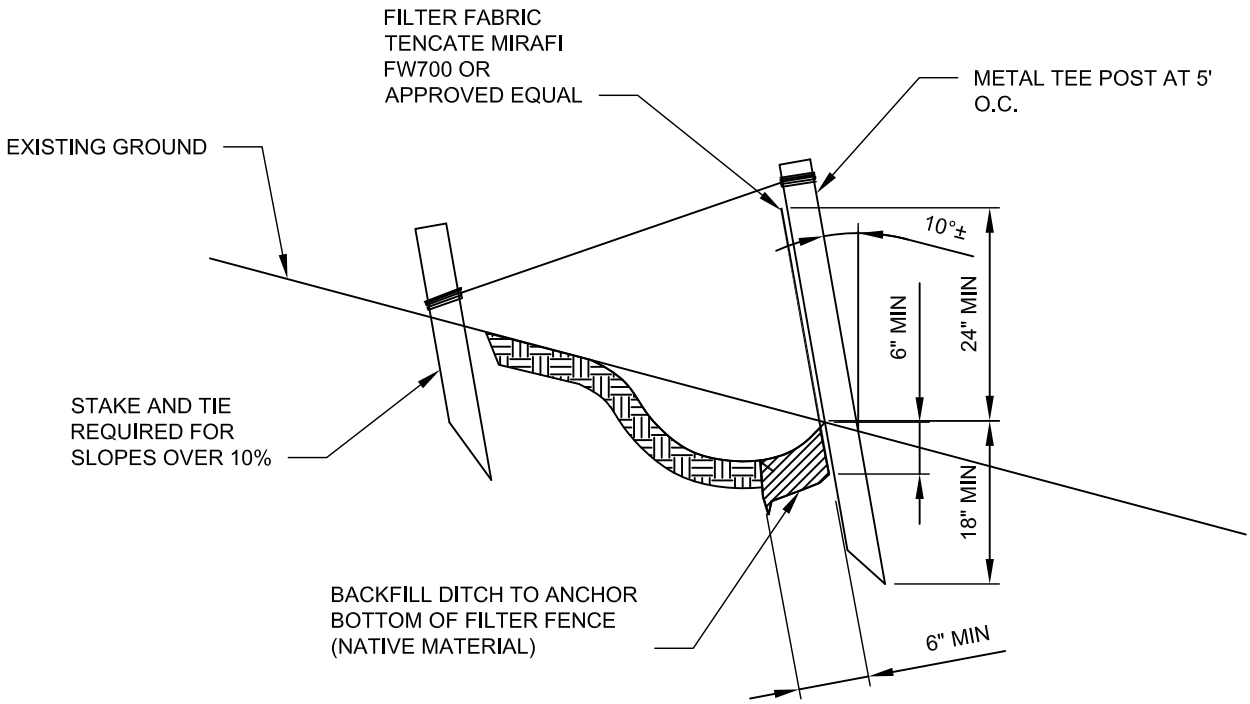
Section 5

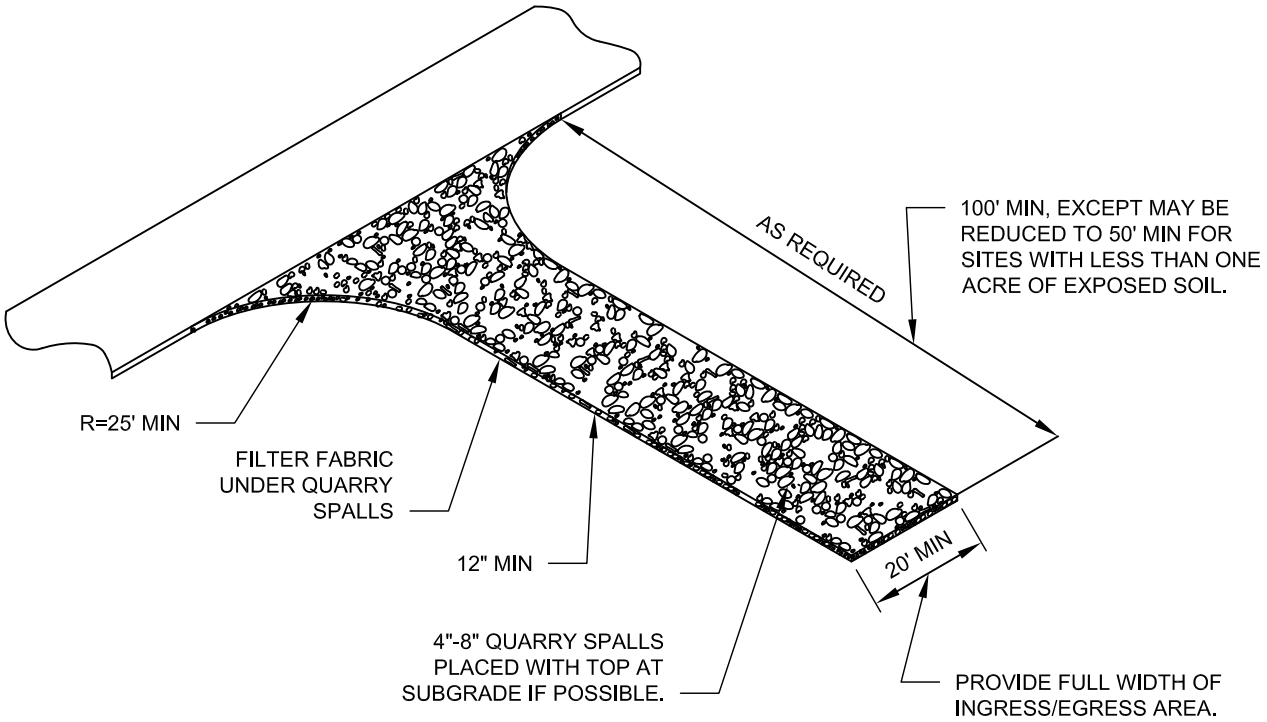
Clearing, Grading and Temporary Erosion Control



FILTER FABRIC FENCE

NTS

Gary M. Schimek APPROVED BY: GARY M. SCHIMEK NATURAL RESOURCES/STORMWATER ENGINEERING MANAGER	CityofRedmond WASHINGTON	STANDARD DETAILS **FILTER FABRIC FENCE**
REVISION DATE: JULY 01, 2015		FILE NAME: SD502.DWG / DETAIL NUMBER: **502**



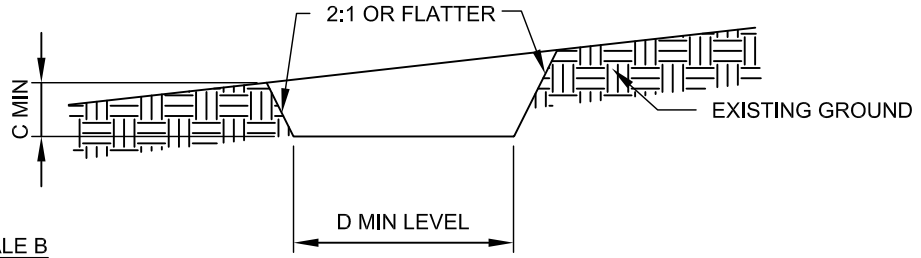
STABILIZED CONSTRUCTION ENTRANCE

NTS

NOTES:

1. LENGTH - AS REQUIRED BUT NOT LESS THAN 50' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LEGTH WOULD APPLY).
2. THICKNESS - NOT LESS THAN 12"
3. WIDTH - 20' MINIMUM BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
4. "FILTER FABRIC SHALL BE WOVEN STABILIZATION FABRIC WITH A MINIMUM PERMITIVITY OF 0.9(SEC-1). PLACE FILTER FABRIC OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT"
5. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TIP 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 RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
6. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

