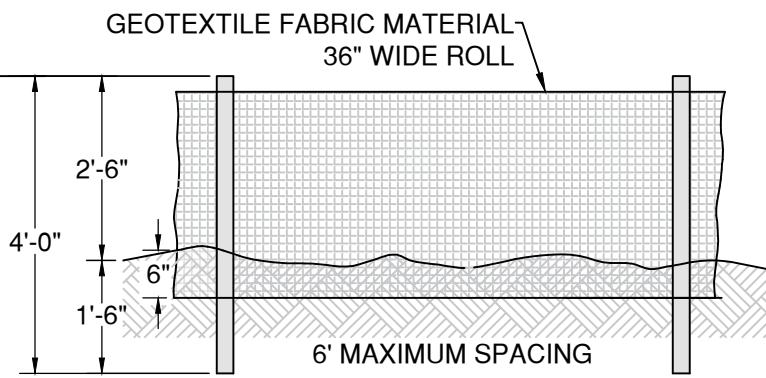
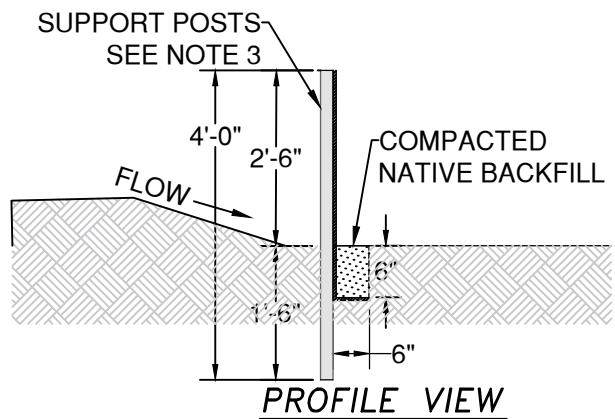
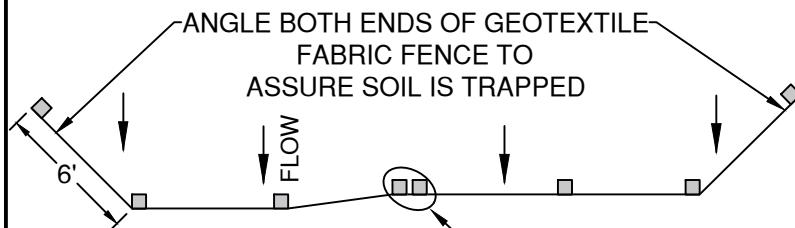

CITY OF BEND STANDARD DRAWINGS
Erosion (E)



FRONT VIEW

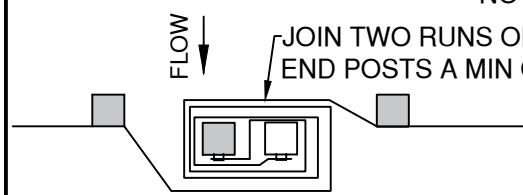


PROFILE VIEW



PLAN VIEW

CONNECT JOINTS WITH TURNED END OR POST SPACING OVERLAP CONNECTION (SEE DETAILS AND NOTE 2)



TURNED END CONNECTION

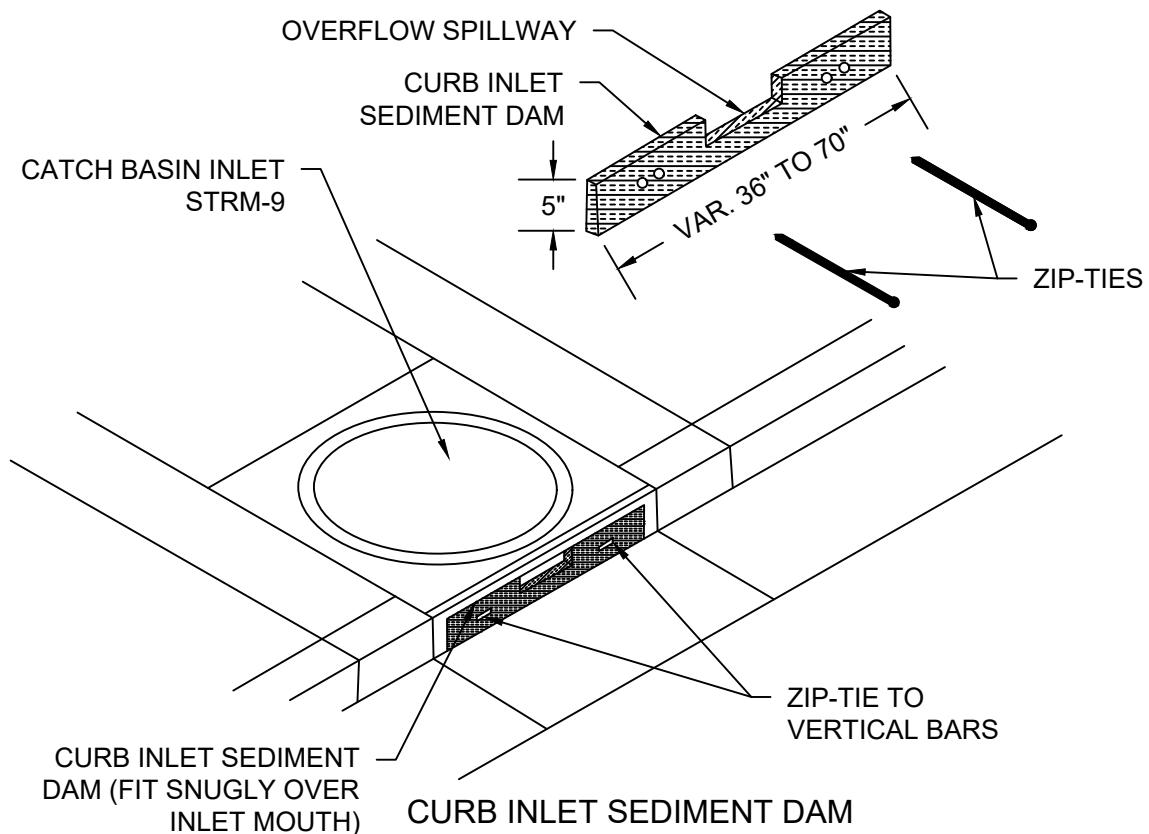


POST SPACING OVERLAP CONNECTION

NOTES:

1. FABRIC WITHOUT SEWN-IN SLEEVES IS NOT RECOMMENDED. IF USED, INSTALL FENCE POSTS PER MANUFACTURER RECOMMENDATIONS.
2. THE GEOTEXTILE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, GEOTEXTILE SHALL BE SPLICED TOGETHER AT A SUPPORT POST UTILIZING A TURNED END OR POST SPACING OVERLAP CONNECTION.
3. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND INSTALLED INTO THE GROUND 18 INCHES MIN. FENCE POSTS SHALL BE 2" X 2" FIR, PINE, OR STEEL. THE GEOTEXTILE FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE SLOPE CONTOURS, TO MAXIMIZE PONDING EFFICIENCY WHERE FEASIBLE.
4. BURY BOTTOM OF THE GEOTEXTILE FABRIC 6 INCHES BELOW GRADE. BACKFILL AND COMPACT.
5. POSTS SHALL BE INSTALLED WITHIN THE SLEEVE ON THE UPHILL SIDE GEOTEXTILE FABRIC.
6. GEOTEXTILE FABRIC FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED.
7. GEOTEXTILE FABRIC FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR AFTER EACH RAIN OR SNOW EVENT AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
8. MAXIMUM RECOMMENDED FENCE WIDTH IS 500 FEET. MAXIMUM TRIBUTARY AREA IS 0.25 ACRE PER 100' OF FENCE. MAXIMUM RECOMMENDED SLOPE LENGTH IS 100'.

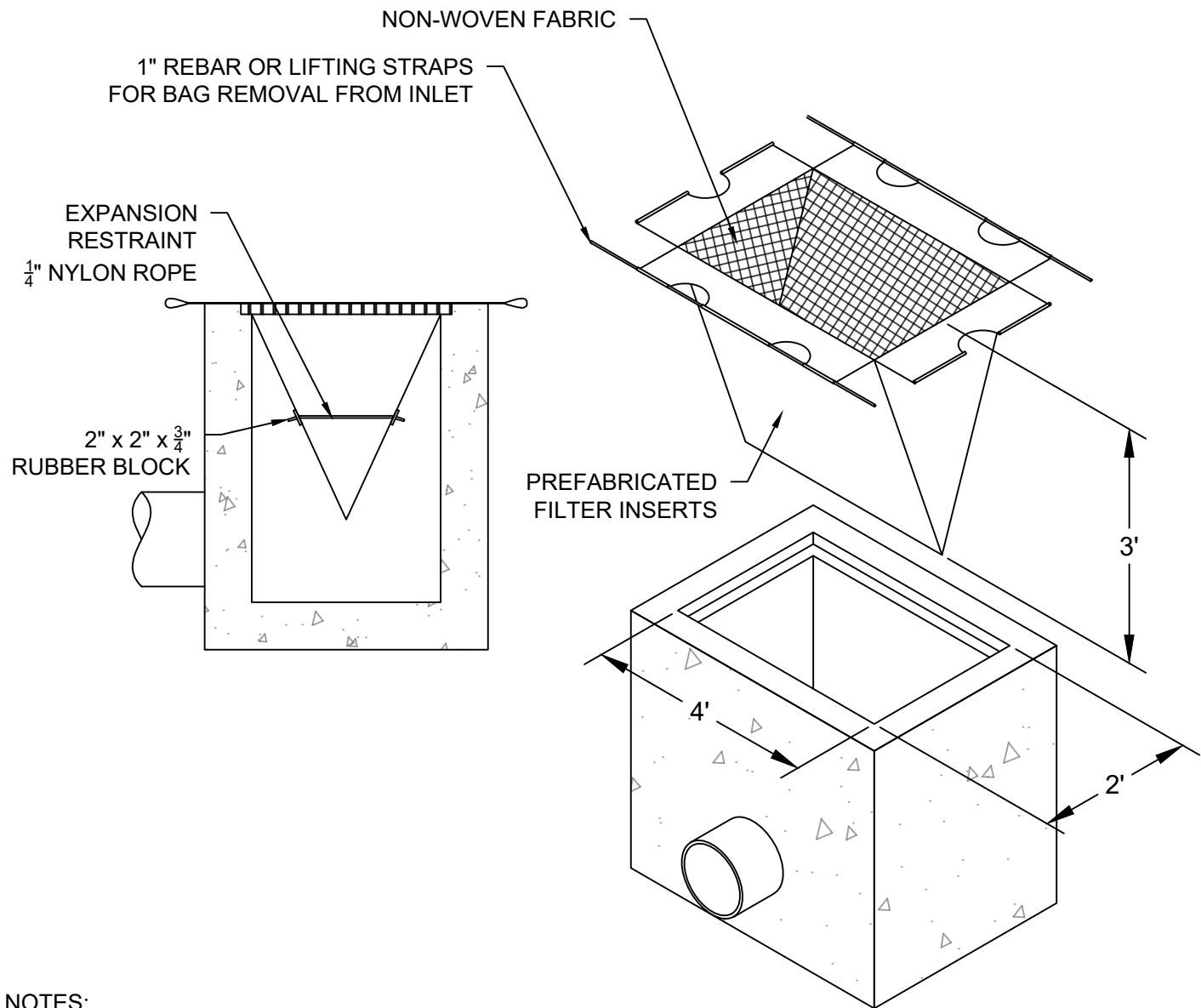
DRAWN	AJD	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS
DIV	EROSION			DATE 01/31/2022
REV	DATE			APPR
				STD DWG E-1



NOTES:

1. INSTALL SEDIMENT DAM ACCORDING TO MANUFACTURE'S RECOMMENDATION. ENDS SHALL NOT EXTEND BEYOND THE MOUTH OF THE INLET.
2. SEDIMENT DAMS ARE REQUIRED TO BE ACCCOMPANIED BY ADDITIONAL BMPS TO PREVENT THE POTENTIAL OF SEDIMENTS ENTERING PROJECT STORM SYSTEMS.
3. INSPECTION & MAINTENANCE:
 - 3.1. INSPECT DAMS WEEKLY AND DAILY DURING STORM EVENTS.
 - 3.2. CLEAN, OR REPLACE, DAMS WHEN DEBRIS HAS REACH A HEIGHT OF 2 INCHES.
 - 3.3. CONTRACTOR IS RESPONSIBLE FOR REMOVING DAMS AND PROPERLY DISPOSING OF ALL MATERIALS ONCE THE PROJECT HAS BEEN PERMANENTLY STABILIZED.

