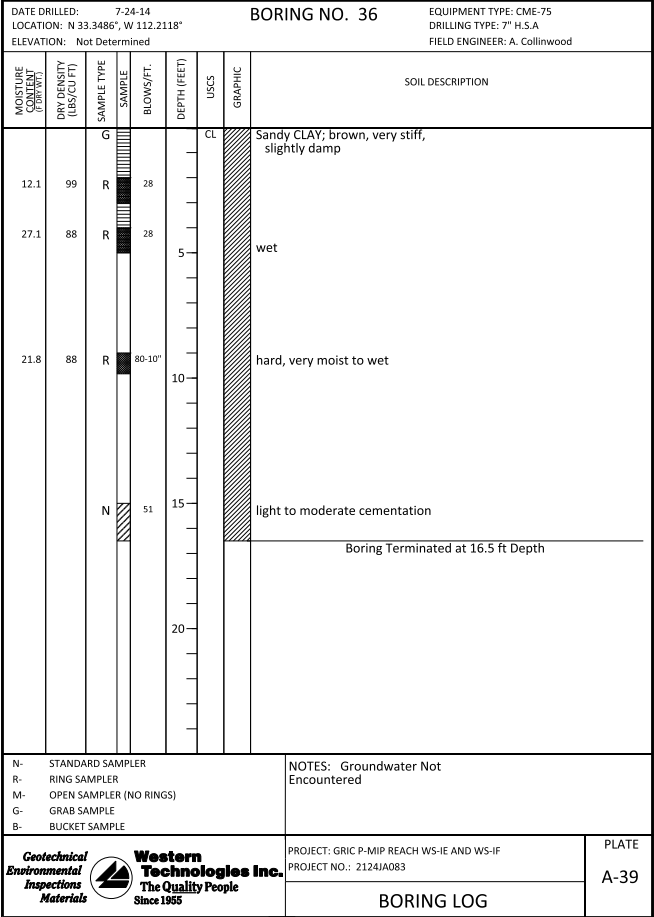
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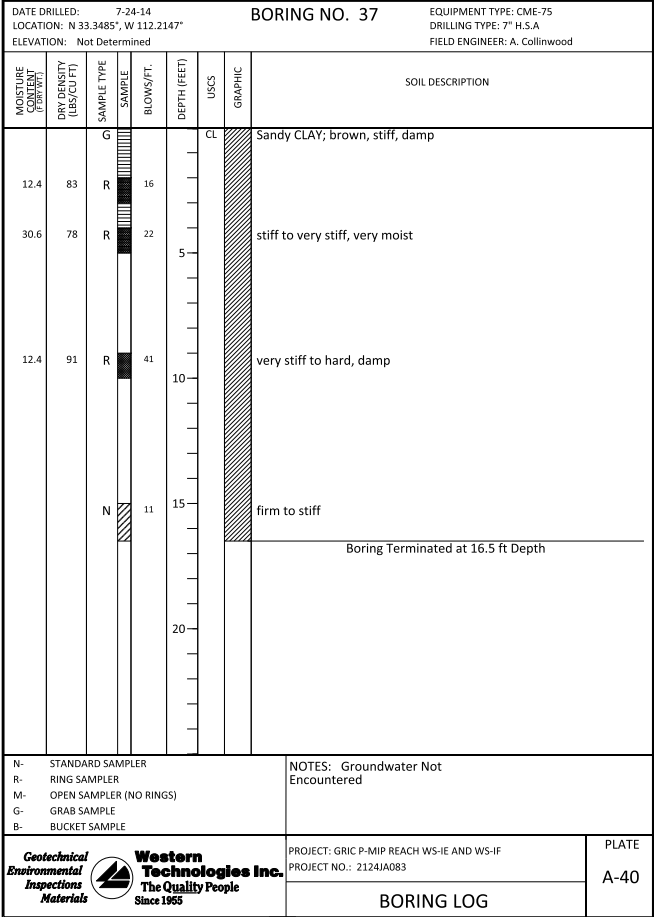
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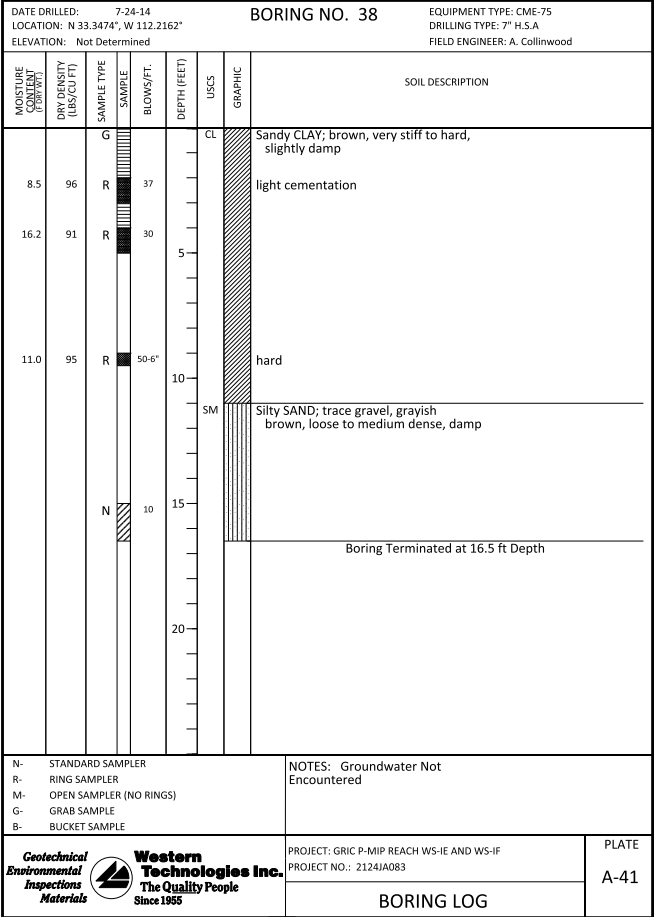
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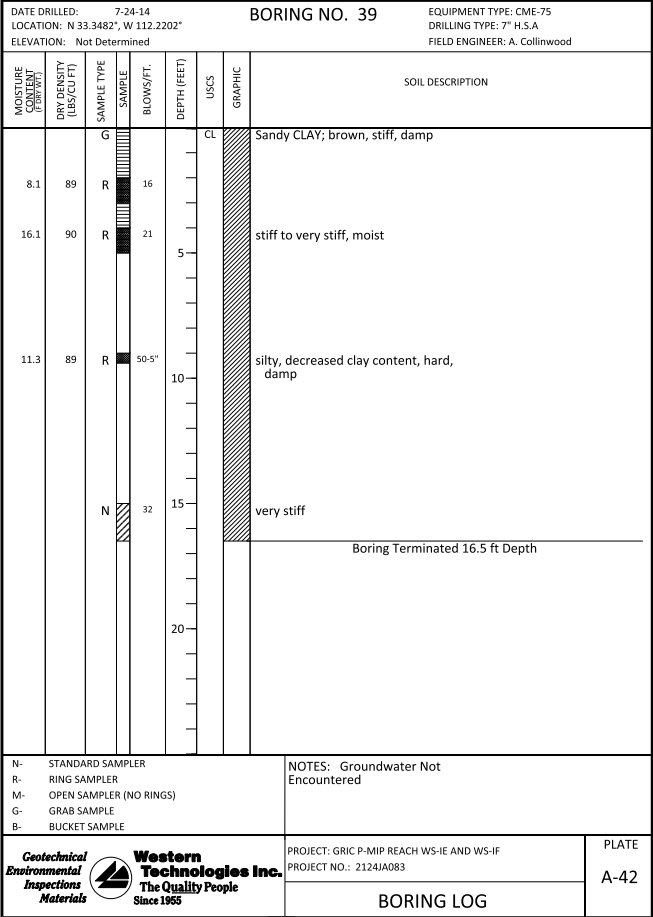
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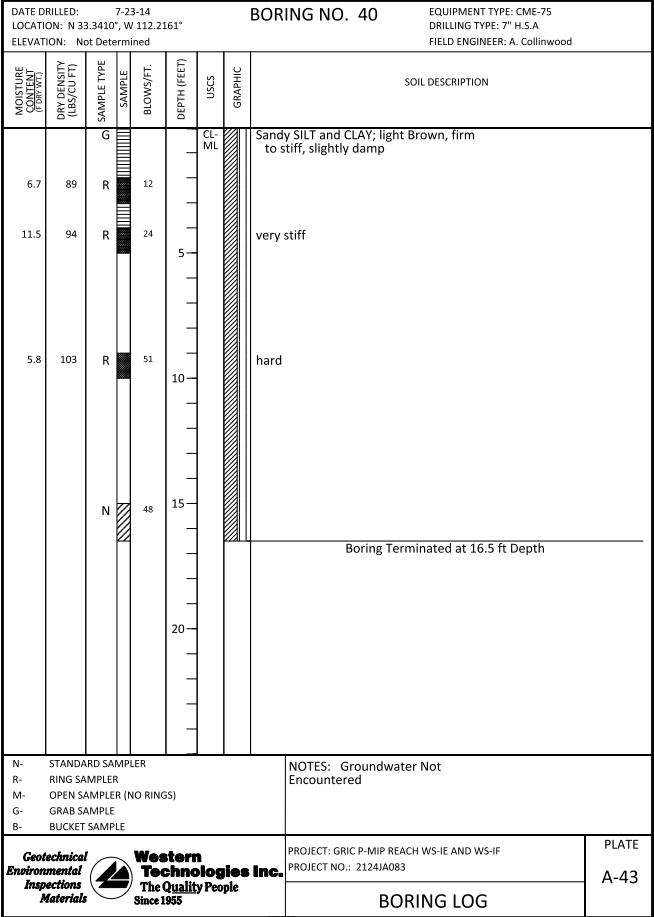
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Job No. 647979		Designed		Drawn		Checked		Reviewed		Approved		Reg. No. 25118		Plot Date 12-18-14		Description		By	
60% SUBMITTAL NOT FOR CONSTRUCTION																			
PREPARED BY:  WESTERN TECHNOLOGIES INC. 3137 Eng. Bypass Rd (602) 437-3377 (602) 470-1341 FAX																			
 GILA RIVER INDIAN COMMUNITY 1935																			
PIMA MARICOPA IRRIGATION PROJECT 100 BOX 404 ROUTE A STREET SACATON, AZ 85147 (520)562-6700 (520)562-6791 FAX																			
REACHES WS-IE AND WS-IF																			
SOIL BORING AND LOG																			
DRAWING NAME SB-1.4																			

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

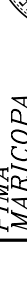
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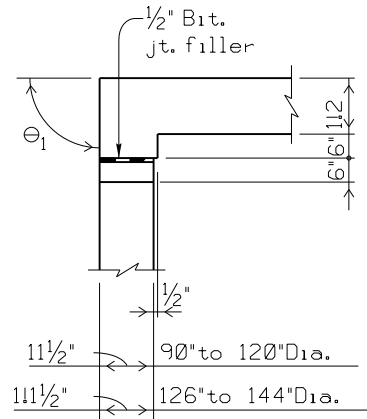
THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

