



**CALL NO. 115**

**CONTRACT ID. 202992**

**KENTON COUNTY**

**FED/STATE PROJECT NUMBER STP 8198 (005)**

**DESCRIPTION KY17 (MP 24.155).**

**WORK TYPE BRIDGE SUBSTRUCTURE REHAB**

**PRIMARY COMPLETION DATE 12/31/2021**

**LETTING DATE: September 25,2020**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN DAYLIGHT TIME September 25,2020. Bids will be publicly announced at 10:00 am EASTERN DAYLIGHT TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

**DBE CERTIFICATION REQUIRED - 0%**

**REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.**

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**PART I**  
**SCOPE OF WORK**

## ADMINISTRATIVE DISTRICT - 06

**CONTRACT ID - 202992**

**STP 8198 (005)**

**COUNTY - KENTON**

**PCN - MB05900172001**

**STP 8198 (005)**

KY17 (MP 24.155). BRIDGE OVER OHIO RIVER.BRIDGE SUBSTRUCTURE REHAB SYP NO. 06-10005.00.

GEOGRAPHIC COORDINATES LATITUDE 39:05:34.00 LONGITUDE 84:30:36.00

**COMPLETION DATE(S):**

COMPLETED BY 12/31/2021

APPLIES TO ENTIRE PROPOSAL

COMPLETED BY 11/15/2021

BRIDGE OPEN TO TRAFFIC

## **CONTRACT NOTES**

### **PROPOSAL ADDENDA**

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

### **BID SUBMITTAL**

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website ([www.bidx.com](http://www.bidx.com)) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

### **JOINT VENTURE BIDDING**

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

### **UNDERGROUND FACILITY DAMAGE PROTECTION**

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

### **REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY**

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

**For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.**

Businesses can register with the Secretary of State at <https://secure.kentucky.gov/sos/ftbr/welcome.aspx>.

### **SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT**

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to [kytc.projectquestions@ky.gov](mailto:kytc.projectquestions@ky.gov). The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website ([www.transportation.ky.gov/contract](http://www.transportation.ky.gov/contract)). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

### **HARDWOOD REMOVAL RESTRICTIONS**

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

### **INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES**

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

### **ACCESS TO RECORDS**

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

April 30, 2018

### **FEDERAL CONTRACT NOTES**

The Kentucky Department of Highways, in accordance with the Regulations of the United States Department of Transportation 23 CFR 635.112 (h), hereby notifies all bidders that failure by a bidder to comply with all applicable sections of the current Kentucky Standard Specifications, including, but not limited to the following, may result in a bid not being considered responsive and thus not eligible to be considered for award:

- |                                |  |
|--------------------------------|--|
| 102.02 Current Rating          | 102.08 Preparation and Delivery of Proposals |
| 102.13 Irregular Bid Proposals | 102.14 Disqualification of Bidders           |
| 102.09 Proposal Guaranty       |  |

### **CIVIL RIGHTS ACT OF 1964**

The Kentucky Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Federal Department of Transportation (49 C.F.R., Part 21), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin.

### **NOTICE TO ALL BIDDERS**

To report bid rigging activities call: 1-800-424-9071.

The U.S. Department of Transportation (DOT) operates the above toll-free “hotline” Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

### **SECOND TIER SUBCONTRACTS**

Second Tier subcontracts on federally assisted projects shall be permitted. However, in the case of DBE’s, second tier subcontracts will only be permitted where the other subcontractor is also a DBE. All second tier subcontracts shall have the consent of both the Contractor and the Engineer.



### **DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

It is the policy of the Kentucky Transportation Cabinet (“the Cabinet”) that Disadvantaged Business Enterprises (“DBE”) shall have the opportunity to participate in the performance of highway construction projects financed in whole or in part by Federal Funds in order to create a level playing field for all businesses who wish to contract with the Cabinet. To that end, the Cabinet will comply with the regulations found in 49 CFR Part 26, and the definitions and requirements contained therein shall be adopted as if set out verbatim herein.

The Cabinet, contractors, subcontractors, and sub-recipients shall not discriminate on the basis of race, color, national origin, or sex in the performance of work performed pursuant to Cabinet contracts. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted highway construction projects. The contractor will include this provision in all its subcontracts and supply agreements pertaining to contracts with the Cabinet.

Failure by the contractor to carry out these requirements is a material breach of its contract with the Cabinet, which may result in the termination of the contract or such other remedy as the Cabinet deems necessary.

### **DBE GOAL**

The Disadvantaged Business Enterprise (DBE) goal established for this contract, as listed on the front page of the proposal, is the percentage of the total value of the contract.

The contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in a least the percent of the contract as set forth above as goals for this contract.

### **OBLIGATION OF CONTRACTORS**

Each contractor prequalified to perform work on Cabinet projects shall designate and make known to the Cabinet a liaison officer who is assigned the responsibility of effectively administering and promoting an active program for utilization of DBEs.

If a formal goal has not been designated for the contract, all contractors are encouraged to consider DBEs for subcontract work as well as for the supply of material and services needed to perform this work.

Contractors are encouraged to use the services of banks owned and controlled by minorities and women.

### **CERTIFICATION OF CONTRACT GOAL**

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE ACCEPTED. These bids will not be considered for award by the Cabinet and they will be returned to the bidder.

“The bidder certifies that it has secured participation by Disadvantaged Business Enterprises (“DBE”) in the amount of \_\_\_\_\_ percent of the total value of this contract and that the DBE participation is in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet pertaining to the DBE Program.”

**The certification statement is located in the electronic bid file. All contractors must certify their DBE participation on that page. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted.**

### **DBE PARTICIPATION PLAN**

Lowest responsive bidders must submit the *DBE Plan/ Subcontractor Request*, form TC 14-35 DBE, within **5** days of the letting. This is necessary before the Awards Committee will review and make a recommendation. **The project will not be considered for award prior to submission and approval of the apparent low bidder’s DBE Plan/Subcontractor Request.**

The DBE Participation Plan shall include the following:

1. Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2. Description of the work each is to perform including the work item, unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Proposal Line Number, Category Number, and the Project Line Number can be found in the “material listing” on the Construction Procurement website under the specific letting;
3. The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows:
  - a. If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:
    - The entire expenditure paid to a DBE manufacturer;
    - 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
    - The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.

- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
  - c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
  5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

#### **UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED**

Contractors must submit the signed subcontract between the contractor and the DBE contractor, along with the DBE's certificate of insurance. If the DBE is a supplier of materials for the project, a signed purchase order must be submitted to the Division of Construction Procurement.

Changes to DBE Participation Plans must be approved by the Cabinet. The Cabinet may consider extenuating circumstances including, but not limited to, changes in the nature or scope of the project, the inability or unwillingness of a DBE to perform the work in accordance with the bid, and/or other circumstances beyond the control of the prime contractor.

#### **CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS**

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set (hard copy along with an electronic copy) of this information must be received in the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Cabinet considers in judging good faith efforts. This documentation may include written subcontractors' quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

The Good Faith Effort Package shall include, but may not be limited to information showing evidence of the following:

1. Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the Disadvantaged Enterprise Business Liaison Officer (DEBLO) in the Office of Civil Rights and Small Business Development to give notification of the bidder's inability to get DBE quotes;
5. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6. Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7. Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8. Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9. Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10. Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11. Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

### **FAILURE TO MEET GOOD FAITH REQUIREMENT**

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Good Faith Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. The bidder will be notified of the Committee's decision within 24 hours of its decision. The bidder will have 24 hours to request reconsideration of the Committee's decision. The reconsideration meeting will be held within two days of the receipt of a request by the bidder for reconsideration.

The request for reconsideration will be heard by the Office of the Secretary. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration explaining the basis for the finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so.

The result of the reconsideration process is not administratively appealable to the Cabinet or to the United States Department of Transportation.

The Cabinet reserves the right to award the contract to the next lowest responsive bidder or to rebid the contract in the event that the contract is not awarded to the low bidder as the result of a failure to meet the good faith requirement.

### **SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT**

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry out the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Disallow credit toward the DBE goal;
- Withholding progress payments;
- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

### **PROMPT PAYMENT**

The prime contractor will be required to pay the DBE within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

### **CONTRACTOR REPORTING**

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a **signed and notarized** Affidavit of Subcontractor Payment (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be completed and signed within 7 days of being paid by the Cabinet.

Payment information that needs to be reported includes date the payment is sent to the DBE, check number, Contract ID, amount of payment and the check date. Before Final Payment is made on this contract, the Prime Contractor will certify that all payments were made to the DBE subcontractor and/or DBE suppliers.

**\*\*\*\*\* IMPORTANT \*\*\*\*\***

**Please mail the original, signed and completed TC (18-7) Affidavit of Subcontractor Payment form and all copies of checks for payments listed above to the following address:**

Office of Civil Rights and Small Business Development  
6<sup>th</sup> Floor West 200 Mero Street  
Frankfort, KY 40622

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Melvin Bynes. Mr. Bynes' current contact information is email address – [melvin.bynes2@ky.gov](mailto:melvin.bynes2@ky.gov) and the telephone number is (502) 564-3601.

### **DEFAULT OR DECERTIFICATION OF THE DBE**

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and the overall goal cannot be credited for the uncompleted work, the prime contractor may utilize a substitute DBE or elect to fulfill the DBE goal with another DBE on a different work item. If after exerting good faith effort in accordance with the Cabinet's Good Faith Effort policies and procedures, the prime contractor is unable to replace the DBE, then the unmet portion of the goal may be waived at the discretion of the Cabinet.

### **PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES**

In accordance with the FY 2019 National Defense Authorization Act (NDAA), 2 CFR 200.216, and 2 CFR 200.471, Federal agencies are prohibited, after August 13, 2020, from obligating or expending financial assistance to obtain certain telecommunications and video surveillance services and equipment from specific producers. As a result of these regulations, contractors and subcontractors are prohibited, on projects with federal funding participation, from providing telecommunication or video surveillance equipment, services, or systems produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities)
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities)

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – CARGO PREFERENCE ACT (CPA).**

**(REV 12-17-15) (1-16)**

SECTION 7 is expanded by the following new Article:

102.10 **Cargo Preference Act – Use of United States-flag vessels.**

Pursuant to Title 46CFR Part 381, the Contractor agrees

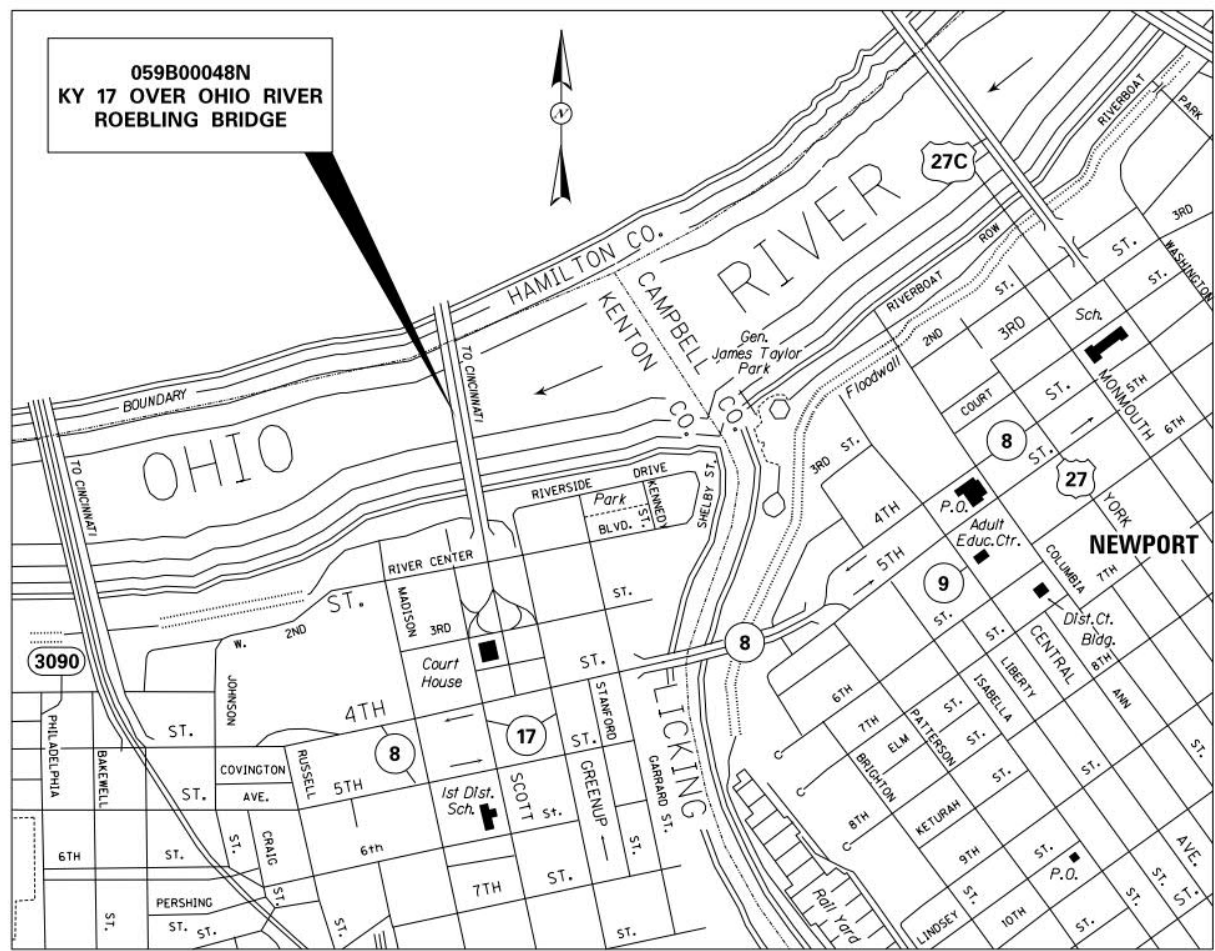
- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

# ROEBLING REHABILITATION

059B00048N  
KY-17 over Ohio River  
39.0930, -84.5099



*Vicinity Map*



## **SPECIAL NOTE FOR TRAFFIC CONTROL**

6-1097.00 Kenton 059B00048N

### **1.0 TRAFFIC CONTROL GENERAL:**

Except as provided herein, traffic shall be maintained in accordance with Section 112 of the current Standard Specifications and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD). Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new or used in new condition, at the beginning of work and maintained in like new condition until completion of the work.

### **2.0 TRAFFIC COORDINATOR:**

Furnish a Project Traffic Coordinator (PTC) as per Section 112. The PTC shall inspect the project maintenance of traffic, at least once daily, or as directed by the Engineer, during the Contractor's operations and at any time a full closure is in place. The PTC shall inspect the project maintenance of traffic a minimum of three times daily during single-lane closures. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents.

The PTC shall report all incidents throughout the work zone to the Engineer on the project. The Contractor shall furnish the name and telephone number where the PTC can be contacted at all times.

### **3.0 SIGNS:**

Long-term signs (sign intended to be continuously in place for more than 3 days) and short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

The Department will not measure installation, maintenance, or removal for payment of any detour signage or standard construction signage and will consider these incidental to "Maintain and Control Traffic".

### **4.0 PROTECTION OF WATERWAY UNDERNEATH:**

No material should be allowed to drop into the waterway below. The contractor shall adhere to all applicable permits.

### **5.0 PROTECTION OF PEDESTRIANS:**

At least one sidewalk must always be open during construction. The Contractor shall provide signage to advise pedestrians of which sidewalk is open. The Contractor must place fencing to block pedestrian access to the closed sidewalk.

Protect any excavation, obstructions, or construction work so as not to expose pedestrians to hazards. Chain link fencing should be in place to obstruct pedestrian access to all construction areas and equipment during non-work hours.

## **6.0 BRIDGE LIGHTING:**

Navigation lighting on both upstream and downstream faces and pedestrian lighting on the open sidewalk shall be maintained at all times, or as directed by the Engineer. Other lighting on the bridge may be de-energized in order to perform the work.

## **7.0 CONSTRUCTION PROCEDURES:**

Full bridge roadway closure is permitted between February 15, 2021 and November 15, 2021. At least one sidewalk must always be open during construction. While the full bridge closure is in effect, the Contractor must be actively working on the bridge and showing progress. No closures will be permitted for the sole purpose of storing equipment and/or materials

All roadway closures must be coordinated with KYTC District 6 (contact person is Nancy Wood: 859.341.2700) and the Engineer. The Contractor must notify the appropriate individuals of the anticipated closure and signed detour route at least three weeks in advance. The proposed closure must be approved by KYTC District 6 and the Engineer before closure begins.

Outside of the roadway closure periods, short-term single lane closures will be allowed by the Engineer in accordance with Standard Drawing TTC-100-03, *Lane Closure, Two-Lane with Traffic Closures*. Long term single lane closures, in accordance with Standard Drawing TTC-100-01, *Lane Closure Using Traffic Signals*, are allowable through December 31, 2021 with the following restrictions:

- The closures are to be positioned to allow a sufficient length of two-lane section for traffic to queue on the bridge, as such to not impact non-bridge traffic in Cincinnati and/or Covington.
- The Contractor must be actively working on the bridge and showing progress. No closures will be permitted for the sole purpose of storing equipment and/or materials.

## **8.0 VARIABLE MESSAGE SIGNS:**

Variable message signs will be installed, operated, and maintained by the Contractor. The Engineer shall determine the location and wording on the signs. The signs should be available up to three weeks prior to beginning work and be available throughout the project.

## **9.0 BARRICADES.**

Ensure a minimum of (8) Type III barricades are used at the Ohio end of the bridge and twenty (20) at the Kentucky end during bridge closures for a total of (28) Type III barricades.

**10.0 DETOUR:**

The traffic control plan proposed by the Contractor shall include a signed detour route for the road closure. The traffic control plan along with the proposed detour plan will be delivered to the engineer days 7 prior to the pre-construction meeting.

The traffic control plan must be submitted and approved to allow for coordination of the public information officer with the closure notification. The public must be notified of the proposed detour route when they are notified of the closure, 2 weeks before closure. All time and expenses necessary for the development of the detour plan(s) will be incidental to the lump sum bid item "Maintain and Control Traffic".

This detour route signage must be in place at any time the roadway is closed. The signage must not be visible more than 24 hours prior to beginning of the closure or more than 24 hours following the ending of the closure.

The Contractor shall provide all detour signing needed for the bridge closure. All signing required will be incidental to the lump sum bid item "Maintain and Control Traffic".

**11.0 PAYMENT:**

The Department will consider payment for the following items as full compensation for all work necessary for maintenance of traffic.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02014	Barricade-Type III	Each
02650	Maintain & Control Traffic	Lump Sum
02671	Portable Changeable Message Sign	Each

All other items needed to maintain traffic in accordance with these contract documents and the approved traffic control plan shall be considered incidental to Maintain and Control Traffic. These items include but are not limited to traffic signals, signs, barrier wall, crash cushions, temporary guardrail, temporary and permanent pavement striping, channelization devices, flaggers, etc.

## **SPECIAL NOTE FOR MASONRY/STONE REPAIRS**

6-1097.00 Kenton 059B00048N

### **1.0 DESCRIPTION:**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Provide safe access to the bridge substructure, anchorages, towers, spandrel walls, and railings in accordance with Section 107.01.01, for workers to complete the construction; (3) Remove deteriorated masonry/stone and mortar; (4) Prepare surfaces and install anchors (5) Complete masonry/stone and mortar repairs; (6) Cleaning masonry surfaces; and (7) Any other work specified as part of this contract.

### **2.0 CONTRACTOR QUALIFICATIONS:**

The Contractor, Supervisor and workers performing this work must be qualified to perform restoration of historic structures conforming to the Secretary of Interior Standards for the Treatment of Historical Properties. Contractors may be prequalified in the Kentucky Transportation Cabinet in at least one of the following Work Areas A, E1, E2, E3, E5, I16 and/or J78.

The work described in this note is a specialty work item. Specialty item work that may be accomplished by contractors that are certified for that item, but not necessarily prequalified by the Department, will require a submission of a subcontract. The prime contractor should submit evidence of experience performing the requested work items for the specialty subcontractor.

The submittal should include company personnel and equipment used for the work. The Kentucky Transportation Cabinet and the Engineer will review and determine whether to approve or disapprove the request.

The Apparent Low Bidder must submit with their qualifications to perform the work to Nick Reis ([nick.reis@ky.gov](mailto:nick.reis@ky.gov)) within 5 calendar days after letting. The Kentucky Transportation Cabinet has the right to reject bids at their discretion from unqualified contractors. The documentation of the Contractor's qualifications shall include, but is not limited to, the following:

- Prior project experience including no less than five (5) years' experience in performance of similar work in size and complexity.
- Name and resumes of persons performing the work. The Contractor superintendent shall have supervised three prior projects in size and complexity. The superintendent shall be present during all operations of work. Masonry repairs identified as being installed not under the direct supervision of this person shall be subject to removal and replacement, at

the direction of the Kentucky Transportation Cabinet and the Engineer. The superintendent shall be approved by Kentucky Transportation Cabinet and the Engineer.

- Contractor sample warranty.

The Contractor shall be familiar with the following References from the American Concrete Institute (ACI), American Society for Testing and Material (ASTM), and Brick Institute of America (BMA):

- ACI 530.1 – Specifications for Masonry Structures.
- ASTM C91 – Standard Specification for Masonry Cement.
- ASTM C144 – Standard Specification for Aggregate for Masonry Mortar.
- ASTM C150 – Standard Specification for Portland Cement.
- ASTM C144 – Standard Specification for Aggregate for Masonry Mortar.
- ASTM C150 – Standard Specification for Portland Cement.
- ASTM C207 - Standard Specification for Hydrated Lime for Masonry Mortar.
- ASTM C270 - Standard Specifications for Mortar in Unit Masonry.
- ASTM C404 – Standard Specification for Aggregate for Masonry Grout.
- ASTM C780 – Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
- Technical Note 20 - Cleaning Brick Masonry.
- Technical Note 46 – Maintenance of Brick Masonry.

The Contractor shall be familiar with the following Definitions:

- Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and consulting professions."
- "Damaged stone/masonry" as used herein means stone/masonry units that are loose, cracked, split, or spalled.
- "Defective mortar" as used herein means mortar joints that are loose, crack, split, spalled, delaminated, soft, or missing.
- "Hairline crack" as used herein means cracks measuring less than 1/32 inch limited to the surface of the masonry unit.
- "Tight crack" as used herein means cracks measuring less than 1/16 inch limited to the surface area of the masonry unit.
- "Masonry foreman" as used herein means technically competent employee identified as supervising all masonry work included in this Specifications section and the Drawings.

### **3.0 MATERIALS:**

#### **3.1 Materials:**

##### **A. Stone Patching Mortars (Cracks and Spalls):**

- a. Single-component, cementitious, mineral-based mortar containing no latex or acrylic bonding agents and with custom coloring to match stone being patched. Kentucky Transportation Cabinet will direct contractor in harvesting of samples to send to the manufacturer for testing and color

matching. Mix according to manufacturer's recommendations. It is likely that two colors may be required to allow the mason to select a color that is closest to the stone being patched.

- b. Acceptable materials:
  - i. Jahn M70 Repair Mortar, Cathedral Stone Products, Inc
  - ii. HS60 Sandstone Patch, US Heritage Group.
  - iii. Matrix Stone Repair Mortar, Conproco Corp.
- B. Stone Dutchman:
  - a. Buena Vista sandstone.
    - i. Approved Supplier: Waller Brothers Stone Co., McDermott, Ohio
- C. Mortar:
  - a. Hydrated lime-type with natural cements.
  - b. Volumetric Productions (determined to ASTM C270) consisting of the following:
    - i. Natural cement: 1.00 part
    - ii. Dolomitic hydrated lime: 1.20 part
    - iii. Fine aggregate (sand): 6.15 parts
    - iv. Mortar type: Type "N"
    - v. Refer to the attached Petrographic Examinations of Mortar Samples.
    - vi. Mortar to be based on Lab No. 8456 (A).
  - c. Sand Aggregate: ASTM C144, standard masonry type.
  - d. Color: To match existing.
- D. Grout:
  - a. Materials to comply with ASTM C476 as follows:
    - i. Portland Cement: ASTM C150, Type 1.
    - ii. Hydrated Lime: ASTM C207, Type S.
    - iii. Aggregates: ASTM C404, 3/8-inch maximum aggregate size.
- E. Masonry Anchors: ASTM F593 304 stainless steel threaded rods. Configuration and size as indicated on Drawings. Nuts to be ASTM A594 304 stainless steel.
- F. Stone Rail Steel Pins:
  - a. Basis of Design: Heckmann Building Products
    - i. Straight pins:
      - 1. #177 continuous threaded rod.
      - 2. 5/8" diameter.
      - 3. Stainless steel material, ASTM A580 AISI Type 304.
    - ii. "L" Pin
      - 1. #161 L-type rod anchor.
      - 2. 5/8" diameter.
      - 3. Stainless steel material, ASTM A167 AISI Type 304.
    - iii. "U" Pin
      - 1. #163 U-type rod anchor.
      - 2. 5/8" diameter.
      - 3. Stainless steel material, ASTM A167 AISI Type 304.
- G. Masonry Anchor and Steel Pin Adhesive:

- a. Utilize Hilti HIT-HY270 Adhesive Anchor System or an approved equivalent. Drill holes in masonry at the size recommended by the manufacturer. Consult with Engineer if hole size is over 5/8" diameter for 3/8" anchors.

H. Setting Shims:

- a. Basis of Design: High impact plastic 9000 psi compressive strength manufactured by Grove, Shimmer or Korolath.

I. Masonry Cleaning Materials:

- a. Water: clean, potable, and free of acids, alkalis, salts, organic materials, or other substances that may be deleterious to performance of the masonry.
- b. Natural bristle brushes.

### 3.2 Mixes:

A. Mortar:

- a. Batch Control: Measure and batch materials either by volume or weight, such that the required proportions for mortar can be accurately controlled and maintained. Measurement of sand materials by shovel will not be permitted.
- b. Do not use admixtures, including color pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless approved by the Engineer.
  - i. Do not lower freezing point of mortar by use of admixtures or anti-freezing agents.
  - ii. Chloride containing additives are prohibited.
- c. Mix mortars with the maximum amount of water consistent with workability to provide maximum tensile bond strength within the capacity of the mortar.
- d. Do not use mortar that has begun to set, or if more than 2 hours has elapsed since initial mixing. Re-temper mortar during 2-hour period as required to restore workability.
- e. Air content shall not exceed 12 percent.

B. Grout:

- a. Slump: 8" plus or minus 1".
- b. Strength: 3000 psi minimum at 7 days, 4000 psi minimum at 28 days.

## 4.0 CONSTRUCTION:

All areas involved in the work shall be inspected by the Contractor to establish the extent of work, access, and need for protection of surrounding construction, landscaping, etc. Using the attached detail drawings, and as directed by the Engineer, identify areas to receive masonry/stone repair and masonry cleaning.

### 4.1 Examination:

- A. Prior to the start of work, the Contractor shall survey areas to receive masonry/stone repairs to determine if there are conditions that will adversely affect the execution or quality of the work.
- B. Starting of masonry/stone work will be construed as acceptance of surfaces and conditions within any area.
- C. Notify the Kentucky Transportation Cabinet in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify the Kentucky Transportation Cabinet prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.
- D. It is not anticipated that the masonry work will require the removal of the tower staircases. If the Contractor is unable to complete any repairs behind the staircase after exhausting all reasonable access methods, the Contractor shall consult with the Engineer to determine how to proceed.
- E. Throughout construction, the Contractor shall visually review and sound the stones to identify the limits of deteriorated masonry/stone within the Work Area. The Contractor shall repair each defected area in accordance with this Special Note and the Plans, and shall keep detailed record of each repair location, repair type, and quantity. The Contractor shall work with the Engineer in order to make a final determination of repair locations and types. The Contractor shall provide as-built plan sheets depicting final repair locations and quantities for Masonry Patching, Dutchman, and Crack Repairs to the Engineer for acceptance of final quantities.

#### **4.2 Protection:**

- A. Provide adequate protection of all surrounding surfaces not intended to receive masonry/stone work from damage due to preparation, repair, or cleaning procedures. Repair damage at no cost to the project.
- B. Program masonry/stone so that construction dirt, dust, and debris will not fall onto uncured materials.
- C. When toxic or flammable solvents are used, the contractor shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies and Kentucky Transportation Cabinet.
- D. Provide the necessary protection to contain all dust, dirt, debris, and material within work area.
- E. Prevent mortar and grout from staining the face of surrounding masonry/stone and other surfaces by covering ledges and projections, keeping wall area wet below rebuilding and pointing work, immediately removing mortar in contact with exposed masonry and other surfaces.
- F. Place solvent soaked rags, waste, or other materials which might constitute a fire hazard in metal containers and remove from premises at the close of each day's work.

#### **4.3 Materials Preparation:**



- A. Submit stone samples for each type of repair.
- B. Submit mix design for masonry mortar.
- C. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- D. Single-Source Responsibility for Stone Units: Obtain stone units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from one source and by a single supplier for each different product required.
- E. Single-Source Responsibility for Mortar Materials: Obtain blended patching and pointing mortars from one manufacturer.
- F. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.
- G. Deliver materials to job site in sealed, undamaged containers. Each container shall be identified with material's name, date of manufacture and lot number.
- H. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Kentucky Transportation Cabinet.

#### **4.4 Surface Preparation:**

- A. Perform masonry/stone work in accordance with manufacturer's instructions and as herein specified, for each substrate condition.
- B. Repair Appearance Standard: Repaired surfaces are to have a uniform appearance, so that surface blends smoothly into surrounding areas, as viewed by the Kentucky Transportation Cabinet and Engineer.

#### **4.5 Environmental Requirements:**

- A. Repoint mortar joints and repair masonry/stone only when air temperature is between 40 and 80 degrees F and is predicted to remain so for at least 72 hours after completion of work. Deviations from this temperature range are allowable as follows:
  - a. Cold weather requirements: The temperature of the masonry/stone wall must be above 32 degrees F.
    - i. Enclosure requirements for installation are temperature-based as follows:
      - 1. Below 20 degrees F: Provide enclosure for work area and heat source to maintain temperature above 32 degrees F.
      - 2. 20-25 degrees F: Provide heat source and windbreaks on both sides of masonry under construction.
    - ii. Enclosure requirements for protection of completed masonry/stone are as follows:
      - 1. Below 20 degrees F: Provide enclosure and supplemental heat to maintain masonry temperature above 32 degrees F for 72 hours after construction.
      - 2. 20-25 degrees F: Protect completed masonry with insulating cover for 72 hours after construction.

3. 25-32 degrees F: Completely enclose masonry with cover for 72 hours after construction.
  4. 32 to 40 degrees F: Protect completed masonry with cover for 72 hours after construction.
- b. Hot weather requirements: Protect masonry/stone repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. The temperature of the masonry wall must be below 90 degrees F before pointing or patching can be installed. Provide artificial shade and wind breaks and use cooled materials as required.
- B. Conform to manufacturer's specific requirements.

#### **4.6 Mock-Up:**

- A. General: Locate mock-ups on the bridge in locations agreed by the Kentucky Transportation Cabinet. Provide 14 days in advance of dates and times for mock-up preparation. Obtain approval of mock-ups before starting repair work.
- B. Removal of Deteriorated Masonry:
  - a. Provide (3) mock-up locations as determined by the Engineer.
  - b. Approved mock-up to be maintained as reference
- C. Repointing:
  - a. Provide two mock-ups of repointing in areas 3'-0" x 6'-0". One will document mortar removal process and cleaning of joints and the other will document methods and quality of workmanship expected in new pointing including installation of mortar, mortar color and texture, and tooling of joints.
  - b. Mock-up to demonstrate cleaning of joint, installation of new mortar, and mortar color and texture.
  - c. Approved mock-up to be maintained as reference.
- D. Masonry Patching Repair:
  - a. Provide (1) mock-up at each of the following locations: vertical, horizontal, and underside of stone.
  - b. Approved patch to be maintained as reference.
- E. Dutchman Repair:
  - a. Provide (1) mock-up at each of the following locations: vertical, horizontal, and underside of stone.
  - b. Approved patch to be maintained as reference.
- F. Stone Crack Repair:
  - a. Provide mock-up of stone crack repair.
  - b. Mock-up to demonstrate repair process.
  - c. Approved mock-up to be maintained as reference.
- G. Cleaning Mockup
  - a. Test each type of soiling and masonry/stone substrate to be cleaned in small test areas with low visibility as agreed by Kentucky Transportation Cabinet and Engineer. Utilize methods and materials appropriate to the type, extent, and severity of soiling. Allow a waiting period of 7 days to

assess impact of cleaning methods before preparing the large-scale mockup below.

- i. Brick & Stone Masonry: Perform mockups of the restoration cleaning of the brick and stone masonry.
- b. Provide a 100 SF area of cleaning of a masonry/stone area as selected by the Kentucky Transportation Cabinet.
- c. If initial mockup is unacceptable, repeat using different methods in a different area until acceptable at no additional cost or time. Rework unacceptable area(s) at no additional cost or time.
- d. Acceptable area and method will become the standard for work of this Section and can remain as part of the finished work.

#### **4.7 Removal of Deteriorated Masonry:**

- A. Remove deteriorated masonry within the masonry project limits in accordance with the attached detail drawings.

#### **4.8 Masonry Cleaning:**

- A. Masonry Cleaning shall be limited to the tower bridge railings.
- B. Perform masonry/stone repairs, including but not limited to masonry/stone replacement and/or repointing, before cleaning.
- C. Allow all mortar and sealant to cure prior to cleaning.
- D. Proceed with cleaning from top to bottom from one end of an elevation to the other, overlapping to insure even cleaning.
- E. Keep areas below cleaning wet to prevent streaking or discoloration washing down the wall.
- F. Actual cleaning approach will be determined by testing on site. Cleaned surfaces shall meet or exceed approved mock-up in appearance.
- G. Use only natural bristle brushes to scrub walls.
- H. Water spray equipment must be equipped with both temperature and pressure gauges. Limit liquid spray cleaning to 200 PSI and 4 gpm. Maintain heated spray application temperatures between 140 and 160 degrees. Use a fan spray tip that disperses water at an angle of 25 to 50 degrees. Hold tip back a minimum of 6 inches from façade.

#### **4.9 Repointing:**

- A. Repoint all joints within the masonry project limits in accordance with the attached detail drawings.
- B. Rake out mortar in joints to a minimum depth of 3/4" or until sound mortar is encountered, whichever is greater. Depth of mortar removal should not extend beyond 2.5 times the width of the joint. The back reveal of the joint shall be square, and mortar shall be fully removed from the face of the bricks inside the joint. Remove mortar with hammer and chisel. Where necessary, center of horizontal joint may be cut with a narrow masonry saw or grinder with a blade not thicker than 1/8 to facilitate chiseling. Do not use saws on vertical head joints. Do not damage or spall edges of adjacent brick or widen joints. Dust and debris created by mortar removal must be contained and collected.

- C. When cutting is complete, hand brush joint and remove remaining residual dust and loose material by vacuuming. Do not use wire brushes.
- D. Premoisten joint and install new mortar. Pack tightly in 1/4 inch layers. Where depth of new mortar exceeds one inch, install in maximum 3/8 inch layers.
- E. When mortar is thumbprint hard, cut any excess mortar from the edge of the joint with a trowel or raking tool. Finish to a smooth, compact, joint to match existing surrounding joints. Stipple joints with a churn brush. Do not finish with a concave steel striking tool.
- F. Remove excess mortar and mortar smears as work progresses. Dry brush at the end of each day's work. Do not allow excess mortar or mortar smears to dry on the face of new or existing masonry/stone.
- G. Cure mortar by maintaining a thoroughly damp condition for at least 72 hours, including weekends and holidays. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic spray misting with a system of pipes, mist heads, and timers.

#### **4.10 Masonry Patching:**

- A. Surfaces to be patched must be sound and free of all dust, dirt, grease, laitance, and/or any other coating which may prevent proper adhesion.
- B. Remove all loose and deteriorated masonry from the repair using manual or pneumatic cutting tools. Areas should be cut to provide a minimum of 1/2" depth, including at edge shoulders. Do not install patches with a feathered edge. Cut patched area to a rectangular shape, not freeform. Minimum depth of removal to be 1/2" over the entire repair area.
- C. Clean all loose debris, dust and dirt from repair area. Wash the prepared surface with clean water and a bristle brush to open pores.
- D. Rake out adjacent mortar joint for repointing if patch will extend to edge of stone unit.
- E. Install specified masonry anchor rods in repair area per the Drawings. Set rods into existing stone and prepare stone surface to receive repair material per manufacturer's recommendations.
- F. Mix stone patching mortar as directed by manufacturer. Note that stone patching mortar should be a stiff consistency, without lumps. Using excessive water in the mixture will affect the color of the repair.
- G. Moisten substrate using clean water to provide a glistening wet surface for vertical applications and a well-damped surface with no pooling water on horizontal surfaces. Do not allow surface to dry. Repeat wetting procedure if necessary.
- H. Mix a small amount of stone patching mortar with water to create a mix the consistency of wet putty. Contractors call this "Peanut Butter." Apply the "Peanut Butter" coat to the wet surface approximately 1/8" thick. This "Peanut Butter" coat must not dry out prior to application of the patching mortar mix.
- I. Large repairs will require successive applications of stone patching mortar to avoid materials slump. If this is necessary, scrape away the shiny cement skin by removing 1/16" of material to reopen pores. Dampen surface and proceed with next layer of application.

- J. Build up material beyond the surface of the masonry. After achieving initial set, scrape away excess stone patching mortar until the desired profile is reached. Do not overwork surface of patch as this can affect the color of the patch.
- K. Periodically mist repairs using clean water for at least a 72-hour period. The timing for initial misting will vary with site conditions. Hot, dry conditions may require misting within 30-60 minutes. Mist several times a day. Shade any areas in direct sun to prevent rapid evaporation of water.
- L. Remove uncured stone patching mortar from the perimeter of the repair before it dries using clean water and a rubber sponge. Repeat several times, using clean water each time, to prevent a halo effect. Cured stone patching mortar may only be removed chemically or mechanically. Avoid the need for this step by cleaning as work proceeds.

#### **4.11 Masonry/Stone Full and Partial Replacement (Dutchman):**

- A. Stone to be replaced in small sections to prevent damage to adjacent stone or jeopardizing the structural stability of a wall.
- B. Existing partial stone replacements should all 90-degree edges.
- C. Wet stone fully before setting, nearly saturated, but surface dry.
- D. Set replacement stone on a full mortar bed with end joints pointed in lifts for full coverage of joint. Where a single stone is replaced, the top joint will be filled in a similar way. In large areas, stone will be set with end joints fully buttered.
- E. Stone to be laid plumb and true, with level courses, and accurately spaced to coordinate and blend with existing construction. Joint widths shall blend with the adjacent construction.
- F. Remove any stone units disturbed after laying, clean and reset in fresh mortar.
- G. Refer to drawings for required installation of masonry anchor rods.

#### **4.12 Final Cleaning:**

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter.
- B. Use non-metallic tools in cleaning operations. Remove large pieces of mortar using wood paddles and scrapers, stiff nylon or fiber bristle brushes, and clean water, applied with a garden hose.
- C. Do not use acidic or alkaline cleaners.
- D. Clean areas of new mortar no earlier than 14 days nor later than 28 days after completion of work.

### **5.0 WARRANTY:**

#### **5.1 Masonry/Stone Repairs:**

- A. Masonry/Stone work shall be warranted for a period of two (2) years by the Contractor against defects due to installation or material deficiencies, including but not limited cracking, debonding, and surface scaling.

### **6.0 MEASUREMENT:**

- 6.1 Removal of Deteriorated Masonry.** The Department will measure the quantity by lump sum.
- 6.2 Masonry Patching Repair.** The Department will measure the quantity in square feet of repair. The Department will not measure preparation of the site for the Engineer's access or removal and reapplication of repairs that do not satisfy the Engineer's approval for color for payment.
- 6.3 Dutchman Repair.** The Department will measure the quantity in square feet of surface covered. The Department will not measure preparation of the site for the Engineer's access or removal and reapplication of repairs that do not satisfy the Engineer's approval (under recommendation of the Advisory Committee as defined in the General Notes) for color for payment and will consider them incidental to the Dutchman Repair.
- 6.4 Masonry Crack Repair.** The Department will measure the quantity in linear foot. The Department will not measure preparation of the site for the Engineer's access or removal and reapplication of repairs that do not satisfy the Engineer's approval (under recommendation of the Advisory Committee as defined in the General Notes) for color for payment and will consider them incidental to the Masonry Crack Repair.
- 6.5 Repointing.** The Department will measure the quantity by lump sum.
- 6.6 Anchor.** The Department will measure the quantity of each stone to concrete anchors. Masonry anchors used in dutchman and composite patching repairs will be incidental to the respective pay item.
- 6.7 Tower Rail Patching (Type A).** The Department will measure the quantity per location of each repair. The Department will not measure reapplication of repairs that do not satisfy the Engineer's approval for color for payment.
- 6.8 Tower Rail Patching (Type B).** The Department will measure the quantity per location of each repair. The Department will not measure reapplication of repairs that do not satisfy the Engineer's approval for color for payment.
- 6.9 Tower Rail Post Replacement.** The Department will measure the quantity per location of each repair.
- 6.10 Towers Rail Top Stone Replacement.** The Department will measure the quantity per location of each repair.
- 6.11 Bridge Cleaning.** The Department will measure the quantity by lump sum.

**7.0 PAYMENT:**

- 7.1 Removal of Deteriorated Masonry.** Payment will be made for the lump sum item Removal of Deteriorated Masonry. Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).
- 7.2 Masonry Patching Repair.** Payment at the contract unit price per square foot is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, and furnishing, installing the patch repair mortar, and finishing the repair surface.
- 7.3 Dutchman Repair.** Payment at the contract unit price per square foot is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, furnishing and installing the replacement stone, grout, mortar, masonry anchors, and metal attachments.
- 7.4 Masonry Crack Repair.** Payment at the contract unit price per linear foot is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, and furnishing, installing the crack repair adhesive/grout, masonry anchors, and finishing the crack repair surface.
- 7.5 Repointing.** Payment will be made for the lump sum item Repointing. Payment at the lump sum price includes all labor, access, equipment, and materials, restoration mock-up, surface preparation, and furnishing, installing the new mortar, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).
- 7.6 Anchor** Payment at the contract unit price for each concrete to masonry anchor is full compensation for all labor, access, equipment, and materials for the drilling, furnishing, grout/adhesive, masonry anchors, and installation to complete the work in accordance with this Special Note and the attached detail drawings(s).
- 7.7 Tower Rail Patching (Type A).** Payment at the contract unit price per location is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, and furnishing, installing the patch repair mortar, and finishing the repair surface.
- 7.8 Tower Rail Patching (Type B).** Payment at the contract unit price per location is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, and furnishing, installing the patch repair mortar, and finishing the repair surface.
- 7.9 Tower Rail Post Replacement.** Payment at the contract unit price per location is full compensation for all labor, access, equipment, and materials for the

restoration mock-up, surface preparation, furnishing and installing the replacement stone, grout, mortar, and metal attachments.

**7.10 Towers Rail Top Stone Replacement.** Payment at the contract unit price per location is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, furnishing and installing the replacement stone, grout, mortar, and metal attachments.

**7.11 Bridge Cleaning.** Payment will be made for the lump sum item Bridge Cleaning. Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).

The Department will make payment under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
25102EC	Removal of Deteriorated Masonry	Lump Sum
25101EC	Masonry Patching Repair	Square Foot
24823EC	Dutchman Repair	Square Foot
24824EC	Masonry Crack Repair	Linear Foot
26117EC	Repointing	Lump Sum
04884	Anchor	Each
25111ED	Tower Rail Patching (Type A)	Each
25111ED	Tower Rail Patching (Type B)	Each
25112ED	Tower Rail Post Replacement	Each
25113ED	Towers Rail Top Stone Replacement	Each
24981EC	Bridge Cleaning	Lump Sum

END OF SPECIAL NOTE



## SPECIAL NOTE FOR CONCRETE REPAIRS

6-1097.00 Kenton 059B00048N

### 1.0 DESCRIPTION:

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Provide safe access to the bridge substructure, anchorages, towers, spandrel walls, and railings in accordance with Section 107.01.01, for workers to complete the construction; (3) Remove deteriorated concrete or stone; (4) Prepare the surfaces for concrete repairs; (5) Install the concrete repair material; (6) Cure of the materials; (7) Any other work specified as part of this contract.

### 2.0 CONTRACTOR QUALIFICATIONS:

The Contractor, Supervisor and workers performing this work must be qualified to perform restoration of historic structures conforming to the Secretary of Interior Standards for the Treatment of Historical Properties. Contractors may be prequalified in the Kentucky Transportation Cabinet in at least one of the following Work Areas E1, E2, E3, E5, I16 and/or J81.

The work described in this note is a specialty work item. Specialty item work that may be accomplished by contractors that are certified for that item, but not necessarily prequalified by the Department, will require a submission of a subcontract. The prime contractor should submit evidence of experience performing the requested work items for the specialty subcontractor.

The submittal should include company personnel and equipment used for the work. The Kentucky Transportation Cabinet and the Engineer will review and determine whether to approve or disapprove the request.

The Apparent Low Bidder must submit with their qualifications to perform the work to Nick Reis ([nick.reis@ky.gov](mailto:nick.reis@ky.gov)) within 5 calendar days after letting. The Kentucky Transportation Cabinet has the right to reject bids at their discretion from unqualified contractors. The documentation of the Contractor's qualifications shall include, but is not limited to, the following:

- Letter stating the Contractor and supplier are familiar with the referenced standards and products being installed.
- Prior project experience including no less than three (3) years experience in performance of similar work in size and complexity. The Contractor superintendent shall have supervised three prior projects in size, complexity, and similar products. The superintendent shall be present during all operations of work.
- Contractor sample warranty.

The Contractor shall be familiar with the following References from the American Concrete Institute (ACI), American Society for Testing and Material (ASTM), and Structural Steel Painting Council (SSPC):

- ACI 301 - Specification for Structural Concrete for Buildings
- ACI 305R - Hot Weather Concreting.
- ACI 306R - Cold Weather Concreting.
- ACI 318 - Building Code Requirements for Reinforced Concrete.
- ASTM C33 - Concrete Aggregates.
- Surface Preparation Specification No. 3 (SP3) – Wire Wheel Cleaning.
- Surface Preparation Specification No. 6 (SP6) – Commercial Blast Cleaning.

ACI 301, ACI 305R and ACI 306R are a part of the Contract Documents, are incorporated herein as fully as if here set forth and are referred to as General Concreting Requirements.

The Contractor shall be familiar with the following Definitions:

- Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and consulting professions.”

### **3.0 MATERIALS:**

#### **3.1 Materials:**

- A. Fine and Coarse Aggregates:
  - a. Meeting requirements of ASTM C-33.
- B. Water:
  - a. Mixing water shall be potable meeting requirements of ASTM C-94.
- C. Horizontal Application – Typical Repair Areas:
  - a. MasterEmaco T 310CI by BASF
  - b. SikaQuick 1000 by Sika Corp.
  - c. MasterEmaco T 1060/1061 by BASF
  - d. Planitop 18 ES by Mapei. (Planitop 18 TG is trowel grade for slope surfaces).
- D. Bonding Agent:
  - a. Sikadur 32, Hi-Mod LPL by Sika, Inc.
- E. Curing Materials:
  - a. 10 oz. burlap meeting the requirements of AASHTO M-182.
  - b. Visqueen: 6 mil polyethylene (white).

#### **4.0 CONSTRUCTION:**

All areas involved in the work shall be inspected by the Contractor to establish the extent of work, access, and need for protection of surrounding construction, landscaping, etc. Using the attached detail drawings, and as directed by the Engineer, identify areas to receive concrete repairs.

##### **4.1 Examination:**

- A. Prior to the start of work, the Contractor shall survey areas to receive repair concrete to determine locations and approximate quantity of material for unit price concrete repairs. Contractor shall sound the concrete using chain drag method and hammer survey to identify the limits of deteriorated concrete within the Work Area.
- B. Prior to start of excavations, perform an on-site review of the work areas with the Kentucky Transportation Cabinet and Engineer to confirm the unit price concrete repairs quantity.
- C. Examine surfaces intended to receive concrete repairs and note conditions or defects that will adversely affect the execution and/or quality of the work.
- D. Starting of concrete work will be construed as applicator's acceptance of surfaces and conditions within any area.
- E. Notify the Kentucky Transportation Cabinet in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify the Kentucky Transportation Cabinet prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

##### **4.2 Protection:**

- A. Provide adequate protection of all surrounding surfaces not intended to receive concrete repairs from damage due to preparation, cleaning, and installation. Repair damage at no cost to the project.
- B. Program concrete repairs so that construction dirt, dust, and debris will not fall onto uncured materials.
- C. Provide the necessary protection to contain all dust, dirt, debris, and material within work area.

##### **4.3 Materials Preparation:**

- A. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- B. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.
- C. Deliver materials to job site in sealed, undamaged containers.
- D. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Kentucky Transportation Cabinet.

