

Illinois Tollway Standard Drawing Revisions
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Section K	Erosion Control & Landscape	
	Standard	Modification Summary
		Effective: 03-01-2020
	Sheets 1, 2	General Notes - Erosion and Sediment Controls
		Added several notes (4, 7, 9, 14, 26) from ESC General Notes Sheet. Also combined / reworded several notes (11, 18, 23, 35) and deleted others due to redundancy.
	Sheet 6	Silt Fence Detail
		Updated Note 4 (post description) to match supplemental specifications.
		Adjusted trench and embedded fabric dimensions to match current products.
	Sheet 7	Adjusted trench and embedded fabric dimensions to match current products.
		Added option for static slice installation.
	Sheet 9	Rectangular Inlet Protection Details
		Moved detail to its own sheet.
	Sheet 10	Tree Protection Detail
		Updated post height and spacing to match supplemental specifications.
	Sheet 11	In-Line Flocculation Detail
		Entirely new detail.
	Sheet 12	Silt Curtain Detail
		Changed name from flotation boom to silt curtain.
		Rectangular inlet protection detail moved to another sheet.
		Plan view of silt curtain added.
		Notes 3, 4, 8, and 9 added or reworded to match industry standards.
		Elevation detail altered to match industry standards.
	Sheet 13	Landscape Planting Details (Move from Section D to Section K)
		Revised planting note 1 to stake underground utility lines in field prior to planting to confirm required offset.
		Revised planting note 4 to identify 60 foot minimum tree planting offset from roadway pavement.
		Revised planting note 7 to identify 10 foot minimum tree and shrub planting offset from utility lines and structures.

GENERAL NOTES - EROSION AND SEDIMENT CONTROLS

1. THE WORK DESCRIBED ON THESE DRAWINGS IS AN INTEGRAL PART OF THE STORM WATER POLLUTION PREVENTION PLAN USED TO OBTAIN AN NPDES PERMIT FROM IEPA FOR THE CONSTRUCTION OF THIS PROJECT.
2. THE PURPOSE OF THE EROSION AND SEDIMENT CONTROL MEASURES INCLUDED FOR THIS PROJECT IS TO LIMIT THE SEDIMENT POLLUTION IMPACT OF ANY STORM WATER DISCHARGES THAT ORIGINATE ON THIS SITE OR OFF-SITE FLOWS THAT FLOW OVER THE DISTURBED AREAS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SEDIMENT TRANSPORT OFF THE SITE IS REDUCED BY A COMBINATION OF MINIMIZATION OF EROSION AT THE SOURCE AND INSTALLATION OF SPECIFIC MEASURES TO CONTROL OR REDUCE THE TRANSPORT OF SEDIMENT.
4. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN, NOI, SWPPP AND ALL ASSOCIATED REVISIONS, ANY OTHER DOCUMENTS REFERENCED, AND INSPECTION LOG BEING IMPLEMENTED BY THE CONTRACTOR SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES.
5. TO THE MAXIMUM EXTENT POSSIBLE EROSION SHALL BE MINIMIZED AT THE SOURCE. ALL FLOWS ORIGINATING OFF THE CONSTRUCTION SITE SHALL BE DIVERTED AROUND DISTURBED AREAS OR SHALL BE CONVEYED THROUGH THE SITE IN A MANNER THAT UNTREATED ON-SITE RUNOFF, SHALL BE MINIMIZED AND DOES NOT MIX WITH THE OFF-SITE RUNOFF.
6. ALL RUNOFF ORIGINATING ON DISTURBED AREAS ASSOCIATED WITH THIS PROJECT SHALL PASS THROUGH ONE OR MORE MEASURES THAT SHALL MINIMIZE THE OFF-SITE SEDIMENT IMPACTS OF THE CONSTRUCTION ACTIVITY.
7. THE CONTRACTOR SHALL INSTALL INITIAL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO BEGINNING ANY ACTIVITIES WHICH WILL POTENTIALLY CAUSE ERODIBLE CONDITIONS.
8. ALL PERMANENT SEDIMENT BASINS, PERMANENT STORM WATER CONTROL MEASURES, PERIMETER SILT FENCE, AND RUNOFF CONTROL MEASURES REQUIRED TO KEEP OFF-SITE RUNOFF FROM FLOWING OVER THE CONSTRUCTION AREA SHALL BE INSTALLED BEFORE CLEARING AND STRIPPING OF THE SITE PROCEEDS.
9. PRIOR TO PROCEEDING WITH EARTHWORK ON A PROJECT THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A PROPOSED EROSION AND SEDIMENT CONTROL SCHEDULE FOR REVIEW AND APPROVAL.
10. A MAXIMUM OF 10 ACRES IS ALLOWED TO BE IN SOME STAGE OF GRADING AT A SINGLE TIME. ADDITIONAL AREAS (UP TO 10 ACRES) MAY BE CLEARED BUT SHALL NOT BE STRIPPED OF VEGETATION UNTIL THE GRADED AREAS HAVE BEEN PROTECTED FROM EROSION THROUGH INSTALLATION OF EITHER TEMPORARY OR PERMANENT MEASURES. WHENEVER POSSIBLE, THE GRADING SHALL BE COMPLETED TO THE DESIGN GRADE AND THE PERMANENT VEGETATION PLAN IMPLEMENTED PRIOR TO STARTING GRADING ACTIVITIES ON THE NEXT SITE.
 - A. WHEN BALANCING EARTHWORK (BORROW FROM A CUT USED AS FILL AT A LOCATION DISTANT FROM THE CUT) THE CHIEF ENGINEER MAY ALLOW MORE THAN 10 ACRES OF CONSTRUCTION WORK AREAS AND STORAGE AREAS.
 - B. WHERE NEW INTERCHANGES ARE BEING CONSTRUCTED THE ALLOWABLE AREA BEING GRADED MAY BE LARGER THAN 10 ACRES WHEN THE CONTRACT DRAWINGS AND SWPPP DEFINE SUCH INCREASES.
 - C. VARIATIONS TO THE ABOVE MAY BE CONSIDERED BY THE CHIEF ENGINEER UNDER ALL THE FOLLOWING CONDITIONS:
 - IF THE CONTRACTOR FALLS BEHIND SCHEDULE THROUGH NO FAULT OF HIS OWN.

- THE CONTRACTOR SHALL PRESENT A SCHEDULE DEMONSTRATING THE NEED FOR SUCH VARIATION IN ORDER TO COMPLETE THE WORK ON TIME.
 - THE CONTRACTOR SHALL COMPLY WITH ALL OTHER CONTRACT AND PERMIT REQUIREMENTS.
11. STABILIZATION OF DISTURBED AREAS SHALL, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND SHALL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. THE ENGINEER MAY REQUIRE THAT CRITICAL LOCATIONS BE STABILIZED IMMEDIATELY, AND THE CONTRACTOR SHALL IMPLEMENT TEMPORARY STABILIZATION MEASURES TO THESE AREAS WITHIN 24 HOURS OF SUCH DIRECTIVE, PURSUANT TO ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATION ARTICLE 280.15(C), TO ESTABLISH TEMPORARY COVER.
 12. STABILIZATION OF CUT OR FILL SLOPES WITH TEMPORARY OR PERMANENT EROSION CONTROL MEASURES IS REQUIRED WHENEVER THE CUT OR FILL ACTIVITY REACHES 15 FEET VERTICALLY OR THE FINISHED SLOPE EQUALS 50 FEET, WHICHEVER IS MORE RESTRICTIVE. ONCE THE STABILIZATION MEASURES ARE INSTALLED, THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES ARE ALLOWED TO PROCEED.
 13. THE CONTRACTOR SHALL DESIGNATE ONE OF HIS EMPLOYEES AS EROSION AND SEDIMENT CONTROL MANAGER. THIS PERSON SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN ON ALL DISTURBED AREAS. THIS PERSON SHALL POSSESS THE NECESSARY TRAINING AND CERTIFICATION ON EROSION AND SEDIMENT CONTROL MEASURES FOR ACCEPTANCE BY THE ILLINOIS TOLLWAY. THIS EMPLOYEE IS TO HAVE THE AUTHORITY TO CARRY OUT THE IMPLEMENTATION OF ANY INSTRUCTIONS CONCERNING THE EROSION AND SEDIMENT CONTROL PLAN GIVEN BY THE ENGINEER. INSPECTIONS MAY BE REDUCED TO ONCE PER MONTH WHEN CONSTRUCTION ACTIVITIES HAVE CEASED DUE TO FROZEN CONDITIONS. WEEKLY INSPECTIONS SHALL RECOMMENCE WHEN CONSTRUCTION ACTIVITIES ARE RESUMED. SEE TOLLWAY SUPPLEMENTAL SPECIFICATIONS, SECTION 280.02(3).
 14. ALL MEASURES SHALL BE INSPECTED BY THIS INDIVIDUAL AND THE ENGINEER ON A REGULAR BASIS (AT LEAST ONCE EVERY 7 DAYS) AND AFTER ANY RAINFALL EVENT GREATER THAN 0.5 INCHES, OR EQUIVALENT SNOWFALL (I.E. + 5").
 15. SEDIMENT TRAPS, SEDIMENT BASINS, DITCHES, SILT FENCES, FENCES, STONE OUTLET STRUCTURES, EARTH BERMS, ETC. SHALL BE MAINTAINED DURING THE CONSTRUCTION SEASON AS WELL AS THE WINTER MONTHS AND OTHER TIMES WHEN THE PROJECT IS CLOSED DOWN. TRAPS SHALL BE CLEANED WHEN THEY ARE 50% FILLED. SILT FENCE AND STONE OUTLET STRUCTURES SHALL HAVE SEDIMENT REMOVED WHEN IT REACHES 50% THE HEIGHT OF THE CONTROL DEVICE. THESE SPOILS SHALL BE REMOVED TO AN APPROVED SITE.
 16. SALVAGED TOPSOIL SHALL BE PLACED ON WELL DRAINED LAND AWAY FROM INTERMITTENT AND LIVE STREAMS OR WETLANDS WITH THE APPROPRIATE RUNOFF CONTROL AND SEDIMENT CONTROL MEASURES INSTALLED AROUND THE STORAGE SITE. SALVAGED TOPSOIL SHALL BE STABILIZED WITH STRAW MULCH IMMEDIATELY AFTER SHAPING OF THE PILE IN ACCORDANCE WITH THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS. SILT FENCE SHALL BE PROVIDED AT THE PERIMETER OF THE STOCKPILE.

17. MATERIALS EXCAVATED FOR THE CONSTRUCTION OR CLEAN OUT OF SEDIMENT CONTROLS SHALL NOT BE STOCKPILED IN THE VICINITY OF THE CONTROL MEASURE. IT SHALL BE PLACED IN AN EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.
18. EXCAVATION TO BE USED FOR EMBANKMENTS SHALL NOT BE STOCKPILED UNLESS PERIMETER CONTROLS ARE UTILIZED. WHEN THIS MATERIAL IS STOCKPILED FOR THE CONVENIENCE OF THE CONTRACTOR THE COST OF PROVIDING THE CONTROLS ARE THE RESPONSIBILITY OF THE CONTRACTOR. IF THE MATERIAL IS STOCKPILED AT THE DIRECTION OF THE ENGINEER THE ILLINOIS TOLLWAY SHALL ASSUME THE COSTS OF THE CONTROLS. TEMPORARY SOIL STOCKPILE LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO TOPSOIL REMOVAL OR OTHER GRADING OPERATIONS BEING PERFORMED.
19. SEDIMENT LADEN DEWATERING DISCHARGE SHALL BE DIRECTED TO AN APPROVED SEDIMENT TRAPPING MEASURE PRIOR TO RELEASE FROM THE SITE.
20. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSIDERED TEMPORARY. THESE MEASURES SHALL BE REMOVED BY THE CONTRACTOR AS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. DISTURBED AREAS SHALL BE RESTORED UPON REMOVAL.
21. WHEN THE CONTRACTOR REQUESTS A CHANGE TO POSTPONE COMPLETION OF THE EXCAVATION OF A SPECIFIC AREA AS A CONTINUOUS OPERATION AND PLACING THE TOPSOIL AS DEFINED IN THE STANDARD SPECIFICATIONS, THE ENGINEER MAY ALLOW THE CONTRACTOR TO STABILIZE THE AREA USING TEMPORARY STABILIZATION WITH STRAW MULCH PROVIDED THE FOLLOWING CONDITIONS ARE MET:
 - A. ALL AREAS BEING STABILIZED ARE 1:3 (V:H) SLOPES OR FLATTER.
 - B. THE COST OF PREPARING THE SEED BED AND STABILIZING THE AREA WITH TEMPORARY STABILIZATION WITH STRAW MULCH IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - C. ALL REQUIRED SEDIMENT CONTROL MEASURES FOR THE SECTION OF ROAD IN QUESTION HAVE BEEN INSTALLED AND ARE BEING MAINTAINED.
22. THE CONTRACTOR SHALL PREPARE A SKETCH SHOWING DIMENSIONS FROM TWO ADJACENT OBJECTS TO ALL DRAINAGE STRUCTURES THAT HAVE BEEN PROTECTED. THIS IS TO LOCATE THE STRUCTURE IN CASE OF HEAVY RAINFALL AND THE STRUCTURE IS BLOCKED OR FLOODED. THE ENGINEER SHALL BE PROVIDED WITH A COPY OF THE SKETCH.
23. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN ACCORDANCE WITH THE STANDARD DRAWINGS AND SPECIAL PROVISION (S.P.) 111, STORM WATER POLLUTION PREVENTION PLAN INCLUDING CONTROLS AND SPILL PREVENTION-MATERIAL MANAGEMENT PRACTICES. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL SIGN THE CONTRACTOR'S CERTIFICATION STATEMENT. LIST THE MATERIALS OR SUBSTANCES EXPECTED TO BE PRESENT ON-SITE IN THE INVENTORY FOR POLLUTION PREVENTION PLAN AND SHALL NAME TWO ADDITIONAL INDIVIDUALS TO ASSIST IN SPILL PREVENTION AND CLEAN UP AT THE PRECONSTRUCTION CONFERENCE. THE CONTRACTOR SHALL SUBMIT THE SUBMITTAL ITEMS SPECIFIED IN S.P. 111.2, STORM WATER POLLUTION PREVENTION PLAN, WHICH SHALL BE INCORPORATED INTO AND BECOME PART OF THE SWPPP.



