DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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Flex your power!
Be energy efficient!

March 1, 2013

04-Sol-80-R24.8/R25.2
04-0A0904
Project ID 0400000133
ACIM-080-2(364)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SOLANO COUNTY IN AND NEAR VACAVILLE FROM 0.2 MILE WEST OF ALAMO CREEK BRIDGE TO 0.2 MILE EAST OF ALAMO CREEK BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Tuesday, March 26, 2013, instead of Tuesday, March 12, 2013.

This addendum is being issued to set a new bid opening date as shown herein, revise the Project Plans, the Notice to Bidders and Special Provisions, the Bid book and provide additional Information Handout.

Project Plan Sheet 85 is revised. A copy of the revised sheet is attached for substitution for the like-numbered sheet.

Project Plan Sheet 21A is added. A copy of the added sheet is attached for addition to the project plans.

In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," subsection "GENERAL," the second paragraph is revised as follows:

"This project is risk level 2."

In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," subsection "GENERAL," the seventh paragraph is revised as follows:

"The Central Valley (Region 5S) RWQCB will review the approved SWPPP."

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In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL, GENERAL," subsection "Submittals," the first paragraph in subsection "Storm Water Pollution Prevention Plan, General," is revised as follows:

"Within 10 days of contract approval:

1. Submit 3 copies of your SWPPP for review. Allow 10 days for the Department's review. The Engineer provides comments and specifies the date when the review stopped if revisions are required.
2. Resubmit a revised SWPPP within 10 days of receiving the Engineer's comments. The Department's review resumes when a complete SWPPP has been resubmitted.
3. When the Engineer approves the SWPPP, submit an electronic copy and 4 printed copies of the approved SWPPP.
4. If the RWQCB requires review of the approved SWPPP, the Engineer submits the approved SWPPP to the RWQCB for its review and comment.
5. If the Engineer requests changes to the SWPPP based on the RWQCB's comments, amend the SWPPP within 5 days."

In the Special Provisions, Section 10-1.025, "WATER QUALITY MONITORING," is added as attached.

In the Special Provisions, Section 10-1.145, "TEMPORARY CREEK DIVERSION SYSTEM," is added as attached.

In the Special Provisions, Section 10-1.345, "ROLLED EROSION CONTROL PRODUCT (NETTING)," is added as attached.

In the Bid book, in the "Bid Item List," Items 84, 85, 86, 87, 88 and 89 are added and Item 83 is deleted as attached.

To Bid book holders:

Replace page 7 of the "Bid Item List" in the Bid book with the attached revised page 7 of the Bid Item List. The revised Bid Item List is to be used in the bid.

Attached is a copy of the impact map to be added as part of the Non-storm Water Information Package included in the Information Handout.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This addendum and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-0A0904

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

REBECCA D. HARNAGEL
Chief, Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

10-1.025 WATER QUALITY MONITORING

GENERAL

Summary

This work includes monitoring of water quality during in-water work including temporary creek diversion system as required by conditions in the Section 401 Water Quality Certification. Water quality monitoring includes:

1. Water Quality Sampling and Analysis Day: Water Quality Sampling and Analysis includes preparation, collection, analysis, and reporting of water quality samples.
2. Water Quality Monitoring Report: Preparing and submitting the monitoring report includes visual monitoring, Water Quality Objective (WQO) Exceedance report, monitoring and inspection results, obtaining monitoring report acceptance, and reports required by RWQCB.

This job lies within the boundaries of the Central Valley (Region 5S) Regional Water Quality Control Board (RWQCB).

The receiving water for this job is Alamo Creek.

Definitions and Abbreviations

WQM: Water Quality Monitor. The WQM collects water quality sampling data and provides reports to the Engineer.
QSD: Qualified SWPPP Developer
QSP: Qualified SWPPP Practitioner.
qualified rain event: Qualified rain event must produce runoff resulting in a direct discharge to receiving waters. A qualified rain event is a storm that produces at least 0.5 inch of precipitation with a 48-hour or greater period between storms.
SAP: Sampling and Analysis Plan.
storm event: A storm that is forecasted or produces at least 0.10 inch of precipitation within a 24-hour period.
SWPPP: Storm Water Pollution Prevention Plan.
WPC Manager: Water Pollution Control Manager. The WPC Manager implements water pollution control work described in the SWPPP and oversees revisions and amendments to the SWPPP.
WQO: Water Quality Objective.