#### **4.4 Application:**

##### **A. General:**

- a. Concrete placement for patches or overlays on sloping surfaces shall begin on the low elevation end and proceed upwards to the high elevation end.
- b. Concrete that does not conform to the specified requirements, including bond to substrate, strength, finish and tolerances shall be subject to removal and replacement, including necessary preparatory work, at no additional cost.
- c. Install patch material in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

##### **B. Installation:**

- a. Sawcut the concrete deck surface along the perimeter of the marks which define the removal area. Depth of sawcuts shall be 3/4 inch. Cut perimeter of removal area before beginning chipping hammer work. Do not over cut corners of patch area.
- b. Perform concrete removal with no larger than 18-pound chipping hammers.
- c. Begin concrete removal at the center of the removal area and work towards the sawcut perimeter. Maintain vertical sawcut edge at perimeter. Re-saw if necessary, to maintain required edge.
- d. Contractor shall use due diligence to perform concrete chipping operation in a manner to avoid damaging the stone structure. Means such as utilizing wide chipping blades and performing chipping procedures on a low angle are recommended.
- e. Within 24 hours of concrete repair material placement, media blast the excavation and the immediately adjacent surface.
- f. After completion of all cleaning operations, blow-out excavations with oil-free and water-free compressed air. Previously cleaned excavations that are subjected to contamination must be re-cleaned.
- g. Prior to patch material installation, install epoxy bonding agent as recommended by the manufacturer.
- h. Place patch material in the excavations. Vibrate new patch material to ensure consolidation in maximum-depth areas and at the excavation's perimeter. Screed material flush with adjacent surfaces and finish with a float or light trowel.
- i. If bonding agent hardens/cures prior to concrete placement, recoat per manufacturer recommendations.
- j. Cure patch material in accordance with manufacturer's written instructions.

##### **C. Acceptance of Structure:**

- a. Acceptance of Structure shall be in accordance with ACI 301 Chapter 18.
- b. Contractor shall bear all costs of correcting rejected work.

**4.5 Cleaning:**

- A. During progress of work, remove from site discarded coating materials, rubbish, cans, and rags at end of each workday.
- B. Upon completion of concrete work, clean all surfaces. Remove spattered material by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

**5.0 WARRANTY:**

**5.1 Concrete Repair Warranty:**

- A. A warranty period of two (2) years shall be provided for concrete work performed under this Section against defects, as determined by the Owner, including but not limited to debonding, excessive cracking and surface scaling.

**6.0 MEASUREMENT:**

- 6.1 Concrete Patching Repair.** The Department will measure the quantity in square feet of repair.
- 6.2 Concrete Slab Edge Repair.** The Department will measure the quantity in linear feet of repair.

**7.0 PAYMENT:**

- 7.1 Concrete Patching Repair** Payment at the contract unit price per square foot is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, and furnishing, installing the concrete repair material, and finishing the repair surface.
- 7.2 Concrete Slab Edge Repair.** Payment at the contract unit price per linear foot is full compensation for all labor, access, equipment, and materials for the restoration mock-up, surface preparation, and furnishing, installing the concrete repair material, and finishing the repair surface.

The Department will make payment under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
22146EN	Concrete Patching Repair	Square Foot
25103EC	Concrete Slab Edge Repair	Linear Foot

END OF SPECIAL NOTE

## SPECIAL NOTE FOR VERTICAL CONCRETE PATCHING REPAIR

6-1097.00 Kenton 059B00048N

### 1.0 DESCRIPTION:

Perform all work in accordance with the Department's current Standard Specifications for Roads and Bridges, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications.

This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing spalled/delaminated concrete; (3) Prepare the existing surface for concrete patching; (4) Place hook fasteners and welded wire fabric over surfaces to be repaired (where applicable); (5) Apply concrete patching as specified by this note and as shown on the attached detail drawings; (6) Finish and cure the new Concrete Patches; (7) Maintain & control traffic; and, (8) Any other work specified as part of this contract.

### 2.0 MATERIALS:

- A. **Self-Consolidating Concrete.** Refer to list of approved materials or Kentucky Product Evaluation List.
- B. **Vertical and Overhead Patch Material.** From approved KYTC Division of Materials List.
- C. **Steel Reinforcement.** Use Grade 60. See Section 602
- D. **Welded Steel Wire Fabric (WWF).** Conform to Section 811
- E. **Hook Fasteners.** Use commercial grade galvanized hook fasteners. Minimum 3/16" diameter.

### 3.0 CONSTRUCTION:

- 3.1. **Concrete Removal and Preparation.** The Contractor, as directed by the Engineer shall locate and remove all loose, spalled, deteriorated and delaminated concrete. Sounding shall be used to locate delaminated areas. Care shall be exercised not to damage areas of sound concrete or reinforcing steel during concrete removal operations. Concrete removal shall be in accordance with a sequence approved by the Engineer.

Concrete removal shall be accomplished by chipping with hand picks, chisels or light duty pneumatic or electric chipping hammers (not to exceed 15 lbs.). Remove all deteriorated loose concrete a minimum depth of 3/4" behind bar, and at least 1/4" greater than the largest size of aggregate in the repair mix., Care shall be taken to not damage bond to adjacent non-exposed reinforcing steel during concrete removal processes. Unless specifically *directed by the Engineer*, depth of removal shall not exceed 6 inches. The outer edges of all chipped areas shall be saw cut to a minimum depth of 1 inch to prevent featheredging unless otherwise approved by the Engineer.

The perimeter of all areas where concrete is removed shall be sawcut at a 90° angle.

After all deteriorated concrete has been removed; the repair surface to receive concrete patching shall be prepared by abrasive blast cleaning or water blast cleaning (greater than 5,000 psi). Abrasive blast cleaning shall remove all fractured surface concrete and all traces of any unsound material or contaminants such as oil, grease, dirt, slurry, or any materials which could interfere with the bond of freshly placed concrete. The abrasive blast cleaning shall produce a Concrete Surface Profile (CSP) of a 6 or greater as per the current guidelines established by the International Concrete Repair Institute (ICRI), Technical Guideline 310.2R-2013.

The Contractor shall dispose all removed material in an approved site.

- 3.2. Steel Reinforcement.** All corroded reinforcing steel exposed during concrete removal shall have corrosion products removed by abrasive grit blasting or wire brush whichever is more appropriate. Furnish for replacement, as directed by the Engineer, additional linear feet of steel reinforcing bars ½” diameter by 20-foot lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Deliver unused bars to the nearest County Maintenance Barn.

Reinforcing steel displaying deep pitting or loss of more than 20 percent of cross-sectional area shall be removed and replaced. Reinforcement shall be placed such that the minimum spacing around each bar is three times the maximum aggregate size to allow for proper encapsulation with concrete patching.

Intersecting reinforcing bars shall be tightly secured to each other using tie wire and adequately supported to minimize movement during concrete placement.

- 3.3. Concrete Repairs.** Place and finish the new concrete for the patching area in accordance with the manufacturer’s recommendations, as shown on the attached detail drawings, and as directed by the Engineer. For repairs greater than 1 square foot in surface area, the contractor must use self-consolidating repairs and use a form-and-pour technique (hand application is not allowed). Vertical and Overhead Patching material may be applied by hand troweling for repairs less than one square foot. The Engineer shall approve the Contractor’s method of placing and consolidating the concrete prior to the beginning of this operation.
- 3.4. Curing.** On completion of finishing operation, patching concrete shall immediately be prevented from drying out and cracking by fogging, wetting, and/or any appropriate method approved by the Engineer. Curing shall continue for the duration recommended by the product manufacturer.
- 3.5. Quality Control/Testing.** After completion of the curing, tensile bond testing shall be performed. The testing shall be in accordance with ICRI Technical Guideline 210.3R

and ASTM C1583/C1583M. Up to one location per substructure unit and one location per span shall be performed, as directed by the Engineer. Repair of the test areas is to follow the guidance in this note. No additional payment will be made for testing or for the repair of testing locations.

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department. Quantities given are approximate. The quantity for “Concrete Patching Repair” shall be bid with the contingency that quantities may be increased, decreased, or eliminated by the Engineer. Dispose of all removed material entirely away from the job site as approved by the Engineer. This work is incidental to the contract unit price for “Concrete Patching Repair”.

**4.0 MEASUREMENT:**

- 4.1. Concrete Patching Repair.** The Department will measure the quantity per square feet of each area restored. Double payment will not be made on both faces of corner repairs.
- 4.2. Steel Reinforcement.** See Section 602. Steel reinforcement will not be measured for payment but shall be considered incidental to “Concrete Patching Repair”.

**5.0 PAYMENT:**

- 5.1 Concrete Patching Repair.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, equipment; (2) preparation of specified areas including removing and disposing of specified existing materials; (3) place, finish and cure new concrete patches; and (4) all incidentals necessary to complete the work as specified by this note and as shown on the attached detail drawings.
- 5.2 Steel Reinforcement.** See Section 602.

The Department will make payment under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
22146EN	Concrete Patching Repair	Square Foot

END OF SPECIAL NOTE



## **SPECIAL NOTE FOR EPOXY INJECTION CRACK REPAIR**

6-1097.00 Kenton 059B00048N

### **I. DESCRIPTION**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Drill injection port holes.
4. Epoxy injection.
5. Finish the repaired surface.
6. Obtain core samples for the Engineer's visual inspection.
7. Repair core holes.
8. Any other work specified as part of this contract.

### **II. MATERIALS, EQUIPMENT, PERSONNEL**

**A. Type IV Epoxy Resin.** Use either Category I or II suitable for epoxy injection applications. See Section 826. All cracks shall be injected using an adhesive suitable for the field conditions (crack width, temperature, humidity, etc.) recommended by the adhesive manufacture as shown on material data sheets.

**B. Equipment.** Equipment used to inject the epoxy shall meet the recommendations of the epoxy injection material manufacturer.

**C. Personnel.** Arrange to have a manufacturer's representative at the job site to familiarize him and the Engineer with the epoxy materials, application procedures and recommended pressure practice. The representative shall direct at least one complete crack or area injection and be assured prior to his departure from the project that the personnel are adequately informed to satisfactorily perform the remaining repairs.

Furnish the Engineer a copy of the manufacturer's comprehensive preparation, mixing and application instructions which have been developed especially for use with the proposed epoxy injection system. Ensure that any significant changes to these instructions which are recommended by the representative for an unanticipated situation have been approved by the Engineer prior to the adoption of such changes.

### III. CONSTRUCTION

- A. Investigate Remedial Action.** If the crack is larger than or equal to 0.025" wide or has rust stains, repair the crack by epoxy injection. If the crack is less than 0.025" wide, the crack shall be sealed in accordance with the Special Note for Concrete Sealing. Areas of map cracking are to be sounded by the Engineer with a hammer. If the areas are delaminated or spalled, they shall be repaired in accordance with the Special Note for Concrete Patching. Otherwise, the cracks shall be repaired in accordance with this Note.
- B. Drill Injection Port Holes.** Install injection ports or tees in cracks to be injected. Space injection ports or tees at 6 to 12 inches vertically and 6 to 18 inches horizontally but in no case closer together than the thickness of the concrete member if full depth penetration is desired unless otherwise specified or directed. Set ports or tees in dust free holes made either with vacuum drills or chipping hammers.
- C. Epoxy Injection.** Seal all surface cracks in the area to be repaired, after injection ports or tees have been inserted into the holes, with paste epoxy between ports to insure retention of the pressure injection within the confines of the member. An alternate procedure of sealing the cracks before the injection holes have been made can be submitted to the Engineer for approval. Limit the application of paste epoxy to clean and dry surfaces. Limit substrate temperatures to not less than 45°F during epoxy applications.
- Begin the epoxy injection at the bottom of the fractured area and progress upward using a port or tee filling sequence that will ensure the filling of the lowermost injection ports or tees first.
- Establish injection procedures and the depths and spacings of holes at injection ports or tees. Use epoxy with flow characteristics and injection pressure that ensure no further damage will be done to the member being repaired. Ensure that the epoxy will first fill the innermost portion of the cracked concrete and that the potential for creating voids within the crack or epoxy will be minimized.
- D. Finish the Repaired Surface.** Remove the injection ports or tees flush with the concrete surface after the fractured area has been filled and the epoxy has partially cured (24 hours at ambient temperature not less than 60°F, otherwise not less than 48 hours). Roughen the surfaces of the repaired areas to achieve uniform surface texture. Remove any injection epoxy runs or spills from concrete surfaces.
- E. Obtain Core Samples.** Obtain two 4-inch diameter core samples in the first 25 linear feet of crack repaired and one core for each 25 linear feet thereafter. Take the core samples from locations determined by the Engineer and for the full crack depth. Cores will be visibly examined by the Engineer to determine the extent of epoxy penetration.

**F. Repair Core Holes.** Repair core holes in the concrete with non-shrink grout in accordance with Section 601.03.03(B) within 24 hours.

**IV. MEASUREMENT**

The Department will measure the quantity in linear feet along the centerline of the cracks. The Department will not measure preparation of the site for the Engineer's access or removal and reapplication of repairs that do not satisfy the Engineer's approval for payment and will consider them incidental to "Epoxy Injection Crack Repair".

**V. PAYMENT.**

The Department will make payment for the completed and accepted quantities of concrete cracks repaired with epoxy injection under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
23744EC	Epoxy Injection Crack Repair	Linear Feet

The Department will consider payment as full compensation for all work required.

## **SPECIAL NOTE FOR ANCHORAGE 2 ARCH WATERPROOFING**

6-1097.00 Kenton 059B00048N

### **I. DESCRIPTION**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Surveying.
3. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to inspect the areas and for workers to complete the construction.
4. Engineering design of the temporary arch support.
5. Construction, maintenance, and removal of the arch temporary shoring.
6. Remove existing pavement and fill over the arch.
7. Prepare the arch surface.
8. Install extrados masonry anchors.
9. Form and pour the arch slab and new concrete backwalls.
10. Apply hot fluid-applied waterproofing.
11. Install drainage system.
12. Place and compact backfill.
13. Form and pour the roadway slab.
14. Apply concrete sealing.
15. Any other work as specified as part of this contract.

### **II. MATERIALS**

**2.1 Hot Fluid-Applied Waterproofing.** See Special Note for Hot Fluid-Applied Waterproofing.

**2.2 Class "A" Concrete.** See Section 601.

**2.3 Class "AA" Concrete.** See Section 601.

**2.4 Structure Granular Backfill.** See Section 805.11.

**2.5 Perforated Pipe – 4 inch.** See Section 704.

**2.6 PVC Pipe – 4 inch.** See Section 704.

**2.7 Copper Pipe – 4 inch.** All copper pipe and attachments are to be in accordance with ASTM B306.

**2.8 Concrete Sealing.** See Special Note for Concrete Sealing.

**III. CONSTRUCTION**

**A. Damage.** Any damage to the existing masonry anchorages or the flooring in Anchorage 2 caused by the Contractor's actions must be repaired at the direction of the Engineer at no additional cost to the Department.

**B. Utilities.** The Contractor shall make sure to avoid disturbing the ground lighting and any other utilities within or attached to Anchorage 2 and shall be responsible for repairing any damage caused by the Contractor at no additional cost.

**C. Sequence of Construction.** In accordance with the list provided below. Contractor shall consult with the Engineer to modify the sequence of construction.

1. Install intrados keystone anchors.
2. Provide temporary shoring of the arch in Work Areas A & B.
3. Survey existing roadway grade.
4. Phase 1 in Work Area B:
  - i. Excavate.
  - ii. Survey and determine arch profile grade.
  - iii. Core through existing backwall at North bearing for drainage pipe installation.
  - iv. Install extrados masonry anchors.
  - v. Pour concrete arch slab and backwall.
  - vi. Install hot fluid-applied waterproofing to concrete arch slab.
  - vii. Plate perforated pipe with geotextile wrap.
  - viii. Place structural granular backfill.
5. Phase 2 in Work Area A:
  - i. Repeat applicable Phase 1 steps.
6. Remove temporary shoring in Work Areas A & B.
7. Install copper drainage pipes and downspout.
8. Complete masonry/stone intrados repairs.
9. Construct concrete roadway slab and curb in Work Areas A & B.
10. Place hot-poured silicone sealant in roadway slab. Sawcut if needed.
11. Complete concrete coating of the roadway slab and curb.

**D. Live/Construction Load on Suspended Spans.** Due to the unloading of the anchorages occurring during the waterproofing operations; the Contractor must limit the construction loading on all three suspended spans. At no time shall the Contractor be allowed to stockpile materials on the suspended spans. All equipment on the suspended span must adhere to the load posting on the bridge. The Contractor is not permitted to store any inactive equipment on the suspended spans without the permission of the Engineer.

- E. Equipment.** Once the asphalt surface has been removed, only lightweight construction equipment is permitted on or around the arch. The Contractor shall not utilize equipment weighing more than the posted limits on the bridge at any time.
- F. Temporary Shoring.** The Contractor is required to provide temporary shoring under the length of the Anchorage 2 arches, fully supporting each stone in the cross-section, prior to beginning any excavation. Temporary shoring must remain in place during the duration of the Anchorage 2 arch waterproofing. The Contractor is responsible for designing, furnishing, installing, maintaining, and removing the temporary arch excavation support.

Design the temporary shoring in accordance with the AASHTO LFD or LRFD specifications, current FHWA guidelines, and applicable AASHTO Guide Specifications. Design for the full weight of the masonry stones, backfill, and pavement materials. Ensure stability of arches throughout all construction stages. Submit the design calculations and drawings, signed and sealed by a Professional Engineer, licensed in Kentucky or Ohio, to the Engineer for review. Design calculations shall include all material properties, design loads, and design assumptions. Include on the detailed drawings, all dimensions, elevations, materials, member sizes, and construction sequence. Include specific installation procedures and testing requirements as part of the submittal. Allow 15 business days for the review by the Cabinet and an additional 7 business days to review a re-submittal.

Install the temporary shoring in accordance with the Contractor's engineer's drawings. Have a Professional Engineer, licensed in Kentucky or Ohio, certify that the temporary shoring has been installed as detailed on the Contractor's engineers' signed and sealed drawings. Submit the certification to the Engineer 3 working days after completion of the system.

- G. Excavation.** The Contractor shall excavate Zones A and B above the arches as shown in the plans carefully and shall notify the Engineer if conditions are found that may be detrimental to the restoration effort. Remove the arch fill in one-foot lifts within each stage in a symmetrical fashion to ensure balanced loading on the arch barrels at all times. Contractor must use hand tools to excavate within 2-feet of the masonry anchorage houses and arches. Completely remove the fill on the arch extrados, including all fines and dust. If masonry is encountered at unexpected locations, the Contractor shall consult with the Engineer for direction before proceeding. Remove and dispose material away from the job site in a manner approved by the Engineer.

The Contractor is responsible for any temporary support and/or earth retention needed to ensure the safety of the workers and the integrity of the excavation. This could consist of sheeting, shoring, trench boxes, cofferdams, or other methods. All earth retention shall be in accordance with Section 603.03.06 of the Standard Specifications for Road and Bridge Construction. Payment is incidental to the bid item, "Structural Excavation – Common.". Additional payment will not be made for any areas of excavation outside of what is shown in the details in the plans. The Contractor is to

repair any damage to the existing structure, including existing sidewalks, resulting from their actions at no cost to the Department.

- H. Arch Concrete.** Contractor shall determine profile grade of the proposed arch slab after excavation, taking in to account a 1'-6" minimum depth at the centerline and 1% minimum south to north slope. Contractor shall provide proposed grade, including elevations at the bottom and top of slab at the edges and 10-ft intervals, and submit estimated quantities to the Engineer for approval. Allow 10 business days for review. A submittal for each zone of work is required. The cost for surveying and determining the profile grade is incidental to Class "A" Concrete.

Pour concrete in one-foot lifts on each side of the arch in symmetrical fashion to ensure balanced loading on the arch barrels.

- I. Hot Fluid-Applied Waterproofing.** Apply in accordance with the Special Note. Extend waterproofing up 1'-6" of each new backwall.
- J. Drainage System.** Install the drainage system as shown in the plans. Wrap the perforated pipe with geotextile fabric. The Contractor shall drill through the existing North backwall and provide watertight connections between the perforated pipe, PVC pipe, and copper pipe. The Contractor shall seal any gap in the backwall and prevent leakage. Attach the copper drainage system to the North Elevation of Anchorage 2 to the satisfaction of the Engineer. Provide clean-out access points at significant bends in the cooper pipe. Consult with the Engineer to determine the location of the copper downspout at the Northeast corner of Anchorage 2.
- K. Structure Granular Backfill.** Backfill in accordance with the detail drawings, Section 603.03.04, and as directed by the Engineer. Backfill shortly after the waterproofing is in place, using care and caution to avoid damaging the waterproofing. Backfill should not be placed until the hot fluid-applied waterproofing has been approved by the Engineer.

Place and compact backfill material in uniform horizontal lifts not exceeding one foot. As a precaution against introducing unbalanced stresses, place and compact the backfill to the same elevation on both sides of arches before proceeding to the next lift. The elevation should not differ more than one foot at any time. The Contractor should propose a proper compacting method to ensure maximum compaction while protecting the arch and adjacent masonry walls. After the initial installation, the Contractor shall wait a minimum of 14 days and then recompact and backfill if necessary, prior to beginning work on the roadway slab.

If the Contractor elects to utilize a bulkhead system to retain the backfill between construction stages, the Contractor shall submit details and design of the proposed system to the Engineer for review and acceptance. Allow 3 weeks for review. The scheme shall have provision to allow for drainage throughout the bulkhead system and shall be removed 12" below the bottom of the proposed roadway slab.

**L. Slab Concrete.** Construct in accordance with Section 601, except that the concrete may be poured directly on the stone base, provided there is a minimum cover to steel reinforcement as shown in the plans. No additional payment will be made for additional concrete necessary to maintain this clearance.

**M. Seal Concrete.** Seal roadway slab and curb concrete in accordance with the Special Note for Concrete Sealing.

**N. Traffic.** The bridge shall be closed to traffic for the entirety of the work outlined in this Special Note. The Contractor shall wait to receive acceptance of the work from the Engineer prior to opening the bridge to traffic.

#### **IV. MEASUREMENT**

**A. Temporary Shoring.** The Department will measure this quantity by lump sum.

**B. Structural Excavation – Common.** In accordance Section 603.04.04.

**C. Anchor.** See Special Note for Masonry Repairs.

**D. Class “A” Concrete.** In accordance Section 601.

**E. Steel Reinforcement Epoxy Coated.** In accordance with Section 601.

**F. Waterproofing Membrane.** See Special Note for Hot Fluid-Applied Waterproofing.

**G. Structure Granular Backfill.** The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure any additional material required for backfill outside the limits shown on the Plans and Standard Drawings for payment and will consider it incidental to the work.

**H. Geotextile Fabric.** The Department will not measure the quantity of fabric used and will consider it incidental to perforated pipe.

**I. Perforated Pipe – 4 inch.** The Department will measure the quantity by linear foot.

**J. PVC Pipe – 4 inch.** The Department will measure the quantity by linear foot.

**K. Copper Pipe – 4 inch.** The Department will measure the quantity by linear foot. The Department will not measure the quantity of attachments, clean-outs, etc. and will consider them incidental to this item.

**L. Class “AA” Concrete.** In accordance with Section 601.



**M. Concrete Sealing.** See Special Note for Concrete Sealing.

**V. PAYMENT.**

**A. Temporary Shoring.** Payment at the lump sum unit price shall be full compensation for the design, furnishing, labor, materials, furnishing, maintenance, and removal of the temporary shoring as described in the note and on the plans.

**B. Structural Excavation – Common.** In accordance Section 603.04.04.

**C. Anchor.** See Special Note for Masonry Repairs.

**D. Class “A” Concrete.** In accordance Section 601.

**E. Steel Reinforcement Epoxy Coated.** In accordance with Section 601.

**F. Waterproofing Membrane.** See Special Note for Hot Fluid-Applied Waterproofing.

**G. Structure Granular Backfill.** Payment at the unit price is full compensation for all work required under this section.

**H. Perforated Pipe – 4 inch.** Payment at the unit price is full compensation for all work required under this section.

**I. PVC Pipe – 4 inch.** Payment at the unit price is full compensation for all work required under this section, including coring through the existing backwall.

**J. Copper Pipe – 4 inch.** The Department will measure the quantity by linear foot. The Department will not measure the quantity of attachments, clean-outs, etc. and will consider them incidental to this item.

**K. Class “AA” Concrete.** In accordance with Section 601.

**L. Concrete Sealing.** See Special Note for Concrete Sealing.

## **SPECIAL NOTE FOR HOT FLUID-APPLIED WATERPROOFING**

6-1097.00 Kenton 059B00048N

### **1.0 DESCRIPTION:**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish All labor, material, equipment, special tools and services required for installing new hot fluid-applied, fully reinforced, buried waterproofing system as required by the Drawings and this Specification, including but not limited to the following.

(2) Provide safe access to the bridge substructure in accordance with Section 107.01.01, for workers to complete the construction; (3) Preparation and cleaning of substrates; (4) Crack, joint, and other detailing work; (5) Waterproofing system including membrane, protection course, drainage board, and insulation for vertical surfaces; (6) Any other work specified as part of this contract.

### **2.0 CONTRACTOR QUALIFICATIONS:**

The Contractor, Supervisor and workers performing this work must be qualified to perform restoration of historic structures conforming to the Secretary of Interior Standards for the Treatment of Historical Properties. Contractors may be prequalified in the Kentucky Transportation Cabinet in at least one of the following Work Areas E1, E2, E3, E5, and/or I16.

The work described in this note is a specialty work item. Specialty item work that may be accomplished by contractors that are certified for that item, but not necessarily prequalified by the Department, will require a submission of a subcontract. The prime contractor should submit evidence of experience performing the requested work items for the specialty subcontractor.

The submittal should include company personnel and equipment used for the work. The Kentucky Transportation Cabinet and the Engineer will review and determine whether to approve or disapprove the request.

The Apparent Low Bidder must submit with their qualifications to perform the work to Nick Reis ([nick.reis@ky.gov](mailto:nick.reis@ky.gov)) within 5 calendar days after letting. The Kentucky Transportation Cabinet has the right to reject bids at their discretion from unqualified contractors. The documentation of the Contractor's qualifications shall include, but is not limited to, the following:

- Literature for manufactured products, including manufacturer's specifications, test data, installation instructions and applicator's manual.
- Letter of approval that the Contractor/waterproof coating applicator shall be a certified installer by the manufacturer for a minimum of three consecutive years.

- Letters of experience for membrane applicator's lead personnel (field superintendent and foreman) in charge of the work shall each have the following experience:
  - Three (3) verifiable years of experience supervising the application of the membrane system being provided on this project.
  - Successfully installed three (3) membrane projects of similar size, type and using the same membrane system being provided on this project.
- Letter from manufacturer stating their system as specified is suitable for use in this project.
- The membrane manufacturer shall certify in writing the following:
  - The membrane material has been manufactured by the same source, and per the same formulation for a minimum of 15 years.
  - The membrane system has successfully been installed on a yearly basis for a minimum of 15 years.
  - Certification that all waterproofing system components are being supplied and warranted by a single-source manufacturer.

The Contractor shall be familiar with the following References from American Society for Testing and Material (ASTM):

- ASTM A-666 – Standard Specification for Annealed or cold-Worked Austenitic Stainless-Steel Sheet, Strip, Plate and Flat Bar.
- ASTM C-1306 – Standard Test Method for Hydrostatic Pressure Resistance of a Liquid-Applied Waterproofing Membrane.
- ASTM D-36 – Standard Test Method for Softening Point of Bitumen (Ring-and-Ball Method).
- ASTM D-92 – Standard Test Method for Flash and Fire Points by Cleveland Open Cup Method.
- ASTM D-412 – Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers – Tension.
- ASTM D0471 – Standard Test Method for Rubber Property – Effect of Liquids.
- ASTM D-624 – Standard Test Method for Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- ASTM D-751 – Standard Test Method for Coated Fabrics.
- ASTM D-896 – Standard Practice for Resistance of Adhesive Bonds to Chemical Reagents.
- ASTM D-1149 – Standard Test Method for Rubber Deterioration – Surface Ozone Cracking in Chamber.
- ASTM D-1621 – Standard Test Method for Compressible Properties of Rigid Cellular Plastics.
- ASTM D-1777 – Standard Test Method for Thickness of Textile Materials.
- ASTM D-1910 – Method of Test for Construction Characteristics of Woven Fabrics.
- ASTM D-2137 – Standard Test Method for Rubber Property – Brittleness Point of Flexible Polymers and Coated Fabrics.
- ASTM D-2523 – Standard Practice for Testing Load-Strain Properties of Roofing Membranes.

- ASTM D-4263 – Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
- ASTM D-4491 – Standard Test Method for Water Permeability of Geotextiles by Permittivity.
- ASTM D-4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
- ASTM D-4751 – Standard Test Method for Determining Apparent Opening size of a Geotextile.
- ASTM E 96 – Standard Test Method for Water Vapor Transmission of Materials.

The Contractor shall be familiar with the following Definitions:

- Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and consulting professions."

### **3.0 MATERIALS:**

#### **3.1 Manufacturers:**

- A. Basis of Design: Monolithic Membrane 6125 hot, fluid-applied rubberized asphalt by American Hydrotech, Inc.

#### **3.2 Materials and Procedure:**

- A. Hot applied reinforced waterproofing membrane:
  1. Continuously reinforced system of 215 dry mils total membrane thickness with coverage modifications to account for existing surface roughness.
  2. Rubberized asphalt membrane product shall contain an inert clay filler to enable the product to be resistant to acids (fertilizers, building washes and acid rain), and crumb rubber for thickness control and heat retention/workability during application.
  3. The membrane shall be a hot, fluid applied, rubberized asphalt membrane meeting the CGSB-37.50-M89 and ASTM standards and exhibit the following minimum properties:
    - a. Flash Point per ASTM D-92: <500°F (261°C)
    - b. Penetration per ASTM D-5329: Max. 110 mm@77°F (25°C); 187 mm @122°F (50°C)
    - c. Flow per ASTM D-5329: 1.0 mm @ 140°F (60°C)
    - d. Elasticity/Ratio of Toughness to Peak Load per CGSB-37.50-M89: 5.5 joules minimum
    - e. Water Vapor Permeability per ASTM E-96, PROCEDURE E: 0.3 ng/Pa(s)M2
    - f. Water Absorption per CGSB-37.50-M89: 0.11 gram weight gain
    - g. Low Temperature Flexibility (-25°C) per CGSB-37.50-M89: No delamination, adhesion loss, or cracking
    - h. Low Temperature Crack Bridging Capability per CGSB-37.50-M89: No cracking, adhesion loss, or splitting

- i. Heat Stability per CGSB-37.50-M89: No change in viscosity, penetration, flow or low temperature flexibility
  - j. Viscosity per CGSB-37.50-M89: 11.0 seconds
  - k. Water Resistance (5 days/50°C) per CGSB-37.50-M89: No delamination, blistering, emulsification, or deterioration
  - l. Softening Point per ASTM D-36: 180°F (82°C)
  - m. Elongation per ASTM D-5329: 1000% minimum
  - n. Resiliency per ASTM D-5329: 40% minimum
  - o. Bond to Concrete per ASTM D-3407: Pass at 0°F (-18°C)
  - p. Resistance to Hydrostatic Pressure per ASTM C-1306: 100 psi(equals 231 foot of head water)
  - q. Resistance to Salt Water per ASTM D-896 similar (20% sodium chloride sodium carbonate calcium chloride): No delamination, blistering, emulsification or deterioration
  - r. Resistance to Fertilizer per ASTM D-896 similar (undiluted, 15/5/5, nitrogen/phosphorus potash): No delamination, blistering, emulsification or deterioration
  - s. Resistance to Animal Waste 3-year exposure: No deterioration
  - t. Solids Content: 100%-no solvents
  - u. Specific Gravity: 1.25
- B. Surface Conditioner or Primer: As required by membrane manufacturer. Apply as recommended by the manufacturer.
- C. Reinforcement Sheet: Spunbonded polyester fabric with the following minimum requirements:
- 1. Color: White
  - 2. Unit Weight per ASTM D-1910: 1.35 oz. /sq. yd.
  - 3. Elongation per ASTM D-2523: 42%
  - 4. Tear Strength per ASTM D-2263: 8 lbs.
  - 5. Breaking Strength per ASTM D-2523: 25 lbs.
- D. Flashing Material: Un-cured neoprene rubber with the following minimum requirements:
- 1. Thickness per ASTM D-751: 0.060"±10%
  - 2. Tensile Strength per ASTM D-412, DIE C: 1205 psi
  - 3. Elongation per ASTM D-412, DIE C: 250 %
  - 4. Tear Resistance per ASTM D-624, DIE C: 125 lbs./inch
  - 5. Brittleness Point per ASTM D-2137: No break at -30°F
  - 6. Ozone Resistance per ASTM D-1149: No cracks at 7X magnification at 20% extension, 100 MPa, 100 hrs. at 104°F
  - 7. Water Absorption per ASTM D-471: -8, +2 % weight change range at 46 hrs. at 158°F
- E. Protection Course:
- 1. 160 mil thick polyester reinforced, modified asphalt sheet with granular surface. Tensile strength to be >50 lbs. /in. (machine and cross direction at 73°F.).

- F. Drainage Board: Composite drainage system consisting of a three-dimensional, crush-proof, drainage core with an adhered filter fabric meeting the following physical properties:
  - 1. Drainage Core:
    - a. Compressive Strength per ASTM D-1621: 30,000 psi (14.66kg/cm<sup>2</sup>).
    - b. Thickness per ASTM D-1777: 0.40 in (1.016 cm)
    - c. Flow, "Q" @ 3600 psf & hydraulic gradient of 1 per ASTM D-4716: 24 gal/min/ft. (298 l/min/m)
  - 2. Fabric:
    - a. Flow per ASTM D-4491: 18 gal/min/ft<sup>2</sup> (733 l/min/m<sup>2</sup>)
    - b. U.V. Resistance per ASTM D-4355: 90% strength retained
    - c. Apparent Opening Size (EOS) per ASTM D-4751: 70 U.S. sieve (.212mm)
    - d. Grab Tensile per ASTM D-4632: 360x260 lbs.(445x355 N)
- G. Adhesives and Sealants: As recommended and approved by the membrane manufacturer.
- H. Termination Bar: 1" wide stainless steel termination bar. Bar to be pre-punched at 6" o.c. to receive 1/4" diameter anchors.
- I. Anchors for Termination Bar:
  - 1. Concrete: 1/4" diameter x 1 1/4" lg. low profile mushroom head nail-in anchor consisting of a stainless steel drive pin and aluminum/zinc alloy expanding metal body.
  - 2. Metal: No. 12, self-drilling screw with hex washer head and zinc/chromate/organic corrosion resistant coating.
- J. All waterproofing membrane, protection board, and drain board products to be provided by a single manufacturer.
- K. Insulation Board: Extruded polystyrene foam insulation with a compressive strength of 60 psi and an R-value of 5.0 per inch of thickness. Basis of Design: Styrofoam Highload 60 Extruded Polystyrene Insulation by Dow. Thickness: 4" total installed in two, 2" thick layers with staggered joints.
- L. Hose Clamp: 316 stainless steel band and screw. Clamp to have extended tail. Maximum torque to be 35 in. lbs.

#### **4.0 CONSTRUCTION:**

All areas involved in the work shall be inspected by the Contractor to establish the extent of work, access, and need for protection of surrounding construction, landscaping, etc. Using the attached detail drawings, and as directed by the Engineer, identify areas to receive waterproof coating installation.

##### **4.1 Examination:**

- A. Contractor and hot fluid-applied waterproof coating manufacturer shall jointly review existing substrates to ensure compatibility with the specified hot fluid-applied waterproof coating system. Submit in writing any materials which may cause waterproof coating adhesion to substrate less than normally anticipated or

other compatibility or performance difficulties. Failure to review and identify deleterious products/materials, and if failure of the waterproof coating is a result of adhesion difficulties or chemical or physical incompatibilities with substrate materials, the Contractor and Manufacturer shall be responsible for all costs related to correcting the deficient Work. Manufacturer is bound to meet the above noted responsibilities equally with the Contractor regardless of the provisions of other agreements.

- B. Contractor and hot fluid-applied waterproof coating manufacturer shall perform test as necessary to ensure compatibility and verify the absence of materials detrimental to the application or performance of the coating.
- C. Starting of hot fluid-applied waterproof coating work will be construed as applicator's acceptance of surfaces and conditions within any area.
- D. Notify the Kentucky Transportation Cabinet in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify the Kentucky Transportation Cabinet prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

#### **4.2 Protection:**

- A. Provide adequate protection of all surrounding surfaces not intended to receive waterproof coating from damage due to preparation, cleaning or coating procedures. Repair damage at no cost to the project.
- B. Program waterproof coating work so that construction dirt, dust, and debris will not fall onto uncured materials.
- C. When toxic or flammable solvents are used, the waterproof coating contractor shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies and Kentucky Transportation Cabinet.
- D. Provide the necessary protection to contain all dust, dirt, debris, and material within work area.
- E. Place coating or solvent soaked rags, waste, or other materials which might constitute a fire hazard in metal containers and remove from premises at the close of each day's work.
- F. Do not allow construction equipment or other trades on prepared concrete substrate.

#### **4.3 Manufacturer's Representation:**

- A. For installation of hot fluid-applied waterproof coating, a technically competent employee of the coating manufacturer, approved by the Engineer and not associated with the installation crew, shall be on site before and during the installation of the coating.
- B. Do not begin application of the hot fluid-applied waterproof coating system until the technician has approved the preparation, cleanliness and surface texture of the substrate.

- C. The technician shall review all Contractor application techniques and procedures and shall advise the Contractor when, where and as required to obtain specification compliance.

#### **4.4 Materials Preparation:**

- A. Deliver materials to job site in sealed, undamaged containers. Identify each container with the material's name, lot number and date of manufacture.
- B. Store membrane materials in a place specifically assigned for that purpose and which is well ventilated, lighted and not subject to direct sunlight.
- C. Heat or cool the storage area to maintain temperatures within the range recommended by the membrane manufacturer.
- D. Keep membrane materials sealed in original containers when not in use.
- E. Keep storage area neat and clean.
- F. Handle membrane system materials in strict accordance with safety and weather limitations required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.
- G. When using toxic or flammable solvents, take necessary precautions as recommended by the manufacturer. The handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies.
- H. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Kentucky Transportation Cabinet.

#### **4.5 Surface Preparation:**

- A. Allow new concrete to cure a minimum of 28 days before application of waterproofing system. Perform testing on new concrete to verify acceptable moisture levels.
- B. Perform surface preparation and cleaning procedures in accordance with this Section unless the waterproofing system manufacturer has more stringent requirements. Apply membrane to clean, dry, prepared surfaces.
- C. Patch or detail voids and other surface defects as required providing a uniform, smooth substrate for the membrane application. Follow the membrane manufacturer's written recommendations. Concrete shall be monolithic, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.
- D. Shot blast or sand blast concrete surfaces intended to receive coating to achieve the standard of cleanliness required by the coating manufacturer. Remove all oil, grease, loose concrete, dirt, curing compounds, and laitance. Leave the prepared surface with a uniform texture and with no more than 1% of the total surface area in noncompliance. Use of high-pressure water blasting for any portion of the cleaning process is not allowed.
- E. Surfaces that cannot be shot blasted shall be sand blasted.
- F. Clean corrosion, dirt, oil, grease, concrete, laitance, curing compounds, and all other foreign materials from metal surfaces specified to receive coating.



- G. After sweeping, and just prior to coating application, substrate shall be blown clean with compressed air to remove dust and dirt. Air compressors shall be equipped with functional oil and water separators.
- H. Do not use acids in surface preparation work.
- I. Do not prepare substrate surfaces until materials are beyond the specified cure period.
- J. Do not apply membrane materials over newly placed concrete sooner than is recommended by the coating manufacturer.
- K. Do not install membrane system on damp, frost laden, and wet surfaces.
- L. After cleaning is complete and prior to start of full-scale membrane installation, apply a one square foot test patch of membrane material to the substrate to confirm acceptable adhesion. Adhesion shall be accepted by the coating manufacturer in writing.

#### **4.6 Application:**

- A. Detailing:
  - a. After surface preparation, detail the cracks, construction and control joints in accordance with the manufacturer's standard details.
  - b. Provide a minimum 125 dry mil membrane detail coat and flashing sheet at corners and other changes in the substrate direction.
  - c. Provide a minimum 125 dry mil membrane coat and flashing sheet around slab penetrations, and at interior corners.
- B. Reinforced Membrane Waterproofing:
  - a. Heat and apply the membrane in accordance with the manufacturer's instructions. Use materials and application techniques to prevent pin holing and blistering.
  - b. Terminate membrane on vertical surfaces where shown on the details.
  - c. Provide surface conditioners or primers on substrate as required by the membrane manufacturer.
  - d. Provide a minimum of 90 dry mils total unreinforced membrane thickness in addition to previously installed detail coats.
  - e. While still liquid, fully embed a layer of the reinforcement sheet free of trapped air into the membrane. Overlap reinforcing sheets 2". Install a layer of hot, liquid membrane between reinforcing sheets at all laps. Extend membrane 1" beyond lap.
  - f. Provide a second continuous monolithic coat of membrane a minimum of 125 dry mils for a total membrane thickness of 215 mils.
  - g. Ensure specified application rates of liquid products on vertical and steeply sloped surfaces by using multiple applications of material over previous applications that are fully cured.
  - h. Do not leave any fabric reinforcing exposed to the elements during non-working hours. Encapsulate ends and edges of fabric after each work day.
  - i. Where horizontal pipes through the membrane system, Install membrane and associated flashings, protection and claps per the manufacturer's recommendations. All penetrations must be properly secured to structure

to prevent vertical and lateral movement. Exposed deck clamps are not acceptable.

C. Protection Course:

- a. Provide protection course on membrane in compliance with manufacturer's recommendations.
- b. Embed into membrane while membrane is still hot and aggressively tacky.
- c. Lap adjacent sheets a minimum of 3". All laps to be sealed with hot membrane.

D. Drain Board:

- a. Provide drain board on horizontal surfaces as indicated on the Drawings. Install in longest possible lengths. Minimum size of drainage composite installed shall be 4' wide x 10' long.
- b. Begin installation at low point and proceed to high point. Panels shall be butted tightly.
- c. Overlap drainage fabric in shingle fashion between abutting panels. Minimum overlap of fabric onto adjoining panel shall be 2".
- d. Seal fabric overlap to abutting panel fabric with mastic as approved by the drainage board manufacturer. Install a minimum 1/4" wide continuous bead of mastic between overlap areas.
- e. Where drain board terminates at walls or other projections, wrap filter fabric over exposed edge and terminate on underside of board. Extend filter fabric a minimum of 1-1/2 inches onto underside of board.
- f. Cover drain board promptly with next phase of work. Do not allow drainage board to be exposed for more than seven days. If drainage board is scheduled for exposure beyond seven days, install a supplemental layer of filter fabric to protect against excessive dirt and debris buildup as well as UV exposure. Remove and discard filter fabric prior to the installation of permanent overburden materials.

E. Insulation Board:

- a. Install on vertical surfaces only.
- b. Install in two layers with staggered joints.
- c. Install insulation tight to adjoin boards with no greater than a 1/8" gap between boards.
- d. Install insulation board to fit tight around conduits, piping, other vertical protrusions, and tight to wall surfaces.
- e. Weight insulation board in place to prevent displacement.
- f. Distribute soils and aggregate in such a manner so as not to damage insulation board.

#### **4.7 Field Quality Control:**

A. Site Tests:

- a. Concrete Moisture Testing:
  - i. Before starting a membrane work area/phase, verify acceptable surface moisture conditions by performing mat tests per ASTM D-4263. Perform one test per every 500 sq. ft. of deck surface, or

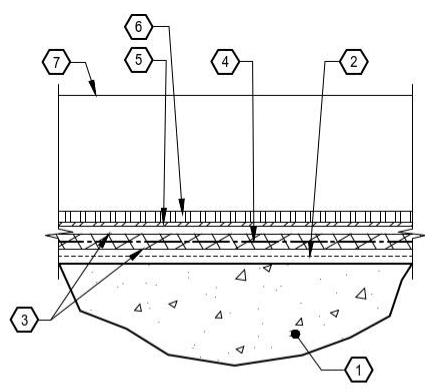
- fraction thereof, within the work area/phase. Distribute the test areas evenly over the deck surface.
- ii. Each day after performance of mat tests and prior to the start of waterproofing work, apply a 1 sq. ft. area of hot liquid membrane to the concrete deck area to confirm acceptable moisture conditions are still present in the area of membrane intended to be installed that day. Frequency of test areas shall be one test per every 500 sq. feet or fraction thereof.
  - iii. After a rain event, allow a minimum drying time of 24 hours prior to starting water proofing efforts. Perform test to confirm acceptable moisture conditions per items “i” and “ii” above.
- b. Application Monitoring:
- i. Keep at the site and maintain in proper condition an adequate number (at least one per application crew) of durable, wet film thickness gauges.
  - ii. Continuously use gauges during the application process to ensure the specified thickness.
- c. Manufacturer’s Field Service:
- i. A technically competent employee of the waterproofing membrane manufacturer (the technician), not associated with the Contractor, the installation crew, product distributor or sales representative shall be on site before the installation of the membrane system.
  - ii. The technician shall remain on site for the length of time necessary to observe the preparation and installation.
  - iii. Do not begin application of the waterproofing membrane system until the technician has approved the preparation, cleanliness and surface texture of the substrate.
  - iv. The technician shall review all Contractor application techniques and procedures and shall advise the Contractor when, where and as required to obtain specification compliance.

#### **4.8 Cleaning:**

- A. During the progress of the work, remove from the project all discarded materials and debris.
- B. Clean all surfaces affected by work of this Section and repair all damage caused to adjacent construction or property.
- C. Leave adjacent premises clean and free of construction dirt and debris which resulted as part of the construction process.
- D. Remove empty containers from the facility at the end of each working day.
- E. Place soiled cloths that constitute fire hazards in suitable metal safety containers or remove them from the site at the end of each working day. Take special care in storage or disposal of flammable materials. Comply with health and fire regulations.

### 5.0 APPLICATION DETAILS

The following details shall be used in conjunction with the previous sections of this Special Note to apply the hot fluid-applied waterproofing system.

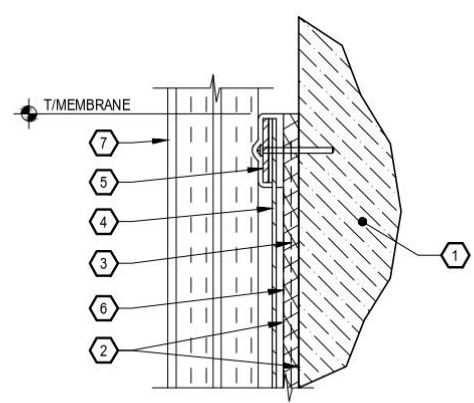


REFER TO SPECIAL NOTE FOR HOT-APPLIED FLUID WATERPROOFING FOR ADDITIONAL INFORMATION.

- ① CONCRETE SUBSTRATE.
- ② PROVIDE SURFACE CONDITIONER.
- ③ PROVIDE HOT FLUID APPLIED REINFORCED WATERPROOFING MEMBRANE.
- ④ PROVIDE REINFORCING SHEET. FULLY ENCAPSULATE REINFORCING SHEET MEMBRANE.
- ⑤ PROVIDE PROTECTION SHEET OVER WATERPROOFING MEMBRANE. INSTALL INTO HOT MEMBRANE.
- ⑥ PROVIDE DRAIN BOARD. WRAP EXPOSED EDGES OF DRAIN BOARD CORE WITH FILTER FABRIC.
- ⑦ PROVIDE FREE DRAINING BACKFILL MATERIAL.

**MEMBRANE SYSTEM  
DETAIL**

1  
WP 3" = 1'-0"

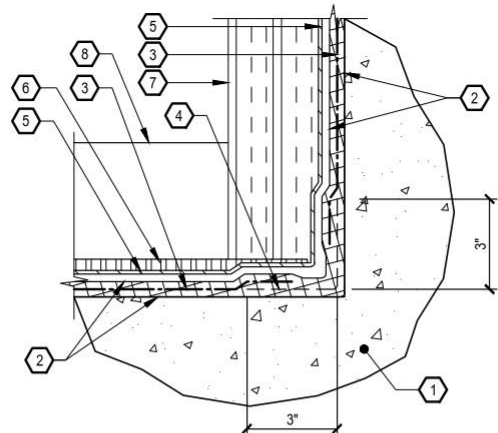


REFER TO SPECIAL NOTE FOR HOT-APPLIED FLUID WATERPROOFING FOR ADDITIONAL INFORMATION.

- ① EXISTING MASONRY SURFACE. PREPARE SURFACE TO RECEIVE NEW WATERPROOFING MEMBRANE.
- ② PROVIDE HOT APPLIED REINFORCED WATERPROOFING MEMBRANE.
- ③ PROVIDE REINFORCING FABRIC ENCAPSULATED IN NEW WATERPROOFING MEMBRANE.
- ④ PROVIDE PROTECTION SHEET OVER WATERPROOFING MEMBRANE. INSTALL INTO HOT MEMBRANE.
- ⑤ PROVIDE STAINLESS STEEL TERMINATION BAR ALONG TOP OF MEMBRANE. SECURE TO MASONRY SURFACE AT 12" O.C. ENCAPSULATE ALL EXPOSED ANCHOR HEADS WITH WATERPROOFING MEMBRANE FOR WATERTIGHT INSTALLATION.
- ⑥ PROVIDE 1'-0" MEMBRANE TURN-UP AT PERIMETER OF CONCRETE ARCHWAY.
- ⑦ PROVIDE (2) LAYERS OF RIGID INSULATION BOARD AGAINST MEMBRANE TURN-UP. BOARD TO BE 2'-0" TALL.

