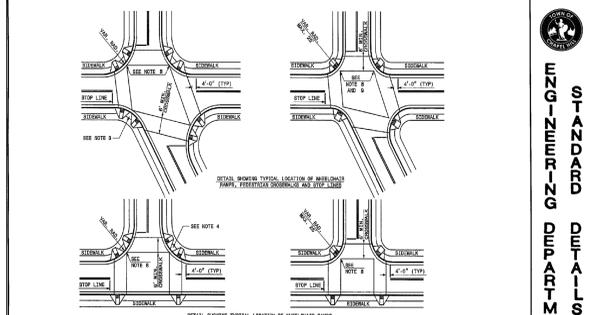
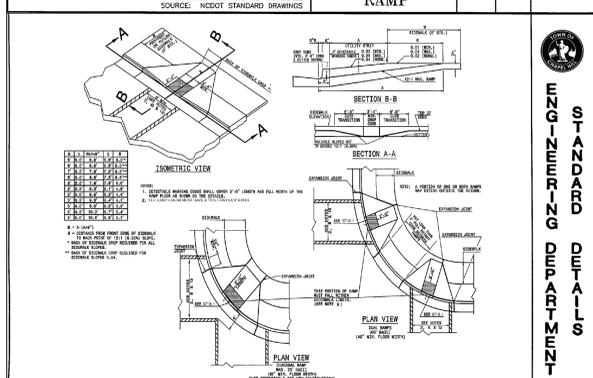


1. USE ADAMS PRODUCT DETECTABLE WARNING DOME BRICK (EEN OR EQUAL) DOWNS TO MEET CURRENT A.S.A. SPECIFICATIONS.

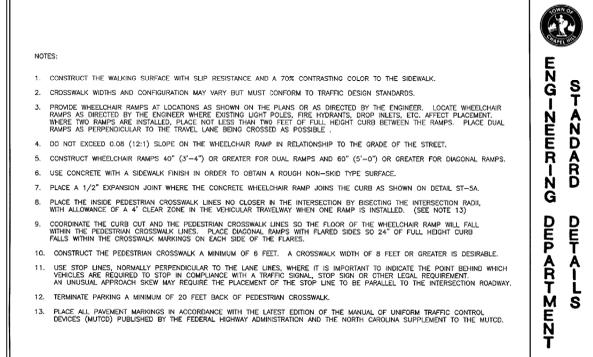
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REVISIONS: NO DATE BY
DET. NO.: ST-5.1



TITLE: ACCESSIBLE RAMP
REVISIONS: 09/03 JH
DET. NO.: ST-5.2

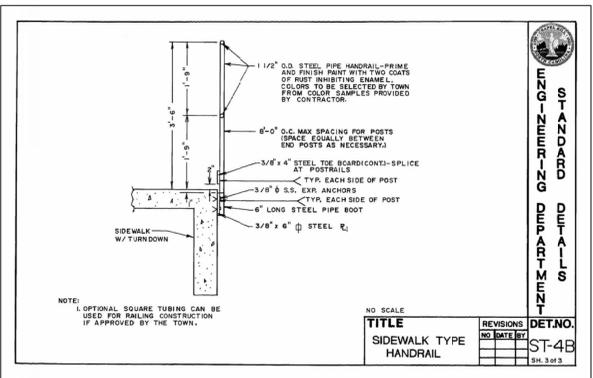


TITLE: ACCESSIBLE RAMP
REVISIONS: 09/03 JH, 02/08 ER
DET. NO.: ST-5.3

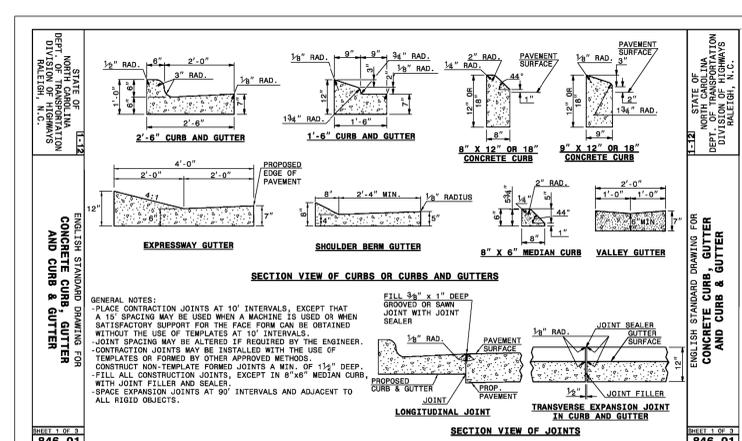


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REVISIONS: 09/03 JH
DET. NO.: ST-5.4

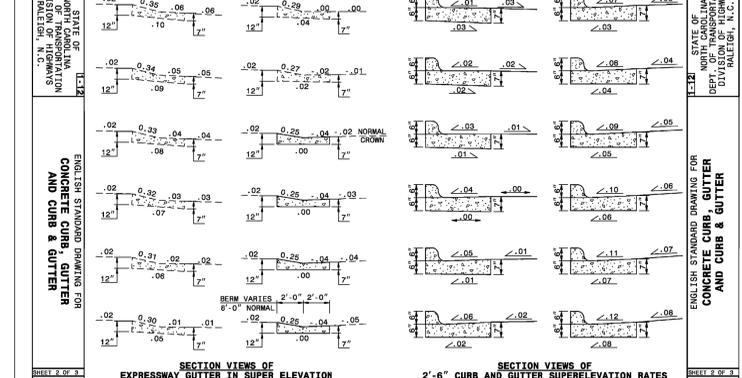
A5 WHEEL CHAIR RAMP
C5001 SCALE: N.T.S.