EROSION CONTROL & LANDSCAPE

STANDARD K1-09

DATE	REVISIONS
3-01-2018	REVISED BUFFER WIDTHS AND DETAIL.
3-01-2019	REVISED FABRIC INLET PROTECTION AND STABILIZED CONSTRUCTION ENTRANCE.
3-01-2020	ADDED IN-LINE FLOCCULATION SYSTEM, REVISED NOTES, CHANGED FLOTATION BOOM TO SILT CURTAIN, ADDED PLANTING DETAILS.


 APPROVED DATE 2-7-2012 .
 CHIEF ENGINEERING OFFICER

GENERAL NOTES - EROSION AND SEDIMENT CONTROLS

24. AT THE TIME OF THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED CONCRETE TRUCK WASHOUT LOCATIONS AS REQUIRED IN SPECIAL PROVISION 111. RUNOFF FROM WASH AREAS SHALL BE CONTAINED IN DESIGNATED AREAS SO THAT RUNOFF DOES NOT REACH THE STORM SEWER OR DITCH SYSTEMS. WASHOUT WATER SHALL BE TAKEN TO AN APPROVED DISCHARGE LOCATION.
25. IF AN ALTERNATIVE SIZE DITCH CHECK IS PROPOSED BY THE CONTRACTOR FOR USE ON THE PROJECT, A CONTRACT DITCH CHECK SPACING SHALL BE RECALCULATED BY THE CONTRACTOR IN ACCORDANCE WITH THE ILLINOIS TOLLWAY EROSION AND SEDIMENT CONTROL, LANDSCAPE DESIGN CRITERIA MANUAL. ANY RESULTING QUANTITY CHANGES SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF WORK.
26. ALL ABOVE GRADE, UN-SHIELDED SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE LOCATED OUTSIDE THE CLEAR ZONE. THE CONTRACTOR SHALL REVIEW THE LOCATIONS OF ALL MEASURES AND PERFORM A BARRIER WARRANT ANALYSIS, IF NECESSARY, TO ENSURE ROADSIDE OBSTACLES ARE NOT CREATED.
27. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
28. THE CONTRACTOR SHALL REFER TO SECTION 280.02 OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS FOR PENALTIES FOR NON-CONFORMANCE.
29. THE EROSION AND SEDIMENT CONTROLS SHOWN IN THE PLANS REPRESENT THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED BY THE ENGINEER OR REPRESENTATIVES OF REGULATORY OR PERMITTING AGENCIES. ANY EMERGENCY CONTROL MEASURES REQUESTED BY A REGULATORY OR PERMITTING AGENCY MUST BE INSTALLED IMMEDIATELY.
30. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY AND/OR PERMANENT MEASURES. TO THE MAXIMUM EXTENT POSSIBLE, EROSION SHALL BE MINIMIZED AT ITS SOURCE.
31. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ANY DEVIATION FROM THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN OR SCHEDULE SHALL BE AT THE DISCRETION OF THE ENGINEER.
32. UNLESS OTHERWISE INDICATED, ALL STABILIZATION AND STRUCTURAL PRACTICES AND OTHER CONTROL MEASURES SPECIFIED IN THE SWPPP SHALL BE CONSTRUCTED ACCORDING TO THE MINIMUM STANDARDS OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS AND THE ILLINOIS URBAN MANUAL (LATEST EDITION).
33. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ANY SUBCONTRACTORS WHO PERFORM WORK ON THE PROJECT OF THE REQUIREMENTS OF THE SWPPP AND ILR10 PERMIT ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IF APPLICABLE).
34. THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT DISTURBED AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR EROSION CONTROL. AREAS TO BE WORKED AND DISTURBED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE TEMPORARY STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET.
35. IF THE PROJECT REQUIRES PERMIT(S) FROM THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE 404 PERMIT) AND THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA 401 WATER QUALITY CERTIFICATION THROUGH THE USACE REGIONAL PERMIT). IF APPLICABLE, THE PERMIT APPLICATION WILL BE SUBMITTED TO THE USACE AND IEPA BY THE ILLINOIS TOLLWAY. THE CONTRACTOR SHALL NOT DISTURB OR OTHERWISE IMPACT JURISDICTIONAL WETLANDS OR WATERWAYS UNTIL THESE PERMITS ARE RECEIVED AND PROVIDED TO THE CONTRACTOR. NO REMOVALS, TEMPORARY OR PERMANENT CONSTRUCTION ACTIVITIES, OR OTHER WORK THAT WOULD IMPACT THESE RESOURCES, IS ALLOWED UNTIL THESE PERMITS ARE OBTAINED. ON PROJECTS WHICH INCLUDE IN-STREAM WORK, NO WORK IS ALLOWED BEYOND THE PERMITTED AREA.
36. PERMANENT LANDSCAPE ITEMS SHALL BE IMPLEMENTED IN CONJUNCTION WITH CONSTRUCTION STAGING. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY STABILIZED AT ONE TIME.
37. FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL PROTECT ALL ON-SITE, ADJACENT AND/OR DOWNSTREAM SEWERS, DITCHES, AND WATERCOURSES FROM CONTAMINATION BY WATERBORNE SILTS, SEDIMENTS, FUELS, SOLVENTS, DETERGENTS, LUBRICANTS, OR OTHER TOXIC OR HAZARDOUS POLLUTANTS ORIGINATING FROM ANY WORK DONE ON OR IN SUPPORT OF THE PROJECT.
38. TEMPORARY STABILIZED CONSTRUCTION ENTRANCES, GRAVELED ROADS, ACCESS DRIVES, AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. THE LOCATIONS OF ALL STABILIZED ENTRANCES ARE SUBJECT TO APPROVAL BY THE ENGINEER. SUGGESTED OR POTENTIAL LOCATIONS MAY BE SHOWN ON THE PLANS.

SHEET 2 OF 13



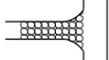
EROSION CONTROL
& LANDSCAPE

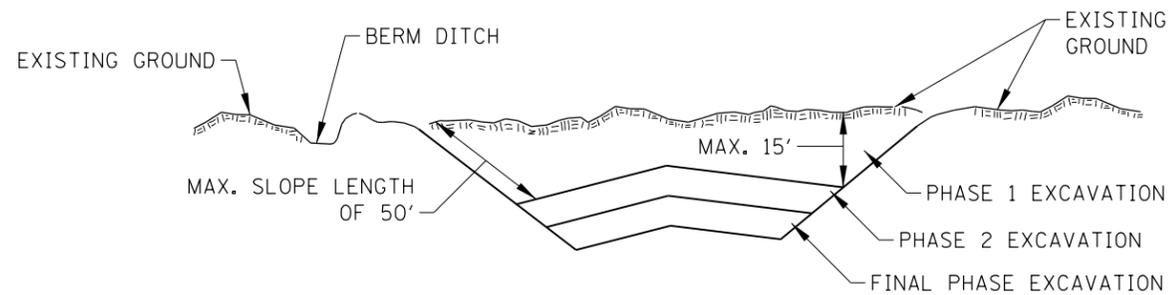
STANDARD K1-09

Paul Kovacs

APPROVED DATE 2-7-2012
CHIEF ENGINEERING OFFICER

STANDARD SYMBOLS

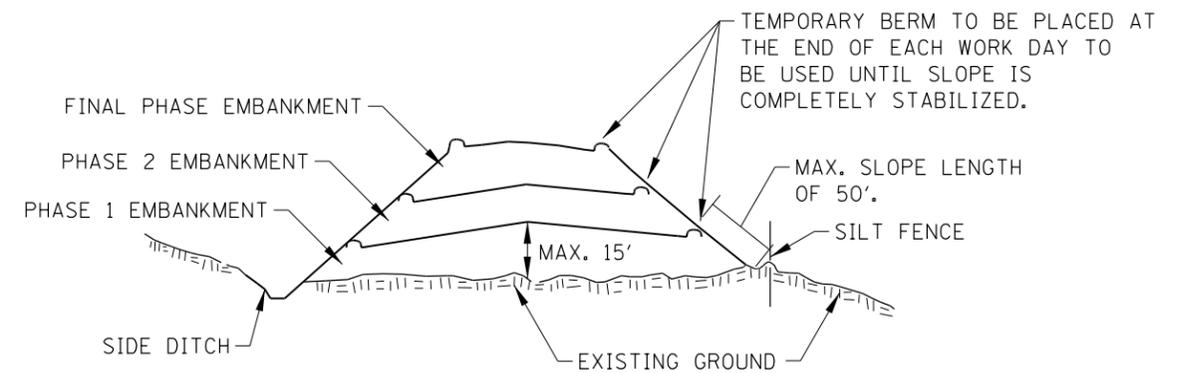
	CLEARING & GRADING LIMITS (LIMITS OF CONSTRUCTION)		SILT FENCE
	CULVERT INLET PROTECTION-FENCE		STABILIZED CONSTRUCTION ENTRANCE
	CULVERT INLET PROTECTION-STONE		STONE OUTLET STRUCTURE SEDIMENT TRAP
	CIP		STREAM DIVERSION
	DEWATERING BASINS		SUPER SILT FENCE
	DIVERSION DIKE		TEMPORARY DITCH CHECK
	DRAINAGE DIVIDE		TEMPORARY PIPE SLOPE DRAIN
	EXISTING DRAINAGE PATH		TEMPORARY RIPRAP
	FILTER FABRIC INLET PROTECTION, COVER TYPE		TEMPORARY ROCK CHECK DAM
	FILTER FABRIC INLET PROTECTION, BASKET TYPE		TEMPORARY STREAM CROSSING
	FLOTATION BOOM		TEMPORARY SWALE
	INITIAL CONSTRUCTION ITEM		TREE PROTECTION
	PROPOSED DRAINAGE PATH		
	RECTANGULAR INLET PROTECTION		
	SEDIMENT BASIN AGGREGATE BERM		
	SEDIMENT BASIN		



NOTES:

1. ALL CUT SLOPES SHALL BE EXCAVATED AND STABILIZED (PLACE TOPSOIL, PREPARE SEEDBED, APPLY SEED, PROTECT SLOPE WITH MULCH OR EROSION BLANKET) AS THE WORK PROGRESSES.
2. CONSTRUCTION SEQUENCE:
 - A) EXCAVATE AND STABILIZE BERM, SIDE AND OUTLET DITCHES, PROVIDE SEDIMENT TRAPS FOR DITCHES.
 - B) PERFORM PHASE 1 EXCAVATION AND STABILIZE SLOPES WITH PERMANENT SEEDING.
 - C) PERFORM PHASE 2 EXCAVATION AND STABILIZE SLOPES WITH PERMANENT SEEDING. OVER SEED PHASE 1 SLOPES, IF REQUIRED.
 - D) PERFORM FINAL PHASE EXCAVATION, DRESS, SEED AND MULCH SLOPES WITH PERMANENT SEEDING. STABILIZE SURFACE DRAIN DITCHES. OVER SEED PHASE 1 & 2 SLOPES, IF REQUIRED, AS DETERMINED BY THE ENGINEER.
3. IF PERMANENT SEEDING CANNOT BE PLACED DUE TO CONTRACT REQUIREMENTS REGARDING PLANTING SEASONS, THE CUT SLOPE IS TO HAVE TOPSOIL PLACED AND SEEDING PREPARED PRIOR TO USING TEMPORARY STABILIZATION WITH STRAW MULCH OR TEMPORARY SEEDING WITH EROSION BLANKET.
4. THE CONTRACTOR HAS THE OPTION OF DELAYING TOPSOIL SEEDING BEYOND THE 15 FOOT LIMITATION. IF THIS OPTION IS CHOSEN, THE CUT SLOPE MUST BE "TEMPORARY STABILIZED" AT NO COST TO THE ILLINOIS TOLLWAY.
5. ONCE THE EXCAVATION WITHIN A SPECIFIC AREA HAS BEGUN, THE OPERATION SHALL BE CONTINUOUS FROM STRIPPING THROUGH THE COMPLETION OF THE GRADING AND PLACEMENT OF SLOPE STABILIZATION MEASURES. ANY INTERRUPTIONS IN THE OPERATION OF 14 DAYS OR MORE MUST BE APPROVED BY THE ENGINEER. ANY VIOLATION OF THIS REQUIREMENT WILL RESULT IN THE CONTRACTOR ASSUMING THE RESPONSIBILITY OF PLACING TEMPORARY STABILIZATION AT HIS OWN COST AND EXPENSE.