**MEMBRANE TERMINATION ON VERTICAL SURFACE  
DETAIL**

2  
WP 3" = 1'-0"

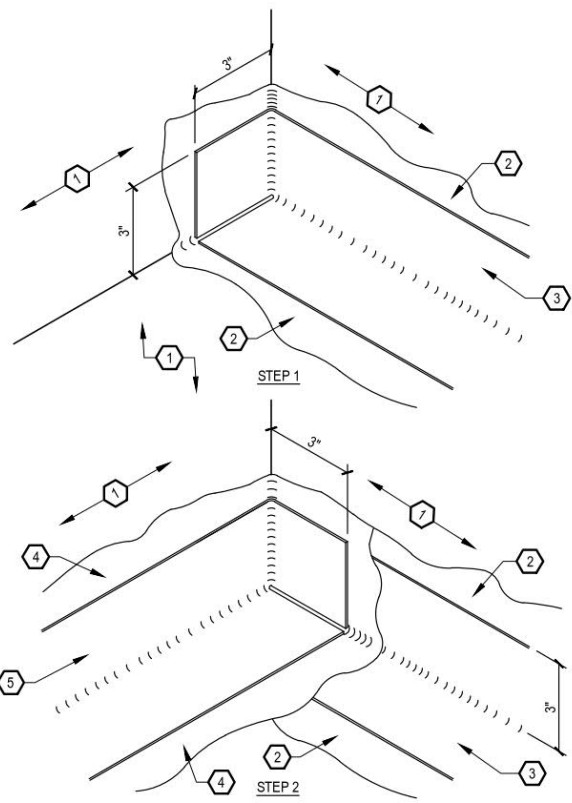


REFER TO SPECIAL NOTE FOR HOT-APPLIED FLUID WATERPROOFING FOR ADDITIONAL INFORMATION.

REFER TO MEMBRANE INSIDE CORNER REINFORCEMENT DETAIL FOR ADDITIONAL INFORMATION

- 1 EXISTING MASONRY SURFACE. PREPARE SURFACE TO RECEIVE NEW WATERPROOFING MEMBRANE.
- 2 PROVIDE HOT APPLIED REINFORCED WATERPROOFING MEMBRANE.
- 3 PROVIDE REINFORCING FABRIC ENCAPSULATED IN NEW WATERPROOFING MEMBRANE. OVERLAP FABRIC ONTO NEOPRENE FLASHING.
- 4 PROVIDE CONTINUOUS UNCURED NEOPRENE FLASHING ENCAPSULATED IN WATERPROOFING MEMBRANE.
- 5 PROVIDE PROTECTION SHEET OVER WATERPROOFING MEMBRANE. INSTALL PROTECTION SHEET INTO HOT MEMBRANE.
- 6 PROVIDE DRAIN BOARD. WRAP EXPOSED EDGES OF DRAIN BOARD CORE WITH FILTER FABRIC.
- 7 PROVIDE (2) LAYERS OF RIGID INSULATION BOARD AGAINST MEMBRANE TURN-UP. BOARD TO BE 2'-0" TALL.
- 8 PROVIDE FREE DRAINING BACKFILL MATERIAL.

*MEMBRANE AT INSIDE CORNER*  
**3**  
**DETAIL**  
WP 3" = 1'-0"



REFER TO SPECIAL NOTE FOR HOT-APPLIED FLUID WATERPROOFING FOR ADDITIONAL INFORMATION.

HOT APPLIED WATERPROOFING MEMBRANE SYSTEM ON HORIZONTAL AND VERTICAL SURFACES OMITTED FOR CLARITY. REFER TO MEMBRANE AT INSIDE CORNER DETAIL FOR ADDITIONAL INFORMATION.

- 1 EXISTING MASONRY SURFACE. PREPARE SURFACE TO RECEIVE NEW WATERPROOFING MEMBRANE.
- 2 PROVIDE FIRST LAYER OF NEW HOT APPLIED WATERPROOFING MEMBRANE.
- 3 PROVIDE FIRST LAYER OF UNCURED NEOPRENE FLASHING. FULLY EMBED FLASHING INTO HOT APPLIED WATERPROOFING MEMBRANE.
- 4 PROVIDE SECOND LAYER OF NEW HOT APPLIED WATERPROOFING MEMBRANE.
- 5 PROVIDE SECOND LAYER OF UNCURED NEOPRENE FLASHING. FULLY EMBED FLASHING INTO HOT APPLIED WATERPROOFING MEMBRANE.

*MEMBRANE INSIDE CORNER REINFORCEMENT*  
**4**  
**DETAIL**  
WP 3" = 1'-0"

**6.0 WARRANTY:**

**6.1 Joint and Several Warranty:**

- A. The completed installation shall be warranted by the manufacturer against defects of materials, and by the Contractor for defects in workmanship for a period of twenty (20) years.

**7.0 MEASUREMENT:**

- 7.1 Waterproofing Membrane.** The Department will measure the quantity by square yards

**8.0 PAYMENT:**

- 8.1 Waterproofing Membrane.** Payment will be made at the unit price for Waterproofing Membrane. Payment at the unit price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).

END OF SPECIAL NOTE

## **SPECIAL NOTE FOR WATERPROOF COATING**

6-1097.00 Kenton 059B00048N

### **1.0 DESCRIPTION:**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Provide safe access to the bridge substructure, anchorages, towers, spandrel walls, and railings in accordance with Section 107.01.01, for workers to complete the construction; (3) Prepare the surfaces for new waterproof coating; (4) Install the primer and the waterproof coating system; (5) Complete cure of the materials; (6) Any other work specified as part of this contract.

### **2.0 CONTRACTOR QUALIFICATIONS:**

The Contractor, Supervisor and workers performing this work must be qualified to perform restoration of historic structures conforming to the Secretary of Interior Standards for the Treatment of Historical Properties. Contractors may be prequalified in the Kentucky Transportation Cabinet in at least one of the following Work Areas E1, E2, E3, E5, and/or I16.

The work described in this note is a specialty work item. Specialty item work that may be accomplished by contractors that are certified for that item, but not necessarily prequalified by the Department, will require a submission of a subcontract. The prime contractor should submit evidence of experience performing the requested work items for the specialty subcontractor.

The submittal should include company personnel and equipment used for the work. The Kentucky Transportation Cabinet and the Engineer will review and determine whether to approve or disapprove the request.

The Apparent Low Bidder must submit with their qualifications to perform the work to Nick Reis ([nick.reis@ky.gov](mailto:nick.reis@ky.gov)) within 5 calendar days after letting. The Kentucky Transportation Cabinet has the right to reject bids at their discretion from unqualified contractors. The documentation of the Contractor's qualifications shall include, but is not limited to, the following:

- Letter of approval that the Contractor/waterproof coating applicator shall be a certified installer by the manufacturer for a minimum of three consecutive years.
- The Contractor/waterproof coating applicator and its superintendent shall have installed the approved waterproof coating materials in three previous similar projects. Each of the three projects shall have a minimum of 20,000 square feet in size.
- The Contractor/waterproof coating applicator and its superintendent shall have installed the approved waterproof coating materials within the last one (1) year.
- Contractor joint and several sample warranty.

The Contractor shall be familiar with the following Definitions:

- Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and consulting professions."

### **3.0 MATERIALS:**

#### **3.1 Manufacturers:**

- A. Lymtal International.
- B. Sika Corporation.

#### **3.2 Materials and Procedure:**

##### **A. Waterproof Coating System:**

##### **a. Iso-flex 760 Aliphatic System by Lymtal International, comprised of:**

##### **i. Primer:**

1. Iso-Flex Primer 757.
2. Apply two applications at manufacturer's recommended application rate.

##### **ii. Base Coat:**

1. Iso-Flex 750 Base Coat.
2. Apply at 40 mils dry film thickness.

##### **iii. Top Coat:**

1. Iso-Flex 760 Aliphatic Top Coat.
2. Apply at 18 mils dry film thickness.
3. Aggregate seeded and back rolled to provide slip resistant surface.

##### **iv. Aggregate:**

1. Unimin 12/20 by US Silica, either Ottawa, MN or Voca, Texas.
2. Install at waterproof coating manufacturer's maximum application rate.
3. Uniformly distributed with no bare spots.

##### **b. Sikalastic Traffic System by Sika Corporation, comprised of**

##### **i. Primer:**

1. Sikalastic Primer.
2. Apply two applications at manufacturer's recommended application rate.

##### **ii. Base Coat:**

1. Sikalastic 720 Base Coat.
2. Apply at 40 mils dry film thickness.

##### **iii. Top Coat:**

1. Sikalastic 745 Aliphatic Top Coat.
2. Apply at 18 mils dry film thickness.



3. Aggregate seeded and back rolled to provide slip resistant surface.
    - iv. Aggregate:
      1. Unimin 12/20 by US Silica, either Ottawa, MN or Voca, Texas.
      2. Install at waterproof coating manufacturer's maximum application rate.
      3. Uniformly distributed with no bare spots.
  - c. FC System by Neogard Corporation, comprised of
    - i. Primer:
      1. Neogard 70714/70715 Epoxy Primer.
      2. Apply two applications at manufacturer's recommended application rate.
    - ii. Base Coat:
      1. Neogard FC7500/FC7960 Base Coat.
      2. Apply at 40 mils dry film thickness.
    - iii. Top Coat:
      1. Neogard FC7540/FC7964 Top Coat.
      2. Apply at 18 mils dry film thickness.
      3. Aggregate seeded and back rolled to provide slip resistant surface.
    - iv. Aggregate:
      1. Silica 12/20 by US Carmeuse Industrial Sands, Brady, Texas.
      2. Install at waterproof coating manufacturer's maximum application rate.
      3. Uniformly distributed with no bare spots
- B. Localized Leveling Repairs:
  - a. Lyntal International, comprised of:
    - i. Primer:
      1. Refer to Waterproof Coating Systems.
    - ii. Leveling Material:
      1. Iso-Flex 750 Base Coat.
      2. Pre-mix with manufacturer approved aggregate.
      3. Install in multiple lifts up to 1" thickness total.
  - b. Sika Corporation, comprised of:
    - i. Primer:
      1. Refer to Waterproof Coating Systems.
    - ii. Leveling Material:
      1. Sikalastic 720 Base Coat.
      2. Pre-mix with manufacturer approved aggregate.
      3. Install in multiple lifts up to 1" thickness total.
  - c. Neogard Corporation, comprised of:
    - i. Primer:
      1. Refer to Waterproof Coating Systems.
    - ii. Leveling Material:

1. Neogard FC7500/FC7960 Base Coat.
  2. Pre-mix with manufacturer approved aggregate.
  3. Install in multiple lifts up to 1" thickness total.
- C. Color selection by the Kentucky Transportation Cabinet and the Engineer.  
Contractor shall assume one color for the entire project.
- D. Top coat materials shall be U.V. stable.

#### **4.0 CONSTRUCTION:**

All areas involved in the work shall be inspected by the Contractor to establish the extent of work, access, and need for protection of surrounding construction, landscaping, etc. Using the attached detail drawings, and as directed by the Engineer, identify areas to receive waterproof coating installation.

##### **4.1 Examination:**

- A. Contractor and waterproof coating manufacturer shall jointly review existing substrates (original concrete, past or new concrete repairs or overlays, past waterproof coating or coating systems) to ensure compatibility with the specified waterproof coating system. Submit in writing any materials which may cause waterproof coating adhesion to substrate less than normally anticipated or other compatibility or performance difficulties. Failure to review and identify deleterious products/materials, and if failure of the waterproof coating is a result of adhesion difficulties or chemical or physical incompatibilities with substrate materials, the Contractor and Manufacturer shall be responsible for all costs related to correcting the deficient Work. Manufacturer is bound to meet the above noted responsibilities equally with the Contractor regardless of the provisions of other agreements.
- B. Starting of waterproof coating work will be construed as applicator's acceptance of surfaces and conditions within any area.
- C. Notify the Kentucky Transportation Cabinet in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify the Kentucky Transportation Cabinet prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

##### **4.2 Protection:**

- A. Provide adequate protection of all surrounding surfaces not intended to receive waterproof coating from damage due to preparation, cleaning or coating procedures. Repair damage at no cost to the project.
- B. Program waterproof coating work so that construction dirt, dust, and debris will not fall onto uncured materials.
- C. When toxic or flammable solvents are used, the waterproof coating contractor shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies and Kentucky Transportation Cabinet.

- D. Provide the necessary protection to contain all dust, dirt, debris, and material within work area.
- E. Place coating or solvent soaked rags, waste, or other materials which might constitute a fire hazard in metal containers and remove from premises at the close of each day's work.

#### **4.3 Manufacturer's Representation:**

- A. For installation of waterproof coating materials, a technically competent employee of the waterproof coating manufacturer, approved by the Engineer and not associated with the installation crew, shall be on site before and during the installation of the waterproof coating system.
- B. Application of the waterproof coating shall not begin until the manufacturer's technician has approved the cleanliness and surface texture of the substrate.
- C. The technician shall remain on site for the length of time necessary to observe the installation of the total waterproof coating system.
- D. The technician shall review all Contract application techniques and procedures and shall advise the Contractor when, where and as required to obtain Specification compliance.
- E. The Contractor and the waterproof coating manufacturer shall comply with the terms set forth in items 1 through 4 above as part of the Bid.

#### **4.4 Materials Preparation:**

- A. Three (3) 12" x 12" samples of the waterproof coating system. Each sample will be a different manufacturer standard color. Sample shall be applied to plywood or similar rigid material Perform preparation and cleaning procedures in accordance with the waterproof coating manufacturer's instructions and as herein specified, for each substrate condition.
- B. 1/4-lb. ( $\pm$ ) sample of aggregate type intended to be used. Provide three (3) samples, one sent to the Engineer for record, one sent to the Kentucky Transportation Cabinet, and other sample sent to waterproof coating manufacturer for laboratory testing and sieve analysis. The waterproof coating manufacturer shall provide a letter stating sample aggregate was received, tested and reviewed, and is approved for use for the specified system and jobsite conditions.
- C. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- D. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.
- E. Deliver materials to job site in sealed, undamaged containers. Each container shall be identified with material's name, date of manufacture and lot number.
- F. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Kentucky Transportation Cabinet.

#### **4.5 Surface Preparation:**

- A. Perform preparation and cleaning procedures in accordance with the waterproof coating manufacturer's instructions and as herein specified, for each substrate condition.
- B. Waterproof coating manufacturer review:
  - a. Waterproof coating manufacturer to certify that substrate surfaces in contact with any component of the waterproof coating are compatible.
  - b. Waterproof coating manufacturer to certify that sealants in contact with waterproof coating are compatible with waterproof coating system.
- C. Existing coating removal:
  - a. The criteria for acceptance are 0% of the existing coating removal remaining on horizontal surfaces. 5% of the existing coating may remain on the vertical curb faces with no area larger than 3 square inches.
  - b. The existing coating removal is to be done with a dry cutting process and grinding only.
- D. The use of acids in surface preparation procedures and techniques is prohibited.
- E. Concrete surfaces shall be cleaned using shotblast equipment (with integral vacuum process) to achieve standard of cleanliness per Section 4.3.B. The size of shot and travel speed of the equipment shall be chosen to provide a uniformly clean surface and profile; basis for bid must be two perpendicular normal speed passes, or one slow speed pass.
- F. Areas which cannot be adequately cleaned by shotblasting shall be cleaned by grinding with accompanying vacuum procedures.
- G. After completion of shotblasting/grinding, and prior to application of waterproof coating materials, repair all scaled, freeze-thaw damaged and loose, pop-out areas, cracks and all damage made apparent by the shotblasting/grinding procedures, in a manner approved by the Engineer. Such repair work shall be part of the Bid without price adjustment. Areas requiring patching will be subject to re-shotblast or re-grinding where a patch exceeds one (1) square foot in area
- H. Grind all high spots or transition grind all depressions per details, and clean to manufacturer's requirements.
- I. Surfaces that become contaminated by dirt or moisture after initial shotblasting or grinding, shall be cleaned again by shotblasting or grinding to manufacturer's requirements at no additional cost.

#### **4.6 Application:**

- A. General:
  - a. Schedule waterproof coating work on the Roebling Bridge Towers after all storage of materials, equipment, or work impacting the area to receive the waterproof coating is complete.
  - b. Within twenty-four hours of application of waterproof coatings materials submit log in Section 8.0 to the Kentucky Transpiration Cabinet and Engineer.
  - c. Waterproof coating manufacturer to certify that aggregate specified is acceptable for use in the waterproof coating system.
  - d. Surface must be dry. New concrete shall be at least 28 days old and proven dry via mat tests, to be considered for waterproof coating system

installation. Review manufacturer requirements relative to site conditions in advance of performing the work.

- e. All exposed waterproof coating edges and termination details shall be taped to provide straight, neat edges.
- f. Install base coat waterproof coating materials on concrete surfaces only when concrete temperature has stabilized or is falling. Do not install base coat waterproof coating on concrete surfaces when surface temperature is rising.
- g. Install waterproof coating materials only if the temperature of the surfaces to be coated is 5 degrees or higher than the dew point temperature measured at the job site.
- h. Apply waterproof coating system in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

**B. Installation:**

- a. Install detail coat 4" wide by 20 mil thick (dry film thickness) over properly primed cracks, caulked joints, joints between concrete pours, or leveling repairs, junctures and other locations in the waterproof coating area which is a deviation from the nominal waterproof coating plane, except where otherwise indicated by the Specifications or Drawings.
- b. Install detail coat 4" wide by 20 mil thick (dry film thickness) over sandstone mortar joints and at transitions between the sandstone and concrete overlay.
- c. Install detail coat 4" wide by 20 mil thick (dry film thickness) at all terminates at cove sealant joints.
- d. Contractor shall ensure the specified/recommended application rates of all components of the waterproof coating system. Base coat(s), intermediate coat, and lock coat of each application of the waterproof coating system shall be distributed onto the deck by calibrated, notched squeegees. Squeegees showing signs of wear shall be discarded.
- e. Contractor shall ensure specified/recommended application rates of liquid products on vertical or sloped surfaces by the use of non-sag grade materials or by multiple applications of material over previous applications which are fully cured.
- f. Each fluid-applied component of the waterproof coating system shall be back-rolled to properly distribute materials across the deck and eliminate squeegee marks.
- g. Use of power rollers either to distribute the waterproof coating system or to backroll squeegee marks shall not be permitted.
- h. No pedestrian traffic shall be allowed on waterproof coating areas for at least 48 hours after completion of waterproof coating installation. Provide extended cure time with no vehicular traffic exposure if temperatures fall below 50°F.

**4.7 Field Quality Control:**

**A. Bond Test:**

- a. Bond tests of the installed waterproof coating systems may be performed by the Engineer during and after the waterproof coating work on this project. Tests shall be conducted using a calibrated instrument which measures in-place bond strength by applying a direct axial pull on a 3 inch diameter steel disk epoxied to the completed waterproof coating top surface.
- b. A waterproof coating phase for the purpose of bond testing is an area of base coat installed in a single work shift. If examined, a waterproof coating phase will be tested at (3) locations per phase no sooner than 10 days after completion of the entire waterproof coating system and no sooner than 14 days if temperatures fall below 40°F for two or more days. Contractor shall assume a total of (3) test locations in the Bid.
- c. The acceptance criteria for initial tests of a Phase shall average bond strength of 200 psi for all locations, with no single location testing below 150 psi. Any Phase failing to meet the initial acceptance criteria may be retested at a later date by the Engineer. Retests of Phase shall include at least 4 separate test locations not sooner than 14 days after the initial tests. The acceptance criteria for retests of a Phase shall average bond strength of 200 psi for all locations, with no single location testing below 175 psi.
- d. Any Phase failing to meet the initial test and retest acceptance criteria shall be considered "deficient" and shall be cause for the Contractor to execute or provide one of the following remedies:
  - i. Extend Standard Guarantee to include an additional 5 years (for a total of 10 years) on waterproof coating system intercoat bond and bond to the concrete for the "deficient" areas.
  - ii. Removal and replacement of the "deficient" area, including all necessary preparatory work and Engineering costs to coordinate and observe the work, at no additional cost.
- e. Any additional bond testing requested by the Contractor to limit the extent of the "deficient" area(s) as determined by initial tests and retests as defined above shall be paid for by the Contractor.
- f. Contractor shall include as part of his proposal the costs of repairing all test locations.

**B. Skid Test:**

- a. Prior to any waterproof coating preparation work and after waterproof coating installation, the Engineer may conduct tests to determine values of the static coefficient of friction between the coated and uncoated floor surfaces and the neoprene base of the Engineer's test equipment.
- b. Determination of the coefficient of friction will consist of a series of individual tests for each surface type. The initial coefficient of friction is defined as the average of the tests performed on the concrete surfaces prior to waterproof coating preparatory work. The final coefficient of friction is defined as the averages of the tests performed on each type of completed waterproof coating system surface.
- c. The final, average static coefficient of friction shall be a minimum of 0.85 under wet and dry conditions and equal to or greater than 110% of the

initial coefficient of friction. No individual test area shall have a coefficient less than 0.80 or 95% of the initial coefficient of friction. Any waterproof coating system that does not conform, as determined by the Engineer, to the specified acceptance criteria shall be subject to rework, upgrading or replacement of the deficient areas, including necessary preparatory work, at no additional cost.

- C. The Engineer may direct the Contractor to make test cuts in the waterproof coating for testing purposes. Tests cuts shall be 2" x 2" and will be in partially-completed or fully-completed waterproof coating. A maximum of 3 total tests per separate installation phase may be made. Contractor shall include as part of his Proposal the costs of taking test cuts as and where directed by the Engineer and the costs of patching test cut areas.
- D. The Engineer will periodically monitor application rates of the waterproof coating system individual components and will notify job foremen of discrepancies noted.

#### **4.8 Cleaning and Painting:**

- A. All existing surfaces where painting is specified shall be cleaned and receive a coating in accordance with Section 607. Level of cleaning shall be to an SSPC-SP 15 (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris. The finish color shall be blue and will meet the following values L\* 66.56, a\*-7.26, b\* -20.10.

#### **4.9 Cleaning:**

- A. During progress of work, remove from site discarded coating materials, rubbish, cans, and rags at end of each workday.
- B. Upon completion of sealant work, clean all sealant-spattered surfaces. Remove spattered coating by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

### **5.0 WARRANTY:**

#### **5.1 Joint and Several Warranty:**

- A. Completed installation shall be warranted jointly and severally on a single document by manufacturer and applicator against defects of materials and workmanship. The length of the warranty period shall not be less than (5) years from the date of substantial completion of the Project.
- B. Manufacturer and installer shall further warrant the skid resistance and bond strength of the installed systems. The test may be measured at any single location, and shall meet the specified criteria in Section 4.7. The length of the warranty period shall not be less than five (5) years from the date of substantial completion of the Project
- C. Warranty documents shall not require the signature of the Owner to be effective, shall not limit the Owner's legal remedies otherwise allowed per the project contract, and shall not limit the venue of any potential legal jurisdiction.

**6.0 MEASUREMENT:**

**6.1 Waterproof Coating.** The Department will measure the quantity as lump sum.

**7.0 PAYMENT:**

**7.1 Waterproofing Coating.** Payment by unit price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).

The Department will make payment under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
25114EC	Waterproof Coating	Lump Sum



**8.0 WATERPROOF COATING APPLICATION LOG FORM EXAMPLE:**

DAILY WATERPROOF COATING APPLICATION LOG					
Project:					
Date:	Time Start	Time End			
Work Area (Give Description)					
Waterproof coating Materials Applied Type and Quantity					
Crew Size	Size of Area Materials Applied (in Square Feet)				
Temperature Data ( °F)					
	Start				End
Deck					
Air					
Relative Humidity (%)					
Dewpoint					
Note: Contractor shall estimate quarter points in time between the start and end of waterproof coating application. Record air and deck temperatures at those times.					
Superintendent's Signature:					

END OF SPECIAL NOTE

## SPECIAL NOTE FOR CONCRETE COATING

6-1097.00 Kenton 059B00048N

### I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Repair cracks as applicable in accordance with the Special Note for Epoxy Injection Crack Repair.
4. Repair delaminated or spalled areas as applicable in accordance with the Special Note for Concrete Patching.
5. Apply Ordinary Surface Finish
6. Prepare the surfaces to receive coating.
7. Apply concrete coating.
8. Any other work as specified as part of this contract.

### II. MATERIALS

One of the following coating systems shall be used:

<u><i>Manufacturer</i></u>	<u><i>Prime Coat</i></u>	<u><i>Finish Coat</i></u>
Sherwin Williams	Macropoxy 646	Acrolon 218 HS
PPG	Amerlock 2	Devoe Devflex HP
Carboline	Carboguard 890	Carbothane 133 HB
Tnemec	Elastogrip 151	Envirocrete 156

The finish product shall be opaque and satin sheen. The contractor must apply sufficient coats as required to achieve this goal. The finish coat color shall be selected by the Kentucky Transportation Cabinet.

Furnish to the Engineer copies of the manufacturer's technical data sheets, installation guidelines, material safety data sheets, and other pertinent data at least two (2) days prior to beginning the work.

### III. CONSTRUCTION

**A. Perform Concrete Repairs.** Repair concrete surface in accordance with the Special Note for Epoxy Injection Crack Repair and/or the Special Note for Concrete Patching Repair if included in the contract documents.

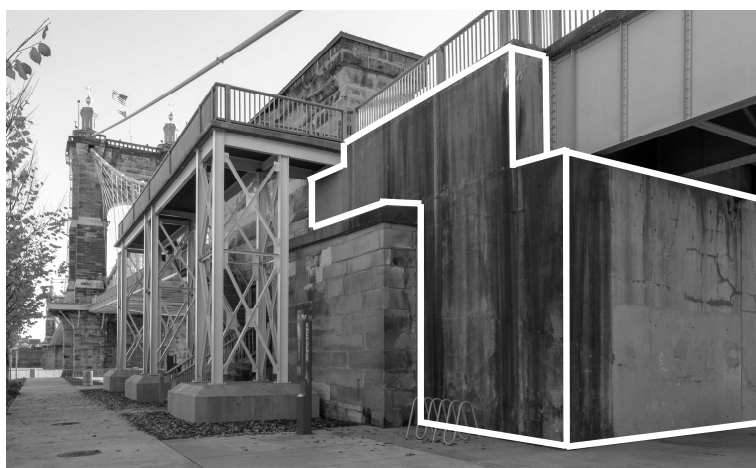
**B. Apply Ordinary Surface Finish.** In addition to new concrete, areas receiving epoxy injection, concrete patching, and other surface imperfections, including areas of minor cracking, should receive Ordinary Surface Finish in accordance with Section 601.03.18 of the Standard Specifications. Use mortar of the same cement and fine aggregate as the concrete patching, or as directed by the Engineer. Payment will be incidental to Concrete Coating.

**C. Areas to Receive Concrete Coating:**

1. Anchorage 2 North and South Bearing Area Backwalls shall receive coating along the full length and height of the backwall, including the bearing pedestals at the South Bearing Area. The areas to receive coating on the Anchorage 2 north and side elevations are outlined in the images below.



Anchorage 2 North Elevation



Anchorage 2 Northeast Corner



Anchorage 2 West Elevation

**D. Prepare Concrete Surfaces for Repair.** All areas specified shall be pressure washed. Equip the pressure washers with calibrated gages and pressure regulators to ascertain and regulate water pressure. All equipment for pressure washing shall be operated at a minimum pressure of up 3,500 to 4,500 psi with 0 degree spinner tip and/or fan tips as determined by the engineer at the working location with a minimum flow rate of 3.5 gal/minute provided that these pressures do not damage any components of the structure. Pressure and flow rates shall be reduced to a level satisfactory to the Engineer should any damage occur due to power washing procedures. The washing wand must be approximately perpendicular to the washed surface and within a maximum of 12 inches of the surface. Wand extensions greater than 36 inches will be subject to Division of Construction approval. Pressure washing of any bridge element will proceed from top of wash area to bottom of wash area. Perform all pressure washing at temperatures above 40 degrees Fahrenheit.

**E. Apply Concrete Coating.** All areas specified shall have concrete coating applied to as specified after debris removal and power washing. New concrete shall be allowed to properly cure in accordance with the manufacturer's recommendations prior to application. Use compressed air to remove any loose debris from the surfaces that are to be coated after power washing. All coatings shall be applied within manufacturers recommended dry film thickness range. Comply with KYTC "Standard Specifications for Road and Bridge Construction" Section 614.03.02 and coatings supplier recommended conditions for application. Allow the surfaces to be coated to dry a minimum of 24 hours before any coating is applied. The coating must be applied with 72 hours of pressure washing. The coating must be applied to a clean and dry surface. All coating application shall be executed using brushes, rollers, etc. No spray application will be permitted.

The Department requires acceptance testing of samples obtained on a per-lot basis per-shipment. The Division of Materials shall perform acceptance testing. Test samples shall be taken at the Contractor's paint storage site. Department personnel

shall perform sampling. Allow (10) working days for testing and approval of the sampled paint. It is the Contractor's responsibility to maintain an adequate inventory of approved paint. The Department shall assume no responsibility for lost work due to rejection of paint or approved paint subsequently found to be defective during the application process. Perform all concrete coating application at temperatures above 40 degrees Fahrenheit or in accordance with manufactures specifications.

**IV. MEASUREMENT**

The Department will measure the quantity as lump sum. The Department will not measure preparation of the site for the Engineer's access or removal and reapplication of coatings that do not satisfy the Engineer's approval for payment and will consider them incidental to "Concrete Coating".

**V. PAYMENT.**

The Department will make payment for the completed and accepted quantities of concrete coating under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24982EC	Concrete Coating	Lump Sum

The plans may show an estimate quantity in square feet. The Department will consider payment as full compensation for all work required as described in this note.

**SPECIAL NOTE FOR CONCRETE SEALING**

6-1097.00 Kenton 059B00048N

**I. DESCRIPTION.** Perform all work in accordance with the Department's current Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications.

This work consists of:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Prepare the surfaces to receive sealing.
4. Apply concrete sealing.
5. Any other work as specified as part of this contract.

**II. MATERIALS.**

**A. Sealer.** Use one of the following:

<b>Product</b>	<b>Supplier</b>
Protectosil BHN	Evonik Industries
Protectosil 300S	Evonik Industries
TK-590-40 Tri-Silane 40%	TK Products
SW-244-100	Chemical Products Industries, Inc.
TK-590-1 MS Tri-Silane	TK Products
MasterProtect H1000	BASF
Aquanil Plus 40	ChemMasters
SIL-ACT ATS-100	Advanced Chemical Technologies
Certivex Penseal BTS 100%	Vexcon
Pentreat 244-40	W.R. Meadows
Aquanil Plus 40A	ChemMasters

**B. Coverage Rate:** Follow all manufacturers recommendations for coverage rates except the application rate must not exceed the square footage coverage rate per gallon of sealer as given in the chart below. If the manufacturer recommends a coverage rate greater than given in the table below, apply sealer at the rate given in the table below for the chosen sealers silane percentage.

% Silane	Coverage rate (ft <sup>2</sup> /gallon)
100	300
40	120
20	60

**III. CONSTRUCTION.**

**A. Areas to Receive Concrete Sealing:**

All exposed surfaces of the new concrete roadway slab over Anchorage 2, including the curb.

**B. Curing Compound.** Contrary to Section 609.03.12 of the specifications, curing compound is not to be used on the deck due to potentially causing issues with the concrete sealer. During the deck pour, finishing, and tining operations the Class AA concrete shall be kept continuously moist with the use of a mister until burlap or curing blankets are applied to the surface. At no point should water be pooling or running off the surface or the surface of the concrete be allowed to become dry. After the burlap or curing blankets are installed, cure in accordance with the specifications. Include all costs in the unit price bid for Class AA concrete. Failure to properly cure the concrete in accordance with this note and the specifications may result in weakened or cracked concrete. If the concrete is weakened or cracked due to improper curing, the contractor will be responsible for providing alternates to fix the issues to the Engineer for review and the contractor will be solely responsible for all costs to do so, up to complete replacement. Do not begin any construction on fixing any issues without approval of the Engineer.

**C. Surface Finish.** Finish surface of bridge decks in accordance with Section 609 of the Standard Specifications.

**D. Cleaning the Concrete Surfaces to be sealed.** Dry clean the concrete to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the manufacturer of the sealant. Hold pressure washing wand a minimum of 45° from the surfaces with a maximum stand-off distance of 12 inches.

**E. Sealing the Concrete.** Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer’s recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the concrete to dry 24 hours (after washing or rain event) before sealer application. The bridge deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the concrete must be rewashed. Divide the concrete into predefined areas of specific square footage to aid in determining

usage. Comply with manufacturer's usage recommendation. Using a low-pressure pump, apply sealer and spread evenly with broom or squeegee; do not allow pooling to remain. When each predefined area is complete, measure the amount of sealer used to verify proper usage. After sealing, follow manufacturer's recommended cure time before opening to traffic. On vertical surfaces, apply the sealer in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern.

**F. Inspection:** Monitor all aspects of the project to assure compliance to this specification. Observe and document general conditions during the entirety of the project. Verify that each phase of work has been satisfactorily completed prior to beginning the next phase. Phases are described as follows:

1. Dry cleaning to remove loose debris, verify and document:
  - a. All debris has been removed and disposed of properly.
2. Removal of hydrocarbons, verify and document:
  - a. The manufacturer's recommended detergent is used for removal.
  - b. Hydrocarbons have been satisfactorily removed.
3. Pressure washing, verify and document:
  - a. Washing pressure at the wand.
  - b. Tip size used.
  - c. Wash angle and stand-off distance.
  - d. The concrete is satisfactorily cleaned.
4. Sealer application, verify and document:
  - a. Proper cure time for new concrete.
  - b. Concrete surface is dry.
  - c. Document time since washed.
  - d. Was the bridge deck opened to traffic after washing?
  - e. Document ambient temperature, surface temperature, relative humidity, and dew point.
  - f. Application and distribution method.
  - g. Coverage to be complete and even.
  - h. Material is not allowed to remain pooled.
  - i. Monitor material usage.
  - j. No traffic on the bridge decks until proper cure time is allowed.

#### IV. MEASUREMENT

- A. Concrete Sealing.** The Department will measure the quantity per square feet of each area sealed.

#### V. PAYMENT

- A. Concrete Sealing.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Cleaning; (3) Sealing; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.



## **SPECIAL NOTE FOR SEALANTS**

6-1097.00 Kenton 059B00048N

### **1.0 DESCRIPTION:**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Provide safe access to the bridge substructure, towers, spandrel walls, and railings in accordance with Section 107.01.01, for workers to complete the construction; (3) Prepare the surfaces for new sealant; (4) Install the primer and sealant (5) Complete cure of the materials; (6) Any other work specified as part of this contract.

### **2.0 CONTRACTOR QUALIFICATIONS:**

The Contractor, Supervisor and workers performing this work must be qualified to perform restoration of historic structures conforming to the Secretary of Interior Standards for the Treatment of Historical Properties. Contractors may be prequalified in the Kentucky Transportation Cabinet in at least one of the following Work Areas E1, E2, E3, E5, and/or I16.

The work described in this note is a specialty work item. Specialty item work that may be accomplished by contractors that are certified for that item, but not necessarily prequalified by the Department, will require a submission of a subcontract. The prime contractor should submit evidence of experience performing the requested work items for the specialty subcontractor.

The submittal should include company personnel and equipment used for the work. The Kentucky Transportation Cabinet and the Engineer will review and determine whether to approve or disapprove the request.

The Apparent Low Bidder must submit with their qualifications to perform the work to Nick Reis ([nick.reis@ky.gov](mailto:nick.reis@ky.gov)) within 5 calendar days after letting. The Kentucky Transportation Cabinet has the right to reject bids at their discretion from unqualified contractors. The documentation of the Contractor's qualifications shall include, but is not limited to, the following:

- Letter of approval that the Contractor shall be a certified installer by the manufacturer.
- Prior project experience including no less than five (5) years' experience in performance of similar work in size and complexity.
- Name and resumes of persons performing the work. The Contractor superintendent shall have supervised three prior projects in size and complexity. The superintendent shall be present during all operations of work. Sealant identified as being installed not under the direct supervision of this person shall be subject to removal and replacement, at the direction of the Kentucky Transportation Cabinet and the Engineer. The superintendent shall be approved by Kentucky Transportation Cabinet and the Engineer.

- Contractor sample warranty.

The Contractor shall be familiar with the following Definitions:

- Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and consulting professions."

### **3.0 MATERIALS:**

#### **3.1 Materials:**

##### **A. Polyurethane Sealants:**

- a. Multi-component, unmodified, polyurethane to be used under the Roebling Tower Roofs waterproofing coating.
- b. Product must be compatible and approved in writing by the waterproof coating manufacturer.
- c. Approved product manufacturers include:
  - i. Sika 2c NS-TG/SL by Sika Corp.
  - ii. Dymeric 240FC by Tremco, Inc.
  - iii. Isoflex 880/881 by Lyntal International.
- d. Minimum compression or extension of 25% of the nominal joint width without adhesive or cohesive failure.
- e. Primer(s) as recommended by sealant manufacturer for each substrate.
- f. Sealants to be coated with a waterproof coating shall be gun grade (non-sag).
- g. Backer Rod or Bond Breaker Tape: Backer Rod shall be closed-cell, polyethylene in sizes to maintain 25 percent compression. Backer rod shall not be used except where indicated on the Drawings or unless approval for each intended application location is obtained from the Engineer. Alternative use of bond breaker tape in size appropriate for the width of joint and approved for use by the sealant manufacturer will be allowed on a case-by-case basis.
- h. Color selection by the Kentucky Transportation Cabinet and the Engineer.

##### **B. Silicone Sealants:**

- a. Approved product manufacturers include:
  - i. Dowsil 795 silicone perimeter sealant by Dow Corning.
  - ii. SilPruf SCS2000 sealant by G.E.
- b. Primer(s) as recommended by sealant manufacturer for each substrate.
- c. Backer Rod. Backer Rod shall be closed-cell, polyethylene in sizes to maintain 50 percent compression. Backer rod shall not be used except where indicated on the Drawings or unless approved for each intended application location is obtained by the Engineer.
- d. Color selection by the Kentucky Transportation Cabinet and the Engineer.

## 4.0 CONSTRUCTION:

All areas involved in the work shall be inspected by the Contractor to establish the extent of work, access, and need for protection of surrounding construction, landscaping, etc. Using the attached detail drawings, and as directed by the Engineer, identify areas to receive Sealant installation.

### 4.1 Examination:

- A. Examine surfaces intended to receive sealants and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Starting of sealant work will be construed as applicator's acceptance of surfaces and conditions within any area.
- C. Notify the Kentucky Transportation Cabinet in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify the Kentucky Transportation Cabinet prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

### 4.2 Protection:

- A. Provide adequate protection of all surrounding surfaces not intended to receive sealant from damage due to preparation, cleaning or coating procedures. Repair damage at no cost to the project.
- B. Program sealant so that construction dirt, dust, and debris will not fall onto uncured materials.
- C. When toxic or flammable solvents are used, the sealant contractor shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies and Kentucky Transportation Cabinet.
- D. Provide the necessary protection to contain all dust, dirt, debris, and material within work area.
- E. Place coating or solvent soaked rags, waste, or other materials which might constitute a fire hazard in metal containers and remove from premises at the close of each day's work.

### 4.3 Materials Preparation:

- A. Proof Samples of all sealant materials used on the job site shall be prepared in advance of the work by the Contractor and submitted to the Engineer for purposes of testing and examination. Samples shall be manufactured with a unit of material from the first batch intended for use on the project. Samples (4 total) shall be at least 2 inch x 2 inch square and 1/2 inch thick, with troweled top surfaces, identified with manufacturer's batch numbers, date and location of preparation.
- B. The Engineer may, at his discretion, direct the Contractor to prepare and submit Field Samples of sealant materials used on the job site during the work. Samples shall be manufactured on site, from a unit of material from the same batch in use that day. Samples (2 total) shall be at least 2 inch x 2 inch square and 1/2 inch

thick, with troweled top surfaces, identified with manufacturer's batch numbers, date and location on the project where the sealants represented in the samples were installed. Up to three sets of Field Samples may be requested on this project in the Bid.

- C. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- D. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.
- E. Deliver materials to job site in sealed, undamaged containers. Each container shall be identified with material's name, date of manufacture and lot number.
- F. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Kentucky Transportation Cabinet.

#### **4.4 Surface Preparation:**

- A. Perform preparation and cleaning procedures in accordance with sealant manufacturer's instructions and as herein specified, for each substrate condition.
- B. Remove existing sealants and clean surfaces to remove residue. Grout any new joint cavities scheduled for new sealant. Grind and vacuum clean all joint cavities, coves and other locations scheduled for new sealant as required by the sealant manufacturer within 24 hours of sealant installation.
- C. Joint cavities that become contaminated by dirt or moisture after initial preparation, shall be cleaned again at no additional cost.

#### **4.5 Application:**

- A. General:
  - a. Install sealants after any required concrete repairs and after adequate cure of concrete repairs. Confirm required cure time with sealant manufacturer.
  - b. Install all sealants prior to installation of the waterproof coating.
  - c. Primer shall be used for all sealant installations regardless of manufacturer's requirements, unless a letter from the manufacturer states use of a primer is detrimental. Allow primer to cure per manufacturer's recommendation prior to sealant installation
  - d. Apply sealant in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. Installation:
  - a. Clean joint cavity and apply primer as recommended by the sealant manufacturer.
  - b. Install backer rod or bond-breaker tape where required. Vary size of backer rod if necessary based on field conditions.
  - c. Install sealant as indicated in details on the Drawings.
  - d. The Engineer may, at his discretion, choose to remove up to a six-inch length of sealant in locations at a time after installation and initial curing of sealant to verify installation as specified. The Contractor shall include

in their Bid the costs to repair one such location for each 100 ft. of sealant installation. If inspections of these locations reveal deficient installation of sealant, the Engineer may remove additional sealant to further quantify the length of deficient sealant. The Contractor shall repair all deficient locations of sealant found by the Engineer at no additional cost and no extension of time for the work.

**4.6 Cleaning:**

- A. During progress of work, remove from site discarded coating materials, rubbish, cans, and rags at end of each workday.
- B. Upon completion of sealant work, clean all sealant-spattered surfaces. Remove spattered coating by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

**5.0 WARRANTY:**

**5.1 Polyurethane Sealant:**

- A. Polyurethane sealant work shall be warranted for a period of five (5) years against defects due to installation or material deficiencies, including but not limited to excessive softness, excessive entrapped air in cured cross sections, disbonding, cohesive failure, leakage and ultraviolet exposure degradation.
- B. Sealant work under the waterproof coating systems shall be warranted as part of and included in the waterproof coating system warranty.
- C. All required testing and quality assurance operations necessary to furnish warranty are Contractor and manufacturer's responsibility.

**5.2 Silicone Sealant:**

- A. Silicone sealant work shall be warranted for a period of five (5) years by the Contractor against defects due to installation or material deficiencies, including but not limited to excessive softness, excessive entrapped air in cured cross sections, disbonding, cohesive failure, leakage and ultraviolet exposure degradation
- B. Silicone sealant work shall be warranted for a period of fifteen (15) years by the Manufacturer against defects due to material failure, including but not limited to excessive softness, excessive entrapped air in cured material, disbonding, cohesive failure, leakage and ultraviolet exposure degradation
- C. All required testing and quality assurance operations necessary to furnish warranty are Contractor and manufacturer's responsibility.

**6.0 MEASUREMENT:**

**6.1 Tower Sealant Repairs.** The Department will measure the quantity by lump sum.

**6.2 Anchorage 2 Sealant Repairs.** The Department will measure the quantity by lump sum.

**6.3 Roof Sealant Repairs.** The Department will measure the quantity by lump sum.

**7.0 PAYMENT:**

**7.1 Tower Sealant Repairs.** Payment will be made for the lump sum item Repair (Towers Sealant). Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).

**7.2 Anchorage 2 Sealant Repairs.** Payment will be made for the lump sum item Repair (Anchorage 2 Sealant). Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).

**7.3 Roof Sealant Repairs.** Payment will be made for the lump sum item Repair (Roof Sealant). Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s).

The Department will make payment under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24522EC	Repair (Towers Sealant)	Lump Sum
24522EC	Repair (Anchorage 2 Sealant)	Lump Sum
24522EC	Repair (Roof Sealant)	Lump Sum

END OF SPECIAL NOTE

## SPECIAL NOTE FOR ZIPPER BOOT

6-1097.00 Kenton 059B00048N

### 1.0 GENERAL:

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Special Note, and the Contract Documents.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for workers to complete the construction.
3. Remove existing steel waterproofing covers attached to the masonry at the secondary cable penetrations.
4. Make necessary preparations to install the zipper boots.
5. Furnish and install zipper boots per manufacturer guidelines.
6. Any other work as specified as part of this contract.

### 2.0 MATERIALS:

**2.1 Zipper boots.** Boots shall be made of 3/8" minimum thickness AASHTO M251 Grade 3 Neoprene with the following parameters:

- ASTM D2240 Hardness, durometer minimum rating of 50
- ASTM D412 Tensile strength: minimum 2250 psi
- ASTM D412 Elongation at Break: minimum 400%

Zipper boots shall be manufactured by Scougal Rubber Corporation or an approved equivalent. The color of the boots should be coordinated with the Engineer.

The zipper should be comprised of tape of polyester with Chloroprene coating and nickel silver teeth, an aluminum bronze slider, slider clip with Chloroprene thong with rivet, and shall have a tape width of 1.75-in, thickness of 0.6mm, chain width of 7.0mm and chain thickness of 3.65-mm. The zipper should have the following qualities:

- Breaking Strength: Chain crosswise, minimum 87.2 kgf
- Airtightness: minimum 0.7 kg/cm<sup>2</sup>
- Resistance to depth: minimum 7m

The zipper for each boot shall run the full length of the zipper boot and include a 4" long zipper extension section at each end of the zipper. The zipper backing shall run the full length of the zipper and extend 4" longer than the zipper at each end. The zipper shall be manufactured by YKK or an approved equivalent.

**2.2. Bird Screen.** Bird screens are to be trimmed galvanized welded wire mesh, 2 x 2 (0.437" x 0.437") opening with 16 Gauge (0.063") wires.

### 3.0 CONSTRUCTION:

- A. Dimensions.** The Contractor is responsible for measuring the existing dimensions at each cable penetration at the towers. The Contractor is to propose any modifications to the masonry, bird screens, and cable band bolts to the Engineer in writing for approval. The Contractor shall devise a plan to install the boots without the need to remove or relocate any of the existing cable bands. The Contractor is responsible for determining the final zipper boot dimensions, including diameters at each location. The boots should fit tight at each end and be tapered to allow for 1/16" clearance around all existing cable clamps and bolts.
- B. Shop Drawings.** The Contractor shall submit shop drawings of the zipper boot assemblies for review and approval. Shop drawings shall be prepared showing the boots and configurations at each of the 16 locations.
- C. Preparation.** The Contractor is to prepare the existing area, including approved modifications to the cable bolts and masonry, under the close supervision and direction of the Engineer. The Contractor is not permitted to remove or reposition any existing clamp on the cables. The existing steel waterproofing covers at each secondary tower penetrations should be permanently removed. The Contractor is advised to use extreme caution around existing primary cables, stay cables, and decorative electrical lighting cables. The Contractor is responsible and shall repair any and all damage caused by the Contractor's actions.
- D. Cleaning and Painting.** After final preparation, but at least one week prior to installing the zipper boots, the Contractor shall hand wash with water all existing steel to be covered by the new zipper boots, with a 2-foot extension on each end. All areas that have rust shall receive a cleaning level to SSPC SP2 Hand Tool Cleaning. All areas where existing paint is removed to bare steel shall receive two primer coats of "Noxide (Mathys by Rust-Olem) or Fox 501M (Sherwin Williams). After all areas have been cleaned and bare steel areas are coated as specified the entire area shall receive one coat of Sher-cryl HPA (Sherwin Williams) or equal as recommended by primer manufacture for the finish coat. The finish color shall be blue and will meet the following values L\* 66.56, a\*-7.26, b\* -20.10.
- E. Zipper Boot Installation.** Install the zipper boots in accordance with the manufacturer's recommendations. Immediately prior to installation of the zipper, the Contractor shall verify the cable is dry and free of excess moisture. On the high end of the boot (only), place silicone caulk between the cables and neoprene boot directly under the clamp immediately prior to clamping.
- F. New Bird Screen.** Install new bird screens providing no more than 1" gap at each wire, zipper boot, or other penetration. Trim and grind smooth any exposed ends to prevent potential puncturing of the zipper boots. Fasten the screen under the direction of the Engineer.



**4.0 MEASUREMENT:**

The final quantity of Zipper Boot will be the actual number of individual zipper boots acceptably furnished and installed. The Department will not measure zipper boots replaced due to damage or rejection.

**5.0 PAYMENT:**

The Department will consider payment for the following item as full compensation for all materials (including boots, zippers, bird screens, and necessary attachments), engineering, shop drawings, cleaning and painting, labor, equipment, tools, and incidentals necessary to complete the work as specified by this note.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
25107EC	Zipper Boot	Each

## **SPECIAL NOTE FOR SUSPENDER COLLAR REPAIR**

6-1097.00 Kenton 059B00048N

### **1.0 GENERAL:**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Special Note, and the Contract Documents.

This work consists of the following:

1. Furnish all materials, labor, temporary support, equipment, engineering, shop drawings, cleaning, painting, and incidental items necessary to complete the work as specified by this note.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for workers to complete the construction.
3. Install temporary support for the suspender connection to the primary cable.
4. Remove the north suspender collar.
5. Prepare, prime, and paint the existing metal exposed after removing the existing suspender collar.
6. Install the new north suspender collar, bolts, washers, and nuts.
7. Prepare, prime, and paint the completed north suspender collar retrofit.

### **2.0 MATERIALS:**

**2.1 Suspender Collar Plate.** The retrofit suspender collar plate shall be AASHTO M270 Grade 50 steel. Collar bands shall be heat-bent to a minimum radius to provide maximum clamping force. Prepare, prime, and paint new suspender collar in accordance with Section 607.03.23.

**2.2. Bolts, Washers, and Nuts.** All bolted connections shall be ASTM F3125 Grade A490 high strength bolts, A563DH nuts, and F436 flat washers. Bolt threads shall be excluded from the shear plane in all bolted connections. All high strength bolted connections are to be installed with "Direct Tension Indicators" (DTI's) in accordance with the Standard Specifications and ASTM F959.