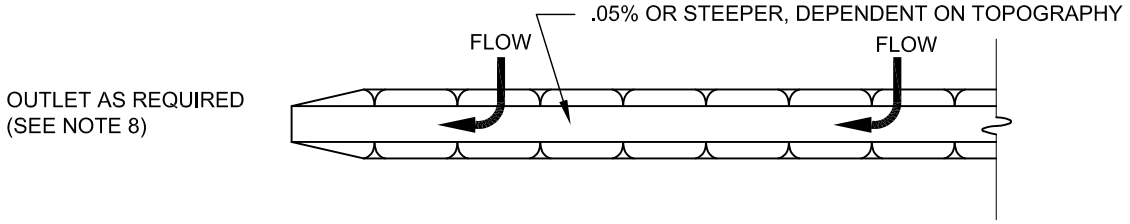
Gary M. Schimek APPROVED BY: GARY M. SCHIMEK NATURAL RESOURCES/STORMWATER ENGINEERING MANAGER	CityofRedmond WASHINGTON	STANDARD DETAILS **STABILIZED CONSTRUCTION ENTRANCE**
REVISION DATE: JULY 01, 2015		FILE NAME: SD503.DWG — DETAIL NUMBER: **503**



	SWALE A	SWALE B
C	1'	1'
D	4'	6'

CROSS SECTION

NTS



PLAN VIEW

NTS

STANDARD SYMBOL

A-2 / B-3

NOTES:

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED SUFFICIENT TO PREVENT EROSION ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE SWALE.
7. STABILIZATION SHALL BE AS PER THE CHART BELOW:

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC - 10 AC)
1	0.5% - 3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1% - 5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	3.1% - 5.0%	SEED USING JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4"-8" RECYCLED CONCRETE EQUIVALENT
4	3.1% - 5.0%	LINED 4"-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

