CONSTRUCTION REQUEST FOR PROPOSAL

PARKING STRUCTURE PERIMETER BARRIER ENHANCEMENTS

Ann Arbor DDA

Due Date: March 21, 2023, 2:00 p.m. (local time)

Issued By:

Ann Arbor
Downtown Development Authority (DDA)
150 South Fifth Avenue, Suite 301
Ann Arbor, MI 48104
PROJECT MANUAL  
FOR  
ANN ARBOR  
DOWNTOWN DEVELOPMENT AUTHORITY  

PARKING STRUCTURE PERIMETER BARRIER ENHANCEMENTS  
ANN ARBOR, MICHIGAN  

March 8, 2023  
Project Number 211744  

ENGINEER  

FISHBECK  
4775 Campus Drive  
Kalamazoo, Michigan 49008  
269.375.3824  

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1.1 PROJECT INFORMATION

A. Notice to Bidders: Qualified bidders are invited to submit bids for Project as described in this Document according to the Instructions to Bidders.

   1. Project Location: Ann Arbor, Michigan.

C. Owner: Ann Arbor Downtown Develop Authority
   150 South Fifth Street, Suite 301
   Ann Arbor, MI 48104.
   1. Owner's Representative: Jada Hahlbrock, Manager of Parking Services

D. Engineer: Fishbeck is the lead designer, references to “Architect” or “Engineer” within the project specifications will generally refer to Fishbeck.

E. Project Description: Project primarily consists of installation of perimeter fencing at Fourth and Washington, Maynard, Forest Avenue, Fourth and William, Liberty Square, and Ann Ashley Parking Structures. Project work is indicated on the Drawings, and includes, but is not limited to:
   1. Fabrication and hot dip galvanizing of posts with connection plates, channels, and angles.
   2. Painting of existing steel.
   3. Installation of galvanized vinyl coated chain link fencing.
   4. Installation of stainless steel cable system.

F. Construction Contract: Bids will be received for the following Work:
   1. General Contract (all trades).

1.2 BID SUBMITTAL AND OPENING

A. Owner will receive electronic bids until the bid time and date at the e-mail addresses indicated below. Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner, and delivered as follows:
   1. Bid Due Date: March 21, 2023
   2. Bid Time: 2:00 p.m., local time.
   3. E-mails: Jada Hahlbrock
      Ann Arbor Downtown Development Authority
      JHahlbrock@a2dda.org
      And
      Justin Thomson
      Fishbeck
      jthomson@fishbeck.com

B. Bids will be opened privately and reviewed by Owner and Engineer.

C. The Owner reserves the right to reject any or all Bids and to waive any informality of irregularity in the Bidding. The Owner also reserves the right to delete any item or portion of the work.

1.3 BID SECURITY

A. Bid security shall be submitted with each bid in the amount of 5 percent of the bid amount. No bids may be withdrawn for a period of 60 days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.
1.4 PREBID CONFERENCE

A. A pre-bid conference for all bidders will be held at the Ann Arbor Downtown Development Offices on March 9, 2023 at 10:00 a.m., local time.

1.5 DOCUMENTS

A. Contract documents are available electronically to all prospective bidders at the following websites.
   1. MITN Purchasing Group
      https://www.bidnetdirect.com/mitn/
   2. Ann Arbor Downtown Develop Authority
      https://www.a2dda.org/who-we-are/doing-business-with-us/

1.6 TIME OF COMPLETION AND LIQUIDATED DAMAGES

A. Bidders shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time. Work is subject to liquidated damages.

1.7 BIDDER’S QUALIFICATIONS

A. Bidders must have experience with similar work and must meet qualifications identified.

B. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work. A Performance Bond, a separate Labor and Material Payment Bond, and Insurance in a form acceptable to Owner will be required of the successful Bidder.

END OF SECTION 00 11 16
SECTION 00 25 13 - PREBID MEETINGS

1.1 PREBID MEETING

A. Architect will conduct a Prebid meeting as indicated below:
   1. Meeting Date: March 9, 2023.
   2. Meeting Time: 10:00 a.m., local time.
   3. Location: Ann Arbor Downtown Develop Authority
      150 South Fifth Street, Suite 301
      Ann Arbor, MI 48104.

B. Attendance:
   1. Prime Bidders: Attendance at Prebid meeting is recommended.
   2. Subcontractors: Attendance at Prebid meeting is recommended.

C. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes to
   attendees. Minutes of meeting are issued as Available Information and do not constitute a modification to
   the Procurement and Contracting Documents. Modifications to the Procurement and Contracting
   Documents are issued by written Addendum only.
   1. Sign-in Sheet: Minutes will include list of meeting attendees.

END OF SECTION 00 25 13
SECTION 00 52 00 – AGREEMENT FORMS

A written Agreement will be executed on the City of Ann Arbor Downtown Development Contract. Included within this section is the following:

- Instructions to Bidders: IB-1 to IB-6
- Proposal: P-1 to P-4
- Bid Form: BF-1 to BF-4
- Contract: C-1 to C-10
- Contractor Declaration: CD-1 to CD-2
- Contractor Affidavit: CA-1 to CA-2
- Standard Specifications: SS-1 to SS-2

END OF SECTION 00 52 00
INSTRUCTIONS TO BIDDERS

Section 1 – Instructions to Bidders

General

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

The DDA shall make available to all prospective Bidders, prior to receipt of the Bids, access to the area in which the work is to be performed. Advance notice should be given to the Administering Department in cases where access to the site must be arranged by the DDA.

Any proposal that does not conform fully to these instructions may be rejected.

Proposals

Proposals must be submitted on the "Proposal Forms" and "Bid Forms" provided, with each blank properly filled in. Electronic proposals will be received via e-mail by the City of Ann Arbor DDA and Fishbeck at the time stipulated in the Advertisement.

Selection committee will evaluate each proposal by the criteria and point system described in this document. The DDA may also utilize discounts offered in the Bid Forms, if any, to determine the lowest responsible Bidder, so that the lowest total cost is achieved for the DDA. For unit price bids, the contract will be awarded based upon the lump sum and unit prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the DDA. If the DDA determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the DDA, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing proposals, the DDA will give consideration to alternate proposals for items listed in the forms, or other alternates which the Bidder may wish to submit, but preference will be given to Base Bid Proposals.

Reservation of Rights

1. The DDA reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause.
2. The DDA reserves the right to waive, or not waive, informalities or irregularities in terms or conditions of any proposal if determined by the DDA to be in its best interest.
3. The DDA reserves the right to request additional information from any or all bidders.
4. The DDA reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested within RFP.
5. The DDA reserves the right to determine whether the scope of the project will be entirely as described in the RFP, a portion of the scope, or a revised scope be implemented.
6. The DDA reserves the right to select one or more contractors or service providers to perform services.
7. The DDA reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted.
8. The DDA reserves the right to disqualify proposals that fail to respond to any requirements outlined in the RFP, or failure to enclose copies of the required documents outlined within the RFP.

Bid Security

Each proposal must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

Withdrawal of Bids

After the time of opening, no Bid may be withdrawn for the period of days specified in the Advertisement.

Contract Time

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated in Section II of the Contract. If these time requirements cannot be met, or if schedule improvements can be provided, the Bidder must stipulate on Bid Form Section 3 - Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

Liquidated Damages

A liquidated damages clause, as given in the Contract, provides that the Contractor shall pay the DDA as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the DDA shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.
**Wage Requirements**

Section 4, beginning at page GC-1, outlines the requirements for payment of prevailing wages or of a living wages to employees providing service to the DDA under this contract. The successful bidder must comply with all applicable requirements and may be required to provide documentary proof of compliance.

**Major Subcontractors**

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over $50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor.

**Cost Liability**

The DDA assumes no responsibility or liability for costs incurred by the bidder prior to the execution of a Professional Services Agreement. The liability of the DDA is limited to the terms and conditions outlined in the Agreement. By submitting a proposal, bidder agrees to bear all costs incurred or related to the preparation, submission, and selection process for the proposal.

**Environmental Commitment**

The DDA recognizes its responsibility to minimize negative impacts on human health and the environment while supporting a vibrant community and economy. The DDA further recognizes that the products and services the DDA buys have inherent environmental and economic impacts and that the DDA should make procurement decisions that embody, promote, and encourage the DDA’s commitment to the environment.

The DDA encourages potential vendors to bring forward emerging and progressive products and services that are best suited to the DDA’s environmental principles.

**Disclosures**

Under the Freedom of Information Act (Public Act 442), the DDA is obligated to permit review of its files, if requested by others. All information in a proposal is subject to disclosure under this provision. This act also provides for a complete disclosure of contracts and attachments thereto.
INSTRUCTIONS TO BIDDERS

Section 2 – Minimum Information Required

Proposal Format

The following describes the elements that should be included in each of the proposal sections and the weighted point system that will be used for evaluation of the proposals.

Bidders should organize Proposals into the following Sections:

A. Qualifications, Experience and Accountability
B. Workplace Safety
C. Workforce Development
D. Social Equity and Sustainability
E. Schedule of Pricing/Cost

Bidders are strongly encouraged to provide details for all of the information requested below within initial proposals. Backup documentation may be requested at the sole discretion of the DDA to validate all of the responses provided herein by bidders. False statements by bidders to any of the criteria provided herein will result in the proposal being considered non-responsive and will not be considered for award.

Bidders should submit the following:

A. Qualifications, Experience and Accountability - 20 Points

1. Qualifications and experience of the bidder and of key persons, management, and supervisory personnel to be assigned by the bidder.
2. References from four individuals or entities the bidder has worked for within the last five (5) years including information regarding records of performance and job site cooperation.
3. Evidence of any quality assurance program used by the bidder and the results of any such program on the bidder's previous projects.
4. A statement from the bidder as to any major subcontractors it expects to engage including the name, work, and amount.

B. Workplace Safety – 20 Points

1. Provide a copy of bidder's safety program, and evidence of a safety-training program for employees addressing potential hazards of the proposed job site. Bidder must identify a designated qualified safety representative responsible for bidder’s safety program who serves as a contact for safety-related matters.
2. Provide the bidder’s Experience Modification Rating ("EMR") for the last three consecutive years. Preference within this criterion will be given to an EMR of 1.0 or less based on a three-year average.
3. Evidence that all craft labor that will be employed by the bidder for the project has, or will have prior to project commencement, completed at least an authorized 10-hour OSHA Construction Safety Course.

4. The safety record of bidder and major subcontractors, including OSHA, MIOSHA, or other safety violations.

C. Workforce Development – 20 Points

1. Documentation as to bidder’s pay rates, health insurance, pension or other retirement benefits, paid leave, or other fringe benefits to its employees.

2. Documentation that the bidder participates in a Registered Apprenticeship Program that is registered with the United States Department of Labor Office of Apprenticeship or by a State Apprenticeship Agency recognized by the USDOL Office of Apprenticeship.

3. Bidders shall disclose the number of non-craft employees who will work on the project on a 1099 basis, and bidders shall be awarded points based on their relative reliance on 1099 work arrangements with more points assigned to companies with fewer 1099 arrangements.

4. Bidders will acknowledge that the City may ask them to produce payroll records at points during the project to verify compliance with this section.

D. Social Equity and Sustainability – 20 Points

1. A statement from the bidder as to what percentage of its workforce resides in the City of Ann Arbor and in Washtenaw County, Michigan. The DDA will consider in evaluating which bids best serve its interests, the extent to which responsible and qualified bidders are able to achieve this goal.

2. Evidence of Equal Employment Opportunity Programs for minorities, women, veterans, returning citizens, and small businesses.

3. Evidence that the bidder is an equal opportunity employer and does not discriminate on the basis of race, sex, pregnancy, age, religion, national origin, marital status, sexual orientation, gender identity or expression, height, weight, or disability.

4. The bidder’s proposed use of sustainable products, technologies, or practices for the project, which reduce the impact on human health and the environment, including raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and waste management.

5. The bidder’s environmental record, including findings of violations and penalties imposed by government agencies.

E. Schedule of Pricing – 20 Points

1. Completed “Bid Forms”.

IB-5
Proposal Evaluation

1. The selection committee will evaluate each proposal by the above-described criteria and point system. The DDA reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested for evaluation. A proposal with all the requested information does not guarantee the proposing firm to be a candidate for an interview if interviews are selected to be held by the DDA. The committee may contact references to verify material submitted by the bidder.

2. The committee then will schedule interviews with the selected firms if necessary. The selected firms will be given the opportunity to discuss in more detail their qualifications, past experience, proposed work plan (if applicable) and pricing.

3. The interview should include the project team members expected to work on the project, but no more than six members total. The interview shall consist of a presentation of up to thirty minutes (or the length provided by the committee) by the bidder, including the person who will be the project manager on this contract, followed by approximately thirty minutes of questions and answers. Audiovisual aids may be used during the oral interviews. The committee may record the oral interviews.

4. The firms interviewed will then be re-evaluated by the above criteria and adjustments to scoring will be made as appropriate. After evaluation of the proposals, further negotiation with the selected firm may be pursued leading to the award of a contract by the DDA Board, if suitable proposals are received.

The DDA reserves the right to waive the interview process and evaluate the bidder based on their proposal and pricing schedules alone.

The DDA will determine whether the final scope of the project to be negotiated will be entirely as described in this RFP, a portion of the scope, or a revised scope.

Work to be done under this contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents.

Any proposal that does not conform fully to these instructions may be rejected.
PROPOSAL

Ann Arbor DDA
150 South Fifth Avenue, Suite 301
Ann Arbor, Michigan 48104

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including Advertisement, Notice of Pre-Bid Conference, Instructions to Bidders, Proposal, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the DDA, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this proposal is one part.

In accordance with these bid documents, and Addenda numbered __________, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.
The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the DDA and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Proposal shall become due and payable to the DDA.

If the Bidder enters into the Contract in accordance with this Proposal, or if this Proposal is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the DDA to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the DDA believes to be in its best interest.

SIGNED THIS ___________ DAY OF __________, 2023.

________________________________________
Bidder’s Name

________________________________________
Official Address

________________________________________
Authorized Signature of Bidder

________________________________________
Telephone Number

(Print Name of Signer Above)
LEGAL STATUS OF BIDDER

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

Bidder declares that it is:

* A corporation organized and doing business under the laws of the state of 
   __________________, for whom __________________________, bearing the office title of ___________, whose signature is affixed to this proposal, is authorized to execute contracts.

* A partnership, list all members and the street and mailing address of each:

   ______________________________________________________________
   ______________________________________________________________
   ______________________________________________________________
   ______________________________________________________________

   Also identify the County and State where partnership papers are filed:

   County of __________, State of ________________________________

* An individual, whose signature with address, is affixed to this proposal:  ____________
   (initial here)
BID FORM

Section 1 - Schedule of Prices

1. Bidder will complete the work for the following price as outlined in these documents, complete as specified, using equipment and materials only of the type and manufacturers where specifically named:

| Subtotal Base Bid – First & Washington | $ __________________________ |
| Subtotal Base Bid – Maynard | $ __________________________ |
| Subtotal Base Bid – Forest Avenue | $ __________________________ |
| Subtotal Base Bid – Fourth & William | $ __________________________ |
| Subtotal Base Bid – Liberty Square | $ __________________________ |
| Subtotal Base Bid – Ann Ashley | $ __________________________ |
| Total Base Bid – All Parking Structures | $ __________________________ |

2. Contractor shall submit a lump sum Contract price for all work included in the Drawings and Specifications except as modified herein. Lump sum price shall include all costs to provide, install, and/or repair work items including, but not limited to, labor, material, equipment, supervision, overhead, profits, etc. Specific lump sum work is described below:
   a. Project mobilization shall include General Contractor and Subcontractor mobilization costs. Include permits, temporary offices, etc. Provide itemized breakdown.
   b. Project General Requirements and all miscellaneous costs associated with completion of work in accordance with the Construction Documents. This shall include, but not be limited to, shoring, barricades, cleanup, dust and fume control, layout, equipment, waste disposal, documentation, obstruction removal and replacement, etc.