EXCAVATION PHASING PLAN - CUT SECTION



NOTES:

1. THE EMBANKMENT WILL BE MADE IN STAGES NOT TO EXCEED 15' IN HEIGHT OR 50' IN SLOPE LENGTH. THE EMBANKMENT SLOPES WILL BE STABILIZED USING TEMPORARY MEASURES BEFORE BEGINNING NEXT STAGE.
2. AT THE END OF EACH WORK DAY TEMPORARY BERMS (EARTH) AND TEMPORARY PIPE SLOPE DRAINS WILL BE CONSTRUCTED ALONG THE TOP EDGE(S) OF THE EMBANKMENT TO INTERCEPT SURFACE RUNOFF.
3. CONSTRUCTION SEQUENCE:
 - A) EXCAVATE AND STABILIZE SIDE DITCH AND/OR INSTALL PROPOSED PERIMETER CONTROLS AT THE TOE OF SLOPE.
 - B) PLACE PHASE 1 EMBANKMENT AND STABILIZE WITH TEMPORARY SEEDING AND MULCH.
 - C) PLACE PHASE 2 EMBANKMENT AND STABILIZE WITH TEMPORARY SEEDING AND MULCH.
 - D) PLACE FINAL PHASE EMBANKMENT AND STABILIZE WITH PERMANENT VEGETATIVE PLAN ON THE ENTIRE SLOPE.
4. ONCE THE PLACEMENT OF FILL WITHIN A SPECIFIC AREA HAS BEGUN, THE OPERATION SHALL BE CONTINUOUS FROM STRIPPING THROUGH THE COMPLETION OF THE GRADING AND PLACEMENT OF PERMANENT VEGETATIVE PLAN. ANY INTERRUPTIONS IN THE OPERATION OF 14 DAYS OR MORE MUST BE APPROVED BY THE ENGINEER. ANY VIOLATION OF THIS REQUIREMENT WILL RESULT IN THE CONTRACTOR ASSUMING THE RESPONSIBILITY OF PLACING TEMPORARY STABILIZATION AT HIS OWN COST AND EXPENSE.

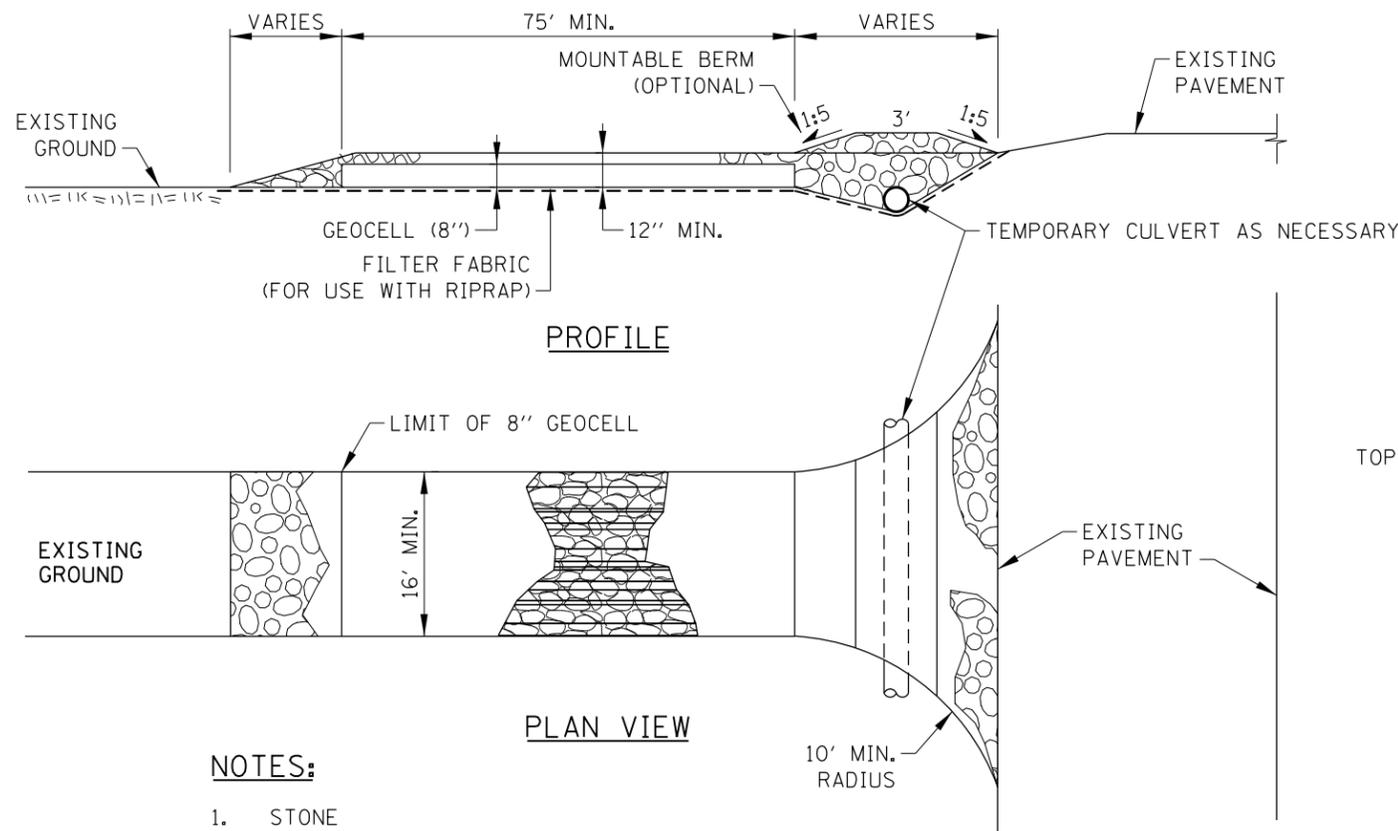
EMBANKMENT PHASING PLAN - FILL SECTION



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STANDARD K1-09

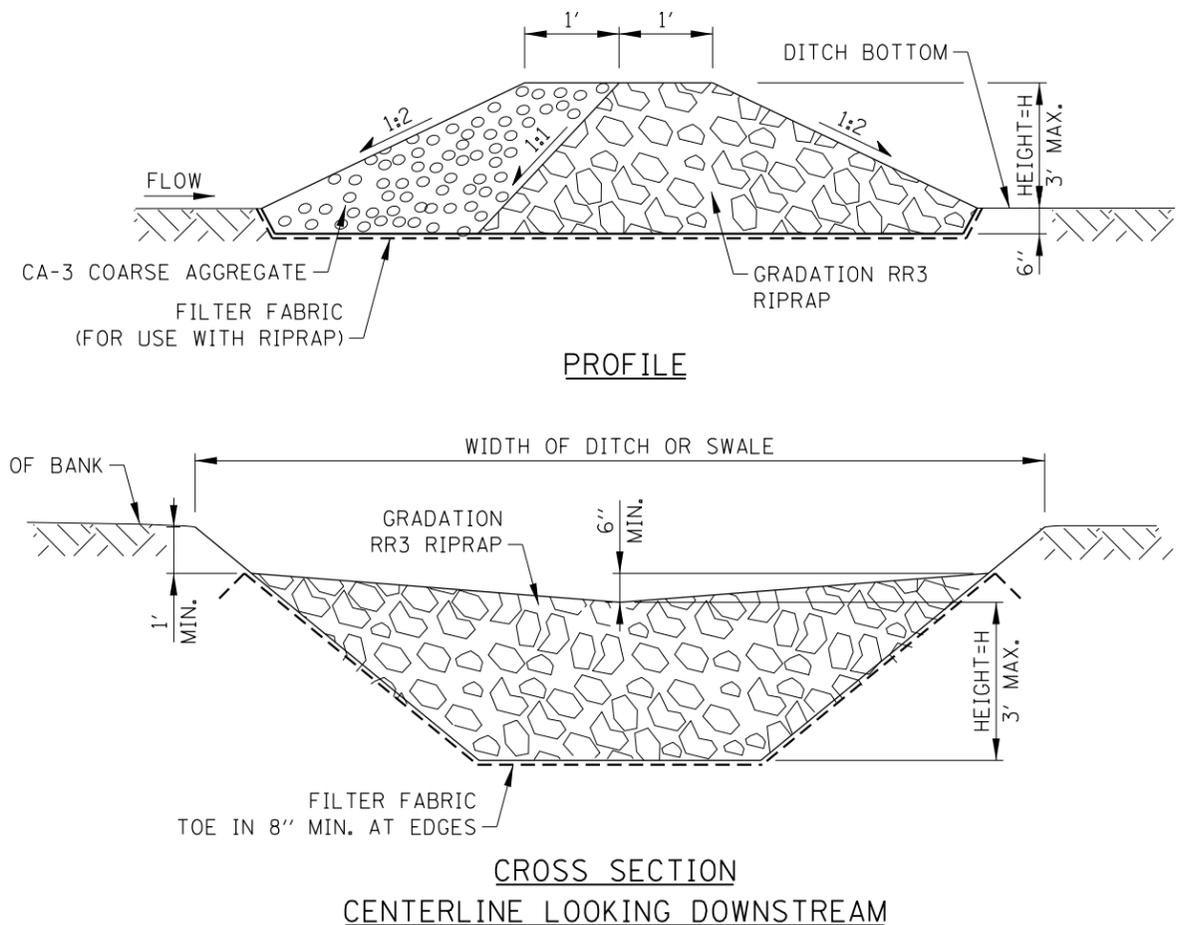
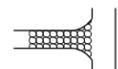
APPROVED: *Paul Kovacs* DATE 2-7-2012
CHIEF ENGINEERING OFFICER



NOTES:

1. STONE
 - A. STONE SIZE - CA-3
 - B. LENGTH - AS REQUIRED, BUT NOT LESS THAN 75'.
 - C. THICKNESS - NOT LESS THAN 4" ABOVE TOP OF GEOCELL.
2. WIDTH - 16' MINIMUM FOR ONE WAY TRAFFIC; 24' MINIMUM FOR TWO-WAY TRAFFIC; BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
3. GEOCELL NOT LESS THAN 8" IN DEPTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 1:5 SLOPES WILL BE PERMITTED.
5. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
6. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER HEAVY USE AND EACH RAINFALL EVENT.
7. TO BE USED TO REDUCE OR ELIMINATE TRACKING OF SEDIMENT ONTO PUBLIC STREETS. PLACE AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS. DISTURBED AREAS TO BE RESTORED UPON REMOVAL.

STABILIZED CONSTRUCTION ENTRANCE
STANDARD SYMBOL

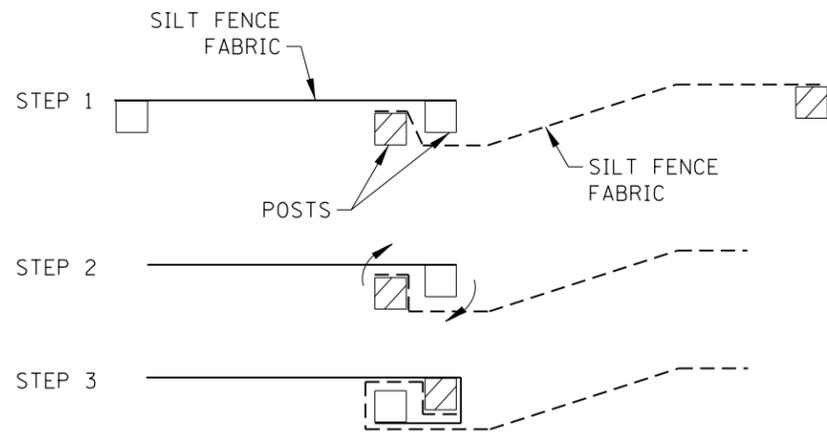


NOTES:

1. FOR LOCATIONS AND HEIGHTS OF ROCK CHECK DAMS REFER TO CONSTRUCTION DRAWINGS.
2. TEMPORARY ROCK CHECK DAMS SHALL BE REPLACED WHEN THEY CEASE TO FUNCTION AS INTENDED DUE TO WASHOUT OR CONSTRUCTION TRAFFIC DAMAGE.
3. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 50% OF DAM HEIGHT. THIS PRACTICE IS NOT A SUBSTITUTE FOR MAJOR PERIMETER TRAPPING SUCH AS A TEMPORARY SEDIMENT TRAP OR BASIN.
4. SPACING BETWEEN DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS TOP OF RIPRAP AT THE CENTER OF THE DOWNSTREAM DAM.
5. WHEN A TEMPORARY ROCK CHECK DAM IS IN THE CLEAR ZONE, IT MUST BE MADE TRAVERSABLE TO AN ERRANT VEHICLE. THE MAXIMUM UNSHIELDED TRANSVERSE SLOPE ALLOWED TO FACE TRAFFIC SHALL BE 1:10 (V:H) AND THE MAXIMUM TRANSVERSE FACING AWAY FROM TRAFFIC SHALL BE 1:4 (V:H). AN UNSHIELDED TEMPORARY ROCK CHECK DAM SHALL HAVE AN ADDITIONAL LAYER OF CA-3 COURSE AGGREGATE (6" MIN.) PLACED ON THE DOWNSTREAM SIDE OF THE ROCK CHECK DAM. THE FILTER FABRIC SHALL BE PLACED ALONG THE ENTIRE BASE OF THE TEMPORARY ROCK CHECK DAM.

TEMPORARY ROCK CHECK DAM
STANDARD SYMBOL

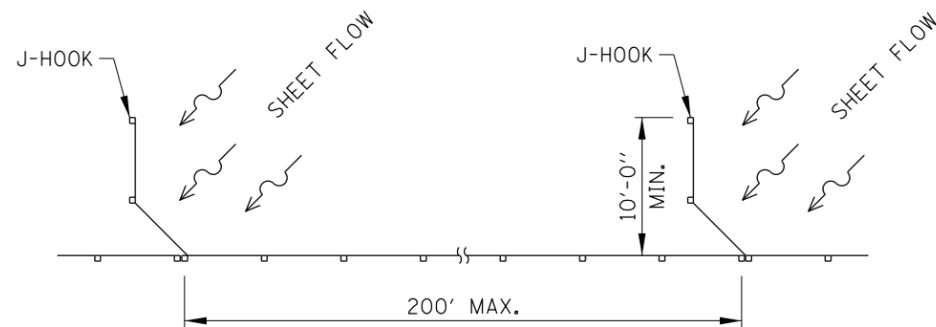




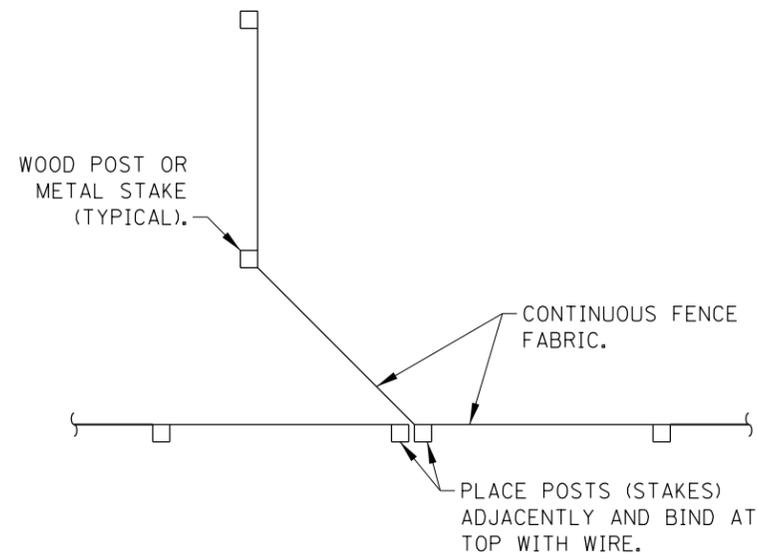
NOTES:

1. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
3. DRIVE BOTH POSTS A MINIMUM OF 24" INTO THE GROUND.