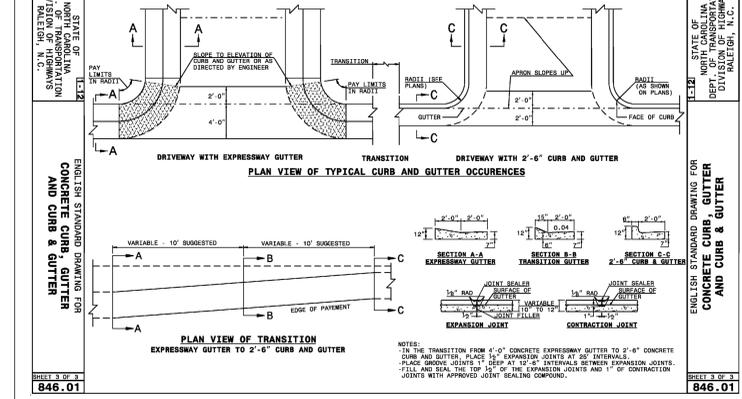
D4 ACCESSIBLE RAMP WITH HANDRAIL
C5001 SCALE: 1" = 4"



846.01 ENGLISH STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
REVISIONS: NO DATE BY
DET. NO.: 846.01

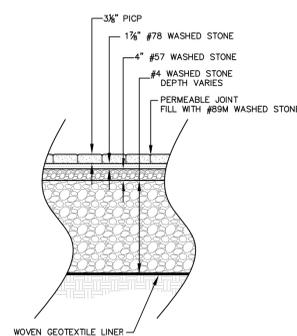


846.01 ENGLISH STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
REVISIONS: NO DATE BY
DET. NO.: 846.01

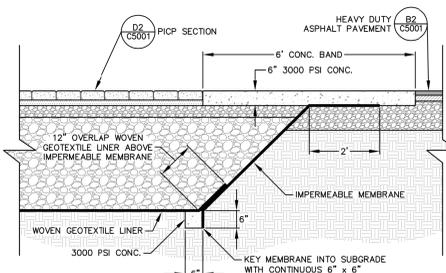


846.01 ENGLISH STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
REVISIONS: NO DATE BY
DET. NO.: 846.01

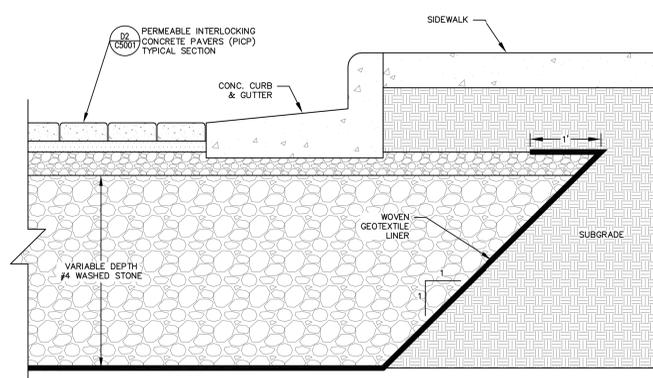
A4 NCDOT CONCRETE CURB & GUTTER
C5001 N.T.S.



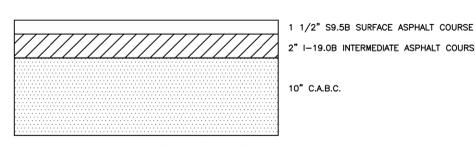
D2 PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) TYPICAL SECTION
C5001 1" = 2"



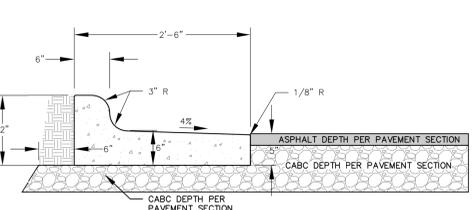
D1 6' WIDE CONCRETE BAND
C5001 SCALE: 1" = 2"



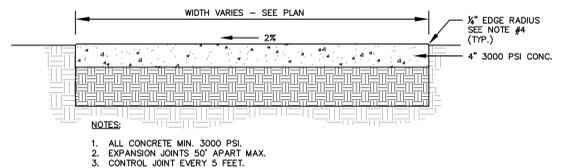
C2 PERMEABLE PAVEMENT TYPICAL BOUNDARY
C5001 1" = 1"



B2 TYPICAL ASPHALT PAVEMENT SECTIONS
C5001 N.T.S.



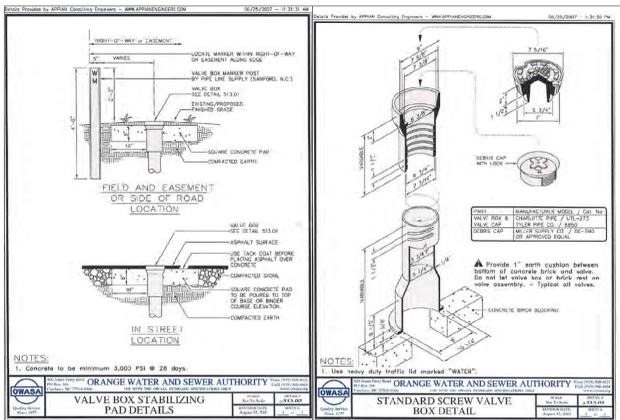
A2 30" CONCRETE SPILL CURB & GUTTER
C5001 N.T.S.



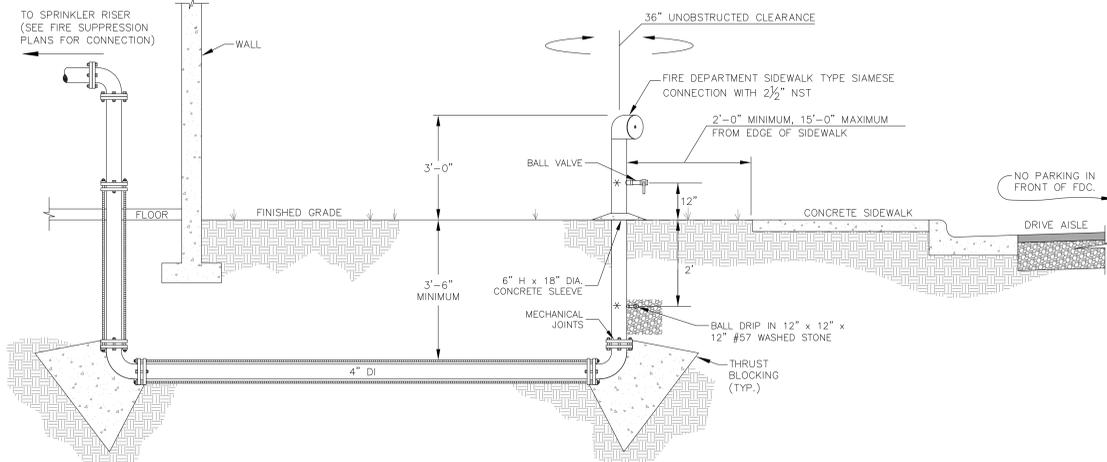
A1 CONCRETE SIDEWALK
C5001 SCALE: N.T.S.

