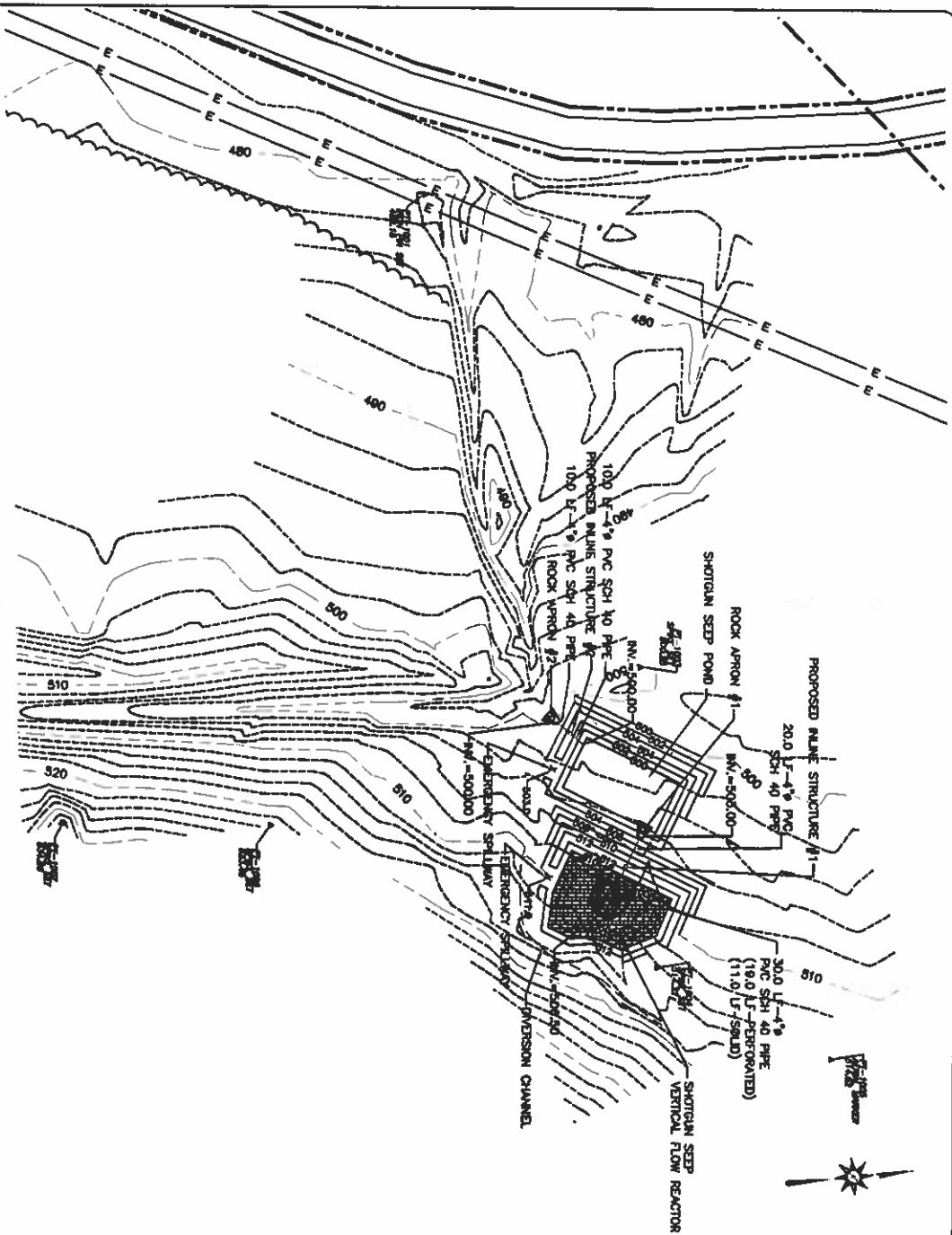


**DESIGN DRAWINGS: SHOTGUN SEEP
PASSIVE TREATMENT SYSTEM**



SITE PLAN
SCALE: 1"=50'

