

GREATER DAYTON PREMIER MANAGEMENT

Invitation for Bid

IFB# _____

Issue Date	
Pre-Bid Meeting	
Questions from Contractors Due	
Responses from GDPM to Be Posted By	
Bids Due	
Bid Opening	

Pre-Bid Meeting: Pre-bid meeting will be located at _____ on the following date: _____.

Bid-Opening: The Bid-Opening will also be held virtually. Please use the following information in order to access the bid opening: _____

How to Submit Bids:

Option 1: Mail to or drop off at GDPM. The envelope must be filled out exactly as follows:

GDPM

ATTN: Procurement

SEALED BID _____

400 Wayne Avenue

Dayton, Ohio 45410

Option 2: Email GDPM:

ebid@dmha.org

The subject line must state **SEALED BID** _____

Questions about this Bid Shall be Submitted Electronically to: ebid@dmha.org.

Greater Dayton Premier Management reserves the right to reject any or all bids, or waive any informality in the bidding. No bids shall be withdrawn for a period of ninety (90) days subsequent to the opening of bids.

All bidders shall be required to meet Affirmative Action requirements and Equal Opportunity requirements. Each bidder must insure that all employees and applicants for employment are not discriminated against because of race, color, religion, national origin, disability, age, ancestry, creed, or military status.

Greater Dayton Premier Management

IFB 25-03 Fire Alarm System Replacement - Three High-Rises

Table of Contents

The below items are part of the Bidder's Packet. *Most of these items must either be completed or signed or both and submitted with your sealed bid. Please submit forms in order.*

Item 1	Summary & Specifications
Item 2	Invitation to Bid Form
Item 3	Bid Form - With BABA
Item 4	Bid Form - Without BABA
Item 5	Representations, Certifications & Statement of Bidders
Item 6	Bid Guaranty & Bond Form
Item 7	Non-Collusive Affidavit and Full Disclosure
Item 8	W-9
Item 9	Section 3 Information
Item 10	Is Your Bid Packet Complete?
Item 11	Wage Determination
<i>Item 12</i>	<i>Specifications and Drawings - under separate cover</i>



Greater Dayton Premier Management

Enhancing Neighborhoods • Strengthening Communities • Changing Lives

Fire Alarm System Replacement – Three High-Rises

IFB 25-03

Greater Dayton Premier Management (GDPM) is an Ohio political subdivision and an award-winning, nationally recognized public housing authority in Montgomery County, Ohio. Additionally, GDPM is Montgomery County's largest landlord and serves approximately 16,000 individuals annually.

GDPM seeks proposals from experienced contractors to complete fire alarm system replacements at three GDPM owned high-rises known as Wilmington, Park Manor, Westdale Hi-Rise. Built in 1971, Wilmington Hi-Rise is a four story building with 64 units. Built in 1964, Park Manor Hi-Rise is an eight story building with 140 units. Built in 1965, Westdale is a six story building with 66 units. Work shall be completed within 365 days in accordance with the attached specifications.

As a result of this solicitation, GDPM intends to award one contract to the lowest, most responsible bidder and GDPM will give preference points to Section 3 Contractors (*see below*). GDPM's architect of record is the RDA Group, LLC.

I. Project Description:

<see attached specifications>

II. Bid Guarantee/Payment & Performance Bonds

All bids must be accompanied by a bid guarantee equivalent to 5% of the bid price; and at least one of the following:

- A. A performance bond and payment bond for 100% of the contract price;
- B. A performance bond and a payment bond, each for 50% or more of the contract price;
- C. 20% cash escrow;
- D. A 10% irrevocable letter of credit with terms acceptable to GDPM;
- E. Any other payment method acceptable to GDPM.

The bid guarantee may be a certified check, bank draft, U.S. Government Bonds at par value, or a bid bond secured by a surety company acceptable to the GDPM and authorized to do business in the State of Ohio. Certified checks and bank drafts must be made payable to the order of GDPM. The guarantees shall insure the execution of the contract and the furnishing of a method

of assurance of completion by the successful bidder. Failure to submit a bid guarantee with the bid may result in the rejection of the bid. Guarantees submitted by unsuccessful bidders will be returned as soon as practicable after bid opening. For your convenience, a GDPM's Form of Bid Guarantee and Payment & Performance Bond is included in this packet.

III. **Davis Bacon/Prevailing Wages:**

Prevailing wage requirements of the Davis-Bacon and related Acts (DBRA) apply to laborers and mechanics on federal construction and most federally assisted construction projects in excess of \$2,000. Davis Bacon Wage Rates apply to this project. Therefore, the Contractor shall follow all requirements including, but not limited to, submitting required documentation to evidence compliance. A copy of the most recent wage determination is attached hereto. The Wage Determination in effect on the date of the bid opening will apply to this project.

IV. **Section 3**

The Section 3 program requires that recipients of certain HUD financial assistance, to the greatest extent possible, provide training, employment, contracting and other economic opportunities to low- and very low-income persons, especially recipients of government assistance for housing, and to businesses that provide economic opportunities to low- and very low-income persons. GDPM provides preferences to business that are registered as Section 3. For more information on Section 3 or how to register to become a Section 3 business please visit: <https://www.hud.gov/section3> or contact GDPM's Procurement Department at ebid@dmha.org.

For this solicitation, **Section 3 Contractors will receive 5% price consideration added to their final bid amount.** (A Section 3 Contractor may be awarded the Contract and not be the lowest, most responsible, responsive bidder as long as the Section 3 Contractor is within 5% of the low bid amount).

V. **BUILD AMERICA BUY AMERICA BABA REQUIREMENTS:**

Pursuant to the Build America, Buy America Act (BABA), enacted as part of the Infrastructure Investment and Jobs Act (IIJA). Pub. L. 117-58, 41 U.S.C. § 8301 note, the Federal Financial Assistance used to fund this infrastructure project is required to apply a domestic content procurement preference (the "Buy America Preference" or "BAP") for all construction, alteration, maintenance, or repair of infrastructure, including buildings and real property, unless application of the BAP has been waived by HUD. Additional details on fulfilling the BABA requirements can be found at:

https://www.hud.gov/program_offices/general_counsel/build_america_buy_america.

&

<https://www.gdpm.org/build-america-buy-america/>

BABA requires any "infrastructure project" funded by any "Federal Financial Assistance" (FFA) apply a domestic content procurement preference, meaning that all iron, steel, manufactured products, and construction materials used in the infrastructure project have been produced in the United States, unless the awarding agency has issued a waiver of this requirement. This is called the "Buy American Preference" (BAP).

In order to ensure compliance with BABA requirements, Contractor will be required to:

- Request waiver if the contractor cannot fulfill BABA requirements.
- Provide sufficient product purchase info to enable GDPM to comply with the documentation requirements. Sufficient documentation may include:
 - A certificate from the manufacturer or reseller that the product complies with BABA;
 - For products that cost less than \$100 per product, a copy of a label that indicates the product was made in the United States; or
 - For small purchases of product that are less than the simplified acquisition threshold either a copy of a product specification that provides sufficient detail to conclude that the product complies with BABA or a communication other than a certification from a manufacturer or reseller of a product that confirms that the product is BABA compliant.

In order to ascertain whether or not the project will be eligible for a waiver under the BABA requirements, GDPM requests each prospective bidder submit 2 bids with this solicitation. One bid will reflect the total bid price using BABA requirements and the other bid will reflect a total bid price while not complying with the BABA requirements. **GDPM will award the contract to the lowest proposed price using BABA requirements.**

VI. Bid Preparation & Submission Requirements:

To be considered, Contractor's bid packet must be fully completed. Please read all the Instructions carefully and contact GDPM if you have any questions. Prior to submission, ensure that the following forms are fully completed, signed and included in your Bid Packet:

- Invitation to Bid Form
- Bid Form
- Representations, Certifications, and Other Statements of Bidders
- Bid Guaranty
- Non-Collusive Affidavit & Full Disclosure
- Section 3 Form
- W-9

The Submission is in sealed bid form and may be mailed to **GDPM ATTN: Procurement BID Sealed Bid IFB 25-03 400 Wayne Ave, Dayton, Ohio, 45410**. The Submission may be made via the lockbox located outside the main entrance of GDPM. Bids may also be submitted electronically to ebid@dmha.org. The subject line of the email must include the words: **SEALED BID IFB 25-03**. Electronic Bids shall be in pdf format. GDPM's bid packet is in a pdf fillable format and may be signed electronically.

VII. GDPM General Terms & Conditions for Construction Services:

Please carefully read and review the relevant terms and conditions prior to submitting your proposal. GDPM's General Terms and Conditions for Construction Services is available for review at <https://www.gdpm.org/development-construction/documents/>.

For this project, the construction contract will include GDPM's General Terms and Conditions for Construction Services. The terms and conditions are attached hereto and, by submitting a bid, Contractor agrees to the terms and conditions contained within.

VIII. Additional Information May Be Required:

If you are new to doing business with GDPM or it's been more than five years since you've worked on a GDPM related project, prior to Contract Award GDPM may require additional information including, but not necessarily limited to, references and evidence of capacity to perform. GDPM will request this information only if Contractor is selected for the award. Contractor will then have 72 hours to provide the requested information. If Contractor fails to provide the requested information, the information is inadequate or the information proves disqualifying in GDPM's discretion, GDPM will cancel the award and select the next lowest bidder for the Contract Award.

IX. Licensees & Permits:

During the term of the Contract, the Contractor shall ensure that all required licensing requirements and permitting requirements are met. The Contractor and Contractor's employees and agents shall secure and maintain in force such licenses and permits as are required by law and shall conform to all Federal, State, and local laws, ordinances, and regulations covering the Work. Failure to maintain items such as licenses or permits during the term of the Contract shall constitute a material breach thereof.

X. Reservation of Rights:

GDPM reserves the right to reject the low bid, if, in its sole discretion, that bidder is determined not to be the best-qualified bidder or to be deficient in experience, technical proficiency or unable to provide qualified manpower to meet the specifications. GDPM reserves the rights to reject and or all bids, to waive any informality in the IFB process, or to terminate the IFB process at any time, if deemed by GDPM to be in its best interests. GDPM reserves the right not to award a contract pursuant to this IFB. GDPM reserves the right to change, modify, amend, revise or alter any of the instructions, terms, conditions, and/or specifications identified in the IFB documents within any attachment or drawing, or within any addenda issued. All addenda will be posted to GDPM's website at www.gdpm.org.

XI. Questions regarding this Solicitation:

Any questions regarding this Invitation for Bid shall be submitted electronically to ebid@dmha.org.



INVITATION FOR BID GENERAL CONSTRUCTION SERVICES

IFB Name

Solicitation
No.

Prevailing Wage?

Proposal Due Date

Contract Term

Contractor Information

Name of Business:

Primary Contact

Street Address:

Street Address Line 2:

City:

State:

Zip Code:

Contact Number:

E-mail:*

Check at Least one
of the Following:*

Section 3

MBE/WBE

Veteran

None Apply

Are you currently
suspended,
debarred or
otherwise deemed
ineligible for a
federal contract
award?

Check box if
addendum was
reviewed (*don't check if
not applicable*)

Addendum 1

Addendum 2

Addendum 3

Addendum 4

Other

By signing below, Contractor attests that he/she has the legal power, right, and authority to make this Agreement. Contractor agrees that if selected for the Contract Award, Contractor is qualified to perform all work necessary to complete the services as specified in the Contract Documents at Contractor's quoted price. Further, Contractor has reviewed, acknowledges and accepts the provisions within the Contract Documents including, but not limited to, the Specifications, Contractor's bid, and the GDPM General Terms and Conditions for General Construction Services. Unless otherwise specified in writing by GDPM on GDPM letterhead and signed by both parties, during the term of the Contract, if any provision within the Contract Documents is in conflict with, or inconsistent with any provision with the GDPM General Terms and Conditions, the GDPM General Terms and Conditions shall prevail. Terms that conflict with and/or are inconsistent with the GDPM General Terms and Conditions are hereby revoked, rejected and void, even if the contract documents containing such terms are executed after the GDPM General Terms and Conditions, this includes, but is not limited to indemnification, warranty, payment, order of precedence, and integration provisions. By signing signing below, Contractor acknowledges that GDPM reserves it right to reject any and/or all bid or to cancel the solicitation at any time and for any reason(s). Contractor's bid shall be valid for at least 120 days subsequent to the bid opening date. GDPM Contract Documents are available at <https://www.gdpm.org/development-construction/documents/>.

Contractor Signature of Acceptance

Date

Acceptance of Proposal:

GDPM accepts your proposal and the Master Agreement containing the solicitation, General Terms and Conditions, and cost catalog are hereby in effect.

GDPM Signature of Acceptance

Date



Bid Form

IFB No. 25-03 Fire Panel System Replacements – 3 High-Rises

Total Bid Price: Project Conforming to Build America Buy America “BABA” Requirements¹

Total Bid Price of:	\$ _____ (Numeric amount)	
	_____ (Written amount)	
<i>Written amount prevails if any discrepancy exists.</i>		

Bid Elements – The Total Bid Price includes the following elements:

Item	Description	Amount
1	Labor	\$
2	Materials	\$
	Contractor Base Bid	\$
	Permit Allowance	\$100,000
	Contingency Allowance	\$20,000
	Total	

This project is funded in part by the U.S. Department of Housing and Urban Development and is subject to the following contractor cost limits: Profit: 6%; Overhead: 2%; General Requirements: 6% of hard construction costs.

GDPM is tax exempt.

By signing below, Contractor attests that he/she has the legal power, right, and authority to make this Bid. Contractor agrees that if selected for the Contract Award, Contractor is qualified to perform all work necessary to complete the services as specified in the Contract Documents at Contractor's quoted price. Further, Contractor has reviewed, acknowledges and accepts the provisions within the Contract Documents including, but not limited to, the Specifications, Contractor's bid, and the GDPM General Terms and Conditions for General Construction Services. Unless otherwise specified in writing by GDPM on GDPM letterhead and signed by both parties, during the term of the Contract, if any provision within the Contract Documents is in conflict with, or inconsistent with any provision with the GDPM General Terms and Conditions, the GDPM General Terms and Conditions shall prevail. Terms that conflict with and/or are

¹ Please see Section V of the Summary Specifications for Information concerning BABA requirements.



Bid Form

inconsistent with the GDPM General Terms and Conditions are hereby revoked, rejected and void, even if the contract documents containing such terms are executed after the GDPM General Terms and Conditions, this includes, but is not limited to indemnification, warranty, payment, order of precedence, and integration provisions. By signing below, Contractor acknowledges that GDPM reserves it right to reject any and/or all bid or to cancel the solicitation at any time and for any reason(s). Contractor's bid shall be valid for at least 120 days subsequent to the bid opening date.

Signature

Date



Bid Form

IFB No. 25-03 Fire Panel System Replacements – 3 High-Rises

Total Bid Price: NOT Conforming to Build America Buy America Requirements¹

Total Bid Price of:	\$ _____ (Numeric amount)	
	_____ (Written amount)	
<i>Written amount prevails if any discrepancy exists.</i>		

Bid Elements – The Total Bid Price includes the following elements:

Item	Description	Amount
1	Labor	\$
2	Materials	\$
	Contractor Base Bid	\$
	Permit Allowance	\$100,000
	Contingency Allowance	\$20,000
	Total	

This project is funded in part by the U.S. Department of Housing and Urban Development and is subject to the following contractor cost limits:

Profit: 6% Overhead: 2% General Requirements: 6% of hard construction costs.

GDPM is tax exempt.

By signing below, Contractor attests that he/she has the legal power, right, and authority to make this Bid. Contractor agrees that if selected for the Contract Award, Contractor is qualified to perform all work necessary to complete the services as specified in the Contract Documents at Contractor's quoted price. Further, Contractor has reviewed, acknowledges and accepts the provisions within the Contract Documents including, but not limited to, the Specifications, Contractor's bid, and the GDPM General Terms and Conditions for General Construction Services. Unless otherwise specified in writing by GDPM on GDPM letterhead and signed by both parties, during the term of the Contract, if any provision within the Contract Documents is in conflict with, or inconsistent with any provision with the GDPM General Terms and Conditions, the GDPM General Terms and Conditions shall prevail. Terms that conflict with and/or are

¹ Please see Section V of the attached Summary Specifications for information regarding BABA.



Bid Form

inconsistent with the GDPM General Terms and Conditions are hereby revoked, rejected and void, even if the contract documents containing such terms are executed after the GDPM General Terms and Conditions, this includes, but is not limited to indemnification, warranty, payment, order of precedence, and integration provisions. By signing below, Contractor acknowledges that GDPM reserves it right to reject any and/or all bid or to cancel the solicitation at any time and for any reason(s). Contractor's bid shall be valid for at least 120 days subsequent to the bid opening date.

Signature

Date

**U.S. Department of Housing
and Urban Development**
Office of Public and Indian Housing

**Representations, Certifications,
and Other Statements of Bidders**
Public and Indian Housing Programs

Representations, Certifications, and Other Statements of Bidders

Public and Indian Housing Programs

Table of Contents

Clause	Page
1. Certificate of Independent Price Determination	1
2. Contingent Fee Representation and Agreement	1
3. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions	1
4. Organizational Conflicts of Interest Certification	2
5. Bidder's Certification of Eligibility	2
6. Minimum Bid Acceptance Period	2
7. Small, Minority, Women-Owned Business Concern Representation	2
8. Indian-Owned Economic Enterprise and Indian Organization Representation	2
9. Certification of Eligibility Under the Davis-Bacon Act	3
10. Certification of Nonsegregated Facilities	3
11. Clean Air and Water Certification	3
12. Previous Participation Certificate	3
13. Bidder's Signature	3

1. Certificate of Independent Price Determination

(a) The bidder certifies that--

(1) The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to (i) those prices, (ii) the intention to submit a bid, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this bid have not been and will not be knowingly disclosed by the bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a competitive proposal solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.

(b) Each signature on the bid is considered to be a certification by the signatory that the signatory--

(1) Is the person in the bidder's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

_____ [insert full name of person(s) in the bidder's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the bidder's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the bidder deletes or modifies subparagraph (a)2 above, the bidder must furnish with its bid a signed statement setting forth in detail the circumstances of the disclosure.

[] [Contracting Officer check if following paragraph is applicable]

(d) Non-collusive affidavit. (applicable to contracts for construction and equipment exceeding \$50,000)

(1) Each bidder shall execute, in the form provided by the PHA/IHA, an affidavit to the effect that he/she has not colluded with any other person, firm or corporation in regard to any bid submitted in response to this solicitation. If the successful bidder did not submit the affidavit with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the affidavit by that date may render the bid nonresponsive. No contract award will be made without a properly executed affidavit.

(2) A fully executed "Non-collusive Affidavit" [] is, [] is not included with the bid.

2. Contingent Fee Representation and Agreement

(a) Definitions. As used in this provision:

"Bona fide employee" means a person, employed by a bidder and subject to the bidder's supervision and control as to time, place, and manner of performance, who neither exerts, nor proposes to exert improper influence to solicit or obtain contracts nor holds out as being able to obtain any contract(s) through improper influence.

"Improper influence" means any influence that induces or tends to induce a PHA/IHA employee or officer to give consideration or to act regarding a PHA/IHA contract on any basis other than the merits of the matter.

(b) The bidder represents and certifies as part of its bid that, except for full-time bona fide employees working solely for the bidder, the bidder:

(1) [] has, [] has not employed or retained any person or company to solicit or obtain this contract; and

(2) [] has, [] has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(c) If the answer to either (a)(1) or (a)(2) above is affirmative, the bidder shall make an immediate and full written disclosure to the PHA/IHA Contracting Officer.

(d) Any misrepresentation by the bidder shall give the PHA/IHA the right to (1) terminate the contract; (2) at its discretion, deduct from contract payments the amount of any commission, percentage, brokerage, or other contingent fee; or (3) take other remedy pursuant to the contract.

3. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (applicable to contracts exceeding \$100,000)

(a) The definitions and prohibitions contained in Section 1352 of title 31, United States Code, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The bidder, by signing its bid, hereby certifies to the best of his or her knowledge and belief as of December 23, 1989 that:

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of a contract resulting from this solicitation;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the bidder shall complete and submit, with its bid, OMB standard form LLL, "Disclosure of Lobbying Activities;" and

(3) He or she will include the language of this certification in all subcontracts at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(d) Indian tribes (except those chartered by States) and Indian organizations as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) are exempt from the requirements of this provision.

4. Organizational Conflicts of Interest Certification

The bidder certifies that to the best of its knowledge and belief and except as otherwise disclosed, he or she does not have any organizational conflict of interest which is defined as a situation in which the nature of work to be performed under this proposed contract and the bidder's organizational, financial, contractual, or other interests may, without some restriction on future activities:

- (a) Result in an unfair competitive advantage to the bidder; or,
- (b) Impair the bidder's objectivity in performing the contract work.

[] In the absence of any actual or apparent conflict, I hereby certify that to the best of my knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement.

5. Bidder's Certification of Eligibility

(a) By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:

(1) Be awarded contracts by any agency of the United States Government, HUD, or the State in which this contract is to be performed; or,

(2) Participate in HUD programs pursuant to 24 CFR Part 24.

(b) The certification in paragraph (a) above is a material representation of fact upon which reliance was placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal contract programs.

6. Minimum Bid Acceptance Period

(a) "Acceptance period," as used in this provision, means the number of calendar days available to the PHA/IHA for awarding a contract from the date specified in this solicitation for receipt of bids.

(b) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.

(c) The PHA/IHA requires a minimum acceptance period of [Contracting Officer insert time period] calendar days.

(d) In the space provided immediately below, bidders may specify a longer acceptance period than the PHA's/IHA's minimum requirement. The bidder allows the following acceptance period: calendar days.

(e) A bid allowing less than the PHA's/IHA's minimum acceptance period will be rejected.

(f) The bidder agrees to execute all that it has undertaken to do, in compliance with its bid, if that bid is accepted in writing within (1) the acceptance period stated in paragraph (c) above or (2) any longer acceptance period stated in paragraph (d) above.

7. Small, Minority, Women-Owned Business Concern Representation

The bidder represents and certifies as part of its bid/ offer that it --

(a) [] is, [] is not a small business concern. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) [] is, [] is not a women-owned business enterprise. "Women-owned business enterprise," as used in this provision, means a business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

(c) [] is, [] is not a minority business enterprise. "Minority business enterprise," as used in this provision, means a business which is at least 51 percent owned or controlled by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals. For the purpose of this definition, minority group members are:

(Check the block applicable to you)

- [] Black Americans
- [] Asian Pacific Americans
- [] Hispanic Americans
- [] Asian Indian Americans
- [] Native Americans
- [] Hasidic Jewish Americans

8. Indian-Owned Economic Enterprise and Indian Organization Representation (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)

The bidder represents and certifies that it:

(a) [] is, [] is not an Indian-owned economic enterprise. "Economic enterprise," as used in this provision, means any commercial, industrial, or business activity established or organized for the purpose of profit, which is at least 51 percent Indian owned. "Indian," as used in this provision, means any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act.

(b) [] is, [] is not an Indian organization. "Indian organization," as used in this provision, means the governing body of any Indian tribe or entity established or recognized by such governing body. Indian "tribe" means any Indian tribe, band, group, pueblo, or

community including Native villages and Native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

9. Certification of Eligibility Under the Davis-Bacon Act (applicable to construction contracts exceeding \$2,000)

(a) By the submission of this bid, the bidder certifies that neither it nor any person or firm who has an interest in the bidder's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of the contract resulting from this solicitation shall be subcontracted to any person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

10. Certification of Nonsegregated Facilities (applicable to contracts exceeding \$10,000)

(a) The bidder's attention is called to the clause entitled **Equal Employment Opportunity** of the General Conditions of the Contract for Construction.

(b) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(c) By the submission of this bid, the bidder certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in the contract.

(d) The bidder further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) prior to entering into subcontracts which exceed \$10,000 and are not exempt from the requirements of the Equal Employment Opportunity clause, it will:

- (1) Obtain identical certifications from the proposed subcontractors;
- (2) Retain the certifications in its files; and
- (3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

Notice to Prospective Subcontractors of Requirement for Certifications of Nonsegregated Facilities

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause of the prime contract. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

Note: The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

11. Clean Air and Water Certification (applicable to contracts exceeding \$100,000)

The bidder certifies that:

(a) Any facility to be used in the performance of this contract [] is, [] is not listed on the Environmental Protection Agency List of Violating Facilities:

(b) The bidder will immediately notify the PHA/IHA Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the bidder proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and,

(c) The bidder will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

12. Previous Participation Certificate (applicable to construction and equipment contracts exceeding \$50,000)

(a) The bidder shall complete and submit with his/her bid the Form HUD-2530, "Previous Participation Certificate." If the successful bidder does not submit the certificate with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the certificate by that date may render the bid nonresponsive. No contract award will be made without a properly executed certificate.

(b) A fully executed "Previous Participation Certificate" [] is, [] is not included with the bid.

13. Bidder's Signature

The bidder hereby certifies that the information contained in these certifications and representations is accurate, complete, and current.

(Signature and Date)

(Typed or Printed Name)

(Title)

(Company Name)

(Company Address)

Greater Dayton Premier Management Bid Guaranty & Bond Form

(Ohio revised Code Section 153.571)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned _____

as **PRINCIPAL**, and _____

as **SURETIES**, are hereby held and firmly bound unto **The Dayton Metropolitan Housing Authority d/b/a Greater Dayton Premier Management (GDPM)**, as Obligee, in the penal sum of the dollar amount of the bud submitted by the Principal to GDPM on the ____ day of _____, 20__ to undertake the Project known as:

PROJECT NAME: _____

Solicitation No.: _____

The penal sum referred to herein shall be the dollar amount of the Principal's bid to GDPM, incorporating any additive or deductive alternate bids made by the Principal on the date referred to above to GDPM, which are accepted by GDPM. In no case shall the penal sum exceed the amount of _____ dollars. (If the foregoing blank is not filled in, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if the blank is filled in, the amount stated must not be less than the full amount of the bid including alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

SIGNED this _____ day of _____, 20__.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a bid for the above referenced Project.

NOW, THEREFORE, if GDPM accepts the bid of the Principal and the Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, bills of material and all other solicitation documents; and in the event the Principal pays GDPM the difference not to exceed ten per cent of the penalty hereof between the amount specified in the bid and such larger amount for which GDPM may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event GDPM does not award the contract to the next lowest bidder and resubmits the Project for bidding, the Principal pays to GDPM the difference not to exceed ten per cent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect; if GDPM accepts the bid of the Principal and the Principal within ten days after the awarding of the Contract enters into a proper Contract in accordance with the bid, plans, details, specifications, bills of material and all other solicitation documents which said Contract is made a part of this bond the same as though set forth herein;

AND FURTHER, if the said Principal shall well and faithfully do and perform the things agreed by GDPM to be done and performed according to the terms of said Contract; and shall pay all lawful claims of subcontractors, materials suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any materials suppliers or laborer having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

AND FURTHER, the Principal will correct or replace any defective work or materials discovered by GDPM within a period of one year from the date of acceptance of such work or material by GDPM, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of the said Contract or in the Plans and Specifications therefor shall in any wise affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions, or additions, in or to the terms of the Contract, the Work or the Contract Documents, including, without limitation the Plans and Specifications.

< Remainder of page intentionally left blank >

PRINCIPAL:

Principal Signature

By: _____

Title: _____

SURETY:

Surety Signature

By: _____
Attorney-in-Fact

Surety Agent's Information:

Agency Name

Street

City State Zip

Telephone No.

(Attach hereto the current Power of Attorney of the person executing this bond for the Surety.)

Non-Collusive Affidavit and Full Disclosure Statement

Non-Collusive Affidavit: The undersigned party hereby certifies that this proposal/bid is genuine and not collusive or sham; that said offeror has not colluded, conspired, connived or agreed, directly or indirectly, with any offeror or person to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication, or conference, with any person, to fix the bid price or any other offeror, or to fix any overhead, profit or cost element of said bid price, or of that of any other offeror, or to secure any advantage against the Greater Dayton Premier Management or any person interested in the proposed contract; and that all statements in said proposal or bid are true.

Disclosure: The undersigned certifies that I, nor any member of my immediate family does not now, and has not for the preceding two years, had any interest, whatsoever, whether direct, or indirect, in GDPM or any of its members or officials including but not limited to any interest which yields or has the potential of yielding directly or indirectly a monetary or other material gain or benefit with any employees, officers and commissioners of GDPM and members of their immediate family, or any interest arising from blood or marriage or from close business association, notwithstanding whether any financial interest is involved with any employees, officers and commissioners of GDPM members of their families or employment or services rendered as a member, official or officer of GDPM.

Signature: _____

Signature: _____

Title: _____

(Company Name)

Request for Taxpayer Identification Number and Certification

**Give Form to the
 requester. Do not
 send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1	Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2	Business name/disregarded entity name, if different from above	
	3	Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
	5	Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
6	City, state, and ZIP code		
7	List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number																																										
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td> </tr> </table>												<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td> </tr> </table>																														
or																																										
Employer identification number																																										
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td> </tr> </table>																					<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td> </tr> </table>																					

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶	Date ▶
------------------	----------------------------	--------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or “doing business as” (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity’s name as shown on the entity’s tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a “disregarded entity.” See Regulations section 301.7701-2(c)(2)(iii). Enter the owner’s name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner’s name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity’s name on line 2, “Business name/disregarded entity name.” If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys’ fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.

You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

*Note: The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

What Projects or Contracts Does Section 3 Apply to?

Housing and Community Development Financial Assistance

Section 3 applies to housing construction, housing rehab and public infrastructure projects that receive more than \$200,000 in HUD assistance. Section 3 also applies to projects that include Lead Hazard Control and Healthy Homes assistance that exceeds \$100,000.

Public Housing Financial Assistance

Section 3 applies to any amount of assistance for development, operations and management, mixed-finance development projects, and in some cases, Rental Assistance Demonstration (RAD) and Choice Neighborhoods projects.

What Are the Goals of Section 3?

Section 3 has goals that recipients, subrecipients, contractors and subcontractors must meet. The goals are as follows:

Housing and Community Development Financial Assistance

- 25% or more of the total number of labor hours worked by all workers on a Section 3 project are Section 3 workers and 5% or more of the total number of labor hours worked by all workers on a Section 3 project are Targeted Section 3 workers.

Public Housing Financial Assistance

- 25% or more of the total number of labor hours worked by all workers in a PHA's fiscal year are Section 3 workers and 5% or more of the total number of labor hours worked by all workers in a PHA's fiscal year are Targeted Section 3 workers.

What Happens if the Section 3 Goals Are Not Met?

Recipients must report qualitative nature of Section 3 compliance efforts and the efforts of its contractors and subcontractors.

How Can I Find Section 3 Opportunities in My Area?

Contact your local and state government and public housing authority to learn more about employment, training and contracting opportunities that may be available to you in your community.