SITE DETAILS

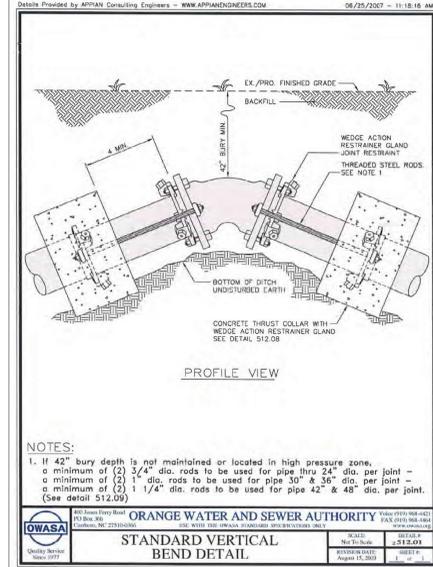
REVIEW DRAWING NOT FOR CONSTRUCTION



D5 STANDARD VALVE BOX INSTALLATION
C5101 N.T.S.



C3 FIRE DEPARTMENT CONNECTION SCHEMATIC
C5101 N.T.S.



C1 VERTICAL BEND DETAIL
C5101 N.T.S.

TEST PRESSURE = 200 P.S.I.

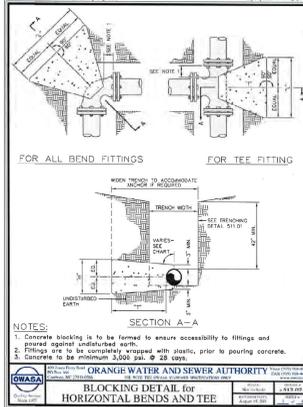
| PIPE SIZE (IN.) | LENGTH (FT.) | CONCRETE BLOCK (NO.) | VOLUME (CU. FT.) |
|-----------------|--------------|----------------------|------------------|
| 11 1/2" | 100 | 100 | 0.04 |
| 22 1/2" | 100 | 100 | 0.06 |
| 40" | 100 | 100 | 0.09 |
| 60" | 100 | 100 | 0.13 |
| 80" | 100 | 100 | 0.17 |
| 100" | 100 | 100 | 0.21 |
| 120" | 100 | 100 | 0.25 |
| 140" | 100 | 100 | 0.29 |
| 160" | 100 | 100 | 0.33 |
| 180" | 100 | 100 | 0.37 |
| 200" | 100 | 100 | 0.41 |
| 220" | 100 | 100 | 0.45 |
| 240" | 100 | 100 | 0.49 |
| 260" | 100 | 100 | 0.53 |
| 280" | 100 | 100 | 0.57 |
| 300" | 100 | 100 | 0.61 |
| 320" | 100 | 100 | 0.65 |
| 340" | 100 | 100 | 0.69 |
| 360" | 100 | 100 | 0.73 |
| 380" | 100 | 100 | 0.77 |
| 400" | 100 | 100 | 0.81 |
| 420" | 100 | 100 | 0.85 |
| 440" | 100 | 100 | 0.89 |
| 460" | 100 | 100 | 0.93 |
| 480" | 100 | 100 | 0.97 |
| 500" | 100 | 100 | 1.01 |
| 520" | 100 | 100 | 1.05 |
| 540" | 100 | 100 | 1.09 |
| 560" | 100 | 100 | 1.13 |
| 580" | 100 | 100 | 1.17 |
| 600" | 100 | 100 | 1.21 |

CHART NOTES:
 1. If blocking excavation is in lightly compacted fill areas, or in areas where backfill or shoring have been removed, blocking size must be revised for the specific location/circumstances by a NC Licensed Professional Engineer.
 2. Blocking size shown in these tables assume the following:
 a. Soil bearing pressure = 2000 psf
 b. Soil bearing pressure = 2000 psf
 c. Velocity of flow = 15 ft/s
 3. This detail not applicable to reducing bends.
 4. Method of weight of the concrete blocking and soil weight is shown in detail 512.09.

TEST PRESSURE = 250 P.S.I.

| PIPE SIZE (IN.) | LENGTH (FT.) | CONCRETE BLOCK (NO.) | VOLUME (CU. FT.) |
|-----------------|--------------|----------------------|------------------|
| 11 1/2" | 100 | 100 | 0.04 |
| 22 1/2" | 100 | 100 | 0.06 |
| 40" | 100 | 100 | 0.09 |
| 60" | 100 | 100 | 0.13 |
| 80" | 100 | 100 | 0.17 |
| 100" | 100 | 100 | 0.21 |
| 120" | 100 | 100 | 0.25 |
| 140" | 100 | 100 | 0.29 |
| 160" | 100 | 100 | 0.33 |
| 180" | 100 | 100 | 0.37 |
| 200" | 100 | 100 | 0.41 |
| 220" | 100 | 100 | 0.45 |
| 240" | 100 | 100 | 0.49 |
| 260" | 100 | 100 | 0.53 |
| 280" | 100 | 100 | 0.57 |
| 300" | 100 | 100 | 0.61 |
| 320" | 100 | 100 | 0.65 |
| 340" | 100 | 100 | 0.69 |
| 360" | 100 | 100 | 0.73 |
| 380" | 100 | 100 | 0.77 |
| 400" | 100 | 100 | 0.81 |
| 420" | 100 | 100 | 0.85 |
| 440" | 100 | 100 | 0.89 |
| 460" | 100 | 100 | 0.93 |
| 480" | 100 | 100 | 0.97 |
| 500" | 100 | 100 | 1.01 |
| 520" | 100 | 100 | 1.05 |
| 540" | 100 | 100 | 1.09 |
| 560" | 100 | 100 | 1.13 |
| 580" | 100 | 100 | 1.17 |
| 600" | 100 | 100 | 1.21 |

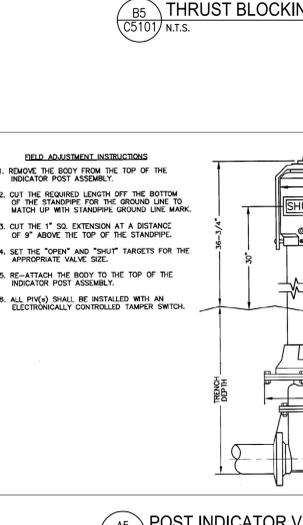
CHART NOTES:
 1. If blocking excavation is in lightly compacted fill areas, or in areas where backfill or shoring have been removed, blocking size must be revised for the specific location/circumstances by a NC Licensed Professional Engineer.
 2. Blocking size shown in these tables assume the following:
 a. Soil bearing pressure = 2000 psf
 b. Soil bearing pressure = 2000 psf
 c. Velocity of flow = 15 ft/s
 3. This detail not applicable to reducing bends.
 4. Method of weight of the concrete blocking and soil weight is shown in detail 512.09.



