

## **SECTION D -TECHNICAL SPECIFICATION**

### **SECTION 0001 - ORDER OF WORK**

#### **PART 1 GENERAL**

- A. Order of work shall conform to the following provisions.

#### **PART 2 MATERIALS**

NOT APPLICABLE

#### **PART 3 EXECUTION**

##### **3.01 PERMITS AND INSURANCE**

- A. Prior to beginning construction on any portion of the project all bonds and insurance shall be obtained by the Contractor.

##### **3.02 TRAFFIC CONTROL**

- A. Prior to daily start of work, contractor shall set up all traffic control measures (i.e. signs, cones) in areas of the private parking lots and in the public right of way (sidewalks) which are affected by the work.

##### **3.03 PRE-CONSTRUCTION MEETING**

- A. Contractor and Engineer shall meet to discuss the project prior to any start of work.
- B. All material submittal shall be reviewed and approved by the Engineer prior to start of work. Any rejected material and work will not be subject to compensation.

PART 4 MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Payment for all aspects of Order of Work is considered to be included in the various items of work and no additional compensation will be allowed therefore.

END OF SECTION

## SECTION 0300 - CLEARING AND GRUBBING

### PART 1 GENERAL

#### 1.01 SCOPE OF WORK

- A. Clearing and Grubbing shall conform to Section 16 of the Caltrans Standard Specifications. This work shall consist of removing all objectionable material from within the fence line, and such other areas as may be specified in the special provisions. Clearing and grubbing shall be performed in advance of grading and roadway excavation operations and in accordance with the requirements specified in these specifications.
- B. The contractor shall be responsible for all aspects of recycling all concrete and asphalt removed as a result of doing the required work. For this section recycling shall mean reuse of material in another manufactured product or reuse as some form of building or paving material. Reuse by an established recycling firm is an acceptable method of recycling, subject to approval by the Engineer. Use as daily cover material in a landfill is also an acceptable method of recycling.
- C. Attention is directed to Section 0330 of these special provisions for Storm Water Pollution Prevention Plan (SWPPP) requirements.

### PART 2 MATERIALS

NOT APPLICABLE

### PART 3 EXECUTION

#### 3.01 REMOVAL OF OBSTRUCTIONS

- D. Attention is directed to Sections 7-1.11, "Preservation of Property," 7-1.12, "Responsibility for Damage," and 8-1.10, "Utility and Non-Highway Facilities". Existing roadway improvements and facilities, adjacent property, utility and non-roadway facilities, and trees and plants that are not removed shall be protected from injury or damage resulting from the Contractor's operations.

- E. The Contractor shall prune all shrubbery as directed and remove all structures where the proper construction and completion of the work require their removal. The Contractor shall also remove all rock, stones, debris, and all obstructions of whatsoever kind or character, whether natural or artificial, encountered in the construction of the work.
- F. Material that is removed as herein above specified, and is not to be incorporated in the improvement being constructed, shall be disposed of by the Contractor at the Contractor's sole expense.

### 3.02 DISPOSAL OF EXCAVATED MATERIAL

- G. The contractor shall be responsible for making his/her own arrangements for disposing of material outside the City premises or right of way and he/she shall pay all costs involved in connection therewith.
- H. Debris, rubbish, broken concrete from sidewalk or pavement and other articles typical of excavation of sidewalk, curb, gutter, pavement retaining walls, catch basins, man holes and abandoned pipe may be encountered and will become the property of the contractor and shall be removed and disposed of as stated.
- I. Material removed shall be disposed of outside the street right of way in accordance with the provisions of Section 7-1.13 of the Standard Specifications. The Contractor shall be responsible for locating a suitable dumpsite approved by the Engineer and for transporting materials for dumping. When material is to be disposed of at a location other than at the local sanitary landfill site, the Contractor shall obtain written authorization from the property owner on whose property the disposal is to be made and he/she shall file with the Engineer said authorization together with a written release from the property owner absolving the City from any and all responsibility in connection with the disposal of material on said property. If the dumpsite is within the City limits, the property owner must obtain a grading permit.

## PART 4 MEASUREMENT AND PAYMENT

### 4.01 PAYMENT

- J. Unless otherwise provided for in the special provisions, full compensation for Clearing and Grubbing and for all costs involved in disposing of

materials as specified in this section, including but not limited to all costs of securing a dump site, hauling, removing, disposing or stockpiling tree roots, earth and all other aspects of this section shall be considered as included in the various items of work and no additional compensation shall be provided therefor.