DRAWING NAME	REACHES WS-1E AND WS-1F	PIMA MARICOPA IRRIGATION PROJECT P.O. BOX C 192-A SOUTH ROUTE A STREET TUCSON, ARIZONA 85714-7000 (520)952-6700 (520)952-6700 FAX  GILA RIVER INDIAN COMMUNITY PO BOX 100 TUCSON, AZ 85706 1998 PREPARED BY:  WESTERN TECHNOLOGIES INC. 2737 East Broadway Blvd Tucson, Arizona 85711 (602) 437-3377 (602) 470-1341 FAX	Job No.	647979					
	SOIL BORING AND LOG		Designed						
			Drawn						
			Checked						
			Reviewed						
			Approved						
		Reg. No.	25118	Plot Date	12-18-14	Rev	Date	Description	By
		60% SUBMITTAL NOT FOR CONSTRUCTION							

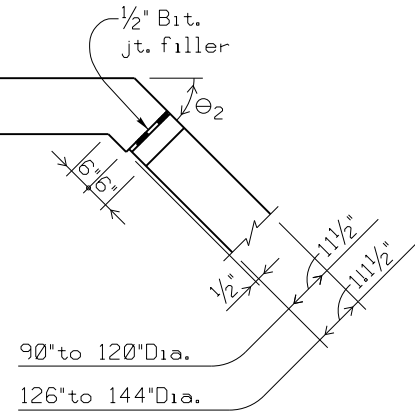
Note to Designer:
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REVISIONS		DATE	BY	APP'D
1	Issued	01/01/2010	SD	SD
2	Revised	01/01/2010	SD	SD
3	Revised	01/01/2010	SD	SD
4	Revised	01/01/2010	SD	SD

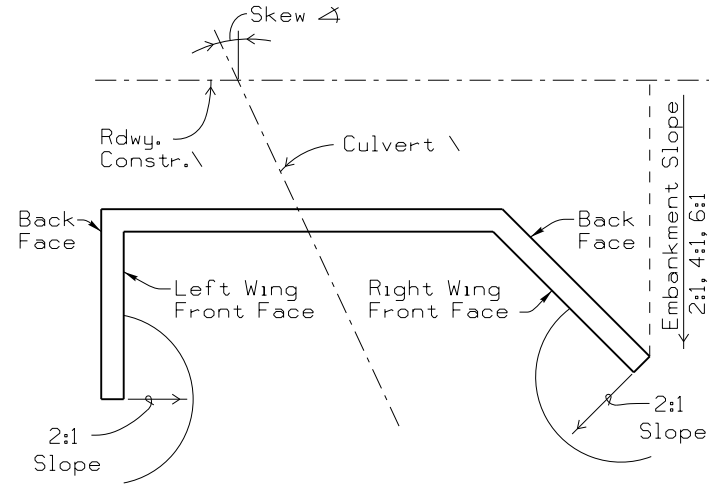
	Inlet End				Outlet End		
Skew Δ	15°	30°	45°	15°	30°	45°	
Θ_1	75°	90°	90°	85°	90°	90°	
Θ_2	45°	40°	25°	55°	40°	25°	



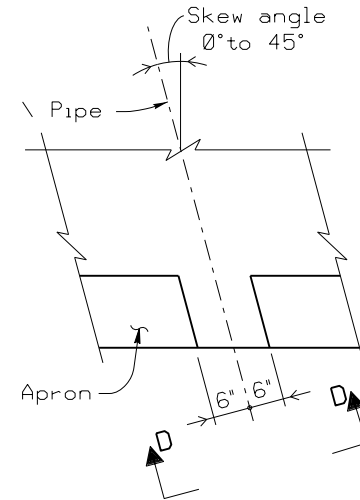
DETAIL B



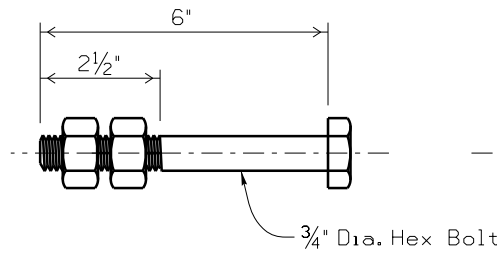
DETAIL C



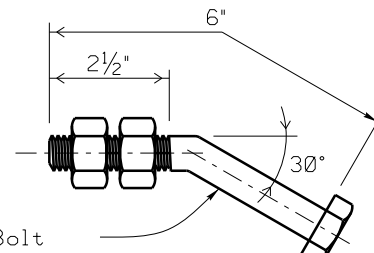
FILL PLACEMENT DETAIL



PLAN AT APRON DRAIN

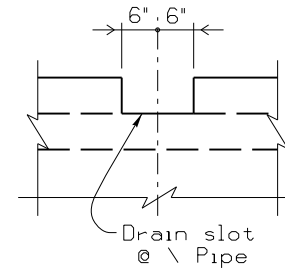


ANCHOR BOLT DETAIL

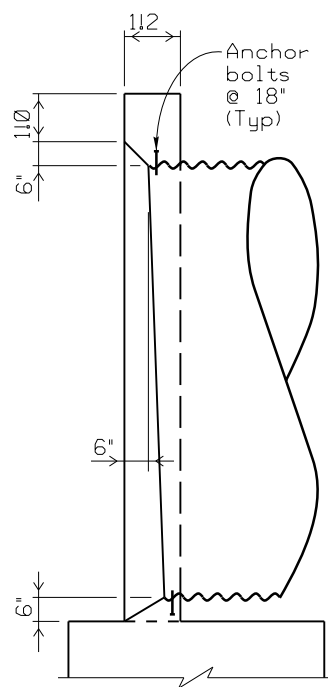


ALTERNATE ANCHOR BOLT DETAIL

NOTE:
When straight anchor bolt will not fit in headwall use alternate anchor bolt.

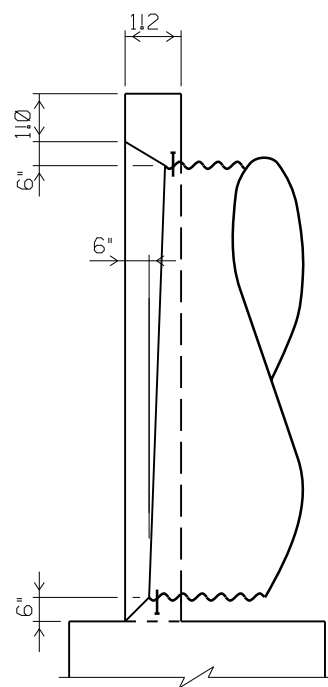


ELEVATION D-D

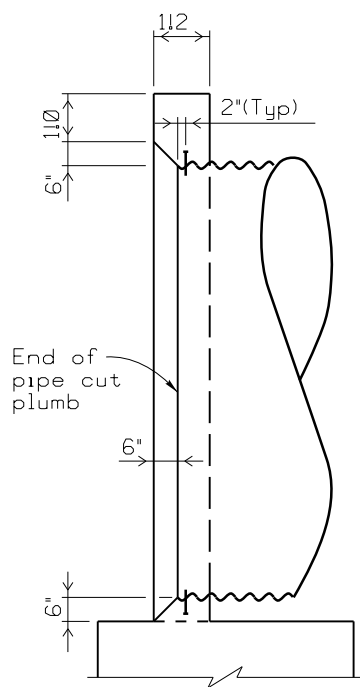


Outlet End

DETAIL D

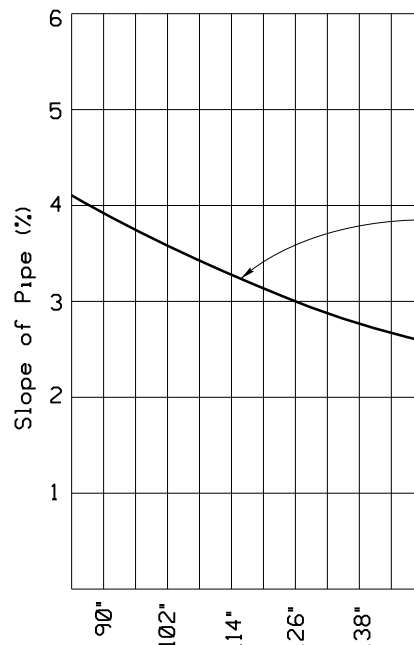


Inlet End



Outlet or Inlet End

DETAIL E



PIPE DIAMETER CHART

(Use to determine pipe end treatment)

Cut end of pipe plumb if pipe slope vs. pipe dia. falls above line. See DETAIL E.

No cut required when pipe slope vs. pipe dia. falls below line. See DETAIL D.

NOTE:

Headwall details shown on this sheet are for pipes 90" in diameter or greater.

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 6th Edition 2012.

Loading Class - HL-93.

Design Soil weight = 120 p.c.f.

All Concrete shall be Class "S" ($f'c$ = 3000 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Chamfer all exposed corners $3/4$ " unless noted otherwise.

Bolt material shall conform to ASTM A307. Bolts shall be galvanized to conform to ASTM A153.

Disturbed area of pipe shall be treated in accordance with Standard Specifications requirements when end of pipe is cut to fit skew or slope.

Compact backfill for footing and wing base minimum 95 percent of ASTM D698 maximum dry density.

See Project Plans for culvert layout, invert elevations, finished grade elevations, headwall, apron, and other site specific details. Headwall Quantity Tables are approximate and for information purpose only.

Dimensions shall not be scaled from drawings.

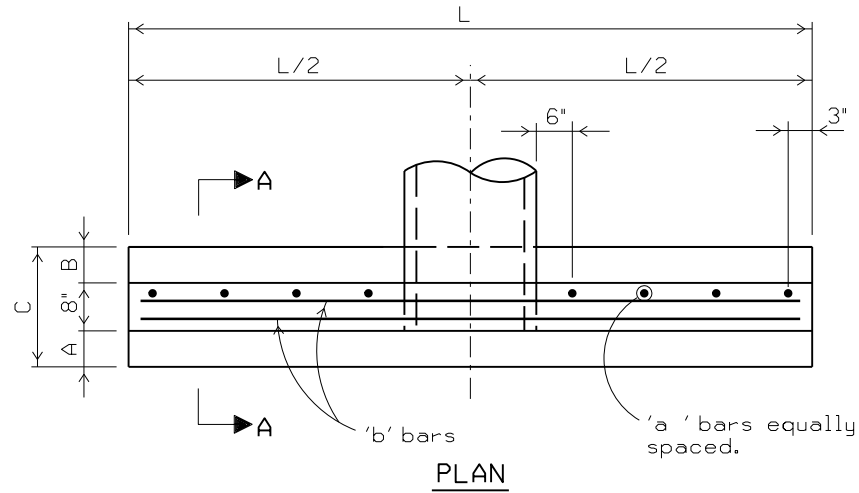
NOTE:

For Dimensions, Quantities and additional Details, see SD 6.30 (2 to 5).

