EROSION CONTROL

- TEMPORARY
 PLAN WHICH I
 OR MODIFIED OR PROGRESSES. ROSION CONTERFERE
 WHEN THE CONTROL DEVICES OF WITH THE WORK STATE INSPECTOR SO DI S SHOWN ON GRADING SHALL BE RELOCATED DIRECTS AS THE WORK
- EXCEPT AS OTHERWISE DIRECTED BY THE INSPECTOR, ALL DEVICES SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON AND MAINTAINED DURING THE RAINY SEASON (OCTOBER 1 TO APRIL
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE ASSOCIATION OF BAY AREA GOVERNMENTS (ABAG) "MANUAL OF STANDARDS FOR EROSION AND SEDIMENT CONTROL MEASURES" UNLESS OTHERWISE STATED WITHIN THESE GENERAL NOTES. CONTROL MEASURES ARE SUBJECT TO THE INSPECTION AND APPROVAL OF THE CITY ENGINEER. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
- THE CONTRACTOR SHALL PLACE 3"-4" FRACTURED STONE AGGREGATE AS A GRAVEL ROADWAY (6" MINIMUM THICKNESS FOR THE FULL WIDTH AND 50 FEET LONG) AT EACH ROAD ENTRANCE TO THE SITE. ANY MUD THAT IS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED THE SAME DAY AS REQUIRED BY THE CITY ENGINEER. MINIMUM WIDTH OF GRAVEL ROADWAY IS 10 FEET.
- A CONCRETE WASHOUT IS REQUIRED FOR ALL CONCRETE WORK. THE WASHOUT SHALL CONSIST OF A CONTAINMENT AREA ENCLOSED BY AN EARTHEN DIKE. PLASTIC TARP, COVERING THE CONTAINMENT AREA AND EARTHEN DIKE, SHALL BE STAKED IN AT OUTSIDE EDGE OF EARTHEN DIKE.
- ADDITIONAL CONTAINMENT METHODS MUST BE PROVIDED FOR ANY WASTE STORAGE AREA, STOCKPILE/MATERIAL STORAGE AREA AND/OR CONSTRUCTION TOILET AREA.
- STAND-BY CREWS CONTRACTOR FOR I S SHALL BE ALERTED BY THE PERMITTEE EMERGENCY WORK DURING RAINSTORMS.
- AFTER OCTOBER 1, ALL EROSION CONTROL MEASURES WILL INSPECTED DAILY AND AFTER EACH STORM. AFTER OCTOBER BREACHES IN DIKES AND SWALES WILL BE REPAIRED AT THE CLOSE OF EACH DAY AND WHENEVER RAIN IS FORECAST.
- ALL GRADED AREAS, INCLUDING, BUT NOT LIMITED TO, CUT , FILL SLOPES, STREETS, PARKING AREAS, AND BUILDING PADS SHALL BE HYDROSEEDED PER ABAG. IN ADDITION TO HYDROSEEDING, APPLICATION OF STRAW WITH A TACKIFIER OF MULCH MAY BE REQUIRED BY THE CITY ENGINEER.

10.

- 11. TO MINIMIZE EROSION OF GRADED BANKS, ALL GRADED BANKS STEEPER THAN 2% AND HIGHER THAN 3 FEET, SHALL BE HYDROSEEDED, LANDSCAPED, OR SEALED. IN ADDITION TO HYDROSEEDING, APPLICATION OF STRAW WITH A TACKIFIER OR MULCH MAY BE REQUIRED BY THE CITY ENGINEER. IF THE PERMANENT STORM DRAIN SYSTEM IS NOT INSTALLED BY OCTOBER 1, TEMPORARY DITCHES SHALL BE CONSTRUCTED TO CONTAIN THE STORM WATER AND DIRECT IT, IN A MANNER THAT AVOIDS EROSION OF THE BANKS, TO THE EROSION AND SEDIMENT CONTROL FACILITIES.
- ALL CUT AND FILL SLO SLOPES SING 4" F S ARE 1 EARTH 70 O BE PROTECTED BERMS OR SILT F FENCES.
- TO, CUT AND NG PADS SUGGESTED

13.

12.

