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## STORM SEWER

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</tbody>
</table>

### NOTE:

1. FOR INLET AND MANHOLE DETAILS SEE THE CURRENT COLORADO DEPARTMENT OF TRANSPORTATION M & S STANDARDS

2. ALL INLETS SHALL HAVE THE WORDS “NO DUMPING—DRAINS TO RIVERS” AND “STORM SEWER”
EVERY BUILDING SITE IS UNIQUE AND POSES ITS OWN POTENTIAL EROSION HAZARDS. IN MANY INSTANCES, ADDITIONAL OR ALTERNATIVE CONTROL METHODS ARE NECESSARY IF THE LOT IS ADJACENT TO A CREEK, LAKE, OR WETLAND; SLOPES ARE GREATER THAN 6%; RECEIVES RUNOFF FROM ADJACENT AREAS; AND/OR MORE THAN ONE ACRE OF GROUND IS DISTURBED.

NOTES:
1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND CONTRACTOR TO COMPLY WITH STATE LAWS AND LOCAL AND COUNTY ORDINANCES REGARDING CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL. IT IS THEIR RESPONSIBILITY TO APPLY FOR ALL APPROPRIATE PERMITS.
2. THIS PLAN IS ONLY A SAMPLE PLAN AND IS NOT INTENDED TO BE ALL INCLUSIVE OR ADDRESS EVERY SITUATION, ADDITIONAL OR MODIFIED PRACTICES MAY BE REQUIRED ON SOME SITES.
3. EROSION OR SEDIMENT CONTROL MEASURES MUST BE FUNCTIONAL AND MAINTAINED THROUGHOUT CONSTRUCTION.
4. MAINTAIN POSITIVE DRAINAGE AWAY FROM THE STRUCTURE(S).

SILT FENCES
1. INSTALL SILT FENCE PARALLEL TO THE CONTOUR OF THE LAND.
2. EXTEND ENDS UPSLOPE TO ALLOW WATER TO POND BEHIND FENCE.
3. EXCAVATE A TRENCH 4 INCHES WIDE, 4 INCHES DEEP.
4. INSTALL FENCE WITH POSTS ON THE DOWN SLOPE SIDE.
5. PLACE 8 INCHES OF FABRIC IN THE TRENCH, EXTENDING THE BOTTOM 4 INCHES TOWARDS THE UPSLOPE SIDE.
6. JOIN SILT FENCE SECTIONS BY USING A WRAP JOINT.
7. BACKFILL TRENCH WITH SOIL MATERIALS AND COMPACT.
8. INSPECT AT LEAST WEEKLY AND AFTER EACH STORM EVENT, REPAIRING AS NEEDED AND REMOVING SEDIMENT DEPOSITS WHEN THEY REACH ONE-HALF THE FENCE HEIGHT.

CONSTRUCTION TRAFFIC ENTRANCES
PROVIDE A SINGLE STABILIZED CONSTRUCTION TRAFFIC ENTRANCE THAT IS MAINTAINED IN A MANNER TO MINIMIZE SEDIMENT TRACKING TO TOWN STREETS.
NOTES:
1. ROCK SOCK SHALL BE 1 1/2" CRUSHED ROCK FILL (RECYCLED CONCRETE NOT ACCEPTABLE)

* BOTH SIDES OF INLET

STORMDRAIN COVER

WIRE WRAPPED ROCK SOCKS FOR TOP–SIDE PROTECTION TO EDGE OF TOP OF CURB

CURB SOCKS (SEE SPACING TABLE BELOW)

TUBULAR MARKER (TYP)