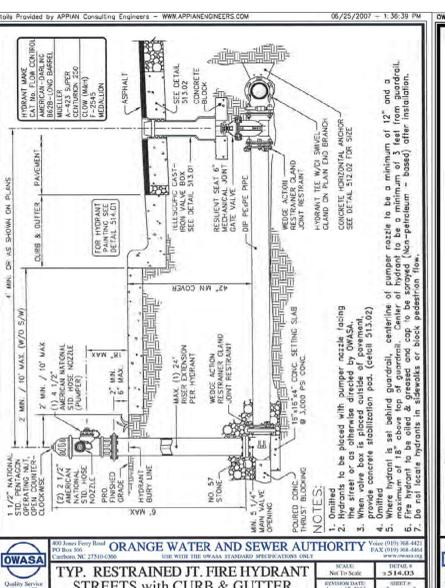
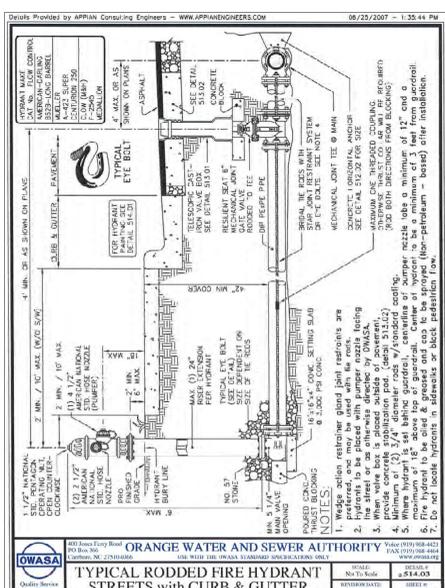
TEST PRESSURE = 100 P.S.I.

| PIPE SIZE (IN.) | LENGTH (FT.) | CONCRETE BLOCK (NO.) | VOLUME (CU. FT.) |
|-----------------|--------------|----------------------|------------------|
| 11 1/2" | 100 | 100 | 0.04 |
| 22 1/2" | 100 | 100 | 0.06 |
| 40" | 100 | 100 | 0.09 |
| 60" | 100 | 100 | 0.13 |
| 80" | 100 | 100 | 0.17 |
| 100" | 100 | 100 | 0.21 |
| 120" | 100 | 100 | 0.25 |
| 140" | 100 | 100 | 0.29 |
| 160" | 100 | 100 | 0.33 |
| 180" | 100 | 100 | 0.37 |
| 200" | 100 | 100 | 0.41 |
| 220" | 100 | 100 | 0.45 |
| 240" | 100 | 100 | 0.49 |
| 260" | 100 | 100 | 0.53 |
| 280" | 100 | 100 | 0.57 |
| 300" | 100 | 100 | 0.61 |
| 320" | 100 | 100 | 0.65 |
| 340" | 100 | 100 | 0.69 |
| 360" | 100 | 100 | 0.73 |
| 380" | 100 | 100 | 0.77 |
| 400" | 100 | 100 | 0.81 |
| 420" | 100 | 100 | 0.85 |
| 440" | 100 | 100 | 0.89 |
| 460" | 100 | 100 | 0.93 |
| 480" | 100 | 100 | 0.97 |
| 500" | 100 | 100 | 1.01 |
| 520" | 100 | 100 | 1.05 |
| 540" | 100 | 100 | 1.09 |
| 560" | 100 | 100 | 1.13 |
| 580" | 100 | 100 | 1.17 |
| 600" | 100 | 100 | 1.21 |

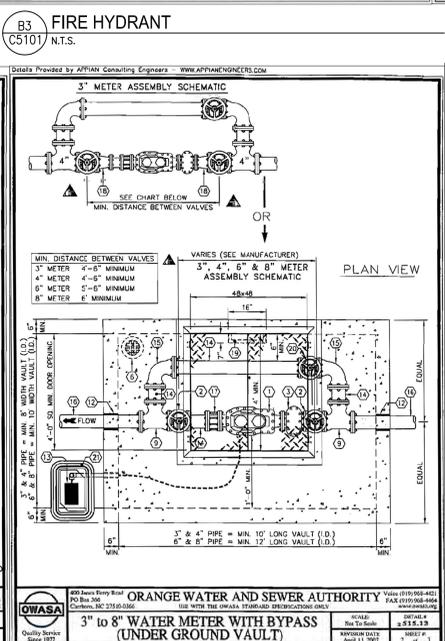
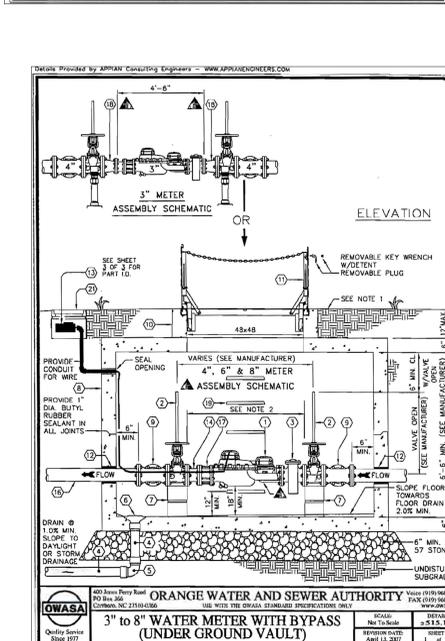
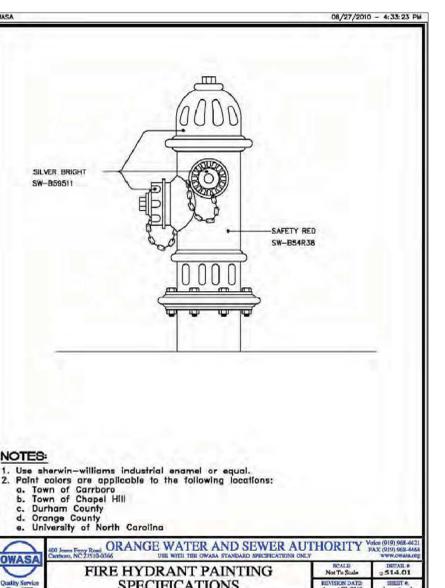
CHART NOTES:
 1. If blocking excavation is in lightly compacted fill areas, or in areas where backfill or shoring have been removed, blocking size must be revised for the specific location/circumstances by a NC Licensed Professional Engineer.
 2. Blocking size shown in these tables assume the following:
 a. Soil bearing pressure = 2000 psf
 b. Soil bearing pressure = 2000 psf
 c. Velocity of flow = 15 ft/s
 3. This detail not applicable to reducing bends.
 4. Method of weight of the concrete blocking and soil weight is shown in detail 512.09.