- 3. ALL GRADED AREAS, INCLUDING, BUT NOT LIMITED TO, CU FILL SLOPES, STREETS, PARKING AREAS, AND BUILDING PA SHALL BE HYDROSEEDED PER CITY'S REQUIREMENT. SUGG MIX DESIGN FOLLOWS:

 'BLANDO' BROME

 ZORRO FESCUE

 HYKON ROSE CLOVER

 SUB CLOVER

 CALIFORNIA NATIVE WILDFLOWER

 FERTILIZER

 ORGANIC BINDER

 STRAW MULCH

 3.00 LBS/ACI
 100 LBS/ACI 40 LBS/ACRE
 10 LBS/ACRE
 9 LBS/ACRE
 5 LBS/ACRE
 8 LBS/ACRE
 300 LBS/ACRE
 100 LBS/ACRE
- BORROW AREAS AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURE THE SATISFACTION OF THE CITY ENGINEER.

0

SANDBAGS OR STRAW BALES SHALL AND PLACED AT INTERVALS SHOWN (PLANS, WHEN THE RAIN FORECAST IS WHEN DIRECTED BY THE INSPECTOR. LL BE STOCKPILED ON SIT ON EROSION CONTROL IS 40% OR GREATER, OR

CATCH BASIN

SEDIMENT WATTLE DETAIL

TOP VIEW

CRUSH ROCK FILTER

NOT TO SCALE

(ZIm

SILT FENCE DETAIL

NOT TO SCALE

5 **Π C S** 6

15.

14.

- SANDBAGS REFERRED TO IN THE PRECEDING ITEMS MUST BE FULL. APPROVED SANDBAG FILL MATERIALS ARE DECOMPOSED GRANITE AND/OR GRAVEL, OR OTHER MATERIALS APPROVED BY
- WHEN DIRECTED BY THE INSPECTOR, A 1 BE MAINTAINED ALONG THE TOP OF THE ON WHICH GRADING IS NOT IN PROGRESS 12-SL , BEt Of
- GRANITE AND/OR THE INSPECTOR.
- 16.

- $\dot{\omega}$ PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED STREETS AT THE INTERVALS INDICATED BELOW IN NOTE #19. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF STRAW BALES, SANDBAGS OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE INSPECTOR, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. EARTH DIKES MAY NOT BE USED AS VELOCITY CHECK DAMS.
- PROVIDE VELOCITY CHECK DACHANNELS AT THE INTERVALS

 GRADE OF CHANNEL

 LESS THAN 3%

 3% TO 6%

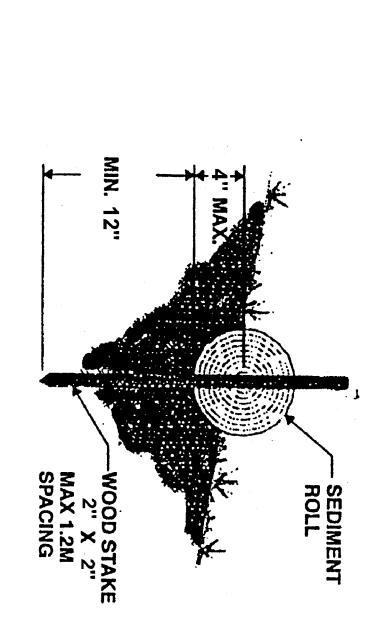
 OVER 6% ALL UNPAVED ATED BELOW: INTERVAL 100 FEET GRADED
- SEWER OR STORM DRAIN TRENCHES THAT ARE OUT THROUGH BASIN DIKES OR BASIN INLET DIKES, SHALL BE PLUGGED WITH SANDBAGS FROM TOP OF PIPE TO TOP OF DIKE. SEWER LINES SHALL FIRST BE ENCASED IN CONCRETE BEFORE SANDBAGS ARE PLACED.

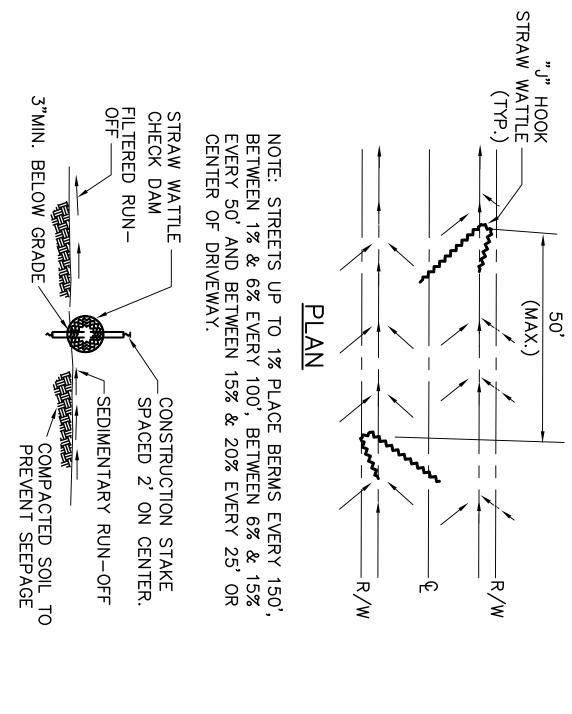
20.