How Can I Learn More About Section 3?

Visit the following websites:

- <http://www.hud.gov/section3>
- <http://www.hudexchange.info/programs/section-3/>

Want to learn more about YouthBuild?

- <http://www.dol.gov/agencies/eta/youth/youthbuild>



SECTION 3

for Workers and Businesses

Learn about employment, training and contracting opportunities that can be available to you under Section 3.

What Is Section 3 and Why Does It Matter?

- Every year the Department of Housing and Urban Development (HUD) invests billions of federal dollars into distressed communities across the country for projects that provide **access to safe and affordable housing and improve public infrastructure**.
- These funds are passed down to public housing agencies, local and state governments or other recipients through grants or financial assistance.
- The financial assistance can be used to **maintain and build affordable housing and improve public infrastructure** in your community.
- **Employment, training and contracting** opportunities that result from the covered projects or contracts must be directed to persons who are low-income (**Section 3 workers**) and businesses that are owned by or employ persons who are low-income (**Section 3 businesses**) to help build economic wealth.
- Best efforts should be made to direct economic opportunities to persons and businesses in the **order of priority** outlined in the final rule requirements.

Who Is Responsible for Providing Access to Economic Opportunities?

- Recipients and subrecipients of HUD assistance
- Contractors and subcontractors working on certain HUD-assisted projects or contracts

How Can Contractors Help PHAs and Grantees Meet the Section 3 Goals?

Contractors can help PHAs and grantees meet the Section 3 goals by being a Section 3 business or employing Section 3 workers. Some grantees or PHAs may offer incentives to businesses that can demonstrate how they will meet the Section 3 goals.

What Is a Section 3 Worker?

A **Section 3 Worker** is any worker who currently fits, or when hired within the past five years fit, at least one of the following categories as documented:

- Person who is low-income
- Employed by a Section 3 business concern
- YouthBuild participant

What Is a Targeted Section 3 Worker?

A **Targeted Section 3 Worker** is a Section 3 worker who is **employed by a Section 3 business concern** or is a worker that currently fits or when hired fit at least **one** of the following categories as documented within the past five years:

Housing and Community Development Financial Assistance

- Lives within the neighborhood of the project
- YouthBuild participant

Public Housing Financial Assistance

- Resident of public housing or Section 8-assisted housing
- Resident of other public housing projects or Section 8-assisted housing managed by the PHA that is providing the assistance
- YouthBuild participant



What Is a Section 3 Business Concern?

A business that meets at least **one** of the following categories, within the last six-month period:

- At least 51% owned and controlled by persons who are low-income
- At least 51% owned and controlled by current public housing residents or residents who currently live in Section 8 assisted housing
- Over 75% of the labor hours performed for the business over the prior three-month period were performed by Section 3 workers



Section 3 Job Aid

for Contractors & Subcontractors

1 Understand How Section 3 Applies to Your Project or Contract

Section 3 applies to any amount of public housing financial assistance for development, operations and management, and mixed-finance development projects. In some cases, Section 3 may apply to Rental Assistance Demonstration (RAD) and Choice Neighborhoods projects. Material supply contracts are excluded.

2 Understand How to Meet the Section 3 Goals


Meet the Quantitative Goals

25% or more of all labor hours in a PHA's fiscal year must be worked by Section 3 workers, and **5%** or more of all labor hours in a PHA's fiscal year must be worked by Targeted Section 3 workers

Professional service labor hours are excluded from the goals, but may be included by choice.

Make Qualitative Efforts

Provide evidence that you made qualitative efforts to assist persons and businesses that provide opportunities to persons listed in the following order of priority: 1) Residents of public housing projects where assistance is expended, 2) Residents of other public housing projects managed by the PHA providing the assistance, 3) YouthBuild participants, 4) Persons who are low-income residing in the metro area (or non-metro county) where assistance is expended.

 **Helpful Tool:** The Section 3 Guidebook provides a list of qualitative efforts that contractors and subcontractors may undertake to document that they made qualitative efforts to assist persons who are low-income with employment and training opportunities.

3 Understand What a Section 3 Worker Is

What is a Section 3 Worker? A worker who **currently fits**, or **when hired** within the past five years fit, at least **one** of the following categories as documented:

- Worker who is low-income
- Employed by a Section 3 business concern
- YouthBuild participant

*The five-year lookback period cannot date back further than 2020.

4

Understand What a Targeted Section 3 Worker Is

What is a Targeted Section 3 Worker? A worker who is:

- Employed by a Section 3 business concern

Or a worker that **currently fits** or **when hired** within the past five years fit, at least **one** of the following categories as documented:

- Resident of public housing or Section 8 assisted housing
- Resident of other public housing projects or Section 8 assisted housing that is managed by the PHA that is providing the assistance.
- YouthBuild participant



Helpful Tip:

- All Targeted Section 3 Workers are Section 3 Workers. However, not all Section 3 Workers meet the definition of a Targeted Section 3 Worker.

5

Certify Your Section 3 and Targeted Section 3 Workers

Select the Option(s) You Will Use to Certify Worker Eligibility

1. **Worker Self-Certification** - this option allows a worker to verify their own eligibility. A worker may use a self-certification form to certify that:

- Their income is at or below the low-income limit, or
- They are a YouthBuild participant, or
- They are a public housing resident or a resident of Section 8 assisted housing

2. **Employer Certification** - this option allows employers to certify that the:

- Worker's paid wage rate by the employer (if annualized on a full-time basis) is at or below the low-income limit, or
- Worker is employed by a Section 3 Business concern.

3. **PHA/Owner Certification** - this option allows a PHA or an owner or property manager of project based Section 8-assisted housing or administrator of tenant-based Section-8 assisted housing to certify that:

- The worker is a participant in one of their programs.



Helpful Tip:

- If a person does not currently meet any of the categories above, the person or employer can look back five years (if hired within the last five years by the same employer) to verify the worker's status.

6

Determine if Your Business Qualifies as a Section 3 Business

There are two different ways to qualify as a Section 3 business concern. Your business must meet one of the criteria below to be eligible.

1. At least 51% of your business owned and controlled by a person(s) who are low-income OR by a public housing resident or resident living in Section 8 assisted housing.

a. If your business meets the criteria, then you will need to self-certify ownership and income-levels of the qualifying owner(s).

2. In the past 3 months, more than 75% of the labor hours worked for your business must be performed by Section 3 workers?

a. How do I figure this out?

- **Divide** the *total number of labor hours* worked by **Section 3 Workers** over the last three-month period by the *total number of labor hours worked* by **all employees** over the last three-month period. **Multiply** the number by 100 to get the percentage. If the percentage is 75% or greater, your business qualifies. You may self-certify your eligibility.
- **Example:** Over the prior three month period, Contractor ABC had six employees on payroll. Two out of the six employees qualified as Section 3 Workers. The total number of hours that the six employees worked in the prior three month period was a total of 800 hours. The total number of hours that were worked by the Section 3 Workers were 500 hours. To determine eligibility, Contractor ABC divided 500 hours by 800 hours. Based upon the equation, 62.5% of the business' labor hours performed over the prior three month period were performed by Section 3 Workers. The contractor does not qualify as a Section 3 business.

Helpful Resources

<https://www.hudexchange.info/programs/section-3/resources-and-tools/#section-3-tools>

Greater Dayton Premier Management

HUD Section 3 Utilization Tool

Public Housing Financial Assistance

Public reporting for this collection of information is estimated to average 1.50 hours per response, including the time for reviewing instructions, searching existing data sources, gathering, and maintaining the data needed, and completing and reviewing the collection of information.

Section 3 of the Housing and Urban Development Act of 1968, as amended by the Housing and Community Development Act of 1992 (Section 3), and 12 U.S.C. § 1701u ensure that employment and other economic opportunities generated by Federal financial assistance for housing and community development programs are, to the greatest extent feasible, directed toward low- and very low-income persons, particularly those who receive government assistance for housing. The regulations are found at 24 CFR Part 75. This collection of information is required to ensure that Section 3 workers and Section 3 Business concerns participating in Housing and Community Development Projects and Public Housing Assistance Projects with HUD funding are documenting Section 3 labor hours to meet the requirements of Section 3 found in 24 CFR part 75. The information will be used by the Department to monitor program recipient's compliance with Section 3, to assess the results of the Department's efforts to meet the statutory objectives of Section 3, to prepare reports to Congress, and by recipients as a self-monitoring tool.

Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions to reduce this burden, to Anna P. Guido, Reports Management Officer, QDAM, Department of Housing and Urban Development, 451 7th Street, SW, Room 4176, Washington, DC 20410-5000. When providing comments, please refer to OMB Approval No. 2501-0040. HUD may not conduct and sponsor, and a person is not required to respond to, a collection of information unless the collection displays a valid control number. No assurances of confidentiality are provided for this information collection.

This Utilization Tool is a tool for the Dayton Metropolitan Housing Authority d/b/a Greater Dayton Premier Management (“**GDPM**”) and its contractors/subcontractors to document Section 3 labor hours for Section 3 workers and Section 3 business concerns. This document and accompanying Form 4737 and Form 4737A should be completed by businesses completing activities that utilize Public Housing funds. Please note that the procurement process and the Section 3 Worker or Section 3 business concern self-certification and verification process is completed outside of this plan.

Applicable Law

Section 3 rules apply on projects and expenses with the following public housing assistance, including:

- Development assistance pursuant to Section 5 of the Housing Act of 1937 (1937 Act),
- Operating funds pursuant to Section 9(e) of the 1937 Act,
- Capital funds for development, modernization, and management assistance pursuant to Section 9(d) of the 1937 Act,
- The entirety of a mixed-finance development project as defined in 24 CFR § 905.604, and/or
- Any public housing funding identified through a Notice of Funding Availability (NOFA) as outlined in 24 CFR 75.7.
 - Example: Choice Neighborhood implementation or planning grants or Jobs Plus/Family Self-sufficiency/Resident Opportunities and Self-Sufficiency Grants.
- Rental Assistance Demonstration (RAD) Projects

SECTION I FUNDING INFORMATION

HUD-funded entity: Dayton Metropolitan Housing Authority d/b/a Greater Dayton Premier Management

Name of HUD Funding Source: Capital Fund Program

SECTION II PRIORITIZATION REQUIREMENTS

Employment and Training

GDPM and their contractors or subcontractors will provide their best efforts to give any employment and training opportunities in connection with Section 3 and should give priority to Section 3 workers in the following order of priority:

1. Residents of the public housing project(s) for which the public housing financial assistance is expended;
2. Residents of the public housing project(s) managed by the PHA that is providing the assistance or for residents of Section 8-assisted housing managed by the PHA;
3. Participants in YouthBuild program(s); and
4. Persons of low- and very-low income residing within the metropolitan area (or nonmetropolitan county) in which the assistance is expended.

NOTE: No statement in this document is intended to require the contracting or employment of a Section 3 worker. Section 3 workers are not exempt from meeting the qualifications of an available employment or training opportunity.

Contracting

GDPM and their contractors or subcontractors will provide their best efforts to award contracts and subcontracts to business concerns that provide economic opportunities to Section 3 workers in connection with public housing financial assistance.

Contracted businesses should make best efforts to give priority in the following order listed:

1. Section 3 business concerns that provide economic opportunities for residents of the public housing project(s) for which the public housing financial assistance is expended;
2. Section 3 business concerns that provide economic opportunities for residents of the public housing project(s) or Section-8 assisted housing managed by the PHA that is providing the assistance;
3. Participants in YouthBuild program(s); and
4. Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the metropolitan area (or nonmetropolitan county) in which the assistance is expended.

NOTE: No statement in this document is intended to require the contracting or procurement of a Section 3 business concern. Section 3 business concerns are not exempt from meeting the specifications of the bid or contract.

SECTION III

IDENTIFICATION AND RECORDKEEPING FOR SECTION 3 BUSINESSES

For each Section 3 Business that is completing construction or rehabilitation activities for the project identified in Section I, complete PHA Form 4737 for *each* contractor as instructed on the form. Certification will be documented prior to the execution of a contract. Certification documentation must be maintained by the recipient, subrecipient, contractor, or subcontractor for the appropriate record retention period found in 2 CFR Part 200.

NOTE: Professional service providers and recipient or subrecipient information may be entered on the form.

Form 4737 is intended to provide a template for PHAs, non-Section 3 businesses and Section 3 business concerns to record all labor hours to document compliance with Section 3 on the HUD-funded project. Each contractor must document the total number of labor hours and enter the specific amount of Section 3 business labor hours worked on the project.

NOTE: A business can also use a separate form or internal system that includes the same information on PHA Form 4737.

SECTION IV

CERTIFICATION OF SECTION 3 WORKER AND TARGETED SECTION 3 WORKER (PHA FORM B)

PHA Form 4737A is intended to provide a template for PHAs, non-Section 3 Businesses, and Section 3 Businesses to record individual labor hours to document compliance with Section 3 on the HUD-funded project, should they choose to use this. The form tracks the total number of labor hours for each construction business and professional business that is contracted to complete work on the project.

NOTE: A business can also use a separate form or internal system that includes the same information on Form 4737A.

For each Section 3 Worker or Targeted Section 3 Worker that is contributing labor hours to complete construction or rehabilitation activities for the project identified in Section I, complete PHA Form 4737A for each worker with name and appropriate information. Individuals (Section 3 workers and Targeted Section 3 workers) only need to be verified once. Documentation and verification must be maintained by recipient or its designee(s) for the appropriate record retention period found in 2 CFR Part 200. (See PHA Form 4737A attached)

SECTION V
CERTIFICATION

By signing this Section 3 Utilization Tool, [contractor/subcontractor] certifies that it meets the requirements of 24 CFR § 75.9 through § 75.17. [Contractor/subcontractor] agrees to make best efforts to ensure that employment, training, and contracting opportunities arising in connection with Section 3 are provided to Section 3 workers, Targeted Section 3 workers, YouthBuild participants, and Section 3 Business concerns that provide economic opportunities to Section 3 workers.

Printed Name of Signer

Date

Signature

Note: This form must be signed by a representative, officer, or agent of the entity or business signing and certifying this information.

Is your Bid Packet Complete?



Are the following forms completed, signed and in your Bid Packet?

- 1. Invitation for Bid Form**
- 2. Bid Forms - with BABA and without BABA**
- 3. Representations, Certifications, and other Statements of Bidders**
- 4. Bid Guaranty & Bond Form**
- 5. Non-Collusive Affidavit & Full Disclosure Form**
- 6. Section 3 Form**
- 7. W-9**

Wage Determination
For work completed at Wilmington

Superseded General Decision Number: OH20240018

State: Ohio

Construction Type: Residential

Counties: Greene, Miami, Montgomery and Preble Counties in Ohio.

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	06/06/2025
2	07/25/2025
3	08/15/2025

ENGI0018-027 05/01/2019

Rates Fringes

POWER EQUIPMENT OPERATOR (Bulldozer).....\$ 37.02 15.20

ENGI0066-026 06/01/2023

Rates Fringes

POWER EQUIPMENT OPERATOR Crane.....\$ 36.92 24.01

LABO0265-004 06/01/2024

Rates Fringes

LABORER (Mason Tender-Brick).....\$ 25.90 18.40

PAIN0707-001 05/01/2025

Rates Fringes

PAINTER (Brush and Roller).....\$ 33.95 20.20

* PLAS0109-006 06/01/2025

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...\$ 33.48 24.81

SHEE0033-016 06/01/2025

Rates Fringes

SHEET METAL WORKER (HVAC Duct Installation Only).....\$ 20.40 16.50

* SUOH2012-020 07/20/2012

Rates Fringes

BRICKLAYER.....\$ 28.40 11.78

CARPENTER.....\$ 20.19 6.51

ELECTRICIAN.....\$ 19.68 9.46

LABORER: Common or General.....\$ 21.50 5.23

OPERATOR: Backhoe/Excavator.....\$ 25.25 9.38

OPERATOR: Bobcat/Skid Steer/Skid Loader.....\$ 29.49 11.16

PLUMBER.....\$ 20.00 5.52

ROOFER.....\$ 16.85 ** 3.83

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

** Workers in this classification may be entitled to a higher

minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for

the classifications reflected union rates. EXAMPLE:
UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

=====

END OF GENERAL DECISION"

Wage Determination

For work completed at Park Manor & Westdale

Superseded General Decision Number: OH20240093

State: Ohio

Construction Type: Building

County: Montgomery County in Ohio.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<p>. Executive Order 14026 generally applies to the contract.</p> <p>. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.</p>
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<p>. Executive Order 13658 generally applies to the contract.</p> <p>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</p>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	02/07/2025
2	02/14/2025
3	03/14/2025
4	04/25/2025
5	05/30/2025

6 07/18/2025
 7 08/08/2025
 8 08/15/2025

ASBE0008-010 03/01/2025

Rates Fringes

ASBESTOS WORKER/HEAT & FROST
 INSULATOR.....\$ 35.23 23.04

BROH0022-005 06/01/2024

Rates Fringes

BRICKLAYER.....\$ 33.30 18.28

BROH0022-011 07/01/2024

Rates Fringes

TILE FINISHER.....\$ 28.28 11.05

ELEC0082-004 12/02/2024

Rates Fringes

ELECTRICIAN.....\$ 38.00 22.49

ELEV0011-002 01/01/2025

Rates Fringes

ELEVATOR MECHANIC.....\$ 57.41 38.435+a+b

PAID HOLIDAYS:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Vetern's Day, Thanksgiving Day, the Friday after Thanksgiving, and Christmas Day.

b. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; 6% for less than 5 years' service.

ENGI0018-034 05/01/2024

Rates Fringes

POWER EQUIPMENT OPERATOR
 Crane.....\$ 44.14 16.41

ENGI0066-045 06/01/2017

Rates Fringes

POWER EQUIPMENT OPERATOR
 Forklift.....\$ 28.87 19.66
 Grader/Blade.....\$ 32.42 19.66
 Mechanic.....\$ 32.92 19.66

IRON0044-020 06/01/2025

Rates Fringes

IRONWORKER, ORNAMENTAL.....\$ 37.77 23.90

IRON0290-006 06/01/2025

	Rates	Fringes
IRONWORKER (Reinforcing and Structural).....	\$ 37.39	25.35

LABO1410-005 04/01/2024

	Rates	Fringes
LABORER		
Asbestos Abatement (Removal from Ceilings, Floors, and Walls).....	\$ 31.65	12.95
Mason Tender - Brick.....	\$ 32.25	12.95

PAIN0249-005 05/01/2025

	Rates	Fringes
PAINTER (Brush and Roller).....	\$ 29.15	13.97

PAIN0387-002 11/01/2023

	Rates	Fringes
GLAZIER.....	\$ 31.95	18.20

PLUM0050-009 06/30/2025

	Rates	Fringes
PIPEFITTER (Excludes HVAC Pipe Installation).....	\$ 51.00	32.56

PLUM0162-008 06/01/2024

	Rates	Fringes
PLUMBER (HVAC Pipe Installation Only).....	\$ 43.05	27.18

ROOF0042-001 08/01/2024

	Rates	Fringes
ROOFER.....	\$ 33.00	19.42

* SFOH0669-009 04/01/2025

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 48.28	28.08

* UAVG-OH-0021 01/01/2019

	Rates	Fringes
OPERATOR: Oiler.....	\$ 27.56	16.37

* UAVG-OH-0025 01/01/2018

	Rates	Fringes
SHEET METAL WORKER, Excludes HVAC Duct and Unit		

Installation.....\$ 28.10 23.41

* UAVG-OH-0031 01/01/2018

	Rates	Fringes
BRICKLAYER: TILE SETTER.....	\$ 26.09	12.30

SUOH2012-095 08/29/2014

	Rates	Fringes
CARPENTER.....	\$ 21.59	5.70
CEMENT MASON/CONCRETE FINISHER...	\$ 26.07	12.34
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 21.02	4.21
FORM WORKER.....	\$ 22.41	9.01
LABORER: Common or General.....	\$ 20.87	5.92
LABORER: Mason Tender - Cement/Concrete.....	\$ 22.95	8.60
LABORER: Pipelayer.....	\$ 23.98	8.58
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 33.36	6.13
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 30.26	12.58
OPERATOR: Bulldozer.....	\$ 26.01	4.95
OPERATOR: Loader.....	\$ 29.99	12.80
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 30.28	13.29
OPERATOR: Roller.....	\$ 28.25	12.61
PAINTER: Spray.....	\$ 22.78	12.40
PLUMBER, Excludes HVAC Pipe Installation.....	\$ 26.21	12.51
SHEET METAL WORKER (HVAC Duct and HVAC Unit Installation Only).....	\$ 24.28	10.50
TRUCK DRIVER: Dump (All Types)...	\$ 22.08	11.51

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their

own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this

classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

=====
END OF GENERAL DECISION"

Specifications for:

Fire Alarm System Replacement: Westdale Hi Rise

16 Melba St
Dayton, OH 45402

Park Manor Hi Rise

220 Park Manor Dr.
Dayton, OH 45410

Wilmington Hi Rise

958 Wilmington Ave
Dayton, OH 45420



Prepared for:

Greater Dayton Premier Management

400 Wayne Avenue
Dayton, Ohio 45410
937.910.7500

Website posting at www.gdpm.org

Prepared by:



RDA GROUP ARCHITECTS

7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

Bid Set
May 16, 2024

THIS SHEET LEFT INTENTIONALLY BLANK



DOCUMENT 00 01 10 - TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS

00 01 10	Table of Contents
01 10 00	Summary
01 20 00	Price and Payment Procedures
01 25 00	Substitutions
01 30 00	Administrative Procedures
01 33 00	Submittal Procedures
01 40 00	Quality Requirements
01 50 00	Temporary Utilities and Controls
01 60 00	Product Requirements
01 73 00	Execution
01 77 00	Closeout Requirements
01 78 00	Operation and Maintenance Data
02 41 16	Selective Demolition
02 50 00	Hazardous Materials Specifications
07 84 00	Firestopping
07 90 00	Joint Protection
09 21 16	Gypsum Board Assemblies
09 90 00	Painting and Coating
16 00 00	Electrical

DRAWINGS

G1.1	Project Information
Site 01 – Westdale Hi Rise	
01-A1.1	First / Second / Third Floor Plans
01-A1.2	Fourth / Fifth / Sixth Floor Plans
01-A1.3	Roof Plan
01-E100	Legend Scope of Work
01-E101	First Floor Plan
01-E102	Typical Floor Plan
01-E103	Roof Plan / Elevator Penthouse
Site 02 – Park Manor Hi Rise	
02-A1.1	Basement / First / Floor Plans
02-A1.2	Second / Third / Fourth Floor Plans
02-A1.3	Fifth / Sixth / Seventh Floor Plans
02-A1.4	Eighth Floor Plan / Roof Plan
02-E100	Legend
02-E201	First Floor Existing
02-E202	First Floor Revised
02-E203	Typical Floor Plan
02-E204	Roof Plan

Site 03 – Wilmington Hi Rise

03-A1.1	First / Second Floor Plans
03-A1.2	Third / Fourth Floor Plans
03-E100	Legend
03-E301	First Floor Existing
03-E302	First Floor Revised
03-E303	Second Floor Existing
03-E304	Second Floor Revised
03-E305	Third Floor Existing
03-E306	Third Floor Revised
03-E307	Fourth Floor Existing
03-E308	Fourth Floor Revised



THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 10 00 - SUMMARY

PART 1 GENERAL

1.1 DESCRIPTION OF THE PROJECT DOCUMENTS / SCOPE OF WORK

- A. The work covered by these specifications consists of furnishing all labor, materials, and equipment necessary in connection with a Fire Alarm System Replacement Project at Westdale Hi-Rise, Park Manor Hi-Rise, and Wilmington Hi-Rise for Greater Dayton Premier Management.
 - 1. Work includes items as shown, subject to the terms and conditions of the contract, specifications and the drawings as listed.
- B. Provide all materials and labor for work as noted herein for a complete project.
 - 1. **IMPORTANT:** Field verify all existing conditions, and coordinate all applicable requirements as related to the scope of the work.
 - 2. Drawings indicate general diagrammatic areas/extent of work, but in no way indicate the intricate nature of the work required for the successful completion of the project.
- C. Provide any and all ancillary work related to the above work scope including repair of any Contractor damaged finishes within the work area.
- D. Perform Work of Contract under a stipulated sum contract with Owner in accordance with Conditions of Contract.

1.2 CONTRACT / TEAM IDENTIFICATION

- A. Project Identification: Fire Alarm Replacement Project
- B. Project Locations: Westdale Hi-Rise, 16 Melba Street, Dayton, OH
Park Manor Hi-Rise, 220 Park Manor Drive, Dayton, OH
Wilmington Hi-Rise, 958 Wilmington Ave., Dayton, OH
- C. Owner: Greater Dayton Premier Management [GDPM]
400 Wayne Avenue
Dayton, OH 45410
937.910.7550 phone
- D. Architect: RDA Group Architects, LLC
7662 Paragon Road
Dayton, OH 45459
937.610.3440 phone
- E. PME Engineer: Helmig Lienesch, LLC
410 S. Jefferson Street
Dayton, OH 45402
937.228.4007 phone

1.3 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.
- B. The term 'RDA' or 'Architect' as referenced in these contract documents is RDA Group Architects.
- C. The term 'Owner' as referenced in this specification is Greater Dayton Premier Management.

1.4 SCOPE OF WORK

- A. Work of the Project includes the replacement of the fire alarm system in the building including fire alarm panel, equipment, cabling and conduits, and end use devices at Westdale, Park

Manor, and Wilmington Hi-Rises as outlined / located on the Drawings / Specifications. All work shall be in accordance with NFPA 72 and per City of Dayton Fire Department requirements.

1. All specific scope items shall be coordinated and reviewed on the drawings and specifications as applicable.
2. Maintain existing system operational during the installation of the new fire alarm system. Coordinate all applicable requirements.
3. Remove existing fire alarm system, equipment, devices, wiring, conduits, junction boxes, etc.
4. Installation of a new digital, addressable fire alarm system with manual voice paging.
5. Installation of fire alarm equipment such as amplifiers and power extenders to support the system.
6. Installation of new audio and visual fire alarm devices in common areas and within dwelling units as outlined.
7. Repair holes in floors and walls from the removal of the existing fire alarm system. Prep and paint impacted walls / ceilings / finishes as is applicable to the work.
8. Install firestopping at wall / ceiling penetrations as is applicable to the work.
9. Prep and paint new conduits, junction boxes to match adjacent finishes [finishes vary throughout the building – multiple colors, etc. must be anticipated.]
10. Ancillary work required to accomplish the work scope as intended.

1.5 CONTRACTOR'S USE OF SITE[S] / SITE CONTROL

- A. Provide and maintain a safe living environment for Residents of each of the buildings at all times during the course of work. Each of the buildings will remain OCCUPIED throughout the duration of the work.
 1. Provide fire watch as required by City of Dayton Fire Department, and in particular during any times of outages in the system.
 2. Coordinate daily with any planned outages, or the need to place the system in test mode, construction, etc.
- B. Coordinate work to allow continued Occupancy of all dwelling units, adjacent parking lots, driveways, access points, etc. throughout the duration of the project. Minimize impact to Owner / Resident. Sequence the project to allow continued occupancy of all dwelling units. Develop a plan and strategy to accomplish the goal. Include all additional efforts, scheduling, construction duration, etc. in the bid amount.
- C. All units will be OCCUPIED throughout the duration of the project. Take all measures necessary to minimize the impact on the residents, provide protective measures at areas of work.
 1. Work must be undertaken and scheduled to allow continued occupancy.
 2. All existing work removed in a day must have new work installed completely the same day as required to maintain life safety systems in place.
- D. Assist in relocation of Resident equipment and furnishings, etc. as is applicable to the scope of the project and to allow the scheduled work.
- E. Provide temporary protection to minimize the spread of dust, dirt, and debris to other portions of the building, in particular during dusty activities such as core drilling concrete floors, concrete / concrete block walls, etc.
- F. Provide temporary protection of adjacent finishes at the work areas as well as any areas traversed to the building entrances, etc.
- G. Use of the elevators is permitted. Provide protection of the elevator to prevent damages.
- H. Coordinate with Owner any activities which have the potential to affect continued operations of the facilities or impact life safety, security, etc.

- I. Work Schedules: Perform all work between the hours of 8 AM and 5 PM Monday through Friday, unless work outside these hours and days is requested and granted.
 - 1. No work outside these hours is permitted without explicit Owner approval.
 - 2. Coordinate and schedule all aspects of the work, including how various disciplines work together, are sequenced, etc.
 - 3. Weekend and overtime work or increasing crew size may be required by the Owner at no additional cost if the Contractor fails to meet projected dates as prescribed in the contract and the progress schedule.
 - 4. Coordinate schedule / activities so as not to inconvenience the Owner unnecessarily.
 - 5. Coordinate schedule / activities with holidays, etc. so as not to inconvenience the Owner or Residents unnecessarily over holidays, weekends, etc.
- J. Provide appropriate notification of Owner and Residents prior to starting work and throughout the duration of the project.
 - 1. Resident notification to provide directive to have Resident relocate any resident belongings, furniture, etc. away from the work areas if they are able as necessary to facilitate the work of the contract. Notify Owner of any concerns or conflicts received. Assist in relocation of resident belongings as necessary.
- K. Daily work wrap up:
 - 1. Plan the work and provide enough manpower to this contract to ensure that work progresses in an orderly manner and the existing fire alarm system remains in operation until such time of the system changeover after installation of the new fire alarm system. All life safety systems shall continue to be in operation throughout the duration of the project.
 - 2. Plan the work and provide enough manpower to this contract to ensure that the work is accomplished and life safety systems are in full operation at the end of each day's work.
 - 3. Functional use shall mean that the bathroom, kitchen, living room, and bedrooms are usable at the end of the day. Functional also means the ability to secure the unit.
- L. Staff project every day with a full crew capable of timely completion of work. Confirm that all materials, accessories, and other components are on-site and ready for installation prior to beginning work for each work day. Advise project team if there are issues with scheduling prior to starting of work.

1.6 CONTRACT PERIOD / TIME OF COMPLETION

- A. Notice to Proceed: anticipated award in **July 2025** from the Owner.
 - 1. Architect will issue notice to proceed with the agreed upon dates / contract period.
- B. Date of Commencement: to be determined.
 - 1. Owner-Contractor Agreement or Notice to Proceed will be issued establishing the agreed upon construction start date.
 - 2. Final schedule will be coordinated with the Contractor.
- C. Contract Period: **THREE HUNDRED SIXTY FIVE [365] Calendar Days** from Date of Commencement.
 - 1. Provide a work start date within [7] calendar days upon issuance of the Owner-Contractor Agreement. A start date and completion date will be negotiated and a notice to proceed will be issued stating those dates.
 - 2. Consideration of material lead-times and fire alarm permit issuance will be given for establishing the NTP dates as applicable.
 - 3. Notify the RDA, in writing, upon determination of any delay in material delivery or the issuance of building permits.
 - 4. Coordinate schedule, phasing, and implementation of the work.
- D. A contract will be issued in **July 2025**, after approval of the project by the Owner.
 - 1. The Contractor will be responsible to execute the project to allow shop drawings and product submittals to be prepared as quickly as possible such that the materials can be

ordered with sufficient lead time to permit the work to be executed as scheduled prior to the date of substantial completion.