Gary M. Schimek

APPROVED BY: GARY M. SCHIMEK
NATURAL RESOURCES/STORMWATER ENGINEERING MANAGER

REVISION DATE: JULY 01, 2015

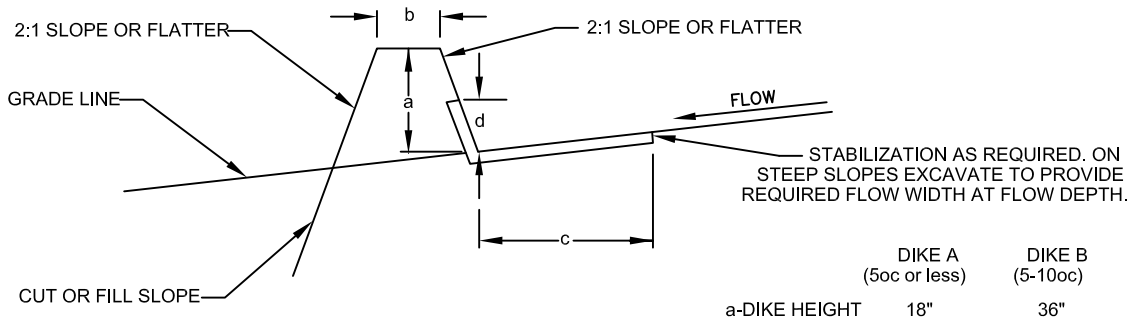
CityofRedmond WASHINGTON

STANDARD DETAILS

TEMPORARY SWALE

FILE NAME: SD504.DWG

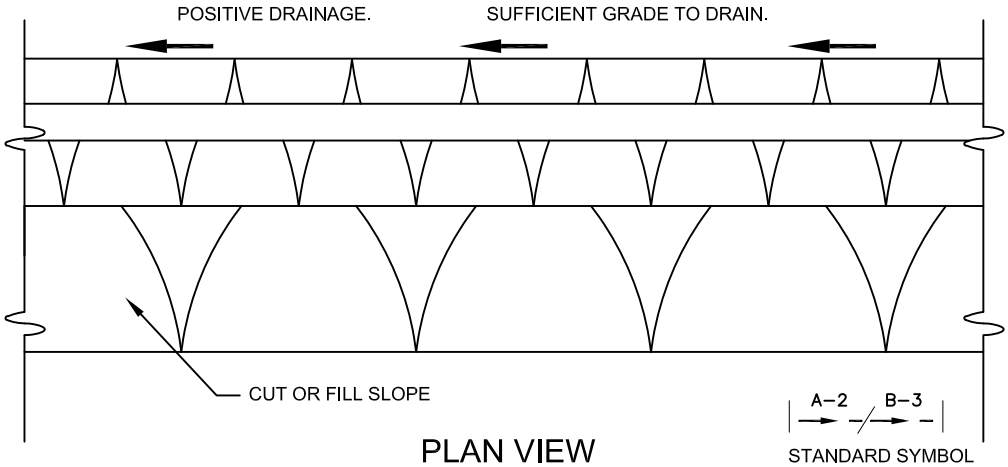
DETAIL NUMBER: **504**



CROSS SECTION

NTS

	DIKE A (5oc or less)	DIKE B (5-10oc)
a-DIKE HEIGHT	18"	36"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	8"	15"



PLAN VIEW

NTS

STANDARD SYMBOL

NOTES:

1. ALL DIKES SHALL BE COMPACTED SUFFICIENT TO PREVENT EROSION.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON. (B) FLOW CHANNEL AS PER THE CHART BELOW.

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8".
4	8.1-20%	LINED RIP-RAP 4-8".	ENGINEERING DESIGN

A. STONE TO BE 2" STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3" IN THICKNESS AND BE PRESSED INTO THE SOIL WITH EQUIPMENT.

B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES AND PRESSED INTO THE SOIL.

