

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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*Flex your power!  
Be energy efficient!*

December 20, 2012

04-Son-101-7.1/8.1

04-0A1854

Project ID 0400020652

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SONOMA COUNTY IN PETALUMA FROM 0.6 MILE SOUTH TO 0.4 MILE NORTH OF OLD REDWOOD HIGHWAY OVERCROSSING.

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, January 8, 2013.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, and the Bid book.

Project Plan Sheets 2, 3, 11, 12, 16, 20, 21, 22, 25, 48, 51, 57, 65, 72, 73, 74, 75, 76, 77, 80, 89, 97, 107, 119, 237, 247, 249, 250, 269, 277, and 301 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Notice to Bidders the eleventh paragraph is revised as follows:

"Do not bid less than 440 working days and not more than 630 working days."

In the Special Provisions, Section 2-1.07, "WORKING DAYS BID," is added as follows:

**"2-1.07 WORKING DAYS BID**

If your bid for time is less than or exceeds the number of working days described in the Notice to Bidders, your bid is nonresponsive."

In the Special Provisions, Section 5-1.17, "NONHIGHWAY FACILITIES (INCLUDING UTILITIES)," is revised as attached.

In the Special Provisions, Section 10-01, "ORDER OF WORK," the eleventh paragraph is deleted.

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In the Special Provisions, Section 10-1.20, "COOPERATION," the contract list is revised as follows:

| Contract No. | Co-Rte-PM        | Location  | Type of Work  |
|--------------|------------------|---|---|
| 04-0A18U4    | Son-101-8.9/13.9 | 1.7 Mile South of Railroad Avenue Undercrossing to Rohnert Park Expressway Overcrossing       | Widen Route 101                                       |
| 04-2640U4    | Son-101-0.9/3.6  | Route 101 from Gunn Drive to Route 101/116 Separation and Overhead                            | Reconstruct Route 101 New Interchange and Frontage Rd |
| 04-0A1844    | Son-101-7.1/8.9  | 0.5 Mile South of Old Redwood Highway OC to 0.1 Mile North of Pepper Road                     | Widen Route 101                                       |
| 04-2640K4    | Son-101-3.4/4.1  | From 0.1 Mile North of Petaluma River Bridge to 0.2 Mile North of Caulfield Lane Overcrossing | Widen Route 101                                       |
| 04-264044    | Son-101-4.5/5.2  | Route 101 from 0.2 Mile South to 0.4 Mile North of East Washington Street OC                  | Modify Interchange                                    |

In the Special Provisions, Section 10-3.231, "CITY LED LUMINAIRES," is added as attached.

In the Bid book, in the "Bid Item List," Items 68, 76, 90, 91, 93, 97, and 155 are revised as attached.

To Bid book holders:

Replace pages 3, 4, 5, 6, 7, 10 and 14 of the "Bid Item List" in the Bid book with the attached revised pages 3, 4, 5, 6, 7, 10 and 14 of the Bid Item List. The revised Bid Item List is to be used in the bid.

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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Page 3  
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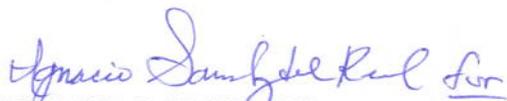
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This addendum and attachments are available for the Contractors' download on the Web site:

**[http://www.dot.ca.gov/hq/esc/oe/project\\_ads\\_addenda/04/04-0A1854](http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-0A1854)**

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

**5-1.17 NONHIGHWAY FACILITIES (INCLUDING UTILITIES)**

The utility owner will relocate a utility shown in the following table before the corresponding date shown:

| <b>Utility Relocation and Date of the Relocation</b>  |   |                   |
|---|---|-------------------|
| Utility   | Location  | Date              |
| Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954   | Overhead electric distribution on<br>Petaluma Boulevard North/Auto Center<br>Drive/Stony Point Road/Industrial<br>Avenue<br>Lt & Rt "ORH" 10+00+/- to Lt & Rt<br>"ORH" 15+00+/- | June 30, 2013     |
| Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954   | Electric distribution vault relocation at<br>the southwest corner of the Old<br>Redwood Highway/N. McDowell<br>Intersection<br>Rt "ORH" 34+60+/-                                | December 31, 2012 |
| Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954   | Casing extensions on 12" and 16" gas<br>transmission lines crossing Old<br>Redwood Highway<br>Rt "ORH" 30+10+/- to Rt "ORH"<br>30+20+/-   | January 31, 2013  |
| Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954   | 8" gas transmission line relocation on<br>Old Redwood Highway<br>Rt "ORH" 31+50+/- to Rt "ORH"<br>32+70+/-  | January 31, 2013  |
| Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954   | 8" gas distribution line relocation<br>crossing Route 101<br>Rt "ORH" 19+00+/- to Rt "ONF"<br>39+70+/-  | April 19, 2013    |
| Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954   | 1" gas distribution service lateral on<br>Old Redwood Highway Lt "ORH"<br>32+60+/- to "ORH" 34+20+/-  | January 31, 2013  |
| American Telephone and Telegraph<br>(AT&T)<br>2125 Occidental Rd<br>Santa Rosa, CA 94501                | Overhead telephone on Petaluma<br>Boulevard North/Auto Center<br>Drive/Stony Point Road/Industrial<br>Avenue<br>Lt & Rt "ORH" 11+00+/- to Lt & Rt<br>"ORH" 15+00+/-             | June 30, 2013     |
| American Telephone and Telegraph<br>(AT&T)<br>2125 Occidental Rd<br>Santa Rosa, CA 94501                | AT&T vault relocation at the southwest<br>corner of the Old Redwood Highway/N.<br>McDowell Intersection<br>Rt "ORH" 35+10+/-  | December 31, 2012 |
| Integra Telecom (aka Electric<br>Lightwave)<br>2495 Natomas Park Dr., Suite 300<br>Sacramento, CA 95833 | Integra Telecom vault relocation at the<br>southwest corner of the Old Redwood<br>Highway/N. McDowell Intersection<br>Rt "ORH" 35+10+/-   | December 31, 2012 |

Installation of the utilities shown in the following table requires coordination with your activities. Make the necessary arrangements with the utility company through the Engineer and submit a schedule:

1. Verified by a representative of the utility company
2. Allowing at least the time shown for the utility owner to complete its work

**Utility Relocation and Contractor-Arranged Time for the Relocation**

| Utility                                   | Utility Address   | Location   | Days            |
|---|---|--|-----------------|
| Electric Distribution Transformers/Vaults | Pacific Gas and Electric<br>210 Corona Rd<br>Petaluma, CA 94954                       | Petaluma Boulevard<br>North<br>Lt "ORH" 15+40+/-   | 30 working days |
| Telephone Vault                           | American Telephone and Telegraph (AT&T)<br>2125 Occidental Rd<br>Santa Rosa, CA 94501 | Petaluma Boulevard<br>North<br>Lt "ORH" 14+00+/-   | 30 working days |
| Telephone Manhole                         | American Telephone and Telegraph (AT&T)<br>2125 Occidental Rd<br>Santa Rosa, CA 94501 | Northwest corner of the<br>Old Redwood<br>Highway/N. McDowell<br>Intersection<br>Lt "ORH" 35+12+/- | 10 working days |

## 10-3.231 CITY LED LUMINAIRES

### GENERAL

#### Summary

This work includes installing LED luminaires. Comply with Section 86, "Electrical Systems," of the Standard Specifications.