Submittals

Within 7 days after contract approval, submit WQM qualifications including training and experience in collecting and analyzing water quality samples.

Submit an electronic copy and 2 printed copies of Monitoring Reports as required:

1. Water Quality Monitoring Reports
2. Other reports required by the RWQCB

Quality Control and Assurance

Training

Training for personnel to collect water quality samples must include:

1. SAP review
2. Health and safety review
3. Sampling simulations

Water Quality Monitor (WQM)

The WQM must have the same qualifications as the WPC Manager including the requirements for QSP described in the Permit (Order No. 2009-009-DWQ, NPDES No. CAS000002) by having at least one of the following qualifications:

1. Department approved storm water management training described in the Department's "Construction Storm Water and Water Pollution Control" web site.
2. The WQM must have at least one of the following qualifications:

    2.1. Qualifications described in the Permit for a QSD

    2.1. Certified Erosion, Sediment and Storm Water Inspector (CESSWI)™ registered through Enviro Cert International, Inc.

    2.2. Certified Inspector of Sediment and Erosion Control (CISEC) registered through CISEC, Inc.

The WQM must have training and experience in collecting and analyzing water quality samples.

The WQM may be the same person as the WPC Manager.

IMPLEMENTATION REQUIREMENTS

Visual Monitoring

The WQM must perform visual inspections for storm events.

Perform non-stormwater discharge visual inspections as follows:

1. Observe receiving waters:

    1.1. 24 hours before beginning in-water work including the installation of clear water diversions

    1.2. At least four times daily during in-water work activities including the installation, operation, and removal of clear water diversions

2. Observe receiving waters for the presence of floating and suspended materials, sheen on the surface, discoloration, turbidity, odors, and sources of observed pollutants

3. Observe the job site for the presence of authorized and unauthorized non-stormwater discharges and their sources. Unauthorized discharges to surface waters include:

   3.1. Soil, silt, and sand

   3.2. Bark, sawdust, and slash

   3.3. Rubbish and debris

   3.4. Cement, concrete, and concrete washings

   3.5. Oil and petroleum products

   3.6. Welding slag

   3.7. Other organic or earthen materials

The WQM must prepare visual inspection reports that include the following:

1. Name of personnel performing the inspection, inspection date and date inspection report completed.
2. Storm and weather conditions
3. Locations and observations
4. Corrective actions taken

Retain visual inspections reports at the job site.

Water Quality Sampling

Perform water quality sampling whenever a project activity, conducted within waters of the State, has the potential to mobilize sediment or alter background conditions within waters of the State. Perform surface water quality sampling when:

1. Conducting in-water work
2. Work activities result in materials reaching receiving waters
3. Work activities result in the creation of a visible plume in receiving waters

This project is subject to WQOs:

Parameter	Unit	Type of Sample	Minimum Sampling Frequency	Required Analytical Test Method	Water Quality Objective
Turbidity	NTU	Grab[1]	Every 4 hours during in-water work	(2)	(5)
Settleable Material	mL/L	Grab[1]	Every 4 hours during in-water work	(2)	(6)
Visible construction related pollutants[3]	Observations	Visual Inspections	Continuous throughout the construction period	-	-
pH[4]	Standard Units	Grab[1]	Every 4 hours during in-water work	(2)	(7)
Temperature[4]	°F(or as °C)	Grab[1]	Every 4 hours during in-water work	(2)	(8)
Dissolved Oxygen	mg/L & % saturation	Grab[1]	Every 4 hours during in-water work	(2)	(9)

(1) Grab sample must not be collected at the same time each day to get a complete representation of variations in the receiving water.

(2) Pollutants must not be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, method shall be approved by Central Valley Water Board staff.

(3) Visible construction-related pollutants include oil, grease, foam, fuel, petroleum products and construction-related, excavated, organic or earthen materials.

(4) Temperature, pH & dissolved oxygen water quality monitoring is required due to the occurrences of the state and the federally listed species habitat within the project area

(5) Activities shall not cause turbidity increases in surface water to exceed:

i where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs) controllable factors shall not cause downstream turbidity to exceed 2 NTU

ii where natural turbidity is between 1 & 5 NTUs increase shall not exceed 1NTU

iii where natural turbidity is between 5 & 50 NTUs, increase shall not exceed 20 percent

iv where natural turbidity is between 50 & 100 NTUs, increase shall not exceed 10 NTUs

v where natural turbidity is greater than 100 NTUs, increase shall not exceed 10 percent

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTUs over background turbidity. In determining compliance with the above limits, appropriate averaging period may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior approval of the Central Valley Water Board staff.