END OF SECTION

*This page intentionally left blank*

## SECTION D.0320 - RECYCLABLE/SALVAGEABLE MATERIALS

### PART 1 GENERAL

#### 1.01 WASTE MANAGEMENT PLAN (WMP)

- A. The City of Vallejo is making an effort to recycle or to salvage the materials for this project. A Waste Management Plan (WMP) is required for this project. Many of the demolition materials of this project, such as removed Bus shelters can be salvaged or recycled, and concrete, asphalt concrete can be recycled or reused.
- B. The Contractor is required to list in the WMP the materials that will be salvaged, recycled, reused or disposed, resulting from the project. The Contractor is required to recycle or reuse a minimum of **95%** of demolition debris generated by this project. Hazardous materials shall be discounted in the calculation of recycle or reuse requirement.
- C. The Waste Management Plan (WMP) shall indicate:
  - 1.The total weight of project debris, by materials type, generated.
  - 2.The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling.
  - 3.The vendor or facility that the Contractor proposes to use to collect or receive that material.
  - 4.The weight of demolition materials that will be land filled.
  - 5.Project square footage.
- D. If the Contractor shall experience unique circumstances that the Contractor believes make it infeasible to comply with the City's diversion requirement, the Contractor may apply for an exemption at the time that he or she submits the WMP.

### PART 2 MATERIALS

NOT APPLICABLE

### PART 3 EXECUTION

### 3.01 WASTE MANAGEMENT PLAN (WMP)

- A. To fulfill the requirement of the WMP, the Contractor is required to separate the demolition debris. By sorting on-site into distinct containers or stockpile for each type of material proposed to be reused or recycled, as well as separate container for refuse.
- B. After segregation and prior to transport, Engineer shall inspect containers or stockpile for each type of material to be reused or recycled.
- C. Contractor shall fill out and submit Waste Management Plan sheet and table to Engineer upon completion of transport to dump site of demolition materials.

## PART 4 MEASUREMENT AND PAYMENT

### 4.01 MEASUREMENT AND PAYMENT

- A. Full compensation for all costs involved in sorting, separating and final removal of materials as specified in this section, including all costs of securing a dump site, stockpiling, removing, hauling, and disposing of all materials, complete in place necessary to complete the sorting as specified in these specifications and as directed by the Engineer shall be considered to be included in the various items of work and no additional compensation will be allowed therefore.
- B. Documentation, including receipts showing actual weights of all material recycled, salvaged and disposed must be submitted on a regular basis before issuance of payment for **Bid item No 1**.

END OF SECTION



**CITY OF VALLEJO  
WASTE MANAGEMENT PLAN**

*The required goal is to reuse or recycle at least **Recycling Goal -95%** of project waste.*

Use tons or cubic yards to quantify total estimated waste and percentages for materials. Ask your hauler, recycler or site cleanup vendor to assist you with this plan. Receipts of all recycling and disposal must be submitted after project completion.

Project Name: Blue Rock Springs Golf Course Shade Structure

Location: 655 Columbus Parkway, Vallejo, CA 94591

Type of Project:       New Construction     Demolition                       Renovation

Type of Construction: (concrete, steel, etc.) \_\_\_\_\_

Value of Project: \_\_\_\_\_

Bidder: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone / FAX: \_\_\_\_\_

Questions regarding recycling:      Call Derek Crutchfield, Recycling Coordinator at (707) 648-5346.

Submit this form and the attached Waste Management plan to the Engineer prior to invoice.

**Sheet 1 of 2**

**CITY OF VALLEJO  
WASTE MANAGEMENT PLAN FOR  
DEMOLITION PROJECT**

Project Name: Blue Rock Springs Golf Course Shade Structure

Materials	Total Percentage of Materials	Percentage Reused/ Recycled Materials	Percentage Disposed Materials	Collection Hauler/ Facility	Actual Waste Amount/ Comments (attach receipts)
Asphalt/ Concrete					
Dirt					
Brick/ Masonry					
Wood					
Metals					
Other (painted wood, drywall)					
TOTAL					
	<i>This column should total 100%</i>	<i>This column should total at least Recycling Goal-95%.</i>			

If the Contractor were unable to recycle Country Club Crest Street Improvement Project, please provide an explanation: \_\_\_\_\_

Other comments: \_\_\_\_\_

**I CERTIFY THAT THE ABOVE INFORMATION IS TRUE & CORRECT TO THE BEST OF MY KNOWLEDGE.**

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**Sheet 2 of 2**

## SECTION 0330 - STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

### PART 1 GENERAL

#### 1.01 SCOPE OF WORK

- K. Provide a Storm Water Pollution Prevention Program (SWPPP) that meets all of the required standards of the State of California Water Resources Control Board. The SWPPP measures shall be installed as specified. Contractor shall submit a detailed SWPPP for the project to the City for review and approval at the pre-construction meeting.