21. ALL OPEN UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS FROM THE BOTTOM TO TOP WITH A DOUBLE ROW OF SANDBAGS PRIOR TO BACKFILL. SEWER TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF SANDBAGS EXTENDING DOWNWARD, TWO SANDBAGS FROM THE GRADED SURFACE OF THE STREET. SANDBAGS ARE TO BE PLACED WITH ALTERNATE HEADER AND STRETCHER COURSES. THE INTERVALS PRESCRIBED BETWEEN SANDBAG LOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE, BUT NOT EXCEED THE FOLLOWING:

GRADE OF LESS THAN 2% TO 4% 4% TO 10% OVER 10% INTERVAL AS REQUIRED 100 FEET 50 FEET 25 FEET

- AFTER STORM DRAIN, SANITARY SEWER AND UTILITY TRENCHES ARE BACKFILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTER LINE OF A CROWNED STREET.
- 23. . SEDIMENT TRAPS SHALL E REACHES THE SEDIMENT C DETAIL ON THIS SHEET. I' RESPONSIBILITY TO CLEAN SEDIMENT TRAPS. PS SHALL BE CL SEDIMENT CLEANC S SHEET. IT IS 1 CLEANED OUT WHENEVER SEDIMENT ANOUT LEVEL INDICATED ON THE IS THE CONTRACTOR'S HE DESILTING BASINS AND THE
- 24. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THESE PLANS IN THE FIELD, SUBJECT TO APPROVAL OF THE CITY ENGINEER.
- 26. THE CONTRACTOR SHALL HAVE A COMPREHENSIVE PROGRAM FOR INSPECTION AND MAINTENANCE DURING WINTER SEASON, INCLUDING PROVISION FOR DOCUMENTING MAINTENANCE ACTIVITIES. 25. EROSION CONTROL STRUCTURES SHALL BE ADJUSTED BY THE CONTRACTOR TO REFLECT ALL CHANGES IN DRAINAGE AS STREETS AND BUILDING PADS ARE BEING INSTALLED.
- 27. THE CONTRACTOR CAN STORE TEMPORARILY STOCKPILES AND EROSION CONTROL SUPPLIES TO HANDLE EMERGENCIES, AND SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES TO THE SATISFACTION OF THE CITY ENGINEER.
- 28. THE CONTRACTOR SHALL KEEP CREW CAPTAIN THAT WILL HANDLE AN EMERGENCY PHONE # OF EMERGENCIES.
- 29. THE CONTRACTOR—ASSIGNED DAYS PER WEEK TO BE CALLED EMERGENCY. TO WORK DURING EACH RAINSTORM
- 30. THE CONTRACTOR :
 RESPONSIBLE FOR DAIL
 AND DRY WEATHER TO
 ARE WORKING PROPERL
 ESPECIALLY AFTER EAC OR SHALL ASSIGN
 DAILY, WEEKLY, MO
 TO BE SURE ALL
 PERLY AND RECORD
 EACH STORM IN A MON O N ONE CREW CAPTAIN
 MONTHLY INSPECTION DURING WET,
 L EROSION CONTROL MEASURES
 RD THEIR INSPECTIONS
 A LOG.





