FIVE COUNTIES SALMONID CONSERVATION PROGRAM

LOWER SIDNEY GULCH URBAN STREAM RESTORATION AT LEE FONG PARK, WEAVERVILLE, CALIFORNIA

65% DESIGN PLANS FOR CONSTRUCTION JUNE 2020

PREPARED FOR:

- FIVE COUNTIES SALMONID CONSERVATION PROGRAM (5C)
- NORTHWEST CALIFORNIA RESOURCE CONSERVATION & DEVELOPMENT COUNCIL
- CALIFORNIA COASTAL CONSERVANCY
- TRINITY RIVER RESTORATION COUNCIL







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MBGR OGRD PC, P/C RDWD W 18

LIMIT OF GRADING LAYOUT LINE LEFT MAXIMUM METAL BEAM GUARD RAIL MINIMUM MID POINT MECHANICALLY STABILIZED EARTH NEW NOT TO SCALE ON CENTER ORIGINAL GROUND OLD GROWTH REDWOOD PRE-CAST PROPOSED GRADE POUNDS PER SQUARE INCH RELATIVE COMPACTION RELATIVE COMPACTION RELATIVE DENSITY ROAD REDWOOD ROCK SLOPE PROTECTION RIGHT RETAINING WALL SPACING STRUCTURAL STEEL PLATE STATION TO BE DETERMINED TEMPORARY BENCHMARK TYPICAL UNLESS NOTED OTHERWISE VERTICAL CURVE WITH WILLOW 18 INCH DBH TYP WATER SURFACE ELEVATION NUMBER PERCENT DIAMETER HORIZONTAL:VERTICAL SLOPE



GENERAL

- FIVE COUNTIES SALMONID CONSERVATION PROGRAM (5C) IS THE CONTRACT OWNER (CO). THE TERM CONTRACT OWNER REPRESENTATIVE (COR) IS DEFINED AS ANY AUTHORIZED PROFESSIONAL DESIGNATED BY 5C. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION AND TO THE SATISFACTION OF THE CO OR COR.
- 2. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE WORK AREA DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE LANDOWNER, CO AND ITS REPRESENTATIVES HARMLESS FROM ANY LIABILITY, REAL AND OR ALLEGED, IN CONJUNCTION WITH THE PERFORMANCE OF THIS PROJECT.
- A SET OF SIGNED WORKING DRAWINGS SHALL BE KEPT ON SITE AT ALL TIMES ON WHICH CONTRACTOR SHALL RECORD VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES. THESE DRAWINGS SHALL BE SUBMITTED TO THE COR UPON COMPLETION OF WORK.
- 4. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT TEMPORARY BARRICADES TO PROVIDE FOR THE SAFETY OF THE STAFF AND GENERAL PUBLIC TO THE SATISFACTION OF THE CO.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COR UPON DISCOVERING SIGNIFICANT DISCREPANCIES, ERRORS OR OMISSIONS IN THE PLANS. PRIOR TO PROCEEDING, THE COR SHALL HAVE THE PLANS REVISED TO CLARIFY IDENTIFIED DISCREPANCIES, ERRORS OR OMISSIONS.
- ALL WORK SHALL COMPLY WITH TRINITY COUNTY MUNICIPAL CODE, CURRENT STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS & SPECIFICATIONS AND THE CONTRACT DOCUMENTS UNLESS NOTED OTHERWISE
- 7. PLACED MATERIALS NOT CONFORMING TO SPECIFICATIONS SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE COR AT NO ADDITIONAL COST TO THE CO.
- 8. IN THE EVENT CULTURAL RESOURCES (I.E., HISTORICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, OR HUMAN REMAINS) ARE DISCOVERED DURING EXCAVATION, GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL BE HALTED WITHIN A 100 FOOT RADIUS OF THE FIND. A QUALIFIED ARCHEOLOGIST RETAINED BY THE COR SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED, AT CO'S EXPENSE PER THE ARCHEOLOGIST'S RECOMMENDATIONS. IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY CORONER.
- IF HAZARDOUS MATERIALS OR WHAT APPEAR TO BE HAZARDOUS MATERIALS ARE ENCOUNTERED, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THEIR OWN WATER AND POWER FOR OPERATIONS, IRRIGATION AND DUST CONTROL. WATER SHALL NOT BE PUMPED FROM THE CREEK FOR THESE USES.
- 11. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.

