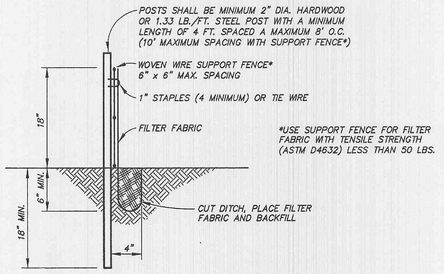
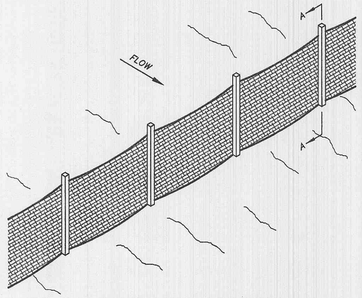


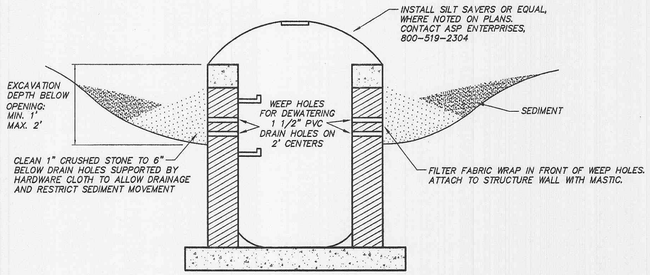

SECTION A–A



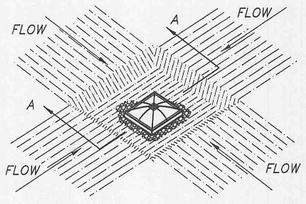

TEMPORARY SOIL EROSION CONTROL
## SILT FENCE DETAIL
NOT TO SCALE

## SILT FENCE NOTES

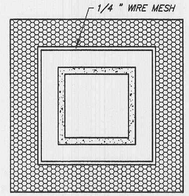
1. CONTRACTOR SHALL INSTALL SILT FENCE AT TOE OF SLOPES OF ALL AREAS AFFECTED BY CONSTRUCTION PRIOR TO ANY EXCAVATION ON THE SITE.
2. SILT FENCE SHALL REMAIN UNTIL VEGETATION HAS BEEN ESTABLISHED ON AFFECTED AREAS TO PREVENT EROSION.
3. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY AND WITHIN 24 HOURS FOLLOWING A RAINFALL EVENT OF 0.5 INCHES OR GREATER.
4. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIRS ARE FOUND TO BE NECESSARY, THEY WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
5. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE–THIRD THE HEIGHT OF THE FENCE.
6. SILT FENCES WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ETC., TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE SECURELY IN THE GROUND.



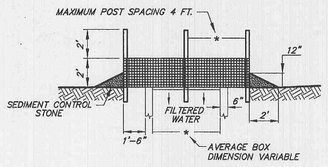

SECTION A–A




EXCAVATED INLET PROTECTION
NOT TO SCALE




PLAN
MULTI–DIRECTIONAL FLOW

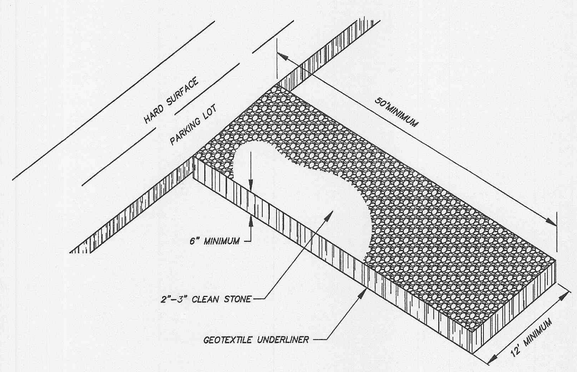



SECTION
MULTI–DIRECTIONAL FLOW

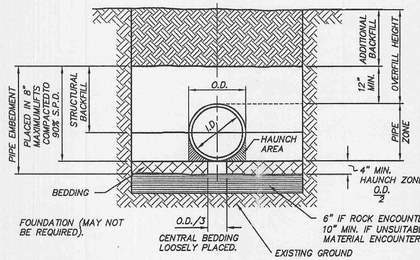
NOTE:

1. SEDIMENT CONTROL STONE SHALL BE 3/4" WASHED STONE.
2. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS.
3. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
4. STEEL POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF–FASTENER ANGLE STEEL TYPE.
5. WOOD POST SHALL BE 6 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCHES IN DIAMETER.
6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.