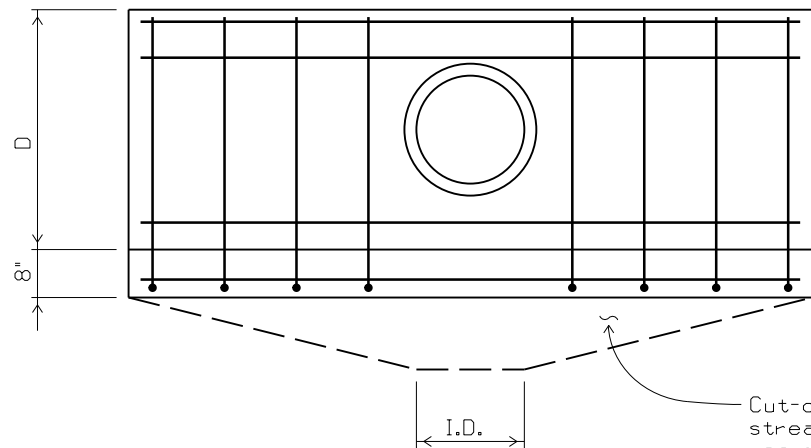
DESIGN APPROVED <i>Shafiq H. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>Tam A. Nehme</i>		PIPE CULVERT HEADWALLS MISCELLANEOUS DETAILS	
PROJECT NO. 647979	DATE 7/1/10	PROJECT NO. 647979	DATE 7/1/10
LOCATION REACHES WS-1E AND WS-1F		SHEET NO. OF	

Note to Designer:
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REVISIONS		DATE	BY	APP'D
1	Issued	01/01/2018	SD	SD
2	Revised	01/01/2018	SD	SD
3	Revised	01/01/2018	SD	SD
4	Revised	01/01/2018	SD	SD



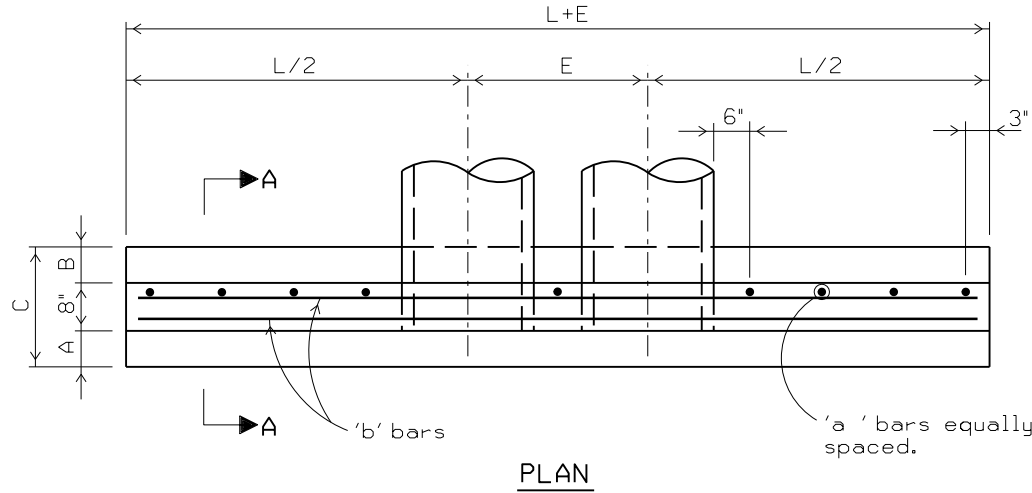
PLAN



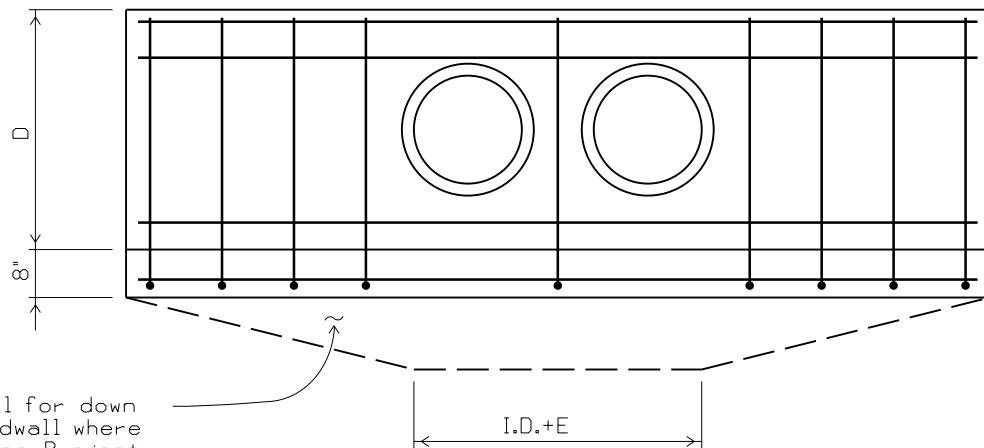
ELEVATION

SINGLE PIPE HEADWALL

Cut-off wall for down stream headwall where required. See Project Plans for need and depth of cutoff wall.

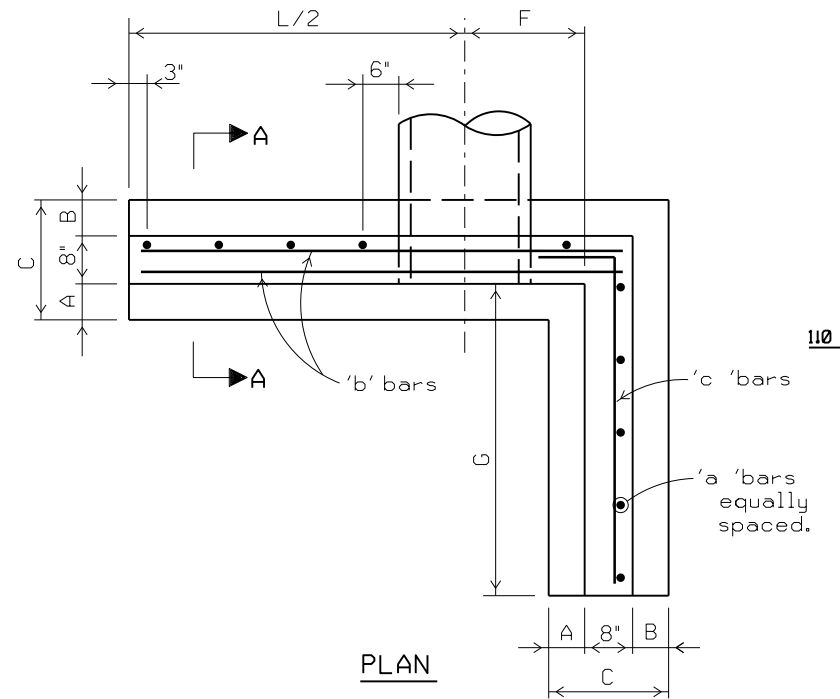


PLAN

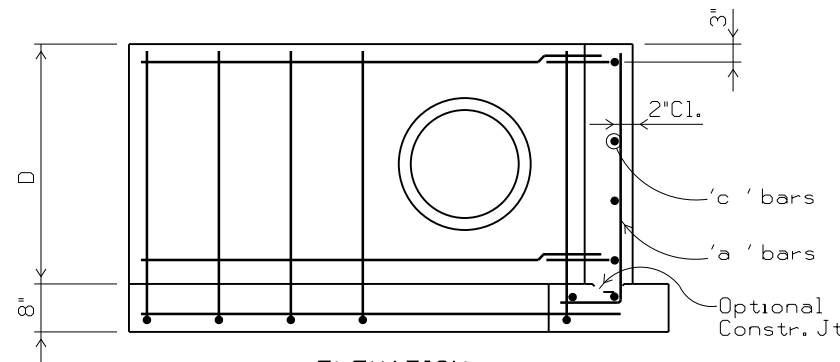


ELEVATION

DOUBLE PIPE HEADWALL



PLAN



ELEVATION

'L' HEADWALL

NOTE:

Concrete pipe shown. Corrugated metal pipe similar.

All reinforcing bars are #4.

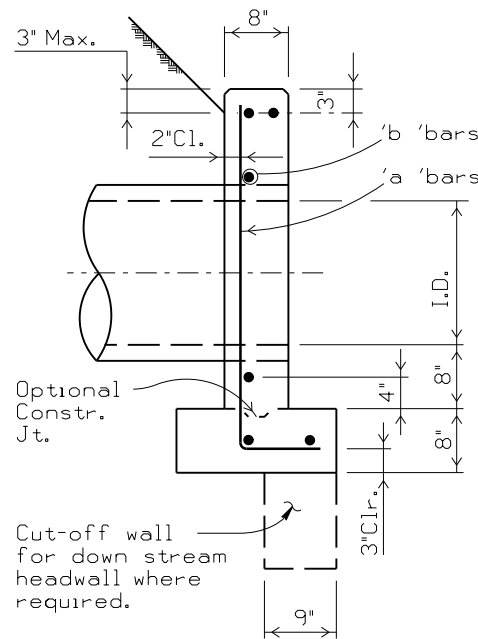
Dimension E equals pipe spacing.

High point of headwall shall not project more than 3" above slope.

For 3 or more pipes, add quantities shown for each additional pipe to Double Pipe Headwall quantity. Add one 'a' bar to double pipe headwall total and increase 'b' bar length by Dimension E for each additional pipe.

NOTE:

For General Notes, Dimensions, Quantities and additional Details, see SD 6.30 (1 & 3 to 5).

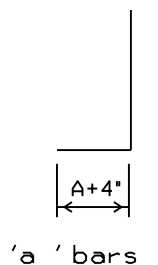
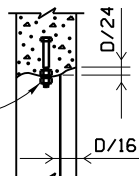


SECTION A-A

Dimensions									
I.D.	A	B	C	D	E	F	G	L	L+E
18"	6"	10"	210	312	216	117	416	916	1210
24"	8"	110	214	318	211	516	1116	1416	
30"	10"	112	218	412	319	217	616	1316	1713
36"	110	114	310	418	416	311	716	1516	2010
42"	112	116	314	512	513	317	816	1716	2219

For Bolt Details, see Dwg. (1 of 5)