### PART 2 MATERIALS

- L. All material used for SWPPP shall conform to the requirements of the State Water Resources Control Board.

### PART 3 EXECUTION

- M. The preparation of this SWPPP is based on the principles of Best Maintenance Practices (BMP's) and not numeric effluent limitations to control and abate the discharge of pollutants into receiving waters.
- N. The SWPPP will be amended whenever there is a change in construction or operations, which may affect the discharge of significant quantities of pollutants into the storm drainage system. The SWPPP will also be amended if it is in violation of any condition of the Permit or has not achieved the general objective of reducing pollutants in storm water discharges.
- O. Areas that the SWPPP will address will include but is not limited to the following:
  - Slurry from saw cutting Portland cement concrete
  - I. Slurry from saw cutting asphalt concrete including detector loop grooves
  - II. Portland cement concrete ready mix truck wash out and tool clean up
  - III. Asphalt concrete grindings and storm drain catch basins

IV. Soil disturbance

PART 4 MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Full compensation for the plan preparation, installation and maintenance of SWPPP measures as described in this section shall be considered as included in the various items of work and no additional compensation shall be provided therefor.

(END SECTION)

## SECTION 1000 – SHADE STRUCTURE

### PART 1 GENERAL

#### 1.01 SCOPE OF WORK

- A. The shade and fabric tensioned structure contractor shall be responsible for the design, engineering, cable analysis, structural layout, fabrication, shipping and installation of the work identified herein as shade structures.
- B. The contractor shall be responsible for all aspects of recycling all material removed as a result of doing the required work. For this section recycling shall mean reuse of material in another manufactured product or reuse as some form of building or paving material. Reuse by an established recycling firm is an acceptable method of recycling, subject to approval by the Engineer. Use as daily cover material in a landfill is also an acceptable method of recycling.
- C. Attention is directed to Section D.0330 of these special provisions for Storm Water Pollution Prevention Plan (SWPPP) requirements.

#### 1.02 SUBMITTALS

##### **Pre-Award Submittals: Items to be included with completed bid package**

- A. Submit evidence listing installed reference sites of structures/projects of similar scope to the current project. Include the project scope and installation dates of these structures.
  - 1. Supplied & installed at least one (1) Shade and Fabric Tensioned Structure utilizing Ferrari 502, Herculite Excel M or an equal to Architectural Textile Composite Membrane that provides 100% water proof protection in Northern California.
  - 2. Submit experience in custom design, fabrication and installation of structures similar to the arched single post cantilever structures.
  - 3. Have an established technical support office/team in Northern California that will be available to provide reasonable 'after sale' service.
- B. Supply a minimum of 12 fabric samples registered with the California State Fire Marshall (Title 19) to demonstrate fabric color range.

- C. Supply steel powder coating sample chart to document steel color range. Demonstrate a minimum of 20 powder coat colors.
- D. Supply proof of all quality assurance items including:
  - 1. A list of three (3) reference projects that document installation of the structural designs as per 1.02 A.1 and 1.02 A.2
  - 2. Supply proof of Current Bonded CA Contractors License
  - 3. Supply proof of Commercial General Liability Insurance
  - 4. Supply proof of Auto Insurance for any vehicles used in the project.
  - 5. Supply proof of Current Workers Compensation Insurance
  - 6. Supply proof of Corporate Safety Program (digital copy on CD)
  - 7. Supply proof of Injury & Illness Prevention Program (digital copy on CD)
  - 8. Supply 3-D Rendering to document design consistency with architects layout
  - 9. Supply Shade and Fabric Tensioned Structure Maintenance Manual
  - 10. Warranty Specifications: Provide warranty documentation (10 yr. steel, 8 yr. fabric, 1 year powder coating) for fabric tensioned shade structures
  - 11. Supply Proof of Cable Analysis Software for Structural Design and Engineering.