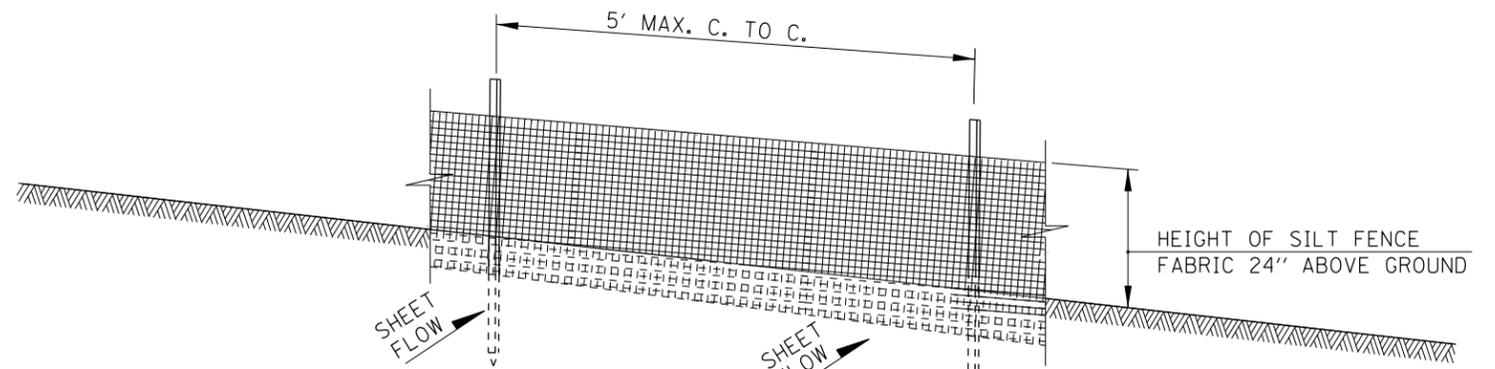
ATTACHING TWO SILT FENCES



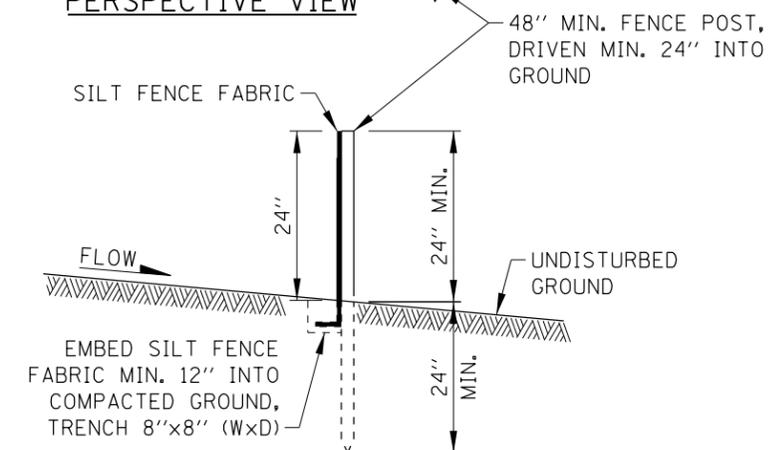
SILT FILTER J-HOOK PLACEMENT



J-HOOK



PERSPECTIVE VIEW



SECTION

NOTES:

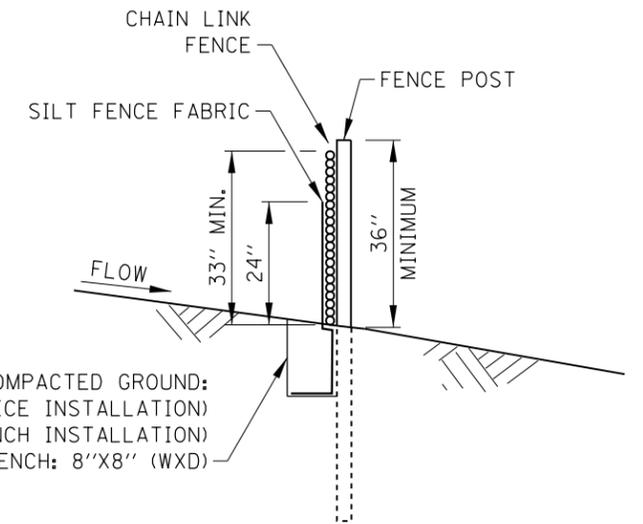
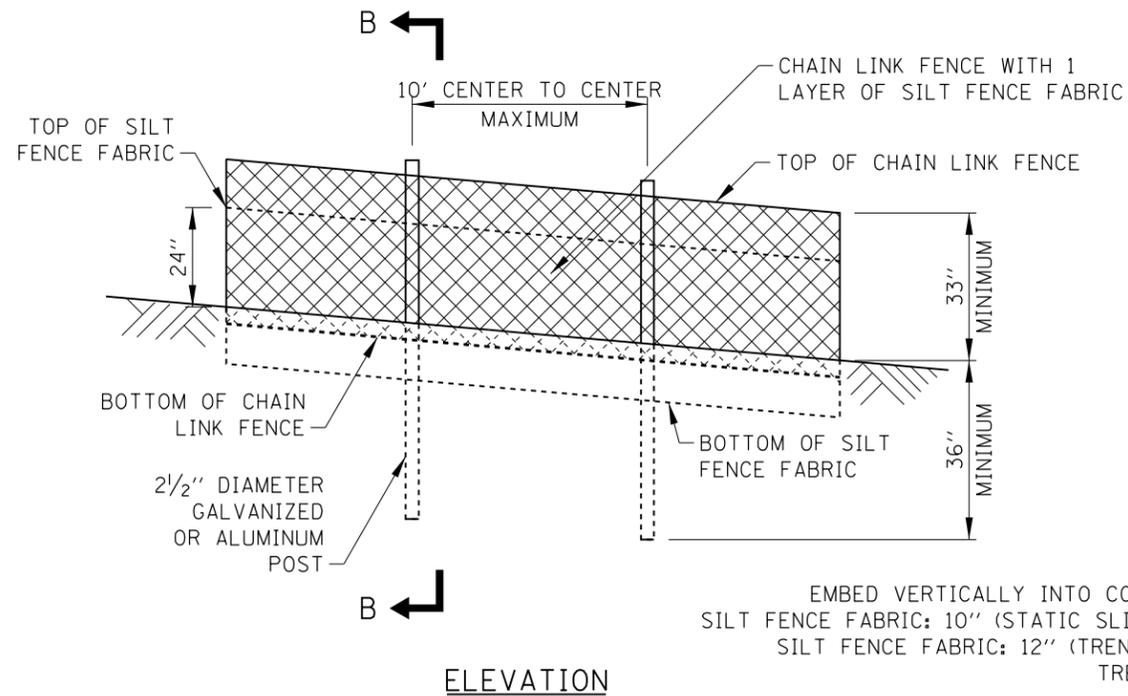
1. SILT FENCE FABRIC TO BE FASTENED SECURELY TO FENCE POSTS.
2. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE SECURELY FASTENED PER THE DETAIL ATTACHING TWO SILT FENCES.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SILT BUILD UP AGAINST FENCE SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.
4. SUPPORT POSTS SHALL BE 2" X 2" NOMINAL HARDWOOD, 2" SCHEDULE 40 STEEL PIPE OR STEEL SUPPORT POSTS OF A STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.33 POUNDS PER LINEAL FOOT.
5. THIS DEVICE IS TO CONTROL SHEET FLOW ONLY. DO NOT USE FOR CONCENTRATED FLOWS, DRAINAGE CHANNELS, ABOVE OR BELOW DRAINAGE PIPES.

SILT FENCE (SF)
STANDARD SYMBOL



NOTES:

- FENCING SHALL BE 36" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH ILLINOIS TOLLWAY STANDARD DRAWING D1, RIGHT-OF-WAY FENCE, TYPE 1. THE SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 36" FABRIC AND 6' LENGTH POSTS.
- CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED. PULL POSTS, CORNER POSTS, HORIZONTAL BRACING AND TIE RODS ARE NOT REQUIRED.
- SILT FENCE FABRIC SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
- WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED 2' HORIZONTALLY.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED. SILT BUILD-UP AGAINST FENCE SHALL BE REMOVED WHEN SILT REACHES 50% OF FENCE HEIGHT.
- SUPER SILT FENCE IS TO BE USED TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS AND CONTROL SEDIMENT RUNOFF FROM CONSTRUCTION SITES WHEN ADDITIONAL REINFORCEMENT IS REQUIRED DUE TO SLOPE OF SITE OR VOLUME OF STORM WATER RUNOFF.

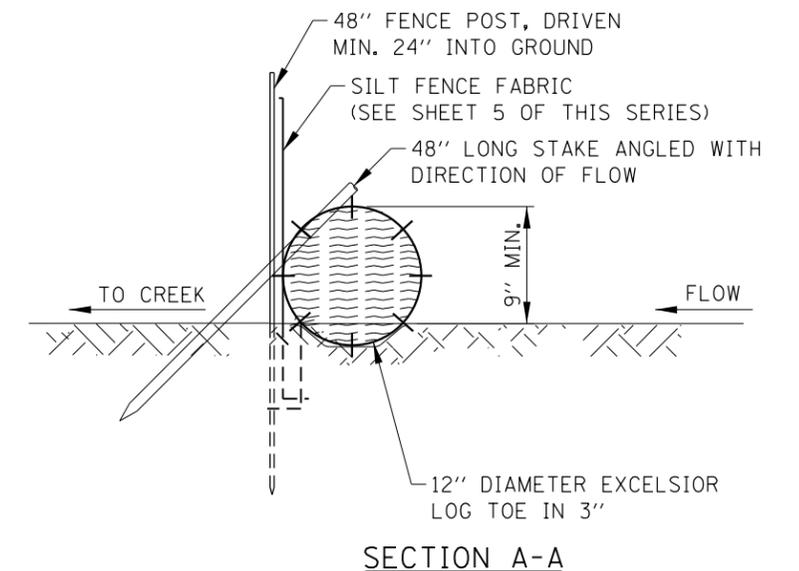
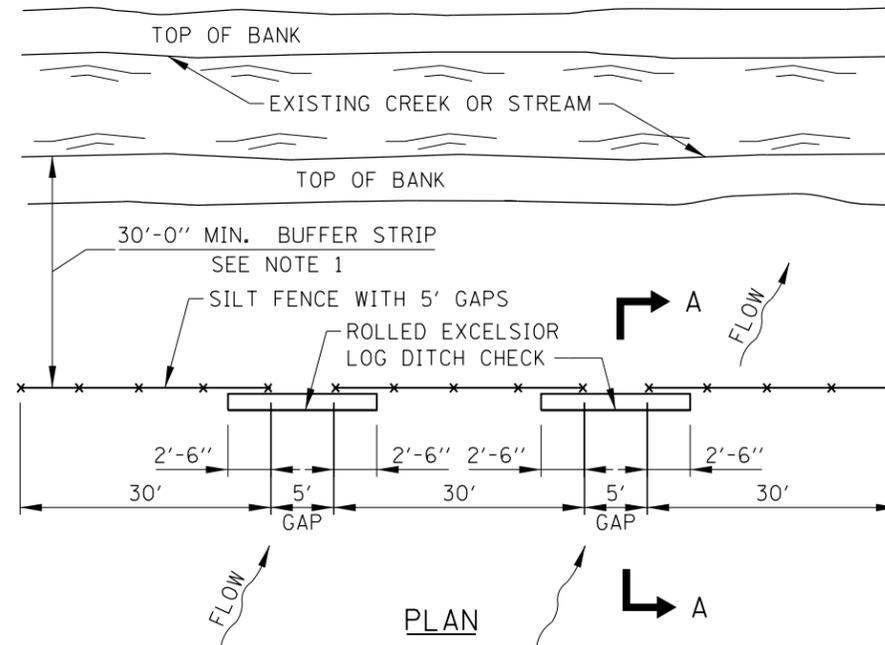