C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

Gary M. Schimek

APPROVED BY: GARY M. SCHIMEK
NATURAL RESOURCES/STORMWATER ENGINEERING MANAGER

REVISION DATE: JULY 01, 2015

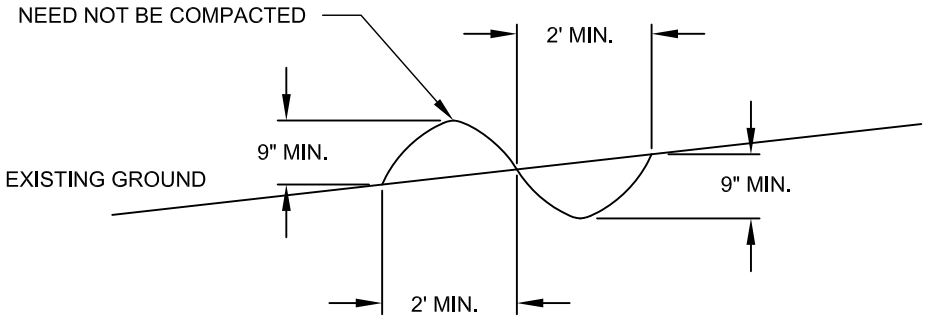
CityofRedmond WASHINGTON

STANDARD DETAILS

EARTH DIKE

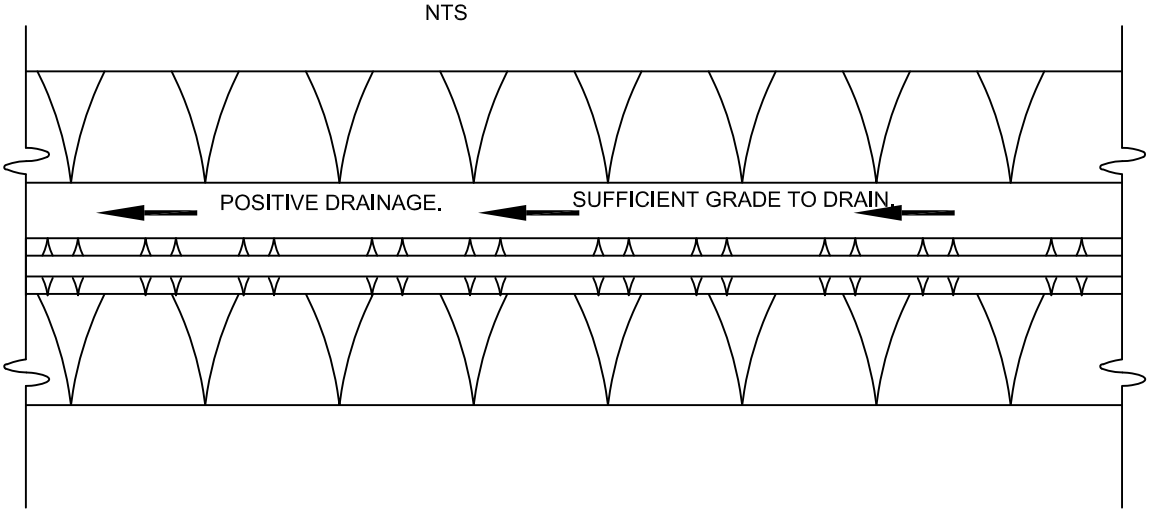
FILE NAME: SD505.DWG

DETAIL NUMBER: **505**



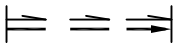
CROSS SECTION

NTS



PLAN VIEW

NTS



STANDARD SYMBOL

NOTES:

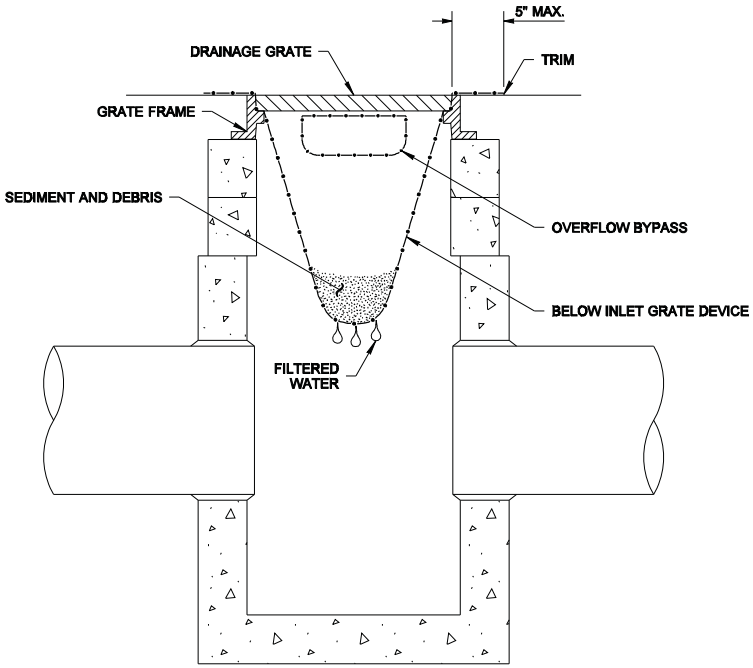
1. ALL PERIMETER DIKE/SWALE HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM A UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.
5. STABILIZATION OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALE BE DONE IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SEED AND STRAW MULCH, AND SHALL BE DONE WITHIN 10 DAYS.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

Gary M. Schimek APPROVED BY: GARY M. SCHIMEK NATURAL RESOURCES/STORMWATER ENGINEERING MANAGER	CityofRedmond WASHINGTON	STANDARD DETAILS **PERIMETER DIKE/SWALE**
REVISION DATE: JULY 01, 2015		FILE NAME: SD506.DWG / DETAIL NUMBER: **506**