INLET PROTECTION
NOT TO SCALE




TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE




## TYPICAL TRENCH DETAIL

## BACKFILL NOTES

1. BEDDING, HAUNCH, AND STRUCTURAL BACKFILL SHALL BE IN CONFORMANCE W/ AASHTO M145 GROUP A–1, A–2, OR A–3 COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DEFINED BY ASTM D698.
2. ADDITIONAL BACKFILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DEFINED BY ASTM D698.

### TABLE III
PARALLEL PIPE INSTALLATION

| PIPE SIZE | S (IN.) | X (IN.) |
|---|---|---|
| 12 | 12 | 9 |
| 15 | 12 | 9 |
| 18 | 12 | 9 |
| 24 | 12 | 10 |
| 30 | 15 | 16 |
| 36 | 18 | 18 |
| 42 | 21 | 18 |
| 48 | 24 | 18 |

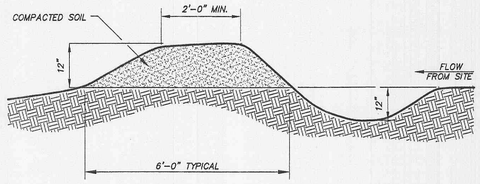
S = MINIMUM PIPE SEPARATION (IN) BETWEEN OUTSIDE WALLS OF PIPES.
X = MINIMUM SEPARATION BETWEEN TRENCH WALL AND OUTSIDE WALL OF PIPE.

## CONSTRUCTION SEQUENCE

1. PLACE BEDDING MATERIAL TO GRADE.
2. COMPACT BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
3. INSTALL PIPE TO GRADE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE SPRINGLINE.
5. COMPLETE BACKFILL ACCORDING TO SPECIFICATIONS.

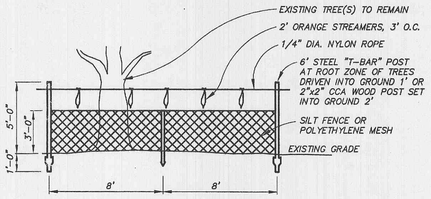
## LEGEND

I.D. = NORMAL INSIDE DIAMETER OF PIPE.
O.D. = OUTSIDE DIAMETER OF PIPE.
H = FILL COVER HEIGHT OVER PIPE (FEET).
MIN. = MINIMUM
MAX.= MAXIMUM
= UNDISTURBED SOIL

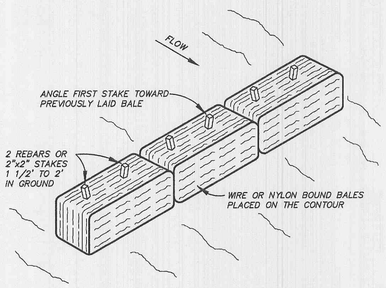



NOTE: ADDITIONAL TEMPORARY DITCHES TO BE USED AS NECESSARY TO CONTROL RUN–OFF.