SUPER SILT FENCE (SSF)
STANDARD SYMBOL



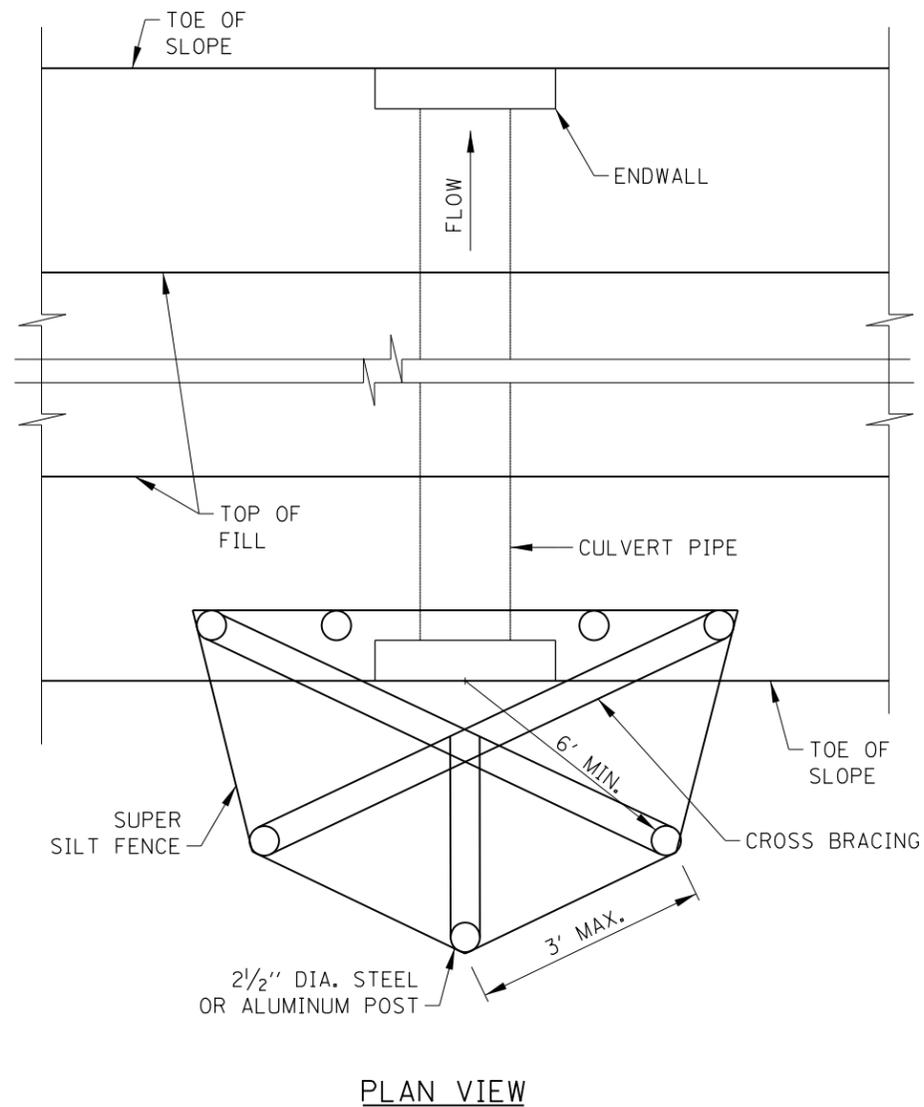
NOTES:

- A MINIMUM 50' WIDE VEGETATED BUFFER STRIP SHALL BE PRESERVED AND/OR RE-ESTABLISHED WHERE POSSIBLE ALONG EXISTING CHANNELS.
 - FOR ANY WATERS OF THE U.S. DETERMINED TO BE A HIGH-QUALITY AQUATIC RESOURCE, THE BUFFER MUST BE A MINIMUM OF 100'.
 - FOR ANY WATERS OF THE U.S. THAT DO NOT QUALIFY AS WETLAND (FOR EXAMPLE LAKES, RIVERS, PONDS, ETC.), THE BUFFER MUST BE A MINIMUM OF 50' FROM THE ORDINARY HIGH WATER MARK (OHWM).
 - FOR ANY JURISDICTIONAL WETLAND, THE BUFFER MUST BE A MINIMUM OF 50'.
- THE 5' GAPS IN THE SILT FENCE AND THE 12" DIAMETER TEMPORARY DITCH CHECKS ARE TO ALLOW FLOODWATER FLOW INTO THE CREEK FROM THE SITE WITHOUT DAMAGE TO THE SILT FENCE.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT SHALL BE REMOVED WHEN IT REACHES 50% OF ROLL HEIGHT. WHEN THE ROLLED EXCELSIOR LOG IS REDUCED TO 50% OF ROLL HEIGHT IT SHALL BE REPLACED.



CREEK BUFFER STRIP AND SILT FENCE





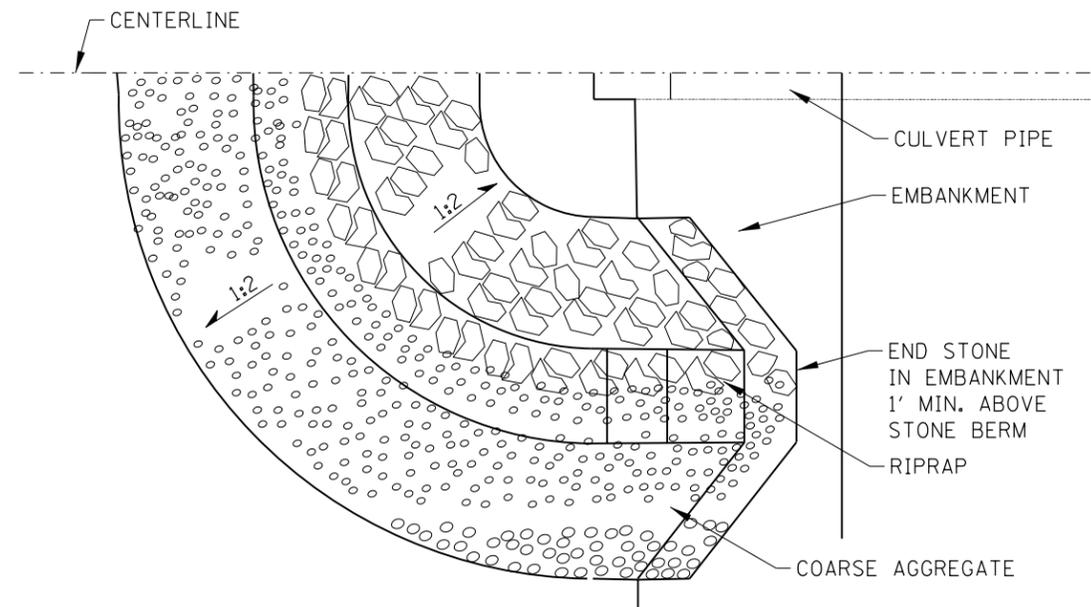
PLAN VIEW

NOTES:

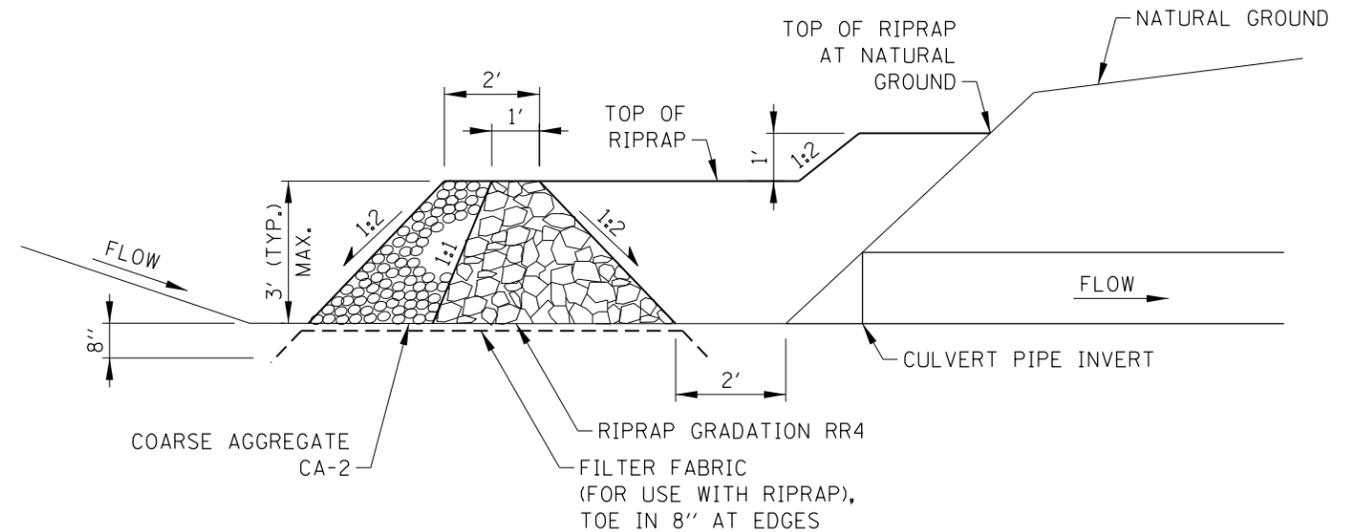
1. CONSTRUCT SUPER SILT FENCE PER SHEET 6 IN THIS SERIES, EXCEPT THE MAXIMUM POST SPACING SHALL BE 3 FEET, THE PLACEMENT OF THE SUPER SILT FENCE SHALL BE A MINIMUM OF 6 FEET FROM THE CULVERT IN THE DIRECTION OF INCOMING FLOW AND THE TOPS OF POSTS SHALL BE CROSS BRACED.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 50% OF THE FENCE HEIGHT.
3. THE CULVERT INLET PROTECTION AND SEDIMENT SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.
4. THE CULVERT INLET PROTECTION - FENCE TO BE MEASURED AND PAID FOR AS SUPER SILT FENCE.

CULVERT INLET PROTECTION - FENCE

STANDARD SYMBOL



HALF PLAN VIEW



CENTERLINE CROSS SECTION

NOTES:

1. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 50% OF THE STONE HEIGHT.
2. THE CULVERT INLET PROTECTION AND SEDIMENT SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.
3. THE CULVERT INLET PROTECTION - STONE TO BE MEASURED AND PAID FOR AS TEMPORARY RIPRAP.

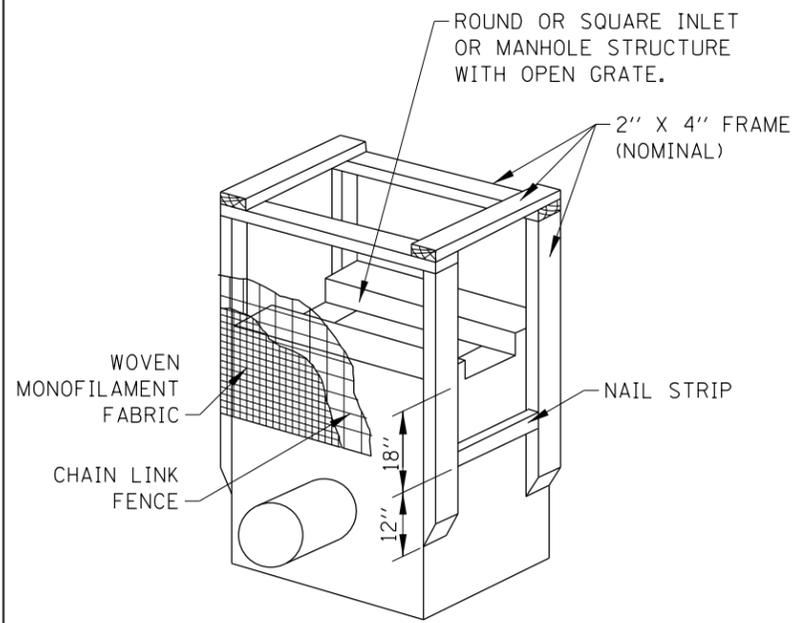
CULVERT INLET PROTECTION - STONE

STANDARD SYMBOL

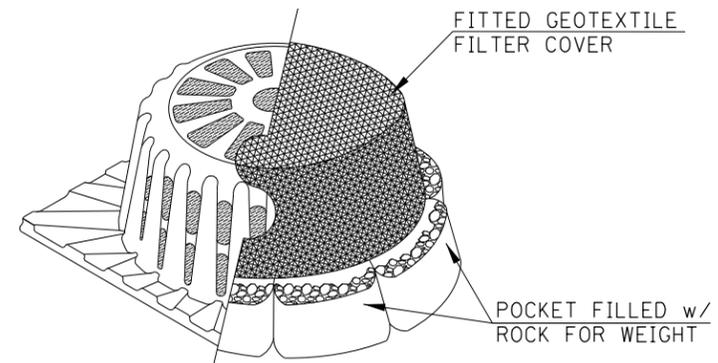
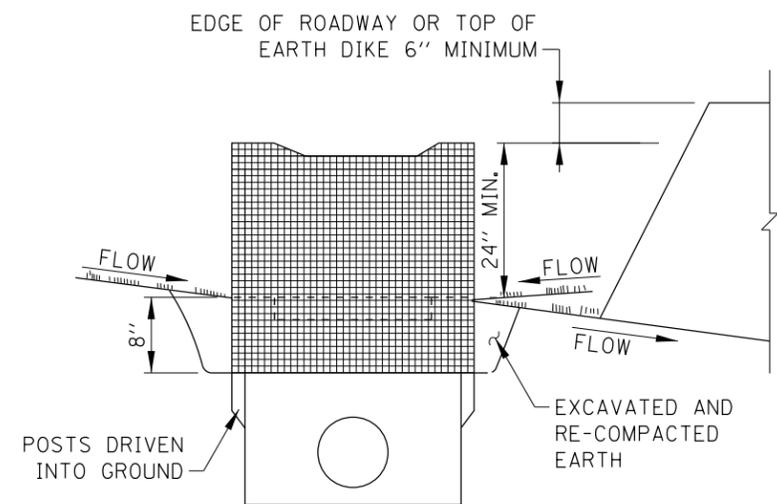


EROSION CONTROL & LANDSCAPE

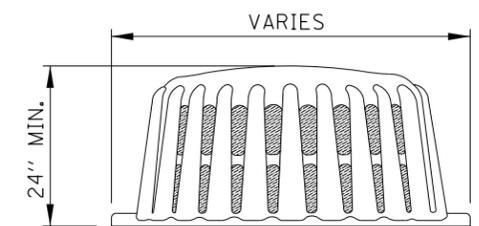
STANDARD K1-09



WOOD FRAME



POLYETHYLENE FRAME



NOTES:

1. WOODEN FRAME IS TO BE CONSTRUCTED OF 2"x4" CONSTRUCTION GRADE LUMBER. AT THE CONTRACTOR'S OPTION, THE WOOD FRAME CAN BE SUBSTITUTED USING 2 1/2" GALVANIZED OR ALUMINUM POSTS INSTALLED AS SPECIFIED FOR SUPER SILT FENCE.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT REMOVED WHEN IT REACHES 50% OF FENCE HEIGHT.
3. TO BE USED TO PROTECT EXISTING AND NEW INLETS, CATCH BASINS AND MANHOLES WITH OPEN LIDS IN NON-PAVED AREAS.

