

- CITY REQUIREMENTS**
1. BARRIER CURB: USE NEENAH R-3502-A; EJIW 7235 / TYPE M2 GRATE; OR APPROVED EQUAL.
  2. MOUNTABLE CURB OR DRIVEWAYS: USE NEENAH R-3511; EJIW 7210 / TYPE M3 GRATE; OR APPROVED EQUAL.
  3. CONCRETE MUST BE POURED A MINIMUM OF 8" AROUND THE CIRCUMFERENCE OF THE FRAME AND AT LEAST 6" BELOW THE FRAME TO ENSURE THAT THERE WILL BE NO INFILTRATION BETWEEN THE FRAME AND STRUCTURE.

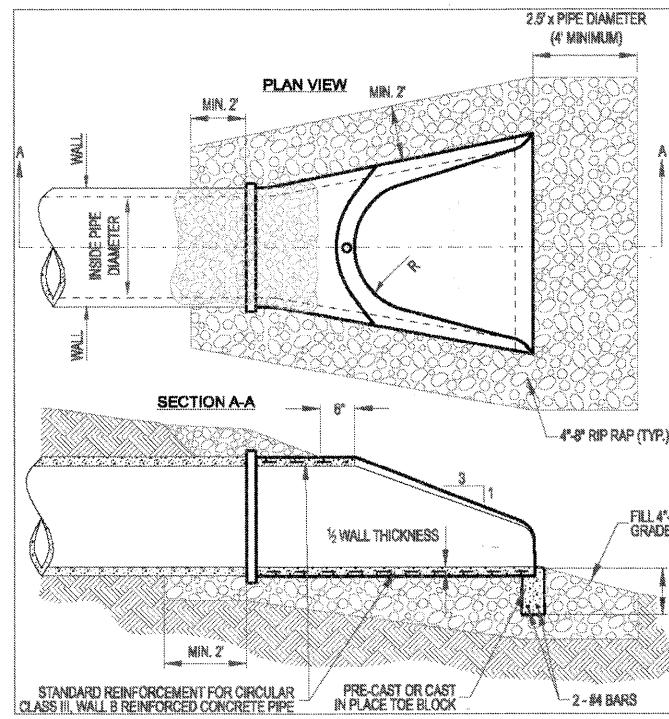
UD-02a

Approved: City Engineer  
  
 Victor C. Ramirez, P.E.  
 Director of Engineering and Building

Drawing Name  
**CURB INLET  
 FRAME AND GRATE**

Drawing Number  
**UD-02a**  
 Date: 11/2/2007  
 Drawn: EM  
 Checked: TH  
  
 CRYSTAL LAKE  
 ILLINOIS  
 Engineering Division

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- NOTES:**
1. CONCRETE FLARED END SECTIONS SHOULD BE CONSIDERED FOR USE WITH CONCRETE PIPE CULVERTS HAVING SKEWS NO GREATER THAN 15 DEGREES.
  2. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS II, WALL B REINFORCED CONCRETE PIPE.
  3. PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.
  4. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ART. 502.10 OF THE STANDARD SPECIFICATIONS. THIS COST SHALL BE INCIDENTAL TO EACH END SECTION.
  5. RIP RAP SHALL CONFORM TO SECT. 281 OF THE STANDARD SPECIFICATIONS EXCEPT ONLY 4'-8" STONE WILL BE ALLOWED. INSTALL FABRIC UNDER STONE.
  6. STANDARD 10T GALVANIZED GRATE REQUIRED FOR 15" DIAMETER AND LARGER.

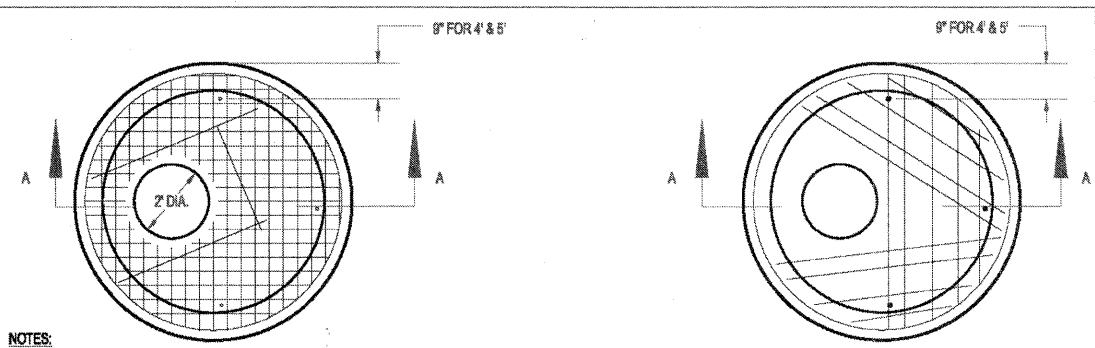
UD-02d

Approved: City Engineer  
  
 Victor C. Ramirez, P.E.  
 Director of Engineering and Building

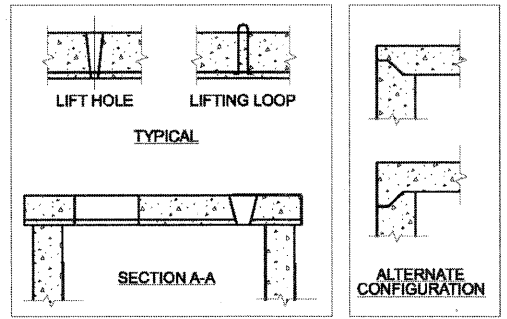
Drawing Name  
**FLARED END SECTION  
 (PRECAST  
 CONCRETE PIPE)**