(6) Activities shall not cause settleable matter to exceeds 0.1 mL/L in surface waters as measured in surface waters within 300 feet downstream of the project

(7) Activities shall not cause pH to be addressed below 6.5 nor exceed 8.5 in surface water.

(8) Activities shall not cause temperature in surface waters to increase more than 5 °F above natural receiving water temperature for waters with designated COLD or WARM beneficial uses

(9) Activities Shall not cause dissolved oxygen to be reduced below 5.0 mg/L for waters designated with in the WARM beneficial use and 7.0 mg/L for waters designated with the COLD or SPWN beneficial uses, in surface water.

At least 24 hours before beginning in-water work:

1. Establish locations for water quality sampling:

   1.1. Upstream of the effluent discharge point or location of in-water work by no more than 50 feet

   1.2. Effluent discharge point including location of in-water work
   1.3. Downstream of the effluent discharge point or location of in-water work by between 35 and 50 feet

2. Conduct water quality sampling to document background conditions for upstream, effluent, and downstream locations. Sample for each WQO described above
3. Estimate water flow

Whenever conducting in-water work including the installation of clear water diversions, conduct water quality sampling:

1. At least four times daily for each water quality objective
2. At upstream, effluent, and downstream locations

If sample results exceed a WQO, immediately notify the Engineer within 30 minutes and do the following:

1. Conduct water quality sampling every hour until measurements comply with WQOs
2. Measure the distance from the effluent location to the downstream extent of the exceedance
3. Obtain photos of the tributary upstream, downstream, and at the location of in-water work
4. If BMPs are installed, repaired, or modified to control the source of the exceedance, monitor the activity and document with samples, photos, and a brief summary

You are not required to physically collect samples under the following conditions:

1. During dangerous weather conditions such as flooding or electrical storms
2. Outside of normal working hours

If downstream samples show increased levels, assess WPC practices, site conditions, and surrounding influences to determine the probable cause for the increase.

Whenever assigned field personnel take samples, comply with the equipment manufacturer's recommendation for collection, analysis methods, and equipment calibration.

Retain calibration logs at the job site.

Retain water quality sampling documentation and analytical results with the at the job site.

REPORTING REQUIREMENTS

If there is an unauthorized discharge, the WQM must immediately notify the Engineer within 6 hours.

Monitoring Report

The WQM must prepare a monthly monitoring report. Submit the monthly monitoring report by the 7th of the month for monitoring work conducted during the previous month. The report must include:

1. Visual monitoring inspection reports
2. If in-water work was done, include the following field sampling results and inspections:
    - 2.1. Analytical methods, reporting units, and detection limits
    - 2.2. Date, location, time of sampling, visual observation, photos, and measurements
    - 2.3. Estimate of water flow
    - 2.4. Calibration logs for field monitoring equipment

3. If storm events generate visible runoff, include visual monitoring results and inspections:

    3.1. Date, location, and time of visual observation
    3.2. Photos of areas disturbed by project activities including excess materials disposal areas
    3.3. Photos showing disturbed soil areas and documenting compliance for erosion control and revegetation measures including soil stabilization and sediment control BMPs

4. Summary of exceedance
5. Summary of corrective actions

The WQM must prepare other RWQCB reports when:

1. Conducting in-water work
2. Work activities cause a discharge of materials reaching receiving waters
3. Work activities cause a discharge resulting in the creation of a visible plume in receiving waters

Follow the monthly monitoring report requirements for other RWQCB reports. The other RWQCB reports must be submitted within 3 days of beginning in-water work or discovery of a discharge and continue every 2 weeks. Suspend the other RWQCB reports 2 weeks after concluding in-water work or correction of the discharge.