- E. Notify Owner in writing fourteen [14] days prior to the Contract Completion date if an extension of contract time is necessary with a request for the extension and the reasoning for such request.
- F. Liquidated Damages will be enforced for the failure to complete work in the specified contract period per Owner requirements.

1.7 WORK BY THE OWNER

- A. Owner will separately contract for the following: **None / Not Applicable**
- B. Coordinate any / all aspects of Work by Owner as they interface with Work.

1.8 PERMITS

- A. Apply for applicable building and zoning permits once fire alarm shop drawings are prepared and have been reviewed by the Project Team.
- B. Pickup and pay for all applicable building and zoning permits.
 - 1. Refer to Project Allowances for applicable permit allowance.
- C. Furnish all required contractor trade permits as well as any other required permits for work in the right of way, etc.

1.9 APPLICABLE REFERENCES AND CODES

- A. References will be found in each section that applies to that section.
- B. Conform to reference standards by date of issue current as of date of Contract Documents.
- C. When specified reference standard conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with the Ohio Building Code requirements as they relate to the work.

1.10 CONTRACTOR / GENERAL REQUIREMENTS

- A. Protect all finishes and equipment scheduled to remain.
- B. Commence and complete work as noted in the contract.
- C. Coordinate equipment delivery and equipment staging with Owner prior to start of project. Anticipate no on-site storage being provided by Owner.
- D. Pre-determine work phases with Owner to minimize disruption to operations.
- E. Furnish labor, materials, equipment, and management required to complete the project.
- F. Furnish all required logistics required to accomplish the work – including lifts, scaffolding, ladders, trash chutes, safety equipment, temporary protection, daily night seals / weather protection, etc.
 - 1. Coordinate and receive Owner approval for all staging and laydown areas, contractor parking, etc. prior to the start of work.
 - 2. Provide protection of all existing pavement, turf, landscaping, etc. from damage during construction. Restore site to original / like new condition upon completion of the work.
- G. Visit the site to become thoroughly familiar with all working conditions, check and verify all dimensions, and site conditions. Any dimensions given or referred to in the specification or drawing are to be used purely as approximate and not as a basis for exact amounts for bidding. Promptly advise Architect of any discrepancies, errors with the specifications and drawings before bidding the work.

- H. Provide a valid Certificate of Insurance, follow all Workman's Compensation requirements and regulations.
- I. Provide all bonds, payment schedule, insurance as noted in the contract documents.
- J. Pay for all building permits, trade permits, ROW permits, and any other required permits and inspections necessary to complete all work related to these specifications. Comply with Federal, State, and Local Codes.
- K. Provide dumpsters or trash containers needed for construction purposes. Do not use Owner dumpsters or trash containers at any time for removal of materials, trash, or debris related to the Contractor's work. Remove debris from the site regularly and be placed within appropriate trash receptacles. Keep all work areas neat at all times. Take all considerations for safety. Do not leave trash or debris on the ground / around the project site.
 - 1. Run magnet around work areas daily to pickup stray nails, etc. when appropriate.
- L. Take special care not to allow dust and debris to fall onto any equipment, material, personnel, or any room below the deck.
- M. Safety: Take all safety precautions necessary or directed to ensure public safety.
 - 1. Neither Architect nor Owner are safety consultants. Any and all safety provisions shall be managed and coordinated by the Contractor.
 - 2. Safety is paramount and all personnel on site must wear appropriate personal protection equipment [PPE]. The Contractor is responsible for means and methods to ensure that proper PPE is provided. Failure to comply may result in dismissal from site.
 - 3. Barricade work area with appropriate construction grade barriers to establish boundaries of work area and assure safety for all workers and general public. All work areas must be properly barricaded from the general public prior to starting any work.
 - 4. Maintain job site in a neat and orderly fashion at all times.
- N. Conduct all work according to OSHA recognized safe work practices. **COMPLY WITH APPLICABLE OSHA STANDARDS, INCLUDING 1926 – REGULATIONS FOR CONSTRUCTION.**
 - 1. Non-compliance shall be a basis for making a bid non-responsive.
 - 2. If Contractor or sub-contractor is found to be in **VIOLATION (NON-COMPLIANCE) AT ANY TIME**, this could be a basis for termination of the purchase order/contract.
- O. **IMPORTANT: Failure to show or mention petty details shall not be warranted for the omission of anything necessary for the proper completion of the work.**
- P. **The plans and specifications are intended to depict the general scope, layout and quality of workmanship required. The documents are not an "instruction manual" to execute the work nor are they intended to show or describe in detail every item necessary for the proper installation of the work. The means and methods required to execute the work described is the sole responsibility of the Contractor. The Contractor shall include the ancillary work required, whether explicitly stated or not, for the proper completion of the work as intended. The Contractor is required to meet or exceed building code requirements, applicable industry standards, ASTM standards, and/or manufacturer installation requirements as they relate to the work.**
- Q. **The plans and specifications represent a single complete design package indicating the intended scope of the project in its entirety. As such, the project is structured to be awarded to a single Prime Contractor. The documents do not delineate bid packages or assign responsibilities to any subsequent subcontractors, dictate construction sequencing, nor provide coordination between any "trades". Such activities are the responsibility of the holder of the construction contract. In the event of a discrepancy within the drawings or between the drawings and the specifications, the more stringent requirement represented in the documents shall prevail.**

- R. Do not take advantage of any clerical errors, omissions, contradictions, or conflicts that may develop in plans, specifications, or details. Report such errors, ambiguities and discrepancies to the Architect immediately for clarification, revision, or correction prior to the submission of bids. If no notification is given, it shall be assumed that all specifications and conditions will be met.
- S. Submission of a bid shall be considered the Contractor's Certification that the bid is based upon equipment and/or materials that meet or exceed the standards set forth by specification or equipment and/or materials identification. Should a Contractor's product be determined not equal to that specified, the Contractor shall be required to provide and install a product acceptable as equal by the Architect at no additional cost to the Owner.
- T. The submission of a bid shall indicate that the Contractor has visited the project site and is familiar with the conditions as they exist, and the modifications that may be necessary to provide a complete and professional finished project.
- U. There is a strict **NO SMOKING** policy for all work. Any worker found smoking on the jobsite will be subject to removal from the project. No exceptions. Habitual offenders may be subject to a fine in the amount of \$500 per occurrence.
- V. Security: Contractor's Liability for Vandalism
 - 1. Secure and protect the project which is under the control of the Contractor. Include all such expenses for the securement and protection of the project, and for the repair and replacement of the work until that portion of the work is accepted as complete by the Owner. Take all measures necessary to provide such security.
 - 2. Promptly repair or otherwise remedy any and all damages, at Contractor's expense, to said portion of the project and of the accepted construction work caused by vandalism.
 - 3. Indemnify and hold the Owner harmless from and against all damages, liabilities, costs and expenses, including, without limitation, reasonable attorney fees, which may be imposed upon or incurred by the Owner as a result of the Contractor's failure to comply with the requirements of this section.
- W. Insurance: **Refer to GDPM Terms and Conditions.**
 - 1. Provide copy of Certificate of Insurance to Owner.
 - 2. Submit evidence of Worker's Compensation Insurance coverage
 - 3. Submit evidence of Builder's Risk Insurance.
- X. Damages: Any and all damages to Owner Property or resident property shall be repaired equivalent to the existing by the Contractor at no cost to Owner. **NO EXCEPTIONS.**

1.11 CONTRACTOR QUALIFICATIONS

- A. Establish and provide qualifications to Owner for their ability to complete this type of work. Qualifications may be established by:
 - 1. Provide references of similar projects, past performance, financial disclosures, etc. in the interest of selection of the lowest and best bidder for the project.
 - 2. Provide a letter of approval for the installation of the products from the manufacturer.
 - a. Contractor must be properly trained and approved by the manufacturer for the installation of the products.
 - 3. Provide a recommendation from the supplier of the products.
 - 4. Demonstrating to Owner the capability to do the work. Contractor must have a minimum of five years documented experience in similar work.
- B. Contractor is responsible for all work performed by the Sub-contractors.
- C. Owner has the final authority to request a particular sub-contract not be engaged in the project. If this occurs, Owner and Contractor shall determine if there is an impact to the Contract amount, and negotiate, if necessary, to an adjustment in the Contract amount.

1. No change to the Contract amount will be permitted if there is a change to the sub-contractor due to them utilizing alternate manufacturers or products that were not approved substitution requests.

1.12 JOB SUPERINTENDENT/EMPLOYEES

- A. Each prime contractor and subcontractor shall have a qualified foreman on the project at all times when work is being accomplished.
- B. Refrain from fraternization with building occupants other than specifically designated Owner's representatives.
- C. Furnish the Owner with a list of personnel with phone numbers that will be working on the project and emergency contacts names and numbers that has the authority to handle emergencies on a 24 hour/seven days a week.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Follow all applicable requirements of HUD-5370 General Conditions for Construction Contracts and Owner's Terms and Conditions. If there should be a conflict between the Owner Requirements and those herein, the higher standard shall apply.

PART 3 EXECUTION

3.1 CONTRACT ADMINISTRATION

- A. Architect is providing contract administration services for this project to the Owner. However, it shall be the responsibility of the Contractor and Owner to coordinate the proposed work, schedules, installations, permits, inspections, etc. as Architect is not on-site every day.
- B. Contact Architect for clarification should there be questions regarding the interpretation or intent of the documents, field discovery, etc. that would impact or affect the work as proposed. Architect shall not be liable for deviations, field changes, and Owner changes during construction.
- C. Field confirm all existing conditions, proposed installations and how they interface to ensure the systems can be installed per the intent of the documents and to meet applicable building and zoning codes, local requirements, Owner requirements, provide a watertight detail, meet aesthetic requirements, etc.
- D. Meet all applicable building and zoning codes requirements whether specifically noted herein or not. Building codes represent the minimum acceptable standard.
- E. Install all products, materials, installations, and the like in accordance with applicable industry standards, applicable manufacturer's details and instructions, in accordance with best practices, and building code provisions. The manufacturer details / requirements are the minimum acceptable standard, Architect's drawings may require additional work.

3.2 GENERAL PROJECT REQUIREMENTS

- A. Safety is paramount and all personnel on site must wear appropriate personal protection equipment [PPE]. The Contractor is responsible for means and methods to ensure that proper PPE is provided. Failure to comply may result in dismissal from site.
- B. Barricade work area with appropriate construction grade barriers to establish boundaries of work area and assure safety for all workers and general public. All work areas must be properly barricaded from the general public prior to starting any work.
- C. Job sites will be maintained in an orderly and neat fashion at all times.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Applications for payment.
- C. Change procedures.
- D. Unit prices.
- E. Alternates.
- F. Project Allowances.
- G. Defect assessment.

1.2 PREVAILING WAGE / PAYROLL REPORT REQUIREMENTS

- A. The work of this project is subject to Davis-Bacon Prevailing Wages and applicable reporting requirements. Include in the bid amount all applicable prevailing wages.
- B. Refer to the Prevailing Wage Rates included with the Bid documents. Certified Payroll Reports will be required.
- C. Provide Certified payroll reports indicating compliance to the Owner on a monthly basis.
 - 1. Pay Applications will not be processed without approved payroll reports submitted to the Owner.
- D. Employee interviews to confirm compliance with the prevailing wage requirements may be accomplished at any time by the Owner. Do not obstruct or otherwise prevent employee interviews.

1.3 TAXES

- A. Pay all applicable taxes, including applicable sales and use taxes, and other taxes as required by governing law.
 - 1. Owner is a tax-exempt entity.
 - 2. Owner will provide tax exempt forms upon request.
 - 3. Owner will not compensate or reimburse Contractor for any taxes paid on the project.

1.4 RETAINAGE

- A. Owner will withhold retainage in the amount of ten percent [10%] from the payment otherwise due [for both labor and materials] of each progress Application for Payment up to a total project completion of 50%, after which no further retainage will be withheld providing work is performing satisfactorily. Refer to HUD Form 5370.
- B. Retainage will be released in accordance with the Terms of HUD Form 5370.

1.5 STORED MATERIALS [ON OR OFF SITE]

- A. Owner will pay for materials stored on-site.
- B. Owner will pay for materials stored off-site providing proper documentation of the stored materials is provided, including documentation of location of stored materials, supporting invoices, shipping / bill of lading, photo documentation, and proper insurance [paid for by the Contractor] is in place at the location of stored materials.

1.6 SCHEDULE OF VALUES

- A. Submit schedule of values on HUD Form 51000 or AIA G702 / G703 forms.
- B. Submit Schedule of Values three [3] days prior to the Pre-Construction meeting for approval by Architect and Owner.
- C. Approved Schedule of Values will be signed at the Pre-Construction meeting.
- D. Format:
 - 1. Utilize Table of Contents of this Project Manual [CSI Divisions].
 - 2. Identify each line item with number and title of major specification Section.
 - 3. Identify each applicable CSI division / defined work scope / component.
 - 4. Identify site mobilization, general conditions, bonds and insurance.
 - 5. Identify separate line item for each allowance and alternate [as applicable]
- E. Schedule of values should be broken down by building / address.
- F. Revise schedule to list approved Change Orders, with each Application for Payment.

1.7 APPLICATIONS FOR PAYMENT

- A. Submit each application for payment on HUD Form 51001 or AIA G702/G703 forms.
 - 1. Provide an invoice number on the application for payment, or provide a cover letter invoice on company letterhead with an invoice number.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
 - 1. Complete every entry, notarize and execute by a person authorized to sign document on behalf of the Contractor. Include amounts for work completed following previous Application for Payment whether or not payment has been received, include amounts of Change Orders issued before last day of construction period covered by application.
 - 2. Stored materials included in application must have supporting documentation that verifies amount required, do not include overhead and profit on stored material.
 - 3. Each application for payment following the initial Application for Payment shall be consistent for payment with previous applications.
- C. Payment Period: Monthly.
- D. "Pencil Copy": Submit one week prior to application for payment for review and approval by Architect and Owner. Submit Electronically to Architect in PDF format unless directed otherwise.
- E. "Application for Payment": Upon acceptance of the "Pencil Copy", submit the "Application for Payment. Submit Electronically to Architect in PDF format unless directed otherwise. Architect will review, certify for payment, and submit to Owner.
 - 1. Submit updated construction schedule with each Application for Payment as applicable to the work.
 - 2. Submit all required waivers of lien / partial release of lien [including applicable subcontractors] in accordance with Owner requirements.
 - 3. Submit certified payroll reports for all contractors.
- F. Failure to submit required paperwork, including supporting documents can delay the processing of the Application for Payment.

1.8 CHANGE PROCEDURES

- A. Construction Bulletin: Architect / Owner may issue a Construction Bulletin [Proposal Request] including a detailed description of proposed change with supplementary or revised Drawings and specifications. Prepare and submit estimate within 7 days.

- B. Stipulated Sum/Price Change Order: Based on Proposal Request / Construction Bulletin and Contractor's fixed price quotation.
- C. Unit Price Change Order: For contract unit prices and quantities, the Change Order must be executed prior to beginning any work. The Change Order will be based on fixed unit price basis provided in the Bid Form.
- D. Architect will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on Architect's approved forms.
- E. Architect will issue a Change Order for all changes to Contract Sum and for all changes to the Contract Time upon Owner's approval of a proposal from Contractor.
- F. Change Order Forms: HUD / AIA G701 or other approved forms with all required backup documentation.
 - 1. No "change order" will be prepared for costs expended from project allowances which do not require a change to contract sum or time.
- G. Correlation Of Contractor Submittals:
 - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
 - 2. Promptly revise construction progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 - 3. Promptly enter changes in Project Record Documents.
- H. **Important: All change orders must be fully executed prior to beginning any work. Failure to comply will result in contractor request being denied and completed at no cost to Owner.**

1.9 UNIT PRICES

- A. Document unit price quantities. Architect / Owner will confirm quantities as required. Contractor may not be paid for unit cost work without documentation of the work accomplished.
- B. Unit Price Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.
- C. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect / Owner multiplied by unit price for Work incorporated in or made necessary by the Work.

1.10 UNIT PRICE SCHEDULE

- A. None

1.11 ALTERNATES

- A. Alternates listed on Bid Form will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work.

1.12 SCHEDULE OF ALTERNATES

- A. None

1.13 PROJECT ALLOWANCES

- A. Contingency Allowance:
 - 1. Provide in bid a draw down allowance in the amount of **\$100,000 [one hundred thousand dollars]** for use as a project contingency allowance.
- B. Building Permit Allowance:
 - 1. Provide in bid a draw down allowance in the amount of **\$20,000 [twenty thousand dollars]** for securing applicable building / fire alarm permits.
- C. Contractor's costs for Products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit are included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- D. Do not expend or proceed with work outside of the scope of the project which utilizes the contingency allowance without authorization and approval of Architect and Owner.
- E. Identify and track actual expenditures as they occur over the duration of the project not afterward. Any work commenced without Owner approval is at Contractor's risk. Maintain a running tally of the remaining balance of each allowance.
- F. Credit back to the Owner any unused funds at the end of the project via a Change Order.

1.14 FINAL APPLICATION FOR PAYMENT

- A. Refer to provisions in Section 01 77 00 for Application for Payment at Substantial Completion.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the Architect / Owner, it is not practical to remove and replace the Work, the Architect / Owner will direct appropriate remedy.
- C. Authority of Architect / Owner to assess defects and identify payment adjustments is final.
- D. Non-Payment For Rejected Products: Payment will not be made for rejected products.

END OF SECTION

SECTION 01 25 00 – SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Includes administration and procedural requirement for Substitutions.
 - 1. Substitutions' for Cause: Changes due to project conditions, such as unavailable of product.
 - 2. Substitutions' for Convenience: Changes that may offer advantages to the Owner.

1.2 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions / Approved Equal: Submit request for substitution as outlined in this section for manufacturers not named.
 - 1. Architect / Owner is the decision maker if the proposed "approved equal" is in fact equal and approved. Any decision rendered is final.
 - 2. Any Contractor, Sub-contractor, or Supplier who makes their own judgement as to "approved equal" and includes within their bid without a formal approval is doing so at their own risk.

1.3 SUBSTITUTIONS PROCEDURES

- A. The materials, products, and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. The burden of proof of the merit of the proposed substitution is upon the Bidder. Absolutely no substitutions shall be considered after the Contract award unless specifically noted in the Contract Documents. All substitution requests must come from a bidding Contractor [not materials suppliers, etc].
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that the Bidder:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for Substitution as for specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- D. Substitution Procedure
 - 1. **Submit copy of request for Substitution for consideration to Architect no later than seven [7] days before bid opening date.**
 - 2. Submit shop drawings, product data, and applicable certified test results attesting to proposed product equivalence. Burden on proof is on proposer.
 - 3. Architect will notify Contractor in writing of decision to accept or reject request within five [5] days of receipt of request or request additional information or documentation for evaluation.
 - 4. Limit each request to one proposed Substitution.
 - 5. Requests shall include the name of the material or equipment for which it is to be substituted and a completed description of the proposed substitution.
 - 6. Architect/Owner will notify Contractor in writing of decision to accept or reject request.
 - 7. Substitution requests shall only be submitted by registered bidders for the project.

- E. Substitutions will not be considered when they are indicated or implied on Submittals, without written request or when acceptance will require revision to the Contract Documents.
- F. If the Substitution requires modifications to the Contract / Bidding Documents, the cost for updating the documents shall be paid by the Contractor making the request.
- G. Substitutions will not be considered after award of the project without justification.
- H. Approved substitutions will be identified by Addenda.
 - 1. Bidders shall not rely upon approvals made in any other manner.
- I. In submission of substitutions to Products specified, Bidders shall include in their Bid, changes required in the Work and Contract Price to accommodate such approved substitutions. Later claims by the Bidder for an addition to the Contract Time or Contract Price because of changes in Work necessitated by use of substitutions will not be considered.

END OF SECTION



SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Construction Progress Schedules
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Pre-installation meetings.
- F. Daily Job Logs.
- G. Cutting and patching.
- H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of Project Manual / Specifications and Drawings to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
 - 1. Coordination Drawings: Prepare as required to coordinate all portions of Work.
 - 2. Coordination Meetings: In addition to other meetings specified, hold coordination meetings with personnel and subcontractors to ensure coordination of Work.
- D. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements. Coordinate rough in locations for accessibility, clearances, maneuvering, etc.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD VERIFICATION

- A. Prior to ordering materials, verify the actual dimensions of existing conditions and assume responsibility for workable solutions for all new work. Verification that new work and items are workable for existing conditions while providing adequate clearances is the responsibility of the Contractor.

1.4 CONSTRUCTION PROGRESS SCHEDULES

- A. Illustrate order and interdependence of activities and sequence of work; how start of given activity depends on completion of preceding activities, and how completion of activity may restrain start of subsequent activities. Illustrate complete sequence of construction by activity.

Arrange schedule on a weekly basis identifying the first work day of each week. [Critical Path Schedule]

1. Work Sequences, order of operations, constraints, and milestones for the project, including all applicable Subcontract Work.
 2. Material / equipment lead times.
 3. Punchlist Activities
 4. Substantial Completion and Contract Completion Dates.
 5. Move-in and other preliminary activities.
 6. Equipment and equipment system test and startup activities.
 7. Project closeout and cleanup.
- B. Submit initial progress schedule within seven [7] days after date of Owner-Contractor Agreement for Architect / Owner review.
1. Include written certification that major subcontractors have reviewed and accepted proposed schedule.
- C. Submit revised and updated schedules with each Application for Payment and as appropriate throughout the duration of the project.
1. Indicate estimated percentage of completion for each item of Work at each submittal.
- D. Review and Evaluation
1. Participate in joint review and evaluation of schedules with Architect / Owner at each submittal.
 2. Evaluate Project status to determine Work behind schedule and Work ahead of schedule.
 3. Indicate changes required to maintain Date of Substantial Completion.
 4. After review, revise schedules incorporating results of review, and resubmit within three [3] days.
- E. Distribute copies of updated schedules to Subcontractors, suppliers, Architect, Owner, and other concerned parties.

1.5 PRECONSTRUCTION MEETING

- A. Architect / Owner will schedule preconstruction meeting after Notice of Award for affected parties.
- B. Attendance: Architect, Owner, Contractor Project Manager, Foreman / Superintendent
- C. Agenda:
1. Execution of Owner-Contractor Agreement.
 2. Submission of executed bonds and insurance certificates.
 3. Distribution of Contract Documents.
 4. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
 5. Designation of personnel representing parties in Contract, and Architect.
 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 7. Scheduling.
 8. Use of premises by Owner and Contractor.
 9. Owner requirements for procedures and inspections
 10. Construction facilities and controls provided by Owner.
 11. Security and housekeeping procedures.
 12. Application for payment procedures.
 13. Procedures for maintaining record documents.
 14. Requirements for start-up of equipment.
 15. Inspection and acceptance of equipment put into service during construction period.

- D. Architect will record minutes and distribute copies via email after meeting to participants and those affected by decisions made.

1.6 PROGRESS MEETINGS

- A. Architect will be providing periodic observation of the work. Architect will issue field reports at each site visit. Architects will be observing the work for compliance with the specifications and will not be responsible for the ways, means and methods of constructing the project or managing the day to day operations.
- B. Schedule and administer meetings throughout progress of the Work at bi-weekly intervals.
 - 1. Provide suitable accommodations for holding meetings on-site with a layout table, chairs, etc.
- C. Architect will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- D. Attendance Required: Job superintendent, major subcontractors and suppliers, Architect, Owner, as appropriate to agenda topics for each meeting.
- E. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems impeding planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on progress schedule and coordination.
 - 13. Other business relating to Work.
- F. Architect will record minutes and distribute copies via email after meeting to participants and those affected by decisions made.

1.7 PRE-INSTALLATION MEETINGS

- A. Determine any and all necessary pre-installation meetings and schedule the same.
- B. When required in individual specification sections, convene pre-installation meetings at Project site prior to commencing work of specific section.
- C. Require attendance of parties directly affecting, or affected by, Work of specific section.
- D. Notify Architect / Owner one week in advance of meeting date.
- E. Prepare agenda and preside at meeting:
 - 1. Review conditions of installation, preparation and installation procedures.
 - 2. Review coordination with related work.
- F. Record minutes and distribute to participants after meeting, and those affected by decisions made.

1.8 DAILY JOB LOGS

- A. Maintain a daily job log that indicates the personnel on-site and activities performed (including all sub-contractors)

- B. Indicate any safety concerns and incidents.
- C. Indicate weather conditions.
- D. Indicate any visitors or other personnel visiting the project site.
- E. Job log shall be accessible to Architect / Owner upon request.
- F. Coordinate activities / work progress with Architect / Owner.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching; restore Work with new Products.
- B. Submit written request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Efficiency, maintenance, or safety of element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching [including excavation and fill,] to complete Work, and to:
 - 1. Fit the several parts together, to integrate with other Work.
 - 2. Uncover Work to install or correct ill-timed Work.
 - 3. Remove and replace defective and non-conforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- H. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- J. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated materials, to full thickness of penetrated element. Follow applicable UL assemblies.
- K. Refinish surfaces to match adjacent finishes.
 - 1. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
 - 2. For painted surfaces, paint entire wall from corner to corner, floor to ceiling.
- L. Identify hazardous substances or conditions exposed during the Work to Architect for decision or remedy.

3.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new products for patching and extending work.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- E. Remove debris and abandoned items from area and from concealed spaces.
- F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
- G. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.
- H. Refinish existing visible surfaces to remain in renovated rooms and spaces, to renewed condition for each material, with neat transition to adjacent finishes.
- I. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- J. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect for review.
- K. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- L. Finish surfaces as specified in individual product sections.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Proposed products list.
- C. Product data.
- D. Shop drawings.
- E. Samples.
- F. Safety Data Sheets
- G. Manufacturer's Instructions
- H. Manufacturer's Certificates
- I. Construction Photographs

1.2 SUBMITTAL PROCEDURES

- A. Submit product data and shop drawings for all applicable components of the project. Refer to individual sections for additional requirements.
 - 1. Provide a submittal log at the beginning of the project for review by Architect / Owner. Identify proposed submittals by Spec Section.
 - 2. Architect / Owner review of the submittals will be general in nature and does not relieve the Contractor in any way of the responsibility in compliance with the contract requirements, manufacturer requirements, and/or applicable codes.
- B. Accomplish all submittals in a digital [PDF format].
 - 1. Any hard copies received will be scanned and returned electronically.
 - 2. Provide those submittals required to maintain orderly progress of the work and those required for early lead time for manufacturer fabrication.
 - 3. Do not simply download information directly from a manufacturer's website without a review of the information and **identifying the particular products being utilized**.
 - 4. Mark each component to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project. Non-identified submittals will be rejected.
- C. Provide a Submittal form / cover sheet to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.
 - 1. Allow space on submittal form / cover sheet for Contractor and Architect review stamps.
 - 2. Sequentially number transmittal forms.
 - 3. Mark revised submittals with original number and sequential alphabetic suffix.
 - 4. Sign off on submittals indicating Contractor review of the data provided.
- D. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- E. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of completed Work.
- F. Revise and resubmit submittals as required; identify changes made since previous submittal.
- G. Schedule / complete all submittals at the beginning of the project / with adequate time to allow the proper ordering of materials for the project.

1. Failure by the Contractor to provide submittals in a timely fashion does not change the project start date nor contract period.
 2. Failure by the Contractor to order materials timely is not a reason for selection of an alternate material.
- H. Any materials on the job site that have not been reviewed as part of the submittal process are subject to rejection / removal from the job-site. Any work undertaken without review of the submittal data is at the Contractor's risk and subject to rejection or replacement at no cost to the Owner if submittals are not in conformance with the project documents.
- I. For each submittal for review, allow seven [7] days excluding delivery time to and from Contractor.
- J. Architect will return the annotated submittal file via email as PDF electronic files.
- K. Submittals will be marked as follows:
1. NO EXCEPTIONS TAKEN: Distribute copies to subcontractors and related trades.
 2. NOTE MARKINGS: Final Release; Proceed with fabrication, taking into account the necessary corrections on submittal and with Contract Documents.
 3. NOTE MARKINGS/RESUBMIT: Proceed with fabrication, taking into account the necessary corrections. Resubmit corrected shop drawings before fabrication of this work is complete to obtain a different action marking. Do not allow drawings marked "Resubmit" to be used in connection with installation of the Work.
 4. REJECTED: Resubmit shop drawings in their entirety. No fabrication or installation shall be started until shop drawings so marked have been completely revised, resubmitted, and marked by Architect according to preceding Paragraphs.
- L. Distribute copies of reviewed submittals as appropriate [electronically as appropriate]. Instruct parties to promptly report inability to comply with requirements.

1.3 PROPOSED PRODUCTS LIST

- A. Within fourteen [14] days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.4 SUBMITTALS / PRODUCT DATA / SHOP DRAWINGS

- A. Product Data/Shop Drawings:
1. Submitted to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
 2. All shop drawings shall be to scale, submit drawings on sheets no larger than 24-inch x 36 inch, all other product data can be on 8 ½ X 11-inch sheets.
- B. Samples for Review:
1. Submitted to Architect for review and selection for aesthetic, color, or finish.
 2. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Owners selection.
 3. Submit samples to illustrate functional and aesthetic characteristics of Product.
- C. Personnel/Other Contractors
1. Submit a list of all subcontractors and on-site personnel with the list of lead contact and associated phone numbers.
 2. Submit emergency contact sheet with contacts for an emergency – 24/7 call list.
- D. Contract Items:

1. Submit Certificate of Insurance, Worker's Comp Certificates as required by Owner.
 2. Submit bonds if applicable to the contract.
 3. Submit a written Construction Schedule / Implementation and Sequencing Plan outlining starting points and length of time to complete work in each section.
- E. Site Specific Safety Plan
1. Provide to Owner for their Review.
- F. Site Logistics Plan
1. Provide to Owner for their Review.

1.5 SAMPLES

- A. Physical Samples: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
1. Physical samples are required to allow Architect to make selections for color and finish. Electronic images of colors/finishes, etc. are not sufficient.
- B. Samples For Selection as Specified in Product Sections:
1. Submit to Architect for aesthetic, color, or finish selection.
 2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Architect selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit 2 copies of each sample, Architect will retain 1 copy.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.