SEQUENCE OF CONSTRUCTION

- WORK PHASING SHALL OCCUR AS FOLLOWS, UNLESS OTHERWISE APPROVED BY COR: 1. SUBMIT NECESSARY SUBMITTALS FOR APPROVAL. ONCE APPROVED, THE
- CONTRACTOR MAY COMMENCE THE WORK UNLESS OTHERWISE DIRECTED.
- 3. CLOSURE OF CONSTRUCTION AREA TO PUBLIC.
- 4. INSTALLATION OF FISH EXCLUSION DEVICES AND REMOVAL OF FISH FROM WORK AREA
- 5. INSTALLATION OF TEMPORARY COFFERDAMS, CLEAR WATER DIVERSIONS, DE-WATERING, AND SEDIMENT CONTROL WITHIN WORK AREA AS NEEDED.
- 6. CLEARING AND GRUBBING OF WORK AREA.
- 7. TEMPORARY HAUL ROAD CONSTRUCTION.
- 8. REMOVAL OF TREES AS INDICATED IN THE PLANS.
- 9. IN-STREAM CONSTRUCTION.
- 10. REMOVAL OF WATER MANAGEMENT DEVICES.
- 11. REMOVAL OF FISH EXCLUSION DEVICES.
- 12. STABILIZATION OF THE WORK AREA.
- 14. REMEDIATION OF DISTURBED AREAS.
- 15. DEMOBILIZATION.

CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE PRIOR TO COMMENCING CONSTRUCTION.

TRAFFIC CONTROL

- 7. CONTRACTOR SHALL SUBMIT A TRAFFIC MANAGEMENT PLAN FOR APPROVAL PRIOR TO ANY CONSTRUCTION ACTIVITY.
- TRAFFIC CONTROL SHALL CONFORM TO (TRINITY COUNTY MUNICIPAL CODE, 1982)
- 9. BREMER STREET SHALL REMAIN OPEN TO EMERGENCY VEHICLES AT ALL TIMES.

CLEARING AND GRUBBING

- 1. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH TRINITY COUNTY AND THE EROSION AND SEDIMENT CONTROL NOTES IN THE CONTRACT DOCUMENTS.
- THE LIMIT OF DISTURBANCE DOES NOT DENOTE THE LIMIT OF CLEARING AND GRUBBING. THE EXTENT OF CLEARING SHALL BE MINIMIZED TO THE EXTENT POSSIBLE WITHIN THE LIMIT OF DISTURBANCE TO ALLOW MANEUVERABILITY OF EQUIPMENT.

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- 3. TREES NOT DESIGNATED FOR REMOVAL SHALL REMAIN AND BE PROTECTED.
- 4. TREES DESIGNATED FOR REMOVAL SHALL BE BECOME THE PROPERTY OF THE CONTRACTOR UNLESS DESIGNATED FOR SALVAGE. TREES DESIGNATED FOR SALVAGE SHALL BE CUT TO THE LENGTHS SPECIFIED FOR USE IN LOG STRUCTURES. ROOT WADS SHALL REMAIN INTACT WITH STEM MIN 20-FT IN LENGTH.
- 5. BLACK LOCUST TREES (ROBINIA PSEUDOACACIA) ARE CONSIDERED INVASIVE SPECIES IN CALIFORNIA. WHERE SLATED FOR REMOVAL, THE STUMP AND ROOTS SHALL BE REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- LIMBS AND SLASH OF TREES OTHER THAN BLACK LOCUST SHALL BE RETAINED IN AS LARGE STEM LENGTHS AS POSSIBLE (PREFERABLY 10 FT) FOR INCORPORATION INTO LOG STRUCTURES.
- 7. TREE ROOTS OF TREES TO REMAIN WITHIN LIMITS OF EXCAVATION SHALL BE PRESERVED TO THE EXTENT POSSIBLE.
- 8. REMAINING ORGANIC MATERIAL FROM CLEARING AND GRUBBING SHALL BE CHIPPED AND USED FOR SITE STABILIZATION.
- 9. TREES NOT DESIGNATED FOR REMOVAL SHALL REMAIN AND BE PROTECTED.