BEVEL DETAIL FOR CMP



'a' bars

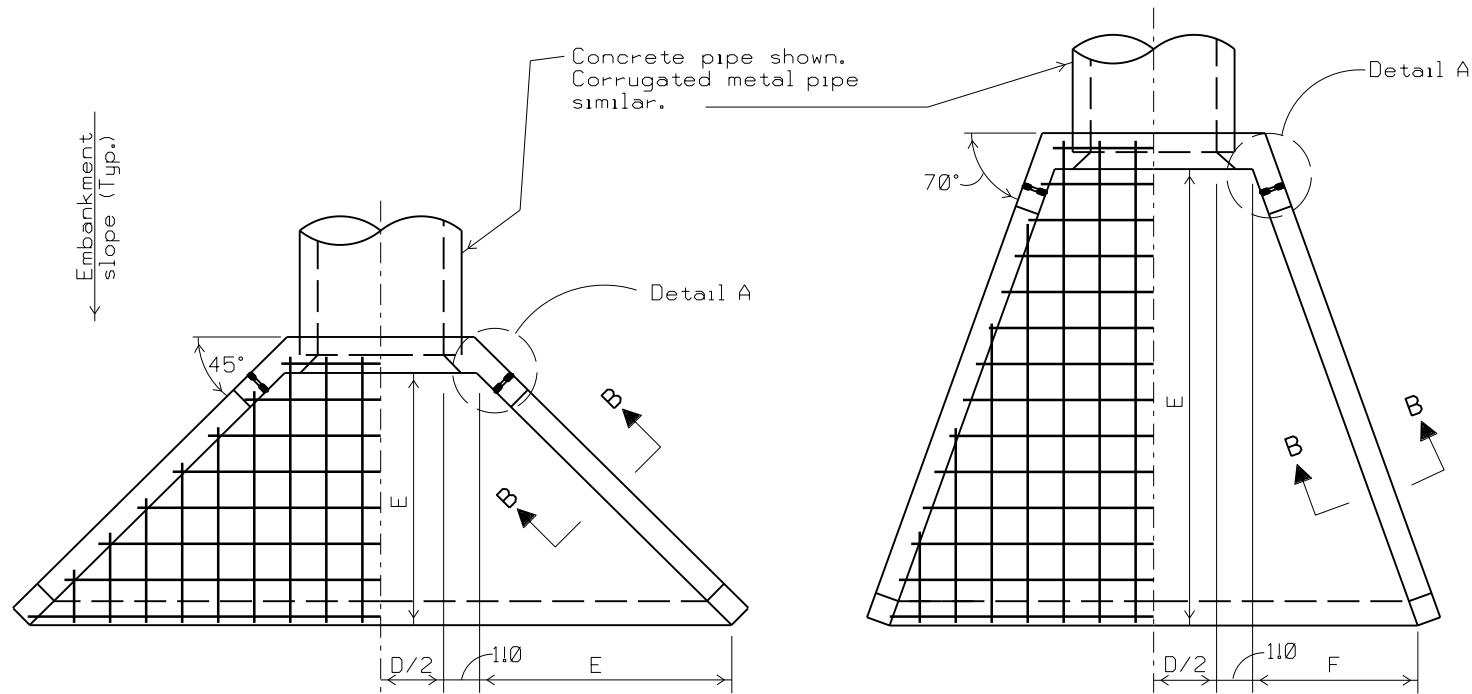
Reinforcing														
I.D.	'a' bars						'b' bars						'c' bars	
	Single Pipe Headwall		Double Pipe Headwall		'L' Headwall		Single Pipe Headwall		Double Pipe Headwall		'L' Headwall		'L' Headwall	
	No	Lgth	No	Lgth	No	Lgth	No	Lgth	No	Lgth	No	Lgth	No	Lgth
18"	8	413	9	413	10	413	6	910	6	1116	6	616	5	519
24"	10	510	11	510	12	510	6	1110	6	1410	6	810	6	619
30"	12	516	13	516	14	516	6	1310	6	1619	6	916	6	719
36"	12	613	13	613	16	613	6	1510	6	1916	6	1110	7	819
42"	14	710	15	710	18	710	6	1710	6	2213	6	1216	7	919

* Approximate Quantities								
I.D.	Single Pipe Hdwall.		Double Pipe Hdwall.		Add'l. Pipe Hdwall.		'L' Hdwall.	
	Conc. C.Y.	Reinf. Lbs.	Conc. C.Y.	Reinf. Lbs.	Conc. C.Y.	Reinf. Lbs.	Conc. C.Y.	Reinf. Lbs.
18"	1.2	60	1.4	73	.3	13	1.4	75
24"	1.6	78	2.0	90	.4	15	2.0	100
30"	2.1	97	2.6	116	.5	19	2.6	121
36"	2.7	111	3.4	133	.7	22	3.4	152
42"	3.4	135	3.7	160	.8	26	4.2	180

* Quantities do not include cut-off wall.

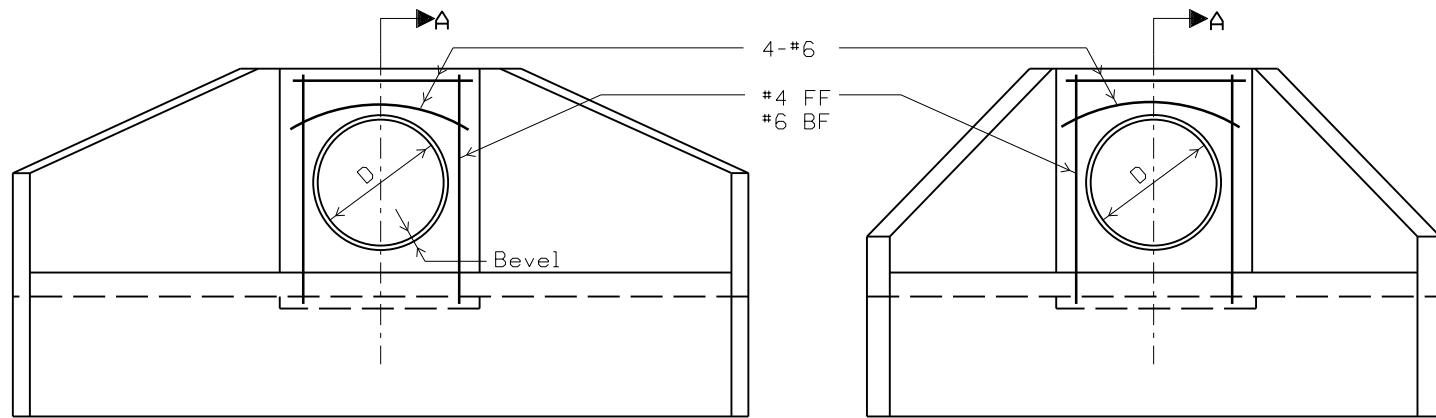
DESIGN APPROVED <i>Shafiq H. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>Jason A. Nehme</i>		PIPE CULVERT HEADWALLS INLET and OUTLET 18" to 42" PIPES	
DATE	PROJECT NO. 647979	7A NO.	800000 NO. SD 6.30 (2 of 5)
LOCATION	REACHES WS-1E AND WS-1F		SHEET NO. OF

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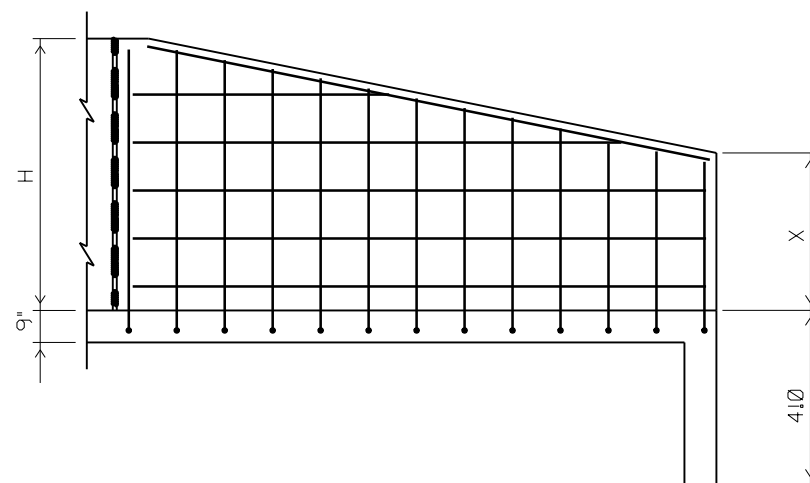
PLAN - INLET HEADWALL

PLAN - OUTLET HEADWALL

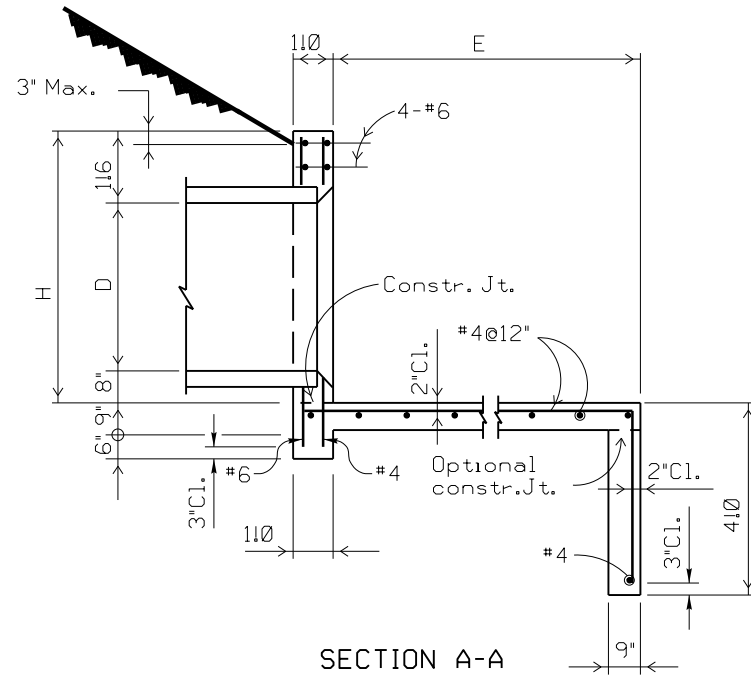


ELEVATION

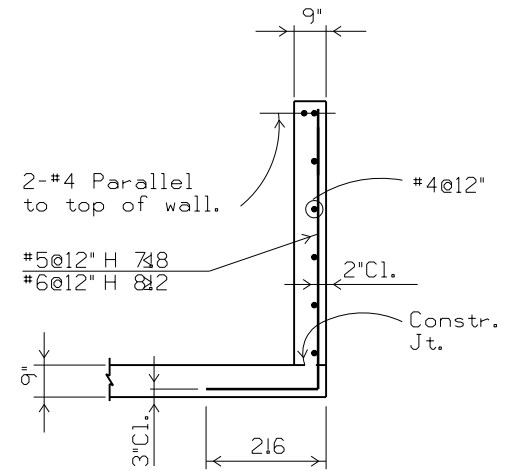
ELEVATION



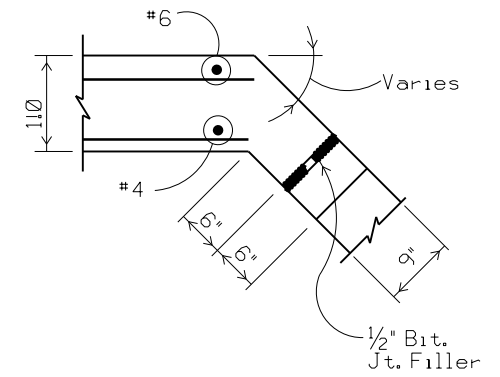
WINGWALL ELEVATION



SECTION A-A



SECTION B-B



DETAIL A

NOTE:

Bevel is required only on Inlet Headwalls.

Bell end of concrete pipe may replace bevel.

For CMP use anchor bolts @ 18" as shown on Dwg.(1 of 5).

