CUYAHOGA COUNTY
MED-42-26.17
CUY-42-0.00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-71-5(15)233	

15
302

Ø = 0°

	PIPE DIAM.	L	l1	l2	W	Z	B	b1	b2	b3	H	h1	h2	h3	Conc. C.Y.	Steel Lb.
SLOPE 2:1	15"	3'-4"					1'-9"	6"	9"	6"	2'-1"		9"	1'-3"	1.00	56
	18"	4'-0"					1'-9"	6"	9"	6"	2'-4"		9"	1'-3"	1.25	63
	24"	5'-4"					1'-9"	6"	9"	6"	2'-11"		9"	1'-3"	1.81	86
	30"	6'-7"					2'-0"	6"	1'-0"	6"	3'-6"		9"	1'-3"	3.01	121
	36"	7'-10"					3'-0"	1'-0"	1'-0"	1'-0"	4'-0"		1'-0"	1'-3"	4.69	156
SLOPE 4:1	15"	3'-9"					1'-9"	6"	9"	6"	2'-1"		9"	1'-3"	1.14	59
	18"	4'-5"					1'-9"	6"	9"	6"	2'-4"		9"	1'-3"	1.39	66
	24"	5'-10"					1'-9"	6"	9"	6"	2'-11"		9"	1'-3"	2.00	91
	30"	7'-1"					2'-0"	6"	1'-0"	6"	3'-6"		9"	1'-3"	3.26	126
	36"	8'-4"					3'-0"	1'-0"	1'-0"	1'-0"	4'-0"		1'-0"	1'-3"	5.01	165

Ø = 15°

PIPE DIAM.	L	l1	l2	W	Z	B	b1	b2	b3	H	h1	h2	h3	Conc. C.Y.	Steel Lb.
15"	3'-0"	11"	1'-7"	2'-6"	2'-5"	1'-9"	6"	9"	6"	2'-1"	1'-5"	9"	1'-3"	0.82	48
18"	3'-6"	1'-1"	1'-10"	3'-0"	2'-10"	1'-9"	6"	9"	6"	2'-4"	1'-7"	9"	1'-3"	1.00	53
24"	4'-8"	1'-5"	2'-6"	4'-1"	3'-11"	1'-9"	6"	9"	6"	2'-11"	1'-10"	9"	1'-3"	1.45	80
30"	5'-6"	1'-7"	2'-10"	5'-2"	5'-0"	2'-0"	6"	1'-0"	6"	3'-6"	2'-2"	9"	1'-3"	2.36	97
36"	6'-8"	1'-10"	3'-4"	6'-3"	6'-0"	3'-0"	1'-0"	1'-0"	1'-0"	4'-0"	2'-6"	1'-0"	1'-3"	3.75	123
15"	4'-2"	11"	1'-7"	3'-0"	3'-0"	1'-9"	6"	9"	6"	2'-1"	1'-10"	9"	1'-3"	1.09	59
18"	4'-10"	1'-1"	1'-10"	3'-8"	3'-6"	1'-9"	6"	9"	6"	2'-4"	2'-0"	9"	1'-3"	1.34	67
24"	6'-6"	1'-5"	2'-6"	4'-8"	4'-6"	1'-9"	6"	9"	6"	2'-11"	2'-6"	9"	1'-3"	1.90	95
30"	7'-8"	1'-7"	2'-10"	5'-9"	5'-6"	2'-0"	6"	1'-0"	6"	3'-6"	3'-0"	9"	1'-3"	3.07	121
36"	9'-0"	1'-10"	3'-4"	6'-9"	6'-6"	3'-0"	1'-0"	1'-0"	1'-0"	4'-0"	3'-5"	1'-0"	1'-3"	4.70	152

