City of Lake Oswego

Erosion Prevention and Sediment Control Permit Attachment

Building Permit No.
Address

Erosion control measures MUST BE IN PLACE prior to any land-disturbing activities.

The owner/applicant/permittee agrees to comply with the Water Environmental Services "*Erosion Prevention and Sediment Control Planning and Design Manual*" (revised 2022) and all local, state and federal water quality requirements. The owner/applicant/permittee agrees to properly install and maintain all measures indicated on the approved plan and attachments. Additionally, the site address must be clearly visible from the street.

"The permit or approval granted hereby, or any inspections conducted on the site hereafter, shall not be construed as authorizing any activity in violation of any applicable federal or state law or regulation, including but not limited to the federal Endangered Species Act, USACE 404 and DEQ 401 permits and other relevant regulations."

REQUIRED EROSION CONTROL INSPECTIONS

6010 – **Preliminary Erosion Control Inspection**

- Must be scheduled prior to any work beginning on-site
- All erosion control measures must be in place, per approved plan, prior to inspection

6030 – **Pre-Pour Erosion Control Inspection**

- Must be scheduled prior to first concrete pour
- Concrete wash water, from ANY concrete work, must be contained in leak-proof containers
- All erosion control structures must be functioning and installed per plan
- NOTE: A Building department structural inspection cannot be scheduled without an approved 6030 inspection

6050 – **Final Erosion Control Inspection**

- Must be scheduled upon completion of all permanent landscaping
- The site must be stable and all erosion control structures removed
- Contractor must provide stamped and signed Stormwater Facility Certification, DEQ UIC authorization (if applicable) and Operations & Maintenance Plan recorded with the County

To schedule erosion control inspections, reference the link provided upon permit issuance to access Accela Citizen Access. All inspections must be scheduled online through e-Permitting.

WET WEATHER REQUIREMENTS

From October 1st through May 31st, the wet weather erosion prevention measures are in effect for any exposed soils or soils not fully established. See *the Erosion Prevention and Sediment Control Planning and Design Manual (Chapter 4)* for requirements. All stockpiled sediment, when not in use, will be covered with plastic sheeting and isolated with silt fencing at toe of slope. All exposed soils will be protected with adequate ground cover at the end of each day. (Straw, mulch, compost, wood chips or plastic sheeting are examples of adequate ground cover.)

COMMON EROSION AND SEDIMENT CONTROL DETAILS ARE INCLUDED IN THIS DOCUMENT
(See http://www.ci.oswego.or.us/standard-details for all City details)

City of Lake Oswego

Building Permit No.
Address

Erosion Prevention and Sediment Control General Notes

See the Erosion Prevention and Sediment Control Planning and Design Manual for requirements.

- **Cover stockpiles with plastic sheeting during wet weather season.** From **October 1st through May 31st**, the wet weather erosion prevention measures are in effect. During the wet weather season, all stockpiles shall be covered with plastic sheeting and protected with perimeter control at the toe of slope. Cover/stabilize all stockpiles in summer season when unworked for 14 days, or immediately upon detection of wind erosion.
- **Protect exposed soils with adequate ground cover during wet weather season**. Mulch, straw, compost, wood chips and plastic sheeting are examples of acceptable ground cover. Temporarily cover exposed soils at the end of each day during wet weather season. Stabilize exposed soils in summer season and implement dust control measures.
- **Provide leak-proof pans for concrete wash water and mortar/masonry materials**. Concrete wash water, rinse water, exposed aggregate wash water or any water containing concrete sediment must be contained on-site in leak-proof containers. Surface water laden with concrete sediment is NOT allowed to be ground dumped or washed/rinsed onto pavement or bare/exposed ground. Tile saw and mortar slurry must also be contained.
- **Provide adequate, well-marked garbage containers**. Garbage and debris, including litter, food wrappers, construction scraps and material packaging must be collected and contained in secured garbage containers.
- **Install stabilized clean rock construction entrance**. Construction entrance shall be installed at the beginning of the project and maintained throughout the project. Single family residential construction entrance to be minimum of 20' length, 1 ½" diameter clean rock, 8" depth. Commercial or development construction entrance to be minimum of 50' length, 4"-6" diameter clean rock, 8" depth. Geotextile is required under gravel construction entrances.
- **Maintain clean and sediment free construction entrance (including existing driveway)**. Do not rinse or power wash sediment onto the street or into stormwater inlets. Dry sweep/vacuum sweep any tracking on street surfaces at the end of each work day.
- **Provide storm drain inlet protection**. ALL catch basins and area drains that have the potential to receive runoff from the construction site must be protected until pavement surfacing is completed or site is stabilized. Inlet protection must consist of non-woven filter inserts. Bio-bags are not allowed in the street.
- **Clean all catch basins and conveyance lines prior to paving**. The cleaning operations shall not flush sediment-laden water into the stormwater drainage system.
- **Install temporary paved or graveled area for construction parking.** Do not block the construction entrance with trailers or material storage. Restore areas utilized for temporary parking to pre-construction conditions or better.
- **Provide plywood or steel sheeting construction pathways.** Load and unload materials on the jobsite, NOT IN THE STREET. Even small equipment (such as a "bobcat") can cause soil disturbance. Install wood or steel sheeting on construction pathways to minimize soil disturbance and damage to existing root systems.
- **Designate location to store and stage construction materials.** Storage locations should be constructed on gravel, plywood, pavement or another hard surface. Compost, bark-dust, topsoil or other amendments should be stored on tarps. Phase material delivery to provide adequate and safe workspace for construction crew.
- **Provide a spill kit on-site**. A spill kit is required to prevent hazardous or harmful substances from entering the ground or surface waters after a spill. *Crews must be trained on the location and use of the kit.*
- **Mark the boundaries of the clearing limits in the field prior to construction.** Construction limits shown on the plan shall be clearly flagged in the field prior to construction. Land disturbance is not allowed beyond clearing limits.
- **Install perimeter erosion control around area of work**. Protect downslope areas from potential runoff or sediment using sediment fencing. Straw wattles are allowed only in tree protection zones.

Erosion Prevention and Sediment Control

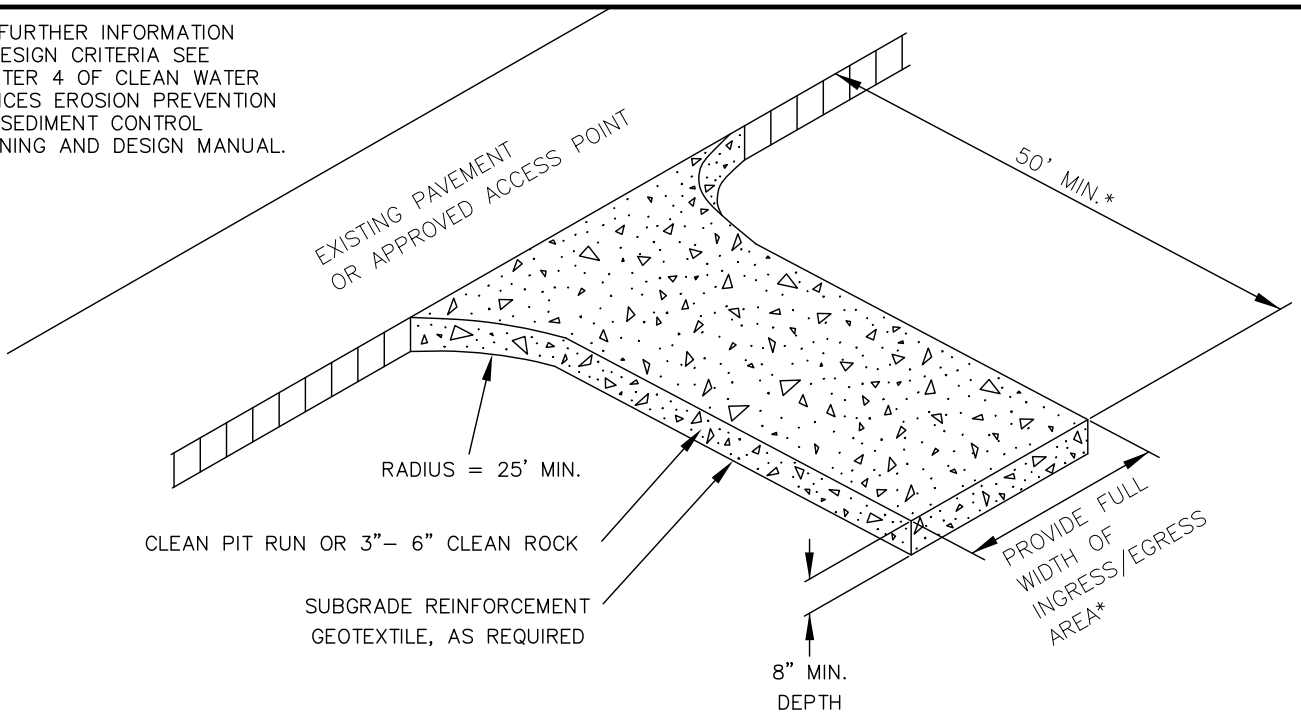
General Notes (continued)