LIMITS OF GUTTER PAN

2x4 LAID FLAT NO TREATED WOOD

CURBLINE FLOWS

1 ½" MIN

CURBLINE FLOWS

1-1/2" CRUSHED ROCK WRAPPED IN 1/2 INCH WIRE MESH

CONCRETE BLOCK

1-1/2" CRUSHED ROCK WRAPPED IN 1/2 INCH WIRE MESH

INLET

2x4 LAID FLAT NO TREATED WOOD

NOTES:
1. INTERIM CONFIGURATION OF INLET PROTECTION IN STREETS SHALL BE INSTALLED WITHIN 72–HOURS OF POURING INLET.
2. CRUSHED ROCK SHALL BE FRACUTURED FACE (ALL SIDES) AND SHALL BE 1 1/2" CRUSHED ROCK.
3. WIRE MESH SHALL BE FABRICATED OF MINIMUM 16–20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1/2 INCH. ROLL WIDTH SHALL BE 48". 16–20 GAUGE CHICKEN WIRE MAY BE USED IF DOUBLE WRAPPED WITH NO MORE THAN 1/2" OPENING.
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF ROCK SOCKS.
5. ROCK SOCK SHALL BE CONSTRUCTED IN ONE PIECE OR SHALL BE CONSTRUCTED USING ROCK SOCK JOINT DETAIL.
6. TUBULAR MARKERS SHALL MEET REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED.
7. THE TOP OF THE REINFORCED ROCK SOCK SHALL BE 1/2" – 1" BELOW TOP OF CURB.
8. SEDIMENT ACCUMULATED UPSTREAM OF THE INLET PROTECTION SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF ROCK SOCK IS WITHIN 5" OF THE CREST.
9. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED.
10. REFER TO §§ AND §§ DETAILS FOR MORE INFO.

<table>
<thead>
<tr>
<th>STREET SLOPE</th>
<th>CURB SOCK SPACING (ft)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>100</td>
</tr>
<tr>
<td>1.0%</td>
<td>100</td>
</tr>
<tr>
<td>2.0%</td>
<td>75</td>
</tr>
<tr>
<td>3.0%</td>
<td>50</td>
</tr>
<tr>
<td>4.0%</td>
<td>50</td>
</tr>
<tr>
<td>5.0%</td>
<td>50</td>
</tr>
<tr>
<td>6.0%</td>
<td>25</td>
</tr>
<tr>
<td>7.0%</td>
<td>25</td>
</tr>
<tr>
<td>8.0%</td>
<td>25</td>
</tr>
</tbody>
</table>
SILT FENCE INSTALLATION

FABRIC MATERIAL
ANCHORED IN TRENCH

STEEL OR 2"x4" WOOD POST
ANCHORED TO FABRIC

4"x4" TRENCH
COMPACTED BACKFILL

FLOW

1/2H (12" MIN)

SECTION

NOTES:
1. INSTALL SILT FENCE PARALLEL TO THE CONTOUR OF THE LAND.
2. EXTEND ENDS UPSLOPE TO ALLOW WATER TO POND BEHIND FENCE.
3. EXCAVATE A TRENCH 4 INCHES WIDE AND 4 INCHES DEEP.
4. INSTALL FENCE WITH POSTS ON THE DOWNSLOPE SIDE.
5. PLACE 8 INCHES OF FABRIC IN THE TRENCH, EXTENDING THE BOTTOM 4 INCHES TOWARD THE UPSLOPE SIDE.
6. JOIN SILT FENCE SECTIONS BY USING A WRAP JOINT.
7. BACKFILL TRENCH WITH SOIL MATERIALS AND COMPACT.
8. INSPECT AT LEAST WEEKLY AND AFTER EACH STORM EVENT, REPAIRING AS NEEDED AND REMOVING SEDIMENT DEPOSITS WHEN THEY REACH ONE—HALF THE FENCE HEIGHT.

FOR SINGLE LOT EROSION CONTROL
SEE SHEET STM8
NOTE: EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION IS COMPLETED.
SECTION A-A

NOTES:
1. ALL ROCK TO BE REMOVED UPON COMPLETION OF CONSTRUCTION
2. PUBLIC ROADWAY TO BE KEPT CLEAN AND FREE OF MUD, DIRT AND DEBRIS AT ALL TIMES
3. DIMENSION CAN BE LESS IF CONSTRUCTION VEHICLES ARE PHYSICALLY CONFINED.
NOTES:
1. ALL ROCK TO BE REMOVED UPON COMPLETION OF CONSTRUCTION
2. PUBLIC ROADWAY TO BE KEPT CLEAN AND FREE OF MUD, DIRT AND DEBRIS AT ALL TIMES

4" ANGULAR ROCK (TYP)
8" MINIMUM THICKNESS

8" BEAM (TYP)

DECK IS 3"X3"X5-1/6 ANGLE IRON @ 7" O.C. OR SIMILAR

DRAWING TITLE: TRACKING CONTROL PAD—CATTLE GUARD
DRAWING NUMBER: STM6B
DRAWN BY: D. JENKINS  APPROVED BY: G. BEHLEN  DATE: 1/2013
CONSTRUCTION SEQUENCE FOR EROSION & SEDIMENT CONTROL PRACTICES FOR SINGLE LOT

1. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS
IDENTIFY THE AREAS WHERE SEDIMENT LADEN RUNOFF COULD LEAVE THE CONSTRUCTION SITE, AND INSTALL PERIMETER CONTROLS TO MINIMIZE THE POTENTIAL FOR OFF-SITE SEDIMENTATION. IT'S IMPORTANT THAT PERIMETER CONTROLS ARE IN PLACE BEFORE ANY LOT EXCAVATION ACTIVITIES BEGIN. PUBLIC ROADWAYS ARE TO BE KEPT CLEAN & FREE OF MUD, DIRT, AND DEBRIS AT ALL TIMES.

PREFERRED METHODS
• PROTECT DOWN-SLOPE AREAS WITH VEGETATIVE FILTER STRIPS
• PROTECT DOWN-SLOPE AREAS WITH SILT FENCES OR OTHER APPROPRIATE PRACTICES
• INSTALL STABLE CONSTRUCTION TRAFFIC ENTRANCE

2. PREPARE THE SITE FOR CONSTRUCTION
PREPARE THE SITE FOR CONSTRUCTION AND FOR INSTALLATION OF UTILITIES. NOTIFY ALL CONTRACTORS (ESPECIALLY THE EXCAVATION CONTRACTOR) OF AREAS TO BE PROTECTED.

PREFERRED METHOD
• SALVAGE AND STOCKPILE TOPSOIL OR SUBSOIL

3. BUILD STRUCTURE(S) AND CONNECT UTILITIES
CONSTRUCT THE HOME AND CONNECT THE UTILITIES.

4. MAINTAIN CONTROL PRACTICES
MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL CONSTRUCTION IS COMPLETED AND THE LOT IS STABILIZED.

5. RE-VEGETATE BUILDING SITE
IMMEDIATELY AFTER ALL OUTSIDE CONSTRUCTION ACTIVITIES ARE COMPLETED, STABILIZE THE LOT WITH SOD, SEED AND/OR MULCH.

METHODS
• REDISTRIBUTE THE STOCKPILED SUBSOIL AND TOPSOIL
• SEED OR SOD BARE AREAS
• MULCH NEWLY SEEDED AREAS

6. REMOVE REMAINING TEMPORARY CONTROL MEASURES
ONCE THE SOD AND/OR VEGETATION IS WELL ESTABLISHED, REMOVE ANY REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES.
NOTES:

1. FINAL GRADE OF MANHOLE COVERS SHALL BE 1/4" LOWER THAN FINAL STREET.
2. STEPS SHOULD NOT BE PLACED OVER THE FLOW. NO STEPS ALLOWED IN THE ADJUSTING RING AREA.
3. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478.
4. BLOCK-OUTS, WHEN APPROVED, SHALL EXTEND A MAX. OF 6" PAST MANHOLE O.D. AND BE SATISFACTORIZELY PLUGGED AND SEALED.
5. MANHOLES NOT IN ASPHALT OR CONCRETE SHALL BE RAised 6" ABOVE FINAL GRADE AND A CONCRETE COLLAR INSTALLED WITH A GREEN CARBONITE POST.
RAISED LETTERS (1/8"±)
WATER
STORM
SANITARY
WATER
SEWER
SANITARY
SEWER

PLAN

LIFTING NOTCH

SECTION A—A

1. CASTING SPECIFICATIONS: ASTM A-48 WITH A MINIMUM TENSILE STRENGTH OF 25 KSI (CLASS 25)
2. ALL CASTINGS TO BE DIPPED IN ASPHALT BASE PAINT (OR APPROVED EQUAL)
3. CASTINGS SHALL BE AS SPECIFIED BELOW OR APPROVED EQUAL:
   MANUFACTURERS       CAT. #
   NEENAH CASTINGS, INC. R-1706
   HUTCHINSON FDRY. & STL. INC. MH-400

4. ALL NEW MANHOLES MUST INCLUDE A PLASTIC OR VINYL TAG ATTACHED TO THE TOP STEP STATING
   THE FOLLOWING "CAUTION CONFINED SPACE; ENTRY PERMIT REQUIRED."
POLYPROPYLENE REINFORCED PLASTIC STEP