A5 POST INDICATOR VALVE (PIV)
C5101 N.T.S.



B3 FIRE HYDRANT
C5101 N.T.S.



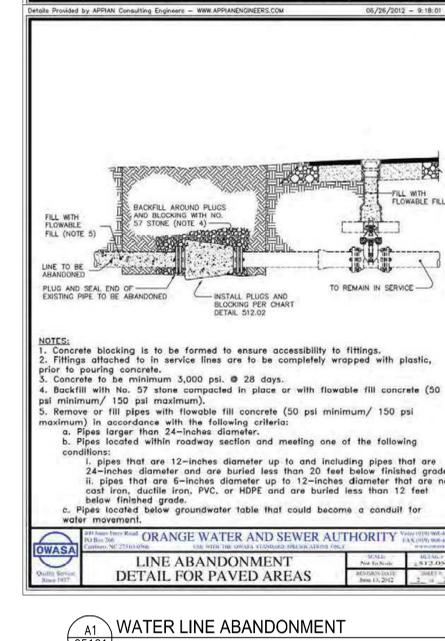
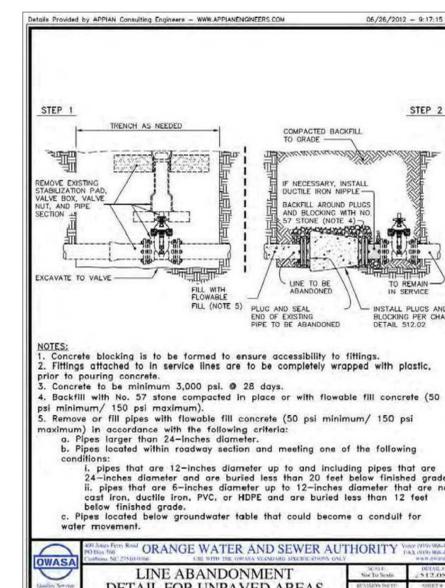
A3 4" DOMESTIC WATER IN UNDERGROUND VAULT
C5101 N.T.S.

ORANGE WATER AND SEWER AUTHORITY

3" to 8" WATER METER WITH BYPASS (UNDER GROUND VAULT)

DATE: 08/27/2010 4:38:33 PM

| ITEM | DESCRIPTION | MANUFACTURER MODEL / CUL. No. |
|------|--|---|
| 1 | COMPACT METER OR TURBINE METER | TO BE APPROVED BY OWASA |
| 2 | DOWNSTREAM GATE VALVE WITH RESILIENT SEATS | TO BE APPROVED BY OWASA |
| 3 | STRAINER | TO BE APPROVED BY OWASA |
| 4 | DIP GLASS 300 | SIZE & TYPE DETERMINED BY NC PE |
| 5 | DIP GLASS 300 | SIZE & TYPE DETERMINED BY NC PE |
| 6 | FLOOR DRAIN WITH STRAINER | SIZE & TYPE DETERMINED BY NC PE BASED ON SIZE OF WATER MAIN (TO BE APPROVED BY OWASA) |
| 7 | MONITORED MASONRY BLOCK PIPE SUPPORTS (MINIMUM 4 REQUIRED) | TO BE APPROVED BY OWASA |
| 8 | PRECAST CONCRETE UTILITY VAULT BOX, MIN. 4000 PSI @ 28 DAYS, VERIFY FITTINGS WILL FIT INSIDE BOX BEFORE ORDERING | STAY-RIGHT PRECAST VAULT, 4000 PSI MIN. (OR APPROVED EQUIVALENT) |
| 9 | DIP FLANGED TEE | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 10 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER | STAY-RIGHT PRECAST VAULT, 4000 PSI MIN. (OR APPROVED EQUIVALENT) |
| 11 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 12 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 13 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 14 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 15 | DIP FLANGED 90° ELBOW (SHORT RADII) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 16 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 17 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 18 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 19 | 4" O.D. MIN. WIDTH (I.D.) x 4'-0" LONG (I.D.) RISER (OR APPROVED EQUIVALENT) | AMERICAN CAST IRON PIPE UNION "M" PER CO. @ U.S. PIPE & FOUNDRY |
| 20 | OSKY GATE VALVE WITH RESILIENT SEATS | DRILL STEM FOR SEALING IN CLOSED POSITION (TO BE APPROVED BY OWASA) |
| 21 | METER BOX | OSKY SYSTEMS CORP. / WOOD-1118-12C MID-STREETS PLASTICS, INC. / WSCC 1118-12 |



A1 WATER LINE ABANDONMENT
C5101 N.T.S.

UTILITY DETAILS
 REVIEW DRAWING
 NOT FOR CONSTRUCTION

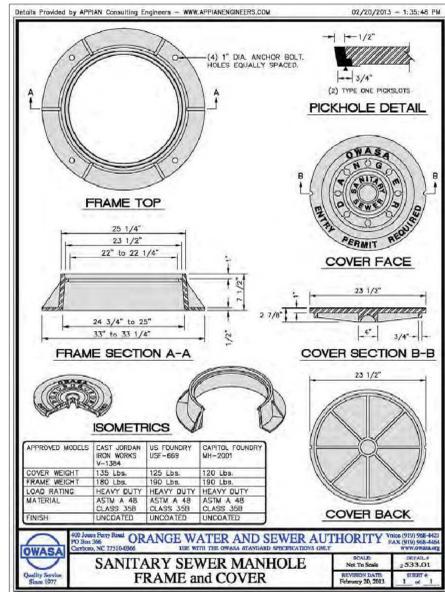
BALLENTINE ASSOCIATES, P.A.
 221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
 (919) 929-0461

DATE: 21 APR 17
 SCALE: AS NOTED
 DRAWN BY: D.W.S.
 REVIEWED BY: G.J.R.

