



**CONTRACT DOCUMENTS
AND
SPECIFICATIONS**

**DIVISION OF FACILITIES AND FLEET
MANAGEMENT**

FOR

**GOVERNMENT CENTER PARKING
GARAGE REPAIRS**

Bid No. 2-2017

Prepared by THP LIMITED INC.

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PART 1

ADVERTISEMENT FOR BIDS

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ADVERTISEMENT FOR BIDS

1. INVITATION

Sealed proposals for the following work will be received by the Lexington-Fayette Urban County Government (LFUCG) until 2:00 p.m., local time, **February 2, 2017**, for furnishing all labor and/or materials and performing all work as set forth by this advertisement, conditions (general and special), specifications, and/or the drawings prepared by THP Limited Inc. for Lexington-Fayette Urban County Government, Division of Facilities and Fleet Management. Immediately following the scheduled closing time for reception of bids, all proposals which have been submitted in accordance with the above will be publicly opened and read aloud.

2. DESCRIPTION OF WORK

Consisting of the construction and/or furnishing of items as listed in the Bid Schedule beginning on page P-6, Part III, Form of Proposal, of this document, for the Government Center Parking Garage Repairs, 200 E Main St, Lexington-Fayette County, Kentucky.

3. OBTAINING PLANS, SPECIFICATIONS, AND BID DOCUMENTS

Plans, Specifications, and Contract Documents may be obtained from the official bid document distributor, LYNN IMAGING, 328 Old Vine Street, Lexington, KY 40507, (859) 255-1021 or (www.lynnimaging.com) and click on plan room for a non-refundable price of reproduction for each full set of plans and documents.

Specifications, Plans, and Bid Documents may be examined at the following places:

LFUCG
Division of Central Purchasing
200 East Main Street, Third Floor, Rm 338
Lexington, Kentucky 40507
(859) 258-3320

Builder's Exchange
1035 Strader Drive, Ste 100
Lexington, Kentucky 40505

LFUCG
Division of Facilities and Fleet Management
200 East Main Street, Fourth Floor
Lexington, Kentucky 40507

McGraw-Hill/F W Dodge
2321 Fortune Drive, Ste 112-A
Lexington, Kentucky 40509

4. METHOD OF RECEIVING BIDS

Bids will be received from Prime Contracting firms for total Project. The Bidder must include a price for all bid items to be considered. Bids shall be submitted in the manner and subject to the conditions as set forth and described in the Instruction to Bidders and Special Conditions.

Sealed bids shall be clearly marked on the outside of the container as follows: Company Name and Address, Bid Invitation Number, and the Project Name. Bids are to remain sealed until official Bid closure time.

Mailed bids/proposals should be sent to the Director, Division of Central Purchasing, 200 East Main Street, Lexington, KY 40507.

5. METHOD OF AWARD

The Contract, if awarded, will be to the lowest, qualified responsible bidder for the total project whose qualifications indicate the award will be in the best interest of the OWNER and whose bid/proposal complies with all the prescribed requirements. No Notice of Award will be given until the OWNER has concluded such investigation as deemed necessary to establish the responsibility, qualifications and financial ability of Bidders to do the work in accordance with the Contract Documents to the satisfaction of the OWNER within the time prescribed. The OWNER reserves the right to reject the Bid of any Bidder who does not pass such investigation to the OWNER's satisfaction. In analyzing Bids, the OWNER may take into consideration alternate and unit prices, if requested by the Bid forms.

6. BID WITHDRAWAL

No bidder may withdraw his bid for a period of sixty (60) calendar days after the closing date for receipt of bids. Errors and omissions will not be cause for withdrawal of bid without forfeit of bid bond. Bids may be withdrawn in person prior to the closing date of receipt of bids.

7. BID SECURITY

If the bid is \$50,000 or greater, bid shall be accompanied by a certified /cashier's check or bid bond payable to the Lexington-Fayette Urban County Government in an amount not less than Five Percent (5%) of the base bid. Bid bond shall be executed by a Surety Company authorized to do business in the Commonwealth of Kentucky and countersigned by a licensed Kentucky Resident Agent, representing the Surety Company. Bid Bonds are not required for bids under \$50,000. A certified check or cashier's check is also acceptable forms of bid security.

8. SUBMISSION OF BIDS

CONTRACTORS shall submit their bids to the Lexington-Fayette Urban County Government, Division of Purchasing, Third Floor, 200 East Main Street, Lexington, Kentucky 40507. Bids shall be submitted in a sealed envelope not later than 2:00 p.m. local

time, **February 2, 2017**. Sealed proposals shall be clearly marked on the outside of the container as follows: Company Name and Address, Bid Invitation Number, and Project Name to be opened at 2:00 p.m. local time **February 2, 2017**. Bids are to remain sealed until official Bid closure time. Bids received after the scheduled closing time for receipt of bids will not be considered and will be returned unopened.

9. RIGHT TO REJECT

The Lexington-Fayette Urban County Government reserves the right to reject any and all bids and to waive all informalities and/or technicalities where the best interest of the Lexington-Fayette Urban County Government may be served.

10. NOTIFICATION TO THE LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT FOR AFFIRMATIVE ACTION PLAN AND CURRENT WORKFORCE

The successful bidder must submit with their bid the following items to the Lexington-Fayette Urban County Government:

1. Affirmative Action Plan for his/her firm.
2. Current Workforce Analysis Form.

Failure to submit these items as required herein may result in disqualification of the Bidder from the award of the contract.

All submissions should be directed to:

Lexington-Fayette Urban County Government
Division of Purchasing
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507

11. NOTICE CONCERNING MWDBE GOAL

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) Contract participation. Disadvantaged Business Enterprises (DBE) consists of Minority-Owned Business Enterprises (MBE) and Woman-Owned Business Enterprises (WBE).

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this Contract be subcontracted to Disadvantaged Business Enterprises, which is made up of MBEs and WBEs. The goal for the utilization of Disadvantaged Business Enterprises as subcontractors is a recommended goal. Contractor(s) who fail to meet such goal will be expected to provide written explanations to the Director of the Division of Purchasing of efforts they have made to accomplish the recommended goal, and the extent to which they are successful in accomplishing the

recommended goal will be a consideration in the procurement process. Depending on the funding source, other DBE goals may apply.

For assistance in locating Disadvantaged Business Enterprises Subcontractors contact:

Sherita Miller, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507
859-258-3323
smiller@lexingtonky.gov

12. PRE-BID MEETING

A non-mandatory pre-bid meeting will be held at 10:00 AM local time on January 20, 2017 at 200 E Main St, 3rd Floor Purchasing Conference Room, Lexington, KY.

END OF SECTION



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PART II

INFORMATION FOR BIDDERS

1. **RECEIPT AND OPENING OF BIDS**

The Lexington-Fayette Urban County Government (herein called the OWNER) invites bids from firms on the project described in the Advertisement for Bids. The OWNER will receive bids at the Division of Purchasing, at the time and in the manner set forth in the Advertisement for Bids, and the Bids will then be publicly opened and read aloud. The OWNER may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual time and date of the bid opening, but OWNER may, in its sole discretion, release any bid and return the Bid Security prior to that date.

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

2. **PREPARATION OF BID**

Each bid must be submitted on the prescribed Form of Proposal. All blank spaces for the bid prices must be filled in, either in ink or typewritten, for both unit prices and extensions. Totals for each bid item must be added to show the total amount of the bid. Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, their address, the name of the project, the invitation number and time and date for which the bid is submitted. Bids must be addressed to the Director of Purchasing, Lexington-Fayette Urban County Government, Third Floor, 200 East Main Street, Lexington, Kentucky 40507. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified above.

3. **SUBCONTRACTS**

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the OWNER. All proposed subcontractors must be identified on the Form of Proposal. Prior to the award of Contract, the OWNER or the OWNER'S representative will advise the CONTRACTOR of the acceptance and approval thereof or of any action necessary to be taken. Should any Subcontractor be rejected by the OWNER, the CONTRACTOR shall present a new name and/or firm to the OWNER at no change in the Contract Price.

4. QUALIFICATION OF BIDDER

The OWNER may make such investigations as the OWNER deems necessary to determine the ability of the bidder to perform the Work, and the bidder shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the OWNER that such bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein. Conditional bids will not be accepted.

In evaluating Bids, OWNER shall consider the qualifications of the BIDDERS, whether or not the Bids comply with the prescribed requirements, and alternatives and unit prices, as requested. OWNER may consider maintenance requirements, performance data, and disruption or damage to private property. It is OWNER'S intent to accept alternatives, if requested by the bid forms, in the order in which they are listed in the Bid Form but OWNER may accept or decline them in any order or combination. The contract, if awarded, will be awarded to the lowest, qualified, responsible BIDDER based upon OWNER'S evaluation which indicates that the award will be in the best interest of OWNER and the general public.

In the event there is any question as to the bidder's qualifications and ability to complete the work, a final determination will be made in accordance with a fair evaluation by the Urban County Government of the above listed elements.

- A. If the OWNER requires filling out a detailed financial statement, the bidder may provide its current certified financial statement(s) for the required time interval.
- B. Corporate firms are required to be registered and in good standing with the requirements and provisions of the Office of the Secretary of State, Commonwealth of Kentucky.
- C. Good standing with Public Works Act - any CONTRACTOR and/or subcontractors in violation of any wage or work act provisions (KRS 337.510 to KRS 337.550) are prohibited by Statutory Act (KRS 337.990) from bidding on or working on any and all public works contracts, either in their name or in the name of any other company, firm or other entity in which he might be interested. No bid from a prime contractor in violation of the Act can be considered, nor will any subcontractor in violation of the Act be approved and/or accepted. The responsibility for the qualifications of the subcontractor is solely that of the prime contractor.
- D. Documents Required of CONTRACTOR - (1) A sworn statement signed by the President or owner of the Company regarding all current work in progress anywhere; (2) A document showing the percent of completion of each project and the total worth of each project; and (3) Documentation showing the percentage of the DBE employment levels on each project of the Bidder's current work force, and DBE participation levels for Subcontractors.

- E. Optional OWNER Requirements - The OWNER, at its discretion, may require the BIDDER/CONTRACTOR to provide: (1) a current detailed financial statement for a period including up to 3 prior years; (2) financial security or insurance in amounts and kinds acceptable to the OWNER to meet the financial responsibility requirements for the CONTRACTOR to indemnify the OWNER. (3) Additional information and/or DBE work force data, as well as DBE participation data.

Each bidder agrees to waive any claim it has or may have against the Owner, the Consultant, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

5. BID SECURITY

- A. Each bid must be accompanied by a bid bond prepared on a Form of Bid Bond and attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the OWNER, in the amount of 5% of the bid. Such bid bond will be returned to the unsuccessful bidder(s) only upon written request to the Director of Central Purchasing within seven (7) days of opening of bids. Bid bond shall be made payable to the Lexington-Fayette Urban County Government. Bid security is not required for projects under \$50,000.
- B. Bonds shall be placed with an agent licensed in Kentucky with surety authorized to do business within the state. When the premium is paid for such coverage, the full commission payable shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.

6. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the OWNER, as liquidated damages for such failure or refusal, the security deposited with his bid.

7. TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" from the OWNER and to fully complete the Project within the time as specified in the Contract. Bidder must agree also to pay \$250.00 per day as liquidated damages, or the sum as specified in the Contract for each consecutive calendar day thereafter as hereinafter provided in the General Conditions.

8. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site(s) to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider Federal, State and Local laws and regulations that may affect cost, progress, performance or furnishing of the work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Consultant of all conflicts, errors or discrepancies in the Contract Documents.

- B. Bidders should examine the requirements of section 4 of the General Conditions for information pertaining to subsurface conditions, underground structures, underground facilities, and availability of lands, easements, and rights-of-way. The completeness of data, presented in the Contract Documents, pertaining to subsurface conditions, underground structures, and underground facilities for the purposes of bidding or construction is not assured. The Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface and subsurface) which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. On request in advance, OWNER will provide access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

- C. The submission of a Bid will constitute an incontrovertible representation by the Bidder that Bidder has complied with every requirement of this paragraph 8; that without exception the Bid is premised upon furnishing and performing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents; and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

9. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Director of Central Purchasing, who in turn will have an Addendum issued for the Lexington-Fayette Urban County Government, and to be given consideration must be received prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications. Acknowledgement of the receipt of addenda must be included with all submitted bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

10. SECURITY FOR FAITHFUL PERFORMANCE

- A. Simultaneously with his delivery of the executed Contracts, the CONTRACTOR shall furnish a surety bond or bonds as security for the faithful performance of this Contract and for payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract, as specified in the General Conditions. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the OWNER and authorized to do business in the Commonwealth of Kentucky.
- B. All bonds required by this Contract and laws of this State shall be placed with agents licensed in the State of Kentucky. When the premium is paid for such coverage's, the full commission shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.
- C. **Contractor shall use standard Performance and Payment Bond forms such as documents provided with this contract book or AIA form A312-1984 (or later). Each document will be for 100% of the Contract Bid Amount.**

11. POWER OF ATTORNEY

Attorney-in-fact who signs bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

12. TAXES AND WORKMEN'S COMPENSATION

The CONTRACTOR and subcontractor will be required to accept liability for payment of all payroll taxes, sales and use tax, and all other taxes or deductions required by local, state or federal law, such as old age pension, social security, or annuities measured by wages. Each shall carry Workmen's Compensation Insurance to the full amounts as required by Statutes and shall include the cost of all foregoing items in the proposal. The CONTRACTOR will not otherwise be reimbursed or compensated for such tax payments. The CONTRACTOR is urged to ascertain at his own risk his actual tax liability in connection with the execution or performance of his Contract.

13. LAWS AND REGULATIONS

The bidder's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the contract, the same as though herein written out in full.

14. EROSION AND SEDIMENT CONTROL AND PERMITS

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall also comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream

Crossing and Floodplain Encroachment Permits as described in Part 4 General Conditions Paragraph 5.17.

15. PREVAILING WAGE LAW AND MINIMUM HOURLY RATES

Federal or state wage rates and regulations, if required for this Project, will be as described in the Special Conditions.

16. AFFIRMATIVE ACTION PLAN

The successful Bidder must submit with their bid, the following items to the Urban County Government:

1. Affirmative Action Plan of the firm
2. Current Work Force Analysis Form
3. Good Faith Effort Documentation
4. List of Disadvantaged Business Enterprise Subcontractors and the Dollar Value of each Subcontract

A Work Force Analysis Form shall be submitted for each Contract. Failure to submit these items as required herein may result in disqualification of the Bidder from award of the Contract.

All submissions should be directed to:

Director, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, Third Floor
Lexington, KY 40507

17. CONTRACT TIME

The number of calendar days within which the Work is to be substantially completed and ready for final payment (the Contract Time) is set forth in the Form of Proposal and the Agreement.

18. SUBSTITUTE OR "OR-EQUAL" ITEMS

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the CONTRACTOR if acceptable to the CONSULTANT and OWNER, application for such acceptance will not be considered by the CONSULTANT and OWNER until after the effective date of the Agreement. The procedure for submission of any such application by the CONTRACTOR and consideration by the CONSULTANT and OWNER is set forth in the General Conditions.

19. ALTERNATE BIDS

Bidders shall submit alternate bids/proposals only if and when such alternate bids/proposals have been specifically requested in an Invitation for Bids. If alternate bids/proposals are requested in an Invitation for Bids, the form of submission of such alternate bid and the conditions under which such alternate bids will be considered for award of a contract will be established in the Invitation.

Any Bidder who submits a bid incorporating an alternate proposal when alternate bids/proposals have not been requested in the Invitation for Bids shall have his/her bid rejected as non-responsive.

Any Bidder who submits a bid incorporating two (2) or more prices for an item or groups of items (unless such method of pricing is requested in the Invitation for Bids), or which imposes conditions for acceptance other than those established in the Invitation for Bids, shall have their bid rejected as non-responsive.

20. SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten days thereafter, CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds, Certificate of Insurance, and Power of Attorney. The OWNER will deliver one fully signed counterpart to CONTRACTOR at such time as it has been signed by the Mayor.

21. ASSISTANCE TO BE OFFERED TO DISADVANTAGED BUSINESS ENTERPRISE (MWDBE) CONTRACTORS

A. Outreach for MWDBE(s)

The Lexington-Fayette Urban County Government (LFUCG) maintains a database of MWDBE contractors and organizations. When a LFUCG construction project is advertised for bidding, notices are sent to companies registered at <https://lfucg.economicengine.com>. The notices describe the project and indicate the deadline for submitting bids.

If you wish to be added to the LFUCG MWDBE contractor database, please contact:

Sherita Miller, Division of Central Purchasing
Lexington-Fayette Urban County Government
IB-8

200 East Main Street, Room 338
Lexington, Kentucky 40507
mclark@lexingtonky.gov

B. Bid Bond Assistance for MWDBE(s)

For those MWDBE contractors who wish to bid on LFUCG project, bid bond assistance is available. This bid bond assistance is in the form of a "Letter of Certification" which is accepted by the LFUCG's Division of Purchasing, in lieu of a bid bond. The "Letter of Certification" must be included in the bid package when it is submitted to the Division of Purchasing. The "Letter of Certification" will reference the specific project for which the bid is being submitted, and the time and date on which the bid is due. Bid bond assistance must be requested from the Lexington-Fayette Urban County Government's Division of Central Purchasing.

C. Eligibility for Bid Bond Assistance for MWDBE(s)

In order to be eligible for any Bid bonding assistance, a MWDBE construction company must be owned or controlled at the level of 51% or more by a member or members of a minority group or females. Prior to receiving assistance, a statement providing evidence of ownership and control of the company by a member or members of a minority group or females must be signed by the Owner or corporate officer and by an attorney or accountant submitted to:

Sherita Miller, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, Room 338
Lexington, Kentucky 40507
mclark@lexingtonky.gov

D. MWDBE Subcontractors

The LFUCG will, upon request, assist prime contractors in the procurement of eligible DBE subcontractors in an effort to achieve 10% minimum MWDBE goal.

For a list of eligible subcontractors, please contact:

Sherita Miller, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

22. LFUCG NON-APPROPRIATION CLAUSE

Contractor acknowledges that the LFUCG is a governmental entity, and the contract validity is based upon the availability of public funding under the authority of its statutory mandate.

In the event that public funds are unavailable and not appropriated for the performance of the LFUCG's obligations under this contract, then this contract shall automatically expire without penalty to the LFUCG thirty (30) days after written notice to Contractor of the unavailability and non-appropriation of public funds. It is expressly agreed that the LFUCG shall not activate this non-appropriation provision for its convenience or to circumvent the requirements of this contract, but only as an emergency fiscal measure during a substantial fiscal crisis, which affects generally its governmental operations.

In the event of a change in the LFUCG's statutory authority, mandate and mandated functions, by state and federal legislative or regulatory action, which adversely affects the LFUCG's authority to continue its obligations under this contract, then this contract shall automatically terminate without penalty to the LFUCG upon written notice to Contractor of such limitation or change in the LFUCG's legal authority.

PART III
FORM OF PROPOSAL

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PART III

Invitation to Bid No. 2-2017

Government Center Parking Garage Repair

1. FORM OF PROPOSAL

Place: Lexington, Kentucky

Date: _____

The following Form of Proposal shall be followed exactly in submitting a proposal for this Work.

This Proposal Submitted by _____

(Name and Address of Bidding Contractor)

(Hereinafter called "Bidder"), organized and existing under the laws of the State of _____, doing business as _____
_____ "a corporation," "a partnership", or an "individual" as applicable.

To: Lexington-Fayette Urban County Government
(Hereinafter called "OWNER")
Office of the Director of Purchasing
200 East Main Street, 3rd Floor
Lexington, KY 40507

Gentlemen:

The Bidder, in compliance with your Invitation for Bids for **Government Center Parking Garage Repair** having examined the Plans and Specifications with related documents, having examined the site for proposed Work, and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the lump sum and/or unit prices stated hereinafter. These prices are to cover all expenses incurred in performing the Work required under the Contract Documents, of which this proposal is a part. The OWNER will issue work orders for work to be performed under this Contract.

BIDDER hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the project within the time provided in the Purchase Order or Work Orders issued by the OWNER. BIDDER further agrees to pay liquidated damages, the sum of **\$250.00** for each consecutive calendar day thereafter.

The Bidder hereby acknowledges receipt of the following addenda:

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Insert above the number and the date of any Addendum issued and received. If none has been issued and received, the word "NONE" should be inserted.

2. LEGAL STATUS OF BIDDER

Bidder _____

Date _____

* 1. A corporation duly organized and doing business under the laws of the State of _____, for whom _____, bearing the official title of _____, whose signature is affixed to this Bid/Proposal, is duly authorized to execute contracts.

* 2. A Partnership, all of the members of which, with addresses are: (Designate general partners as such)

* 3. An individual, whose signature is affixed to this Bid/Proposal (please print name)

*(The Bidder shall fill out the appropriate form and strike out the other two.)

3. **BIDDERS AFFIDAVIT**

Comes the Affiant, _____, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is _____ and he/she is the individual submitting the bid or is the authorized representative of _____, the entity submitting the bid (hereinafter referred to as "Bidder").
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as the "Ethics Act."
7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.
Further, Affiant sayeth naught.

(Affiant)

STATE OF _____

COUNTY OF _____

The foregoing instrument was subscribed, sworn to and acknowledged before me by

_____ on this the _____ day of _____, 20_____.

My Commission expires: _____

NOTARY PUBLIC, STATE AT LARGE

4. BID SCHEDULE – SCHEDULE OF VALUES

The Bidder agrees to perform all the Work described in the Specifications and shown on the Plans for the following proposed lump sum and/or unit prices, if applicable, which shall include the furnishing of all labor, materials, supplies, equipment and/or vehicle usage, services, all items of cost, overhead, taxes (federal, state, local), and profit for the Contractor and any Subcontractor involved, within the time set forth herein. If unit prices are applicable, Bidder must make the extensions and additions showing the total amount of bid.

Form of proposal must include unit bid prices written in words, unit price written in numbers and total amount bid (unit price x quantity) per line item OR bid may be considered non-responsive. In case of price discrepancy, unit bid price written in words will prevail followed by unit price written in numbers then total amount bid per line item.

If a discrepancy between the unit price and the item total exists, the unit price prevails except:

If the unit price is illegible, omitted, or the same as the item total, item total prevails and the unit price is the quotient of the item total and the quantity.

If the unit price and the item total are illegible or are omitted, the bid may be determined nonresponsive. If a lump sum total price is illegible or is omitted, the bid may be determined nonresponsive.

For a lump sum based bid, the item total is the bid amount the Division uses for bid comparison.

For a unit price based bid, the sum of the item totals is the bid amount the Division uses for bid comparison.

The LFUCG's decision on the bid amount is final.

Item No.	Description w/Unit Bid Price Written in Words	Estimated Quantity	Unit	Unit Price	Total Bid Amount
1	Bonded Overlay Repair for _____ Dollars _____ Cents (per Square Foot)	1,000	SF	\$ _____	\$ _____
2	Concrete Floor Repair for _____ Dollars _____ Cents (per Square Foot)	100	SF	\$ _____	\$ _____
3	Joist Bottom Repair for _____ Dollars _____ Cents (per Linear Foot)	100	LF	\$ _____	\$ _____
4	Column/Vertical Surface Repair for _____ Dollars _____ Cents (per Square Foot)	350	SF	\$ _____	\$ _____
5	Knockdown Repair for _____ Dollars _____ Cents (per Square Foot)	500	SF	\$ _____	\$ _____
6	Overhead Concrete Repair for _____ Dollars _____ Cents (per Square Foot)	100	SF	\$ _____	\$ _____

Item No.	Description w/Unit Bid Price Written in Words	Estimated Quantity	Unit	Unit Price	Total Bid Amount
7	EIFS Replacement for _____ Dollars _____ Cents (per Square Foot)	25	SF	\$ _____	\$ _____
8	Incidentals (all base bid work not listed above) _____ Dollars _____ Cents	XXXXXXX	LS	XXXXXXX	\$ _____
9	ALTERNATE 1: Cleaning of brick surfaces and installation of a penetrating water repellent at north and south elevations of garage for _____ Dollars _____ Cents	XXXXXXX	LS	XXXXXXX	\$ _____

TOTAL OF ALL BID PRICES FOR Government Center Parking Garage Repairs Project (Items 1 through 9) in words and figures. In case of discrepancy, the amount shown in words will govern.

_____ (\$ _____).

Submitted by:

Firm

Address

City, State & Zip

***Bid must be signed:
(original signature)***

Signature of Authorized Company Representative – Title

Representative/s Name (Typed or Printed)

Area Code – Phone – Extension

Fax #

E-Mail Address

OFFICIAL ADDRESS:

_____ (Seal if Bid is by Corporation)

By signing this form you agree to ALL terms, conditions, and associated forms in this bid package

5. STATEMENT OF BIDDER'S QUALIFICATIONS

The following statement of the Bidder's qualifications is required to be filled in, executed, and submitted with the Proposal:

- 1. Name of Bidder: _____
- 2. Permanent Place of Business: _____
- 3. When Organized: _____
- 4. Where Incorporated: _____
- 5. Construction Plant and Equipment Available for this Project:

(Attach Separate Sheet If Necessary)

- 6. Financial Condition:

If specifically requested by the OWNER, the apparent low Bidder is required to submit its latest three (3) years audited financial statements to the OWNER'S Division of Central Purchasing within seven (7) calendar days following the bid opening.
- 7. In the event the Contract is awarded to the undersigned, surety bonds will be furnished by:

_____(Surety)

Signed: _____(Representative of Surety)
- 8. The following is a list of similar projects performed by the Bidder: (Attach separate sheet if necessary).

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. The Bidder has now under contract and bonded the following projects:

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

10. List Key Bidder Personnel who will work on this Project.

<u>NAME</u>	<u>POSITION DESCRIPTION</u>	<u>NO. OF YEARS WITH BIDDER</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. DBE Participation on current bonded projects under contract:

<u>SUBCONTRACTORS</u> <u>(LIST)</u>	<u>PROJECT</u> <u>(SPECIFIC TYPE)</u>	<u>DBE</u>	<u>% of WORK</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(USE ADDITIONAL SHEETS IF NECESSARY)

12. We acknowledge that, if we are the apparent low Bidder, we may be required to submit to the OWNER within 7 calendar days following the Bid Opening, a sworn statement regarding all current work on hand and under contract, and a statement on the OWNER'S form of the experience of our officers, office management and field management personnel. Additionally, if requested by the OWNER, we will within 7 days following the request submit audited financial statements and loss history for insurance claims for the 3 most recent years (or a lesser period stipulated by the OWNER).

6. LIST OF PROPOSED SUBCONTRACTORS

The following list of proposed subcontractors is required by the OWNER to be executed, completed and submitted with the BIDDER'S FORM OF PROPOSAL. All subcontractors are subject to approval of the Lexington-Fayette Urban County Government. Failure to submit this list completely filled out may be cause for rejection of bid.

<u>BRANCH OF WORK - LIST EACH MAJOR ITEM</u> Such as: Grading, bituminous paving, concrete, seeding and protection, construction staking, etc.	<u>SUBCONTRACTOR</u>	<u>DBE</u> <u>Yes/No</u>	<u>% of Work</u>
1. _____	Name: _____	_____	_____
	Address: _____		
2. _____	Name: _____	_____	_____
	Address: _____		
3. _____	Name: _____	_____	_____
	Address: _____		
4. _____	Name: _____	_____	_____
	Address: _____		
5. _____	Name: _____	_____	_____
	Address: _____		
6. _____	Name: _____	_____	_____
	Address: _____		
7. _____	Name: _____	_____	_____
	Address: _____		

(Attach additional sheet(s) if necessary.)

7. **LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT MWDBE PARTICIPATION GOALS, FORMS, AND GOOD FAITH EFFORTS**

A. GENERAL

- 1) The LFUCG request all potential contractors to make a concerted effort to include Minority-Owned (MBE), Woman-Owned (WBE), Disadvantaged (DBE) and Veteran-Owned Small Business (VOSB) Enterprises as subcontractors or suppliers in their bids.
- 2) Toward that end, the LFUCG has established 10% of total procurement costs as a Goal for participation of Minority-Owned, Woman-Owned and Disadvantaged Businesses on this contract.
- 3) The LFUCG has also established a 3% of total procurement costs as a Goal for participation of Veteran-Owned Small Businesses.
- 4) **It is therefore a request of each Bidder to include in its bid, the same goal (10%) for MWDBE participation and other requirements as outlined in this section.**

B. PROCEDURES

- 1) The successful bidder will be required to report to the LFUCG, the dollar amounts of all payments submitted to Minority-Owned, Woman-Owned subcontractors or Veteran-Owned and suppliers for work done or materials purchased for this contract. (See Subcontractor Monthly Payment Report)
- 2) Replacement of a Minority-Owned, Woman-Owned or Veteran-Owned subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another MWDBE Firm; this is subject to approval by the LFUCG. (See LFUCG MWDBE Substitution Form)
- 3) For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
 - a) The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)
- 4) The LFUCG will make every effort to notify interested MWDBE subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

C. DEFINITIONS

- 1) A Minority-Owned Business Enterprise (MBE) is defined as a business which is certified as being at least 51% owned and operated by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage.

- 2) A Woman-Owned Business Enterprise (WBE) is defined as a business which is certified as being at least 51% owned and operated by one or more Non-Minority Females.
- 3) A Disadvantaged Business (DBE) is defined as a business which is certified as being at least 51% owned and operated by a person(s) that are economically and socially disadvantaged.
- 4) A Veteran-Owned Small Business (VOSB) is defined as a business which is certified as being at least 51% owned and operated by a veteran and/or a service disabled veteran.
- 5) Good Faith Efforts are efforts that, given all relevant circumstances, a bidder or proposer actively and aggressively seeking to meet the goals, can reasonably be expected to make. In evaluating good faith efforts made toward achieving the goals, whether the bidder or proposer has performed the efforts outlined in the Obligations of Bidder for Good Faith Efforts outlined in this document will be considered, along with any other relevant factors.

