Standard Notes for Grading and Erosion Control Plan

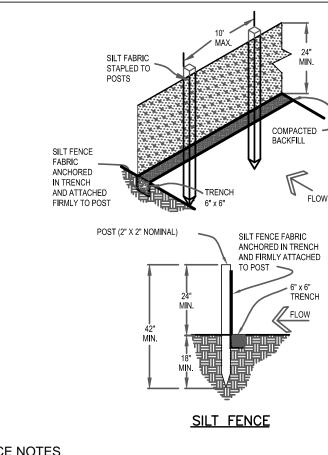
Revised 5/21/07

- 1. Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off site waters, including wetlands.
- 2. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations to regulations and standards must be requested, and approved, in writing.
- 3. A separate Stormwater Management Plan (SWMP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. During construction the SWMP is the responsibility of the designated Stormwater Manager, shall be located on site at all times and shall be kept up to date with work progress and changes in the field.
- 4. Once the ESQCP has been issued, the contractor may install the initial stage erosion and sediment control BMPs as indicated on the GEC. A preconstruction meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County DSD inspections staff.
- 5. Soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within 21 calendar days after final grading, or final earth disturbance, has been completed. Disturbed areas and stockpiles which are not at final grade but will remain dormant for longer than 30 days shall also be mulched within 21 days after interim grading. An area that is going to remain in an interim state for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMPs shall be maintained until permanent soil erosion control measures are implemented and established.
- 6. Temporary soil erosion control facilities shall be removed and earth disturbance areas graded and stabilized with permanent soil erosion control measures pursuant to standards and specification prescribed in the DCM Volume II and the Engineering Criteria Manual (ECM) appendix I.
- All persons engaged in earth disturbance shall implement and maintain acceptable soil erosion and sediment control measures including BMPs in conformance with the erosion control technical standards of the Drainage Criteria Manual (DCM) Volume II and in accordance with the Stormwater Management Plan (SWMP).
- 8. All temporary erosion control facilities including BMPs and all permanent facilities intended to control erosion of any earth disturbance operations, shall be installed as defined in the approved plans, the SWMP and the DCM Volume II and maintained throughout the duration of the earth disturbance operation.
- 9. Any earth disturbance shall be conducted in such a manner so as to effectively reduce accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time.
- 10. Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be designed to limit the discharge to a non-erosive velocity.
- 11. Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to runoff to State Waters, including any surface or subsurface storm drainage system or facilities.
- 12. Erosion control blanketing is to be used on slopes steeper than 3:1.

- 13. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMP'S MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- 14. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- 16. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 17. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- 18. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- 19. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- 20. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
- 21. INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL
- 22. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 23. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- 24. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- 25. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY HP GEOTECH AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- 26. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND **ENVIRONMENT** WATER QUALITY CONTROL DIVISION **WQCD - PERMITS** 4300 CHERRY CREEK DRIVE SOUTH DENVER, CO 80246-1530

ATTN: PERMITS UNIT



SILT FENCE NOTES INSTALLATION REQUIREMENTS

DISTURBING ACTIVITIES.

2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST

3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES

POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES 5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USE

4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY

TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE LONG TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3' ABOVE THE ORIGINAL GROUND SURFACE.

El Paso County, Colorado

Stormwater Quality

FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.