- Owner or designated person shall be responsible for proper installation and maintenance of all erosion and sediment control measures. Designee shall maintain compliance with all water quality requirements in accordance with LOC Chapter 52, State and Federal regulations.
- Implementation of the Erosion and Sediment Control (ESC) plan, maintenance, replacement, and upgrading of ESC measures is the responsibility of the General Contractor until all construction is completed, the site has been stabilized and approved by the City Manager or their designee.
- All erosion control measures shall comply with specifications provided in the "*Erosion Prevention and Sediment Control Planning and Design Manual*" (revised 2022) available at http://www.clackamas.us/wes/designmanual.html
- ESC measures shown on this plan must be installed prior to any clearing or grading activities. Installation shall be completed in such a manner as to ensure that sediment and sediment-laden water does not leave the construction site.
- During active construction, ESC measures shall be inspected daily by an Erosion Control Plan Manager (specifically designated by owner or contractor). ESC measures are to be maintained as necessary to ensure their continued effectiveness. During inactive periods, the ESC measures shall be inspected every 2 weeks or within 24 hours following a rain event of ½" or greater.
- Stay familiar with current erosion prevention and sediment control requirements. Owner and General Contractor are responsible for knowing and following local, state and federal requirements. Most local regulations are mandated by the Federal Clean Water Act; the City does not have authority to waive these requirements.
- Protect existing vegetation and limit soil disturbance. Phase the work when possible to limit the amount of exposed soil throughout the project. Stabilize exposed soils as quickly as possible. Consider the use of deep-rooted native vegetation to stabilize exposed soils.
- Locate the nearest storm drain inlets. Protect inlets with non-woven filter inserts. Bio-bags are not allowed in the street. Properly dispose of accumulated material when filter loses 1/3 of capacity, or if functionality is reduced. Inspect inlet protection daily during wet weather season. Remove all filters upon permanent site stabilization.
- Do not rinse any material into the storm drain. Remember; "ONLY RAIN GOES DOWN THE DRAIN."
- All dewatering discharges must be treated using a discharge inline filter in addition to inlet protection. Unfiltered dewatering discharges cannot be discharged to the storm system.
- Public streets must be swept daily, if necessary, to minimize sediment discharged into the stormwater drainage system. Unfiltered wash water cannot be discharged into the storm system.

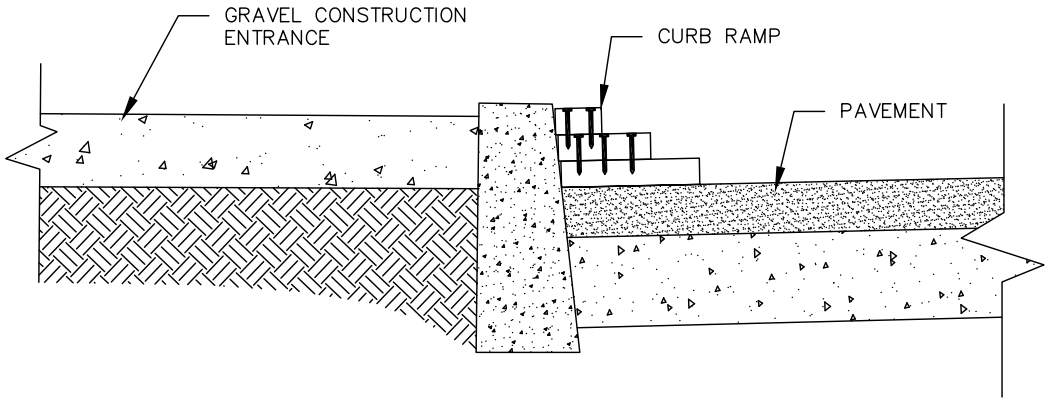
Standard details and drawings for erosion control measures are provided at the end of this document. Additional or alternative BMPs will be evaluated on a case-by-case basis during plan review and site inspection. The City Erosion Control Inspector maintains the right to alter approved erosion control plans and in-field installation as needed to prevent erosion and control sediment. Permittee maintains the responsibility to inspect ESC measures regularly to ensure functionality and effectiveness until construction is completed.

For more information regarding the City erosion control program, contact the City Erosion Control Inspector Jamie Roberts at (503) 697-6511 or jroberts@ci.oswego.or.us.

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.



*20' MIN. FOR SINGLE FAMILY AND DUPLEX RESIDENTIAL



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF– WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
5. DIMENSIONS

   SINGLE FAMILY

   20' LONG BY 20' WIDE 8" DEEP OF ¾" MINUS CLEAN ROCK.

   COMMERCIAL

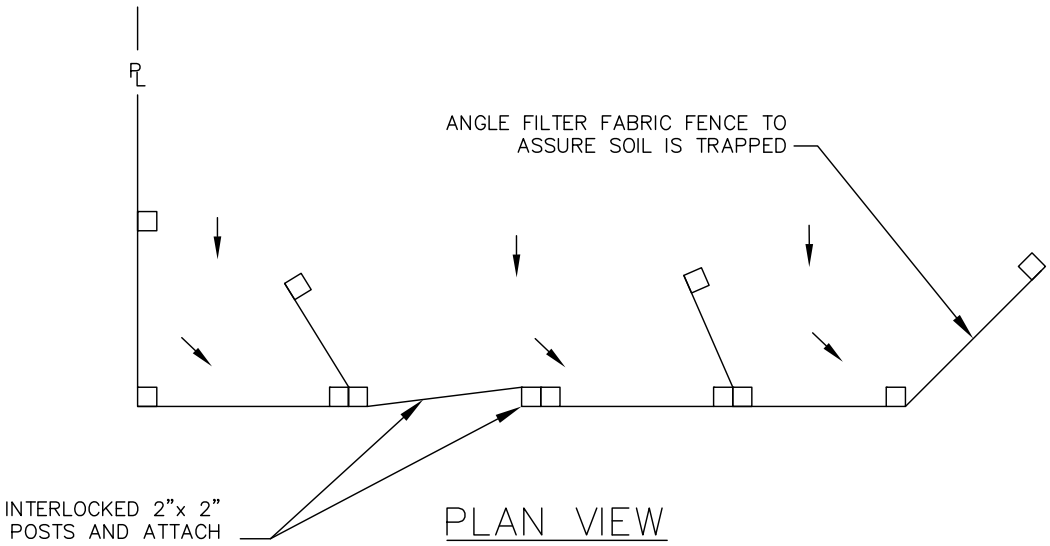
   50' LONG BY 20' WIDE 3–6" CLEAN ROCK, GOVERNING AUTHORITY MAY REQUIRE GEOTEXTILE FABRIC TO PREVENT SUB–SOIL PUMPING.

CONSTRUCTION ENTRANCE

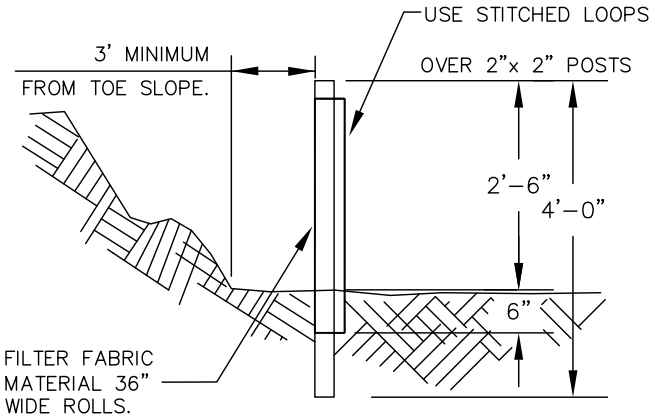
DRAWING NO. 855

REVISED 12–16

Clean Water Services



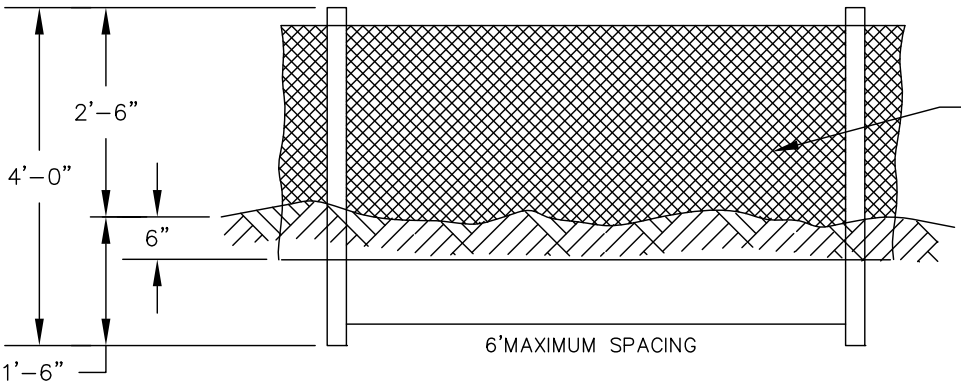
PLAN VIEW
NOT TO SCALE



PROFILE
NOT TO SCALE

NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. 2"x 2" FIR, PINE OR STEEL FENCE POSTS.
3. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
4. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
5. PANELS MUST BE PLACED ACCORDING TO SPACING ON DETAIL NO.940