WQO Exceedance Report

If a WQO is exceeded, the WQM must 1) notify the Engineer by phone or electronic media within 30 minutes of WQO is exceeded and 2) submit a WQO Exceedance Report within 6 hours of WQO is exceeded. The report must:

1. Include the following field sampling results and inspections:

    1.1. Analytical methods, reporting units, and detection limits

    1.2. Date, location, time of sampling, visual observation, photos, and measurements
    1.3. Estimate of water flow

2. Description of BMPs and corrective actions taken to manage WQO exceedance

PAYMENT

The contract unit price paid for water quality monitoring report includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing and submitting the monitoring report including visual monitoring, WQO Exceedance report, monitoring and inspection results, and obtaining monitoring report acceptance, and reports required by RWQCB. Failure to submit any monitoring report is considered a performance failure.

The Department does not adjust payment for an increase or decrease in the quantity of monthly monitoring reports submitted. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

The contract unit price paid for water quality sampling and analysis day includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation, collection, analysis, and reporting of water quality samples, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The Department does not adjust payment for an increase or decrease in the quantity of water quality sampling and analysis day. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

You may request or the Engineer may order laboratory analysis of water quality samples. Laboratory analysis of Water Quality samples is change order work.

10-1.145 TEMPORARY CREEK DIVERSION SYSTEM

GENERAL

This work includes specifications for constructing, maintaining, reconstructing, and later removing temporary creek diversion system at locations shown on the plans.

Temporary creek diversion system must consist of a temporary gravel filled bag fabric cofferdam with impermeable plastic liner across the existing upstream channel, a gravel filled bag fabric barrier downstream from the proposed work area, and a plastic pipe to pass creek flows through the gravel filled bag fabric cofferdam, the Contractor's work area, and the gravel filled bag fabric barrier.

If, in the opinion of the Engineer, temporary creek diversion system is not required due to lack of creek flow, temporary creek diversion system will be eliminated as provided in Section 9-1.05D, "Eliminated Items," of the Standard Specifications.

Submittals

Submit a Certificate of Compliance under Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for:

1. Gravel
2. Gravel filled bag fabric
3. Impermeable plastic sheet
4. Plastic pipe

The Contractor may use an alternative temporary creek diversion system if approved by the Engineer in writing. The alternative temporary creek diversion system must be within the temporary impact footprint allowed in the RWQCB 401 permit and the impact map included in the information handout as described in "Supplemental Project Information" of these special provisions. The alternative temporary creek diversion system will be subject to the same submittal, review, and approval timeframes of these special provisions. Any increase in cost for the alternative temporary creek diversion system must be borne by the Contractor. The alternative temporary creek diversion system must be installed and maintained in conformance with these special provisions.

Temporary Creek Diversion System Plan

Temporary Creek Diversion System Plan (TCDSP) must include:

1. Installation and removal process, including equipment and platforms for equipment and access locations.
2. Calculations showing the basis of the sizing of the cofferdams and any piping or other conveyance materials used in the TCDS, with the resulting analysis providing assurance that the work area to be protected by the TCDS will remain dry during the duration of the work.
3. Plans showing location(s) of diversion, including layouts, cross sections, and elevations.
4. Materials proposed for use, including Material Safety Data Sheet (MSDS) and pumping system, if used.
5. Restoration plans showing before and after conditions, including photos of existing conditions for areas disturbed during the installation, operation, and removal of the temporary creek diversion system.
6. Monitoring and reporting plan to ensure applicable water quality objectives are met.
7. Schedule of work, including BMP implementation.

Within 20 days after contract approval, start the following process for TCDSP approval:

1. Submit 3 copies of the TCDSP and allow 5 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped.
2. Change and resubmit the TCDSP within 5 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete TCDSP is resubmitted. Allow 5 days for the Engineer's second review.
3. If additional comments are provided by the Engineer, the TCDSP must be revised and resubmitted within 5 days of the Engineer's second review.
4. When the Engineer approves the TCDSP, submit an electronic file and 4 printed copies of the approved TCDSP.

The Engineer will submit one copy of the approved TCDSP to the RWQCB and one copy to the Department of Fish & Game (DFG) for their review and comment at least 30 days prior to installation. If the Engineer requests changes to the TCDSP based on the agencies comments, the Contractor must amend the TCDSP within 5 days. Submit 4 copies of the final TCDSP upon notification of final approval.