**2.3 Bronze Bushing.** Bronze bushings, if necessary, shall be ASTM B22 C86300 copper alloy bronze.

### **3.0 CONSTRUCTION:**

**A. Damage to the Structure.** Care shall be taken to prevent damage to the primary cable, protective wrap, suspender plate, center and south collars, and other existing superstructure elements in close proximity to the area of repair. The Contractor shall bear full responsibility and expense for any and all damages to the structure, should such damage result from the Contractor's actions.

- B. Dimensions.** The Contractor shall field verify all measurements of the existing collar and bolts before ordering any materials or designing the temporary support.
- C. Shop Drawings.** The Contractor shall submit shop drawings of the suspender collar plate and connections for review and approval.
- D. Temporary Support Design/Plan.** The Contractor shall submit for review and approval the design and plans of a temporary support, stamped by a Kentucky licensed Professional Engineer. The temporary support should be designed to be capable of gradually reducing the tension on the existing connection to allow for removal and replacement of the existing bolt; and, at a minimum should be capable of resisting a factored load of 85 kips. At no time should any portion of the connection be put into compression. No welding on the existing structure will be allowed. The Contractor should also assume that the drilling of new holes in the existing structure will not be permitted. Allow 15 business days for the initial and subsequent reviews of the design.

**The subsequent construction work (Items E. through I.) should be completed during a full bridge closure and with minimal construction loading on the bridge deck.**

- E. Remove Existing Collar.** Temporary support shall be in place and approved by the Engineer before removing any suspender collar components. Remove the suspender collar in accordance with the plans. The north collar surrounding the downstream primary cable in line with Panel Point 30 is the only collar to be removed. Do not disturb the center and south suspender collars.

After removal, inspect the primary cable, protective wrap, and suspender plate for deficiencies. Notify the Engineer of any deficiencies before proceeding.

- F. Cleaning and Painting.** The Contractor is to prepare, clean, prime, and paint the existing steel exposed from removing the suspender collar and all new steel. The Contractor shall hand wash steel with water. All areas that have rust shall receive a cleaning level to SSPC SP2 Hand Tool Cleaning. All areas where existing paint is removed to bare steel shall receive two primer coats of "Noxide (Mathys by Rust-Olem) or Fox 501M (Sherwin Williams). After all areas have been cleaned and bare steel areas are coated as specified the entire area shall receive one coat of Sher-cryl HPA (Sherwin Williams) or equal as recommended by primer manufacturer for the finish coat. New steel shall be primed in the shop and top coated in the field. The finish color shall be blue and will meet the following values L\* 66.56, a\*-7.26, b\* -20.10 in accordance with Section 607.03.23 and under the supervision and direction of the Engineer. Final painting may be required after removal of temporary support.
- G. Bronze Bushing.** The existing bolt to be removed is anticipated to be a larger diameter than the new 1-1/2 inch diameter replacement bolt shown in the plans. If the existing hole diameter in the suspender plate is larger than 1-13/16 inch, then provide and install a bronze bushing to fill the remaining hole area. The Contractor may have to preorder multiple size bushings.

**H. Suspender Collar Repair.** Install the new suspender collar, bolts, washers, and nuts in accordance with the plans and approved shop drawings.

**I. Temporary Support Removal.** Remove the temporary support after the suspender collar retrofit has been inspected and approved by the Engineer.

**4.0 MEASUREMENT:**

**4.1 Suspender Collar Repair.** The Department will measure the quantity as the number of locations where the suspender collar repair is completed.

**5.0 PAYMENT:**

The Department will consider payment for the following item as full compensation for all materials, labor, temporary support, equipment, engineering, shop drawings, cleaning, painting, and incidental items necessary to complete the work as specified by this note.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
25108ED	Suspender Collar Repair	Each

## SPECIAL NOTE FOR ARRESTING STEEL CRACKS

6-1097.00 Kenton 059B00048N

### I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnishing all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for workers to complete the construction and for the Engineer to approve the work.
3. Perform steel crack arresting in accordance with this Note and attached detail drawings.
4. Any other work specified as part of this contract.

### II. CONSTRUCTION METHODS

- A. Identification.** Identify the crack terminus using non-destructive test (NDT) methods such as magnetic particle or dye penetrant testing. All NDT shall be in accordance with ASTM standards (ASTM E709 for magnetic particle testing or ASTM E165 and E1417 for dye penetrant testing). Mark the tip of the crack with a center punch. If crack extends along the same plane on both sides of the material, the terminus farthest away from the initiation point shall be used as the location of the crack terminus.
- B. Drilling Reference Hole.** Drill a small reference hole (~1/8 inches (3mm) in diameter) to check the crack tip location on the opposite side of the hole and adjust the positioning of the coring machine accordingly. If crack is observed on opposite side of hole, repeats to Steps B and C.
- C. Drilling Arrest Hole.** Using a 1 1/2" diameter annular/coring bit, position the bit such that the trailing edge of the bit removes the crack terminus (see Figure 1). Drill a 1 1/2" diameter hole fully through the cracked material, taking care not to damage any other structural components. Consult with the Engineer if the required diameter is not achievable.

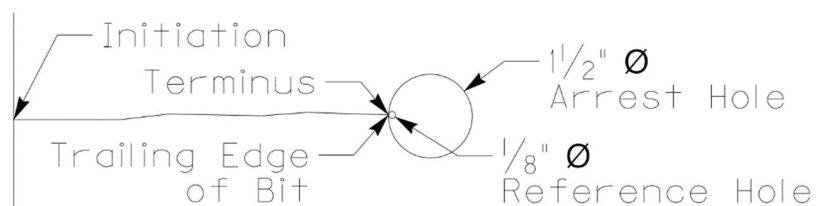


Figure 1: Reference Hole and Arrest Hole Positioning

- D. Removing Imperfections.** After drilling, the surfaces around the hole shall be ground smooth. All hole edges should be ground smooth to an ANSI roughness of 500 or less.

This surface roughness can be achieved using 80-100 grit sandpaper, or finer. Twist bits are not permitted to be used.

**E. Paint Structural Repairs.** Bare metal surfaces shall be primed and painted to match existing superstructure color in accordance with Section 607.03.23 “Cleaning and Painting”.

**III. MEASUREMENT**

The Department will measure the quantity as the number of steel cracks arrested.

**IV. PAYMENT**

Payment at the contract unit price shall be full compensation for furnishing all labor, materials, equipment, tools, and incidentals necessary to perform steel crack arresting in accordance with this Special Note, the Standard Specifications, and the Contract Documents as outlined herein.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24409EC	Drill Holes in Steel Members	Each

## **SPECIAL NOTE FOR METAL ROOFING AND GUTTERS REPAIRS**

6-1097.00 Kenton 059B00048N

### **1.0 DESCRIPTION:**

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Provide safe access to the bridge substructure, towers, spandrel walls, and railings in accordance with Section 107.01.01, for workers to complete the construction; (3) Repair existing copper roofs and gutters at the bridge towers turret houses and at the cable anchorage houses; (4) Any other work specified as part of this contract.

### **2.0 CONTRACTOR QUALIFICATIONS:**

The Contractor, Supervisor and workers performing this work must be qualified to perform restoration of historic structures conforming to the Secretary of Interior Standards for the Treatment of Historical Properties. Contractors may be prequalified in the Kentucky Transportation Cabinet in at least one of the following Work Areas E1, E2, E3, E5, and/or I16.

The work described in this note is a specialty work item. Specialty item work that may be accomplished by contractors that are certified for that item, but not necessarily prequalified by the Department, will require a submission of a subcontract. The prime contractor should submit evidence of experience performing the requested work items for the specialty subcontractor.

The submittal should include company personnel and equipment used for the work. The Kentucky Transportation Cabinet and the Engineer will review and determine whether to approve or disapprove the request.

The Apparent Low Bidder must submit with their qualifications to perform the work to Nick Reis ([nick.reis@ky.gov](mailto:nick.reis@ky.gov)) within 5 calendar days after letting. The Kentucky Transportation Cabinet has the right to reject bids at their discretion from unqualified contractors. The documentation of the Contractor's qualifications shall include, but is not limited to, the following:

- Prior project experience including no less than five (5) years' experience in performance of similar work in size and complexity.
- Contractor sample warranty.

The Contractor shall be familiar with the following References:

- Fabricator is responsible for installing system, including anchorage to substrate and necessary modifications to meet specified and drawn requirements and maintain visual design concepts in accordance with Contract Documents and following installation

methods as stipulated in the "Copper in Architecture" handbook published by the Copper Development Association Inc. (CDA).

- Drawings are diagrammatic and are intended to establish basic dimension of units, sight lines, and profiles of units.
- Make modifications only to meet field conditions and to ensure fitting of system components.
- Obtain Engineers approval of modifications.

The Contractor shall be familiar with the following Definitions:

- Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and consulting professions."

### **3.0 MATERIALS:**

#### **3.1 Materials:**

##### **A. Flashings and Downspouts:**

- a. Copper: ASTM B370; minimum temper H00 (cold-rolled) except where temper 060 is required for forming.
- b. Downspouts: 16 oz. per sq. ft. (0.0216-inch thick) (0.55 mm) except as otherwise indicated.

##### **B. Accessories:**

- a. Solder: ASTM B32; Provide 50-50 tin/lead or lead-free alternative of similar or greater strength solder. Killed acid flux.
- b. Flux: Muriatic acid neutralized with zinc or approved brand of soldering flux.
- c. Screws: Copper, bronze, brass, or passivated stainless steel (300 Series) of sufficient size and length to sustain imposed stresses.
- d. Gutter Brackets:
  - i. Hanger bracket with integrated screw for attachment of K-style gutter through gutter board.
  - ii. Material: Copper or Brass.
  - iii. Basis of Design: Raytech Brass Hangfast by K&M Sheet Metal.
- e. Rivets:
  - i. Pop Rivets: 1/8-inch (3-mm) to 3/16-inch (4.5-mm) diameter, with solid brass mandrels.
  - ii. Provide solid copper rivet (tinner's rivets) where structural integrity of seam is required.

#### **3.2 Fabrication:**

- A. General Metal Fabrication: Shop-fabricate work to greatest extent possible. Comply with details shown and with applicable requirements of the "Copper in Architecture" handbook published by the Copper Development Association (CDA) and other recognized industry practices. Fabricate for waterproof and weather-resistant performance with expansion provisions for running work, sufficient to permanently prevent leakage, damage, or deterioration of the work.



Form work to fit substrate. Comply with material manufacturer's instructions and recommendations for forming material. Form exposed copper work without excessive oil-canning, buckling, and tool marks, true to line and levels indicated, with exposed edges folded back to form hems.

- a. Fabricate to allow for adjustments in field for proper anchoring and joining.
  - b. Form sections true to shape, accurate in size, square, free from distortion and defects.
- B. Expansion Provisions: Where lapped or bayonet-type expansion provisions in work cannot be used, or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with mastic sealant (concealed within joints).
- C. Sealant Joints: Where movable, non-expansion-type joints are indicated or required for proper performance of work, form copper to provide for proper installation of elastomeric sealant, in compliance with the "Copper in Architecture" handbook published by the Copper Development Association Inc. (CDA).
- D. Separations: Provide for separation of copper from noncompatible metal or corrosive substrate by coating concealed surfaces at locations of contact, with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.
- E. Solder:
- a. Solder and seal non-moving copper joints on slopes up to 3:12, except those indicated or required to be expansive type joints.
  - b. After soldering, remove flux. Wipe and wash solder joints clean.

#### **4.0 CONSTRUCTION:**

All areas involved in the work shall be inspected by the Contractor to establish the extent of work, access, and need for protection of surrounding construction, landscaping, etc. Using the attached detail drawings, and as directed by the Engineer, identify areas to receive Roofing and Gutters installation.

##### **4.1 Examination:**

- A. Per S31 Key Note 1, the Contractor is to report to the Engineer deteriorated or loose copper sections of the standing seam roof system that may have occurred since plan development. Cost shall be incidental to Repair (Roofing and Gutters).
- B. Examine surfaces intended to receive repairs and note conditions or defects that will adversely affect the execution and/or quality of the work.
- C. Starting of repairs will be construed as applicator's acceptance of surfaces and conditions within any area.
- D. Notify the Kentucky Transportation Cabinet in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify the Kentucky Transportation Cabinet prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

#### **4.2 Protection:**

- A. Provide adequate protection of all surrounding surfaces from damage due to repairs. Repair damage at no cost to the project.
- B. When toxic or flammable solvents are used, the contractor shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies and Kentucky Transportation Cabinet.
- C. Provide the necessary protection to contain all dust, dirt, debris, and material within work area.
- D. Place coating or solvent soaked rags, waste, or other materials which might constitute a fire hazard in metal containers and remove from premises at the close of each day's work.

#### **4.3 Materials Preparation:**

- A. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- B. Examine each material and accessory as delivered and confirm that finish is undamaged. Do not accept or install damaged material and accessory.
  - a. Prevent contact with materials which may cause discoloration or staining.
  - b. Stack material to prevent twisting, bending, and abrasions.
- C. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Kentucky Cabinet of Transportation.

#### **4.4 Surface Preparation:**

- A. Clean surfaces to receive copper roofing. Substrate to be smooth and free of defects. Drive all projecting nails or other fasteners flush with substrate.

#### **4.5 Application:**

- A. Manufacturer's Recommendations: Except as otherwise indicated, comply with manufacturer's installation instructions and recommendations and with the "Copper in Architecture" handbook published by the Copper Development Association (CDA). Anchor units of work securely in place by methods indicated, providing for thermal expansion of units; conceal fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weatherproof.
  - a. Install units plumb, level, square, and free from warp or twist while maintaining dimensional tolerances and alignment with surrounding construction; except install gutters with required slope
  - b. Separate dissimilar metals by painting each metal surface in area of contact with a bituminous coating, by applying rubberized asphalt or butyl underlayment to each metal surface, or by other permanent separation as recommended by manufacturers of dissimilar metals.

- c. Fit downspouts and flashings for watertight connections. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- d. Miter, lap seam and close corner joints with solder. Seal seams and joints watertight with solder.
- e. Install expansion joints at frequency recommended by the CDA "Copper in Architecture" handbook. Do not fasten moving seams such that movement is restricted.
- f. Coordinate with repairs of roofing system and roof accessories.
- g. Sealant-Type Joints: Refer to Special Note Sealants for additional information.

**B. Downspouts:**

- a. Flash and seal gutter downspout to gutter.
- b. Hang gutter with brackets spaced 30 inches on-center maximum.

**4.6 Cleaning:**

- A. Remove protective film (if any) from exposed surfaces of copper roofing promptly upon installation. Strip with care to avoid damage to finishes.
- B. Upon completion of each area of soldering, carefully remove flux and other residue from surfaces. Neutralize acid flux by washing with baking soda solution, and then flushing clear water rinse. Use special care to neutralize and clean crevices.
- C. Clean exposed metal surfaces of substances that would interfere with uniform oxidation and weathering.

**5.0 WARRANTY:**

**5.1 Metal Roofing:**

- A. A warranty period of five (5) years shall be provided for all repair work of existing metal roof and gutters performed under this Special Notes.

**6.0 MEASUREMENT:**

**6.1 Tower Gutter Drainage Trough Repair.** The Department will measure the quantity by lump sum.

**6.2 Roofing and Gutter Repairs.** The Department will measure the quantity by lump sum.

**7.0 PAYMENT:**

**7.1 Tower Gutter Drainage Trough Repair.** Payment will be made for the lump sum item Repair (Tower Gutter Drainage Trough). Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s). Sealant and High-Performance Coatings

work associated with the Tower Gutter Drainage Trough Repair are incidental to this work item.

**7.2 Roofing and Gutter Repair.** Payment will be made for the lump sum item Repair (Roofing and Gutters). Payment at the lump sum price includes all labor, access, equipment, and materials, and all incidental items necessary to complete the work in accordance with this Special Note and as shown on the attached detail drawing(s). Sealant work associated with the Roofing and Gutter Repair are included in this work item.

The Department will make payment under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24522EC	Repair (Tower Gutter Drainage Trough)	Lump Sum
24522EC	Repair (Roofing and Gutters)	Lump Sum

END OF SPECIAL NOTE

## **SPECIAL NOTE FOR SPECIALTY WORK ITEMS**

6-1097.00 Kenton 059B00048N

### **1.0 SPECIALTY WORK ITEMS:**

The items listed below will be considered “specialty” as outlined in the proposal. The percentage subcontracted for these items will not count against the total percentage allowed as per Section 108.01 of the Standard Specifications.

WATERPROOFING MEMBRANE  
ANCHOR  
CONCRETE PATCHING REPAIR  
REPAIR (ROOF SEALANT)  
REPAIR (ANCHORAGE 2 SEALANT)  
REPAIR (TOWERS SEALANT)  
REPAIR (TOWER GUTTER DRAINAGE TROUGH)  
REPAIR (ROOFING AND GUTTERS)  
DUTCHMAN REPAIR  
MASONRY CRACK REPAIR  
BRIDGE CLEANING  
MASONRY PATCHING REPAIR  
REMOVAL OF DETERIORATED MASONRY  
CONCRETE SLAB EDGE REPAIR  
TOWER RAIL PATCHING (TYPE A)  
TOWER RAIL PATCHING (TYPE B)  
TOWER RAIL POST REPLACEMENT  
TOWERS RAIL TOP STONE REPLACEMENT  
WATERPROOF COATING  
REPOINTING

**SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND  
LIQUIDATED DAMAGES ON BRIDGE REPAIR CONTRACTS**

- I. COMPLETION DATE.** The Contractor has the option of selecting the starting date for this Contract. Once selected, notify the Department in writing of the date selected at least two weeks prior to beginning work. All work is to be completed by December 31, 2021. The bridge shall be completely open to traffic by November 15, 2021.
- II. LIQUIDATED DAMAGES.** Contrary to the Liquidated Damages amounts specified in the Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction, Section 108.09, the Liquidated Damages for this project shall be \$5,000/day for each day after November 15, 2021 that the bridge is not open to traffic and \$10,000/day for each day after December 31, 2021 that all work in the contract is not complete.

All construction must be completed in accordance with the weather limitations specified in Section 606 and/or Section 601 as applicable. No extension of Contract time will be granted due to inclement weather or temperature limitations that occur due to starting work on the Contract or a structure late in the construction season.

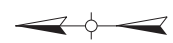
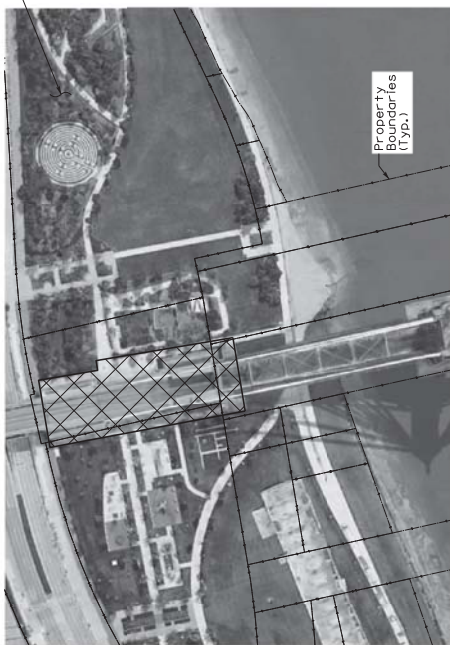


<p><b>SPECIFICATIONS:</b> All references to the Standard Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction with current Supplemental Specifications. All references to the Standard Specifications are to the AASHTO Standard Specifications for Highway Bridges, 2002, 17th Edition.</p> <p><b>MATERIALS DESIGN SPECIFICATIONS:</b> For Class "A" Reinforced Concrete f'c = 3,500 psi f'c = 4,000 psi fy = 60,000 psi</p> <p><b>CONCRETE:</b> Class "A" Concrete is to be used for the Anchorage 2 Roadway Slab, Anchorage 1 Bearing Seats, and Repair &amp; Class "A" Concrete is to be used for the Anchorage 2 Arch Slab and backwalls.</p> <p><b>REINFORCEMENT:</b> Dimensions shown from the face of concrete to bars are to center of bars, unless otherwise shown. Spacing of bars is from center to center of bars, unless otherwise shown. Clear distance to face of concrete is 2" unless otherwise noted. Epoxy coat bars designated by suffix (e) in accordance with Section 810.10 of the Standard Specifications. Use stirrup bend diameters for bars designated by suffix (s) in a Bill of Reinforcement.</p> <p><b>EXISTING STEEL REINFORCEMENT:</b> The cost of cutting, bending, and cleaning existing steel reinforcement shall be incidental to the retrofit item being completed.</p> <p><b>BEVELED EDGES:</b> Bevel all exposed edges 1/8", unless otherwise noted.</p> <p><b>INCIDENTAL ITEMS:</b> The Contractor is required to complete the structure in accordance with the Plans and Specifications. Material or labor, not otherwise specified, are to be considered incidental to the contract.</p> <p><b>COMPLETION OF THE STRUCTURE:</b> The Contractor is required to complete the construction operations with the Plans and Specifications. Items to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structure, and other incidental items. All material, labor or anything else required to complete the structure.</p> <p><b>SHOP DRAWINGS:</b> When any changes in the design plans are proposed by the Contractor, the Contractor shall submit the proposed changes to the consultant through the Contractor. Contractor shall be submitted directly from the fabricator or supplier to the consultant. The consultant shall provide the approved copy of the shop drawings to the Division of Structural Design.</p> <p><b>EXISTING STRUCTURE VERIFICATION:</b> Details and dimensions shown on these plans pertaining to the existing structure have been obtained from shop drawings. Consequently, they are indicative of the existing structure and the proposed work but shall be considered tentative and approximate. The Contractor shall perform thorough surveys and field verifications before ordering of materials and prior to the construction of the structure. The condition of the existing structure, details and dimensions shall be brought to the Engineer's attention and adjustments shall be made.</p> <p><b>ON-SITE INSPECTION:</b> Each contractor submitting a bid for this work shall make a thorough inspection of the bridge and the work site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can be expeditiously performed after a contract is awarded. A suitable signed off per forming the work described herein should be investigated, been made. Any claims from site conditions will not be honored by the department of highways.</p> <p><b>MAINTENANCE OF TRAFFIC:</b> These bridge repairs are to be constructed in accordance with the Special Note for Maintenance of Traffic.</p> <p><b>EXISTING STRUCTURES:</b> The Contractor shall take full responsibility to account for existing structures and utilities. The Contractor shall coordinate with the utility company for using them to support construction loads. The Contractor shall verify that the structural demands of the applied loads due to the Contractor's means and methods will not exceed the available capacity of the existing structures. The Contractor shall coordinate with the utility company for using them to support construction loads. The Contractor must restore existing structure in its original condition.</p> <p><b>BEFORE YOU DIG:</b> The Contractor shall call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The calls to be placed a minimum of two and no more than ten business days prior to excavation. The Contractor should be aware that the one-call system is not a guarantee of utility location. The Contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the Contractor to contact the county court clerk to determine what utility company have facilities in the area.</p>	<p><b>RIVER NAVIGATION:</b> Continuous maintenance and safety of river navigation throughout the term of the project shall be a prime consideration. All work involving the removal of the existing bridge deck or installation or removal of new bridge structure shall be coordinated with the Kentucky Department of Transportation. This work shall not resume until the river traffic is clear of the bridge area.</p> <p>At least 30 days in advance of beginning construction, the successful Contractor shall submit to the Department for approval the Coast Guard's work plan for performing work over the Ohio River. This work plan shall include but is not limited to methods for containing debris, debris removal and maintenance of existing navigational traffic during construction.</p> <p>The Contractor must advise the Coast Guard of the Contractor's proposed schedule of work at least 10 days prior to the commencement of any field operations.</p> <p><b>FALL PROTECTION:</b> Provide flooring for workers in situations where the danger from a fall is compounded by traffic and for protection to river traffic using the sum of dead load and live vertical loads. Include 50 psf on horizontal surfaces and the weight of any material or equipment that is placed or allowed to fall during construction or demolition in the live load area. The Contractor shall be responsible for providing and maintaining the flooring as incidental to the contract. This item may be considered in addition to any requirement set forth in subsection 107.01.01 of the Specifications.</p> <p><b>SAFETY BOAT:</b> A safety boat in the water is required anytime the Contractor is working over the navigable channel without proper railing. Cost shall be incidental to the Project.</p> <p><b>BONDING CONCRETE TO PREVIOUSLY POURED CONCRETE:</b> Bond concrete to previously poured concrete, where indicated on the plans, with a two component epoxy resin system conforming to Section 826 of the Specifications. The cost of the bonding agent and application equipment, is to be incidental to the specific bid for which this work applies.</p> <p><b>SAW CUTTING EXISTING CONCRETE OR MASONRY:</b> Prior to the removal of the existing concrete, the Contractor shall be responsible for providing and maintaining the one net to facilitate a net line. The cost of cutting concrete or masonry shall be incidental to the contract.</p> <p><b>UTILITIES:</b> The Contractor shall be responsible for locating any and all existing utilities attached to structure overhead or underground prior to excavation of material or any other construction activity.</p> <p>The Contractor shall take care to not disturb any roadway or decorative lighting, and shall use the following contact information as needed. Roadway Lighting: Kentucky Transportation Cabinet District 6 Cincinnati, Ohio 45202 Covington, KY 41017 (859) 341-2700</p> <p>Decorative Lighting: Cincinnati/Cincinnati Suspension Bridge Committee (CCSBC) P.O. Box 17777 Covington, Kentucky 41017</p> <p><b>PROHIBITED FIELD WELDING:</b> No welding of any nature, other than indicated on the Plans, is to be performed without the written consent of the Designer, and then only in the manner and at the locations designated in the authorization. Field welding if allowed, shall be performed by a certified field welder.</p> <p><b>WELDING SPECIFICATIONS:</b> All welding and welding materials shall conform to "Joint Specification ANSI/AASHTO/AWS D1.5 Bridge Welding Code". Modification and approval of the Plans and Special Provision 4.108, shall supersede the joint specifications.</p> <p><b>WELDING PROCEDURE:</b> Qualification tests of all welding procedures shall be completed by the Contractor and approved by the Engineer prior to the start of fabrication of the shop drawings. Final approval of welding procedure, and start of fabrication.</p> <p><b>HIGH STRENGTH BOLT CONNECTIONS:</b> Unless otherwise specified on the Plans, all washers shall be 1/32" larger than the diameter of the bolts, and open holes shall be 1/4" larger than the diameter of the bolts. Furnish Type 1 (galvanized) bolts as described in AASHTO M164. All high strength bolted field connections are to be installed using "direct tension indicators" that are mechanically zinc coated. Installation details of the DIT's shall be shown on the shop plans.</p> <p><b>SLIP CRITICAL CONNECTIONS:</b> Slip critical connections have been designed for Class B Surface conditions in accordance with AASHTO Specifications.</p>	<p><b>MATERIAL:</b> ASTM or AASHTO Specifications as designated below shall govern the materials furnished. High Strength Bolts, Nuts, and Washers, M14, Type 1 (Galvanized) High Strength Structural Steel Grade 50 ASTM A193 Sampling and testing procedures shall be in accordance with AASHTO T243, current edition, utilizing ultrasonic frequency testing. When plate thickness exceeds 1/2 inches, frequency of testing shall be 1%.</p> <p><b>IDENTIFICATION MARKING OF STEEL MEMBERS:</b> Steel mill and fabricator identification markings for steel plates, shapes, or fabricated members shall be by metal stamping. The markings shall be made in an area of the member which will be encased or covered with concrete. Marking methods and locations are subject to approval of the Engineer.</p> <p>Paint or wax based crayons shall not be used for marking.</p> <p><b>HANDLING AND STORAGE OF STEEL MEMBERS:</b> Steel members must not be gouged, dented, or allowed to abrade. Other members which would result in surface damage shall be repaired or replaced. Members shall be handled using softeners and slings instead of chokers and chains.</p> <p>Members shall be stored in the fabrication shop or on the project site in a dry area. They shall be protected from weathering by covering with a tarp or grease, oil, mortar, concrete, chalk, crayon, paint, and dirt. All storage must be above ground and sloped to allow free drainage of melted snow, rainwater, and dew.</p> <p>If stored for periods longer than three months, the members must be placed on metal supports. For periods of storage up to three months, members may be placed on clean, untreated, wood timbers. Plate girders shall be stored on steel members.</p> <p>Treated lumber or timber shall not be allowed to come in contact with the members.</p> <p>Any painting necessary to touch-up or repair areas damaged during storage or delivery shall be incidental to that item.</p> <p><b>LEAD PAINT:</b> Residual lead paint may still be on the bridge, even after previous removal. The Contractor shall take all necessary protective measures when removing, cutting, or performing any other actions on the existing steel.</p> <p><b>DISPOSAL OF MATERIALS:</b> All structural steel, deteriorated masonry, concrete, mortar, and asphalt overlay removed from the bridge shall become the property of the Contractor and shall be removed from the right-of-way.</p> <p><b>DAMAGE TO THE STRUCTURE:</b> The Contractor shall bear full responsibility and cost for any damage to the structure. The Contractor should such damage result from the Contractor's actions.</p> <p><b>CONCRETE COATING:</b> Concrete coating is estimated at 2572 SF. It is the Contractor's responsibility to determine if the coating is needed and, if so, to apply appropriately. No payment adjustments will be made if the actual quantity is different than the estimate.</p> <p><b>PROJECT MEETINGS:</b> Contrary to Section 105.06, the Contractor is to schedule and host project meetings bi-weekly during the duration of the project. Meetings shall be held on-site or at an alternative agreed upon location. The Contractor shall record the minutes of each meeting and distribute to all partners within two business days following the meeting. The cost for posting and recording the meetings is incidental to the project.</p> <p><b>LOAD POSTING:</b> The Contractor must adhere to the posted load limit of the bridge (11 tons) for access, construction equipment, material deliveries, and/or stockpiling of materials. The Contractor may utilize the bridge deck for the stockpiling of materials.</p>	<p><b>REVISION</b></p> <p>DATE: 7/16/2020 DESIGNED BY: K. KUJNER CHECKED BY: C. KUSMAN DETAILED BY: K. KUJNER C. KUSMAN</p> <p><b>COMMUNICABLES</b> DEPARTMENT OF HIGHWAYS COUNTY <b>KENTON</b> OHIO RIVER OHIO RIVER</p> <p><b>GENERAL NOTES</b></p> <p>PREPARED BY: AECOM 1000 North Third Street Louisville, KY 40202-4251</p> <p><b>AECOM</b></p> <p>SHEET NO. 28345</p>	<p><b>ITEM NUMBER</b></p> <p>6-1097</p>
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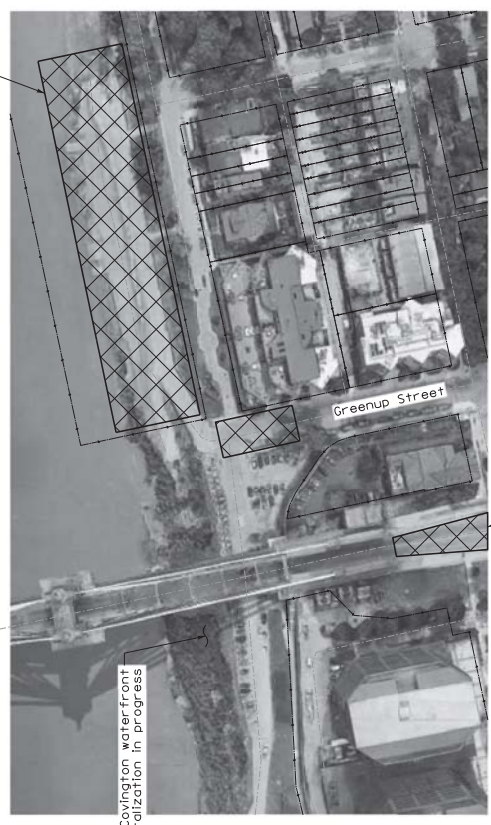
<p>FILE NAME: C:\USERS\KIMBERLY\MCH\PROJECTS\REPAIR\AECOM_DIRECTORY\REPAIRING_REHABILITATION -</p>	<p>DATE PLOTTED: July 16, 2020</p>	<p>USER: Kimberly.Kujner</p>	<p>E-SHEET NAME:</p>	<p>MFC-Station: 08.11.17.443</p>
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All property shown in this drawing is owned by the City of Cincinnati



Mike Fink Lot



**ROEBLING POTENTIAL GROUND STAGING AREAS**

☒ Potential Ground Staging Areas

**STAGING NOTES:**

1. Potential ground staging areas are shown herein. The Contractor is responsible for acquiring written approval from the agencies listed below to utilize these public areas.
2. All work areas shall be properly fenced off to prevent public access.

**CINCINNATI NOTES:**

1. The Contractor in responsible for contacting Cynthia Witte with Cincinnati Parks to acquire a ROE permit. Permit process will take approximately 1 month.
2. The Contractor shall coordinate construction activities with the City of Cincinnati and Cincinnati Parks.

CITY OF CINCINNATI  
80 FLUM ST  
CINCINNATI, OH 45202  
(513) 352-3243

CINCINNATI PARKS  
CYNTHIA WITTE  
CYNTHIA.WITTE@CINCINNATI-OH.GOV  
5555 OPEN PARK DRIVE  
CINCINNATI, OH 45202  
(513) 357-2604

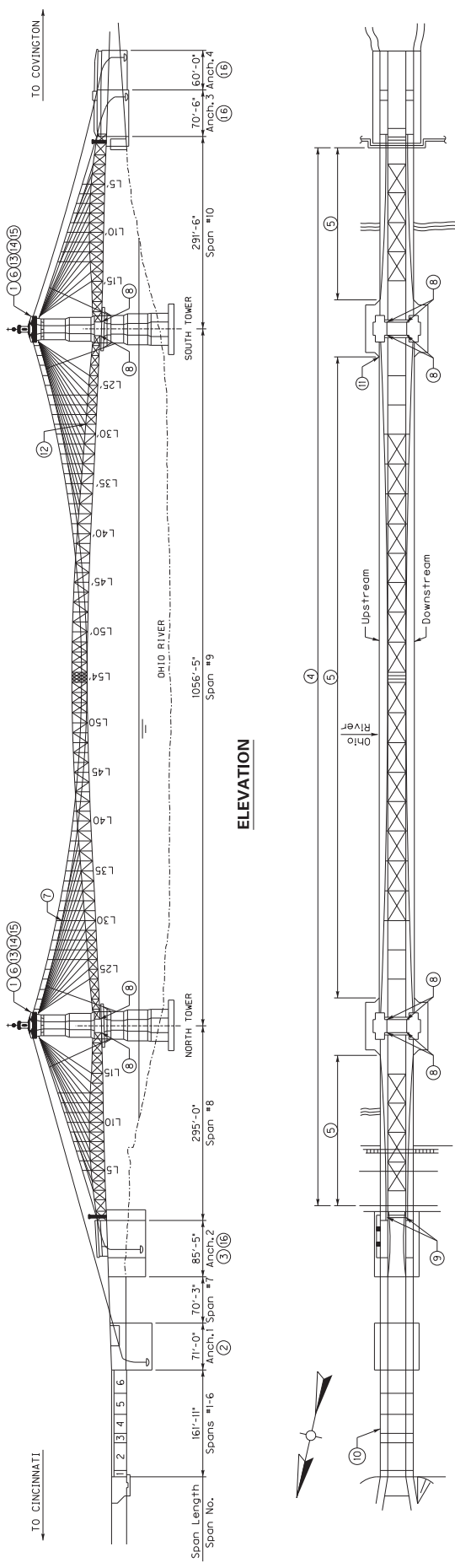
3. Throughout construction, the Contractor shall maintain access to the staircase at the end of the bridge. The Contractor shall maintain pedestrian access across the bridge during construction.
4. The Contractor shall use all measures necessary to avoid damage to the park and adjacent property. The Contractor shall be responsible for any damage to the park facilities that will be repaired by the Contractor at a condition acceptable by the City of Cincinnati and at no additional cost to the Department.

**COVINGTON NOTES:**

1. The Contractor shall coordinate construction activities with the City of Covington.  
CITY OF COVINGTON  
20 WEST PIKE ST  
COVINGTON, KY 41011  
18597 292-2160
2. The City of Covington is in the process of revitalizing the Kentucky waterfront in the vicinity of the Roebing bridge. Due to these updates, the Contractor may not use this area for staging.
3. The Contractor is responsible for coordinating with the City of Covington to utilize Mike Fink Lot (flooding must be considered) and the end of Greenup Street.

REVISION	DATE	CHECKED BY
DATE: 5/29/2020		C. KLUSMAN
DESIGNED BY: K. KUTNER		C. KLUSMAN
DETAILED BY: K. KUTNER		C. KLUSMAN
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	
<b>STAGING</b>		
SHEET NO. PREPARED BY AECOM 1000 Valley Jefferson Street Suite 1000 Louisville, KY 40202-4251 www.aecom.com		
<b>AECOM</b>		
SHEET NO. 28345		

ITEM NUMBER	6-1097
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**ELEVATION**

**PLAN**

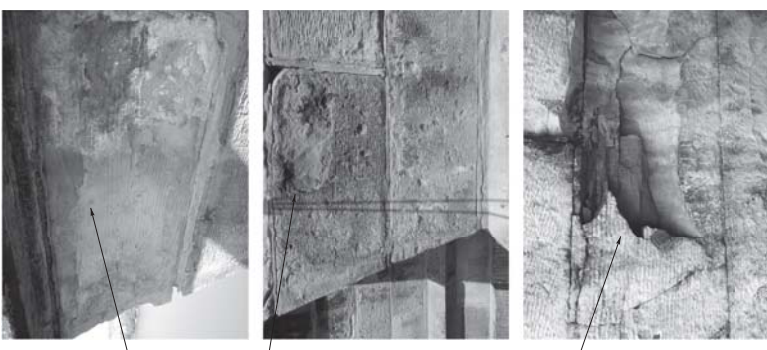
**REPAIR IDENTIFICATION NUMBERS:**

- 1 Tower Masonry Repairs (S7 - S14)
- 2 Anchorage 1 South Elevation Repair (S15)
- 3 Anchorage 2 Restoration (S16 - S21)
- 4 Steel Grid Deck Repairs (S22 - S23)
- 5 Sidewalk Repairs (S24)
- 6 Waterproofing Zipper Boot Retrofit (S25)
- 7 Suspender Collar Repair @ Downstream PP30 (S26)
- 8 Anchor Bolt Retrofit - Towers (S26)
- 9 Truss Bearing Anchor Bolt Retrofit - Anchorage 2 (S27)
- 10 Approach Handrail Repair (S28)
- 11 Handrail Splice Replacement at Upstream FB22' (S28)
- 12 Stay Cable Connection Plate Crack Repair @ Upstream U29' (S28)
- 13 Tower Roof & Tower Handrail Repairs (S29-S33)
- 14 Tower Roof Drainage Repairs (S29-S33)
- 15 Turret Roof Repairs (S29-S33)
- 16 Anchorage House Roof Repairs (S29-S33)

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUTNER		C. KULSMAN
DETAILED BY: K. KUTNER		C. KULSMAN
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE <b>KY-47</b>		
CROSSING <b>OHIO RIVER</b>		
PROJECT NO. <b>LAVOY</b>		
PREPARED BY <b>AECOM</b>		
SHEET NO. <b>28345</b>		

ITEM NUMBER
6-1097

PREPARED BY  
**AECOM**  
1000 Valley Jefferson Street  
Suite 1000  
Louisville, KY 40202-4851  
www.aecom.com



**MASONRY REPAIR GENERAL NOTES:**

- Contractor shall work this sheet with the Special Note for Masonry/Stone Repairs.
- Masonry repairs shall be performed as directed by, and to the satisfaction of the Engineer.
- This work includes the furnishing of all material, equipment, tools, labor, and incidentals necessary to complete the work.

**REPAIR (A) - REMOVAL OF DETERIORATED MASONRY:**

- Throughout masonry project limits, all damaged, chipped, and deteriorated portions of masonry blocks shall be removed until sound masonry surface is reached to the satisfaction of the Engineer. All loose material must be removed in pieces of masonry from the work area. Deeper areas to be repaired per Repairs B and C, as described below.

**REPAIR (B) - MASONRY PATCHING REPAIR:**

- Masonry patching repair is intended for areas with debonded masonry less than 4" deep. These areas include areas with previous repairs that are debonded.
- Remove all debonded masonry until sound masonry surface is reached. Sawcut edges of patch areas 1/2" deep minimum into rectangular shapes.
- For cases less than 12" deep and/or smaller than 1 SF, fill the cavity with patching mortar and trowel the finished surface to resemble the finish of existing masonry.
- For cases 2" to 4" deep and larger than 1 SF, drill holes and install 3/8" diameter stainless steel anchors. Masonry anchors should have sufficient length to begin 1/2" below the finished surface and penetrate 4" deep into the sound masonry. Fill the cavity with patching material flush with the adjacent masonry and trowel the finished surface to resemble the finish of existing masonry.
- While locating sound masonry behind debonded or cracked masonry, the defected area may become deeper than 4". In these cases, the Contractor shall abandon the patching effort and begin the dutchman repair.

**REPAIR (C) - DUTCHMAN REPAIR:**

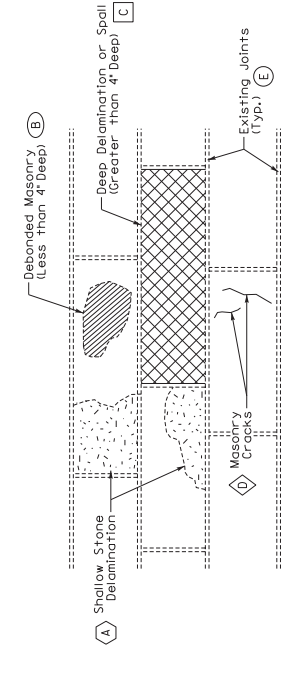
- Dutchman repairs are intended for areas with spalls or deep delimitations greater than 4" deep. If spalls are greater than 12" deep, Contractor shall consult with the Engineer.
- Remove all loose masonry until a sound masonry surface is reached. Saw cut the surface masonry to a depth of 1" below the finished surface. Install uniform proposed masonry facing. Install proposed masonry face with 3/8" diameter masonry anchors as shown. Fill anchor holes in existing and new masonry with injectable adhesive mortar. Anchors should penetrate the sound masonry a minimum of 6". Repoint joints adjacent to dutchman repair.

**REPAIR (D) - MASONRY CRACK REPAIR:**

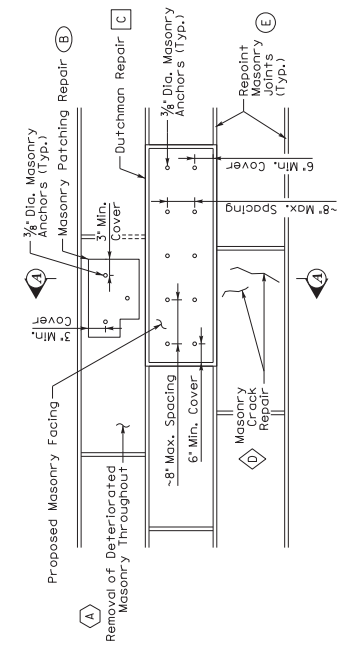
- Cracks 1/8" wide or greater shall be grouted. Crack depth shall be fully injected.
- Remove all loose material prior to grouting. Inject grout and fill the cracks. Clean the masonry surface of any excess grout to provide a smooth finish.

**REPAIR (E) - REPOINT MASONRY JOINTS:**

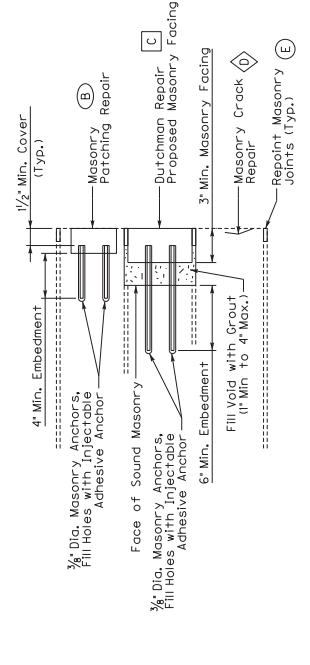
- Repoint all joints throughout masonry project limits.
- Mortar compounds must adhere to and match the stone as closely as possible, not only in appearance, color, texture, and tooling, but also in physical properties in accordance with the Special Note for Masonry/Stone Repairs.
- Repointing Method:
  - Saw cut existing mortar until sound mortar is encountered. Minimum depth of 1". Contractor shall not damage stone or widen joint.
  - Clean and wet areas of stone to receive new mortar.
  - Provide new mortar in maximum lifts of 3/8" deep. Refer to the Special Note for Masonry/Stone Repairs.



**EXISTING MASONRY CONDITIONS**



**TYPICAL MASONRY REPAIRS**



**SECTION A-A**

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUTNER		C. KLUSMAN
DETAILED BY: K. KUTNER		C. KLUSMAN
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY		
<b>KENTON</b>		
CROSSING		
<b>OHIO RIVER</b>		
PROJECT NO.		
<b>MASONRY REPAIR SCHEMES</b>		
SHEET NO.		
<b>AECOM</b>		
1000 Valley Jefferson Street Suite 1000 Louisville, KY 40202-4251 www.aecom.com		
CONTRACT NO. <b>28345</b>		

ITEM NUMBER	6-1097
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**MASONRY REPAIR QUANTITIES**

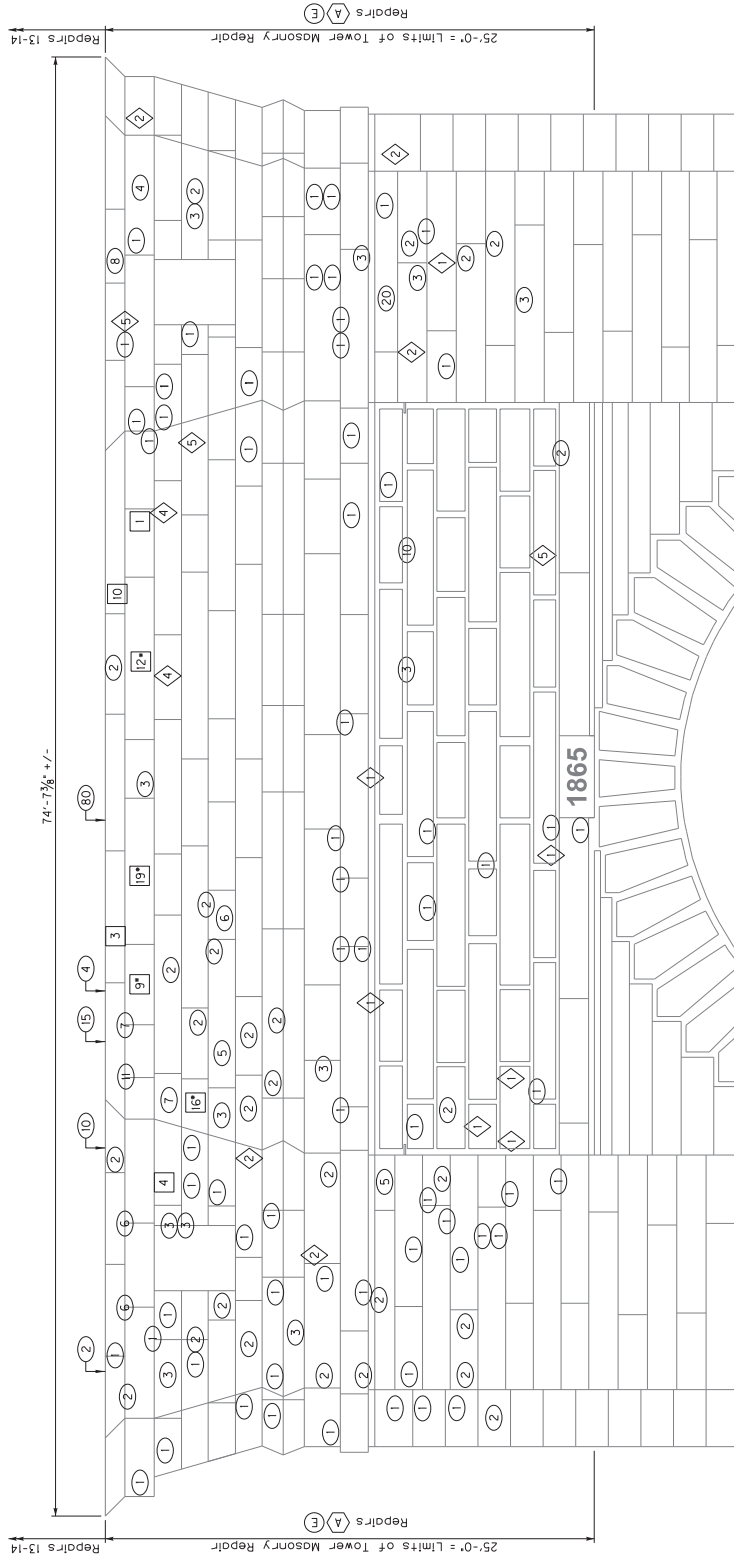
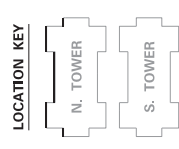
LOCATION	ELEVATION	SHEET NO.	REMOVAL OF DETERIORATED MASONRY		MASONRY PATCHING REPAIR			DUTCHMAN REPAIR			MASONRY CRACK REPAIR		
			(A) SF	(B) SF	PLAN	15% ADD'L	BID QTY	PLAN	15% ADD'L	BID QTY	PLAN	15% ADD'L	BID QTY
NORTH TOWER	NORTH	S7	249	55	417	74	12	86	40	6	46		
	SOUTH	S8	322	35	263	40	6	46	33	5	38		
	WEST	S9	120	22	163	18	3	21	3	1	4		
	EAST	S9	71	174	27	201	0	0	17	3	20		
	WEST INT.	S10	84	9	2	11	6	1	7	6	1	7	
SOUTH TOWER	EAST INT.	S10	50	82	13	95	18	3	21	2	1	3	
	ROOF RAIL	S29	25	3	1	4	0	0	15	3	18		
	NORTH	S11	88	207	32	239	2	1	3	83	13	96	
	SOUTH	S12	128	126	19	145	12	2	14	52	8	60	
	WEST	S13	134	82	13	95	1	1	2	31	5	36	
ANCH. 1	EAST	S13	15	143	22	165	8	2	10	33	5	38	
	WEST INT.	S14	35	13	2	15	0	0	11	2	13		
	EAST INT.	S14	32	25	4	29	3	1	4	13	2	15	
	ROOF RAIL	S30	25	32	5	37	0	0	24	4	28		
	SOUTH	S15	30	48	8	56	0	0	6	1	7		
ANCH. 2	SOUTH	S21	44	22	4	26	293	44	337	0	0		
	N. BARREL	S21	35	109	17	126	434	66	500	15	3	18	
	S. BARREL	S21	86	0	0	0	1267	191	1458	8	2	10	
	S. EL. INT.	S21	10	0	0	0	32	5	37	0	0		
	TOTALS			1583	1806	281	2087	2208	338	2546	392	65	457

**NOTES:**

- Plan quantity represents the quantities shown on the plan sheets herein. The Contractor shall bid an additional quantity shown, which represents 15% of the plan quantity.
- Contractor shall repair masonry per the Special Note for Masonry/Stone Repairs and these plans.
- Masonry Project Limits shall be defined as the top 25'-0" of the North and South Towers, Anchorage 1 South Face, the underside of the Anchorage 2 arches and Anchorage 2 South Face. The North and South Tower Railings shall be repaired as directed in Sheets S29-S33.
- The intent of these masonry repairs is for complete masonry restoration within the Masonry Project Limits. Throughout the Masonry Project Limits, the Contractor shall remove delaminated and spalled masonry (Repair A). Once sound masonry is located, repair the location according to the manufacturer's recommendations. The Contractor shall repair the masonry in accordance with the guidance per the 208 in-depth inspection and by using engineering judgement and should be used as determination of repair locations and types.
- The Contractor shall provide plan sheets showing final repair locations and quantities for Masonry Patching, Dutchman, and Masonry Crack Repairs to the Engineer for acceptance of final quantities.
- The Contractor shall repaint all masonry joints throughout the Masonry Project Limits (Repair E). The Contractor can expect areas within the Masonry Project Limits with little to no deterioration. The Repair A quantity shown herein reflects field determined areas requiring attention. Payment for Removal of Deteriorated Masonry is lump sum, no adjustments will be made. The Contractor is responsible for identifying areas within the Masonry Repair Limits and repairing as necessary per the Masonry Repair Schemes.