EROSION & SEDIMENT CONTROL

GENERAL NOTES

- 1. AT MINIMUM THE CONTRACTOR SHALL EMPLOY THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) AS APPLICABLE, AS DESCRIBED IN THE CURRENT CALIFORNIA STORMWATER BMP HANDBOOK FOR CONSTRUCTION (CASQA HANDBOOK) (WWW.CASQA.ORG):
 - EC-1 SCHEDULING
 - EC-2 PRESERVATION OF EXISTING VEGETATION
 - EC-8 WOOD MULCHING
 - SE-1 SILT FENCE
 - SE-5 FIBER ROLLS
 - WE-1 WIND EROSION CONTROL
 - NS-1 WATER CONSERVATION PRACTICES
 - NS-2 DEWATERING OPERATION
 - NS-5 CLEARWATER DIVERSION NS-8 VEHICLE AND EQUIPMENT
 - NS-8 VEHICLE AND EQUIPMENT CLEANING NS-9 VEHICLE AND EQUIPMENT FUELING
 - NS-9 VEHICLE AND EQUIPMENT FUELING NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
 - SS-9 EARTH DIKES AND DRAINAGE SWALES
 - SS-9 VELOCITY DISSIPATION DEVICES
 - WM-1 MATERIALS DELIVERY AND STORAGE
 - WM-1 MATERIALS DELIVERT AND STORAG
 - WM-3 STOCKPILE MANAGEMENT
 - WM-4 SPILL PREVENTION AND CONTROL
 - WM-5 SOLID WASTE MANAGEMENT
 - WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
- CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS STABILIZED PRIOR TO THE ONSET OF ANY RAIN EVENT TO PREVENT SEDIMENT DELIVERY TO WATERWAYS.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MINIMIZE EROSION AND PREVENT THE TRANSPORT OF SEDIMENT TO THE ADJACENT STREAM AND SENSITIVE AREAS. CONTRACTOR WILL BE RESPONSIBLE FOR ALL FINES AND CLEANUP OF ANY VIOLATIONS.
- 4. SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO ADDRESS AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.
- 5. MINIMIZE DISTURBANCE OF EXISTING VEGETATION TO THAT NECESSARY TO COMPLETE WORK.
- 6. ALL HEAVY EQUIPMENT SHALL BE STEAM CLEANED PRIOR TO ENTRY TO THE PROJECT SITE TO INHIBIT THE SPREAD OF EXOTIC SEED. ALL HEAVY EQUIPMENT SHALL BE LEAK FREE UPON ENTRY TO THE PROJECT SITE AND ANY LEAKS SHALL BE REPAIRED IMMEDIATELY.
- 7. ACTIVITIES SUCH AS VEHICLE WASHING ARE TO BE CARRIED OUT AT AN OFF-SITE FACILITY WHENEVER PRACTICAL.
- 8. THE CONTRACTOR, AS NECESSARY, SHALL IMPLEMENT OTHER BMPS SPECIFIED IN THE CASQA HANDBOOK DICTATED BY SITE CONDITIONS AND AS DIRECTED BY THE COR. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF THE COR.
- 9. THE CONTRACTOR SHALL MAKE ADEQUATE PREPARATIONS, INCLUDING TRAINING AND EQUIPMENT, TO CONTAIN SPILLS OF OIL AND OTHER HAZARDOUS MATERIALS. SPILL KITS SHALL BE PRESENT AT EACH WORK SITE TO INHIBIT THE SPREAD OF FLUID LEAKS ONTO THE GROUND OR SURROUNDING AREAS.
- 10. THE CONTRACTOR SHALL PROVIDE COVERED WASTE RECEPTACLE FOR COMMON SOLID WASTE AT CONVENIENT LOCATIONS ON THE JOB SITE AND PROVIDE REGULAR COLLECTION OF WASTES.
- 11. BOTH ACTIVE AND NON-ACTIVE SOIL AND MATERIAL STOCKPILES SHALL BE PROPERLY PROTECTED TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE (WM-3).
- 12. THE CONTRACTOR SHALL PROVIDE SANITARY FACILITIES OF SUFFICIENT NUMBER AND SIZE TO ACCOMMODATE CONSTRUCTION CREWS AND ENSURE ADEQUATE ANCHORAGE OF SUCH FACILITIES TO PREVENT TIPPING BY WEATHER OR VANDALISM.
- 13. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING

CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF THE COR.

14. PRIOR TO FINAL ACCEPTANCE, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH WOOD CHIPS BY CONTRACTOR AND TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS SPECIFIED.

EXCAVATION AND FILL

- 1. EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH TRINITY COUNTY AND AS INDICATED IN THESE CONSTRUCTION DOCUMENTS.
- 2. THE GEOTECHNICAL DESIGN REPORT IN PREPARATION WILL BE AVAILABLE UPON REQUEST.
- 3. EXCAVATION SHALL INCLUDE EXCAVATION AND HANDLING OF SATURATED SOILS. CONTRACTOR SHALL BE PREPARED TO DEWATER AND /OR TRANSPORT SATURATED SOIL IN A MANNER THAT PREVENTS EXCESS DISCHARGE OR SPILLAGE OF SOILS OR WATER WITHIN THE CONSTRUCTION ACCESS AREA OR ON ADJACENT PROPERTIES OR ROADWAYS. SHOULD ANY DISCHARGE OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE AND COMPLETE CLEAN UP. MULTIPLE HANDLING OF MATERIAL MAY BE NECESSARY.
- 4. EXCAVATED MATERIAL SHALL BE MOISTURE CONDITIONED TO ACHIEVE THE SPECIFIED COMPACTION FOR BACKFILL.
- 5. UNSUITABLE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR FOR DISPOSAL IN AN APPROVED LOCATION. UNSUITABLE MATERIAL INCLUDES THOSE DEFINED IN CALTRANS STANDARD SPECIFICATIONS, INCLUDING CONCRETE, GROUTED RIPRAP, PIPES ALL AND OTHER MANMADE MATERIALS WITHIN THE LIMIT OF DISTURBANCE (LOD).
- 6. UNLESS OTHERWISE SPECIFIED, TOLERANCE FOR FINISHED GRADING SHALL BE ± 0.2 FEET VERTICALLY AND ± 0.5 FEET HORIZONTALLY.
- SUITABLE EXCAVATED MATERIAL SHALL BE PLACED IN THE SOIL REUSE AREA AS SPECIFIED.
- 8. GRADING MAY BE ADJUSTED AT DIRECTION OF COR TO AVOID TREES AND OTHER FEATURES.
- 9. THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON-COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS, SCARIFYING TO PROVIDE A BOND WITH THE NEW FILL. UNSUITABLE SOIL IS SOIL WHICH, IN THE OPINION OF THE COR, IS NOT COMPETENT TO SUPPORT OTHER SOIL OR FILL, TO SUPPORT STRUCTURES OR TO SATISFACTORILY PERFORM THE OTHER FUNCTIONS FOR WHICH THE SOIL IS INTENDED.
- DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILLS. EXCEPT AS PERMITTED BY COR, NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN TWELVE (12) INCHES SHALL BE BURIED OR PLACED IN FILLS.