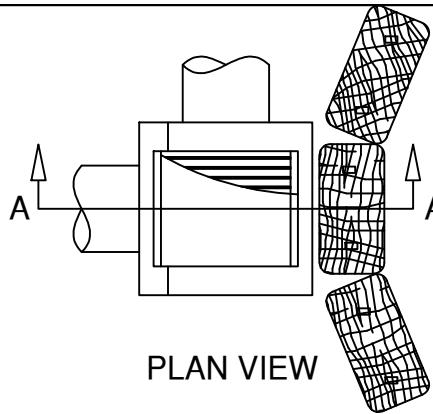
DRAWN CJH	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 CURB INLET PROTECTION	SCALE NTS
DIV EROSION			DATE 11/01/2024
REV			APPR
			STD DWG E-2A



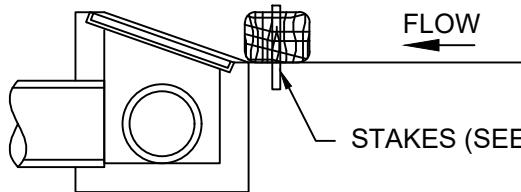
NOTES:

1. INSTALL PRE-FABRICATED FILTER INSERTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
2. FIELD FABRICATED INSERTS ARE NOT PERMITTED.
3. PRE-FABRICATED INSERTS WITH A PROVISION FOR OVERFLOW ARE REQUIRED AND ARE TO BE ACCCOMPANIED BY ADDITIONAL BMPS TO PREVENT THE POTENTIAL OF SEDIMENTS ENTERING PROJECT STORM SYSTEMS.
4. PAIR WITH THE CURB LINE SEDIMENT ATTENUATOR (SEE E-2C) AS REQUIRED.
5. INSPECT & MAINTENANCE:
 - 5.1. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
 - 5.2. CLEAN, OR REPLACE, INSERTS WHEN 50% OF THE SUMP AREA HAS FILLED WITH DEBRIS.
 - 5.3. CONTRACTOR IS RESPONSIBLE FOR REMOVING INSERTS AND PROPERLY DISPOSING OF ALL MATERIALS ONCE THE PROJECT HAS BEEN PERMANENTLY STABILIZED.

DRAWN CJH	DIV EROSION	CITY OF BEND <small>STANDARD DRAWING</small> <small>710 NW WALL ST., BEND, OREGON 97701</small>	SCALE NTS
REV	DATE		DATE 11/01/2024
			APPR
			STD DWG E-2B



PROVIDE UPSTREAM RUNOFF CONTROL (IE CHECK DAMS) AS NECESSARY TO REDUCE VELOCITY AND SEDIMENT LOADS ALONG THE LENGTH OF THE DITCH



PLAN VIEW

SECTION A-A

DITCH INLET

INSTALL CATCH BASIN
INSERT PER CITY
STANDARDS

FORCE AND DEFORM
BIO BAG TIGHT AGAINST
CURB (TYP)

CURB FACE

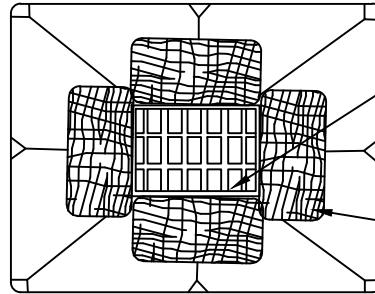
THREE (MIN) BIO BAGS UPSTREAM FROM
CATCH BASIN IN EACH DIRECTION

TYPE 1 CURBLINE SEDIMENT ATTENUATOR

PLACE ON ROW OF
BIO-BAGS IN FRONT OF
INLET WITH $\frac{1}{2}$ THE BAG
PAST THE INLET
OPENING ON EACH SIDE

CURB
FACE

TYPE 4 CURB CUT/
CURB INLET



TYPE 3 AREA DRAIN /
NON-HARDSCAPE INLET

INSTALL CATCH
BASIN INSERT PER
CITY STANDARDS
BIO BAGS OR
MINIMUM 2"
FREEBOARD

NOTES:

1. BIO-BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2"x24" WOOD STAKES OR APPROVED EQUAL. LONGER STAKES WILL BE REQUIRED THERE IS HIGH RUNOFF OR LARGE SEDIMENT LOADS ANTICIPATED TO MAINTAIN BIO-BAGS IN POSITION.
2. TYPE 1 CURBLINE SEDIMENT ATTENUATOR SHALL BE INSTALLED AS REQUIRED.
3. BIO BAGS MAY BE REPLACED WITH A 2" MINIMUM FREEBOARD BETWEEN DISTURBED GROUND AND INLET GRATE.
4. SEDIMENT BARRIERS SHALL BE MAINTAINED UNTIL UPHILL AREA IS PERMANENTLY STABILIZED.
5. BIO-BAGS ARE NEVER TO BE PLACED IN COLLECTOR OR ARTERIAL STREETS UNLESS OTHERWISE APPROVED BY THE CITY.
6. INSPECTION & MAINTENANCE:
 - 6.1. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
 - 6.2. CLEAN, OR REPLACE, BIO-BAGS WHEN DEBRIS HAS REACH A HEIGHT OF 2 INCHES.
 - 6.3. CONTRACTOR IS RESPONSIBLE FOR REMOVING BIO-BAGS AND PROPERLY DISPOSING OF ALL MATERIALS ONCE THE PROJECT HAS BEEN PERMANENTLY STABILIZED.

DRAWN CJH

DIV EROSION

REV DATE



CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

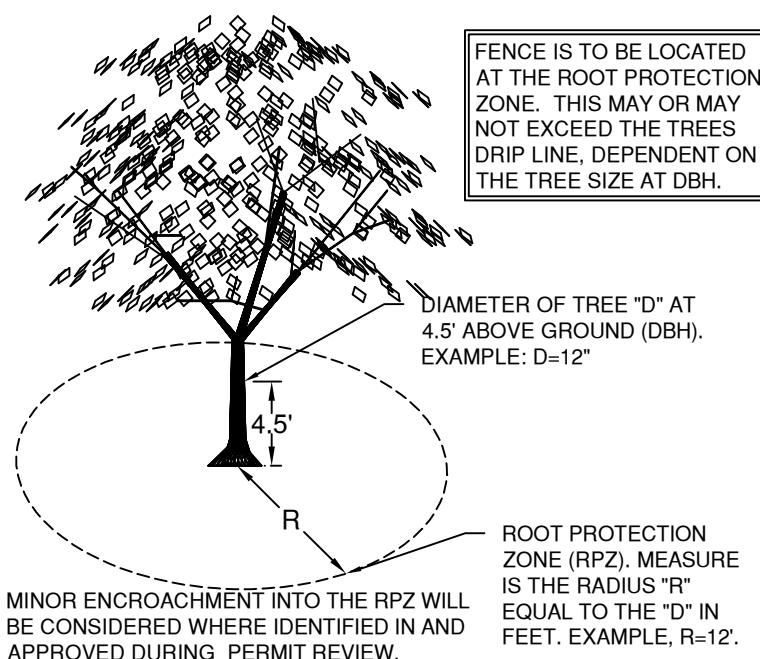
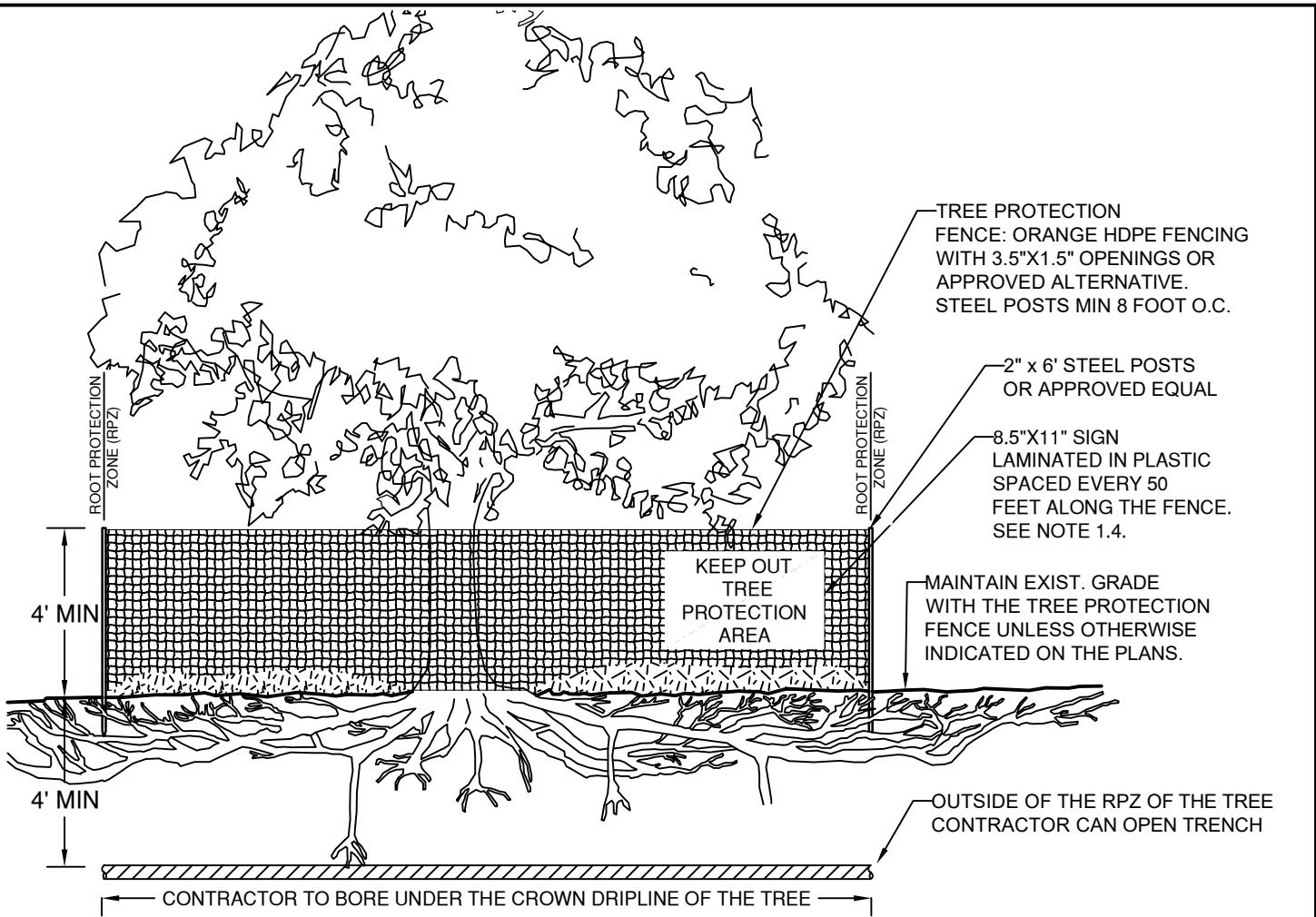
SCALE NTS