3. If the required quantities of the items listed below are increased or decreased by Change Order, the adjustment unit price set forth below shall apply for each such increased or decreased quantity. The adjustment prices shall include all material and equipment costs, labor, other installation costs, and the Bidder’s overhead and profit. The adjustment price below shall be the same figure for quantity increase or quantity decrease:

<table>
<thead>
<tr>
<th>Work Item Description</th>
<th>Reference Detail/Spec</th>
<th>Units</th>
<th>Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furnish and Install Stainless Steel Cable</td>
<td>05 50 00</td>
<td>Lineal Foot</td>
<td>$</td>
</tr>
<tr>
<td>Furnish and Install Cable Support for Type E (SS Cable) Barrier</td>
<td>9/AP501</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>Furnish and Install Wing Panel</td>
<td>1/AP505</td>
<td>Each</td>
<td>$</td>
</tr>
</tbody>
</table>
BID FORM

Section 2 - Material and Equipment Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the DDA, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

If the Bidder does not suggest any material or equipment alternate, the Bidder MUST complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the contract.

Signature of Authorized Representative of Bidder
BID FORM

Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article II of the Contract, Duration, page C-1, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder MUST complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the contract.

___________________________________________
Signature of Authorized Representative of Bidder
BID FORM

Section 4 - Major Subcontractors

For purposes of this contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any individual who furnishes merely the individual’s own personal labor or services.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

<table>
<thead>
<tr>
<th>Subcontractor (Name and Address)</th>
<th>Work</th>
<th>Amount</th>
</tr>
</thead>
</table>

If the Bidder does not expect to engage any major subcontractor, the Bidder MUST complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the contract.

__________________________________________
Signature of Authorized Representative of Bidder
ANN ARBOR DOWNTOWN DEVELOPMENT SERVICE AGREEMENT

SERVICE AGREEMENT BETWEEN

_________________________________________________________________________ AND

ANN ARBOR DOWNTOWN DEVELOPMENT AUTHORITY

The Ann Arbor Downtown Development Authority, a Michigan municipal corporation, having its offices at 150 S Fifth Avenue, Suite 301, Ann Arbor, Michigan 48104 ("DDA") and ________________________________________, having its offices at ("CONTRACTOR"), Type of Business ________________, agree as follows on this day of ____________, 2023.

Address

The Contractor agrees to provide services to the DDA under the following terms and conditions:

I. DEFINITIONS

Ann Arbor Downtown Development Authority, also referred to as the DDA or the Owner.

Contract Administrator means the DDA representative authorized by the Ann Arbor Downtown Development Authority to act on the behalf of the Ann Arbor Downtown Development Authority.

Supervising Professional as defined in the General Conditions shall mean the Contract Administrator.

Design Professional means Fishbeck. Fishbeck is the lead designer, references to "Architect" or "Engineer" within the project specifications will generally refer to Fishbeck or a consultant to Fishbeck.

Project means The Ann Arbor DDA Parking Structure Perimeter Barrier Enhancements.

II. DURATION

This Agreement shall become effective on ________________, 2023, and shall remain in effect until satisfactory performance of all services or ______, whichever occurs first, unless terminated for breach or as provided in this agreement.

A. Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time.
B. The entire work for this Contract shall be completed within the time period shown below. Shorter completion times for certain portions of the work are specified in the Detailed Specifications.

1. Anticipated Contract Notice to Proceed: April 7, 2023 *(Subject to DDA Approval)*.

C. Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the DDA, as liquidated damages and not as a penalty, an amount equal to $500.00 for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the DDA shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

Liquidated damages under this section are in addition to any liquidated damages due under Section 19 of the General Conditions.

### III. SERVICES

A. General Scope: The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the Project in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

1. Contract and Exhibits
2. Construction Documents, dated _________
3. Bid No. and Addenda (if applicable)
4. Bid Proposal of Contractor, dated _________

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the Project. Materials or work described in words that so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed above in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

B. Quality of Services: The Contractor’s standard of service under this agreement shall be of the level of quality performed by businesses regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Contract Administrator.
C. **Compliance with Applicable Law:** The Contractor shall perform its services under this Agreement in compliance with all statutory, regulatory and contractual requirements now or hereafter in effect as may be applicable to the rights and obligations set forth in the Agreement.

D. **Location:** The Contractor shall provide all of these services at the locations specified.

E. **Reports/Surveys:** The Contractor may rely upon the accuracy of reports and surveys provided to it by the DDA except when defects should have been apparent to a reasonably competent contractor or when it has actual notice of any defects in the reports and surveys.

IV. **RELATIONSHIP OF PARTIES**

A. The parties to this agreement agree that it is not a contract of employment but is a contract to accomplish a specific result. Contractor is an independent contractor performing services for the DDA. Nothing contained in this agreement shall be deemed to constitute any other relationship between the DDA and the Contractor.

B. The Contractor certifies that it has no personal or financial interest in the project other than the fee it is to receive under this agreement. The Contractor further certifies that it shall not acquire any such interest, direct or indirect, which would conflict in any manner with the performance of services under this agreement. Further Contractor agrees and certifies that it does not and will not employ or engage any person with a personal or financial interest in this agreement.

C. Contractor does not have any authority to execute any contract or agreement on behalf of the DDA, and is not granted any authority to assume or create any obligation or liability on the DDA’s behalf, or to bind the DDA in any way.

D. Contractor certifies that it is not, and shall not become, overdue or in default to the City of Ann Arbor for any contract, debt, or any other obligation to the City including real or personal property taxes. The DDA shall have the right to set off any such debt against compensation awarded for services under this agreement.

V. **COMPENSATION OF CONTRACTOR**

The Contractor shall be paid on the basis of the bid price in the manner set forth in the Bid. The total fee to be paid the Contractor for the services shall not exceed ______________________ ($______). Payment shall be made within 30 days of acceptance of the work by the Contract Administrator. It is understood and agreed between the parties that the compensation stated above is inclusive of any and all remuneration to which the Contractor may be entitled.
VI. INSURANCE; INDEMNIFICATION

A. The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself, the DDA, PCI Municipal Services, and the Design Professional from all claims for bodily injuries, death or property damage which may arise under this Contract; whether the acts were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. The insurance coverage afforded by the contractor to the DDA and the Design Professional shall be primary and not excess or contributory to any insurance the DDA or Design Professional may have on its own. The following insurance policies are required:

1. Worker’s Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:
   - Bodily Injury by Accident - $500,000 each accident
   - Bodily Injury by Disease - $500,000 each employee
   - Bodily Injury by Disease - $500,000 each policy limit

2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98. The City of Ann Arbor, the Ann Arbor DDA, PCI Municipal Services, and the Design Professional shall be named as an additional insured. There shall be no added exclusions or limiting endorsements including, but not limited to: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further, the following minimum limits of liability are required:
   - $2,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.
   - $4,000,000 Per Job General Aggregate
   - $2,000,000 Personal and Advertising Injury
   - $4,000,000 Products and Completed Operations Aggregate

3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97. The City of Ann Arbor, the Ann Arbor DDA, PCI Municipal Services, and the Design Professional shall be named as an additional insured. There shall be no added exclusions or limiting endorsements. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. Further, the limits of liability shall be $1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
4. Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of $1,000,000.

B. Insurance required under VI.A.2 and A.3 of this Contract shall be considered primary as respects any other valid or collectible insurance that the DDA or the City of Ann Arbor may possess, including any self-insured retentions the DDA or City of Ann Arbor may have; and any other insurance the DDA or the City of Ann Arbor does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the DDA or the City of Ann Arbor.

C. In the case of all Contracts involving on-site work, the Contractor shall provide to the DDA before the commencement of any work under this Contract documentation demonstrating it has obtained the above mentioned policies. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the DDA. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. An original certificate of insurance may be provided as an initial indication of the required insurance, provided that no later than 21 calendar days after commencement of any work the Contractor supplies a copy of the endorsements required on the policies. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the DDA. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies to the DDA at least ten days prior to the expiration date.

D. Any insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company’s Key Rating Guide of “A-“ Overall and a minimum Financial Size Category of “V”. Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the DDA.

E. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the City of Ann Arbor, PCI Municipal Services, the Design Professional, and the DDA its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney’s fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this contract, by the Contractor or anyone acting on the Contractor’s behalf under this contract. Contractor shall not be responsible to indemnify the DDA for losses or damages caused by or resulting from the DDA’s sole negligence.
VII. COMPLIANCE REQUIREMENTS

A. Nondiscrimination. The Consultant agrees to comply and to require its subcontractor to comply, with the nondiscrimination provisions of Section 209 of the Elliot-Larsen Civil Rights Act MCL 37.2209. The Contractor further agrees to comply with the nondiscrimination provisions of Chapter 112 of the Ann Arbor City Code and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.

B. Wages: Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section." Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

Further, to the extent that any employees of the Contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with Section 1:319 of Chapter 14 of Title I of the Code of the City of Ann Arbor, the Contractor agrees to conform to Chapter 23, Living Wage, of Title I of the Code of the City of Ann Arbor, as amended. The Contractor agrees to pay those employees providing Services to the City under this Agreement a "living wage," as defined in Section 1:815 of the Ann Arbor City Code; to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this agreement are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

VIII. WARRANTIES BY CONTRACTOR

A. The Contractor warrants that the quality of its services under this agreement shall conform to the level of quality performed by businesses regularly rendering this type of service. The Contractor warrants that the work performed shall be free of defects and guaranteed for a period of one year.
B. The Contractor warrants that it has all the skills and experience necessary to perform the services it is to provide pursuant to this agreement. Further that it has available, or will engage, at its own expense, sufficient trained employees or subcontractors to provide the services specified in this Agreement.

C. The Contractor warrants that it is not, and shall not become overdue or in default to the City of Ann Arbor for any contract, debt, or any other obligation to the City of Ann Arbor including real and personal property taxes.

IX. TERMINATION OF AGREEMENT; RIGHTS ON TERMINATION

A. This agreement may be terminated by either party in the case of a breach of this agreement by the other party, if the breaching party has not corrected the breach within 15 days after notice of termination is given in conformance with the terms of this agreement. Breach under this terms of this Agreement shall include but not be limited to the failure to deliver service on time, poor quality materials or workmanship, failure to follow specifications identified in Article III above, or the unauthorized substitution of articles other than those quoted and specified in the bid documents.

B. The DDA may terminate this Agreement, on at least ten (10) days advance notice, for any reason, including convenience, without incurring any penalty, expense or liability to the Contractor except the obligation to pay for services actually performed under the Agreement.

C. Contractor acknowledges that, if this Agreement extends for several fiscal years, continuation of this Agreement is subject to appropriation of funds for this Project. If funds to enable the DDA to effect continued payment under this Agreement are not appropriated or otherwise made available, the DDA shall have the right to terminate this Agreement without penalty at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to the Contractor. The Contract Administrator shall give the Contractor written notice of such non-appropriation within thirty (30) days after it receives notice of such non-appropriation.

D. The remedies provided in this Agreement will be cumulative, and the assertion by a party of any right or remedy will not preclude the assertion by such party of any other rights or the seeking of any other remedies.

X. OBLIGATIONS OF THE DDA

A. The DDA agrees to give the Contractor access to staff and DDA managed properties as required to perform the necessary services under the agreement.

B. The DDA shall notify the Contractor of any defects in the services of which the DDA has actual notice.
XI. ASSIGNMENT

A. The Contractor shall not subcontract or assign any portion of the services without prior written consent to such action by the DDA. Notwithstanding any consent by the DDA to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under the Agreement unless specifically released from the requirement, in writing, by the DDA.

B. The Contractor shall retain the right to pledge payment(s) due and payable under the agreement to third parties.

XII. NOTICE

All notices and submissions required under this Agreement shall be delivered to the respective party in the manner described herein to the address stated in this Agreement or such other address as either party may designate by prior written notice to the other.

Notices given under this Agreement shall be in writing and shall be personally delivered, sent by next day express delivery service, certified mail, or first class U.S. mail postage prepaid, and addressed to the person listed below. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; (2) the next business day when notice is sent next day express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

If Notice is sent to the CONTRACTOR, it shall be addressed and sent to:

If Notice is sent to the DDA, it shall be addressed and sent to:

Ann Arbor DDA  
150 S Fifth Avenue,  
Suite 301  
Ann Arbor, MI 48107-8647  
Attn: Ms. Jada Hahlbrock, Manager of Parking Services

XIII. SEVERABILITY OF PROVISIONS

Whenever possible, each provision of this agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this agreement or the application of any provision to any party or circumstance will be prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this agreement or the application of the provision to other parties or other circumstances.
XIV. **CHOICE OF LAW**

This agreement shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the DDA agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this agreement. The parties stipulate that the venues referenced in this Agreement are convenient and waive any claim of non-convenience.

XV. **EXTENT OF AGREEMENT**

This agreement represents the entire understanding between the DDA and the Contractor and it supersedes all prior representations or agreements whether written or oral. Neither party has relied on any prior representations in entering into this agreement.

This agreement may be altered, amended or modified only by written amendment signed by the Contractor and the DDA.
FOR CONTRACTOR

By ____________________________
Authorized Representative

FOR THE CITY OF ANN ARBOR DDA

By ____________________________ DDA Board Chairperson

By ____________________________ DDA Executive Director
Section 43

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period ______________, 20__, to
____________, 20__, performed any work, furnished any materials, sustained any loss, damage
or delay, or otherwise done anything in addition to the regular items (or executed change orders)
set forth in the Contract titled______________________________________,
for which I shall ask, demand, sue for, or claim compensation or extension of time from the
DDA, except as I hereby make claim for additional compensation or extension of time as set
forth on the attached itemized statement. I further declare that I have paid all payroll obligations
related to this Contract that have become due during the above period and that all invoices
related to this Contract received more than 30 days prior to this declaration have been paid in full
except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement
attached regarding a request for additional compensation or extension of time.

____________________
Contractor Date

By: ___________________________
(Signature)

Its: ___________________________
(Title of Office)

Past due invoices, if any, are listed below.
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Section 44

CONTRACTOR'S AFFIDAVIT

The undersigned Contractor, ____________________________, represents that on __________, 20____, it was awarded a contract by the Ann Arbor Downtown Development Authority, Michigan to ____________________________ under the terms and conditions of a Contract titled ______.

The Contractor represents that all work has now been accomplished and the Contract is complete.

The Contractor warrants and certifies that all of its indebtedness arising by reason of the Contract has been fully paid or satisfactorily secured; and that all claims from subcontractors and others for labor and material used in accomplishing the project, as well as all other claims arising from the performance of the Contract, have been fully paid or satisfactorily settled. The Contractor agrees that, if any claim should hereafter arise, it shall assume responsibility for it immediately upon request to do so by the Ann Arbor Downtown Development Authority.

The Contractor, for valuable consideration received, does further waive, release and relinquish any and all claims or right of lien which the Contractor now has or may acquire upon the subject premises for labor and material used in the project owned by the Ann Arbor Downtown Development Authority.

This affidavit is freely and voluntarily given with full knowledge of the facts.

____________________________
Contractor
By ________________________
(Signature)
Its ________________________
(Title of Office)

Subscribed and sworn to before me, on this _____ day of ________, 20____
__________________________, ____________ County, Michigan

Notary Public
My commission expires on:
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STANDARD SPECIFICATIONS

All work under this contract shall be performed in accordance with the City of Ann Arbor, Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Advertisement. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

A copy of the Public Services Department Standard Specifications may be purchased from the Project Management Division, (Fourth Floor, City Hall, Ann Arbor, Michigan), for $35.00 per copy. In addition, a copy of these Standard Specifications is available for public viewing at the same office, for review Monday through Friday between the hours of 8:30 a.m. and 4:00 p.m.
SECTION 00 61 13 – PERFORMANCE AND PAYMENT BOND FORM

1.1 The successful Bidder will be required to furnish bonds, in form and substance satisfactory to the Owner, covering faithful performance of the Contract and payment of obligations arising thereunder.