UTILITY

- IRRIGATION LINES SHOWN ARE APPROXIMATE FROM RECORD DRAWINGS AND SHALL BE VERIFIED. ALL OTHER UTILITIES SHOWN (IF ANY) WERE LOCATED FROM ABOVE GROUND VISUAL STRUCTURES. NO UTILITY RESEARCH WAS CONDUCTED FOR THE SITE. NOTIFY UNDERGROUND SERVICE ALERT (DIGALERT) AT LEAST TWO DAYS PRIOR TO ANY GRADING OR EXCAVATION WITHIN THE SITE BY CALLING 811 OR 1-800-227-2600.
- CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES AS NEEDED FOR VERIFICATION. UTILITIES MAY EXIST WHICH ARE NOT KNOWN TO THE LANDOWNER, COR OR CO.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES, FEATURES AND STRUCTURES LOCATED IN THE PROJECT AREA AND CONSTRUCTION ACCESS ROUTES. CONTRACTOR SHALL AVOID DISRUPTION OF ANY UTILITIES UNLESS PREVIOUSLY ARRANGED WITH COR.
- 4. CONSTRUCTION MAY TAKE PLACE IN THE VICINITY OF OVERHEAD UTILITY LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF AND OBSERVE THE MINIMUM CLEARANCES FOR WORKERS AND EQUIPMENT OPERATING NEAR HIGH VOLTAGE, AND COMPLY WITH THE SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AS WELL AS OTHER APPLICABLE SAFETY REGULATIONS.
- 5. TELEPHONE, ELECTRIC, WATER AND OTHER UTILITY LINES SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT INTERRUPTION OF SERVICE.

CONSTRUCTION ACCESS:

- 1. CONTRACTOR SHALL LIMIT TEMPORARY CONSTRUCTION ACCESS ROUTES TO WITHIN THE LOD.
- 2. CONTRACTOR USE AREAS ARE INDICATED IN THE DRAWINGS.
- 3. ANY ADDITIONAL AREAS TO BE USED MUST BE APPROVED BY THE COR.

1. SURVEY CONDUCTED BY GRAHAM MATHEWS & ASSOCIATES IN APRIL, 2012.

4. THE EXISTING GRADE REFLECTS SITE CONDITIONS AT THE TIME OF SURVEY.

CONDITIONS IMMEDIATELY TO THE COR. THE CONTRACTOR SHALL NOT

5. PARCEL LINES ARE APPROXIMATE AND DO NOT REPRESENT LEGAL PROPERTY

COMMENCE WITH GRADING UNTIL THE DISCREPANCY IS RESOLVED.

CONTRACTOR SHOULD VERIFY GRADES PRIOR TO COMMENCING WORK AND

SHALL REPORT ANY DISCREPANCY BETWEEN DESIGN DRAWINGS AND FIELD

BOUNDARIES. PARCEL LINES ARE USED TO DELINEATE DIFFERENT PROPERTIES

2. HORIZONTAL DATUM IS CA STATE PLANE ZONE 1, (NAD83) US FEET.

SURVEY AND TOPOGRAPHIC DATA

3 VERTICAL DATUM IS NAVD88 US FEFT

FOR PLANNING PURPOSES





WATER MANAGEMENT

- CONSTRAINTS
- TREATED TO REMOVE SEDIMENT
- ACCEPTED.

- THE ISOLATED WORK AREA
- AND PUMP DETAILS. IF UTILIZED.
- INCREASE (I.E. BECAUSE OF STORM EVENT).
- DESCRIBED IN THE WATER MANAGEMENT PLAN.
- MANAGEMENT PLAN

CLEAR WATER DIVERSION SYSTEM

- THAT PREVENT SEPARATION OF PIPES.

- THAT THE CHANNEL IS ISOLATED.