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUTNER		C. KLUSMAN
DETAILED BY: K. KUTNER		C. KLUSMAN
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY		
<b>KENTON</b>		
ROUTE	CROSSING	
KY-47	OHIO RIVER	
<b>MASONRY REPAIR QUANTITIES</b>		
PREPARED BY: AECOM		
1000 Valley Jefferson Street		
Suite 1000		
Louisville, KY 40202-4021		
www.aecom.com		
<b>AECOM</b>		
SHEET NO.		
28345		

ITEM NUMBER
6-1097



**MASONRY REPAIRS  
NORTH TOWER – NORTH ELEVATION**

**NOTES:**

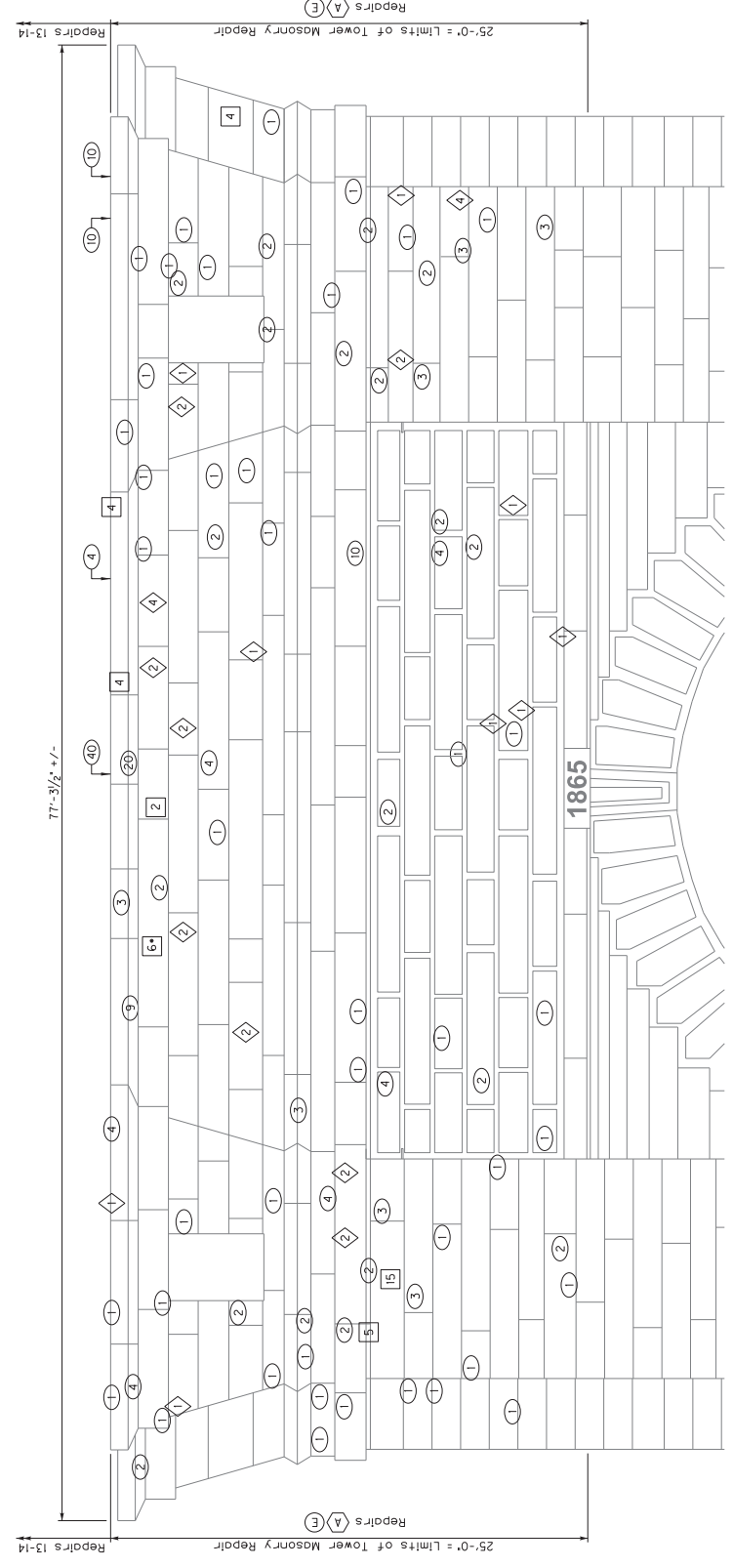
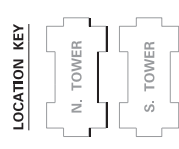
1. Contractor shall work this sheet with Sheets S5-S6 and the Special Note for Masonry/Stone Repairs.
2. Repair locations and quantities shown herein are approximate and were taken from the 2018 field observations. Contractor shall work with the Engineer in order to make a final determination of repair locations and types.
3. Estimated masonry repair quantities are located on Sheet S6.
4. Contractor shall remove existing debris collection system on the North Tower and use the necessary masonry repair schemes to restore the areas affected by the system anchors. Cost to repair anchor locations shall be incidental to the bid item "Masonry Patching Repair".

**LEGEND:**

- Masonry Patching Repair - Quantity in SF
  - Dutchman Repair - Quantity in SF
  - ◇ Masonry Crack Repair - Quantity in LF
- \*Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	C. KLUSMAN	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	ELEV <b>MASONRY – N. TOWER, N. ELEV.</b>
PREPARED BY <b>AECOM</b> 1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4281 www.aecom.com		
SHEET NO. <b>S7</b>		ESTIMATE NO. <b>28345</b>

REPAIR 1
ITEM NUMBER <b>6-1097</b>



**MASONRY REPAIRS  
NORTH TOWER - SOUTH ELEVATION**

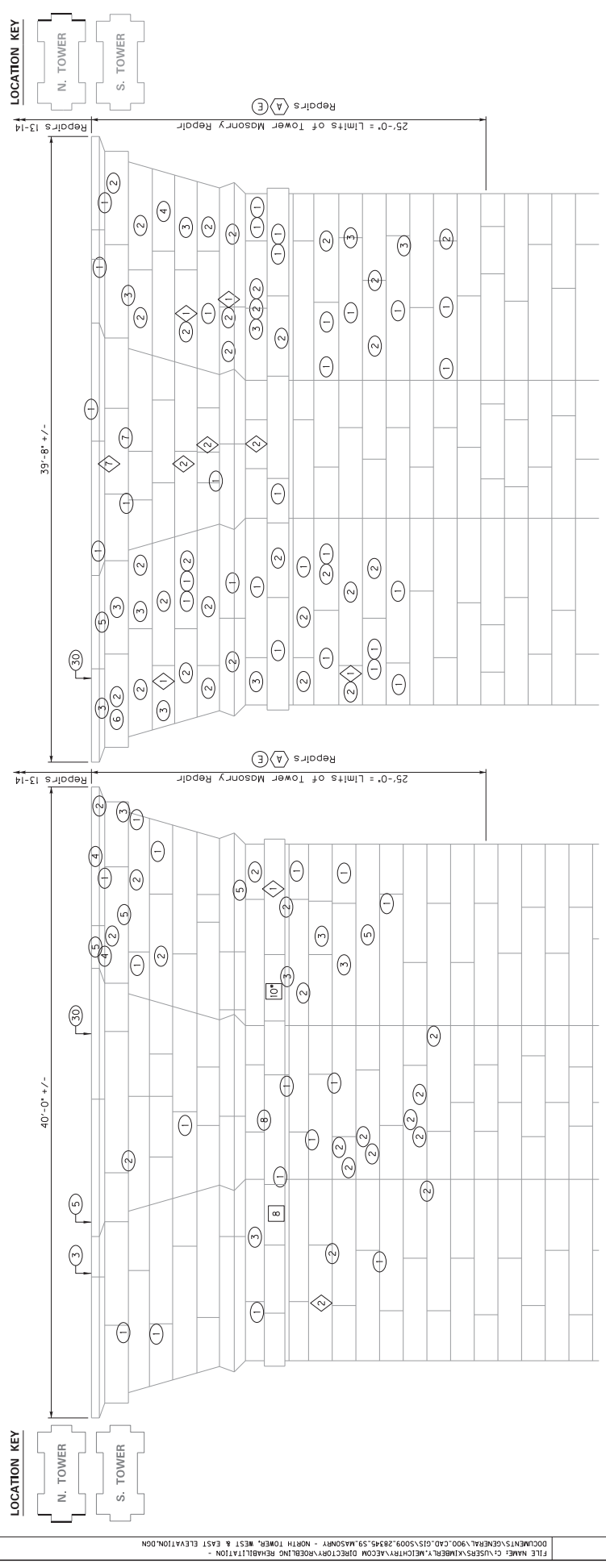
**NOTES:**

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2. Repair locations and quantities shown herein are approximate and were taken from the 2018 field notes. The Contractor shall work with the Engineer in order to make a final determination of repair locations and types.
3. Estimated masonry repair quantities are located on Sheet S6.

**LEGEND:**

- Masonry Patching Repair - Quantity in SF
- Dutchman Repair - Quantity in SF
- ◇ Masonry Crack Repair - Quantity in LF
- \* Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	C. KLUSMAN	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	SHEET NO.
PREPARED BY <b>MASONRY - N. TOWER, S. ELEV.</b>		AECOM 1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4281 www.aecom.com
ITEM NUMBER <b>REPAIR 1</b>		28345
ITEM NUMBER <b>6-1097</b>		



**MASONRY REPAIRS**  
**NORTH TOWER - WEST ELEVATION**

**MASONRY REPAIRS**  
**NORTH TOWER - EAST ELEVATION**

**NOTES:**

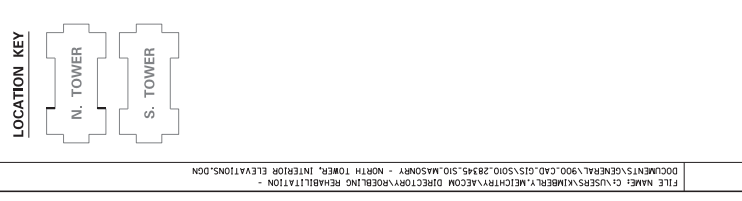
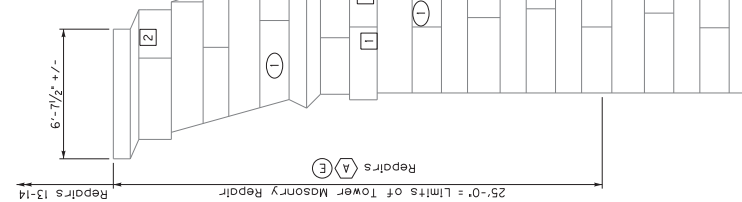
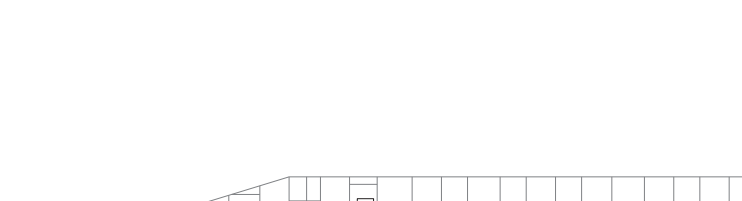
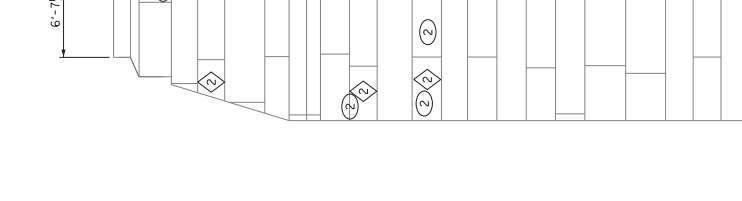
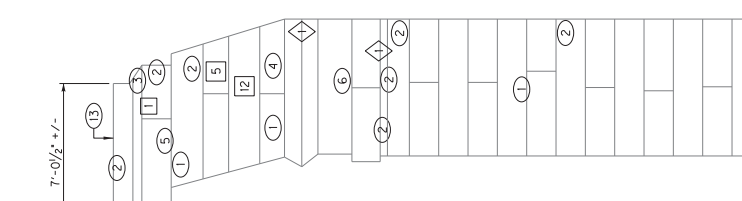
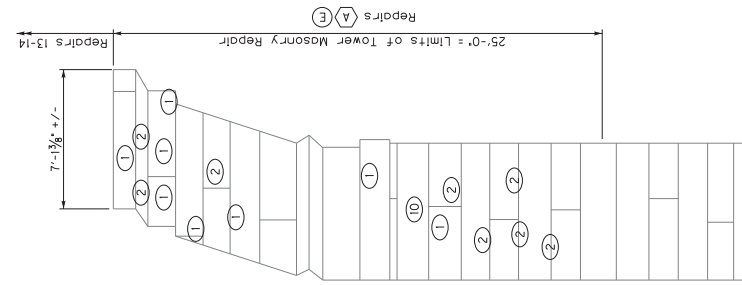
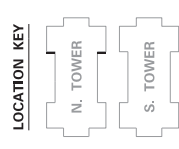
- Contractor shall work this sheet with Sheets S5-S6 and the Special Note for Masonry/Stone Repairs.
- Repair locations and quantities shown herein are approximate and were taken from the 2018 field notes. The Contractor shall work with the Engineer in order to make a final determination of repair locations and types.
- Estimated masonry repair quantities are located on Sheet S6.

**LEGEND:**

- Masonry Patching Repair - Quantity in SF
- Dutchman Repair - Quantity in SF
- ◇ Masonry Crack Repair - Quantity in LF
- \* Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	C. KLUSMAN	
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	ELEV.
<b>MASONRY - N. TOWER, W/E</b>		
PREPARED BY <b>AECOM</b>		
1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4281 www.aecom.com		
<b>AECOM</b>		
SHEET NO. <b>28345</b>		

REPAIR 1
ITEM NUMBER
6-1097



**MASONRY REPAIRS**  
**NORTH TOWER – WEST INTERIOR ELEVATION**

**MASONRY REPAIRS**  
**NORTH TOWER – EAST INTERIOR ELEVATION**

**MASONRY REPAIRS**  
**NORTH TOWER – WEST INTERIOR ELEVATION**

**MASONRY REPAIRS**  
**NORTH TOWER – EAST INTERIOR ELEVATION**

REVISION	DATE
5/29/2020	CHECKED BY
DESIGNED BY: K. KUTNER	C. KLUSMAN
DETAILED BY: K. KUTNER	J. WAGNER
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>	
COUNTY <b>KENTON</b>	
ROUTE KY-47	CROSSING OHIO RIVER
<b>MASONRY – N. TOWER, INT. ELEV.</b>	
PREPARED BY <b>AECOM</b>	SHEET NO. <b>510</b>
1000 Valley Jefferson Street Suite 1000 Louisville, KY 40202-4281 www.aecom.com	
<b>28345</b>	

REPAIR 1
ITEM NUMBER
6-1097

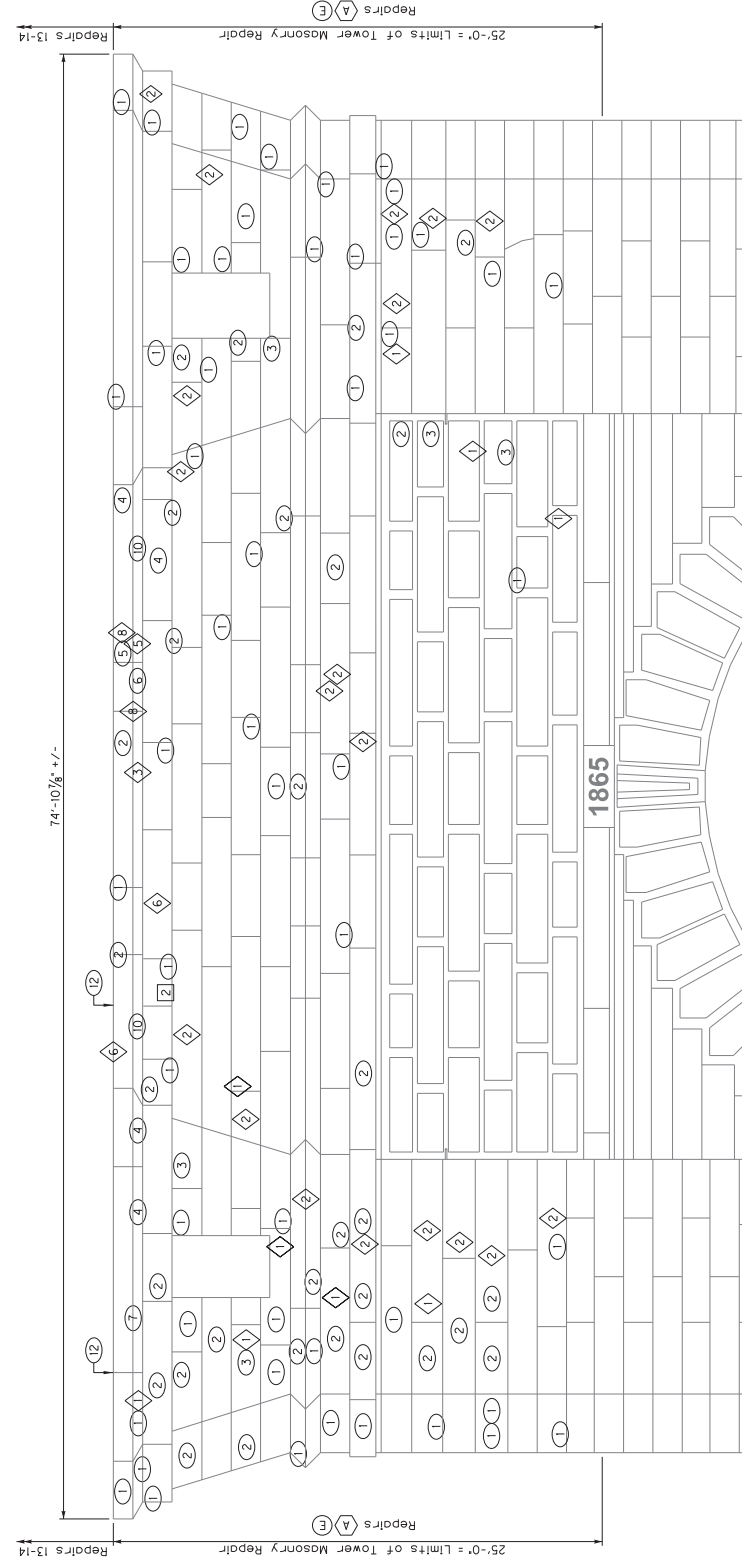
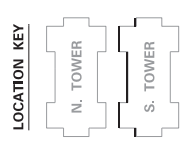
**NOTES:**

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**LEGEND:**

- Masonry Patching Repair - Quantity in SF
- Dutchman Repair - Quantity in SF
- ◇ Masonry Crack Repair - Quantity in LF
- Whole Stone





**MASONRY REPAIRS**  
**SOUTH TOWER - NORTH ELEVATION**

**NOTES:**

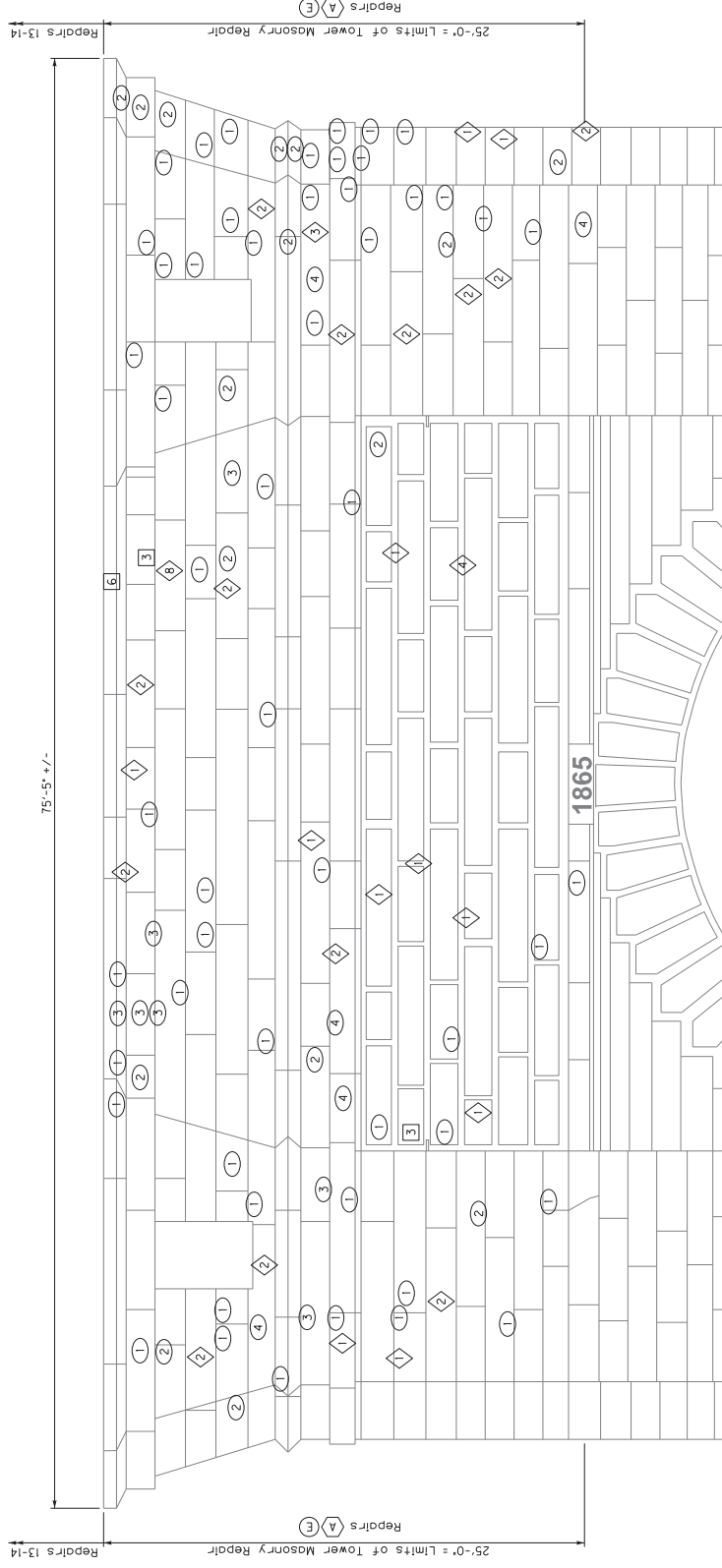
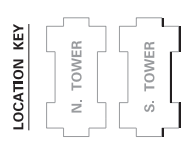
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3. Estimated masonry repair quantities are located on Sheet S6.

**LEGEND:**

- Masonry Patching Repair - Quantity in SF
- Dutchman Repair - Quantity in SF
- ◇ Masonry Crack Repair - Quantity in LF
- \*Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	C. KLUSMAN	
J. WAGNER		
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY		
<b>KENTON</b>		
ROUTE	CROSSING	
KY-47	OHIO RIVER	
PREPARED BY		
<b>MASONRY - S. TOWER, N. ELEV.</b>		
SHEET NO.		
<b>AECOM</b>		
28345		

REPAIR 1
ITEM NUMBER
6-1097



**MASONRY REPAIRS  
SOUTH TOWER - SOUTH ELEVATION**

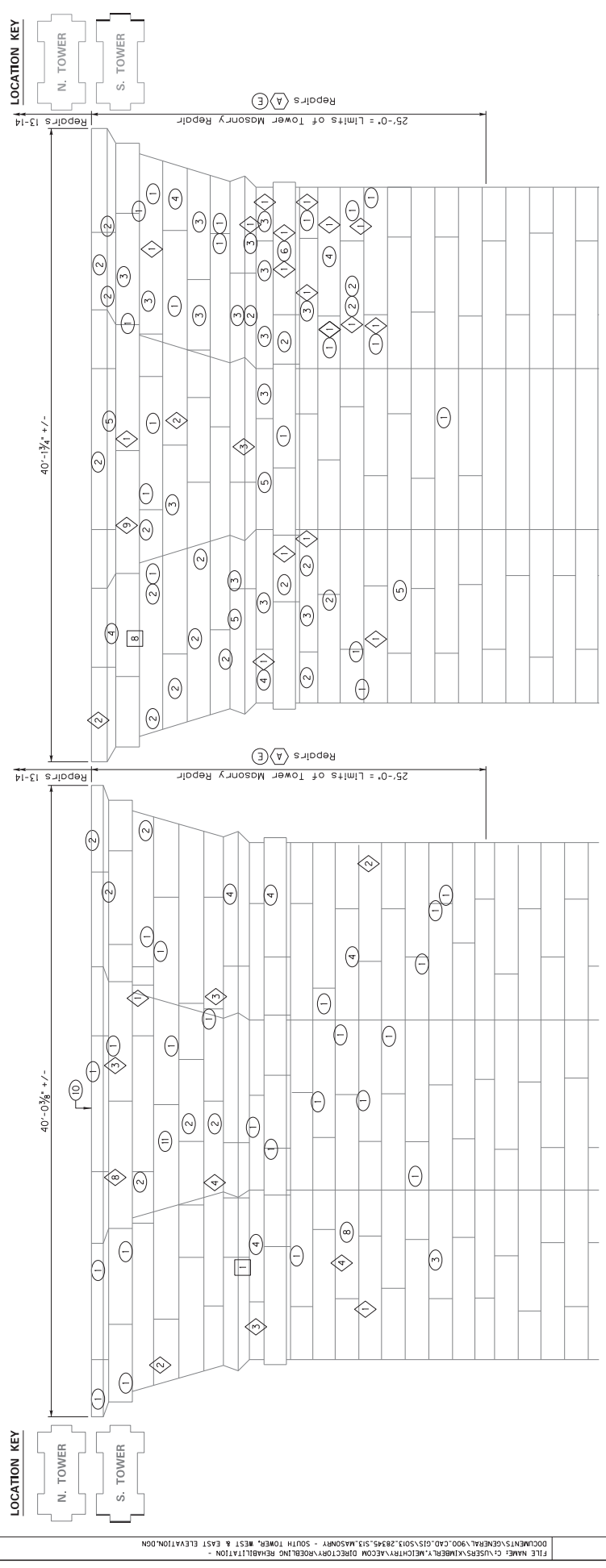
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**LEGEND:**

- Masonry Patching Repair - Quantity in SF
- Dutchman Repair - Quantity in SF
- ◇ Masonry Crack Repair - Quantity in LF
- \*Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	C. KLUSMAN	
<b>Commonwealth of Kentucky</b> DEPARTMENT OF HIGHWAYS		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	SHEET NO. MASONRY - S. TOWER, S. ELEV
<b>AECOM</b> PREPARED BY AECOM 1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4261 www.aecom.com		
ITEM NUMBER REPAIR 1		SHEET NO. 28345



**MASONRY REPAIRS**  
**SOUTH TOWER – WEST ELEVATION**

**MASONRY REPAIRS**  
**SOUTH TOWER – EAST ELEVATION**

**NOTES:**

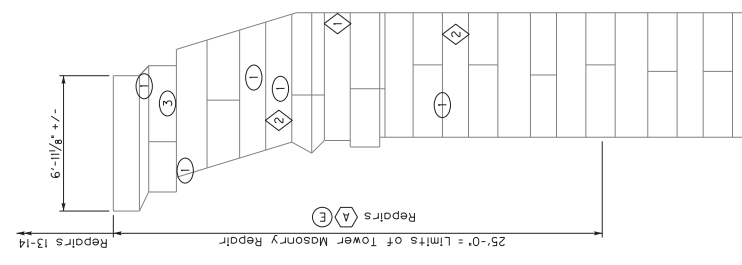
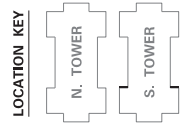
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**LEGEND:**

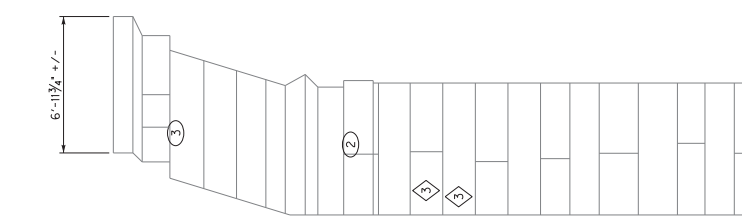
- Masonry Patching Repair - Quantity in SF
  - Dutchman Repair - Quantity in SF
  - ◇ Masonry Crack Repair - Quantity in LF
- \*Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	A. WAGNER	
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	ELEV.
<b>MASONRY – S. TOWER, W/E</b>		
PREPARED BY AECOM 1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4261 www.aecom.com		
<b>AECOM</b>		SHEET NO. <b>28345</b>

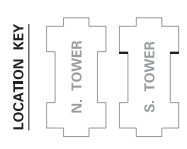
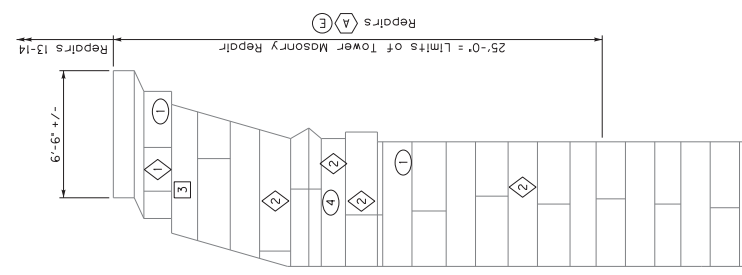
REPAIR 1
ITEM NUMBER <b>6-1097</b>



**MASONRY REPAIRS**  
**SOUTH TOWER – WEST INTERIOR ELEVATION**



**MASONRY REPAIRS**  
**SOUTH TOWER – EAST INTERIOR ELEVATION**



**NOTES:**

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**LEGEND:**

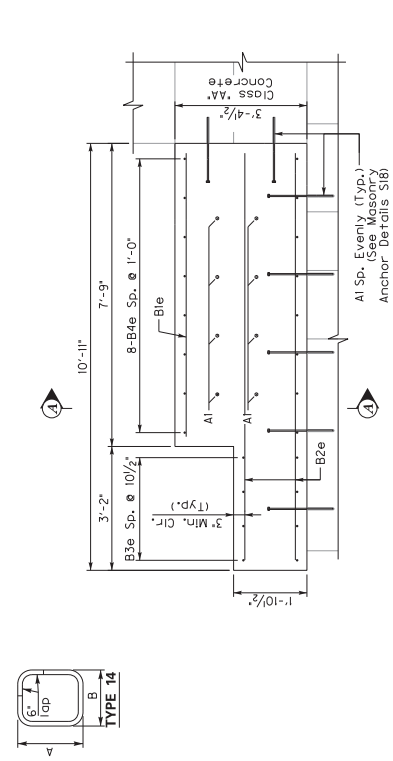
- Masonry Patching Repair - Quantity in SF
- Dutchman Repair - Quantity in SF
- ◇ Masonry Crack Repair - Quantity in LF
- \*Whole Stone

DATE: 5/29/2020	REVISION	DATE
DESIGNED BY: K. KUTNER	CHECKED BY	
DETAILED BY: K. KUTNER	C. KLUSMAN	
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	SHEET NO. ELEV.
<b>MASONRY – S. TOWER, INT. ELEV.</b>		
PREPARED BY: AECOM 10000 Woodloch Forest Drive Suite 1000 Louisville, KY 40262-4261 www.aecom.com		
DRAWING NO. <b>28345</b>		SHEET NO. <b>S14</b>

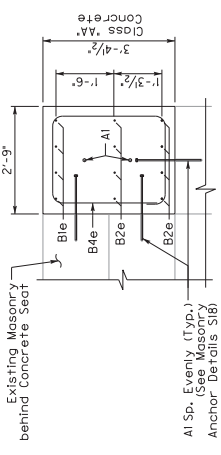
REPAIR 1
ITEM NUMBER
6-1097

**BILL OF REINFORCEMENT - ANCHORAGE 1**

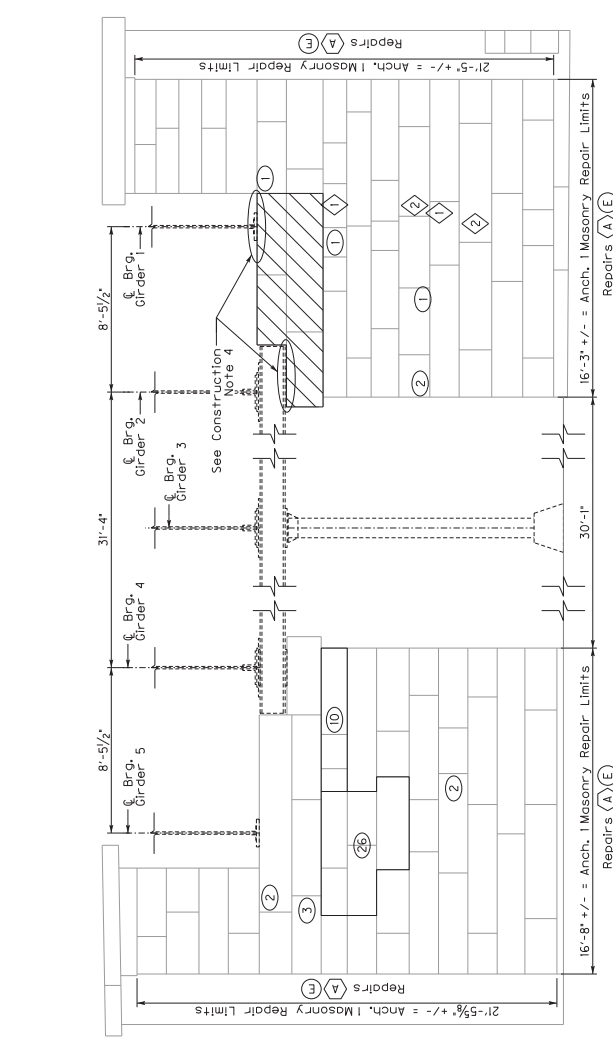
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B1e	S1r.	6	4	7	3	Bearing Seat		1	4	2	3		
B2e	S1r.	6	4	0	2	Bearing Seat		2	10	2	3		
B3e	S1r.	6	8	11	2	Bearing Seat							
B4e	S1r.	6	8	11	2	Bearing Seat							



**CONCRETE SEAT ELEVATION**



**SECTION A-A**



**ANCHORAGE 1 - SOUTH ELEVATION**

**LEGEND:**

- ⊙ Masonry Patching Repair - Quantity in SF
- ⊠ Masonry Crack Repair - Quantity in LF
- ▨ Remove Existing Masonry and Place Class "AA" Concrete Seat. Cutting of existing masonry may be necessary.

**MASONRY NOTES:**

1. Contractor shall work this sheet with Sheets S5-S6 and the Special Note for Masonry/Stone Repairs.
2. Repair locations and quantities shown herein are approximate and were taken from the field in 2018. Contractor shall use the information provided herein as guidance in the field. Contractor shall work with the Engineer in order to make a final determination of repair locations and types.
3. Estimated masonry repair quantities are located on Sheet S6.
4. Masonry Anchors shall be 304 stainless steel threaded rods with a nut at the end. Measurement and payment of Anchorage 1 Masonry Anchors per bid item Anchor.

**CONSTRUCTION NOTES:**

1. Contractor must field measure/survey and match existing girder seat dimensions and elevations.
2. Contractor shall lock and install temporary supports prior to beginning Anchorage 1 restoration. Contractor shall limit the vertical jacking to 1/2". Jacking shall be under the transverse stiffeners adjacent to Anchorage 1 on main girders. The Contractor shall be responsible for the design and installation of the temporary supports. The Contractor shall provide design calculations and engineering review of the temporary supports. The Contractor shall provide a detailed schedule of work prior to installation. Falsework material, equipment, tools, labor, and incidentals necessary to complete the Anchorage 1 jacking and support system shall be paid under the lump sum bid item Jack & Support Bridge Span.
3. Anchorage 1 restoration shall be completed while the bridge is closed to traffic.
4. Replace existing anchor bolts below Girders 1 & 2 with 1"Ø anchors embedded a minimum of 1'-0" into Class "AA" Concrete Bearing Seat. Match ASTM position of existing anchor bolts. Anchor rods shall be 304 stainless steel. All nuts shall be ASTM A194 Grade 2H. Nuts to be galvanized shall be heat treated Grade 0H or 0H3. All galvanized nuts should be lubricated with a lubricant containing a visible dye in accordance with ASTM A563. Supplementary Requirements S1 and S2. Cost of anchor bolt replacement will be incidental to Class "AA" Concrete.
5. All exposed surfaces of the new concrete bearing seat shall receive concrete coating per the Special Note for Concrete Coating.

**JACKING LOADS (KIPS)**

GIRDER	SPAN 7 @ ANCH. 1				
	DEAD LOAD (SERVICE)	G1	G2	G3	G5
G1	90				
G2	90				
G3	100				
G4	90				
G5	90				

DATE	REVISION	CHECKED BY
5/29/2020		C. KUSMAN
		C. KUSMAN

DESIGNED BY: K. KUTNER  
DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

DETAILED BY: K. KUTNER

PROJECT NO. **28345**

DATE: 5/29/2020

DESIGNED BY: K. KUTNER

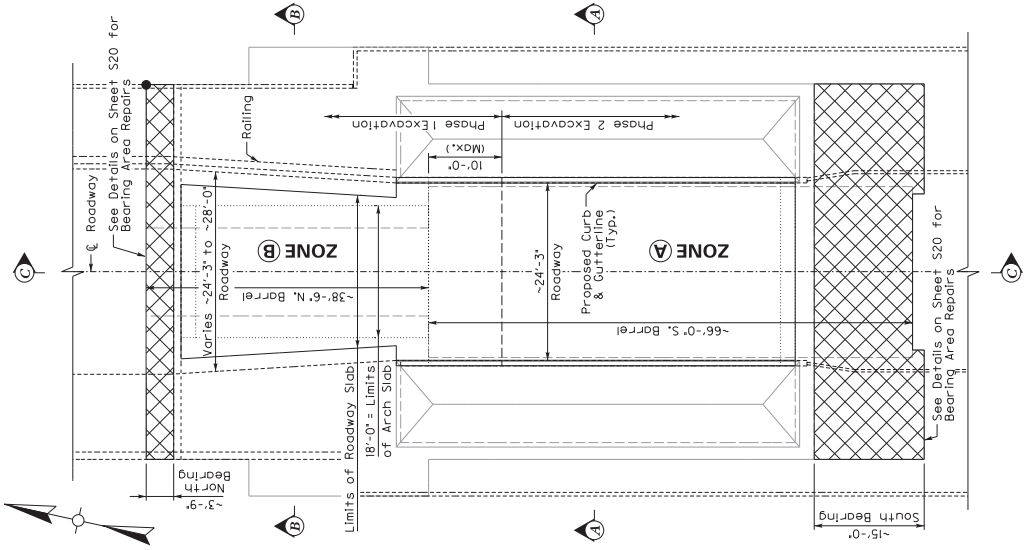
DETAILED BY: K. KUTNER

PROJECT NO. **28345**

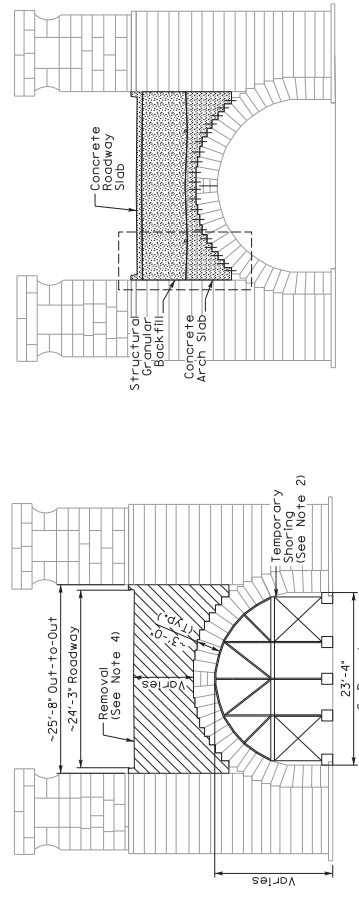
DATE: 5/29/2020

DESIGNED BY: K. KUTNER

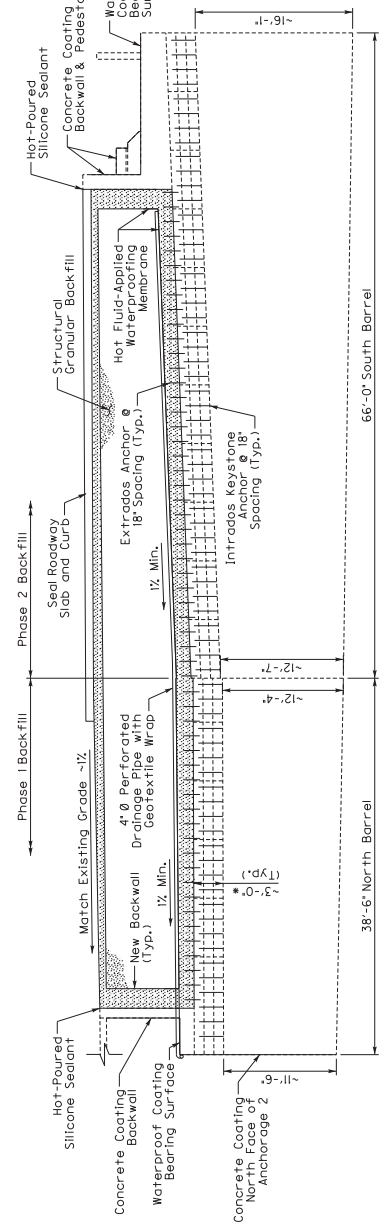
DETAILED BY: K. KUTNER



**ANCHORAGE 2 PLAN**  
(Superstructure & Staircases not shown for clarity)  
 • Proposed Downslope Location  
 ▨ Waterproof Bearing Surfaces



**SECTION A-A REMOVAL LIMITS**  
**SECTION A-A PROPOSED**



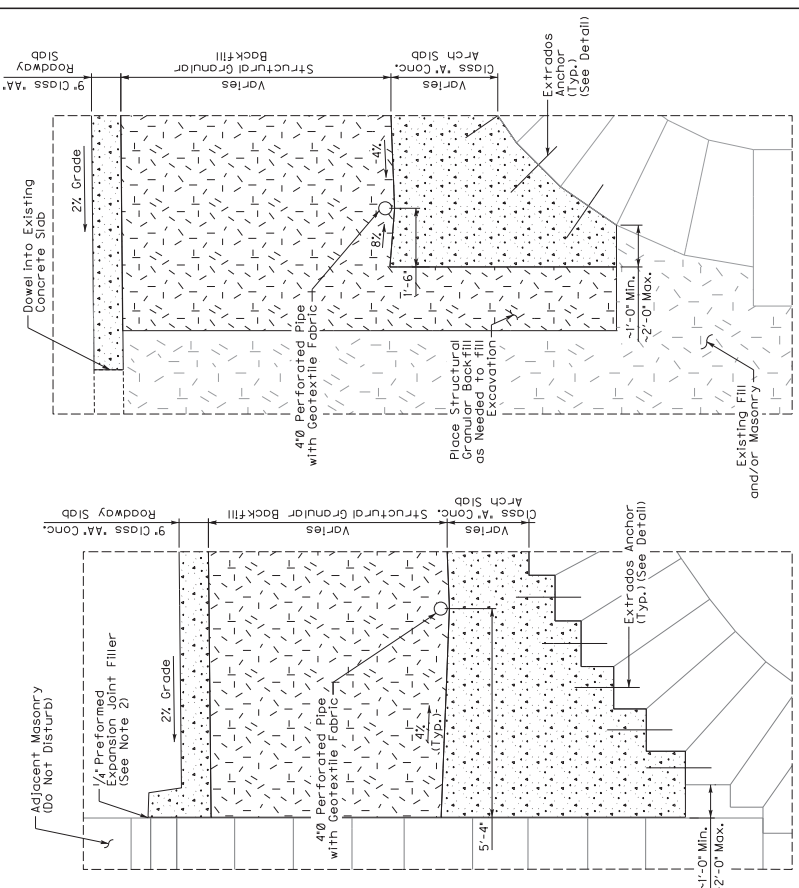
**SECTION C-C**

(Superstructure & Rebar not shown for clarity)  
 \* Contractor shall consult with Engineer if actual dimension varies significantly

**NOTES:**

1. Work this sheet with Sheets S17-S21.
2. Work to be in accordance with the Special Note for Anchorage 2 Arch.
3. Waterproofing, including the required temporary shoring.
4. The top of the arch slab and 1'-6" up each new backwall shall receive waterproofing per the Special Note for Hot Fluid-Applied Waterproofing.
5. The roadway slab and curb shall be sealed per the Special Note for Concrete Sealing.
6. The bearing area backwalls and North face of Anchorage 2 shall receive concrete coating per the Special Note for Concrete Coating. See Special Note for limits of coating.

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUJNER		C. KUSMAN
DETAILED BY: K. KUJNER		C. KUSMAN
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
<b>KENTON</b> COUNTY		
ROUTE: KY-47	CROSSING: OHIO RIVER	
<b>ANCHORAGE 2 (1 OF 6)</b>		
REPAIR 3		
ITEM NUMBER <b>6-1097</b>		
<b>AECOM</b> 1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4251 www.aecom.com		
SHEET NO. <b>S16</b> JOB NO. <b>28345</b>		

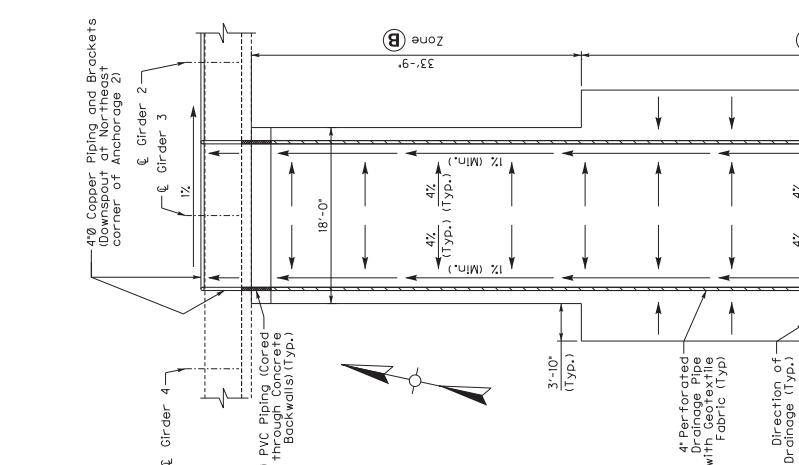


**(A) DETAIL A**  
(West Shown, East Similar)

**(B) DETAIL B**  
(West Shown, East Similar)

**NOTES:**

1. Work this sheet with Sheets S16-S21.
2. Zone A Concrete Slabs shall be poured 1/4" horizontally away from existing concrete slabs. The cost of the preformed expansion joint filler material in the gap between Zone A and Zone B concrete slabs shall be incidental to the work being performed.
3. Longitudinally stagger extrados and intrados keystone anchors so that extrados and intrados anchors are 9' apart.