#### Definitions

- CALiPER:** Commercially Available LED Product Evaluation and Reporting. A U.S. DOE program that individually tests and provides unbiased information on the performance of commercially available LED luminaires and lights.
- correlated color temperature:** Absolute temperature in kelvin of a blackbody whose chromaticity most nearly resembles that of the light source.
- house side lumens:** Lumens from a luminaire directed to light up areas between the fixture and the pole (e.g., sidewalks at intersection or areas off of the shoulders on freeways).
- International Electrotechnical Commission (IEC):** Organization that prepares and publishes international standards for all electrical, electronic and related technologies.
- junction temperature:** Temperature of the electronic junction of the LED device. The junction temperature is critical in determining photometric performance, estimating operational life, and preventing catastrophic failure of the LED.
- L70:** Extrapolated life in hours of the luminaire when the luminous output depreciates 30 percent from initial values.
- LM-79:** Test method from the Illumination Engineering Society of North America (IESNA) specifying test conditions, measurements, and report format for testing solid state lighting devices, including LED luminaires.
- LM-80:** Test method from the IESNA specifying test conditions, measurements, and report format for testing and estimating the long term performance of LEDs for general lighting purposes.
- National Voluntary Laboratory Accreditation Program (NVLAP):** U.S. DOE program that accredits independent testing laboratories to qualify.
- power factor:** Ratio of the real power component to the complex power component.
- street side lumens:** Lumens from a luminaire directed to light up areas between the fixture and the roadway (e.g., traveled ways, freeway lanes).
- surge protection device (SPD):** Subsystem or component that can protect the unit against short duration voltage and current surges.
- total harmonic distortion:** Ratio of the rms value of the sum of the squared individual harmonic amplitudes to the rms value of the fundamental frequency of a complex waveform.

#### Submittals

Submit a sample luminaire to the Transportation Laboratory for testing after the manufacturer's testing is completed. Include the manufacturer's testing data.

Product submittals must include:

1. LED luminaire checklist
2. Product specification sheets, including:
  - 2.1. Maximum power in watts
  - 2.2. Maximum designed junction temperature
  - 2.3. Heat sink area in square inches
  - 2.4. Designed junction to ambient thermal resistance calculation with thermal resistance components clearly defined
  - 2.5. L70 in hours when extrapolated for the average nighttime operating temperature
3. IES LM-79 and IES LM-80 compliant test reports from a CALiPER-qualified or NVLAP-approved testing laboratory for the specific model submitted
4. Photometric file based on LM-79 test report
5. Test report showing SPD performance as tested under ANSI/IEEE C 62.41.2 and ANSI/IEEE C 62.45
6. Test report showing mechanical vibration test results as tested under ANSI C 136.31 Table 2, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications (Tested for 3G over 100 000 cycles by an independent lab)
7. Data sheets from the LED manufacturer that include information on life expectancy based on junction temperature
8. Data sheets from power supply manufacturer that include life expectancy information

Submit documentation of a production QA performed by the luminaire manufacturer that ensures the minimum performance levels of the modules comply with these specifications and includes a documented process for resolving problems.

Submit warranty documentation before installing LED luminaires.

### Quality Control and Assurance

#### General

The Department may perform random sample testing on the shipments. The Department completes testing within 30 days after delivery to Transportation Laboratory. Luminaires are tested under California Test 678. All parameters specified in these specifications may be tested on the shipment sample. When testing is complete, the Department notifies you. Pick up the equipment from the test site and deliver to the job site.

The sample luminaires must be energized for a minimum of 24 hours, at 100 percent on-time duty cycle, at a temperature of +70 °F before performing any testing.

The luminaire lighting performance must be depreciated for the minimum operating life by using the LED manufacturer's data or the data from the LM-80 test report, whichever results in a higher lumen depreciation.

Failure of the luminaire that renders the unit noncompliant with these specifications is cause for rejection. If a unit is rejected, allow 30 days for retesting. The retesting period starts when the replacement luminaire is delivered to the test site.

If a luminaire submitted for testing does not comply with these specifications, remove the unit from the Transportation Laboratory within 5 business days after notification that it is rejected. If the unit is not removed within that period, the Department may ship the unit to you and deduct the cost.

#### Warranty

Furnish a 5-year replacement warranty from the manufacturer of the luminaires against any defects or failures. The effective date of the warranty is the date of installation. The Department does not pay for the replacement. Deliver replacement luminaires to the Department's Maintenance Electrical Shop at 30 Rickard Street, San Francisco, CA 94134.