### 1.03 AWARD OF CONTRACT SUBMITTALS

- A. Attention is directed to Section D.0330 of these special provisions for Storm Water Pollution Prevention Plan (SWPPP) requirements.
- B. Shop Drawings: Submit shop drawings for approval prior to fabrication. Include detailed plans, elevations, and details of framing members, connections, fasteners, and anchoring systems. Indicate the relationship of adjacent materials. Include structural calculations.
- C. Product Data: Submit manufacturer's product data, use limitations and recommendations for the entire structure, including both published data and specified data prepared for this project.
- D. Samples: Submit the following:
  - 1. Powder Coated Paint Finish: Confirm steel color selection and if necessary resubmit steel powder coat selection chart.

2. All-Weather Fabric: Confirm fabric color selection and if necessary resubmit fabric color samples and specifications.
- E. Submit Manufacturer's written certification that the Fabric Structure is warranted.

#### 1.04 QUALITY ASSURANCE

- A. Contractor shall have a minimum of 5 (five) years of experience in the design, engineering, fabrication and construction of fabric tensioned shade structures.
- B. Project shall be managed by a design/build contractor who is a single source resource for this specified project.
- C. Provide all quality assurance items with bid package as per Section 1.02.

### PART 2 MATERIALS

#### 2.01 GENERAL

- A. The structure shall be three (3) units joined, each measuring 20' X 18' (13'+5') X 10' single post arched cantilever all-weather tension membrane structures (combined total dimension of 60' x 18' x 10') The structures shall provide 13' ahead of support column and 5' behind support column as a weather break on the prevailing weather side.
- B. To qualify as an approved equal please submit product documentation as required per Section 1.2.1 for quality assurance 10 days prior to bid for consideration.
- C. The structures shall be manufactured by Southern Hemisphere Shades, Inc., or an approved equal and include structural design, engineering, calculations, layout, fabrication and installation of tension fabric membrane shade structures.  
  
Contact SOUTHERN HEMISPHERE SHADES, Inc., 4212 Roseville Rd. Unit G, North Highlands, CA 95660 Tel: (916) 348-1391 Fax: (916) 972-1814  
Contact: Kevin Koekemoer
- D. The tension structure shall conform to the current adopted version of the California Building Code 2010 including local agency amendments.

- E. Fabric tension structure shall be designed and engineered to meet or exceed a minimum of 90 mph wind load exposure C or to that required by local agency amendments.
- F. Steel and Framing Systems
  - 1. All shade structure steel members are designed, engineered and fabricated in accordance with AISC (American Institute of Steel Construction) and AISI (American Iron and Steel Institute) requirements.
  - 2. All steel plate complies with ASTM A572, Grade 50.
  - 3. All hollow structural steel members shall comply with ASTM A-500, Grade C and non-hollow structural steel members shall comply with ASTM A-36.
  - 4. All galvanized steel shall be advanced high strength cold-formed steel utilizing organic and zinc coatings. Galvanized steel shall be triple coated for superior rust and corrosion resistance utilizing an in-line electro-plating coat process.
- G. Steel Finish: Powder Coating
- H. Fabric Membrane Roofing
- I. Contractor to include a design/construction allowance to expand the shade structure to the north.

### PART 3 EXECUTION

#### 3.01 REMOVAL OF EXISTING VEGETATION

##### A. GENERAL

All damage to private facilities during construction is the responsibility of the contractor to repair at no cost to the City.

- I. Broken concrete, asphalt, tree roots, earth and all other incidental debris required to be removed will become the property of the Contractor.
- II. Disposal - All material removed shall be disposed of outside the street right of way in accordance with the provisions of Section 7-1.13 of the Standard Specifications and as specified below. All aspects of removal, transport and disposal including recycling shall be the sole responsibility of the contractor.



- III. The Contractor shall be responsible for locating a suitable disposal site approved by the Engineer for disposing of all non-recyclable material. When non-recyclable material is to be disposed of at a location other than at the local sanitary landfill site, the Contractor shall obtain written authorization from the property owner on whose property the disposal is to be made and he shall file with the Engineer said authorization together with a written release from the property owner absolving the City from any and all responsibility in connection with the disposal of material on said property. If the dumpsite is within the City limits, the property owner must obtain a grading permit.
- IV. The Contractor shall be responsible for locating a recycling firm and/or recycling site for approval by the Engineer. The contractor shall provide the City with weight certificates or other approved form of quantity certification for all material recycled.

