

EROSION CONTROL PLAN NOTES

- GENERAL:
- ALL GRADING WORK SHALL BE WINTERIZED PRIOR TO OCTOBER 15, BY PLACING APPROPRIATE SILT FENCING, SILT FENCE/STRAW BALE DIKES AND STRAW BALES AND FIBER ROLLS IN A MANNER TO MINIMIZE EROSION AND COLLECT SEDIMENT AND ALSO BY HYDROSEEDING AREAS DISTURBED.
  - THIS PLAN IS INTENDED FOR EROSION CONTROL ONLY. SEE GRADING PLAN FOR SLOPE INFORMATION.
  - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND FILING ALL PLANS WITH THE RELATED AGENCIES ASSOCIATED WITH THEIR WORK. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, PERMITS FOR STORAGE OF HAZARDOUS MATERIALS, BUSINESS PLANS, PERMITS FOR STORAGE OF FLAMMABLE LIQUIDS, GRADING PERMITS, OR OTHER PLANS OR PERMITS REQUIRED BY THE CITY & COUNTY OF SAN FRANCISCO. ALL PROPERTY OWNERS, CONTRACTORS, OR SUBCONTRACTORS WORKING ON-SITE ARE INDIVIDUALLY RESPONSIBLE FOR OBTAINING AND SUBMITTING ANY BUSINESS PLANS OR PERMITS REQUIRED BY CITY, STATE OR LOCAL AGENCIES.
  - ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED, DURING THE RAINY SEASON (OCT. 1 TO MAY 1), UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS PLAN TO MEET FIELD CONDITIONS WILL BE MADE ONLY WITH THE APPROVAL OF, OR AT THE DIRECTION OF THE OWNER. CHANGES MADE TO SUIT FIELD CONDITIONS WILL BE MADE ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE OWNER. CHANGES MADE TO SUIT FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CIVIL ENGINEER AND CITY AND COUNTY OF SAN FRANCISCO FOR COMMENT AND APPROVAL.
  - ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY OR DAILY DURING THE RAINY SEASON.
  - IF SIGNIFICANT SEDIMENT OR OTHER VISUAL SYMPTOMS OF IMPURITIES ARE NOTICED IN THE STORM WATER, CONTACT THE CIVIL ENGINEER IMMEDIATELY.
  - CONTRACTOR IS RESPONSIBLE FOR INSPECTION AND RESTORATION OF ALL ASPECTS OF THE EROSION & SEDIMENTATION CONTROL PLAN. SEDIMENT ON THE SIDEWALKS AND GUTTERS SHALL BE REMOVED BY SHOVEL OR BROOM AND DISPOSED APPROPRIATELY.
  - ALL EMPLOYEES, CONTRACTORS, AND SUBCONTRACTORS ARE RESPONSIBLE FOR CONFORMING TO THE ELEMENTS SHOWN ON THIS PLAN OR RELATED DOCUMENTS.
  - CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES (BMP'S) IN ACCORDANCE WITH THE CALIFORNIA STORMWATER ASSOCIATION STORMWATER BMP HANDBOOKS.
  - ALL DUMPSTERS OR OTHER TRASH STORAGE ENCLOSURES SHALL BE UTILIZED SOLELY FOR NON-HAZARDOUS MATERIALS.
  - DURING THE RAINY SEASON, ALL PAVED AREAS WILL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO THAT A MINIMUM OF SEDIMENT-LADEN RUNOFF ENTERS THE STORM DRAIN SYSTEM. THESE PLANS SHALL REMAIN IN EFFECT UNTIL THE IMPROVEMENTS ARE ACCEPTED BY THE COTR AND ALL SLOPES ARE STABILIZED.
  - BORROW AREAS AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES TO THE SATISFACTION OF THE COTR.
  - REMOVE SPOILS PROMPTLY AND AVOID STOCKPILING OF FILL MATERIALS WHEN RAIN IS FORECAST. IF RAIN IS FORECAST OR APPARENT, STOCKPILED SOILS AND OTHER MATERIALS SHALL BE COVERED WITH PLASTIC OR A TARP, AT THE REQUEST OF THE COTR.
  - STORE, HANDLE AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES SO AS TO PREVENT THEIR ENTRY INTO THE STORM DRAIN SYSTEM. CONTRACTOR MUST NOT ALLOW CONCRETE, WASHWATERS, SLURRIES, PAINT OR OTHER MATERIALS TO ENTER THE CATCH BASINS, STORM DRAINAGE, OR ENTER SITE RUNOFF.
  - USE FILTRATION OR OTHER APPROVED MEASURES TO REMOVE SEDIMENT FROM DEMATERING EFFLUENT.
  - NO CLEANING, FUELING OR MAINTAINING VEHICLES ON SITE SHALL BE PERMITTED TO ALLOW DELETERIOUS MATERIALS FROM ENTERING THE CATCH BASINS, STORM DRAINAGE, OR ENTER SITE RUNOFF.