### MATERIALS

#### General

The luminaire must include an assembly that uses LEDs as the light source. The assembly must include a housing, an LED array, and an electronic driver. The luminaire must:

1. Be UL listed under UL 1598 and met IP66 standards
2. Have a minimum operational life of 70,000 hours
3. Operate at an average operating time of 11.5 hours per night
4. Be designed to operate at an average nighttime operating temperature of 70 °F
5. Have an operating temperature range from -40 to +130 °F
6. Be defined by the following application:

| Application       | Replaces                      |
|-------------------|-------------------------------|
| City Street Light | 150 Watt HPS mounted at 30 ft |

The individual LEDs must be connected such that a catastrophic loss or a failure of 1 LED does not result in the loss of more than 20 percent of the luminous output of the luminaire.

### **Luminaire Identification**

Each luminaire must have the following identification permanently marked inside the unit and outside of its packaging box:

1. Manufacturer's name
2. Trademark
3. Model no.
4. Serial no.
5. Date of manufacture (month-year)
6. Lot number
7. Contract number
8. Rated voltage
9. Rated wattage
10. Rated power in VA

### **Electrical**

The luminaire must operate from a 50-60 Hz AC power source. The fluctuations of line voltage must have no visible effect on the luminous output. The operating voltage must range from 120 to 240 V(ac).

The power factor of the luminaire must be 0.90 or greater. Total harmonic distortion, current and voltage, induced into an AC power line by a luminaire must not exceed 20 percent. The maximum power consumption allowed for the luminaire must be as shown in the following table:

| Application       | Maximum Consumption<br>(Watts) |
|-------------------|--------------------------------|
| City Street Light | 101                            |

### **Surge Suppression and Electromagnetic Interference**

The luminaire on-board circuitry must include an SPD to withstand high repetition noise transients caused by utility line switching, nearby lightning strikes, and other interferences. The SPD must protect the luminaire from damage and failure due to transient voltages and currents as defined in Tables 1 and 4 of ANSI/IEEE C 64.41.2 for location category C-High. The SPD must comply with UL 1449. The SPD performance must be tested under ANSI/IEEE C 62.45 based on ANSI/IEEE C 62.41.2 definitions for standard and optional waveforms for location category C-High.

The luminaires and associated on-board circuitry must comply with the Class A emission limits provided in 47 CFR 15, subpart B concerning the emission of electronic noise.

### **Compatibility**

The luminaire must be operationally compatible with currently used lighting control systems and photoelectric controls.

The luminaire must have a correlated color temperature range from 3,700 to 4,300 K. The color rendering index must be 70 or greater.

### **Thermal Management**

The passive thermal management of the heat generated by the LEDs must have enough capacity to ensure proper operation of the luminaire over the minimum operation life. The LED maximum junction temperature for the minimum operation life must not exceed 221 °F.

### **Physical and Mechanical Requirements**

The luminaire must be a single, self-contained device, not requiring job site assembly for installation. The power supply for the luminaire is integral to the unit. The fixture weight must not exceed 60 pounds. The effective projected area (E.P.A.) must be 2.63 sq ft or less. The housing color must be determined by the City.

The housing must be a round shape and made of injection die cast A360.1 aluminium, complete with a weatherproof door, mechanically assembled. The suspension system must permit a full rotation of the luminaire in 90 degree increments and be fabricated from materials designed to withstand a 3,000-hour salt spray test under ASTM B 117. All aluminum used in housings and brackets must be of a marine grade alloy with less than 0.2 percent copper. All exposed aluminum must be anodized.

Globe must be high impact form of Acrylic and must be made of one-piece seamless injected-molded impact-resistant acrylic having an inner prismatic surface, complete with a semi-prismatic house side shield and external glare softening prisms. The globe must be mechanically assembled and sealed onto the lower part of the heat sink.

The assembly and manufacturing process for the LED luminaire must be designed to ensure internal components are adequately supported to withstand mechanical shock and vibration from high winds and other sources. The luminaire must meet the ANSI C 136.31 Table 2, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications (Tested for 3G over 100 000 cycles by an independent lab).

The housing must be designed to prevent the buildup of water on top of the housing. Exposed heat sink fins must be oriented to allow the water to freely run off of the luminaire and carry dust and other accumulated debris away from the unit. The optical assembly of the luminaire must be protected against dust and moisture intrusion to at least an ANSI/IEC rating of IP66. The power supply enclosure must be protected to at least an ANSI/IEC rating of IP43.