D. OBLIGATION OF BIDDER FOR GOOD FAITH EFFORTS

- 1) **The bidder shall make a Good Faith Effort to achieve the Participation Goal for MWDBE and Veteran-Owned subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.**
- 2) Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) The Form of Proposal includes a section entitled "MWDBE Participation Form". The applicable information must be completed and submitted as outlined below.
- 4) **Failure to submit this information as requested may be cause for rejection of bid or delay in contract award.**

E. DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS

- 1) Bidders reaching the Goal are required to submit only the MWDBE Participation Form." The form must be fully completed including names and telephone number of participating MWDBE firm(s); type of work to be performed; estimated value of the contract and value expressed as a percentage of the total Lump Sum Bid Price. The form must be signed and dated, and is to be submitted with the bid.
- 2) Bidders not reaching the Goal must submit the "MWDBE Participation Form", the "Quote Summary Form" and a written statement documenting their Good Faith Effort to do so. If bid includes no MWDBE and/or Veteran participation, bidder shall enter "None" on the subcontractor / supplier form). In addition, the bidder must submit written proof of their Good Faith Efforts to meet the Participation Goal:

- a. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.
- b. Included documentation of advertising in the above publications with the bidders good faith efforts package
- c. Attended LFUCG Central Purchasing Economic Inclusion Outreach event
- d. Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities
- e. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses.
- f. Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG Economic Engine and showed evidence of contacting the companies on the list(s).
- g. Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
- h. Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
- i. Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.
- j. Provided the interested MWBDE firm and/or Veteran-Owned businesses with adequate and timely information about the plans, specifications, and requirements of the contract.
- k. Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses 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 MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce
- l. Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses 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.

m. Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

n. Bidder has to submit sound reasons why the quotations were considered 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 MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

o. Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

p. Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

q. Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

NOTE: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.



MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller
Minority Business Enterprise Liaison
Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507
smiller@lexingtonky.gov
859-258-3323

OUR MISSION: The mission of the Minority Business Enterprise Program is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long term economic viability of Lexington-Fayette Urban County Government.

To that end the city council adopted and implemented resolution 167-91—Disadvantaged Business Enterprise (DBE) 10% Goal Plan in July of 1991. The resolution states in part (a full copy is available in Central Purchasing):

“A Resolution supporting adoption of the administrative plan for a ten percent (10%) Minimum goal for disadvantaged business enterprise participation in Lexington-Fayette Urban County Government construction and professional services contracts; Providing that as part of their bids on LFUCG construction contracts, general Contractors shall make a good faith effort to award at least ten percent (10%) of All subcontracts to disadvantaged business enterprises; providing that divisions of LFUCG shall make a good faith effort to award at least ten percent of their Professional services and other contracts to disadvantaged business enterprises...”

A Disadvantaged Business Enterprise is defined as a business that has been certified as being at least 51% owned, operated and managed by a U.S. Citizen of the following groups:

- African-American
- Hispanic-American
- Asian/Pacific Islander
- Native American/Native Alaskan
- Non-Minority Female
- Economically and Socially Disadvantaged

In addition, to that end the city council also adopted and implemented resolution 167-91—Veteran-owned Businesses, 3% Goal Plan in July of 2015. The resolution states in part (a full copy is available in Central Purchasing):

“A resolution adopting a three percent (3%) minimum goal for certified veteran-owned small businesses and service disabled veteran-owned businesses for certain of those Lexington-Fayette Urban County contracts related to construction for

professional services, and authorizing the Division of Purchasing to adopt and implement guidelines and/or policies consistent with the provisions and intent of this resolution by no later than July 1, 2015.”

We have compiled the list below to help you locate certified MBE, WBE and DBE certified businesses. Below is a listing of contacts for LFUCG Certified MWDBEs and Veteran-Owned Small Businesses in (<https://lexingtonky.ionwave.net>)

Business	Contact	Email Address	Phone
LFUCG	Sherita Miller	smiller@lexingtonky.gov	859-258-3323
Commerce Lexington – Minority Business Development	Tyrone Tyra	ttyra@commercelexington.com	859-226-1625
Tri-State Minority Supplier Diversity Council	Susan Marston	smarston@tsmsdc.com	502-365-9762
Small Business Development Council	Shirie Hawkins UK SBDC	smack@uky.edu	859-257-7666
Community Ventures Corporation	Phyllis Alcorn	palcorn@cvky.org	859-231-0054
KY Transportation Cabinet (KYTC)	Melvin Bynes	Melvin.bynes2@ky.gov	502-564-3601
KYTC Pre-Qualification	Shella Eagle	Shella.Eagle@ky.gov	502-782-4815
Ohio River Valley Women’s Business Council (WBENC)	Sheila Mixon	smixon@orvwbc.org	513-487-6537
Kentucky MWBE Certification Program	Yvette Smith, Kentucky Finance Cabinet	Yvette.Smith@ky.gov	502-564-8099
National Women Business Owner’s Council (NWBOC)	Janet Harris-Lange	janet@nwbo.org	800-675-5066
Small Business Administration	Robert Coffey	robertcoffey@sba.gov	502-582-5971
LaVoz de Kentucky	Andres Cruz	lavozdeky@yahoo.com	859-621-2106
The Key News Journal	Patrice Muhammad	paatricem@keynewsjournal.com	859-373-9428



LFUCG MWDBE PARTICIPATION FORM
 Bid/RFP/Quote Reference # _____

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. Failure to submit a completed form may cause rejection of the bid.

MWDBE Company, Name, Address, Phone, Email	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.			
2.			
3.			
4.			

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

 Company

 Company Representative

 Date

 Title



LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # _____

The substituted MWDBE and/or Veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project. Failure to submit this form may cause rejection of the bid.

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Company

Company Representative

Date

Title



MWDBE QUOTE SUMMARY FORM

Bid/RFP/Quote Reference # _____

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project.

Company Name	Contact Person
Address/Phone/Email	Bid Package / Bid Date

MWDBE Company Address	Contact Person	Contact Information (work phone, Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Company

Company Representative

Date

Title



LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran vendors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Bid/RFP/Quote # _____

Total Contract Amount Awarded to Prime Contractor for this Project _____

Project Name/ Contract #	Work Period/ From: _____ To: _____
Company Name:	Address:
Federal Tax ID:	Contact Person:

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date

By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

Company

Company Representative

Date

Title

LFUCG STATEMENT OF GOOD FAITH EFFORTS

Bid/RFP/Quote # _____

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation.

_____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.

_____ Included documentation of advertising in the above publications with the bidders good faith efforts package

_____ Attended LFUCG Central Purchasing Economic Inclusion Outreach event

_____ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities

_____ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses

_____ requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG Economic Engine and showed evidence of contacting the companies on the list(s).

_____ Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

_____ Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

_____ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

_____ Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.

_____ Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses 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 MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce

_____ Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses 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.

_____ Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

_____ Bidder has to submit sound reasons why the quotations were considered 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 MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

_____ Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

_____ Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

_____ Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

NOTE: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Company

Company Representative

Date

Title

8. **AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION, NON-CONFLICT OF INTEREST**

I hereby swear (or affirm) under the penalty for false swearing:

1. That I am the Bidder (if the Bidder is an individual), a partner of the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);
2. That the attached bid has been arrived at by the Bidder independently, and has been submitted without collusion with, and without any agreement, understanding or planned common course of action, with any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition;
3. That the contents of the bid or bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished, with the bid or bids, and will not be communicated to any such person, prior to the official opening of the bid or bids;
4. That the Bidder is legally entitled to enter into the contracts with the Lexington-Fayette Urban County Government, and is not in violation of any prohibited conflict of interest;
5. (Applicable to corporation only) That as a foreign corporation, we are registered with the Secretary of State, Commonwealth of Kentucky, and authorized to do business in the State _____ or, that as a domestic corporation, we are in good standing with the Secretary of State, Commonwealth of Kentucky _____. Check the statement applicable.
6. This offer is for 60 calendar days from the date this bid is opened. In submitting the above, it is expressly agreed that, upon proper acceptance by the Lexington-Fayette Urban County Government of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
7. That I have fully informed myself regarding the accuracy of the statements made in this statement.
8. That I certify that Subcontractors have not and will not be awarded to any firm(s) that have been debarred from noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 As Amended, Executive Order 11246 As Amended or any other Federal Law.

9. STATEMENT OF EXPERIENCE

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

* Include all officers, office management's, Affirmative Action officials, and field management personnel. (Attach separate sheets if necessary.)

10. EQUAL OPPORTUNITY AGREEMENT

The Law

- * Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- * Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and subcontractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- * Section 503 of the Rehabilitation Act of 1973 States:
The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.
- * Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal Contracts.
- * Section 206 (A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:
The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors, and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractor may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped, and aged persons.

Signature

Name of Business

The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.

The Kentucky equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any count, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*
- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contract will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

KRS 45.610. Hiring minorities – Information required

- (1) *For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.*
- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*

KRS 45.620. Action against contractor – Hiring of minority contractor or subcontractor

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 – 45.640.*
- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions quoted above to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

11. EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION POLICY

It is the policy of _____
to assure that all applicants for employment and all employees are treated on a fair and equitable basis without regard to their race, religion, sex, color, handicap, natural origin or age.

Such action shall include employment, promotion, demotion, recruitment or recruitment advertising, layoff or termination, rates of pay and other forms of compensation, and selection for training, whether apprenticeship and/or on-the-job-training.

Furthermore, this company agrees to make special recruitment efforts to hire the protected class whenever feasible. This company also agrees to adhere to all applicable federal, state, and local laws relating to Equal Employment Opportunity for all individuals.

12. WORKFORCE ANALYSIS FORM

Name of Organization: _____

Categories	Total		White (Not Hispanic or Latino)		Hispanic or Latino		Black or African- American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Administrators																			
Professionals																			
Superintendents																			
Supervisors																			
Foremen																			
Technicians																			
Protective Service																			
Para-Professionals																			
Office/Clerical																			
Skilled Craft																			
Service/Maintenance																			
Total:																			

Prepared by: _____ Date: ____/____/____

(Name and Title)

Revised 2015-Dec-15

13. EVIDENCE OF INSURABILITY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT CONSTRUCTION PROJECT
(Use separate form for each Agency or Brokerage agreeing to provide coverage)

Names Insured: _____ Employee ID: _____
 Address: _____ Phone: _____

Project to be insured: _____

In lieu of obtaining certificates of insurance at this time, the undersigned agrees to provide the above Named Insured with the minimum coverage listed below. These are outlined in the Insurance and Risk Management of Part V (Special Conditions), including all requirements, and conditions:

Section Items	Coverage	Minimum Limits and Policy Requirements	Limits Provided To Insured	Name of Insurer	A.M. Best's Code	Rating
SC-3, Section 2, Part 4.1 – see provisions	CGL	\$1,000,000 per occ. And \$2,000,000 aggregate	\$			
SC-3, Section 2, Part 4.1 – see provisions	AUTO	\$2,000,000/per occ.	\$			
SC-3, Section 2, Part 4.1 – see provisions	WC	Statutory w /endorsement as noted	\$			

Section 2 includes required provisions, statements regarding insurance requirements, and the undersigned agrees to abide by all provisions for the coverage's checked above unless stated otherwise when submitting.

Agency or Brokerage _____ Name of Authorized Representative _____

Street Address _____ Title _____

City _____ State _____ Zip _____ Authorized Signature _____

Telephone Number _____ Date _____

NOTE: Authorized signatures may be the agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of authorized representative of insurer.

IMPORTANT: Contract may not be awarded if a completed and signed copy of this form for all coverage's listed above is not provided with the bid.

14. DEBARRED FIRMS

PROJECT NAME: _____

BID NUMBER: _____

**LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KY**

All prime Contractors shall certify that Subcontractors have not and will not be awarded to any firms that has been debarred for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 As Amended, Executive Order 11246 As Amended or any other Federal Law.

All bidders shall complete the attached certification in duplicate and submit both copies to the Owner with the bid proposal. The Owner (grantee) shall transmit one copy to the Lexington-Fayette Urban County Government, Division of Community Development, within fourteen (14) days after bid opening.

The undersigned hereby certifies that the firm of _____ has not and will not award a subcontract, in connection with any contract award to it as the result of this bid, to any firm that has been debarred for noncompliance with the Federal labor Standards, Title VI of the civil Rights Act of 1964, Executive Order 11246 as amended or any Federal Law.

Name of Firm Submitting Bid

Signature of Authorized Official

Title

Date

15. DEBARMENT CERTIFICATION

All contractors/subcontractors shall complete the following certification and submit it with the bid proposal.

The contractor/subcontractor certifies in accordance with Executive Order 12549 (Debarment and Suspension 2/18/86) that to the best of its knowledge and belief, that it and its principals:

- 1) Are not presently debarred, suspended, proposed for debarment, declared negligible, or voluntarily excluded from covered transactions or contract by any Federal department or agency for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 as amended, Executive Order 11246 as amended or any other Federal law;
 - a) 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;
 - b) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(a) of this certification; and
 - c) Have not within a three year period preceding this bid has one or more public (Federal, State or local) transactions or contracts terminated for cause or default.
- 2) Where the contractor is unable to certify to any of the statements in this certification, such prospective contractors shall attach an explanation to this certification form.

Firm Name: _____

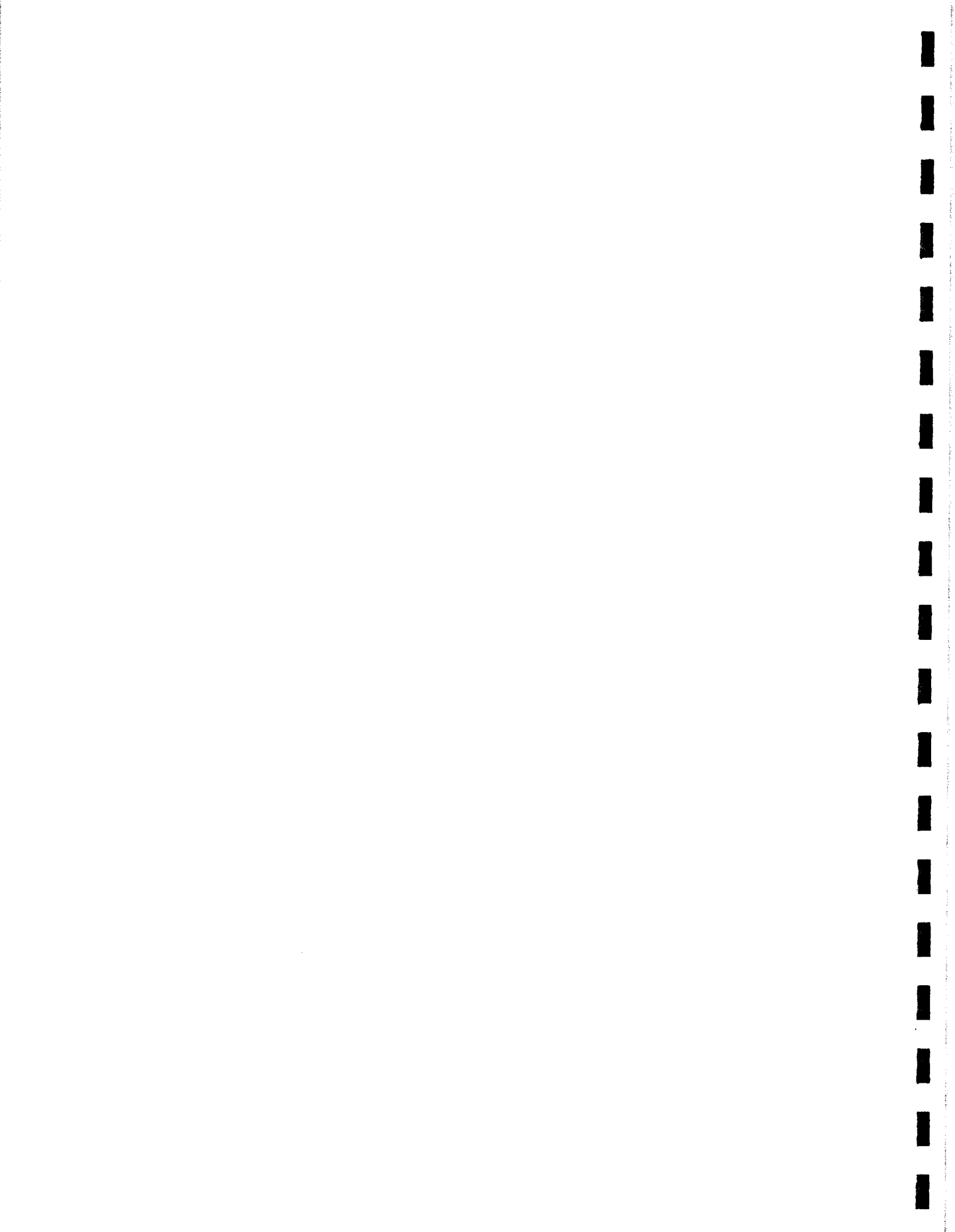
Project: _____

Printed Name and Title of Authorized Representative: _____

Signature: _____

Date: _____

END OF SECTION



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GENERAL CONDITIONS
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END OF SECTION

PART IV
GENERAL CONDITIONS

1. DEFINITIONS

Wherever used in these General Conditions or the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

1.1 Addenda

Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bid Documents or the Contract Documents.

1.2 Agreement

The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3 Application for Payment

The form accepted by CONSULTANT which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

1.4 Bid

The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.5 Bidder

An individual, partnership, or corporation, who submit a Bid for a prime contract with the OWNER, for the Work described in the proposed Contract Documents.

1.6 Bonds

Bid, performance and payment bonds and other instruments of security.

1.7 Calendar Day

A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

1.8 Change Order

A document recommended by CONSULTANT, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

1.9 Contract Documents

The Advertisement for Bidders, Information for Bidders, Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Special Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all amendments, modifications and supplements.

1.10 Contract Unit Price

The monies payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement. Unit Prices are to be firm for the term of this Contract.

1.11 Contract Time

The number of consecutive calendar days between the date of issuance of the Notice to Proceed and the contract completion date.

1.12 CONTRACTOR

The person, firm or corporation with whom OWNER has entered into the Agreement.

1.13 Defective

An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to CONSULTANT'S recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER).

1.14 Drawings

The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by CONSULTANT and are referred to in the Contract Documents.

1.15 Effective Date of the Agreement

The date indicated in the Agreement on which it becomes effective.

1.16 CONSULTANT

The Lexington-Fayette Urban County Government or its authorized representative.

1.17 Field Order

A documented order issued by CONSULTANT which orders minor changes in the Work, but which does not involve a change in the Contract Price or the Contract Time.

- 1.18 Giving Notice**
Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.
- 1.19 Laws and Regulations**
Laws, rules, regulations, ordinances, codes and/or orders.
- 1.20 Notice of Award**
The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.
- 1.21 Notice to Proceed**
A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR'S obligations under the Contract Documents.
- 1.22 OWNER**
The Lexington-Fayette Urban County Government.
- 1.23 Partial Utilization**
Placing a portion of the Work in service for the purpose for which it is intended (or related purpose) before reaching Completion for all the Work.
- 1.24 Project**
The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
- 1.25 Inspector**
The authorized representative who is assigned to the site or any part thereof.
- 1.26 Shop Drawings**
All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
- 1.27 Specifications**
Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and

workmanship as applied to the Work and certain administrative details applicable thereto.

1.28 Standard Specifications

The "Standard Specifications for Road and Bridge Construction", Transportation Cabinet, Department of Highways, Commonwealth of Kentucky, current edition. MUTCD shall refer to the "Manual of Uniform Traffic Control Devices.

1.29 Subcontractor

An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.30 Special Conditions

The part of the Contract Documents which amends or supplements these General Conditions.

1.31 Supplier

A manufacturer, fabricator, supplier, distributor, materialman or vendor.

1.32 Underground Facilities

All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

1.33 Unit Price Work

Not applicable

1.34 Work

The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

1.35 Time Period

When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

2. PRELIMINARY MATTERS

2.1 Delivery of Bonds

When the CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER, such Bonds, Insurance Certificate, and Power of Attorney as CONTRACTOR may be required to furnish.

2.2 Copies of Documents

Owner shall furnish to CONTRACTOR up to three copies (unless otherwise specified in the Special Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

2.3 Commencement of Contract Time; Notice to Proceed

The Contract Time will commence to run on the day specified in the Notice to Proceed.

2.4 Starting the Project

CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

2.5 Before Starting Construction

Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to CONSULTANT any conflict, error or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from CONSULTANT before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or CONSULTANT for failure to report any conflict, error or discrepancy in the Contract Documents, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

2.6 Submittal of Schedules

Within ten days after the effective date of the Agreement (unless otherwise specified) CONTRACTOR shall submit to CONSULTANT for review:

2.6.1 an estimated progress schedule indicating the starting and completion dates of the various stages of the Work;

2.6.2 a preliminary schedule of Shop Drawing submissions; and

2.6.3 a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into costs per labor and materials by specification

section to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission. Schedule of values shall be submitted on AIA G702/703 forms, or approved equal.

2.7 Preconstruction Conference

Before CONTRACTOR starts the Work at the proposed site, a conference attended by CONTRACTOR, CONSULTANT, EEO-Affirmative Action Officer, and other appropriate parties will be held to discuss the following issues: (1) The scheduling of the Work to be completed; (2) The procedures for handling shop drawings and other submittals; (3) The processing of applications for payment; (4) The establishment of an understanding among the involved parties in regard to the proposed project; and (5) The establishment of procedures for effectively implementing the LFUCG's 10% minimum DBE goals.

2.8 Finalizing Schedules

At least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, CONSULTANT and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 2.6. The finalized progress schedule will be acceptable to CONSULTANT as providing orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on CONSULTANT responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereof. The finalized schedule of Shop Drawing submissions will be acceptable to CONSULTANT as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to CONSULTANT as to form and substance.

3. CONTRACT DOCUMENTS: INTENT, CONFLICTS, AMENDING AND REUSE

3.1 General

The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2 Intent

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be

interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or CONSULTANT, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to CONSULTANT, or any of CONSULTANT'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4. Clarifications and interpretations of the Contract Documents shall be issued by CONSULTANT as provided in paragraph 8.4.

3.3 Conflicts

If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to CONSULTANT in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from CONSULTANT; however, CONTRACTOR shall not be liable to OWNER or CONSULTANT for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order:

1. Agreement
2. Field and Change Orders
3. Addenda
4. Special Conditions
5. Instruction to Bidders
6. General Conditions
7. Specifications and Drawings

Figure dimension on drawings shall govern over scale dimensions and detailed Drawings shall govern over general Drawings.

3.4 Amending and Supplementing Contract Documents

The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof by means of a Change Order or a Field Order. Contract Price and Contract Time may only be changed by a Change Order.

3.5 Reuse of Documents

Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of CONSULTANT; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and CONSULTANT and specific written verification or adaptation by CONSULTANT.

4. AVAILABILITY OF LANDS; PHYSICAL CONDITIONS, REFERENCE POINTS

4.1 Availability of Lands

OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER'S furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11. CONSULTANT shall determine if the claim is legitimate or not. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.2 Physical Conditions

4.2.1 Explorations and Reports

Reference is made to the Special Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by CONSULTANT in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.

4.2.2 Existing Structures

Reference is made to the Special Conditions for identification of those drawings of physical conditions in or relating to existing surface and

subsurface structures (except Underground Facilities referred to in paragraph 4.3 which are at or contiguous to the site that have been utilized by CONSULTANT in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, but not for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

4.2.3 Report of Differing Conditions
If CONTRACTOR believes that:

4.2.3.1 any technical data on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is inaccurate, or

4.2.3.2 any physical conditions uncovered or revealed at the site differ materially from that indicated, reflected or referred to in the Contract Documents,

CONTRACTOR shall, promptly after becoming aware thereof and before performing and WORK in connection therewith (except in an emergency) notify OWNER and CONSULTANT in writing about the inaccuracy or difference.

4.2.4 CONSULTANT'S Review

CONSULTANT will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise CONTRACTOR of CONSULTANT'S findings and conclusions.

4.2.5 Possible Document Change

If CONSULTANT concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Change Order will be issued as provided in Article 10 to reflect and document the consequences of the inaccuracy or difference.

4.2.6 Possible Price and Time Adjustments

In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such inaccuracy or difference.

4.3 Physical Conditions-Underground Facilities

4.3.1 Shown or Indicated

The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is

based on information and data furnished to OWNER or CONSULTANT by the owners of such underground facilities or by others. Unless it is otherwise expressly provided in the Special Conditions:

4.3.1.1 OWNER and CONSULTANT shall not be responsible for the accuracy or completeness of any such information or data; and,

4.2.1.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data; for locating all underground facilities shown or indicated in the Contract Documents; for coordination of the Work with the owners of such underground facilities during construction; and for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

4.3.2 Not Shown or Indicated

If an underground facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency), identify the owner of such Underground Facility and give written notice thereof to that owner and to OWNER and CONSULTANT. CONSULTANT will promptly review the underground facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such underground facility. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any underground facility that was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of.

4.4 **Reference Points**

OWNER shall provide engineering surveys to establish reference points for construction which in CONSULTANT'S judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to CONSULTANT whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by a Registered Land Surveyor.

5. CONTRACTOR'S RESPONSIBILITIES

5.1 Supervision

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall assure that all CONTRACTOR personnel (including subcontractors, etc.) conduct themselves in a courteous and respectful manner toward the CONSULTANT and the general public. CONTRACTOR shall keep at the Project Site during the progress of the Work a competent project manager/superintendent and all necessary assistants, all of whom shall be satisfactory to OWNER. OWNER reserves the right to reject CONTRACTOR'S construction superintendent and project management personnel if they are unsatisfactory to OWNER and upon such rejection CONTRACTOR shall designate and provide competent successors. Failure to comply with this condition of the Contract will result in immediate suspension of the Work. Following a review by the Commissioner of Public Works, the Contract may be terminated (see GC section 14). CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

5.2 Superintendence

CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and CONSULTANT except under extraordinary circumstances. The superintendent will be CONTRACTOR'S representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

5.3 Labor

CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. OWNER reserves the right to require CONTRACTOR to remove from the Project any of it's personnel, or subcontractor's personnel for violating LFUCG Policies, Rules or Regulations. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER'S written consent given after prior written notice to CONSULTANT.

5.4 Start-Up and Completion of Work

Unless otherwise specified, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

5.5 Materials and Equipment

All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by CONSULTANT, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to CONSULTANT, or any of CONSULTANT'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

5.5.1 Not Clearly Specified or Indicated

In all instances where materials specified are obtainable in different sizes, weights, trade grades, qualities or finishes, etc., whose weights, trade grades, qualities or finishes, etc., are not clearly specified or indicated on the Drawings, the CONTRACTOR shall notify the CONSULTANT of all such instances at least five (5) days in advance of receiving the proposals. The CONSULTANT will then determine which size, weight, trade grade, quality, finish, etc., is required.

5.5.2 Coordination of Work

The CONTRACTOR shall see that for his own Work and for the work of each subcontractor, proper templates and patterns necessary for the coordination of the various parts of the Work are prepared. The CONTRACTOR shall furnish or require the Subcontractor to furnish such duplicates as will enable the Subcontractors to fit together and execute fully their respective portions of the Work.

5.6 Adjusting Progress Schedule

CONTRACTOR shall submit to CONSULTANT for acceptance (to the extent indicated in paragraph 2.8) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the Contract Documents applicable thereto.

5.7 Substitutes or "Or-Equal" Items

5.7.1 General

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by OWNER/CONSULTANT if sufficient information is submitted by CONTRACTOR to allow OWNER/CONSULTANT to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by OWNER/CONSULTANT will include the following. Requests for review of substitute items of material and equipment will not be accepted by OWNER/CONSULTANT from anyone, other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to OWNER/CONSULTANT for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR'S achievement of completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by OWNER/CONSULTANT in evaluating the proposed substitute. OWNER/CONSULTANT may require CONTRACTOR to furnish at CONTRACTOR'S expense additional data about the proposed substitute.

5.7.2 Substitutes

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to OWNER/CONSULTANT, if CONTRACTOR submits sufficient information to allow OWNER/CONSULTANT to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by OWNER/CONSULTANT will be

similar to that provided in paragraph 5.7.1 as applied by OWNER/CONSULTANT.

5.7.3 OWNER/CONSULTANT'S Approval

OWNER/CONSULTANT will be allowed a reasonable time within which to evaluate each proposed substitute. OWNER/CONSULTANT will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without OWNER/CONSULTANT'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute. OWNER/CONSULTANT will record time required by OWNER/CONSULTANT and OWNER/CONSULTANT'S consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not OWNER/CONSULTANT accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the charges of OWNER/CONSULTANT and OWNER/CONSULTANT'S consultants for evaluating each proposed substitute.

5.8 Subcontractors, Suppliers, and Others

5.8.1 Acceptable to CONSULTANT

CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and CONSULTANT as indicated in paragraph 5.8.2), whether initially or as a substitute, against whom OWNER or CONSULTANT may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

5.8.2 Objection After Due Investigation

If the Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and CONSULTANT and if CONTRACTOR has submitted a list thereof, OWNER'S or CONSULTANT'S acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute. No acceptance by OWNER or CONSULTANT of any such Subcontractor, Supplier or other

person or organization shall constitute a waiver of any right of OWNER or CONSULTANT to reject defective Work.

5.8.3 Contractor Responsible for Acts of Subcontractors

The CONTRACTOR shall perform on the site, and with its own organization, work equivalent to at least fifty (50) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the Urban County project manager determines that the reduction would be to the advantage of the Urban County Government.

The CONTRACTOR shall, at the time he submits his proposal for the Contract, notify the OWNER in writing of the names of Subcontractors proposed for the Work. He shall not employ any Subcontractor without the prior written approval of the OWNER.