DATE 11/01/2024

APPR

STD DWG E-2C

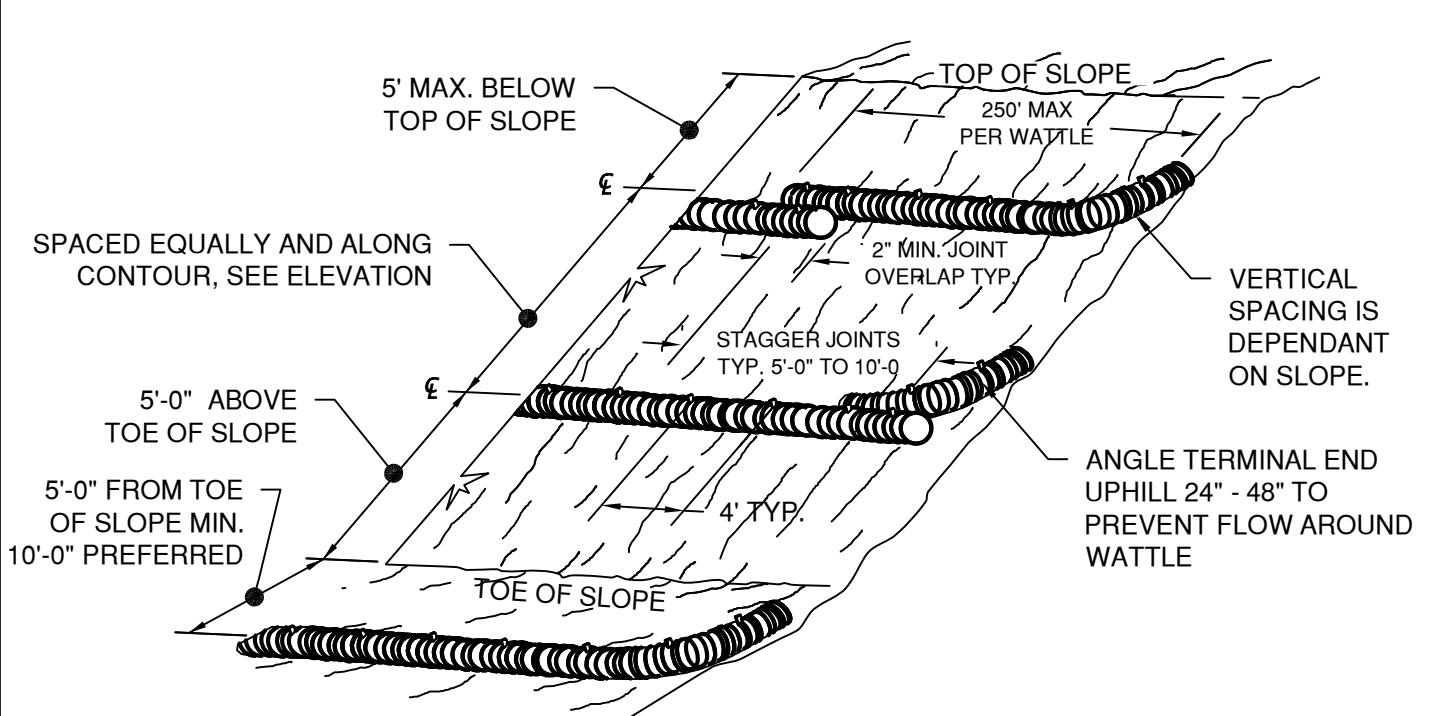
BIO BAG INLET PROTECTION



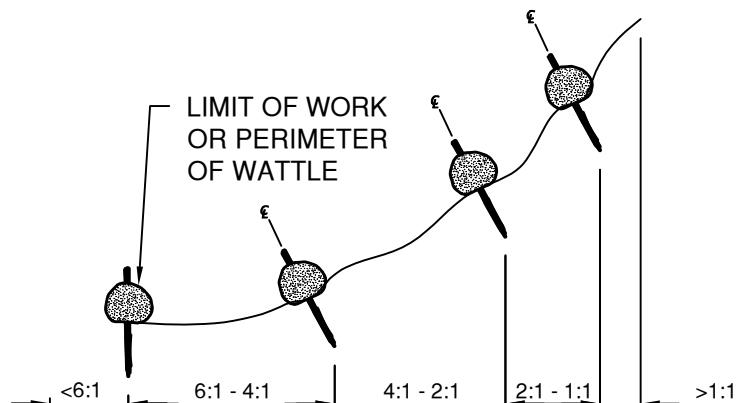
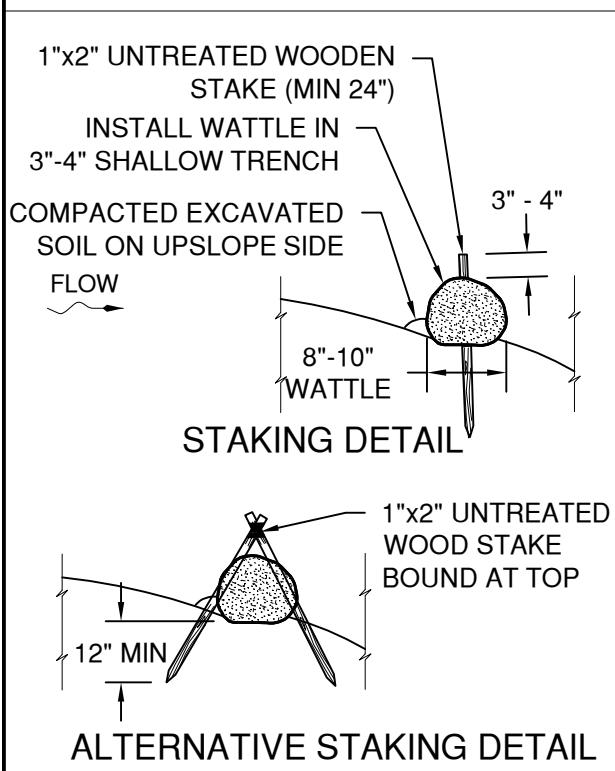
MINOR ENCROACHMENT INTO THE RPZ WILL BE CONSIDERED WHERE IDENTIFIED IN AND APPROVED DURING PERMIT REVIEW.

1. PROTECTION FENCING MUST:
 - 1.1. BE INSTALLED PRIOR TO ANY GRADING AND/OR SITE IMPROVEMENTS. FENCING TO BE MAINTAINED UNTIL THE GRADING PERMIT / SITE PERMIT IS COMPLETE.
 - 1.2. TREE PROTECTION METHODS MUST BE CONSISTENT WITH INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) BEST MANAGEMENT PRACTICES.
 - 1.3. PROTECTION FENCING MUST BE INSTALLED AT THE EDGE OF THE ROOT PROJECTION ZONE AND PERMISSIBLE ENCROACHMENT AREA. EXISTING STRUCTURES AND/OR SECURE FENCING AT LEAST 3.5 FEET TALL CAN SERVE AS THE REQUIRED PROTECTION FENCING.
 - 1.4. SIGNAGE DESIGNATING THE PROTECTION ZONE AND PENALTIES FOR VIOLATIONS MUST BE SECURED ON EACH FENCE AS REQUIRED BY THE BDC.
 - 1.5. FENCING IS TO BE INSPECTED WEEKLY OR AFTER HIGH WINDS. REPAIR AS NEEDED TO ENSURE CONFORMANCE.
2. ANY LANDSCAPING OR IRRIGATION APPROVED WITHIN THE ROOT PROTECTION ZONE MAY BE INSTALLED BEFORE OR AFTER THE REMOVAL OF THE PROTECTION FENCING AND MUST NOT DISTURB EXISTING TREES, INCLUDING ROOTS, WITHIN THE ROOT PROTECTION ZONE.
3. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTION FENCING. AREA WITHIN THE FENCING WILL NOT BE USED FOR STAGING OR STORAGE.

DRAWN CJH	DIV EROSION	CITY OF BEND		SCALE NTS
REV	DATE			DATE 11/01/2024
				APPR
				STD DWG E-3
CITY OF BEND		TREE/VEGETATION PROTECTION FENCING		
710 NW WALL ST., BEND, OREGON 97701				



SLOPE APPLICATION - PERSPECTIVE VIEW

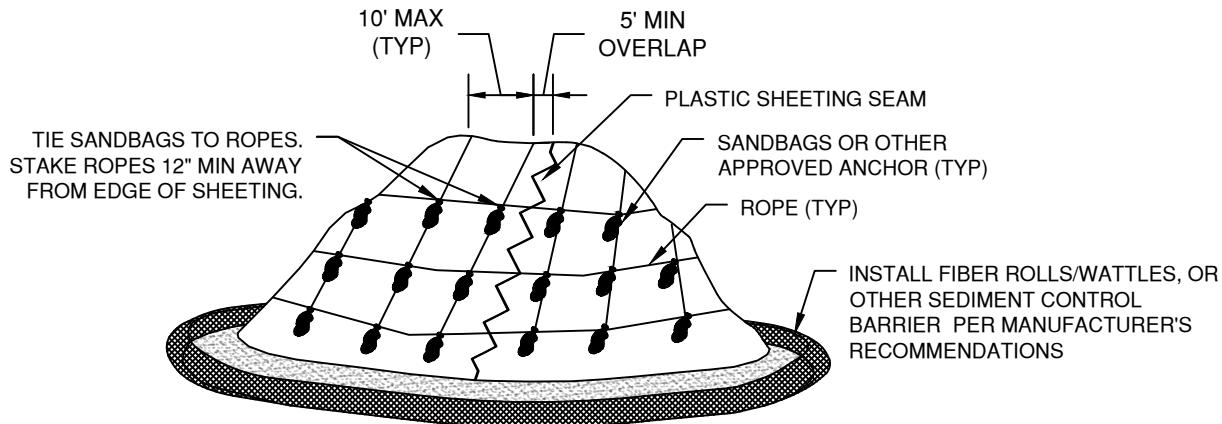


SLOPE APPLICATION - PLAN VIEW

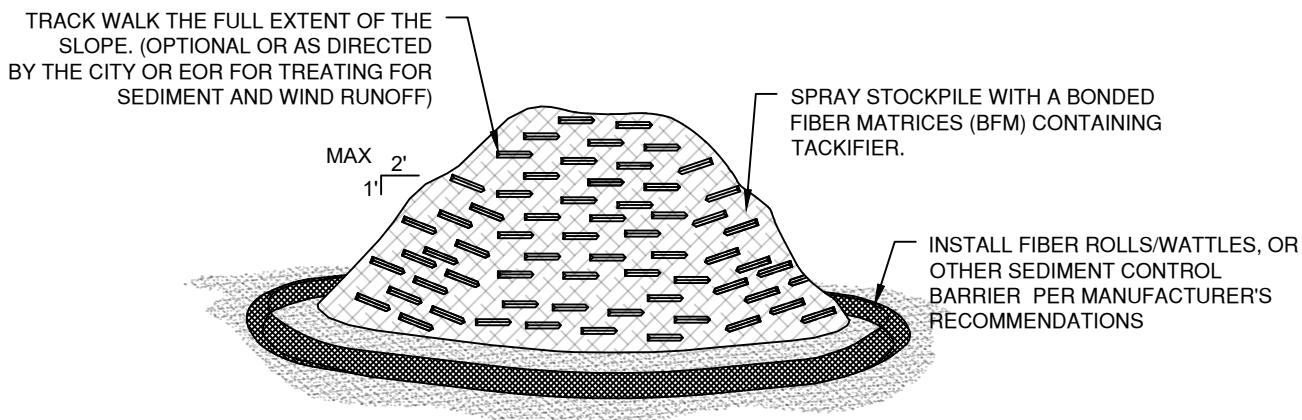
INSPECTION & MAINTENANCE

1. INSPECT WEEKLY AND AFTER MAJOR STORM
2. REMOVE ACCUMULATED SEDIMENT WHEN IT IS 1/3 CAPACITY OF WATTLE.
3. REPAIR ADJACENT RILLS OR GULLIES PROMPTLY.