Drawing Number  
**UD-02d**  
 Date: 4/15/2007  
 Drawn: EM  
 Checked: LZ  
  
 CRYSTAL LAKE  
 ILLINOIS  
 Engineering Division

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- NOTES:**
1. PRECAST FLAT TOPS SHALL CONFORM TO SECTION 504 OF THE STANDARD SPECIFICATIONS.
  2. REINFORCEMENT BARS OR WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ARTICLE 1008.10 OF THE STANDARD SPECIFICATIONS.
  3. JOINT CONFIGURATION AND DIMENSIONS SHALL MATCH AND FIT THE RISER JOINT DETAIL.
  4. LIFTING DEVICES OTHER THAN THAT SHOWN MAY BE USED SUBJECT TO APPROVAL BY THE ENGINEER.
  5. THE FLAT SLAB TOP MAY BE USED IN LIEU OF THE TAPERED TOPS SHOWN ON STANDARD 1514, 1526, 1527, OR 1888, AT THE OPTION OF THE CONTRACTOR OR WHEN FIELD CONDITIONS PROHIBIT THE USE OF TAPERED TOPS.
  6. THE COST OF FURNISHING AND INSTALLING THE FLAT SLAB TOP SHALL BE INCLUDED IN THE UNIT PRICE FOR CATCH BASIN OR MANHOLE.



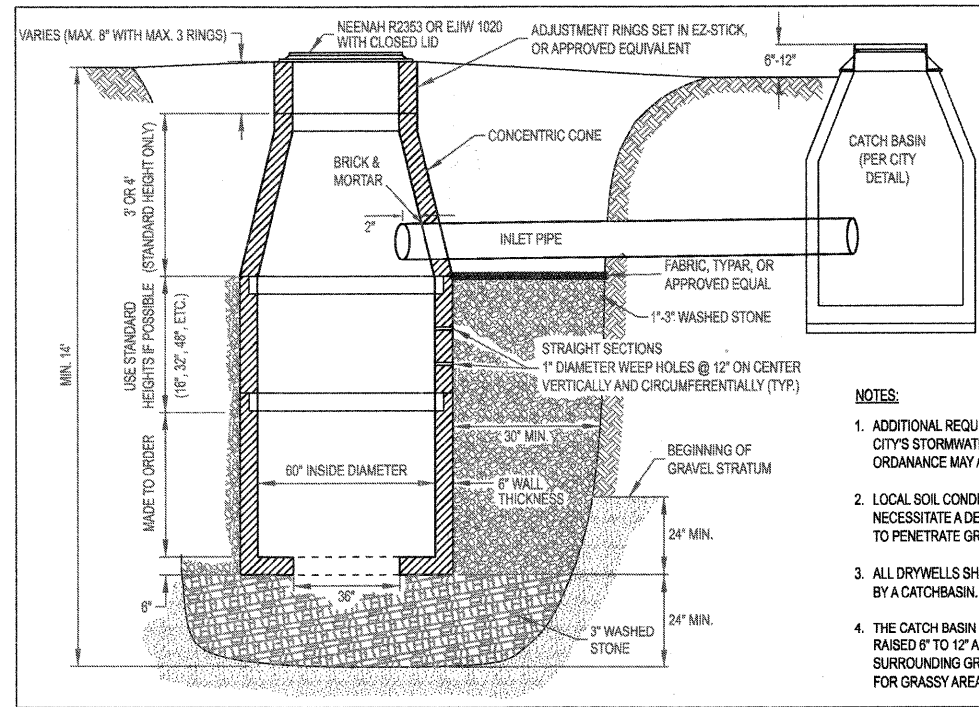
UD-02b

Approved: City Engineer  
  
 Victor C. Ramirez, P.E.  
 Director of Engineering and Building

Drawing Name  
**ECCENTRIC FLAT TOPS  
 FOR CURB INLET  
 STORM MANHOLES**

Drawing Number  
**UD-02b**  
 Date: 4/15/2007  
 Drawn: EM  
 Checked: LZ  
  
 CRYSTAL LAKE  
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- NOTES:**
1. ADDITIONAL REQUIREMENTS FROM THE CITY'S STORMWATER MANAGEMENT ORDINANCE MAY APPLY.
  2. LOCAL SOIL CONDITIONS MAY NECESSITATE A DEEPER EXCAVATION TO PENETRATE GRANULAR SUBSOIL.
  3. ALL DRYWELLS SHALL BE PRECEDED BY A CATCHBASIN.
  4. THE CATCH BASIN RIM SHALL BE RAISED 6" TO 12" ABOVE THE SURROUNDING GRADE FOR GRASSY AREAS ONLY.

UD-03

Approved: City Engineer  
  
 Victor C. Ramirez, P.E.  
 Director of Engineering and Building

Drawing Name  
**DRYWELL**

Drawing Number  
**UD-03**  
 Date: 4/15/2007  
 Drawn: EM  
 Checked: LZ  
  
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