**(B) SECTION B-B PROPOSED**

**(B) SECTION B-B EXISTING**

**(B) SECTION B-B REMOVAL LIMITS**

REVISION	DATE	CHECKED BY
5/29/2020		C. KUSMAN
5/29/2020		C. KUSMAN

DATE	5/29/2020	CHECKED BY	C. KUSMAN
DESIGNED BY	B.H.K. KURNER		
DETAILED BY	B.H.K. KURNER		

COMMUNICATED BY  
**Department of Kentucky**  
**DEPARTMENT OF HIGHWAYS**  
COUNTY  
**KENTON**  
ROUTE  
KY-47  
CROSSING  
OHIO RIVER  
SHEET NO.  
**ANCHORAGE 2 (2 OF 6)**  
PREPARED BY  
AECOM  
1000 Valley Jefferson Street  
Suite 1000  
Louisville, KY 40202-4851  
www.aecom.com  
**AECOM**  
28345

REPAIR 3	ITEM NUMBER	6-1097
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FILE NAME: C:\USERS\KIMBERLY\MCH\STP8198\AECOM\_DIRECTORY\REPAIR3\REHABILITATION - DOCUMENTS\GENERAL\900 CAD\015\5017\_28345\_S17\_ANCHORAGE 2 OF 6.DWG  
DATE PLOTTED: JULY 16, 2020  
USER: Kimberly.Kurmer  
MICROSTATION V8.11.1.443  
C-SHEET NAME:

**ARCH SLAB DRAINAGE PLAN**  
**MASONRY ANCHOR DETAIL**  
(See Note 4 & Sheet S18)

**BILL OF REINFORCEMENT - ANCHORAGE 2 ARCH SLAB**

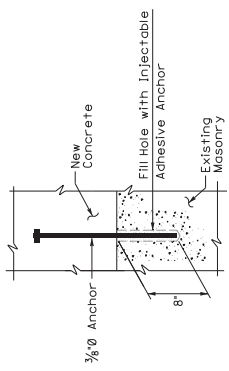
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S1e	STR.	5	31	49	ARCH SLAB - ZONE A				
S2e	STR.	5	49	6	ARCH SLAB - ZONE A				
S3e	STR.	5	20	49	ARCH SLAB - ZONE A				
S4e	STR.	6	67	25	ARCH SLAB - ZONE A				
S5e	STR.	5	100	5	ARCH SLAB - ZONE A				
S6e	STR.	5	20	27	ARCH SLAB - ZONE A				
S7e	STR.	5	10	33	ARCH SLAB - ZONE B				
S8e	STR.	5	21	33	ARCH SLAB - ZONE B				
S9e	STR.	6	45	7	ARCH SLAB - ZONE B				
S10e	STR.	6	34	13	ARCH SLAB - ZONE B				
S11e	STR.	6	34	13	ARCH SLAB - ZONE B				

\*Field Bend

**BILL OF MASONRY ANCHORS**

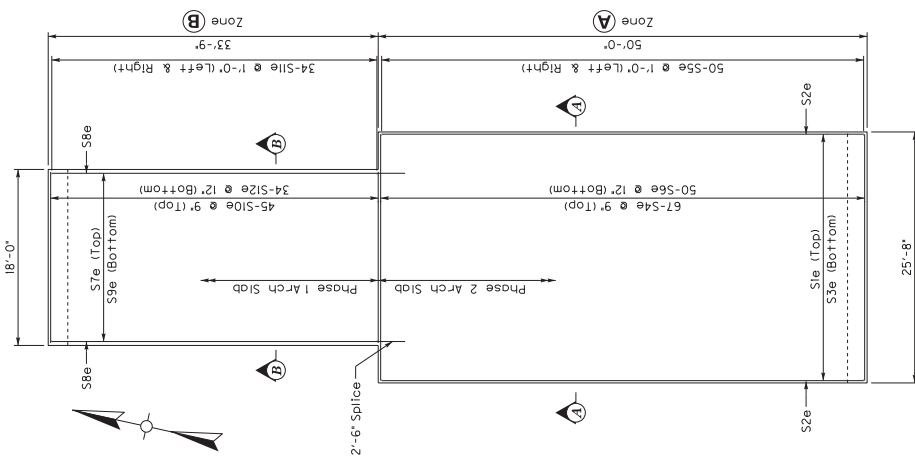
MARK	TYPE	DIA.	NO.	LENGTH FT.   IN.	LOCATION	d			
						a	b	c	d
A1	STR.	3/8	15	1	Anchor, 1 - Bearing Seat				
A2	STR.	3/8	72	2	Anchor, 2 - Int'r. Keystone Anchors				
A3	STR.	3/8	988	1	Anchor, 3 - Extrados Anchors				
A4	STR.	3/8	32	1	Anchor, 4 - Repair				

Masonry Anchors to be 304 stainless steel threaded rods in accordance with the Special Note.



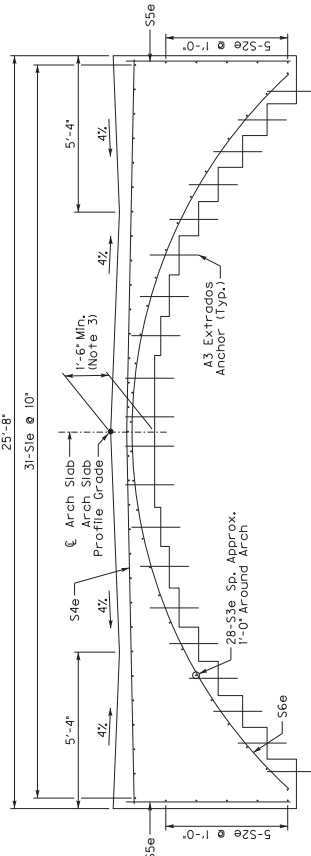
**MASONRY ANCHOR DETAIL**

Refer to Special Note for Masonry/Stone Repairs

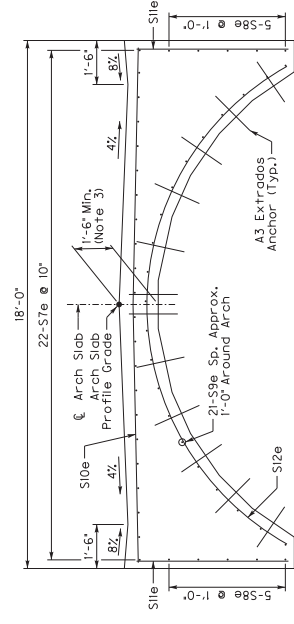


**ARCH SLAB PLAN**

- NOTES:**
- Work this sheet with Sheets S16-S21.
  - Extrados Anchors shall have a nut at the end. Measurement and payment of Anchorage 2 Masonry Anchors per bid item Anchor.



**ARCH SLAB SECTION A-A**



**ARCH SLAB SECTION B-B**

DATE	REVISION	CHECKED BY
5/29/2020		C. KUSMAN
		C. KUSMAN

**Commonwealth of Kentucky**  
**DEPARTMENT OF HIGHWAYS**

COUNTY: **KENTON**  
ROUTE: **KY-47** CROSSING: **OHIO RIVER**

SHEET NO. **3 OF 6**  
PROJECT NO. **ANCHORAGE 2 (3 OF 6)**

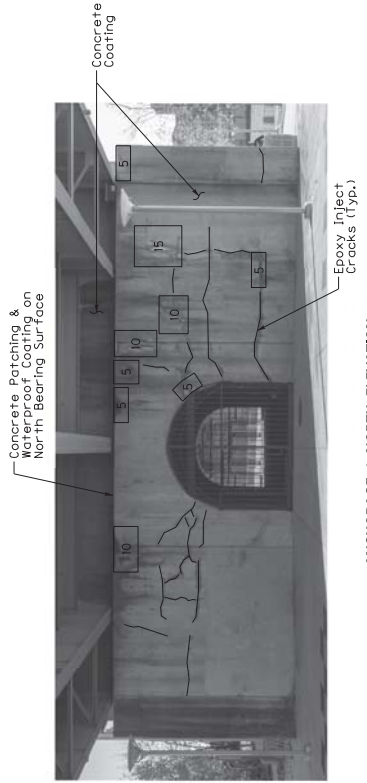
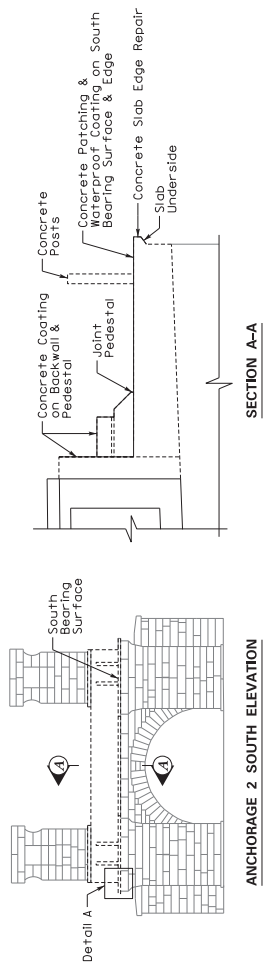
**AECOM**  
100 Valley Jefferson Street  
Louisville, KY 40202-4251  
www.aecom.com

ITEM NUMBER	REPAIR NUMBER
6-1097	REPAIR 3





**ANCHORAGE 2 BEARING AREAS**  
CONCRETE REPAIRS AND WATERPROOFING



**NOTES:**

1. Work this sheet with Sheets S16-S21.
2. Unless noted otherwise, all incidentals necessary to perform this work as described herein shall be included in the bid item for Waterproof Coating.
3. Clean the North and South bearing area of debris and loose concrete.
4. Completely remove existing metal flashing and adhesive from south bearing slab edge.
5. Relocate existing conduit away from the the south bearing surface. Field coordinate location with Engineer. Cost of relocation shall be incidental to Waterproof Coating.
6. Reconstruct deteriorated areas of the south bearing concrete slab edge. Remove all loose and delaminated concrete. Prepare the existing reinforcement. Drill #4 epoxy coated bars 6" into the slab at 1'-6" spacing. Cast new concrete edge and match existing profile. Refer to the Special Note for Concrete Repairs. Measurement and payment per bid item Concrete Slab Edge Repair.
7. Contractor and Engineer shall sound the bearing surfaces and the North Elevation to locate delaminated and spalled concrete. Repair similar to Detail 6 on Sheet S32. Refer to the Special Note for Concrete Repairs. Measurement and payment per bid item Concrete Patching Repair. Estimated Concrete Patching Repair Quantities:  
South Bearing Surface: 50 SF  
North Elevation: 70 SF
8. On surfaces that are to receive concrete coating, the Contractor shall repair all cracking. Epoxy Injection Crack Repair. Measurement and payment per bid item Epoxy Injection Crack Repair.
9. Install cove sealant at the edge of the backwalls, around the perimeter of the concrete posts and along the joint pedestals. Refer to Detail 3 on Sheet S33. Terminate new waterproof bid item Repair (Anchorage 2 Sealant).
10. Prepare the bearing areas and install new waterproof coating. Refer to details on Sheet S33 per the Special Note for Waterproof Coating. Measurement and payment per bid item Waterproof Coating.
11. At the South bearing area, extend waterproof coating down the vertical slab edge and on the slab underside. Refer to Special Note for Waterproof Coating. Measurement and payment per bid item Waterproof Coating.
12. Refer to the Special Note for Concrete Coating for limits and methods. Measurement and payment per bid item Concrete Coating.

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUTNER		C. KLUSMAN
DETAILED BY: K. KUTNER		C. KLUSMAN
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	
PROJECT NO. <b>ANCHORAGE 2 (5 OF 6)</b>		
SHEET NO. <b>520</b>		
DRAWN BY <b>AECOM</b>		
PROJECT LOCATION Jefferson Street Louisville, KY 40202-4251 www.kentondot.com		
<b>28345</b>		

REPAIR 3
ITEM NUMBER
6-1097

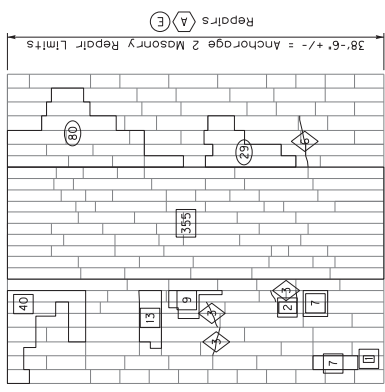
**ANCHORAGE 2 MASONRY REPAIRS**

**NOTES:**

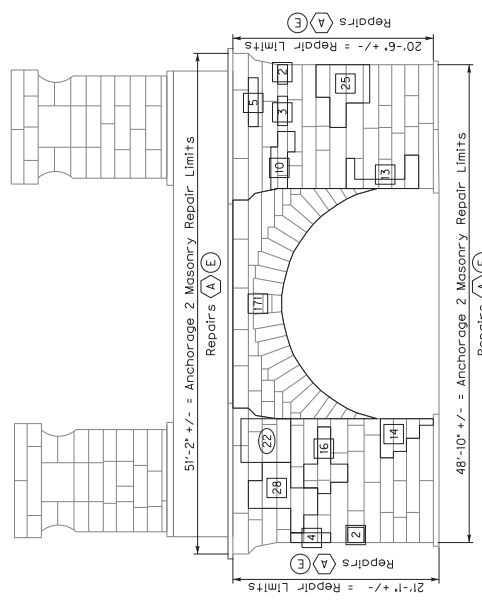
- Contractor shall work this sheet with Sheets S16-620 and the Special Note for Masonry/Stone Repairs. Contractor shall complete construction of Anchorage 2 Arch Slab prior to beginning intrados masonry restoration.
- Repair locations and quantities shown herein are approximate and were taken from the field. Contractor shall work with the Engineer in order to make a final determination of repair locations and types.
- Estimated masonry repair quantities for Anchorage 2 are located on Sheet S6.

**LEGEND:**

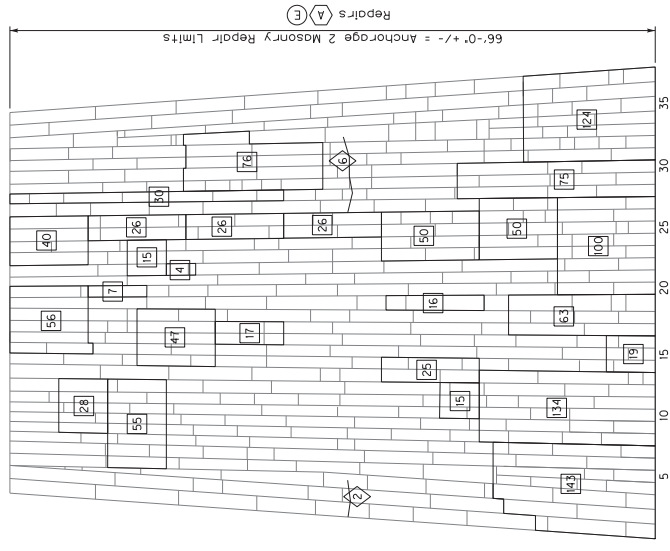
- ⊕ Masonry Patching Repair - Quantity in SF
- ⊖ Dutchman Repair - Quantity in SF
- ⊕ Masonry Crack Repair - Quantity in LF



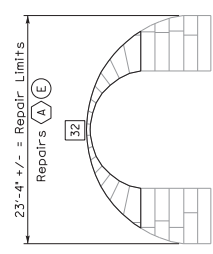
**NORTH BARREL INTRADOS**



**ANCHORAGE 2 SOUTH ELEVATION**



**SOUTH BARREL INTRADOS**



**NORTH BARREL - SOUTH ELEVATION**

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUMER		A. CANTRELL
DETAILED BY: K. KUMER		A. CANTRELL
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
<b>KENTON COUNTY</b>		
ROUTE: KY-47	CROSSING: OHIO RIVER	
<b>ANCHORAGE 2 (6 OF 6)</b>		
PREPARED BY: AECOM		
1000 West Jefferson Street		
Suite 1000		
Louisville, KY 40202-4251		
www.aecom.com		
<b>AECOM</b>		
SHEET NO. 571		
ESTIMATE NO. 28345		

REPAIR 3
ITEM NUMBER
6-1097

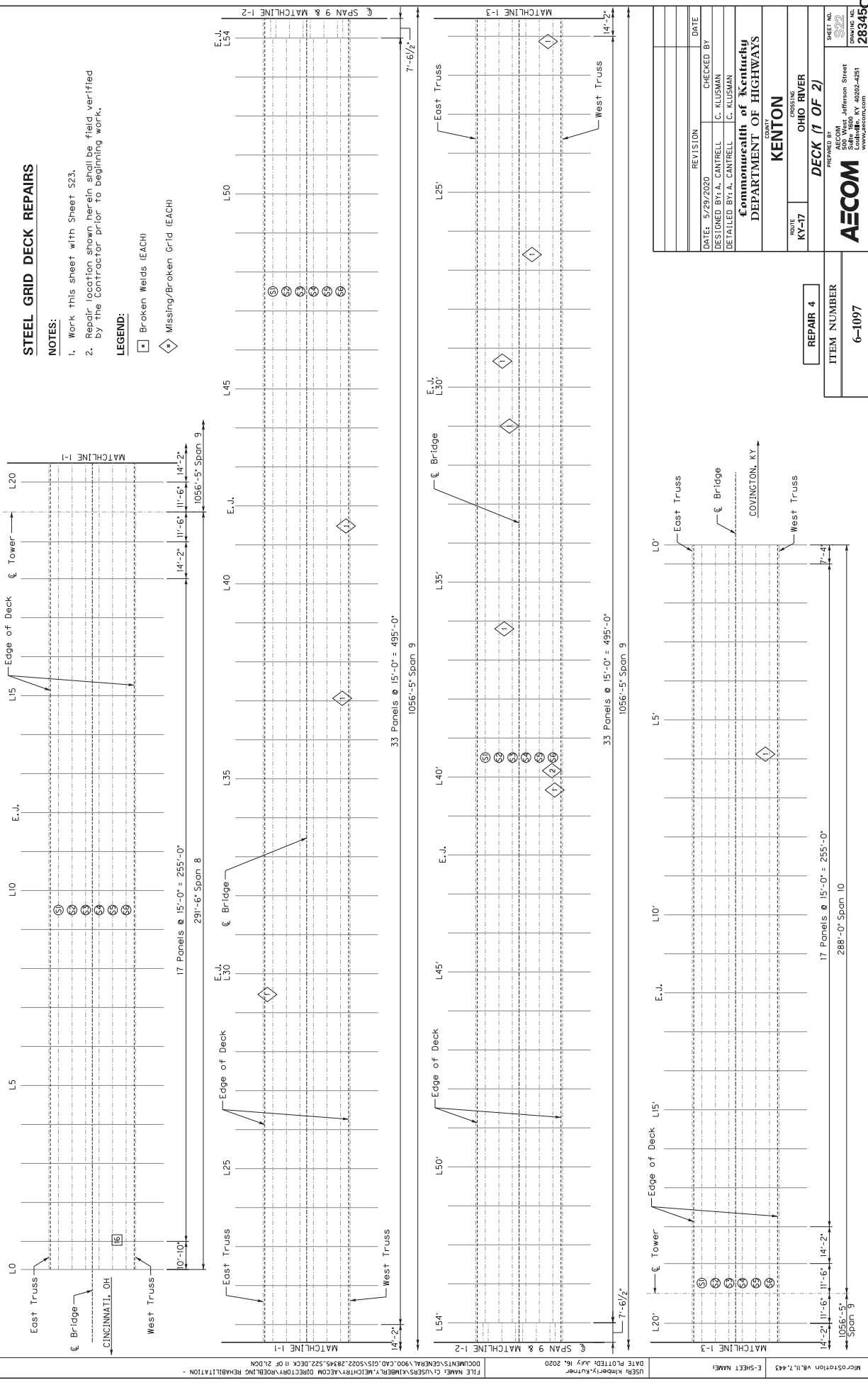
**STEEL GRID DECK REPAIRS**

**NOTES:**

1. Work this sheet with Sheet S23.
2. Repair location shown herein shall be field verified by the Contractor prior to beginning work.

**LEGEND:**

- ◻ Broken Welds (EACH)
- ◇ Missing/Broken Grid (EACH)



USER: Kimberly.Kurmer DATE PLOTTED: July 16, 2020  
 FILE NAME: C:\USERS\KIMBERLY.MEYER\AECOM\_DIRECTORY\REPAIRS\REHABILITATION - DOCUMENTS\GENERAL\900.CAD\015\522.28345.522.DECK 11 OF 210.DWG  
 MICROStation v8.11.7.443 C-35ET NAME:

REVISION	DATE	CHECKED BY
DATE: 5/29/2020		C. KUSMAN
DESIGNED BY: A. CANTRELL		C. KUSMAN
DETAILED BY: A. CANTRELL		C. KUSMAN

**Commonwealth of Kentucky**  
**DEPARTMENT OF HIGHWAYS**  
 COUNTY: **KENTON**  
 ROUTE: **KY-47** CROSSING: **OHIO RIVER**

SHEET NO. **S23**  
 DRAWING NO. **28345**  
 PROJECT NO. **522**  
 PREPARED BY: **AECOM**  
 1000 Valley Jefferson Street  
 Suite 1000  
 Louisville, KY 40202-4251  
 www.aecom.com

REPAIR 4
ITEM NUMBER
6-1097

**STEEL GRID DECK REPAIRS**

This work consists of localized repairs to the steel grid deck, which includes replacing existing broken/cracked welds (Repair A) and replacing missing or broken grid bars (Repair B), as shown in the plans or directed by the Engineer. Work on this sheet with Sheet S22. The Contractor shall field verify repair locations prior to beginning work.

**DECK REPAIR A: BROKEN WELD REPAIR**

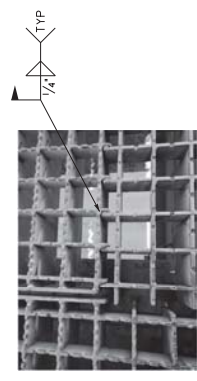
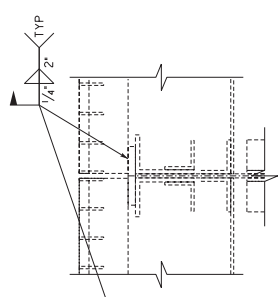
Grid existing cracked welds smooth and flush with base metal and free of notches and sharp reentrant corners. Clean existing structural steel adjacent to cracked welds to bare metal ensuring removal of all corroded and loose material prior to installing new welds. Prime and paint weld and bare metal in accordance with Section 607.03.23 "Cleaning and Painting". Color shall match existing open steel grid deck. The unit price bid for Grid Deck Weld Repair at each weld repair shall include the cost of all materials, labor, painting, falsework, equipment, and incidentals to complete the work.

**DECK REPAIR A**

**EXAMPLE DEFECTS**



Broken Weld Between Grid and Top Flange of FBI in Southbound Lane



Broken Welds Between Grid Sections at FBI in Southbound Lane

**DECK REPAIR B: REPLACEMENT OF MISSING OR BROKEN GRID**

The welded open steel grid bridge flooring used for steel grid deck replacement shall be ASTM A709, Grade 36 Steel. Bar sizes shall be confirmed with the Engineer and match the dimensions of the missing existing bars. Bar sizes may be one of the following:

- Main Bearing Bar: 5" x 3/8"
- Supplemental Bar: 1" x 1/4"
- Cross Bar: 2 1/2" x 1/4"

The main bars and cross bars shall be interlocked and welded at all joints. The top edges of all members shall be serrated and notched. Notches shall be 3/8" deep and 1/8" wide. The top surface shall be in the same plane. The open steel grid floor shall be field welded at every intersection with supporting steel using a 2" x 1/4" fillet weld at every main bearing bar.

Prime and paint bare metal in accordance with Section 607.03.23 "Cleaning and Painting". Color shall match existing open steel grid deck.

The unit price bid for Grid Deck Bar Replacement at each location shall include the cost of all materials, labor, welding, painting, falsework, equipment, and incidentals to complete the work.

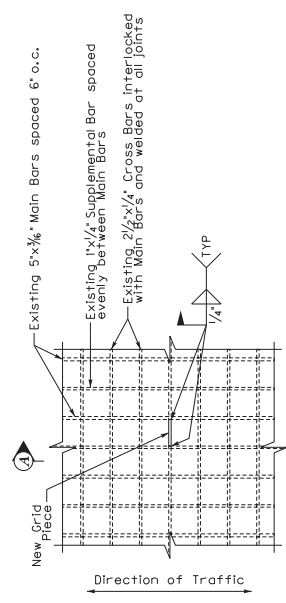
**DECK REPAIR B**

**EXAMPLE DEFECTS**

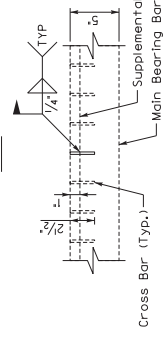


2 1/2" x 1/4" Missing Cross Bar

**EXAMPLE REPAIR**



**PLAN**



**SECTION A-A**

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: A. CANTRELL	C. KLUSMAN	
DETAILED BY: A. CANTRELL	C. KLUSMAN	
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	
PROJECT BY <b>DECK (2 OF 2)</b>		
SHEET NO. <b>S23</b>		
<b>AECOM</b>		
1000 West Jefferson Street Suite 1000 Louisville, KY 40202-4261 www.aecom.com		

ITEM NUMBER <b>REPAIR 4</b>
6-1097

**SIDEWALK REPAIRS**

This work shall consist of spall/delamination and crack repairs of asphalt pavements in Spans 8, 9, and 10 on the upstream and downstream sidewalks. This work shall also include full deck pan replacements at isolated locations where deflections due to the pedestrian live load are  $\geq 1/2$ ".

Contractor shall work with the Engineer to determine the exact repair limits and final quantities.

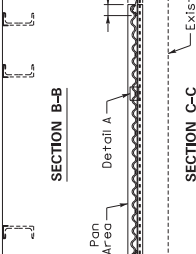
Construction and installation shall be in accordance with Division 400 of the KYTC Specifications for Asphalt Pavements.

**ASPHALT PAVEMENT SPALL / DELAMINATION REPAIR:**

1. Payment for Pavement Repair shall be measured in square yard of repair area and shall include the cost of all materials, labor, falsework, equipment, and incidentals to complete the work.
2. Remove delaminated/spalled asphalt pavement and loose material to a depth of 4 inches below the existing deck pan surface. Care shall be taken to ensure the existing deck pan is not damaged during the repair process. Any damage resulting from the Contractor's actions shall be repaired at the Contractor's cost.
3. Contractor shall ensure deck pan is secure and in acceptable condition prior to placing new asphalt. Any deficiencies found in the deck pan shall be reported to the Engineer and repaired per the details below for Deck Pan.
4. Place PG 64-22 Asphalt Surface in accordance with the specifications.
5. The depth of repaired area shall match the existing sidewalk. The depth of repaired area shall match the existing sidewalk.

**ASPHALT PAVEMENT CRACK REPAIR:**

1. Payment for Saw-Clean-Reseal Random Cracks shall be measured in linear feet and shall include the cost of all materials, labor, falsework, equipment, and incidentals to complete the work.
2. Clean cracked pavement areas of all loose debris. Rout all cracks to be sealed to create a uniform, U-shaped channel as wide as possible to the surrounding pavement.
3. Provide a clean, dry crack channel, free of fragments.
4. Place asphalt crack treatment material along full length of crack in accordance with ASTM D3405.
5. Trowel finish to provide smooth transition to adjacent sections of pavement.



**SECTION A-A**

**DECK PAN REPLACEMENT:**

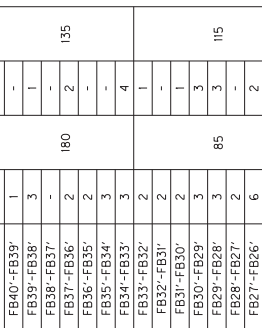
1. Payment for Deck Pan Replacement shall be measured in square feet and shall include the cost of all materials, labor, falsework, equipment, and incidentals to complete the work.
2. Length of deck pan replacement area is to be 4'-0" min. Contractor shall consult the Engineer to determine the appropriate length and width of the replacement area.
3. With proper limits, the replacement area shall be 4'-0" wide and 12'-0" long. The replacement area shall be 4'-0" wide and 12'-0" long.
4. Notify the Engineer of any deficiencies to the stringers.
5. Install new deck pan with aluminum stringer clamps.

The deck pan shall be Corrugated Metals, Inc. 0.050 thick aluminum (3003-H14) Sinewave (3/4 x 2.67) or an approved equivalent.

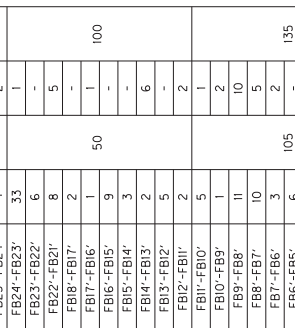
Aluminum stringer clamps shall be spot welded in the field with weld washers using 5xxx series filler material at a spacing no greater than twelve (12) inches and no closer than four (4) inches to the edge of deck pan.

List-Group">

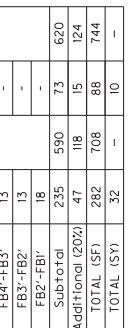
5. Place PG 64-22 Asphalt Surface in accordance with the specifications.



**SECTION B-B**



**SECTION C-C**



**DETAIL A**  
Typical Spot Weld with Weld Washer  
(Not to Scale)

**SIDEWALK ASPHALT REPAIR**

LOCATION	UPSTREAM		DOWNSTREAM	
	SPALL (SF)	CRACK (LF)	SPALL (SF)	CRACK (LF)
FB1-FB2	7	-	-	-
FB2-FB3	-	-	-	-
FB3-FB4	3	-	-	-
FB4-FB5	-	130	1	70
FB5-FB6	5	-	-	-
FB6-FB7	-	-	-	-
FB7-FB8	1	-	-	-
FB8-FB9	2	-	-	-
FB9-FB10	5	-	-	-
FB10-FB11	3	-	-	-
FB11-FB12	2	-	-	-
FB12-FB13	-	-	-	-
FB13-FB14	-	130	2	80
FB14-FB15	2	-	-	-
FB15-FB16	2	-	-	-
FB16-FB17	2	-	-	-
FB17-FB18	-	-	-	-
FB18-FB19	-	-	-	-
FB19-FB20	4	-	-	-
FB20-FB21	5	-	-	-
FB21-FB22	5	-	-	-
FB22-FB23	4	-	-	-
FB23-FB24	5	-	-	-
FB24-FB25	3	-	-	-
FB25-FB26	2	110	-	100
FB26-FB27	2	-	-	-
FB27-FB28	1	-	-	-
FB28-FB29	5	-	-	-
FB29-FB30	2	-	-	-
FB30-FB31	4	-	-	-
FB31-FB32	3	-	-	-
FB32-FB33	-	-	-	-
FB33-FB34	-	-	-	-
FB34-FB35	5	155	-	100
FB35-FB36	5	-	-	-
FB36-FB37	-	-	-	-
FB37-FB38	-	-	-	-
FB38-FB39	1	-	-	-
FB39-FB40	2	-	-	-
FB40-FB41	4	-	-	-
FB41-FB42	-	-	-	-
FB42-FB43	-	-	-	-
FB43-FB44	1	-	-	-
FB44-FB45	-	-	-	-
FB45-FB46	4	125	-	125
FB46-FB47	5	-	-	-
FB47-FB48	2	-	-	-
FB48-FB49	5	-	-	-
FB49-FB50	10	-	-	-
FB50-FB51	2	-	-	-
FB51-FB52	12	-	-	-
FB52-FB53	15	-	-	-
FB53-FB54	10	-	-	-
FB54-FB55	10	125	-	115
FB55-FB56	6	-	-	-
FB56-FB57	7	-	-	-
FB57-FB58	5	-	-	-
FB58-FB59	5	-	-	-
Subtotal	165	775	25	590
Additional (202)	33	155	5	118
TOTAL (SF)	198	930	30	708
TOTAL (SY)	22	-	4	-

**SIDEWALK ASPHALT REPAIR**

LOCATION	UPSTREAM		DOWNSTREAM	
	SPALL (SF)	CRACK (LF)	SPALL (SF)	CRACK (LF)
FB50-FB49	4	-	1	-
FB49-FB48	5	-	-	-
FB48-FB47	-	-	-	-
FB47-FB46	-	-	1	135
FB46-FB45	5	-	-	-
FB45-FB44	3	-	-	-
FB44-FB43	-	-	-	-
FB43-FB42	-	-	-	-
FB42-FB41	-	-	-	-
FB41-FB40	8	-	-	-
FB40-FB39	1	-	-	-
FB39-FB38	3	-	-	-
FB38-FB37	-	-	-	-
FB37-FB36	2	180	2	155
FB36-FB35	3	-	-	-
FB35-FB34	3	-	-	-
FB34-FB33	3	-	-	-
FB33-FB32	2	-	-	-
FB32-FB31	2	-	-	-
FB31-FB30	2	-	-	-
FB30-FB29	3	-	-	-
FB29-FB28	3	85	3	115
FB28-FB27	2	-	-	-
FB27-FB26	6	-	-	-
FB26-FB25	5	-	-	-
FB25-FB24	4	-	-	-
FB24-FB23	33	-	-	-
FB23-FB22	6	-	-	-
FB22-FB21	8	-	-	-
FB21-FB20	2	-	-	-
FB20-FB19	1	50	1	100
FB19-FB18	9	-	-	-
FB18-FB17	3	-	-	-
FB17-FB16	2	-	-	-
FB16-FB15	3	-	-	-
FB15-FB14	3	-	-	-
FB14-FB13	2	-	-	-
FB13-FB12	2	-	-	-
FB12-FB11	5	-	-	-
FB11-FB10	5	-	-	-
FB10-FB09	2	-	-	-
FB09-FB08	11	-	-	-
FB08-FB07	10	-	-	-
FB07-FB06	3	105	2	135
FB06-FB05	6	-	-	-
FB05-FB04	16	-	-	-
FB04-FB03	13	-	-	-
FB03-FB02	5	-	-	-
FB02-FB01	18	-	-	-
Subtotal	235	590	73	620
Additional (202)	47	118	15	124
TOTAL (SF)	282	708	88	744
TOTAL (SY)	32	-	10	-

**DECK PAN REPLACEMENT**

LOCATION	UPSTREAM		DOWNSTREAM	
	SPALL (SF)	CRACK (LF)	SPALL (SF)	CRACK (LF)
FB41-FB40	8	-	-	-
FB40-FB39	1	-	-	-
FB39-FB38	3	-	-	-
FB38-FB37	-	-	-	-
FB37-FB36	2	180	2	155
FB36-FB35	3	-	-	-
FB35-FB34	3	-	-	-
FB34-FB33	3	-	-	-
FB33-FB32	2	-	-	-
FB32-FB31	2	-	-	-
FB31-FB30	2	-	-	-
FB30-FB29	3	-	-	-
FB29-FB28	3	85	3	115
FB28-FB27	2	-	-	-
FB27-FB26	6	-	-	-
FB26-FB25	5	-	-	-
FB25-FB24	4	-	-	-
FB24-FB23	33	-	-	-
FB23-FB22	6	-	-	-
FB22-FB21	8	-	-	-
FB21-FB20	2	-	-	-
FB20-FB19	1	50	1	100
FB19-FB18	9	-	-	-
FB18-FB17	3	-	-	-
FB17-FB16	2	-	-	-
FB16-FB15	3	-	-	-
FB15-FB14	3	-	-	-
FB14-FB13	2	-	-	-
FB13-FB12	2	-	-	-
FB12-FB11	5	-	-	-
FB11-FB10	5	-	-	-
FB10-FB09	2	-	-	-
FB09-FB08	11	-	-	-
FB08-FB07	10	-	-	-
FB07-FB06	3	105	2	135
FB06-FB05	6	-	-	-
FB05-FB04	16	-	-	-
FB04-FB03	13	-	-	-
FB03-FB02	5	-	-	-
FB02-FB01	18	-	-	-
Subtotal	235	590	73	620
Additional (202)	47	118	15	124
TOTAL (SF)	282	708	88	744
TOTAL (SY)	32	-	10	-

**DECK PAN REPLACEMENT**

LOCATION	UPSTREAM		DOWNSTREAM	
	SPALL (SF)	CRACK (LF)	SPALL (SF)	CRACK (LF)
FB41-FB40	8	-	-	-
FB40-FB39	1	-	-	-
FB39-FB38	3	-	-	-
FB38-FB37	-	-	-	-
FB37-FB36	2	180	2	155
FB36-FB35	3	-	-	-
FB35-FB34	3	-	-	-
FB34-FB33	3	-	-	-
FB33-FB32	2	-	-	-
FB32-FB31	2	-	-	-
FB31-FB30	2	-	-	-
FB30-FB29	3	-	-	-
FB29-FB28	3	85	3	115
FB28-FB27	2	-	-	-
FB27-FB26	6	-	-	-
FB26-FB25	5	-	-	-
FB25-FB24	4	-	-	-
FB24-FB23	33	-	-	-
FB23-FB22	6	-	-	-
FB22-FB21	8	-	-	-
FB21-FB20	2	-	-	-
FB20-FB19	1	50	1	100
FB19-FB18	9	-	-	-
FB18-FB17	3	-	-	-
FB17-FB16	2	-	-	-
FB16-FB15	3	-	-	-
FB15-FB14	3	-	-	-
FB14-FB13	2	-	-	-
FB13-FB12	2	-	-	-
FB12-FB11	5	-	-	-
FB11-FB10	5	-	-	-
FB10-FB09	2	-	-	-
FB09-FB08	11	-	-	-
FB08-FB07	10	-	-	-
FB07-FB06	3	105	2	135
FB06-FB05	6	-	-	-
FB05-FB04	16	-	-	-
FB04-FB03	13	-	-	-
FB03-FB02	5	-	-	-
FB02-FB01	18	-	-	-
Subtotal	235	590	73	620
Additional (202)	47	118	15	124
TOTAL (SF)	282	708	88	744
TOTAL (SY)	32	-	10	-

**REPAIR 5**

ITEM NUMBER  
6-1097

SHEET NO.  
28345

Prepared by: AECOM  
Checked by: C. KLUSMAN  
Designed by: C. KLUSMAN  
Detailed by: C. KLUSMAN

DATE: 5/29/2020  
REVISION: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DESIGNED BY: C. KLUSMAN  
DETAILED BY: C. KLUSMAN

STATE OF KENTUCKY  
DEPARTMENT OF HIGHWAYS  
COUNTY: KENTON  
ROUTE: KY-47  
CROSSING: OHIO RIVER  
PROJECT: SIDEWALK

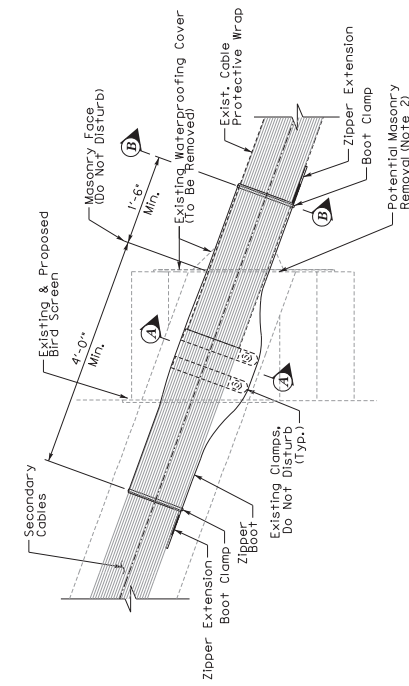
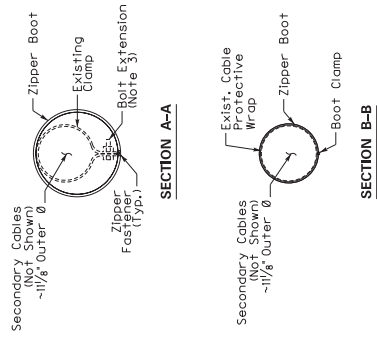
**WATERPROOFING ZIPPER BOOT RETROFIT**

This work shall consist of installing zipper boots at (8) primary suspender cable locations and eight (8) secondary suspender cable locations at the North and South Towers.

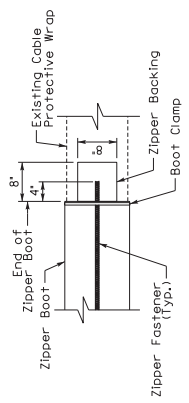
Refer to the Special Note for Zipper Boots for material specifications, construction, and payment.

**NOTES:**

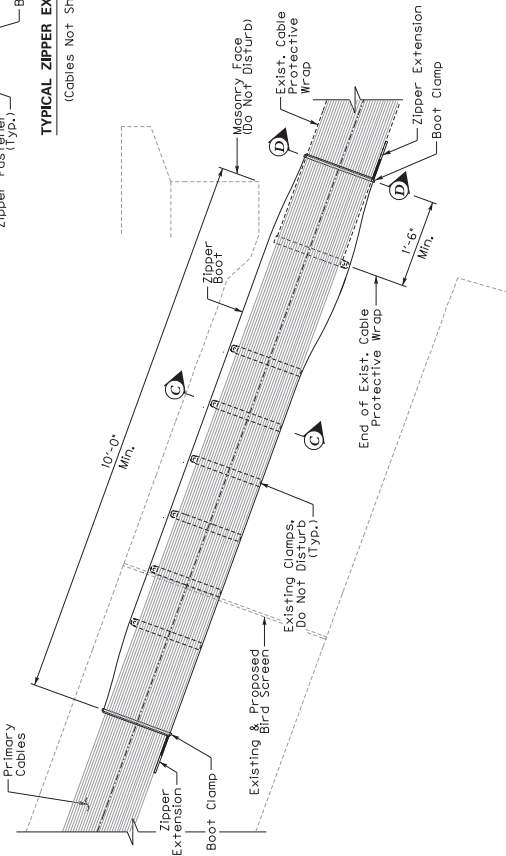
- Contractor is responsible for field measuring existing cable diameters, location of existing clamps and diameters of existing clamps. Contractor is responsible for determining final zipper boot dimensions at each location prior to fabrication and in accordance with the Special Note for Zipper Boots.
- Contractor may be permitted to remove portions of masonry around the secondary cable openings as needed to allow for appropriate clearance of Zipper Boots and as approved by the Engineer.
- Contractor may be permitted to clip bolt extensions as approved by the Engineer.
- Any damage to the cables or masonry shall be repaired by the Contractor, to the satisfaction of the Engineer and at no additional cost to the Department.



**TYPICAL SECONDARY CABLE LOCATION ELEVATION**



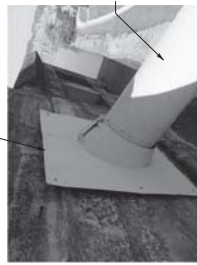
**TYPICAL ZIPPER EXTENSION**  
(Cables Not Shown)



**TYPICAL PRIMARY CABLE LOCATION ELEVATION**



Existing Clamp



Existing Waterproofing Cover (To Be Removed)

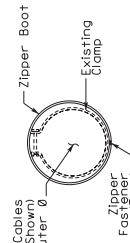
Existing Cable Protective Wrap

**TYPICAL PRIMARY CABLE LOCATION**

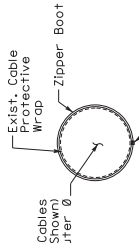
(N. Tower, S. Face, DS Location Shown)

**TYPICAL SECONDARY CABLE LOCATION**

(N. Tower, N. Face, DS Location Shown)



**SECTION C-C**



**SECTION D-D**

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUTNER		C. KUSMAN
DETAILED BY: K. KUTNER		C. KUSMAN
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
<b>KENTON COUNTY</b>		
ROUTE: KY-47	CROSSING: OHIO RIVER	
<b>MISC. REPAIR DETAILS (1 OF 4)</b>		
PREPARED BY: AECOM, 100 Jefferson Street, Suite 1000, Louisville, KY 40202-4251		
<b>AECOM</b>		
SHEET NO. 28345		

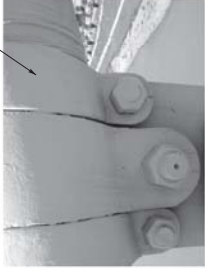
REPAIR 6
ITEM NUMBER
6-1097

**SUSPENDER COLLAR REPAIR AT DOWNSTREAM PP30**

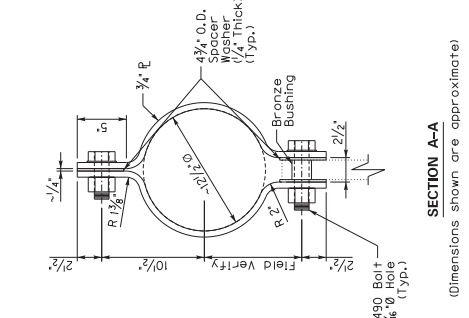
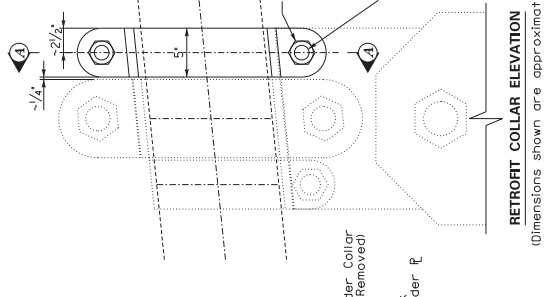
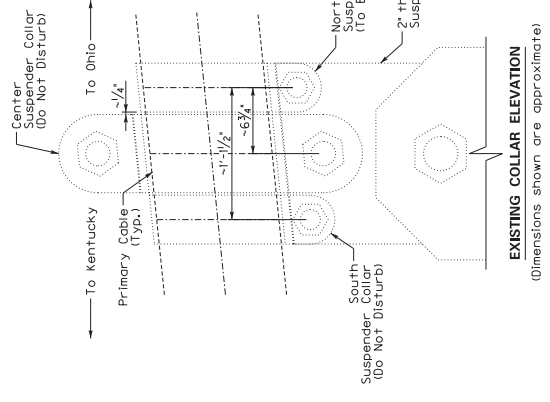
This work shall consist of replacing the north collar surrounding the downstream primary cable in line with Panel Point 30.

- Refer to the Special Note for Suspender Collar Repair for material specifications, construction, and payment.
1. Do not disturb the center and south suspender collars.
  2. Temporary support shall be in place and approved by the Engineer before removing any suspender collar components.
  3. The Contractor is responsible for field measuring existing collar dimensions before ordering material.
  4. A bronze bushing shall be furnished and installed to fill the existing hole in the suspender plate if the existing hole size is greater than 1 1/8".

North Collar to be Replaced



**DOWNSTREAM PP30**  
(Looking Downstream)

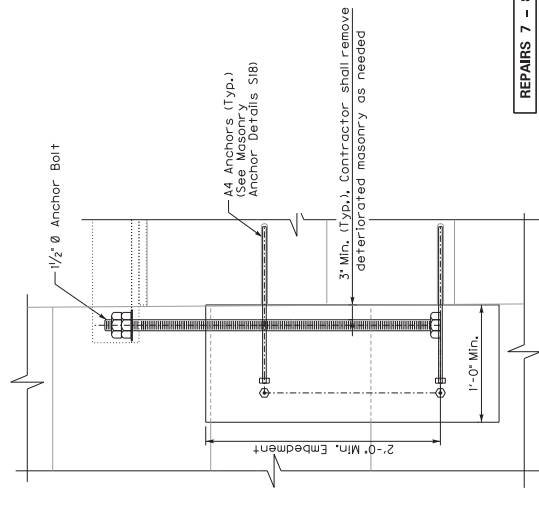
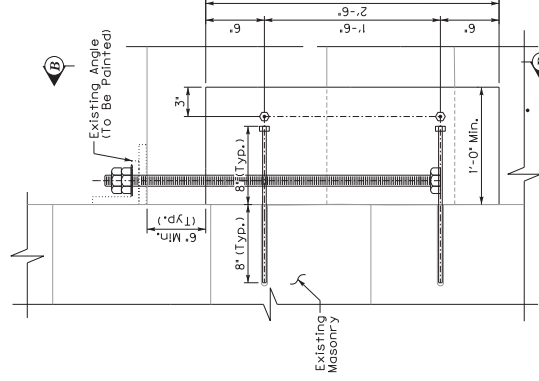


**ANCHOR BOLT RETROFIT - TOWERS**

This work shall consist of replacing an anchor bolt at 8 locations - at the bearings at the North and South towers. Each location shall receive a concrete block anchored to the adjacent masonry.

Payment for Anchor Bolt Retrofit (Tower) shall include the cost of all materials including masonry anchors with nut, concrete and hardware, plus the cost of labor for installation and incidental to complete the work per each repair location.

1. Contractor is responsible for field verifying all dimensions.
2. Remove existing anchor bolt and connection hardware.
3. Existing bearing assembly shall be primed and painted to match existing color in accordance with Section 607.03.23 "Cleaning and Painting".
4. Install masonry anchors. Masonry anchors shall be 304 stainless steel threaded rods with a nut at the end.
5. Replace existing anchor bolts with 1/2" anchor bolts embedded 2'-0" minimum into concrete. Provide 2 nuts and a washers at the top. Provide a nut at the bottom.
6. Encapsulate masonry anchors and anchor bolt in Class 'AA' Concrete Block.