NOTES:
1. ASTM SPECIFICATIONS:
   A. ASTM C-476
   B. ASTM A-615 GRADE 60 (STEEL REBAR).
   C. ASTM 2146-69, TYPE III, GRADE 16906 (POLYPROPYLENE).
2. STEPS INSTALLED IN MANHOLE BARREL SECTIONS OR VERTICAL WALLS OF STRUCTURES SHALL
   HAVE A 9 3/8 INCH LEG AND SHALL PROJECT FROM THE WALL 6 INCHES.
3. STEPS INSTALLED IN MANHOLE CONE SECTIONS SHALL HAVE AN 8 1/4 INCH LEG AND SHALL
   PROJECT FROM THE WALL 4 7/8 INCHES.
4. ALL STEPS SHALL HAVE A PENETRATION DEPTH INTO THE WALL OF 3 3/8 INCHES.
5. STEPS SHALL BE INSTALLED BY THE "PRESS-FIT" METHOD UTILIZING A SPECIALLY TAPERED PIN
   TO FORM THE INSERT HOLE AS SHOWN, FOLLOWING MANUFACTURER'S RECOMMENDED PROCEDURE
   AND SHALL NOT BE GROUNDED IN PLACE.
6. INSTALLED STEPS SHALL BE CAPABLE OF WITHSTANDING A PULL OUT FORCE OF 2500 LB. PER
   LEG FOR A MINIMUM PERIOD OF TWO MINUTES.
7. PINS MUST BE SMOOTH AND CONTINUOUSLY TAPERED. DIMENSIONS OF THE PIN AND THE INSERTED
   PORTION OF THE MANHOLE STEP ARE TYPICAL ONLY. W.M.D. INSTALLATIONS REQUIRE A MATCHED
   COMBINATION OF A TAPERED INSERT PIN AND MANHOLE STEP, AS RECOMMENDED OR REQUIRED
   BY SPECIFIC MANUFACTURER OF THE STEP TO BE USED.
8. THIS STEP CAN ALSO BE USED IN TOE POCKET INSTALLATIONS PROVIDED 5" TOE CLEARANCE
   IS ALLOWED.
NOTES:

1. T = WALL THICKNESS OF PIPE FURNISHED.

2. THE CONTRACTOR SHALL SUBMIT ALL TOLERANCES AND DIMENSIONS, REQUIRED BY THE SPECIFIC PIPE JOINT DETAILS SHOWN, TO THE ENGINEER PRIOR TO FABRICATION.

3. ALL DIMENSIONS SHALL BE GIVEN IN INCHES, UNLESS OTHERWISE NOTED, AND ARE FOR BELL AND SPIGOT IN CONCENTRIC POSITION. DEFLECTED PIPE JOINT TOLERANCES & DIMENSIONS SHALL ALSO BE FURNISHED.

4. JOINT CLEARANCE DIMENSION K IS AT CLOSEST POINT WITHIN DISTANCE A.

5. THESE JOINT CONFIGURATIONS ARE IN ACCORDANCE WITH BUREAU OF RECLAMATION'S "TYPE R" JOINT DETAILS.

6. RUBBER "O" RING GASKET SHALL BE IN CONFORMANCE W/ASTM C-443 OR C-361.

7. APPLICABLE CONCRETE PIPE JOINT SPECIFICATIONS:
   A. ASTM C-76
   B. ASTM C-361

8. STEEL REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE APPROPRIATE ASTM SPECIFICATION FOR THE PIPE SIZE AND STRENGTH CLASS AS SPECIFIED ON PLAN/PROFILE DRAWINGS.
**J O I N T  T Y P E  R - 2**

**FOR T = 2" TO 4 1/2" INCLUSIVE:**
- E = T OR 4 1/8" WHICHEVER IS SMALLER FOR T = 4 5/8" AND LARGER:
  - E = 5/16" OR 4 1/8" WHICHEVER IS LARGER

**THE AREA OF CIRCUMFERENTIAL STEEL IN THE BELL SHALL NOT BE LESS THAN THAT SHOWN IN ASTM SPECIFICATION C-361.**

**J O I N T  T Y P E  R - 4, O - R I N G**

WARNING TAPE WILL BE INSTALLED 12" MIN AND 18" MAX ABOVE PIPE

COMPACTED BACKFILL

VARIES

SELECT BACKFILL 95%

BEDDING MATERIAL SEE NOTE 7 BELOW FOR GRADATION

FILTER FABRIC IF STABILIZATION MATERIAL IS REQUIRED

SEE DETAIL ST10 FOR ASPHALT PATCH

6"

12"

OR AS REQ. TO OBTAIN STABILIZATION

NOTES:

1. FULL TRENCH SECTION IN ROADWAY OR STREET R.O.W. LIMITS WILL REQUIRE 95% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, OUTSIDE OF STREET R.O.W. WILL REQUIRE 90% S.P.D.