FRONT VIEW
NOT TO SCALE

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

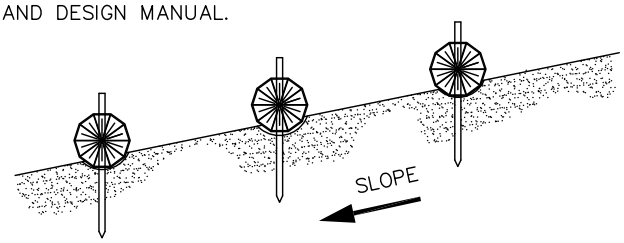
SEDIMENT FENCE

DRAWING NO. 875

REVISED 12-16

Clean Water Services

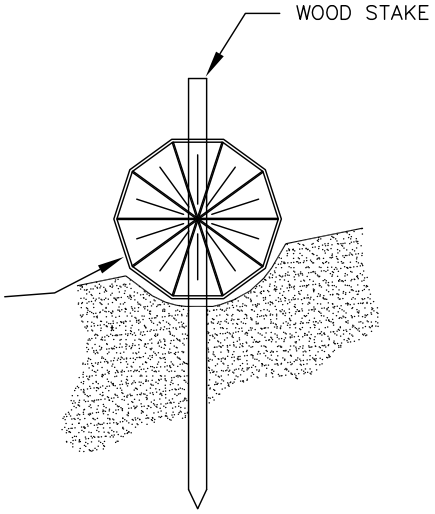
FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.



PLACE WATTLES ALONG SLOPE CONTOURS.

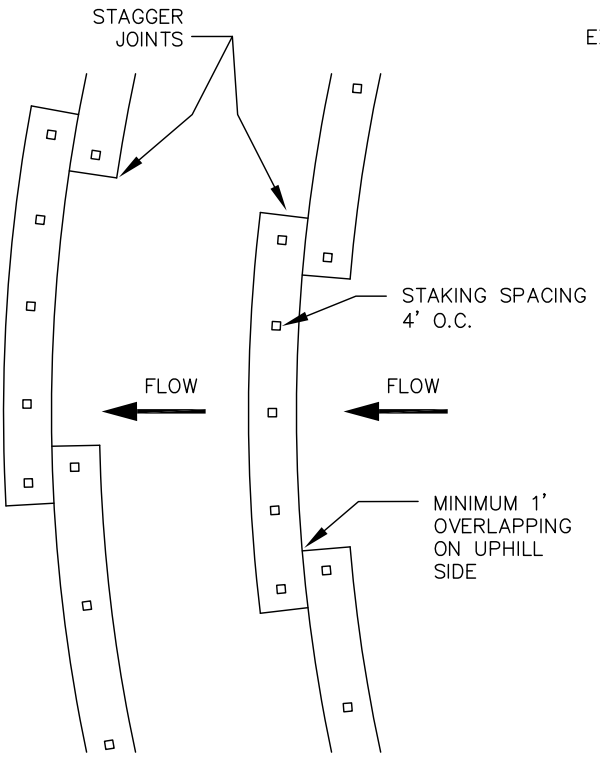
PROFILE

NOT TO SCALE



SECTION

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

NOTES:

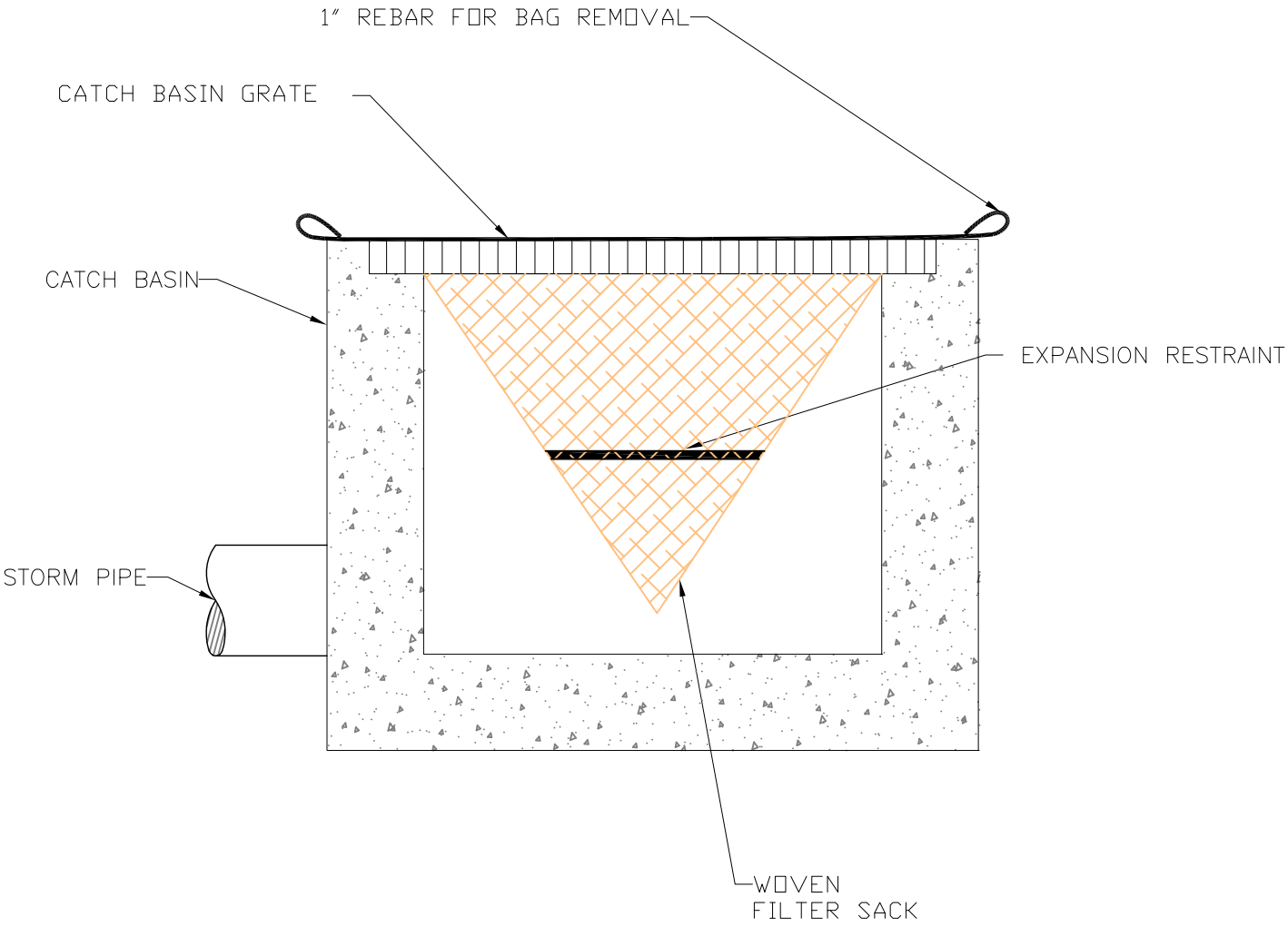
1. STAKING SPECIFICATIONS:
   a. 1"X2" WOODEN STAKES
   b. ADDITIONAL STAKES MAY BE INSTALLED ON DOWNHILL SIDE OF WATTLES, ON STEEP SLOPE OR HIGHLY EROSIVE SOILS.
2. SPACING IN ACCORDANCE WITH DETAIL 940.
3. REMOVE ALL ROCKS, CLODS, VEGETATION OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED WATTLES WILL HAVE DIRECT CONTACT WITH THE SOIL.
4. INSTALL THE WATTLES IN A 2" DEEP TRENCH, INSURING THAT NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE WATTLE.. THE ENDS OF ADJACENT WATTLES SHALL BE OVERLAPPED 1 FT. MINIMUM TO PREVENT SEDIMENT PASSING THROUGH THE FIELD JOINT.

WATTLES

DRAWING NO. 880

REVISED 12-16

Clean Water Services



CATCH BASIN INSERT

NOTE:

1. RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS. SIZE OF FILTER FABRIC INLET SACKS TO BE DETERMINED BY MANUFACTURER.