CONTRACTOR shall be fully responsible to OWNER and CONSULTANT for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR'S own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or CONSULTANT and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or CONSULTANT to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

5.8.4 Division of Specifications

The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

5.8.5 Agreement Between Contractor and Subcontractors

All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and CONSULTANT.

5.8.6 Statements and Comments by CONTRACTOR

Neither the CONTRACTOR, his employees, nor his subcontractors shall at any time make any statement or comment as to the project scope, nature, intention, design, or construction

method to any third party or parties without the explicit written consent of the OWNER.

Any third party requesting such information shall be referred to the OWNER or his representative.

Should there be any change from the original intent of the project as a result of any statement or comment by the contractor, his employees or subcontractors, contractor shall be held liable for any change in the scope, nature, design, or construction method and shall bear the full cost for the previously mentioned changes.

5.9 Patent Fees and Royalties

CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others.

5.10 Permits

Unless otherwise provided in the Special conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

5.11 Laws and Regulations

5.11.1 CONTRACTOR to Comply

CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor CONSULTANT shall be responsible for monitoring CONTRACTOR'S compliance with any Laws and Regulations.

5.11.2 Specifications and Drawings at Variance

If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give CONSULTANT prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws, or Regulations, and without such notice to CONSULTANT, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR'S primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

5.12 Taxes

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work. Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

5.13 Use of Premises

5.13.1 Project Site

CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the staging areas or work site areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such

land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or CONSULTANT by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and CONSULTANT harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or CONSULTANT to the extent based on a claim arising out of CONTRACTOR'S performance of the Work.

5.13.2 Clean UP

During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

5.13.1 Loading of Structures

CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

5.14 Record Drawings

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to CONSULTANT for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to CONSULTANT for OWNER.

5.15 Shop Drawings and Samples

5.15.1 Shop Drawing Submittals

After checking and verifying all field measurements and after complying

with applicable procedures specified, CONTRACTOR shall submit to CONSULTANT for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.8), or for other appropriate action if so indicated in the Special Conditions, five copies (unless otherwise specified) of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as CONSULTANT may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable CONSULTANT to review the information as required.

5.15.2 Sample Submittals

CONTRACTOR shall also submit to CONSULTANT for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

5.15.3 Review by CONTRACTOR

Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

5.15.4 Notice of Variation

At the time of each submission, CONTRACTOR shall give CONSULTANT specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to CONSULTANT for review and approval of each such variation.

5.15.5 CONSULTANT'S Approval

CONSULTANT will review and approve with reasonable promptness Shop Drawings and samples, but CONSULTANT'S review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or

procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by CONSULTANT, and shall return the required number of corrected copies of Shop Drawings and submit, as required, new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by CONSULTANT on previous submittals.

5.15.6 Responsibility for Errors and Omissions

CONSULTANT'S review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called CONSULTANT'S attention to each such variation at the time of submission as required by paragraph 5.15.4 and CONSULTANT has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by CONSULTANT relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 5.15.3.

5.15.7 Cost of Related Work

Where a Shop or sample is required by the Specifications, any related Work performed prior to CONSULTANT'S review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

5.16 Continuing the Work

CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolutions of any disputes or disagreements, except as permitted by paragraph 14.5 or as CONTRACTOR and OWNER may otherwise agree in writing.

5.17 Erosion and Sediment Control

5.17.1 General Environmental Requirements

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing and Floodplain Encroachment Permits.

Any fines or penalties resulting from the failure to comply with the terms of the federal, state or local permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

5.17.2 Stormwater Pollution Prevention

A. The CONTRACTOR shall exercise due care to prevent or minimize any damage to any stream or wetland from pollution by debris, sediment or other material. The operation of equipment and/or materials in a jurisdictional wetland is expressly prohibited. Water that has been used for washing or processing, or that contains oils, sediments or other pollutants shall not be discharged from the job site. Such waters shall be collected and properly disposed of by the CONTRACTOR in accordance with applicable local, state and federal law.

B. The CONTRACTOR is solely responsible for securing all required state and local permits associated with stormwater discharges from the project including, but not necessarily limited to the KY Notice of Intent to Disturb (NOI) for Coverage of Storm Water Discharges Associated with Construction Activities under the KPDES Storm Water General Permit KYR100000 and the LFUCG, Land Disturbance Permit. Permit application preparation and all required documentation are the responsibility of the CONTRACTOR. The CONTRACTOR is solely responsible for maintaining compliance with the stormwater pollution prevention plan or erosion and sediment control plan and ensuring the following:

- a. That the Stormwater Pollution Prevention Plan (SWPPP) or erosion control plan is current and available for review on site;
- b. That any and all stormwater inspection reports required by the permit are conducted by qualified personnel and are available for review onsite; and
- c. That all best management practices (BMPs) are adequately maintained and effective at controlling erosion and preventing sediment from leaving the site.

C. The CONTRACTOR shall provide the necessary equipment and personnel to perform any and all emergency measures that may be required to contain any spillage or leakage and to remove materials, soils or liquids that become contaminated. The collected spill material shall be properly disposed at the CONTRACTOR's expense.

D. Upon completion of the work and with the concurrence of the OWNER, the CONTRACTOR must file a Notice of Termination (NOT) of Coverage Under the KPDES General Permit for Storm Water Discharges Associated with Construction Activity with the appropriate local and state authorities.

E. Any fines or penalties resulting from the failure to comply with the terms of the state or local stormwater permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

6. OTHER WORK

6.1 Related Work at Site

OWNER may perform other work related to the Project at the site by OWNER'S own forces, have other work performed by utility owners or let other direct contracts therefor which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work; and, if such performance will involve additional expense to CONTRACTOR or requires additional time, a Change Order to the Contract will be negotiated.

6.2 Other Contractors or Utility Owners

CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER'S employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of CONSULTANT and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

6.3 Delays Caused by Others

If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to CONSULTANT in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR'S failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S Work except for latent or non-apparent defects and deficiencies in the other work.

6.4 Coordination

If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Special Conditions, and the specific matters to be covered by such authority and

responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Special Conditions.

7. OWNER'S RESPONSIBILITIES

7.1 Communications

OWNER shall issue all communications to CONTRACTOR through CONSULTANT.

7.2 Data and Payments

OWNER shall furnish the data required of OWNER under the Contract Documents promptly after they are due.

7.3 Lands, Easements, and Surveys

OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by CONSULTANT in preparing the Drawings and Specifications.

7.4 Change Orders

OWNER is obligated to execute Change Orders as indicated in paragraph 9.4.

7.5 Inspections, Tests and Approvals

OWNER'S responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.3.

7.6 Stop or Suspend Work

In connection with OWNER'S right to stop Work or suspend Work, see paragraph 12.4 and 14.1 Paragraph 14.2 deals with OWNER'S rights to terminate services of CONTRACTOR under certain circumstances.

8. CONSULTANT'S STATUS DURING CONSTRUCTION

8.1 OWNER'S Representative

CONSULTANT will be OWNER'S representative during the construction period. The duties and responsibilities and the limitations of authority of CONSULTANT as OWNER'S representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and CONSULTANT.

8.2 Visits to Site

CONSULTANT will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. CONSULTANT will not be required to make exhaustive or

continuous on-site inspections to check the quality or quantity of the Work. CONSULTANT'S efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations, CONSULTANT will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

8.3 Project Representation

CONSULTANT will provide an Inspector to assist CONSULTANT in observing the performance of the Work. If OWNER designates another agent to represent OWNER at the site who is not CONSULTANT'S agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in the Special Conditions.

8.4 Clarifications and Interpretations

CONSULTANT will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as CONSULTANT may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

8.5 Authorized Variations in Work

CONSULTANT may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order.

8.6 Rejecting Defective Work

CONSULTANT will have authority to disapprove or reject Work which CONSULTANT believes to be defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 12.3, whether or not the Work is fabricated, installed or completed.

8.7 Shop Drawings

In connection with CONSULTANT'S responsibility for Shop Drawings and samples, see paragraphs 5.15.1 through 5.16 inclusive.

8.8 Change Orders

In connection with CONSULTANT'S responsibilities as to Change Orders, see Articles 10, 11 and 12.

8.9 Payments

In connection with CONSULTANT'S responsibilities with respect to Applications for Payment, etc., see Article 13.

8.10 Determinations for Unit Prices

CONSULTANT will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR.

CONSULTANT will review with CONTRACTOR CONSULTANT'S preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

8.11 Decision on Disputes

CONSULTANT will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 10 and 11 in respect of changes in the Contract Price or Contract Time will be referred initially to CONSULTANT in writing with a request for a formal decision in accordance with this paragraph, which CONSULTANT will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered to CONSULTANT promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to CONSULTANT within sixty days after such occurrence unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim.

8.12 Limitations on CONSULTANT's Responsibilities

8.12.1 CONTRACTOR, Supplier, or Surety

Neither CONSULTANT'S authority to act under this Article 8 or elsewhere in the Contract Documents nor any decision made by CONSULTANT in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of CONSULTANT to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

8.12.2 To Evaluate the Work

Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives or like "effect" or "import" are used to describe a requirement, direction, review or judgment of CONSULTANT as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign CONSULTANT any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

8.12.3 CONTRACTOR'S Means, Methods, Etc.

CONSULTANT will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and CONSULTANT will not be responsible for CONTRACTOR'S failure to perform or furnish the Work in accordance with the Contract Documents.

8.12.4 Acts of Omissions of CONTRACTOR

CONSULTANT will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9. **CHANGES IN THE WORK**

9.1 **OWNER May Order Change**

Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Change Order. Upon receipt of such notice, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

9.2 **Claims**

Claims for an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Change Order will be settled as provided for in Article 10 or Article 11.

9.3 **Work Not in Contract Documents**

CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraph 3.4, except in the case of an emergency and except in the case of uncovering Work as provided in paragraph 12.3.4.

9.4 **Change Orders**

OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

9.4.1 changes in the Work which are ordered by OWNER pursuant to paragraph 9.1, are required because of acceptance of defective Work under paragraph 12.7 or corrective defective Work under paragraph 12.8, or are agreed to by the parties;

9.4.2 changes in the Contract Price or Contract Time which are agreed to by the parties; and

9.4.3 changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by CONSULTANT pursuant to paragraph 8.11; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and REGULATIONS, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 5.16.

9.5 Notice of Change

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10. CHANGE OF CONTRACT PRICE

10.1 Total Compensation

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

10.2 Claim for Increase or Decrease in Price

The Contract Price may only be changed by a Change Order. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the CONSULTANT promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after such occurrence (unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by CONTRACTOR'S written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of the occurrence of said event.

10.3 Value of Work

The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

10.3.1 Unit Prices

Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraphs 10.9.1. through 10.9.3, inclusive).

10.3.2 Lump Sum

By mutual acceptance of a lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 10.6.2.1).

10.3.3 Cost Plus Fee

On the basis of the Cost of the Work (determined as provided in paragraphs 10.4 and 10.5) plus a CONTRACTOR'S fee for overhead and profit (determined as provided in paragraphs 10.6 and 10.7).

10.4 Cost of the Work

The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project; shall include only the following items; and shall not include any of the costs itemized in paragraph 10.5:

10.4.1 Payroll Costs

Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

10.4.2 Materials and Equipment Costs

Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

10.4.3 Subcontractor Costs

Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of CONSULTANT, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR'S Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

10.4.4 Special Consultant Costs

Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

10.4.5 Supplemental Costs

10.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.

10.4.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

10.4.5.3 Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of CONSULTANT, and the costs of transportation, loading, unloading, installation, dismantling and removal shall be in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

10.4.5.4 Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

10.4.5.5 Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

10.4.5.6 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR'S fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid a fee proportionate to that stated in paragraph 10.6.2 for services.

10.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.

10.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

10.4.5.9 Cost of premiums for additional Bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by OWNER.

10.5 Not to Be Included in Cost of the Work

The term Cost of the Work shall not include any of the following:

10.5.1 Costs of Officers and Executives

Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR'S principal or a branch office for general administration of

the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 or specifically covered by paragraph 10.4.4 - all of which are to be considered administrative costs covered by the CONTRACTOR'S fee.

10.5.2 Principal Office

Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site.

10.5.3 Capital Expense

Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.

10.5.4 Bonds and Insurance

Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 10.4.5.9 above).

10.5.5 Costs Due to Negligence

Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

10.5.6 Other Costs

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.

10.6 Contractor's Fee

The CONTRACTOR'S Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

10.6.1 a mutually acceptable fixed fee; or if none can be agreed upon,

10.6.2 a fee based on the following percentages of the various portions of the Cost of the Work:

10.6.2.1 for costs incurred under paragraphs 10.4.1 and 10.4.2, the CONTRACTOR'S fee shall be fifteen percent;

10.6.2.2 for costs incurred under paragraph 10.4.3, the CONTRACTOR'S fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a fee, the maximum allowable to CONTRACTOR on account of overhead and profit of all Subcontractors shall be fifteen percent;

10.6.2.3 no fee shall be payable on the basis of costs itemized under paragraphs 10.4.4, 10.4.5 and 10.5;

10.6.2.4 the amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR'S Fee by an amount equal to ten percent of the net decrease; and

10.6.2.5 when both additions and credits are involved in any one change, the adjustment in CONTRACTOR'S fee shall be computed on the basis of the net change in accordance with paragraphs 10.6.2.1 through 10.6.2.4, inclusive.

10.7 Itemized Cost Breakdown

Whenever the cost of any Work is to be determined pursuant to paragraph 10.4 or 10.5, CONTRACTOR will submit in form acceptable to CONSULTANT an itemized cost breakdown together with supporting data.

10.8 Cash Allowances

It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within the limit of the allowances as may be acceptable to CONSULTANT, CONTRACTOR agrees that:

10.8.1 Materials and Equipment

The allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

10.8.2 Other Costs

CONTRACTOR'S costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

10.8.3 Change Order

Prior to final payment, an appropriate Change Order will be issued as recommended by CONSULTANT to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

10.9 Unit Price Work

10.9.1 General

Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by CONSULTANT in accordance with Paragraph 8.10.

10.9.2 Overhead and Profit

Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR'S overhead and profit for each separately identified item.

10.9.3 Claim for Increase in Unit Price

Where the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of Work and if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof, CONTRACTOR may make a claim for an increase in the Contract Price in accordance with Article 10.

11. CHANGE OF CONTRACT TIME

11.1 Change Order

The Contract Time may only be changed by a Change Order. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered to CONSULTANT promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by CONSULTANT in accordance with paragraph 8.11. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph 11.1.

11.2 Justification for Time Extensions

The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefore as provided in paragraph 11.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 6, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

11.3 Time Limits

All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 11 shall not exclude recovery for damages (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) for delay by either party.

12. WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

12.1 Warranty and Guarantee

CONTRACTOR warrants and guarantees to OWNER and CONSULTANT that all Work will be in accordance with the Contract Documents and will not be defective. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 12.

12.2 Access to Work

CONSULTANT and CONSULTANT'S representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

12.3 Tests and Inspections

12.3.1 Timely Notice

CONTRACTOR shall give CONSULTANT timely notice of readiness of the Work for all required inspections, tests or approvals.

12.3.2 Requirements and Responsibilities

The CONSULTANT may require such inspection and testing during the course of the Work as he/she deems necessary to ascertain and assure the integrity and acceptable quality of the materials incorporated and the work performed. Inspection presence may be either full-time or intermittent, and neither the presence nor absence at any time of the CONSULTANT or the INSPECTOR shall relieve the CONTRACTOR of sole responsibility for the acceptability and integrity of the Work or any part thereof.

The costs of sampling, testing, and inspection on-site to ascertain acceptability of the Work and materials will be borne by the OWNER except as otherwise provided. The OWNER will select a testing laboratory to perform such sampling and testing. Sampling and/or testing required by the CONTRACTOR or necessitated by failure of Work or materials to meet the above acceptability test shall be at the expense of the CONTRACTOR.

Inspection services may be performed by the employees of the OWNER or by others selected or designated by the OWNER or the CONSULTANT.

Sampling and/or testing required for manufacturing quality and/or process control, for certification that raw mineral materials or manufactured products are the quality specified in the contract, or to assure the acceptability for incorporation into the Work shall be borne by the CONTRACTOR or the material supplier.

Cost for inspection, sampling, testing, and approvals required by the laws or regulations of any public body having competent jurisdiction shall be borne by the CONTRACTOR or the material supplier.

Sampling and testing will be in accord with pertinent codes and regulations and with appropriate standards of the American Society of Testing Materials or other specified standards.

12.3.3 On-Site Construction Test and Other Testing

All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by CONSULTANT if so specified).

12.3.4 Covered Work

If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of CONSULTANT, it must, if requested by CONSULTANT, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given CONSULTANT timely notice of CONTRACTOR'S intention to cover the same and CONSULTANT has not acted with reasonable promptness in response to such notice.

12.3.5 CONTRACTOR'S Obligation

Neither observations by CONSULTANT nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR'S obligations to perform the Work in accordance with the Contract Documents.

12.4 OWNER May Stop the Work

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

12.5 Correction or Removal of Defective Work

If required by CONSULTANT, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by CONSULTANT, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

12.6 One Year Correction Period

If within one year after the date of Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER'S written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with non-defective Work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement

(including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Change Order.

12.7 Acceptance of Defective Work

If, instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER'S evaluation of and determination to accept such defective Work (such costs to be approved by CONSULTANT as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals).

12.8 OWNER May Correct Defective Work

If CONTRACTOR fails within a reasonable time after written notice of CONSULTANT to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by CONSULTANT in accordance with paragraph 12.5, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR'S services related thereto, take possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER'S representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by CONSULTANT, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR'S defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER'S rights and remedies hereunder.

13. PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 Schedule of Values

The schedule of values established as provided in paragraph 2.8 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to CONSULTANT. Progress payments on account of Unit Price Work will be based on the number of units completed.

13.2 Application for Progress Payment

At least ten days before each progress payment is scheduled (but not more often than once a month), CONTRACTOR shall submit to CONSULTANT for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER'S interest therein, all of which will be satisfactory to OWNER. OWNER shall, within thirty (30) calendar days of presentation to him of an approved Application for Payment, pay CONTRACTOR the amount approved by CONSULTANT. Monthly progress payments shall be ninety (90) percent of the sum obtained by applying the respective bid unit prices to the approved estimated quantities of work completed by the Contractor during the preceding month. The remaining ten (10) percent will be held by the Owner, as retainage. At such time as the CONSULTANT deems appropriate - based on the quality of work performed, progress of cleanup, and other pertinent factors - the rate of retainage, or the total amount retained, may be reduced; although, any reduction in retainage, below the ten (10) percent level, is made solely at the CONSULTANT's discretion. All remaining retainage held will be included in the final payment to the Contractor.

13.3 CONTRACTOR'S Warranty of Title

CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

13.4 Review of Applications for Progress Payment

13.4.1 Submission of Application for Payment

CONSULTANT will, after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing CONSULTANT'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

13.4.2 CONSULTANT'S Recommendation

CONSULTANT may refuse to recommend the whole or any part of any payment, if, in CONSULTANT'S opinion, it would be incorrect to make such representations to OWNER. CONSULTANT may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in CONSULTANT'S opinion to protect OWNER from loss because:

13.4.2.1 the Work is defective, or completed Work has been damaged requiring correction or replacement;

13.4.2.2 the Contract Price has been reduced by Written Amendment or Change Order;

13.4.2.3 OWNER has been required to correct defective Work or complete Work in accordance with paragraph 12.8; or

13.4.2.4 of CONSULTANT's actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.2.1 through 14.2.9 inclusive.

13.5 Partial Utilization

OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and has been completed. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER that said part of the Work is complete and request that a Certificate of Completion be issued for that part of the Work.

13.6 Final Inspection

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, CONSULTANT will make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

13.7 Final Application for Payment

After CONTRACTOR has completed all such corrections to the satisfaction of CONSULTANT and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 5.14) and other documents - all as required by the Contract Documents, and after CONSULTANT has indicated that the Work is acceptable (subject to the provisions of paragraph 13.10), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER'S property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

13.8 Final Payment and Acceptance

13.8.1 CONSULTANT'S Approval

If, on the basis of CONSULTANT'S observation of the Work during construction and final inspection, and CONSULTANT'S review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, CONSULTANT is satisfied that the Work has been completed and CONTRACTOR'S other obligations under the Contract Documents have been fulfilled, CONSULTANT will, after receipt of the final Application for Payment, indicate in writing CONSULTANT'S recommendation of payment and present the Application to OWNER for payment. Thereupon CONSULTANT will give written notice to OWNER and CONTRACTOR that the Work is acceptable, subject to the provisions of paragraph 13.10. Otherwise, CONSULTANT will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

13.8.2 Delay in Completion of Work

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, OWNER shall, upon receipt of CONTRACTOR'S final Application for Payment and recommendation of CONSULTANT, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is

less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 10 of Part II, Information for Bidders, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to CONSULTANT with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

13.9 CONTRACTOR'S Continuing Obligation

CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by CONSULTANT, nor the issuance of a certificate of Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 13.10).

13.10 Waiver of Claims

The making and acceptance of final payment will constitute:

13.10.1 a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligations under the Contract Documents; and

13.10.2 a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

14. SUSPENSION OF WORK AND TERMINATION

14.1 OWNER May Suspend Work

OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and CONSULTANT which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 10 and 11.

14.2 OWNER May Terminate

The OWNER may terminate the Work upon the occurrence of any one or more of the following events:

14.2.1 if CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

14.2.2 if a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

14.2.3 if CONTRACTOR makes a general assignment for the benefit of creditors;

14.2.4 if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR'S creditors;

14.2.5 if CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

14.2.6 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.8 as revised from time to time);

14.2.7 if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

14.2.8 if CONTRACTOR disregards the authority of CONSULTANT, or

14.2.9 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety) seven days' written notice and to the extent permitted by Laws and Regulations,

terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) such excess will be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by CONSULTANT and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

14.2.10 If safety violations are observed and brought to the Contractors attention and Contractor fails to take immediate corrective measures any repeat of similar safety violations, Owner will order an immediate termination of contract. Note: it is the Contractor's responsibility to know proper safety measures as they pertain to construction and OSHA.

14.2.11 This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.

14.2.12 This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.

14.3 CONTRACTOR'S Services Terminated

Where CONTRACTOR'S services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

14.4 Payment After Termination

Upon seven days' written notice to CONTRACTOR, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses, which

will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

14.5 CONTRACTOR May Stop Work or Terminate

If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or CONSULTANT fails to act on any Application for Payment within sixty days after it is submitted, or OWNER fails for sixty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and CONSULTANT, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if CONSULTANT has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven days' written notice to OWNER and CONSULTANT stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 5.16 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

15. MISCELLANEOUS

15.1 Claims for Injury or Damage

Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 15.1 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

15.2 Non-Discrimination in Employment

The CONTRACTOR shall comply with the following requirements prohibiting discrimination:

15.2.1 That no person (as defined in KRS 344.010) shall bid on Lexington-Fayette Urban County Government construction projects, or bid to furnish materials or supplies to the Lexington-Fayette Urban County Government, if, within six months prior to the time of opening of bids, said person shall have been found, by declaratory judgment action in Fayette Circuit Court, to be presently engaging in an unlawful practice, as hereinafter defined. Such declaratory judgment action may be brought by an aggrieved individual or upon an allegation that an effort at conciliation pursuant to KRS 344.200 has been attempted and failed, by the Lexington-Fayette County Human Rights Commission.

15.2.2 That it is an unlawful practice for an employer:

15.2.2.1 to fail or refuse to hire, or to discharge any individual or otherwise to discriminate against an individual, with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, age, or national origin; or

15.2.2.2 to 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 sex, race, color, religion, age, or national origin.

15.2.3 That it is an unlawful practice for an employer, labor organization, or joint-labor management committee controlling apprenticeship or other training or retraining, including on-the-job training programs to discriminate against an individual because of his race, color, religion, sex, age, or national origin in admission to, or employment in, any program established to provide apprenticeship or other training.

15.2.4 That a copy of this Ordinance shall be furnished all suppliers and made a part of all bid specifications.

15.2.5 This Ordinance shall take effect after it is signed, published and recorded, as required by law.

15.3 Temporary Street Closing or Blockage

The CONTRACTOR will notify the CONSULTANT at least 72 hours prior to making any temporary street closing or blockage. This will permit orderly notification to all concerned public agencies. Specific details and restrictions on street closure or blockage are contained in the Special Conditions.

15.4 Percentage of Work Performed by prime CONTRACTOR

The CONTRACTOR shall perform on site, and with its own organization, Work equivalent to at least fifty (50%) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the CONSULTANT determines that the reduction would be to the advantage of the OWNER.

15.5 Clean-up

Cleanup shall progress, to the greatest degree practicable, throughout the course of the Work. The Work will not be considered as completed, and final payment will not be made, until the right-of-way and all ground occupied or affected by the

Contractor in connection with the Work has been cleared of all rubbish, equipment, excess materials, temporary structures, and weeds. Rubbish and all waste materials of whatever nature shall be disposed of, off of the project site, in an acceptable manner. All property, both public and private, which has been damaged in the prosecution of the Work, shall be restored in an acceptable manner. All areas shall be draining, and all drainage ways shall be left unobstructed, and in such a condition that drift will not collect or scour be induced.

15.6 General

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 12.1, 12.3.5, 13.3, and 15.2 and all of the rights and remedies available to OWNER and CONSULTANT thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of the Agreement.

15.7 Debris Disposal

For all LFUCG projects any trash, construction demolition debris, yard waste, dirt or debris of any kind that is removed from the project site must be disposed of in accordance with local, state, and federal regulations. The disposal site or facility must be approved in advance by the LFUCG and disposal documentation is required. The Contractor will be responsible for payment of any fines associated with improper disposal of material removed from the project site.

END OF SECTION



PART V
SPECIAL CONDITIONS
INDEX

1 BLASTING SC-2

2 RISK MANAGEMENT PROVISIONS –
INSURANCE AND INDEMNIFICATION SC-3

1. BLASTING – not applicable.

**RISK MANAGEMENT PROVISIONS
INSURANCE AND INDEMNIFICATION**

INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- (5) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

FINANCIAL RESPONSIBILITY

BIDDER/CONTRACTOR understands and agrees that it shall demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions prior to final acceptance of its bid and the commencement of any work or provision of goods.

INSURANCE REQUIREMENTS

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

<u>Coverage</u>	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000 - \$1 million

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include Products and Completed Operations coverage and Premises and Operations coverage unless it is deemed not to apply by LFUCG.
- d. The General Liability Policy shall include Explosion-Collapse Underground (XCU) coverage or an endorsement unless it is deemed not to apply by LFUCG.
- e. The Policy shall include Umbrella/Excess Liability coverage in the amount of \$2 million per occurrence, \$2 million aggregate, unless it is deemed not to apply by LFUCG.
- f. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- g. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

Deductibles and Self-Insured Programs

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE.

Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage

Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

PART VI

CONTRACT AGREEMENT

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7.	THE CONTRACT DOCUMENTS.....	CA-3
8.	EXTRA WORK.....	CA-3
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PART VI

CONTRACT AGREEMENT

THIS AGREEMENT, made on the 23rd day of February, 2017, by and between **Lexington-Fayette Urban County Government**, acting herein called "OWNER" and **Browning Chapman LLC**, doing business as a corporation located in the City of Indianapolis, County of Marion, and State of Indiana, hereinafter called "CONTRACTOR."

WITNESSETH: That the CONTRACTOR and the OWNER in consideration of one hundred forty-four thousand two hundred thirty Dollars and no Cents (\$144,230.00) quoted in the proposal by the CONTRACTOR, dated February 2, 2017, hereby agree to commence and complete the construction described as follows:

1. SCOPE OF WORK

The CONTRACTOR shall furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, and the Special Conditions of the Contract, the Specifications and Contract Documents therefore as prepared by THP Limited Inc. for Government Center Parking Garage Repairs project.

2. TIME OF COMPLETION

The time period estimated and authorized by the OWNER for the proper execution of the Work by the Contract, in full, is hereby fixed as seventy-five (75) calendar days. The time shall begin in accordance with the Notice to Proceed provided by OWNER.

3. ISSUANCE OF WORK ORDERS

Notice to begin Work will be given in whole or for part of the Work as determined by the OWNER pending the availability of funds. The order of construction will be as determined by the Engineer after consultation with the CONTRACTOR and the OWNER.

4. THE CONTRACT SUM

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the Contract, as quoted in the proposal, subject to any additions and deductions, as provided therein.

5. PROGRESS PAYMENTS

The OWNER shall make payments on account of the Contract, as provided in accordance with the General Conditions, as estimated by the Engineer, less the aggregate of previous payments.

6. ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due within ninety (90) days after completion of the Work, provided the Work be then fully completed and the Contract fully accepted.

Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with the Work has been paid.

If, after the Work has been substantially completed, full completion thereof is materially delayed through no fault of the CONTRACTOR, and the ENGINEER so certifies, the OWNER shall upon certificate of the ENGINEER, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

7. THE CONTRACT DOCUMENTS

The Advertisement for Bids, Information for Bidders, the General Conditions, Performance and Payment Bonds, Contract Agreement, Special Conditions, Technical Specifications, any and all Addenda, and Proposal, and Plan Drawings form the Contract, and they are fully a part of the Contract as if hereto attached or herein repeated.

8. EXTRA WORK

The OWNER, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the Work, the Contract Sum being adjusted accordingly. All such Work shall be executed and paid for in accordance with the General Conditions, which is a part of this Contract.