Ø = 30°

PIPE DIAM.	L	l1	l2	W	Z	B	b1	b2	b3	H	h1	h2	h3	Conc. C.Y.	Steel Lb.
15"	3'-0"	11"	1'-1"	2'-9"	2'-5"	1'-9"	6"	9"	6"	2'-1"	1'-5"	9"	1'-3"	0.88	48
18"				3'-4"										1.07	60
24"				4'-6"										1.54	82
30"				5'-9"										2.54	100
36"				6'-11"										4.01	131
15"	3'-9"			3'-6"							1'-7"			1.12	59
18"	4'-4"			4'-0"							1'-10"			1.32	72
24"	5'-10"			5'-3"							2'-2"			1.89	101
30"	6'-11"			6'-6"							2'-8"			3.08	121
36"	8'-2"			7'-6"							3'-0"			4.68	157

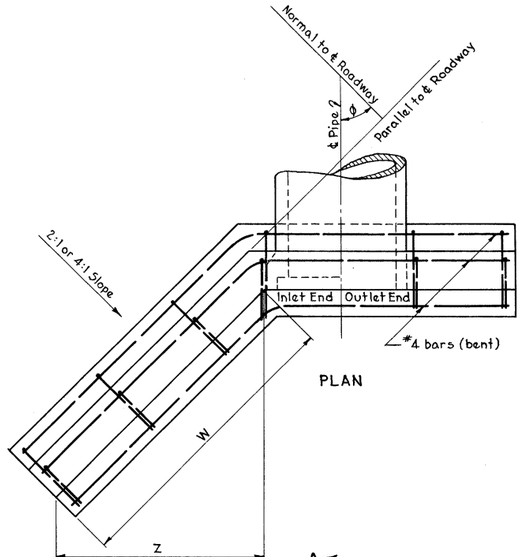
Ø = 45°

PIPE DIAM.	L	l1	l2	W	Z	B	b1	b2	b3	H	h1	h2	h3	Conc. C.Y.	Steel Lb.
15"				3'-5"										1.00	53
18"				4'-0"										1.20	63
24"				5'-6"										1.75	93
30"				7'-1"										2.91	112
36"				8'-6"										4.57	143
15"	3'-6"			4'-0"							1'-5"			1.17	65
18"	4'-0"			5'-0"							1'-7"			1.45	74
24"	5'-5"			6'-4"							1'-11"			2.03	100
30"	6'-5"			7'-9"							2'-4"			3.29	131
36"	7'-6"			9'-3"							2'-7"			5.06	164

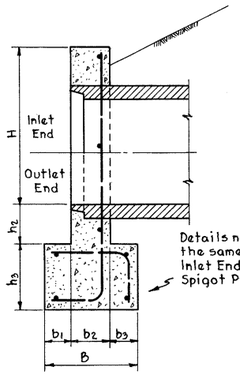
Ø = 60°

PIPE DIAM.	L	l1	l2	W	Z	B	b1	b2	b3	H	h1	h2	h3	Conc. C.Y.	Steel Lb.
15"				4'-10"										1.25	64
18"				5'-8"										1.50	76
24"				7'-10"										2.20	116
30"				10'-0"										3.68	139
36"				12'-0"										5.75	188
15"	3'-4"			6'-0"							1'-4"			1.48	74
18"	3'-10"			7'-0"							1'-5"			1.77	93
24"	5'-1"			9'-0"							1'-9"			2.48	123
30"	6'-0"			11'-0"							2'-1"			4.04	158
36"	7'-1"			13'-0"							2'-4"			6.19	200