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

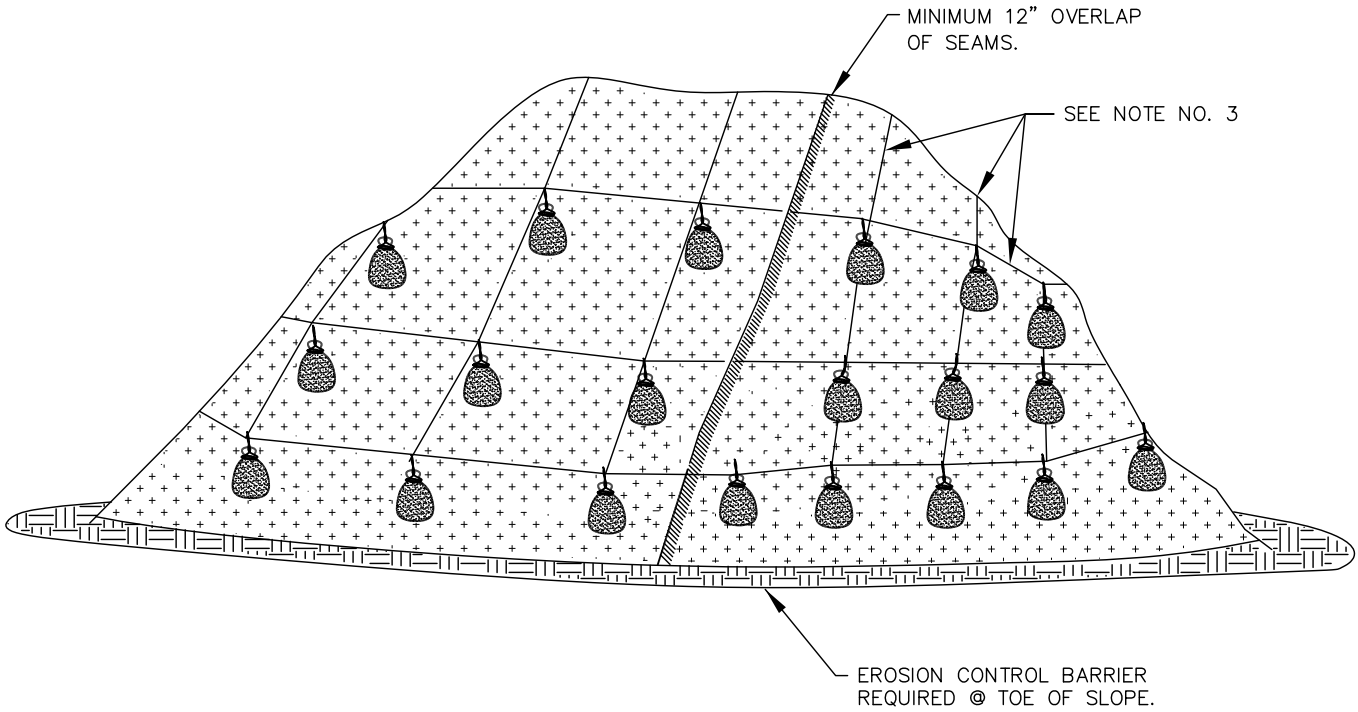
INLET PROTECTION TYPE 5

DRAWING NO. 920

REVISED 12-16

Clean Water Services

FOR FURTHER INFORMATION
ON DESIGN CRITERIA SEE
CHAPTER 4 OF CLEAN WATER
SERVICES EROSION PREVENTION
AND SEDIMENT CONTROL
PLANNING AND DESIGN MANUAL.



PLASTIC SHEETING

NOTES:

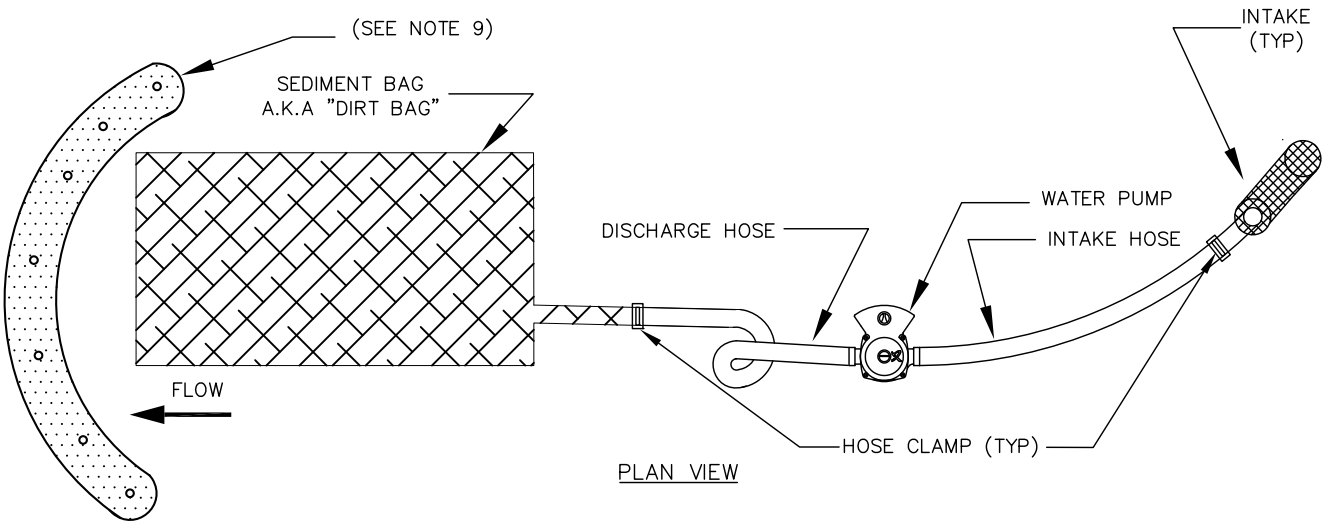
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. BARRIER REQUIRED @ TOE OF STOCK PILE.
3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR APPROVED EQUAL ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.
4. PLASTIC TO EXTEND MINIMUM 1' BEYOND TOE OF SLOPE

PLASTIC SHEETING

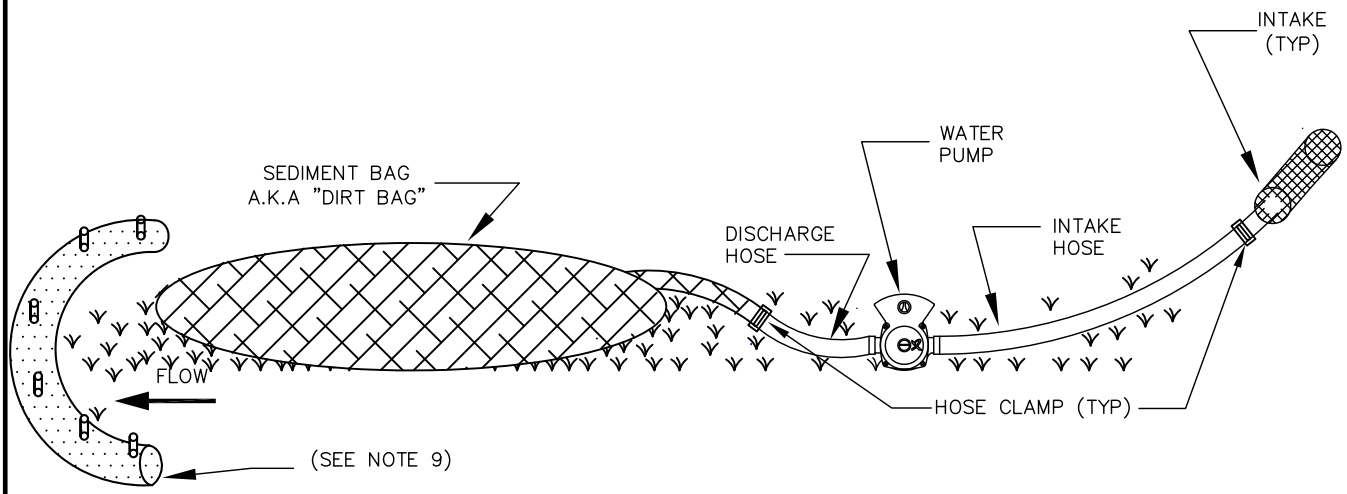
DRAWING NO. 810

REVISED 12-16

Clean Water Services



PLAN VIEW



ELEVATION VIEW

NOTES:

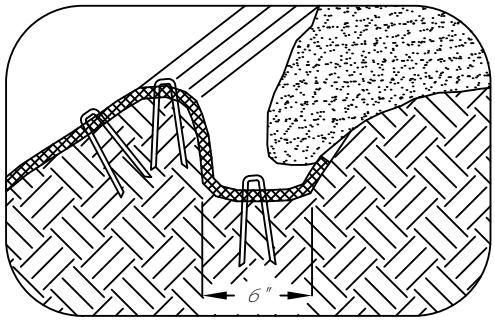
1. THE SEDIMENT BAG SHALL BE MANUFACTURED USING A POLYPROPYLENE 8 OZ. NON-WOVEN GEOTEXTILE SEWN INTO A BAG WITH A DOUBLE NEEDLE, USING A HIGH STRENGTH THREAD.
2. EACH STANDARD SEDIMENT BAG MUST HAVE A FILL SPOUT LARGE ENOUGH TO ACCOMMODATE A 4" DISCHARGE HOSE. STRAPS ARE ATTACHED TO SECURE THE HOSE AND PREVENT PUMPED WATER FROM ESCAPING WITHOUT BEING FILTERED.
3. THE SEDIMENT BAG SHALL MEET OR EXCEED OVERALL BAG REMOVAL EFFICIENCY RATE OF 97.55%.
4. WATER BEING DISCHARGED FROM THE SEDIMENT BAG MUST BE FREE OF ALL SEDIMENT PRIOR TO LEAVING THE SITE OR ENTERING INTO THE STORM SYSTEM.
5. INSTALLING A SEDIMENT BAG ON A SLOPE REQUIRES THE INCOMING WATER TO FLOW DOWNHILL THROUGH SEDIMENT BAG WITHOUT CREATING MORE EROSION. THE NECK OF THE SEDIMENT BAG WILL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE SO AS IT DOES NOT PULL FREE WHEN FILLED.
6. SEDIMENT BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A RATE LESS THAN 50% OF MANUFACTURE'S DESIGNED FLOW RATE.
7. DURING USE, THE SEDIMENT BAG MUST BE MONITORED.
8. DISPOSE OF USED SEDIMENT BAG OFF SITE OR AS APPROVED BY CWS.
9. WHEN APPROPRIATE, INSTALL DOWNSTREAM SEDIMENT CONTROL MEASURES PER CWS STANDARDS.