9. THE FOLLOWING IS AN ENUMERATION OF THE SPECIFICATIONS AND DRAWINGS (CONTRACT DOCUMENTS):

SPECIFICATIONS

SECTION NO.	TITLE	PAGES
I	Advertisement for Bids	AB 1 thru 5
II	Information for Bidders	IB 1 thru 10
III	Form of Proposal	P 1 thru 35
IV	General Conditions	GC 1 thru 51
V	Special Conditions	SC 1 thru 8
VI	Contract Agreement	CA 1 thru 5
VII	Performance and Payment Bonds	PB 1 thru 7
VIII	Addenda	AD 1 thru 1
IX	Technical Specifications	

Division 1 - General Requirements

01 10 00	Summary of Work	1 thru 4
01 21 00	Unit Prices	1 thru 1
01 23 00	Alternates	1 thru 1
01 29 00	Payment Procedure	1 thru 2
01 32 16	Construction Progress Schedule	1 thru 12
01 50 00	Temporary Facilities and Controls	1 thru 6
01 56 00	Barriers	1 thru 3
01 77 00	Closeout Procedure	1 thru 6

Division 2 - Site Work

02 41 19	Selective Structure Demolition	1 thru 6
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Division 3 – Concrete

03 01 00	Concrete Repairs	1 thru 10
03 64 23	Epoxy Injection	1 thru 3

Division 4 – Masonry

04 01 00	Masonry Repairs	1 thru 9
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Division 5 – Metals

05 50 00 Miscellaneous Metals 1 thru 6

Division 7 – Thermal and Moisture Protection

07 19 16 Silane Water Repellent 1 thru 7

07 24 00 Exterior Insulation and Finish System Restoration 1 thru 6

07 92 00 Sealants 1 thru 6

Division 9 – Finishes

09 91 01 High Performance Coating 1 thru 10

Division 32 – Site Work

32 17 23 Pavement Markings 1 thru 3

PLAN DRAWINGS –

S0.1 – Title Sheet

S1.1 – Level 1 Floor Plan – Concrete and Steel Repairs

S2.1 – Level 1 Floor Plan – Waterproofing Repairs

S3.1 – Concrete and Steel Repairs Details

S4.1 – EIFS Repair Details

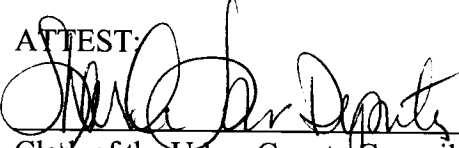
IN WITNESSETH WHEREOF, the parties hereto have executed this Contract as of the date and year above written.

(Seal)

Lexington-Fayette Urban County Government.
Lexington, Kentucky

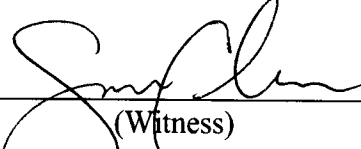
(Owner)

ATTEST:


Clerk of the Urban County Council

BY:


MAYOR

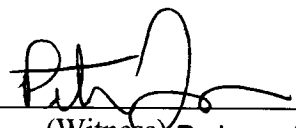

(Witness)

(Title)

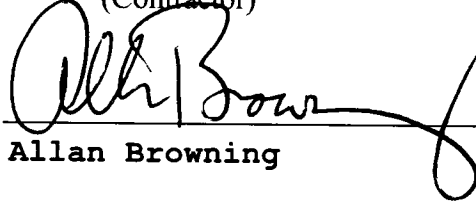
(Seal)

Browning Chapman, LLC

(Contractor)

~~(Secretary)*~~

(Witness) **Peter Lyon**

BY:


Allan Browning

President

(Title)

**9900 Westpoint Drive, Suite 128
Indianapolis, IN 46256**

(Address and Zip Code)

IMPORTANT: *Strike out any non-applicable terms.

Secretary of the Owner should attest. If the CONTRACTOR is corporation, Secretary should attest. Give proper title of each person-executing Contract.

PART VII

Bond No. HSA-MW-2358

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that

Browning Chapman, LLC

(Name of Contractor)

9900 Westpoint Drive, Suite 128, Indianapolis, IN 46256

(Address of Contractor)

a Corporation, hereinafter
(Corporation, Partnership, or Individual)

called Principal, and Hudson Insurance Company

(Name of Surety)

100 William Street, New York, NY 10038

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
200 East Main Street, Third Floor
Lexington, Kentucky 40507

hereinafter called "OWNER" in the penal sum of: One Hundred Forty Four Thousand Two Hundred Thirty and 00/100-
Dollars, (\$ 144,230.00), for the payment of whereof Principal and Surety bind themselves, their heirs,
executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal by written agreement is entering into a Contract with OWNER for
(project name) Government Center Parking Garage Repairs in accordance with drawings and
specifications prepared by: (the Engineer) THP Limited Inc which Contract is by reference
made a part hereof, and is hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall
promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall
remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the OWNER.

Whenever, Principal shall be, and declared by OWNER to be in default under the Contract, the OWNER
having performed OWNER'S obligations thereunder, the Surety may promptly remedy the default, or shall
promptly:

- (1) Complete the Contract in accordance with its terms and conditions or
- (2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or if the OWNER elects, upon determination by the OWNER and Surety jointly of the lowest responsible bidder, arrange for a Contract between such bidder and OWNER, and make available as Work progresses (even though there may be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract Price", as used in this paragraph shall mean the total amount payable by OWNER to Principal under the Contract and any amendments thereto, less the amount properly paid by OWNER to Principal.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the OWNER named herein or the heirs, executors, administrators or successors of OWNER.

IN WITNESS WHEREOF, this instrument is executed in Three (3) each one of which shall be deemed an original, this the 6th day of February, 2017.

ATTEST:


(Principal) Secretary

Browning Chapman, LLC

Principal

BY: 

9900 Westpoint Drive, Suite 128

(Address)

Indianapolis, IN 46256


Witness as to Principal

(Address)

Hudson Insurance Company

Surety

BY: 


Attorney-in-Fact Todd Schaap

2626 49th Drive

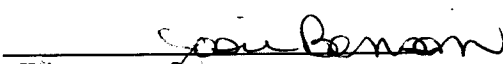
(Address)

Franksville, WI 53126

ATTEST:


(Surety) Secretary

(SEAL)


Witness as to Surety
2626 49th Drive
(Address)
Franksville, WI 53126

TITLE: Surety

BY: _____

TITLE: _____

NOTE: The number of executed counterparts of the bond shall coincide with the number of executed counterparts of the Contract.

PART VII

Bond No. HSA-MW-2358

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENT: that

Browning Chapman, LLC

(Name of Contractor)

9900 Westpoint Drive, Suite 128, Indianapolis, IN 46256

(Address of Contractor)

Corporation

a _____, hereinafter

(Corporation, Partnership or Individual)

called Principal, and Hudson Insurance Company

(Name of Surety)

100 William Street, New York, NY 10038

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT

200 East Main Street, Third Floor

Lexington, Kentucky 40507

Obligee, hereinafter called OWNER, for the use and benefit of claimants as hereinafter defined, in the amount of One Hundred Forty Four Thousand Two Hundred Thirty and 00/100- Dollars (\$ 144,230.00) the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal by written agreement is entering into a Contract with OWNER for (project name) Government Center Parking Garage Repairs in accordance with drawings and specifications prepared by: (the Engineer) THP Limited Inc which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the OWNER that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The OWNER shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - (a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the OWNER, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the Work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the Work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, OWNER, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.
 - (b) After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - (c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against aid improvement, whether or not claim for the amount of such lien be presented under and against this bond.

IN WITNESS WHEREOF, this instrument is executed in Three (3) counterparts, each one of
(number)


which shall be deemed an original, this the 6th day of February, 2017.

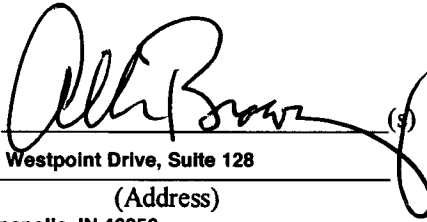
ATTEST:


(Principal) Secretary

Browning Chapman, LLC
(Principal)

(SEAL)



(Witness to Principal)

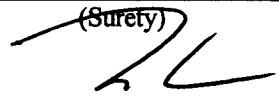
BY: 
9900 Westpoint Drive, Suite 128
(Address)
Indianapolis, IN 46256

(Address)

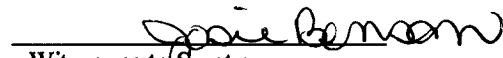
Hudson Insurance Company

ATTEST:


(Surety) Secretary

(Surety)
BY: 
(Attorney-in-Fact) Todd Schaap

(SEAL)


Witness as to Surety
2626 49th Drive
(Address)
Franksville, WI 53126

2626 49th Drive
(Address)
Franksville, WI 53126

NOTE: The number of executed counterparts of the bond shall coincide with the number of executed counterparts of the Contract.

END OF SECTION

PB-7



POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That HUDSON INSURANCE COMPANY, a corporation of the State of Delaware, with offices at 100 William Street, New York, New York, 10038, has made, constituted and appointed, and by these presents, does make, constitute and appoint

Thomas Chambers and Todd Schaap, each of the State of Wisconsin, and Todd Kramer of the State of Iowa

its true and lawful Attorney(s)-in-Fact, at New York, New York, each of them alone to have full power to act without the other or others, to make, execute and deliver on its behalf, as Surety, bonds and undertakings given for any and all purposes, also to execute and deliver on its behalf as aforesaid renewals, extensions, agreements, waivers, consents or stipulations relating to such bonds or undertakings provided, however, that no single bond or undertaking shall obligate said Company for any portion of the penal sum thereof in excess of the sum of Ten Million Dollars (\$10,000,000.00).

Such bonds and undertakings when duly executed by said Attorney(s)-in-Fact, shall be binding upon said Company as fully and to the same extent as if signed by the President of said Company under its corporate seal attested by its Secretary.

In Witness Whereof, HUDSON INSURANCE COMPANY has caused these presents to be of its Executive Vice President thereunto duly authorized, on this 23rd day of May, 2016 at New York, New York.



Dina Daskalakis
Corporate Secretary

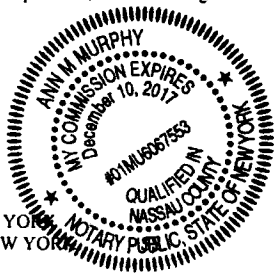
HUDSON INSURANCE COMPANY

Christopher T. Suarez
Executive Vice President

STATE OF NEW YORK
COUNTY OF NEW YORK. SS.

On the 23rd day of May, 2016 before me personally came Christopher T. Suarez to me known, who being by me duly sworn did depose and say that he is an Executive Vice President of HUDSON INSURANCE COMPANY, the corporation described herein and which executed the above instrument, that he knows the seal of said Corporation, that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

(Notarial Seal)



ANN M. MURPHY
Notary Public, State of New York
No. 01MU6067553
Qualified in Nassau County
Commission Expires December 10, 2017

CERTIFICATION

STATE OF NEW YORK
COUNTY OF NEW YORK

The undersigned Dina Daskalakis hereby certifies:

That the original resolution, of which the following is a true and correct copy, was duly adopted by unanimous written consent of the Board of Directors of Hudson Insurance Company dated July 27th, 2007, and has not since been revoked, amended or modified:

"RESOLVED, that the President, the Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have the authority and discretion, to appoint such agent or agents, or attorney or attorneys-in-fact, for the purpose of carrying on this Company's surety business, and to empower such agent or agents, or attorney or attorneys-in-fact, to execute and deliver, under this Company's seal or otherwise, bonds obligations, and recognizances, whether made by this Company as surety thereon or otherwise, indemnity contracts, contracts and certificates, and any and all other contracts and undertakings made in the course of this Company's surety business, and renewals, extensions, agreements, waivers, consents or stipulations regarding undertakings so made; and

FURTHER RESOVLED, that the signature of any such Officer of the Company and the Company's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seal when so used whether heretofore or hereafter, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

THAT the above and foregoing is a full, true and correct copy of Power of Attorney issued by said Company, and of the whole of the original and that the said Power of Attorney is still in full force and effect and has not been revoked, and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney is now in force.

Witness the hand of the undersigned and the seal of said Corporation this 6th day of February, 2017



Dina Daskalakis
Corporate Secretary

STATE OF WISCONSIN)

COUNTY OF **Kenosha**)

ON THIS 6th day of February, 2017,

before me, a notary public, within and for said County and State, personally appeared Todd Schaap to me personally known, who being duly sworn, upon oath did say that he is the Attorney-in-Fact of and for the Hudson Insurance Company, a corporation of Delaware, created, organized and existing under and by virtue of the laws of the State of Delaware; that the corporate seal affixed to the foregoing within instrument is the seal of the said Company; that the seal was affixed and the said instrument was executed by authority of its Board of Directors; and the said Todd Schaap did acknowledge that he/she executed the said instrument as the free act and deed of said Company.



Kimberli S. Rasch
Notary Public, Kenosha County, Wisconsin
My Commission Expires 1/22/2018


PART VIII

ADDENDA

All addenda issued during the bidding of the Project will be reproduced in the signed Contract Documents, on the pages following this heading sheet.

<u>Addendum Number</u>	<u>Title</u>	<u>Date</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____





IX. TECHNICAL SPECIFICATIONS



DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 10 00

SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Summary of Base Bid Work Efforts:

1. Pan joist concrete repairs.
2. Beam, column and wall concrete repairs.
3. Epoxy injection repairs.
4. EIFS repairs and sealant repairs.
5. Steel lintels repairs.
6. Sealant repairs.
7. Concrete repairs inside occupied space.
8. Line striping.
9. Barriers.

1.2 CONTRACTS

- A. Base bid for all the work will be received from the Contractor.
- B. The Work will be performed under one General Contractor.

1.3 CONTRACTOR'S DUTIES

- A. Assume all Contractor responsibilities and provide for the Work required by the Contract Documents.
- B. Give required notices where and when requested.
- C. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on the performance of the Work.
- D. Pay all legally required taxes. Refer to Bidding Requirements, General Conditions for information relative to sales tax for which the Owner is exempt.

- E. Apply, secure and pay for all required local permits, fees, licenses and approvals per the General Conditions of the Contract.

1.4 NOTES TO CONTRACTOR

- A. The division of the body of the Specifications into various Parts has been arranged for clarity in the delineation of the various parts of the whole Work. It is not the intent of such division to develop any secondary responsibilities for the satisfactory completion of the Work and all of its parts as required of the Contractor by the Contract Documents, nor is the assignment of any parts of the Work to any trade or craft to be inferred from the Contract Documents.
- B. Division 01 Specifications typically address items in a general nature and the Contractor must take notice that more specific requirements may be included in the Technical Sections.

1.5 PROJECT COORDINATION

- A. The Contractor has full responsibility and authority regarding the scheduling and coordination of the Work within the Contract time.
- B. The Contractor also has full responsibility for the completeness and quality of the Work as outlined in the Contract Documents, and must staff the project with qualified, competent personnel to the extent required for the Work.
- C. The Contractor's Project Manager and Lead Project Superintendent are subject to the review and approval of the Owner. Upon request at any portion of the project (i.e. pre-award, post-award and prior to project start, or during the project), the Contractor shall produce a detailed resume, with references, documenting the experience of the Project Manager and Lead Project Superintendent for the Owner's review and approval.
- D. All subcontractors shall abide by the Project Schedule and coordination requests made by the Contractor.
- E. If a subcontractor is substantially responsible for specific components of the Work (i.e. concrete repairs or new concrete placements, waterproofing efforts, electrical work, painting, etc.), the Contractor must have a regular, periodic site presence during those efforts, not less than two separate days per week, nor less than 20 percent of the total work week time, to provide a level of coordination and quality control consistent with that expected of a wholly self-performing Contractor labor force.
- F. Unless otherwise directed or allowed, the Owner (or the Owner's representative) communicates directly with the Contractor. All dealings and decisions regarding execution of the Work shall be from the Owner, (or Owner's representative,) to the Contractor; and the reverse flow.

- G. The Contractor communicates directly with the subcontractors, vendors and suppliers. At the Engineer's option, direct communications between the Engineer and subcontractor may occur, for clarification of material delivery, installation procedures, technical support, logistics and other matters. Contractor will be kept advised of any such Engineer/subcontractor communications.
- H. The subcontractor shall coordinate with the Contractor who has the overall responsibility for the Work.
- I. Where Work of any one Section of the Specifications affects the Work of other Sections, successive Work shall not be installed until conditions have been inspected by the Contractor and are satisfactory for successive Work. Installation of successive Work shall serve as the Contractor's acceptance and confidence with the conditions being covered by subsequent work. The performance of successive Work shall be the responsibility of the Contractor to coordinate.
- J. Contractor is required to be on site to conduct regular, bi-weekly job progress meetings with the Owner. Contractor shall include Engineer via telephone for said progress meetings and shall distribute written meeting minutes as directed by Owner.
- K. The Owner reserves the right to hold additional job progress and coordination meetings on an as-needed basis as determined by the Owner. The Contractor shall be given 48 hours notice (when possible) to said meeting.
- L. A preconstruction project meeting shall be held by the Owner prior to the start of work.

1.6 APPLICABLE CODES

- A. The Contractor shall comply with all Federal, State and Municipal laws, codes, ordinances and regulations applicable to the Work in this Contract and also with all requirements of the National Fire Protection Association and the National Electric Code.
- B. If the above laws, codes or ordinances conflict with this Specification, then the laws, codes or ordinances shall govern, except in such cases where the Specification exceeds them in quality of materials or labor, then the Specifications shall be followed.

1.7 PROJECT CONDITIONS

- A. No equipment exceeding 4000 lbs. per axle, including transportation and removal equipment shall be allowed on a supported structural level.
- B. Existing emergency access routes must be maintained at all times where work is being performed.

Government Center Garage
Structural Repairs

January 2017

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

Summary of Work
01 10 00 - 4

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 21 00

UNIT PRICES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Base Bid Unit Prices

1.2 RELATED SECTIONS

A. Section 01 29 00 - Payment Procedures.

B. Section 03 01 00 - Concrete Repairs.

C. Section 03 64 23 - Epoxy Injection Repairs.

D. Section 07 24 00 - EIFS Repairs.

1.3 QUANTITY ALLOWANCE

A. General:

1. Unit Prices include all labor, material, tools, equipment, supervision transportation, handling, storage, overhead and profit, and all other costs associated with performance of work.
2. Additions to a unit price allowance as listed on the Form of Proposal will be paid by the Owner at the unit price established in Section 012900 – Payment Procedures.
3. Deletions from a unit price allowance as listed on the Form of Proposal will be credited to the Owner at the unit price established in Section 012900 – Payment Procedures.

B. Base Bid Unit Price Allowance Items listed on the Form of Proposal.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION



DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 23 00

ALTERNATES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Add Alternate Bid Summary.

1.2 RELATED SECTIONS

- A. Section 07 19 16 – Silane Water Repellent.

1.3 ALTERNATES

A. General:

- 1. Cost for Alternates shall be complete, including all labor materials, tools, equipment, supervision, transportation, handling storage, overhead and profit and performance and material bonds.
- B. Provide a cost in the spaces provided on the Form of Proposal for the following Alternates. Refer to Drawings for additional information.

Alternate No. 1: Cleaning of brick surfaces and installation of a penetrating water repellent at the north and south elevations of the garage.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION



DIVISION 01 - GENERAL REQUIREMENTS

SECTION 012 9 00

PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Unit Prices.
- B. Measurement Procedures for Unit Prices.

1.2 RELATED SECTIONS

- A. Section 01 21 00 –Unit Prices.
- B. Section 03 01 00 - Concrete Repairs.
- C. Section 03 64 23 - Epoxy Injection Repairs.
- D. Section 07 24 00 - EIFS Repairs.

1.3 UNIT PRICES

- A. General:
 - 1. Unit prices shall apply for both additions to and deletions from the Work.
 - 2. Unit prices shall be complete including all labor, materials, tools, equipment, supervision, transportation, handling, storage, overhead and profit, and all other costs associated with the work.

1.4 MEASUREMENTS

- A. Prior to the start of work in each work area or phase, the Contractor and the Engineer will inspect the area and document locations and quantities of all unit price items. The Contractor shall notify the Engineer at least 3 days in advance of required inspection. Refer to Section 01 21 00.
- B. Unit price items will be recorded and the date of the inspection and the persons performing the inspections will be recorded on each item sheet.
- C. The Engineer will measure and count the unit price items. The Contractor will record the results.
- D. At the completion of each item inspection, both the Engineer and Contractor will sign the record sheets.
- E. The Engineer will copy the sheets and provide a copy of all sheets to the Contractor

within 3 working days from the date of inspection.

- F. These inspection sheets will be the only basis for determining final quantities of all unit price items.
- G. Measurements will be recorded to the nearest inch.

1.5 PAYMENTS

- A. For each application of payment submitted by the Contractor, a summation of all unit price items shall be sent for verification.
- B. Differences in sum totals between the Owner and Contractor will be resolved by comparing quantity sheets to determine exact final quantities. Quantities NOT measured AND confirmed per Article 1.4 shall not be approved for payment.
- C. The difference between an actual quantity and a specified quantity will be multiplied by the unit cost for that item to establish a dollar value. The dollar value for quantities above the allowance quantity will be added to the contract amount. The dollar value for quantities below the allowance quantity will be subtracted from the contract amount.
- D. Adjustments to the contract amount will be made by approved change order.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.1 SUMMARY

- A. The purpose of the Construction Progress Schedule is to allow the Contractor to prepare an orderly plan to aid in the timely completion of the Project.
- B. The approved Construction Progress Schedule will be used to plan and execute the work, to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis for all progress payments.
- C. Contractors shall cooperate and coordinate with each other, and with the Engineer and the University, to provide all scheduling requirements in their respective schedules in accordance with the Contract Documents.
- D. Related Sections:
 - 1. Division 00 Document - General Conditions
 - 2. Division 00 Document – Special Conditions

1.2 PROJECT SCHEDULING SEQUENCE REQUIREMENTS

- A. The Contractor will prepare a Construction Progress Schedule for all work included under the scope of the Contract, in accordance with the General Conditions.

PART 2 EXECUTION

2.1 CRITICAL PATH METHOD

- A. The Critical Path Method (CPM) of network calculations will be used to generate the schedule. The Schedule Manager shall provide the schedule in either the Precedence Diagram Method (PDM) or the Arrow Diagram Method (ADM).

2.2 LEVEL OF DETAIL REQUIRED

- A. With the exception of the preliminary schedule submission, the Construction Progress Schedule shall include an appropriate level of detail. Failure of the Contractor to develop or update the schedule or provide resource information will result in the disapproval of the schedule.
- B. Activity Durations:

1. Submit the following data to support the schedule calendar as it relates to durations. Failure of the Contractor to include this data will delay the review of the submittal until the Engineer receives the missing data.
 - a. The proposed number of working days per week.
 - b. The holidays to be observed during the life of the contract (by day, month and year).
 - c. The planned number of shifts per day.
 - d. The number of hours per shift.
- C. Procurement Activities:
 1. Prepare the schedule in chronological order of submittals. Show specification section of the submittal, name of contractor and generic description of work covered. Include activities to cover the complete procurement process to include but not limited to: submittal, review, approval, resubmittal, procurement, fabrication, delivery, permits, and similar pre-construction work.
- D. Manpower:
 1. Activities shall have an estimate of the average number of workers per day that are expected to be used during the execution of the activity.
 2. Identification of manpower, material, or equipment restrictions, as well as any activity requiring unusual shift work, such as two shifts per day, six day work week, specified overtime, or work at times other than regular days or hours shall clearly be identified in the Project Schedule.
- E. Responsibility:
 1. All activities shall be identified in the Construction Progress Schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the Contracting Firm, the Subcontracting Firm, Contractor Workforce, or Agency performing a given task. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.
- F. Work Areas:
 1. Arrange the schedule to show each major area of construction for each major category or unit of work.
 2. All activities shall be identified in the Construction Progress Schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the Work Area Code.

3. Refer to the Drawings for work areas to be adhered to by the Contractor to perform and phase the repairs based on the allocated Contract Completion time.

G. Change Order or Claim Number:

1. Any activity that is added or changed by a change order or used to justify any claimed time, shall be identified by change order code that changed the activity. Activities may not belong to more than one change order.

H. Milestones:

1. Milestone dates are defined in calendar days following the date set forth in the Notice to Proceed and are required to be met by all Contractors. Time is of the essence for the completion of Milestones and for the Contract Completion date.
 - a. The time for Contract Completion is 75 Days from the Notice to Proceed.

I. Adverse Weather

1. Definitions

- b. Adverse Weather Day: A day when the magnitude of a weather parameter (precipitation or temperature) is such that it creates conditions that inhibit the ability of the contractor to work productively on critical construction activities.
- c. Expected Adverse Weather Days: The number of adverse weather days expected to occur on a monthly basis and defined for two different construction types (1. Grading and 2. Surfacing and Structures).
- d. Unexpected Adverse Weather Days: The number of adverse days that exceed the expected number of adverse weather days determined on a monthly basis. Also number of days with lightning and/or high winds that inhibit the ability of the contractor to work productively on critical construction activities as corroborated by the Engineer.
- e. Actual Adverse Weather days: The actual number of adverse weather days that occur during a single month.
- f. Precipitation: Rain, snow, or hail where 1" of rain equals 12" of snow.
- g. Calendar Day is based on all available days including weekends and holidays.
- h. Working Day is based on a five-day work week and exclude weekends and holidays.

2. Methodology

- a. Adverse Weather Days Criteria
 - 1) A single precipitation threshold of greater than 19.05 mm (0.75 inch) the previous day determines an adverse weather day for Type 1 construction
 - 2) A single precipitation threshold of greater than 7.62 mm (0.30 inch) determines an adverse weather day for Type 2 construction.
 - 3) A single precipitation threshold of greater than 7.62 mm (0.30 inch) reached before shut down determines an adverse weather day for Type 2 construction.
 - 4) A single daily maximum temperature threshold of less than 0 degrees C (32 degrees F) determines an adverse weather day for Types 1 & 2 construction.
 - 5) A combination of daily maximum temperature less than 0 degrees C (32 degrees F) and precipitation greater than 7.62 mm (0.30 inch) determines a single adverse weather day.
- b. Expected Adverse Weather Days
 - 1) Calculate the average number of expected adverse weather calendar days per month based on 5 years of data from The Weather Underground Inc. (wunderground.com) for each construction type.
 - 2) Calculate the average number of expected adverse work days per month by multiplying the average number of expected adverse weather calendar days per month by 5/7.

2.3 SCHEDULED PROJECT COMPLETION

A. Project Start Date:

- 1. The Construction Progress Schedule may start no earlier than the date that the Notice to Proceed (NTP) was issued. The Schedule Manager shall include as the first activity in the Construction Progress Schedule an activity called "Notice to Proceed." The "Notice to Proceed" activity shall have: an "ES (early start) constraint, a constraint date equal to the date that the NTP was issued, and a zero day duration.

B. Constraint of Last Activity:

- 1. Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the Critical Path. The Schedule Manager shall include as the last activity in the Project Schedule an activity called "Contract Complete". The "Contract Complete" activity shall

have a: "LF" (late finish) constraint, a constraint date equal to the completion date equal to the date identified in the NTP for the project, and a zero day duration.

2.4 INTERIM COMPLETION DATES (MILESTONES)

- A. Contractually specified interim completion dates (Milestone dates) shall also be constrained to show negative float if early finish date of the last activity in that phase falls after the interim completion date.

2.5 HAMMOCK ACTIVITIES FOR CONTRACTS

- A. The Schedule Manager shall include a hammock type activity for each Contractor. The Contractor activity shall be logically tied to the earliest and latest activities in the Contractor's Scope of Work. Hammock activities shall be identified within "HA" at the beginning of the Activity ID.

2.6 DEFAULT PROGRESS DATA DISALLOWED

- A. Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in the CPM Scheduling Software Systems. Actual Start and Finish dates and Remaining Durations on the CPM Schedule shall match those dates provided from Contractor Daily Reports for every in progress or completed activity and insure that the data contained on the Daily Reports is the sole basis for schedule updating. Failure to comply may result in the disapproval of schedule.

2.7 OUT OF SEQUENCE PROGRESS

- A. Activities that have posted progress without predecessors being completed (Out of Sequence Progress) shall be allowed only by the case by case approval of the Owner. The Engineer may direct that changes in schedule logic be made to correct any or all Out of Sequence Work.

2.8 NEGATIVE LAG(S)

- A. Lag durations contained in the schedule shall not have a negative value.

2.9 DEFINITION OF, AND CONDITIONS RELATING TO FLOAT

- A. Float is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any activity in the schedule. Total float is defined as the amount of time any given activity or path of activities may be delayed before it will affect the project completion time.
- B. Float is not time for the exclusive use or benefit of the Contractor, and shall be used in the best interest of completing the project on time.
- C. Extensions of time for performance required under the General Conditions pertaining to equitable time adjustment will be granted only to the extent that the

equitable time adjustment exceeds total float in the activity or path of activities affected at the time approval was issued for the change.

- D. Use of float suppression techniques such as preferential sequences, special lead/lag logic restraints, extended activity times, or imposed dates, other than as required by the Contract, shall be cause for rejection of the Construction Progress Schedule and any revisions or updates.

2.10 PRELIMINARY CONSTRUCTION PROGRESS SCHEDULE

- A. The preliminary Construction Progress Schedule, defining the Contractor's planned operations for the first 120 calendar days shall be submitted for approval within 15 calendar days after Notice to Proceed is issued. The approved preliminary schedule shall be used for payment purposes and the basis for measuring Contractor progress not to exceed 120 days after Notice to Proceed is issued.

- 1. Paper copies shall be provided in color on minimum 11 inch by 17 inch paper.

- B. Schedule Review and Comments

- 1. Comments made by the Engineer on the Construction Progress Schedule during review shall not relieve the Contractors from compliance with the requirements of the Contract Documents.
 - 2. Following the Contractor's receipt of the Engineer's review comments, the Contractors shall correct the schedule to identify missing activities and relationships relevant to the Scope of Work. No time extensions will be granted to complete activities not initially included in the Contractor's Construction Progress Schedule.
 - 3. To the extent that there are any conflicts between the approved Construction Progress Schedule and the requirements of the Contract Documents, the Contract Documents shall govern.