1.2 Performance Bond and Payment Bond shall be executed on standard AIA Document A312 in accordance with the General and Supplementary Conditions.

END OF SECTION 00 61 13
SECTION 00 72 00 – GENERAL CONDITIONS

The Ann Arbor Downtown Development Authority General Conditions of the Contract for Construction GC-1 to GC-16 included within this document are hereby made a part of the Contract Documents.

END OF SECTION 00 72 00
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GENERAL CONDITIONS

Section 1 - Execution, Correlation and Intent of Documents

The contract documents shall be signed in 2 copies by the DDA and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied, have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Proposal.

Section 2 - Order of Completion

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

Section 3 - Familiarity with Work

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the DDA upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

Section 4 - Wage Requirements

Refer to Section VII of the Contract.

GC-1
Section 5- Non-Discrimination

Refer to Section VII of the Contract.

Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the DDA harmless from loss on account of infringement except that the DDA shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the DDA has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The DDA shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.
Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to it's work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the DDA. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

Section 11 - Inspection of Work

The DDA shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.
Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the DDA shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

Section 13 - Changes in the Work

The DDA may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

(1) When work under an extra work order is added to the work under this Contract;

(2) When the work is suspended as provided in Section 20;

(3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
(4) Delays in the progress of the work caused by any act or neglect of the DDA or of its employees or by other Contractors employed by the DDA;

(5) Delay due to an act of Government;

(6) Delay by the Supervising Professional in the furnishing of plans and necessary information;

(7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section 13. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

(1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
(2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;

(3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;

(4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;

(5) Payments of all charges for work under this Section in any one month, shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. Submission shall be to the Owner Representative and Supervising Professional. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the DDA will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The DDA will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.
An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2. Contractor’s Declaration is included as specification section CD-1

Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the DDA and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the DDA may remove them and, if the removed material has value, may store the material at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the DDA may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the DDA the expenses for disposal within 10 days of invoice for the disposal costs.
The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the DDA under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the DDA within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the DDA:

1. The consent of the surety to payment of the final estimate;
2. The Contractor's Affidavit in the form required by Section 44. Contractor’s Affidavit is included as specification section CA-1

In case the Affidavit or consent is not furnished, the DDA may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the DDA except those arising from:

1. unsettled liens;
2. faulty work appearing within 12 months after final payment;
3. hidden defects in meeting the requirements of the plans and specifications;
4. manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

Section 20 - Suspension of Work

The DDA may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the written notice from the DDA to the Contractor to do so. The DDA shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.
If the work, or any part, shall be stopped by the notice in writing, and if the DDA does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

Section 21 - Delays and The DDA’s Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the DDA may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the DDA may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the DDA for any excess cost to the DDA. If the Contractor's right to proceed is terminated, the DDA may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the DDA, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The DDA may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the DDA for any excess cost incurred. The expense incurred by the DDA, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the DDA, terminate this Contract and recover from the DDA payment for all acceptable work executed plus reasonable profit.
Section 23 – DDA’s Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the DDA, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the DDA may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the DDA, shall promptly remove any part or all of its equipment and supplies from the property of the DDA, failing which the DDA shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the DDA and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the DDA upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the DDA for damages to materials and equipment from any cause except negligence or willful act of the DDA. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days.

The Contractor shall assign all manufacturer or material supplier warranties to the DDA prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

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Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the DDA, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the DDA may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

Section 27 - Payments Withheld Prior to Final Acceptance of Work

The DDA may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the DDA from loss on account of:

(1) Defective work not remedied;

(2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;

(3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;

(4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the DDA, which will protect the DDA in the amount withheld, payment shall be made for amounts withheld under this section.
Section 28 - Contractor's Insurance

A. The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself, the DDA, PCI Municipal Services, and the Design Professional from all claims for bodily injuries, death or property damage which may arise under this Contract; whether the acts were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. The following insurance policies are required:

1. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

   Bodily Injury by Accident - $500,000 each accident
   Bodily Injury by Disease - $500,000 each employee
   Bodily Injury by Disease - $500,000 each policy limit

2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98. The City of Ann Arbor, the Ann Arbor Downtown Development Authority, PCI Municipal Services, and the Design Professional shall be named as an additional insured. shall be named as additional insured parties. There shall be no added exclusions or limiting endorsements including, but not limited to: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further, the following minimum limits of liability are required:

   $2,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.

   $4,000,000 Per Job General Aggregate

   $2,000,000 Personal and Advertising Injury

   $4,000,000 Products and Completed Operations Aggregate

3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97. The City of Ann Arbor, the Ann Arbor Downtown Development Authority, PCI Municipal Services, and the Design Professional shall be named as an additional insured. shall be named as additional insured parties. There shall be no added exclusions or limiting endorsements. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. Further, the limits of liability shall be $1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
4. Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of $1,000,000.

B. Insurance required under Section A.2 and A.3 of this Contract shall be considered primary as respects any other valid or collectible insurance that the DDA may possess, including any self-insured retentions the DDA may have; and any other insurance the DDA does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the DDA.

C. In the case of all Contracts involving on-site work, the Contractor shall provide to the DDA before the commencement of any work under this Contract documentation demonstrating it has obtained the above mentioned policies. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the Ann Arbor Downtown Development Authority. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the DDA, in its sole discretion; (c) that the policy conforms to the requirements specified. An original certificate of insurance may be provided as an initial indication of the required insurance, provided that no later than 21 calendar days after commencement of any work the Contractor supplies a copy of the endorsements required on the policies. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the DDA. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Department at least ten days prior to the expiration date.

D. Any Insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company’s Key Rating Guide of “A-” Overall and a minimum Financial Size Category of “V”. Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the DDA.

Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

1. A Performance Bond to the Ann Arbor Downtown Development Authority for the amount of the bid(s) accepted.

2. A Labor and Material Bond to the Ann Arbor Downtown Development Authority for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the DDA in a manner and by a Surety Company satisfactory to the DDA’s Attorney.
Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the DDA or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the DDA.

Section 33 - Rights of Various Interests

Whenever work being done by the DDA/City forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the DDA. The approval will not be given until the Contractor submits to the DDA a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the DDA may require.

The Contractor shall be as fully responsible to the DDA for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the DDA may exercise over the Contractor under any provision of the contract documents.

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Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the DDA.

Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the DDA or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the DDA unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the DDA, any additional land and access that may be required for temporary construction facilities or for storage of materials.

Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the DDA’s property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.
Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain DDA property and shall be transported or stored at a location as the Supervising Professional may direct.

Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written DDA approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The DDA may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

Section 42 - Sales Taxes

Under State law the DDA is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in DDA projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

Note: Section 43 Contractor’s Declaration is included as section CD-1, and Section 44 Contractor’s Affidavit is included as section CA-1
SECTION 00 73 00 – SUPPLEMENTARY CONDITIONS

1.1 DESCRIPTION

A. The following supplements shall modify, change, delete from or add to and shall take precedence over the General Conditions of the Contract for Construction. Where any portion of the General Conditions of the Contract for Construction is modified or any Paragraph, Subparagraph, or Clause thereof is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph, Subparagraph, or Clause shall remain in effect.

B. Definitions
   1. Ann Arbor Downtown Development Authority, also referred to as the DDA or the Owner.
   2. Design Professional or Architect: Fishbeck is the lead designer; references to “Architect” or “Engineer” within the project specifications will generally refer to Fishbeck or a consultant to Fishbeck.
   3. Contract Administrator means the DDA representative authorized by the Ann Arbor Downtown Development Authority to act on the behalf of the Ann Arbor Downtown Development Authority.
   4. Supervising Professional as defined in the General Conditions shall mean the Contract Administrator.
   5. Miscellaneous Definitions:
      a. “Provide” means to furnish, fabricate, complete, deliver, install and erect, including all labor, materials, equipment, apparatus, appurtenances, and expenses necessary to complete in place, ready for operation and use.
      b. “As shown,” “as detailed,” “as indicated” or words of similar import mean as shown, as detailed, or as indicated in the Documents.
      c. “As selected,” “as approved,” “as accepted” or words of similar import mean as selected by, as approved by, or as accepted by the Engineer.
      d. “Shall” means mandatory.
      e. “As required” means as prescribed by the Contract Documents.
      f. “As necessary” means essential to the completion of the Work.

C. The Specifications are separated into various Sections and Divisions in general accordance with the format established by the Construction Specifications Institute. No responsibility is assumed by the Owner nor the Architect for omissions or duplications by the Contractor in the completion of the Contract due to any alleged error in the arrangement of the material in the Specifications nor shall any such segregation of portions of the Work operate to make the Architect an arbiter in defining limits to the agreements between the Contractor and his Subcontractors or suppliers.
   1. Work lists, if any, in the Specification Sections have been included as optional aids to the Contractor and not as limits or mandatory distributions of the work of the various trades involved in the Project. Because of the nature of the construction process, work may be found to be described in one Section and listed in another. All work indicated or described in the Specifications is required regardless of its distribution. When items are stated as “included,” the words “but not limited to” shall be assumed as implied. The final correlation of work lists is the responsibility of the Contractor.
   2. The Specifications are of the abbreviated type and may include incomplete sentences. Omissions or phrases such as “The Contractor shall” or “complying with the requirements of” are intentional. Omitted words or phrases shall be supplied by inference in the same manner as they are when a “note” occurs on the Drawings. Words in the singular shall include the plural wherever applicable, or the context so indicates.

D. Contractor
   1. The Contractor shall supervise and direct the Work, using the Contractor’s best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. The Contractor shall review any specified or recommended construction or installation procedure, including those recommended by manufacturers, and shall advise the Architect: (1) if, in the Contractor’s opinion, the procedure deviates from good construction practice; or (2) if following the procedure will affect any warranties, including the Contractor’s general warranty; or (3) of any objections the Contractor may have to the procedure; or (4) if the Contractor proposes any alternative procedure which the Contractor is willing to warrant.
   2. The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.
3. Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

4. Except in the case of minor changes in the Work authorized by the Architect, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

E. Contractor Schedule
1. The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner’s and Architect’s information a Contractor’s construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals not less than monthly as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work. The Owner’s or Architect’s silence with respect to a submitted construction schedule that exceeds time limits current under the Contract Documents shall not relieve the Contractor of its obligation to meet those time limits. The Owner’s or Architect’s silence shall not make the Owner or Architect liable for any Contractor damages incurred because of increased construction time or not meeting those time limits.

2. The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect’s approval. The Architect’s approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor’s construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

F. Shop Drawings & Coordination Drawings
1. Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work. The Contractor shall not submit any shop drawing that is merely a tracing or other copy of any of the Contract Documents. Each shop drawing shall be prepared by the Contractor, or a subcontractor or supplier of the Contractor and shall be submitted according to the project specifications.

2. Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

3. The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors.

4. By submitting Shop Drawings, Product Data, Samples or similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

5. The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect.
6. The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect’s approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect’s approval thereof.

7. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect’s approval of a resubmission shall not apply to such revisions.

8. Coordination Drawings. The Construction Drawings indicate the desired arrangement and approximate location for conduit, piping, and duct work, and other items of equipment. The Contractor shall issue coordination drawings to ensure that the Work is constructed in a manner to avoid obstructions, preserve head room, keep openings and other passageways clear, overcome interference with structural conditions, and coordinate with other trades. The Contractor shall provide coordination drawings for all mechanical, electrical, telecommunications, data, fire protection, and any other building systems. The Contractor is entitled to use the Architect’s electronic documents as backgrounds in preparing these drawings. The Contractor shall be responsible for proper installation and coordination of equipment in the space available.

G. Administration of the Contract

1. The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner’s representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

2. The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work is in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor’s rights and responsibilities under the Contract Documents.

3. On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor’s failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

4. Except as otherwise provided in the Contract Documents, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect’s consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner. Any direct communications between any of the Owner, Architect, and Contractor that affect the performance or administration of the Contract shall be made or confirmed in writing by the Contractor. Any such communications that represent a modification to the Contract requirements shall be documented as required by the Contract Documents.

5. The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.
6. The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of its obligations. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

7. The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor.

8. Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

9. The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

H. Section 13 – Changes in the Work

1. Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Section and elsewhere in the Contract Documents.

2. A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

3. Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

4. A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.
   a. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.
   b. If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
      i. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. The lump sum proposal shall be itemized for the various components of the Work, segregated by labor, materials, equipment, in a detailed format identifying unit quantities and unit prices, satisfactory to Owner. The Contractor will provide its itemized lump sum proposal and similar proposals for any Subcontractors and Sub-subcontractors;
      ii. Unit prices stated in the Contract Documents or subsequently agreed upon;
   c. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect, in writing, of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.
d. A Construction Change Directive signed by the Contractor indicates the Contractor’s agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

e. Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect’s professional judgment, to be reasonably justified. The Architect’s interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order.

f. When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

5. If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

I. Section 16 – Progress Payments

1. Except with the Owner’s prior approval, payments to the Contractor shall be subject to retention of not less than ten percent (10%).

J. Section 21– Contractor’s Insurance

1. Insurance requirements identified in the Contract supersede the General Conditions insurance requirements.

2. The Contractor’s insurance shall protect the Contractor and Owner from claims which may arise out of or result from the Contractor’s operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

3. The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect’s Consultants as additional insureds for claims caused in whole or in part by the Contractor’s negligent acts or omissions during the Contractor’s operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor’s negligent acts or omissions during the Contractor’s completed operations.

4. PROPERTY INSURANCE - Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder’s risk “all-risk” or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall not include coverage of losses of property other than the Project. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property required to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

   a. Property insurance shall be on an "all-risk" or equivalent policy form and shall include insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect’s and Contractor’s services and expenses required as a result of such insured loss.
b. If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor shall then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner.

c. If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles. The Contractor shall pay such deductibles to the extent such costs were caused by the Contractor or any person or entity performing or supplying any portions of the Work.

d. Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.
SECTION 01 11 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work covered by the Contract Documents includes the Work of all trades required and all the labor, equipment, materials and supervision necessary and incidental to the installation of perimeter barrier enhancements (fencing) at the Ann Arbor DDA Parking Structures in Ann Arbor, Michigan.

B. Work will be performed at locations within the parking structure as indicated on the Drawings.

C. Main items of the Work required in these areas are described in the Drawings and Specifications.

D. It shall be understood that where additional Work is described, but not specifically located and/or shown on the Drawings, the Contractor shall be responsible for locating and marking areas to be repaired.

1.3 TYPE OF CONTRACT

A. Construct the Work of this Contract under a single lump sum Contract.

1.4 GENERAL

A. Imperative Language: These Specifications (Divisions 01 through 32) are written in the imperative and abbreviated form. This imperative language of the technical specifications is directed at the Contractor unless specifically noted otherwise. Incomplete sentences shall be completed by inserting "shall", "shall be" and similar mandatory phrases by inference in the same manner as they are applied to notes on the Drawings. The words "shall", "shall be" and similar mandatory phrases shall be supplied by inference where a colon (:) is used within sentences or phrases. Except as worded to the contrary, fulfill (perform) all indicated requirements whether stated in the imperative or otherwise.

B. Related Sections: Some Sections of these Specifications (Divisions 01 through 32) may include a paragraph titled "Related Sections". This paragraph is an aid to the Project Manual user and is not intended to include all Sections which may be related. It is the Contractor's obligation to coordinate all Sections whether indicated under "Related Sections" or not.

C. Reference to the General Conditions: In Divisions 01 through 32, a reference to the General Conditions includes by inference all amendments or supplements in the Supplementary Conditions.

D. Furnish, Install, Perform, Provide:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of the Contractor, "provide" is implied.
1.5 WORK BY OTHERS
   A. The Owner may have other Work occurring within the parking structures at the same time as this Project. This Contractor shall cooperate at all times with the Owner to ensure that all Work proceeds without delay to scheduled completion.