SEDIMENT BAG

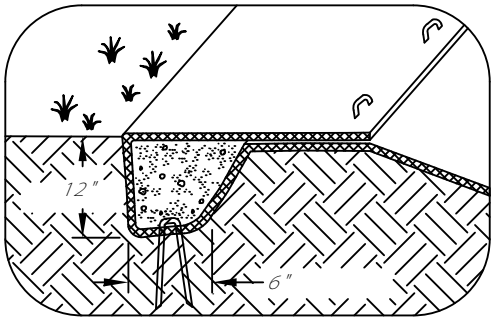
DRAWING NO. 950

REVISED 02-17

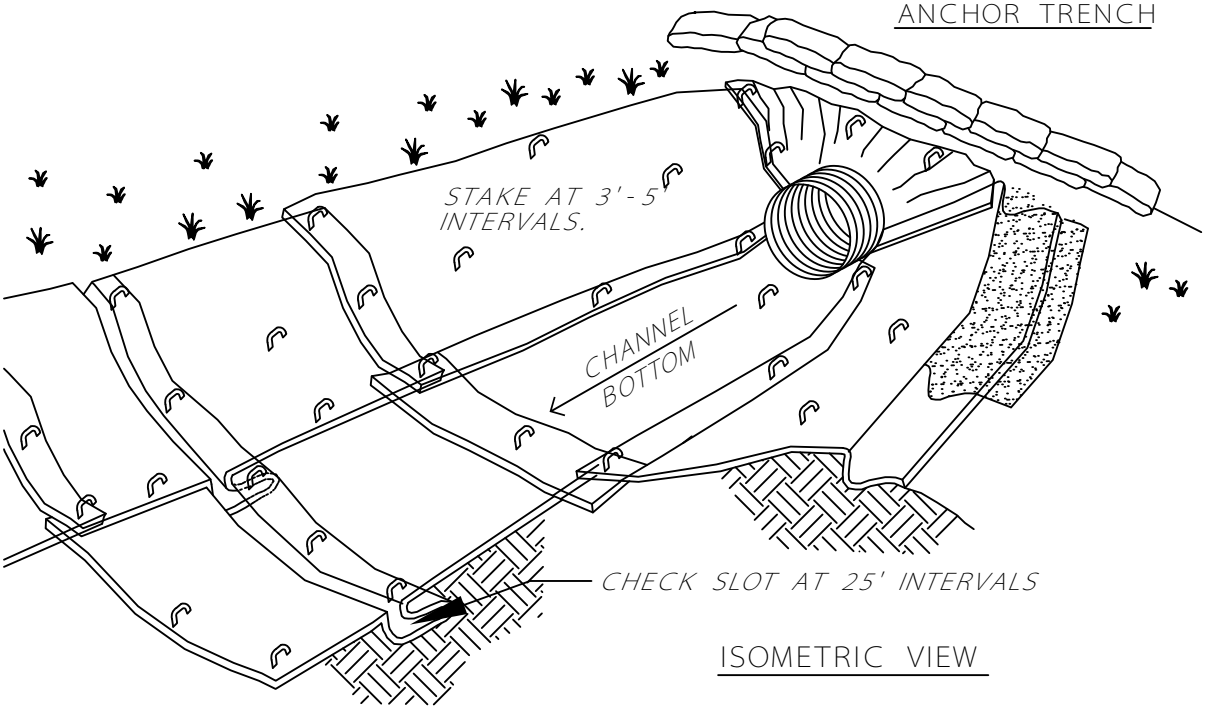
Clean Water Services



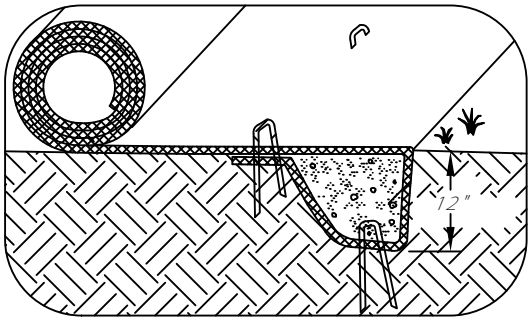
LONGITUDINAL ANCHOR TRENCH



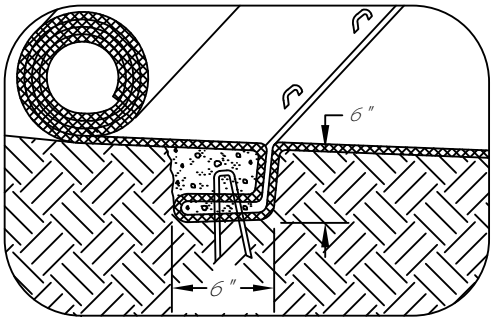
TERMINAL SLOPE AND CHANNEL ANCHOR TRENCH



ISOMETRIC VIEW



INITIAL CHANNEL ANCHOR TRENCH



INTERMITTENT CHECK SLOT

NOTES:

1. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS SPECIFICATIONS.

2. STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.

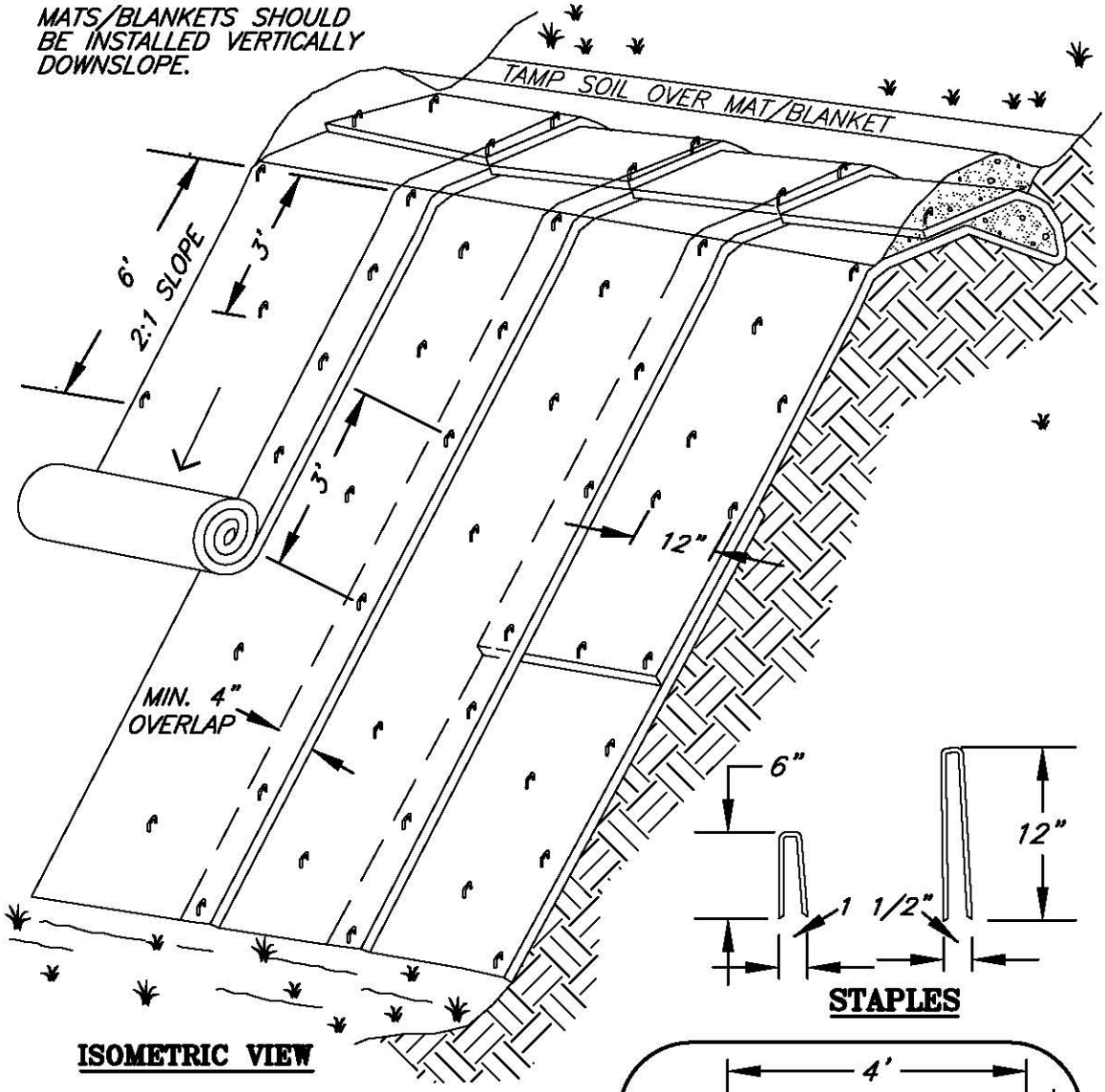
1994 JOHN McCULLAH

© FILE: BLNKTCHA

MATTING - CHANNEL INSTALLATION

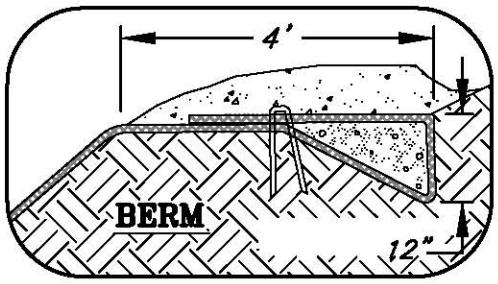
DETAIL DRAWING 4 - 2

REVISED 01 - 09



ISOMETRIC VIEW

STAPLES



NOT TO SCALE

TYPICAL SLOPE SOIL STABILIZATION

NOTES:

1. *SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.*
2. *APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.*
3. *LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.*
4. *STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.*

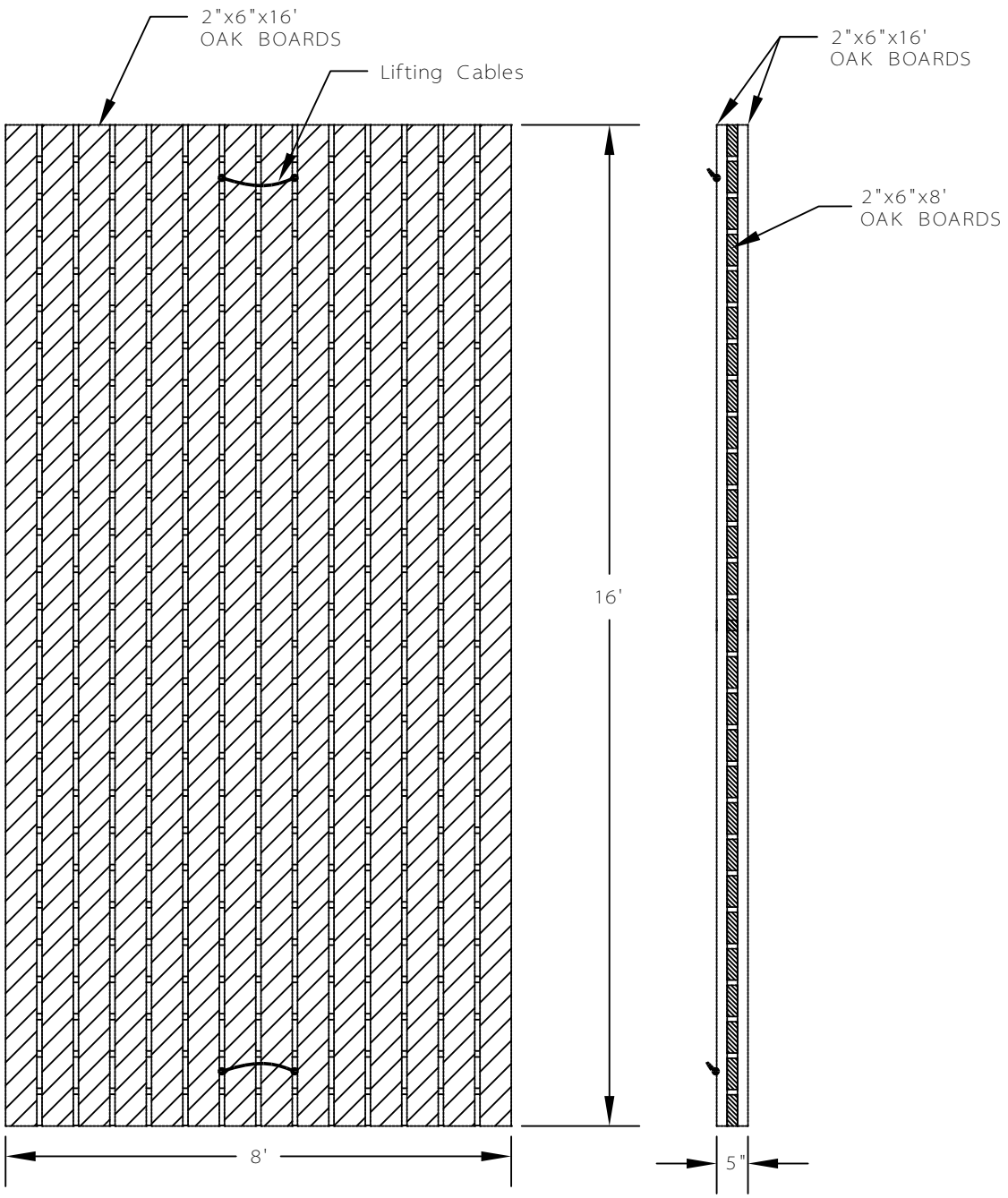
© 1994 JOHN McCULLAH

FILE: BLNKTSLP

MATTING - SLOPE INSTALLATION

DETAIL DRAWING 4–1

REVISED 01–09



OAK MATS
NTS

SIDE VIEW

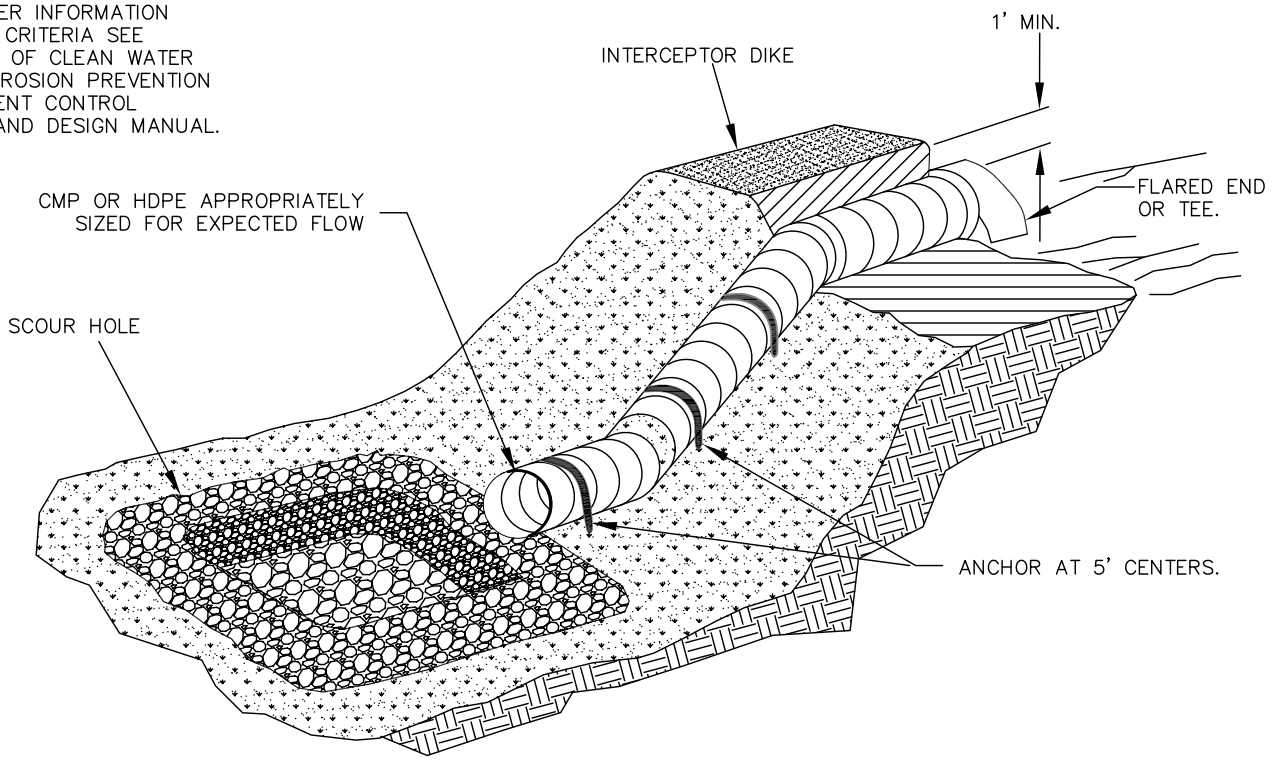
NOTE:
1. CONSTRUCTED OF 2"x6" OAK.