### 3.02. TREE ROOT REMOVAL

- A. No demolition work shall be done at locations adjacent to trees until the City Maintenance Landscape Supervisor has been contacted and is onsite. It is the contractor's responsibility to coordinate with the Landscape Supervisor to provide sufficient time to arrive on site prior to the beginning of work. The Golf Course General manager can be reached at 707-642-0247.
- B. All posts must be positioned 5 feet away from any tree. If a tree must be removed, approval by the City Maintenance Landscape Supervisor must be obtained prior to the removal of the tree.
- C. Trees are a valuable asset to the community and as such care must be taken not to cause irreparable damage to trees due to excessive or incorrect root pruning. The amount of time and handwork needed to expose roots to determine the amount of root pruning necessary is left to the discretion of the City representative.

### 3.03 REFERENCING EXISTING UTILITY AND SURVEY REFERENCE MARKS

- A. Existing survey marks shall be replaced within plus or minus 0.01 foot. A stamped or chiseled cross is the acceptable replacement mark.
- B. Full compensation for referencing and replacing survey marks, utility marks and brass benchmarks shall be considered as included in the contract unit price for the various items of work and no additional compensation will be allowed therefor.

### 3.04 INSTALLATION

- A. Strictly comply with engineer's instruction and recommendations.
- B. Match profiles, sizes and spacing as indicated on approved shop drawings.
- C. Ensure structure is level according to survey and specifications.
- D. All materials shall be delivered, stored and covered to protect finish from construction conditions.
- E. Structural materials shall be protected to prevent damage during shipping and handling.
- F. Installation shall coordinate with the construction schedule to avoid any delay in the scheduled workflow.
- G. Foundations
  - 1. Concrete work shall be executed in accordance with the latest edition of the American Concrete Building Code.
  - 2. Concrete strength shall be minimum of 2,500PSI at 28 days
  - 3. Reinforcing steel shall meet the requirements of ASTM A615, Grade 60.
  - 4. Concrete work shall be performed when outdoor temperatures are above 32° and conditions are relatively dry.
  - 5. Concrete shall be so formed as to direct drainage from the site to prevent corrosion or rust in the recessed /embedded column. (2% typ.)

### 3.05 PRODUCT WARRANTY

- A. Warrant the steel frames for a period of Ten (10) years against failure due to corrosion or faulty workmanship. Frames are guaranteed not to fall due to corrosion or rust on the frame, fittings, or cable.
- B. Warrant the powder coated finish for a period of one year against deterioration and faulty workmanship.

- C. Warrant the All-Weather Fabric against failure due to ultraviolet deterioration, rot, mildew, aggressive fading, and faulty workmanship for a period of Eight (8) years.
- D. Warrant structure for a period of Ten years to not fail due to wind speeds as specified per this selection.

### 3.06 INSTALLATION WARRANTY

- A. Guarantee the installation for a period of Two years on labor and materials.

## PART 4 MEASUREMENT AND PAYMENT

### 4.01 MEASUREMENT

- A. Measurement of installation of shade structure shall be measured by the progress of the completion of the shade structure.

### 4.02 PAYMENT

- A. Shade Structure - Full compensation for installation of a shade structure shall be made at the contract lump sum price as contained in **Bid Item 1**. This contract lump price shall include all compensation for excavation, grading, pouring concrete foundation; installation of the shade structure; for doing all work involved, including full compensation for furnishing all materials, labor, tools, equipment and incidentals, and for doing all work involved complete in place, as shown on the plans, as specified in these specifications, and as directed by the Engineer.
- B. Full compensation for securing a dump site, hauling, removing, disposing or stockpiling non-recyclable material, such as tree roots, and earth and for all other aspects of this section will be considered as included in the contract prices paid for the various items of work and no additional allowance will be made therefor.
- C. Payment shall be made at the contract unit price for furnishing all materials, and for preparation, erection, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