DRAWN CJH	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS
DIV EROSION			DATE 11/01/2024
REV		WATTLES	APPR
DATE			STD DWG E-4



TEMPORARY STOCKPILE STABILIZATION NTS



PERMANENT STOCKPILE STABILIZATION NTS

NOTES:

TEMPORARY STOCKPILE STABILIZATION:

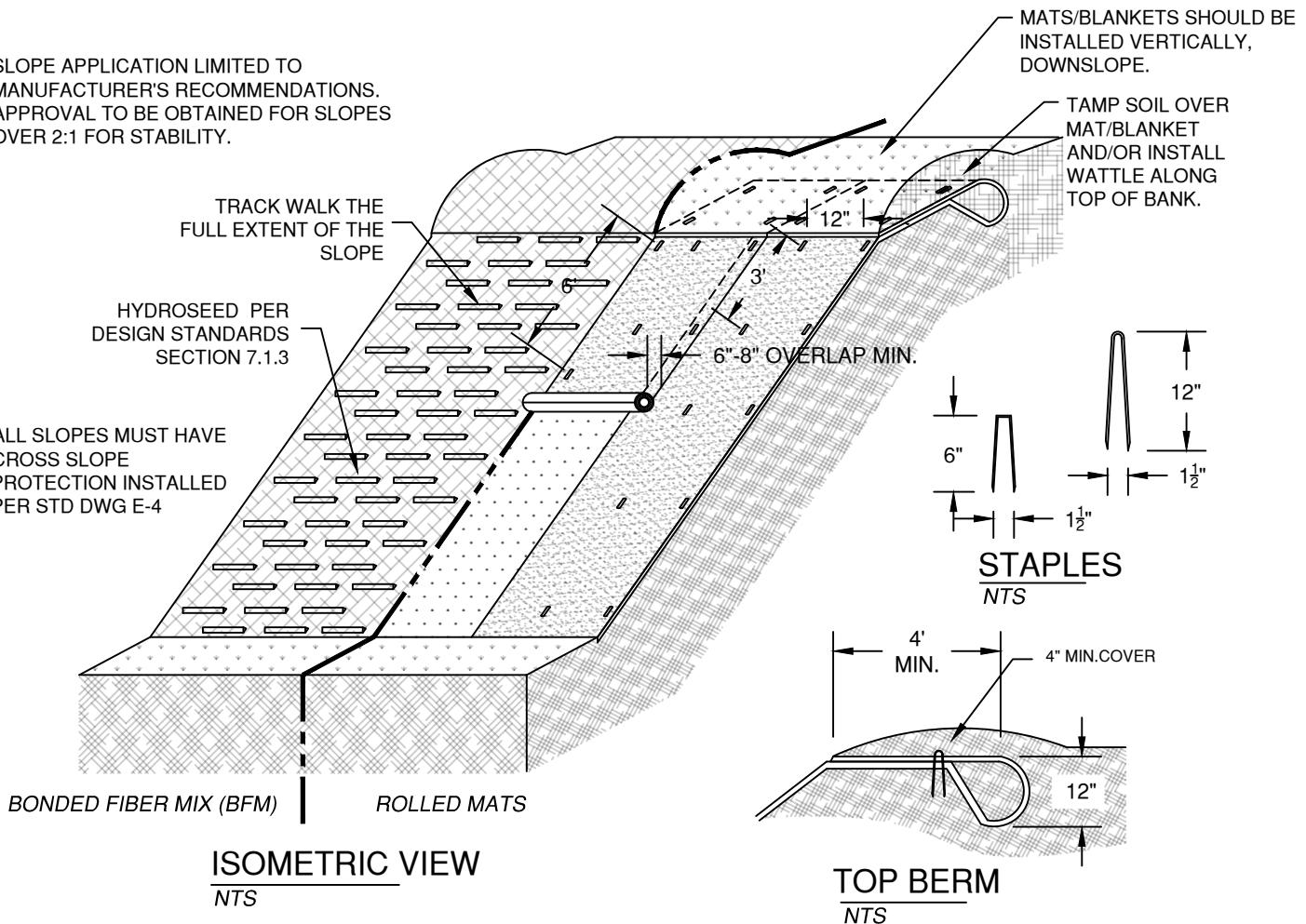
1. INSTALL PLASTIC SHEETING VERTICALLY DOWN SLOPE.
2. INSTALL PLASTIC SHEETING SO EDGES OVERLAP AND ARE SHINGLED AWAY FROM PREVAILING WINDS.
3. PLASTIC SHEETING SHOULD ONLY BE UTILIZED AS REQUIRED BY THE CITY WHERE OTHER METHODS OF STOCKPILE STABILIZATION HAVE NOT PERFORMED.

INSPECTION AND MAINTENANCE:

1. INSPECT WEEKLY AND DAILY DURING STORM EVENTS
2. REPLACE TORN SHEETS AND REPAIR OPEN SEAMS.
3. COMPLETELY REMOVE ALL PLASTIC AND REPLACE WHEN IT BEGINS TO DETERIORATE.
4. COMPLETELY REMOVE PLASTIC WHEN IT IS NO LONGER NEEDED.
5. CHECK ANCHORING SYSTEMS AND REPAIR OR ADD ANCHORS.
6. VERIFY EFFECTIVE FUNCTION OF BMP AT TOE OF SLOPE.

DRAWN CJH	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 STOCKPILE STABILIZATION	SCALE NTS
DIV EROSION			DATE 11/01/2024
REV DATE			APPR
			STD DWG E-5

SLOPE APPLICATION LIMITED TO
MANUFACTURER'S RECOMMENDATIONS.
APPROVAL TO BE OBTAINED FOR SLOPES
OVER 2:1 FOR STABILITY.



NOTES:

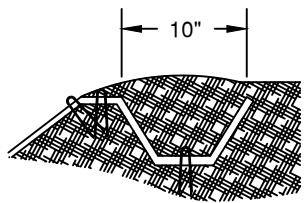
1. PRIOR TO A SITE'S FINAL APPROVAL, ALL DISTURBED STEEP SLOPES MUST BE TREATED FOR LONG-TERM EROSION CONTROL. DISTURBED SOIL OF LESSER SLOPE SHALL BE STABILIZED AND TREATED IF SOIL HAS THE POTENTIAL TO LEAVE THE SITE OR ENTER A STORM DRAIN SYSTEM.
 2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS OR LARGE ORGANIC DEBRIS. MATS/BLANKETS SHALL BE HAVE GOOD SOIL CONTACT.
 3. APPLY PERMANENT SEEDING BEFORE PLACING MATS/BLANKETS.
 4. LAY BLANKETS LOOSELY AND STAKE/STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH.
 5. MINIMUM STAKING OR STAPLING LAYOUT PATTERN - SEE MANUFACTURERS SPECIFICATIONS. USE 6-INCH STAPLES ON COMPACTED SOILS AND 12-INCH STAPLES ON LOOSE SOILS.

INSPECTION AND MAINTENANCE:

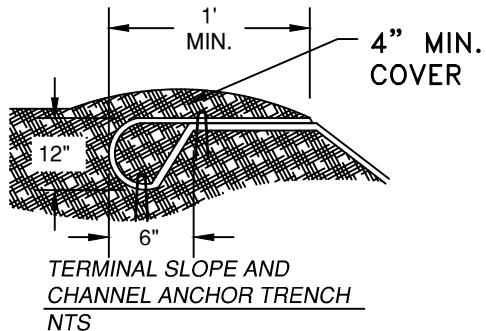
- INSPECTION AND MAINTENANCE:

 1. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
 2. REPAIR ANY DAMAGED AREA OF THE MAT, BLANKET OR BFM. MAINTAIN OR PROVIDE ADDITIONAL ANCHORS AS NECESSARY TO MAINTAIN GROUND CONTACT.
 3. IF EROSION OCCURS, REPAIR AND PROTECT THE ERODED AREA. ADDITIONAL CROSS SLOPE PROTECTION MAY BE REQUIRED.

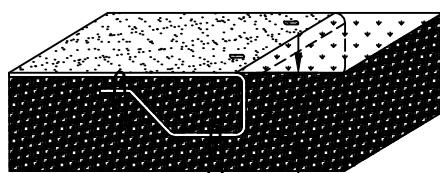
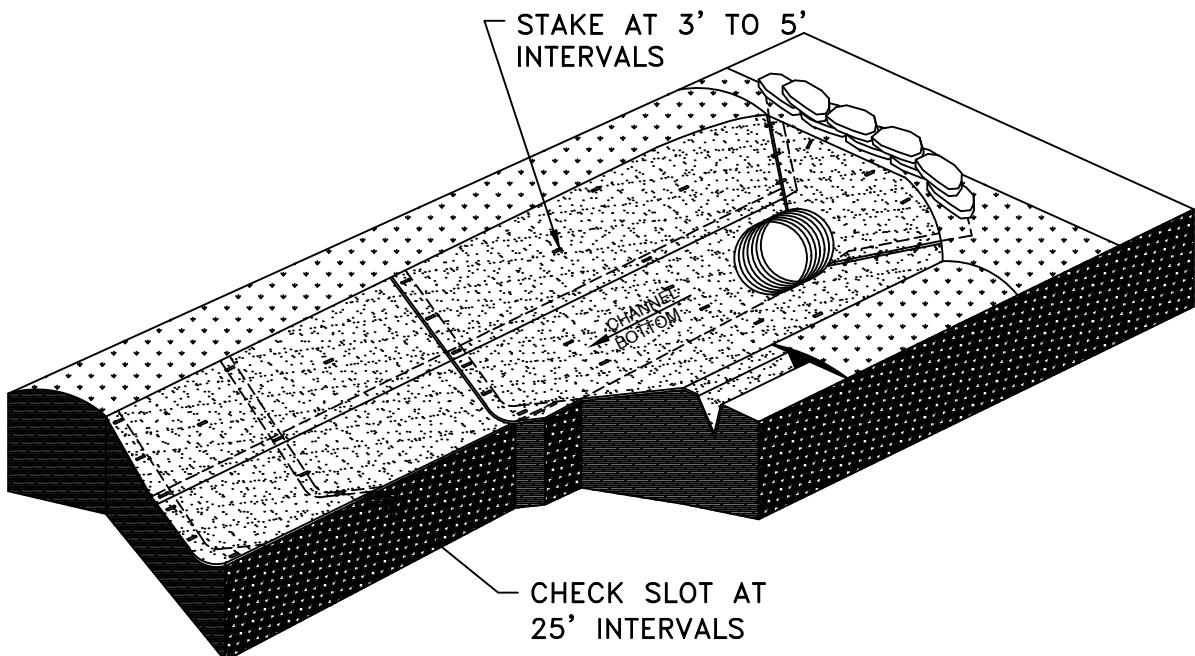
DRAWN	CJH	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE	NTS
DIV	EROSION			DATE	11/01/2024
REV	DATE			APPR	STD DWG E-5B



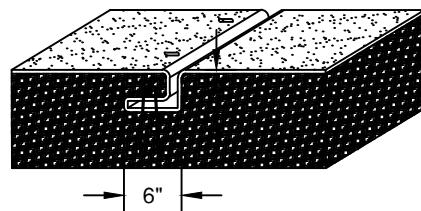
LONGITUDINAL ANCHOR TRENCH
NTS



TERMINAL SLOPE AND
CHANNEL ANCHOR TRENCH
NTS



INITIAL ANCHOR TRENCH
NTS



INTERMITTENT CHECK SLOT
NTS

- NOTES:
1. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS RECOMMENDATIONS.
 2. STAKING OR STAPLING LAYOUT PER MANUFACTURES RECOMMENDATIONS.
 3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
 4. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 5. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
 6. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH.