1.6 CONTRACTOR USE OF PREMISES
   A. Limit use of premises to allow for Owner occupancy and public access.
   B. Coordinate use of premises under direction of the Owner.
   C. Where the Contract Documents identify certain site elements within the construction limits, such as sidewalks, drives, and streets, that must be kept open for public or the Owner’s use during construction, the Contractor shall be responsible for protection and maintenance of such elements as well.

1.7 OCCUPANCY REQUIREMENTS
   A. Owner Occupancy During Construction:
      1. The Owner will occupy or utilize the premises during the entire period of construction for conduct of the Owner’s normal operations. Coordinate with the Owner to minimize conflict and to facilitate the Owner’s operations.
      2. Limit parking for construction vehicles to an area located within work areas.

1.8 WORK SEQUENCE
   A. Prior to commencement of Work, coordinate construction schedule and operations with the Owner and Engineer.
   B. Notify Owner at least 24 hours prior to beginning any demolition or abrasive blasting operations.
   C. Remove all removed concrete and debris from areas exposed to public view and dispose.
   D. Remove dust and debris created by demolition from the remainder of the facility at the conclusion of operations.
   E. Sequence Submittal: Submit a proposed sequence with appropriate times of starting and completion of tasks to the Engineer and Owner for review.

1.9 CONTRACTOR LOG
   A. Furnish and maintain one logbook at the Project site. Daily entries into this log should include:
      1. Weather conditions and temperature
      2. General progress of the Project
      3. Materials received
      4. Amount of materials placed
      5. Tests performed
      6. Inspections made by other authorities
      7. All visitors to the Project site
      8. Unresolved problems
   B. Submit for record one copy of the log to the Engineer weekly.
1.10 EXAMINATION OF SITE

A. Visit the site of the Work, compare the drawings and specifications and other Contract Documents with existing conditions. Failure to visit the site will in no way relieve the Contractor from the necessity of furnishing of materials or performing any work that may be required to complete the work in accordance with the Contract Documents.

B. Where the installation of new construction is dependent on existing dimensions, the Contractor will be responsible for the verification of existing dimensions prior to the construction or fabrication of materials.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01 11 00
SECTION 01 25 13 – PRODUCT SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the administration of substitutions and Product options.

1.3 SUBMITTALS

A. List of all Products proposed for installation:
   1. Submit electronic copies within 30 days after the date of the Owner’s signature on the Agreement Supplement, unless otherwise indicated elsewhere in the Contract Documents.
   2. Tabulate the list by each Specification Section.

1.4 CONTRACTOR'S OPTIONS

A. Products specified only by reference standards or by description:
   1. Select any Product meeting the standards or description by any Supplier unless otherwise required elsewhere in the Contract Documents.
   2. Submit for the Engineer’s review:
      a. Name and address of Supplier.
      b. Trade name.
      c. Model or catalog designation.
      d. Manufacturer's data including:
         1) Performance and test data.
         2) Compliance with reference standards.

B. Products specified by naming one or more suppliers without an "Or Equal" Clause:
   1. Use specified Product of one of the Suppliers named.
   2. No substitutions.

C. Products specified by naming one or more suppliers with an "Or Equal" Clause:
   1. Indicates the option of selecting equivalent Products by stating "or equal" after the specified Suppliers.
   2. The Engineer may waive some or all of the requirements specified for substitutions if, at the Engineer's sole discretion, the proposed equivalent Product is considered an "or equal".
   3. If, at the Engineer's sole discretion, the proposed equivalent Product does not qualify as an "or equal", it will be considered as a proposed substitute and a substitution request submittal will be required.

1.5 SUBSTITUTIONS

A. Substitutions after the date of the Owner’s signature on the Agreement Supplement:
   1. Within 30 days after the date of the Owner’s signature on the Agreement Supplement.
   2. The Engineer will consider formal requests for substitution of Products in place of those specified unless otherwise prohibited elsewhere in the Contract Documents.

B. Substitution Request Submittals: Submit an electronic copy of the request for substitution including the following:
   1. Complete data substantiating compliance of the proposed substitution with the Contract Documents.
   2. For Products:
      a. Names and addresses of Manufacturer and Supplier.
      b. Product identification.
c. Manufacturer's literature, including:
   1) Product description.
   2) Performance and test data
   3) Reference standards.

d. Samples.

e. Name and address of similar projects on which the Product was used and date of installation.

3. For Construction Methods:
   a. Detailed description of the proposed method.
   b. Drawings illustrating methods.

4. Itemized comparison of proposed substitution with Product or method specified.

5. Data relating to changes in the construction schedule.

6. Accurate cost data on the substitution and comparison with the Product or method specified.

7. Changes to the Work which would be caused by the substitution.

C. Contractor's Responsibilities: In making a request for a substitution, the Contractor represents:
   1. The Contractor has personally investigated the proposed Product or method and determined that it is equal or superior in all respects to that which is specified.
   2. The Contractor will provide the same guarantee for the substitution as for the Product or method specified.
   3. The Contractor will coordinate installation of the accepted substitution into the Work making such changes as may be required for the Work to be completed in all respects.
   4. The Contractor waives all claims for additional cost related to the substitution which consequently become apparent.
   5. Cost data is complete and includes all related costs under the Contractor's contract, but excludes costs under separate contracts and the Engineer's redesign costs.

D. Substitutions Not Considered: Substitutions will not be considered if:
   1. Requests are delivered to Engineer more than 30 days after the Owner/Contractor agreement has been signed.
   2. They are indicated or implied on Shop Drawings or Product data submittals without formal request submitted in accordance with this Section.
   3. Acceptance will require substantial revision of the Contract Documents.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01 25 13
SECTION 01 26 13 – REQUESTS FOR INFORMATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes procedures for Contractor to give notice of conflicts, errors, ambiguities, or discrepancies in the Contract Documents.

1.3 DEFINITIONS

A. Abbreviation: Request for Information (RFI).

1.4 REQUESTS FOR INFORMATION

A. Format:
   1. Use the enclosed RFI form or, at Contractor's option, generate form.
   2. Minimum required content of Contractor's RFI form:
      a. Project name.
      b. Name and address of Contractor.
      c. RFI number.
      d. RFI date.
      e. Name of initiator.
      f. Complete written request, with sketches as required.
      g. Signature of initiator.
      h. Space for written response by Engineer, with signature and date of Engineer's representative.

B. Procedures:
   1. Maintain a log of RFIs, including the RFI date and the date of the response.
   2. Allow at least 15 full working days for Engineer's response following Engineer's receipt of RFI.
   3. Submit written justification for shorter response time.
   4. Do not submit RFIs for information already included in the Contract Documents.
   5. Illegitimate RFIs may be cause for deductions in the Contract amount. See the Supplementary Conditions.
   6. RFIs submitted directly by subcontractors or vendors will be rejected.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.1 SCHEDULES

A. Attached is the following form:
   1. Request for Information.
<table>
<thead>
<tr>
<th>REQUEST FOR INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAGE 1 OF 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTRACT FOR:</th>
<th>PROJECT NO.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWNER:</td>
<td></td>
</tr>
<tr>
<td>CONTRACTOR:</td>
<td></td>
</tr>
<tr>
<td>ENGINEER:</td>
<td></td>
</tr>
</tbody>
</table>

**THE CONTRACTOR SHALL COMPLY WITH THE PROCEDURES IN DIVISION 01 SECTION “REQUESTS FOR INFORMATION.”**

<table>
<thead>
<tr>
<th>RFI No.:</th>
<th>FTCH Project Manager:</th>
</tr>
</thead>
</table>

**REQUEST**

<table>
<thead>
<tr>
<th>RFI From:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**RESPONSE**

<table>
<thead>
<tr>
<th>Response From:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

END OF SECTION 01 26 13
SECTION 01 29 16 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

   A. This Section includes submittal to the Owner's designee of Applications for Payment and supporting documentation.

1.3 PROJECT PRICING

   A. Bidder shall complete the Bid Form, including all requested information.

   B. Project pricing is a combination of lump sum work items and unit price work items.

1.4 UNIT PRICES

   A. Submit unit prices for each unit price item listed in the Bid Form. The amount of each unit price shall be stipulated in the space provided in the Bid form.

1.5 LUMP SUM PRICES

   A. Submit lump sum prices for each lump sum item listed in the Bid Form. The amount of each lump sum price shall be stipulated in the space provided in the Bid Form.

1.6 UNIT PRICE QUANTITY MEASUREMENT

   A. The Contractor’s measurement of work-in-place that involves use of established unit prices will be reviewed by the Owner and Engineer.

   B. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this Work measured by an independent surveyor acceptable to the Contractor at the Owner's expense.

   C. Maintain plan drawings locating all unit price repairs performed. Location and size of patches, overlays, etc. must be located on clean drawings. Separate drawings shall be maintained for each level. Contractor shall submit copy of drawing identifying current quantities with each payment request. Work being invoiced must be properly identified. These drawings shall be incorporated into “Record Drawings” set required in accordance with Division 01.

   D. Quantity measurements shall be performed as described in the Specifications or indicated on Drawings.

1.7 APPLICATION FOR PAYMENT

   A. The form of Application for Payment shall be notarized AIA Document G702, "Application and Certification for Payment," supported by AIA Document G703, Continuation Sheet.
B. Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. An incomplete or incorrect Application for Payment will constitute reason for refusing to recommend payment and will be returned without action.
   1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
   2. Include amount of change orders issued prior to the last day of construction period covered by the application.

C. Submit an executed electronic copy of the Application for Payment to the Engineer including waivers of lien and similar attachments, when required.

D. Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
   1. List of subcontractors
   2. List of principal suppliers and fabricators
   3. Schedule of Values
   4. Contractor's Construction Schedule (preliminary, if not final)
   5. Schedule of principal products
   6. Submittal Schedule (preliminary, if not final)
   7. List of Contractor's staff assignments
   8. List of Contractor's principal consultants
   9. Copies of permits
   10. Copies of authorizations and licenses from governing authorities for performance of the Work
   11. Initial progress report
   12. Certificates of insurance and insurance policies
   13. Performance and payment bonds
   14. Data needed to acquire Owner's insurance

E. Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
   1. Completion of Project closeout requirements
   2. Completion of items specified for completion after Substantial Completion
   3. Assurance that unsettled claims will be settled
   4. Assurance that Work not complete and accepted will be completed without undue delay
   5. Transmittal of required Project construction records to Owner
   6. Proof that taxes, fees and similar obligations have been paid
   7. Removal of temporary facilities and services
   8. Removal of surplus materials, rubbish, and similar elements
   9. Warranties

1.8 WAIVERS OF MECHANICS LIEN

A. With each Application for Payment submit waivers of mechanics liens from subcontractors or sub-subcontractors and suppliers for the construction period covered by the previous application.

B. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, and on each item.

C. When application shows completion of an item, submit final or full waivers.

D. The Owner reserves the right to designate which entities involved in the Work must submit waivers.

E. Submit waivers of lien on forms and executed in a manner acceptable to the Owner.

PART 2 - PRODUCTS

Not used.
PART 3 - EXECUTION

Not used.

END OF SECTION 01 29 16
SECTION 01 31 13 – PROJECT COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes provisions for coordination of the Work.

1.3 GENERAL COORDINATION

A. Coordinate scheduling, submittals and work of the various Sections of the Specifications to:
   1. Ensure efficient and orderly sequence of installation of interdependent construction elements.
   2. Provide for items to be installed later.

1.4 ACCEPTANCE OF CONDITIONS

A. Inspection:
   1. Prior to performing work under a Section:
      a. Carefully inspect the installed work.
      b. Verify that all such work is complete to the point where the work under that Section may properly commence.
      c. Starting of work indicates acceptance of the condition of components to which the work will be applied.
   2. Verify that all materials, equipment, and Products to be installed under a Section may be installed in strict accordance with the design and reviewed Shop Drawings.

B. Discrepancies:
   1. Resolve all discrepancies and conflicts between the trades.
   2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01 31 13
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes scheduling and administering of preconstruction and progress meetings.

B. Scheduling and Administration of Meetings:
   1. Responsibility:
      a. Preconstruction Meeting: Engineer.
      b. Progress Meetings: Engineer.
   2. Procedures:
      a. Prepare agenda.
      b. Distribute written notice and agendas of meetings in advance of the meeting date.
      c. Make physical arrangements for the meetings.
      d. Preside at meetings.
      e. Record minutes and include significant proceedings and decisions.
      f. Distribute copies of the minutes after meetings to:
         1) Participants.
         2) Others affected by proceedings.

1.3 PRECONSTRUCTION MEETING

A. Schedule: Preconstruction meeting will be scheduled by the Engineer:
   1. Within 21 days after the date of the Owner’s signature on the Agreement Supplement.
   2. Before starting the Work at the site.

B. Attendance:
   1. Representatives of the following parties are to attend the meeting:
      a. Owner’s representatives.
      b. Engineer’s representatives.
      c. Contractor’s project manager.
      d. Contractor’s field superintendent.
      e. Major subcontractors.

1.4 PROGRESS MEETINGS

A. Types of Progress Meetings:
   1. Regular.
   2. Called.
   3. Preinstallation for the following:
      a. Prior to drilling for post-installed anchorage.
      b. Prior to field welding.

B. Schedule meetings as follows unless otherwise approved by the Engineer:
   1. Regular: Bi-weekly.
   2. Called: As the progress of the Work dictates.
   3. Preinstallation: At least 5 working days prior to start of installation.

C. Location: Hold meetings at Project Site or as indicated in the notice.
D. Attendance: Representatives of the following parties are to be in attendance at the meeting:
   1. Engineer's representatives.
   2. Contractor's project manager.
   3. Contractor's field superintendent.
   4. Major Subcontractors as pertinent to the agenda.
   5. Owner's representative as appropriate.

E. Minimum Agenda: The minimum agenda for progress meetings shall consist of the following:
   1. Review and approve minutes of previous meetings.
   2. Review progress of the Work since the previous meeting.
   3. Note field observations, problems and decisions.
   4. Identify problems which impede planned progress.
   5. Review offsite fabrication problems.
   6. Develop corrective measures and procedures to regain planned schedule.
   7. Revise construction schedule as indicated.
   8. Review submittal schedules; expedite as required to maintain schedule.
   10. Review changes proposed by the Owner for their effect on the construction schedule and completion date.
   11. Identify all claims and potential claims.
   12. Pending changes and substitutions.
   13. Complete other current business.

PART 2 - PRODUCTS
Not used.

PART 3 - EXECUTION
Not used.

END OF SECTION 01 31 19
SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes procedures for the submittal of Shop Drawings, Product Data, Samples, Operation and Maintenance Manuals, and other information.

B. Related Sections include pertinent Sections of these Specifications for the individual Submittals required.

1.3 DEFINITIONS

A. Submittal: Information sent by Contractor to convey information about systems, equipment, materials, products, and administrative matters for the Work.

B. Resubmittal: Submittal sent for review a second or further time.

C. Product Data: Illustrations, standard schedules, diagrams, performance charts, instructions, brochures, or manufacturer’s literature that describe the physical size, appearance, and other characteristics of materials or equipment for a portion of the work.

D. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

E. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

F. Action Submittals: Submittal that requires Engineer’s response.

G. Informational Submittals: Submittal that does not require Engineer’s response.

1.4 SUBMITTAL PROCEDURES

A. Submittal Schedule:

1. Prepare and submit a Submittal schedule that identifies the following for each Submittal:
   a. Submittal number
   b. Submittal description
   c. Projected date Submittal will be submitted.

2. An electronic copy (MS Excel file) of a blank Submittal schedule, in the preferred format, will be furnished by Engineer at the preconstruction meeting.