3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY. Figure SF-2 Silt Fence

Construction Detail and Maintenance Requirements

6. ALONG THE TOE OF FILLS, INSTALL THE SILT

FENCE ALONG A LEVEL CONTOUR AND PROVIDE

AN AREA BEHIND THE FENCE FOR RUNOFF TO POND

AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF

5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED

7 THE HEIGHT OF THE SILT FENCE FROM THE GROUNI

VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE

CONTRACTOR SHALL INSPECT SILT FENCES
IMMEDIATELY AFTER EACH RAINFALL, AT LEAST

INEFFECTIVE SILT FENCES SHALL BE PROMPTLY

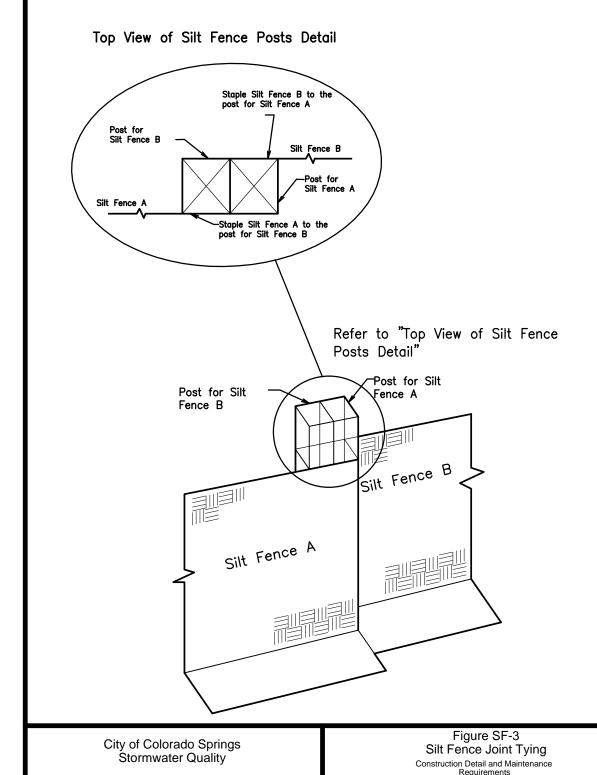
2 SEDIMENT SHALL BE REMOVED FROM BEHIND

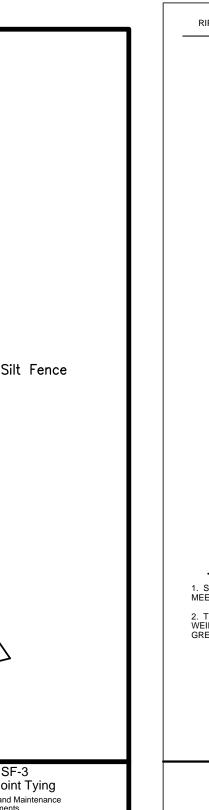
DAILY DURING PROLONGED RAINFALL AND

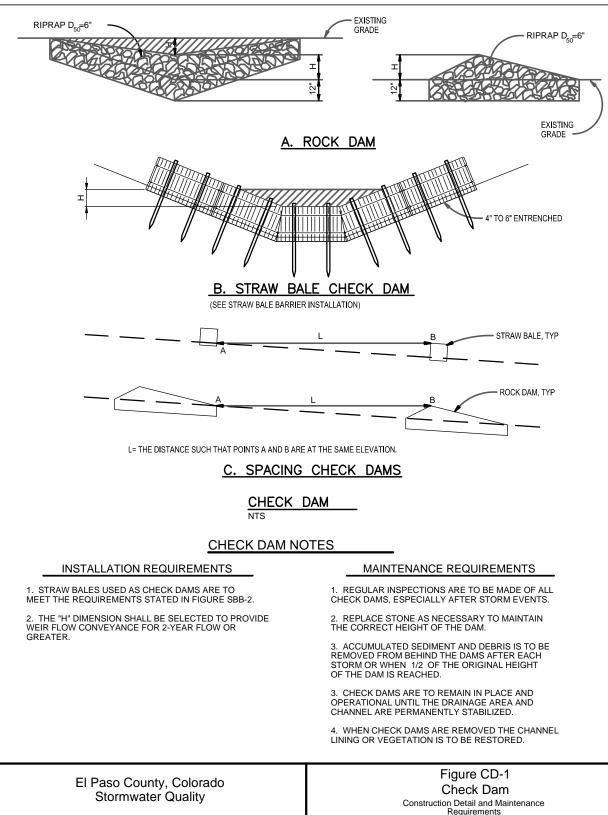
MAINTENANCE REQUIREMENTS

SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL

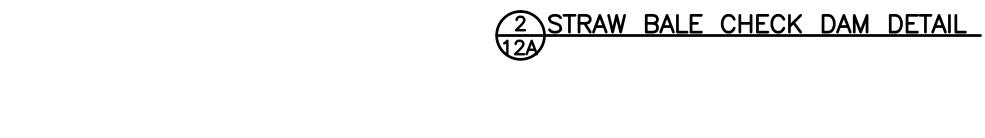
NOT EXCEED 36 INCHES; HIGHER FENCES MAY IMPOUND