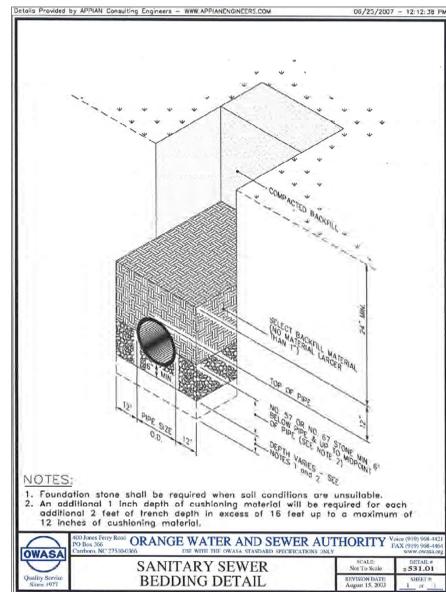
FORDHAM BLVD. APARTMENTS
 CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

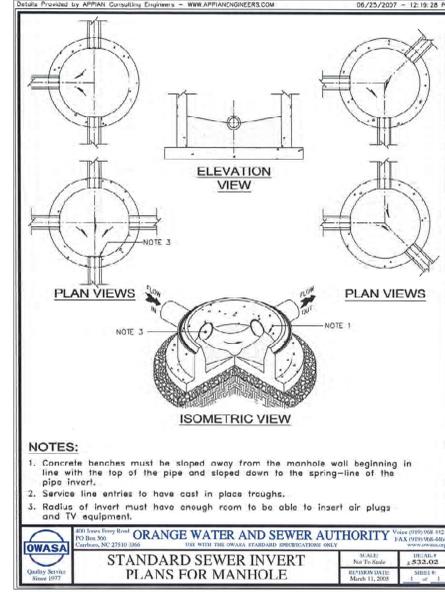
SHEET C5101



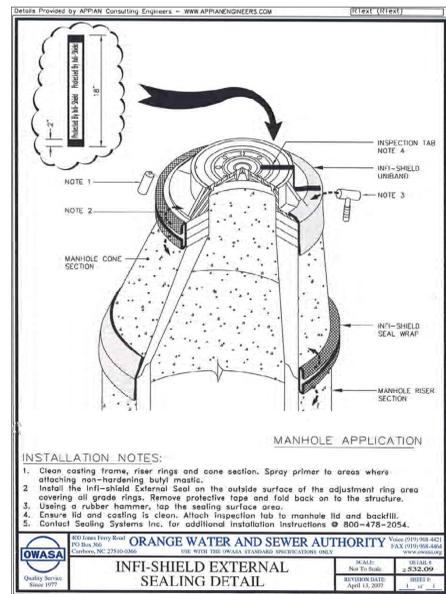
C4 SAN. SEWER MANHOLE COVER
N.T.S.



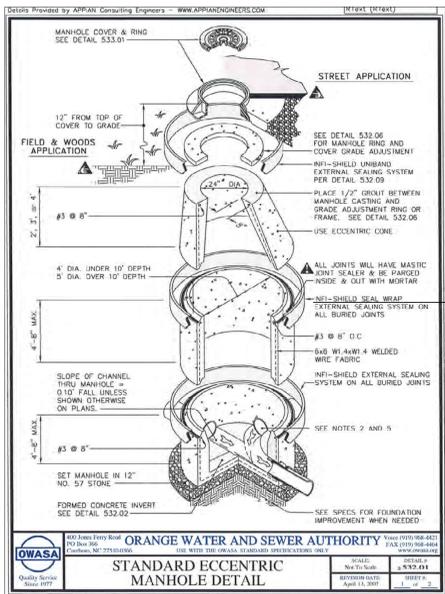
C3 SANITARY SEWER BEDDING
N.T.S.



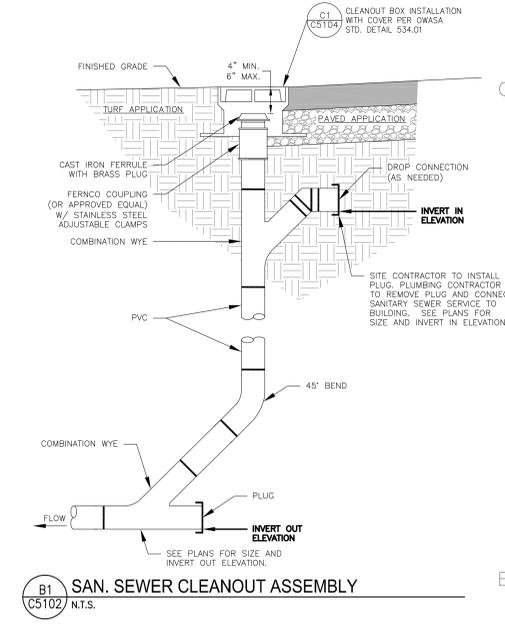
C2 SAN. SEWER MANHOLE INVERT
N.T.S.



B3 INFI-SHIELD SEAL WRAP
N.T.S.



A2 PRECAST CONCRETE SAN. SEWER MANHOLE
N.T.S.



B1 SAN. SEWER CLEANOUT ASSEMBLY
N.T.S.

BALLENTINE ASSOCIATES, P.A.
221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
(919) 929-0461

ORANGE WATER AND SEWER AUTHORITY
1930 CAMDEN RD. CHARLOTTE, NC 28203
PH (704) 377-8773
FAX (704) 377-6920
EMAIL: owasa@owasa.org

OWNER INFORMATION
RAM REALTY ADVISORS
1930 CAMDEN RD. CHARLOTTE, NC 28203
OWNERS REPRESENTATIVE:
DAVID KLEPNER
PH (704) 377-8773
FAX (704) 377-6920
EMAIL: dklepner@ramrealestate.com

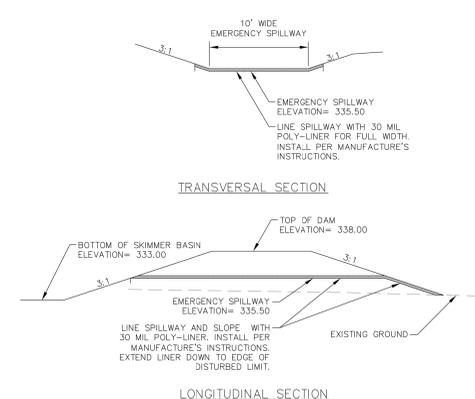
FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