1.6 SAFETY DATA SHEETS

- A. Submit Safety Data Sheets [SDS] on all products directly to the Owner – DO NOT submit to Architect.
1. Safety Data Sheets [SDS] shall not be submitted to the Architect for review.
 2. Any SDS submitted to Architect will be returned with no action taken. Architect does not review / approve any SDS sheets. Any submittals provided to Architect with SDS will be rejected, or have the SDS removed / crossed out from the submittal.
- B. Safety Data Sheets relate directly to construction safety, which is the sole responsibility of the Contractor.
- C. In compliance with the OSHA Hazard Communication Standard (1910.1200, 08-24-1987), Post at the site SDS [Safety Data Sheets] for ALL products classified as hazardous that their firm has knowledge that they will be furnishing, using, or storing on the jobsite during the duration of this Project in accordance with OSHA standards.

1.7 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, [start-up,] adjusting, and finishing, in quantities specified for Product Data.
- B. Indicate special procedures, conditions requiring special attention, and special environmental criteria required for application or installation.

1.8 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit certifications by manufacturer to Owner, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Products, but must be acceptable to Architect / Owner.

1.9 CONSTRUCTION PHOTOGRAPHS

- A. Provide digital photographs of construction throughout progress of Work as taken by project superintendent as applicable to document the existing conditions, work in progress, completed work, project wrap up, etc. It is in the best interest of the contractor to document the conditions as this is an occupied unit project.
- B. Deliver photographs to Architect / Owner upon request. Catalog and index in chronological sequence with date indexed.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 ELECTRONIC CAD FILES OF PROJECT DRAWINGS

- A. Electronic CAD Files of Project Drawings: May only be used to expedite production of Submittal / Shop Drawings for the Project. Use for other Projects or purposes is not allowed.
- B. Electronic CAD Files of Project Drawings: Distributed only under the following conditions:
 1. Use of files is solely at receiver's risk. Architect does not warrant accuracy of files. Receiving files in electronic form does not relieve receiver of responsibilities for measurements, dimensions, and quantities set forth in Contract Documents. In the event of ambiguity, discrepancy, or conflict between information on electronic media and that in Contract Documents, notify Architect of discrepancy and use information in hard-copy Drawings and Specifications.
 2. CAD files do not necessarily represent the latest Contract Documents, existing conditions, and as-built conditions. Receiver is responsible for determining and complying with these conditions and for incorporating addenda and modifications.
 3. User is responsible for removing information not normally provided on Shop Drawings and removing references to Contract Documents. Shop Drawings submitted with information associated with other trades or with references to Contract Documents will not be reviewed and will be immediately returned.
 4. Receiver shall not hold Architect responsible for data or file clean-up required to make files usable, nor for error or malfunction in translation, interpretation, or use of this electronic information.
 5. Receiver shall understand that even though Architect has computer virus scanning software to detect presence of computer viruses, there is no guarantee that computer viruses are not present in files or in electronic media.
 6. Receiver shall not hold Architect responsible for such viruses or their consequences, and shall hold Architect harmless against costs, losses, or damage caused by presence of computer virus in files or media.
 7. Architect reserves the right to assess a fee for the release of the electronic CAD files. Coordinate with Architect as appropriate.

END OF SECTION



THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control.
- B. Construction Procedures
- C. Tolerances
- D. References.
- E. Labeling
- F. Mock-up requirements.
- G. Examination & Inspection.
- H. Testing and Inspection Services [Special Inspections]

1.2 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 CONSTRUCTION PROCEDURES

- A. Architect / Owner intends to routinely monitor the Contractor's work and progress. Quality control is an important element which is the responsibility of the Contractor. Provide full cooperation with all inspection steps through the construction process and include such coordination in the base bid of the project.
- B. Provide accessibility to the work, including but not limited to ladders, scaffolding, hoisting, etc in order to make all areas of the work available to Architect / Owner. Provide staffing to support these operations.
- C. Inspect the Work prior to requesting a punchlist inspection. Address / correct any deficiencies and provide written confirmation of such with the request to schedule the punchlist inspection by the Architect / Owner. Refer to Section 01 77 00.
- D. Owner will coordinate and schedule an anniversary inspection for the one year interval following acceptance of the project.

1.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.6 LABELING

- A. Attach label from agency approved by Authority having Jurisdiction for products, assemblies, and systems required to be labeled by Applicable Code.
- B. Label information: include manufacturer's or fabricator's identification, approved agency information, and the following information, as applicable, on each label.
 - 1. Model number
 - 2. Serial number
 - 3. Performance characteristics
- C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.7 MOCK-UP REQUIREMENTS

- A. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes as directed by Architect / Owner.
- B. Accepted mock-ups shall be comparison standard for remaining Work follow requirements of individual sections.
- C. Where mock-up has been accepted by Architect / Owner and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

1.8 TESTING AND INSPECTION SERVICES [SPECIAL INSPECTIONS]

- A. Owner will employ and pay for specified services of on an independent firm to accomplish Third Party Special Inspections as outlined on the Drawings.
- B. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify independent firm **24** hours before expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.

- C. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.
- D. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Architect. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum.
- E. Agency Reports: After each test, promptly submit an electronic copy of report to Architect, Contractor, and Owner. When requested by Architect, provide interpretation of test results.
- F. Limits on Testing Authority:
 - 1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency or laboratory may not approve or accept any portion of the Work.
 - 3. Agency or laboratory may not assume duties of Contractor.
 - 4. Agency or laboratory has no authority to stop the Work.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.
- E. Contact Utility Protection Services [Call 811] a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
 - 1. Contact private utility locating services as required by the conditions. Locate all public and private utilities that may be impacted by the work.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities
- B. Construction Facilities
- C. Temporary Controls
- D. Removal of utilities, facilities, and controls

1.2 TEMPORARY ELECTRICITY

- A. Refer to GDPM's Terms and Conditions
- B. Utilize existing utilities at the building as required to facilitate work. Maintain existing utilities operational throughout the duration of the project. If systems need to be out of service, schedule this work for off-hours, coordinate with Owner. DO NOT use Resident utilities.

1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide temporary lighting for construction operations as required by conditions and where existing lighting has been removed to facilitate work.

1.4 TEMPORARY HEATING / COOLING / VENTILATION

- A. Shut down HVAC systems during dusty activities. Provide and maintain filtration media at all HVAC systems.
- B. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- C. Provide temporary fan units as required to maintain clean air for construction operations.

1.5 TEMPORARY WATER SERVICE

- A. Not Applicable.

1.6 TEMPORARY PROTECTION OF FIRE SPRINKLER / FIRE ALARM SYSTEMS

- A. Coordinate with fire sprinkler system and fire alarm system / monitoring company to maintain systems operational. This includes temporary protection and coordination of monitoring company to put system in test mode as applicable to the work.
 - 1. Provide and maintain a proper fire watch within the building at any time when systems are in test mode.

1.7 TEMPORARY SANITARY FACILITIES

- A. Provide temporary sanitary facilities for use during construction. Maintain daily in clean and sanitary condition.
 - 1. Do not use building toilet facilities for temporary facilities unless specifically authorized.
 - 2. Do not use new plumbing fixtures for temporary facilities.
 - 3. Do not use other Owner facilities without explicit approval.
 - 4. Protect temporary facilities from vandalism.
- B. Provide potable drinking water for workers.

1.8 TEMPORARY BARRICADES

- A. Erect temporary barricades as applicable to the work to maintain security, dust control, protect residents, etc.

- B. Provide additional barricades, barriers, or protection necessary to protect work areas at traffic lanes, parking lots, etc.
- C. Provide all applicable signage to limit non-construction personnel from entering the construction area.
- D. Provide temporary emergency egress and exit signage as required by conditions and where existing has been temporarily removed to facilitate work.

1.9 STAGING AREA / MATERIAL STORAGE

- A. Coordinate with Owner on acceptable location of project staging and material storage area.
- B. Do not anticipate any space for storage of materials in the building / work areas or adjacent building areas.
- C. Provide secured, portable storage containers for temporary / construction storage as required by the Contractor.
 - 1. Do not anticipate any space for storage of materials in the building / work areas or adjacent building areas.
 - 2. Coordinate location of storage containers with Owner.
 - 3. Protect / restore site as applicable to the conditions to original conditions.
- D. Owner will make reasonable effort to provide suitable space on the site for the Contractor to set up operations. Moving from this space may be necessary when instructed by the Owner and shall be accomplished without charge to the Owner. Cooperate with Owner to minimize conflict from Owner's operations.

1.10 FIELD OFFICE

- A. Provide securable on-site space for storage as required by the Contractor. Coordinate with Owner for approved location of such storage space.
- B. Provide field office for construction operations as deemed necessary by Contractor. Pay for field offices and related expenses.

1.11 VEHICULAR ACCESS

- A. Utilize existing street parking / driveways / parking areas for construction activities. Do not block or prohibit vehicular access to adjacent buildings / parking areas. Do not allow driving/parking in turf areas.
- B. Provide unimpeded access for emergency vehicles. Maintain 20 feet wide driveways with turning space between and around combustible materials.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.

1.12 CONSTRUCTION ACCESS DRIVE

- A. Not Applicable.

1.13 PARKING

- A. Park Contractor vehicles in areas designated by the Owner. Construct temporary gravel parking areas as necessary to accommodate construction personnel.
- B. Use of designated existing on-site driveways, parking areas, and / or street parking used for construction traffic is permitted. Tracked vehicles not allowed on paved areas.
 - 1. Do not block access to existing parking lots, driveways, etc. with construction equipment, material laydown, or storage areas.
 - 2. Do not block resident vehicles or those of adjacent buildings with a shared driveway.
- C. Do not allow heavy vehicles or construction equipment in parking areas.

- D. Maintenance:
 - 1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
 - 2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- E. Removal, Repair:
 - 1. Repair existing and permanent facilities damaged by use, to original or specified condition.

1.14 PROGRESS CLEANING AND WASTE REMOVAL

- A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition to the satisfaction of the Owner. Clean up shall occur on a DAILY basis.
 - 1. Failure to provide routine and daily cleanup may result in a back charge from the Owner to accomplish this work.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site daily and dispose off-site. Sort and recycle as applicable.
- E. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work. Keep all work areas and project sites neat and free of trash and clutter at all times. Project site consists of occupied apartment units. Do not leave trash around the project site. Take all considerations necessary for safety.

1.15 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections. Restore any damaged work to new condition.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Protect finished pavement, concrete, stairs, finish flooring, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- D. Prohibit traffic or storage upon waterproofed or roofed surfaces, finished surfaces, etc as is applicable to the work. When traffic or activity is necessary, obtain recommendations for protection from the material manufacturer and provide all required protection as determined necessary. Any damage caused shall be repaired to like new condition.
- E. Prohibit traffic from landscaped areas.

1.16 FIRE PREVENTION FACILITIES

- A. Prohibit smoking within building or on site under construction. **NO SMOKING IS PERMITTED ON HUD PROPERTY [INTERIOR OR EXTERIOR]. NO EXCEPTIONS.**
 - 1. Contractor / Crew found to be smoking will be subject to a \$500 fine per occurrence. Any habitual offenders will be dismissed from the project.
- B. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.

- C. Portable Fire Extinguishers: NFPA 10; 10 pound capacity, 4A-60B: C UL rating.
 - 1. Provide one fire extinguisher at each building under construction.
 - 2. Provide minimum one fire extinguisher in storage shed.
 - 3. Supplement as necessary per the local fire department requirements for construction operations.

1.17 BARRIERS

- A. Provide barriers [construction fencing] to prevent unauthorized entry to construction areas.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- C. Protect Work existing premises from theft, vandalism, and unauthorized entry.

1.18 SECURITY

- A. Security Program:
 - 1. Protect Work and existing premises from theft, vandalism, and unauthorized entry.
 - 2. Maintain program throughout construction period until Owner occupancy
- B. Entry Control:
 - 1. Restrict entrance of persons into Project site.
 - 2. Allow entrance only to authorized persons with proper identification.
 - 3. Maintain log of workers and visitors, make available to Owner on request.

1.19 DAILY JOB LOGS

- A. Maintain a daily job log that indicates the personnel on-site and activities performed (including all sub-contractors)
- B. Indicate any safety concerns and incidents.
- C. Indicate weather conditions.
- D. Indicate any visitors or other personnel visiting the project site.
- E. Job log shall be accessible to Owner and Architect upon request.

1.20 DUST CONTROL

- A. Execute work by methods to minimize raising dust from Construction operations.
- B. Provide positive means to prevent air-borne dust from dispensing into atmosphere and to other areas of the project as applicable.
- C. Provide temporary visqueen dust control measures to minimize the spread of dust and debris. Provide drop cloths, protective coverings as necessary.
- D. Provide protection of existing HVAC / distribution systems.

1.21 POLLUTION AND ENVIRONMENTAL CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Provide dust control, erosion and sediment control, etc. to allow for proper execution of the Work.
- C. Provide protective coverings, etc. as necessary to protect work.

1.22 EROSION AND SEDIMENT CONTROL

- A. Not Applicable.

1.23 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

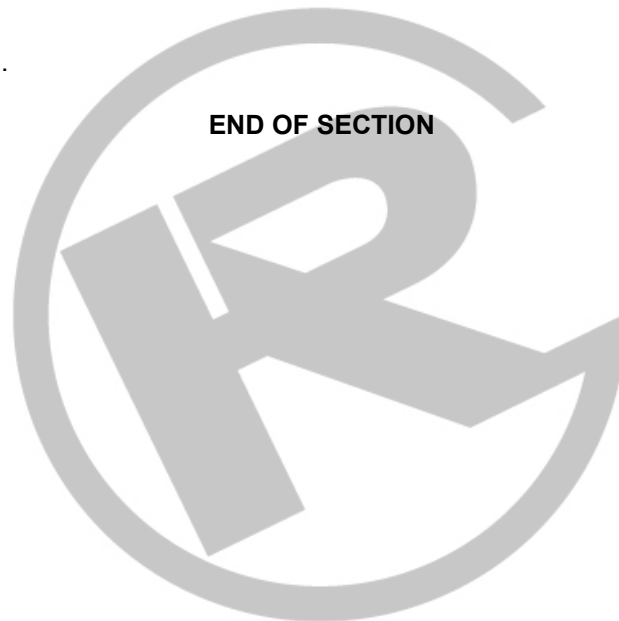
- A. Remove existing utilities, connections, finishes, etc. as applicable to the work. Remove back to the nearest termination, junction box, etc. as applicable to the work. Coordinate with requirements on the drawings.
- B. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.



THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Product requirements.
- B. Product options and substitution procedures.
- C. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.
 - 1. All products used on this project shall be new, unless otherwise noted on the drawings or as specified herein as salvaged or reused.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.
- C. Provide interchangeable components of same manufacturer for components being replaced.
- D. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- E. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- F. Furnish interchangeable components from same manufacturer for components being replaced.
- G. **Order Products in the first 30 days of the contract. Provide documentation of orders upon request.**
- H. **It shall be solely the Contractor's responsibility to order products to allow timely delivery for installation. The failure to order materials early in the project shall not be a reason for a contract time extension or additional costs related to expedited shipping and/or delivery. Nor shall this be a reason for a product substitution.**

1.3 BUILD AMERICA, BUY AMERICA [BABA] REQUIREMENTS

- A. BABA is the Build America, Buy America Act. BABA requires any "infrastructure project" funded by any "Federal Financial Assistance" (FFA) apply a domestic content procurement preference, meaning that all iron, steel, manufactured products, and construction materials used in the infrastructure project have been produced in the United States, unless the awarding agency has issued a waiver of this requirement. This is called the "Buy American Preference" (BAP)
- B. HUD Hyperlink:
https://www.hud.gov/program_offices/general_counsel/build_america_buy_america
- C. BAP is not applicable to projects less than \$250,000.

1.4 LABELING

- A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
 - 1. Model number.

2. Serial number.
3. Performance characteristics.

1.5 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- D. Coordinate material delivery to minimize Owner involvement.

1.6 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
 1. Remove any damaged materials from the site.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- H. Secure all products to prevent blow off / blow over during weather events, wind, etc.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.7 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions / Approved Equal: Submit request for substitution as outlined in this section for manufacturers not named.
 1. Architect / Owner is the decision maker if the proposed "approved equal" is in fact equal and approved. Any decision rendered is final.
 2. Any Contractor, Sub-contractor, or Supplier who makes their own judgement as to "approved equal" and includes within their bid without a formal approval is doing so at their own risk.

1.8 PRODUCT SUBSTITUTION PROCEDURES – REFER TO SECTION 01 25 00

PART 2 PRODUCTS

2.1 EXTRA MATERIALS

- A. Provide attic stock of finish materials totaling 5% [or as noted herein] of the total installation.

- B. Provide minimum of [1] gallon of each finish paint color.
- C. Coordinate turnover of extra materials to Owner, assist in placing materials in a location suitable to the Owner.

2.2 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Owner and place in location as directed; obtain receipt prior to final payment. Items shall be boxed and labeled with contents.

2.3 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

- A. Wiring Terminations: Furnish terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Include lugs for terminal box.
- B. Cord and Plug: Furnish minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

2.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply fully with manufacturer's tolerances.
- C. Adjust products to appropriate conditions. Position before securing products in place.

PART 3 EXECUTION

Not Used.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 01 73 00 - EXECUTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Construction Safety / Safety Program
- B. Construction Layout
- C. General Installation of Products
- D. Starting of Systems
- E. Demonstration and Training
- F. Removals and Cleanup
- G. Protection of Installed Construction

1.2 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this project in material, design, and extent.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturers written recommendations and instructions for installation of products and equipment.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. **Beginning new Work means acceptance of existing/job-site conditions.**
- B. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
- C. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water service piping.
 - 2. Verify the location of underground electrical services, natural gas piping and other utilities.
 - 3. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

- D. Contact OUPS a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
 - 1. Contact private utility locating services as required by the conditions. It is the Contractor's responsibility to locate all public and private utilities that may be impacted by the work.
- E. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- F. Examine and verify specific conditions described in individual specification sections.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Architect / Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a RFI request to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.
- E. Clean substrate surfaces prior to applying next material or substance.
- F. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 FIELD VERIFICATION

- A. Prior to ordering materials, Contractor shall verify the actual dimensions of existing conditions and assume responsibility for workable solutions for all new work. Verification that the new work and items are workable for existing conditions while providing adequate clearances is the responsibility of the Contractor.

3.4 CONSTRUCTION SAFETY / SAFETY PROGRAM

- A. Develop, implement, and maintain a written safety program for all operations/ work performed on this project. Keep these documents at the job site and make available to the Architect / Owner upon request.
- B. Assume all responsibility for project safety, ways, and means and methods of constructing the project. Engage safety consultant as may be necessary for the execution of the work.
- C. In addition, the Owner may require special safety requirements to be performed by the Contractor, these requirements will be provided prior to commencement of work.

3.5 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect / Owner promptly.
 - 1. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction. Do not change or relocate benchmarks or control

- points without prior written approval. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
- 2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.
- B. General: Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.
 - 1. Establish permanent benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Verify setbacks and easements.
 - 3. Establish limits on use of Project Site.
 - 4. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 5. Inform installers of lines and levels to which they must comply.
 - 6. Check the location, level and plumb, of every major element as the Work progresses.
 - 7. Notify Architect / Owner when deviations from required lines and levels exceed allowable tolerances.
 - 8. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- C. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

3.6 INSTALLATION, GENERAL

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance, coordinate with Architect.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Contract Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Coordinate with Architect as applicable.
 - 2. Allow for building movement, including thermal expansion and contraction.

3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
 4. Electrical wiring and associated metallic conduit shall not be embedded within roof assemblies or placed directly below roof decks. Electrical wiring or metallic conduit located near roof assemblies shall be positioned and supported at least 10 inches away from the bottom side of the metal roof deck or other substrate to which a roof system has been or will be applied.
 5. Suspension wires, straps, chains, and metal framing such as those used to support the following shall not be attached to or through steel roof decks.
 - a. Bulkheads.
 - b. Suspended ceilings.
 - c. Fire-suppression systems.
 - d. Ductwork.
 - e. Lighting.
 - f. Similar items.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

3.7 PROTECTION

- A. Accomplish all work in accordance with the provision of Federal, State American Standard Safety Code for Building Construction and OSHA safety requirements.
 1. Provide all aspects of project safety including protective railings and guards, tie-offs, fall protection, and other safety measures as required by OSHA, even if not specified. Fall protection is required. Architect is not a safety consultant and as such does not direct the means and methods of compliance with safety regulations.
- B. Protect and maintain all building entrances, interior contents, building exterior and grounds.
 1. Return all surfaces to their original condition after all work is complete.
- C. Replace / Repair any damages [including interior or exterior equipment / finishes] at no expense to the Owner in the event of damages of any kind caused by improper protection.
- D. Comply with all regulations of the Local Fire Department and the Owner's requirement regarding storage and handling of flammable materials, etc. Comply with the safety provisions of the National Fire Code pertaining to such hot work. Contractor is responsible for all damage or fines resulting from failure to comply.

3.8 STARTING OF SYSTEMS

- A. Coordinate schedule for startup of various equipment and systems.
- B. Notify Architect / Owner seven [7] days prior to startup of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- G. Adjust operating components for proper operation to ensure smooth and unhindered operation in accordance with manufacturer requirements.

- H. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

3.9 TESTING, ADJUSTING, AND BALANCING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.10 DEMONSTRATION AND TRAINING

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled times, at equipment location.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
 - 1. Prepare and insert additional data into the operations and maintenance manuals when the need for additional data becomes apparent during instruction.

3.11 REMOVALS AND CLEANUP

- A. Remove and demolish of items that are required for proper completion of the work as applicable in each section. All debris resulting from the work not designated for reuse becomes the property of the Contractor unless stated otherwise.
- B. Keep all work areas and project sites neat and free of trash and clutter at all times.
- C. Maintain the work areas, including all subcontractor's work, clean of all debris to the satisfaction of the Owner at the completion of each work day [daily cleanup].
- D. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work.
 - 1. No Debris, materials, etc. may be left unprotected on the grounds.
 - 2. All exterior staging / dumpster areas must be fenced / protected.

3.12 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Contract Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished pavement, concrete, floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces, finished surfaces, etc as is applicable to the work. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer and provide all required protection as determined necessary. Any damage caused shall be repaired to like new condition.
- G. Prohibit traffic from landscaped areas.

3.13 CORRECTION OF WORK

- A. Repair or remove and replace damaged, defective, or nonconforming work. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Repair work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Restore permanent facilities used during construction to their specified condition.
- D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION



SECTION 01 77 00 - CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Punchlist Requirements
- B. Substantial Completion
- C. Final Contract Completion
- D. Project Record Documents
- E. Warranties
- F. Final Cleaning
- G. Repair of Work

1.2 PUNCHLIST REQUIREMENTS

- A. Review and inspect all Work prior to notifying Architect / Owner for a Punchlist inspection of the work.
 - 1. Provide seven [7] day notice prior to work being complete to establish desired inspection date. Architect / Owner will either proceed with the inspection or notify Contractor of unfulfilled requirements.
 - 2. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for punch list inspection.
- B. Architect / Owner will inspect the completed project and notify the Contractor of any deficiencies. Deficiencies will form 'punch list' for final acceptance.
- C. **If work is clearly not complete, the Punchlist will be suspended until such time that it is evident that the Contractor has completed and reviewed / inspected their own work.**
 - 1. Architect anticipates [1] punchlist inspection and [1] back-punch / final inspection as part of services to the Owner.
 - 2. Failures by the Contractor to complete the work, complete punchlists, etc. may result in a backcharge to the Contractor for the additional time to closeout the project.
- D. Review and provide the noted repairs and corrective work necessary at each of the Punchlist inspections to allow project close out.
 - 1. Back-punch walk through may result in additional punchlist items which need to be addressed by the Contractor.
- E. Provide / allow adequate time in the construction schedule to accomplish punchout work within the overall contract period indicated within the bid documents.
- F. The failure to identify any punchlist item during a walk through / inspection does not release the Contractor from contractual responsibility to address any item during the warranty period.

1.3 SUBSTANTIAL COMPLETION

- A. A Certificate of Substantial Completion [AIA Form G704] will be issued upon completion of all the work. Certificate of Substantial Completion will set forth the date of warranty commencement, work yet to be completed, timeline for completion of that incomplete work, and value of that incomplete work.

1.4 FINAL CONTRACT COMPLETION

- A. Provide the following items to the Owner prior to acceptance and final payment
 - 1. Evidence that any open claims or disputes are resolved.

2. Notarized affidavit of waiver of liens [contractor of record], sub-contractors and material suppliers
3. Final Permit approval / inspection / Certificate of Occupancy from authorities having jurisdiction
4. Final Application for Payment.
 - a. Submit a final Application for Payment according to Section 01 29 00, Payment Procedures.
5. Documented evidence of completing 'punch list' as applicable.
6. Manufacturer's original warranties, including contractor maintenance agreements and warranties as applicable.
7. O+M Manuals
8. Manufacturer's maintenance and repair instructions.
9. As-Built / Record Drawings.
10. Final cleaning.
11. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures.

1.5 PHOTOGRAPHIC DOCUMENTATION

- A. When requested by the Owner, photos of the completed punch list along with any supporting documentation can be submitted, in lieu of a final walkthrough.

1.6 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Construction Bulletins / Change Orders and other modifications to the Contract.
 5. Reviewed Shop Drawings, Product Data, and Samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
- F. Record Drawings: Legibly mark each item to record actual construction as follows:
 1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in the Work, and change orders.
 2. Include locations of concealed elements of the Work.
 3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components that are parallel to utilities.
 4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
 5. Identify and locate existing buried or concealed items encountered during Project.
 6. Measured depths of foundations in relation to finish first floor datum.
 7. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

8. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 9. Field changes of dimension and detail.
 10. Details not on original Drawings.
- G. Submit documents to Architect / Owner upon completion of Work.

1.7 WARRANTIES AND GUARANTEES

- A. Refer to Owner Contract Requirements / Terms and Conditions for Additional information and requirements.
- B. General: The warranty and guarantee provisions of the General Conditions apply to all work of the contract, including but not limited to the following specific categories related to individual units of work specified in various sections of these specifications:
1. Special Project Warranty (Guarantee): A warranty specifically written and signed by the Contractor for a defined portion of the work, and, where required, countersigned by sub-contractor, installer, manufacturer, or other entity engaged by the Contractor.
 2. Specified Product Warranty: A warranty which is required by the contract documents, to be provided for a manufactured product incorporated in the Work, regardless of whether manufacturer has published a similar warranty without regard for specific incorporation into the work, or has written and executed a special project warranty as a direct result of contract document requirements.
 3. Coincidental Product Warranty: A warranty which is not specifically required by the Contract Documents (other than as specified in this Section); but which is available on a product incorporated into the work, by virtue of the fact that the manufacturer of the product has published a warranty in connection with purchases and users of the product without regard for specific applications except as otherwise limited by terms of the warranty.
- C. All work undertaken as part of the project shall be warranted for a period of not less than [1] year. Individual sections / products may have specific additional warranty requirements.
- D. Provide notarized copies of warranty documents to the Owner.
1. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
- E. Original warranties are required to be provided to the Owner prior to final payment.

PART 2 PRODUCTS

Not Required

PART 3 EXECUTION

3.1 FINAL CLEANING AND SITE REPAIR

- A. Provide final cleaning of all work areas:
1. Execute final cleaning prior to final inspection.
 2. Clean Project site, yard, and grounds in areas disturbed by Construction activities.
 3. Sweep paved areas broom clean. Remove all spills, stains, and foreign deposits.
 4. Rake grounds that are neither planted or paved to a smooth, even textured surface.
 5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 6. Remove debris and surface dust from roofs, plenums, values, attics, and similar spaces.
 7. Sweep concrete floors broom clean in non-occupied spaces.
 8. Vacuum carpet and soft surfaces to remove debris. Shampoo if conditions warrant.

9. Clean transparent materials including glass in doors and windows. Remove glazing compounds.
 10. Remove all labels which are not permanent.
 11. Clean plumbing fixtures to sanitary condition, free of all stains.
 12. Replace air filters.
 13. Clean ductwork if utilized during construction without proper protection.
 14. Clean light fixtures, globes, reflectors.
 15. Clean interiors of all cabinetry.
 16. Remove waste and surplus materials, rubbish, and construction facilities from site.
- B. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Contract Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

END OF SECTION

SECTION 01 78 00 – OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Operation and Maintenance Manuals.

1.2 OPERATION AND MAINTENANCE MANUALS

- A. Organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system.
- B. Binder cover: printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project. Label on the front and spine of the binder.
- C. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for all Sub-Contractors.
 - 7. Name and contact information for all Major Suppliers.
 - 8. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- E. Manual Organization:
 - 1. Organize into sets of manageable size. Arrange contents by CSI division. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
 - 2. Internally subdivide binder contents with permanent page dividers, logically organized, with tab titles legibly printed under reinforced laminated plastic tabs.
- F. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents.
- G. Submit O+M manuals prior to Contract Completion.
 - 1. Bind one [1] hard copy in 8-1/2 x 11 inch text pages, three D side ring binders with durable plastic covers.
 - 2. Create [2] digital copies in PDF format in a format and organization to match the hard copy.
- H. Content:
 - 1. Title Page
 - 2. Table of Contents
 - 3. Permit and Inspection Information
 - 4. Project submittals, organized by CSI division
 - 5. Operation and maintenance instructions, arranged by CSI division and system.
 - a. Building Products, Equipment, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations.

- b. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- c. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.
- d. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- e. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; service schedule, disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- f. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- g. Spare Parts List and Source Information.
- h. Maintenance Service Contracts.
- 6. Project documents and certificates.
 - a. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers.
- 7. Colors / finishes / samples
- 8. Other documentation required.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 02 41 16 - SELECTIVE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolishing designated building equipment and fixtures.
 - 2. Demolishing designated construction.
 - 3. Cutting and alterations for completion of the Work.
 - 4. Removing designated items for salvage by Owner.
 - 5. Protecting items designated to remain.
 - 6. Removing demolished materials.

1.2 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of capped utilities, concealed utilities, discovered during demolition and any subsurface obstructions or conditions that require noting.

1.3 QUALITY ASSURANCE

- A. Conform to applicable code for demolition work, dust control, protection, products requiring electrical disconnection and re-connection
- B. Conform to applicable code for procedures when hazardous or contaminated materials are discovered.
- C. Obtain required permits from authorities having jurisdiction.

1.4 SCHEDULING

- A. Schedule Work to coincide with proposed alterations and improvements.
- B. Coordinate Work with Work by Others and Work by Owner as needed.
- C. Coordinate utility and building service interruptions with Owner.
 - 1. Do not disable or disrupt site fire or life safety systems without three days prior written notice to Owner.
- D. Schedule tie-ins to existing systems to minimize disruption.

1.5 PROJECT CONDITIONS

- A. Cease operations immediately if structure appears to be in danger and notify Architect. Do not resume operations until directed.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PREPARATION

- A. Notify affected utility companies before starting work and comply with their requirements.
- B. Call Local Utility Line Information service not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas. Supplement with private locator company as is applicable and required to fully locate and identify existing underground utilities, including both public and private.