CONSTRUCTION SEQUENCE

1. MOBILIZE EQUIPMENT AND PERSONNEL ON SITE.
2. STAKE OUT LIMITS OF WORK.
3. INITIAL CULVERT AND ROCK FILTER FOR ROAD CROSSING AT WESTERN LIMIT OF WORK AREA. UTILIZE TEMPORARY SANDPILE CENTER DUMP AS NEEDED.
4. DRIVE AND CONSTRUCT ACCESS ROAD TO STAKE SEEP STAKE #1 SEEP, AND LAKE DIRT AREA. INITIAL FILTER FABRIC FENCE AND/OR SANDPILE TRAPS AS NEEDED TO CONTROL MATERIAL FROM THE ACCESS ROAD.
5. INITIAL FILTER FABRIC FENCE AT LOCATION SHOWN.
6. CONSTRUCT POND SYSTEM AND UNWIND MATTERS 2, 3, AND 4 FROM STORAGE AREA TO LAKE DIRT POND BEHINDING DOWNCAST AND PROCESSING SPILLWAYS. INITIAL TEMPORARY SANDPILE CENTER DUMP AS NEEDED TO INITIAL POND BETWEEN PAVED BID SECTION #2 AND UNPAVED #4.
7. CONSTRUCT LAKE DIRT POND WITH EMERGENCY SPILLWAY. INSTALL IN-LAKE STRUCTURE.
8. CONSTRUCT POND SYSTEM FROM LAKE DIRT POND TO DRAINAGE SPILLWAY #1. CONSTRUCT LAKE DIRT VERTICAL FLOW REACTOR (VFR). INITIAL DRAINAGE LINE, POND, AND UNDERDRAIN IN LAKE DIRT VFR.
9. CONSTRUCT WITH TIE MATTERS 7 AND 8. CONSTRUCT POND SYSTEM FROM UNWIND #3 TO IN-LAKE STRUCTURE IN STAKE POND. CONSTRUCT STAKE POND WITH EMERGENCY SPILLWAY.
10. CONSTRUCT POND SYSTEM FROM SEEP TO DRAINAGE SPILLWAY #2 AND #3. CONSTRUCT STAKE LAKE DIRT POND AND STAKE #4. LAKE DIRT POND. INITIAL POND AND UNDERDRAIN IN POND.
11. SEED AND MULCH DISTURBED AREAS ON SITE.
12. UPON SITE STABILIZATION, REMOVE FILTER FABRIC FENCE.

EAS NOTES

EROSION AND SEDIMENT CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTRIBUTION BEGINS WITHIN THE TRIBUTARY AREAS OF THESE CONTROLS.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROLS SUCH AS SLOPE PROTECTIVE LININGS, STAKE POND, AND SANDPILE TRAPS SHOULD BE REMOVED DURING THE REMOVAL OF THE TEMPORARY CONTROLS MUST BE STABILIZED IMMEDIATELY.

STAKEPILE HEIGHTS MUST NOT EXCEED 20 FEET. STAKEPILE SLOPES MUST BE 3:1 ON FLATLAND.

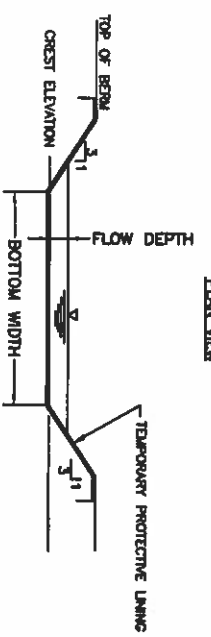
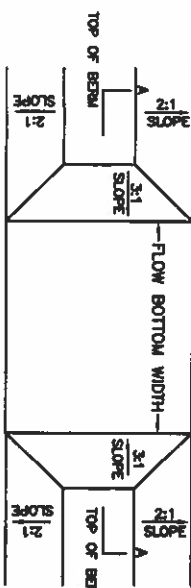
SEDIMENT MUST BE REMOVED FROM FILTER FABRIC FENCE WHEN ACCUMULATIONS REACH 1/2 OF THE ABOVE STAKE-PAVED HEIGHT OF THE FENCE.