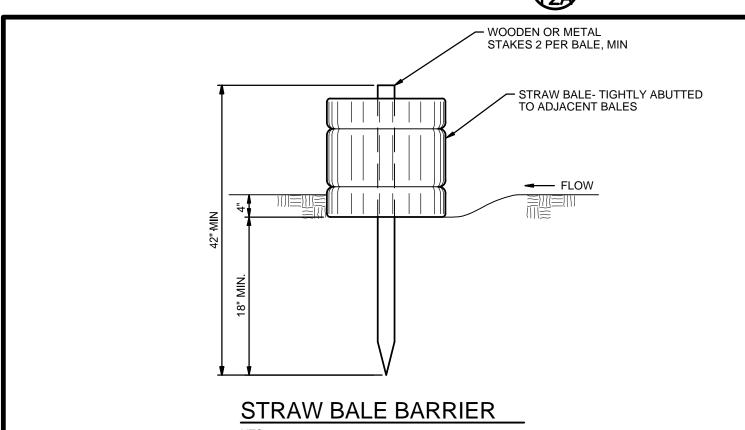






1 SILT FENCE DETAIL





STRAW BALE BARRIER NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALE BARRIERS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. 2. BALES SHALL CONSIST OF APPROXIMATELY 5

STRAW AND WEIGH NOT LESS THAN 35 POUNDS. 3. BALES ARE TO BE PLACED IN A SINGLE ROW

CUBIC FEET OF CERTIFIED WEED FREE HAY OR

WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER. 4. EACH BALE IS TO BE SECURELY ANCHORED WITH

TO BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. 5. STAKES ARE TO BE A MINIMUM OF 42 INCHES LONG. METAL STAKES SHALL BE STANDARD "T" OR 'U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS

AT LEAST TWO STAKES AND THE FIRST STAKE IS

PFR LINEAR FOOT. WOOD STAKES SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES. 6. BALES ARE TO BE BOUND WITH EITHER WIRE OR

STRING AND ORIENTED SUCH THAT THE BINDINGS

ARE AROUND THE SIDES AND NOT ALONG THE TOPS AND BOTTOMS OF THE BALE. 7. GAPS BETWEEN BALES ARE TO BE CHINKED (FILLED BY WEDGING) WITH STRAW OR THE SAME

MATERIAL OF THE BALE.