- C. Mark location and termination of utilities.
- D. Erect, and maintain temporary barriers and security devices including warning signs and lights, and similar measures, for protection of the public, Owner, and existing improvements indicated to remain.
- E. Erect and maintain weatherproof closures for exterior openings as applicable to work/scope.
- F. Erect and maintain temporary partitions.
- G. Prevent movement of structure; provide temporary bracing and shoring as required.
- H. Provide appropriate temporary signage.
- I. Do not close or obstruct building egress path.
- J. Do not disable or disrupt building fire or life safety systems without **three** days prior written notice to Owner. Coordinate with Fire Department / Building Official.
- K. Protect existing structure / items to remain.

3.2 SALVAGE REQUIREMENTS

- A. Coordinate with Owner to identify building components and equipment required to be removed and delivered to Owner.
- B. Tag components and equipment Owner designates for salvage.
- C. Protect designated salvage items from demolition operations until items can be removed.
- D. Carefully remove building components and equipment indicated to be salvaged.
- E. Disassemble as required to permit removal from building.
- F. Package small and loose parts to avoid loss.
- G. Mark equipment and packaged parts to permit identification and consolidation of components of each salvaged item.
- H. Prepare assembly instructions consistent with disassembled parts. Package assembly instructions in protective envelope and securely attach to each disassembled salvaged item.
- I. Deliver salvaged items to location identified by Owner. Obtain signed receipt from Owner.

3.3 DEMOLITION

- A. Provide all demolition and removals necessary for the proposed work. Field coordinate all conditions with the design intended on the drawings.
 - 1. Drawings are diagrammatic and may not reflect the full extent of demolition / removals required to accomplish the proposed scope of work.
 - 2. The Contractor shall coordinate design intent and verify that all demolition work and restoration / repair work required is included in the scope of the project, regardless of specifically being noted on the drawings.
 - 3. Work includes abandoned furnishings, equipment, and building components that are required to be removed to render rent ready.
 - 4. Confirm with GDPM personnel prior to demolition to verify any items to be salvaged and turned over to GDPM.
- B. Provide abatement of hazardous materials from the buildings as applicable for the completion of the work.
- C. Conduct demolition to minimize interference with adjacent and occupied buildings/units.
- D. Maintain protected egress from and access to adjacent existing buildings/units at all times.

- E. Cease operations immediately when structure appears to be in danger and notify Architect/Engineer.
- F. Disconnect and remove utilities within demolition areas, refer to Drawings.
- G. Cap and identify abandoned utilities at termination points when utility is not completely removed.
- H. Do not close or obstruct roadways or sidewalks without permits.
- I. Demolish in orderly and careful manner. Protect existing improvements.
- J. Carefully remove building components indicated to be reused.
- K. Disassemble components as required to permit removal.
- L. Box and label contents for all items scheduled to salvage. Obtain sign off.
- M. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- N. Remove materials as Work progresses.
- O. Upon completion of Work, leave areas in clean condition.
- P. Remove temporary Work.

3.4 CLEAN UP

- A. Remove demolished materials from site as work progresses.
- B. Leave areas of work in clean condition.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 02 50 00 - HAZARDOUS MATERIALS SPECIFICATIONS

PART 1 GENERAL

1.1 HAZARDOUS MATERIALS

- A. There are no known hazardous materials in the area of work of this project.

1.2 SUMMARY

- A. Contractors must comply with Occupational Safety and Health Administration regulation 29 CFR 1926.62 "Lead in Construction Standard" as well as the Environmental Protection Agency Lead, Renovation, Repair and Painting Rule.
- B. Contractor shall follow all applicable EPA rules and regulations when working with hazardous materials. It shall be the contractor's responsibility to remain in compliance at all times during the project.
- C. If any work person encounters any material which they suspect may be hazardous or toxic, they shall immediately advise the Owner. The Contractor shall take immediate and appropriate action to protect the building users and workers in accordance with federal, state, and local laws, codes and regulations. The architect and architect's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the project site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (pcb) or other toxic substances.
1. The contractor is hereby advised that RDA Group Architects, LLC is not a design professional in the determination of the presence of hazardous materials, nor is RDA a design professional involved in making recommendations regarding the testing, removal, encapsulation or other corrective measures pertaining to hazardous materials.
 2. If the work which is to be performed under the contract interfaces in any way with the existing components which contain hazardous materials, it is the contractor's responsibility to contact the owner's environmental consultant regarding the proper means & methods to be utilized in dealing with hazardous materials.
 3. By execution of the contract for construction, the contractor hereby agrees to bring no claim for negligence, breach of contract, indemnity or otherwise against the architect, his principles, employees, agents or consultants if such a claim in any way would involve the investigation of or remedial work related to hazardous materials in the project.
 4. By execution of the contract for construction, the contractor further agrees to defend, indemnify and hold the architect, his principles, employees, agents or consultants harmless from any such asbestos or other hazardous materials related claims that may be brought by the contractor's subcontractors, suppliers or other third parties who may be acting under the direction of the contractor pursuant to this project.

END OF SECTION

THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 07 84 00 - FIRESTOPPING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Firestopping through-penetrations of fire rated assemblies.
 2. Firestopping joints in fire rated assemblies.
 3. Smoke sealing at joints between floor slabs and exterior walls.
 4. Smoke sealing penetrations and joints of smoke partitions.

1.2 REFERENCES

- A. ASTM International:
1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 2. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 3. ASTM E814 - Standard Test Method for Fire Tests of Through-Penetration Fire Stops.
 4. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems.
- B. Forest Stewardship Council:
1. FSC Guidelines - Forest Stewardship Council Guidelines.
- C. Intertek Testing Services (Warnock Hersey Listed):
1. WH - Certification Listings.
- D. South Coast Air Quality Management District:
1. SCAQMD Rule 1168 - Adhesive and Sealant Applications.
- E. Underwriters Laboratories Inc.:
1. UL 263 - Fire Tests of Building Construction and Materials.
 2. UL 1479 - Fire Tests of Through-Penetration Firestops.
 3. UL 2079 - Tests for Fire Resistance of Building Joint Systems.
 4. UL - Fire Resistance Directory.

1.3 DEFINITIONS

- A. Firestopping (Through-Penetration Protection System): Sealing or stuffing material or assembly placed in spaces between and penetrations through building materials to arrest movement of fire, smoke, heat, and hot gases through fire rated construction.

1.4 PERFORMANCE REQUIREMENTS

- A. Conform to UL for fire resistance ratings and surface burning characteristics.

1.5 SUBMITTALS

- A. Product Data: Submit data on product characteristics, performance and limitation criteria.
- B. Manufacturer's Installation Instructions: Submit preparation and installation instructions.
- C. Manufacturer's Certificate: Certify products meet or exceed specified requirements and applicable code requirements.

1.6 QUALITY ASSURANCE

- A. Through Penetration Firestopping of Fire Rated Assemblies: UL 1479 or ASTM E814 with 0.10 inch water gage minimum positive pressure differential to achieve fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.

1. Floor / Wall Penetrations: Fire F-Ratings as indicated on Drawings, but not less than 1-hour.
- B. Through Penetration Firestopping of Non-Fire Rated Floor and Roof Assemblies: Materials to resist free passage of flame and products of combustion.
- C. Fire Resistant Joints in Fire Rated Floor, Roof, and Wall Assemblies: ASTM E1966 or UL 2079 to achieve fire resistant rating as indicated on Drawings for assembly in which joint is installed.
- D. Surface Burning Characteristics: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Maintain this minimum temperature before, during, and for minimum 3 days after installation of materials.
- B. Provide ventilation in areas to receive solvent cured materials.

PART 2 PRODUCTS

2.1 FIRESTOPPING

- A. Manufacturers:
 1. 3M Fire Protection Products
 2. United States Gypsum Co.
 3. Equal.
- B. Product Description: Different types of products by multiple manufacturers are acceptable as required to meet specified system description and performance requirements; provide only one type for each similar application.
 1. Silicone Firestopping Elastomeric Firestopping: Single component silicone elastomeric compound and compatible silicone sealant.
 - a. Interior Sealants and Sealant Primers: Maximum volatile organic compound content in accordance with SCAQMD Rule 1168.
 2. Foam Firestopping Compounds: Single component foam compound.
 3. Fiber Stuffing and Sealant Firestopping: Composite of mineral fiber stuffing insulation with silicone elastomer for smoke stopping.
 4. Intumescent Firestopping: Intumescent putty compound which expands on exposure to surface heat gain.

2.2 ACCESSORIES

- A. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces and suitable for required fire ratings.
- B. Installation Accessories: Provide clips, collars, fasteners, temporary stops or dams, and other devices required to position and retain materials in place.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify openings are ready to receive firestopping.

3.2 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter affecting bond of firestopping material.
- B. Remove incompatible materials affecting bond.

- C. Install backing materials to arrest liquid material leakage.

3.3 APPLICATION

- A. Install material at fire rated construction perimeters and openings containing penetrating sleeves, piping, ductwork, conduit and other items, requiring firestopping.
- B. Apply primer where recommended by manufacturer for type of firestopping material and substrate involved, and as required for compliance with required fire ratings.
- C. Apply firestopping material in sufficient thickness to achieve required fire and smoke rating to uniform density and texture.
- D. Place foamed material in layers to ensure homogenous density, filling cavities and spaces. Place sealant to completely seal junctions with adjacent dissimilar materials.

3.4 FIELD QUALITY CONTROL

- A. Inspect installed firestopping for compliance with specifications and submitted schedule.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protect adjacent surfaces from damage by material installation.

END OF SECTION



THIS SHEET LEFT INTENTIONALLY BLANK



SECTION 07 90 00 - JOINT PROTECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes sealants and joint backing.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

1.4 QUALITY ASSURANCE

- A. Sealant shall be installed by a qualified sealant applicator for any/all joint sealant exposed to view. Owner reserves the right to request a mockup of the quality for the joint sealant installation.

PART 2 PRODUCTS

2.1 JOINT SEALERS

- A. Manufacturers:
 - 1. Tremco [basis of design]
 - 2. Sika
 - 3. GE Silicones.
 - 4. Pecora Corp.
 - 5. DAP
- B. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- C. Low-Emitting Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- D. Liquid-Applied Sealants: Comply with ASTM C920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- E. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.
- F. Additional Movement Capability: Where additional movement capability is specified, provide products with the capability, when tested for adhesion and cohesion under maximum cyclic movement per ASTM C719, to withstand the specified percentage change in the joint width existing at the time of installation and remain in compliance with other requirements of ASTM C920 for uses indicated.
- G. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range, unless otherwise noted.

2.2 SILICONE JOINT SEALANTS:

- A. **Type S-1:** Single component, nonsag, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50, Use NT

1. Tremco Spectrem 1 or Spectrem 800 or Equal
- B. **Type S-2:** Single Component, nonsag, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 50, use NT
 1. Tremco Spectrem 2 or Spectrem 3 or Equal
- C. **Type S-3:** Multi-Component, Nonsag, Silicone Joint Sealant: ASTM C920, Type M, Grade NS, Class 50, Use NT
 1. Tremco Spectrem 4-TS or Equal
- D. **Type S-4:** Single Component, nonsag, Traffic-Grade, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50, Use T
 1. Tremco Spectrem 800 or Equal
- E. **Type S-5:** Mildew Resistant, Single Component, Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, Use NT
 1. Tremco Tremsil 200 Sanitary or Equal

2.3 URETHANE JOINT SEALANTS

- A. **Type U-1:** Single Component, nonsag, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 25 or 35, Use NT:
 1. Tremco Dymonic or Dymonic FC or Equal
- B. **Type U-2:** Single Component, nonsag, Traffic Grade, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, Use T.
 1. Tremco Vulkem 116 or Equal.
- C. **Type U-3:** Multi-Component, nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, Use T.
 1. Tremco Dymeric 240 or Dymeric 240 FC or Equal
- D. **Type U-4:** Multi-Component, nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, Use NT.
 1. Tremco Vulken 227 or Equal
- E. **Type U-5:** Multi-Component, nonsag, Traffic Grade, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, Use T.
 1. Tremco Vulken 227 or Equal

2.4 BUTYL JOINT SEALANTS

- A. **Type B-1:** Butyl Rubber based Joint Sealants: ASTM C 1311
 1. Tremco General Purpose Butyl Sealant or Equal

2.5 LATEX JOINT SEALANTS

- A. **Type L-1:** Latex Joint Sealant: Acrylic latex or Siliconized Acrylic Latex: ASTM C834, Type OP, Grade NF or better
 1. Tremco Tremflex 834 or Equal.
- B. **Type L-2:** Paintable Mildew-Resistant Latex Joint Sealant: Acrylic Latex or Siliconized Acrylic Latex: ASTM C834, Type OP, Grade NF or better.
 1. Tremco Tremflex 834 or Equal.

2.6 ACCESSORIES

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C1330, Type C (closed-cell material with a surface skin) as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and

density to control sealant depth and otherwise contribute to producing optimum sealant performance:

1. Oversized to 30 to 50 percent larger than joint width.
- C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and to otherwise contribute to optimum sealant performance.
- D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.
- E. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated. Non-staining type, recommended by sealant manufacturer to suit application.
- F. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- G. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate surfaces and joint openings are ready to receive work.
- B. Verify joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- A. Remove loose materials and foreign matter impairing adhesion of sealant.
- B. Clean and prime joints.
- C. Perform preparation in accordance with ASTM C1193.

3.3 INSTALLATION

- A. Perform installation in accordance with ASTM C1193.
- B. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
- C. Install bond breaker where joint backing is not used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.**
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Tool joints concave.

3.4 SCHEDULE

- A. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal non-traffic surfaces, subject to movement, unless otherwise noted.
 1. Joint locations such as, but not limited to:
 - a. Control joints on exposed interior surfaces of exterior walls.
 - b. Interior joints where interior partitions meet exterior walls of dissimilar materials and components.
 - c. Other joints as indicated on Drawings.

2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type U-1**
 3. Color: As selected by Architect from manufacturer's full range of colors. Paintable Sealant, prep for painted finish.
- B. Joint-Sealant Application: Interior joints in vertical surfaces subject to abuse and movement.
1. Joint locations such as, but not limited to:
 - a. Vertical joints, including control joints and joints between masonry and structural support members, on exposed surfaces of interior unit masonry walls and partitions.
 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type U-2**
 3. Color: As selected by Architect from manufacturer's full range of colors.
- C. Joint-Sealant Application: Interior joints in vertical surfaces not subject to movement.
1. Joint locations such as, but not limited to:
 - a. Interior perimeter joints of exterior openings.
 - b. Perimeter joints between interior wall surfaces and frames of interior doors, windows, and elevator entrances.
 - c. Interior joints between dissimilar materials where a gap is created where materials meet, unless otherwise noted.
 2. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type L-1, Type L-2**
 3. Color: As selected by Architect from manufacturer's full range of colors.
- D. Joint-Sealant Application: Exterior joints under metal thresholds and saddles, sill plates, or as bedding sealant for sheet metal flashing and frames of metal or wood.
1. Provide one of the following acceptable sealants as approved by manufacturer for substrates and uses indicated: **Type S-1, Type U-1, Type B-1**
 2. Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION

SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes gypsum board with joint treatment.

1.2 SUBMITTALS

- A. Product Data: Submit data on each type of gypsum board, backer board, joint tape and accessories.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with GA-201 - Gypsum Board for Walls and Ceilings. GA-214 - Recommended Specification: Levels of Gypsum Board Finish. GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board. GA-600 - Fire Resistance Design Manual.
- B. Surface Burning Characteristics:
 - 1. Textile Wall Coverings: Comply with one of the following:
 - a. Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.
- C. Mock-up:
 - 1. Provide mockup of the quality of finishes for one wall that indicates the level of finish quality. Approved mockup will become standard for comparing other work.
 - 2. Provide mockup of the quality of finishes for one ceiling area that indicates the level of finish quality for knockdown stomped ceiling finishes. Approved mockup will become standard for comparing other work.

PART 2 PRODUCTS

2.1 GYPSUM BOARD ASSEMBLIES

- A. Manufacturers:
 - 1. United States Gypsum Co.
 - 2. BPB Americas Inc.
 - 3. G-P Gypsum Corp.
 - 4. National Gypsum Co.
 - 5. Certainteed.
- B. Gypsum Board [Type GB-1]: ASTM C1396; Type X fire resistant type, high density; 5/8 inch thick, maximum available length in place; ends cut square, tapered square edges.

2.2 ACCESSORIES

- A. Gypsum Board Accessories: ASTM C1047; metal, metal and paper combination; corner beads, edge trim, and expansion joints.
 - 1. Metal Accessories: Galvanized steel.
 - 2. Edge Trim: Type LC or U bead.
- B. Joint Materials: ASTM C475/C475M, reinforcing tape, joint compound, and water.
- C. Fasteners: ASTM C1002; Type S12 hardened screws, length to suit application.
- D. Gypsum Board Screws: ASTM C1002; Type W or S hardened screws, length to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions are ready to receive work.

3.2 INSTALLATION

- A. Gypsum Board:
 - 1. Install gypsum board in accordance with GA-216 and GA-600.
 - 2. Fasten gypsum board to furring or framing with screws.
 - 3. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
 - 4. Seal cut edges and holes in moisture resistant gypsum board with sealant.
- B. Joint Treatment:
 - 1. Finish in accordance with GA-214 Level 4.
 - 2. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 3. Feather coats onto adjoining surfaces so camber is maximum 1/32 inch.

3.3 SCHEDULE

- A. Match existing / adjacent finishes as applicable to the conditions. General intent is repair existing gypsum board finishes to a Level 4 standard finish. Prep, repair, and skim as required to achieve desired finish.
- B. Interior walls [except where noted otherwise]: GB-1. Level 4 finish.
- C. Interior Walls / Ceilings at Demising Wall Locations: GB-1, Level 4 finish.

END OF SECTION

SECTION 09 90 00 - PAINTING AND COATING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and field application of paints and other coatings.
- B. Paint/Stain all exposed surfaces, new and existing, unless otherwise indicated.
 - 1. Interior Work
 - a. Walls and ceilings.
 - b. Conduits / Junction boxes
- C. Do not paint prefinished items, finished metal surfaces, operating parts, labels, and materials obviously intended to be left exposed such as brick and tile.
- D. Unless otherwise indicated do not paint concealed surfaces.
- E. Obtain primers and undercoat materials for each coating system from the same manufacturer as the finish coats. Primer and finish coat shall be factory applied, finish coat shall be field applied.
- F. **Extra Materials:** Deliver to Owner **any extra materials**, properly labeled, factory sealed, of each color and type of finish coat paint used on project for each building in contract. Materials shall be signed for by GDPM Construction Inspector.
- G. Minimum surface temperature of 50 degrees required for all coating systems.
- H. Store all materials in tightly closed containers when not in use, away from heat, electrical equipment, sparks and open flames. Use approved bonding and grounding procedures. Keep out of the reach of children and residents.
- I. Transfer materials to approved containers with complete and appropriate labeling.

1.2 APPLICATORS QUALIFICATIONS

- A. Engage an experienced applicator with a minimum of five years experience and who has completed painting systems application similar in materials and extend to those indicated for the Project and that have resulted in a construction record of successful in-service performance.

1.3 SUBMITTALS

- A. Product Data and Color Samples: Provide product data on each coating system component indicating VOC and environmental requirements. Coordinate coating systems for each material/substrate.

1.4 MOCKUP

- A. Full-coat finish sample (benchmark sample) of each type of coating, substrate, color, and finish required in area of not less than 100 sq. ft. Comply with PDCA P5. Contractor shall not begin work until final approval is given on color and finish.

1.5 REFERENCES AND REGULATIONS:

- A. Standards: Comply with applicable provisions and recommendations of the following, except when otherwise shown or specified:
 - 1. OSHA Safety Standards for the Construction Industry, Title 29 - Labor, Subtitle B – Regulations Relating to Labor, Occupational Safety and Health Administration (OSHA) 1926, 07/01/93 editions.
 - 2. OSHA Worker Safety and Health Act Regulation 29 CFR No. Parts 1900 through 1910.1400, 07/01/93 and later editions.
 - 3. SSPC Volume 1, Good Painting Practice, 1989 edition.

4. SSPC Volume 2, Systems and Specifications, 1991 edition, Surface Preparation Guide and Paint Application Specifications of the Steel Structures Painting Council.
 5. NACE Standards, Volume I and II, 1992 editions of the National Association of Corrosion Engineers.
 6. SSPC and NACE Painter Safety Guidelines, latest editions.
- B. Requirements of Regulatory Agencies, conform with the following:
1. Clean Air Act (CAA) – hazardous Air Emissions by U.S. EPA or State Agency under Regulation 40 CFR 61 or state equivalent.
 2. Clean Water Act (CWA) – hazardous Water Releases by U.S. EPA or State Agency under Regulation 40 CFR 116 through 117 or state equivalent.
 3. Toxic Substances Control Act (TSCA) – Toxic substance by U.S. EPA under Regulation 40 CFR 761.
 4. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or “SuperFund”) – Uncontrolled Hazardous Waste Sites and Hazardous Substance Release by U.S. EPA under Regulation 40 CFR 302.
 5. Resource Conservation and Recovery Act (RCRA) – Generation, Transportation, Treatment, Storage and Disposal of hazardous waste by U.S. EPA or State Agency under Regulation 40 CFR 260 through 267 or state equivalent.
 6. Hazardous and Solid Waste Amendments (HSWA) – Further regulation of hazardous waste by U.S. EPA or State Agency under Regulation 40 CFR through 267 or state equivalent.
 7. Hazardous Material Transportation Act (HMTA) – Transportation of Hazardous Material by DOT or State Agency under Regulation 49 CFR 171 through 179 or state equivalent.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit maintenance and cleaning instructions.

1.7 QUALITY ASSURANCE

- A. Surface Burning Characteristics:
1. Fire Retardant Finishes: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

PART 2 PRODUCTS

2.1 COLORS AND FINISHES

- A. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.
1. Lead: Measurable lead content in either the pigment or binder will not be permitted.
 2. The finish coats shall match colors selected.
- B. Finish Quality:
1. Finishes shall exhibit a high quality, commercial grade appearance of uniform thickness.
 2. Finishes shall be free of runs, sags, drips, waves, orange peel, festoons, dry spray, cloudiness, spotting, ropiness, brush marks, roller marks, fish eyes or other surface imperfections, voids, discontinuities, pinholes, holidays and overspray.
 3. Final coat shall be uniform in texture, color and gloss, and shall provide an acceptable match with the approved drawdown sample sheet.

2.2 COATINGS

- A. Manufacturer
1. Sherwin-Williams (SW)
 2. PPG Porter
 3. Benjamin Moore

- B. Colors: As selected from a full range of manufacturer's offerings, including premium colors.

2.3 INTERIOR COATINGS

- A. Interior Latex Primer: SW ProMar 200 Zero VOC Wall Primer B28W02600, or equal.
 - 1. Interior Latex Primer
 - 2. VOC: maximum 0g/L; 0.0 lb/gal
 - 3. Volume Solids: 26 +/- 2%
- B. Interior Latex: SW ProMar 200 Zero VOC Interior Latex Flat B30-2600 Series, or equal.
 - 1. Interior Latex Flat Acrylic
 - 2. VOC: maximum 0g/L; 0.0 lb/gal
 - 3. Volume Solids: 41 +/- 2%
- C. Interior Latex: SW ProMar 200 Zero VOC Eg-Shel B20-2600 Series, or equal.
 - 1. Interior Latex Eggshell Acrylic
 - 2. VOC: maximum 0g/L; 0.0 lb/gal
 - 3. Volume Solids: 42 +/- 2%
- D. Interior Latex: SW ProMar 200 Zero VOC Semi-Gloss B31-2600 Series, or equal.
 - 1. Interior Latex Semi-Gloss Acrylic
 - 2. VOC: maximum 0g/L; 0.0 lb/gal
 - 3. Volume Solids: 39 +/- 2%
- E. Interior Acrylic Primer: SW Pro Industrial DTM Acrylic Primer B66W1
 - 1. Interior Acrylic Primer
 - 2. VOC: <150 g/L, 1.25 lb/gal
 - 3. Volume Solids: 46% +/- 2%
- F. Interior Acrylic Finish: SW DTM Acrylic Finish B66W01151 Series
 - 1. Interior Acrylic Coating
 - 2. VOC: <50 g/L, 0.42 lb/gal

PART 3 EXECUTION

3.1 SURFACE PREPARATION

- A. Comply with paint manufacturer's written instructions for surface preparation, environmental and substrate conditions, product mixing, and application.
- B. Perform all surface preparation in accordance with SSPC specifications, guidelines and good painting practices.
- C. Patch all holes and imperfections with spackle joint compound and sand smooth.
- D. Seal all stains from water, smoke, ink, pencil, grease, etc. with SW Prep-Rite Interior Latex Primer or equal.
- E. Fill all cracks, voids and crevices with caulk after priming the surface.
- F. Do not paint until surface is thoroughly dry and in sound condition.

3.2 APPLICATION

- A. Examination and Verification of Condition: Contractor shall verify the areas and conditions under which the work is to be performed and notify the Owner in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until satisfactory conditions have been corrected. Do not coat over chalk, dirt, scale, moisture, oil, surface contaminants, coatings that have exceeded the manufacturer's re-coat guidelines, or conditions otherwise detrimental to the formation of a durable high quality coating system.
- B. Comply with manufacturer's instructions and SSPC Good Paint Practices Volumes 1 and 2.

- C. Comply with OSHA regulations, City of Dayton, State of Ohio and Federal laws, ordinances, and guidelines.
- D. Coating systems require a minimum surface temperature of 77 degrees F at 50% RH for proper drying and curing with a minimum temperature of 50 degrees and a maximum relative humidity of 85%. Follow label directions for each type of coating. Substrate temperatures to be coated shall be a minimum of 5 degree F above dew point and rising. Ambient surface to be painted and coating materials shall be a minimum maintained temperature of 50 degree F for 24 hours.
- E. Refer to SDS sheets before using any product.
- F. All surfaces must be thoroughly dry before coating applications.
- G. Apply coatings using brush or roller only.

3.3 INTERIOR PAINT APPLICATION SCHEDULE

- A. Gypsum Board:
 - 1. Concrete / Gypsum board ceilings:
 - a. Interior Latex Primer: SW ProMar 200 Zero VOC Primer at 1.3 MILS DFT per coat, one coat.
 - b. Interior Latex: SW ProMar 200 FLAT Interior Latex at 1.7 MILS DFT per coat, two coats.
 - 2. Concrete Block / Gypsum board walls:
 - a. Interior Latex Primer: SW ProMar 200 Zero VOC Primer at 1.3 MILS DFT per coat, one coat.
 - b. Interior Latex: SW ProMar 200 Zero VOC Eggshell Interior Latex at 1.6 MILS DFT, two coats.
- B. Steel Substrates [miscellaneous metal surfaces, conduits, etc.]:
 - 1. Interior Primer: SW DTM Acrylic Primer at 2.5-5.0 MILS DFT, one coat, where required for spot priming / bare metal conditions.
 - 2. Interior Acrylic: SW Pro Industrial DTM Acrylic Semi-Gloss Interior Coating at 2.5-4.0 MILS DFT, two coats.

3.4 CLEAN UP

- A. Clean site and remove debris and empty cans daily. Remove all paint from adjacent surfaces. Clean spills and splatters immediately.
- B. Clean hands and tools immediately after use with soap and water for water based products and with mineral spirits for oil based products.
- C. Follow manufacturer's safety recommendations when using mineral spirits.

3.5 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

END OF SECTION

ELECTRICAL
SECTION 16000

INDEX

<u>ITEM NO.</u>		<u>PAGE</u>
1.	RELATED DOCUMENTS	2
2.	SCOPE.....	2
3.	DESCRIPTION OF WORK	2
4.	PERMITS, FEES, INSPECTIONS, LAWS & REGULATIONS	2
5.	SITE INVESTIGATION	3
6.	DRAWINGS.....	3
7.	SPECIFICATIONS.....	4
8.	MATERIALS AND WORKMANSHIP	5
9.	CUTTING AND PATCHING	5
10.	PROTECTION	6
11.	PREPARATION OF BIDS.....	7
12.	SHOP DRAWINGS	8
13.	SUPPORTING MEMBERS	10
14.	EQUIPMENT IDENTIFICATION.....	10
15.	CLEAN UP.....	10
16.	MAINTENANCE OF EXISTING FACILITIES	10
17.	WORK IN EXISTING BUILDING.....	11
18.	TESTING, LOAD BALANCE AND ADJUSTMENT.....	11
19.	RECORD DRAWINGS	11
20.	INSTRUCTIONS AND MANUALS	12
21.	CONTRACTORS' FOREMAN.....	14
22.	WARRANTIES	14
23.	PAINTING	14
24.	HOISTS, RIGGING, TRANSPORTATION AND SCAFFOLDING.....	15
25.	EQUIPMENT PREPARATION.....	15
26.	REMOVALS, ALTERATIONS AND REUSE	15
27.	HAZARDOUS MATERIALS	16
28.	WIRE, CABLE AND CONNECTORS	16
29.	CIRCUIT AND CONDUCTOR IDENTIFICATION	17
30.	CONDUIT AND OUTLET BOXES.....	18
31.	JUNCTION BOXES AND ACCESS DOORS	19
32.	GROUNDING	19
33.	SLEEVES AND THIMBLES.....	20
34.	FIRESTOPPING	21
35.	WIRING DEVICES AND PLATES.....	23
36.	MISCELLANEOUS EQUIPMENT CONNECTIONS	25
37.	TEMPORARY SERVICE FOR CONSTRUCTION.....	25
38.	DIGITAL ADDRESSABLE FIRE ALARM SYSTEM.....	25
	*** END OF SECTION ***	76

ELECTRICAL

SECTION 16000

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.

2. SCOPE

- A. The work included under this section shall consist of the furnishing of all labor, materials, equipment and incidentals necessary to install the electrical and related work indicated on the drawings and as called out in the following technical specifications. This shall include all testing and adjustments required and/or specified.

3. DESCRIPTION OF WORK

- A. The following is a summary of the principal categories of work under this section. Note, however, that this listing is for general information only and work will not necessarily be limited to these categories. The detailed drawings and the following specifications cover the full extent of the work.

B. Power:

1. Replace existing Fire Alarm system.
2. Provide new branch circuits where required.

C. Demolition:

1. Removal of existing electrical devices that are noted on drawings and those devices in the area of the remodeling that are obviously necessary to be removed or relocated.

4. PERMITS, FEES, INSPECTIONS, LAWS & REGULATIONS

- A. Obtain and pay for all permits required in connection with this section of the work. In addition, pay all necessary inspection fees or similar charges. Laws and regulations which bear upon or affect this work shall be complied with and are hereby made a part of this section of the work. All work which such laws require to be inspected shall be submitted to the proper public officials for inspection.