The power supply must be rated for outdoor operation and have at least an ANSI/IEC rating of IP65.

The power supply must be rated for a minimum operational life equal to the minimum operational life of the luminaire, or greater.

Conductors and terminals must be identified.

## BID ITEM LIST

04-0A1854

| Item No. | Item Code | Item Description                                 | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 1        | 070012    | PROGRESS SCHEDULE (CRITICAL PATH METHOD)         | LS              | LUMP SUM           | LUMP SUM   |            |
| 2        | 071321    | TEMPORARY FENCE (TYPE CL-6)                      | LF              | 640                |            |            |
| 3        | 024839    | TEMPORARY RETAINING WALL                         | SQFT            | 24,300             |            |            |
| 4        | 073004    | 12" TEMPORARY CULVERT                            | LF              | 70                 |            |            |
| 5        | 073006    | 18" TEMPORARY CULVERT                            | LF              | 53                 |            |            |
| 6        | 024840    | TEMPORARY DIVERSION SYSTEM                       | LS              | LUMP SUM           | LUMP SUM   |            |
| 7        | 074016    | CONSTRUCTION SITE MANAGEMENT                     | LS              | LUMP SUM           | LUMP SUM   |            |
| 8        | 074019    | PREPARE STORM WATER POLLUTION PREVENTION PLAN    | LS              | LUMP SUM           | LUMP SUM   |            |
| 9        | 024841    | DEWATERING AND NON-STORM WATER DISCHARGE CONTROL | LS              | LUMP SUM           | LUMP SUM   |            |
| 10       | 074028    | TEMPORARY FIBER ROLL                             | LF              | 28,500             |            |            |
| 11       | 074029    | TEMPORARY SILT FENCE                             | LF              | 3,960              |            |            |
| 12       | 074033    | TEMPORARY CONSTRUCTION ENTRANCE                  | EA              | 12                 |            |            |
| 13       | 074035    | TEMPORARY CHECK DAM                              | LF              | 1,820              |            |            |
| 14       | 074037    | MOVE-IN/MOVE-OUT (TEMPORARY EROSION CONTROL)     | EA              | 6                  |            |            |
| 15       | 074038    | TEMPORARY DRAINAGE INLET PROTECTION              | EA              | 64                 |            |            |
| 16       | 074041    | STREET SWEEPING                                  | LS              | LUMP SUM           | LUMP SUM   |            |
| 17       | 074053    | TEMPORARY HYDROSEED                              | SQYD            | 43,700             |            |            |
| 18       | 024842    | WATER QUALITY MONITORING REPORT                  | EA              | 15                 |            |            |
| 19       | 074056    | RAIN EVENT ACTION PLAN                           | EA              | 135                | 500        | 67500      |
| 20       | 074057    | STORM WATER ANNUAL REPORT                        | EA              | 3                  | 2,000      | 6000       |