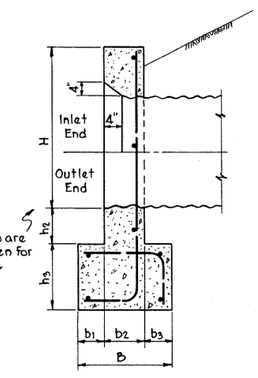
PLAN



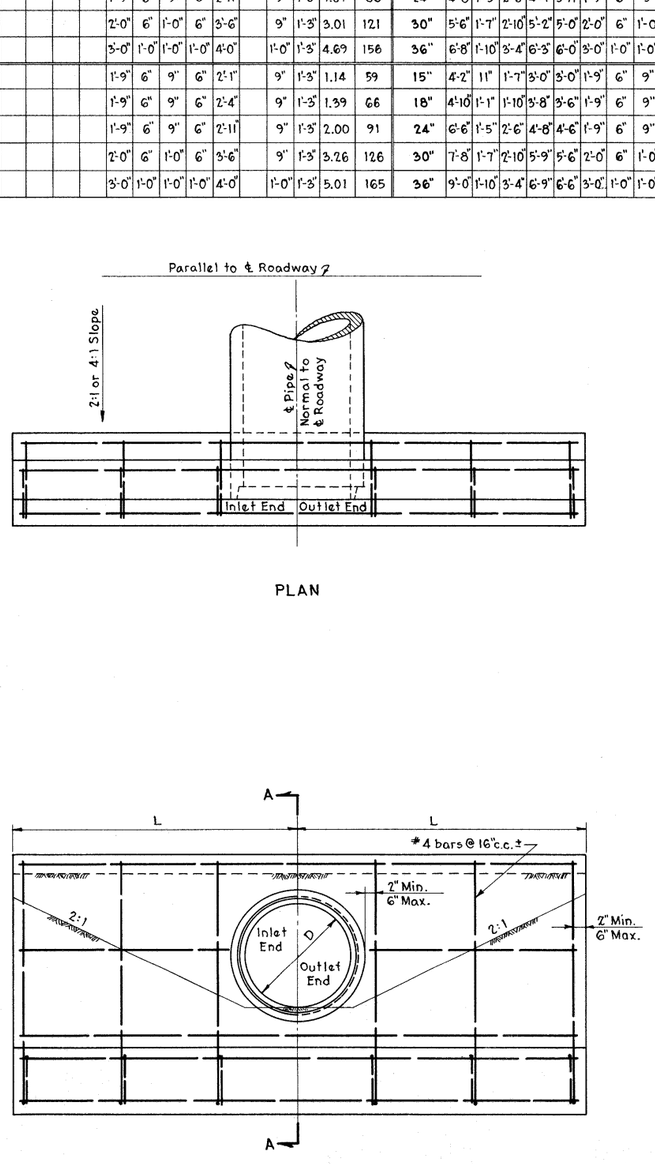
PLAN



TONGUE & GROOVE PIPE



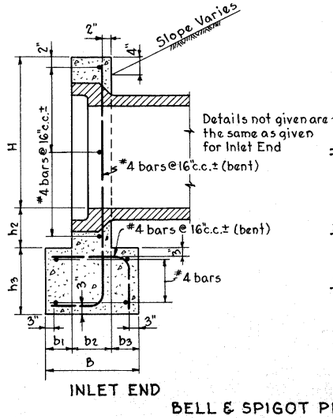
CORRUGATED PIPE



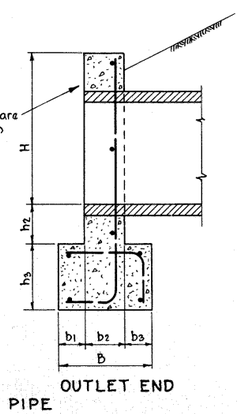
ELEVATION
TYPE "A-1" Ø = 0° - 10°

ELEVATION
TYPE "B-1" Ø = 11° & OVER

Scale: None



INLET END



OUTLET END

BELL & SPIGOT PIPE

SECTION A-A
Scale: None

NOTES:
Min. cover for reinforcing bars shall be 3" in footings and 2" elsewhere, or as shown.
Chamfer all corners 3/4".
All concrete shall be Class "C".
Endwalls shall be paid for under the provisions of Item 1.2 of the Specifications.
Concrete Quantities in table are payment Quantities.
Steel Quantities are for information only. *The State of Ohio will not be responsible for the accuracy of the Steel Quantities.*

TYPICAL DETAILS ENDWALLS FOR PIPE SIZES 15" TO 36"

MISCELLANEOUS DETAILS