NOTE:

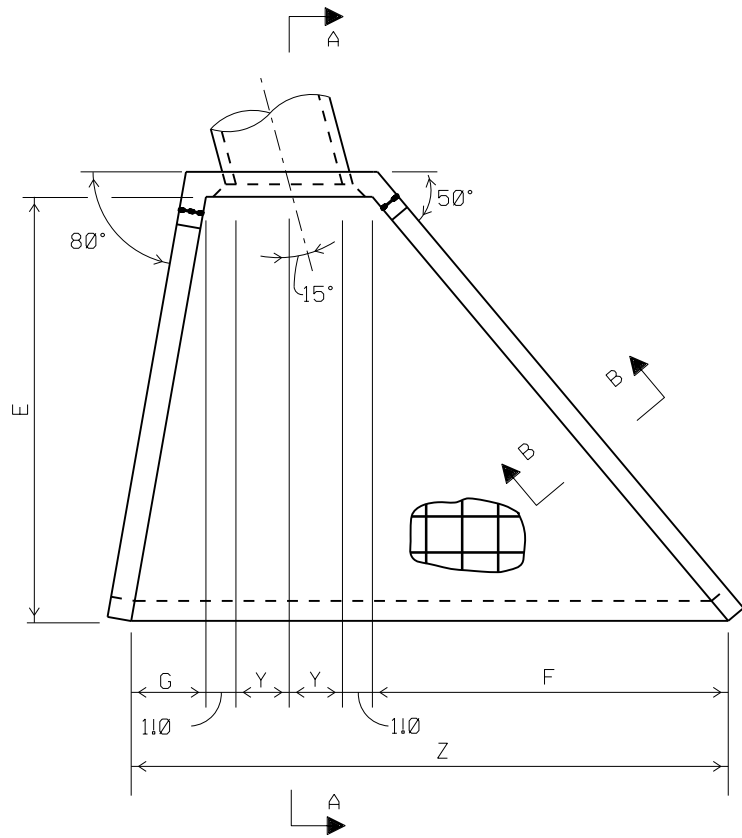
For General Notes, Dimensions, Quantities and additional Details, see SD 6.30 (1,2 & 4,5).

DESIGN APPROVED <i>Shafiq H. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>Teon A. Nehme</i>		PIPE CULVERT HEADWALLS RIGHT ANGLE INLET AND OUTLET 48" to 84" PIPES	
PROJECT NO. 647979	DATE 7/10	PROJECT NO. 647979	DATE 7/10
LOCATION REACHES WS-1E AND WS-1F		SHEET NO. OF	

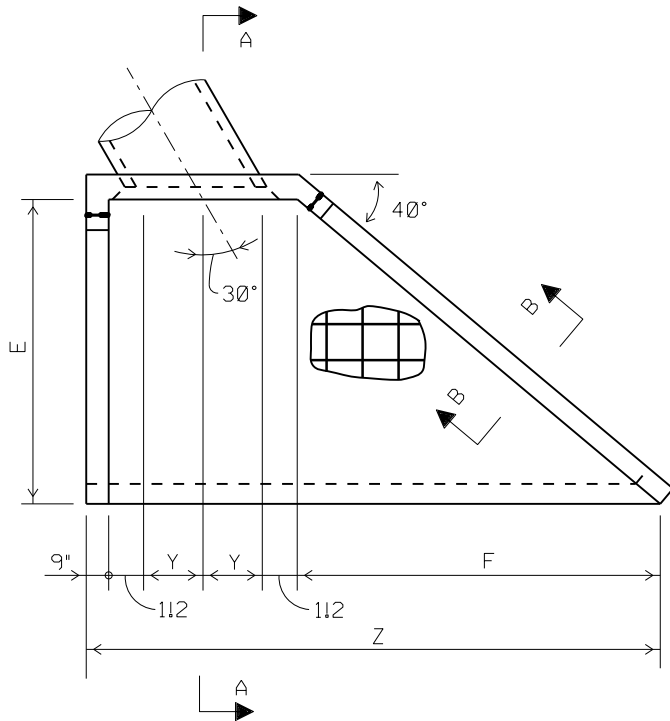
D	H	INLET END												OUTLET END											
		2:1 Slope				4:1 Slope				6:1 Slope				2:1 Slope				4:1 Slope				6:1 Slope			
		Dimensions		Conc.	Reinf.	Dimensions		Conc.	Reinf.	Dimensions		Conc.	Reinf.	Dimensions		Conc.	Reinf.	Dimensions		Conc.	Reinf.	Dimensions		Conc.	Reinf.
		E	X	C.Y.	Lbs.	E	X	C.Y.	Lbs.	E	X	C.Y.	Lbs.	E	F	X	C.Y.	Lbs.	E	F	X	C.Y.	Lbs.	E	F
48"	612	514	310	6.6	395	718	410	9.4	570	910	416	11.2	680	818	312	114	7.0	430	1318	510	216	10.8	665	1610	5110
54"	618	5110	313	7.6	445	814	414	10.8	630	918	4110	12.9	745	914	315	116	7.9	475	1418	514	219	12.3	750	1714	614
60"	712	614	316	8.6	490	910	418	12.2	725	1014	513	14.3	835	1010	318	118	8.9	510	1518	518	310	13.9	830	1818	6110
66"	718	6110	319	9.7	555	918	510	13.8	810	1110	517	16.0	940	1018	3111	1110	10.0	570	1618	611	313	15.6	915	2010	713
72"	812	714	410	10.8	700	1014	514	15.5	1010	1118	610	17.8	1195	1114	412	210	11.1	720	1718	615	316	17.4	1155	2114	719
78"	818	7110	413	12.1	795	1110	518	17.2	1140	1214	615	19.7	1305	1210	414	212	12.2	780	1818	6110	319	19.7	1315	2218	813
84"	912	814	416	13.3	875	1118	610	19.0	1250	1310	6110	21.7	1435	1218	417	214	13.5	865	1918	712	410	21.3	1430	2410	819

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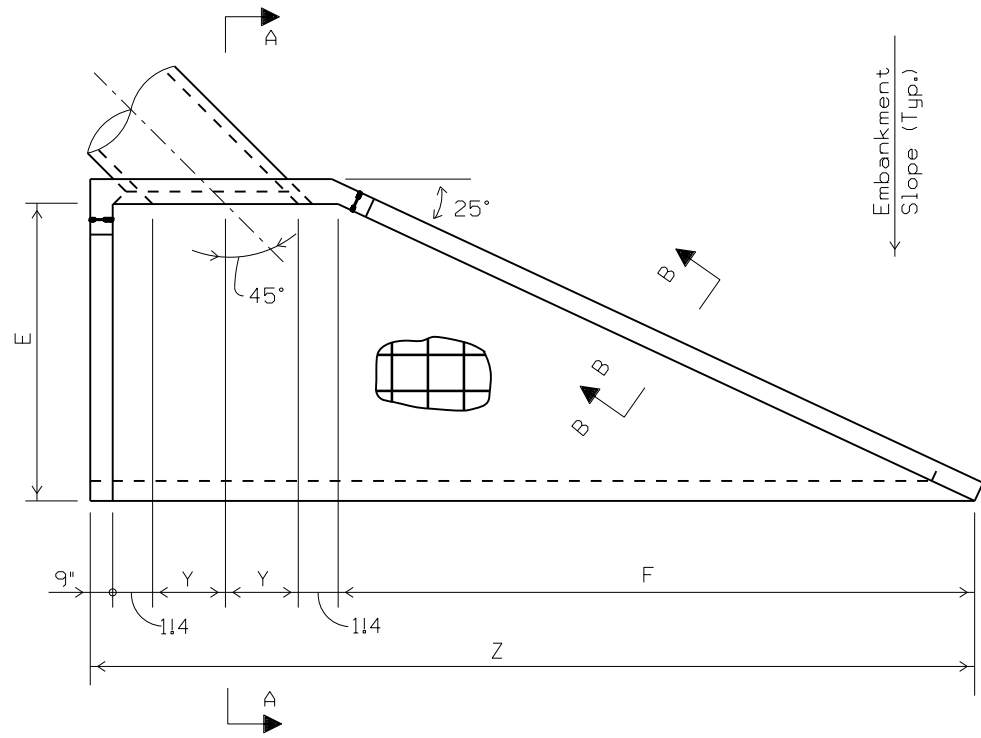
NO. OF SHEETS	1
SHEET NO.	1
DATE	
BY	
CHECKED	
APPROVED	



PLAN - 15° SKEW



PLAN - 30° SKEW



PLAN - 45° SKEW

	D	H	15° Skew								30° Skew								45° Skew							
			Dimensions						Conc. C.Y.	Reinf. Lbs.	Dimensions					Conc. C.Y.	Reinf. Lbs.	Dimensions					Conc. C.Y.	Reinf. Lbs.		
			E	F	G	X	Y	Z			E	F	X	Y	Z			E	F	X	Y	Z				
2:1 Slope	48"	612	812	6110¼	115¼	117	210⅞	1415¼	6.6	450	619	810½	213	213¾	1519	6.8	425	614	1317	216	2110	2218	8.7	520		
	54"	618	910	716⅝	117	118	214	1519⅝	7.5	540	716	811¼	215	217⅛	1712½	7.8	515	710	1510⅛	218	312⅛	2419⅝	9.7	635		
	60"	712	9110	813	118¾	119	217	1711¾	8.5	625	813	9110	216	2110⅝	1818¼	8.9	605	718	1615¼	2110	316⅝	26111	11.3	755		
	66"	718	1018	8111⅜	1110⅝	1110	2110⅛	1816¼	9.7	715	910	1018¾	218	312⅛	2012	10.0	700	814	17110½	310	3110⅝	2910¾	12.8	870		
	72"	812	1116	917¾	210½	1111	311¼	19110¾	10.6	800	919	1117⅜	219	315⅝	2117⅝	11.2	790	910	1913⅝	312	412⅞	3112¾	14.3	985		
	78"	818	1214	1014⅞	214¼	210	314⅜	2115⅞	11.8	890	1016	1216⅞	2111	319	2311⅞	12.4	880	918	2018¾	314	417⅞	3314	15.9	1105		
4:1 Slope	84"	912	1312	1110⅝	213⅞	211	317½	2217½	13.0	975	1113	1314⅞	310	410½	2416⅞	13.7	970	1014	2211⅞	316	411⅜	3515⅝	17.5	1220		
	48"	612	1413	11111½	216⅞	214	210⅞	2017⅞	11.7	770	1110	1311¼	313	213¾	2019¾	11.0	680	1016	2216¼	313	2110	3117¼	15.5	915		
	54"	618	1516	1310⅞	218¾	216	214	2214⅞	13.4	930	1210	1413⅝	316	217⅛	2216⅞	12.6	815	1113	2411½	317	312⅞	33110¾	16.5	1085		
	60"	712	1619	1410⅝	2111½	219	217	2412⅞	15.2	1085	1310	1515⅞	319	2110⅝	2414⅞	14.3	955	1210	2518¾	3111	316⅝	3612½	18.5	1255		
	66"	718	1810	1511¼	312⅞	2111	2110⅛	25111⅝	17.2	1245	1410	1618¼	410	312⅞	2611½	16.2	1090	1219	2714⅞	413	3110⅝	3816⅝	20.7	1425		
	72"	812	1913	1611⅞	314¾	311	311¼	2719⅞	19.2	1400	1510	17110½	413	315⅝	27110¾	18.1	1225	1316	2811⅞	416	412⅞	40110⅞	22.8	1595		
6:1 Slope	78"	818	2016	1712⅜	317⅞	314	314⅜	2916½	21.5	1560	1610	1910⅞	416	319	2917⅞	20.1	1365	1413	3016¾	4110	417⅞	4312	25.2	1765		
	84"	912	2119	1813	3110	316	317½	3114	23.7	1715	1710	2013⅞	419	410½	3115⅞	22.3	1500	1510	3212	512	411⅜	4515½	27.7	1935		
	48"	612	1810	1511¼	312⅞	313	210⅞	2415⅞	16.1	1040	1310	1515⅞	319	213¾	2312⅞	13.4	820	1210	2518¾	410	2110	3419¾	17.5	1150		
	54"	618	1916	1614⅝	315¼	315	214	2615⅝	18.4	1250	1414	1711	411	217⅛	2514¼	15.9	1000	1310	27110½	414	312⅞	3717¾	20.1	1370		
	60"	712	2110	1717½	318⅞	318	217	2815⅞	20.9	1455	1518	1818	414	2110⅝	2716¼	18.0	1185	1410	3010¼	418	316⅝	4016	22.8	1585		
	66"	718	2216	18110½	3111⅝	3110	2110⅛	3016⅞	23.5	1665	1710	2013⅞	418	312⅞	2918⅝	20.6	1370	1510	3212	510	3110⅝	4314¼	25.7	1805		
8:1 Slope	72"	812	2410	2011⅝	412¾	411	311¼	3216⅞	26.3	1870	1814	21110⅞	4111	315⅝	31110⅜	23.2	1550	1610	3413¾	514	412⅞	4612½	28.7	2025		
	78"	818	2516	2114¾	416	413	314⅜	3417½	29.2	2080	1918	2315¼	513	319	3410¼	26.1	1730	1710	3615½	518	417⅞	4910¾	31.9	2240		
	84"	912	2710	2217⅞	419⅞	416	317½	3618	31.2	2285	2110	2510⅜	516	410½	3612⅜	29.0	1915	1810	3817¼	610	411⅜	51111	35.3	2460		