DRAWN BY: LISA CYFORD

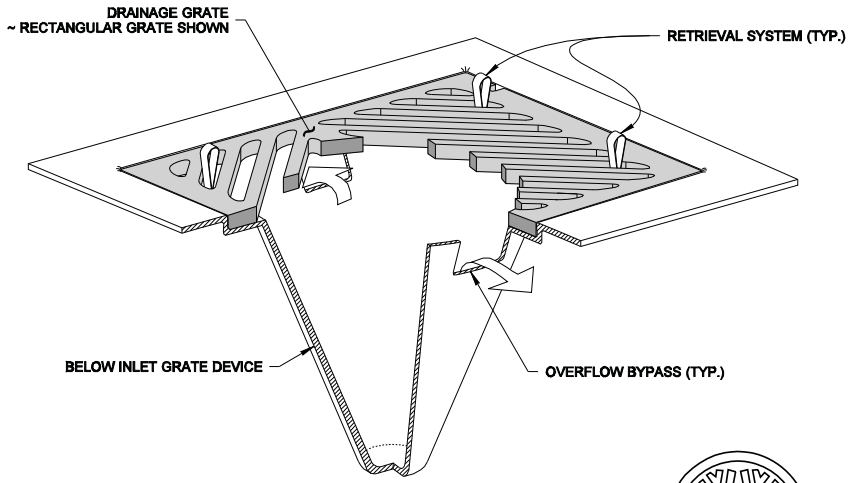
NOTES

1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).



