

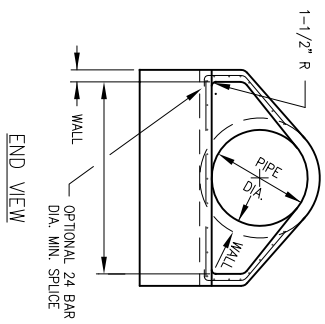
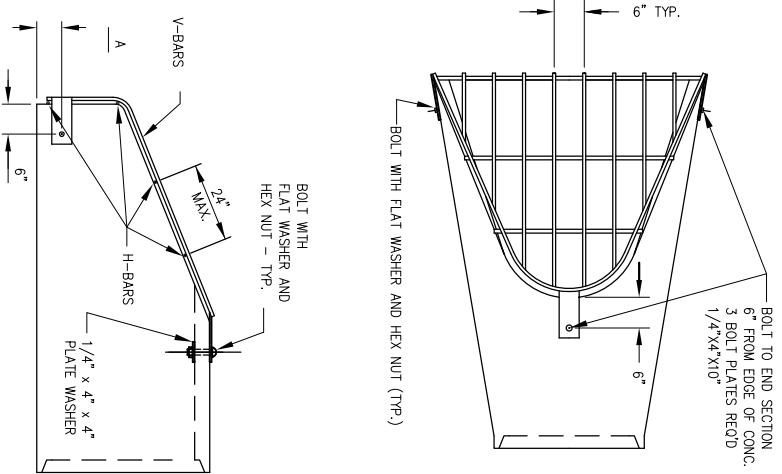
- NOTES**
1. UNSUITABLE MATERIAL ENCOUNTERED DURING PLACEMENT OF BEDDING SHALL BE REMOVED AND REPLACED.
  2. WITHIN 3 FEET OF PAVED AREA, GRANULAR BACKFILL IS TO BE USED INSTEAD OF EARTH BACKFILL.
  3. AT CONTRACTOR'S OPTION (DOT CONTROLLED LOW STRENGTH MATERIAL WITH A HIGH EARLY STRENGTH, "FLASH FILL," MAY BE USED INSTEAD OF GRANULAR TRENCH BACKFILL UNDER PAVEMENTS).

**PIPE TRENCH**

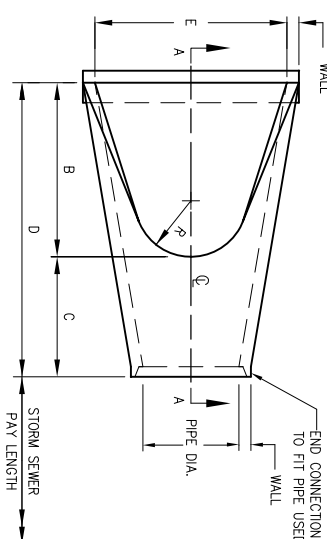
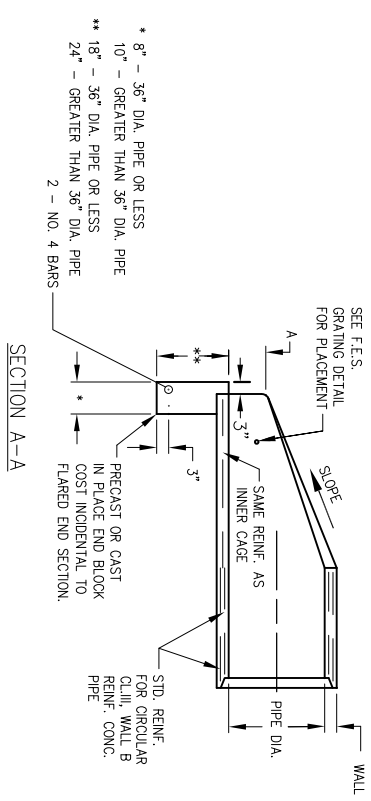
END SECTIONS					
DIA. INCHES	V-BAR SIZE INCHES	H-BAR SIZE	No. OF H-BARS REQ'D.	BOLT DIA. INCHES	"A" DIM. INCHES
12	1/20	5/8#	3	1/2	4
15	1/20	5/8#	3	1/2	4 1/2
18	1/20	5/8#	4	1/2	4 1/2
21	1/20	5/8#	4	1/2	5
24	5/8#	3/4#	4	1/2	5
27	5/8#	3/4#	4	1/2	5 1/2
30	5/8#	3/4#	4	1/2	5 1/2
36	3/4#	1#	4	3/4	8
42	3/4#	1#	4	3/4	8
48	3/4#	1#	5	3/4	8
54	3/4#	1-1/2PIPE	5	3/4	8
24 X 38 ELLIPTICAL	3/4#	1#	5	3/4	8

- NOTES**
1. BARS AND PLATES ARE HOT ROLLED STEEL.
  2. BARS, PLATES, PIPE AND BOLTS ARE GALVANIZED.

**GRATING FOR FLARED END SECTION**



- NOTES**
1. GRATING SHALL BE PAID FOR UNDER ITEM AR752518.
  2. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 502.10 OF IDOT SPECIFICATIONS, WITH COST INCIDENTAL TO FLARED END SECTION.
  3. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
  4. MODIFICATION IS DUE TO THE RELOCATION OF THE CONNECTION POINT BETWEEN THE GRATE AND THE FLARED END SECTION.



PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	14 1/2"	3:1
30"	3 1/2"	1'-0"	4'-6 1/2"	1'-7 3/4"	6'-1 3/4"	5'-0"	15"	3:1
33"	3 3/4"	1'-1 1/2"	4'-10 1/2"	3'-3 1/4"	6'-1 3/4"	5'-6"	17 1/2"	3:1
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	20"	3:1
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	22"	3:1
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	22"	3:1
54"	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	24"	2.4:1

**PRECAST CONCRETE FLARED END SECTION**  
 (IDOT STANDARD 542301-MODIFIED)

DETAILS SHOWN ARE NOT TO SCALE

**STORM SEWER DETAILS**



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 Filename 31-SEWER DETAILS.DWG  
 Scale N/A  
 Date APRIL 22, 2011

LAYOUT	KMS	02/28/11
DRAWN	KMS	02/28/11
REVIEWED	RMH	4/22/11

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DATE	REVISION