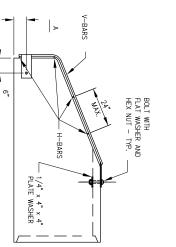
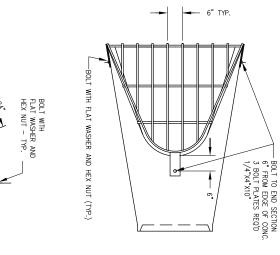
BARS AND PLATES ARE HOT ROLLED STEEL.
 BARS, PLATES, PIPE AND BOLTS ARE GALVANIZED.

GRATING FOR FLARED END SECTION

				E	ND SE	CTION	IS						
24 X 38 FILIPTICAL	54	48	42	36	30	27	24	21	18	15	12		DIA. INCHES
3/4ø	3/4ø	3/4ø	3/4ø	3/4ø	5/8ø	5/8ø	5/8ø	1/2¢	1/2¢	1/2¢	1/2¢	INCHES	V-BAR SIZE
1ø	1-1/2PIPE	1ø	1ø	1ø	3/4ø	3/4ø	3/4ø	5/8ø	5/8ø	5/8ø	5/8ø		H-BAR SIZE
5	5	5	4	4	4	4	4	4	4	3	3	REQ'D.	No. OF
3/4	3/4	3/4	3/4	3/4	1/2	1/2	1/2	1/2	1/2	1/2	1/2	INC	BOLT DIA.
8	8	8	8	8	5 1/2	5 1/2	5	5	4 1/2	4 1/2	4	INCHES	DIM.

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





2. WITHIN 3 FEET OF PAVED AREA, GRANULAR BACKFILL IS TO BE USED INSTEAD OF EARTH BACKFILL. UNSUITABLE MATERIAL ENCOUNTERED DURING PLACEMENT OF BEDDING SHALL BE REMOVED AND REPLACED.

0.D. + 2'-0"

0'-4" MIN. \_\_D/2

COMPACTED CA—6 BEDDING—
MATERIAL IN ACCORDANCE
WITH SPECIFICATIONS,
COMPACTION TO 90%
STANDARD PROCTOR, COST
INCLUDED IN ITEM 701.

COMPACTED SELECT –
EARTH BACKFILL. SEE
SPECIFICATIONS FOR
COMPACTION.

- COMPACTED CA-6 GRANULAR TRENCH BACKFILL, SEE SPECIFICATIONS. COST INCIDENTAL TO PIPE. 95% STANDARD PROCTOR COMPACTION

SUBGRADE

-DRAINAGE PIPE, ITEM 701

FINISHED GRADE -

4" TOPSOIL

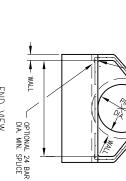
PAVEMENT SECTION (SEE TYPICAL SECTIONS)

UNDER UNPAVED AREAS

UNDER PAVED AREAS

AT CONTRACTOR'S OPTION IDOT CONTROLLED LOW STRENGTH MATERIAL WITH A HIGH EARLY STRENGTH, "FLASH FILL", MAY BE USED INSTEAD OF GRANULAR TRENCH BACKFILL UNDER PAVEMENTS.

## PIPE TRENCH



END VIEW

\* 8" - 36" DIA, PIPE OR LESS
10" - GREATER THAN 36" DIA, PIPE

\*\* 18" - 36" DIA, PIPE OR LESS
24" - GREATER THAN 36" DIA, PIPE
2 - NO. 4 BARS -SEE F.E.S. GRATING DETAIL FOR PLACEMENT-SECTION A-A - PRECAST OR CAST
IN PLACE END BLOCK
COST INCIDENTAL TO
FLARED END SECTION. SAME REINF. INNER CAGE AS

FOR CLIII, PENF

DIA.

Fax: 815.838.9524

WALL

1. GRATING SHALL BE PAID FOR UNDER ITEM AR752518.

 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. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.

PPE

DIA.

-END CONNECTION
TO FIT PIPE USED
WALL

4. MODIFICATION IS DUE TO THE RELOCATION OF THE CONNECTION POINT BETWEEN THE GRATE AND THE FLARED END SECTION.

## 5 1/2" 4 1/2" 2 3/4" 2 1/2" 3 3/4" 3 1/2" 3 1/4" 2 1/4" WALL ų ν, 1'-1 1/2" 10 1/2" 9 1/2" 2'-3" 1'-9" 1'-0" 2'-0" 1'-3" ဖ္န ဖ္န 4, ರ್ 4'-10 1/2" 4'-6 1/2" 3'-7 1/2" 5'-5" 5'-3" 4'-0" 2'-11" 6'-0" 5'-3" 2'-3" 2'-3" 2'-0" 1'-7 3/4" 2'-1 1/2" 2'-10 3/4" 3'-3 1/4" 4'-0 7/8" 2'-11" 2'-11" 2'-6" 3'-10" 3'-10" 2'-2" 3'-2" C 6'-1 1/2" 8'-1 3/4" 8'-1 3/4" 6'-1 3/4" 6'-1 1/2" 6'-0 7/8" 8'-2" 8'-4" 8'-2" 6'-1" 6'-1" 6'-1" O 7'-6" 5'-0" 3'-6" 3'-0" 6'-6" 6'-0" 5'-6" 7'-0" 2'-6" 2'-0" 17 1/2" 14 1/2" 12\* 24" 22" 22" 20\* 4 13, 访 = ဖ္န

24"

21"

ಹ್ಕ 5 12, PIPE DIA.

42" 36\* 33" 30\* 27"

54, 48,

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

DETAILS	
A NMOHS	
ARE NOT .	
TO SCALE	

STORM SEWER
DETAILS

10A0072 Filename 31-SEWER DETAILS.DWG Scale N/A APRIL 22, 2011 Date

02/28/11 KMS 02/28/11 KMS 4/22/11



DAT	E	REVISION

ယ REHABILITATE NORTH HANGAR PAVEMENTS, IDA No. LOT-4020 AIP No. 3-17-0140-B48

Hanson Professional Services Inc.

SLOPE

RMH

LAYOUT

TQP

≤EW

3:1 <u>ج</u> 3:1 3:1 3:1 3:1 3:1 3:1 3:1 3:1 <u>ج</u>

815 Commerce Drive Sulte 200 Oak Brook, Illinois 60523

DRAWN REVIEWED

PAY LENGTH