- C. Resubmittal of Construction Progress Schedule

- 1. Should the Engineer reject the Construction Progress Schedule, the Schedule Manager shall comply with the Engineer's direction and resubmit the Construction Progress Schedule and all associated submittals within 7 calendar days.

2.11 APPROVED CONSTRUCTION PROGRESS SCHEDULE

- A. The Construction Progress Schedule approved by the Contractors shall be submitted for acceptance within 45 calendar days after the Notice to Proceed is issued. It shall provide a reasonable sequence of activities which represent work through the entire project and a reasonable level of detail.
- B. Paper copies shall be provided in color on minimum 11 inch by 17 inch paper.

- C. The approved Construction Progress Schedule shall show the sequence and interdependence of activities required for complete performance of the work, beginning with Contractor's receipt of the Notice to Proceed and concluding with the date of Final Completion of the Contract. The Construction Progress Schedule shall show all activities in workdays, with allowance for holidays and the effects of normal weather conditions on outside work.
- D. The approved Construction Progress Schedule shall comply with all limits imposed by the Scope of Work, with all contractually specified intermediate milestones and completion dates, and with all constraints, restraints, or sequences included in the Contract.
- E. The Construction Progress Schedule network (graphic presentations) and computer tabulations, the Resource Loading curve and the Contractor's signatures shall be submitted to the Engineer for acceptance. Additionally, the Schedule Manager shall submit two copies of the data, containing the resource loaded Construction Progress Schedule.
- F. The following computer generated reports in hard copy shall be required as part of the Preliminary and Approved Construction Progress Schedule submittals:
 - 1. Activity ID Report
 - 2. Total Float/Early Start Report
 - 3. Logic Report
 - 4. Resource Report
 - 5. Coding Dictionary
- G. The schedule network (graphic presentation) shall include:
 - 1. Activity ID
 - 2. Activity Description
 - 3. Original Durations
 - 4. Remaining Durations
 - 5. Early Start and Finish Dates
 - 6. Baseline Start and Finish Dates
 - 7. Total Float
 - c. Percent Complete
- H. The schedule shall be sorted by Early Start and Total Float and shall show both the Early and Target Schedule.

- I. The Owner shall accept or reject, in writing, the Construction Progress Schedule and the associated submittals. If the Construction Progress Schedule is rejected, the Owner shall provide comments in writing to the Schedule Manager stating the reasons why the submission was not accepted.

2.12 PERIODIC SCHEDULE UPDATES

- A. The following computer generated reports in hard copy and on computer diskettes shall be required as a part of the monthly update thereof as a condition precedent to the receipt of progress payments under the Contract.
- B. The Contractor's monthly narrative report is to include:
 1. Activities started in the month (with actual start dates).
 2. Activities completed during the month (with actual start and completion dates).
 3. Activities in progress (with estimated remaining durations).
 4. Activities scheduled to start in the next month (with estimated start dates).
 5. A list of approved logic changes.
 6. A list of proposed logic changes, new activities, and deleted activities.
 7. Recommendations for adjusting the Construction Progress Schedule to meet milestone completion and Contract completion dates (include why the schedule needs adjusted, e.g., change order, weather, contractor resources, etc.).
 - a. Construction Contract Adjustment for Unexpected Adverse Weather
 - 1) Contract adjustment is justified when the number of actual adverse weather work days exceeds the expected number of adverse weather work days over the life of the project.
 - 2) The number of actual adverse weather work days and related construction task(s) are to be reported on a monthly basis at the last Progress Meeting of the month as a condition of Payment Application approval.
 - 3) The Engineer is to verify with documentation the actual adverse weather work days reported by each Contractor.
 - 4) The calculation of the difference between the actual adverse working weather days and expected adverse weather working days is to be reported at the first Progress Meeting of the month by the Engineer.
 8. Attach copies of the Contractors' weekly schedule reports.
- C. The Contractors graphic presentation of the schedule is to include:

1. Activity ID.
2. Activity Description.
3. Original Durations.
4. Remaining Durations.
5. Early Start and Finish Dates.
6. Baseline Start and Finish Dates.
7. Total Float.
8. Percent Complete.
9. The schedule shall be sorted by Early Start and Total Float and should show both the early schedule and the target schedule.

D. Electronic data supporting the update shall be provided.

E. Computer generated reports are to include:

1. Activity ID Report.
2. Total Float/Early Start Report.
3. Logic Report.
4. In Progress or Planned to Start Report.
5. In Progress or Planned to Finish Report.
6. Resource Report.

2.13 TWO-WEEK LOOK AHEAD SCHEDULE SUBMISSION

A. The Schedule Manager shall provide a two-week Look Ahead Schedule for review at the Progress Meeting that occurs closest to the 15th of each month. The Look Ahead Schedule will be based on the most recent monthly update and will show only those activities that are scheduled to begin or are in progress during the week before and for two weeks after the 15th of the current month. The two-week Look Ahead Schedule reports will contain the following information for each activity and will be required from the Contractor throughout the duration of the project unless directed otherwise by the Engineer.

1. Activity I.D.
2. Activity Description
3. Original Duration

4. Remaining Duration
5. Early Start Date
6. Early Finish Date
7. Percent Complete
8. Total Float
9. Bar Graph Presentation

2.14 STANDARD ACTIVITY CODING DICTIONARY

- A. The Schedule Manager shall submit, with the Construction Progress Schedule, a coding scheme that shall be used throughout the project for all activity codes contained in the schedule. The coding scheme submitted shall list the values for each activity code category and translate those values into project specific designations. For example, A Responsibility Code Value, "ELE", may be identified as "Electrical Subcontractor". Activity code values shall represent the same information throughout the duration of the contract. Once approved with the Preliminary (first 90 calendar day) Project Schedule Submission, changes to the activity coding scheme shall be approved by the Engineer.

2.15 DATA

- A. The preliminary, approved, and update Construction Progress Schedules shall be provided in the form of electronic files.
- B. File Name:
 1. The Schedule Manager shall insure that each file submitted has a name related to the schedule data date, project name, or contract number. The Schedule Manager shall develop a naming convention that will insure that the names of all the files submitted are unique. The Schedule Manager shall submit the file naming convention to the Engineer.

2.16 APPROVED CHANGES VERIFICATION

- A. Only Construction Progress Schedule changes that have been previously approved by the Engineer shall be included in the schedule submission. The narrative report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.
- B. The Contractor shall prosecute the work in accordance with the approved Construction Progress Schedule. Out of sequence construction, defined as a change from the Construction Progress Schedule in the Contractor's actual operation requires prior approval from the Engineer.

- C. Upon the approval of a change order or the issuance of a unilateral change order by the Contracting Authority the agreed upon change order activities, activity durations, logic and impacts shall be reflected in the next schedule submittal by the Schedule Manager.
- D. No change to the approved activities, original activity durations, logic, interdependencies, milestones, planned sequence of operations, or resource loading of the Construction Progress Schedule shall be made without prior approval from the Engineer. If the Contractor desires to make a change to the approved Construction Progress Schedule, the Contractor shall request permission from the Engineer in writing, stating the reasons for the change as well as the specifics, such as the proposed changes in activities, original activity durations, logic, interdependencies, milestones, planned sequence of operations, or resource loading of the baseline Construction Progress Schedule. The Engineer shall respond within 14 calendar days after the receipt of the Contractor's request.
- E. If the Engineer considers the Construction Progress Schedule change requested by the Contractor to be a major change, it may require the Contractor to revise and submit for approval, without additional cost to the Owner, all of the affected portions of the network diagrams, and any schedule reports, or construction equipment reports deemed necessary to show the probable effect on the entire project. The proposed network revision and required reports shall be submitted to the Engineer within seven calendar days after the Engineer notifies the Contractor that the requested revision is a major change. Only upon the approval of the requested change by the Engineer may it be reflected in the next Construction Progress Schedule update submitted by the Contractor.
- F. A change will be considered of a major nature if the time estimated for an activity or sequence of activities is varied from the original plan to the degree that there is reasonable doubt that the Contract Completion date or milestones will be met, or if the change impacts the work of other Contractors at the job site. Changes to activities having adequate float may be considered as minor changes, except that an accumulation of minor changes may be considered a major change when such changes affect the Contract Completion date or milestones.

2.17 SCHEDULE REPORTS

- A. The format of each activity for the schedule reports listed below shall contain:
 - 1. Activity ID Number(s).
 - 2. Activity Description.
 - 3. Original Duration.
 - 4. Remaining Duration.
 - 5. Early Start Date.

6. Early Finish Date.
 7. Baseline Start Date.
 8. Baseline Finish Date.
 9. Total Float.
 10. Actual Start and Actual Finish dates shall be printed for those activities in progress or completed.
- B. Activity ID Report: A list of all activities sorted according to Activity ID number and then sorted according to Early Start Date. For completed activities the Actual Start Date shall be used as the secondary sort.
- C. Logic Report: A list of preceding and succeeding activities for every activity in ascending order by activity number and then sorted according to Early Start Date. For completed activities the Actual Start Date shall be used as the secondary sort.
- D. Total Float Report: A list of all activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates.

2.18 NETWORK DIAGRAM (GRAPHIC PRESENTATION)

- A. The network diagram is required on the preliminary, baseline and monthly schedule submissions. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Engineer will use, but is not limited to, the following conditions to review compliance with this paragraph:
1. Continuous Flow: Diagrams shall show a continuous flow from left to right. The Activity ID, description, original duration, remaining duration, early start and finish dates, target start and finish dates, total float and percent completed shall be shown on the diagram.
 2. Project Milestone Dates: Dates shall be shown on the diagram from start of any project, any contract required interim completion dates, and contract completion dates.
 3. Critical Path(s): The Critical Path(s) shall be clearly shown.
 4. Banding: Activities shall be grouped to assist in the clear understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

END OF SECTION

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Administrative and procedural requirements for temporary services and facilities, including such items as temporary utility services, temporary construction and support facilities, and project security and protection.

1.2 OWNER OPERATION, MAINTENANCE OF OPERATION AND SAFETY

- A. The structure is currently operated by the Owner for support of offices. Areas of the facility outside the limits of a particular construction area shall remain functional throughout the construction period.
- B. All construction operations shall be carefully coordinated with the Owner so as to minimize the overall inconvenience to the Owner, maintain the use of the entrances at all specified times and to expedite job progress.
- C. All fumes and dust arising from construction operations shall be controlled so as to not adversely affect persons using the garage and office building.
- D. The Contractor shall protect his Work and equipment from damage by the public and other entities occupying the garage and office building during the construction period.
- E. The Contractor shall take all necessary precautions during all Work Areas to prevent debris from falling and causing damage outside the work area, including damage to existing mechanical/electrical fixtures. The Contractor shall be held liable for all damage caused by excavation, patching, drilling, coring, cutting, sandblasting, dust and debris. The Contractor shall be held liable for all damage to mechanical/electrical fixtures systems due to construction related activities. Contractor shall be responsible for all injury to people and property, including motor vehicles, caused by any construction related activity. The Owner will endeavor to field complaints and forward same to Contractor. Contractor is responsible for contacting people or property owner and resolving complaints.
- F. When Work is performed which may create a hazard to persons or property above, below or in the proximity of Work, affected areas shall be blocked or otherwise protected to eliminate the hazard. Coordinate this activity with the Owner a minimum of 4 working days prior to the requested time for performance of such work.
- G. Access to all emergency egress routes outside the limits of an individual construction area shall be continuously and safely maintained. Emergency egress

routes shall not be impaired due to construction activities.

- H. Coordinate Work Areas with the Owner to minimize interference with normal operations.

1.3 WORK AREAS

- A. The Work is divided into sections termed Work Areas. Work outside the closed Work Area is not allowed, except work permitted by the Construction Documents or authorized by the Owner.
- B. The Construction limit lines are defined as the extent of the Work Areas designated on the Drawings. Areas outside the construction limits may not be used by the Contractor for staging, storage of materials, or any other purpose, except as indicated in the Construction Documents.

1.4 MATERIAL AND EQUIPMENT STORAGE AND DELIVERY

- A. An area of the garage will be made available to the Contractor for material and equipment storage, staging and other facilities deemed necessary by the Contractor.
- B. Deliveries shall not block entrance or exit to the facility by patrons or other services. Deliveries are to be scheduled between 10:00 am and 3:00 pm.

1.5 PROTECTION OF THE SURROUNDING AREA

- A. All construction operations shall be conducted such as to protect the surrounding areas and adjacent buildings.
- B. Fumes and dust shall also be controlled so as to prevent harmful or undesirable effects in the surrounding areas. All potential avenues for penetration of fumes or dust into occupied spaces adjacent to the work area must be located and sealed by the Contractor in a manner acceptable to the Owner prior to the start of the work in the affected area.
- C. Areas below regions of construction activity may remain open for portions of that activity. However, the Contractor is totally responsible for damage as a result of the Work.

1.6 PROTECTION OF EXISTING CONDITIONS

- A. All portions of the existing structure, all utilities and all other building contents not part of the work damaged, moved or altered in any way during construction shall be replaced or repaired to the Owner's satisfaction at the Contractor's expense.
- B. Contractor and Owner shall conduct a preconstruction inspection of all finish materials and equipment located within the Work area to record in writing existing damaged finish materials and/or equipment not directly involved with this Contract. The Contractor shall be deemed responsible for damaged finish material and/or

equipment not recorded during the preconstruction inspection. Contractor shall replace or repair to the Owner's satisfaction damaged finish material and/or equipment. It is the Contractor's responsibility to schedule and coordinate this preconstruction walk-through with the Owner. Provide a minimum of 5 calendar days notice prior to the requested walk-through time.

- C. Accidental interruptions caused by the Contractor to garage services outside of the work area shall be reported to the Owner at once, and immediate, emergency efforts to restore the service shall be made at the expense of the Contractor.
- D. When performing work adjacent to building and structures, protect buildings and structures from dirt, dust and debris.
- E. Protect drain openings during construction from construction debris entering drainage system. Provide filter cloth over openings to prevent debris from entering pipes, but still allowing water to enter. Clean debris from drains as necessary to maintain water removal. Remove drain protection during non-working hours and reinstall prior to commencing work.

1.7 TEMPORARY FACILITIES

- A. Contractor shall provide water and electric.
- B. The Contractor shall provide his own job phone.
- C. The Contractor shall provide temporary toilet facilities for use by its employees and subcontractors. Locate in an area approved by the Owner. Use of Owner facilities is not allowed.
- D. Job signs are not allowed.
- E. The Contractor shall furnish temporary lighting or heat required so that work may proceed to meet the Contract schedule.
- F. The Contractor shall arrange and establish a location satisfactory to the Owner where workmen may eat; provide a rubbish container, and clean and remove all debris at the end of each work day.
- G. At all times when work is being performed, the Contractor's foreman shall be on-site. Both the foreman and the superintendent shall have a mobile phone or beeper with him/her at all times while on the job site. Provide the Owner with the telephone number.
- H. A job site office/trailer is not required.

1.8 PARKING

- A. Parking for a maximum of three Contractor vehicles associated with the production of the work will be provided in the garage. Contractor employee parking will not be

permitted within Work Areas.

1.9 USE OF FACILITY

- A. Contractor employees are not permitted to use Owner and tenant facilities except as previously noted. Failure to comply with this restriction can result in the dismissal of the offending employee from the construction site.
- B. Elevators may not be used by the Contractor.
- C. Except for materials being used during a work shift, store all materials in approved storage area.
- D. Materials being used for work shall be uniformly distributed throughout the work area so as to not overload or otherwise distress the supported structural system.

1.10 TRAFFIC CONTROL

- A. Provide lighting, signage, barricades, traffic cones, signals, and traffic direction personnel required to clearly and safely re-route traffic in non-work areas. Coordinate with the Owner a minimum of 7 days in advance of when an area is scheduled to be closed.
- B. Erect barricades to prevent unauthorized entry of pedestrian or vehicular traffic into, on or under the Work Area. Post appropriate signs to warn against entry. Construct barricades to prevent unauthorized entry during non-work hours.
- C. Perform temporary traffic marking and striping that may be required during construction.
- D. Provide signage to safely route pedestrians to the nearest stairwell.

1.11 USE OF STREETS AND WALKS

- A. All use of streets and walks must be in accordance with local authorities having jurisdiction. The Contractor must coordinate such use directly with the local authorities.
- B. The Contractor shall provide and maintain control device necessary for the protection of his Work, and areas which the local authorities may consider hazardous, including necessary lighting. Further, should conditions arise which necessitate the use of flagman and/or the services of the local police, the Contractor shall supply this type of control at no expense to the Owner.
- C. Maintain traffic in accordance with local authority's requirements.
- D. The Contractor shall provide and maintain signage, barricades, warning devices, etc. that may be necessary or required by local authorities or the Owner for the protection of pedestrians and vehicles while performing the work.

1.12 CLEANUP

- A. Each Contractor or Subcontractor, upon completion of his division of the work, shall collect and remove all rubbish, surplus material, tools and scaffolding pertaining to his work, and shall keep the work area neat and orderly by periodic removal and cleanup. Crates and cartons in which materials or equipment are received shall be removed daily. Contractor shall leave each phase of the work broom-clean upon completion of that phase.
- B. Each Contractor shall be responsible for daily collection and disposal of rubbish created by his materials, men and work. If this is not done, the Owner may direct that cleanup be done and the cost of same shall be deducted from the Contractor's contract.
- C. Contractor shall clean surfaces of all lights, control panels, overhead piping, duct work, etc., after construction is complete, to the same level of cleanliness as surfaces were before construction.
- D. Protect from damage during subsequent construction activities all new work and existing construction cleaned upon the completion of any one phase.
- E. Contractor shall legally dispose of all debris (including concrete) off the site.

1.13 FIRE PROTECTION

- A. It shall be the responsibility of the Contractor to take the proper precautions to prevent fires when welding or while other fire-hazardous work is being performed.
- B. Gasoline and other flammable liquids shall be kept in approved safety cans at all times.

1.14 WATCHMEN

- A. The services of a watchman will not be provided by the Owner.
- B. The Contractor shall assume full responsibility for protection and safety of material and equipment stored at the job site both within and outside of the work areas or storage areas.

1.15 ADDITIONAL REQUIREMENTS

- A. Shutting down of existing apparatus and service lines shall be done only at times prescribed and approved by the Owner. Apparatus and service lines shall not be left out of service overnight, during non-working periods or during scheduled events.
- B. Notice of temporary service interruption (or potential interruption) shall be given to the Owner and his designated representative not less than (5) working days prior to required interruption to allow adequate preparation to be made.

- C. Provide the Owner with emergency telephone numbers to be able to contact the Contractor's superintendent or project manager 24 hours a day.

END OF SECTION

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 56 00

BARRIERS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Dust barriers.
- B. Construction barriers.
- C. Temporary pedestrian walkways.
- D. Miscellaneous barriers and efforts, including construction fencing, caution tape and signage.

1.2 RELATED SECTIONS

- A. Section 02 41 19 - Selective Structure Demolition
- B. Section 03 01 00 - Concrete Repairs
- C. Section 03 64 23 - Epoxy Injection Repairs
- D. Section 04 01 00 - Masonry Repairs
- E. Section 05 50 00 - Miscellaneous Metals
- F. Section 07 24 00 - EIFS Restoration
- G. Section 07 92 00 - Sealants
- H. Section 09 91 01 - High Performance Coatings
- I. Section 321723 - Pavement Markings

1.3 SUBMITTALS

- A. Submittals are not required unless Owner or Engineer raise questions or concerns regarding the quality or construction of barriers or enclosures. Potential submittals, if requested, could include the following:
 - 1. Fire-retardant treatment for dimensional lumber and plywood.
 - 2. Fire-resistant visqueen sheeting.
 - 3. Plastic Safety Fencing.
 - 4. Caution Barrier Tape.

5. Enclosure construction details.

PART 2 PRODUCTS

2.1 MATERIALS

A. Lumber:

1. Dimensional lumber:

- a. Minimum 2 x 4 dimensional lumber.
- b. Fire-retardant treated (non-com) with treatment stamp visible.

2. Plywood:

- a. Minimum 1/2-inch thick.
- b. Fire-retardant treated (non-com) with treatment stamp visible.

B. Visqueen Sheeting:

1. Approved Products:

- c. Griffolin fire-retardant type 55-FR.
- d. Midco vinyl fire-resistant reinforced polyfilm.

C. High Visibility Safety Fencing:

1. High density polyethylene material.
2. Diamond mesh with 1-1/2" openings.
3. Minimum 4 feet high.
4. Bright orange color.
5. Minimum 2200 lbs. break load capacity.

D. Chain Link Fencing:

1. Minimum 6'-0" feet tall.
2. Minimum 9 gauge galvanized with 2"x2" pattern configuration
3. Fence to be panelized system, surface set with ballasted based.
4. Drilled posts are not permitted.

E. Caution Tape:

1. 3" wide.

2. Minimum 4 mil thick plastic.
3. Safety yellow tape with black "CAUTION" lettering, minimum 1-1/2" high.

PART 3 EXECUTIONS

3.1 GENERAL

- A. Work shall not proceed until dust barriers, barricades, and construction fencing are in place and secure.
- B. Provide barricades to isolate areas directly under work areas for protection of persons or property.
- C. Remove barricades at entrances during non-working hours which will obstruct or hinder the use of the entrance.
- D. Installation and removal of barricades or barriers shall not damage existing surfaces.
- E. The use of anchors which penetrate the existing surface are prohibited, unless approved in advance by Engineer.
- F. Remove all evidence of barriers installation upon removal.
- G. Contractor is responsible for erection, maintaining, moving and removal of barricades, fencing and barriers from the job site.

3.2 BARRICADES

- A. Where barricades are required for vehicular traffic control, provide chain link fencing to divert traffic around work area. Construct and provide barricades that are permanent for the period when the barricade is required. Weight or otherwise secure the barricades to keep unauthorized personnel from moving them.
- B. Provide partial height or full height dust barriers where noted on drawings or where work performed is adjacent to pedestrian walkways, drive lanes or other public access areas.
- C. Use of sawhorses, barrels and yellow caution tape are permitted only with advance approval by Owner.

END OF SECTION



DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Requirements for Close-Out of Contract.
- B. Specific requirements for individual units of work may be included in the appropriate Sections.

1.2 DEFINITIONS

- A. Contract Closeout is the term used to describe certain collective project requirements, indicating completion of the Work that are to be fulfilled near the end of the Contract time in preparation for final acceptance and occupancy of the Work by the Owner, as well as final payment to the Contractor and the normal termination of the Contract.

1.3 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. General: Complete the following before requesting the Owner's inspection for certification of substantial completion, either for the entire Work or for portions of the Work. List known exceptions in the request.
 - 1. In the progress payment request that coincides with, or is the first request following, the date substantial completion is claimed, show either 100% completion for the portion of the Work claimed as "substantially complete," or list incomplete items, the value of incomplete Work, and reasons for the Work being incomplete. Include supporting documentation for completion as indicated in these Contract Documents.
 - 2. Submit a statement showing an accounting of changes to the Contract Sum.
 - 3. Advise Owner of pending insurance change over requirements.
 - 4. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.
 - 5. Obtain and submit releases enabling the Owner's full, unrestricted use of the Work and access to services and utilities. Where required, include occupancy permits, operating certificates and similar releases.
 - 6. Submit record drawings, maintenance manuals, final project photographs, damage survey and similar final record information.

7. Discontinue or change over and remove temporary facilities and services from the project site, along with construction tools and facilities, mock-ups and similar elements.
 8. Complete final cleaning-up requirements, including touch-up painting of marred surfaces. Touch up and otherwise repair and restore marred exposed finishes.
- B. Inspection Procedures: Upon receipt of the Contractor's request for inspection, the Owner will either proceed with inspection or advise the Contractor of unfilled prerequisites.
1. Following the initial inspection the Owner will either prepare the certificate of substantial completion or will advise the Contractor of work which must be performed before the certificate will be issued. The Owner will repeat the inspection when requested and when assured that the Work has been substantially completed.
 2. Results of the completed inspection will form the initial "punch list" for final acceptance.

1.4 PREREQUISITES TO FINAL ACCEPTANCE

- A. General: Complete the following before requesting the Owner's final inspection for certificate of final acceptance and final payment as required by the General Conditions. List known exceptions, if any, in the request.
1. Submit the final payment request with final releases, affidavits and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. Submit an updated final statement accounting for final additional changes to the Contract Sum.
 3. Submit a certified copy of the Owner's final punch list of itemized Work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.
 4. Submit consent of Surety.
 5. Submit evidence of final, continuing insurance coverage complying with insurance requirements per General and Supplementary Conditions in these Specifications.
 6. Submit a certificate clearly indicating that all outstanding bills for materials, services and labor, and all subcontractors have been paid in full.

- B. Re-inspection Procedure: The Owner will re-inspect the Work upon receipt of the Contractor's notice that the Work, including punch list items resulting from earlier inspections, has been completed except for these items whose completion has been delayed because of circumstances that are acceptable to the Owner.
 - 1. Upon completion of re-inspection, the Owner will either approve the final payment request, or will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled, but are required for final release of final payment.
 - 2. If necessary, the re-inspection procedure will be repeated.
- C. Schedule with the Owner a close-out meeting. Coordinate this meeting with the Owner. Provide a minimum of 3 working days notice prior to the requested time for the meeting.

1.5 PROJECT RECORD DOCUMENTS

- A. The Contractor shall be responsible to maintain at the job site one copy of:
 - 1. Record contract drawings.
 - 2. Record project manual.
 - 3. Addenda.
 - 4. Reviewed shop drawings.
 - 5. Change orders.
 - 6. Other modifications to Contract.
- B. Maintain documents in clean, dry, legible condition.
- C. Do not use project Record Documents for construction purposes.
- D. Failure to maintain documents up-to-date will be cause for withholding payments to Contractor.
- E. Obtain one complete set of Contract Documents, including:
 - 1. Project Manual with all addenda.
 - 2. One complete set of black-line or blue-line prints of all drawings not bound in project manual.
 - 3. One complete set of sepia prints of all drawings not bound in project manual.
- F. Keep Record Documents current.

- G. **Contract Drawings:** Contractor may, at his option, enter required information on a "working set" and then at completion of project transfer the information to final submitted "Project Record" set. All notations on the "Project Record" set shall be in red ink made in a neat and legible manner, with additional explanatory drawings or sketches as required. The Project Record Drawings shall have marked the correct location of Work items and equipment where it differs from the location shown on the drawings, and any other information pertinent or useful in nature.
- H. **Project Manual and Addenda:** Contractor shall legibly mark up each section to record:
 - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 - 2. Changes made by change order or field order.
 - 3. Other items not originally specified.
- I. At completion of Project, deliver 3 copies of the Project Record Documents to the Owner prior to request for final payment. Accompany submittal with transmittal letter containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each Record Document.
 - 5. Certification that each document as submitted is complete and accurate.
 - 6. Signature of Contractor or his authorized representative.

1.6 OPERATIONS AND MAINTENANCE DATA

- A. The Contractor shall deliver to the Owner at the final inspection all operations and maintenance data as required elsewhere in this Specification. This data shall be provided in loose-leaf binders.

1.7 WARRANTIES

- A. The Contractor shall provide a general one-year warranty for all work performed.
- B. As required by individual Specification Sections, provide extended warranties on parts of the Work as specified.
- C. Provide the Owner with four executed copies of all required warranties.
- D. Deliver to the Owner all required warranties prior to the application for Final

Payment.

- E. Delivery of required warranties does not relieve the Contractor of obligations assumed under provisions of the Contract.
- F. Warranties provided directly by contractor are to be written using company letterhead documents.
- G. A warranty may require multiple signatures if specified to be a joint warranty. Refer to individual warranty requirements in the appropriate Specification Section.
- H. The warranty format shall be as follows:

Name of Project

Scope of Work

We warrant the Work to be in accordance with the Contract Documents. We shall provide all labor, material, tools and equipment necessary to correct work not in conformance with the Contract Documents or that becomes or is found to be defective within years after the Date of Substantial Completion. We will bear the cost of making good any damage caused by the defective work, including damage caused by its correction or removal, to the Owner's property or to property for which the Owner is liable. This warranty shall not apply to work which has been abused, neglected or altered by others or to work for which the Owner has previously given the Contractor a written acceptance of the defect. The warranty period shall begin at Noon on the date of Substantial Completion.

Company

Signature

Date

Title

1.8 SPARE PARTS AND MAINTENANCE MATERIALS

- A. The Contractor shall deliver all spare parts and maintenance materials as required elsewhere in this Specification to the Owner at the final inspection.

1.9 CLOSEOUT PROCEDURES

- A. Removal of Protection: Except as otherwise indicated or requested by the Owner, remove temporary protection devices and facilities which were installed during the course of the Work to protect existing or previously completed Work during the remainder of the construction period.

- B. Compliance: Comply with safety standards and governing regulations for cleaning operations. Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner. Where extra materials of value remaining after completion of associated work have become the Owner's property, dispose of these materials to the Owner's best advantage as directed.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

DIVISION 02 – EXISTING CONDITIONS
SECTION 02 41 19
SELECTIVE STRUCTURE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. All labor, material, equipment, special tools and services to complete selective demolition work required for the project, as indicated on the Drawings and in the Specifications, but not limited to:
 - a. Demolition of selected portions of the garage as indicated in the Contract Documents.
 - b. Demolition and removal from the job site of miscellaneous features as indicated in the Contract Drawings.
 - c. Removal from the job site and legal disposal of existing debris and accessories as shown on the Drawings.
 - d. Supply and maintenance of dumpsters to accommodate debris removals.
 - e. Maintenance of drains to accommodate storm water during demolition.
2. Materials Ownership:
 - a. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.
 - b. Storage or sale of removed items or materials on-site will not be permitted.