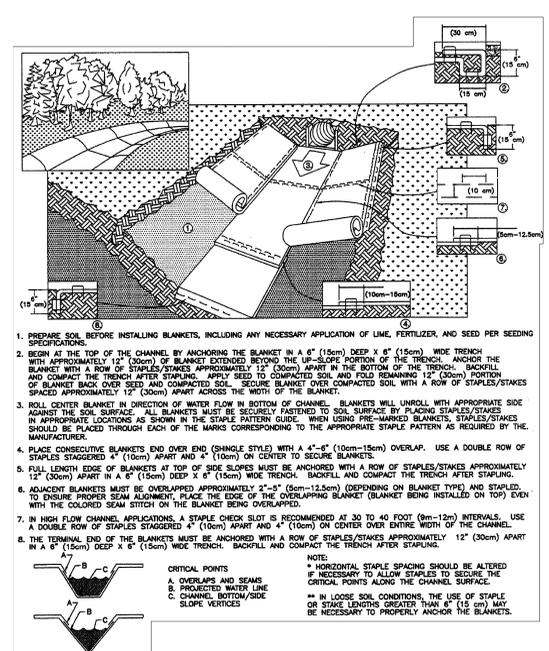
JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C5102

UTILITY DETAILS
REVIEW DRAWING
NOT FOR CONSTRUCTION

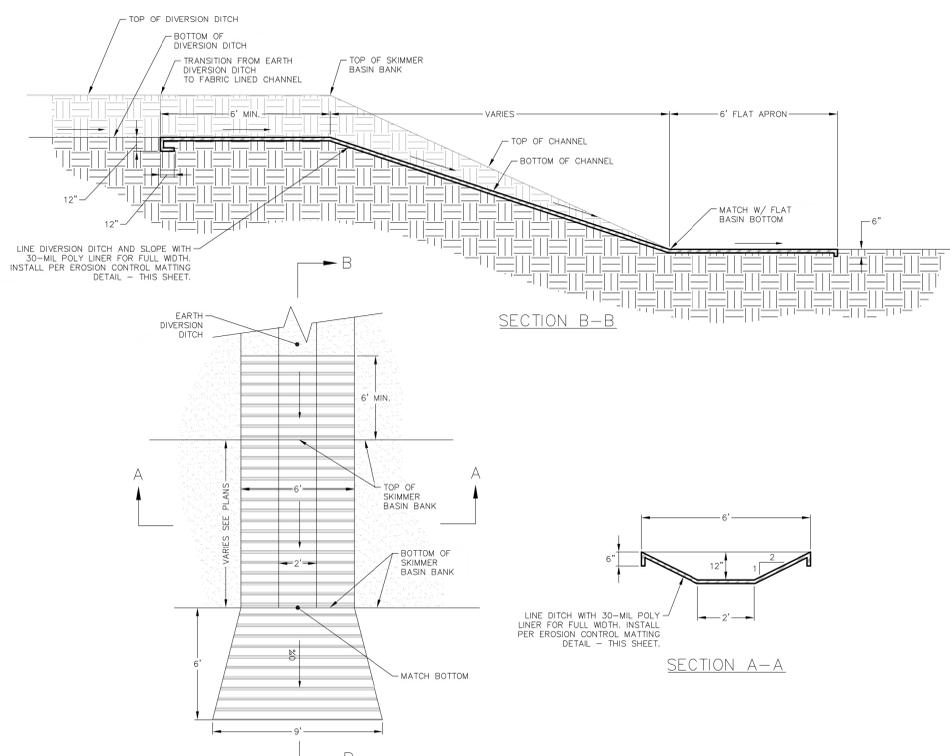


C4 EMERGENCY SPILLWAY SECTIONS
C5302 N.T.S.

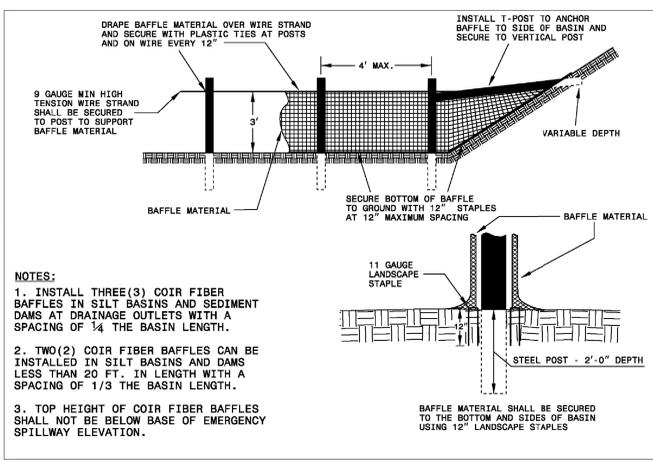


- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED PER SEEDING SPECIFICATIONS.**
- 2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. SKIMMILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.**
- 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING PRE-MARKED BLANKETS, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE MARKS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN AS REQUIRED BY THE MANUFACTURER.**
- 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.**
- 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SLOPE MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.**
- 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-3" (5cm-12.5cm) (DEPENDENT ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.**
- 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.**
- 8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.**
- NOTE:**
- HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
 - IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 4" (10 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

A4 EROSION CONTROL MATTING INSTALLATION (TYP.)
C5302 N.T.S.

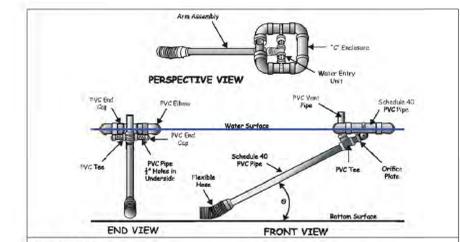


A3 DIVERSION DITCH OUTLET AT SKIMMER BASIN
C5302 N.T.S.



- NOTES:**
- INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF 1/4 THE BASIN LENGTH.
 - TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.
 - TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.
- MAINTENANCE:**
- INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
 - BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
 - REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.
 - AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

C3 TEMPORARY COIR MESH Baffle INSTALLATION
C5302 N.T.S.



- You Will Need:**
- 8 feet or more of 1 1/2" Sch 40 PVC pipe SOLID
 - Primer and glue for PVC pipe
 - Phillips screw driver, maybe a knife
- Assembly and Installation Directions:**
- Glue on the 2" inlet extension to the Tee on the inlet. install the vent.