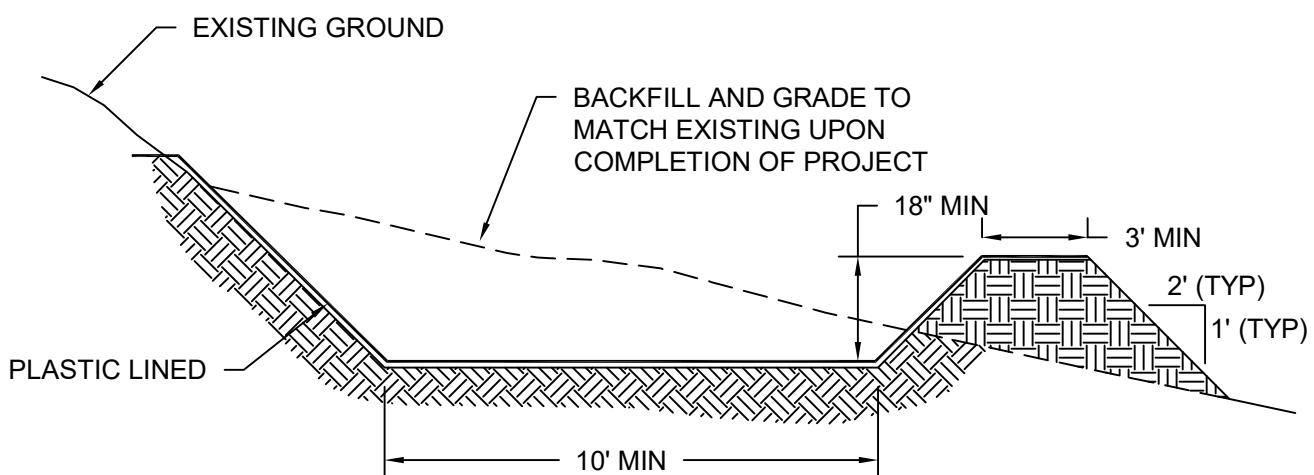
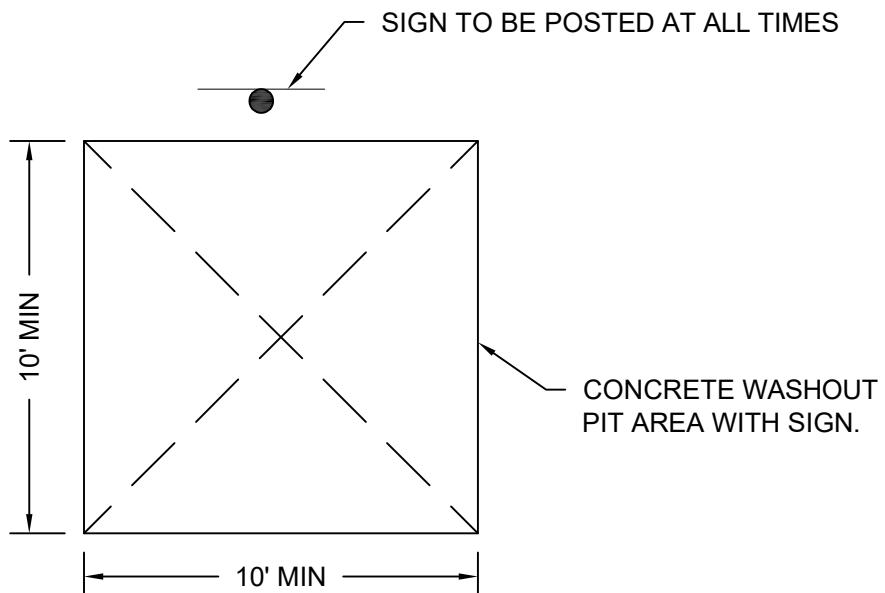
CHANNEL STABILIZATION
NTS

DRAWN	LJC
DIV	EROSION
REV	DATE
	12/1/17

CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701
EROSION BLANKET - CHANNEL INSTALLATION

SCALE	NTS
DATE	10/01/21
APPR	
STD DWG	E-6



NOTES:

1. LOCATE THE WASHOUT A MINIMUM OF 50 FEET FROM ANY STORMWATER INLET AND/OR WATERBODY.
2. PREFABRICATED WASHOUT DEVICES MAY BE UTILIZED.

INSPECTION & MAINTENANCE:

3. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
4. WASHOUT FACILITIES MUST BE SERVICED OR REPLACED AND READY FOR USE ONCE THE FACILITY IS 75% FULL.
5. CONCRETE WASHOUT AREA TO BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE.
6. WASHOUT AREA TO BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE, WASHOUT AND SOLIDS.
7. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, THE WASHOUT SHALL BE REMOVED AND THE AREA RESTORED TO FINISHED GRADE AND PRE-EXISTING CONDITIONS. CONTRACTOR TO LEGALLY DISPOSE OF WASTE MATERIALS.
8. CONTRACTOR SHALL TAKE PRECAUTIONS SO AS TO NOT OVERFLOW THE PIT.