ANY FILTER FABRIC FENCE SECTION WHICH HAS BEEN LANDSCAPED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.

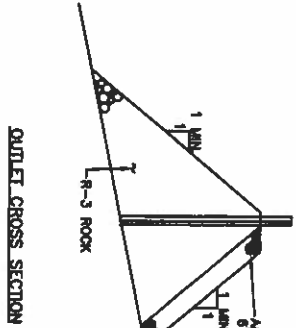
SEDIMENT MUST BE REMOVED FROM ROCK FILTERS WHEN ACCUMULATIONS REACH 1/2 OF THE HEIGHT OF THE FILTERS.

UPON THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROLS MUST BE REMOVED PROPERLY. THIS INCLUDES THE REMOVAL OF ALL CONTROLS AFTER THE LAST DIRT DUMP AND ON A VARIETY OF SLOPES. ALL PROTECTIVE AND EROSION CONTROL MEASURES MUST BE REMOVED IMMEDIATELY. EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED IMMEDIATELY. EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED IMMEDIATELY. EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED IMMEDIATELY. EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED IMMEDIATELY.

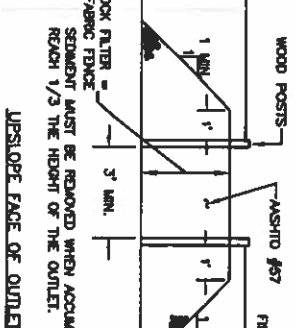
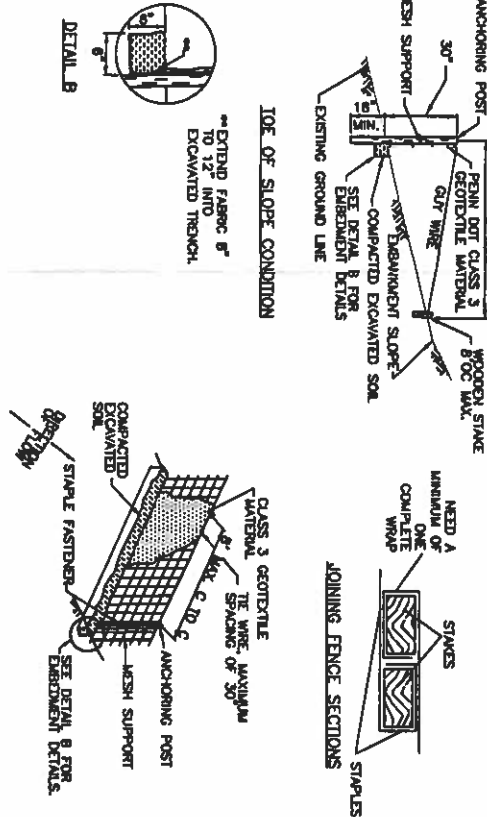
| BASIN | TOP OF BERM ELEV. | SPILLWAY CREST ELEV. | FLOW BOTTOM (FT) | FLOW DEPTH (FT) | TEMPORARY SPILLWAY LENGTH | DATE |
|---|-------------------|----------------------|------------------|-----------------|---------------------------|------|
| SHOTGUN SEEP VERTICAL FLOW REACTOR SPILLWAY | 512.0 | 511.0 | 8 | 0.2 | | |
| SHOTGUN SEEP POND SPILLWAY | 504.0 | 503.0 | 8 | 0.2 | | |