- B. The requirements of the National Electrical Code (NEC) as well as all local ordinances and regulations, including those of the local utility company, shall be

followed and adhered to with regard to the work under this section. Where the contract documents (plans, specifications, etc.) exceed the minimum requirements of the NEC and/or other regulations, etc., the document requirements shall govern.

- C. At completion of the project furnish to the Owner, at no additional charge, a certificate(s) of inspection issued by the authorized agency (or agencies) having jurisdiction over this portion of the project, stating that all work executed under this section complies with the minimum requirements.
- D. Note that the General Building Permit will be obtained and paid for by the successful Electrical Contract Bidder. Contractors bidding this section of the work shall make a sufficient allowance in their bid to reimburse the Electrical Prime Contractor for their proportionate share of the permit cost.
- E. Additional fees, charges, etc. imposed by other contractors and/or tradesmen, professional consultants, etc. for services rendered in connection with performing any portion of the work under this section shall be included as part of the work. This shall include surveys, profiles and/or other miscellaneous drawings, etc. that may be required in addition to the contract documents by any governing authority.

5. SITE INVESTIGATION

- A. Prior to bidding, it is recommended that the contractor visit the job site and investigate all details which may have any effect on the installation, progress or completion of the project.
- B. When a bid is received, it will be assumed that the contractor has made the job site visit(s) and is familiar with the conditions as they exist and any adjustments and/or modifications that may be necessary in order to perform and complete the work as specified.
- C. At project start-up, certain areas will be designated for the storage of materials and equipment and cooperation with the Owner in minimizing interference with existing operations will be mandatory.

6. DRAWINGS

- A. The drawings prepared for this project are an outline to show where conduit, devices and distribution equipment must go in order to harmonize with the building and installations of the various trades. All work must be installed in accordance with the drawings insofar as possible. All drawings shall be carefully checked during the course of bidding and construction. If any discrepancies, errors or omissions or overlaps with other trades are discovered prior to or during the construction phase, notify the Engineer immediately for interpretation or correction. Note that an overlap with another trade does not relieve the contractor from the obligation of

performing the work indicated on the drawings for this section of the project unless written notification stating such is obtained from the Engineer.

- B. Take all necessary measurements and be responsible for same, including clearances for all equipment that is to be furnished. The Engineer shall reserve the right to make minor location changes of equipment where such adjustments are deemed desirable from an appearance, installation or operational standpoint. Such changes will normally be initiated sufficiently in advance to avoid extra work or unduly delay progress on the project.
- C. In general, the conduit and wiring layouts shall be considered as diagrammatic for clearness and legibility and are to be used as a guide. Therefore, it is not intended that the drawings indicate all necessary offsets, junction boxes, pull boxes, etc. Conduit, wiring, fixtures, equipment, etc. may have to be offset, lowered or raised as required or as directed at the site in order to accommodate field conditions. In addition, relocate or shift equipment, fixtures and devices without cost, when so directed by the Engineer, providing such items have not been installed and the revised location is not greater than 10 feet from the location indicated.
- D. Note also that electrical connections indicated on the drawings may not be shown in the correct location for the equipment, fixtures, devices, etc., actually selected for the project. Verify all connection locations with shop drawings of the item to be installed or make field measurements before proceeding with any rough-in work.
- E. The general building and / or structural drawings shall be used to obtain dimensions and exact locations and as a check with other contractors to avoid interference with their work. Refer to applicable drawings on all branches of the work where other trades are involved on the project so that added field work and/or job delays resulting from conflicts between crafts can be avoided.

7. SPECIFICATIONS

- A. Specifications shall be interpreted in conjunction with the drawings hereinbefore described and if anything is shown on the drawings and not mentioned in the specifications or vice versa, it is to be included in the work the same as though clearly set forth by both.
- B. Furthermore, all materials or labor obviously required to fully complete the work shall be included in the bid, even though each item necessarily involved is not specifically mentioned or shown. Such work and/or material shall be furnished and shall be of the same grade or quality as the parts actually specified and shown. Should there be a conflict between the plans and specifications, the greater quantity or better quality shall be furnished.
- C. Should an overlap of work between the various trades become evident, the Engineer shall be notified. Such an event shall not relieve any trade of the

responsibility for the work called for under his branch of the specifications until a written clarification or directive is issued concerning the matter.

- D. When selecting equipment to be used on this project, refer to Item EQUIPMENT CLEARANCES AND REQUIREMENTS in these specifications.
- E. Note that all systems and items of equipment involved under this contract heading shall be furnished and installed in accordance with applicable requirements of federal, state and local codes including the ADA (Americans with Disabilities Act), OSHA requirements and applicable portions of NFPA. The above includes adhering to applicable requirements governing mounting heights for occupant operable controls.
- F. All references made to codes, standards, etc. in these specifications or on the drawings shall be taken to mean the latest edition, amendment and/or revision of such reference in effect as of the date indicated on the Bid Documents.

8. MATERIALS AND WORKMANSHIP

- A. Materials supplied under this contract shall be new and in strict accordance with the provisions of these plans and specifications. Any material required which is not specifically represented by a manufacturer's catalog number of quality standard, shall be subject to the approval of the Engineer in all cases. When two or more items of the same equipment are involved, they shall be identical in quality and made by the same manufacturer.
- B. Materials shall be the latest design of that manufacturer and shall be shipped to the job in the original container with proper identification as to size, type and dates of inspection and shipment.
- C. Electrical work shall be performed by mechanics skilled in their respective trades. Tool marks will not be permitted on any exposed materials, fixture or fitting. In addition, all exposed materials, fixtures, equipment, etc. shall be installed in straight horizontal and/or vertical lines, parallel to the building lines wherever possible. Carelessly executed work as well as workmanship that is determined to be below normal industry standards of best practice, and/or work not conforming to the requirements of this item, shall be redone or repaired as required prior to final acceptance.

9. CUTTING AND PATCHING

- A. All cutting and/or drilling of walls, slabs, structural members, etc., required in conjunction with work under this section shall be performed as part of the work and shall be done under the supervision of the General Contractor. Work shall be neatly done, without unnecessary removal of material. Holes, openings, etc. shall be located where they will not weaken the structure. No beams, joists, etc., shall be cut without written authorization from the Engineer.

- B. Cutting of holes in masonry and/or concrete shall be performed with a core drill to minimize spalling, etc. Locations shall be accurately determined and checked and the appropriate drill bit shall be used to minimize hole size.
- C. Sleeves or thimbles for these holes as well as escutcheons and trim plates shall be provided as described in Item SLEEVES AND THIMBLES.
- D. NOTE: Cutting of water lines, electric conduit or similar service lines in the course of work performed under this section shall be immediately repaired as part of the work of this section.
- E. Patching and/or repairing of all work, including finished surfaces, necessitated by the demolition or installation of work under this section shall be considered as part of this work. It shall, however, be performed by mechanics of the appropriate trade in order to achieve a workmanlike job. This shall include, but not be limited to, all items of concrete and masonry work, millwork, gypsum board and/or plaster work, painting, floor finishes and ceiling finishes as well as all other surface finishes.
- F. When the need for such patching or repairs arises, immediate arrangements shall be made with the appropriate trade(s) or with the General Contractor to perform the necessary work at no additional cost to the Owner. The final responsibility for acceptance of such work by the Owner's representative shall reside with the contractor for this section of the project.

10. PROTECTION

- A. Provide proper protection to the building during the execution of all work involved under this contract heading.
- B. This protection shall include covering all apparatus, building surfaces and/or other materials to protect same from dirt; adequate temporary connections to protect apparatus from damage of any sort; and required shielding to protect finished parts of the building. The following shall apply where applicable:
 - 1. Protect finished floors from chips and cutting oil by the use of a metal chip receiving pan and an oil proof floor cover.
 - 2. Protect equipment and finished surfaces from welding and cutting spatters with baffles and spatter blankets.
 - 3. Protect all electrical equipment finished surfaces from paint droppings, insulation adhesive and sizing droppings, etc., by the use of drop cloths.
- C. Exercise extreme caution in the handling and storage of tools, material and equipment in order to prevent damage to other contractor's work and/or materials and to avoid repair costs. All switchgear, fixtures and other electrical equipment

stored at the site with exposed openings, bearings, etc. shall be covered to exclude dust and moisture. All stockpiled conduit shall be placed on dunnage and protected from weather and from entry of foreign material.

- D. Furnish necessary devices, strip heaters, wiring, connections, power, etc. to provide temporary heat to keep moisture out of apparatus and equipment such as transformers, motors, etc. furnished under this section.

11. PREPARATION OF BIDS

- A. All bids shall be based upon furnishing and installing the make of materials and apparatus specified herein WITHOUT SUBSTITUTION, in order that all bids may be properly compared.
- B. Other materials, equipment or systems that the bidder may desire to use as a substitute for that specified will be considered IF PROPOSED AT THE TIME OF BIDDING and shown on the substitution sheet of the proposal. Such alternate items shall be of equally high quality with all safeguards, design features and operational requirements as shown on the drawings and/or as specified herein.
- C. It is understood that proposals to use such substitutes shall be made in addition to and separate from the base bid in order to receive consideration and the addition to or deduction from base bid, if any, shall be duly noted on the bid form.
- D. Regarding substitutes, note that any deviations from the following specifications or any special equipment requirements (ambient conditions, services, power conditioning, etc.) necessary for full time operation shall be clearly stated and completely itemized. Failure to meet these stipulations could result in additional expense that would be assigned to this section of the work and not considered as an extra. These substitute proposals will not, however, be considered as a basis for determining the low bidder unless they are specifically listed by Addendum as alternate proposals. Each substitute proposal offered shall list the manufacturer, the catalog number of the substitute item, and the specified item to be replaced by the substitute. In addition to this information, state the amount to be added to or deducted from base bid in the event the substitute proposal is accepted.
- E. If no proposals for substitutes are listed on the bid form, no such proposals will be permitted for later consideration unless delivery schedules or other factors beyond the Contractor's control justify same.
- F. If more than one make of material or equipment is specified, the proposed manufacturer, brand, type, etc. shall be identified. If this provision is not complied with, the Owner may then make this selection without change in contract price.
- G. Note that in the following specifications, where more than one manufacturer is listed for a particular item of operating equipment, the design will be based on the first named. If equipment by the other named manufacturer(s) or a proposed

substitute requires redesign work, revised/modified services, or specific additional field work by other trade(s), the price submitted for providing this equipment must include the required additional amount to cover such work.

- H. Lump sum pricing by suppliers on two or more dissimilar classifications of materials, without an accompanying price breakdown on the individual classifications, will not be tolerated. Notify the Engineer, upon receipt of a lump-sum quotation which prevents a legitimate comparison with other competitive individual quotations.

12. SHOP DRAWINGS

- A. Prepare or obtain from the manufacturer, certified shop or erection drawings of all items of equipment to be furnished under this section and submit copies of same as required for review. This shall be done as soon as possible, well prior to proceeding with installation or construction and in the proper sequence to avoid delays in the work, the work of the Owner or other contractors. Unless otherwise indicated, a minimum of ten (10) sets shall be submitted. These drawings shall be complete in every respect, showing pertinent details regarding size, external and internal features, mechanical and/or electrical arrangements, locations of connections, installation and mounting instructions, materials, gauges, electrical characteristics, wiring diagrams, and other information necessary to show compliance with the intent of the contract documents. Note that in the following items of this specification, where more than one equipment manufacturer is listed, the first named has been used as the basis for design. All departures or deviations in performance, service requirements, size, etc. from first named by the make submitted shall be noted on the shop drawings. Where departures or deviations do occur, the contractor shall additionally itemize same on the cover sheet that accompanies the submittals. Failure to do so will risk subsequent rejection at the job site. (With regard to voluntary substitutions, refer also to Item BIDDING in this specification and item EQUIPMENT CLEARANCES AND REQUIREMENTS.
- B. By submitting such drawings, the Contractor represents that he has selected and verified the materials and equipment, taken necessary field measurements, noted field construction criteria, etc., related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and the Contract Documents.
- C. Materials and equipment to be furnished for this project shall be of current production by manufacturers regularly engaged in the manufacture of such items. When two or more similar units are required, they shall be the product of one manufacturer.
- D. The review of shop drawings shall not be construed as a complete check but will indicate only that the capacity, general method of construction and/or detailing

is satisfactory. Carefully check and verify dimensions for installation and service requirements before ordering equipment for the project.

- E. Submittals shall be itemized on a standardized shop drawing submittal form stating the name of the project, specification section, paragraph and/or drawing numbers applicable to submittal and shall bear the contractor's review stamp as evidence that the items have been initially checked for compliance with Contract Documents as stated above.
- F. After review, shop drawings will be returned marked in one of the following ways:
 - 1. "NO EXCEPTIONS NOTED" - Copies may be distributed as required for construction, shipment, etc. to proceed.
 - 2. "EXCEPTIONS NOTED" - Contractor may proceed with and/or authorize construction, shipment, etc. taking into account the necessary corrections.
 - 3. "EXCEPTIONS NOTED - REVISE AND RESUBMIT" - Contractor will be required to resubmit shop drawings in their entirety. No fabrication, erection or installation shall be authorized or initiated until shop drawings so marked have been completely revised, resubmitted and subsequently marked in accordance with either of the two preceding subparagraphs. Only shop drawings officially marked "NO EXCEPTIONS NOTED" or "EXCEPTIONS NOTED" will be permitted on the jobsite.
- G. Upon return of submittals take appropriate action as specified above. Note that any shop drawing copies received beyond the number required will be destroyed (not returned). Also note that if an insufficient number of copies has been submitted, no review will take place until all required copies have been received.
- H. Where resubmittal is required, four (4) copies will be so noted by the reviewer, of which two (2) copies will be returned for corrections (one (1) copy for the contractor and one (1) copy for the supplier/subcontractor).
- I. The following is a list, where applicable, of items requiring submittals.
 - 1. Lighting fixtures
 - 2. Wiring Devices and Cover Plates
- J. Note that submittal review is for general construction, detailing and application only. Carefully check and verify dimensions for installation as well as clearance and service requirements before ordering equipment for the project. In addition, where an elevator(s) is involved, verify all equipment specific electrical requirements with the selected equipment supplier in order to verify breaker type,

feeder sizing, etc. At completion, the entire installation shall be such that all equipment will function and be serviceable in a normal and satisfactory manner.

- K. Shop drawings will be provided by the Owner for any Owner furnished equipment requiring service or connections under this section.
- L. A complete set of shop drawings, officially marked in the prescribed manner noted previously, shall be filed on the job site. Such drawings shall be kept together, maintained in good condition and shall be readily available for reference.

13. SUPPORTING MEMBERS

- A. Furnish and install all steel angles, channels, bars or clamps required to support any type of permanent apparatus to be furnished and/or installed under this section.

14. EQUIPMENT IDENTIFICATION

- A. All cover plates shall have identification with regard to panel number, circuit number, item controlled, etc.

15. CLEAN UP

- A. All rubbish resulting from the work herein specified shall be removed from the premises as fast as it accumulates.
- B. Upon completion of the work, remove from the project site all tools, equipment, surplus materials and rubbish pertaining to the work under this contract heading. Responsibility for this shall include paying all costs for such removal and disposition including hauling, dumping, proper and legal disposal of hazardous materials, etc.
 - 1. Note that when the work on this project involves replacement of fluorescent fixtures and/or lamps, the proper disposal of these lamps shall be through an EPA authorized lamp recycling center. Prior to completion of the work the Contractor shall furnish the Owner with written documentation from the agency attesting to the fact that a specific number of lamps have, in fact, been delivered for recycling. All associated costs involved with this procedure shall be borne by the Contractor.

16. MAINTENANCE OF EXISTING FACILITIES

- A. Prior to the severing of the electrical service to any portion of the existing building, submit a plan to the Engineer and the Owner's Representative, stating the nature and duration of the proposed interruption, as well as the method of procedure. Do not under any circumstances proceed with an interruption of service of any type

without the Owner's written authorization.

17. WORK IN EXISTING BUILDING

- A. All equipment shown dotted and associated wiring and conduit, etc shall be disconnected and removed.
- B. Existing electrical circuits and outlets which are to stay in use shall remain on the existing electrical panels. New work shall be connected to the new panels unless indicated otherwise.
- C. All cutting and patching of existing walls, floors and ceilings required for the installation of any and all electrical work in the remodeled portions of the existing building shall be done under this section. (See Item CUTTING AND PATCHING).
- D. All electrical work to be installed in finished rooms of the existing building shall be installed concealed unless otherwise noted on the drawings.
- E. Painting of all patched work in the existing building will be the responsibility of this Contractor.
- F. Provide coverplates on all open boxes discovered in areas being renovated.

18. TESTING, LOAD BALANCE AND ADJUSTMENT

- A. Load balancing, adjustments and electrical testing shall be done under this section of the work.
- B. A person skilled in the field of electrical testing and operating with proper test equipment shall perform the following:
 - 1. Each special system installed under this contract, shall be inspected and operationally tested by a qualified representative of the equipment vendor.
 - 2. Submit a written report of each test to the Engineer immediately following completion of the balance and test procedures.

19. RECORD DRAWINGS

- A. Keep a running record of each change and / or deviation from the drawings. This record shall be kept on two clean sets of prints used for no other purpose. The "As- Built" prints shall be available at all times during the project for review by the Owner or Engineer. Before submitting a requisition for final payment, all project modifications, changes and/or deviations must be recorded on these documents, showing the work exactly as installed.

- B. Record Drawings shall show deviations / changes with regard to the following:
 - 1. Size, type capacity, etc. of any material, device or piece of equipment.
 - 2. Location of any device or piece of equipment.
 - 3. Location of any outlet or source in building service systems.
 - 4. Routing of any piping, conduit, ducts or other building services.
 - 5. Circuit Number.
 - 6. Schedule modifications.
- C. These sets of record drawings shall also show the location of any concealed electric service, pull boxes, raceways, conduit, etc., obtained by actual field-measured dimensions to these items from readily identifiable and accessible elements of the building such as columns, walls, etc.
- D. Record drawings must be complete and accurate. Unless they are sufficiently accurate to permit immediate location and identification of concealed work with a minimum of cutting, such drawings will be considered inadequate and the contract work deemed incomplete. If it is determined that the Contractor has made a good faith effort to compile a complete and accurate set of "As-Built" mark-ups, the Engineer will submit that, subject to the following, the Contractor has fulfilled his obligations with regard to this item of the specifications.

20. INSTRUCTIONS AND MANUALS

- A. Provide four (4) complete brochures in hard backed binders, each containing all operating, servicing, and maintenance information as well as parts lists for all equipment installed under this contract. Where diagrams are too large for the binder, arrange manila pockets with reinforced holes to hold folded drawings. The binder shall also contain a title sheet showing the Contractor's name and address and an index sheet listing the contents of the manual. A copy shall be submitted to the Engineer for verification prior to being submitted to the Owner.
- B. Information shall be complete, indexed, and bound as described above. The following shall be clearly printed on the front cover of the binder:
 - 1. Project name, address and date.
 - 2. Name and address of Engineer.
 - 3. Section of Work covered, i.e., Electrical
 - 4. Name and address of Contractor.

5. Telephone number of Contractor, including night or emergency numbers.
- C. Incorporate, within the binders, individual sections containing an index sheet, written operating instructions, shop drawings, equipment catalog cuts, manufacturer's instructions, and a list of equipment into the binders.
1. First Page - Title of Job, Owner, Address, Date of Submittal, Name of Contractor and Name of Engineer...Emergency operating instructions and/or list of service organizations (including address and telephone numbers) capable of rendering emergency service on 24 hour calls shall be furnished.
 2. Second Page - Index/Table of Contents
 3. Third Page - Introduction to First Section...This shall contain a complete written description of the system.
 4. First Section: A written description of system contents, where the system is actually located in the building, how each part functions individually and how the system works as a whole...Conclude with a list of the items requiring service and either state the service and frequency needed or refer to the manufacturer's data in the binder that describes the proper service.
 5. Second Section: A copy of each approved shop drawing, (clearly marked to identify the item furnished) with an index at the beginning of the section. Provide a separate list of all lighting fixtures and luminaires used on the job. The list shall include but not be limited to fixture type, manufacturer's catalog number and voltage, number of lamps, lamp type, ballast catalog number, manufacturer's name and quantity when required, catalog number and quantity of any replacement glass and/or plastic parts.
 6. Third Section: A copy of each manufacturer's operating instructions with an index at the beginning of the section.
 7. Fourth Section: A list of all equipment used on the job, Contractor's purchase order numbers, supplier's name and address.
- D. Arrange for technical instruction of the Owner's maintenance personnel for such time as would be reasonably required to acquaint them with their duties. In addition, deliver to the Owner all special tools or equipment required for making normal adjustments on any equipment or apparatus furnished under this contract heading.
- E. Technical instructions involving installed equipment shall include a demonstration of the equipment and/or the operating system(s) with a description of the operation explained to the owner's representatives. It shall be this

Contractor's responsibility to arrange this demonstration with the Owner as well as representatives of suppliers. The demonstration shall take place after all testing and balancing and written reports of such work have been submitted to and accepted by the Engineer. The time when the satisfactory completion of this technical instruction and demonstration takes place will establish the date of final acceptance of the system and/or project unless otherwise stipulated.

21. CONTRACTORS' FOREMAN

- A. With reference to the work under this section, a competent foreman shall be assigned to the project. The foreman shall remain on the job during all normal working hours until the project is complete and shall be authorized to act as the Contractor's agent in the absence of said Contractor. This foreman shall not be relieved of his duties on the project except by permission or by request of the Engineer.

22. WARRANTIES

- A. Provide warranties to the Owner that the materials and equipment furnished are new, unless otherwise specified, and that all work is of good quality, free from faults and defects and in conformance with the Contract Documents. Unless otherwise specified, all warrants shall extend for a period of 12 months or greater as noted below. However, latent defects in materials, equipment or workmanship that are not discovered until sometime during the second year following acceptance, shall remain the contractor's responsibility to correct.
- B. Warranties on all work and equipment shall commence on the date of substantial completion of the work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. These warranties and all related documents shall be presented in writing prior to the issuance of any Certificates. Warranties shall include equipment manufacturer's written certificates warranting the equipment furnished complies with all requirements of the drawings and specifications. This documentation shall be submitted in an appropriately marked, 3-ring hard cover binder.
- C. If, within one year after the date of substantial completion of the work or within one year after acceptance by the Owner or within such longer period of time as noted above or as may be prescribed by the terms of any applicable special warranty stipulated in the Contract Documents, any portion of the work is found to be defective, functioning improperly, or not in accordance with the Contract Documents, it shall be promptly corrected upon receipt of official notification to do so. This obligation shall survive termination of the contract.

23. PAINTING

- A. The following items of painting work shall be included in this Section:

1. Equipment which has been factory finished but where the finish has become marred or rusted, shall be sanded and refinished equal to the original factory finish.
2. All bare metal items or prime painted items installed as a part of this contract which have not received a factory finish (or otherwise treated to prevent rust such as galvanizing) and which is exposed to view when the building is completed shall be given one coat of primer and two coats of a good grade enamel to inhibit corrosion. This shall include such items as hangers, supports, wireways, gutters, etc., which are exposed in mechanical spaces, closets and utility rooms. Color to be grey unless otherwise directed by Engineer and/or Owner.
3. All patched work in the existing building.

24. HOISTS, RIGGING, TRANSPORTATION AND SCAFFOLDING

- A. Provide all necessary scaffolding, staging, cribbing, tackle, hoists and rigging to locate the material, equipment, etc. of this section in its proper place on the project. All such temporary work shall be removed from the premises when no longer required.
- B. Pay all costs related to the transportation of materials and equipment to the job site. These costs shall be covered in the bid as no additional allowance will be made by the Owner.
- C. Scaffolding and hoisting equipment shall comply with requirements of all pertinent Federal, State and Local Laws and Codes.

25. EQUIPMENT PREPARATION

- A. At the completion of the job, or at such time as a portion of the work is to be turned over to the Owner, thoroughly clean all equipment installed under this section of the work. This includes switchgear, lighting fixtures, wall plates, etc. and involves the removal of all traces of grease, dirt, dust, etc., as well as temporary labels, shipping tags and the like. Equipment shall be turned over in factory inspected condition. See Item PAINTING.

26. REMOVALS, ALTERATIONS AND REUSE

- A. The demolition drawings may not show all existing walls, lighting fixtures, devices, etc. that are to be removed. Investigate the site and review all currently available drawings of the building to evaluate the work necessary to fulfill the requirements of the contract documents.
- B.

C. Conduit:

1. All power and system conduit no longer utilized shall be removed and disposed of.
2. Conduit located in the permanent structure or in unaltered parts of the structure shall remain in place.

D. Boxes:

1. Any box located in an advantageous location and in good condition may be utilized in the new system. Close all unused openings in box.

E. Wire:

1. Wire that is removed may not be reused.
2. All wire that is to be installed shall be new.
3. Existing materials, equipment, lighting fixtures, devices, panelboards, conduit and wiring that is removed and not reused shall be disposed of or placed in storage as directed by the Owner's representative.

27. HAZARDOUS MATERIALS

- A. This item of the specifications has been inserted to address the potential problem or problems occurring when hazardous materials (asbestos type insulations, Askarel insulation, etc.) are encountered on a project involving work in an existing structure. Since the extent to which hazardous materials may have to be dealt with or whether, in fact, they will even be present on the site cannot always be determined prior to the actual demolition/construction phase of the project, the Contractor under this section of the work shall file a written request for inspection with the proper government agency or authority as described in the following paragraphs.
- B. Regarding contract involvement with equipment utilizing Askarel or similar substances that contain PCB (polychlorinatedbiphenyl) formulations:
 1. The inspection request shall be filed with the Owner and the Engineer, listing the equipment involved, its location, and other pertinent data such as size/capacity and manufacturer. A decision concerning the course of action to be taken with regard to this equipment will then be made by the Owner and will become a matter of record.

28. WIRE, CABLE AND CONNECTORS

- A. All building feeder and branch circuit wiring not specifically shown or

necessarily covered by code, shall be type THHN/THWN 600 volt insulation - 75 deg. C copper conductors, complying, with NEC Standards.

- B. Any wire size not specifically noted on the plans shall be at least equal in capacity to the rating of the overcurrent device serving the item to be connected and, in addition, shall be sized in accordance with the requirements of Articles 210.19 (a) and 215.2 (b) of the N.E.C. Note that where wire sizes specifically shown on the drawings have ampacity in excess of the protection device rating, those sizes shall be the minimum provided. Wiring run from fixture junction boxes and in fixture wireways shall be 600 volt, 90 C type THHN wire or RHH.
- C. Conductors shall not be drawn into a conduit segment until that segment of the conduit system is complete, with all terminations properly bushed and with the conduit free of moisture, foreign material, etc.
- D. All connectors and lugs shall be of the solderless type and large enough to enclose all strands of the conductors with sufficient mechanical strength to withstand vibration and normal strains.
- E. All connectors for conductors sized #10 AWG and smaller shall be 3-M SCOTCHLOK, Ideal Wingnut or Buchanan B-Cap's. Connections for conductors sized #8 AWG and larger shall be made with pressure type mechanical connectors and insulated with electrical tape to 150% of the insulating value of the conductor insulation.
- F. Joints or splices in branch circuit wiring and feeders must be located as per NEC. All joints and splices shall be made electrically and mechanically sound in accordance with best practice.
- G. All parallel runs of conductors shall be cut to equal length and installed accordingly.
- H. Note that common neutrals are prohibited. An individual neutral must be provided for each circuit.
- I. Low voltage system wiring shall be sized in strict accordance with the individual equipment and/or system manufacturer's specifications and/or recommendations and shall be plenum rated when not run in conduit. In addition, the wire type utilized shall be as recommended by the equipment manufacturer. Note that where code requirements dictate, or where specified, this wiring shall be run in conduit.

29. CIRCUIT AND CONDUCTOR IDENTIFICATION

- A. All branch circuit wiring for this work shall be color coded to match existing. If branch circuit wiring for the existing facility is not color coded, consult the Owner

regarding desired color coding for this project. Each phase shall be a different color and the phase color shall be the same thruout the project including branch circuiting.

- B. All feeders and conductors not color coded shall be identified with permanent, legibly marked, self-sticking labels stating circuit number, voltage, phasing and circuit origination. Labels shall be as manufactured by W. H. Brady Co. or approved equal. Labels made by embossing machines will not be acceptable.

30. CONDUIT AND OUTLET BOXES

- A. All wiring to be installed for this project shall be enclosed in rigid or intermediate metal conduit (RMC or IMC) or electrical metallic tubing conduit (EMT).
- B. All metal conduit shall be steel and in strict accordance with applicable ANSI standards for steel conduit. Each length shall bear the UL label.
- C. Conduit throughout shall be a minimum 3/4" size except for special connections, as detailed, and flexible runouts to fixtures, motors, etc., which may be 3/8".
- D. Unless otherwise specified, conduit imbedded in poured concrete shall be PVC. Note that generally, conduit shall not be run in concrete floor slabs except where surface mounted fixtures are indicated, cast-in-place boxes are indicated, or where specifically directed.
- E. All conduit installed on the project shall be concealed, wherever possible, unless otherwise noted or indicated on the drawings or unless permission is obtained from the Engineer to run exposed. Where conduit is exposed, it shall be run parallel or perpendicular to the building lines. (See Item MATERIALS AND WORKMANSHIP).
 - 1. Steel set screw type fittings or compression type steel couplings and connectors shall be used with EMT and may be used with IMC.
- F. All empty conduit including conduit installed under this section for others, shall be provided with solid steel pull wire or nylon pull cord.
- G. Watertight conduit expansion joints, bonding jumpers, etc., shall be provided wherever the construction dictates such devices.
- H. Conduit accessories such as outlet boxes, condulets, bends, fittings, etc., shall be manufactured by Appleton, Steel City, Russell and Stoll, Raco, Crouse Hinds or Midwest.
- I. All outlet and device boxes shall be flush mounted in areas with finished surfaces. They shall be rigidly attached to the structure by means of steel straps or channels. Boxes shall be aligned true to building lines. Listed mounting heights and

dimensions shall be to the centerline of the box.