## BID ITEM LIST

04-0A1854

| Item No. | Item Code | Item Description   | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 21       | 074058    | STORM WATER SAMPLING AND ANALYSIS DAY                        | EA              | 82                 |            |            |
| 22       | 024843    | WATER QUALITY SAMPLING AND ANALYSIS DAY                      | EA              | 30                 |            |            |
| 23       | 090105    | TIME-RELATED OVERHEAD (LS)                                   | LS              | LUMP SUM           | LUMP SUM   |            |
| 24       | 120090    | CONSTRUCTION AREA SIGNS                                      | LS              | LUMP SUM           | LUMP SUM   |            |
| 25       | 120100    | TRAFFIC CONTROL SYSTEM                                       | LS              | LUMP SUM           | LUMP SUM   |            |
| 26       | 120120    | TYPE III BARRICADE   | EA              | 69                 |            |            |
| 27       | 120149    | TEMPORARY PAVEMENT MARKING (PAINT)                           | SQFT            | 7,240              |            |            |
| 28       | 120159    | TEMPORARY TRAFFIC STRIPE (PAINT)                             | LF              | 90,200             |            |            |
| 29       | 120165    | CHANNELIZER (SURFACE MOUNTED)                                | EA              | 350                |            |            |
| 30       | 120300    | TEMPORARY PAVEMENT MARKER                                    | EA              | 1,260              |            |            |
| 31       | 128652    | PORTABLE CHANGEABLE MESSAGE SIGN (LS)                        | LS              | LUMP SUM           | LUMP SUM   |            |
| 32       | 129000    | TEMPORARY RAILING (TYPE K)                                   | LF              | 27,000             |            |            |
| 33       | 129100    | TEMPORARY CRASH CUSHION MODULE                               | EA              | 150                |            |            |
| 34       | 024844    | TEMPORARY ALTERNATIVE CRASH CUSHION SYSTEM (TYPE 1)          | EA              | 46                 |            |            |
| 35       | 024845    | TEMPORARY ALTERNATIVE CRASH CUSHION SYSTEM (TYPE 2)          | EA              | 8                  |            |            |
| 36       | 130900    | TEMPORARY CONCRETE WASHOUT                                   | LS              | LUMP SUM           | LUMP SUM   |            |
| 37       | 141103    | REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) | LF              | 2,460              |            |            |
| 38       | 141120    | TREATED WOOD WASTE   | LB              | 16,700             |            |            |
| 39       | 148005    | NOISE MONITORING   | LS              | LUMP SUM           | LUMP SUM   |            |
| 40       | 150204    | ABANDON CULVERT (LF)   | LF              | 590                |            |            |

**BID ITEM LIST**

04-0A1854

| Item No. | Item Code | Item Description                      | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|---------------------------------------|-----------------|--------------------|------------|------------|
| 41       | 150221    | ABANDON INLET                         | EA              | 1                  |            |            |
| 42       | 150605    | REMOVE FENCE                          | LF              | 4,840              |            |            |
| 43       | 150620    | REMOVE GATE                           | EA              | 3                  |            |            |
| 44       | 150662    | REMOVE METAL BEAM GUARD RAILING       | LF              | 1,150              |            |            |
| 45       | 150668    | REMOVE FLARED END SECTION             | EA              | 12                 |            |            |
| 46       | 150711    | REMOVE PAINTED TRAFFIC STRIPE         | LF              | 53,300             |            |            |
| 47       | 150712    | REMOVE PAINTED PAVEMENT MARKING       | SQFT            | 380                |            |            |
| 48       | 150714    | REMOVE THERMOPLASTIC TRAFFIC STRIPE   | LF              | 6,720              |            |            |
| 49       | 150715    | REMOVE THERMOPLASTIC PAVEMENT MARKING | SQFT            | 4,480              |            |            |
| 50       | 150722    | REMOVE PAVEMENT MARKER                | EA              | 1,520              |            |            |
| 51       | 150742    | REMOVE ROADSIDE SIGN                  | EA              | 56                 |            |            |
| 52       | 150812    | REMOVE PIPE (LF)                      | LF              | 970                |            |            |
| 53       | 150820    | REMOVE INLET                          | EA              | 9                  |            |            |
| 54       | 150821    | REMOVE HEADWALL                       | EA              | 12                 |            |            |
| 55       | 150826    | REMOVE MANHOLE                        | EA              | 1                  |            |            |
| 56       | 150847    | REMOVE CONCRETE PAVEMENT AND BASE     | SQYD            | 290                |            |            |
| 57       | 152320    | RESET ROADSIDE SIGN                   | EA              | 3                  |            |            |
| 58       | 024846    | RELOCATE FIRE HYDRANT                 | EA              | 2                  |            |            |
| 59       | 152390    | RELOCATE ROADSIDE SIGN                | EA              | 8                  |            |            |
| 60       | 152430    | ADJUST INLET                          | EA              | 4                  |            |            |