3. END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS

City of Colorado Springs

Stormwater Quality

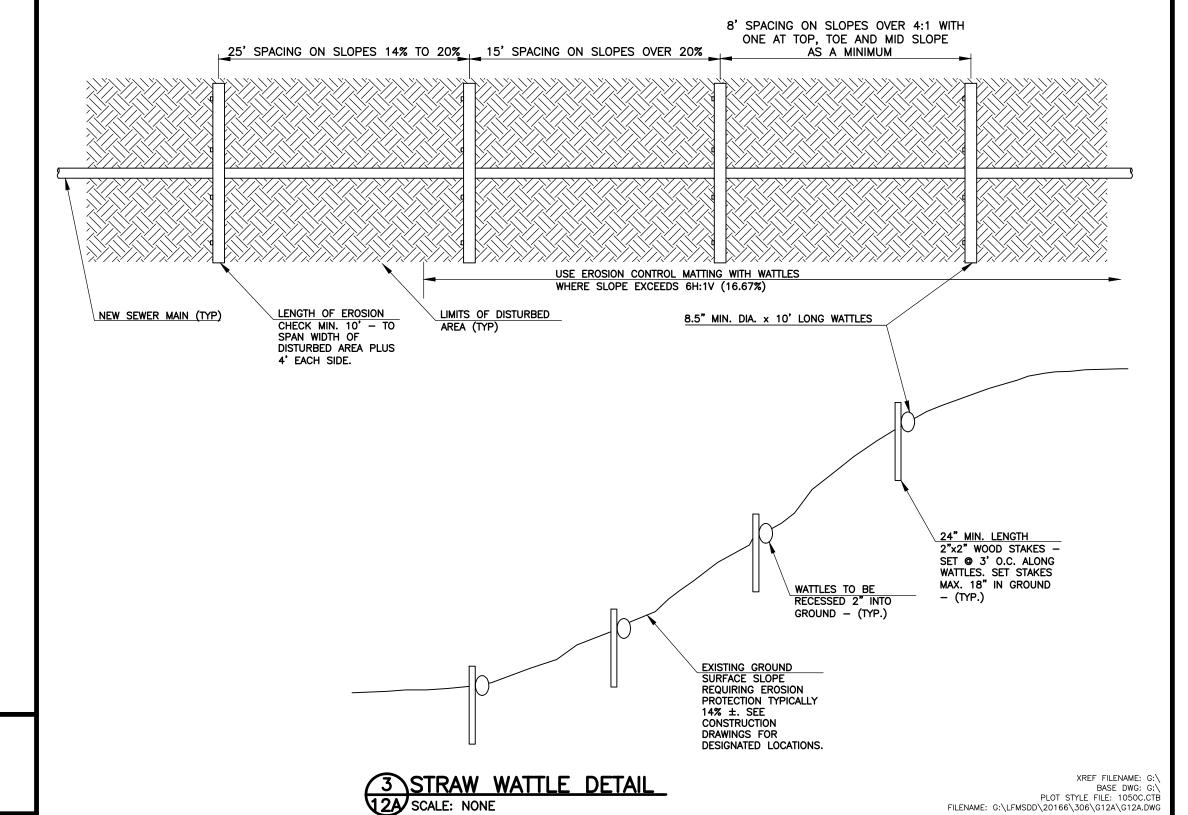
MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.

2. DAMAGED OR INEFFECTIVE BARRIERS SHALL PROMPTLY BE REPAIRED. REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL

STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER. 4. STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS

3. SEDIMENT SHALL BE REMOVED FROM BEHIND



REVISIONS DATE DESCRIPTION 03/08/2010 REVISED AND RESUBMITTED PER EL PASO COUNTY DEVELOPMENT SERVICES COMMENT 10/04/2010 REVISED AND RESUBMITTED PER EL PASO COUNTY DEVELOPMENT SERVICES COMMEN 10/18/2010 REVISED AND RESUBMITTED PER EPC DEV SERVICES COMMENTS 12/21/2010 ISSUED FOR FOUNDATION PERMIT SUBMITTAL TO PPRBD (A-BASINS AND DIGESTERS 01/07/2011 ISSUED FOR CONSTRUCTION PER PPRBD PERMIT #58954 (FDN ONLY) 01/28/2011 ISSUED FOR FOUNDATION PERMIT SUBMITTAL TO PPRBD (HEADWORKS BUILDING) 03/30/2011 ISSUED FOR BUILDING PERMIT SUBMITTAL TO PPRBD (SECONDARY CLARIFIER COMPLE 06/20/2011 ISSUED FOR BUILDING PERMIT SUBMITTAL TO PPRBD (HEADWORKS BUILDING) 07/28/2011 ISSUED FOR FOUNDATION PERMIT SUBMITTAL TO PPRBD (EQUIP, MAINT, AND STO. BL 08/05/2011 ISSUED FOR CONSTRUCTION PER PPRBD BUILDING PERMIT #68510 (HEADWORKS BLD

Figure SBB-2

Straw Bale Barrier

Construction Detail and Maintenance

Requirements

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EROSION AND SEDIMENT CONTROL PLAN II HAROLD D. THOMPSON REGIONAL WATER RECLAMATION FACILITY LOWER FOUNTAIN METROPOLITAN SEWAGE DISPOSAL DISTRICT

DRAWN MWR DESIGNED MWR RJS CHECKED_ 2010 PROJECT NO. 20166.306 GMS FILE NO. 2599

GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903

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