DEWATERING SYSTEM

- UNANTICIPATED EMERGENCIES.
- APPROVED.
- MUST BE COMPLETED.

FISH AND OTHER SPECIES MANAGEMENT

THE WATER MANAGEMENT FEATURES (E.G. COFFERDAMS) SHOWN IN THE CONTRACT DRAWINGS ARE APPROXIMATE. THE CONTRACTOR IS TO DESIGN A WATER MANAGEMENT APPROACH THAT MEETS THE CONTRACTORS APPROACH THAT MEETS ALL PERMITS AND OTHER

THE OBJECTIVE OF WATER MANAGEMENT IS TO ISOLATE THE CHANNEL WORK SO THAT WORK IS COMPLETED IN DRY CONDITIONS. TO ACCOMPLISH THIS, THE CONTRACTOR MUST EMPLOY A CLEAR WATER DIVERSION SYSTEM AND A DEWATERING SYSTEM. THE CLEAR WATER DIVERSION SYSTEM BYPASSES CREEK WATER AROUND THE WORK AREA. THE DEWATERING SYSTEM REMOVES "NUISANCE" WATER (E.G. SEEPAGE) FROM WITHIN THE ISOLATED WORK AREA AND IS

NO CONSTRUCTION ACTIVITIES ARE PERMITTED UNTIL A WATER MANAGEMENT PLAN HAS BEEN

WATER MANAGEMENT PLAN MUST INCLUDE THE FOLLOWING:

SUMMARY OF THE CONTRACTOR'S WATER MANAGEMENT APPROACH.

DESCRIBE THE APPROACH TO COORDINATE THE REMOVAL OF FISH AND OTHER SPECIES FROM

DESCRIBE IN DETAIL, INCLUDING GRAPHICAL FIGURES, THE CLEAR WATER DIVERSION SYSTEM. THIS INCLUDES. BUT IS NOT LIMITED TO. LOCATION OF INFRASTRUCTURE. TYPE OF

INFRASTRUCTURE, DESIGN FLOW, PIPE SIZE, PIPE MATERIAL, PIPE LENGTH, PIPE ROUTING, ETC.,

DESCRIBE IN DETAIL, INCLUDING GRAPHICAL FIGURES, THE DEWATERING SYSTEM, THIS INCLUDES, BUT IS NOT LIMITED TO, THE LOCATION OF INFRASTRUCTURE, TYPES OF EQUIPMENT, SIZE OF EQUIPMENT, DISCHARGE LOCATIONS, ETC.

DESCRIBE IN DETAIL THE PROCEDURES TO BE EXECUTED SHOULD THE CHANNEL FLOW

MAY BE CONSTRUCTED USING NATIVE OR IMPORTED MATERIAL PLACED IN BAGS (E.G. SAND BAGS, SUPERSACKS). NO COFFERDAM MATERIAL MAY BE RELEASED TO THE CHANNEL AT THE COMPLETION OF THE CONSTRUCTION WITHOUT APPROVAL. MATERIAL AND APPROACH TO BE

THE IMPERMEABLE LINER MATERIAL TO BE USED SHALL BE IDENTIFIED IN THE WATER

GRAVITY SYSTEM IS PREFERRED. SYSTEM SHALL BE CAPABLE OF CONVEYING ALL OF THE STREAM FLOW 24-HOURS PER DAY UNTIL AREA IS STABILIZED

THE PIPE MATERIAL SHALL BE SELECTED FOR FLEXIBILITY AND DURABILITY TO ALLOW FOR THE OCCASIONAL RELOCATION DURING CONSTRUCTION.

THE CONTRACTOR SHALL USE RESTRAINED PIPE JOINTS OR USE FITTINGS AND COUPLINGS

THE CONTRACTOR HAS THE OPTION TO USE PUMPING INSTEAD OF GRAVITY FOR THE CLEAR WATER DIVERSION. BUT GRAVITY IS PREFERRED. IF GRAVITY IS NOT UTILIZED. PRESENT REASONS WITHIN THE WATER MANAGEMENT PLAN.