**TYPICAL ANCHOR BOLT LOCATION**  
DS Bearing, S. Tower, Span 10 Location Shown

DATE: 7/16/2020	REVISION	CHECKED BY
DESIGNED BY: K. KUTNER		C. KLUSMAN
DETAILED BY: K. KUTNER		C. KLUSMAN
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>		
COUNTY <b>KENTON</b>		
ROUTE KY-47	CROSSING OHIO RIVER	
<b>MISC. REPAIR DETAILS (2 OF 4)</b>		
PREPARED BY AECOM	PROJECT NO. S26	SHEET NO. 28345
1000 East Main Street Louisville, KY 40202-4001 www.aecom.com		

REPAIRS 7 - 8
ITEM NUMBER 6-1097



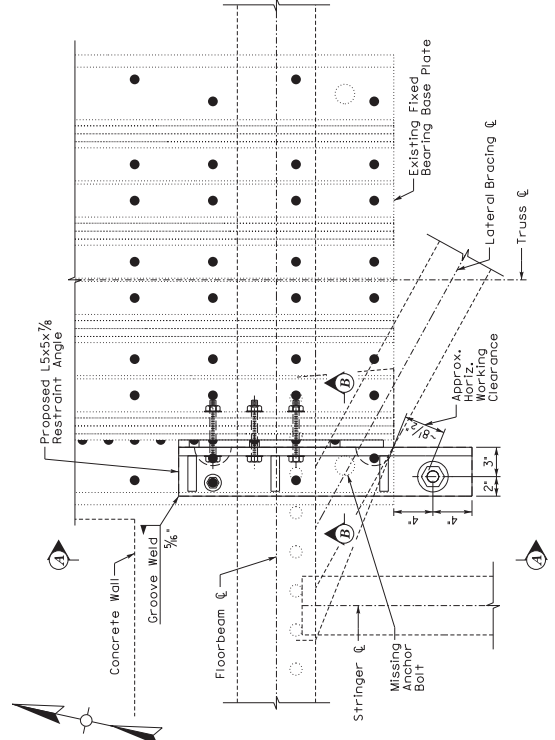
### TRUSS BEARING ANCHOR BOLT RETROFIT - ANCHORAGE 2

This work shall consist of modifying the existing fixed bearings and installing a restraint angle to repair the missing anchor bolts on the inside south corner of the upstream and downstream Anchorage 2 truss bearings.

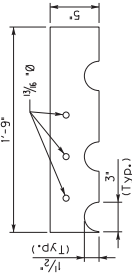
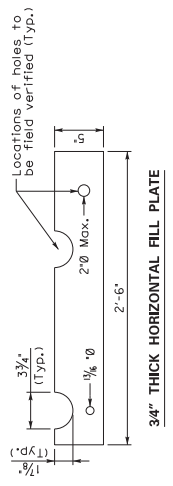
Contractor is responsible for field verifying all dimensions.

- Adhesive Anchors - Use a HILTI HIT-HY200-A adhesive anchor or an approved equivalent. Provide 2 nuts and 2 washers.
- All welds shall be E70XX.
- Heavy hex nuts shall be ASTM A563 Galvanized and washers shall be ASTM F436 Galvanized.
- Prime and paint areas of existing bearing assembly where new steel is being installed in accordance with Section 607.03.2.3 Cleaning and Painting.
- Install weather and one heavy hex nut, finger tight, on each anchor bolt then install jam nut snug tight.

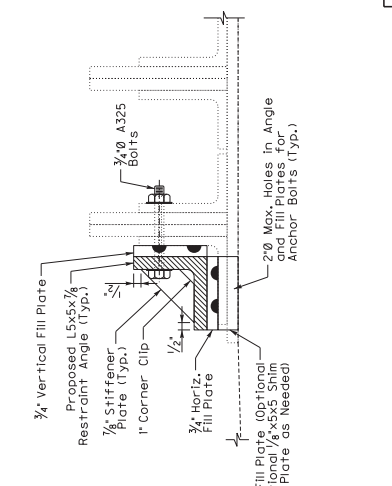
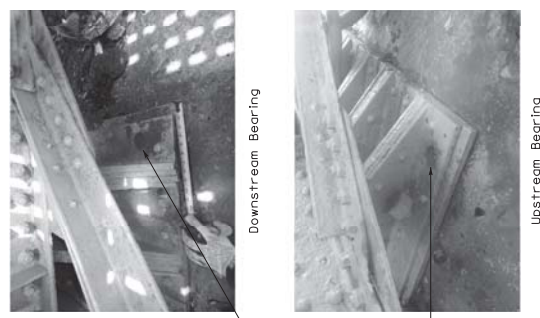
Payment for Anchor Bolt Retrofit (Anchorage) shall include the cost of all materials including steel and anchor bolts, labor, painting, falsework, equipment, and incidentals to complete the work per each repair location.



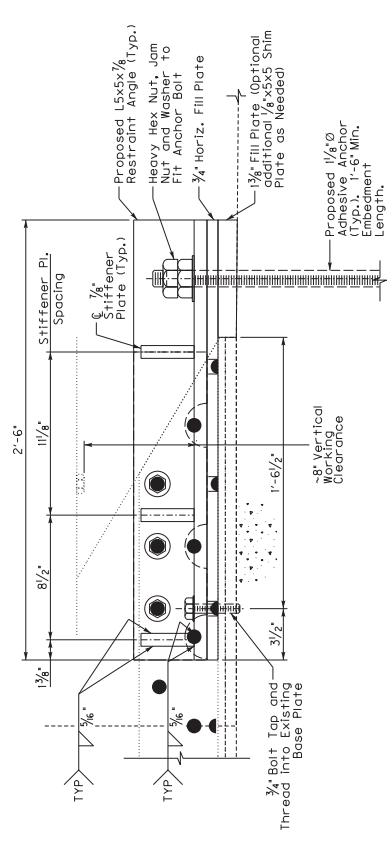
**PLAN**  
Upstream Truss Bearing Shown  
Downstream Truss Bearing Symmetric about Roadway



**34" THICK VERTICAL FILL PLATE**  
**1 3/8" THICK FILL PLATE**



**SECTION B-B**  
(Anchor Bolt Not Shown)



**SECTION A-A**

REVISION	DATE	CHECKED BY
DATE: 5/29/2020		J. WHEELAN
DESIGNED BY: A. CANTRELL		J. WHEELAN
DETAILED BY: A. CANTRELL		J. WHEELAN

Commonwealth of Kentucky  
DEPARTMENT OF HIGHWAYS

ROUTE: KY-47 CROSSING: OHIO RIVER  
COUNTY: KENTON

PROJECT: MISC. REPAIR DETAILS (3 OF 4)  
SHEET NO. 97  
DRAWING NO. 28345

PREPARED BY: AECOM  
1000 W. Jefferson Street  
Louisville, KY 40202-4251  
www.aecom.com

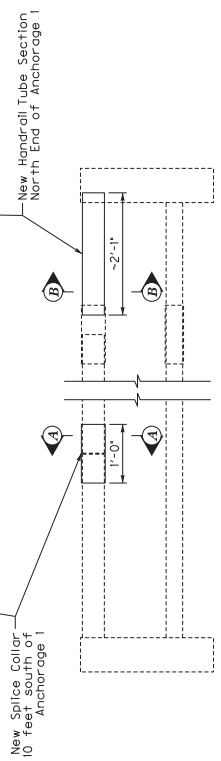
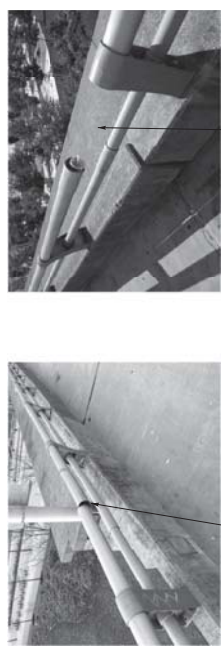
REPAIR 9
ITEM NUMBER
6-1097

**OHIO APPROACH HANDRAIL REPAIR**

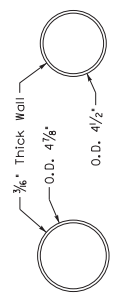
This work shall consist of installing a splice collar on the top tube roll of the west handrail along the Ohio approach, approximately 10 feet south of Anchorage 1 in Span 7 and a new section of top tube roll on the west handrail at the north end of Anchorage 1.

1. Contractor is responsible for field verifying all dimensions.
2. Splice collar and new tube roll shall be ASTM B291-14 (6061-T6) Aluminum (size noted on plans) and similar construction as existing splice collars.
3. Care shall be taken not to damage existing handrail posts, tubes, or collars during installation.
4. Set screws shall be of similar material and construction as existing. Ensure set screws are functional and set in existing and new splice collars.

Payment for Bridge Handrail Repair shall include the cost of all materials, labor, falsework, equipment, and incidentals to complete the work per linear feet of repair.



OHIO APPROACH WEST HANDRAIL ELEVATION



SECTION A-A

SECTION B-B

**HANDRAIL SPLICE REPLACEMENT AT UPSTREAM FB22'**

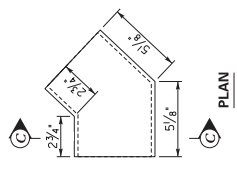
This work shall consist of replacing the handrail splice at Upstream FB22'.

1. Contractor is responsible for field verifying all dimensions.
2. Handrail splice shall be formed from ASTM B209 (5052-H34) Aluminum to match existing material.
3. Connection hardware may be reused upon the Engineer's approval. Replacement connection hardware shall be in kind to existing connection hardware.
4. Connection shall be tightened snug tight.

Payment of the lump sum price for Handrail Splice Replacement shall include the cost of all materials, labor, falsework, equipment, and incidentals to complete the work.



HANDRAIL SPLICE REPLACEMENT AT UPSTREAM FB22'



PLAN

SECTION C-C

**UPSTREAM U29' STAY CABLE CONNECTION PLATE CRACK REPAIR**

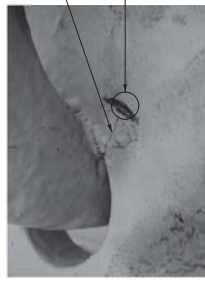
1. Refer to the Special Note for Arresting Steel Cracks.



Location of Connection Plate



Upstream U29' Stay Cable Connection Plate



3/4" Crack to be Repaired

Arrester Hole per Special Note

REPAIRS 10 - 12

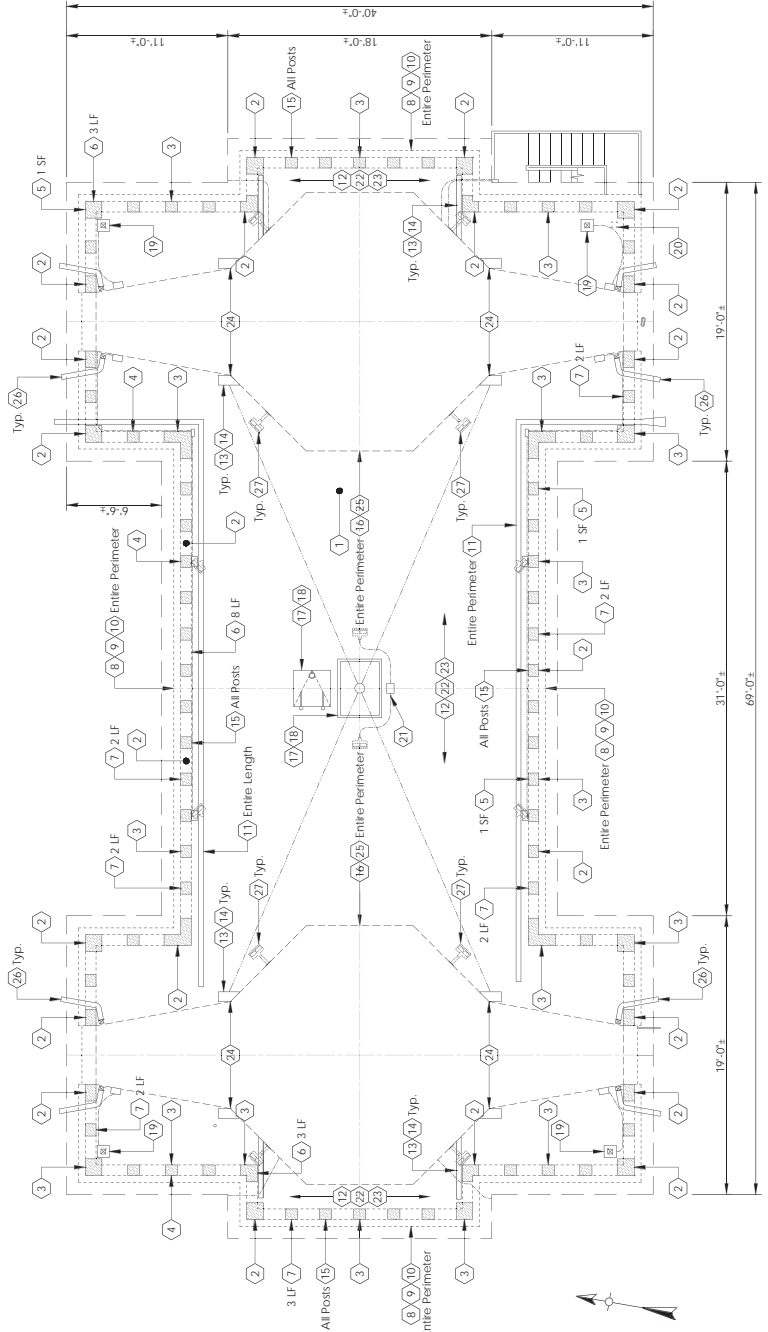
ITEM NUMBER

6-1097

DATE: 5/29/2020	REVISION	CHECKED BY
DESIGNED BY: A. CANTRELL		J. WHELAN
DETAILED BY: A. CANTRELL		J. WHELAN
<b>Commonwealth of Kentucky</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
<b>COUNTY</b>		
<b>KENTON</b>		
ROUTE	CROSSING	
KY-47	OHIO RIVER	
<b>MISC. REPAIR DETAILS (4 OF 4)</b>		
PREPARED BY: AECOM		
DRAWN BY: J. WHELAN		
SCALE: AS SHOWN		
SHEET NO. 28345		
PROJECT NO. 28345		
ADDRESS: Jefferson Street		
Louisville, KY 40202-4251		
www.aecom.com		

**KEY NOTES:**

1. Existing survey marker set in concrete/stone on tower roof. Do not damage. Install sealant around perimeter of marker and terminate new waterproof coating on sealant. Measurement and payment per bid item Repair (Towers Sealant).
2. Remove existing steel pin between top section of stone ralling. Install new stainless steel pin, and perform composite stone repair. Refer to Detail 1 on Sheet S32. Measurement and payment per bid item Lower Tower Rail Patching (Type A).
3. Remove existing steel pin between top sections of stone ralling at spill. Install new stainless steel pin, and perform composite stone repair. Refer to Detail 1 on Sheet S32. Measurement and payment per bid item Lower Tower Rail Patching (Type B).
4. Existing cracked/deteriorated intermediate post at stone ralling. Temporarily support ralling and install new sandstone post. Refer to Detail 3 on Sheet S32. Measurement and payment per bid item Lower Rail Replacement (Type B).
5. Existing cracked/deteriorated stone ralling member. As a unit price repair, perform stone composite patch or dutchman repair. Refer to Details B and C on Sheet S5. Measurement and payment per bid items Masonry Patching Repair and Dutchman Repair.
6. Existing crack/deteriorated top ralling. Remove and replace top ralling with new sandstone. Refer to Detail 5 on Sheet S32. Measurement and payment per bid item Masonry/Stone Repairs. Measurement and payment per bid item Towers Rail Top Stone Replacement.
7. Existing hallway crack in sandstone unit. Perform epoxy grouting of crack. Refer to Special Note for Masonry/Stone Repairs. Measurement and payment per bid item Masonry Crack Repair.
8. Existing stone ralling at perimeter of tower. Repair entire rail mortar joint and install sealant at skyward facing joints. Refer to Detail 4 on Sheet S32. Measurement and payment per bid item Repair (Towers Sealant).
9. Existing stone ralling at perimeter of tower. Hand tool remove all loose sandstone blisters and delaminations. Measurement and payment per bid item Removal of Deteriorated Masonry.
10. Existing sandstone ralling to be cleaned at perimeter of tower. Refer to Special Note for Masonry/Stone Repairs. Measurement and payment per bid item Bridge Cleaning.
11. Existing metal drainage trough. Complete sealant, painting, and drainage repair. Refer to Detail 5 on Sheet S32. Measurement and payment per bid item Repair (Tower Gutter Drainage Trough).
12. Existing tower roof consisting of concrete overlay and skyward face of sandstone. As a unit price repair, perform shallow topping slab concrete repair. Refer to Detail 6 on Sheet S32. Measurement and payment per bid item Concrete Patching Repair.
13. Existing exposed steel members above tower roof line. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.
14. After completion of high performance coating on exposed steel, install cove sealant around perimeter. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
15. Existing rail post. Install new cove sealant around (3) interior facing sides. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
16. Existing concrete curb around base of turret house. Install cove sealant at concrete curb. Refer to Detail 3 on Sheet S33. Terminate new waterproof coating on cove sealant and not posts. Refer to Detail 5 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
17. Existing flagpole steel base plate and tower internal access hatch. Prime and paint. Refer to Detail 5 on Sheet S32. Measurement and payment per bid item Painting. Payment incidental to bid item Waterproof Coating.
18. Existing flagpole steel base plate and tower internal access hatch. Install cove sealant around access hatch, flagpole curb, and flagpole steel base plate. Refer to Detail 3 on Sheet S33. Terminate waterproof coating on top of sealant around access hatch. Measurement and payment per bid item Repair (Towers Sealant).
19. Existing light poles. Temporarily support base cover and install cove sealant around anchor bolts. After completion of waterproof coating, reset base cover on slab. Install cove sealant around top of base cover and light pole. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
20. (4) existing anchor bolts set in tower roof slab. Cut-off flush with slab surface. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
21. Existing light mounted to tower roof slab adjacent to light pole. Temporarily remove lights and electrical conduit for installation of waterproof coating and re-install. Measurement and payment per bid item Repair (Towers Sealant).
22. Remove existing epoxy-based coating from concrete and perform final preparation for new waterproof coating. Install new waterproof coating. Refer to Detail 4 on Sheet S33 and Special Note for Waterproof Coating. Measurement and payment per bid item Waterproof Coating.
23. Extend waterproof coating to end of tower roof at outside of rail. Do not allow sealant to be applied to radial face of stone. Measurement and payment per bid item Waterproof Coating.
24. Existing brick veneer expansion joint at turret house. Remove expansion pedestal, prepare joint opening, and install new sealant. Refer to Detail 2 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
25. Existing brick veneer at turret house. Clean brick surface and install water repellent per manufacturer's requirements. Basis of Design: Protecsol CHEM-FRETE BSM 400 at (150) square feet per gallon. Measurement and payment per bid item Waterproof Coating.
26. Repair towers turret houses. Refer to Sheet S30.
27. Existing light fixture. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.



**1**  
NORTH TOWER  
PARTIAL PLAN  
1/8" = 1'-0"




REPAIRS 13 - 14

**GENERAL NOTES:**

- A. Contractor to coordinate with existing tower roof repairs and existing tower roof sealant. Rebuilding towers' masonry repairs at top stone courses should be coordinated with towers' roof repairs.
- B. Survey towers for electrical masonry, concrete, sealant, repair, and waterproofing requirements. Coordinate with masonry, concrete, sealant, painting, and waterproofing repairs.
- C. Coordinate turret gutters and downspout replacement with masonry, concrete, sealant, painting, and waterproofing repairs.

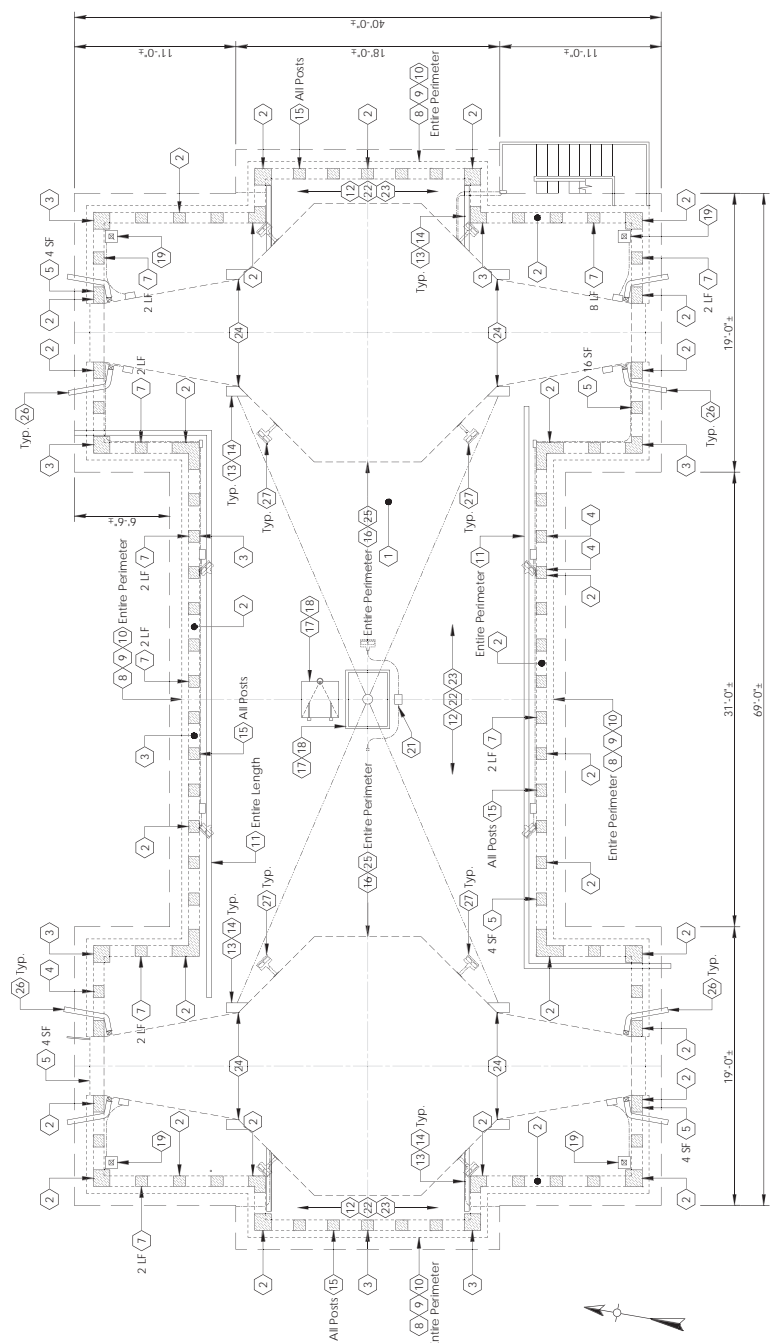
**LEGEND:**

- Existing Guy Wire
- Existing Tower Outline
- Existing Turret Outline
- Existing Electrical Conduit
- Existing Stone Handrail
- Existing Light Fixture

Plans Prepared By  Streets 5209-533 		DATE: 5/29/2020 DESIGNED BY: A. METTE DETAILER: B. G. DONAHUE	REVISION CHECKED BY: W. JUDD W. JUDD	DATE
ROUTE <b>KY-47</b>		COUNTY <b>KENTON</b>		SHEET NO. <b>28345</b>
DIVISION AND <b>OHIO RIVER</b>		PROJECT TITLE <b>NORTH TOWER PARTIAL PLAN</b>		CONTRACT NO. <b>529</b>
ITEM NUMBER <b>6-1097</b>		CONTRACTOR 		CONTRACTOR'S LICENSE NO. <b>28345</b>

**KEY NOTES:**

1. Existing survey marker set in concrete/stone on tower roof. Do not damage. Install sealant around perimeter of marker and terminate new waterproof coating on sealant. Measurement and payment per bid item Repair (Towers Sealant).
2. Remove existing steel pin between top section of stone raling. Install new stainless steel pin, and perform composite stone repair. Refer to Detail 1 on Sheet S32. Measurement and payment per bid item Lower Tower Railing Patching (Type A).
3. Remove existing steel pin between top sections of stone raling at spall. Install new stainless steel pin, and perform composite stone repair. Refer to Detail 1 on Sheet S32. Measurement and payment per bid item Lower Tower Railing Patching (Type B).
4. Existing cracked/deteriorated intermediate post at stone raling. Temporarily support railings and install new sandstone post. Refer to Detail 3 on Sheet S32. Measurement and payment per bid item Lower Railing Replacement.
5. Existing cracked/deteriorated stone raling member. As a unit price repair, perform stone composite patch or dutchman repair. Refer to Details B and C on Sheet S5. Measurement and payment per bid items Masonry Patching Repair and Dutchman Repair.
6. Existing crack/deteriorated top raling. Remove and replace top raling with new sandstone. Refer to Detail 5 on Sheet S32. Measurement and payment per bid item Masonry/Stone Repairs. Measurement and payment per bid item Towers Rail Top Stone Replacement.
7. Existing hairline crack in sandstone unit. Perform epoxy grouting of crack. Refer to Special Note for Masonry/Stone Repairs. Measurement and payment per bid item Masonry Crack Repair.
8. Existing stone raling at perimeter of tower. Repoint entire rail mortar joint and install sealant at skyward facing joints. Refer to Detail 4 on Sheet S32. Measurement and payment per bid item Repair (Towers Sealant).
9. Existing stone raling at perimeter of tower. Hand tool remove all loose sandstone blisters and delaminations. Measurement and payment per bid item Removal of Deteriorated Masonry.
10. Existing sandstone raling to be cleaned at perimeter of tower. Refer to Special Note for Masonry/Stone Repairs. Measurement and payment per bid item Cleaning.
11. Existing metal drainage trough. Complete sealant, painting, and drainage repairs. Refer to Detail 5 on Sheet S32. Measurement and payment per bid item Repair (Tower Gutter Drainage Trough).
12. Existing tower roof consisting of concrete overlay and skyward face of sandstone. As a unit price repair, perform shallow topping slab concrete repair. Refer to Detail 6 on Sheet S32. Measurement and payment per bid item Concrete Patching Repair.
13. Existing exposed steel members above tower roof line. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.
14. After completion of high performance coating on exposed steel, install cove sealant around perimeter. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
15. Existing rail post. Install new cove sealant around (3) interior facing sides. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
16. Existing concrete curb around base of turret house. Install cove sealant at concrete curb. Refer to Detail 3 on Sheet S33. Terminate new waterproof coating on cove sealant and not posts. Refer to Detail 5 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
17. Existing flagpole steel base plate and tower internal access hatch. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.
18. Existing flagpole steel base plate and tower internal access hatch. Install cove sealant around access hatch, flagpole curb, and flagpole steel base plate. Refer to Detail 3 on Sheet S33. Terminate new waterproof coating on top of sealant around access hatch. Measurement and payment per bid item Repair (Towers Sealant).
19. Existing light poles. Temporarily support base cover and install cove sealant around anchor bolts. After completion of waterproof coating, reset base cover on slab. Install cove sealant around top of base cover and light pole. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
20. (c) existing anchor bolts set in tower roof slab. Cut-off flush with slab surface. Measure and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.
21. Existing light mounted to tower roof slab adjacent to light pole. Temporarily remove lights and electrical conduit for installation of waterproof coating and re-install. Measurement and payment per bid item Repair (Towers Sealant).
22. Remove existing epoxy-based coating from concrete and perform final preparation for new waterproof coating. Install new waterproof coating. Refer to Detail 4 on Sheet S33 and Special Note for Waterproof Coating. Measurement and payment per bid item Waterproof Coating.
23. Extend waterproof coating to end of tower roof at outside of rail. Do not allow sealant to be applied to radial face of stone. Measurement and payment per bid item Waterproof Coating.
24. Existing brick veneer expansion joint at turret house. Remove expansion pedestal, prepare joint opening, and install new sealant. Refer to Detail 2 on Sheet S33. Measurement and payment per bid item Repair (Towers Sealant).
25. Existing brick veneer at turret house. Clean brick surface and install water repellent per manufacturer's requirements. Basis of Design: Protecsol CHEM-FRETE BSM 400 at (150) square feet per gallon. Measurement and payment per bid item Waterproof Coating.
26. Repair towers turret houses. Refer to Sheet S30.
27. Existing light fixture. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.




1 SOUTH TOWER  
PARTIAL PLAN  
S30 1/4" = 1'-0"

**GENERAL NOTES:**

- A. Contractor to coordinate with existing tower roof repairs and existing flagpole. Existing tower roof repairs should be coordinated with existing flagpole. Existing flagpole should be coordinated with towers roof repairs.
- B. Survey towers for electrical removal, support, and re-install as required for masonry, concrete, sealant, painting, and waterproofing repairs.
- C. Coordinates turret gutters and downspout replacement with masonry, concrete, sealant, painting, and waterproofing repairs.

**LEGEND:**

- Existing Guy Wire
- Existing Tower Outline
- Existing Turret Outline
- Existing Electrical Conduit
- Existing Stone Handrail
- Existing Light Fixture

Plans Prepared By <b>THP</b> Streets 3209-533 		DATE: 5/29/2020 DESIGNED BY: A. METTE DETAILER: B.Y. G. DONAHUE	REVISION CHECKED BY: W. JUDD W. JUDD	DATE
ROUTE <b>KY-47</b>		COUNTY <b>KENTON</b>		
DIVISION AND <b>OHIO RIVER</b>		SHEET NO. <b>S30</b>		
PROJECT TITLE <b>SOUTH TOWER PARTIAL PLAN</b>		CONTRACT NO. <b>28345</b>		
ITEM NUMBER <b>6-1097</b>		CONTRACTOR'S EXPIRATION DATE 06/30/2022		

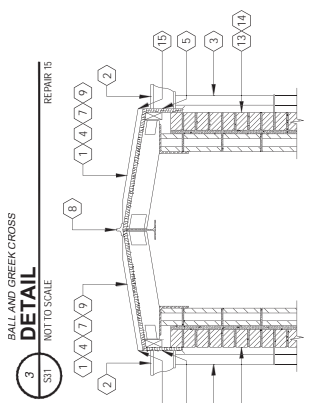
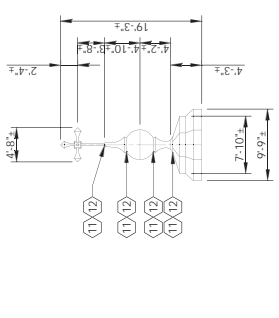
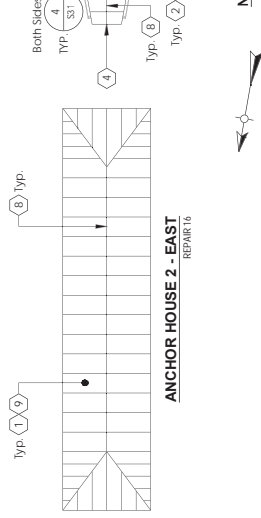
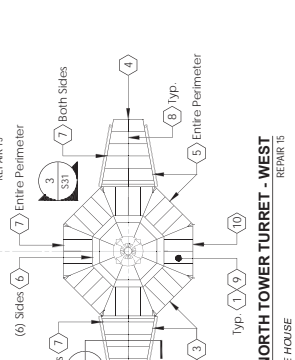
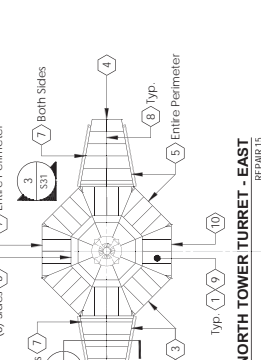
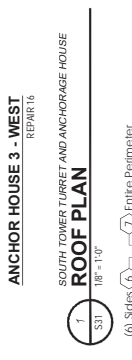
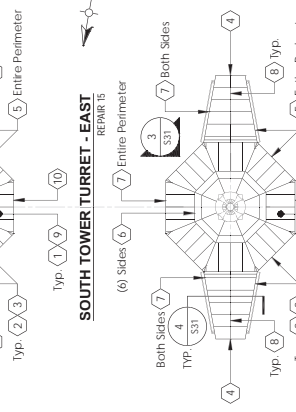
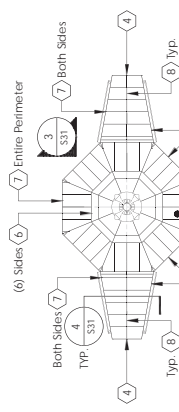
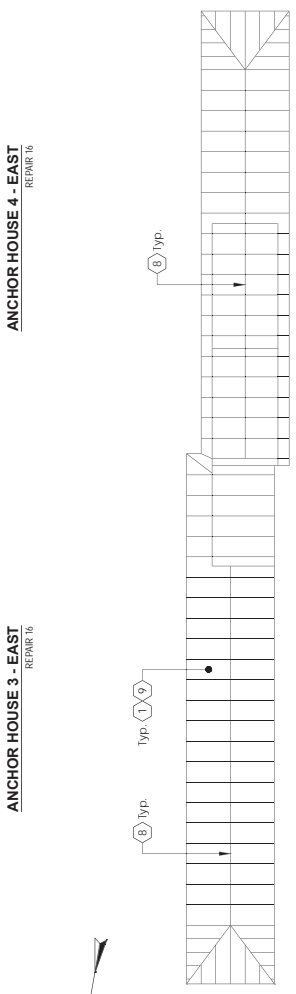
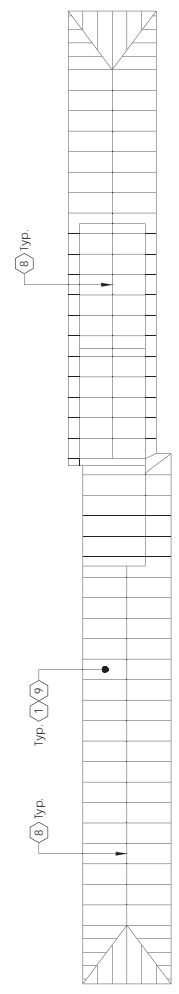
REPAIRS 13 - 14


**GENERAL NOTES:**

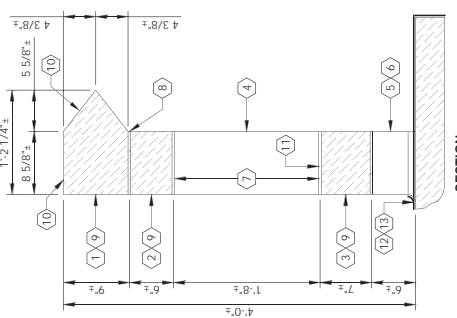
- A. Contractor to coordinate Reobling towers' roof repairs with towers' masonry repairs. Roofing towers' masonry repairs at top stone courses should be coordinated with towers' roof repairs.
- B. Survey towers for electrical conduit. Temporarily remove, support, and reinstall as required for masonry, concrete, sealant, painting, and waterproofing repairs.
- C. Coordinate turret gutter and downspout replacement with masonry, concrete, sealant, painting, and waterproofing repairs.

**KEY NOTES:**

1. Existing copper standing seam roof system. Survey roof and report defects to Engineer.
2. Install new copper gutters and brackets at 30" O.C. at perimeter of turret house. Refer to Special Note for Metal Roofing & Gutters. Measurement and payment per bid item Repair (Roofing & Gutters).
3. Remove all existing downspouts and install new copper downspouts to match existing. Refer to Special Note for Metal Roofing & Gutters. Measurement and payment per bid item Repair (Roofing & Gutters).
4. Existing copper roof termination on sandstone. Install new cove sealant around perimeter of roof termination. Refer to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Roof Sealant).
5. Remove existing corroded metal fasteners at copper fascia and install new stainless steel screws with neoprene washer. Screw size to match hole in metal. Heads of fasteners to be bedded in silicone sealant. Measurement and payment per bid item Repair (Roofing & Gutters).
6. Remove existing base flashing at turret wall and install new copper flashing with folded and soldered splices at corners. Overlap both ends of flashing 2" onto adjacent side of turret. Measurement and payment per bid item Repair (Roofing & Gutters).
7. Remove existing nails at edge of copper roof and install new stainless steel screws with neoprene washer. Screw size to match existing hole in metal. Heads of fasteners to be bedded in silicone sealant. Measurement and payment per bid item Repair (Roofing & Gutters).
8. Remove existing sealant at all joints between ridge cap and standing seam and install new silicone cove sealant at joint. Refer to Special Note for Sealants. Measurement and payment per bid item Repair (Roof Sealant).
9. Remove existing sealant at all stone to roof system termination pieces and install new silicone sealant. Refer to Special Note for Sealants. Measurement and payment per bid item Repair (Roof Sealant).
10. Existing ball and greek cross assembly. Refer to Detail 3 on this Sheet for repairs. Measurement and payment per bid item Repair (Towers Repair).
11. Possible location of existing sealant to be removed.
12. Prepare surfaces and install continuous bead of silicone sealant at intersection of ball and greek cross components. Refer to Special Note for Sealants. Measurement and payment per bid item Repair (Roof Sealant).
13. Existing brick veneer expansion joint at turret house. Remove expansion material, prepare joint opening, and install new sealant. Refer to Detail 2 on Sheet S33. Measurement and payment per bid item Repair (Roof Sealant).
14. Existing brick veneer at turret house. Clean brick surface and install water repellent per manufacturer's requirements. Basis of Design: Protectol CHEM-FRET BSM 400 at (150 square feet per gallon. Measurement and payment per bid item Waterproof Coating.
15. Remove existing sealant between underside of metal roof and fascia metal panel. Prepare surfaces and install new cove sealant. Similar to Detail 3 on Sheet S33. Measurement and payment per bid item Repair (Roof Sealant).



Plans Prepared By <b>THP</b> Sheets S209-S33 		DATE: 5/28/2020 DESIGNED BY: A. METTE CHECKED BY: W. JUDD DETAILED BY: G. DONAHUE W. JUDD
COMMUNWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS KENTON ROUTE KY-47 OHIO RIVER BRIDGE ROOF PLANS AND DETAILS SHEET NO. S31 CONTRACT NO. 283445		W. P. LAMB, INC. 1000 W. MAIN ST. COVINGTON, KY 40302 WWW.WPLAMBS.COM
ITEM NUMBER <b>6-1097</b>		REPAIRS 15 - 16



SECTION

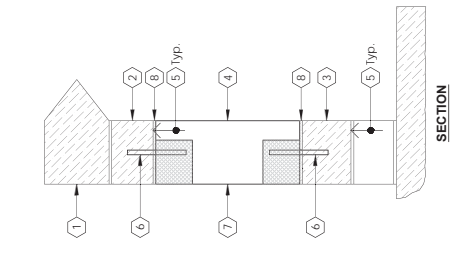
- 1 Existing top rail continuous stone.
- 2 Existing top rail continuous bottom stone.
- 3 Existing bottom rail continuous bottom stone.
- 4 Existing 10" x 9"± stone post spaced at approximately 2'-6" O.C.
- 5 Existing 10" x 9"± bottom stone post spaced at approximately 2'-6" O.C.
- 6 Re-point perimeter of bottom stone post. Refer to Detail 7 on this Sheet.
- 7 Re-point top and bottom perimeter of stone post. Refer to Detail 7 on this Sheet.
- 8 Re-point continuous joint between top rail stone and top rail bottom stone. Refer to Detail 10 on this Sheet.
- 9 Re-point butt joints between (3) continuous stones. Refer to Detail 7 on this Sheet.
- 10 Re-point and install silicone sealant at skyward butt joints of top rail stone. Refer to Detail 1 on Sheet S33.
- 11 Install silicone cove sealant at (2) sides of bottom rail stone. Refer to Detail 3 on Sheet S33.
- 12 Install urethane cove sealant at (3) sides of bottom stone post. Cove sealant not to be installed on exterior side of rail. Refer to Detail 3 on Sheet S33.
- 13 New waterproof coating to be terminated on top of new urethane cove sealant. Refer to Detail 5 on Sheet S33.



DETAIL  
NOT TO SCALE

TOWERS RAIL REPOINTING AND SEALANT REPAIR

Plans Prepared By  Sheets 5209-533	DATE: 5/28/2020 DESIGNED BY: A. METTE CHECKED BY: W. JUDD DETAILLED BY: G. DONAHUE W. JUDD
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b> KENTON DIVISION AND ROUTE <b>KY-47</b> <b>OHIO RIVER</b> PREPARED BY:	
<b>REPAIR DETAILS</b> SHEET NO. <b>S33</b> OF <b>28345</b> CONTRACT NO.	
William Judd, PE P.C. No. 250495 <b>ITEM NUMBER</b> <b>6-1097</b>	



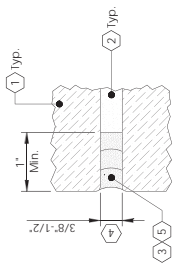
SECTION

- Refer to Special Note for Masonry/Stone Repairs for additional information.
- 1 Existing continuous stone top rail.
  - 2 Existing continuous stone top rail bottom piece.
  - 3 Existing continuous bottom rail.
  - 4 Existing 10" x 9"± bottom stone post to be replaced.
  - 5 Temporary support rail continuous members on each side of post. Completely remove existing post and stone pins.
  - 6 Drill and epoxy new stainless steel 5/8" dia. x 8" long pin into continuous rail. Epoxy embed 3 1/2".
  - 7 Install new 10" x 9"± sandstone post. Epoxy grout post into place around pin. Complete composite stone patch at exterior slot of post after installation.
  - 8 Grout top and bottom of new stone post into place.



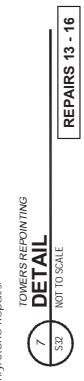
DETAIL  
NOT TO SCALE

TOWERS RAIL POST REPLACEMENT



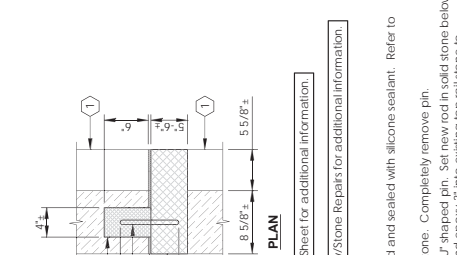
SECTION

- 1 Existing stone to remain.
- 2 Existing sound mortar to remain.
- 3 Saw cut existing mortar unit sound mortar is encountered. Minimum depth of 1". Do not damage stone or widen joints.
- 4 Clean and wet areas of stone to receive new mortar.
- 5 Install new mortar in maximum lifts of 3/8" deep. Refer to Special Note for Masonry/Stone Repairs.



DETAIL  
NOT TO SCALE

TOWERS REPOINTING



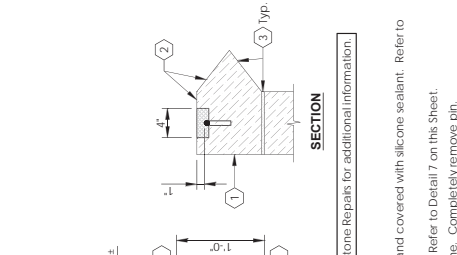
PLAN

- Refer to Detail 1 on this Sheet for additional information.
- Refer to Special Note for Masonry/Stone Repairs for additional information.
- 1 Existing top rail stone.
  - 2 Existing mortar joint to be repointed and sealed with silicone sealant. Refer to Detail 1 on Sheet S33.
  - 3 Existing steel pin set at surface of stone. Completely remove pin.
  - 4 Install new stainless steel 5/8" dia. "U" shaped pin. Set new rod in solid stone below existing delaminated stone. Drill and epoxy 3" into existing top rail stone to remain.
  - 5 Install (2) stone/repair mortar repairs to cover new rod. Slope front face to match existing profile of stone.



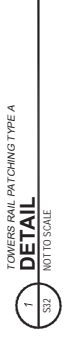
DETAIL  
NOT TO SCALE

TOWERS RAIL PATCHING TYPE B



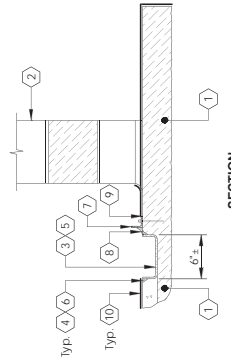
PLAN

- Refer to Special Note for Masonry/Stone Repairs for additional information.
- 1 Existing top rail stone.
  - 2 Existing mortar joint to be repointed and covered with silicone sealant. Refer to Detail 1 on Sheet S33.
  - 3 Existing mortar joint to be repointed. Refer to Detail 7 on this Sheet.
  - 4 Existing steel pin set at surface of stone. Completely remove pin.
  - 5 Install new stainless steel 5/8" dia. "U" shaped pin. Set new rod minimum 1" below top of stone. Drill and epoxy 3" into existing top rail stone to remain.
  - 6 Install stone repair mortar to cover new rod.



DETAIL  
NOT TO SCALE

TOWERS RAIL PATCHING TYPE A



SECTION

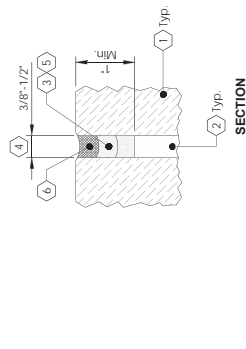
- 1 Existing top of tower stone/concrete overlay.
- 2 Existing stone railing.
- 3 Existing 6" side drainage gutter cut from HSS6x6x1/4 member.
- 4 "V" gird and 3/4" deep and wide joint along bottom sides of gutter.
- 5 Drainage gutter. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Repair (Tower Gutter Drainage Trough).
- 6 Install continuous urethane sealant in joint along drainage gutter flush with top of slab/drainage gutter.
- 7 Install continuous stainless steel L1 1/2x1 1/2x3/16 along back of drainage trough. Set angle in full bed of epoxy and anchor with 1/4" dia. stainless steel rods at 2'-6" O.C. Epoxy embed 3".
- 8 Install 1" urethane cove sealant along front side of angle. Refer to Detail 3 on Sheet S33.
- 9 Install 3/16" urethane cove sealant along backside of angle for termination of waterproof coating. Refer to Detail 5 on Sheet S33.
- 10 Waterproof coating. Refer to Special Note for Waterproof Coating.



DETAIL  
NOT TO SCALE

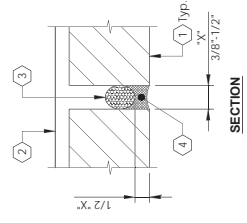
TOWERS GUTTER DRAINAGE TROUGH REPAIR

REPAIRS 13 - 16



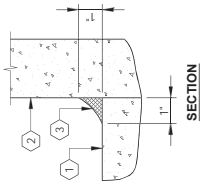
- 1** Existing stone to remain.
- 2** Existing sound mortar to remain.
- 3** Saw cut existing mortar until sound mortar is encountered. Minimum depth of 1". Do not damage stone or widen joints.
- 4** Clean and wet areas of stone to receive new mortar.
- 5** Install new mortar in maximum lifts of 3/8" deep. Do not install last lift of mortar. Refer to Special Note for Masonry/Stone Repairs.
- 6** After cure of mortar, prepare surfaces, and install silicone sealant joint. Refer to Special Note for Sealants.

**1** TOWERS SEALANT AT REPOINTING  
S33  
NOT TO SCALE



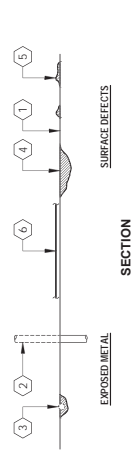
- 1** Existing brick veneer at turret house.
- 2** Existing building structure.
- 3** Install closed-cell backer rod.
- 4** Remove expansion material, prepare joint opening, install backer rod, and install new silicone sealant. Refer to Special Note for Sealants.

**2** ISOLATION JOINT SEALANT  
S33  
NOT TO SCALE



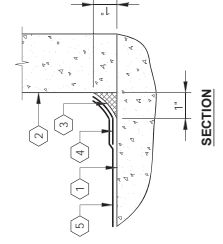
- 1** Existing stone surface or concrete overlay.
- 2** Existing concrete wall, stone post, concrete curb, or steel member.
- 3** Prepare all surfaces intended for new sealant. Install new cove sealant. Refer to Special Note for Sealants.

**3** COVE SEALANT  
S33  
NOT TO SCALE



- 1** Existing concrete slab.
- 2** Cut-off non-functional metals at surface. No flame cutting permitted. Prime and paint exposed steel in accordance with Section 607.03.23 "Cleaning and Painting". Payment incidental to bid item Waterproof Coating.
- 3** Exposed slab reinforcing and/or wire mesh. Cut and remove sufficient amount of reinforcing to provide 1/2" cover at cut ends. Prepare and patch with epoxy/sand mixture. Consult with Engineer prior to cutting reinforcing.
- 4** Repair minor existing surface defects caused by aggregate pop-outs, surface scaling, and freeze-thaw damage in manner acceptable to Engineer and membrane manufacturer. Refer to Special Note for Waterproof Coating Repairs.
- 5** Grind smooth or otherwise remove existing excess concrete and/or material deposited (left on slab) from construction activities. Where existing slab concrete is mounded or otherwise protrudes more than 1/16" above deck, grind it smooth, or grind transition slope of 1:4 (maximum) with blending radii at perimeter of large areas.
- 6** New membrane system. Refer to Special Note for Waterproof Coating Repairs.

**4** WATERPROOFING COATING PREPARATION  
S33  
NOT TO SCALE



- 1** Existing concrete slab.
- 2** Existing wall, curb, or any vertical projection.
- 3** Install new cove sealant. Refer to Special Note for Sealants.
- 4** New membrane detail coat terminated on cove sealant. Refer to Special Note for Waterproof Coating Repairs.
- 5** New membrane system. Refer to Special Note for Waterproof Coating Repairs.

**5** WATERPROOFING COATING TERMINATION  
S33  
NOT TO SCALE

Plans Prepared By <b>THP</b> Sheets 5209-533		DATE: 5/28/2020 DESIGNED BY: A. METTE CHECKED BY: W. JUDD	
SHEET NO. 533 TOTAL SHEETS 28345		REVISION CHECKED BY: W. JUDD	
Commonwealth of Kentucky <b>DEPARTMENT OF HIGHWAYS</b> KENTON COUNTY			
ROUTE KY-47		DIVISION AND OHIO RIVER	
<b>REPAIR DETAILS</b>			
ITEM NUMBER 6-1097		SHEET NO. 533 TOTAL SHEETS 28345	

REPAIRS 13 - 16

**SPECIAL NOTE FOR PRE-BID CONFERENCE  
DISTRICT 6  
ROEBLING BRIDGE REPAIRS  
ITEM NO. 6-10005.00  
CID Number 20-2992**

The Department will conduct a Pre-Bid Conference and Field Review of the subject project at the dates and times below:

**Pre-Bid Conference**  
**(by Video Conference)**  
**Date: September 15, 2020**  
**Time: 1:30 p.m.**

**Field Review**  
**Date: September 16, 2020**  
**Time: 1:30 p.m.**  
**Where: Roebling Bridge (Anchorage 1)**  
**Smale Riverfront Park**  
**Cincinnati, OH**  
**Phone: 859-967-7129**

Any company that is interested in bidding on the subject project or being part of a joint venture shall be represented at the video conference and have attended at least one field review. No individual can represent more than one company. At the video conference and, during the subsequent field review of the subject bridge, a roster shall be taken of the representatives present. In addition, following the video conference each company shall submit a signed affidavit listing the company members attending the video conference. The video conference will also be recorded in order to verify attendance. **Only companies represented on the video conference, submitting the affidavit by the due date, and present during either of the August 13<sup>th</sup>, 2020, or September 16<sup>th</sup>, 2020, field reviews will be eligible to have their bids opened at the date of letting.**

During the field review, the company representatives and The Department of Highways officials will travel to the project sites. The field review is not intended for bid estimation. **The Contractor shall be required to furnish approved High Visibility Apparel and face masks for all of their representatives present at the field review. Face masks will be required to be worn at all times during the field review, and social distancing shall be observed. No more than two (2) people per contractor will be allowed to attend the field review.**

The purpose of the video conference and field review is to familiarize all prospective bidders with the contract requirements and the location and condition of all structures within the scope of the contract.