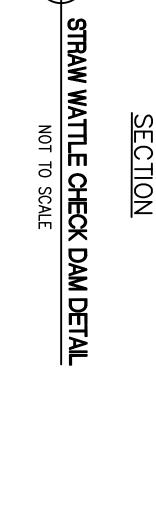
FILTERED RUN-OFF

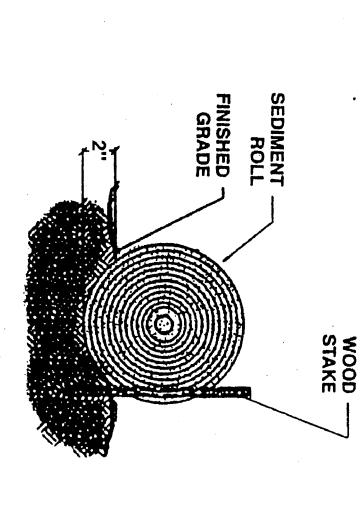
SEDIMENTARY RUN-OFF

SECTION

GRAVEL BAGS

PLAN

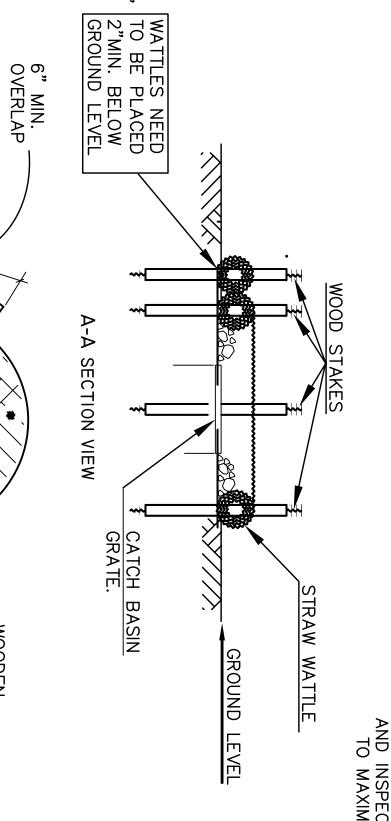


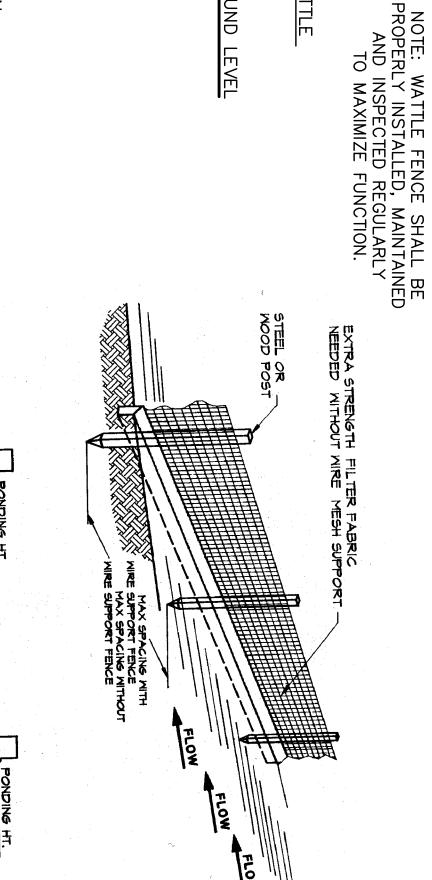


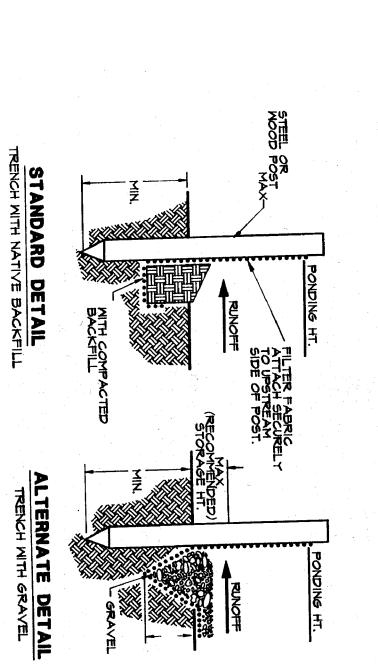


ENTRENCHMENT DETAIL
IN SLOPE AREA

C SEDIMENT WATTLE DETAIL







l co			STEEL OR WOOD POST MAX-		
STANDARD DETAIL	BACK		ST RUNOFF	PONDING HT.	
	BACKFILL	RECOMMENDED STORAGE HT. HIN.	FILTER FABRIC ATTACH SECURELY TO UPSTREAM SIDE OF POST.		MAX SPACING MITHOUT MIRE SUPPORT FENCE
ALTERNATE DETAIL	GRAVEL		RUNOFF	PONDING HT.	

OAKLAND

WOODEN

(9 TOTAL)

A-A SECTION

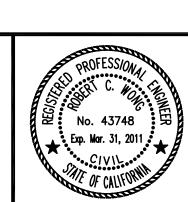
- STRAW
WATTLE
CIRCLED
STAKED.

JOB NO 208022 DATE 6/15/2010 DRAWN MC APPROVED

EROSION CONTROL PLAN THE CALIFORNIA! EXHIBIT CUP CM09085 - OAKLAND ZOO

ALAMEDA COUNTY

CALIFORNIA



No.	BY	DATE	REVISIONS

IF REQUESTED BY CITY/COUNTY ENGINER, USE ONLY ON PAVED ROAD TO REPLACED STRAW WATTLE CHECK DAM.

GRAVEL BAGS CHECK DAM DETAIL

NOT TO SCALE

QUOT ASSOCIATES, INC BOULEVARD WAY — 2ND

EERS

OF ROAD

TABLE BELOW