2. FILTER FABRIC IS REQUIRED IF STABILIZATION MATERIAL IS USED. THE FABRIC SHALL BE INSTALLED AS SHOWN IN THE DETAIL.

3. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.

4. PIPE SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO THE HORIZONTAL CENTERLINE OF THE PIPE. SEE NOTE 7 FOR BEDDING MATERIAL GRADATION.

5. TRENCH WIDTH SHALL NOT BE MORE THAN 24" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE.

6. SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED, A CONCRETE CRADLE SHALL BE PLACED WITH 2500 P.S.I. CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.

7. BEDDING MATERIAL SHALL MEET THE GRADATION OF CDOT "NO.67 COARSE AGGREGATE" AS SPECIFIED IN SECTION 703.02 IN THE LATEST EDITION OF THE CDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
The Town of Erie
Colorado

Proposed Sewer or Conduit

Shoring (See Note 1.6)

Concrete Arch
(\( f_c = 2000 \text{ PSI} \))

Hand Excavation Required
Around Sanitary Sewer

Undisturbed Earth (Typ.)

Type I
Concrete Encasement for Sanitary Sewers

(Concrete Arch)
No Scale
(Rigid Conduits Only)

Type II
Concrete Encasement for Sanitary Sewers

Crossing Over or Under Water Main

No Scale
(Rigid Conduits Only)

Type III
Concrete Encasement for Sanitary Sewers

(Full Encasement)
No Scale
(Rigid Conduits Only)

General Notes for Type III Encasement

1.1 Concrete to be cast against undisturbed soil or shoring. If optional construction joint is used, bottom half of encasement is placed separately. A one inch layer of sand or mortar shall be placed between bottom of sanitary sewer and top of concrete.

1.2 Length of Encasement for:
(a) Type I or II encasement shall extend full trench width excavated for proposed sewer or conduit.
(b) Type II encasement shall extend at least 10 feet each side of water main.

1.3 Unless otherwise noted, on plan/profile drawings, type II/III encasements need not be reinforced. Reinforcement, if required, to be specified and detailed separately on plan/profile drawings.

1.4 Type I, II or III encasement required under following conditions:
(a) Type I or Type III if \( d_3 > 2' \), except for sanitary sewers crossing over or under water mains.
(b) Type IA required for sanitary sewers crossing under water mains and \( d_3 < 2' \) and \( D_2 = 8' \).
(c) Type IB required for sanitary sewers crossing over top of water mains, regardless of dimension \( D_3 \).
(d) Except for unusual circumstances, water main crossings, or where unstable soil conditions are encountered, Type I Encasement will normally be satisfactory.
(e) If the sanitary sewer is replaced or constructed of cast iron pipe (AMN 0-105 OR 0-108) or ductile iron pipe (AMN 0-150 OR 0-151), concrete encasement may not be required.

1.5 Filler material between conduits to be:
(a) Approved compressible material such as styrofoam, etc., if \( D_3 > 4' \) (6'), compacted class B bedding if \( D_3 > 4' \) if \( D_3 > 4' \) (6') for Type IB encasement on concrete undisturbed soil.

1.6 Shoring or sheeting, if used, to be cut off at top of encasement.

1.7 These encasement details may also be applicable for conduits other than storm or sanitary sewer installations.

1.8 In certain situations where conduit diameter \( D_3 \) is extremely large, pier supports each side of sanitary sewer may also be required, if required, supports to be specified and detailed separately on plan/profile drawings. No pipe joints over top of water main.