END OF SECTION

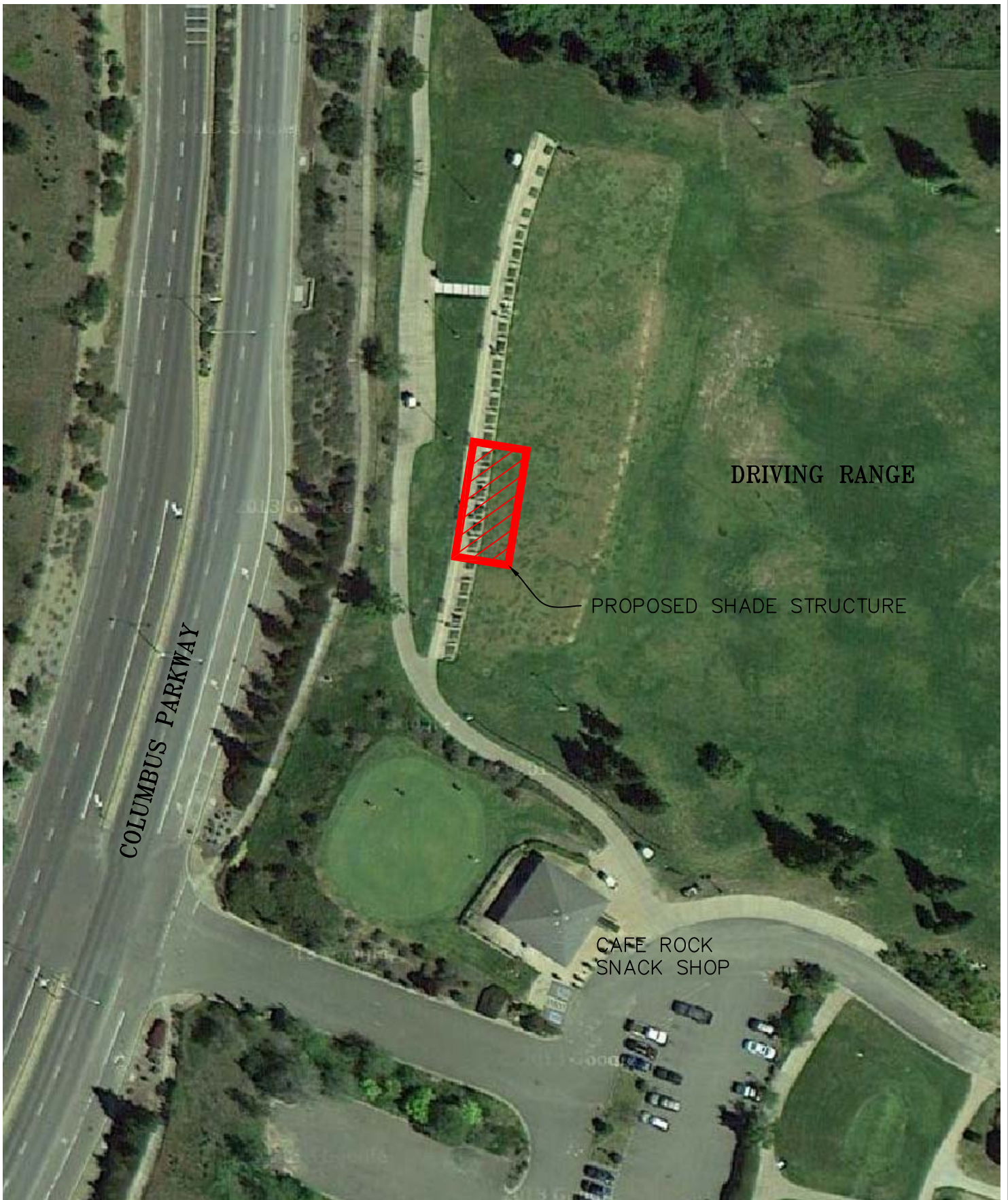
*This page intentionally left blank*

**SECTION E**

**PLANS**

**Blue Rock Springs Golf Course Shade Structure**

*This page intentionally left blank*



COLUMBUS PARKWAY

DRIVING RANGE

PROPOSED SHADE STRUCTURE

CAFE ROCK  
SNACK SHOP



BLUE ROCK SPRINGS GOLF COURSE

DRIVING RANGE  
SHADE STRUCTURE LOCATION

DRAWING NO:

**EX-1**

SCALE:  
NONE

DATE:  
02/04/14

*This page intentionally left blank*



**APPENDIX A**

**GENERAL PREVAILING WAGE RATE DETERMINATION  
(STATE)**

**Blue Rock Springs Golf Course Shade Structure**

*This page intentionally left blank*

Please refer to the following web link for the State General  
Prevailing Wage Determination:

<http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>

*This page intentionally left blank*