3. Submittal Numbers:
   a. Use the applicable Specification Section number followed by a decimal point and then a sequential number (e.g., 32 31 13.1).
   b. Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 07 18 00.1.A).
   c. Submittals that are not numbered correctly may be rejected.
B. Delivery Method:
   1. Paper Copies: Unless indicated otherwise, submit 2 copies of each Submittal. One copy of each Action Submittal will be returned to Contractor. Extra copies submitted by Contractor will be discarded.
   2. Electronic Files:
      a. Unless indicated otherwise, submit 1 copy of each Submittal in a format capable of being read using Adobe Acrobat Reader.
      b. Scanned Submittals shall be produced in such a way as to not compromise the graphic quality or accuracy of scale, where applicable; and text shall be searchable.
      c. One copy of each Action Submittal will be returned to Contractor.
      d. Transmit Submittals via electronic mail (e-mail) or web-based collaboration and document sharing system, where used. Submittals that are transmitted electronically will be returned electronically.
   3. Transmit Submittals to party and address identified by Engineer at preconstruction meeting.

C. Coordination and Timing: Coordinate preparation and processing of Submittals with performance of construction activities. Contractor is responsible for cost of delays caused by lack of coordination or tardiness of Submittals. Incomplete Submittals will be rejected.
   1. Coordinate each Submittal with fabrication, purchasing, testing, delivery, other Submittals, and related activities that require sequential activity.
   2. Coordinate transmittal of different types of Submittals for related parts of the Work so processing will not be delayed because of need to review Submittals concurrently for coordination.
      a. Engineer reserves the right to withhold action on a Submittal requiring coordination with other Submittals until related Submittals are received.

D. Processing Time: Allow 15 full working days for Engineer to review each Submittal, including Resubmittals. Time for review shall commence on Engineer’s receipt of Submittal. No extension of the Contract Time will be authorized because of failure to transmit Submittals enough in advance of the Work to permit processing, including Resubmittals. Engineer will advise Contractor when a Submittal being processed must be delayed for coordination.

E. Identification: Place a permanent label on each Submittal or generate a separate cover sheet.
   1. Indicate name of firm or entity that prepared Submittal.
   2. Provide space to record Contractor’s review and approval markings and action taken by Engineer.
   3. Include the following information:
      a. Project name.
      b. Date.
      c. Name and address of Engineer.
      d. Name and address of Contractor.
      e. Name and address of Subcontractor(s).
      f. Name and address of Supplier(s).
      g. Name of Manufacturer.
      h. Submittal number, including revision identifier.
      i. Drawing number and detail references, as applicable.
      j. Location(s) where product is to be installed, as applicable.
      k. Other necessary identification.

F. Deviations: Encircle or otherwise specifically identify deviations from the Contract Documents on Submittals. Submittals that include deviations that are not identified may be rejected. Engineer may or may not consider deviations. Deviations are not substitutions. Refer to Division 01 Section “Product Substitution Procedures” for procedures regarding requests for substitutions.

G. Transmittal: Package each Submittal individually and appropriately for transmittal and handling. Transmit each Submittal using a transmittal form. Engineer will reject Submittal(s) received from sources other than Contractor.

H. Resubmittals: Make Resubmittals in same form and number of copies as initial Submittal.
   1. Note date and content of previous Submittal.
   2. Clearly identify additions and revisions.
   3. Resubmit Submittals until they are marked, “Reviewed, No Exceptions Noted” or “Reviewed With Corrections Noted.”
1. Distribution: Furnish copies of Submittals with mark indicating, “Reviewed, No Exceptions Noted” or “Reviewed With Corrections Noted,” to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities.

J. Use for Construction: Unless otherwise indicated by Engineer, use only Submittals with mark indicating, “Reviewed, No Exceptions Noted” or “Reviewed With Corrections Noted.”

1.5 CONTRACTOR’S USE OF ENGINEER’S ELECTRONIC DRAWING FILES

A. At Contractor’s written request, copies of Engineer’s electronic Drawing files may be provided to Contractor for Contractor’s use in connection with Project, including Submittal preparation. Electronic files may be furnished by Engineer for the convenience of the Contractor. Conclusions or information obtained or derived from such electronic files will be at the Contractor’s sole risk. Materials furnished by Engineer that may be relied upon are limited to printed Contract Documents.

B. When Contractor uses Engineer’s electronic Drawing files to facilitate Submittal preparation, prepare Submittals to be project specific. Submittals that are not project specific, including Engineer’s Drawing files submitted on a new title block, will be rejected.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

A. General: Prepare and submit project specific Action Submittals required by individual Specification Sections. Do not use highlighting that would not be reproducible. Include a table of contents or index with each Submittal.

B. Product Data: Collect information into a single Submittal for each element of construction and type of product or equipment.
   1. If information must be specially prepared for Submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
   2. Mark each copy of each Submittal to indicate which products and options are applicable.
   3. Include the following information, as applicable:
      a. Manufacturer's written recommendations.
      b. Manufacturer's product specifications.
      c. Manufacturer's installation instructions.
      d. Standard color charts.
      e. Manufacturer's catalog cuts.
      f. Wiring diagrams showing factory-installed wiring.
      g. Printed performance curves.
      h. Operational range diagrams.
      i. Mill reports.
      j. Standard product operation and maintenance manuals.
      k. Compliance with specified referenced standards.
      l. Testing by recognized testing agency.
      m. Application of testing agency labels and seals.
      n. Notation of coordination requirements.
   4. Submit Product Data before or concurrent with Samples.
   5. Maintain copy of returned Submittal for Project records.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale where appropriate. Scale shall be sufficiently large to indicate pertinent features of the item and its method of connection to the Work.
   1. Preparation: Fully illustrate requirements of the Contract Documents. Include the following information, as applicable:
      a. Dimensions.
      b. Identification of products.
      c. Fabrication and installation drawings.
      d. Roughing-in and setting diagrams.
      e. Wiring diagrams showing field-installed wiring, including power, signal, control, and communication wiring. Differentiate between Manufacturer-installed and field-installed wiring.
      f. Manufacturing instructions.
g. Templates and patterns.
h. Schedules.
i. Calculations.
j. Compliance with specified standards.
k. Notation of coordination requirements.
l. Notation of dimensions established by field measurement.
m. Relationship to adjoining construction clearly indicated.

2. Sheet Size: Submit Shop Drawings on sheets at least 8-1/2 x 11 inches but no larger than 24 x 36 inches.

3. Maintain copy of returned Submittal for Project records.

2.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by individual Specification Sections. Do not use highlighting that would not be reproducible. Include a table of contents or index with each Submittal. As part of electronic submittals, the table of contents or index shall include electronic bookmarks to the first page of the respective Section(s) identified.

B. Contractor’s Construction Schedule: Prepare and submit within 15 days after the date of the Owner’s signature on the Agreement Supplement an estimated construction progress schedule in bar chart form. Extend schedule from date established for the execution of the Contract to date of final completion.
   1. Prepare a list of all activities required to complete the work. Identify critical path activities, including material lead time. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
   2. Coordinate construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
   3. Schedule shall include provisions for submittal review time, resubmittal review time, procurement time, material cure time, adverse weather, and constraints and work restrictions in the Contract Documents.
   4. Schedules for work shall indicate the areas to be closed during each phase of construction and shall indicate the proposed traffic flow for each phase.

C. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects/engineers and owners, and other information specified.

E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.

F. Installer Certificates: Prepare written statements on Manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by Manufacturer for this Project.

G. Product Certificates: Prepare written statements on Manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

H. Material Certificates: Prepare written statements on Manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
I. Manufacturer's Instructions: Prepare written or published information that documents Manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of Manufacturer. Include the following, as applicable:
1. Preparation of substrates.
2. Required substrate tolerances.
3. Sequence of installation or erection.
4. Required installation tolerances.
5. Required adjustments.
6. Recommendations for cleaning and protection.

PART 3 - EXECUTION

3.1 CONTRACTOR’S REVIEW

A. Review each Submittal and check for coordination with other work of the Contract and for compliance with the Contract Documents. Verify all field dimensions and conditions; note corrections as necessary. Mark with approval stamp before submitting to Engineer.
1. Approval Stamp: Stamp each Submittal with an approval stamp. Use the same stamp format for each Submittal. Include Project name and location, Submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that Submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

B. Submittals that are not approved and stamped by Contractor will be rejected.

3.2 ENGINEER’S REVIEW

A. Action Submittals: Engineer will review Action Submittals, make marks to indicate corrections or modifications required, and return Submittal. Engineer will stamp each Submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
1. Reviewed, No Exceptions Noted: Submittal appears to conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Reviewed With Corrections Noted: Upon incorporation of review comments, it appears that Submittal will conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
3. Revise and Resubmit: Submittal has one or more specific segments that are incomplete, do not appear to conform to the information given in the Contract Documents, or are incompatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Contractor shall resubmit information for review to demonstrate understanding of comments and portions of Work to be provided. Except as noted, Contractor shall not proceed with Work related to Submittal.
4. Rejected, Resubmit: Submittal as a whole is incomplete, does not appear to conform to the information given in the Contract Documents, or is incompatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Contractor shall resubmit information for review to demonstrate understanding of comments and portions of Work to be provided. Contractor shall not proceed with Work related to Submittal.

B. Informational Submittals: Other Submittals required by the Contract Documents are for information only. Engineer will acknowledge receipt of Informational Submittals. Such Submittals include, but are not limited to:
1. Qualifications Data.
2. Certificates.
3. Test Reports.
4. Manufacturer’s Instructions.
5. Maintenance Data.
6. Field Reports.

C. Submittals not required by the Contract Documents will be returned without being reviewed.

D. Partial Submittals are not acceptable, will be considered non-responsive, and will be rejected.
3.3 RE-REVIEW COSTS

A. Compensation:
1. Should Engineer be required to review a Submittal more than twice because of failure of the Submittal to meet the requirements of the Contract Documents, Engineer will record Engineer’s expenses for performing all additional reviews.
2. Owner will compensate Engineer for these additional services and deduct the amount paid from payments to Contractor.

END OF SECTION 01 33 00
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of the construction facilities as follows:
   1. Temporary utilities: Water, electricity, and telephone.
   2. Sanitary facilities.
   3. Temporary heat.
   4. Enclosures such as tarpaulins, barricades, and canopies.
   5. Storage areas.

1.3 STORAGE AREAS

A. Locations:
   1. Carefully coordinate with the Owner.
   2. Subject to approval of the Owner.

B. Protection and Restoration:
   1. Take reasonable means to prevent spillage of fuel, oil, chemicals and similar materials.
   2. Provide secondary containment for storage of hazardous materials, as required by governing authorities or agencies.

C. Cleaning: Keep storage areas clean in accordance with Division 01 Section “Cleaning and Waste Management.”

D. Storage: Maintain in accordance with Division 01 Section “Product Storage and Handling Requirements.”

1.4 CONSTRUCTION LOADS

A. Maximum construction loads of 30 pounds per square foot will be allowed on the parking structure during construction.

1.5 ELEVATORS

A. Contractor's personnel and subcontractor shall not use parking structure elevators for transportation of materials or equipment.

1.6 USE OF PARKING AREAS

A. Contractors shall not provide parking for their employees and subcontractors on the premises outside their work areas without paying for the spaces.

1.7 JOBSITE DOCUMENTS

A. The most recent copies of the following documents shall be maintained at the jobsite:
   1. Construction Drawings and Specifications, including all changes made by addenda, bulletins, and change orders.
   2. Approved submittals.
   3. Health and Safety Data Sheets.
   4. Obsolete or unapproved submittals and health and safety data sheets shall not be kept at the jobsite.
PART 2 - PRODUCTS

2.1 MATERIALS

A. General:
1. New or used.
2. Adequate in capacity for the required usage.
3. Provide safe conditions.
4. Comply with requirements of applicable codes and standards.

2.2 UTILITIES

A. Temporary Utilities:
1. Water:
   a. The Owner will pay for water usage charges.
   b. Furnish, install, remove and pay for all temporary piping, water meters, equipment and connections.
   c. Obtain water by connection to the Owner’s existing water system.
2. Electricity:
   a. The Owner will pay for electrical usage charges.
   b. Furnish, install, remove and pay for all temporary wiring, equipment switches, panels, connections and transformers.
   c. Furnish, install, remove, and pay for area distribution boxes so located that power and artificial lighting are available at all points where required by the Work.
   d. Obtain electrical power by connecting to the Owner’s existing system.
3. Construction Telephones: No telephones will be provided by Owner.
4. Existing Utilities: Do not disturb existing utilities servicing adjacent building without written permission from the Owner.

2.3 SANITARY FACILITIES

A. Furnish and install required sanitary facilities, including temporary sanitary toilets and hand sanitizing stations, for use of workers; comply with minimum requirements of the Health Department or other public agency having jurisdiction; maintain in a sanitary condition at all times.

2.4 CONSTRUCTION HEATING

A. General:
1. All heating required during the progress of the Work shall be classified “temporary heat”.
2. Furnish approved heaters and fuel as required by construction activities, for storing temperature-sensitive materials, for installing materials, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity
3. Keep equipment and surroundings in clean, safe condition.
4. Pay all fuel bills for heat.

B. Temperatures: See requirements of various other Sections of these Specifications for minimum temperature to be maintained for the application of work under the various trades.

2.5 FIRE PROTECTION

A. Provide adequate fire protection and fire prevention for the Project and in no case less than that required by applicable City, County, State, and Federal Laws.

2.6 OTHER TEMPORARY CONSTRUCTION FACILITIES

A. Furnish, install, and maintain all other temporary construction facilities necessary for proper completion of the Work.
PART 3 - EXECUTION

3.1 GENERAL

A. Comply with applicable requirements specified in Local Building Code.

B. Maintain and operate systems to ensure continuous service.

C. Modify and extend systems as Work progress requires.

3.2 DUST AND FUME CONTROL

A. Contractor shall take all necessary precautions to keep dust confined in the present work area.

B. Contractor shall be responsible for any damage to vehicles due to the construction.

C. Contractor shall submit to the Owner, for approval, proposed methods used to contain dust and fumes in work area.

D. Prevent hazardous accumulations of dusts, fumes, mists, vapors or gases in areas occupied during construction. Provide local exhaust ventilation to prevent harmful dispersal of hazardous substances into atmosphere of occupied areas. Dispose in manner that will not result in harmful exposure to persons. Ventilate storage spaces containing hazardous or volatile materials.

E. Water shall be used during concrete removal, saw cutting, etc. to contain dust.

3.3 DEBRIS CONTROL

A. Contractor shall remove all debris from areas exposed to public view on a weekly basis or more often as required to maintain a neat, clean site and dispose of same at authorized dump sites.

3.4 NOISE CONTROL

A. Contractor shall review with the Owner the types of equipment which he proposes to use during normal business hours and obtain Owner's approval for such use.

B. Conform with local city noise ordinance.

3.5 TEMPORARY CONTROLS

A. Traffic Control:
   1. Provide adequate signs, barricades, and flagmen; take all necessary precautions for the protection of the Work, and the safety of the general public.
   2. Refer to Division 01 Section “Traffic Control.”

3.6 REMOVAL

A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the Work. Remove all such temporary facilities and controls as rapidly as progress of the Work will permit.

END OF SECTION 01 50 00
SECTION 01 55 26 – TRAFFIC CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the major items listed below:
   1. Maintaining traffic and parking.
   2. Temporary facilities for:
      a. Maintaining vehicular access.
      b. Maintaining pedestrian access.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:

1.4 DEFINITIONS

A. Abbreviation for Manual of Uniform Traffic Control Devices: MUTCD.

B. Terms:
   1. Traffic: Includes all users of the roadway, motorized and non-motorized.
   2. Traffic Control Device: Includes, but is not limited to, signs, pavement markings, traffic signals, traffic channelizing devices, flagging devices, and other devices designed to provide orderly and predictable movement of traffic, and assist vehicle operators in vehicle guidance and navigation tasks.

1.5 SEQUENCING AND SCHEDULING

A. Coordination with Construction Sequencing and Schedule:
   1. Within 15 days after execution of the Contract, determine the vehicle and pedestrian traffic flow and the signage for each phase of construction to maintain the traffic flow throughout the parking structure.
   2. This section is coordinated with sequencing and scheduling proposed in Division 01 Section “Summary of Work.”
   3. Adjustments to the proposed sequencing and scheduling may require changes to work described in this section, which must be approved by the Engineer and Owner. Such changes shall be at no additional cost to Owner.