- Details:** Prime and glue the 2" inlet extension (with the coupling, 1 1/2" bushing and screw on one end) into the 2" end of the Tee on the side of the Tee (4" horizontal tube suspended between the sides of the float with the aluminum screen door).
- Install the vent into the socket in the Tee, back the screw out, insert the short end of the vent, point the long end toward the door on the inlet, and tighten the screw. Use a little grease so it can be removed later.**
- 4" Sch 40 coupling connection**
- 1 1/2" Sch 40 SOLID PVC barrel or "arm" SUPPLIED BY USER**
- 1 1/2" hose**
- 2" inlet extension**
- Skimmer shown in floating position**
- Glue the 9 long 1 1/2" sch 40 barrel to the 1 1/2" grey coupling on the hose.

- Details:** You will need 1 1/2" Sch 40 PVC pipe (solid, not foam core) for the barrel (or "arm") between the float assembly and the 1 1/2" hose. The length of the pipe should be about 1 1/4 times the depth of the basin as the skimmer floats properly when the basin fills with a minimum length of 6" so the skimmer can be pulled to the side of the basin for maintenance.
- If barrel is longer than 8" weight may have to be added to the inlet so it sits at the right depth.**
- Put the other end of the barrel into the socket on the inlet extension and tighten the screw.

- Details:** Make sure the screw points are not protruding into the 1 1/2" bushing on the outlet end of the inlet extension you glued onto the Tee.
- WITHOUT GLUE OR PRIMER, but with a little grease, insert the other end of the pipe into the bushing all the way, until it hits the bottom. It may be easier to do this in the basin after you have connected the hose to the pipe, rear or outlet structure. Tighten the screw so the point enters the pipe to secure it. It does not have to go all the way in. This connection is not glued to allow disassembly and possible reuse of the skimmer later.**
- Cut the orifice in the plug (size shown on the erosion control plans), put the plug in the inlet, and tighten the screw. Close the door.

- Details:** Refer to the erosion control plans for the orifice size. Open the door on the inlet and remove the 2" plug in the inlet. Follow the instructions below for cutting the ORIFICE. Install the orifice in the inlet, secure it with the screw through the hole in the top of the inlet and close the door and secure it with the screw eye.
- 6. Cut a trench in the bottom of the basin 1 to 2" deep under where the skimmer will be placed. If required, place a support under the skimmer inlet.**
- Details:** If the skimmer will settle to the bottom when the basin drains it is recommended that a 1" x 2" deep trench backhoe bucket wide should be excavated under the skimmer to catch sediment that will settle under the skimmer.

- If a pool of water is to be provided, install the support under the skimmer inlet as shown on the erosion control plans. It is recommended that the hose connection to the pipe through the dam be low enough that the whole pool can be drained using the skimmer, even if a pool of water is to be provided. Doing this will avoid using a pump to drain the very bottom of the pond.**
- If ice is expected during winter place the skimmer near the dam or side of the basin where the ice will be thinned and you can get to the inlet to break the ice and keep water flowing through the skimmer. But do not put it so close to the side that the skimmer cannot settle to the bottom and drain the whole basin.**

- Attach the 4" coupling on the hose to the pipe through the dam or the outlet structure.**
- Details:** Make sure the screw points are not protruding into the 4" coupling on the hose and attach it to the pipe through the dam. Tighten the screws just so the points go into the plastic to secure it. Greasing the pipe is recommended so the hose can be removed later.
- If the connection pipe is larger than 4" you will need a coupling for that pipe, a bushing for that coupling with a 4" socket, and about 10' of 4" pipe to create an attachment.**
- If attaching to a metal pipe you will need a rubber coupling (Fibrom) and a short piece of 4" PVC pipe to make the connection.**

- OR The 4" coupling can be removed and the hose connected using the 2" threaded fitting. If attaching to a concrete structure with a hole or orifice at the bottom, either 3/8" galv. 4" PVC pipe into the hole and connect the hose, or 2" a more secure way is to use a steel plate with a hole cut in it and a 2" coupling fitted to it that will fit over the hole in the concrete and bolt the plate to the structure with sealant to make it water tight.**
- Attach the rope to the Tee and the other end to a stake on the side of the basin.

- Details:** Tie one end of the rope around the Tee between the vent socket and the 4" Tee on the inlet. Secure the other end to a stake or post on the dam or side of the basin where it can be used to pull the skimmer to the side if necessary to remove trash and debris.
- Put a fence post, 1 x 2, on the opposite side of the barrel from where the rope is tied to a stake to keep the skimmer in place.

- Details:** Put the skimmer where you want it to settle to the bottom and drive a metal fence post into the ground on the outside of the barrel (away from the side) 2' from the float to hold the skimmer in that place. Make sure it is 2" (2" coupling) so the barrel does not float over the top when the basin fills. Posts on both sides of the same gap not recommended because it will prevent pulling the skimmer to the side for maintenance.

- Maintenance:**
- Trash:** If the inlet screen clogs and there is water in the basin, bagging on the rope several times will usually wash the trash off and restore flow. If not, pull the inlet to the side of the basin and use a stick to clean the screen. Open the screen door and remove any trash or sediment inside so grass or trees do not grow in the inlet. (Yes, they can happen!)
- Sediment Accumulation Around Skimmer:** A shallow, long basin, using baffles, and inflow in the basin at the opposite end from the outlet help keep sediment away from the skimmer. If sediment restricts skimmer movement, pull the skimmer to one side and excavate under it.
- Ice:** To keep ice broken up at the inlet and around the barrier to keep water flowing, making it less likely the inlet will freeze. Spray painting the float back to absorb heat is recommended. Use paint that will stick to PVC plastic.
- Handling the Skimmer:** The skimmer is made of plastic and will withstand heat, cold and sunlight but it needs to be held by hand NOT grabbed with a backhoe bucket and yanked around, especially in cold weather. To remove the skimmer, disconnect the hose first, then disconnect the barrel from the inlet extension. DO NOT try to pull the skimmer loose with a backhoe.
- Vandalism:** Keep unauthorized persons that may do damage off the site. Do not provide rocks close to the skimmer if possible. If possible, taking other considerations into account, position the skimmer out in the basin away from the barrier to decrease the potential for a successful hit.

A1 TEMPORARY SKIMMER
C5302

EROSION CONTROL DETAILS
REVIEW DRAWING
NOT FOR CONSTRUCTION