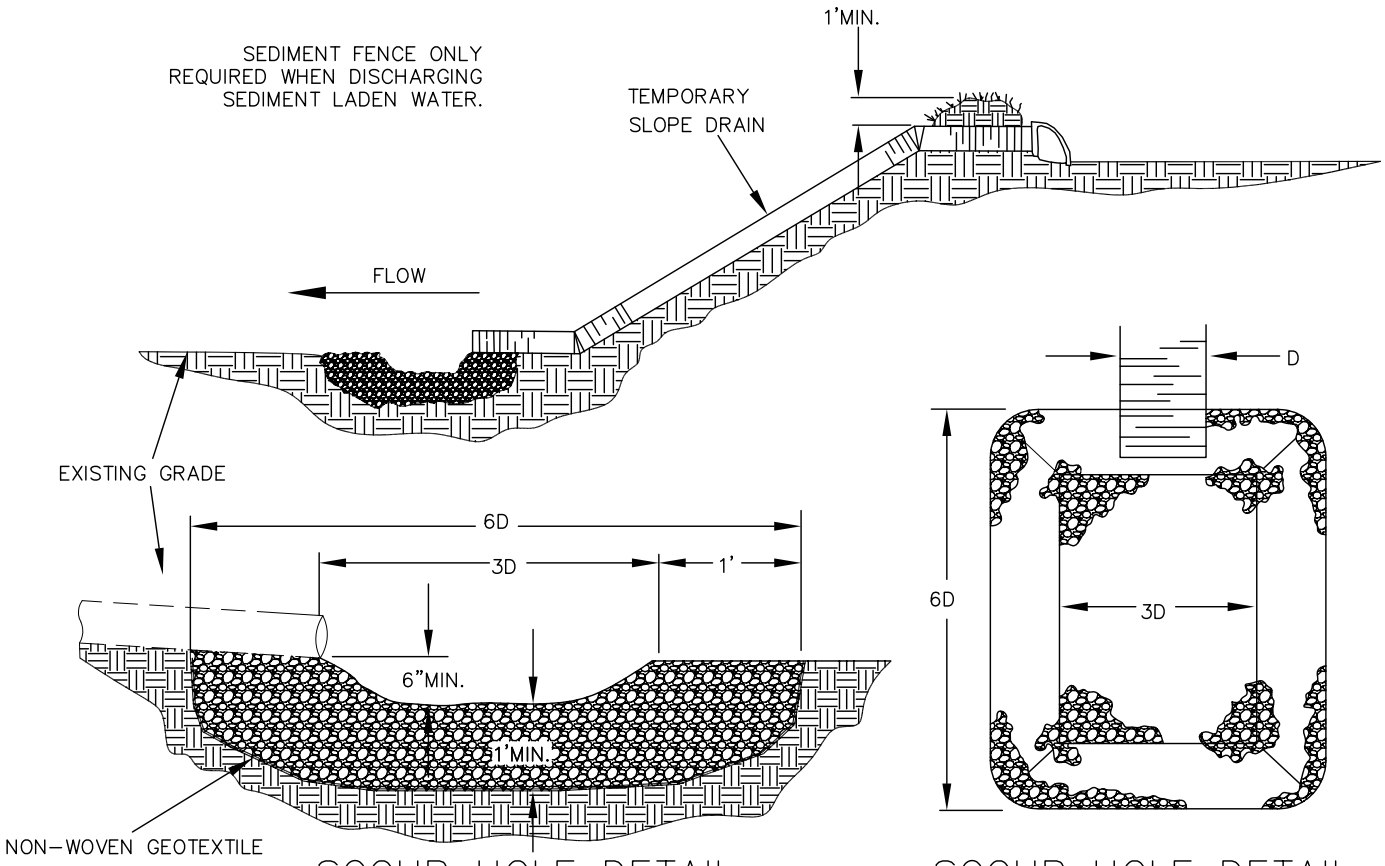
OAK MATS

DETAIL DRAWING 4 - 21

REVISED 01 - 09

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.