1.6 TRAFFIC SIGNAGE

A. Provide and maintain traffic signs through the duration of the Project to assist in traffic direction.

B. Provide signs necessary to inform visitors and employees of closings and traffic flow modifications, both inside and outside of the structure. Sign wording, appearance and placement shall be approved by Owner.

C. Work will not be permitted to proceed until required signage is in place.
1.7 MAINTENANCE

A. Extra Materials:
   1. Supplied by the Contractor at no expense to the Owner.
   2. Store on Site to replace stolen or damaged materials.

B. Maintenance Service:
   1. Inspect temporary traffic control devices daily during the course of the Work.
   2. Deficiencies in the location or condition of traffic control devices shall be corrected immediately.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Frames may be new or used, wood or metal, in sound condition and structurally adequate.

B. Signs should be a minimum of 1/2-inch exterior grade plywood.

C. Minimum heights of letters should be 4 inches and stenciled.

D. Paint should be exterior quality and the color of the lettering black on a highway orange background.

PART 3 - EXECUTION

3.1 GENERAL

A. Take necessary precautions including, but not limited to, provision of necessary traffic control devices, implementation of closures, construction of temporary facilities, and maintenance of detours as necessary for the safety of the general public, efficient movement of traffic, and the protection of the Work.

3.2 MAINTAINING ACCESS

A. Provide and maintain all drive lanes, entrances, exits, and safeguards required or necessary to the progress of the Work, and effectively control such traffic in a manner to provide minimum hazard to the Work and all persons.

B. Route all construction equipment, trucks, and similar vehicles via existing public streets to and from the structure as approved by the governing authorities and the Owner.

C. Provide and maintain for proper control of traffic and safety of all concerned, including all necessary barricades, suitable and sufficient lights, reflectors and danger signals, warning and closure signs and directional signs.

D. Vehicle and pedestrian traffic flow inside and outside of the structure shall be maintained to provide easy entry and exit from the structure and to all parking areas.

E. Maintain access for emergency services at all times during the Work.

3.3 CLOSURES

A. Provide the Engineer and Owner a minimum of 1 weeks’ notice and receive approval before implementing parking closures.

3.4 PROTECTION

A. Protect all existing traffic control devices in the work area.

B. Promptly repair or replace traffic control devices damaged by construction.
3.5 TRAFFIC SIGNAGE

A. Install signs at an optimum height for visibility, attached to frames or structural surfaces.

B. Relocate signs as required by progress of work.

C. Maintain signs neat and clean, repair damages to support or sign.

D. Remove signs, framing, and supports at the completion of the Project.

END OF SECTION 01 55 26
SECTION 01 66 00 – PRODUCT STORAGE AND HANDLING REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes provisions for the storage and protection of Products.

1.3 MATERIAL AND EQUIPMENT

A. Comply with the applicable specifications and standards.

B. Comply with size, make, type, and quality specified.

C. Manufactured and fabricated products
   1. Design, fabricate, and assemble consistent with the current engineering and shop practices.
   2. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
   3. Two or more items of the same kind shall be identical, by the same manufacturer.

D. Do not use material or equipment for any purpose other than that for which it is designed or specified.

1.4 MANUFACTURER'S INSTRUCTIONS

A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two copies to the Engineer. Maintain one set of complete instructions at the job site during installation and until completion.

B. Handle, install, connect, clean, condition, and adjust products in strict accord with such instructions and in compliance with specified requirements.
   1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Engineer for further instructions.
   2. Do not proceed with work without clear instructions.

1.5 TRANSPORTATION AND HANDLING

A. Arrange deliveries of products in accordance with construction schedules, coordinate to avoid conflict with Work and conditions at the site.
   1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
   2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents, and approved submittals and that products are properly protected and undamaged.

1.6 STORAGE AND PROTECTION

A. Storage:
   1. Maintain ample way for foot traffic at all times, except as otherwise approved by the Engineer.
   2. Repair or replace property damaged by reason of storing of material at no additional cost to the Owner.
   3. Packaged Materials:
      a. Delivered in original, unopened containers.
      b. Stored until ready for use.
   4. Materials shall meet the requirements of these Specifications at the time that they are used in the Work.
5. Store Products in accordance with Manufacturer's instructions and as required by the technical specifications, with seals and labels intact and legible.
6. Store fabricated products above the ground on blocking skids, prevent soiling or staining.
7. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.

B. Protection:
1. Use all means necessary to protect the:
   a. Products of every Section before, during and after installation.
   b. Installed work and materials of all trades.
2. All materials shall be delivered, stored and handled to prevent:
   a. The inclusion of foreign materials.
   b. Damage by water, breakage or other causes.
3. Cover products which are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
4. Provide weathertight enclosures with raised floors as may be required to adequately protect those materials and Products stored on the site which may require protection from damage by the elements.
5. Maintain temperature and humidity within the ranges required by manufacturer's instructions.

C. Protection after installation: Provide substantial coverings as necessary to protect installed products from damage from weather, traffic, and subsequent construction operations. Remove when no longer needed.

D. Replacements: In the event of damage, immediately make repairs and replacements necessary to the approval of the Engineer and at no additional cost to the Owner.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01 66 00
SECTION 01 74 00 – CLEANING AND WASTE MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
   A. This Section includes provisions for maintaining all structures and the site in a standard of cleanliness.
   B. Related Sections include the following: In addition to standards described in this Section, comply with all requirements for cleaning up as described in various other Sections of these Specifications.

1.3 QUALITY ASSURANCE
   A. Inspection:
      1. Daily and more often if necessary.
      2. Conduct inspections to verify that requirements of cleanliness are being met.

1.4 DELIVERY, STORAGE AND HANDLING
   A. Hazards Control:
      1. Volatile Wastes:
         a. Store in covered metal containers.
         b. Remove from premises daily.
      2. Prevent accumulation of wastes which create hazardous conditions.
      3. Provide adequate ventilation during use of volatile or noxious substances.

1.5 PROJECT CONDITIONS
   A. Cleaning and Disposal:
      1. Conduct operations to comply with local ordinances and anti-pollution laws.
      2. Not Allowed:
         a. Burning or burying of rubbish or waste materials onsite.
         b. Disposal of volatile wastes in storm or sanitary sewers: Volatile wastes include, but are not limited to, mineral spirits, oil or paint thinner.
         c. Disposal of wastes into streams or waterways.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT
   A. Compatibility:
      1. Compatible with the surface being cleaned.
      2. Recommended by the Manufacturer of the material being cleaned.
      3. As reviewed by the Engineer.
PART 3 - EXECUTION

3.1 PROGRESS CLEANING

A. General:
   1. Store materials:
      a. In an orderly arrangement allowing maximum access.
      b. To allow unimpeded drainage and traffic.
      c. Provide for the required protection of materials.
   2. Scrap, debris, waste material and other items not required for construction of the Work.
      a. Do not allow accumulation.
      b. Remove from the site at least each week and more often if necessary.
      c. Provide adequate storage for all materials awaiting removal.
   3. Observe all requirements for fire protection and protection of the environment.

B. Site:
   1. Daily, and more often if necessary:
      a. Inspect the site.
      b. Pick up all scrap, debris and waste material; remove all such items to the place designated for
         their storage.
   2. Weekly, and more often if necessary:
      a. Inspect all arrangements of materials stored onsite.
      b. Restack or otherwise service all arrangements to meet the requirements of paragraph 3.1.A.1
         above.
   3. At all times maintain the site in a neat and orderly condition which meets the approval of the Engineer.
   5. Dust Control:
      a. Control dust on or near the Work by the application of water or other approved means.
      b. If the Contractor fails to correct unsatisfactory conditions with 24 hours after due notification:
         1) The Owner may arrange for such work to be performed by other means.
         2) Pay costs.

C. Structures:
   1. Weekly, and more often if necessary:
      a. Inspect the structures.
      b. Pick up all scrap, debris and waste material; remove all such items to the place designated for
         their storage.
      c. Sweep all interior spaces clean.
         1) Clean as used above shall be defined to be free from dust and other material capable of
            being removed by reasonable diligence using a hand-held broom.
   2. Preparation for installation of succeeding material: Clean the structures or pertinent portions thereof:
      a. To the degree of cleanliness recommended by the Manufacturer of the succeeding material.
      b. Using all equipment and materials required to achieve the required cleanliness.
   3. Schedule cleaning operations so that dust and other contaminants resulting from cleaning operations
      will not fall on wet, recently painted surfaces.

3.2 FINAL CLEANING

A. Definitions:
   1. Clean: The level of cleanliness generally provided by commercial building maintenance subcontractors
      using commercial quality building maintenance equipment and materials.

B. Prior to Completion of the Work:
   1. Remove from the site all tools, surplus materials, equipment, scrap, debris and waste.
   2. Conduct final progress cleaning as described in Article 3.1 above.
C. Site:
   1. Unless otherwise specifically directed by the Engineer:
      a. Hose down all paved areas onsite and all public sidewalks directly adjacent to the site.
      b. Rake clean other surfaces of the grounds.
   2. Remove all resultant debris.

D. Structures:
   1. Visually inspect all interior and exterior surfaces.
   2. Restore or replace all property damaged by the Work.
   3. Remove all traces of grease, paint, dust, soil, stains, labels, waste material, smudges, fingerprints, writing, and other foreign matter.
   4. Remove all traces of splashed materials from adjacent surfaces.
   5. Water blast floor surfaces at all Levels of Work performed.
   6. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure.
   7. In the event of stubborn stains not removable with water, the Engineer may require light sandblasting or other cleaning at no additional cost to the Owner.
   8. Remove all paint droppings, spots, stains, and dirt from finished surfaces using only the specified cleaning materials and equipment.
   9. Repair, patch and touch up marred surfaces to specified finish to match adjacent surfaces.

E. Timing: Schedule final cleaning as approved by the Engineer to enable the Owner to accept a completely clean Project.

END OF SECTION 01 74 00
SECTION 01 77 00 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the instructions for and the responsibilities of each party in contract closeout.

1.3 SUBSTANTIAL COMPLETION

A. Contractor: When the Contractor considers that the Work or any portion of the Work is ready for its intended use, the Contractor shall submit:
   1. Written certification to the Engineer and Owner that the Work, or designated portion of the Work, is substantially complete.
   2. A comprehensive list of items to be completed or corrected.
   3. Request that the Engineer issue a certificate of Substantial Completion.

B. Engineer's Inspection: The Engineer will make an inspection:
   1. Within 10 days after receipt of certification.
   2. Together with the Owner and Contractor.

C. Engineer's Determination of Substantial Completion:
   1. Should the Engineer consider the Work or designated portion of the Work substantially complete, the following steps shall be taken:
      a. The Contractor shall prepare and submit to the Engineer a list of items to be completed or corrected as determined by the inspection.
      b. The Engineer will prepare and deliver to the Owner:
         1) A tentative certificate of Substantial Completion.
         2) A tentative list of items to be completed or corrected before final payment.
      c. The Owner shall have 7 days after receipt of the tentative certificate during which to make written objection to the Engineer as to any provisions of the certificate or attached list.
      d. The Engineer will, within 14 days after delivery of tentative certificate to the Owner, decide:
         1) Not Substantially Complete: The Engineer will issue written notice to the Contractor stating reasons.
         2) Substantially Complete: The Engineer will issue definitive certificate of Substantial Completion and a revised list of items to be corrected or completed.

   2. Should the Engineer consider that the Work or designated portion of the Work is not substantially complete, the following steps shall be taken:
      a. The Engineer shall notify the Contractor in writing stating the Engineer's reasons.
      b. The Contractor shall complete the Work and send a second written notice to the Engineer certifying that the Project, or designated portion of the Project, is substantially complete.
      c. The Engineer and Owner will reinspect the Work.

1.4 FINAL INSPECTION

A. Contractor Certification: Prior to final inspection, the Contractor shall submit written certification that:
   1. The Contract Documents have been reviewed.
   2. The Project has been inspected in compliance with the Contract Documents.
   3. Work has been completed in accordance with the Contract Documents.
   4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
   5. The Project is complete and ready for final inspection.
B. Engineer's Inspection: The Engineer will make final inspection:
1. Within 10 days after receipt of certification.
2. Together with the Owner and Contractor.

C. Engineer's Determination of Final Completion:
1. Should the Engineer consider the Work complete and ready for final payment in accordance with the requirements of the Contract Documents, the Engineer shall request the Contractor to make Project closeout submittals.
2. Should the Engineer consider the Work not complete and ready for final payment:
   a. The Engineer shall notify the Contractor in writing stating the reasons.
   b. Contractor:
      1) Take immediate steps to remedy the stated deficiencies.
      2) Send a second written notice to the Engineer certifying that the Work is complete.
   c. The Engineer and Owner will reinspect the Work.

1.5 CLOSEOUT SUBMITTALS
A. Contractor:
1. Provide closeout submittals as required in the Contract Documents.
2. These submittals shall include, but not necessarily be limited to:
   a. Project record documents.
   b. Operation and maintenance manuals.
   c. Guarantees.
   d. Directory of suppliers for all products used by contractor on project.
   e. Spare parts and maintenance materials furnished in original box or cardboard box labeled with contents and quantity marked on top and one end of box.
   f. Instruction in operation of all systems.
3. Record Drawings shall include, but not necessarily be limited to:
   a. Copies of the Drawings incorporating all changes and bulletins (enclosed in clouds).
   b. All shop drawings incorporating all changes (enclosed in clouds).
   c. All approved submittals.
   d. Field changes of dimension and detail.
   e. Details not on original Contract Drawings.

1.6 GUARANTEES
A. The act of the Contractor in executing the Agreement for this Work shall be considered as his acceptance of the following guarantee covering the Project:
1. Any materials, workmanship or equipment furnished as a part of this Project which prove defective or fail to operate properly, within 1 year, or as otherwise specified in the Contract Documents, of the date of acceptance of the Work required under this (or substantial completion of the) Project (damage by wear and tear, violence, or casualty not the fault of the Contractor excepted), shall be repaired and replaced by the Contractor promptly upon notification from the Owner and without cost to the Owner.
2. This guarantee provision shall apply regardless of whether or not such defective workmanship, materials, or equipment are listed in the final punch list. Date of acceptance (or substantial completion) will be established by the Owner and Engineer upon finding all items of this Project substantially complete as to quality of workmanship and materials.

B. Contractor shall provide warranty commencing on the date of Project acceptance. Completion of various Project phases shall not initiate commencement of warranty in these specific areas. A single Project warranty date, at Project acceptance, will constitute commencement of warranty.

C. Some areas of Project may be open to vehicular traffic and subject to wear (i.e. coatings, sealants, expansion joints) prior to commencement of warranty.

1.7 EVIDENCE OF PAYMENTS AND RELEASE OF LIENS
A. Affidavits:
1. Submit with final Application for Payment an affidavit of payment of debts and release of claims using AIA Document G706.
2. Affidavit shall include:
   a. The Contractor's release or waiver of lien using AIA Document G706A.
   c. Separate releases or waivers of liens for Subcontractors, Suppliers, and others with lien rights against property of the Owner together with a list of those parties.

B. Execution: All submittals shall be duly executed before delivery to the Engineer.

1.8 FINAL ADJUSTMENT OF ACCOUNTS

A. Final Statement: Submit a final statement of accounting, which reflects all adjustments, to the Engineer. This statement shall contain the following:
   1. Original Contract Sum.
   2. Additions and deductions.
   3. Total Contract Sum as adjusted.
   4. Previous payments.
   5. Sum remaining due.

B. Final Change Order: The Engineer will prepare a final Change Order reflecting approved adjustments to the Contract Sum not previously made by Change Orders.

1.9 FINAL APPLICATION FOR PAYMENT

A. The Contractor shall submit a final Application for Payment in accordance with the requirements of the Contract Documents.