1.2 REFERENCES AND REGULATORY REQUIREMENTS

- A. Conform to applicable laws, ordinances, and the State Building Code for demolition of structures, safety of adjacent structures, dust control, runoff control, and disposal.
- B. Comply with ANSI A10.6.
- C. Comply with applicable requirements of NFPA Standard No. 241.75 - Safeguarding Building Construction & Demolition Operations.
- D. Obtain required permits from authorities.
- E. Do not close or obstruct roadways, sidewalks, and hydrants without permits.

- F. Do not close or obstruct egress width to any garage/building or site exit.
- G. Do not disable or disrupt garage/building fire or life safety systems without three days prior written notice to the Owner.
- H. Conform to applicable regulatory procedures when discovering hazardous or contaminated materials.

1.3 SUBMITTALS

- A. Schedule of selective demolition activities indicating the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
 - 2. Detailed sequence of selective demolition and removal work to ensure uninterrupted progress.
 - 3. Coordination of Owner's continuing occupancy of the garage/building.
- B. Inventory: After demolition is complete, submit a list of items that have been removed and salvaged for Owner.
- C. Pre-demolition Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, which might be misconstrued as damage caused by demolition operations. This submittal should be delivered before Work begins.

1.4 QUALITY CONTROL

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project. The firm shall have successfully performed at least three verifiable projects, similar to this project, within the last seven years.
- B. Work in this Section shall be under the immediate control of a person (Contractor's superintendent or other designated person) experienced in this type of work. The person identified with immediate control of the work shall have supervised three verifiable projects of similar magnitude and type. Supervising person shall be present during all operations.
- C. Pre-Demolition Conference: Review methods and procedures related to selective demolition including, but not limited to, the following:
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review and finalize selective demolition schedule; verify availability of all materials, demolition personnel, equipment, and facilities needed to maintain the schedule.
 - 3. Review requirements of work performed by other trades that rely on substrates

exposed by selective demolition operations.

4. Review areas where existing construction is to remain and requires protection.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 PROJECT CONDITIONS

- A. Contractor shall coordinate with the Owner for the required access and staging areas needed to accommodate demolition operations at grade areas.

- B. The Owner will continue to occupy portions of the garage/building immediately beneath or adjacent to the selective demolition area. Conduct selective demolition so that the Owner's operations will not be disrupted. Provide not less than 72 hours' notice to the Owner of activities that will temporarily affect the Owner's operations.

C. Demolition Efforts:

1. The Contractor shall collect all debris generated by the demolition process and legally dispose of off the Owner's property. Do not stockpile debris. Remove dumpsters containing debris upon filling to capacity or completion of the work.
2. The Owner assumes no responsibility for actual condition of features and components to be selectively demolished.
 - a. Conditions existing at time of inspection for bidding purpose will be maintained by the Owner as far as practical.
3. No equipment exceeding 4000 lbs. per axle, including transportation and removal equipment shall be allowed on a supported structural level.

D. Utility Services:

1. Maintain existing utilities required to remain, keep in service, and protect against damage during demolition operations.
2. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction and the Owner. Provide temporary services during interruptions to existing utilities, as acceptable to the governing authorities and Owner.
3. Disconnect, seal, and remove utilities or services in selective demolition area before starting selective demolition operations.

- E. Damages: Promptly repair damages to adjacent construction, on or off site, caused by demolition operations at no cost to the Owner.

- F. Prevent insect and rodent infiltration. If necessary, employ an exterminator and treat entire building in accordance with governing health regulations for rodent and insect control.
- G. Hazardous Materials:
 - 1. Notify the Owner if asbestos-containing materials are encountered during demolition.

PART 2 PRODUCTS - (NOT USED)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas intended for demolition and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner 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.
- C. Inventory and record the condition of items to be removed and salvaged.
- D. Engage a professional demolition engineer to perform an engineering survey of existing conditions of garage/building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.
- E. Verify that hazardous materials have been remedied before proceeding with selective demolition operations.

3.2 PREPARATION

- A. Protection:
 - 1. Provide temporary protection during the course of the work to prevent water entry into the garage/building and walls and to maintain the garage/building in a weather tight condition. Ensure that protection is in place and water tight before ending day's work.
 - 2. Be prepared for unexpected weather changes so that temporary protection can be quickly installed.
 - 3. Provide, erect, and maintain temporary barriers and security devices. Prevent spread of dust, odors, and noise to permit continued Owner's occupancy. Refer to Specification Section 01 56 00.
 - 4. Provide protection on existing surfaces and features to remain. Secure protection to

prevent wind events from shifting or moving temporary protection. Securement methods shall not penetrate the surfaces or features. Protection shall define the path over which demolished material will be transported.

5. Conduct demolition operations and remove debris to ensure minimum interference with the interior of the Building, roads, streets, walks, adjacent structures, and utilities.
6. Conduct operations with minimum interference to public or private accesses. Maintain protected egress and access at all times.
7. Protect existing landscaping materials, structures, and utilities which are not to be demolished.

3.3 DEMOLITION REQUIREMENTS

- A. Coordinate regular removal and replacement of filled dumpsters from the job site during off hours only, unless pre-approved by the Owner in advance.
- B. Do not remove any part of the work that will leave the remaining work unstable, until adequate temporary bracing and shoring have been provided, or until permanent bracing or construction is in place. Cease operations immediately if adjacent structures appear to be in danger. Notify Owner and authority having jurisdiction. Do not resume operations until directed.
- C. If deteriorated materials, not intended for removal, are encountered during demolition, stop all work in that area and notify the Owner immediately.
- D. Demolish and remove existing construction to the extent required and as indicated. Use methods required to complete work within limitations of governing regulations and as follows:
 1. Where required, neatly cut materials to be removed. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 2. Remove temporary work.
- E. Explosives: The use of explosives will not be permitted.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: except for items to be salvaged, etc, remove demolished materials from project site and legally dispose of them in an EPA approved landfill.
 1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

3. Remove debris from elevated portions of garage in a controlled manner.
- B. Separate recyclable demolished materials from other demolished materials to the maximum extent possible. Separate recyclable materials by type.
 1. Provide containers or other storage method for controlling recyclable materials until they are removed from Project site.
 2. Stockpile processed materials on site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 3. Stockpile materials away from demolition area. Do not store within the drip lines of remaining trees.
 4. Store components off the ground and protect from the weather.
 5. Transport materials off Owner's property and legally dispose of them.
- C. Remove from site and legally dispose of debris, rubbish, and other materials resulting from demolition operations.
- D. Burning of removed materials will not be permitted on the site.

3.5 PATCHING AND RESTORATION

- A. Neatly patch and finish disturbed existing surfaces damaged by demolition.
- B. Verify all patch locations, methods, and procedures with Engineer prior to beginning repairs.

3.6 STORM DRAINAGE MAINTENANCE

- A. Maintain all drains during construction. Keep free and clear of debris to allow for proper drainage. Construction and construction barriers should not impede normal site drainage.

3.7 CLEANING

- A. Clean adjacent floor and wall surfaces to remove dust, dirt, debris, sludge, etc., regardless of existing conditions prior to demolition.

END OF SECTION

DIVISION 03 – CONCRETE

SECTION 03 01 00

CONCRETE REPAIRS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. All labor, material, tools, equipment and services to perform concrete repairs at areas indicated on the Drawings and in the Specifications, including but not limited to:
 - 1. Floor slab repairs.
 - 2. Pan joist repairs.
 - 3. Vertical and overhead repairs.
 - 4. Knockdown repairs.
 - 5. Miscellaneous repairs indicated on the Drawings.

1.2 RELATED SECTIONS

- A. Section 01 21 00 - Unit Prices
- B. Section 01 29 00 - Payment Procedure
- C. Section 01 56 00 - Barriers
- D. Section 02 41 19 - Selective Structure Demolition

1.3 UNIT PRICES

- A. Unit prices are taken for the work items listed on the Bid Form, for the quantity measurements listed in Section 01 29 00.
- B. Include in the lump sum bid the quantities listed on the Bid Form.
- C. Final adjustment to the contract amount will depend on actual quantities of repair performed.
- D. Repair quantities will be determined by measurements made jointly by the owner or its representative and the contractor. The contractor will record the measurements with both parties signing the record to attest to its accuracy.

1.4 REFERENCES

- A. American Concrete Institute (ACI):
 - 1. ACI 301 - Specification for Structural Concrete for Buildings.

2. ACI 305R - Hot Weather Concreting.
 3. ACI 306R - Cold Weather Concreting.
 4. ACI 318 - Building Code Requirements for Reinforced Concrete.
- B. American Society for Testing and Materials (ASTM):
1. ASTM A185 - Specification for Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement.
 2. ASTM A615 - Specification for Deformed and Plain-Billet Steel Bars for Concrete Reinforcement.
 3. ASTM A775 - Standard Specification for Epoxy-Coated Reinforcing Steel Bars.
 4. ASTM C33 - Concrete Aggregates.
- C. Structural Steel Painting Council (SSPC):
1. Surface Preparation Specification No. 3 (SP3) - Wire Wheel Cleaning.
 2. Surface Preparation Specification No. 6 (SP6) - Commercial Blast Cleaning.
- D. American Association of State Highway and Transportation Officials (AASHTO):
AASHTO M182 - Specifications for Burlap Cloth Made from Jute or Kenaf.
- E. Keep a copy of the referenced specifications cited in this section in the on-site field office.

1.5 SUBMITTALS

- A. Submit literature for manufactured products, including manufacturer's specifications, test data and installation instructions.
- B. Letter stating this Contractor and supplier are familiar with the referenced standards.
- C. The Owner's review of details and construction operations shall not relieve this Contractor of his responsibility for completing the work successfully in accordance with the Contract Documents.

1.6 QUALITY ASSURANCE

- A. 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 to the Owner and without extension to the Contract Time.
- B. Contractor shall be responsible for restoration of other components of the Work damaged during placement of concrete or damaged during removal of unsatisfactory

concrete.

- C. 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.
- D. Chloride Ion Limitations: Maximum acid-soluble chloride ion concentration, in hardened concrete shall not exceed .10% by weight of cement.
- E. Concrete testing and certification shall be as described in Specification Section 03 30 00.

1.7 JOB CONDITIONS – SHORING

- A. Contractor shall provide the following number of shores to be used throughout the project in the different Work Areas.
- B. Contractor shall provide twenty (20) 10,000-pound capacity post shores with wood cribbing during the project.
- C. Install shores before removing concrete from the structural member that is designated to be shored.
- D. Shores must be on-site prior to beginning any concrete demolition work.

1.8 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.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Fine and Coarse Aggregates:
 - 1. Meeting requirements of ASTM C-33.
- B. Water:
 - 1. Mixing water shall be potable meeting requirements of ASTM C-94.
- C. Pre-packed Concrete Materials:
 - 1. Horizontal Application – Typical Repair Areas (Patch Material Type A):
 - a. MasterEmaco T430 by BASF
 - b. MasterEmaco T1061 by BASF
 - c. SikaTop 122 Plus by Sika Corp.

2. Vertical and Overhead Repair Areas (Patch Material Type B):
 - a. MasterEmaco S488Cl by BASF
 - b. SikaTop 123 Plus by Sika Corp.
 - c. MasterEmaco N400 by BASF
 - d. MasterEmaco S440 by BASF
- D. Bar Coating:
 1. MasterProtect P8100 AP by BASF
 2. Sikadur 32, Hi-Mod LPL by Sika, Inc.
 3. MasterEmaco ADH326 by BASF
- E. Welded Wire Reinforcement:
 1. Conforming to ASTM A185.
- F. Reinforcing Steel:
 1. All reinforcing steel shall have a minimum Fy of 60 ksi.
 2. Provide epoxy coated steel where shown on Drawings.
- G. Curing Materials:
 1. 10 oz. burlap meeting the requirements of AASHTO M-182.
 2. Visqueen: 6 mil polyethylene (white).
- H. Curing Compound:
 1. Epoxy Water Emulsion Primer/Sealer by The Sherwin Williams Company.
 2. MasterKure CC 1315WB by BASF
 3. Liquid membrane forming curing compound shall conform to the requirements of ASTM C1315, Type 1, Class A and have data from an independent laboratory indicating a maximum moisture loss of 0.40 grams per square cm. when applied at a coverage rate of 300 square feet per gallon.
- I. Form Lumber:
 1. New fire retardant material, grade and size to adequately form, support and brace concrete and to provide finishes that match adjacent surfaces.
- J. Epoxy Grout:

1. Sikadur 32 epoxy mixed with silica sand.

K. Patch Anchors:

1. Stainless steel spikes by Powers Rawl.

PART 3 EXECUTIONS

3.1 GENERAL

- A. Prior to the start of work, the Contractor shall survey areas to receive repair concrete to determine locations and approximate quantity of material.
- B. Prior to start of excavations, perform an on-site review of the work areas with the Owner. Provide a minimum of 2 working days notice prior to the requested review day.
- C. Prior to performing operations such as jack hammer work, the Contractor shall make a careful and thorough survey of the underside of the level on which he intends to work and shall remove all loose soffit concrete which may fall as a result of those operations. The Contractor shall also be responsible for posting all signs and erecting all barricades as necessary to prevent pedestrians and vehicles from entering the area below hazardous work.
- D. During concrete removal work, Contractor shall not damage existing mild steel reinforcement. Mild steel reinforcement that is damaged by the Contractor, as determined by the Owner, shall have a new reinforcing bar the same size as the damaged bar lapped to each side of the damaged area. Lap lengths shall be determined by ACI 318. Cost of new reinforcing bar, concrete removal and patching for lap length shall be borne by the Contractor.
- E. It is intended that the existing reinforcement steel exposed during the work shall remain in place (unless noted on Drawing for removal) and undamaged during removal of the unsatisfactory concrete. Tie loose reinforcement bars in place in an approved manner prior to placing patch mix. If the reinforcement is deteriorated, as determined by the Owner, the Owner may direct that it be replaced and spliced in accordance with ACI splice and development requirements for reinforcement bars. Additional concrete removal may be required to expose undamaged reinforcing. If required, compensation will be made in accordance with the established Unit Prices.
- F. Concrete placement for patches or overlays on sloping surfaces shall begin on the low elevation end and proceed upwards to the high elevation end.

3.2 PROTECTION

- A. Contractor shall protect all open excavations, and reinforcing therein, from damage due to mechanical disturbance, weather conditions or other causes.
- B. Contractor shall protect occupied areas below the work area during all phases of the

work including removal, preparation and placement of materials.

- C. Provide barricades to close areas immediately below the work area. Coordinate the time closing of required areas with the Owner.

3.3 FLOOR SLAB REPAIR PROCEDURE

- A. Refer to the Drawings for repair details. Contractor shall sound the concrete deck using chain drag method and hammer survey to identify the limits of deteriorated concrete within the Work Area. Mark with paint each area to be repaired. Location of paint marks must be approved by the Owner's representative.
- B. Before removal of floor concrete within a Work Area, the Contractor and the Owner's representative will record the area bounded by the paint marks. Take measurements to the nearest inch in such a way that results in a total plan area at each location.
- C. Contractor and Owner's representative shall affix their signatures to each measurement sheet completed, attesting to the agreed-upon accuracy of the measurements. Furnish copies of measurement sheets to both parties for their records.
- D. Sum and calculate the total repair area to yield total square feet. Measurements are the sole basis for calculation of final payment, based upon the item's unit price. Refer to Section 01 29 00. Base unit price on the area of the repair and the depths indicated on the repair details.
- E. Remove floor concrete within the Work Area by conventional chipping methods.
- F. Conventional Chipping Method:
 - 1. Saw cut the concrete deck surface along the perimeter of the paint marks which define the removal area. Do not cut existing reinforcement. Depth of saw cuts shall be 3/4 inch. Cut perimeter of removal area before beginning chipping hammer work. Do not over cut corners of patch area.
 - 2. Perform concrete removal with no larger than 18 pound chipping hammers.
 - 3. Begin concrete removal at the center of the removal area and work towards the saw cut perimeter. Maintain vertical saw cut edge at perimeter. Re-saw if necessary to maintain required edge.
 - 4. Contractor shall use due diligence to perform concrete chipping operation in a manner to avoid punching through slab. Means such as utilizing wide chipping blades and performing chipping procedures on a low angle are recommended.
- G. The surface of the sound, exposed concrete shall be relatively flat with 1/4" amplitude over the repair area for new concrete patches and overlays. Contractor is responsible for insuring that the final concrete repair area is sound.

- H. Within 24 hours of concrete repair material placement, sandblast the excavation and the immediately adjacent surface. Reinforcing steel shall be cleaned to a SSPC-SP6 condition unless otherwise indicated.
- I. 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.
- J. The Owner will inspect excavations prior to coating reinforcing steel. Final touch-up of excavations and reinforcing steel shall be performed before proceeding.
- K. Within 8 hours after cleaning, coat all surfaces of exposed steel with one coat of bar coating. Allow coating to become tack free before proceeding with second coat.
- L. Apply second coat of bar coating to previously coated steel. Do not apply coating to substrate or allow coating to puddle in low areas of excavation.
- M. Thoroughly saturate all concrete surfaces to be in contact with new concrete as necessary to provide a saturated surface dry condition.
- N. Just prior to concrete placement blow-down area with oil-free compressed air to remove standing and puddled water.
- O. Place Patch Material Type A in the excavations. Vibrate new patch material to ensure consolidation in maximum-depth areas and at the excavations perimeter. Screed material flush with adjacent surfaces and finish with a float or light trowel.
- P. After finishing, fog concrete surfaces with water using approved fog spray device (hose not permitted) to prevent surface drying prior to start of curing.
- Q. Cure Patch Material Type A in accordance with manufacturer's written instructions.

3.4 OVERHEAD AND VERTICAL SURFACE KNOCKDOWN PROCEDURE

- A. Contractor to visually survey all slab soffit surfaces and locate delaminated, spalled or otherwise deteriorated concrete requiring repairs. Mark area with paint.
- B. Engineer to verify locations prior to beginning knockdown repairs.
- C. Remove all loose or delaminated concrete.
- D. Wire wheel prepare all exposed reinforcing steel to an SSPC-SP3 condition.
- E. Blow clean with oil-water free compressed air.
- F. Within 8 hours after cleaning, coat all surfaces of exposed steel with (1) coat of bar coating. Ensure complete coverage of steel surfaces. Allow coating to become tack free before proceeding with second coat.
- G. Apply second coat of bar coating to previously coated steel.

3.5 OVERHEAD AND VERTICAL REPAIR PROCEDURE

- A. Refer to the Drawings for repair details. Contractor shall sound overhead and vertical concrete surfaces using hammer sounding techniques to identify the limits of deteriorated concrete within the Work Area. Mark with paint each area to be repaired. Location of paint marks must be approved by the Owner's representative.
- B. Before removal of overhead or vertical concrete within a Work Area, the Contractor and the Owner's representative will record the area bounded by the paint marks. Take measurements to the nearest inch in such a way that results in a total plan area at each location.
- C. Contractor and Owner's representative shall affix their signatures to each measurement sheet completed, attesting to the agreed-upon accuracy of the measurements. Furnish copies of measurement sheets to both parties for their records.
- D. Calculate and sum the total repair area to yield total square feet. Measurements are the sole basis for calculation of final payment, based upon the item's unit price. Refer to Section 01 29 00. Base unit price on the area of the repair and the depths indicated on the repair details.
- E. Remove concrete within the Work Area by conventional chipping methods.
- F. Conventional Chipping Method:
 1. Saw cut the concrete surface along the perimeter of the paint marks which define the removal area. Do not cut existing reinforcement. Depth of saw cuts shall be 1/2 inch. Cut perimeter of removal area before beginning chipping hammer work. Do not over cut corners of patch area.
 2. Perform concrete removal with no larger than 18 pound chipping hammers.
 3. Begin concrete removal at the center of the removal area and work towards the saw cut perimeter. Maintain vertical saw cut edge at perimeter. Resaw if necessary to maintain required edge.
 4. Contractor shall use due diligence to perform concrete chipping operation in a manner to avoid punching through a slab. Means such as utilizing wide chipping blades and performing chipping procedures on a low angle are recommended.
- G. The surface of sound, exposed concrete shall be relatively flat with a 1/4" amplitude over the repair area. Contractor is responsible for insuring that the final concrete repair area is sound.
- H. Within 24 hours of concrete repair material placement, sandblast the excavation and the immediately adjacent surface. Reinforcing steel shall be cleaned to a SSPC-SP6 condition unless otherwise indicated.

- I. 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.
- J. The Owner will inspect excavations prior to coating reinforcing steel. Final touch-up of excavations and reinforcing steel shall be performed before proceeding.
- K. Within 8 hours after cleaning, coat all surfaces of exposed steel with one coat of bar coating. Allow coating to become tack free before proceeding with second coat.
- L. Apply second coat of bar coating to previously coated steel. Do not apply coating to substrate.
- M. Maintain all concrete surfaces of repair areas in a wet condition to provide a surface saturated dry condition.
- N. Just prior to material placement, blow-down area with oil-free compressed air to remove any standing water near vertical repair locations.

Place Patch Material Type B in the excavations per manufacturer's written instructions. Vibrate new patch material at vertical repairs to ensure consolidation in maximum-depth areas. Screed material flush with adjacent surfaces and finish with a light trowel.

- O. After finishing, fog concrete surfaces with water using approved fog spray device (hose not permitted) to prevent surface drying prior to start of curing.
- P. Cure Patch Material Type B in accordance with manufacturer's written instructions.

3.6 CLEANING

- A. Empty containers shall be removed from the Garage at the end of each working day. Cloths soiled with adhesive materials that might constitute a fire hazard shall be placed in suitable metal safety containers or shall be removed from the building at the end of each working day. Special care shall be taken in storage of disposal of flammable materials. Comply with health, fire and environmental regulations.
- B. All spilled materials shall be completely removed from hardware, adjacent floor areas, metal work, etc. Remove spilled coating by approved methods.
- C. Repaint in matching color all curbs, columns, walls, etc., where existing paint was removed during preparation of adhesive materials installations.
- D. All hardware, adjacent floor areas, metal work, etc., and the general premises shall be left clean and free of all construction dust, dirt and debris.

END OF SECTION



DIVISION 03 – CONCRETE
SECTION 03 64 23
EPOXY INJECTION REPAIRS

PART 1 GENERAL

1.1 SUMMARY

A. Section includes:

1. The labor, supervision, material, equipment, tools, and all other necessary services required to prepare and inject identified substrates. Work includes removal of ports and surface applied epoxy.

1.2 RELATED SECTIONS

- A. Section 01 50 00 - Temporary Facilities and Controls
- B. Section 01 56 00 – Barriers.

1.3 QUALITY ASSURANCE

A. Qualifications:

1. The injection contractor shall be approved by the epoxy resin manufacturer.
2. The injection contractor shall certify that lead personnel (Field Superintendent and Foreman) in charge of the work have a minimum of three (3) years experience in supervising injection work. This experience shall include the supervision of at least three (3) injection projects of similar size and type as this project.
3. The Contractor shall furnish to the Engineer upon request, the names of reference projects for which lead personnel held supervisory positions.
4. The Owner reserves the right to request different lead personnel if, in the Owner's opinion, those assigned to the project are not qualified by way of experience or ability to perform the work. Contractor shall comply with Owner's request at no cost to the Owner.
5. Provide material samples taken from the mixing head to verify mixing ratio and resin cure time. Sample equipment daily and record time, date and location of repair where sample was taken on the sample container. Turn samples over to Engineer at regular intervals. Sample containers shall be clean, dry, and acceptable to the Engineer. Sample shall be no more than 1/8 inch thick in its least dimension.
6. The minimum concrete surface temperature for epoxy injection work shall be

40° F. When conditions warrant, Contractor shall monitor the concrete surface temperature of the areas to be injected on the affected days. When concrete surface temperatures are 40° F or lower, perform no injection work. Surface seal work is allowed if the sealer is suitable for work at those temperatures.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Epoxy Injection Resin, approved manufacturers:
1. Prime Rez 1100 by Prime Resins, Conyers, Georgia.
 2. Sikadur 52 by Sika Chemical Company, Lyndhurst, New Jersey.
 3. Denepox I-300, by DeNeef Construction Chemical Inc., Waller, Texas
 4. MasterInject 1500 by BASF.

2.2 EQUIPMENT

- A. The equipment used to inject the resin shall be capable of the following:
1. Automatic proportioning of the materials within the maximum ratio tolerances set by the manufacturers of the resin.
 2. Delivery of components, resin and hardener, from separate reservoirs to a mixing discharge head.
 3. Complete and uniform mixing of components at the discharge head.
 4. Equipment shall be rated for injection of resin materials at constant pressures up to 200 psi.

PART 3 EXECUTION

3.1 PREPARATION

- A. Before repair work begins, clean cracks free of loose matter, dirt, laitance, oil, grease, salt, and other contaminants which would inhibit bond of the injection resin.
- B. Before injection of the crack, apply a surface seal material to the face of the crack. The surface seal material shall be a quick setting epoxy gel or a thermoplastic and must have adequate strength and adhesion to confine the injection resin until the resin is cured.
- C. Place entry ports in the surface seal along the crack. The distance between entry ports shall not be less than the thickness of the concrete member being repaired.

3.2 INSTALLATION

- A. Injection pressures shall not exceed 75 psi without the approval of the Engineer.
- B. Begin injection of the resin into each crack at the lowest entry port or at the extreme end of a horizontal crack. The appearance of resin at the next port will be considered evidence of adequate filling of the crack, at which the injection procedures shall be moved incrementally to the next port, capping the previous ports. Carefully monitor the injection pressure and resin flow to avoid damage to the delaminated concrete. Concrete damaged by the injection procedure shall be repaired or replaced as directed by the Engineer at no cost to the Owner.
- C. Remove the surface seal and finish the face of the crack flush with the adjacent concrete. Remove dust from surface seal removal operations.
- D. During the work the contractor shall keep daily records. Record on a set of prints at each repair location: 1) the date of injection, 2) injection material type, 3) surface temperature when 45° F or lower. Turn records over to Engineer at completion of injection work.

END OF SECTION



DIVISION 04 MASONRY

SECTION 04 01 00

MASONRY REPAIR

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. All labor, material, equipment, tools and services to complete masonry work required for the project, as indicated on the drawings and the specifications, including but not limited to:
 - a. Salvage and reinstall existing brick.
 - b. Steel lintel replacements.
 - c. Cleaning of brick surfaces.
 - d. Provide temporary support as required for support of existing masonry to remain.

B. Related sections:

1. Section 01 50 00 - Temporary Facilities and Controls
2. Section 01 56 00 - Barriers

1.2 REFERENCES

A. American Concrete Institute (ACI):

1. ACI 530 – Building Code Requirements for Masonry Structures.
2. ACI 530.1 – Specifications for Masonry Structures.

B. American Society for Testing and Materials (ASTM):

1. ASTM C91 – Standard Specification for Masonry Cement.
2. ASTM C144 – Standard Specification for Aggregate for Masonry Mortar.
3. ASTM C150 – Standard Specification for Portland Cement.
4. ASTM C216 – Standard Specifications for Facing Brick (Solid Masonry Units Made from Shale or Clay).
5. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Mortar.

C. Brick Institute of America (BIA):

1. Technical Note 20 - Cleaning Brick Masonry.
2. Technical Note 46 – Maintenance of Brick Masonry.

D. Structural Steel Painting Council (SSPC):

1. Surface Preparation Specification No. 3 (SP3) – Wire Wheel Cleaning.
2. Surface Preparation Specification No. 6 (SP6) – Commercial Blast Cleaning.

1.3 DEFINITIONS

- A. “Salvaged brick” as used herein means existing masonry units that are removed, cleaned, and reused or returned to the Owner.
- B. “Masonry foreman” as used herein means technically competent employee identified as supervising all masonry work included in this Specifications section and the Drawings.
- C. “Brick” or “Unit” as used herein means all clay fired masonry units included in this Specifications section and the Drawings.

1.4 SUBMITTALS

A. Product:

1. Brick samples.
2. Submit manufacturer's standard literature for all manufactured products specified herein or on Drawings.
3. Submit color charts or samples for all specified materials that are available in a range of colors. Obtain color selection from Owner prior to ordering materials.
4. Submit mix design for masonry mortar.

B. Mason:

1. Resume of Mason foreman per Paragraph 1.5.A.

1.5 QUALITY ASSURANCE

A. Bidder's Qualifications:

1. Contractor shall have at least 5 years experience doing work of scope and size specified herein and indicated on Drawings.
2. Mason foreman shall have supervised at least three prior projects of similar magnitude and type.

B. Regulatory Requirements:

1. Comply with applicable laws, ordinances, and the Ohio Building Code.

2. Comply with the referenced standards in Paragraph 1.2 above.

C. Installation:

1. Mason foreman shall be on site during 90% of all masonry work. Masonry work identified as not being installed under the direct supervision of Mason foreman shall be subject to removal and replacement, at the direction of the Owner.
2. All Mason foreman activities shall be dedicated to 100% of masonry work. Mason foreman to supervise work and not actively complete masonry work.

D. Single-Source Responsibility for Masonry Units: Obtain exposed masonry 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 manufacturer for each different product required.

E. Single-Source Responsibility for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from one manufacturer for each cementitious component and from one source or producer for each aggregate.

F. Contractor will provide access to all work areas during normal working hours for the Owner and the Engineer to review the progress and quality of work.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packing, shipping, Handling and Unloading:

1. Deliver materials to job site in sealed, undamaged containers/packaging.

B. Storage and Protection:

1. Protect materials in a dry place, off ground and under cover to protect them from wetting, staining, chipping and other damage.
2. Do not use materials showing evidence of water or other damage.