31. JUNCTION BOXES AND ACCESS DOORS

- A. Junction boxes, other than those furnished integrally with specific items of equipment or described elsewhere in the contract documents, shall be furnished and installed as required and shall be in strict accordance with NEC guidelines. Boxes shall be of minimum 12 ga. galvanized steel and shall have removable covers fastened with flat head countersunk bolts on maximum 8" centers. Note that where construction conditions dictate, junction boxes shall be watertight.
- B. Junction boxes shall be labeled to indicate circuits within. Use black permanent markers with minimum 1" letters. Such markers shall be visible from point(s) of accessibility.
- C. All boxes shall be installed in accessible locations or shall be provided with a suitable means of access. Where other acceptable means of access is not available, provide approved access doors of the proper size and type to meet accessibility requirements for the equipment involved.
- D. Access doors in rated walls and plastered, gypsum board or similar ceilings that are rated shall be fire rated as required. They shall meet NFPA requirements and carry the UL 1-1/2 hour "B" label. Construction shall incorporate a minimum 20 ga. Steel insulated panel door, self-latching lock and continuous hinge. These doors shall be factory treated with a rust inhibitor and given a baked enamel primer.
- E. Access doors for other plastered surfaces shall be similar to Milcor Style K or L with 16 ga. steel frame and 14 ga. steel panel. A 22 ga. casing bead shall surround the frame and the unit shall be finished similar to the labeled doors.
- F. Access doors for all other construction conditions shall be all aluminum with extruded frame. Doors shall have a continuous hinge and flush latch. The units shall have a brush satin finish and shall be of a model suitable for the type of construction in which they are installed.
- G. Access doors shall be as manufactured by Acudor, Cierra, Karp, Larsen's or Milcor.

32. GROUNDING

- A. Provide a complete grounding system as required to conform to the latest standards and to comply with all pertinent articles of the N.E.C.
- B. Equipment grounding conductors shall be run with the circuit conductors and shall consist of insulated solid or stranded copper conductors. No conduit grounding methods will be permitted.

- C. All grounding system connections shall be exothermically welded. Installation shall be made in strict accordance with manufacturer's instructions, utilizing the proper mold, miscellaneous supplies, etc. for each connection. All material used, including mold, weld material, tools and accessories, shall be supplied by one manufacturer. The connection material shall be by Cadweld, Thermoweld, or approved equal.
- D. Submit, for review, a written description of the method or methods to be used for grounding and the extent of the standards being implemented, taking into account the necessity for full compliance to applicable codes, ordinances and utility company requirements.

33. SLEEVES AND THIMBLES

- A. In general, sleeves thru outside walls shall be of minimum 16 ga. galvanized metal or PVC pipe and shall be large enough to permit packing with picked oakum. The final 3" from the inside and outside faces of the wall shall be caulked with lead or waterproof plastic.
- B. Sleeves shall be set for bus duct openings cut in masonry where required to conceal rough or irregular edges or for openings in non-masonry walls, partitions, etc. Sleeves shall be of galvanized sheet metal with flanged ends and shall be securely mounted in place. Voids between masonry and sleeve shall be filled with mortar. Openings between bus duct and structure, wall or sleeve shall be filled with a sealant as described below.
- C. Provide thimbles wherever exposed conduit, etc., pass thru interior non-masonry walls, partitions, etc. They shall be telescoping type, made from 22 ga. galvanized sheet metal and of minimum size. Thimble ends shall have cast or stamped metal plates attached thereto. Floor penetrations shall be lined with thimbles extending above the floor line.
- D. In all cases where conduit passes between floors, rated walls, and/or rated partitions, the spaces between the structure or sleeve and the penetrating member shall be provided with an approved firestop sealant to produce a fire, smoke, and water barrier. Sealant material and installation shall be as described in Item FIRESTOPPING.
- E. Individual inserts (concrete expansion anchors) shall conform to applicable requirements of Federal Specification FF-S-325. Embedment, anchor length and size shall be in accordance with manufacturer's recommendations. Anchors 3/8" thru 3/4" shall be U.L. listed for conduit hangers.
- F. Conduit penetrations of walls, floors, etc. in exposed areas shall be provided with escutcheons. They shall have concealed hinge and set screw and shall be securely attached to the conduit. In finished areas, escutcheons shall be polished brass or chrome plated steel. In mechanical or service areas, escutcheons shall be

galvanized cast iron. Floor penetrations shall be provided with deep pattern floor plates set flush with the floor and designed to cover the entire sleeve projection. Note: Where required by code considerations, non-metallic sleeves shall be covered by escutcheons.

- G. Penetrations thru the roof structure shall be carefully made (see Item CUTTING AND PATCHING) and located in designated areas only. Pitch pockets shall be utilized as required to eliminate any chance of moisture penetration. They shall be made from 16 oz. sheet copper (ASTM B 370, temper H00) and shall extend approximately 4" above the finished roof.

34. FIRESTOPPING

- A. Furnish and install the required firestopping as referenced in the item of the specifications covering inserts and sleeves. Materials, installation, etc., shall be as described below. Products shall be as manufactured by Hilti Inc., Specified Technologies Inc. or United States Gypsum Co.

- B. Definition:

- 1. Firestopping is defined as the material or combination of materials used to retain integrity of fire-rated construction by maintaining an effective barrier against the spread of flame, smoke, water and hot gases through penetrations in fire rated wall and floor assemblies.

- C. Application:

- 1. Tested firestop systems shall be used for all penetrations for the passage of ductwork and piping through floors, fire-rated vertical barriers (walls and partitions), horizontal barriers (floor/ceiling assemblies), and vertical service shaft walls and partitions.

- D. Quality Assurance:

- 1. A manufacturer's direct representative (not distributor or agent) shall be on site during initial installation of firestop systems to train appropriate contractor personnel in proper selection and installation procedures. This will be done per manufacturer's written recommendations published in their literature and drawing details.
 - 2. Firestop system installations must meet requirements of ASTM E-814, UL 1479 or UL 2079 tested assemblies that provide a fire rating equal to that of construction being penetrated. In addition, proposed firestop materials and methods shall conform to applicable governing codes having jurisdiction.
 - 3. For those firestop applications that occur for which no UL tested system

is available through any manufacturer, a drawing representing the manufacturer's engineering judgment, derived from similar UL system designs or other tests, shall be submitted to local authorities having jurisdiction for review and approval prior to installation. Engineer judgment drawings must follow current requirements set forth by the International Firestop Council.

E. Submittals:

1. Manufacturer's submittals shall include specifications and technical data for each type of material including its composition and limitations, documentation of UL firestop systems to be used and manufacturer's installation instructions to comply with Section 1300. The submittal shall also include material safety data sheets as well as any engineering judgement drawings previously approved by local authorities.

F. Installer Qualifications:

1. The firestop system installer must be certified, licensed, or otherwise qualified by the firestopping manufacturer as having the necessary experience, staff, and training to install manufacturer's products per specified requirements as previously stated in Quality Assurance.

G. Requirements:

1. All holes, voids, miscellaneous openings, etc., made by penetrations in floor slabs (above grade) for systems provided under this section shall be completely sealed to insure water tight integrity. Installation of firestopping shall be scheduled after completion of penetrating item installation but prior to covering or concealing of openings.
2. Provide firestopping utilizing components that are compatible with adjacent surfaces, the substrates forming openings, and the items penetrating the firestopping under conditions of service and application as demonstrated by the firestopping manufacturer, based on testing and field experience. Note that materials containing flammable solvents shall not be used.

H. Materials:

1. Use only firestop products that have been UL 1479, ASTM E-814, or UL 2079 tested for specific fire-rated construction conditions conforming to construction assembly type, penetrating item type, annular space requirements, and fire-rating involved for each specific application.
2. For penetrations by combustible items (penetrants consumed by high heat and flame) including insulated metal pipe that is PVC jacketed, flexible

cable or cable bundles and plastic pipe (closed piping systems), an Intumescent material is required to maintain fire rating of the assembly penetrated.

3. A firestop system with an "F" rating as determined by UL 1479, ASTM E814 or UL 2079, which is equal to the time rating of the construction being penetrated, must be utilized.

I. Preparation:

1. Surfaces to which firestop materials will be applied shall be examined for detrimental conditions. They shall be free of any substances that may effect proper adhesion.
2. Observe and comply with manufacturer's recommendations for temperature and humidity conditions before, during and after installation of firestopping.

J. Installation:

1. Firestop materials shall be installed in accordance with published recommendations listed under the heading "Through-Penetration Firestop Systems" in the UL Fire Resistance Directory. In addition, the manufacturer's instructions for installation of through-penetration materials shall be strictly followed.
2. Consult with the engineer prior to installation of any UL firestop systems that might hamper the performance of fire dampers as they pertain to duct work.

K. Miscellaneous:

1. Sealed penetration areas shall be checked thoroughly to ensure proper installation before concealing or enclosing said areas.

35. WIRING DEVICES AND PLATES

A. All wiring devices shall be furnished in strict accordance with the catalog numbers listed on the drawings and here-in specified.

B. Switches:

1. Light switches shall be flush wall mounted, side and back wired design with ivory toggle. They shall be rated 20 amp - 120/277 volt AC, specification grade. Toggles shall be of high impact thermoplastic such as nylon. The following table lists acceptable manufacturers along with their appropriate catalog numbers for the various switch types.

	<u>Hubbell</u>	<u>P & S</u>	<u>A-H / Cooper</u>	<u>Bryant</u>
1-pole	1221	20AC11991	4901	
3-way	1223	20AC31993	4903	
Pilot Lt.	1221PL	20AC1-RPL	2999R	4901PL
Illum.	1221ILC	20AC1-ISL	1891IL	4901ILC

C. Receptacles, General:

1. All receptacles shall be flush wall mounted unless otherwise approved. The mounting heights are from centerline of device above finished floor. Standard mounting heights are listed on the legend and non-standard are shown on the plan.

D. Convenience Receptacle, General Purpose:

1. Receptacle shall be a duplex 20 amp, 120 volt, 3 wire grounding type. The face shall be of high impact thermoplastic such as nylon. The strap shall wrap around the device. Ground contacts shall be mounted to the strap. An auto- ground clip shall be provided. The device shall be a Hubbell 5352-I, P & S 5362-I, A-H/Cooper 5735-1, Sierra 1462, or Bryant 5352-I.

E. GFCI Receptacle:

1. This device shall be provided where indicated on the drawings and shall be a Hubbell GF5352-I, P & S 1591-FI, A-H/Cooper GF5342-I, or Bryant GF5262R.

F. Wall Plates:

1. Provide wall plates for each device application. Standard plates shall be smooth thermoplastic such as nylon, Lexan, or glass-reinforced polyester. Unless otherwise indicated, plate color shall match the device color. All materials shall meet appropriate design and test requirements of NEMA-WD1-1974 as well as UL Plates shall be Hubbell series P, Sierra series RP, or approved equal.
2. Weatherproof covers shall be of cast aluminum or stainless steel construction. Use Hubbell WP8M "In-Use Coverplate" or approved equal.
3. Device plates shall have identification as described in item EQUIPMENT

IDENTIFICATION.

4. Plates shall be attached by metal screws finished to match plate color.
5. Plates shall be installed in a vertical position, unless otherwise indicated, with an alignment tolerance of 1/32".

36. MISCELLANEOUS EQUIPMENT CONNECTIONS

- A. Various items of computer equipment will be furnished and set in place by others. This equipment, unless otherwise shown on the drawings, will be furnished with necessary electrical plugs, operating and control switches, terminations in an electrical outlet box, or equivalent electrical connector located on the equipment. This Contractor shall furnish power wiring and outlets to these various items of computer equipment.
- B. Disconnect switches shall be installed in an accessible location. Switches within finished areas, shall be located in an inconspicuous place. Under-counter installation of disconnect switches is preferred to locations above counter. However, care shall be taken that such switches will be accessible and that their location does not interfere with the installation of equipment.
- C. Roughing-in drawings for equipment shall be obtained from the other Contractors, etc. through the Engineer as the time approaches when such equipment is required. (Allow a reasonable period from the time of notice to secure this information.)

37. TEMPORARY SERVICE FOR CONSTRUCTION

- A. Utilize existing facilities for temporary power. Coordinate with Owner's representative prior to use of any existing facilities.
- B. Contractors on the project will provide their own electrical cords and plugs up to a capacity of 20 amperes. However, services for larger items of equipment and for welding machines shall be provided, as requested, under this section of the work. Reimbursement will be made by the contractor requesting such service.
- C. Upon completion of the project, the disconnecting of all temporary circuits and the removal of all temporary wiring from the permanent system shall be done under this section of the work. The continuation of the warranty for the system, or any part thereof, shall not be affected by the foregoing.

38. DIGITAL ADDRESSABLE FIRE ALARM SYSTEM

Part 1 – General

- A. Provide all permits, labor, equipment, materials and services to furnish and install

a fully tested functional, UL Listed, code compliant, intelligent addressable networked fire alarm, emergency communications system, including but not limited to all initiation and notification appliances, all raceways and wiring, connection to a central monitoring station.

- B. The system supplied under this specification shall utilize modular low voltage design with direct wired, panel to panel, IPv6 communications. The system shall utilize independently addressed, fire detection devices, input/output control modules, audio amplifiers, telephone communications and notification appliances as described in this specification. Network panels shall contain the required user interfaces for all functions.
- C. Also included are system wiring, raceways, pull boxes, terminal cabinets, mounting boxes, and any accessories and miscellaneous items required for a code compliant system.
- D. The system drawings show the intended coverage and suggested device locations. Final device quantity, location, and AHJ approval are the responsibility of the contractor.
- E. The final system shall be complete, tested, and ready for operation as described elsewhere in this specification, before owner acceptance.
- F. Strict conformance to this specification is required to ensure that the installed and programmed system will function as designed, is compatible with existing systems, and will accommodate the future requirements and operations of the building owner. All specified operational features must be met without exception.

1.1. Summary

- A. General Alarm: A system general alarm shall include:
 - 1. Indication of alarm condition at the FACP.
 - 2. Identification of the device or zone that is the source of the alarm at the FACP.
 - 3. Operation of audible and visible notification devices throughout the building until silenced at FACP.
 - 4. Initiation of elevator recall in accordance with ASME/ANSI A17.1, when specified detectors or sensors are activated.
- B. Apartment alarm:
 - 1. A smoke detector inside an apartment sets off a local alarm, including all rooms in each suite, and annunciates at the main fire alarm control panel.

Alarm condition inside an apartment sounds individual room alarm only including all rooms in each suite. Alarm shall not activate building signaling appliance.

2. Once the smoke enters a common/public area then the building alarms shall go into alarm.
3. If any sprinkler in the building goes off or a pull station is activated, the building alarms will go into alarm.

1.1.1. Fire and MN

- A. Provide all permits, labor, equipment, materials and services to furnish and install a fully tested functional, UL Listed, code compliant, intelligent addressable networked fire alarm, emergency communications system, including but not limited to all initiation and notification appliances, all raceways and wiring, connection to a central monitoring station.
- B. The system supplied under this specification shall utilize modular low voltage design with direct wired, panel to panel, IPv6 communications. The system shall utilize independently addressed, fire detection devices, input/output control modules, audio amplifiers, telephone communications and notification appliances as described in this specification. Network panels shall contain the required user interfaces for all functions. All equipment shall be new and the current products of a single manufacturer, actively engaged in the manufacturing and sale of digital fire detection devices for over ten years.
- C. Also included are system wiring, raceways, pull boxes, terminal cabinets, mounting boxes, and any accessories and miscellaneous items required for a code compliant system.
- D. The system drawings show the intended coverage and suggested device locations. Final device quantity, location, and AHJ approval are the responsibility of the contractor.
- E. The final system shall be complete, tested, and ready for operation as described elsewhere in this specification, before owner acceptance.
- F. Strict conformance to this specification is required to ensure that the installed and programmed system will function as designed, is compatible with existing systems, and will accommodate the future requirements and operations of the building owner. All specified operational features must be met without exception.

1.2. System Description

1.2.1. General Fire

- A. The system supplied under this specification shall be a new UL Listed modular Life Safety platform capable of supporting the functions required by fire alarm, mass notification that uses independently addressed fire detection devices, input/output control modules, amplifiers, speakers and notification appliances.
- B. The network shall utilize IPv6 for panel to panel and panel to annunciator communications and shall support communications to occur over a single copper pair or single fiber strand. The network shall consist of a main panel and multiple remote Autonomous Control Unit/Fire Alarm Control Panels (ACU/FACP). To enhance survivability, each panel shall be an equal, active functional member of the network, capable of making all local decisions and initiating network tasks for other panels. In the event of a panel failure or communications failure between panels, panels shall be capable of forming sub-networks and remain operational between communicating panels.
- C. The system shall be fully field programmable such that virtually any combination of system output functions may be correlated to any type of input event(s). Inputs may be combined using Boolean logic, be time dependent or under manual control, as defined by required system operation. All software operations shall be stored in a non-volatile programmable memory within the fire alarm control panels. There shall be no limit, other than maximum system capacity, as to the number of addressable devices which may be in alarm simultaneously.
- D. Addressable smoke detector sensitivity settings for both pre-alarm and alarm activation shall be automatically individually configurable for both daytime and nighttime operation. Addressable smoke detectors shall be UL listed for automatic sensitivity testing.
- E. Ease of maintenance shall be facilitated by the use of panel based and PC based system diagnostics.
 - 1. The system shall automatically test smoke detector sensitivity, eliminating the need for manual sensitivity testing.
 - 2. Ground fault detection and annunciation shall be by individual module address for supervised input and output devices.
 - 3. System test operation shall be configurable by individual addressable devices, and not disable entire circuits.
 - 4. The system shall be capable of generating a graphical map of connected addressable devices to aide in circuit troubleshooting.

5. Placement supervision of addressable devices shall couple a device's location (not its address) to the programmed system response.
- F. The system shall be designed, inspected, tested and approved to provide occupant notification audibility levels of 15 dBA over ambient conditions. Intelligibility shall be designed to ensure Common Intelligibility Standard (CIS) rating of 0.7 or Sound Transmission Index of 0.5 in all areas designated on the drawings to have intelligible audio.
- G. The system shall provide a one-way multi-channel emergency communication sub-system for the distribution of emergency messages to facility occupants.
- H. The system shall support Carbon Monoxide (CO) detection devices with appropriate independent annunciation and signal processing.
- I. The system shall interface with other building systems as required by the fire codes.
- J. The system shall transmit required signals to a central monitoring station.
- K. The existing fire alarm shall be removed and discarded and new control panels, power supplies, audio/visual indicating appliances and related equipment shall be installed as specified.

1.2.2. Fire Alarm Performance

1.2.2.1. General Requirements

- A. Comply with the provisions of NFPA 72 and the operational requirements of this specification.
- B. The system shall identify all off normal conditions and log each condition into the system as an event.
 - a. The system shall automatically display on the control panel Color Liquid Crystal Display (LCD) the first (oldest) event of the highest priority by type. The event priority shall be alarm, supervisory, trouble, and monitor.
 - b. The display shall incorporate a touch screen to aid in navigation between event types and system operation.
 - c. The system shall not require a user to navigate the LCD display to operate the main control functions of (Panel Silence, Alarm Silence, and Reset). These controls shall be located near the LCD display, be easily found, be tactile in nature and be provided with color coding and be local language/dialect adaptable, operation of the switch shall provide illuminated feedback of the switch activation.

- d. The touch screen option of the LCD display must be operable without the use of a stylus and must be resistive in nature, capacitive touch screens shall not be considered as operationally equivalent. A minimum of 8 events must be visible on the LCD without operator intervention.
- e. The system shall utilize a minimum of ten color coded event queues on the LCD screen to group event types.
- f. The system shall provide the following event queues as a minimum each to include a count of active events for the queue type including a visible indicator showing if events have not been reviewed: Alarm, Emergency, Supervisory, Disable/Test, Trouble, Ground Fault, Monitor, FirePhone call in, Requested/Granted control.
- g. Labeled, color coded indicators shall be provided for each of the following event groups in addition to the LCD queues, indicators shall be provided for alarm - red, supervisory - yellow, trouble - yellow, monitor - Green. The colors used for display of events shall follow the Federal Standard 595 Safety Color chart using the following colors: red (11120), yellow (13591), green (14120), and blue (15092). When an unviewed event exists for a given type, the queue indicator shall be marked.
- h. For each event, the display shall include a sequential event number, time stamp, the type of event, and a minimum of 40 character custom user location description.
- i. The display shall support a rich set of Unicode symbols to better define messaging including but not limited to radioactive symbol, poisonous substances (skull and crossbones) symbol, biological hazard symbol and Caduceus symbol.
- j. The user shall be able to review each event queue by simply selecting scroll arrows (up-down) or 'swipe' navigation for the event type.
- k. New alarm, supervisory, or trouble events shall sound a distinct, silenceable audible signal at the control panel. Silenced audible signal will resound in a time period acceptable to the AHJ if off normal condition has not been resolved.
- l. The LCD shall show the system time and disabled points in the system.
- m. Specific input/output devices shall operate in accordance with the alarm, supervisory, trouble, monitor sections that follow and the input/output matrix.
- n. A detailed report of specific off normal conditions shall be accessible directly from the displayed event.

- o. For disabled devices the ability to select the disable event, view details and enable the device shall be accomplished in no more than 3 screen touches.
- C. All critical systems, sub-systems and circuits shall be monitored for integrity. System faults shall be annunciated.
- D. Strobes shall be synchronized on each floor.
- E. Audio shall be synchronized on each floor.
- F. Batteries shall be sized to support the system for 24 Hrs. of standby operation followed by 15 minutes of alarm operation at the end of the 24 Hour period. Battery sizing calculations shall include a minimum of 20% oversizing or as defined elsewhere in this specification.
- G. Off premises reporting of the loss of AC mains power to any system component shall be automatically delayed for a period of time acceptable to the AHJ to reduce traffic at the central monitoring station due to wide-area power failures.
- H. The system shall provide configurable service groups to facilitate “one man” testing of the system based on the physical layout of the building. Each service group shall be capable of supporting any combination of system devices, independent of the circuit on which they are installed. Systems that disable entire circuits, circuits serving multiple floors or fire zones for testing shall not be considered as equal. Activated or faulted devices and circuits in a service group shall be capable of initiating alternative system test responses to facilitate system maintenance and minimizing occupant disturbances while in test mode.
- I. Event processing and display shall be prioritized as follows:
 - 1. Life Safety
 - b. Property Safety
 - c. Supervisory/System Integrity events
 - d. All other events

1.3. Submittals

1.3.1. Submittal General

- A. The contractor shall not purchase any equipment for the specified system until the owner has approved the project submittals in their entirety and has returned them to the contractor.
- B. Approved submittals allow the contractor to proceed with the installation and shall

not be construed to mean that the contractor has satisfied the requirements of these specifications.

- C. Each submittal shall include a detailed list of variations that the submittal may have from the requirements of the contract documents.
- D. The contractor shall provide specific notation on each shop drawing, sample, data sheet, installation manual, etc. submitted for review and approval, of each variation.
- E. Any conflicts in the contract documents and/or with Authority Having Jurisdiction (AHJ) requirements shall be submitted to the owner in writing 7 days prior to bid.
- F. Submittals shall be approved by authorities having jurisdiction prior to submitting them to the Architect.

1.4. Handling

1.4.1. Delivery and Storage

Receiving

- A. The Contractor shall be responsible for all receiving, handling, and storage of his materials at the job site.
- B. Overnight storage of materials is limited to the assigned storage area. Materials brought to the work area shall be installed the same day, or returned to the assigned storage area unless previously approved by the Owner.
- C. The Contractor shall remove rubbish and debris resulting from his work on a daily basis. Rubbish not removed by the Contractor will be removed by the Owner and back-charged to the Contractor.

1.5.1. Responsibility

- D. It shall be the contractor's responsibility to inspect the job site and become familiar with the conditions under which the work will be performed.
- E. A pre-bid meeting will be held to familiarize the contractors with the project. Failure to attend the pre-bid meeting may be considered cause for rejection of the contractor's bid. The minutes of this meeting will be distributed to all attendees and shall constitute an addendum to these specifications.
- F. All work may be conducted during normal working hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, or as agreed to with Owner.

1.6. Warranty

1.6.1. Installation Workmanship and Parts

- A. The contractor shall warranty the installation and workmanship for one (1) year and all parts for thirty-six (36) months from date of final acceptance. A copy of the manufacturer's warranty shall be provided with closeout documentation and included with the operation and installation manuals. The full cost of maintenance, labor and materials required to correct any defect during the warranty period shall be included in the submittal bid.
- B. During the warranty period, each year the contractor shall perform detector sensitivity testing and provide a report to the owner. If the system is UL Listed to perform automatic detector sensitivity testing without manual intervention, and if a detector falls outside of sensitivity window the system automatically indicates a devices trouble, then this requirement shall be waived. Documentation from UL shall be provided as proof of automatic sensitivity testing operation.
- C. The system supplier shall maintain a service organization with adequate spare parts stock within 75 miles of the installation. Provide a telephone response to owner's questions within 4 hours and on-site assistance within 24 hours.
- D. Permit the owner's fire alarm technicians to perform temporary bypasses and emergency repairs on the system without voiding the warranty.

1.7. Startup and Commissioning

1.7.1. Test and Inspection

- A. Testing, general
 - 1. In addition to tests required in this section, the contractor shall perform all electrical and mechanical tests required by the equipment manufacturer, the architect and the authority having jurisdiction.
 - 2. The contractor shall perform all testing in occupied facilities at times of day that present the lowest impact and disruption to business and activities. Coordinate all testing in occupied buildings with the building owner's representative to assure that fire alarm system testing does not interrupt operations. This may require extensive after hours work to perform such testing.
 - 3. All equipment, instruments, tools and labor required to conduct the system tests shall be provided by the installing contractor. At a minimum, the following equipment shall be made available for testing:
 - a. Ladders and scaffolds as required to reach all installed equipment.
 - b. Meters for reading voltage, current and resistance.
 - c. Two-way communication devices

- d. Simulated smoke, heat-producing devices for heat detectors, extension poles for introducing smoke into detectors, as needed.
 - e. Manufacturer's instruments to measure air flow through duct smoke detectors.
 - f. Decibel meter and intelligibility testing equipment.
 - g. Status and diagnostic software and PC.
- B. All testing shall utilize a written acceptance test plan for testing the system components and operation in accordance with NFPA 72 and this specification. The contractor shall be responsible for the performance of the acceptance test plan, demonstrating the function of the system and verifying the correct operation of all system components, circuits, and system programming.
1. The systems operation matrix created by the equipment supplier shall be used to identify each alarm input and verify all associated output functions.
- C. The system test plan shall include but not be limited to the following:
1. Visually inspect all wiring.
 2. Verify the absence of unwanted voltages between circuit conductors and ground. The tests shall be accomplished at the preliminary test with results available at the final acceptance test.
 3. System wiring shall be tested to demonstrate correct system response for the following conditions:
 - a. Open, shorted and grounded signal line circuits.
 - b. Open, shorted and grounded notification appliance circuits.
- D. System indications shall be demonstrated as follows:
1. Correct message content for each alarm input at all system displays.
 2. Correct annunciator light for each alarm input at each graphic display.
 3. Correct history logging for all system activity.
 4. Correct sensitivity for all smoke detection devices. The use of system generated sensitivity reports is acceptable in meeting this requirement.
 - a. Correct signals sent to the Central Monitoring Station.
 5. Notification appliances shall be demonstrated as follows:

- a. All alarm notification appliances actuate as programmed
 - b. Audibility and visibility at required levels. The system shall be tested for interior building audibility of 15 dBA-fast over ambient condition and intelligibility. Intelligibility shall be tested to ensure Common Intelligibility Standard (CIS) rating of 0.7 or Sound Transmission Index of 0.5 in all areas designated on the drawings to have intelligible audio. The mean value of at least 3 readings shall be required to compute the intelligibility score at each test location.
 - c. HPSAs shall be tested for an outside audibility level of 15 dBA-fast over ambient condition and intelligibility. Intelligibility shall be tested to ensure Common Intelligibility Standard (CIS) rating of 0.7 or Sound Transmission Index of 0.5 in outdoor areas during normal weather conditions. Intelligibility may be less than 0.7 CIS in areas of the zone if it can be determined that a voice signal is being broadcast and an individual could walk less than 164 feet to find a location in the zone with at least 0.7 CIS. Values of 0.65 through 0.74 shall be rounded to 0.7. The mean value of at least 3 readings shall be required to compute the intelligibility score at each test location.
 - d. For 24VDC NACS, measure and record the voltage at the most remote appliance on each notification appliance circuit, while operating.
6. System control functions shall be demonstrated as follows:
- a. In accordance with the system operation matrix.
7. System off premises reporting functions shall be demonstrated as follows:
- a. Correct information received for each alarm and trouble event.
8. Secondary power supply (battery) capacity capabilities shall be demonstrated as follows:
- a. System battery voltages and charging currents shall be measured and recorded at the fire alarm control panels.
 - b. System primary power shall be disconnected for 24 hours. At the end of that period, an alarm condition shall be created and the system shall perform as specified for a period of 5 minutes.
 - c. System primary power shall be restored for forty-eight (48) hours.

d. System battery voltages and charging currents shall again be measured and recorded at the fire alarm control panels.

9. Verify the "As Built" record drawings are accurate.

E. Preliminary Testing

1. Conduct preliminary tests to ensure that all devices and circuits are functioning properly. Tests shall meet the requirements of the written test plan. Correct any deficiencies, omissions or anomalies and retest the affected devices to assure proper function per the specification.

F. Acceptance Testing

1. A final acceptance test shall not be scheduled until the system manuals are provided to and approved by the owner and the following are provided at the job site:

a. "As Built" record drawings of the system as actually installed

b. A copy of the system operation matrix.

2. The acceptance inspector shall use the system "As Built" record drawings in combination with the system operation matrix and the written acceptance test plan during the testing to verify system operation.

3. Should the system not perform to the above criteria it shall not be accepted and the contractor shall correct all deficiencies and shall re-test the system at contractor's expense in the presence of the architect using the same test criteria.

4. The building owner's representative shall witness the final tests.

5. The central monitoring station and/or fire department shall be notified before final test in accordance with local requirements.

6. Operate every installed device to verify proper operation and correct annunciation at control panel.

7. Open signaling line circuits and notification appliance circuits in at least 2 locations to verify presence of supervision.

G. Test Reports

1. A "Fire Alarm System Record of Completion" per the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA72 and the "Inspection and Testing Form" in the "Records" Section of the

"Inspection, Testing and Maintenance" Chapter in NFPA72 shall be prepared by the Contractor. Submit three (3) copies to the Architect. The report shall include, but not be limited to:

A list of all equipment installed and wired.

Certification that all equipment is properly installed and functions and conforms with these specifications.

Sensitivity settings for each smoke detector as measured in place with the HVAC system operating.

Technician's name, certificate number and date.

1.7.2. Training

- A. The system supplier shall schedule and present a minimum of eight (8) hours of formal site specific instruction for the building owner, detailing the proper operation and maintenance of the installed system.
- B. The instruction shall be presented in an organized and professional manner by a person factory trained in the operation and maintenance of the equipment and who is also thoroughly familiar with the installation.
- C. The instruction shall cover the schedule of maintenance required by NFPA 72 and any additional maintenance recommended by the system manufacturer.
- D. Copies of all training aids, presentations, etc. shall be left with the owner.