SCOUR HOLE DETAIL FRONT VIEW

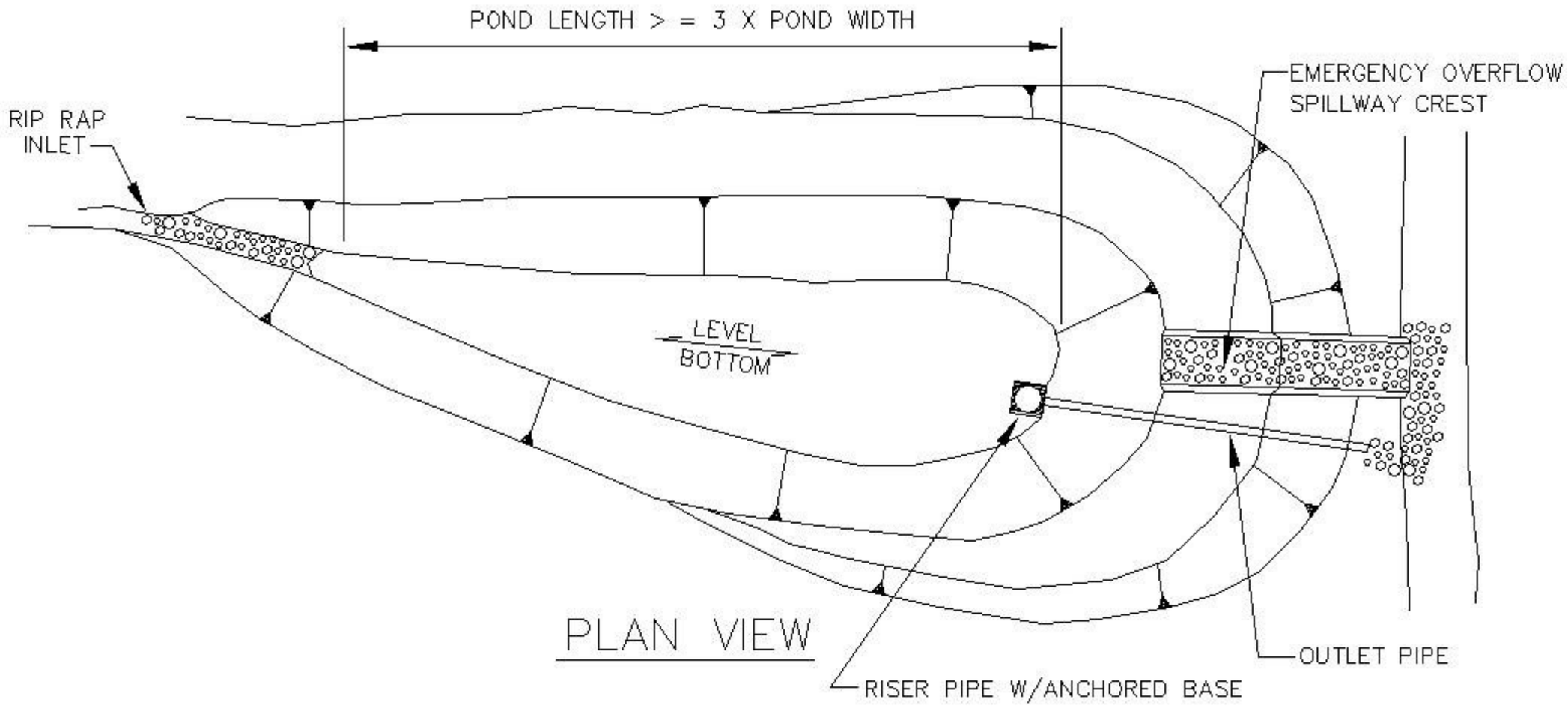
SCOUR HOLE DETAIL TOP VIEW

PIPE SLOPE DRAIN

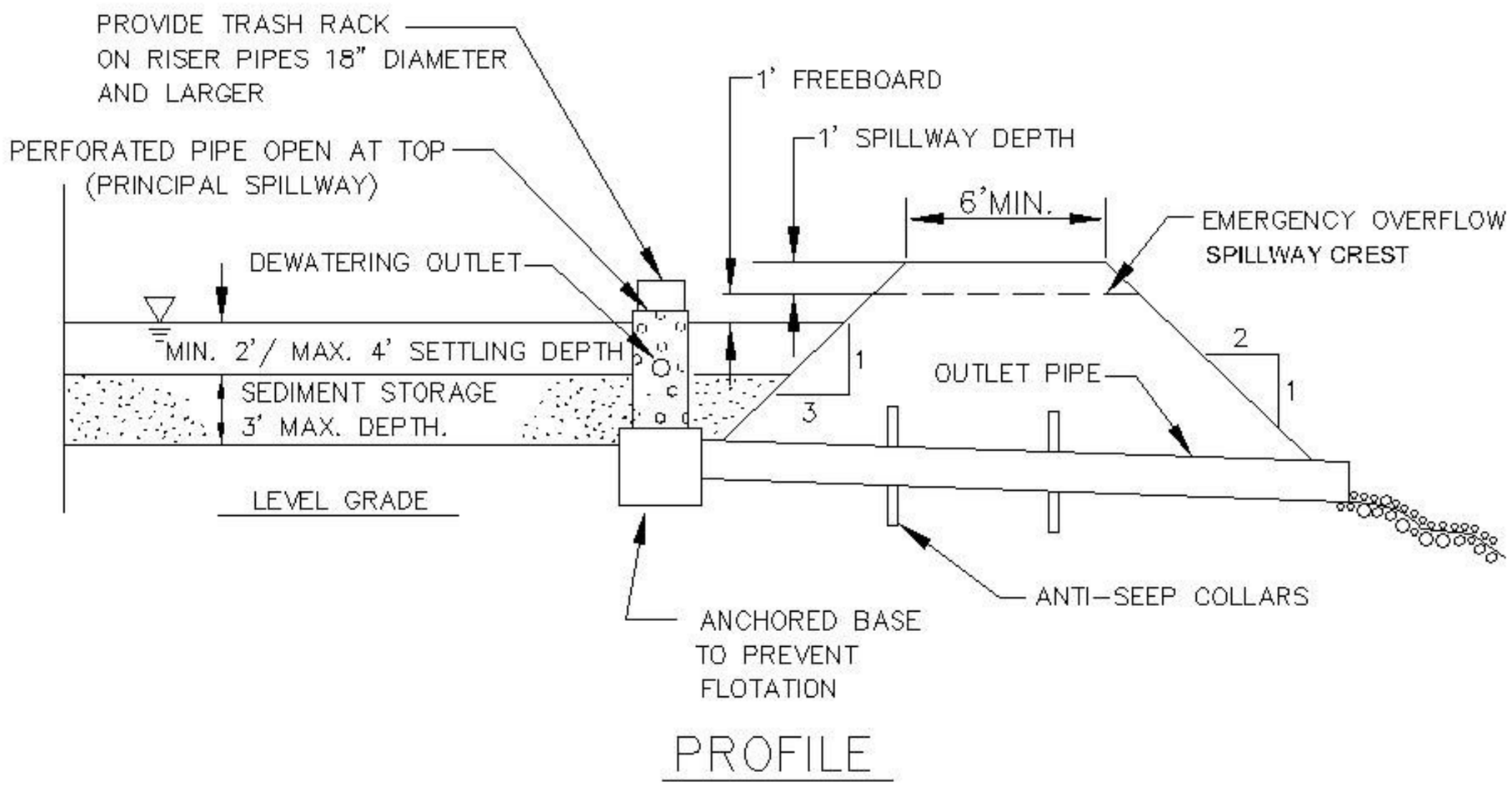
DRAWING NO. 815

REVISED 12-16

Clean Water Services



PLAN VIEW



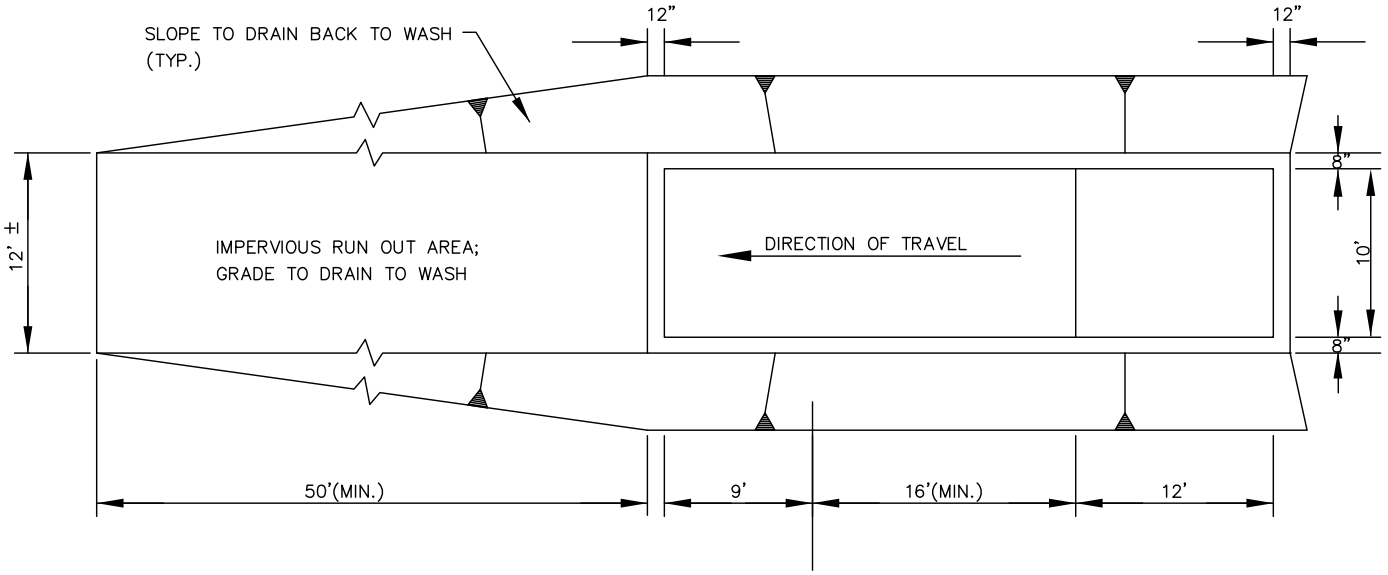
PROFILE

NOTE:
50' MINIMUM OF HIGHLY VEGETATED AREA AND OR SEDIMENT FENCE IS REQUIRED PRIOR TO DISCHARGING TO STREAM OR WETLAND.

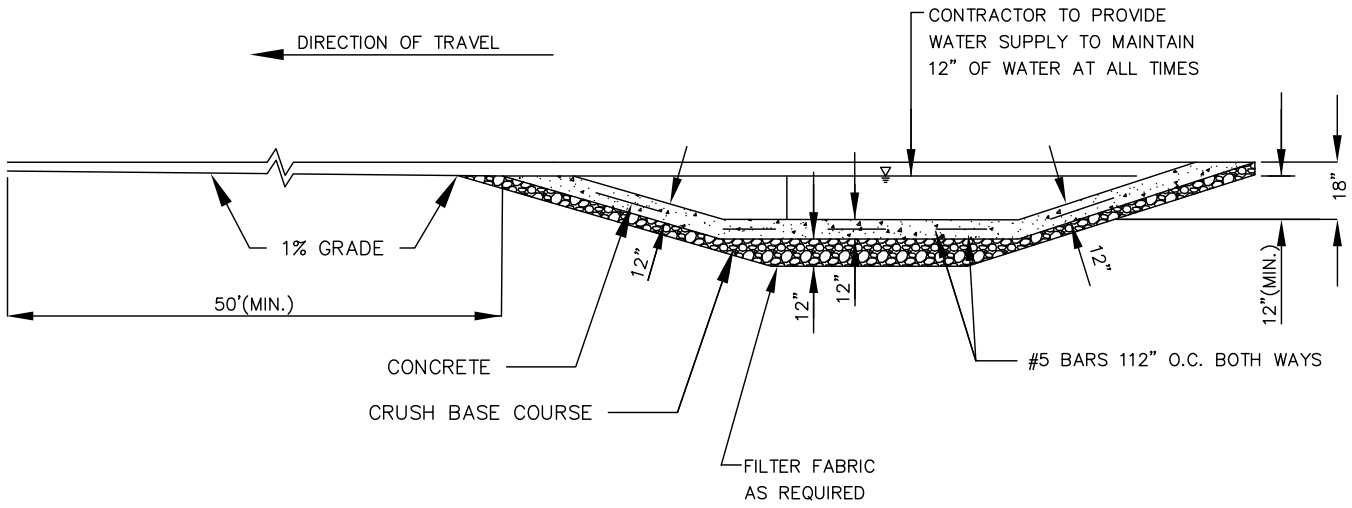
SEDIMENT BASIN

DETAIL DRAWING 4-22

REVISED 01-09



PLAN VIEW



PROFILE

NOTES:

1. CONTRACTOR TO REMOVE ACCUMULATED SEDIMENT AS NEEDED TO PREVENT TRACKING FROM TIRE WASH; SEDIMENT LADEN WATER MAY BE PIPED TO AN APPROVED SEDIMENT TRAP.
2. USE GEOTEXTILE FABRIC WITH AGGREGATE FOR A TEMPORARY TIRE WASH.

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

TIRE WASH–(DRIVE–THROUGH)

DRAWING NO. 870

REVISED 12–16

Clean Water Services