1.7 PROJECT CONDITIONS

A. Environmental Requirements

1. Maintain materials, building surfaces and surrounding air to a minimum temperature of 40 degrees F. for a period of 48 hours before the start of work and 72 hours after completion of work.
2. Conform to manufacturer's specific requirements.

1.8 WARRANTY

- A. Provide two (2) year warranty on all workmanship and materials unless otherwise specified.

PART 2 PRODUCTS

2.1 MATERIALS

A. Brick Masonry Units:

1. Salvage brick.
2. New Units:
 - a. Units conforming to ASTM C216, Grade SW.
 - b. Size, color, blend and texture to match existing as selected by Owner.

B. Mortar:

1. Prepackaged Mortar: ASTM C270, type N.
 - a. Acceptable Manufactures
 - 1) Cemex
 - 2) Southwestern
 - 3) Blue Circle
2. Mortar Aggregate: ASTM C144, standard masonry type.
3. Water: Clean and potable.
4. Mortar Color:
 - a. Brick: Color as selected by Owner from manufacturer's standard colors to match existing.

C. Water: Clean and potable.

2.2 ACCESSORIES

A. Wall Ties:

1. Exterior Brick Repair:
 - a. Adjustable 304 Stainless steel triangle wire tie, type reinforcing with tapcon screw. Wire tie size shall be standard weight: 3/16" diameter.
 - b. Basis of Design: Heckmann Building Products, Inc., Pos-I-Tie for masonry backup.

B. Flashing:

1. Acceptable materials:

- a. Carlisle Pre-Cleaned 40 mil EPDM Thru-Wall Flashing.
- b. Firestone FlashGard Dust Free 40 mil EPDM Thru-Wall Flashing.
- C. Anchors for Attachment of Veneer Brick Ties and Termination Bars to:
 1. Masonry: Hilti HIT anchor – ¼” by 1 ¼” long with stainless steel drive pin.
 2. Steel: Kwik-Pro Self-Drilling Screw by Hilti. 12-24 HWH #5 with Kwik-Cote finish.
- D. Weep Cords: 3/8 inch diameter cotton blend woven cord without plastic jacket or core. Minimum 60% cotton content.
- E. Masonry Cleaner:
 1. General Masonry Cleaner:
 - a. ProSoCo Inc., Restoration Cleaner
 - b. Diedrich Technologies, 101G
 2. Repointing Cleaner:
 - a. ProSoCo., Inc., Sure Klean Vana Trol.
 - b. Diedrich Technologies, 202V Vana-Stop.

2.3 MIXES

- A. Mortar:
 1. 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.
 2. Mix mortars with the maximum amount of water consistent with workability to provide maximum tensile bond strength within the capacity of the mortar.
 3. Do not use mortar that has begun to set, or if more than 2 hours has elapsed since initial mixing. Retemper mortar during 2 hour period as required to restore workability.
 4. Do not lower freezing point of mortar by use of admixtures or anti-freezing agents.
 5. Chloride containing additives are prohibited.
 6. Air content shall not exceed 12 percent.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to the start of work, examine surfaces intended to receive the specified work and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner 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.

3.2 PREPARATION

A. Protection

- 1. Provide temporary protection during the course of the work to prevent water entry into the building and walls and to maintain the building in a weather tight condition. Ensure that protection is in place and water tight before ending day's work.
- 2. Be prepared for unexpected weather changes so that temporary protection can be quickly installed.
- 3. Protect all existing adjacent surfaces that are to remain and are not included in the work of this Section.
- 4. Provide safeguards from work of this Section for pedestrian traffic and adjacent property. Do not permit drift of dust or liquids.
- 5. Use safeguards recommended by manufacturers of products specified herein for personnel handling and applying said materials.
- 6. Protect surrounding areas from construction activities, dirt, dust and debris.

3.3 MASONRY WORK

A. General

- 1. Cut masonry units with motor-driven saw designed to cut masonry with clean, sharp, unchipped edges. Cut units as required to provide pattern shown and to fit adjoining work neatly. Use full unit without cutting wherever possible. Use dry cutting saws to cut concrete masonry units.
- 2. Wet clay brick that have ASTM C67 initial rates of absorption (suction) of more than 0.71 gm/square inch per minute.
- 3. During construction, cover top of work with waterproof sheeting at end of each day's work. Extend cover down face of work and hold securely in place.
- 4. Prevent mortar or soil from staining face of masonry to be left exposed. Immediately remove mortar in contact with such masonry. Protect base of walls from mortar splatter by means of coverings spread on and over wall surface. Protect sills, ledges and projections from mortar droppings.

5. Tolerances:
 - a. Maximum Variation from Plumb: 1/8 inch maximum.
 - b. Maximum Variation from Level Coursing: 1/8 inch in 3 ft. and ¼ inch in 10 ft; ½ inch in 30 ft.
 - c. Maximum Variation of Joint Thickness: 1/8 inch in 3 ft.
 - d. Maximum Variation from Cross Sectional Thickness of Walls: ¼ inch.
6. Coursing:
 - a. Establish lines, levels, and coursing indicated. Protect from displacement.
 - b. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
 - c. Brick Masonry Units:
 - 1) Coursing: Match existing.
 - 2) Exposed Mortar Joints: Match existing.

B. Mortar Mixing

1. Mix mortar in accordance with manufacturer's instructions.
2. Maintain sand uniformly damp immediately before mixing process.
3. Add admixtures in accordance with manufacturer's instructions. Provide uniformity of mix and coloration.

C. Mortar Bedding and Jointing:

1. Lay masonry units with completely filled bed and head joints. Butter ends with sufficient mortar to fill head joints and shove into place. Do not slush head joints.
2. Remove excess mortar as work progresses.
3. Interlock intersections and external corners unless otherwise indicated.
4. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
5. Rack back ½ unit length in each course; do not tooth unless otherwise shown on Drawings.
6. Keep cavity between brick and substrate clean and free of debris, mortar fins and droppings.
7. Keep vertical control and expansion joints clear of mortar and debris.

D. Anchoring of Masonry Work:

1. Provide one anchor attached to backup masonry per 1.8 sq. ft. of wall area (16 inches vertically and horizontally).
2. Brick anchors to extend minimum of 2-1/2", maximum of 3" into mortar joint.
3. Portion of anchors extending into masonry shall be completely embedded in mortar.

E. Flashing:

1. Repair per the following methods:
 - a. Install flashing per manufacturer's recommendations and published details.
 - b. Seal flashing around penetrations to provide a watertight installation with materials recommended by the flashing manufacturer.
 - c. Maintain flashing watertight at inside and outside corners. Fabricate corners with materials and methods as detailed by the manufacturer.
 - d. Provide watertight end dams per manufacturer's details where flashing terminates at existing construction.
 - e. Terminate top edge of flashing with sealant as provided by the manufacturer and with a continuous termination bar. Refer to detail on Drawings.

3.4 BRICK SALVAGE

- A. Carefully remove existing masonry units from area designated on the drawings or Engineer.
- B. Do not damage existing wall components such as but not limited to ties, flashing, water proofing, and backup materials. Notify engineer immediately if wall components is damaged. Engineer will provide a fix and Contractor to complete fix at no cost to the Owner.
- C. Clean masonry unit of all existing mortar.
- D. Do not chip or damage exterior finished face during cleaning of brick.
- E. Palletized cleaned brick for use on the project. Unused brick to be turned over to the Owner at the end of the job.
- F. Brick to be salvaged at a rate of 90% undamaged useable bricks.

3.5 CLEANING

A. General:

1. Prior to cleaning review with manufacturer's representative masonry substrate condition. Notify Engineer immediately if conditions exist that may be detrimental to

the success of the cleaning and possible damage to substrate.

2. Clean all face brick with cleaning solution per manufacturer's recommendations and instructions.
 - a. Comply with BIA Technical Note 20 for cleaning of brick.
 - b. Provide a general and masonry repair cleaning.
3. Protect building surfaces and landscaping below during cleaning.
4. Provide adequate protection of all surrounding surfaces not intended to be cleaned from damage (surface blemish, staining, etching, etc.) due to preparation and cleaning procedures. Repair damage at no cost to the Owner.
5. Provide adequate protection of adjacent brick not being cleaned during a specific cleaning operation. Repair damage at no cost to the Owner.

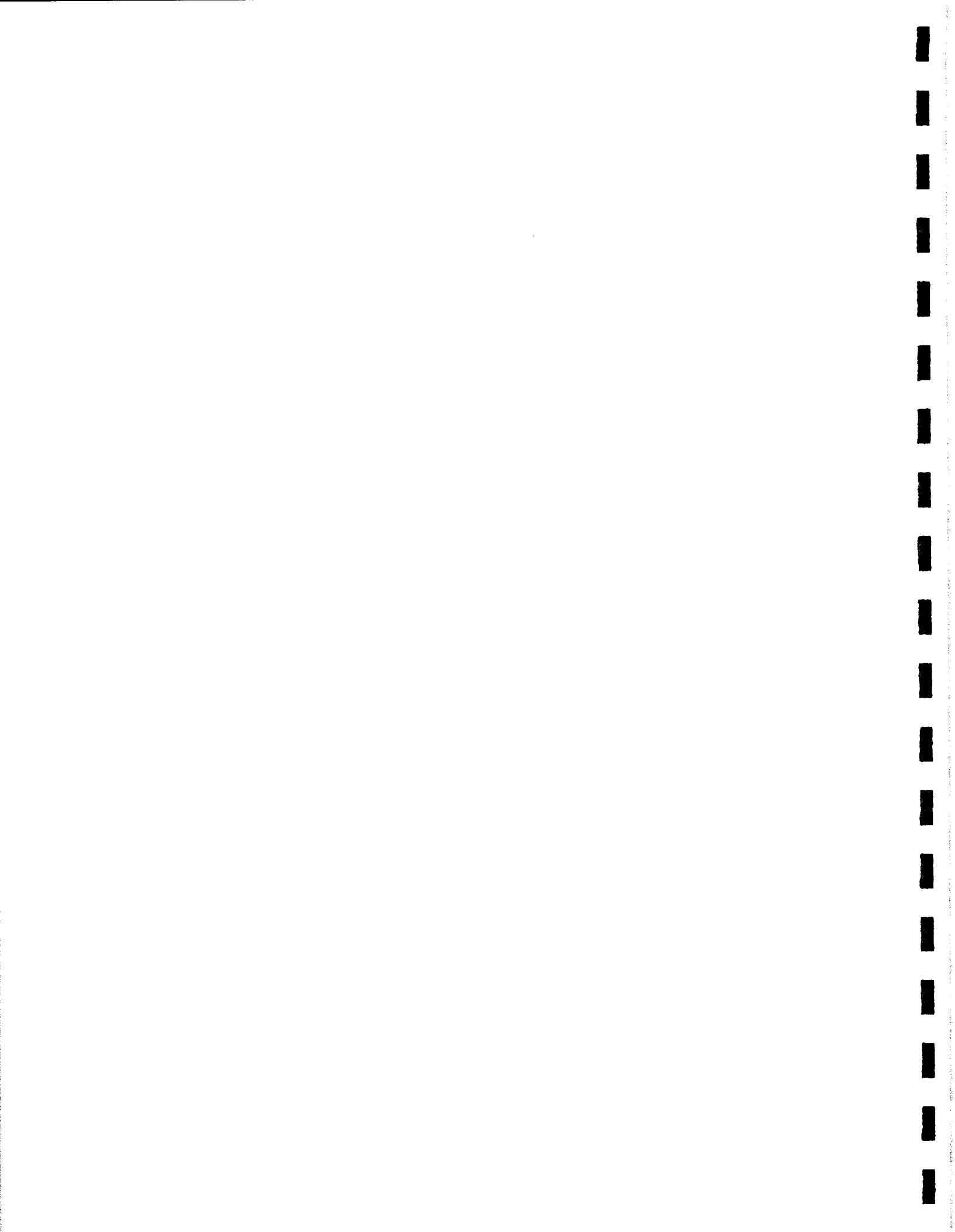
B. Façade Masonry Cleaning:

1. Prior to the start of all masonry repairs within a work area, clean all brick surfaces with general cleaner to remove existing dirt and stains from facade.
2. General cleaning to remove all surface contamination such as dirt, foreign matter, rust, rust stains, mold, mildew, and efflorescence. Cleaned surface to meet or exceed mock-up area.

C. Masonry Repair Cleaning:

1. Unless noted otherwise, clean all brick surfaces with repointing cleaner to remove excess mortar, mortar smears and stains after completion of repointing and repair work.
2. Use non-metallic tools in cleaning operations. Remove large pieces of mortar using wood paddles and scrappers.
3. Clean areas of new mortar no earlier than 14 days nor later than 28 days after completion of work.
4. Clean ground area of masonry materials, rubble and debris.

END OF SECTION



DIVISION 05 – METALS
SECTION 05 50 00
MISCELLANEOUS METALS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. All labor, material, equipment, tools and services to complete the miscellaneous metals work required for the project as indicated on the Drawings.

1.2 RELATED SECTIONS

- A. Section 01 50 00 - Temporary Facilities and Controls
- B. Section 01 56 00 - Barriers
- C. Section 02 41 19 - Selective Structure Demolition
- D. Section 03 01 00 - Concrete Repairs

1.3 REFERENCES

- A. The following codes and standards are hereby incorporated as part of the Project Specifications. These codes and standards including all supplements, apply to all miscellaneous metal work as if fully reproduced herein. Modifications in this Specification when in conflict with the referenced codes and standards, shall take precedence over the referenced codes and standards.
 1. AISI Code of Standard Practice for Steel Buildings and Bridges, and including the Commentary on the Code of Standard Practice, 1986 Edition.
 2. AISC Code of Standard Practice for Steel Buildings and Bridges, 2000 Edition.
 3. American Welding Society (AWS) Structural Welding Code - Steel, 1990 Edition.
 4. ASTM A6 - General Requirements for Delivery of Rolled Steel Plates, Shapes, Sheet Piling and Bars for Structural Use.
 5. ASTM A123 - Zinc (Hot Dipped Galvanized) Coatings on Iron and Steel.
 6. ASTM A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 7. ASTM B221-88 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.
 8. ASTM B209-88 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

- B. Structural Steel Painting Council (SSPC):
 - 1. Surface Preparation Specification No. 3 (SP3) – Wire Wheel Cleaning.
 - 2. Surface Preparation Specification No. 6 (SP6) – Commercial Blast Cleaning.

1.4 SUBMITTALS

- A. Submit literature for manufactured products, including manufacturer's specifications, test data and installation instructions.
- B. Submit shop drawings for review of all fabricated items. Include complete details and schedules. Submit field measurements of existing conditions with shop drawings.

1.5 QUALITY ASSURANCE

- A. Steel Fabricator shall have not less than 5 years experience in the fabrication of miscellaneous steel.
- B. All welders, welding operators, tackers and inspectors shall be fully qualified in accordance with the requirements of the American Welding Society for the type of work they are to perform. Copies of certification shall be submitted prior to performing that work.
- C. Modifications to the AISC Code of Standard Practice:
 - 1. Restoration drawings and details are to be used in place of more detailed structural steel plans. Requirements for structural steel work may be shown on restoration drawings and details.
 - 2. Contract drawings may be made to a scale less than 1/8-inch to the foot. With approval, shop drawings may also be made to a lesser scale.
 - 3. Section 4.2 is to be replaced with the following sections:
 - 4.2 Review of Shop Drawings - Shop drawings shall be made by the Contractor and submitted to the Owner for review. The Owner will endeavor to complete his review of a shop drawings submittal within 7 days of his receipt of a submittal. Shop drawings shall be returned noted: "No exceptions noted", or "Exceptions noted", or "Exceptions noted: revise and resubmit". Fabrication of material before the receipt of shop drawings for that material noted "No exceptions noted" shall be at the Contractor's risk.
 - 4.2.1 Review of shop drawings does not relieve the Contractor of the responsibility for: accuracy of detail dimensions; the general fit-up of parts to be assembled in the field; the ability to erect the material; the adequacy of any members or connections designed by the Contractor.

- 4.2.2 Any notations by the Owner made on the shop drawings do not authorize additional compensation for the Contractor without the issuance of a formal change order.

1.6 MATERIAL STORAGE AND HANDLING

- A. Protect metal from damage and deterioration.
- B. Support continuous lengths of material as necessary to keep from deflecting and bending.
- C. Store material off ground and keep covered and out of weather.

1.7 WARRANTY

- A. A warranty period of two (2) years shall be provided for all repair work of existing steel connections performed under this Section, against defects, as determined by the Owner, including but not limited to weld failures, rust formation at field galvanized or painted surfaces, and embedment failures.
- B. A warranty period of five (5) years shall be provided for all new steel fabrication and installation work performed under this Section, against defects, as determined by the Owner, including but not limited to weld failures, rust formation at field galvanized or painted surfaces, and embedment failures.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Rolled Steel Plates, Shapes and Bars: ASTM A36.
- B. Expansion Anchors – Stud Type:
 - 1. Stud type with wedge meeting requirements of Federal Specification A-A 1923A, Type 4. Hot dipped galvanized.
 - 2. Basis of Design: Kwik Bolt TZ Expansion Anchor by Hilti.
- C. Adhesive Anchors
 - 1. Injectable adhesive shall be used for installation of steel reinforcing dowels or threaded anchor rods into new or existing solid base materials, such as concrete, grout, stone or solid masonry. Only injection tools and static mixing nozzles as recommended by manufacturer shall be used.
 - 2. Basis of Design: HIT HY 200 Injection Adhesive Anchors by Hilti.
- D. Threaded Fasteners:
 - 1. Steel Framing - High strength, heavy hexagon structural bolts, heavy hexagon nuts and hardened washers, quenched and tempered medium-carbon steel,

complying with ASTM A325.

2. All-Thread Bars – Stainless steel, fully threaded bars meeting AISI 316.

E. Welding: The Contractor shall determine, in accordance with AWS requirements, and submit to the Owner review, appropriate welding materials and procedures for the base metals involved for all welding in both new and existing structures.

F. Galvanizing:

1. All materials, unless indicated “painted” or “plain”, shall be hot dipped galvanized with a zinc coating of 2.00 oz./S.F. after fabrication conforming to ASTM A123.

2. Coating disturbed due to installation, welds and abraded areas shall be power tool cleaned and receive a spot coat of galvanizing repair paint applied per manufacturer’s instructions.

G. Galvanizing Repair Paint:

1. ZRC Cold Galvanizing Compound by ZRC Chemical Products Company.

2. LPS Cold Galvanize Corrosion inhibitor by LPS Laboratories, Inc.

2.2 FABRICATION

A. General:

1. Fabricate items in accordance with AISC Specifications and as indicated on the final shop drawings.

2. Properly mark and match-mark materials for field assembly. Fabricate for delivery sequence which will expedite installation and minimize field handling of materials.

3. Where finishing is required, complete the assembly, including connections and welding of units, before start of finishing operations.

4. Mill all surfaces in contact bearing.

B. Connections:

1. Provide welded shop connections unless otherwise shown. Grind smooth and flush all welds to match curve of joints. Grind welded area to remove weld flux, slag and spatter.

2. Provide field bolted or field welded connections as indicated.

3. Comply with AWS Code for procedures, appearance and quality of welds, and methods used in correcting welding work. Assemble and weld sections by methods which will produce true alignment of axis without warp.

C. Surface Preparation:

1. After inspection and before shipping, clean all metal fabrications to be painted or galvanized. Remove loose rust, mill-scale and splatter. Clean metal fabrications in accordance with SSPC SP-6.
2. Immediately after surface preparation, apply to all painted metal fabrications primer paint in accordance with paint manufacturer's written instructions. Use painting methods which will result in full coverage of joints, corners, edges and all exposed surfaces. No sags or runs permitted on steel that will be exposed in the finish work. Do not shop paint items to be galvanized.
3. Clean and touch-up with galvanizing repair paint all abrasions on galvanized items before shipment.

PART 3 EXECUTIONS

3.1 EXAMINATION AND PREPARATION

- A. Field measure all existing dimensions and be aware of all existing conditions which relate to the work prior to fabrication. Items fabricated without prior field verification shall not be the responsibility of the Owner and the Contractor shall fabricate new items at no additional cost to the Owner and no time extension shall be granted.
- B. Examine the areas and conditions under which the work is to be installed and notify the Owner in writing of conditions detrimental to the proper and timely completion of the work.
- C. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.2 INSTALLATION

- A. Comply with AISC Specifications and Code of Standard Practice, and with specified requirements.
- B. Provide erection equipment, hoists, temporary shoring and bracing, and other equipment required for proper and safe erection of the work. Do not remove temporary members and connections until permanent construction required to make installation self-supporting is in place and final connections are made.
- C. Provide temporary planking and working platforms as required and as necessary to effectively and safely complete the work.
- D. Field Assembly:
 1. Set metal fabrications accurately to the lines and elevations indicated. Align and adjust the various members forming a part of a complete installation before

permanently fastening. Perform necessary adjustment to compensate for discrepancies in elevations and alignment.

2. After metal fabrications installations are complete, foul threaded anchors.
- E. Following installation of metal fabrications clean all mud, dirt and debris accumulated during installation. Inspect all items for abrasions and touch up with specified primer.

END OF SECTION

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

SECTION 07 19 16

SILANE WATER REPELLENT

GENERAL

1.1 SUMMARY

A. Section Includes:

1. All labor, material, equipment, special tools and services to prepare and install penetrating water repellent on surfaces as indicated on the Drawings and in the Specifications, including but not limited to:
 - a. Inspection of surfaces to receive water repellent.
 - b. Preparation and cleaning of surfaces to receive water repellent.
 - c. Application of water repellent on surfaces where indicated on the drawings.
 - d. Temporary protection of doors, windows, roof areas, and interior spaces during construction.
 - e. Provide access to work area for Owner representative or Engineer to inspect quality of work, progress, unit price items and field conditions. Access to be completed during normal working. If access requires mechanical equipment (man-lift, swing stage, etc.), provide necessary operators.

B. Related Sections:

1. Barriers - Refer Section 01 56 00.

C. Alternates:

1. Refer to Section 01 23 00 for Alternates that pertain to this Section.

1.2 DEFINITIONS

- A. 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 engineering professions."

1.3 SUBMITTALS

- A. Literature for manufactured products, including manufacturer's specifications, test data and installation instructions or applicator's manual.

- B. Manufacturer's letter of applicator approval per Paragraph 1.4.A.
- C. Listing of completed projects per Paragraph 1.4.B.
- D. Submit personal resume to verify compliance with Paragraph 1.4.D.
- E. Letter of compatibility per Paragraph 1.4.F.
- F. Letters of compatibility per Paragraph 1.4.G.

1.4 QUALITY ASSURANCE

- A. No payments shall be approved for work performed unless Contractor coordinates in advance with the Owner for a manufacturer's representative to witness the work.
- B. If requested by Owner, the installer shall be approved in writing by the manufacturer for application of the approved water repellent.
- C. Work under this Section shall be performed by organizations which have successfully performed at least three projects of similar size and type, in a similar climate within the past five years.
- D. Final selection of the water repellent applicator shall be subject to the approval of the Owner.
- E. All work under this Section shall be under the immediate control of a person (Contractor's superintendent or other designated person) experienced in this type of work. This person shall have supervised three prior projects of similar magnitude and type, shall be present during all operations, and shall be approved by the Owner.
- F. A technically competent employee of the manufacturer (not associated with the installation crew), approved by the Owner, shall perform sub-items 1 through 8 listed below. The General Contractor shall provide Owner's Representative with 2 weeks advance notice of initial water repellent installation and 3 days advance notice for all subsequent installations requiring the manufacturer's representative's review.
 - 1. Witness and approve in writing the surface cleanliness and preparation procedures. If application of water repellent is on different materials, and/or different areas remote from each other, written approval shall be provided for each material and/or each area.
 - 2. Witness the application of water repellent on at least one phase of all of the specifically identified surfaces as indicated on Drawings.
 - 3. Advise the contractor where and when modifications to procedures are required to obtain Specification compliance.
 - 4. After the field sample application and prior to the next application, establish in writing procedures to be used for the remainder of the work area(s). The procedures

shall be written particularly for this project based on field sample(s) application observations and anticipated condition for the remainder of the work. Manufacturer's standard published literature is not acceptable. The procedures shall address, but not be limited to:

- a. If applicable, preparation and clean-up procedures for surface(s) to receive water repellent.
 - b. Surface preparation acceptance criteria.
 - c. Special surface preparation procedures, if any, for particular areas, such as heavily stained areas.
 - d. Allowable moisture and atmospheric conditions site specific to this project.
 - e. Modifications to application rates and techniques to limit potential glazing or discoloration from over application of material.
 - f. All other special instructions necessary to ensure proper installation.
5. Prior to leaving the site, submit to the Owner for review and approval (2) copies of the written procedures developed for the remainder of the work area(s).
 6. Give a copy of the written procedures to the contractor.
 7. Review in person with the contractor's superintendent (or person in charge of this work) the written procedures in the presence of the Owner.
 8. Provide an additional copy of the written procedures which shall remain on site at all times for the duration of the work.
- G. The water repellent and substrate surfaces shall be certified in writing as being compatible prior to beginning the work by the water repellent manufacturer.
- H. Verify in writing, from both the sealant and water repellent manufacturers that the approved sealant is compatible with the approved water repellent.
- I. Field Samples
1. Prior to ordering water repellent, apply material to an area of each material specified to receive water repellent. Area(s) to be selected by the Owner.
 2. If application of water repellent is in several areas remote from each other, apply sample in each area.
 3. Each area shall be 100 sq. ft. (10' x 10').
 4. Review of sample area(s) shall be performed by the contractor, engineer and Owner no sooner than 72 hours after application of the water repellent.

- J. Pre-Installation Meeting: A minimum of 1 week prior to the start of work in this Section, the contractor shall schedule a pre-installation meeting with the Owner's representative, the Engineer, and the manufacturer's technical representative to review preparation, installation, cleaning procedures and schedule.
- K. Provide access to work area for Owner representative or Engineer to inspect quality of work, progress, unit price items and field conditions. Access to be completed during normal working hours. If access requires mechanical equipment (man-lift, swing stage, etc.), provide necessary operators.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials to job site in sealed, undamaged containers.
- B. Each container shall be identified with materials name, date of manufacture, lot and batch number.
- C. Store materials not being used in the work shift in an approved storage area which is well ventilated, lighted and not subject to direct sun rays.
- D. Storage area shall be heated or cooled as required to maintain the temperature within the range recommended by the water repellent manufacturer.
- E. Materials shall be kept sealed when not in use.
- F. Keep storage area neat and clean and secure from vandalism and theft.
- G. Perform work in strict accordance with all safety and weather conditions required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.
- H. When toxic or flammable solvents are used, the water repellent applicator 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.

1.6 SEQUENCING

- A. Complete all masonry and concrete repairs, and sealant work prior to application of water repellent.

PRODUCTS

1.7 WATER REPELLENT MATERIALS

A. Basis of Desgn:

1. Protectosil ChemTrete 40 VOC by Degussa Corp., Parsippany, N.J.

B. Alternative products approved during bidding process with following requirements.

1. Active Content: 100% silane by weight.
2. Must have acceptable VOC contents in state where it is being used.
3. Must be submitted for review by the Engineer a minimum of seven days prior to bid date.

EXECUTIONS

1.8 EXAMINATION

- A. Examine surfaces intended to receive the specified work and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner 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.

1.9 PREPARATION

A. Protection:

1. Provide temporary protection during the course of the work to prevent water entry into the building and walls and to maintain the building in a weather tight condition. Ensure that protection is in place and water tight before ending day's work.
2. Be prepared for unexpected weather changes so that temporary protection can be quickly installed.
3. Protect all existing adjacent surfaces that are to remain and are not included in the work of this Section.
4. Provide safeguards from work of this Section for pedestrian traffic and adjacent property. Do not permit drift of dust or liquids.
5. Use safeguards recommended by manufacturers of products specified herein for personnel handling and applying said materials.

6. Protect surrounding areas from construction activities, dirt, dust and debris.
7. Protect all plantings and landscape materials that may come in contact with water repellent
8. Protect glass, metals, specialty coated glass, plastic and vinyl components of windows, and roofing materials as recommended by the water repellent manufacturer. Do not allow overspray to be deposited on adjoining surfaces not specified to receive water repellent. Remove water repellent immediately from adjoining surfaces.

B. Cleaning

1. Clean all surfaces prior to application of water repellent to remove all traces of dirt, dust, efflorescence, mold, salt, grease, laitance, paint, coating, biological growth, staining and other foreign materials. Cleaning via water blast method.
2. All surface preparation and cleaning procedures shall be in strict accordance with this Specification, unless more stringent requirements are asked for by the water repellent manufacturer.
3. Areas scheduled to receive penetrating water repellent as shown on the Drawings shall be cleaned to achieve a standard of cleanliness acceptable to the Owner and water repellent manufacturer.
4. Prior to beginning surface preparation, prepare a sample area of all surfaces to be used as the minimum standard of acceptability for cleanliness and surface texture to be achieved throughout the work. Size and location shall be as directed by the Engineer. The standard shall be jointly reviewed and approved by both the Engineer and the Manufacturer relative to paragraph 3.1.B prior to start of full scale surface preparation work. The approved standard shall remain untreated until all surface preparation work is completed. Protect sample area from contamination and dirt.
5. Minimum standard of acceptability applies to all surfaces intended to receive penetrating water repellent, regardless of surface preparation procedure or process.
6. Obtain approval from the Owner for the surface preparation standard locations prior to proceeding with the surface preparation work.

1.10 GENERAL

- A. Surface temperature of substrate must be between 20° and 100° F.
- B. Do not apply material if rain is anticipated within two hours following the application, or if high winds are present.
- C. If rain has preceded the anticipated application time, allow the surface to dry a minimum of 24 hours

- D. Do not apply to a wet substrate.
- E. All re-pointing mortar must be allowed to cure a minimum of three days.
- F. All patching materials and sealants must be fully cured prior to application.