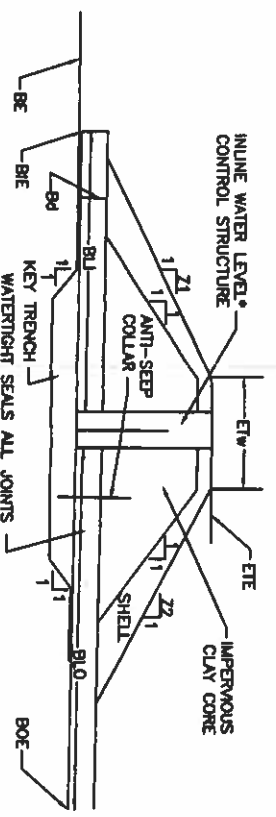
- CONSTRUCTION NOTES
1. FILTER FABRIC FENCE MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF FENCE SECTION MUST EXTEND AT LEAST 10 FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
 2. WOODEN WIRE FENCE TO BE FASTENED TO SCOURED TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 3. GEOTEXTILE TO BE FASTENED SECURELY TO 2x4 AT TOP AND MID SECTION.
 4. WHEN TWO SECTIONS OF GEOTEXTILE ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
 5. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
 6. FILTER FABRIC FENCE SHALL NOT BE PLACED IN AREAS OF CONCENTRATED FLOW.
 7. SEDIMENT SHALL BE REMOVED FROM A ROCK FILTER OUTLET WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.



ROCK FILTER OUTLET DETAIL
FILTER FABRIC FENCE
NO SCALE

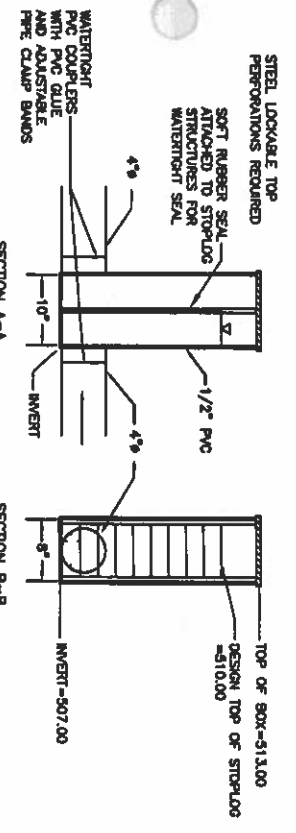


UPSLOPE FACE OF OUTLET

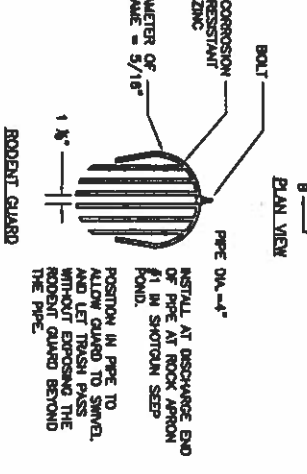


| BASIN | INLET ELEV. | INFLOW LENGTH | DISCHARGE LENGTH | OUTLET ELEV. | EMBANKMENT | | BOTTOM ELEV. |
|-------|-------------|---------------|------------------|--------------|------------|--------|--------------|
| | | | | | TOP | BOTTOM | |
| Z1 | 504.0 | 10 | 10 | 500.0 | 504.0 | 500.0 | 500.0 |
| Z2 | 504.0 | 10 | 10 | 500.0 | 504.0 | 500.0 | 500.0 |
| Z3 | 504.0 | 10 | 10 | 500.0 | 504.0 | 500.0 | 500.0 |
| Z4 | 504.0 | 10 | 10 | 500.0 | 504.0 | 500.0 | 500.0 |

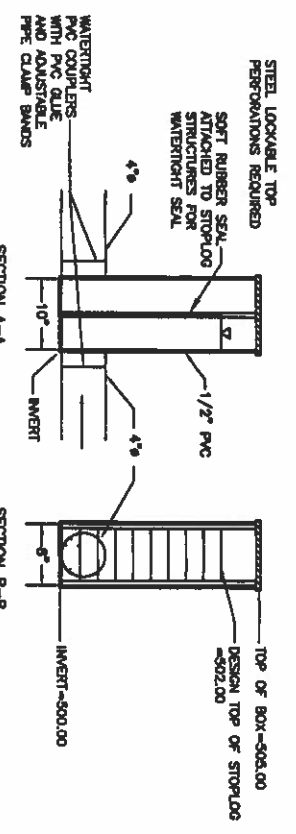
SHOTGUN SEEP POND CROSS SECTION *
NO SCALE