MATERIALS

Gravel

Gravel must:

1. Be river run gravel obtained from a river or creek bed and have the gradation of 100% passing through 3/4 inch sieve and 0 percent passing through 3/8-inch sieve
2. Be clean, hard, sound, durable, uniform in quality, and free of any detrimental quantity of soft, thin, elongated or laminated pieces, disintegrated material, organic matter, or other deleterious substances
3. Be composed entirely of particles that have no more than one fractured face
4. Have a cleanliness value of at least 85, as determined by the Cleanliness Value Test Method for California Test No. 227

Impermeable Plastic Sheet

Impermeable plastic sheet must be:

1. Single ply, commercial quality, non-photodegradable polyethylene with a minimum thickness of 10 mils under ASTM D 5199
2. Free of holes, punctures, tears or other defects that compromise the impermeability of the material
3. Suitable for use as a impermeable membrane

Plastic Pipe

Plastic pipe must comply with Section 64-1.02, Type S, of the Standard Specifications, and:

1. Be clean, uncoated, in good condition free of rust, paint oil dirt, or other residues that could potentially contribute to water pollution
2. Be adequately supported for planned loads
3. Use watertight joints
4 Be made of a material or combination of materials that are suitable for clean water and which do not contain banned, hazardous or unlawful substances
5. Be smooth walled

At the option of the Contractor, an alternative pipe culvert may be used. Alternative pipe culverts must meet the requirements in Section 62, "Alternative Culverts" of the Standard Specifications. The alternative pipe culvert must be capable of sustaining the intended load and of discharging a quantity of water equivalent to the type and size of plastic pipe shown on the plans. Adequacy as to equivalent strength and capacity must be subject to approval, in writing, by the Engineer.

Gravel filled Bag Fabric

Gravel-filled bag fabric must be nonwoven polypropylene geotextile or comparable polymer material and must conform to the following requirements:

Specification	Requirements
Weight per unit area, ounces per square yard, minimum ASTM D 5261	8.0
Grab tensile strength (one inch grip), pounds, minimum ASTM D 4632*	200
Ultraviolet stability, percent tensile strength retained after 500 hours minimum ASTM D 4355, xenon arc lamp method	70

* or appropriate test method for specific polymer

Gravel filled bag fabric must be between 24 inches and 32 inches in length, and between 16 inches and 20 inches in width and filled with gravel. Yarn used for binding gravel bags must be as recommended by the manufacturer or bag supplier and must be of a contrasting color. The opening of gravel filled bag fabric must be secured to prevent gravel from escaping. Gravel filled bag fabric must be between 30 pounds and 50 pounds in weight.

CONSTRUCTION

Do not start temporary creek diversion system work until Temporary Creek Diversion System Plan is approved.

Do not use motorized vehicles and equipment within the creek for the construction of the temporary creek diversion system.

Installation must not be initiated if the 72-hour forecasts predict a 50% or greater chance of rain in the project area. The temporary creek diversion system must be within the temporary impact footprint allowed in the 401 impact maps within the "Storm Water Information Handout".

Use of the temporary creek diversion system is restricted to the time period from June 15 to October 15 and is restricted to the period defined in PLACs. If the work requires more than one restricted period, the temporary creek diversion system must be removed at the conclusion of the restricted period and repositioned during the following restricted period at the Contractor's expense.

The Contractor must prevent, at the Contractor's expense, any leakage in the temporary creek diversion system that may interfere with the work.

If during the progress of the work, it becomes necessary to reposition or relocate portions of the temporary creek diversion system, the work must be done at the Contractor's expense.

All joints between the edges of impermeable plastic sheeting must be lapped and joined with commercial quality waterproof tape with minimum 4-inch lapping at the edges. All joints between the plastic sheet and plastic pipe must be sealed with commercial quality waterproof tape.

Maintenance

Prevent leaks in the temporary creek diversion system.

Repair holes, rips and voids in the impermeable plastic membrane by taping. Replace impermeable plastic membrane when patches or repairs compromise the impermeability of the material.

Repair temporary creek diversion system within 24 hours after the damage occurs.

Prevent debris from entering the creek.

Remove and replace immediately gravel, gravel filled bag fabric, impermeable plastic membrane, or plastic pipes contaminated by construction activities.

Remove sediment deposits and debris from temporary creek diversion system as needed. If removed sediment is deposited within project limits, it must be stabilized and not subject to erosion by wind or water.

Removal

When no longer required, remove and dispose of all components of temporary creek diversion system. Return the creek bed to the original condition.