1.11 APPLICATION

- A. Apply material with low pressure (15 to 25 psi) pumping equipment with a wet fan type spray nozzle. Alternate application may include power roller with 1" nap, or by brush.
- B. Apply water repellent on all specified surfaces from the bottom up.
- C. Apply water repellent in a flooding application so material runs down 6" to 8" below point of application.

1.12 CLEAN-UP

- A. During the progress of the Work, remove from the project all discarded water repellent materials, rubbish, cans, and rags in a lawful manner.
- B. Clean all surfaces affected by material overspray and repair all damage caused by overspray to adjacent construction or property at no cost to the Owner.
- C. All hardware, adjacent areas, metal work, etc., and the premises shall be left clean and free of all construction dust, dirt and debris.
- D. Empty containers shall be removed from the building at the end of each working day. All cloths soiled with water repellent that might constitute a fire hazard shall be placed in suitable metal safety containers or shall be removed from the building at the end of each working day. Special care shall be taken in storage or disposal of flammable materials. Comply with health and fire regulations.
- E. Remove protection from adjoining surfaces not scheduled to receive water repellent. Clean all residue from protection method from surfaces.

1.13 APPLICATION SCHEDULE

- A. Protectosil ChemTrete 40 VOC:
 - 1. Mortar only- 100 square feet per gallon.

END OF SECTION



DIVISION 07 – THERMAL AND MOISTURE PROTECTION

SECTION 07 24 00

EXTERIOR INSULATION AND FINISH SYSTEM RESTORATION

PART 1 GENERAL

1.1 SUMMARY

A. SECTION INCLUDES

1. All labor, material, equipment, tools, and services to complete work required for the project, as indicated on the drawings and the specifications, including but not limited to:
 - a. Replace of deteriorated control joints in the EIFS system.
 - b. Repair of existing EIFS system.

B. RELATED SECTIONS:

1. Section 01 50 00 - Temporary Facilities and Controls
2. Section 01 56 00 - Barriers
3. Section 07 92 00 - Sealants
4. Section 09 91 01 - High Performance Coatings

1.2 REFERENCES

- A. ASTM C578 - Rigid Cellular Polystyrene Thermal Insulation.
- B. EIMA (Exterior Insulation Manufacturers Association) - Guideline Specification for Exterior Insulation and Finish Systems, Class PB and Class PM.

1.3 DEFINITIONS

- A. Reinforcing Mesh – A balanced, open weave, glass fiber fabric embedded between the base coat and finish coats of lamina.
- B. Finish Lamina Coat – Adds lasting color and texture to the exterior wall.
- C. Drainage Track – UV treated PVC “J” channel perforated with weep holes. For use at the base of the system at finished grade level.

1.4 SYSTEM DESCRIPTION

- A. Exterior Insulation and Finish System: EIMA Class PB system with high impact resistance.

1.5 SUBMITTALS

- A. Manufacturer's data on all manufactured products.
- B. Manufacturer's installation instructions including but not limited to preparation requirements, installation techniques, jointing requirements, acceptable weather conditions for installation, and curing time for each component of the system.
- C. Shop Drawings: Indicate details of construction including attachments, joint patterns, penetrations, interface with flashings and adjacent materials.
- D. Samples: Submit two 12" x 12" size samples illustrating coating color and texture proposed for the work.

1.6 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. EIFS manufacturer shall accept the repair procedures and that the products specified are compatible with the existing products to which they are to be applied.
- C. Applicator:
 - 1. A company specializing in performing Work of this section with minimum five years documented experience and approved by manufacturer.
 - 2. A company having successfully completed a minimum of three projects of similar size and nature within the last five years.
 - 3. Applicator shall be approved by the manufacturer for installation of the approved EIFS materials.
- D. Pre-installation meeting.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Packing, shipping, Handling and Unloading:
 - 1. Deliver materials to job site in sealed, undamaged containers/packaging.
- B. Storage and Protection:
 - 1. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage.
 - 2. Do not use materials showing evidence of water or other damage.
 - 3. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.

4. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.
- C. Protect adhesives and finish materials from freezing by storing in environment recommended by manufacturer.

1.8 PROJECT CONDITIONS

A. Environmental requirements:

1. Install materials in strict accordance with all safety and weather conditions required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.
2. Fumes and dust shall be controlled to prevent harmful or undesirable effects in surrounding areas. Do not allow fumes, dirt, dust or debris to enter building.
3. 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.

1.9 SCHEDULING

- A. Schedule Work to maintain integrity of exterior wall to prevent water penetration behind EIFS and into building.
- B. Allow sufficient time for curing of EIFS materials prior to sealant application.

1.10 WARRANTY

- A. Repairs shall be warranted for labor and material for a period of 2 years against defects due to installation or material deficiencies.

PART 2 PRODUCTS

2.1 EXTERIOR INSULATION AND FINISH SYSTEM

A. Basis of Design:

1. StoTherm Classic NExT by STO Corporation.

B. Acceptable Alternative Manufacturers:

1. Outsulation by Dryvit Systems, Inc.

2.2 COMPONENTS

- A. Expanded Polystyrene Insulation (EPS): ASTM C578, Type II conforming to the

following:

1. Thickness: to match existing.
 2. Thickness Tolerance: 1/32-inch maximum.
 3. Board Size: 2' by 8'.
 4. Board Size Tolerance: 1/16 from square and dimension.
 5. Edges: Square.
 6. Fire Hazard Classification: Meeting requirements of local and state governing authorities.
- B. Primer/Adhesive and Base Coat: Recommended by manufacturer.
- C. Reinforcing Mesh:
1. 918 Armor by Sto.
 2. Panzer 15 Reinforcing Mesh by Dryvit.
 - a. High impact classification of 150 inch-lbs minimum.
 - b. Nominal weight of 15oz. per square yard.
 - c. Interwoven, coated glass fiber mesh.
- D. Finish Coat Materials, EIMA Class PB: Synthetic vinyl composition, polymer base, as recommended by manufacturer. Color and texture to match existing.

2.3 ACCESSORIES

- A. Insulation Adhesive: Recommended by manufacturer.
- B. Cleaning Solution
1. Provide cleaning solution per the following mixture and ratio:
 - a. Warm water – 1 gallon.
 - b. Household bleach – 1 quart.
 - c. Trisodium phosphate (TSP) - 8 ounces.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces intended to receive the specified work and note conditions or defects

that will adversely affect the execution and/or quality of the work.

- B. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner 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.

3.2 PREPARATION

A. Protection:

1. Provide temporary protection during the course of the work to prevent water entry into the building and walls and to maintain the building in a weather tight condition. Ensure that protection is in place and water tight before ending day's work.
2. Be prepared for unexpected weather changes so that temporary protection can be quickly installed.
3. Protect all existing adjacent surfaces that are to remain and are not included in the work of this Section.
4. Provide safeguards from work of this Section for pedestrian traffic and adjacent property. Do not permit drift of dust or liquids.
5. Use safeguards recommended by manufacturers of products specified herein for personnel handling and applying said materials.
6. Protect surrounding areas from construction activities, dirt, dust and debris.

3.3 EIFS REPAIRS

A. General

1. Tape around perimeter of repair area to maintain straight, neat lines of termination.
2. Perform neat excavations into existing EIFS system. Maintain sharp edges, straight lines and cuts that are perpendicular to the surface of the building façade.
3. Excavations shall be rectangular or square with 90 degree corners.
4. Clean dust, debris and dirt from surfaces to receive new EIFS coating. Perform cleaning immediately prior to new coating installation.
5. Install new materials per the manufacturer's requirements and EIMA recommendations.

B. Replacement of Deteriorated EIFS

1. Remove area of deteriorated EIFS and exterior sheathing. Refer to Owner for extent of removal. Extent of removal should be to first stud or anchorage area beyond the

deteriorated area.

2. Install new sheathing board tight to existing structure. Maximum gap between boards shall not exceed 1/16". Secure sheathing board with washers and anchors at 12" on each exposed stud. Minimum (2) anchors per stud.
3. Install new EPS insulation over existing exterior sheathing. Install tight to exposed edges of existing EPS insulation. Refer to details on Drawings. Install insulation with adhesive troweled vertically and in accordance with EIFS manufacturer's requirements.
4. Apply base coat with reinforcing mesh per manufacturer's requirements. Overlap new base coat and mesh onto existing base coat and mesh. Refer to details on the Drawings. Mesh is to wrap insulation at all exposed edges per details.
5. After curing of base coat, install top coat per manufacturer's requirements. Finish on new top coat to match existing finish on adjoining EIFS areas.

3.4 FINAL CLEANING

- A. After completion of repair work, clean entire EIFS surface of repaired wall to remove all dust dirt and debris and provide a uniform color to the finished lamina per Specification Section 09 91 01.
- B. Remove all waste debris, excess materials etc. from site and disposal of legally.

END OF SECTION

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

SECTION 07 92 00

SEALANTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. EIFS sealants.
- B. Miscellaneous sealants.

1.2 RELATED SECTIONS

- A. Section 01 50 00 - Temporary Facilities and Controls
- B. Section 01 56 00 - Barriers
- C. Section 02 41 19 - Selective Structure Demolition
- D. Section 03 01 00 - Concrete Repairs

1.3 DEFINITIONS

- A. 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."

1.4 SUBMITTALS

- A. Copies of literature for all manufactured products, including manufacturer's specifications, test data and installation instructions or applicator's manual.
- B. Letter per Paragraph 1.5.A.
- C. Resume of contractor superintendent or employee per Paragraph 1.5.C.
- D. Manufacturer's certification per Paragraphs 1.5.E.
- E. Proof samples of sealants intended to be installed per Paragraph 1.5.F.
- F. If requested, Field samples of sealants installed on site per Paragraph 1.5.G.
- G. Material Safety Data Sheets on all materials which are classified as hazardous materials.
- H. Upon completion of the Work and prior to final payment, provide written recommendations for routine care and maintenance. Provide list of three

Contractors nearest the project location who are qualified to perform repairs to the sealants. Identify common causes of damage and include instructions for temporary patching until permanent repair can be made by qualified personnel.

- I. Upon completion of the Work and prior to final payment, provide a fully executed warranty.

1.5 QUALITY ASSURANCE

- A. The sealant installer must be acceptable to the manufacturer. Provide written confirmation that the intended sealant installer is acceptable to the manufacturer.
- B. The Contractor shall review locations where joint sealant work is specified, and shall submit in writing existing conditions and newly specified details which would cause sealant material to fail. Failure to review existing conditions or identify details or procedures which will cause failure of sealant material to perform as specified, the Contractor shall become responsible for all costs relating to correcting the deficient work, including all direct and indirect costs to the Owner.
- C. The Contractor's superintendent, or another technically competent employee of the Contractor approved by the Owner and Manufacturer, shall be on site and supervise installation of all sealant on this project. 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 Owner. This person identified for supervision of the work shall have supervised at least three prior projects of similar magnitude and type.
- D. The Owner 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 his Bid the costs to repair one such location for each 100 ft. of sealant installation. If inspections of these locations by the Owner reveal deficient installation of sealant, the Owner may remove additional sealant to further quantify the length of deficient sealant. The Contractor shall repair all deficient locations of sealant found by the Owner at no additional cost and no extension of time for the work.
- E. 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 Owner 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.
- F. The Owner 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 Base Bid.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in sealed, undamaged containers. Each container shall be identified with material's name, date of manufacture and lot number.
- B. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Owner.
- C. Sealant materials shall be kept sealed when not in use.
- D. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- E. Storage areas shall be heated or cooled as required for maintaining the product temperatures within the range recommended by the manufacturer.

1.7 PROJECT CONDITIONS

- A. Install sealant materials in strict accordance with all safety and weather conditions required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.
- B. Fumes and dust shall be controlled to prevent harmful or undesirable effects in surrounding areas.
- 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.

1.8 SEQUENCING

- A. Install sealants after any required concrete repairs.
- B. Install sealants after adequate cure of concrete repairs. Confirm required cure time with sealant manufacturer.

1.9 WARRANTY

- A. New exposed sealant work shall be warranted for a period of five 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 ultra violet exposure degradation.

PART 2 PRODUCTS

2.1 SILICONE SEALANTS

- A. Approved for horizontal or vertical sealant installations. Products and manufacturers include:
 - 1. Dow 888 by Dow Corning, Inc.
 - 2. Pecora 301 NS by Pecora.
 - 3. Spectrum 800 NS by Tremco Sealant Waterproofing Division.
- B. Minimum compression or extension of 50% of the nominal joint width without adhesive or adhesive failure.
- C. Primer(s) as recommended by the sealant manufacturer for each substrate.
- D. Sealants shall be gun grade (non-sag) unless otherwise noted on the Drawings or in this Section.
- E. 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 Owner.
- F. For joint edge repairs refer to Specification Section 03 01 00.

PART 3 EXECUTIONS

3.1 GENERAL

- A. Remove existing sealants in joint cavities and clean surfaces to remove residue. Rout any new joint cavities scheduled for new sealant.
- B. 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.
- C. Joint cavities that become contaminated by dirt or moisture after initial shotblasting, sandblasting or abrasive wheel preparation, shall be cleaned again and blown down with oil-free and water-free compressed air at no additional cost to the Owner.
- D. Modify the depth of existing joints by additional routing or positioning of backer rod to maintain a width to depth ratio of 2 to 1 unless otherwise noted on the drawings. At no location is the sealant width allowed to exceed 1-1/2".
- E. Reinstall new sealant where existing sealant is removed. Refer to Article 3.2 for repair sealant requirements.

F. Rout joints per details.

3.2 NEW SEALANT

A. Refer to Article 3.1 for joint cavity preparation requirements.

B. Blow down joint cavity and apply primer as recommended by the sealant manufacturer.

C. Install backer rod or bond-breaker tape where required. Vary size of backer rod if necessary based on field conditions per Article 2.1.F or Article 2.2.F.

D. Install sealant as indicated in details on the Drawings.

3.3 CLEAN-UP

A. During the progress of the Work, remove from the project all discarded coating materials, rubbish, cans and rags.

B. All sealant material and drops shall be completely removed from hardware, adjacent floor areas, metal work, etc., and the premises shall be left clean and in orderly condition.

C. All hardware, adjacent floor areas, metal work, etc., and the general premises shall be left clean and free of all construction dust, dirt and debris. This includes removal of all dust from pipes, etc., which resulted from work specified herein.

D. Repaint in matching color all curbs, columns, walls, etc., where existing paint was removed during preparation for sealant installation. Refer to Section 32 17 23.

E. Empty containers shall be removed from the garage at the end of each working day. All cloths soiled with coating that might constitute a fire hazard shall be placed in suitable metal safety containers or shall be removed from the building at the end of each working day. Special care shall be taken in storage or disposal of flammable materials. Comply with health and fire regulations.

END OF SECTION



DIVISION 9 – FINISHES
SECTION 09 91 01
HIGH PERFORMANCE COATINGS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. All labor, material, equipment, special tools and services required to clean and/or prepare surfaces and apply new coatings, as required by the Drawings.

B. Related Sections:

1. Section 01 50 00 - Temporary Facilities and Controls
2. Section 01 56 00 – Barriers
3. Section 02 41 19 - Selective Structure Demolition
4. Section 03 01 00 - Concrete Repairs
5. Section 07 24 00 - EIFS Restoration

1.2 REFERENCES

- A. ASTM D 16 – Terminology Related to Paint, Varnish, Lacquer, and Related Products.
- B. Structural Steel Painting Council (SSPC): SSPC-SP 1 – Solvent Cleaning.
- C. Structural Steel Painting Council (SSPC): SSPC-SP 3 – Power Tool Cleaning.
- D. Structural Steel Painting Council (SSPC): SSPC-SP 6/NACE 3 – Commercial Blast Cleaning.
- E. Structural Steel Painting Council (SSPC): SSPC-SP 13/NACE 6 – Surface Preparation of Concrete.

1.3 DEFINITIONS

- A. "Coating" as used herein means all paint systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.
- B. "Dry Film Thickness" as used herein means the thickness of a coat in a fully cured state measured in mils (1/1000 inch).
- C. "Well-adhered" as used herein means materials that cannot be removed by lifting with a dull putty knife.

1.4 SUBMITTALS

- A. Submit manufacturer's technical information including coating label analyses and application instructions.
- B. Submit complete line of manufacturer's color samples for each product.
- C. Letter of approval per Paragraph 1.5.A.
- D. Prior project experience per Paragraph 1.5.B.
- E. Name and resume of persons per Paragraph 1.5.C.
- F. Manufacturer's sample warranty.

1.5 QUALITY ASSURANCE

- A. The contractor shall be a certified installer by the manufacturer.
- B. The contractor shall be approved by the manufacturer and shall have no less than (5) years experience in performance of similar work in size and complexity.
- C. All work under this Section shall be under the immediate control of the Contractor's superintendent(s) experienced in this type of work. The person(s) shall have supervised three prior projects of similar magnitude and type, and shall be present during all operations. This person(s) shall be approved by the Owner.
- D. Regulatory Requirements:
 - 1. Comply with applicable laws, ordinances, and the Local Building Code.
- E. Mock-Up:
 - 1. Provide mockup of coating preparation and coating system for review by Owner and Engineer. Maintain approved mock-ups during the job as reference for minimal standard of acceptance and quality of coating application.
- F. Pre-installation meeting.
- G. Provide access to work area for Owner representative or Engineer to inspect quality of work, progress, unit price items and field conditions. Access to be completed during normal working hours. If access requires mechanical equipment (man-lift, swing stage, etc.), provide necessary operators.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label, and following information:
 - 1. Name or title of material.

2. Fed. Spec. number, if applicable.
 3. Manufacturer's stock number and date of manufacture.
 4. Manufacturer's name.
 5. Contents by volume, for major pigment and vehicle constituents.
 6. Thinning instructions.
 7. Application instructions.
 8. Color name and number.
- B. Storage and Protection:
1. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage.
 2. Do not use materials showing evidence of water or other damage.
 3. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
 4. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.

1.7 PROTECTION

- A. 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.
- B. Protect the work of all other trades against damage, marking or injury by suitable covering during the progress of the coating and finishing work. Repair any damage done.
- C. Protect and filter debris and chemicals from entering storm drains. Direct water runoff from all cleaning processes to the filtration system before allowing it to enter the storm drain system.
- D. During all cleaning operations, coordinate drain protection with the local municipality.

1.8 PROJECT CONDITIONS

- A. Environmental requirements:
 1. Install coating materials in strict accordance with all safety and weather conditions required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.

2. Fumes and dust shall be controlled to prevent harmful or undesirable effects in surrounding areas. Do not allow fumes, dirt, dust or debris to enter building.
3. 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.
4. Apply water base coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 50 Deg. F. (10 Deg. C.) and 90 Deg. F. (32 Deg. C.), unless otherwise permitted by coating manufacturer's printed instructions.
5. Apply solvent-thinned coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 45 Deg. F. (7 Deg. C.) and 95 Deg. F. (35 Deg. C.), unless otherwise permitted by coating manufacturer's printed instructions.
6. Do not apply coating in snow, rain, fog or mist; or when relative humidity exceeds 85 percent or to damp or wet surfaces unless otherwise permitted by coating manufacturer's printed instructions.
7. Apply coating to surfaces that are cured and dry per manufacturer's tolerances.

1.9 WARRANTY

A. Coating System Warranty:

1. The applicator shall furnish a (5) year warranty to the Owner for all types of new coating installed. New coating work shall be warranted against defects due to installation, including but not limited to debonding and inadequate preparation.
 - a. All required testing and quality assurance operations necessary to furnish warranty are Contractor and manufacturer's responsibility.
2. The manufacturer shall furnish a (5) year warranty to the Owner for all types of new coating installed. New coating work shall be warranted against material defects, including but not limited to debonding, cohesive failure, cracking, and ultra violet exposure degradation.
 - a. All required testing and quality assurance operations necessary to furnish warranty are Contractor and manufacturer's responsibility.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Sherwin Williams.
- B. Tnemec Company.

- C. ICI Paints.

2.2 MATERIALS

- A. No lead-based products are permitted.
- B. Use no thinners other than those specified by manufacturer.
- C. Use only paints and coatings that are compatible with concrete and previously coated surfaces.
- D. Use only primers and undercoats that are suitable for each surface to be covered and that are compatible with finish coating required.
- E. Notify Engineer in writing of any anticipated problems in using coating systems specified on existing substrates.
- F. Provide cleaners for removal of loose paint, dirt, and pollutants; which are compatible with all primers, intermediate coats, and finish coat. Thoroughly rinse all clean agents before applying primer or finish coats. Pre-approve cleaning agents with paint manufacturer.
- G. All products must be provided by a single manufacturer.

2.3 MATERIALS AND PROCEDURES

- A. General Cleaning Requirements:
 - 1. All existing garage area drains shall be clear and protected prior to beginning any work.
 - 2. All biological growth must be removed prior to coating.
 - 3. All efflorescence, lime run, and surface contaminants should be removed prior to application of new coating.
 - 4. If previously coated, existing coating must be adhered to the substrate per the manufacturer's requirements. Manufacturer shall approve the surface preparation and existing conditions before the contractor applies coating to ensure the product warranty will be honored.
- B. Stucco/ Exterior Concrete/ EIFS: materials and procedures are listed in order of process/application. Apply per manufacturers recommendations.
 - 1. Surface Preparation:
 - a. SSPC-SP13 – Low pressure, warm water cleaning.
 - b. Cleaner: Provide cleaners for removal of soot, dirt, and pollutants; which are compatible with all primers, intermediate coats, and finish coat. Thoroughly

rinse all clean agents before applying primer or finish coats.

2. Approved manufacturer's systems:

a. Sherwin Williams:

- 1) Conditioner: Loxon Conditioner
- 2) Primer: Loxon Concrete & Masonry Primer – One (1) Primer coat. Application rate recommended by the manufacturer to achieve a total dry film thickness of 4.0-6.0 mils.
- 3) Finish Coats: Conflex XL – Two (2) Finish coats. Application rate recommended by the manufacturer to achieve a total dry film thickness of 6.0-7.5 mils per coat.

b. Tnemec:

- 1) Conditioner: Apply one coat of conditioner per manufacturer's recommendations to previously coated surfaces to adhere minor existing chalk to the substrate before applying primer.
- 2) Primer: Elastogrip FC 151 – One (1) Primer coat. Application rate recommended by the manufacturer to achieve a total dry film thickness of 4.0-6.0 mils.
- 3) Finish Coats: Enviro-Crete 156 – Two (2) Finish coats. Application rate recommended by the manufacturer to achieve a total dry film thickness of 4.0-8.0 mils per coat.

c. ICI Paints:

- 1) Conditioner: Apply one coat of conditioner per manufacturer's recommendations to previously coated surfaces to adhere minor existing chalk to the substrate before applying primer.
- 2) Primer: Dulux Professional Primer 2000 - One (1) Primer coat. Application rate recommended by the manufacturer to achieve a total dry film thickness of 4.0-6.0 mils.
- 3) Finish Coats: Devflex 4206 – Two (2) Finish coats. Application rate recommended by the manufacturer to achieve a total dry film thickness of 2.0-3.0 mils per coat.

C. Previously Coated or Rusted Exterior Metal: materials and procedures are listed in order of process/application. Apply per manufacturers recommendations.

1. Surface Preparation:

- a. SSPC-SP 6 Commercial Blast Cleaning to remove all loose mill scale, loose

rust, and other foreign matter.

- b. SSPC-SP1 Solvent Clean to remove all visible oil, grease, soil, and other contaminants.
2. Approved manufacturer's systems:
 - a. Sherwin Williams:
 - 1) Primer: Two (2) Coats: Macropoxy 646 - 4.0 to 6.0 mils DFT.
 - 2) Finish Coat: One (1) Coat: Hi Solids Polyurethane – 2.0 to 4.0 mils DFT.
 - b. Tnemec:
 - 1) Primer: Two (2) Coats: Chembuild Series 135; 4.0 to 6.0 mils DFT.
 - 2) Finish Coat: One (1) Coat: Endura-Tone Series 1028-Color; 2.0 to 4.0 mils DFT.
 - c. ICI Paints:
 - 1) Primer: Two (2) Coats: Devshield #4130 Rust Penetrating Metal Primer.
 - 2) Finish Coat: One (1) Coat: ICI #4206 Devoe Industrial Enamel.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces intended to receive coatings and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Starting of cleaning and coating work will be construed as applicator's acceptance of surfaces and conditions within any particular area.
- C. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner 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.

3.2 PREPARATION

- A. Protection
 1. Provide adequate protection of all surrounding surfaces not intended to receive coating from damage due to preparation, cleaning or coating procedures. Repair damage at no cost to the Owner.
 2. Program coating so that construction dirt, dust, and debris will not fall onto wet, newly coated surfaces.

3. When toxic or flammable solvents are used, the 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.
4. Provide the necessary protection to contain all dust, dirt, debris and coating chips within work area. Do not allow to migrate into building interior spaces or storm drain system.
5. Provide "Wet Paint" signs as required to protect newly coated finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of coating operations.

B. Surface Preparation

1. Perform preparation and cleaning procedures in accordance with coating manufacturer's instructions and as herein specified, for each particular substrate condition.
2. Remove all surface contamination such as chalk, loose coating, mill scale dirt, foreign matter, rust, rust stains, mold, mildew, mortar, efflorescence, weld splatter and slag, and sealers from surfaces to be coated.
3. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-coated, or provide surface-applied protection prior to surface preparation and coating operations. Remove, if necessary, for complete coating of items and adjacent surfaces. Following completion of coating of each space or area, reinstall removed items.
4. Do not field coat the following work:
 - a. Sealant Joints
 - b. Prefinished and natural finished items including but not limited to prefinished equipment, acoustic materials, finished mechanical and electrical equipment such as light fixtures and grilles.
 - c. Non-ferrous metal surfaces including aluminum, stainless steel, chromium plate, copper, and tern coated stainless steel except where noted coated.
 - d. Operating parts and labels.

C. MATERIALS PREPARATION

1. Mix and prepare coating materials in accordance with manufacturer's directions.
2. Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into material. Remove film

and, if necessary, strain material before using. Continuously agitate zinc-rich primers.

3. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing and application of coating in a clean condition, free of foreign materials and residue.

3.3 APPLICATION

A. General:

1. Apply coating in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
2. Apply additional coats when undercoats, stains, or other conditions show through final coat of coating, until coating film is of uniform finish, color, and appearance. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
3. Generally, coating surfaces behind movable equipment same as similar exposed surfaces. Coating surfaces behind permanently-fixed equipment or furniture with prime coat only before final installation of equipment.
4. Do not coat over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable coating film.

B. Scheduling Coating:

1. All caulking and sealants shall be in place and thoroughly cured prior to application of coatings.
2. Apply first-coat material to surfaces that have been cleaned, pretreated, or otherwise prepared for coating as soon as practicable after preparation and before subsequent surface deterioration.
3. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until coating has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat of coating does not cause lifting or loss of adhesion of the undercoat.
4. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

C. Application:

1. Apply prime coat of materials which is required to be coated or finished, and which has not been prime coated by others.

2. Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.
3. Pigmented (Opaque) Finishes: Complete cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.
4. Completed Work: Match approved samples for color, texture and coverage. Remove, refinish, or recoat work not in compliance with specified requirements.

3.4 CLEANING

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

3.5 SCHEDULES

- A. Coating colors shall be as indicated below:
 1. Color to be selected by Owner.

END OF SECTION

DIVISION 32 - SITE WORK
SECTION 32 17 23
PAVEMENT MARKINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Line striping.
- B. Directional arrows and text.
- C. Curb paint.

1.2 RELATED SECTIONS

- A. Section 01 56 00 - Barriers

1.3 SUBMITTALS

- A. Manufacturer product data sheets.
- B. Manufacturer produced written verifications per Article 1.4.

1.4 QUALITY ASSURANCE

- A. Pavement marking manufacturer shall verify that the pavement marking media is compatible with the vehicular traffic membrane system.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in sealed, undamaged containers. Each container shall be identified with material name, date of manufacture and batch number.
- B. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Owner.
- C. Marking materials shall be kept sealed when not in use.
- D. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
- E. Storage areas shall be heated or cooled as required maintaining the temperatures within the range recommended by the manufacturer.

1.6 WARRANTY

- A. The Contractor shall warrant the pavement marking media from chipping and peeling for a period of two years.

PART 2 PRODUCTS

2.1 MATERIALS – PAINT

- A. Basis of Design: Sherwin Williams SetFast Chlorinated Rubber Zone Marking Paint.
- B. Color to be selected by the Owner.

PART 3 EXECUTIONS

3.1 EXAMINATION

- A. The Contractor, prior to existing pavement marking removal, shall make drawings, take photographs, establish reference lines or perform other documentation necessary to ensure that existing pavement marking layout is duplicated upon completion of the Work specified in this Section.

3.2 APPLICATION

A. New Pavement Markings:

1. Paint shall be applied within 36 hours of completion of membrane top coat in accordance with the manufacturer's specifications and written instructions.
2. The surface to be painted shall be clean and dry, free of dust, debris and other loose materials.
3. Paint shall be spray applied in 2 solid coats with no thin or bare spots in either coat. Minimum dry mil thickness per coat, 7.5 mils.
4. New pavement markings shall be straight and neat. Striping shall be geometrically accurate and uniform throughout the garage. Discrepancies shall be corrected at no additional cost to the Owner.
5. Pavement marking work shall be coordinated with membrane work. Perform pavement marking on membrane systems only after the systems have cured sufficiently as recommended by the system manufacturer.
6. Traffic shall not be permitted on new pavement markings until media has properly cured per manufacturer's requirements.
7. New pavement markings shall line up with existing markings on vertical surfaces; otherwise, Contractor shall remove and replace markings on vertical surfaces.

3.3 CLEAN-UP

- A. After each day's work, remove containers, rubbish and rags.
- B. Remove drips, overspray and spillage of material from all surfaces.

END OF SECTION