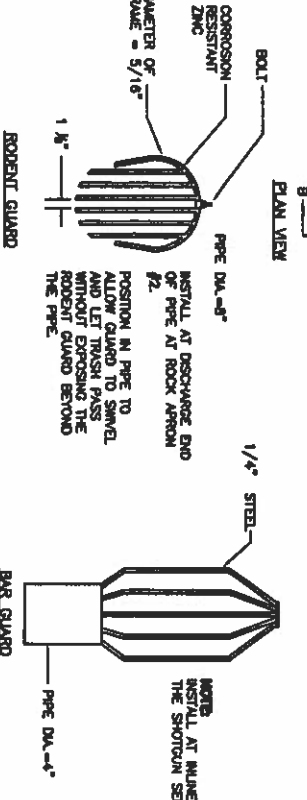
NOTES: WATER LEVEL CONTROL STRUCTURE BAR GUARD AND RODENT GUARD TO BE TYPE AS MANUFACTURED BY AGR DRAIN CORP., ADAR, IA, OR APPROVED EQUIVALENT. USE STRUCTURE WITH 5' HEIGHT.



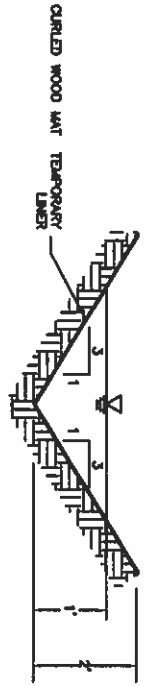
PVC INLINE WATER LEVEL CONTROL STRUCTURE WITH ATTACHMENTS
INLINE STRUCTURE #1
NO SCALE



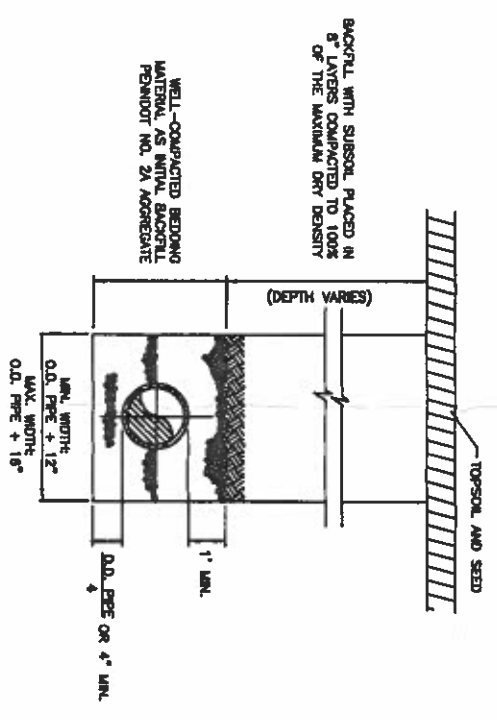
NOTES: WATER LEVEL CONTROL STRUCTURE BAR GUARD AND RODENT GUARD TO BE TYPE AS MANUFACTURED BY AGR DRAIN CORP., ADAR, IA, OR APPROVED EQUIVALENT. USE STRUCTURE WITH 5' HEIGHT.