SECTION VIEW

NOT TO SCALE



ISOMETRIC VIEW

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT

MARK W. MAURER

CERTIFICATE NO. 000598

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

STORM DRAIN INLET PROTECTION

STANDARD PLAN I-40.20-00

SHEET 1 OF 1 SHEET

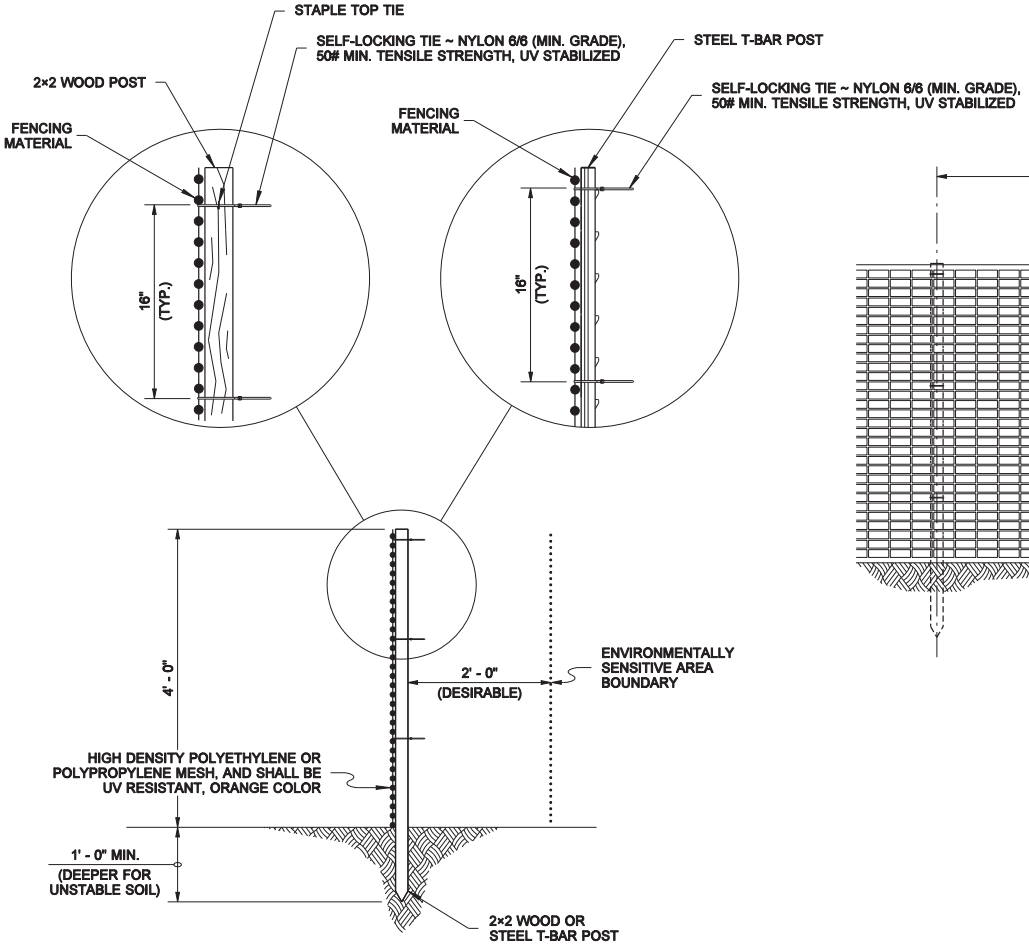
APPROVED FOR PUBLICATION

Pasco Bakotich III — STATE DESIGN ENGINEER

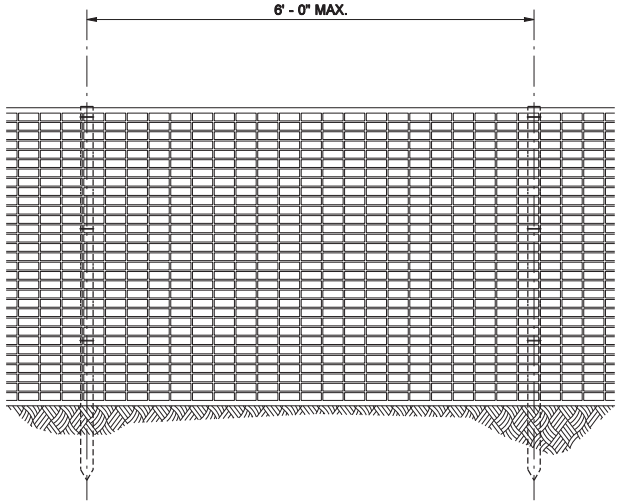
09-20-07 — DATE

Washington State Department of Transportation

DRAWN BY: BILL BERENS



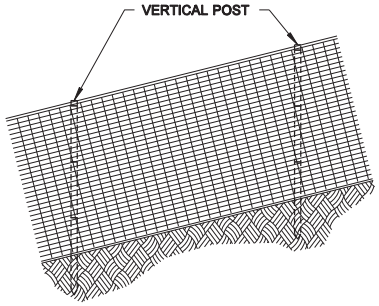
TYPICAL SECTION



ELEVATION

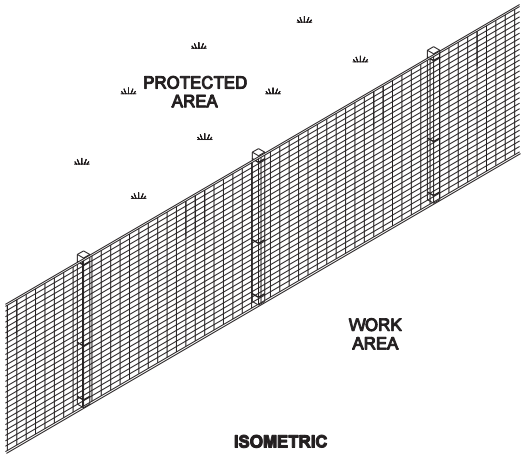
NOTE

1. Post shall have sufficient strength and durability to support the fence through the life of the project.



ELEVATION

FENCE ON SLOPE



ISOMETRIC

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT

MARK W. MAURER

CERTIFICATE NO. 000598

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HIGH VISIBILITY FENCE

STANDARD PLAN I-10.10-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III — STATE DESIGN ENGINEER

08-11-09 — DATE

Washington State Department of Transportation