Do not excavate the native creek material. Backfill ground disturbance, including holes and depressions caused by the installation and removal of the temporary creek diversion system with permeable material. Maintain the original line and grade of the creek bed.

Ground disturbance, including holes and depressions caused by the installation and removal of the temporary creek diversion system must be backfilled with gravel and repaired in conformance with the provisions in Section 15-1.02, "Preservation of Property," of the Standard Specifications.

PAYMENT

The contract lump sum price paid for temporary creek diversion system includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing, maintaining and removal of temporary creek diversion system, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for monitoring and reporting plan is included in the contract lump sum price paid for temporary creek diversion system monitoring and reporting, and no additional compensation will be allowed there for.

10-1.345 ROLLED EROSION CONTROL PRODUCT (NETTING)

GENERAL

Summary

This work includes installing rolled erosion control product (netting).

Definitions

Rolled erosion control product (RECP): A long-term degradable material manufactured or fabricated into rolls designed to reduce soil erosion and assist in the growth, establishment and protection of vegetation.

Open weave textile (OWT): A degradable RECP composed of processed natural yarns woven into a matrix, used to provide erosion control and vegetation establishment.

Submittals

Submit a Certificate of Compliance under Section 6-1.07, "Certificates of Compliance" of the Standard Specifications for:

1. Netting
2. Fastener

MATERIALS

Netting

Netting must comply with the following:

1. Netting must be a OWT RECP.
2. Netting Type: A
3. Machine-made mats provided in rolled strips.
4. Minimum thickness: 0.30 inch.
5. Minimum width: 72 inches.
6. U.V. Stability under ASTM D 4355 (500 hours exposure): 80%
7. Physical properties in Table A:

Table A

Type	Number Of Nets	Net Type	Matrix	Maximum "C" Factor [1]	Minimum Sheer Stress [2]	Functional Longevity (months)	Minimum Tensile Strength [3]
A[4]	Single Net	Organic	100% Woven Coir (Coconut Fiber)	0.25	3	36	125
B[5]	Single Net	Organic	100% Woven Coir (Coconut Fiber)	0.25	4.4	36	125
C[6]	Single Net	Organic	100% Woven Coir (Coconut Fiber)	0.25	4.6	36	125

Notes:

[1] Universal Soil Loss Equation (USLE) C-Factor for a 1.5:1 (H:V) unvegetated slope.
[2] lb/ft2 under ASTM D 6460.
[3] lb/ft under ASTM D 5035.
[4] Average open area of 65%, with a tolerance of ± two percent. Minimum weight of 11.8 ounces per square yard under ASTM D 3776.
[5] Average open area of 48%, with a tolerance of ± two percent. Minimum weight of 20 ounces per square yard under ASTM D 3776.
[6] Average open area of 38%, with a tolerance of ± two percent. Minimum weight of 26 ounces per square yard under ASTM D 3776.

Fasteners

Fasteners must be 11 gauge, 6-inch U-shaped staples with 6-inch legs, and 1-inch crown.

MEASUREMENT AND PAYMENT

The quantity of rolled erosion control product (netting) will be measured by the square foot as determined from actual slope measurements of the areas covered by the rolled erosion control product (netting) excluding overlaps.

The contract price paid per square foot for rolled erosion control product (netting) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in rolled erosion control product (netting), complete in place, including fasteners, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

BID ITEM LIST

04-0A0904

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	15		
82	860401	LIGHTING	LS	LUMP SUM	LUMP SUM	
83	BLANK					
84	130310	RAIN EVENT ACTION PLAN	EA	30	500.00	15,000.00
85	130320	STORM WATER SAMPLING AND ANALYSIS DAY	EA	17		
86	025379	WATER QUALITY SAMPLING AND ANALYSIS DAY	EA	70		
87	025380	WATER QUALITY MONITORING REPORT	EA	5		
88	025381	TEMPORARY CREEK DIVERSION SYSTEM	LS	LUMP SUM	LUMP SUM	
89	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID FOR ITEMS: $ _____

TOTAL BID FOR TIME: _____ X **$3,000.00** = $ _____

WORKING DAYS BID (Not to exceed 180 Days) — **COST PER DAY**

TOTAL BID FOR COMPARISON (COST PLUS TIME): $ _____