**BID ITEM LIST**  
04-0A1854

| Item No.  | Item Code | Item Description  | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|-----------|-----------|---|-----------------|--------------------|------------|------------|
| 61        | 152438    | ADJUST FRAME AND COVER TO GRADE                           | EA              | 4                  |            |            |
| 62        | 153103    | COLD PLANE ASPHALT CONCRETE PAVEMENT                      | SQYD            | 5,370              |            |            |
| 63        | 153229    | REMOVE CONCRETE BARRIER (TYPE K)                          | LF              | 880                |            |            |
| 64        | 155003    | CAP INLET   | EA              | 1                  |            |            |
| 65        | 157550    | BRIDGE REMOVAL  | LS              | LUMP SUM           | LUMP SUM   |            |
| 66        | 160102    | CLEARING AND GRUBBING (LS)                                | LS              | LUMP SUM           | LUMP SUM   |            |
| 67        | 170101    | DEVELOP WATER SUPPLY                                      | LS              | LUMP SUM           | LUMP SUM   |            |
| 68        | 190101    | ROADWAY EXCAVATION  | CY              | 41,700             |            |            |
| 69        | 190108    | ROADWAY EXCAVATION (TYPE Y-2)<br>(AERIALY DEPOSITED LEAD) | CY              | 860                |            |            |
| 70        | 190110    | LEAD COMPLIANCE PLAN                                      | LS              | LUMP SUM           | LUMP SUM   |            |
| 71        | 190111    | ADL BURIAL LOCATION REPORT                                | LS              | LUMP SUM           | LUMP SUM   |            |
| 72<br>(F) | 192003    | STRUCTURE EXCAVATION (BRIDGE)                             | CY              | 922                |            |            |
| 73<br>(F) | 192020    | STRUCTURE EXCAVATION (TYPE D)                             | CY              | 547                |            |            |
| 74<br>(F) | 193003    | STRUCTURE BACKFILL (BRIDGE)                               | CY              | 956                |            |            |
| 75        | 193114    | SAND BACKFILL   | CY              | 32                 |            |            |
| 76        | 198010    | IMPORTED BORROW (CY)                                      | CY              | 109,000            |            |            |
| 77        | 200001    | HIGHWAY PLANTING  | LS              | LUMP SUM           | LUMP SUM   |            |
| 78        | 200102    | IMPORTED TOPSOIL (CY)                                     | CY              | 34                 |            |            |
| 79        | 024847    | IMPORTED BIOFILTRATION SOIL                               | CY              | 1,390              |            |            |
| 80        | 203021    | FIBER ROLLS   | LF              | 29,200             |            |            |

## BID ITEM LIST

04-0A1854

| Item No. | Item Code | Item Description                                     | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 81       | 203025    | COMPOST (INCORPORATE)                                | SQYD            | 11,800             |            |            |
| 82       | 203026    | MOVE-IN/MOVE-OUT (EROSION CONTROL)                   | EA              | 18                 |            |            |
| 83       | 203031    | EROSION CONTROL (HYDROSEED) (SQFT)                   | SQFT            | 391,000            |            |            |
| 84       | 203034    | ROLLED EROSION CONTROL PRODUCT (NETTING)             | SQFT            | 146,000            |            |            |
| 85       | 204099    | PLANT ESTABLISHMENT WORK                             | LS              | LUMP SUM           | LUMP SUM   |            |
| 86       | 206401    | MAINTAIN EXISTING IRRIGATION FACILITIES              | LS              | LUMP SUM           | LUMP SUM   |            |
| 87       | 208000    | IRRIGATION SYSTEM                                    | LS              | LUMP SUM           | LUMP SUM   |            |
| 88       | 208304    | WATER METER  | EA              | 1                  |            |            |
| 89       | 208738    | 8" CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT | LF              | 2,510              |            |            |
| 90       | 250401    | CLASS 4 AGGREGATE SUBBASE                            | CY              | 22,200             |            |            |
| 91       | 260203    | CLASS 2 AGGREGATE BASE (CY)                          | CY              | 12,900             |            |            |
| 92       | 280000    | LEAN CONCRETE BASE                                   | CY              | 3,070              |            |            |
| 93       | 390131    | HOT MIX ASPHALT                                      | TON             | 27,500             |            |            |
| 94       | 390134    | HOT MIX ASPHALT (OPEN GRADED)                        | TON             | 4,850              |            |            |
| 95       | 390137    | RUBBERIZED HOT MIX ASPHALT (GAP GRADED)              | TON             | 4,250              |            |            |
| 96       | 394060    | DATA CORE  | LS              | LUMP SUM           | LUMP SUM   |            |
| 97       | 394090    | PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)           | SQYD            | 3,800              |            |            |
| 98       | 395000    | LIQUID ASPHALT (PRIME COAT)                          | TON             | 43                 |            |            |
| 99       | 397005    | TACK COAT  | TON             | 36                 |            |            |
| 100 (F)  | 477021    | MECHANICALLY STABILIZED EMBANKMENT, LOCATION A       | SQFT            | 2,390              |            |            |