TEMPORARY DIVERSION DITCH
NOT TO SCALE



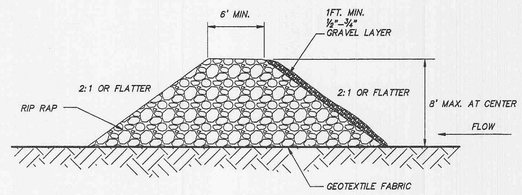

TREE PROTECTION BARRIER
NOT TO SCALE



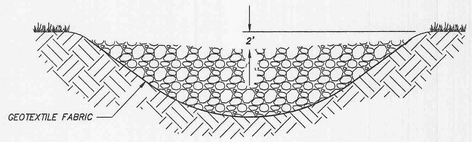

TEMPORARY SOIL EROSION CONTROL
## STRAW BALE DITCH CHECK
NOT TO SCALE

## STRAW BALE DITCH CHECK NOTES

1. CONTRACTOR SHALL INSTALL STRAW BALE EROSION CONTROL BARRIER AT TOE OF SLOPES OF ALL AREAS AFFECTED BY CONSTRUCTION PRIOR TO ANY EXCAVATION ON THE SITE.
2. EROSION CONTROL BARRIER SHALL REMAIN UNTIL VEGETATION HAS BEEN ESTABLISHED ON AFFECTED AREAS TO PREVENT EROSION.
3. SILT TRAPPED BY EROSION CONTROL BARRIER SHALL BE REMOVED AS NECESSARY TO PREVENT MOVEMENT OF SILT INTO THE ADJACENT AREAS.
4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE FINISH GRADED, SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
5. ENKAMAT 7010 OR EQUAL EROSION CONTROL MATTING SHALL BE PLACED AS PER CITY OF COLUMBIA SPECIFICATIONS IN NEWLY CONSTRUCTED DRAINAGE SWALES IMMEDIATELY AFTER FINISH GRADING AND SEEDING.




ROCK DAM CROSS SECTION




NOTE: ROCK SHALL BE WELL GRADED, ANGUALR LIMESTONE WITH A $d_{50}$ = 9 in MIN.

ROCK DAM DETAIL
NOT TO SCALE

### TABLE I
CORRUGATED HDPE AND POLYVINYL CHLORIDE CIRCULAR PIPE

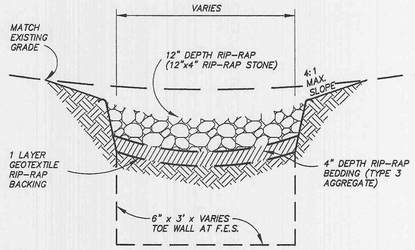
| SPECIFIED DIA OF PIPE (IN.) | MIN OVERFILL HEIGHT (FT) | HDPE MAX OVERFILL HEIGHT* (FT) | POLYVINYL CHLORIDE MAX OVERFILL HEIGHT* (FT) SDR 35# | SDR 26# | TRENCH WIDTH (IN.) |
|---|---|---|---|---|---|
| 12 | 1 | 38 | 15 | 30 | 34 |
| 15 | 1 | 39 | 15 | 30 | 39 |
| 18 | 1 | 40 | 15 | 30 | 44 |
| 24 | 1 | 40 | 15 | 30 | 55 |
| 30 | 1 | 40 | N/A | N/A | 67 |
| 36 | 1 | 38 | N/A | N/A | 76 |
| 42 | 2 | 23 | N/A | N/A | 84 |
| 48 | 2 | 12 | N/A | N/A | 95 |
| 54 | 2 | 12 | N/A | N/A | 104 |
| 60 | 2 | 12 | N/A | N/A | 113 |

* MAXIMUM OVERFILL MEASURED FROM THE TOP OF PIPE TO SURFACE
# PER ASTM D–3034 FOR PIPE UP TO 15" AND ASTM F679 OVER 15"

### TABLE II
MINIMUM COVER FOR CONSTRUCTION LOADS

| PIPE DIA. (IN.) | MINIMUM COVER (FT) FOR INDICATED AXLE LOADS (THOUSANDS OF POUNDS) 18–50 | 50–75 | 75–110 | 110–150 |
|---|---|---|---|---|
| 12–36 | 2.0 | 2.5 | 3.0 | 3.0 |
| 42–48 | 3.0 | 3.0 | 3.5 | 4.0 |

THE CONTRACTOR SHALL PROVIDE MINIMUM COVER PLUS ANY ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. IN UNPAVED SITUATIONS, THE SURFACE MUST BE MAINTAINED TO A LEVEL AND NON–RUTTED CONDITION.




RIP–RAP DETAIL
NOT TO SCALE

EMBEDMENT OF PLASTIC STORM SEWER PIPE
NOT TO SCALE

PLANNING & DEVELOPMENT #4204.04

STATE OF MISSOURI
MATTHEW AARON KRIETE
NUMBER PE-2007002811
PROFESSIONAL ENGINEER
08/23/07

DETAILS

# GENTEMANN MANOR III

ST. CHARLES COUNTY, O'FALLON, MISSOURI

Surveyed:
Drawn: JLS
Checked: TO/MK

**Engineering Surveys & Services**
1113 Fay Street
Columbia, Missouri
573 - 449 - 2646

Revised

MATTHEW A. KRIETE
PROFESSIONAL ENGINEER
PE–2007002811

| Scale | Date | Job | Sheet |
|---|---|---|---|
| AS SHOWN | 11 JUNE 2007 | 0600 | 6 of 9 |