DRAWN	CJH
DIV	EROSION
REV	DATE

CITY OF BEND
CONCRETE TRUCK WASHOUT

CITY OF BEND

STANDARD DRAWING

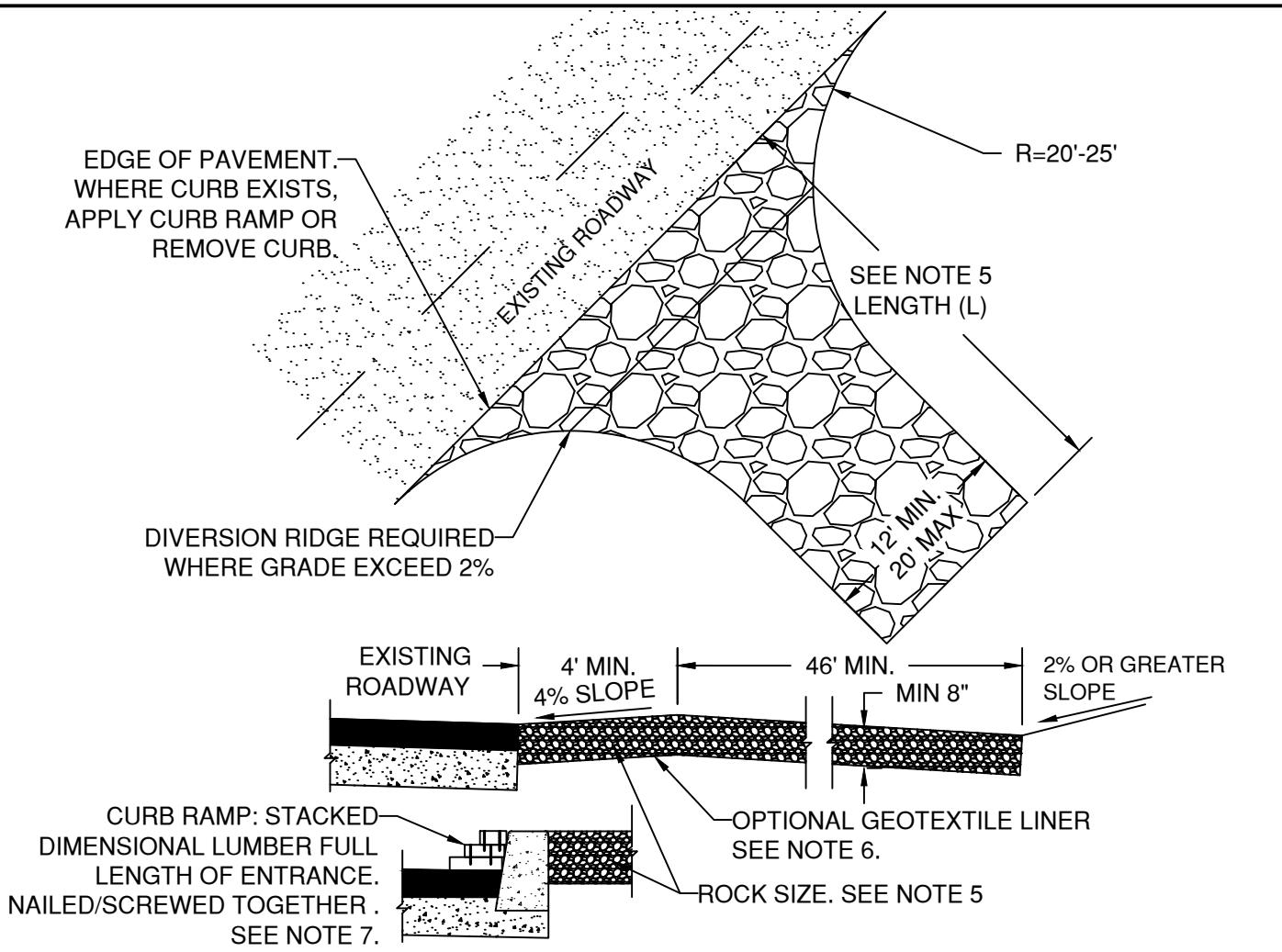
710 NW WALL ST., BEND, OREGON 97701

SCALE NTS

DATE 11/01/2024

APPR

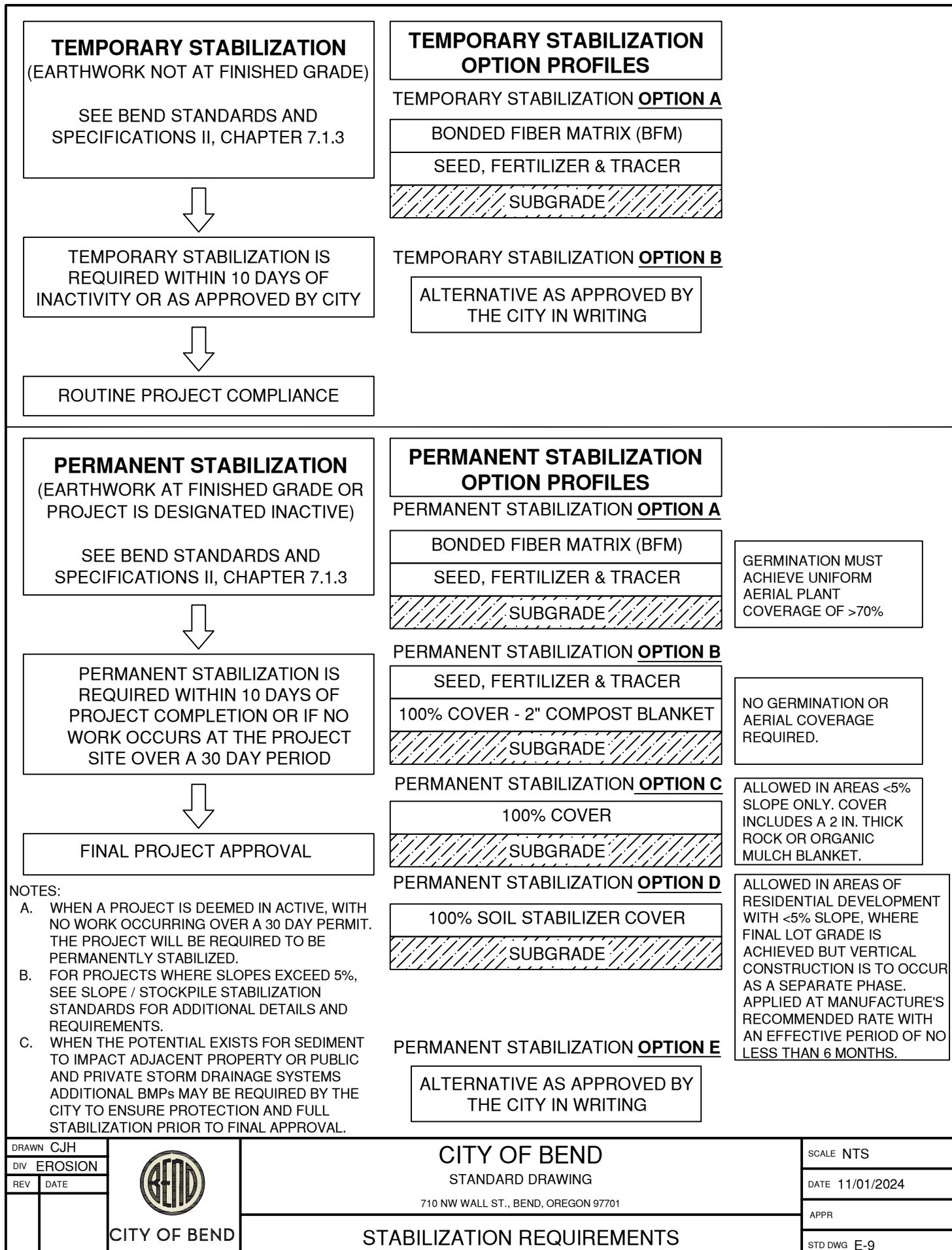
STD DWG E-7

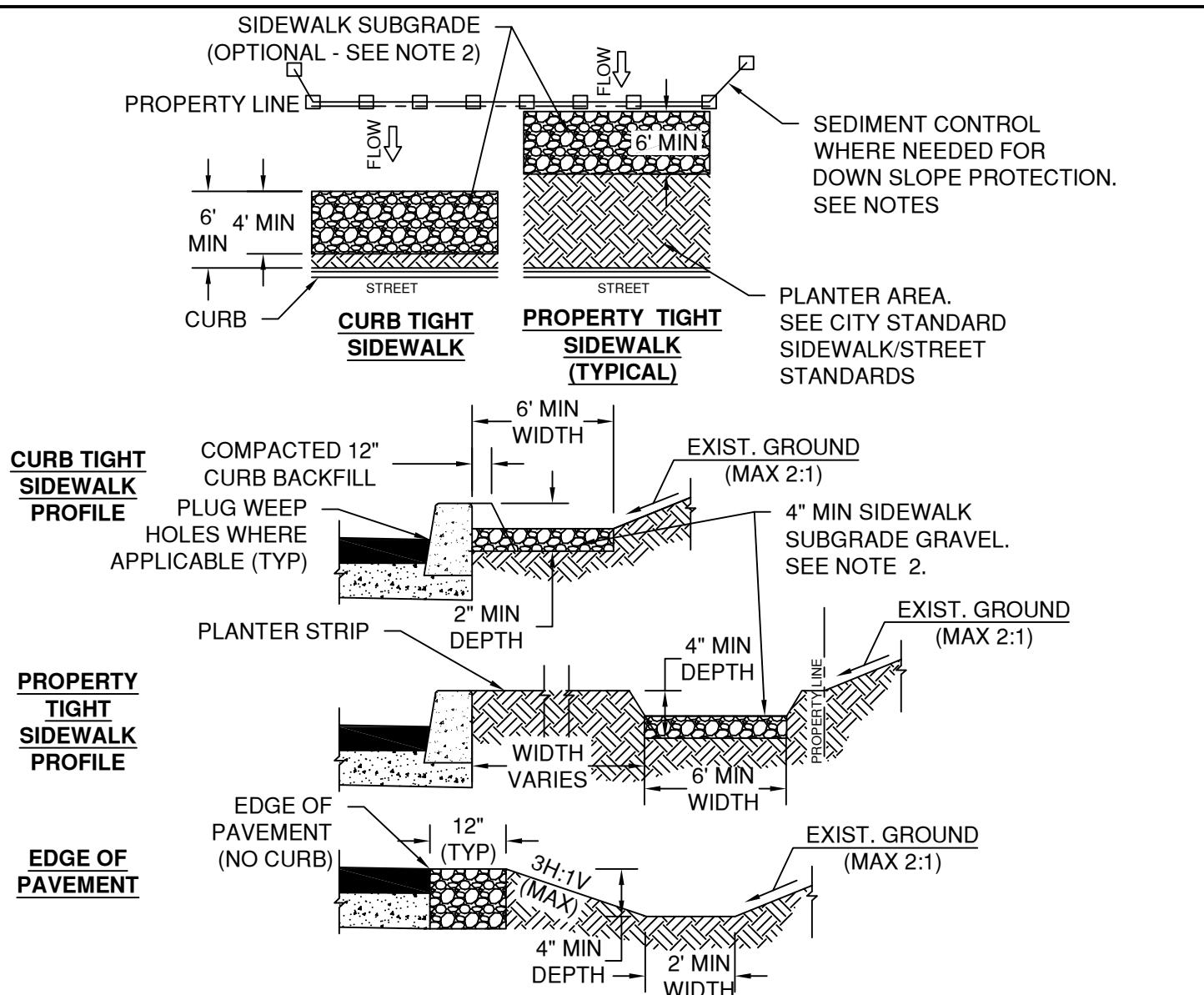


NOTES:

1. CONSTRUCTION ENTRANCE TO BE INSTALLED PRIOR TO ANY OTHER WORK ON SITE AND IS APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED.
2. TIRE WASH FACILITY MAY BE REQUIRED ON SITE TO PREVENT TRACKING ONTO EXISTING ROADWAY. IF REQUIRED, CONSTRUCT TIRE WASH FACILITY PER ODOT STD DWG RD1060.
3. THE CONSTRUCTION AND USE OF THIS ENTRANCE IN NO WAY NEGATES THE CONTRACTOR'S RESPONSIBILITIES TO PREVENT TRACKING OF MATERIAL ONTO EXISTING ROADWAY.
4. ALTERNATIVE PROPRIETARY ENTRANCE MAY BE USED AS APPROVED BY THE CITY.
5. ROCK WILL BE CLEAN AND OPEN GRADED.
 - 5.1. FOR DEVELOPMENT (1-4 RESIDENTIAL UNITS), 3/4-INCH ROCK, L= 20 FEET. "SMALL INDIVIDUAL LOT"
 - 5.2. FOR ALL OTHER DEVELOPMENTS, 3 INCH TO 6 INCH ROCK, L= 50 FEET.
 - 5.3. 1 INCH TO 3 INCH ROCK CAN BE USED AS APPROVED BY THE CITY, L=100 FEET.
6. GEOTEXTILE LINER WILL BE REQUIRED UNDER ROCK WHERE SOILS ARE CLAY OR SHOW SIGNS OF PUMPING THROUGH ROCK.
7. STACKING OF MATERIAL AT CURB FACE FOR CONSTRUCTION ENTRANCE NOT PERMITTED IN BIKE LANES. WHERE BIKE LANES EXIST, CURB CUT MUST BE PERFORMED. DAMAGED CURB WILL BE REMOVED AND REPLACED.
8. INSPECTION & MAINTENANCE:
 - 8.1. INSPECT WEEKLY AND AFTER STORM EVENTS
 - 8.2. MUST BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING/SEDIMENT TRANSFER. INCLUDING BUT NOT LIMITED TO TOPPING, REMOVAL AND REPLACEMENT OF CONTAMINATED ROCK WITH CLEAN ROCK.
 - 8.3. ANY MATERIAL THAT STILL MAKES IT ONTO THE ROAD MUST BE SWEPT IMMEDIATELY AND PROPERLY DISPOSED OF. WASHING OF STREET IS NOT PERMITTED.

DRAWN CJH	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 CONSTRUCTION ENTRANCE	SCALE NTS
DIV EROSION			DATE 11/01/2024
REV DATE			APPR
			STD DWG E-8

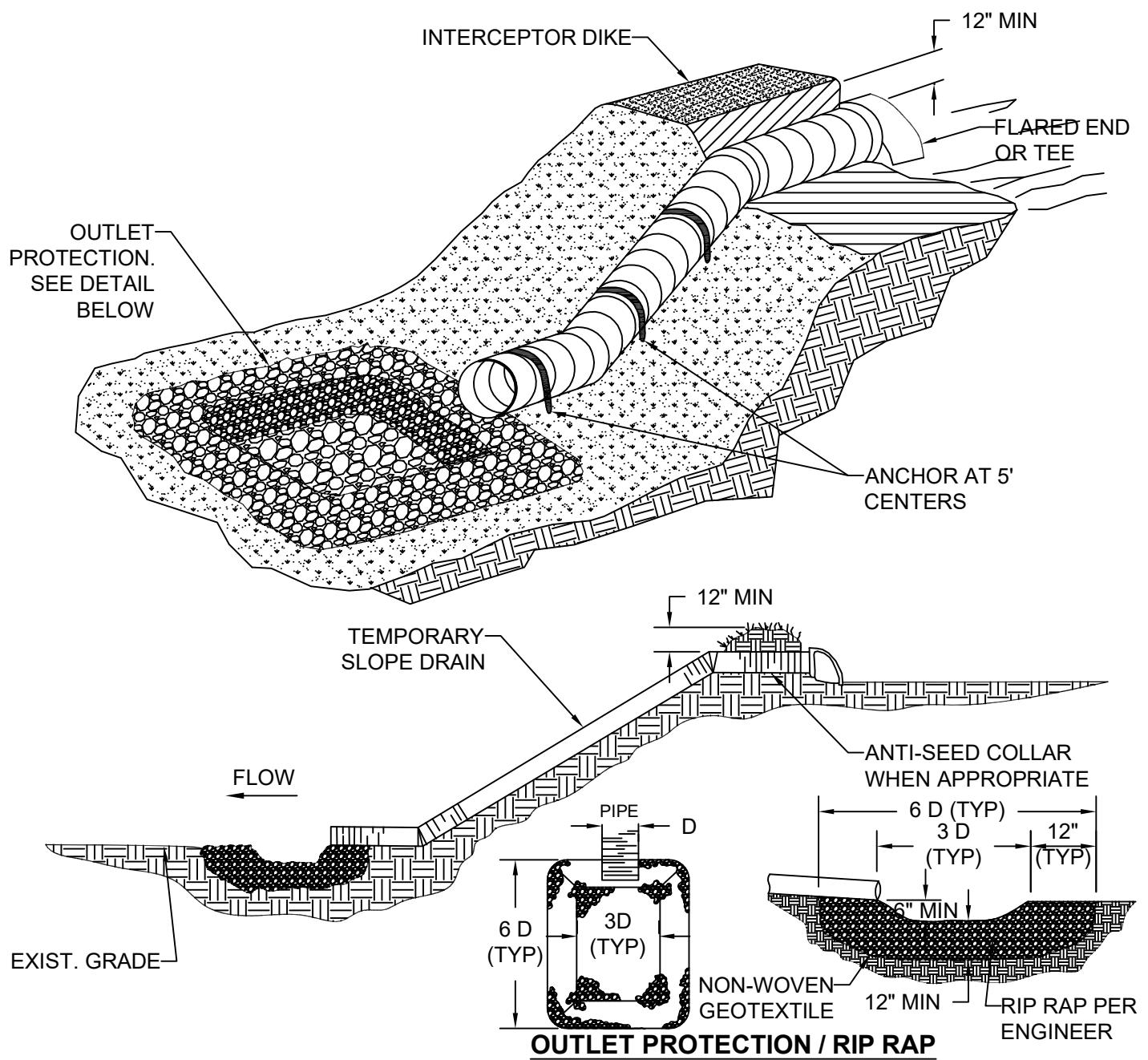




NOTES:

1. WHERE SIDEWALKS ARE INSTALLED, OR THE PROPERTY SLOPES AWAY FROM THE ROAD, THIS STANDARD IS NOT APPLICABLE. DISTURBED SOILS ARE TO BE STABILIZED TO CITY STANDARDS. WHERE SEDIMENT CONTROL IS INSTALLED, IT MUST BE PLACED AT THE PROPERTY LINE OUTSIDE THE RIGHT OF WAY, ALLOWING ACCESS TO THE RIGHT OF WAY. STORMWATER FLOWS INTO THE RIGHT OF WAY WILL BE REMEDIED, PER COSM AND TITLE 16, WITH LOT DEVELOPMENT.
2. THE GRAVEL SIDEWALK SUBGRADE / BASE IS OPTIONAL. WHERE APPLIED, GRAVEL TO BE REMOVED OR ADDITIONAL GRAVEL TO BE ADDED (TO ACHIEVE CITY STANDARDS) WITH SIDEWALK CONSTRUCTION DEPENDING ON LEVEL OF GRAVEL CONTAMINATION.
3. SITE SLOPES GRATER THAN 5% TOWARDS THE SIDEWALK/STREET SUBGRADE MAY BARRIER REQUIRE ADDITIONAL SEDIMENT CONTROL BMPS (SEDIMENT FENCE, STRAW WATTLE, ETC.)
4. SIDEWALK SUBGRADE GRAVEL TO MEET CITY STANDARDS.
5. INSPECTION & MAINTENANCE:
 - 5.1. INSPECT WEEKLY AND AFTER STORM EVENTS.
 - 5.2. REMOVE SEDIMENT WHEN ACCUMULATION IS GREATER THAN 50% OF THE CAPACITY.

DRAWN CJH	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 SUBGRADE BARRIER	SCALE NTS
DIV EROSION			DATE 11/1/2024
REV DATE			APPR
			STD DWG E-10



GRADE RIPRAP SHALL BE THE CLASS AND SIZE OF ROCK ACCORDING TO THE FOLLOWING:

CLASS 50	CLASS 100	CLASS 200	CLASS 700	CLASS 2000	
WEIGHT OF ROCK (LBS)					% (BY WEIGHT)
50-30	100-60	200-140	700-500	2000-1400	20
30-15	60-25	140-80	500-200	1400-700	30
15-2	25-2	80-8	200-20	700-40	40
2-0	2-0	8-0	20-0	40-0	10

RIPRAP:

- ROCK FOR RIPRAP SHALL BE ANGULAR IN SHAPE.
- THICKNESS OF A SINGLE RAMP SHALL NOT BE LESS THAN 1/3 ITS LENGTH.
- DESIGN BASED ON ODOT HYDRAULICS MANUAL AND COSM.

RIPRAP INSTALLATION:

- EXCAVATE BELOW FINISHED GRADE TO DEPTH & DIMENSION SHOWN ON APPROVED PLANS.
- INSTALL WOVEN GEOTEXTILE FABRIC.
- PLACE RIP RAP TO FINISHED GRADE.

DRAWN CJH

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REV DATE



CITY OF BEND

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STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

PIPE SLOPE DRAIN

SCALE NTS

DATE 11/01/2024

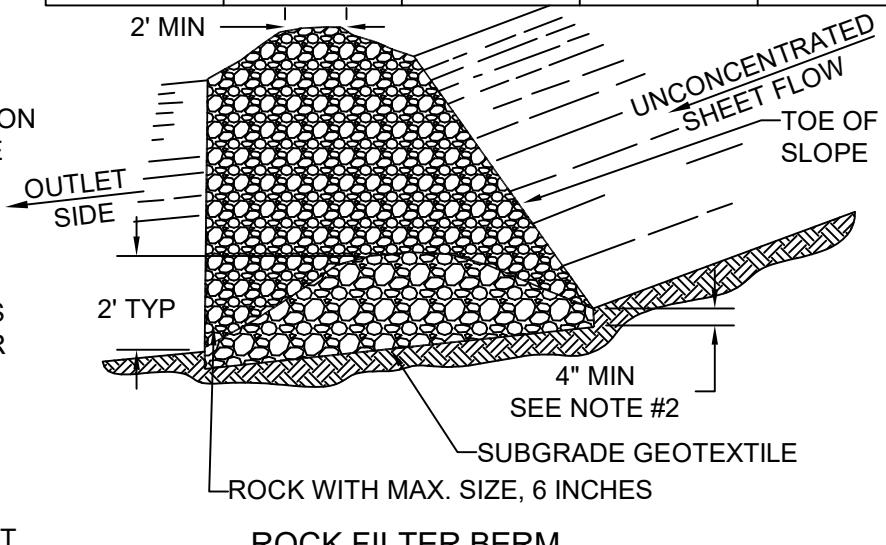
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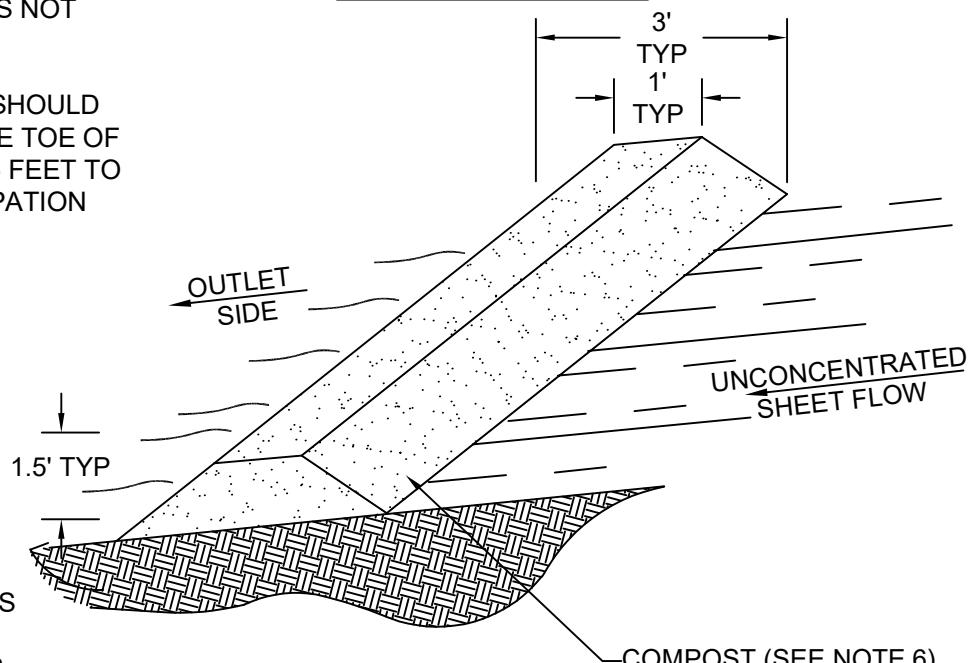
NOTES:

1. DIRECT THE OUTLET SIDE OF THE ROCK/COMPOST FILTER BERMS ONTO A STABILIZED AREA, SUCH AS VEGETATION AND/OR ROCK.
2. EMBED ROCK FILTER BERM A MIN. OF 4" INTO THE EXISTING GROUND/EMBANKMENT.
3. USE ROCK FILTER BERM ON 2H:1V OR FLATTER SIDE SLOPES.
4. PLACE FILTER BERMS ALONG OR ON THE GROUND CONTOUR WITH THE ENDS TURNED UP SLOPE.
5. PRIOR TO INSTALLING A FILTER BERM IN A VEGETATED AREA, ENSURE THAT THE VEGETATION IS CUT TO A HEIGHT OF NO GREATER THAN 3" PRIOR TO INSTALLATION.
6. COMPOST HAS NOT BEEN CHEMICALLY TREATED AND IS WEED-FREE, PLASTIC-FREE, DECOMPOSED, NON-WOODY PLANT MATERIAL; ANIMAL WASTE IS NOT ALLOWED.
7. WHERE POSSIBLE, BERMS SHOULD BE PLACED AWAY FROM THE TOE OF THE SLOPE A MINIMUM OF 5 FEET TO ALLOW FOR ENERGY DISSIPATION AND STORAGE.

FILTER BERM DIMENSIONS AND SPACING BASED ON SLOPE				
SLOPE	BERM SPACING	BERM DIMENSIONS		
		HEIGHT	BOTTOM WIDTH	TOP WIDTH
>50:1	250 Ft	1 Ft	2 Ft (MIN)	1 Ft
50:1 - 10:1	125 Ft	1 Ft	2 Ft (MIN)	1 Ft
10:1 - 5:1	100 Ft	1 Ft	2 Ft (MIN)	1 Ft
3:1 - 2:1	50 Ft	1.30 Ft	2.6 Ft (MIN)	1 Ft
>2:1		1.50 Ft	3 Ft (MIN)	1 Ft



ROCK FILTER BERM



COMPOST FILTER BERM

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710 NW WALL ST., BEND, OREGON 97701

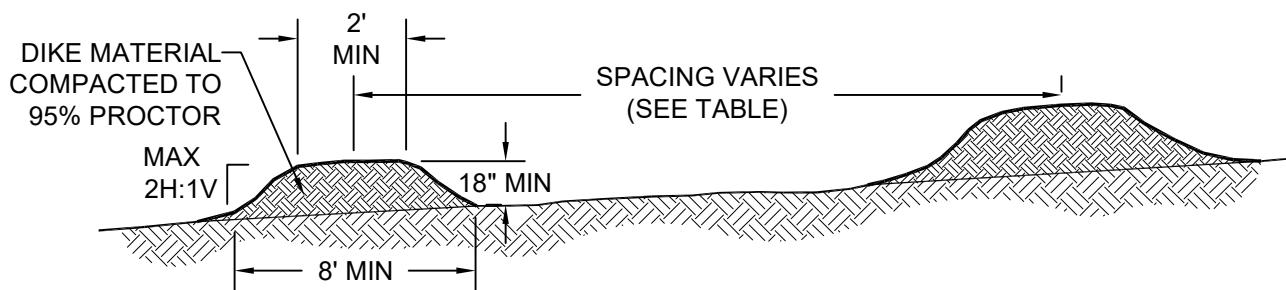
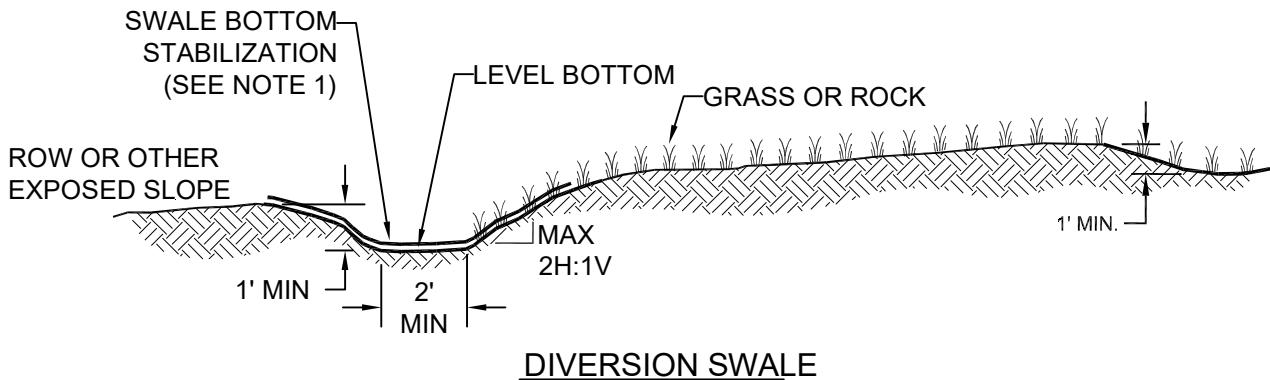
FILTER BERMS

SCALE NTS

DATE 11/01/2024

APPR

STD DWG E-12



NOTES:

1. STABILIZE SWALE BOTTOMS WITH ESTABLISHED VEGETATION OR EROSION CONTROL BLANKETS PRIOR TO USE.
2. CONSTRUCT WITH POSITIVE DRAINAGE TO AN APPROVED OUTLET, SUCH AS SEDIMENTATION POND/TRAP.