THE PUMP AND PUMPING APPARATUS USED FOR THE CLEAR WATER DIVERSION SHALL HAVE SUFFICIENT CAPACITY TO PUMP ALL THE STREAM'S FLOW.

THE CONTRACTOR SHALL PROVIDE BACKUP POWER AND PUMPING EQUIPMENT TO ASSURE THAT THE CLEAR WATER DIVERSION REMAINS FUNCTIONAL THROUGHOUT THE TIME PERIOD

THE CONTRACTOR SHALL FURNISH ALL MATERIALS, TOOLS, EQUIPMENT, FACILITIES AND SERVICES AS REQUIRED FOR PROVIDING THE NECESSARY DEWATERING WORK AND FACILITIES. AND PROVIDE BACKUP EQUIPMENT AS NECESSARY FOR REPLACEMENT AND FOR

NO WORK MAY BEGIN UNTIL THE CONTRACTOR'S WATER MANAGEMENT PLAN HAS BEEN

PRIOR TO ANY INSTALLATION OF WATER MANAGEMENT FACILITIES, THE FISH REMOVAL WORK

INSTALL WATER MANAGEMENT SYSTEMS PER THE APPROVED WATER MANAGEMENT PLAN.

GAS PUMPS SHALL BE SET IN APPROVED CONTAINMENT DEVICES.

REFER TO CONTRACT DRAWING DETAILS FOR ADDITIONAL INFORMATION

ONCE THE IN-CHANNEL WORK IS COMPLETED AND ACCEPTED, REMOVE WATER MANAGEMENT SYSTEMS PER THE APPROVED WATER MANAGEMENT PLAN AND AS DIRECTED

THE PROJECT AREA WILL LIKELY INCLUDE FISH AND OTHER SPECIES THAT NEED TO BE REMOVED PRIOR TO ANY IN-CHANNEL WORK, INCLUDING THE INSTALLATION OF WATER MANAGEMENT SYSTEMS THE CONTRACTOR SHALL WORK WITH THE CONTRACT OWNER'S BIOLOGIST TO COORDINATE THE REMOVAL OF FISH AND OTHER SPECIES

NO WORK MAY BE COMPLETED UNTIL THE WATER MANAGEMENT PLAN HAS BEEN APPROVED.

REFER TO CONTRACT DRAWING DETAILS FOR PRODUCT INFORMATION.

THE CONTRACTOR MUST COORDINATE WITH THE CONTRACT OWNER AND THEIR BIOLOGIST. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CONTRACT OWNER AT LEAST ONE WEEK PRIOR TO NEEDING THE BIOLOGIST'S SERVICES.

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FIVE COUNTIES SALMONID CONSERVATION PROGRAM LOWER SIDNEY GULCH URBAN STREAM RESTORATION AT LEE FONG PARK WATER MANAGEMENT	
DATE JUNE 2020 SUBMITTAL 65% DESIGN DESIGN ML / RS / AL DRAWN AL SHEET 4 Of 22	



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	FIVE COUNTIES SALMONID CONSERVATION PROGRAM LOWER SIDNEY GULCH URBAN STREAM RESTORATION AT LEE FONG PARK TYPICAL DETAILS (3)	
	DATE JUNE 2020 SUBMITTAL 65% DESIGN DESIGN ML / RS / AL DRAWN AL SHEET 20 of 22 C-16	

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SPECIFICATIONS FOR BIODEGRADABLE MAT

MATERIAL SPECIFICATIONS

1. EROSION CONTROL MATTING SHALL BE 100% BIODEGRADABLE COIR FIBER. NO NETTING WILL BE PERMITTED. EROSION CONTROL MATTING SHALL BE ROLANKA BIO D-MAT70 OR APPROVED EQUAL CONSISTING OF MACHINE PRODUCED MATTING THAT MEETS THE FOLLOWING MINIMUM SPECIFICATIONS