RECTANGULAR INLET PROTECTION

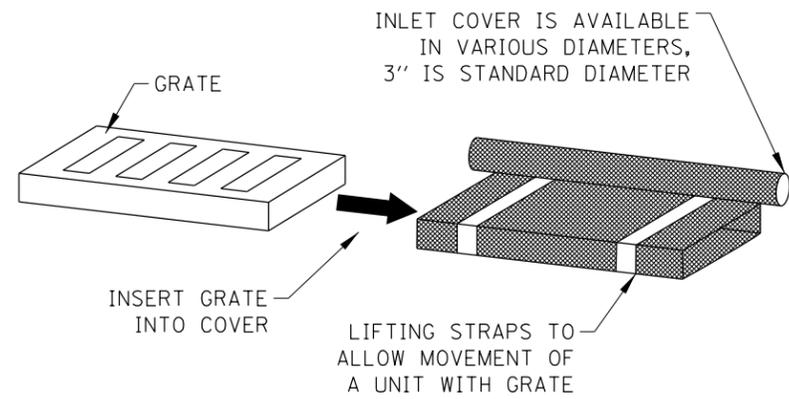
STANDARD SYMBOL



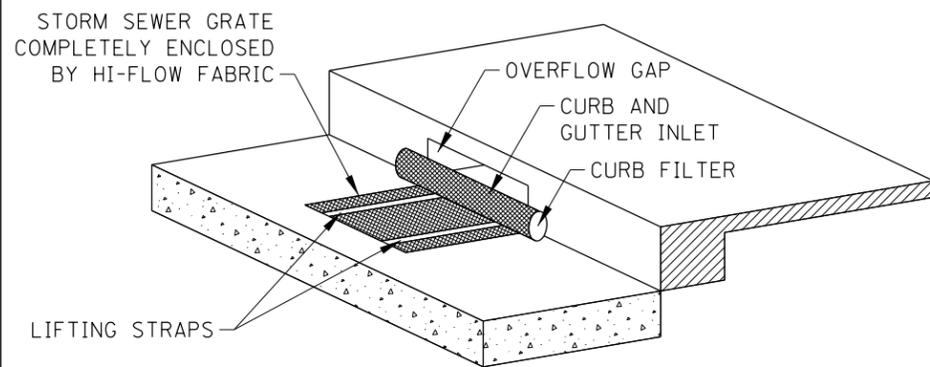
EROSION CONTROL
& LANDSCAPE

STANDARD K1-09

Paul Kovacs
APPROVED DATE 2-7-2012 .
CHIEF ENGINEERING OFFICER



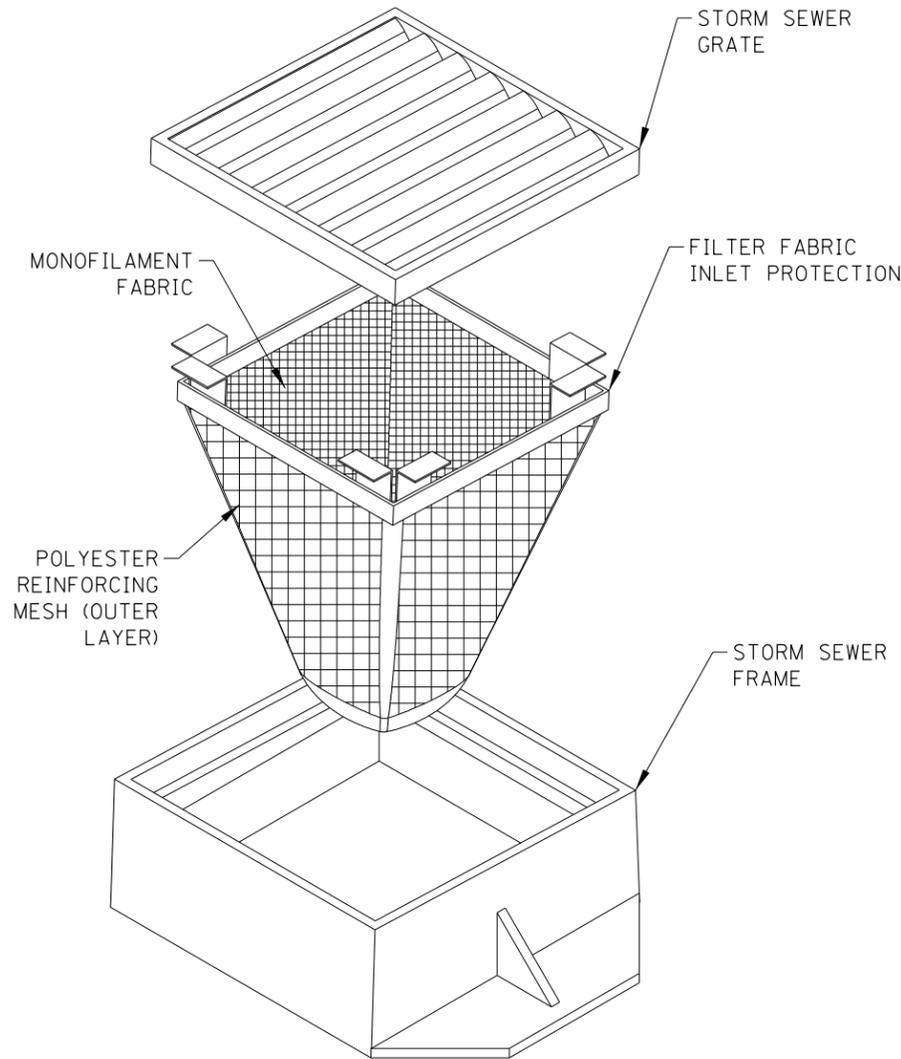
GRATE AND COVER DETAIL



NOTES:

1. COVER TYPE INLET PROTECTION SHALL CONSIST OF FABRIC SLEEVE AND, IF NECESSARY, CURB FILTER.
2. DEVICE SHALL BE EQUIPPED WITH AN OVERFLOW GAP SO DRAINAGE TO INLET IS NOT COMPLETELY BLOCKED IF DEVICE IS FULL OF SILT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED. REMOVE SILT FROM FABRIC INSERT WHEN SEDIMENT ACCUMULATES, THE FILTER BECOMES CLOGGED, AND/OR PERFORMANCE IS COMPROMISED. WHEN THERE IS EVIDENCE OF SEDIMENT ACCUMULATION ADJACENT THE THE INLET PROTECTION MEASURE, THE DEPOSITED SEDIMENT SHALL BE REMOVED BY THE END OF THE SAME BUSINESS DAY IN WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING BUSINESS DAY IF REMOVAL THE SAME BUSINESS DAY IS NOT FEASIBLE.
4. STORM SEWER GRATE SHALL BE COMPLETELY ENCLOSED BY FABRIC.
5. GRATE AND FILTER ARE TO BE SET SECURELY BACK IN FRAME.

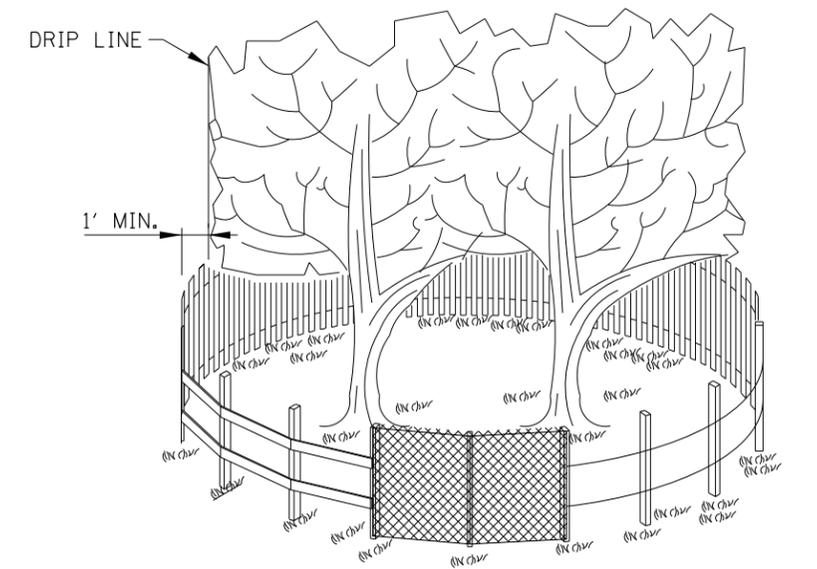
FILTER FABRIC INLET PROTECTION - COVER TYPE



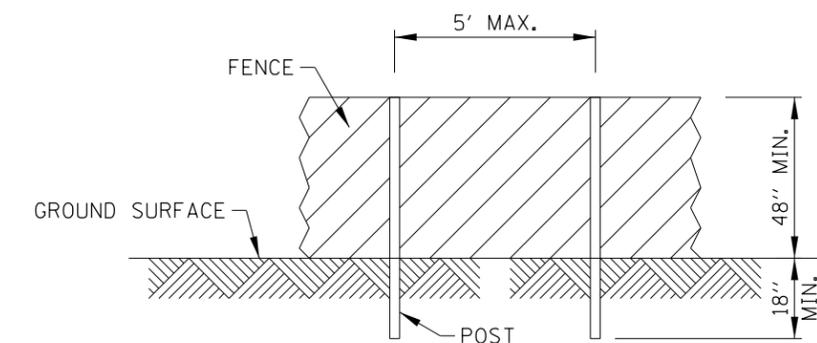
NOTES:

1. MONOFILAMENT FABRIC INLET PROTECTION SHALL CONSIST OF INLET BASKET, FRAME AND FABRIC INSERT.
2. DEVICE SHALL BE EQUIPPED WITH AN OVERFLOW FEATURE SO DRAINAGE TO INLET IS NOT COMPLETELY BLOCKED IF DEVICE IS FULL OF SILT.
3. INLET BASKET IS AVAILABLE TO FIT ROUND, RECTANGULAR, BEEHIVE OR CURB INLET CASTINGS.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED. REMOVE SILT FROM FABRIC INSERT WHEN 50% OF CAPACITY IS REACHED. REMOVE SILT FROM INTERIOR AND EXTERIOR OF INLET COVER WHEN 50% OF COVER HEIGHT IS REACHED. WHEN THERE IS EVIDENCE OF SEDIMENT ACCUMULATION ADJACENT THE THE INLET PROTECTION MEASURE, THE DEPOSITED SEDIMENT SHALL BE REMOVED BY THE END OF THE SAME BUSINESS DAY IN WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING BUSINESS DAY IF REMOVAL THE SAME BUSINESS DAY IS NOT FEASIBLE.

FILTER FABRIC INLET PROTECTION - BASKET TYPE



SIDE VIEW



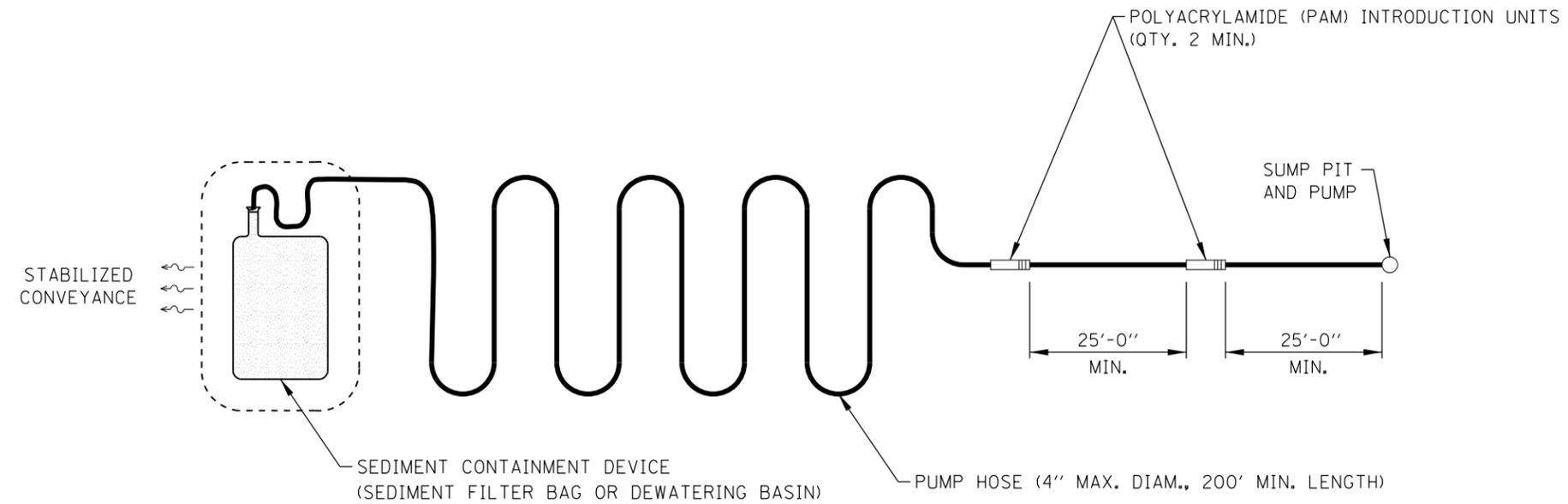
POST AND FENCE DETAIL

NOTES:

1. THE FENCE SHALL BE LOCATED 1 FOOT MINIMUM OUTSIDE THE DRIP LINE OF THE TREE TO BE SAVED AND IN NO CASE CLOSER THAN 5 FEET TO THE TRUNK OF ANY TREE.
2. THE FENCE SHALL BE HIGH VISIBILITY PLASTIC OR WOOD LATH SNOW FENCE TO CLEARLY DELINEATE THE PROTECTION AREA.
3. USED TO PROTECT TREES FROM DISTURBANCE AND FROM EQUIPMENT TRAVELING OVER THE ROOT ZONE.