NOTE:

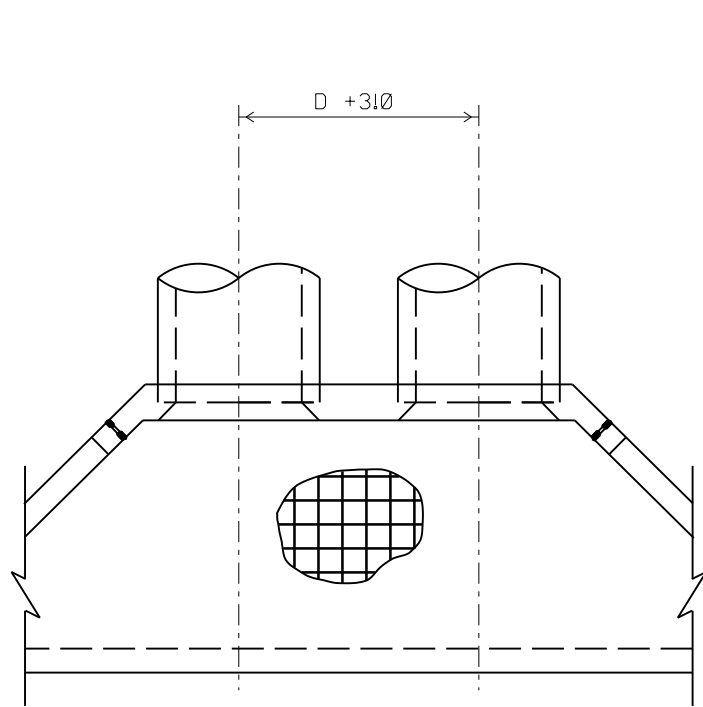
For Wingwall Elevation, Detail A, and Section A-A and B-B see Dwg.(3 of 5).

NOTE:

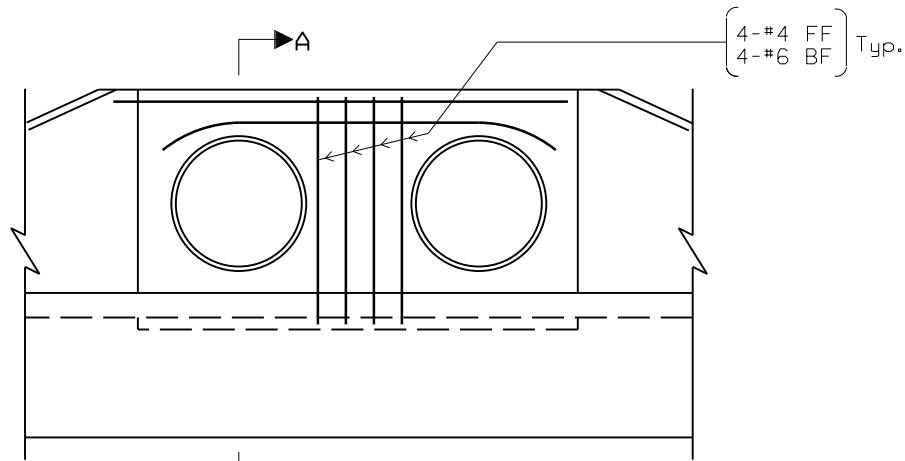
For General Notes, Dimensions, Quantities and additional Details, see SD 6.30 (1 to 3 & 5).

DESIGN APPROVED <i>Shafiq H. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>Jason A. Nehme</i>		PIPE CULVERT HEADWALLS SKEWED INLET AND OUTLET 48" to 84" PIPES	
PROJECT NO.	647979	DATE	SD 6.30 (4 of 5)
LOCATION	REACHES WS-1E AND WS-1F		SHEET NO. OF

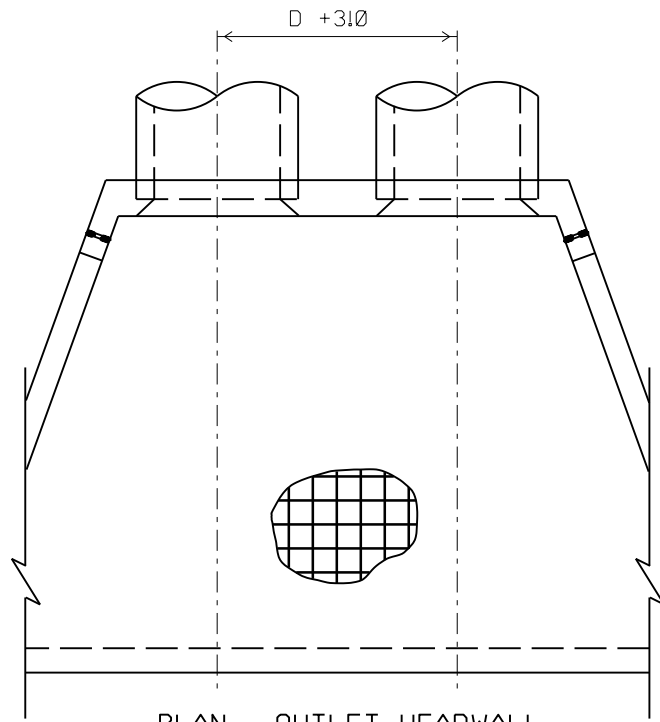
Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.



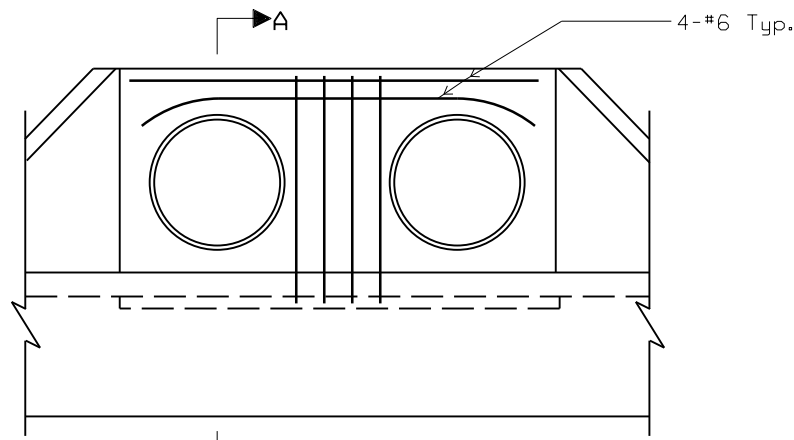
PLAN - INLET HEADWALL



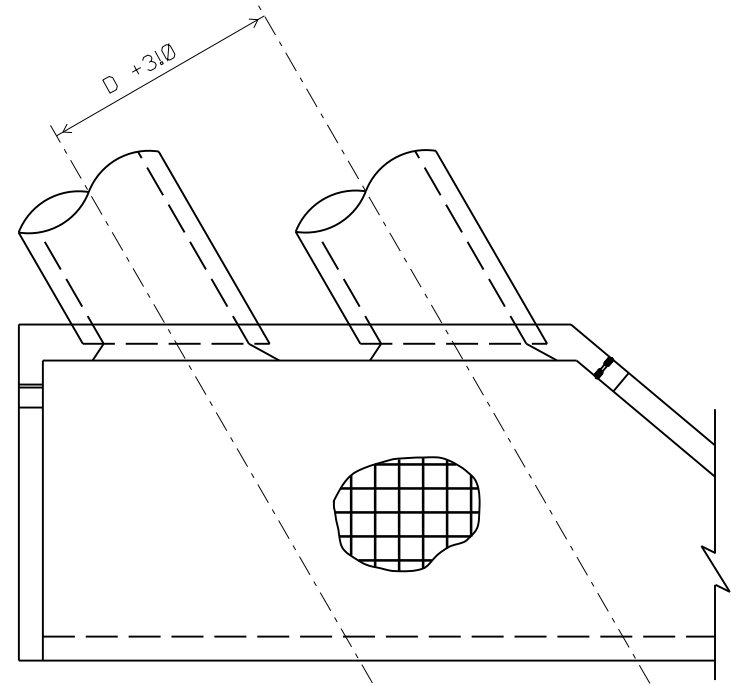
ELEVATION



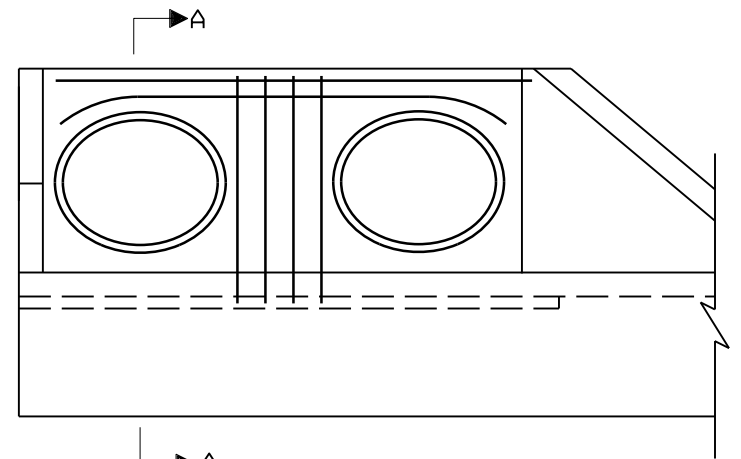
PLAN - OUTLET HEADWALL



ELEVATION



PLAN - SKEW PIPE



ELEVATION

NOTE:

For Section A-A and Details not shown see Dwg.(3 & 4 of 5).

NOTE:

For General Notes, Dimensions, Quantities and additional Details, see SD 6.30 (1 to 4).