1.9 Details shown consider rigid conduits only. Flexible conduits require special consideration.
GENERAL NOTES

1. A CONCRETE COLLAR IS REQUIRED WHERE THE CHANGE IN GRADE EXCEEDS 0.10 OF A FOOT PER FOOT.

2. GAP LIMITS

<table>
<thead>
<tr>
<th>PIPE DIAMETER</th>
<th>COLUMN &quot;A&quot; (SEE A BELOW)</th>
<th>COLUMN &quot;B&quot; (SEE B BELOW)</th>
</tr>
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<tbody>
<tr>
<td>21&quot; OR LESS</td>
<td>1/2&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>15&quot;</td>
<td>12&quot;</td>
<td>5&quot;</td>
</tr>
<tr>
<td>18&quot;</td>
<td>12&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>21&quot;</td>
<td>12&quot;</td>
<td>6&quot;</td>
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A. IF THE "EXTREME OUTER ENDS" OF THE PIPE LEAVE A GAP THAT EXCEEDS VALUES IN COLUMN "A" OR COLUMN "B", A CONCRETE COLLAR IS REQUIRED.

B. IF THE GAP EXCEEDS 6 INCHES, A MANHOLE STRUCTURE IS REQUIRED.

3. CONCRETE COLLAR SHALL NOT BE USED FOR A SIZE CHANGE ON THE MAIN LINE.

4. FOR PIPE SIZE NOT LISTED USE NEXT SIZE LARGER.

5. WHERE REINFORCING IS REQUIRED THE DIAMETER OF THE CIRCULAR TIES SHALL BE D+(2X WALL THICKNESS)+T.

6. REINFORCING SHALL BE USED WHERE THE SPACES BETWEEN THE EXTREME OUTER ENDS IS 2 1/2" OR LARGER.

CIRCULAR TIES:

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<tr>
<th>PIPE DIAMETER</th>
<th>SPACE BETWEEN EXTREME OUTER ENDS</th>
<th>NO. OF CIRCULAR TIES</th>
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<tbody>
<tr>
<td>21&quot; OR LESS</td>
<td>2 1/2&quot;</td>
<td>3</td>
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WHERE THE SPACE BETWEEN PIPE LONGITUDINAL ENDS EXCEEDS 2 1/2", THE NUMBER OF CIRCULAR TIES SHALL BE INCREASED TO MAINTAIN AN APPROXIMATE SPACING OF 6" OC.

7. AN INTERIOR FORM OF UNSEALED SONO-TUBE OR EQUAL SHALL BE USED TO PROVIDE A SMOOTH INTERIOR JOINT. THE PAPER FORM MAY BE LEFT IN PLACE (SEE DETAIL A).

8. THIS DETAIL APPLIES "ONLY" TO PIPE 21" DIAMETER OR LESS.

NOTES:

FOR STORM LINE CONNECTORS ONLY, NOT TO BE USED ON MAINLINE SEWERS.

AN INTERIOR FORM OF UNSEALED SONO-TUBE OR EQUAL SHALL BE USED TO PROVIDE A SMOOTH INTERIOR JOINT. (SEE DETAIL A)

DETAIL "A"
SONO-TUBE, OR EQUAL, INTERIOR FORM
RCP

VARIES

F.E.S.

3'-0" MIN.

EXTEND RIPRAP MIN.
2'-0" PAST F.E.S. END

RIPRAP (TYP.)
BOTH SIDES OF OUTFALL,

INSTALL REMOVABLE
TRASH RACK

CONCRETE CUTOFF
WALL (MIN 3' DEEP)
REQUIRED

15' MIN.

5'-0" MIN.

3'-0"

PAN
2 - L 1" x 1" x 3/16" x W OR ST 1.5 x 2.89 x W

#6 REBAR

NOTE: AN INDEPENDENT DESIGN AND DETAIL WILL BE REQUIRED FOR PIPE DIAMETERS GREATER THAN 48"
**PLAN VIEW**

**ISOMETRIC VIEW**

*NOTE: CHASE IS NOT PERMITTED IN 4" CURB SECTION*
1/2" NON-Slip RAISED PATTERN STEEL TREAD PLATE

2" X 2" X 1/4" ANGLE IRON TO BE DRILLED AND THREADED TO ALLOW SCREW

EXPANSION JOINT

SIDEWALK

1/2" X 1" FLATHEAD MACH. SCREW BRASS OR ELECTRO-GALVANIZED FINISH, 2' O.C.

CONC. TO BE DRILLED TO ALLOW SCREW

#3 BAR 6" LONG WELDED TO ANGLE IRON AT 18" O.C. EACH SIDE

CONC.

6X6-W4.0XW4.0 WELDED WIRE FABRIC

COMPACTED SUBGRADE

SIDEWALK CHASE DETAIL