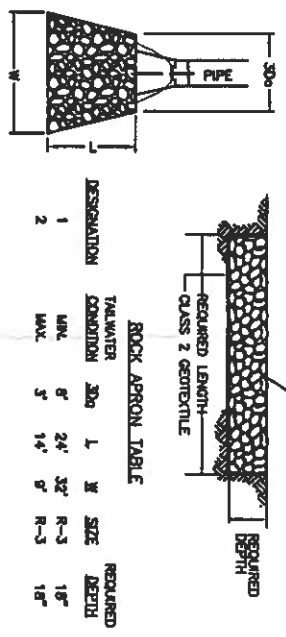
PVC INLINE WATER LEVEL CONTROL STRUCTURE WITH ATTACHMENTS
INLINE STRUCTURE #2
NO SCALE



TEMPORARY DIVERSION CHANNEL, I CROSS SECTION
NO SCALE

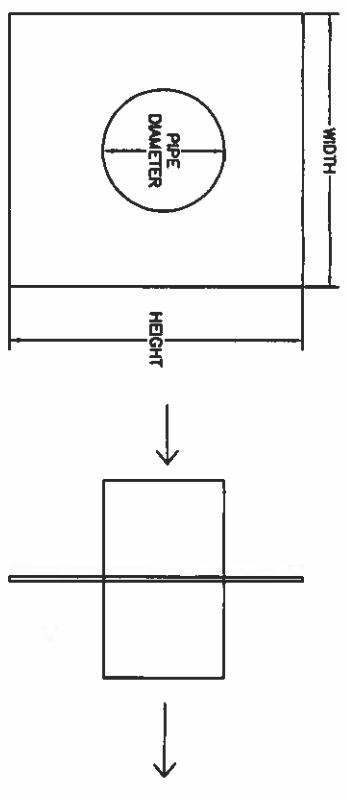


TYPICAL TRENCH AND BEDDING DETAIL
NO SCALE



ROCK APRON
NO SCALE

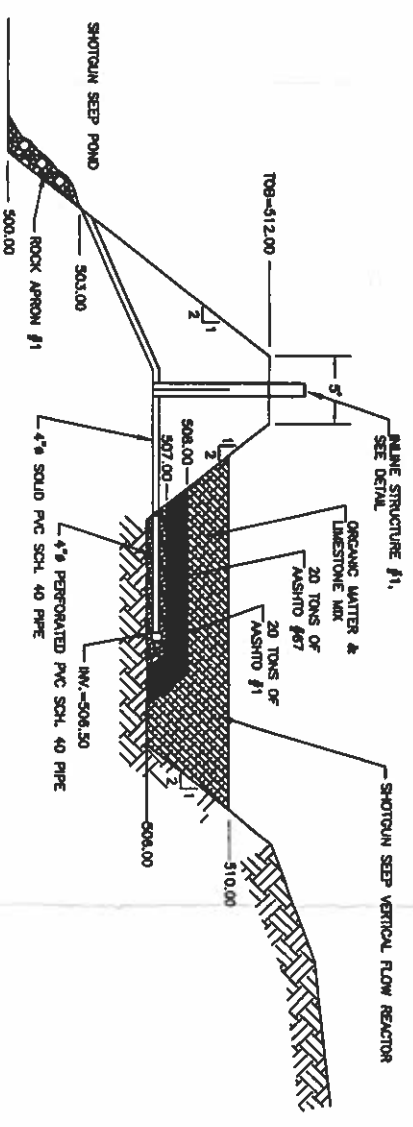
| DESIGNATION | TAILWATER CONDUIT | 200 | L | W | SIZE | REQUIRED DEPTH |
|-------------|-------------------|-----|-----|-----|------|----------------|
| 1 | MIN. | 8' | 24" | 32" | R-3 | 18" |
| 2 | MAX. | 5' | 14" | 9" | R-3 | 18" |



| BASIN | PIPE DIAMETER (IN) | WIDTH AND HEIGHT (FT) | NUMBER OF COLLARS |
|-------------------|--------------------|-----------------------|-------------------|
| SHOTGUN SEEP POND | 4 | 4 | 2 |

NOTE: USE RUBBER ANTI-SEEP COLLARS AS MANUFACTURED BY AGR DRAIN CORP., ADAR, IA, OR APPROVED EQUIVALENT. USE WITH PVC INLINE WATER LEVEL CONTROL STRUCTURES.

ANTI-SEEP COLLAR DETAIL
NO SCALE



SHOTGUN SEEP VERTICAL FLOW REACTOR
NO SCALE