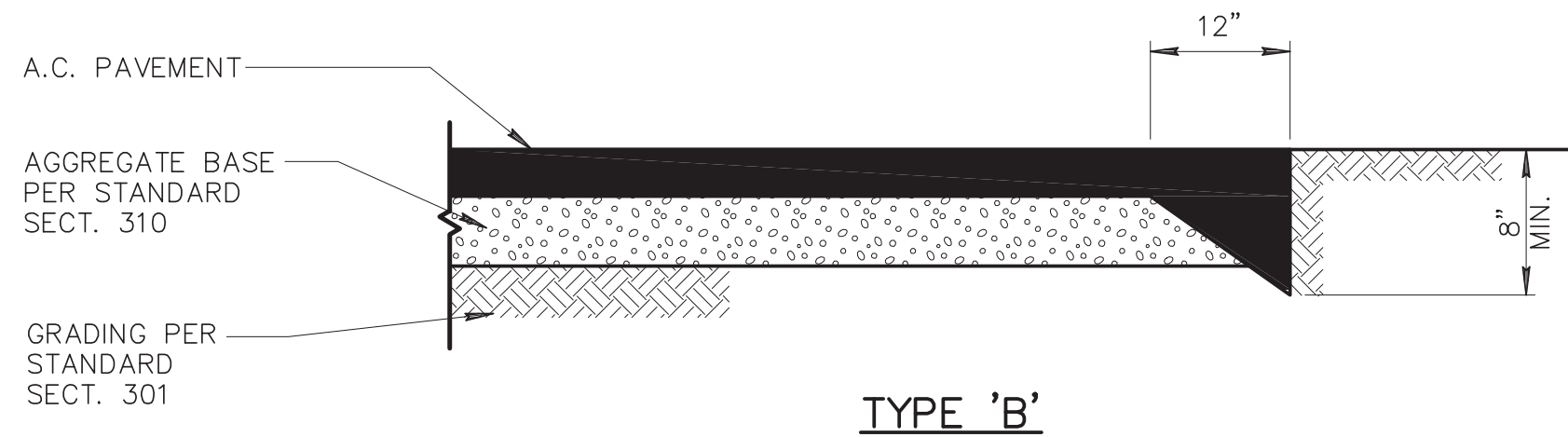
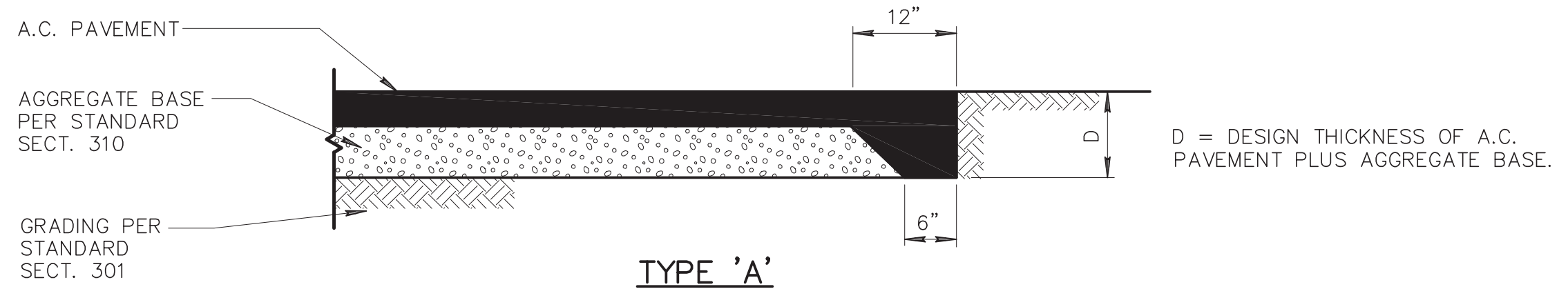
CONCRETE QUANTITIES PER ADDITIONAL PIPE (C.Y.)															
D	Rt. Inlet			Rt. Outlet			15°			30°			45°		
	2:1	4:1	6:1	2:1	4:1	6:1	2:1	4:1	6:1	2:1	4:1	6:1	2:1	4:1	6:1
48"	3.1	3.5	3.8	3.7	4.7	5.2	3.8	5.0	5.8	4.0	4.9	5.4	4.7	5.9	6.2
54"	3.5	4.1	4.4	4.2	5.3	5.9	4.3	5.7	6.6	4.4	5.5	6.1	5.3	6.6	7.1
60"	3.9	4.5	4.8	4.7	6.0	6.7	4.8	6.4	7.6	5.0	6.2	6.9	6.0	7.3	7.9
66"	4.3	5.0	5.3	5.2	6.6	7.4	5.3	7.1	8.2	5.6	6.9	7.8	6.6	8.1	8.9
72"	4.8	5.5	5.9	5.8	7.4	8.3	6.0	8.0	9.2	6.2	7.7	8.4	7.3	8.9	9.7
78"	5.2	6.0	6.4	6.3	8.1	9.1	6.6	8.8	10.2	6.8	8.5	9.6	8.1	9.8	10.8
84"	5.7	6.6	7.0	6.9	8.8	10.0	7.2	9.7	11.2	7.5	9.4	10.6	8.8	10.6	11.8

REINF. BAR QUANTITIES PER ADDITIONAL PIPE (Lbs.)															
D	Rt. Inlet			Rt. Outlet			15°			30°			45°		
	2:1	4:1	6:1	2:1	4:1	6:1	2:1	4:1	6:1	2:1	4:1	6:1	2:1	4:1	6:1
48"	180	205	215	210	260	280	210	270	305	220	260	285	240	290	310
54"	200	220	230	230	280	305	240	305	350	245	295	325	270	325	350
60"	220	250	260	260	315	345	260	330	385	265	325	355	300	365	395
66"	235	265	275	275	340	375	280	365	420	285	350	385	330	405	440
72"	255	295	305	305	380	420	310	405	465	320	390	430	355	425	470
78"	275	310	325	320	405	450	335	420	505	345	415	450	395	470	520
84"	300	340	355	355	450	500	370	490	560	370	460	520	425	515	570

NOTE:

Multipipe culvert headwall quantities are obtained by multiplying quantity shown in tables by the number of additional pipes and adding to single pipe headwall quantities.

DESIGN APPROVED <i>Shafiq H. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>Tam A. Nehme</i>		PIPE CULVERT HEADWALLS MULTI-PIPE 48" to 84" PIPES	
PROJECT NO. 647979	DATE SD 6.30 (5 of 5)	SHEET NO. OF	
LOCATION REACHES WS-1E AND WS-1F			