INSPECTION AND MAINTENANCE:

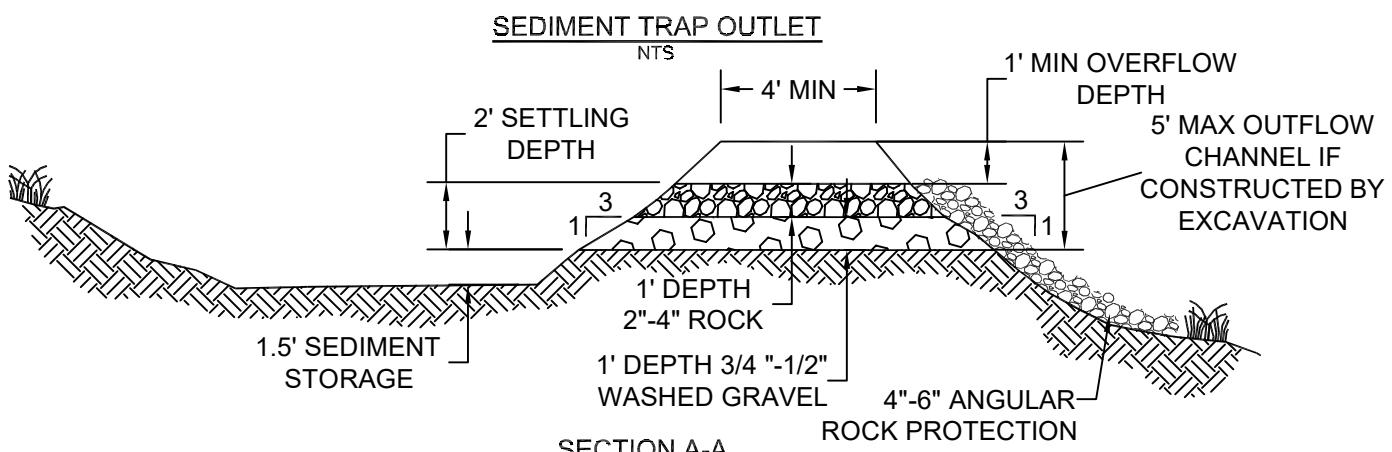
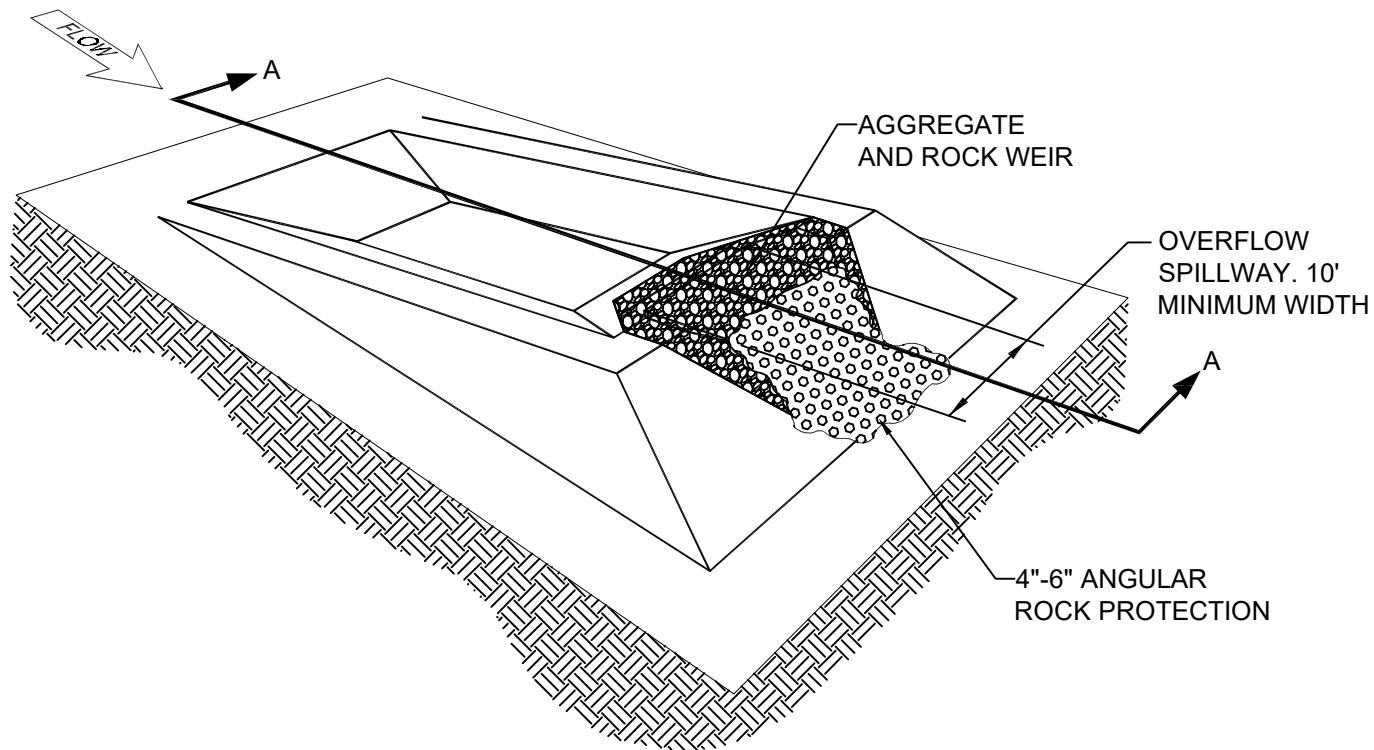
3. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
4. IMMEDIATELY REPAIR DAMAGE OCCURRING AS A RESULT OF RUNOFF OR CONSTRUCTION ACTIVITY.
5. IF DIKE OR SWALE REGULARLY OVERFLOW, INCREASE CAPACITY OR FREQUENCY OF DIKES/SWALES.
6. DIRECT TRAFFIC TO MINIMIZE IMPACTS OVER DIKES / SWALES.

DIVERSION SPACING	
SLOPE	SPACING
< 5%	300 FEET
5 - 10 %	200 FEET
10 - 40 %	100 FEET

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REV	DATE
CITY OF BEND	

CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701		SCALE NTS
		DATE 11/01/2024
		APPR
		STD DWG E-13

DIVERSION SWALES AND DIKES



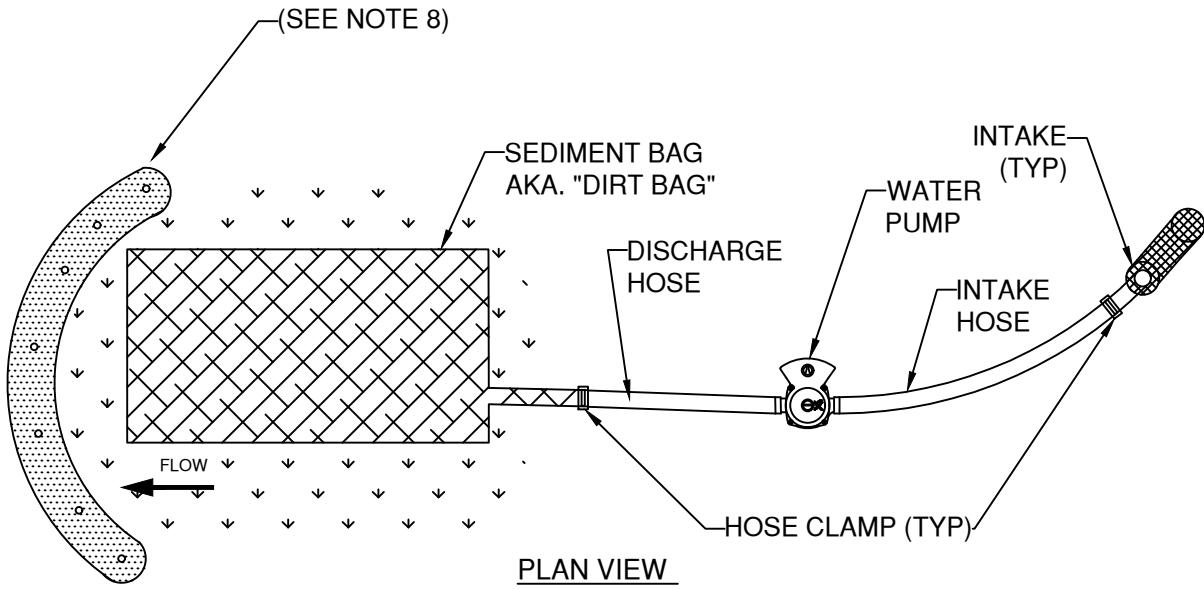
NOTES:

1. MAY BE CONSTRUCTED BY EXCAVATION OR BY BUILDING A BERM.
 2. NO SEDIMENT LANDED WATER IS ALLOWED TO DISCHARGE FROM THE PROJECT. A FILTER MUST BE CONSTRUCTED TO FILTER RUNOFF FROM THE SEDIMENT TRAP PRIOR TO DISCHARGE FROM THE CONSTRUCTION SITE.
 3. UTILIZE A SEDIMENT TRAP AT THE LOW POINT(S) OF THE PROJECT WITHIN PERIMETER CONTROL BMPs.

INSPECTION AND MAINTENANCE:

4. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
 5. SEDIMENT FROM THE TRAP WHEN ACCUMULATION IS AT 1/3 CAPACITY.
 6. REPAIR ANY DAMAGE TO THE TRAP, EMBANKMENTS OR SLOPES.

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DIV	EROSION			DATE 11/01/2024
REV	DATE			APPR
-	-			STD DWG E-14



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. SEDIMENT BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A RATE LESS THAN 50% OF MANUFACTURER'S DESIGNED FLOW RATE.
6. DURING USE, THE SEDIMENT BAG MUST BE MONITORED.
7. DISPOSE OF USED SEDIMENT BAG OFF SITE OR AS APPROVED BY CITY OF BEND.
8. WHEN APPROPRIATE, INSTALL DOWNSTREAM SEDIMENT CONTROL MEASURES PER CITY OF BEND.
9. STANDARDS FOR BEST RESULTS, PLACE SEDIMENT BAG ON FLAT SURFACE.
10. SEDIMENT BAG SHOULD BE PLACED ON EXISTING VEGETATION, ROCK, OR BED OF STRAW. SEDIMENT BAG SHOULD NOT BE PLACED ON BARE GROUND.

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DIV EROSION			DATE 11/01/2024
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