**TREE PROTECTION
STANDARD SYMBOL**





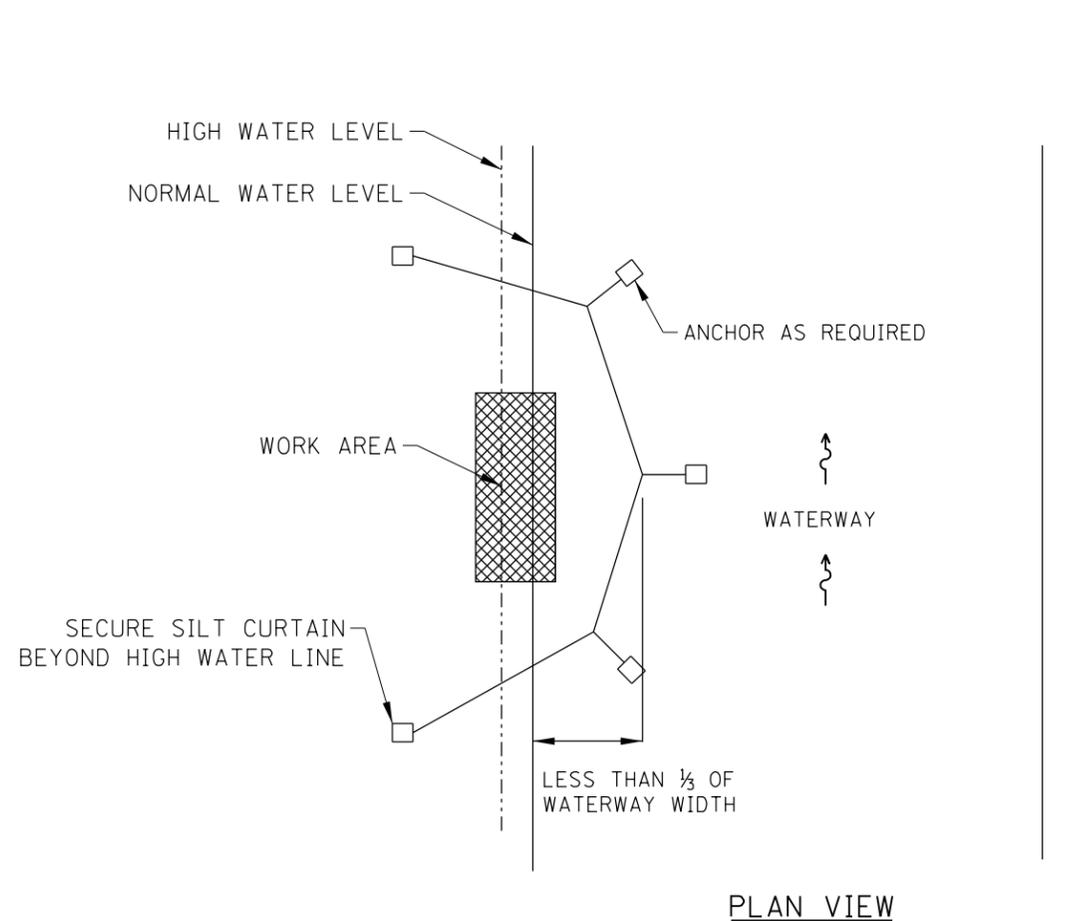
NOTES:

1. FLOW-THROUGH TREATMENT SYSTEM TO INTRODUCE SITE-SPECIFIC FLOC LOGS (POLYMERS) TO TURBID WATERS IN SUCH A MANNER TO FACILITATE MIXING AND REACTION BETWEEN THE POLYMER AND THE SUSPENDED PARTICLES.
2. FLOC LOGS (SITE-SPECIFIC) SHALL BE SECURED INSIDE POLYMER INTRODUCTION UNITS WHERE THE TURBID WATER ENTERS THE PIPING SYSTEM AND MIXES WITH THE POLYMER.
3. A MINIMUM OF TWO POLYMER INTRODUCTION UNITS SHALL BE INSTALLED IN SERIES, A MINIMUM OF 25 FEET FROM THE PUMP INTAKE AND SPACED A MINIMUM OF 25 FEET APART.
4. A PUMP HOSE SHALL CONNECT THE POLYMER INTRODUCTION UNITS TO A SEDIMENT CONTAINMENT DEVICE AND SHALL BE A MINIMUM OF 200 FEET IN LENGTH.
5. AFTER INTRODUCTION OF THE POLYMER AND NECESSARY MIXING TIME, THE SYSTEM REQUIRES SEDIMENT CONTAINMENT WHICH CAN BE IN THE FORM OF A FILTER BAG, SEDIMENT TRAP, OR OTHER CONTAINMENT DEVICE.
6. SOFT BENDS OR CURVES TO THE DISCHARGE HOSE SHALL BE MAINTAINED TO AVOID OBSTRUCTIONS IN FLOW AND ALTERING THE DESIGN POLYMER MIXING TIME.
7. SYSTEM DESIGN AND LAYOUT SHALL BE BASED ON SITE-SPECIFIC CONDITIONS, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND BE COMPLETED BY A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC).
8. MAINTENANCE SHALL BE PERFORMED AS NEEDED TO ENSURE CONTINUOUS SYSTEM PERFORMANCE THROUGHOUT USE.
9. THE DISCHARGE SHALL BE VISIBLY CLEAR FOLLOWING TREATMENT.

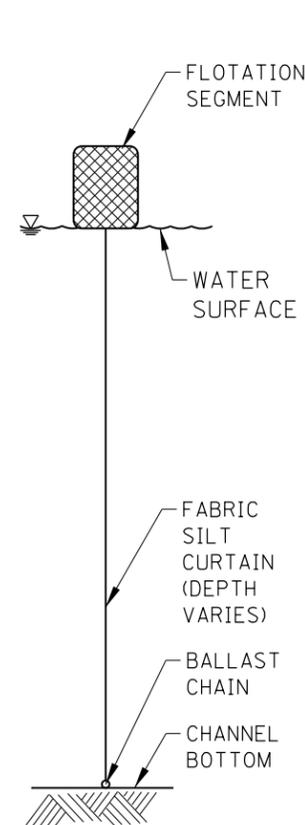
IN-LINE FLOCCULATION SYSTEM

STANDARD SYMBOL

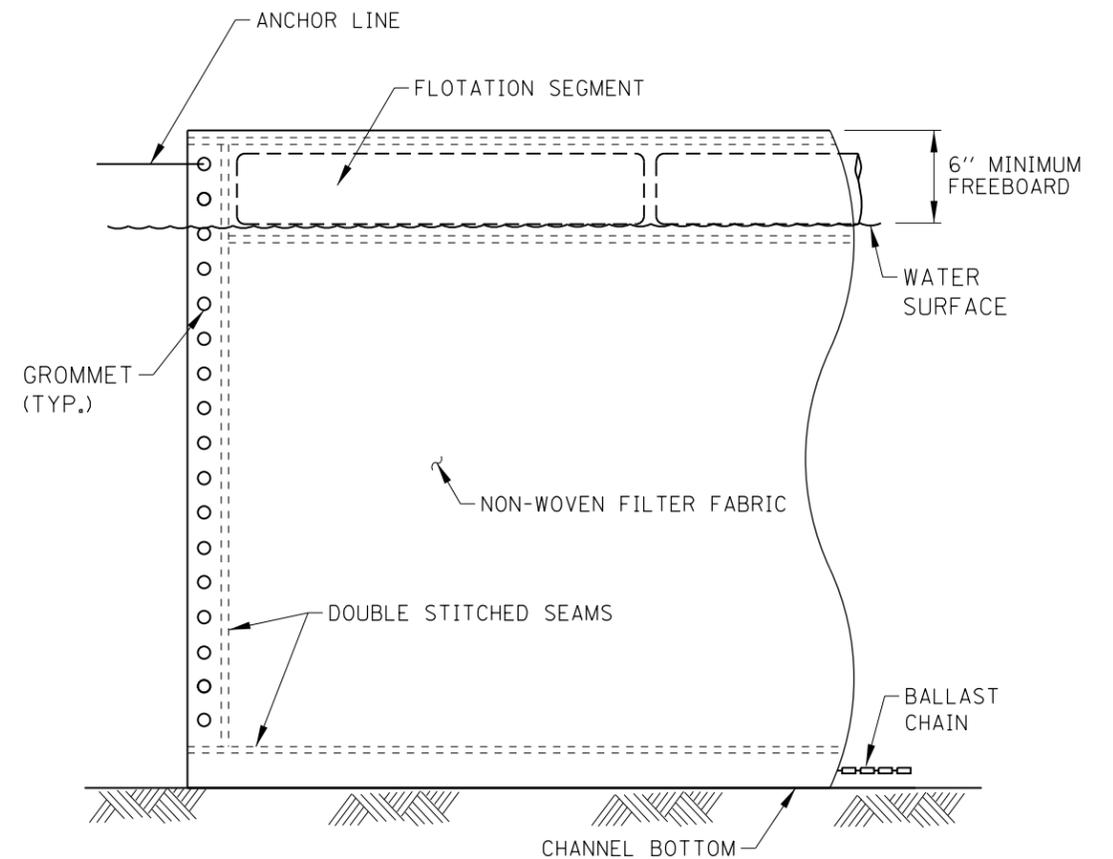




PLAN VIEW



SECTION



ELEVATION

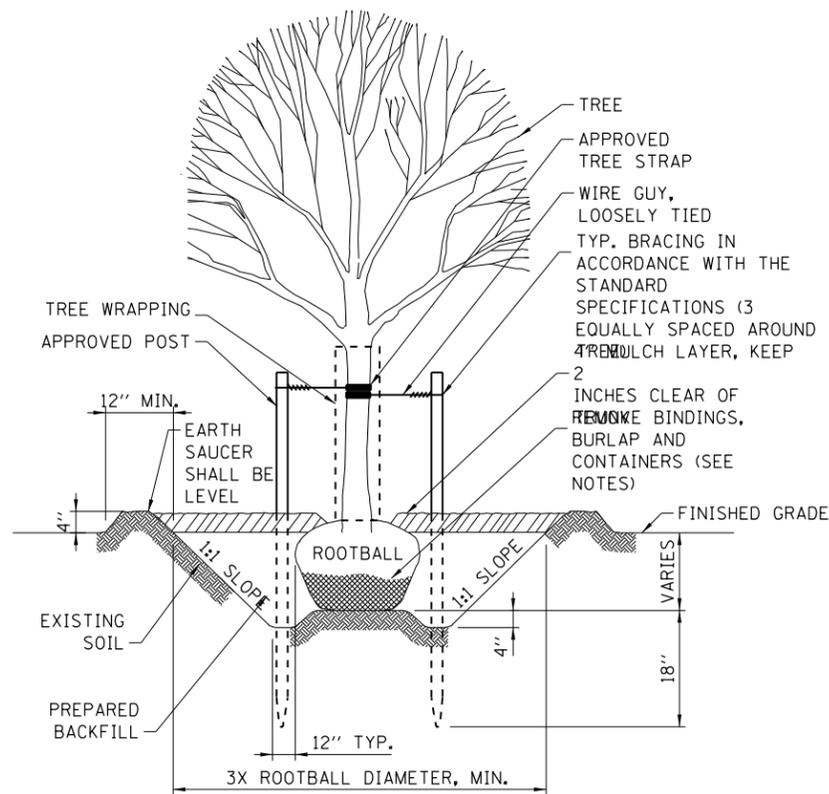
NOTES:

1. SILT CURTAIN FOR USE IN MOVING WATER SHALL BE ANCHORED TO PREVENT DRIFT SHOREWARD OR DOWNSTREAM. SILT CURTAINS ARE NOT TO BE INSTALLED ACROSS FLOWING BODY OF WATER.
2. SHORE ANCHORS SHALL CONSIST OF A POST WITH DEADMAN OR APPROVED EQUAL. STREAM ANCHORS SHALL BE OF SUFFICIENT SIZE TO STABILIZE THE BARRIER WITH NUMBER AND SPACING DEPENDENT ON WATERWAY VELOCITIES.
3. FABRIC SECTIONS SHALL BE CONNECTED END TO END WITH MINIMUM 5/8" DIAMETER POLYPROPYLENE ROPE AND GROMMETTED HOLES OR WITH A MINIMUM OF TWO LINES OF STITCHING.
4. THE SILT CURTAIN SHALL EXTEND THE FULL DEPTH OF THE WATER BODY EXCEPT WHERE SIGNIFICANT WIND OR WAVE ACTION IS PRESENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED. CONTRACTOR SHALL REMOVE THE CURTAIN AT COMPLETION OF WORK IN A MANNER THAT WILL PREVENT SILTATION OF THE WATERWAY.
6. CONSTRUCTION DEBRIS/MATERIALS SHALL BE REMOVED IMMEDIATELY TO PREVENT DAMAGE TO THE CURTAIN AND ENTRY INTO THE WATERWAY.
7. SILT CURTAIN TO BE USED TO CONTROL TURBIDITY WHEN WORKING IN WATERWAYS.
8. SILT CURTAIN SHALL NOT BE USED WHERE THE ANTICIPATED FLOW VELOCITIES WILL EXCEED 5 FT/SEC. AN ALTERNATE CURTAIN TYPE IS REQUIRED IN SUCH INSTANCES.
9. IN SHALLOW WATER (2 FEET OF DEPTH OR LESS) A SILT CURTAIN MAY BE INSTALLED ON STAKES DRIVEN IN TO THE BED OF THE WATERWAY.