DETAIL NO.
201

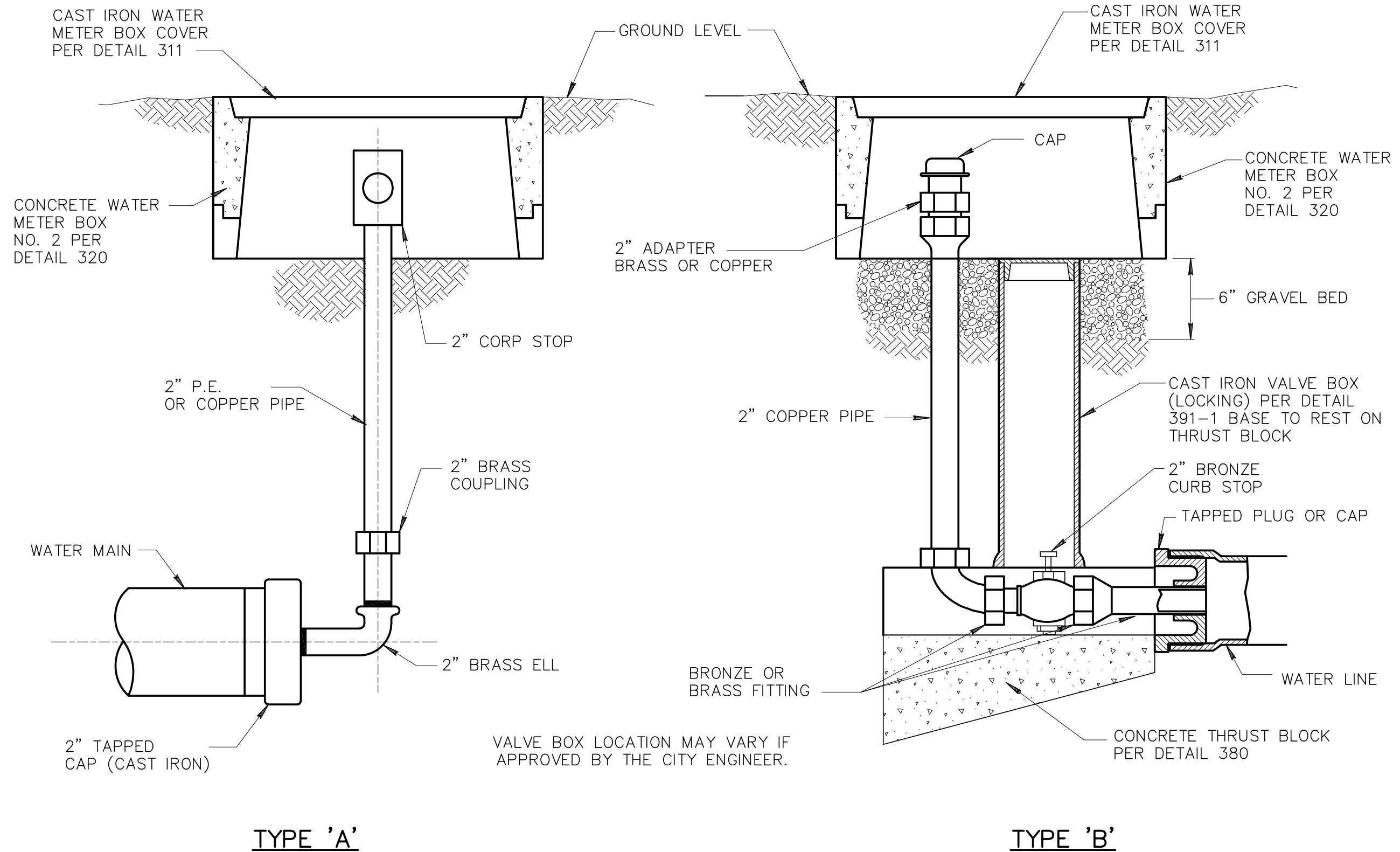


STANDARD DETAIL
ENGLISH

PAVEMENT SECTION AT TERMINATION

REVISED
01-01-2008

DETAIL NO.
201



DETAIL NO.
390

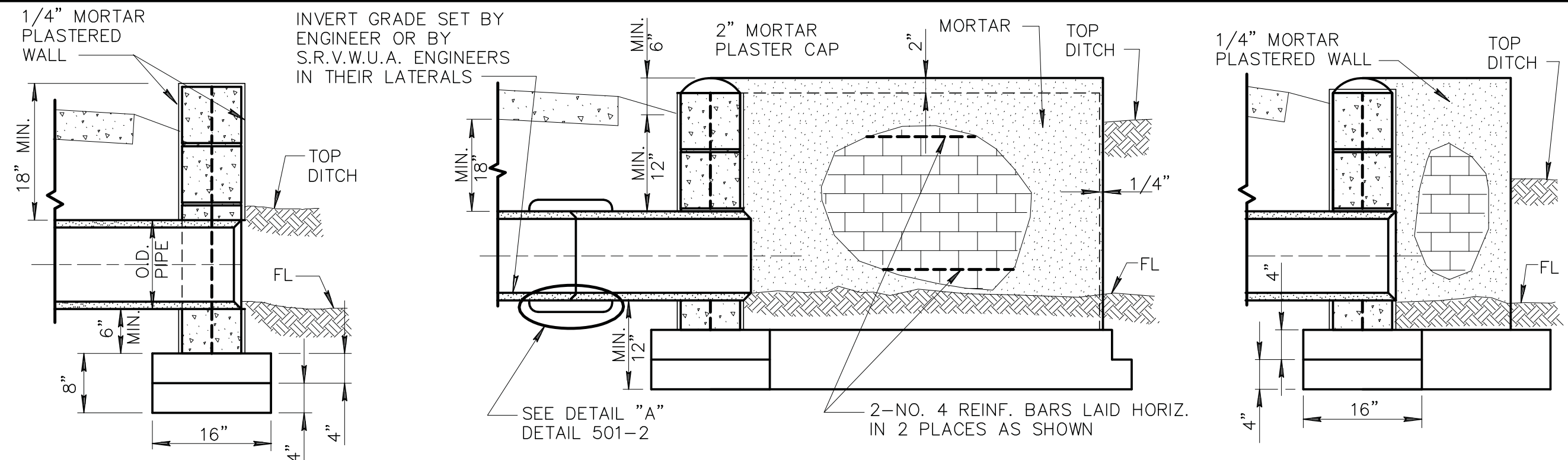


STANDARD DETAIL
ENGLISH

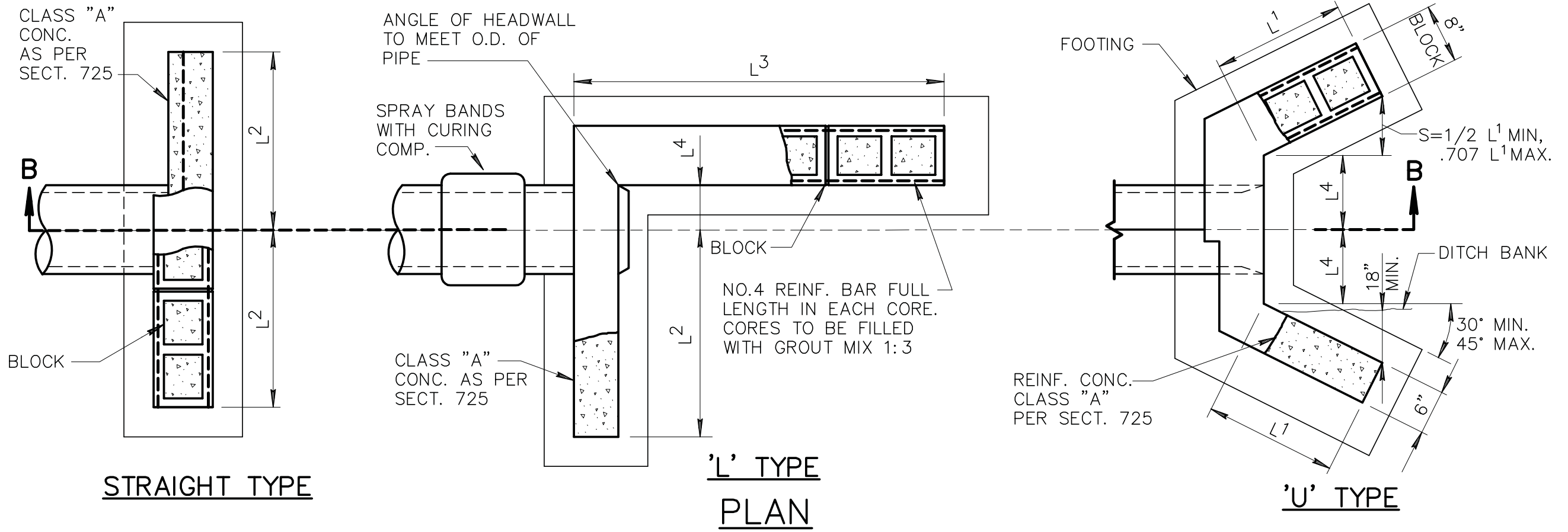
CURB STOP WITH FLUSHING PIPE

REVISED
01-01-1998

DETAIL NO.
390



SECTION B-B



STRAIGHT TYPE

'L' TYPE
PLAN

'U' TYPE

DETAIL NO.
501-1

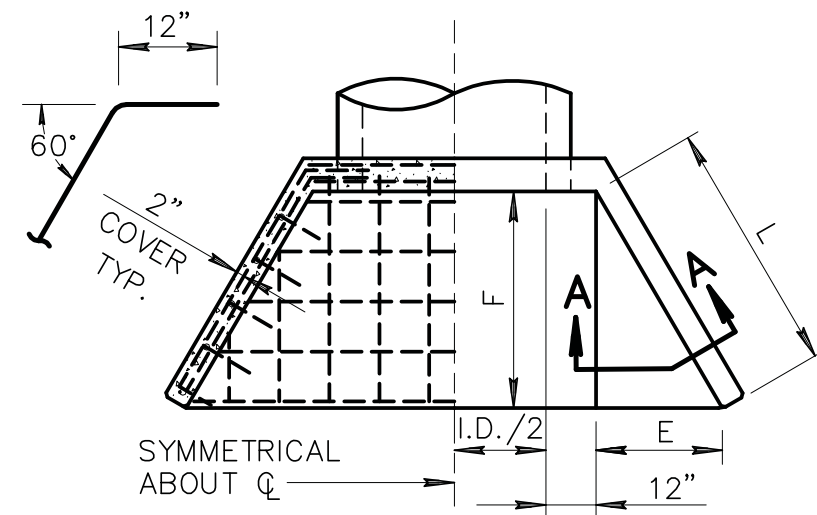


STANDARD DETAIL
ENGLISH

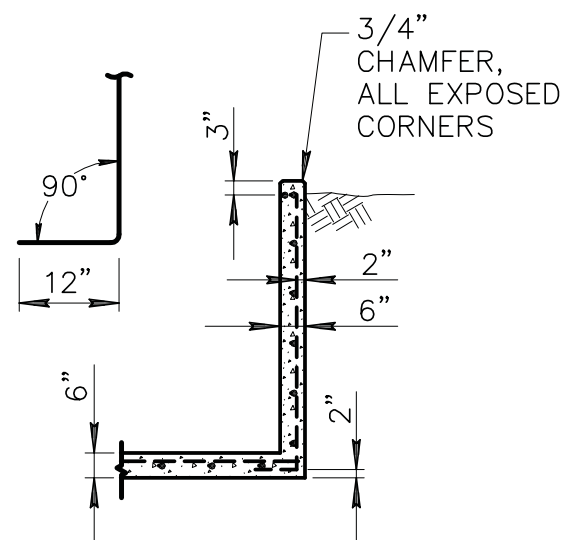
HEADWALL

REVISED
01-01-2012

DETAIL NO.
501-1

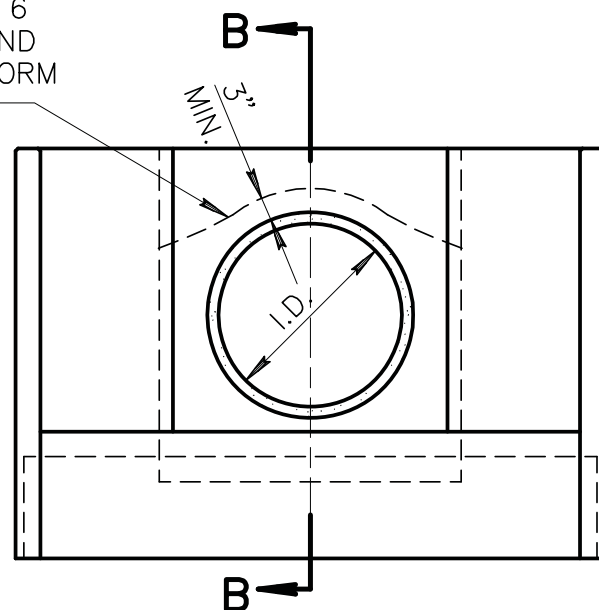


PLAN

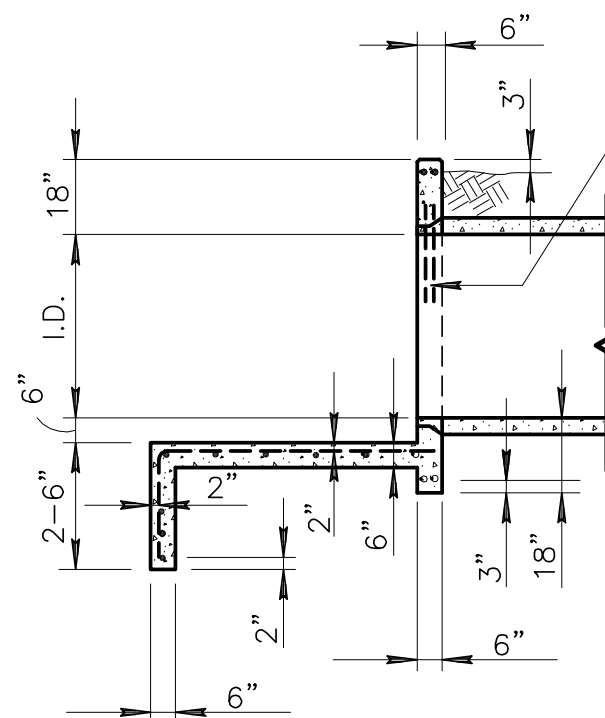


SECTION A-A

2 - NO. 6
BARS BEND
TO CONFORM
TO PIPE



ELEVATION



SECTION B-B

2 - NO. 6 BARS
BEND TO CONFORM
TO PIPE

PIPE I.D.	DIMENSIONS		
	L	E	F (APPROX)
18"	2'-0"	1'-0"	1'-9"
24"	2'-0"	1'-0"	1'-9"
30"	3'-0"	1'-6"	2'-7"
36"	4'-0"	2'-0"	3'-6"
42"	5'-0"	2'-6"	4'-4"
48"	6'-0"	3'-0"	5'-2"
54"	7'-0"	3'-6"	6'-1"
60"	8'-0"	4'-0"	6'-11"

NOTES:

1. ALL CONCRETE SHALL BE CLASS 'A' PER SECT. 725.
2. ALL REINFORCING BARS SHALL BE NO. 4 EXCEPT NO. 6 BARS OVER PIPE. BAR SPACING APPROXIMATELY 12" C TO C UNLESS OTHERWISE NOTED.
3. 30° WING WALL FLARE SHOWN; 45° NORMALLY DESIRABLE.

DETAIL NO.

501-4



STANDARD DETAIL
ENGLISH

**HEADWALL IRRIGATION
18" TO 60" PIPE**

REVISED

01-01-1998

DETAIL NO.

501-4