B. Disposition of Final Application for Payment:
   1. If the final Application for Payment and the Work are acceptable in accordance with the Contract Documents:
      a. The Engineer will, within 10 days after receipt of the Application for Payment:
         1) Submit to the Owner a written recommendation for payment.
         2) Submit to the Owner and Contractor a written notice that the Work is acceptable subject to the provisions of the General Conditions.
      b. The Owner will, within 30 days after receipt of the Application for Payment and the Engineer's recommendation in accordance with the Contract Documents, pay to the Contractor the amount recommended.
   2. If the Application for Payment, the Work or both are unacceptable:
      a. The Engineer will return the Application for Payment to the Contractor, indicating in writing the reasons for refusing to recommend final payment.
      b. The Contractor shall make the necessary corrections and resubmit the Application for Payment.
   3. Final Completion Delayed:
      a. Upon receipt of the Contractor's final Application for Payment and recommendation by the Engineer, the Owner shall make payment of the balance due for that portion of the Work fully completed and accepted if the Engineer confirms that final completion of the Work is significantly delayed through no fault of the Contractor.
      b. Payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01 77 00
SECTION 03 15 16 – POST-INSTALLED ANCHORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of post-installed anchors.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following pertinent provisions:

1. ASTM:
   a. A36 - Carbon Structural Steel.
   b. A153 - Zinc Coating (Hot Dip) on Iron and Steel Hardware.
   c. A198 - Steel Bolting Materials for High-Temperature Service.
   e. A307 - Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
   g. A563 - Carbon and Alloy Steel Nuts.
   h. B633 - Electrodeposited Coatings of Zinc on Iron and Steel.
   i. E488 - Strength of Anchors in Concrete and Masonry Elements.
   k. F436 - Hardened Steel Washers.
   l. F593 - Stainless Steel Bolts, Hex Cap Screws, and Studs.
   m. F594 - Stainless Steel Nuts.
   n. F844 - Washers, Steel, Plain (Flat), Unhardened for General Use.

2. ACI:
   a. 318, Chapter 17 - Anchoring to Concrete.
   b. 355.2 - Qualification of Post-Installed Mechanical Anchors in Concrete.
   c. 355.4 - Qualification of Post-Installed Adhesive Anchors in Concrete.

3. International Code Congress Evaluation Service - ICC-ES:
   a. AC-193 - Mechanical Anchors in Concrete Elements.
   b. AC-308 - Post-installed Adhesive Anchors in Concrete Elements.


1.4 SUBMITTALS

A. Product Data: For each anchor type to be furnished for each base material to which it will be fastened, including:

1. Anchor specific type, physical properties and installation procedures.
   a. General catalog sheets of anchors without specific reference are not acceptable.
   2. Strength developed by anchor in each base material to which each is being fastened.
   3. Anchor embedment depth in base material.
   4. Anchor material.
   5. ICC-ES Report for each specific anchor indicating compliance to applicable building code.

1.5 QUALITY ASSURANCE

A. Compliance:
   1. Mechanical anchors shall comply with AC-193 and ACI 355.2.
   2. Adhesive anchors shall comply with AC-308 and ACI 355.4.
B. Installation Personnel Qualifications:
   1. Knowledgeable of the specific Manufacturer’s requirements for proper installation of post-installed anchors.
   2. Anchor installers shall be properly trained by the anchor Manufacturer on Site.
      a. Each person installing the anchor shall be trained.
      b. Anchor installation training shall take place prior to the installation of the anchors. The installer shall have training verification available for review at any time.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Hilti.

B. Products of the following manufacturers are among those which may be considered equal based on Submittals reviewed by Engineer; approval or rejection of the proposed or equal will be at Engineer’s sole discretion:
   2. Redhead.

C. If Contractor intends to substitute other than Basis of Design products, Contractor shall be responsible to submit substitution product data that proves equivalence including, but not limited to:
   1. Capacities for specific anchor sizes, embedment lengths, and base materials into which the anchor will be fastened.
   2. Capacity reduction factors for spacing and edge distance.
   3. Material of each anchor type.
   4. ICC ES report applicable to each anchor type.

2.2 MATERIALS

A. Actual or Potential Ambient Conditions:
   1. Submerged or Corrosive Environment: Stainless steel in accordance with ASTM F593.
   2. Dry Areas: Mild steel, galvanized in accordance with ASTM B633, SC1, Type III.

2.3 POST-INSTALLED ANCHORS

A. Anchors that Resist Loads Through Mechanical Friction or Keying Forces:
   1. Expansion Anchors Approved for Use in Cracked and Uncracked Concrete:
      a. Wedge style anchor.
      b. Hilti Kwik Bolt TZ2 SS304 (ICC-ESR 4266).
      c. Capable of sustaining an ultimate load of 4 times the imposed load capacity in concrete when tested in accordance with ASTM E488.
   2. Screw Style Anchors Approved for Use in Cracked and Uncracked Concrete:
      b. Capable of sustaining an ultimate load of 4 times the imposed load capacity in concrete when tested in accordance with ASTM E488.

B. Anchors that Resist Loads Through an Injectable Chemical Adhesive:
   1. In Concrete: Hilti HIT HY 200 Safe Set.
   2. Anchored Material:
      a. Threaded rods and associated hardware: Type 303/304 stainless steel.
   3. Bonding Strength: Tested in accordance with ASTM E1512.
   4. If installation temperatures of base materials fall below 41 degrees F, review cold weather applications with Manufacturer.
PART 3 - EXECUTION

3.1 PREPARATION

A. Pre-Construction Conference:
   1. At least 15 days prior to the installation of post-installed anchors, conduct a pre-installation conference at the Site.
      a. Repeat pre-installation conference as many times as is necessary to address all installers using post-installed anchors on the Project.
   2. Contractor shall be responsible for arranging the conference and agenda.
   3. Agenda shall include, but not be limited to:
      a. Reviewed and approved post-installed anchors for use in the Project.
      b. Anchor installation training (to be performed by Manufacturer’s representative).
      c. Drilling requirements and restrictions for the anchors.

3.2 INSTALLATION

A. Install post-installed anchors:
   1. In strict accordance with the installation instructions supplied by the Manufacturer.
   2. In rotary hammer drilled holes, unless otherwise approved by Engineer.
   3. In drilled out holes of the proper depth and diameter cleaned of dust and debris according to the Manufacturer’s specific installation instructions.

B. Provide sizes, spacings, edge distances and embedment as indicated on the Drawings.

C. Anchors that Resist Loads Through an Injectable Chemical Adhesive:
   1. Install in concrete with minimum age of 21 days, and in masonry with a minimum age of 7 days.
   2. Do not apply load until adhesive has properly cured and developed specified strength where cure time shall be as called out in the Manufacturer’s literature based on prevailing environmental conditions at the time of installation.

3.3 CLEANING

A. Clean materials installed under this Section according to Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 03 15 16
SECTION 05 50 00 – METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing, fabrication, and erection of metal fabrications, including the major items listed below:
   1. Fence posts (pipe) with anchor plates.
   2. Stainless steel cable system with channel and angle supports.
   3. Miscellaneous pipe frames.
   4. Galvanizing of selected items.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the pertinent provisions of the following:
   1. ASTM Standard Specifications:
      a. A36 - Structural Steel.
      b. A47 - Ferritic Malleable Iron Castings.
      d. A53 - Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
      f. A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
      g. A276 - Stainless Steel Bars and Shapes.
      h. A307 - Carbon Steel Bolts and Studs, 60,000 psi, Tensile Strength.
      i. A325 - Structural Bolts, Heat-Treated, 120/105 ksi Minimum Tensile Strength.
      j. A366 - Commercial Steel (CS) Sheet, Carbon (0.15 Maximum Percent), Cold-Rolled.
      k. A490 - Heat Treated Steel Structural Bolts, 150 ksi Minimum Tensile Strength.
      l. A500 - Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
      m. A501 - Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
      n. A563 - Carbon and Alloy Steel Nuts.
      p. A786 - Rolled Steel Floor Plates.
      q. A992 - Steel for Structural Shapes for Use in Building Framing.
      r. B209 - Aluminum and Aluminum Alloy Sheet and Plate.
      s. B221 - Aluminum Alloy Extruded Bars, Rods, Wire, Profiles, & Tubes.
      u. D520 - Zinc Dust Pigment for Paint.
      v. E488 - Strength of Anchors in Concrete and Masonry Elements.
      x. F436 - Hardened Steel Washers.
      y. F593 - Stainless Steel Bolts, Hex Cap Screws, and Studs.
      z. F594 - Stainless Steel Nuts.
      aa. F1267 - Expanded Metal, Steel.
      bb. F1554 - Anchor Bolts, Steel, 36, 55, and 105 ksi Yield Strength.
   2. AISC publications:
      a. Code of Standard Practice for Steel Buildings and Bridges (excluding Section 4.2.1).
      c. Detailing for Steel Construction.
      e. Specification for Structural Joints Using ASTM A325 or A490 Bolts.
3. AWS publications:
   b. ANSI/AWS A5.3 - Aluminum and Aluminum Alloy Electrodes for Shielded Arc Welding.
   c. ANSI/AWS A5.4 - Stainless Steel Electrodes for Shielded Arc Welding.
   d. ANSI/AWS D1.1 - Structural Welding Code - Steel.
   e. ANSI/AWS D1.2 - Structural Welding Code - Aluminum.
   f. ANSI/AWS D1.6 - Structural Welding Code - Stainless Steel.

4. ASME - American Society of Mechanical Engineers:
   a. ANSI/ASME B18.2.1 - Heavy Hex Structural and Askev Head Bolts.
   b. ANSI/ASME B18.6.1 - Wood Screws.
   c. ANSI/ASME B18.6.3 - Slotted and Recessed Head Machine Screws.
   e. ANSI/ASME B18.22.1 - Plain Washers.

5. Federal Specifications:
   a. FS FF-B-588C(1) - Bolt, Toggle, and Expansion Sleeve, Screw.


7. Occupational Safety and Health Act.

8. NAAMM - National Association of Architectural Metal Manufacturers.


1.4 SUBMITTALS

A. Shop Drawings: For all members to be furnished to include:
   1. Detail Drawings of Members and Connections:
      a. In accordance with AISC - Detailing for Steel Construction.
      b. Size and number of bolts.
      c. Dimensions.
      d. Connection angles and plates.
   2. Welding: In accordance with AWS welding symbols.
   3. Surface preparation and type of paint.
   4. Item to be galvanized.


1.5 QUALITY ASSURANCE

A. Fabrication and Erection Personnel Qualifications:
   1. Trained and experienced in the type of work being performed.
   2. Knowledgeable of the design and the reviewed Shop Drawings.

B. Welders, Welding Operators and Tackers Qualifications:
   1. Qualified by tests in accordance with AWS D1.1.
   2. Qualification Papers:
      a. Given by an independent testing laboratory.
      b. Dated no earlier than 6 months prior to beginning of Project.
   3. Engineer, at Engineer's discretion, may accept evidence of previous qualifications.

C. Steel Fabricators:
   1. Certified under the AISC Quality Certification Program for Category I - Conventional Steel Structures,
      or under other quality control program acceptable to building official in accordance with building code,
      prior to fabrication.
   2. The quality control program shall permit work on fabricator's premises without special inspection.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration, damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.
C. Reject damaged, deteriorated, or distorted material and immediately remove from the Site. Replace rejected materials with new material at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Materials shall be new, top quality of their respective kinds, standard sizes and fabricated in a shop whose principal business is manufacturing the items specified in this Section.

B. Steel:
   1. Wide Flange and WT Shapes: ASTM A992 with yield stress of 50,000 psi.
   3. Rectangular and Square Tubular Shapes: ASTM A500, Grade C with yield stress of 50,000 psi.
      a. Post Size: 2.375 inches outside diameter x 0.250-inch wall thickness, 5.68 pounds per foot.

C. Stainless Steel Bars and Shapes: ASTM A276.

D. Stainless Steel Cable System:
   1. Wire Rope: 1-by-19 wire rope made from wire complying with ASTM A 492, Type 316.
   2. Wire-Rope Fittings: Connectors of types indicated, fabricated from stainless steel, and with capability to sustain, without failure, a load equal to minimum breaking strength of wire rope with which they are used.
   3. Provide one set of tools required for re-tensioning of cables.

E. Stainless Steel Fasteners:

F. Anchors: In accordance with Division 03 Section “Post-Installed Anchors”.

G. Field-Applied Cold Galvanizing:
   1. Z.R.C. Cold Galvanizing Compound, ZRC Worldwide, Marshfield, MA.
   2. Or approved equivalent.

H. Field-Applied Paint: In accordance with Division 09 Section “Restoration Painting.”

I. Other Materials: Other materials not specifically described but required for a complete and proper installation of the work of this Section, shall be new, first quality of their respective kinds, and as selected by Contractor subject to approval of Engineer.

2.2 FABRICATION

A. General:
   1. Workmanship: Install items square and level, accurately fitted and free from distortion and defects.
   2. Temporary Bracing:
      a. Make provision for erection stresses by temporary bracing.
      b. Keep work in alignment.
   3. Welding:
      a. Steel welding shall be performed in accordance with AISC Specification and AWS D1.1.
      b. Filler metal requirements for steel welding processes shall be in accordance with AWS D1.1 and AWS A5.1.
      c. Stainless steel welding shall be performed in accordance with AWS D1.6.
      d. Filler metal requirements for stainless steel welding processes shall be in accordance with AWS A5.4.
      e. Welding shall be continuous along entire area of contact.
4. Items fabricated from structural steel members which are to be architecturally exposed shall be given special attention for material selection with respect to rolling tolerances, surface finish and straightness.
5. Normal structural steel fabrication tolerances will not be acceptable where in conflict with the intent and requirements of this Section.
6. Straightness tolerances, additive to deflection, shall not exceed ± 1/16-inch to 10 feet.
7. Cope, miter, and butt caps on exposed surfaces shall be made to the closest possible tolerances consistent with metal shop equipment and practice in order to provide a pleasing appearance.
8. Fastening shall be concealed where practicable. Thickness or metal and details of assembly and supports shall give ample strength and stiffness. Joints exposed to weather shall be formed to exclude water. Provide holes and connections for the work of other trades.

B. Galvanizing:
1. Hot-dipped galvanized after fabrication in accordance with ASTM A123.
2. 2 oz/ sq ft minimum.
3. All metal fabrications shall be hot dip galvanized unless noted.
4. Hot-dipped galvanized coating is not to be passivated for steel receiving final coating system.

C. Galvanized Fasteners:
1. Hot-dipped galvanized after fabrication in accordance with ASTM A153.
2. Class C (1.25 oz/sq ft) minimum coating.

D. Final Coating Systems:
1. Powder-Coat Finish: Prepare, treat, and coat galvanized metal to comply with resin manufacturer's written instructions and as follows:
   a. Prepare galvanized metal by thoroughly removing grease, dirt, oil, flux, and other foreign matter.
   b. Treat prepared metal with zinc-phosphate pretreatment, rinse, and seal surfaces.
   c. Apply thermosetting polyester or acrylic urethane powder coating with cured-film thickness not less than 1.5 mils (0.04 mm).
   d. Color to match coating of chain link fabric and shall be approved by Owner.
   e. Powder coating shall be shop applied.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect area to receive Work and report immediately in writing to Engineer, as required in General Conditions, any unacceptable conditions. Do not proceed with Work until unsatisfactory conditions have been corrected in an acceptable manner. Commencement of erection implies acceptance of related Work.

B. Take field measurements prior to preparation of Shop Drawings and fabrication, wherever possible, but do not delay job progress by waiting for field measurements. Make an allowance for trimming and fitting where the taking of field measurements before fabrication might delay either completion of the metal fabrications work in particular or Substantial Completion of the Work in general.

3.2 INSTALLATION

A. Workmanship: Install items square and level, accurately fitted and free from distortion and defects.

B. Erection:
1. Bracing:
   a. Provide all shoring, bracing and accessories required for complete erection.
   b. Safety and adequacy of bracing and temporary bracing are the responsibility of the Contractor.