MATERIAL:	WOVEN COIR FIBER YARN OR TWINE
THICKNESS:	0.30 INCHES
WEIGHT:	20 OZ/SY
OPEN AREA:	39% TO 50%
LIFE EXPECTANCY:	3 YEARS

- 2. STAKES SHALL BE BIODEGRADABLE.
- 3. CONTRACTOR SHALL PROVIDE SAMPLE OF MAT AND MANUFACTURER'S INSTALLATION RECOMMENDATIONS TO THE COR FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

INSTALLATION SPECIFICATIONS

- 1. EROSION CONTROL MATTING SHALL BE INSTALLED WHERE SPECIFIED AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN SPECIFICATIONS.
- 2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. MAT SHALL HAVE GOOD SOIL CONTACT.
- 3. SCARIFY SOIL SURFACE AND APPLY PERMANENT RIPARIAN SEED MIX BEFORE PLACING MAT. 4. LAY MAT LOOSELY AND STAKE PER MANUFACTURER' SPECIFICATIONS TO MAINTAIN DIRECT
- CONTACT WITH SOIL. DO NOT STRETCH MAT. 5. MATTING OVERLAPS SHALL BE A MINIMUM OF SIX INCHES IN THE DOWNSTREAM AND DOWN SLOPE DIRECTION.
- 6. MAT TO BE INSTALLED AFTER GRADING IS COMPLETED AND WOOD STRUCTURES INSTALLED.

NOTES:

- 1. FIBER ROLLS SHALL BE PLACED ON SLOPES OF 4:1 (H:V) AND STEEPER OUTSIDE OF THE BANKFULL CHANNEL FOLLOWING BMP SE-5
- 2. FIBER ROLLS SHALL BE SPACED 20 FT APART FOR 4:1 SLOPES AND 15 FT APART ON STEEPER SLOPES
- 3. FIBER ROLLS SHOULD BE PLACED ON THE CONTOUR AND IN A ROW WITH ENDS TICHTLY ABUTTING THE ADJACENT ROLL. DO NOT OVERLAP ROLLS
- 4. THE DIRECTION OF RUNOFF FLOW TO THE FIBER ROLLS SHOULD BE PERPENDICULAR TO THE STAKED ROLL LOCATION.
- 5. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS FOR INSTALLATION.
- 6. SPACE STAKES 4 FT MAX ALONG FIBER ROLL

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020 GN AL 22 7	TYPICAL DETAILS (4)	AT FULL SCALE	Conservation Program (5C)
			P.O. Box 2571, Weaverville CA, 96093

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	VERIFY SCALE THIS BAR IS ONE INCH LONG AT FULL SCALE	
	FIVE COUNTIES SALMONID CONSERVATION PROGRAM LOWER SIDNEY GULCH URBAN STREAM RESTORATION AT LEE FONG PARK TYPICAL DETAILS (5)	
	DATE JUNE 2020 SUBMITTAL 65% DESIGN DESIGN ML / RS / AL DRAWN AL SHEET 22 of 22 C-18	

CONSTRUCTION ACCESS NOTES:

 ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC ROADWAY, AND DEGRADATION OF EXISTING PAVEMENT.

 INSTALL CORRUGATED STEEL PANEL GRATES OR TIRE WASHING STATION AS NEEDED TO PREVENT TRACKING OF MUD ONTO PUBLIC ROAD.

3. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY.

ACCESSES SHALL BE INSPECTED DAILY AND AFTER EACH RAINFALL WITH MAINTENANCE PROVIDED BY THE CONTRACTOR AS NECESSARY.

ALL TEMPORARY CONSTRUCTION ENTRANCES SHALL BE LEFT IN PLACED AT THE CONCLUSION OF CONSTRUCTION, UNO.

GEOTEXTILE FABRIC SHALL BE WOVEN, MIRAFI 500x OR APPROVED EQUAL.