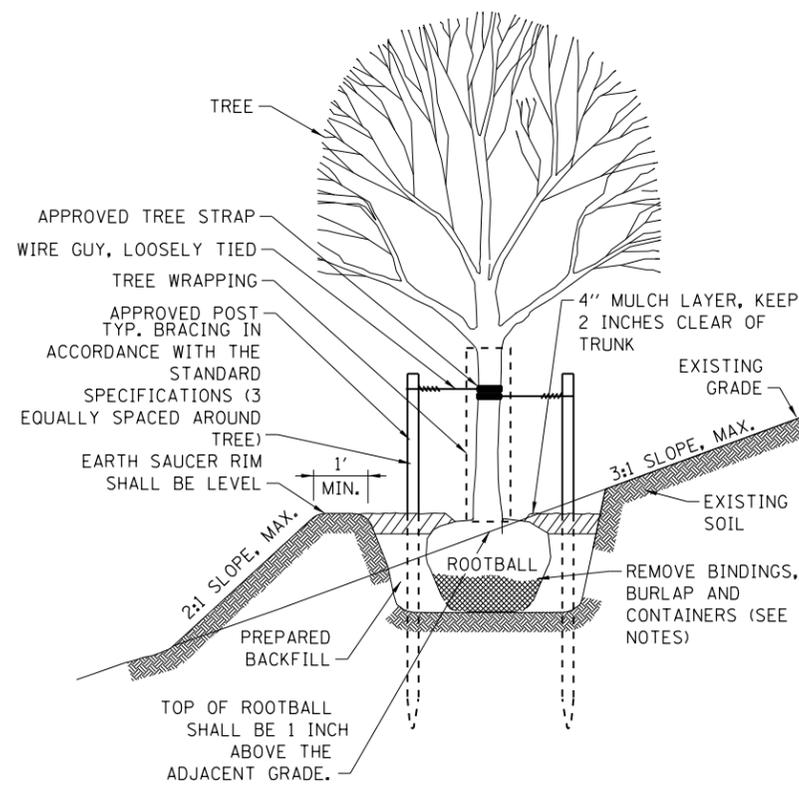
SILT CURTAIN
STANDARD SYMBOL
—SC—SC—

Paul Kovacs
APPROVED... CHIEF ENGINEERING OFFICER DATE 2-7-2012

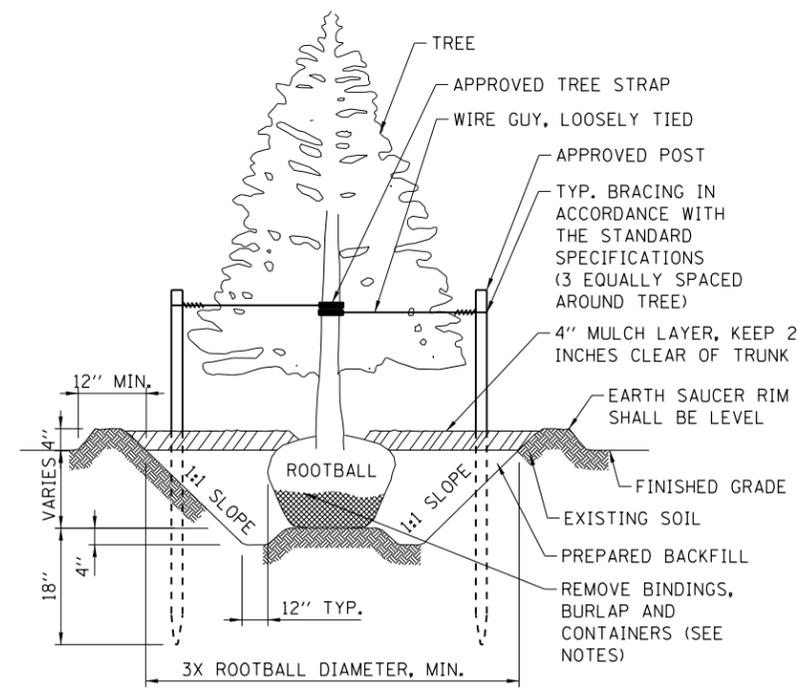




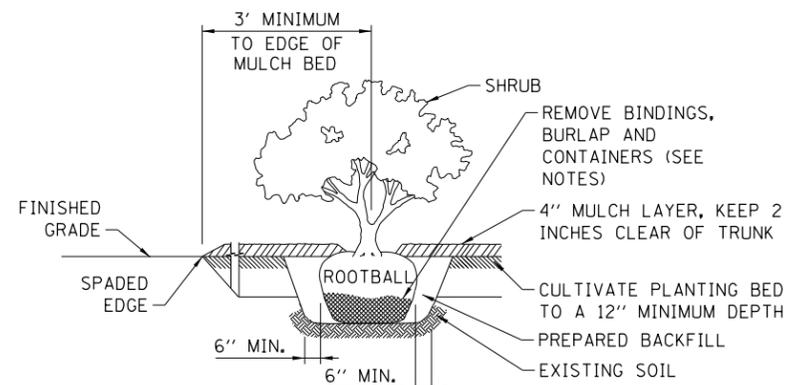
DECIDUOUS TREE PLANTING DETAIL



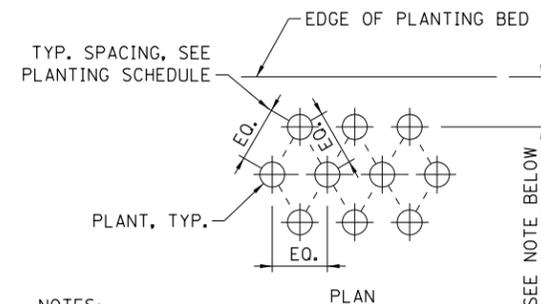
STEEP SLOPE PLANTING DETAIL



EVERGREEN TREE PLANTING DETAIL



SHRUB PLANTING DETAIL



NOTES:

OFFSET OF PLANTS FROM EDGE OF PLANTING AREA SHALL BE EQUAL TO HALF OF THE PLANT SPACING REQUIREMENT FOR EACH PLANT SPECIES AS SHOWN IN THE PLANTING SCHEDULE, OR 3' MINIMUM, UNLESS OTHERWISE INDICATED.

SHRUB AND GROUND COVER SPACING DETAIL

PLANTING NOTES:

- MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES BEFORE BEGINNING WORK. FLAG OR STAKE THE ALIGNMENT OF UTILITY LINES THROUGH TREE AND SHRUB PLANTING BEDS TO CONFIRM REQUIRED OFFSETS. REPORT ANY CONFLICTS TO THE ENGINEER IMMEDIATELY FOR RESOLUTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND, SURFACE AND OVERHEAD UTILITIES REGARDLESS OF LOCATION OR LACK OF LOCATION ON PLANS.
- PLANTING PLANS ARE DIAGRAMMATIC. PLANT LOCATIONS SHALL BE REVIEWED BY THE CONTRACTOR AND ENGINEER AND OR ILLINOIS TOLLWAY LANDSCAPE ARCHITECT AND ADJUSTED IN THE FIELD AS NECESSARY PRIOR TO PLANTING.
- TREES SHALL BE LOCATED CLEAR OF ROADWAY PAVEMENT EDGES, SIXTY (60) FEET MINIMUM.
- TREE AND SHRUB PLANTINGS SHALL NOT BLOCK ACCESS TO GATES IN FENCES, HYDRANTS ON NOISE WALLS OR OTHER SERVICE ACCESS DOORS.
- TREES PLANTED IN TURF AREAS SHALL BE LOCATED TEN (10) FEET MINIMUM CLEAR FROM THE EDGE OF PLANTINGS BEDS.
- TREE AND SHRUB PLANTINGS SHALL BE OFFSET FROM UTILITY LINES, PIPES AND STRUCTURES A MINIMUM OF 10 FEET AND AS REQUIRED BY UTILITY PROVIDERS. TREES SHALL BE LOCATED TEN (10) FEET MINIMUM CLEAR FROM FENCES, WALLS, BRIDGES AND OTHER STRUCTURES. THIS DISTANCE SHALL BE INCREASED, PER THE PROJECTED MATURE TREE CANOPY SIZE, TO PREVENT OVERHANGING LIMBS ON HIGHWAYS AND BRIDGES.
- THE VERTICAL CLEAR DISTANCE BETWEEN DITCH BOTTOMS, PLANTINGS AND PLANTING BEDS SHALL BE THREE (3) FEET MINIMUM AND NINE (9) FEET MINIMUM HORIZONTAL DISTANCE FOR DITCHES LESS THAN THREE (3) FEET DEEP.
- PERFORM PERCOLATION TESTS WITHIN PLANTING AREAS, - ONE TEST PER AREA OR 1000 SF OF PLANTING BED, MAX. EXCAVATE A 12 INCH X 12 INCH X 12 INCH PIT AND FILL WITH WATER. RECORD THE PER HOUR RATE OF WATER DISPERSAL FROM THE PIT. IF PERCOLATION IS LESS THAN 2 INCHES PER HOUR, CONTACT THE ENGINEER FOR FURTHER INSTRUCTIONS. RELOCATE PLANTINGS AS INSTRUCTED BY THE ENGINEER. RESTORE PIT TO SURROUNDING CONDITION.
- PRUNING SHALL ONLY BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS. IMPROPERLY PRUNED PLANTING WILL BE REJECTED AND REPLACEMENTS SHALL IMMEDIATELY BE MADE BY THE CONTRACTOR.
- SCARIFY THE SIDES OF PLANTING PITS TO LOOSEN SOIL PRIOR TO PLANTING
- WHEN INDICATED ON PLANS, TREE WRAPPING SHALL BE INSTALLED ON ALL DECIDUOUS TREES TO PROTECT FROM DEER AND RODENT DAMAGE. WRAPPING SHALL BE ANCHORED TO GROUND AND EXTEND UP TO LOWEST BRANCH. WRAPPING PLACEMENT SHALL NOT BEAR AGAINST OR INHIBIT GROWTH OF TRUNK OR LOWEST BRANCH.
- TOP OF ROOT BALL SHALL BE APPROXIMATELY ONE (1) INCH ABOVE ADJACENT FINISHED GRADE. REMOVE DEBRIS AND MULCH FROM AROUND ROOT COLLAR.
- SHRUB PLANTINGS, UNLESS OTHERWISE NOTED, SHALL BE PLANTED IN MULCHED BEDS. THE EDGE OF THE MULCHED BEDS SHALL EXTEND A MINIMUM OF THREE (3) FEET BEYOND THE CENTERS OF THE PERIPHERAL PLANTS IN THE BED. THE EDGE OF THE MULCHED BED FOR SHRUB PLANTINGS ADJACENT TO A WALL, FENCE, GUARDRAIL, OR OTHER FIXED OBJECT SHALL EXTEND TO THE OBJECT. THE PERIPHERAL PLANTS IN THE BED SHALL BE PLANTED FIVE (5) FEET CLEAR OF THE OBJECT. WHEN A TREE IS LOCATED IN A SHRUB BED, THE MINIMUM DISTANCE BETWEEN THE TREE AND THE ADJACENT SHRUB SHALL BE SIX (6) FEET.
- ALL FACILITIES AND LANDSCAPE AREAS ON AND OFF SITE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
- ALL TREE SUPPORTS INCLUDING STAKES AND GUY WIRES, BRACING STRAPS AND ANCHORS SHALL BE REMOVED AFTER ONE (1) YEAR OR AS DIRECTED BY THE ENGINEER.
- REMOVE ALL BINDING MATERIALS, CONTAINERS, AND MARKING TAPES FROM PLANTINGS PRIOR TO BACKFILLING. REMOVE SYNTHETIC BURLAP ENTIRELY, REMOVE NATURAL BURLAP, TWINE, AND WIRE BASKETS FROM THE TOP HALF OF ROOT BALLS. THE LOWER HALF OF NATURAL BURLAP SHALL BE FOLDED TOWARD THE BOTTOM OF THE ROOT BALL.
- PLANTINGS SHALL BE INSTALLED PLUMB WITH THE BEST SIDE FACING THE PRIMARY VIEWING DIRECTION.
- PLANTS SHALL COMPLY WITH ANSI Z60.1. LATEST EDITION, AND SHALL BE WELL FORMED WITH FULL FOLIAGE MASS. PLANTS SHALL BE HEALTHY, VIGOROUS, FREE OF DISEASE, INSECT PESTS AND THEIR EGGS. BASIS OF PLANT REJECTION INCLUDES BUT IS NOT LIMITED TO: PLANT IS MORE THAN 10% DEAD, ROOT BOUND, IMPROPERLY PRUNED, EXHIBITS DISPROPORTIONAL GROWTH PATTERN OR DOES NOT MEET SPECIFIED SIZE REQUIREMENTS.
- DO NOT DISTURB OR DAMAGE ROOT BALL WHEN PLANTING. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING PLANTING PITS. WHEN PIT IS HALF FULL OF SOIL, LIGHTLY TAMP, WATER THOROUGHLY. ADD REMAINING SOIL AND WATER FURTHER UNTIL SOIL IS COMPLETELY CONSOLIDATED AND NO MORE WATER IS ABSORBED.
- PREPARED BACKFILL SHALL CONSIST OF EQUAL PARTS TOPSOIL, COMPOST AND EXISTING SITE SOIL SUITABLE FOR PLANT GROWTH. TOPSOIL SHALL COMPLY WITH SECTION 211 OF THE SPECIFICATIONS.