## BID ITEM LIST

04-0A1854

| Item No. | Item Code | Item Description                                    | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|---|-----------------|--------------------|------------|------------|
| 141      | 568001    | INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)      | EA              | 9                  |            |            |
| 142      | 620100    | 18" ALTERNATIVE PIPE CULVERT                        | LF              | 2,100              |            |            |
| 143      | 620120    | 21" ALTERNATIVE PIPE CULVERT                        | LF              | 550                |            |            |
| 144      | 620140    | 24" ALTERNATIVE PIPE CULVERT                        | LF              | 78                 |            |            |
| 145      | 024851    | 24" PVC CORRUGATED PIPE                             | LF              | 280                |            |            |
| 146      | 024852    | 3" PLASTIC PIPE                                     | LF              | 540                |            |            |
| 147      | 024853    | 6" PLASTIC PIPE                                     | LF              | 240                |            |            |
| 148      | 650018    | 24" REINFORCED CONCRETE PIPE                        | LF              | 29                 |            |            |
| 149      | 024854    | 13" X 22" OVAL SHAPED REINFORCED CONCRETE PIPE CL 2 | LF              | 140                |            |            |
| 150      | 680902    | 6" PERFORATED PLASTIC PIPE UNDERDRAIN               | LF              | 1,360              |            |            |
| 151      | 700617    | DRAINAGE INLET MARKER                               | EA              | 46                 |            |            |
| 152      | 024855    | 21" ALTERNATIVE FLARED END SECTION                  | EA              | 1                  |            |            |
| 153      | 705311    | 18" ALTERNATIVE FLARED END SECTION                  | EA              | 14                 |            |            |
| 154      | 705315    | 24" ALTERNATIVE FLARED END SECTION                  | EA              | 3                  |            |            |
| 155      | 719589    | MINOR CONCRETE (BACKFILL)                           | CY              | 42                 |            |            |
| 156      | 721015    | ROCK SLOPE PROTECTION (LIGHT, METHOD B) (CY)        | CY              | 140                |            |            |
| 157      | 721420    | CONCRETE (DITCH LINING)                             | CY              | 60                 |            |            |
| 158 (F)  | 721810    | SLOPE PAVING (CONCRETE)                             | CY              | 72                 |            |            |
| 159      | 024856    | ROCK SLOPE PROTECTION FABRIC                        | SQYD            | 180                |            |            |
| 160 (F)  | 730040    | MINOR CONCRETE (GUTTER) (LF)                        | LF              | 150                |            |            |

**BID ITEM LIST**  
04-0A1854

| Item No. | Item Code | Item Description                   | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|------------------------------------|-----------------|--------------------|------------|------------|
| 211      | 024868    | EMERGENCY VEHICLE DETECTION SYSTEM | LS              | LUMP SUM           | LUMP SUM   |            |
| 212      | 999990    | MOBILIZATION                       | LS              | LUMP SUM           | LUMP SUM   |            |

**TOTAL BID  
FOR ITEMS:**

\$ \_\_\_\_\_

**TOTAL BID  
FOR TIME:**

$$\frac{\text{WORKING DAYS BID}}{\text{(Not less than 440 Days and Not to exceed 630 working Days)}} \times \frac{\$8,300.00}{\text{COST PER DAY}} = \$ \text{_____}$$

**TOTAL BID FOR COMPARISON (COST PLUS TIME):**

\$ \_\_\_\_\_