SILT FENCE

- MATERIALS
- FILTER FABRIC SHALL BE A PERVIOUS SHEET OF SYNTHETIC POLYMER COMPOSED OF AT LEAST 85% BY WEIGHT ETHYLENE, PROPYLENE, AMIXE, ESTER OF VINYLIC ACID, WOVEN OR NON WOVEN, AND SHALL CONTAIN STABILIZERS AND/OR INHIBITORS TO RESIST DEGRADATION BY HEAT, WATER AND ULTRAVIOLET LIGHT. THE FABRIC SHALL CONFORM TO THE FOLLOWING CRITERIA:
    - THE EQUIVALENT OPENING SIZE (U.S. STANDARD SIEVE) SHALL BE WITHIN THE RANGE 70-100.
    - THE TENSILE STRENGTH (ASTM D1682) SHALL BE AT LEAST 120 POUNDS. THE STRENGTH OF FABRIC REQUIRED DEPENDS ON THE WIRE SUPPORT FENCE. THE STRENGTH GIVEN IS THE MINIMUM FOR A 6-INCH SQUARE MESH WIRE SUPPORT FENCE. IF EXTRA-STRENGTH FABRIC IS USED WITHOUT A SUPPORT FENCE, THE STRENGTH REQUIRED SHALL BE 200 POUNDS MINIMUM WITH POSTS SPACED ON 6 FOOT CENTERS.
  - POSTS FOR SILT FENCES SHALL BE EITHER 4-INCH-DIAMETER WOOD OR 1.33-POUNDS-PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.
  - WIRE FENCE REINFORCEMENT FOR SILT FENCES SHALL BE A MINIMUM OF 42 INCHES IN HEIGHT, SHALL BE A MINIMUM OF 14-GAUGE, AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES.

CONSTRUCTION SPECIFICATIONS

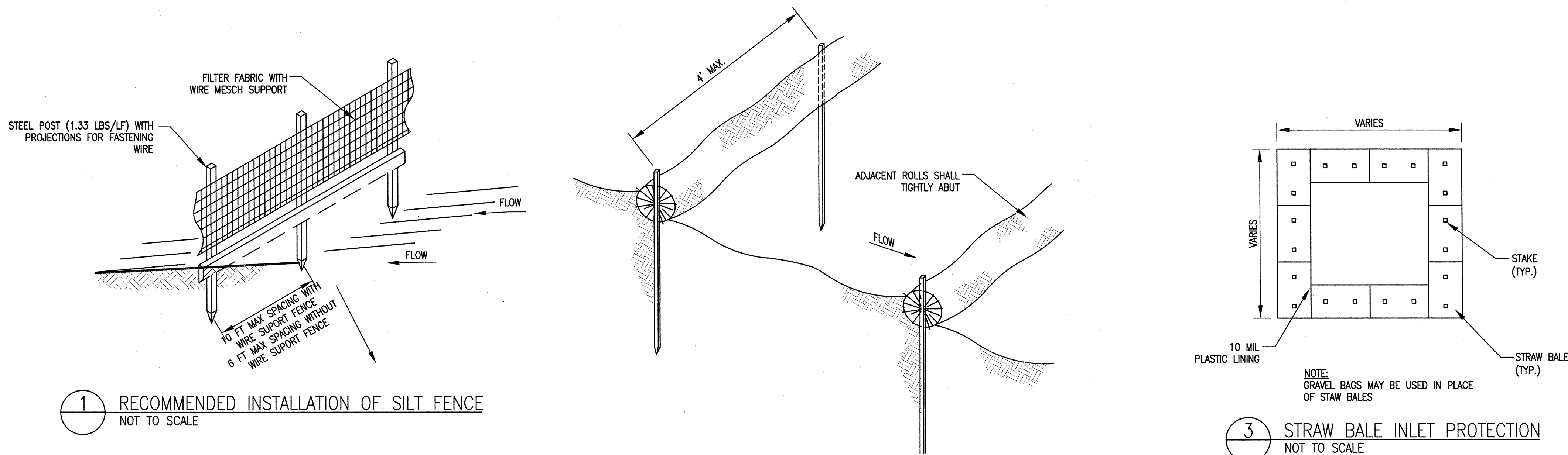
- THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES. ON SLOPES, THE FENCE LINE SHALL FOLLOW THE CONTOUR AS CLOSELY AS POSSIBLE. IN SMALL SWALES, THE FENCE LINE SHALL BE CURVED UPSTREAM AT THE SIDES TO DIRECT THE FLOW TOWARD THE MIDDLE OF THE FENCE.
- IF POSSIBLE, THE FILTER FABRIC SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.
- STEEL POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA-STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, OR WOOD POSTS ARE UTILIZED, POST SPACING SHALL NOT EXCEED 6 FEET.
- A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE LINE OF POST AND UPSLOPE FROM THE BARRIER.
- WHEN STANDARD-STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES, AT LEAST 1 INCH LONG, THE WIRES OR HOOD RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD-STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL EXTEND INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF NO. 6 ABOVE APPLYING.
- THE TRENCH SHALL BE BACK FILLED AND THE SOIL COMPACTED OVER THE TOE OF THE FILTER FABRIC.
- SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE

- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL AND REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE BARRIER'S EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE SPREAD TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.

CONSTRUCTION ENTRANCE

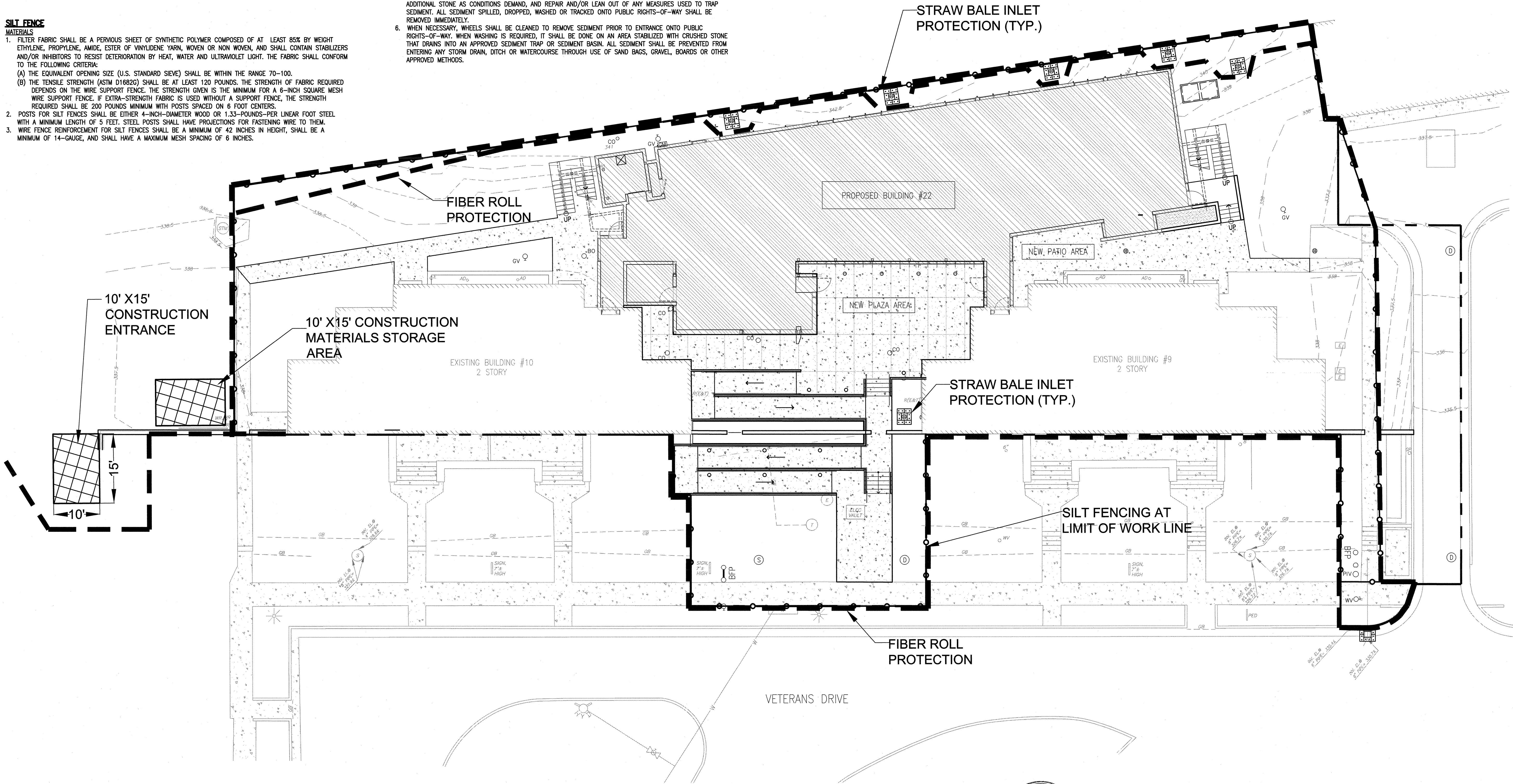
- DESIGN AND CONSTRUCTION SPECIFICATIONS
- THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 2 TO 3 INCH STONE.
  - THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 8 INCHES.
  - THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
  - THE LENGTH OF THE PAD SHALL BE AS SHOWN ON THE DRAWINGS.
  - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL 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 LEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
  - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.