Department of Highways officials present at the video conference and during the field review will answer questions concerning the projects.

Companies interesting in bidding on the subject project should contact **Daryl Greer** at [daryl.greer@ky.gov](mailto:daryl.greer@ky.gov) before 4:30 p.m. on **September 14, 2020**, to obtain a link to the video conference and a copy of the affidavit.



**PART II**  
**SPECIFICATIONS AND STANDARD DRAWINGS**

### **SPECIFICATIONS REFERENCE**

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020*.

## **SUPPLEMENTAL SPECIFICATIONS**

The contractor shall use the Supplemental Specifications that are effective at the time of letting.  
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

## **PART III**

### **EMPLOYMENT, WAGE AND RECORD REQUIREMENTS**

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

**III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

**IV. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

**1. Minimum wages**

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or



will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

**4. Apprentices and trainees**

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

#### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

#### **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

##### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.



**KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS**

**EMPLOYMENT REQUIREMENTS  
RELATING TO  
NONDISCRIMINATION OF EMPLOYEES  
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**AN ACT OF THE KENTUCKY GENERAL ASSEMBLY  
TO PREVENT DISCRIMINATION IN EMPLOYMENT**

**KRS CHAPTER 344  
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

### Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

### Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

## EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

"General Decision Number: KY20200039 08/14/2020

Superseded General Decision Number: KY20190039

State: Kentucky

Construction Type: Highway

Counties: Boone, Campbell, Kenton and Pendleton Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/03/2020
1	08/14/2020

BRKY0002-005 06/01/2017

	Rates	Fringes
BRICKLAYER.....	\$ 27.81	13.01

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BROH0001-005 06/01/2008

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 25.75	8.60

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CARP0698-001 05/01/2014

BOONE, CAMPBELL, KENTON & PENDLETON COUNTIES:

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 27.27	14.59
Diver.....	\$ 40.58	9.69

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 ELEC0212-007 06/03/2019

	Rates	Fringes
ELECTRICIAN.....	\$ 30.18	18.89

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 ELEC0212-013 11/26/2018

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	10.99

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 ENGI0018-013 05/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 37.39	14.95
GROUP 2.....	\$ 37.27	14.95
GROUP 3.....	\$ 36.23	14.95
GROUP 4.....	\$ 35.05	14.95
GROUP 5.....	\$ 29.59	14.95
GROUP 6.....	\$ 37.64	14.95
GROUP 7.....	\$ 37.89	14.95

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; & Wheel Excavator

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 500,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt);

Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); & Vermeer type Concrete Saw

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); & Welding Machines

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway) except Masonry); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift (highway); Form Trencher; Hydro Hammer; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); & Vibratory Compactor with Integral Power

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Masonry Fork Lift; Oil Heater (asphalt plant); Oiler; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; & VAC/ALLS

GROUP 6 - Master Mechanic & Boom from 150 to 180

GROUP 7 - Boom from 180 and over

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 \* IRON0044-008 06/01/2020

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 28.95	21.20
Structural.....	\$ 30.47	21.20

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 \* IRON0044-018 06/01/2020

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 30.47	21.20

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 LABO0189-004 07/01/2018

PENDLETON COUNTY:

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Driller (All Types); Powderman & Blaster; Troxler & Concrete Tester if Laborer is Utilized

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 LABO0265-009 05/01/2018

BOONE, CAMPBELL & KENTON COUNTIES:

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 30.62	10.95
GROUP 2.....	\$ 30.79	10.95
GROUP 3.....	\$ 31.12	10.95
GROUP 4.....	\$ 31.57	10.95

LABORER CLASSIFICATIONS



GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Highway Lighting Worker; Signalization Worker; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Skid Steer; Asphalt Raker; Concrete Puddler; Kettle Man (Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner; & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

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PAIN0012-016 05/01/2015

	Rates	Fringes
PAINTER		
Bridge.....	\$ 24.39	9.06
Bridge Equipment Tender and Containment Builder.....	\$ 20.73	9.06
Brush & Roller.....	\$ 23.39	9.06
Sandblasting & Water Blasting.....	\$ 24.14	9.06
Spray.....	\$ 23.89	9.06

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PLUM0392-008 06/01/2018

	Rates	Fringes
PLUMBER.....	\$ 32.01	19.67

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SUKY2010-161 02/05/1996

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 15.85	4.60
GROUP 2.....	\$ 16.29	4.60

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Driver

GROUP 2 - Euclid Wagon; End Dump; Lowboy; Heavy Duty  
Equipment; Tractor-Trailer Combination; & Drag

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
for Federal Contractors applies to all contracts subject to the  
Davis-Bacon Act for which the contract is awarded (and any  
solicitation was issued) on or after January 1, 2017. If this  
contract is covered by the EO, the contractor must provide  
employees with 1 hour of paid sick leave for every 30 hours  
they work, up to 56 hours of paid sick leave each year.  
Employees must be permitted to use paid sick leave for their  
own illness, injury or other health-related needs, including  
preventive care; to assist a family member (or person who is  
like family to the employee) who is ill, injured, or has other  
health-related needs, including preventive care; or for reasons  
resulting from, or to assist a family member (or person who is  
like family to the employee) who is a victim of, domestic  
violence, sexual assault, or stalking. Additional information  
on contractor requirements and worker protections under the EO  
is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within  
the scope of the classifications listed may be added after  
award only as provided in the labor standards contract clauses  
(29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification  
and wage rates that have been found to be prevailing for the  
cited type(s) of construction in the area covered by the wage  
determination. The classifications are listed in alphabetical  
order of ""identifiers"" that indicate whether the particular  
rate is a union rate (current union negotiated rate for local),  
a survey rate (weighted average rate) or a union average rate  
(weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed  
in dotted lines beginning with characters other than ""SU"" or  
""UAVG"" denotes that the union classification and rate were  
prevailing for that classification in the survey. Example:  
PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of

the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

**TO: EMPLOYERS/EMPLOYEES**

**PREVAILING WAGE SCHEDULE:**

**The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.**

**OVERTIME:**

**Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.**

Director  
Division of Construction Procurement  
Frankfort, Kentucky 40622  
502-564-3500

**TRANSPORTATION CABINET  
DIVISION OF CONSTRUCTION PROCUREMENT  
PROJECT WAGE RATES**

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KENTON COUNTY, STP 8198 (005)

KY17 – Roebling Bridge (059B00048) over Ohio River

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**NOTICE:**

There are three (3) sets of wage rates established for this project. The contractor shall use federal wage rate decision number KY20200073 when bridge work is performed on the KY17 (059B00048). Wage rate decision number KY20200039 shall apply for road work performed in Kentucky. Wage rate decision number OH20200001 shall apply for road work performed in Ohio.

"General Decision Number: KY20200073 08/28/2020

Superseded General Decision Number: KY20190073

State: Kentucky

Construction Type: Heavy

County: Kenton County in Kentucky.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/03/2020
1	08/14/2020
2	08/28/2020

ASBE0008-007 07/01/2019

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 30.32	18.50

ELEC0369-008 05/28/2019

	Rates	Fringes
ELECTRICIAN.....	\$ 32.44	17.22

ENGI0018-016 05/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Backhoe/Excavator/Trackhoe).....	\$ 37.39	14.95

\* ENGI0181-016 07/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 35.14	17.25

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Crane; Forklift

Operators on cranes with boom 150 feet and over, including jib, shall receive \$0.75 above Group 1. All cranes with piling leads will receive \$0.50 above Group 1 rate regardless of boom length. Combination rate shall mean \$0.50 per hour above the basic hourly rate of pay.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

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\* ENGI0181-019 07/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 33.95	17.25
GROUP 2.....	\$ 31.09	17.25
GROUP 3.....	\$ 31.54	17.25
GROUP 4.....	\$ 30.77	17.25

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Drill; Pumpcrete; Roller (Bituminous)

GROUP 2 - Bobcat/Skid Steer/Skid Loader; Concrete Pump; Roller (Rock)

GROUP 3 - Articulating Truck Operator

GROUP 4 - Pump; Roller (Earth)

Operators on cranes with booms 150 feet and over (including jib) shall receive \$1.00 above Group 1 rate; 250 feet and over including jib shall receive \$1.50 above Class 1 rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds 150 feet, shall receive \$1.00 above the Group 1 rate.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

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IRON0044-005 06/01/2020

	Rates	Fringes
IRONWORKER (STRUCTURAL AND REINFORCING).....	\$ 30.47	21.20

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IRON0070-011 06/01/2020



	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 30.42	23.15

-----  
 LABO0189-016 07/01/2018

	Rates	Fringes
LABORER		
Concrete Worker & Grade		
Checker.....	\$ 23.07	14.21
Tamper (Hand Held/Walk		
Behind).....	\$ 23.32	14.21

-----  
 LABO0265-005 05/01/2015

	Rates	Fringes
LABORER		
Concrete Saw (Hand		
Held/Walk Behind) &		
Pipelayer.....	\$ 28.89	9.85
Flagger & Landscape.....	\$ 28.72	9.85

-----  
 SUKY2011-029 06/25/2014

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 24.80	8.76
LABORER: Common or General.....	\$ 25.27	8.34
LABORER: Concrete Finishing.....	\$ 25.75	8.60
OPERATOR: Bulldozer.....	\$ 28.04	13.00
OPERATOR: Loader.....	\$ 29.37	10.13
OPERATOR: Mechanic.....	\$ 28.60	11.83
OPERATOR: Oiler.....	\$ 24.34	13.00
OPERATOR: Trencher.....	\$ 26.27	12.37
TRUCK DRIVER: Dump Truck.....	\$ 19.00	4.78

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 WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.

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 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
 for Federal Contractors applies to all contracts subject to the  
 Davis-Bacon Act for which the contract is awarded (and any  
 solicitation was issued) on or after January 1, 2017. If this  
 contract is covered by the EO, the contractor must provide  
 employees with 1 hour of paid sick leave for every 30 hours  
 they work, up to 56 hours of paid sick leave each year.  
 Employees must be permitted to use paid sick leave for their  
 own illness, injury or other health-related needs, including  
 preventive care; to assist a family member (or person who is  
 like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

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U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: OH20200001 07/31/2020

Superseded General Decision Number: OH20190001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/07/2020
3	03/13/2020
4	03/20/2020
5	04/10/2020
6	05/01/2020
7	06/12/2020
8	06/19/2020
9	07/10/2020
10	07/17/2020
11	07/31/2020

BROH0001-001 06/01/2019

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0001-004 06/01/2019		

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 29.34	16.11
-----		
BROH0003-002 06/01/2019		

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington, Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0005-003 05/01/2019		

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CAULKERS; CLEANERS; POINTERS; & STONEMASONS.....	\$ 34.85	16.94
SANDBLASTERS.....	\$ 35.10	16.94
SEWER BRICKLAYERS & STACK BUILDERS.....	\$ 35.35	16.94
SWING SCAFFOLDS.....	\$ 35.35	16.94
-----		
BROH0006-005 06/01/2019		

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships), STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0007-002 06/01/2019		

	Rates	Fringes
LAWRENCE		
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0007-005 06/01/2019		

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER.....	\$ 29.34	16.11
-----		
BROH0007-010 06/01/2019		

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE.....	\$ 29.34	16.11
-----		
BROH0008-001 06/01/2019		

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run, Middleton, & Unity Townships and the city of New Waterford), MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER.....	\$ 29.34	16.11
-----		
BROH0009-002 06/01/2019		

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt. Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
Refractory.....	\$ 31.45	19.01
-----		
BROH0010-002 06/01/2019		

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington, Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek & Saline Townships)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0014-002 06/01/2019		

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek, Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0016-002 06/01/2019		

ASHTABULA, GEAUGA, and LAKE COUNTIES

Rates	Fringes
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Bricklayer, Stonemason.....\$ 29.34                    16.11

-----  
BROH0018-002 06/01/2019

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon,  
Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

Rates                    Fringes

Bricklayer, Stonemason.....\$ 29.34                    16.11

-----  
BROH0022-004 06/01/2019

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN,  
MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin,  
Jefferson & Washington Townships) and SHELBY COUNTIES

Rates                    Fringes

Bricklayer, Stonemason.....\$ 29.34                    16.11

-----  
BROH0032-001 06/01/2019

GALLIA & MEIGS

Rates                    Fringes

Bricklayer, Stonemason.....\$ 29.34                    16.11

-----  
BROH0035-002 06/01/2019

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

Rates                    Fringes

Bricklayer, Stonemason.....\$ 29.34                    16.11

-----  
BROH0039-002 06/01/2019

ADAMS & SCIOTO

Rates                    Fringes

Bricklayer, Stonemason.....\$ 29.34                    16.11

-----  
BROH0040-003 06/01/2019

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND,  
WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee  
Townships) COUNTIES

Rates                    Fringes

Bricklayer, Stonemason.....\$ 29.34                    16.11

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above  
journeyman rate.  
Free standing stack work ground level to top of stack;



Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.  
""Hot"" work: \$2.50 above journeyman rate.

-----  
BROH0044-002 06/01/2019

	Rates	Fringes
Bricklayer, Stonemason COSHOCOTON, FAIRFIELD, GUERNSEY, HOCKING, KNOX, KICKING, MORGAN, MUSKINGUM, NOBLE (Beaver, Buffalo, Seneca & Wayne Townships) & PERRY COUNTIES:.....	\$ 29.34	16.11

-----  
BROH0045-002 06/01/2017

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

-----  
BROH0046-002 06/01/2019

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry & Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge & Richland Townships) COUNTIES & the Islands of Lake Erie north of Sandusky

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.  
Free standing stack work ground level to top of stack;  
Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.  
""Hot"" work: \$2.50 above journeyman rate.

-----  
BROH0052-001 06/01/2019

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

-----  
BROH0052-003 06/01/2019

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock, Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0055-003 06/01/2017		

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55
-----		
CARP0003-004 05/01/2017		

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER.....	\$ 26.20	17.42
-----		
CARP0069-003 05/01/2017		

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
CARPENTER.....	\$ 25.98	15.98
-----		
CARP0069-006 05/01/2017		

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER.....	\$ 24.04	15.29
-----		
CARP0171-002 05/01/2019		

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER.....	\$ 27.37	20.02
-----		
CARP0200-002 05/01/2017		

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA,  
 GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING,  
 MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY,  
 PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON  
 COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 29.07	16.22
Diver.....	\$ 39.41	10.40
PILEDRIVERMAN.....	\$ 29.07	16.22
-----		
CARP0248-005 07/01/2008		

LUCAS & WOOD

	Rates	Fringes
CARPENTER.....	\$ 27.27	14.58
-----		
CARP0248-008 07/01/2008		

	Rates	Fringes
CARPENTER DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES.....	\$ 23.71	13.28
-----		
CARP0254-002 05/01/2017		

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER.....	\$ 32.40	16.97
-----		
CARP0372-002 05/01/2016		

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER.....	\$ 24.54	18.21
-----		
CARP0639-003 05/01/2017		

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER.....	\$ 30.42	16.99
-----		
CARP0735-002 05/01/2019		

ASHLAND, ERIE, HURON, LORAIN & RICHLAND

	Rates	Fringes
CARPENTER.....	\$ 26.30	17.91
-----		
CARP1311-001 05/01/2017		

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE,  
 GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY &  
 WARREN

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 29.34	15.95
Diver.....	\$ 40.58	9.69
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CARP1393-002 07/01/2008		

CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA,  
 PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 27.30	16.05
DIVERS - \$250.00 per day		
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CARP1393-003 07/01/2008		

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 25.15	15.92
DIVERS - \$250.00 per day		
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CARP1871-006 05/01/2017		

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet.....	\$ 48.11	17.33
Piledrivermen; Diver, Dry.....	\$ 32.07	17.33
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CARP1871-008 05/01/2017		

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE,  
 LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet.....	\$ 45.80	18.84
Piledrivermen; Diver, Dry.....	\$ 30.53	18.84
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CARP1871-014 05/01/2017		

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet.....	\$ 38.34	16.95
Piledrivermen; Diver, Dry.....	\$ 25.56	16.95
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CARP1871-015 05/01/2017		

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
Diver, Wet.....	\$ 37.34	16.07
Piledrivermen; Diver, Dry.....	\$ 24.89	16.07
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CARP1871-017 05/01/2017		

MAHONING & TRUMBULL

	Rates	Fringes
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Diver, Wet.....	\$ 40.65	17.62
Piledrivermen; Diver, Dry.....	\$ 27.10	17.62

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CARP2235-012 01/01/2014

COLUMBIANA & JEFFERSON

	Rates	Fringes
PILEDRIVERMAN.....	\$ 31.74	16.41

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CARP2239-001 07/01/2008

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
CARPENTER.....	\$ 23.71	13.28

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\* ELEC0008-002 05/25/2020

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,  
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
CABLE SPLICER.....	\$ 38.98	18.96
ELECTRICIAN.....	\$ 41.81	4.5%+20.73

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ELEC0032-003 12/02/2019

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT &  
WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland,  
Ridge & Salem Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 31.37	19.24

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ELEC0038-002 04/27/2020

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &  
LORAIN (Columbia Township)

	Rates	Fringes
ELECTRICIAN Excluding Sound & Communications Work.....	\$ 39.88	21.22

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th;  
Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid  
vacation for 2 or more years' service

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ELEC0038-008 04/29/2019

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &  
 LORAIN (Columbia Township)

	Rates	Fringes
Sound & Communication		
Technician		
Communications Technician...	\$ 27.55	11.98
Installer Technician.....	\$ 26.30	11.94

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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 ELEC0064-003 11/25/2019

COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships)  
 MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield, Ellsworth, Coitsville, Goshen, Green, Jackson, Poland, Springfield & Youngstown Townships), & TRUMBULL (Hubbard & Liberty Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 34.67	15.83

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 ELEC0071-001 01/01/2019

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING, JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay, Jefferson, Oxford, Perry, Salem, Rush, Washington & York Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operators.....	\$ 33.62	13.40
Groundmen.....	\$ 24.17	11.32
Linemen & Cable Splicers....	\$ 38.27	14.42

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 ELEC0071-004 01/01/2019

AUGLAIZE, CLINTON, DARKE, GREENE, LOGAN, MERCER, MIAMI, MONTGOMERY, PREBLE, and SHELBY COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40

Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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 ELEC0071-005 12/31/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
LINE CONSTRUCTION: Equipment Operator		
DOT/Traffic Signal & Highway Lighting Projects...	\$ 32.44	14.10
Municipal Power/Transit Projects.....	\$ 40.10	16.42
LINE CONSTRUCTION: Groundman		
DOT/Traffic Signal & Highway Lighting Projects...	\$ 25.06	12.26
Municipal Power/Transit Projects.....	\$ 31.19	14.11
LINE CONSTRUCTION: Linemen/Cable Splicer		
DOT/Traffic Signal & Highway Lighting Projects...	\$ 36.13	15.03
Municipal Power/Transit Projects.....	\$ 44.56	17.58

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 ELEC0071-008 01/01/2019

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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 ELEC0071-010 01/01/2019

BELMONT, CARROLL, HARRISON, HOLMES, JEFFERSON, MEDINA, PORTAGE, STARK, SUMMIT, and WAYNE COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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 ELEC0071-013 01/01/2019

BROWN, BUTLER, CLERMONT, HAMILTON, and WARREN COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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ELEC0071-014 01/01/2019

ADAMS, ATHENS, GALLIA, JACKSON (Bloomfield, Franklin, Hamilton, Lick, Jefferson, Scioto & Madison Townships), LAWRENCE, MEIGS, PIKE (Camp Creek, Marion, Newton, Scioto, Sunfish & Union Townships), SCIOTO & VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships)

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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 ELEC0082-002 12/02/2019

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 31.15	19.96

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 ELEC0082-006 11/26/2018

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller.....	\$ 12.18	3.85
Installer/Technician.....	\$ 24.35	11.29

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 ELEC0129-003 02/24/2020

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 35.35	17.68

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 ELEC0129-004 02/24/2020

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman, Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich, Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 35.35	17.68

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 ELEC0141-003 09/01/2019



BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 30.63	25.87
ELECTRICIAN.....	\$ 30.38	25.87

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ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	10.99

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ELEC0212-005 06/03/2019

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.18	18.89

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ELEC0245-001 01/01/2020

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson,  
Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.37	25.9%+6.75
Groundman Truck Driver.....	\$ 17.70	25.9%+6.75
Lineman.....	\$ 40.46	25.9%+6.75

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of  
the workday prior to Christmas or New Year's Day

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ELEC0245-003 01/01/2020

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA,  
PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 46.53	25.9%+6.75
Groundman/Truck Driver.....	\$ 17.70	25.9%+6.75
Heli-arc Welding.....	\$ 40.76	25.9%+6.75
Lineman.....	\$ 40.46	25.9%+6.75
Operator - Class 1.....	\$ 32.37	25.9%+6.75
Operator - Class 2.....	\$ 28.32	25.9%+6.75
Traffic Signal & Lighting Technician.....	\$ 36.41	25.9%+6.75

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial  
Day; Independence Day; Labor Day; Thanksgiving Day; &  
Christmas Day. Employees who work on a holiday shall be

paid at a rate of double their applicable classified  
 straight-time rates for the work performed on such holiday.

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 ELEC0245-004 01/01/2020

ERIE COUNTY

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 46.53	25.9%+6.75
Groundman/Truck Driver.....	\$ 17.70	25.9%+6.75
Lineman.....	\$ 40.46	25.9%+6.75
Operator - Class 1.....	\$ 32.37	25.9%+6.75
Operator - Class 2.....	\$ 28.32	25.9%+6.75

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial  
 Day; Independence Day; Labor Day; Thanksgiving Day; &  
 Christmas Day. Employees who work on a holiday shall be  
 paid at a rate of double their applicable classified  
 straight-time rates for the work performed on such holiday.

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 ELEC0246-001 10/29/2018

	Rates	Fringes
ELECTRICIAN.....	\$ 38.00	84%+a

FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday  
 prior to Christmas & 4 hours on Good Friday.

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 ELEC0306-005 05/28/2018

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville,  
 Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer,  
 Wadsworth, Westfield & York Townships), PORTAGE (Atwater,  
 Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph,  
 Ravenna, Rootstown, Shalersville, Streetsboro & Suffield  
 Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester,  
 Chippewa, Congress, Green, Milton, & Wayne Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 36.87	16.56
ELECTRICIAN.....	\$ 34.54	5%+18.06

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 ELEC0317-002 06/01/2020

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER.....	\$ 32.68	18.13
ELECTRICIAN.....	\$ 35.10	26.22

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 ELEC0540-005 01/01/2020

CARROLL (Northern half, including Fox, Harrison, Rose &

Washington Townships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 33.71	24.22

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 \* ELEC0573-003 06/01/2020

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 34.11	19.46

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 ELEC0575-001 06/01/2020

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 33.75	18.47

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 ELEC0648-001 09/02/2019

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 30.50	18.23
ELECTRICIAN.....	\$ 30.00	19.85

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 ELEC0673-004 02/01/2020

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hamden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and LAKE COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.81	21.47
ELECTRICIAN.....	\$ 33.56	21.47

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 ELEC0683-002 06/01/2020

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON,  
 PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison,  
 Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and  
 UNION COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 35.50	21.06
ELECTRICIAN.....	\$ 34.50	21.06

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 \* ELEC0688-003 06/01/2020

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley &  
 Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard,  
 Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown &  
 Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT  
 (Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships)  
 COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.00	19.66

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 ELEC0972-002 06/01/2019

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox,  
 Madison, Vinton & Wilkesville Townships), and WASHINGTON  
 COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.80	26.65
ELECTRICIAN.....	\$ 33.55	26.65

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 ELEC1105-001 05/28/2018

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller,  
 Milford, Hilliar, Butler, Harrison, Pleasant & College  
 Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn,  
 York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry &  
 Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.95	17.96

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 ENGI0018-003 05/01/2019

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA,  
 PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		

GROUP 1.....	\$ 38.63	15.20
GROUP 2.....	\$ 38.53	15.20
GROUP 3.....	\$ 37.49	15.20
GROUP 4.....	\$ 36.27	15.20
GROUP 5.....	\$ 30.98	15.20
GROUP 6.....	\$ 38.88	15.20
GROUP 7.....	\$ 39.13	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small

equipment); Welding Machines; and Railroad Tie  
Inserter/Remover; Articulating/straight bed end dumps if  
assigned (minus \$4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh  
Installing Machine; Batch Plant; Boring Machine Operator  
(48" or less); Bull Floats; Burlap & Curing Machine;  
Concrete Plant (capacity 4 yd. & under); Concrete Saw  
(Multiple); Conveyor (Highway); Crusher; Deckhand;  
Farm-type Tractor with attachments (highway); Finishing  
Machine; Fireperson, Floating Equipment (all types);  
Forklift; Form Trencher; Hydro Hammer expect masonry;  
Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver;  
Post Hole Digger (Power Auger); Power Brush Burner; Power  
Form Handling Equipment; Road Widening Trencher; Roller  
(Brick, Grade & Macadam); Self-Propelled Power Spreader;  
Self-Propelled Power Subgrader; Steam Fireperson; Tractor  
(Pulling Sheepfoot, Roller or Grader); and Vibratory  
Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum  
Fireperson (Asphalt Plant); Generator; Masonry Fork Lift;  
Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt  
plant); Oiler/Helper; Power Driven Heater; Power Sweeper &  
Scrubber; Pump (under 4" discharge); Signalperson; Tire  
Repairperson; VAC/ALLS; Cranes - Compact, track or rubber  
under 4,000 pound capacity; fueling and greasing; and  
Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

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ENGI0018-004 05/01/2019

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN,  
BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON,  
COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD,  
FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON,  
HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES,  
HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN,  
LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE,  
MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING,  
PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS,  
SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN  
WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and  
YANDOT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 37.14	15.20
GROUP 2.....	\$ 37.02	15.20
GROUP 3.....	\$ 35.98	15.20
GROUP 4.....	\$ 34.80	15.20
GROUP 5.....	\$ 29.34	15.20
GROUP 6.....	\$ 37.39	15.20
GROUP 7.....	\$ 37.64	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Railroad Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Artiaculating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer expect masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post

Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

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 ENGI0066-023 06/01/2017

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B.....	\$ 39.23	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B.....	\$ 38.90	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B.....	\$ 34.64	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - A & B.....	\$ 30.70	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - A & B.....	\$ 27.30	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - C & D.....	\$ 35.96	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - C & D.....	\$ 35.66	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - C & D.....	\$ 31.76	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		



GROUP 4 - C & D.....\$ 28.14	19.66
HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 5 - C & D.....\$ 25.03	19.66
ALL OTHER WORK	
GROUP 1.....\$ 32.69	19.66
ALL OTHER WORK	
GROUP 2.....\$ 32.42	19.66
ALL OTHER WORK	
GROUP 3.....\$ 28.87	19.66
ALL OTHER WORK	
GROUP 4.....\$ 25.58	19.66
ALL OTHER WORK	
GROUP 5.....\$ 22.75	19.66

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not trencher or road widener); Double Nine; Drag Line; Dredge; Drill-Kenny or Similar Type; Easy Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment Robotics Operator/Mechanic; Hoist-Monorail; Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor; Curb Builder, self-propelled; Drill Wagon; Generator Set; Generator-Steam; Heater-Portable Power; Hydraulic Manipulator Crane; Jack-Hydraulic Power driven; Jack-Hydraulic (Railroad); Ladavator; Minor Machine Operator; Mixer-Concrete; Mulching Machine; Pin Puller; Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull Type); Saw-Concrete-Self-Propelled (Highway Work); Signal Person; Spray Cure Machine-Motor Powered; Stump Cutter; Tractor; Trencher Form; Water Blaster; Steam Jenny; Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

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 IRON0017-002 05/01/2020

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

	Rates	Fringes
IRONWORKER		
Ornamental, Reinforcing, & Structural.....	\$ 35.93	23.11

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 IRON0017-010 05/01/2020

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

	Rates	Fringes
IRONWORKER		

Structural, including  
 metal building erection &  
 Reinforcing.....\$ 35.93                    23.11

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 IRON0044-001 06/01/2018

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT,  
 CLINTON (South of a line drawn from Blanchester to Lynchburg),  
 HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of  
 county inside lines drawn from Marshall to Lynchburg from the  
 northern county line through E. Monroe to Marshall) and WARREN  
 (South of a line drawn from Blanchester through Morrow to the  
 west county line) COUNTIES

Rates                    Fringes

IRONWORKER, REINFORCING  
 Beyond 30-mile radius of  
 Hamilton County Courthouse..\$ 28.67                    21.20  
 Up to & including 30-mile  
 radius of Hamilton County  
 Courthouse.....\$ 27.60                    20.70

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 IRON0044-002 06/01/2020

CLINTON (South of a line drawn from Blanchester to Lynchburg),  
 HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of  
 county inside lines drawn from Marshall to Lynchburg from the  
 northern county line through E. Monroe to Marshall) & WARREN  
 (South of a line drawn from Blanchester through Morrow to the  
 west county line)

Rates                    Fringes

IRONWORKER  
 Fence Erector.....\$ 28.76                    21.40  
 Ornamental; Structural.....\$ 30.27                    21.40

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 IRON0055-003 07/01/2019

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30  
 meet through N. Liberty to the northern border & from said Hwy  
 junction point due west to the border), DEFIANCE (S. of a line  
 drawn from where Rte. #66 meets the northern line through  
 Independence to the eastern county border), ERIE (Western 1/3),  
 FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville  
 to a point 4 miles south of the northern line on the eastern  
 line), HENRY, HURON (West of a line drawn from the northern  
 border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM  
 (East of a line drawn from the northern border down through  
 Miller City to where #696 meets the southern border), SANDUSKY,  
 SENECA, WILLIAMS (East of a line drawn from Pioneer through  
 Stryker to the southern border), WOOD & WYANDOT (North of Rte.  
 #30)

Rates                    Fringes

IRONWORKER  
 Fence Erector.....\$ 21.30                    20.92

Flat Road Mesh.....	\$ 29.77	21.30
Tunnels & Caissons Under		
Pressure.....	\$ 29.77	21.30
All Other Work.....	\$ 30.38	24.40

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 IRON0147-002 06/01/2015

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

Rates Fringes

IRONWORKER.....	\$ 25.39	20.64
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 IRON0172-002 06/01/2020

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth), COSHOCTON (West of a line beginning at the northwestern county line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

Rates Fringes

IRONWORKER.....	\$ 30.75	20.80
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 \* IRON0207-004 06/01/2020

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

Rates Fringes

IRONWORKER		
Layout; Sheeter.....	\$ 31.25	25.75
Ornamental; Reinforcing;		
Structural.....	\$ 28.06	24.70
Ornamental; Reinforcing.....	\$ 30.25	25.75

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 \* IRON0290-002 06/01/2020

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrtown & Woodsdale), CHAMPAIGN (Excluding east of a line

drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 29.68	22.90
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IRON0549-003 12/01/2018		

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

	Rates	Fringes
IRONWORKER.....	\$ 33.34	20.81
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IRON0550-004 05/01/2019		

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte. #224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

	Rates	Fringes
Ironworkers:Structural, Ornamental and Reinforcing.....	\$ 28.90	19.87
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IRON0769-004 06/01/2020		

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

	Rates	Fringes
IRONWORKER.....	\$ 32.75	26.34
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IRON0787-003 12/01/2019		

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 30.18	22.75

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 LAB00265-008 05/01/2018

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES		
GROUP 1.....	\$ 31.05	10.95
GROUP 2.....	\$ 31.22	10.95
GROUP 3.....	\$ 31.55	10.95
GROUP 4.....	\$ 32.00	10.95
CUYAHOGA AND GEAUGA COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS CONSTRUCTION.....		
	\$ 33.66	10.95
CUYAHOGA, GEAUGA & LAKE COUNTIES		
GROUP 1.....	\$ 32.28	10.95
GROUP 2.....	\$ 32.45	10.95
GROUP 3.....	\$ 32.78	10.95
GROUP 4.....	\$ 33.23	10.95
REMAINING COUNTIES OF OHIO		
GROUP 1.....	\$ 30.62	10.95
GROUP 2.....	\$ 30.79	10.95
GROUP 3.....	\$ 31.12	10.95
GROUP 4.....	\$ 31.57	10.95

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - \$1.00 premium); & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

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PAIN0006-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

	Rates	Fringes
PAINTER		
COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS		
GROUP 1.....	\$ 27.90	16.16
GROUP 2.....	\$ 28.30	16.16
GROUP 3.....	\$ 28.60	16.16
GROUP 4.....	\$ 34.16	16.16
COMMERCIAL REPAINT		
GROUP 1.....	\$ 26.40	16.16
GROUP 2.....	\$ 26.80	16.16
GROUP 3.....	\$ 27.10	16.16

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges & Open Structural Steel; Tanks - Water Towers; Bridge Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

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PAIN0007-002 07/01/2019

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach,

Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

	Rates	Fringes
PAINTER		
NEW COMMERCIAL WORK		
GROUP 1.....	\$ 27.64	17.79
GROUP 2.....	\$ 27.39	17.79
GROUP 3.....	\$ 27.39	17.79
GROUP 4.....	\$ 27.39	17.79
GROUP 5.....	\$ 27.39	17.79
GROUP 6.....	\$ 27.39	17.79
GROUP 7.....	\$ 27.39	17.79
GROUP 8.....	\$ 27.39	17.79
GROUP 9.....	\$ 27.39	17.79

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

- GROUP 1 - Brush; Spray & Sandblasting Pot Tender
- GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)
- GROUP 3 - Swing Stage & Chair
- GROUP 4 - Lead Abatement
- GROUP 5 - All Methods of Spray
- GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)
- GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting
- GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet
- GROUP 9 - Epoxy Spray (excluding water based)

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 PAIN0012-008 05/01/2019

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 21.95	10.20
GROUP 2.....	\$ 25.30	10.20
GROUP 3.....	\$ 25.80	10.20
GROUP 4.....	\$ 26.05	10.20
GROUP 5.....	\$ 26.30	10.20

PAINTER CLASSIFICATIONS

- GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder



GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

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PAIN0012-010 05/01/2019

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES-		
GUARDRAILS-LIGHTPOLES-		
STRIPING		
Bridge Equipment Tender and Containment Builder....	\$ 21.95	10.20
Bridges when highest point of clearance is 60 feet or more; & Lead Abatement Projects.....	\$ 26.30	10.20
Brush & Roller.....	\$ 25.30	10.20
Sandblasting & Hopper Tender; Water Blasting.....	\$ 26.05	10.20
Spray.....	\$ 25.80	10.20

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PAIN0093-001 12/01/2018

ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and WASHINGTON COUNTIES

	Rates	Fringes
PAINTER		
Bridges; Locks; Dams; Tension Towers; & Energized Substations.....		
	\$ 34.04	18.50
Power Generating Facilities..	\$ 30.89	18.50

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PAIN0249-002 05/01/2019

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
PAINTER		
GROUP 1 - Brush & Roller....	\$ 23.67	11.50
GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes.....	\$ 23.67	11.50
GROUP 3 - Spray;		

Sandblast; Steamclean;		
Lead Abatement.....	\$ 24.42	11.50
GROUP 4 - Steeplejack Work..	\$ 24.62	11.50
GROUP 5 - Coal Tar.....	\$ 25.17	11.50
GROUP 6 - Bridge Equipment Tender & or Containment Builder.....	\$ 32.38	11.50
GROUP 7 - Tanks, Stacks & Towers.....	\$ 27.31	11.50
GROUP 8 - Bridge Blaster, Rigger.....	\$ 35.38	11.50

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PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

	Rates	Fringes
PAINTER		
Bridge Equipment Tenders and Containment Builders....	\$ 27.93	7.25
Bridges; Blasters; and Riggers.....	\$ 34.60	7.25
Brush and Roller.....	\$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting; and Hazardous Work.....	\$ 25.82	7.25
Spray.....	\$ 21.40	7.25
Structural Steel and Swing Stage.....	\$ 25.42	7.25
Tanks; Stacks; and Towers...	\$ 28.63	7.25

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PAIN0438-002 12/01/2018

BELMONT, HARRISON and JEFFERSON COUNTIES

	Rates	Fringes
PAINTER		
Bridges, Locks, Dams, Tension Towers & Energized Substations.....	\$ 32.80	17.68
Power Generating Facilities..	\$ 29.65	17.68

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PAIN0476-001 06/01/2019

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 25.82	16.58
GROUP 2.....	\$ 32.45	16.58
GROUP 3.....	\$ 26.03	16.58
GROUP 4.....	\$ 26.47	16.58
GROUP 5.....	\$ 26.47	16.58
GROUP 6.....	\$ 26.72	16.58
GROUP 7.....	\$ 27.82	16.58

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

- GROUP 2: Bridges
- GROUP 3: Structural Steel
- GROUP 4: Spray, Except Bar Joist/Deck
- GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above 50 Feet; and Swingstages
- GROUP 6: Tanks; Sandblasting
- GROUP 7: Towers; Stacks

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 PAIN0555-002 06/01/2019

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 31.04	16.31
GROUP 2.....	\$ 32.50	16.31
GROUP 3.....	\$ 33.96	16.31
GROUP 4.....	\$ 36.82	16.31

PAINTER CLASSIFICATIONS

- GROUP 1 - Containment Builder
- GROUP 2 - Brush; Roller; Power Tools, Under 40 feet
- GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure Washing; Epoxy & Two Component Materials; Lead Abatement; Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks
- GROUP 4 - Stacks; Bridges

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 PAIN0639-001 05/01/2011

	Rates	Fringes
Sign Painter & Erector.....	\$ 20.61	3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day  
 b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service - 20 days' paid vacation  
 c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

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 PAIN0788-002 06/01/2019

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA  
 (Allen, Bay, Bono, Catawba Island, Clay Center, Curtice,  
 Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem  
 Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 24.66	14.05
Structural Steel.....	\$ 26.26	14.05

WINTER REPAINT: Between December 1 to March 31 - 90%JR

\$ .50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE  
 CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and  
 horizontal cable. While operating sprayguns, sandblasting,  
 cobblasting and high pressure waterblasting (4000psi).

\$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE  
 CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy  
 that is deemed hazardous, lead abatement, or for work or  
 material where special precautions beyond normal work  
 duties must be taken. For working on stacks, tanks, and  
 towers over 40 feet in height.

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 PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

	Rates	Fringes
PAINTER		
Base Rate.....	\$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers.....	\$ 27.83	10.00

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 PAIN0841-001 06/01/2018

MEDINA, PORTAGE (South of and including Ohio Turnpike), and  
 SUMMIT (South of and including Ohio Turnpike) COUNTIES

	Rates	Fringes
Painters:		
GROUP 1.....	\$ 25.75	14.35
GROUP 2.....	\$ 26.40	14.35
GROUP 3.....	\$ 26.50	14.35
GROUP 4.....	\$ 26.60	14.35
GROUP 5.....	\$ 27.00	14.35
GROUP 6.....	\$ 39.20	11.75
GROUP 7.....	\$ 27.00	14.35

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from  
Scaffolds, Bridge Work and/or Open Structural Steel,  
Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or  
Galvanized, Bridges, Tunnels & Related Support Items  
(concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper,  
Drywall Finisher and Follow-up Man Using Automatic Tools

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PAIN0841-002 06/01/2018

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
PAINTER		
Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing.....	\$ 22.78	13.63
Brush & Roller.....	\$ 21.77	13.63
Spray; Tank Interior & Exterior.....	\$ 22.60	13.63

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PAIN1020-002 04/01/2019

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER,  
PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 24.57	15.03
Drywall Finishing & Taping..	\$ 23.27	15.03
Lead Abatement.....	\$ 26.32	15.03
Spray, Sandblasting Pressure Cleaning, & Refinery.....	\$ 25.32	15.03
Swing Stage, Chair, Spiders, & Cherry Pickers...	\$ 24.82	15.03
Wallcoverings.....	\$ 22.17	15.03

All surfaces 40 ft. or over where material is applied to or  
labor performed on, above ground level (exterior), floor  
level (interior) - \$.50 premium

Applying Coal Tar Products - \$1.00 premium

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PAIN1275-002 05/01/2019

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS  
 & UNION

	Rates	Fringes
PAINTER		
Bridges.....	\$ 34.24	14.20
Brush; Roller.....	\$ 24.76	14.20
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work.....	\$ 25.46	14.20
Spray.....	\$ 25.26	14.20
Stacks; Tanks; & Towers.....	\$ 28.27	14.20
Structural Steel & Swing Stage.....	\$ 25.06	14.20

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 PLAS0109-001 05/01/2018

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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 PLAS0109-003 05/01/2018

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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 PLAS0132-002 05/01/2018

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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 PLAS0404-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11

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 PLAS0404-003 05/01/2018

LORAIN COUNTY

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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 PLAS0526-022 05/01/2018

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11
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PLAS0526-023 05/01/2018		

BELMONT, HARRISON, and JEFFERSON COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11
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PLAS0886-001 05/01/2018		

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11
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PLAS0886-003 05/01/2018		

DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, and SENECA COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11
-----		
PLAS0886-004 05/01/2018		

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, and VAN WERT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11
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PLUM0042-002 07/01/2018		

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND & WYANDOT

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 34.20	22.07
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PLUM0050-002 07/06/2020		

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.60	26.73
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\* PLUM0055-003 05/04/2020

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 & Smith Road) & SUMMIT (N. of Rte. #303, including the corporate limits of the city of Hudson)

	Rates	Fringes
PLUMBER.....	\$ 37.07	27.71
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PLUM0083-001 07/01/2017		

BELMONT & MONROE (North of Rte. #78)

	Rates	Fringes
Plumber and Steamfitter.....	\$ 32.16	31.51
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PLUM0094-002 05/01/2019		

CARROLL (Northen Half), STARK, and WAYNE COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 35.78	20.14
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PLUM0120-002 05/04/2020		

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of #303)

	Rates	Fringes
PIPEFITTER.....	\$ 40.22	25.48
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* PLUM0162-002 06/01/2020		

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 32.25	26.47
-----		
PLUM0168-002 06/01/2019		

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78) & WASHINGTON

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 35.32	31.63
-----		
PLUM0189-002 06/01/2019		

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON, MARION, PERRY, PICKAWAY, ROSS & UNION



	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 38.45	16.98

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 PLUM0219-002 05/31/2018

MEDINA (Rte. #18 from eastern edge of Medina Co., west to eastern corporate limits of the city of Medina, & on the county road from the west corporate limits of Medina running due west to and through community of Risley to the western edge of Medina County - All territory south of this line), PORTAGE, and SUMMIT (S. of Rte. #303) COUNTIES

	Rates	Fringes
Plumber and Steamfitter.....	\$ 37.02	23.79

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 PLUM0392-002 06/01/2020

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 33.91	22.29

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 PLUM0396-001 06/01/2019

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 34.00	25.46

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 PLUM0495-002 06/01/2018

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelssville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 38.24	23.09

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 PLUM0577-002 06/01/2019

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 34.90	24.11
-----		
PLUM0776-002 08/01/2019		

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT  
 COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 36.64	24.73
-----		
TEAM0377-003 05/01/2020		

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 28.89	15.40
GROUP 2.....	\$ 29.31	15.40

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service;  
 4-Wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer;  
 Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When  
 Operated From Cab; 5 Axles & Over; Belly Dump; End Dump;  
 Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck  
 Mechanic

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 TEAM0436-002 05/01/2019

CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 28.40	16.95
GROUP 2.....	\$ 28.90	16.95

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank,  
 Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers,  
 Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double  
 Hook-Up Tractor Trailers including Team Track & Railroad  
 Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor &  
 Tandem Trailer, Tag Along Trailer, Expandable Trailer or  
 Towing Requiring Road Permits, Ready-Mix (Agitator or  
 Non-Agitator), Bulk Concrete Driver, Dry Batch Truck,  
 Articulated End Dump

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION  
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY  
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

<b>GOALS FOR MINORITY PARTICIPATION IN EACH TRADE</b>	<b>GOALS FOR FEMALE PARTICIPATION IN EACH TRADE</b>
11.0%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director  
Office of Federal Contract Compliance Programs  
61 Forsyth Street, SW, Suite 7B75  
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Kenton County.

**PART IV**  
**INSURANCE**

Refer to  
*Kentucky Standard Specifications for Road and Bridge Construction,*  
current edition

**PART V**  
**BID ITEMS**



**PROPOSAL BID ITEMS**

202992

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Report Date 9/2/20

**Section: 0001 - BRIDGE**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	01000		PERFORATED PIPE-4 IN	170.00	LF		\$	
0020	02014		BARRICADE-TYPE III	28.00	EACH		\$	
0030	02231		STRUCTURE GRANULAR BACKFILL	580.00	CUYD		\$	
0040	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0050	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		\$	
0060	03250		WATERPROOFING MEMBRANE	221.00	SQYD		\$	
0070	03383		PVC PIPE-4 IN	6.00	LF		\$	
0080	04884		ANCHOR	1,075.00	EACH		\$	
0090	08001		STRUCTURE EXCAVATION-COMMON	872.00	CUYD		\$	
0100	08100		CONCRETE-CLASS A	229.00	CUYD		\$	
0110	08104		CONCRETE-CLASS AA	63.00	CUYD		\$	
0120	08151		STEEL REINFORCEMENT-EPOXY COATED	24,900.00	LB		\$	
0130	08435		JACK & SUPPORT BRIDGE SPAN	1.00	LS		\$	
0140	20377EC		BRIDGE HANDRAIL REPAIR	4.00	LF		\$	
0150	20757ED		PAVEMENT REPAIR	68.00	SQYD		\$	
0160	21173EC		SAW-CLEAN-RESEAL RANDOM CRACKS	3,090.00	LF		\$	
0170	22146EN		CONCRETE PATCHING REPAIR	1,460.00	SQFT		\$	
0180	23378EC		CONCRETE SEALING	2,346.00	SQFT		\$	
0190	23744EC		EPOXY INJECTION CRACK REPAIR	100.00	LF		\$	
0200	24409EC		DRILL HOLES IN STEEL MEMBERS	1.00	EACH		\$	
0210	24423EC		TEMPORARY SHORING	1.00	LS		\$	
0220	24522EC		REPAIR ANCHORAGE 2 SEALANT	1.00	LS		\$	
0230	24522EC		REPAIR ROOF SEALANT	1.00	LS		\$	
0240	24522EC		REPAIR ROOFING AND GUTTERS	1.00	LS		\$	
0250	24522EC		REPAIR TOWER GUTTER DRAINAGE TROUGH	1.00	LS		\$	
0260	24522EC		REPAIR TOWER SEALANT	1.00	LS		\$	
0270	24823EC		DUTCHMAN REPAIR	2,546.00	SQFT		\$	
0280	24824EC		MASONRY CRACK REPAIR	457.00	LF		\$	
0290	24981EC		BRIDGE CLEANING NORTH AND SOUTH TOWERS	1.00	LS		\$	
0300	24982EC		CONCRETE COATING ANCHORAGES 1 AND 2	1.00	LS		\$	
0310	25101EC		MASONRY PATCHING REPAIR	2,087.00	SQFT		\$	
0320	25102EC		REMOVAL OF DETERIORATED MASONRY	1.00	LS		\$	
0330	25103EC		CONCRETE SLAB EDGE REPAIR	30.00	LF		\$	
0340	25104ED		GRID DECK WELD REPAIR	16.00	EACH		\$	
0350	25105ED		GRID DECK BAR REPLACEMENT	12.00	EACH		\$	
0360	25106ED		DECK PAN REPLACEMENT	142.00	SQFT		\$	
0370	25107EC		ZIPPER BOOT	16.00	EACH		\$	
0380	25108ED		SUSPENDER COLLAR REPAIR	1.00	EACH		\$	
0390	25109ED		ANCHOR BOLT RETROFIT ANCHORAGE	2.00	EACH		\$	
0400	25109ED		ANCHOR BOLT RETROFIT TOWER	8.00	EACH		\$	

### PROPOSAL BID ITEMS

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Report Date 9/2/20

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	25110ED		HANDRAIL SPLICE REPLACEMENT	1.00	LS		\$	
0420	25111ED		TOWER RAIL PATCHING TYPE A	55.00	EACH		\$	
0430	25111ED		TOWER RAIL PATCHING TYPE B	26.00	EACH		\$	
0440	25112ED		TOWER RAIL POST REPLACEMENT	6.00	EACH		\$	
0450	25113ED		TOWER RAIL TOP STONE REPLACEMENT	3.00	EACH		\$	
0460	25114EC		WATERPROOF COATING	1.00	LS		\$	
0470	25115EC		COPPER PIPE-4 IN	58.00	LF		\$	
0480	26117EC		REPOINTING	1.00	LS		\$	

#### Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0490	02568		MOBILIZATION	1.00	LS		\$	
0500	02569		DEMOBILIZATION	1.00	LS		\$	