C. Tightening:
1. Tighten bolts snug-tight as defined by AISC, unless otherwise noted on the Drawings.
2. Tighten bolts in slotted holes using the AISC Turn-of-the-Nut Method, unless indicated otherwise on the Drawings.
3. Where specifically indicated on the Drawings, finger-tighten nuts in connections where movement must be permitted, and tighten a jam nut over finger-tightened nut, or peen bolt threads, to prevent nut backoff.
D. Touch-up:
1. After erection is complete, touch up all shop powder-coats damaged during transportation and erection according to Manufacturer's instructions.
2. Prime all field welds, bolt heads, nuts and abrasions using the priming paint specified for shop priming.
3. Touch up all damaged galvanized areas with Field-Applied Cold Galvanizing meeting ASTM D520 and ASTM A780.
   a. Surface Preparation: SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
   b. Coating Thickness: Minimum of 6 mils (dry film) to be applied in multiple coats in accordance with Manufacturer's instructions.

E. Welding: Field welding shall be performed to the same standards and requirements of shop welding.

F. Protection: Where required, provide approved protection against galvanic action between contacts of dissimilar metal or situations that will cause deterioration of metal in contact or associated in any way.

3.3 CLEANING

A. Prior to acceptance of the work of this Section, thoroughly clean all installed materials and related areas in accordance with Division 01 Section “Cleaning and Waste Management.”
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes providing and furnishing permits, labor, materials, equipment, and services to prepare and paint as indicated on the Drawings. Provide for the following:
   1. Paint steel guardrails to match existing at Fourth and William Parking Structure.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   3. Local, state, or federal laws and regulations governing Volatile Organic Compounds (VOC) in paint or paint products.

1.4 SUBMITTALS

A. Manufacturer’s literature: Submit for review and approval:
   1. Manufacturer’s ‘Spec Data Sheets for paint systems; including primer, intermediate, and final coats.
   2. Safety Data Sheets (SDS) for each type of material used.
   3. Submit complete preparation and painting procedure to be followed. As a minimum, the following items must be included:
      a. Surface preparation.
      b. Paint mixing and application.
      c. Inspection criteria.
      d. Paint characteristics.
      e. Dust and fume control.
      f. Storage and handling.
      g. Repair to paint system.
      h. Paint curing.
      i. Compatibility of each component.
   4. Manufacturer’s standard color chart.

B. Certifications: Submit for review and approval for each of the following:
   1. Submit compliance with local and federal guidelines governing paint application.
   2. Submit verification that proper permits have been obtained for contemplated work.
   3. Submit for record test results of actual measured wet and dry film thicknesses and certification that the preparation and application of surfaces is in compliance with this specification and the Manufacturer’s specification. Indicate the following:
      a. Location.
      b. Date.
      c. Weather and other pertinent information.
   4. For record results of adhesion tests.

C. Samples: Submit for review and approval:
   1. Sample color chips for each topcoat color. Samples are to measure 12-inches x 12-inches, are to be on hardboard, and to have a texture to simulate actual conditions.
1.5 QUALITY ASSURANCE

A. Provide coating systems produced by the same Manufacturer.

B. Check membrane wet film thickness by making a test consisting of 5 wet film readings within a 1 square foot area. The average film thickness shall be within 10 percent minus or 30 percent plus of the Manufacturer's recommended average wet film thickness. No individual reading shall be more than ±50 percent of the manufacturer's recommended wet film thickness. The number of wet film thickness tests for each coat are as follows:
   1. Concrete and Masonry: Two tests for every 500 sf.
   2. If thickness check fails the above requirements, more frequent testing will be required as directed by the Engineer.

C. Test coating systems to be applied over an existing paint system for adhesion using a cross hatch adhesion test in accordance with ASTM D3359, Method B, not less than a 4B rating or Elcometer adhesion testing in accordance with ASTM D4541 not less than 1000 psi pull, average of 3 tests.

D. Manufacturer shall review locations where there is an existing paint/stain system to determine if their system is compatible with the existing system.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Confirm that materials used in accordance with this Section conform to local, state, and federal environmental and workers' safety laws and regulations.

B. Provide necessary containment to protect on Site and adjoining property from damage during cleaning and coating operations.

C. Meet regulations regarding air quality emission standards, OSHA, NFPA, EPA and other governing law set by local, state, and federal agencies.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration, damage, contamination with foreign matter, and damage by weather or elements, and according to Manufacturer's directions.
   1. Mix and prepare coatings only in areas designated for that purpose.
   2. Provide clean cans and buckets required for mixing coatings and for receiving rags and other waste materials associated with painting. Clean buckets regularly. At the close of each day's work remove used rags and other waste materials associated with painting.
   3. Take precautions to prevent fire in or around coatings materials. Provide and maintain hand fire extinguisher near storage and mixing area.

C. Reject damaged, deteriorated, or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 STEEL COATING SYSTEM - GUARDRAIL AND RAILINGS

A. Provide coating system consisting of zinc prime coat and urethane finish coat 2-3 mil dry film thickness in accordance with Manufacturer's recommendations.

B. Provide prime coat and finish coat from same Manufacturer and of a different color.

C. Prime coat is only required at bare steel.
D. Approved Paint Systems:
   1. PPG Industries System:
   2. Or approved equal.

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS

   A. Inspect surfaces to which paint will be applied and send a report to the Engineer of detrimental conditions in accordance with the General Conditions to the proper execution of this work.

   B. Do not proceed until unsatisfactory conditions are acceptably remedied. Commencement of work implies acceptance of related work.

   C. Do not apply coating system without the approval of the Engineer as to the proposed method of the surface preparation.

   D. Before commencing work, make certain that the surface is in proper condition to receive coating system, that surfaces are clean, dry, smooth, and at proper temperature as recommended by Manufacturer.

   E. Provide adequate ventilation to remove fumes to a safe location and to confine and control fumes so that life or property is not endangered.

   F. Protect adjacent surfaces, vehicles and equipment from overspray.

   G. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.

3.2 PREPARATION

   A. Mask boundaries to provide straight edges.

   B. Do not intermix materials of different character or different Manufacturer.

   C. Do not thin material except as recommended by Manufacturer.

   D. Remove hardware, covers, plates, signs, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

   E. Preparation of Corroded Metal Surfaces:
      1. Corroded steel shall be abrasive blast cleaned in accordance with Steel Structures Painting Council surface preparation specification SSPG SP10 - White Metal. Provide a blast profile as recommended by the paint manufacturer. The Contractor shall measure the blast profile using Testex Replica Tape.
      2. After blasting and before painting, brush the surface with clean brushes made of fiber or bristle, or cleaned by vacuum, removing traces of blast products from the surface as well as corners and pockets.
      3. The blast cleaning operations shall be done in such a manner that no damage is done to partially or entirely completed portions of the work.
      4. Dry blast cleaning operations shall not be conducted on surfaces that will be wet after blasting and before painting or when the surfaces are less than 5 degrees F. above the dew point, or when the relative humidity of the air is greater than 85 percent, unless a water-tolerating inhibitive treatment or coating will be applied before rusting occurs.
      5. Apply primer within 8 hours of surface preparation.
F. Preparation of Guardrails and Railings:
   1. Clean and dry surfaces, ensure surface is free of contaminants such as dirt, dust, laitance, grease, and other contaminants that would interfere with the adhesion of the specified coating system.
   2. Sand or abrasive blast existing painted surfaces to blend transition areas that are chipped and to roughen surface to promote proper adhesion of the specified coating system.

3.3 APPLICATION

A. Work shall be done by skilled craftsmen who are qualified to perform the required work and shall be done in a manner comparable to the best standards of practice found in that trade. Apply material evenly applied so as to be free from sags, runs, crawls, wrinkles, holidays, or any other application defects. Brushed coats shall be of the proper consistency and properly brushed out so as to show the minimum of brush marks. When finished and dried, brush strokes shall appear in the vertical direction only, and there shall be no curved brush marks showing. Ensure each coat is thoroughly dry before the succeeding coat is applied.

B. In applying coatings by spray gun, the material shall be applied in a wet coating that remains glossy wet for at least 20 seconds after application. Spraying shall be done in the crisscross lap method of spraying, striking first in one direction and shortly thereafter spraying across this same section at right angles to the first set of passes, so as to provide a continuous wet film of the finish coat.

C. Apply paint in accordance with the Manufacturer's printed instructions for that particular coating.

D. Where more than 2 coats are specified, each subsequent coat shall be of sufficient color difference that holidays, skips, thin spots, etc. can be easily be seen in contrast with the preceding coat.

E. The base coating shall be applied within 8 hours after the final abrasive blasting.

3.4 REPAIR

A. Repair paint damage by the re-application of the paint system in accordance with the Manufacturer's recommendations.

B. Apply additional coats if the coating does not completely hide the undercoat.

END OF SECTION 09 91 33
SECTION 32 31 13 – CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of chain link fences and gates.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:

1. ASTM:
   a. A90 - Test Method for Weight of Coating of Zinc-Coated (Galvanized) Iron and Steel Articles.
   b. A392 - Zinc-Coated Steel Chain-Link Fence Fabric.
   c. A491 - Aluminum-Coated Steel Chain-Link Fence Fabric.
   d. B545 - Electro-deposited Coatings of Tin.
   e. C1107 - Packaged Dry, Hydraulic-Cement Grout (Non-shrink).
   f. F567 - Installation of Chain-Link Fence.
   g. F626 - Fence Fittings.
   h. F668 - Poly(Vinyl Chloride) (PVC) - Coated Steel Chain Link Fence Fabric.
   i. F900 - Industrial and Commercial Swing Gates.
   j. F1043 - Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework.
   k. F1083 - Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.
   l. F1183 - Aluminum Alloy Chain Link Fence Frame Fabric.
   m. F1184 - Industrial and Commercial Horizontal Slide Gates.


1.4 DEFINITIONS

A. Corner Posts:  Posts located at a change in horizontal alignment.

B. End Posts:  Posts located at the beginning or end of a length of fence.

C. Gateposts:  Posts which support the weight of a gate.  Gateposts may function also as terminal posts but generally are sized differently.

D. Line Posts:  Posts between terminal posts.

E. Pull Posts:  Posts located within a length of fence at certain distances, and at changes in vertical alignment, to facilitate stretching of fabric.

F. Terminal Posts:  Posts set where fence fabric terminates, and between which the fabric is stretched; a term which includes end, corner, and pull posts.

1.5 SUBMITTALS

A. Action Submittals:

1. Shop Drawings:  For fence.
   a. Dimensions.
   b. Anchorage details.
2. Product Data: For fence, post and gate.
   a. Catalog cuts.
   b. Coating data and coating choices.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products of the following Manufacturers, provided they comply with requirements of the Contract Documents, will be among those considered acceptable:
1. Allied Tube and Conduit Corporation; Harvey, IL 60426.
2. Anchor Fence, Inc.; Baltimore, MD 21224.

2.2 COMPONENTS


B. Fittings:
1. Material and finish of accessories shall comply with ASTM F626 and shall match fence fabric.
2. Zinc coating of ferrous accessories: Hot-dip zinc-coated; weight of coating, 1.8 ounces per square foot of coated area, average unless noted otherwise.
3. Caps:
   a. Formed steel, malleable or cast iron, or aluminum alloy, with ring to receive top rail or loop to receive tension wire according to fence configuration.
   b. Snug-fitting, weathertight closure of posts.
4. Rail Ends: Formed steel, malleable or cast iron, or aluminum alloy.
5. Rail Sleeves:
   a. Formed of same material as rail.
   b. Minimum Length: 6 inches.
   c. Rails with 3-inch swaged ends will not require rail sleeves.
6. Wire Ties and Clips:
   a. Size: Not less than fabric wire gage size.
   b. Minimum Zinc Coating Weight: 0.8 ounce per square foot.
7. Brace Bands and Tension Bands: 3/4-inch x 1/10-inch thick (nominal).
8. Tension Bars:
   a. 3/4 x 3/16-inch (or equivalent section) for 2-inch mesh.
   b. Continuous length to match fabric width.
10. Fitting for Mechanical Anchorage of Posts: Provide suitable fittings such as base plates, clamps, standoffs, for mechanical anchorage of posts to horizontal, vertical, or inclined surfaces where indicated.

C. Coating:
1. PVC coating applied by fluidized bed thermally fused method to preheated, cleaned, pretreated, and primed substrate.
2. Coat fence fabric in accordance with ASTM F668, Class 2B; coat other components to 10 mils thickness minimum.
3. Coat all fence components completely including, but not necessarily limited to:
   a. Framework.
   b. Fabric.
   c. Bars, bands, rods and wire.
   d. Sleeves, ends, caps, and other fittings and accessories.
4. Inside of closed tubular members need not be coated.
5. Color: Chosen by Engineer from manufacturer's standard colors.
2.3 FABRICATION

A. Fence Configuration:
   1. Construct Fence With:
      a. Top rail.
      b. Bottom rail.

B. Fabric:
   1. Material:
      a. Steel, zinc-coated before weaving.
      b. Zinc Coating Weight:
         1) 0.3 ounces per square foot.
         2) In accordance with ASTM F668.
   2. Wire Diameter: 0.148-inch (9 gage) before application of PVC coating.
   5. Selvage: Knuckled top and bottom unless indicated otherwise on the Drawings.

C. Fence Framework:
   1. Coating of Steel Pipe:
      b. Weight of Coating: 1.8 ounces per square foot of coated area, average.
      c. Tested in accordance with ASTM A90.
   2. Coating of Steel Shapes:
      b. Weight of Coating: 1.8 ounces per square foot.
      c. Tested in accordance with ASTM A90.
   3. Top Rail Length: 18-foot minimum lengths.
   4. Heavy Industrial Category, Group IC:
      a. Conform to ASTM F1043.
         1) Steel pipe, commercial standard, yield strength 50,000 psi.
         2) Rail Size: 1.660 inches outside diameter x 0.083-inch wall thickness, 1.40 pounds per foot.
         3) Post Size: Refer to Division 05 Section “Metal Fabrications.”

PART 3 - EXECUTION

3.1 EXAMINATION

A. Inspect area to receive Work and report immediately in writing to Engineer, as required in General Conditions, any unacceptable conditions. Do not proceed with Work until unsatisfactory conditions have been corrected in an acceptable manner. Commencement of erection implies acceptance of related Work.

B. Take field measurements prior to preparation of Shop Drawings and fabrication.

3.2 INSTALLATION

A. Install Chain Link Fence and Gates in Conformance With ASTM F567:
   1. The Shop Drawings reviewed by Engineer.
   2. The Manufacturer’s recommendations.
   3. Install fencing on established boundary line inside property line.

B. Posts:
   1. Pre-fabricate post and anchor plate assembly.
   2. Layout:
      a. Space line posts at equidistant intervals not exceeding 10 feet on center measured parallel to grade unless indicated otherwise on the Drawings.
      b. Install posts plumb and in proper alignment.
   3. Secure to concrete as indicated on Drawings.
C. Fence:
   1. Cut fabric to form one continuous piece between terminal posts.
   2. Pull fabric taut and secure to rails at 1-foot on both sides of each post and at intervals of 18 inches, maximum, on center.
   3. Attach fabric to security side of fence (i.e., interior of structure).
   4. Secure fabric to line posts with tie wires or clips at intervals of 12 inches, maximum, on center.
   5. Secure fabric to terminal posts for the full width of fabric by using stretcher bars and bands with 5/16-inch carriage bolts spaced no greater than 12 inches, maximum, on center.
   6. Field paint bolts and nuts to match PVC coating.

D. Nuts and Bolts: Carriage bolts used for fittings shall be installed with the head on the secure side of the fence. All bolts shall be peened over to prevent removal of the nut.

3.3 ADJUSTING

   A. General:
      1. Adjust brace rails and tension rods for rigid installation.
      2. Tighten hardware, fasteners, and accessories.

END OF SECTION 32 31 13