1 RECOMMENDED INSTALLATION OF SILT FENCE  
NOT TO SCALE

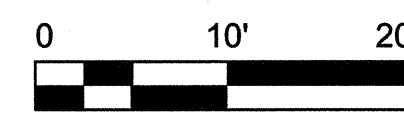
2 FIBER ROLLS  
NOT TO SCALE




3 STRAW BALE INLET PROTECTION  
NOT TO SCALE



LEGEND:

- SILT FENCE - SEE DETAIL 1 THIS SHEET
- FIBER ROLL PROTECTION - SEE DETAIL 2 THIS SHEET
- STRAW BALE INLET PROTECTION - SEE DETAIL 3 THIS SHEET



		<b>CONSULTANTS:</b>				<b>ARCHITECT/ENGINEERS:</b>				Drawing Title <b>EROSION &amp; SEDIMENTATION CONTROL PLAN</b>		Project Title <b>VA Medical Center Seismic Replacement And Retrofit</b>		Project Number <b>2941-001-00</b>		<b>Office of Facilities Management</b>  Department of Veterans Affairs					
		STRUCTURAL: MECHANICAL: ELECTRICAL:		DEGENKOLB ENGINEERS; 235 MONTGOMERY STREET, SUITE 500, SAN FRANCISCO, CA 94104 HTC ENGINEERS; 1229 CYPRESS ST., SUITE 103, WALNUT CREEK, CA 94596 BAY AREA CONSULTING ENGINEERS, INC.; 96 SUITE C SPRINGTOWN CENTER, VALLEJO, CA 94590		Scale: <b>1"=10'</b>				Scale: <b>1"=10'</b>		Location <b>San Francisco, CA</b>		Building Number							
		CIVIL ENGINEER: ESTIMATING: SURVEYORS: UTILITY LOCATORS:		GHD INC.; 417 MONTGOMERY ST., SUITE 700, SAN FRANCISCO, CA 94104 CUMMING CORPORATION; 1970 BROADWAY, SUITE 630, OAKLAND, CA 94612 MARTIN M. RON ASSOCIATES, INC.; 159 HARRISON ST., SUITE 200, SAN FRANCISCO, CA 94107 CRUZ BROTHERS LOCATORS; P.O. BOX 66768, SCOTTS VALLEY, CA 95067		Approved: Project Director				Approved: Project Director		Date <b>01/22/2013</b>		Checked <b>MGK</b>				Drawing Number <b>C320</b>			
<b>Revisions:</b>		<b>Date</b>				DATE SIGNED: 01/22/2013						Drawn <b>CFB</b>									