1.8. Maintenance

1.8.1. Spare Parts

- A. The contractor shall furnish the following extra material that matches the products installed. Spares shall be packaged with protective covering for storage and identified with labels describing contents.
- B. Automatic detection devices - Two (2) percent of the installed quantity of each type, no less than one piece.
- C. Manual fire alarm stations - Two (2) percent of the installed quantity of each type, no less than one piece.
- D. Glass rods or panels for break glass manual fire alarm stations - Ten percent of the installed quantity, but no less than two devices.
- E. Audible and visible devices - One (1) percent of the installed quantity of each type, but no less than two (2) devices.

- F. Keys - A minimum of three (3) sets of keys shall be provided and appropriately identified.

1.8.2. Maintenance Contract

- A. The supplier shall offer for the owner's consideration at the time of system submittal a priced inspection, test, maintenance and repair agreement for the installed system in compliance with the inspection and maintenance requirements of NFPA 72 for a period of 12 months, to commence after the expiration of the maintenance agreement included in this contract.
- B. The owner shall have the option of renewing the agreement at the price quoted, in yearly increments up to a maximum of five (5) years.

2. Part 2 - Products

2.1. Acceptable Manufacturers

- A. The manufacturer of the system equipment shall be regularly involved in the design, manufacture, and distribution of the products specified in this document. These processes shall be monitored under a quality assurance program that meets ISO 9000/9001 requirements.
- B. The catalog numbers used are those of EDWARDS, a UTC Company or equal, and constitute the type and quality of equipment to be furnished. For a list of EDWARDS authorized fire alarm vendors, contact: <http://edwardsfiresafety.com>
- C. All products used shall be of a single manufacturer. All products shall be listed by the manufacturer for their intended purpose. Submission of notification appliances, auxiliary relays, or documentation from other than a single manufacturer shall not be acceptable and will be grounds for immediate disapproval without comment.
- D. Approved Products: All panels and peripheral devices shall be of the standard product of single manufacturer and shall display the manufacturer's name of each component. The catalog numbers specified under this section are those of EDWARDS, a UTC Company, and shall constitute the type, product quality, material and desired operating features.

2.2. Fire Alarm Panel

2.2.1. General - Fire

Overview

- A. All materials, equipment, accessories, devices and other facilities and appurtenances covered by these specifications or noted on the drawings shall be new, best suited for the intended use and shall conform to applicable and recognized

standards for their use, and supplied by a single manufacturer. Should any equipment provided under this specification be supplied by a different manufacturer, that equipment shall be recognized compatible by BOTH manufacturers and listed as such as required by Underwriters' Laboratories.

- B. The fire alarm control panel(s) shall be a multi-processor based networked system designed specifically for fire, one-way and two-way emergency, and audio communications. The control panel shall be listed and approved for the application standard(s) as listed in the References section of this specification.
- C. The control panel shall include all required hardware, software and site specific system programming to provide a complete and operational system. The control panel(s) shall be designed such that interactions between any applications can be configured, and modified using software provided by the manufacturer. The control panel(s) operational priority shall assure that life safety takes precedence among the activities coordinated by the control panel.
- D. The operating controls shall be located in a dead-front steel enclosure behind a locked door with viewing window. All control modules shall be labeled, and all zone locations shall be identified. All panel modules shall be placement supervised and signal a trouble if damaged or removed.
- E. System Features
- Each control panel shall include the following capabilities:
1. Support multiple languages / dialects.
 2. Supervision of the system electronics, wiring, detection devices and software
 3. Up to 2500 analog/addressable input/output points
 4. Network, a dedicated IPv6 configuration and support mesh configuration.
 5. Network configuration support for Class A, Class B, Class X, Class N.
 6. Network physical media connections via fiber, twisted pair, or CAT5 in any combination.
 7. Network distance between two panels up to 3,280ft using CAT5 wire, 5,000 feet using twisted pair wire.
 8. Networks deployed with CAT5 wire shall support Class A, Class B, Class X, Class N, mesh wiring topologies.
 9. Network support for back-to-back pass through degraded-mode operation

for media to media applications.

10. Network back-to-back pass through shall maintain network connectivity on power down or catastrophic failure of a single panel.
11. The ability to download all applications and firmware from the configuration computer at a single location on the fire network.
12. The ability to upload project files from any location on the fire network
13. Panel time, panel audible signal patterns, and indicator flash rates are synchronized across the network.
14. Connections to outside systems shall be made via a listed for the purpose firewall interface.
15. Support multiple dialers (DACTs) and modems, IP communication to the central station and cellular connections.
16. Support multiple IP connections to external services including, central stations, email servers, web interfaces, and reports.
17. Email messages support multiple languages in native characters and match the languages supported in the panel.
18. Email messages support symbolic and color alarm event high lighting.
19. System reports provide a graphical representation of sensitivity thresholds, detector dirty level and CO Life left.
20. An internal audible signal with different patterns to distinguish between alarm, supervisory, trouble and monitor events
21. Support multiple 24 VDC and Audio NACs
22. Configurable switches and LED indicators to support auxiliary functions with software selectable LED colors of Red, Yellow, Blue, Green or White.
23. User interface through color touch screen LCD display.
24. Log up to 20,000 chronological events
25. A real-time clock for time stamps and timed event control with onboard power back-up
26. Electronic addressing of intelligent addressable devices
27. Provide an independent hardware watchdog to supervise software and CPU

operation

28. The ability for “Dry” alarm, trouble and supervisory relay contacts
29. Control panel modules shall plug into a chassis assembly for ease of maintenance
30. Field wiring shall connect to the panel using removable connectors

F. User Oriented Features

Each control panel shall include the following user oriented features:

1. A color touchscreen LCD user interface control/display that shall annunciate and control system functions.
2. Provide discreet system control switches for reset, alarm silence, panel silence, drill switch, these system control switches shall be constructed of a silicon rubber to provide tactile feedback and include an accompanying indicator that shall provide additional visual feedback of switch activation. Overlay style embedded switches are not considered equal.
3. The reset, alarm silence, panel silence and drill system control switches shall provide color coding for ease of distinguishing one from the other.
4. Color LCD shall provide visibility of 8 events hands free. Each event can include a minimum 40 character site specific location text. The LCD allows the use of on screen scrolling via display switches or by ‘swiping’ the display screen.
5. A “lamp test” feature shall verify operation of all visual indicators on the panel and a visual test of the LCD.
6. An authorized user shall have the ability to operate or modify system functions including system time, date, passwords, holiday dates, restart the system and clear control panel event history file.
7. An authorized user shall have the ability to disable/enable devices, zones, actions, timers and sequences.
8. An authorized user shall have the ability to activate/restore outputs, actions, sequences, and simulate detector smoke levels. The selection of devices, zones, actions, timers and sequences shall be made via a descriptive facility structure view removing the need for look up books or entry of numerical addresses. Systems requiring the entry of numeric addresses shall not be considered as equal.

9. An authorized user shall have the ability to enter time and date, reconfigure an external port for download programming, initiate programming and change passwords.
 10. An authorized user shall have the ability to test the functions of the installed system.
 11. Service groups shall facilitate one-man walk testing. Service/test groups shall be capable of being configured with any combination of addressable devices, independent of SLC wiring. It shall be possible to program alternate device responses when the device's service group is active. Devices not in an active service group shall process all events normally.
- A. Provide internal system diagnostics and maintenance user interface controls to display/report the power, communication, and general status of specific panel components, detectors, and modules.
 - B. SLC loop controller diagnostics shall identify common alarm, trouble, ground fault, Class A fault, and map faults. Map faults include wire changes, device type changes by location, device additions/deletions and conventional open, short, and ground conditions. Ground faults on the supervised circuit wiring of remote addressable modules shall be identified by device. Systems that provide only device address are not considered equal.
 - C. An authorized user shall have the ability to generate a report history for alarm, supervisory, monitor, trouble including restore activity.
 - D. The panel history shall support storage of up to 20,000 events. History events shall include but not be limited to Event Type, System Command operations, Date and time of the event. Reports shall be displayed locally on the panel LCD display, printed to a system printer, review through a web browser and support exporting to .xml file format.
 - E. To enhance forensic examination of history, the system shall support the ability to store the FIFO event history log into a separate region of the database, not impacted by the FIFO operation of events preventing overwriting during forensic examination of an incident. Placing an archive of the History into a separate region of the database shall not interrupt FIFO of the main history or erase any portion of the main History.
 - F. Both FIFO history and archived history shall be available for review through the panel LCD display, be printable through the system printer, retrievable through web services interfaces and be exportable as .xlm formatted file.
 - G. Web browser based History shall be easily sorted by History for today, History from yesterday, History this week, History last week, History this month, History last month, History this year, History last year, and in combinations.

- H. System reports shall provide detailed description of the status of system parameters for corrective action or for preventative maintenance programs. Reports shall be displayed by the operator interface or capable of being printed on a printer.
- I. The system shall support multiple printers on the network, printers may be configured for event printing, reports printer or a combination of tasks. Printing of reports and events shall be supported across the entire fire panel network initiated from any LCD user interface point on the network. There must be a method to cancel a report while printing.
- J. The system shall support printer connections to a panel or remote annunciators as required by the specific project requirements.
- K. Printing shall support alarm event high lighting by symbolic character on monochrome printers.
- L. The system shall support single button press printing to configured printers of an active event queue.
- M. Remote connection to the panel shall be by interconnection between the owner's existing TCP/IP network and the native fire panel IP network equipment supplied under this contract as described elsewhere in this specification.
- N. Fire panel remote connections shall include Cybersecurity measures that meet or exceed FIPS PUB 197.
- O. The system shall not use easily removable devices, such as SD cards or external memory storage for system critical information including programming and project files storage.
- P. Security relevant information, such as: failed login attempts, failed unauthorized accesses, and user modification shall be logged to panel history. Unsuccessful authentication attempts shall not leak information regarding the presence of the system or users.
- Q. The system shall only transmit credentials that are encrypted. The system shall provide for multiple users, roles to ensure proper access by user for the role they perform on the system. All passwords shall use a Cypher Algorithm, password must use a hash, no password or authentication shall be exposed in any format in the system database viewable as plain text. Sensitive information shall not be logged to history or displayed on service tools (eg. passwords, PINs etc.).
- R. The system shall support all default passwords and pass phrases being changed in order to complete the setup, prior to being operational. This includes SSID passphrases, default accounts, admin accounts, etc.
- S. No special software or hardware shall be required remotely to retrieve reports;

report shall be accessed through the use of a web browser so that any device supporting a web browser may be used.

- T. Proper authentication shall be required to access the system with a web browser.
- U. An authorized user shall have the ability to display/report the condition of addressable analog detectors. Reports shall include device address, device type, percent obscuration, and maintenance indication. The maintenance indication shall provide the user with a measure of contamination of a device upon which cleaning decisions can be made.

Programmability

- A. Windows-based Configuration Utility (CU) shall be used to create the site-specific system programming. The utility shall facilitate programming of any input point to any output point. The utility shall allow customization of fundamental system operations using initiating events to start actions, timers, sequences and logical algorithms.
 - Zoning of initiation devices.
 - Initiation of events by time of day, day of week, day of year.
 - Initiation of events by matrix groups (X-Y coordinate relationships) for releasing systems.
 - Initiation of events using OR, AND, NOT and counting functions.
 - Prioritizing system events.
 - Programmable activation of detector sounder bases by detector, groups of bases, or all bases.
 - Directing selected device messages to specific panel annunciators
 - Detector sensitivity selection by time of day
 - Support of 256 Central Monitoring Station accounts and directing selected device messages to any one of ten Central Monitoring Stations.
 - Support for event driven Email notifications
 - Support for event driven SMS notifications via SMTP servers
- B. The configuration utility shall time and date stamp all changes to the site-specific program, and shall facilitate program versioning and shall store all previous program version data. The utility shall provide a compare feature to identify the

differences between different versions of the site-specific program.

- C. The configuration utility shall be capable of generating reports which detail the configurations of all fire alarm panels, addressable devices and their configuration settings including generating electrical maps of the addressable device SLCs.
- D. The configuration utility shall support the use of bar code and QR code readers to expedite electronic addressing and custom programming functions.
- E. Please refer to the General, System Description Section for this project's site-specific system operating requirements.
- F. The fire alarm control panel shall be an EDWARDS EST4 and support components in an appropriately sized enclosure.

2.2.2. Power Supply

- A. System power supply(s) shall be a high efficiency switched mode design providing multiple supervised power limited 24 VDC output circuits as required by the panel and external loads fed by the panel. Initial power supply loading shall not exceed 80% of power supply capacity in order to allow for future system expansion.
- B. Each system power supply shall be individually supervised. Power supply trouble signals shall identify the specific supply and the nature of the trouble condition.
- C. It shall be possible to parallel system power supplies to increase capacity or to provide redundant operation.
- D. Upon failure of normal (AC) power, the affected portion(s) of the system shall automatically switch over to secondary power without losing any system functionality.
- E. All system power supplies shall be capable of recharging their associated batteries, from a fully discharged condition to a capacity sufficient to allow the system to perform consistent with the requirements of this section, in 48 hours maximum.
- F. All standby batteries shall be continuously monitored by the power supply. The power supply shall be able to perform an automatic load test of batteries and indicate a trouble condition if the batteries fall outside a predetermined range. Power supplies shall incorporate the ability to adjust the charge rate of batteries based on ambient temperatures. The power supply shall automatically disconnect the battery before low voltage damages the battery. Low battery and disconnection of battery power supply conditions shall immediately be annunciated as battery trouble and identify the specific power supply(s) affected.
- G. Batteries shall utilize sealed lead acid chemistry. Initial battery capacity shall provide 125% of calculated capacity requirements in order to allow for future

system expansion.

- H. All AC power connections shall be to the building's designated emergency electrical power circuit (if available) and shall meet the requirements of NFPA 70 and NFPA 72. The power circuit disconnect means shall be clearly labeled FIRE ALARM CIRCUIT CONTROL and shall have a red marking. The location of the circuit disconnect shall be labeled permanently inside the each control panel the disconnect serves.
- I. The power supply shall be an EDWARDS 3-PPS/M series.

2.2.3. User Interface

2.2.3.1. Audio Annunciation and Control

- A. Provide emergency audio as part of the fire alarm control. The emergency audio shall contain a paging microphone, pre-recorded messages and zoned amplifiers capable of delivering multi-channel audio messages. The system shall support a minimum of 100 audio channels. Transmission of audio shall be over the same data network cabling as the fire panel data. The network cabling shall be a dedicated single copper twisted pair to remote parts of the facility.
- B. For systems requiring multiple locations for paging control, the ability to Request/Grant/Deny page privileges shall be supported in any combination. Priorities based on wiring locations are not considered equal. Priorities shall be configured in software for operational needs between Autonomous Control Units (ACU), Central Control Station (CCS) and Local Operators Consoles (LOCs). The system shall support a minimum of 9 priority levels.
- C. Each panel shall store digitally up to 750 minutes of pre-recorded audio message files without the need to add additional memory storage devices. These messages shall be automatically played in various areas of a facility under program control. The system shall have the capacity to store up to 250 individual audio messages. The system shall support up to 100 channels of audio. An audio channel shall support up to 250 individual messages. Each panel shall support simultaneous play back of seven (7) different message channels in addition to a live page message. Systems that cause signaling devices to go silent while performing any signaling functions will not be accepted. The system shall support repeat counts of audio messages and stacking of audio messages in a FIFO configuration.
- D. During non-alarm conditions, each panel shall supervise its amplifiers, inter-panel networking shall be supervised and audio hardware shall be supervised providing total audio path supervision.
- E. Each FACP containing an audio amplifier or audio source connection shall contain its locally required pre-recorded messaging onboard. Should a fire AND a control network system failure occur, the programmed pre-recorded messages shall be

played from the locally stored data. Should local pre-recorded audio be unavailable, the local amplifiers shall provide an integral backup 1 KHz temporal tone generator which shall operate in the event primary audio signals are lost and the amplifier is instructed to broadcast alarm information. The amplifier shall support an alert pattern distinct from the evacuation temporal tone pattern.

- F. The system shall provide color LCD display to direct live paging messages as follows in any combination:
- "All Call" to direct the page messages to wide areas in the facility, overriding all other messages and tones. "All Call" shall automatically, without user intervention, not affect signaling in areas defined as 'other' nor active Mass Notification areas.
 - "Page to Evacuation Area" to direct the message to the evacuation area(s), overriding all other messages and tones.
 - "Page to Alert Area" to direct page messages to the area(s) receiving the alert message and tones, overriding all other messages and tones.
 - "Page to Balance of Building" to direct page messages to the areas in the facility NOT receiving either the evacuation area or alert area messages.
 - "Page by Phone" to select the firefighter's telephone system as the paging source.
 - "Page to Emergency" shall provide paging into areas with active Mass Notification events.
- G. The system shall support selection, in any combination, of the above audio controls
- H. The system shall provide configurable pre-announce tones for emergency and non-emergency paging. The tones shall be separate and differentiated between the two operations.
- I. The system shall automatically deliver a configurable pre-announce tone or message when the emergency operator presses the microphone PTT key for each premise/building. A 'ready to page' LED shall flash during the pre-announce phase, and turn steady when the system is ready for the user's page delivery. The system shall include a page deactivation timer which activates for 10 seconds when the emergency user release the microphone talk key. Should the user subsequently press the microphone key during the deactivation period a page can be delivered immediately. Should the timer complete its cycle the system shall automatically restore emergency signaling and any subsequent paging will be preceded by the pre-announce tone.
- J. Each paging microphone assembly shall include a three color VU meter display

indicating to the emergency operator their voice level.

- K. The system shall support line level input as an audio source. The line level input to output relationship shall be controlled through programming and it shall be possible for the input to be programmed to any output on any system channel. The system shall assign priorities to audio channels based on system programming.
- L. The fire alarm control panels shall support remote cabinets with zoned amplifiers to receive, amplify and distribute live voice paging, line level input and locally stored pre-recorded messages through speakers over supervised circuits.
- M. The system shall provide confirmation of audio channels status for pre-recorded messages, when streaming live audio or from external inputs.
- N. The emergency audio control shall consist of EDWARDS 4-MIC.

2.2.4. Signaling Line Circuits

2.2.4.1. Intelligent Addressable Device

- A. The signaling line circuit connecting panels/nodes to intelligent addressable devices including, detectors, monitor modules, control modules, isolation modules and notification circuit modules shall be Class B. All signaling line circuits shall be supervised and power limited.
- B. When the addressable devices on a signaling line circuit cover more than one designated fire/smoke compartment, a wire-to-wire short on the circuit shall not affect the operation of the addressable devices in other fire/smoke compartments.
- C. Each SLC shall support 125 addressable detector addresses and 125 module addresses. The SLC shall support 100% of all addressable devices in alarm and provide support for a 100% compliment of detector isolator bases. Initial circuit loading shall not exceed 80% in order to allow for future system expansion.
- D. T-taps (branching) shall be permitted on Class B circuits. Where possible, the devices installed at the end of each branch should be easily accessible for troubleshooting, e.g. a pull station at normal mounting height.
- E. The addressable device SLC module shall be UL Listed for use with code compliant, electrically sound existing wiring.
- F. Each intelligent addressable device shall transmit information about its location with respect to other devices on the circuit. This information shall be used to create an "As-Built" wiring diagram as well as provide enhanced supervision of a device's physical location. The device message and programmed system output function shall be associated with the device's location on the SLC circuit location and not a device address.

- G. The SLC module shall allow replacement of “same type” devices without the need to address and reload the “location” parameters on replacement devices.
- H. The SLC/Panels shall notify the user when un-programmed devices are detected on the SLC circuit. The SLC/Panels shall notify the user when the wrong device type is installed at a location configured for a different device type on the SLC circuit.
- I. Should an SLC Controller CPU fail to communicate, the SLC circuit shall go into the stand-alone mode. The circuit shall be capable of producing a loop alarm if an alarm type device becomes active during stand-alone mode to enhance system integrity.
- J. The addressable device signaling line circuit module shall be an EDWARDS 3-SDDC1.

2.2.5. Notification Appliance Circuits

2.2.5.1. Notification Appliance Circuits General

- A. All notification circuits shall be supervised and power limited. Non-power limited circuits are not acceptable. All notification appliance circuits shall be Class A.
- B. Initial circuit loading shall not exceed 80% in order to allow for future system expansion.
- C. 24 VDC Notification Appliance circuits
 - 1. Notification appliance circuits shall have a minimum circuit output rating of 2 amps @ 24 VDC.
 - 2. 24VDC NACs shall be polarized and provide both strobe synchronization and a horn silence signals on a single pair of wires.
- D. Audio Notification Appliance Circuits
 - 1. Audio notification appliance circuits shall be polarized and have a minimum circuit output rating of 50 watts @ 25V audio, and 35 watts @ 70V audio.

2.2.5.2. Audio Amplifiers

- A. Provide emergency audio as part of the main fire alarm control panel. The emergency audio shall contain a paging microphone and zoned amplifiers capable of delivering multi-channel audio messages. The system shall support a minimum of 100 audio channels. Transmission of live paging audio shall be over the same data network cabling as the fire panel data. Pre-recorded messages shall be stored locally at each panel, to reduce the impact of wire faults during a fire event. Transmission of pre-recorded audio across the network for notification during an

event is not acceptable.

- B. The audio system zoned amplifiers must be able to operate 25 VRMS or 70 VRMS speakers and be power limited and protected from short circuit conditions on the audio circuit. The amplifier output must be power limited, and wired in a Class B configuration. The amplifiers shall source pre-recorded messages locally, and shall not have to rely on network communications to receive pre-recorded messaging. Should local audio be unavailable the amplifiers shall provide an integral backup 1000 Hz temporal (3-3-3) tone generator evacuation notification and 20PPM for alert notification which shall operate in the event primary audio signals are lost and the amplifier is instructed to broadcast alarm information.
- C. Amplifiers shall also include a 24 VDC notification appliance circuit rated at 24Vdc @ 3.5A for connection of visible (strobe) appliances. This circuit shall be fully programmable.
- D. Provide as minimum, one twenty (20) watt audio amplifier per paging zone. Initial amplifier loading shall not exceed 80% in order to allow for future system expansion. Calculations shall assume each speaker is connected at one (1) watt.
- E. Audio amplifiers shall be EDWARDS 3-ZA series.

2.2.6. Initiating Device Circuits

2.2.6.1. Initiating Device Circuits

- A. Conventional (2-wire) initiating device circuits monitoring manual fire alarm stations, smoke and heat detectors, waterflow switches, valve supervisory switches, fire pump functions, and air pressure supervisory switches shall be Class B.
- B. Initiating device circuits shall be configurable for latched or non-latched operation and configurable to initiate alarm, supervisory or monitor events.
- C. End-of-line resistors for conventional initiating device circuits shall be covered with insulated tubing, terminated with ring lugs and display a UL label.

2.2.7. Off Premises Communications

2.2.7.1. DACT

- A. The owner shall arrange for a physical connection to the building IP infrastructure and needed IP configuration data including but not limited to DHCP server detail or static IP address with subnet mask, Default gateway, DNS server addresses, and port number.
- B. The IP/DACT shall be an Edwards 4-FWAL2 4-FWAL4.
- C. The communication to the Central Station transmission shall be via Cellular network.

- D. The system shall provide off premises communications capability using a cellular Digital Alarm Communications Transmitter (Cell/DACT) for sending system events to multiple Central Monitoring Station (CMS) receivers over a Cellular network.
- E. Any cellular communication hardware used for this purpose shall be UL listed and compatibility listed for use with the fire panel. Third party cellular equipment is acceptable but generic compatibility statements are not acceptable, only devices shown in the panels UL controlled compatibility list shall be accepted.

2.3. Remote Booster Power Supply

2.3.1. Remote Booster Power Supply

- A. Install Remote NAC Power Supplies (boosters) at the locations shown on the drawings, as required, to minimize NAC voltage drops. Remote NAC power supplies shall be treated as peripheral NAC devices and shall not be considered fire alarm control units.
- B. The NAC power supplies shall be fully enclosed in a surface mounted steel enclosure with hinged door and cylinder lock, and finished in red enamel. Door keys shall be the identical to FACP enclosure keys. The enclosure shall have factory installed mounting brackets for additional UL listed fire alarm equipment within its cabinet. Enclosures shall be sized to allow ample space for interconnection of all components and field wiring, and up to 10AH batteries. The enclosure shall have provisions for an optional tamper switch. All FACP addressable control modules required to initiate the required NAC power supply output functions shall be installed within the NAC power supply enclosure.
- C. Remote NAC power supply input circuits shall be configurable as Class B supervised inputs or for connection to any 6 to 45 VDC initiation source.
- D. The power supply NACs shall be configurable to operate independently at any one of the following rates: continuous synchronized, or 3-3-3 temporal. It shall be possible to configure the NACs to follow the main FACP NAC or activate from intelligent addressable synchronized modules. All visible <audible> NACs within the facility shall be synchronized.
- E. Upon failure of primary AC power, the remote power supply shall automatically switch over to secondary battery power without losing any system functions. It shall be possible to delay reporting of an AC power failure for up to 6 hours. All standby batteries shall be continuously monitored by the power supply. Low battery and disconnection of battery power supply conditions shall immediately be annunciated locally as battery trouble. All power supply trouble conditions (DC power failure, ground faults, low batteries, and IDC/NAC circuit faults) shall identify the specific remote power supply affected at the main FACP. All power supply trouble conditions except loss of AC power shall report immediately. Interconnecting NAC Booster power supplies in a manner which prevents identification of an individual

power supply trouble shall not be considered as an equal.

- F. The remote booster power supply shall be capable of recharging up to 24AH batteries to 70% capacity in 24 hours maximum. Batteries provided shall be sized to meet the same power supply performance requirements as the main FACP, as detailed elsewhere in this specification.
- G. All AC power connections shall be to the building's designated dedicated emergency electrical power circuit. The power circuit disconnect means shall be clearly labeled FIRE ALARM CIRCUIT CONTROL and shall have a red marking. The location of the circuit disconnect shall be labeled permanently inside each remote NAC power supply the disconnect serves.
- H. The remote NAC power supplies shall be EDWARDS model BPS/APS series.

2.4. Annunciators

2.4.1. Local Operating Console

- A. Provide a UL864 listed semi-flush mounted annunciator / local operating consoles (LOC) at the location(s) shown on the drawings. When semi-flush mounting the outer door shall not protrude into the occupied space beyond 4.5 inches.
- B. The LOC shall utilize standard fire alarm user interface components to provide the ability to operate the Autonomous Control Unit/Fire Alarm Control Panel functions from alternate locations within the building. The LOC shall be capable of receiving the same event information and issuing the same system commands as the ACU/FACP to which it is connected, as specified in the functional matrix elsewhere in this specification. Functions shall include initiating all pre-recorded messages and live page messages.
- C. The following common indicators and controls shall be provided on the LOC.
- D. The LOC shall be equipped with a key locked see-through door. The LOC shall be powered by a battery backed up nominal 24 VDC power source.
- E. All communication between the LOC annunciator and the fire alarm control panel shall be via an IPv6 network.
- F. The Annunciator / LOC shall be EDWARDS 4-ANN series.

2.5. Peripheral Components

2.5.1. Addressable

2.5.1.1. Detectors

2.5.1.1.1. General

General Requirements for Intelligent Addressable Heat, Smoke and CO Detectors

- A. Each detector shall contain an integral microprocessor which shall determine if the device is normal, in alarm, or has an internal trouble. The microprocessor's non-volatile memory shall permanently store the detector's serial number, device type and system address. It shall be possible to address each intelligent device without the use of switches. Devices requiring switches for addressing shall not be considered as equal. Memory shall automatically be updated with the hours of operation, last maintenance date, number of alarms and troubles, time of last alarm, and analog signal patterns for each sensing element just before the last alarm.
- B. Each detector shall be capable of identifying up to 32 diagnostic codes. This information shall be available for system maintenance. The diagnostic code shall be stored at the detector.
- C. Each addressable detector on the Signaling Line Circuit (SLC) shall transmit information regarding its location with respect to other intelligent devices on the signaling line circuit to the control panel, creating an "As-Built" circuit map. The circuit mapping function shall provide location supervision of all intelligent devices on the signaling line circuit. An intelligent detector's programmed system response functions shall be associated with the detector's actual *location* on the signaling line circuit and *not with the detector's address*. After system commissioning, detectors improperly installed in the wrong location shall function according to the mapped programmed response for its *location* on the circuit, not its detector's address.
- D. A status indicator shall be provided on each detector. Flashing green shall indicate normal operation; flashing RED shall indicate the alarm state. The indicator shall be visible from any direction.
- E. The system shall allow for changing of detector types for service replacement purposes without the need to reprogram the system. The replacement detector type shall automatically continue to operate with the same programmed sensitivity levels and functions as the detector it replaced, without the need for reprogramming. System shall display an off-normal condition until the proper detector type is installed or a change in the device type profile has been made.
- F. Detectors shall be rated for operation in the following environment unless specifically noted:
 - Temperature: 32°F to 120°F
 - Humidity: 0-93% RH, non-condensing
- G. Detectors with addressing components in the base shall not be considered as equal.

- H. The intelligent detectors shall be EDWARDS Signature Series devices.

2.5.1.1.2. Photo-Heat-CO Detector

- A. Provide analog/addressable combination photoelectric smoke-heat and carbon monoxide (CO) detectors at the locations shown on the drawings.
- B. The combination smoke-heat & CO detector shall provide two independent signals (fire & CO) to the control panel for programming system responses. When mounted in a sounder base, the detector shall be capable of initiating a temporal 3-3-3 when smoke or heat is detected or temporal 4-4-4-4 when CO is detected. Detectors that transmit a common signal for both fire and CO alarms shall not be considered as equal. The detector shall be listed under standards UL-268 and UL-2075.
- C. Each smoke-heat detector shall be individually programmable to operate at any one of five (5) sensitivity settings. The detector shall also store pre-alarm and alternate pre-alarm sensitivity settings. Pre alarm sensitivity values shall be configurable in 5% increments of the alarm and alternate alarm sensitivity settings respectively. The detector shall be able to differentiate between a long term drift above the pre alarm threshold and fast rise above the threshold. The detector shall monitor the sensitivity of the smoke sensor. If the sensitivity shifts outside the UL limits, a trouble signal shall be sent to the panel. It shall be possible to automatically change the sensitivity of individual intelligent addressable smoke detectors for day and night (alternate) periods.
- D. Each detector shall utilize an environmental compensation algorithm that shall automatically adjust for background environmental conditions such as dust, temperature, and pressure. The detector shall provide a maintenance alert signal when 80% (dirty) of the available compensation range has been used. The detector shall provide a dirty fault signal when 100% or greater compensation has been used.
- E. A low mass thermistor shall act as fixed temperature 130 to 140 °F heat sensors.
- F. The electro-chemical CO sensor shall generate a CO alarm in compliance with the UL-2034 requirements. The sensor shall have a nominal six-year life. When the sensor approaches the end of its useful life, it shall transmit a maintenance condition to the control panel, indicating the CO sensor board replacement is required. Only when the sensor is no longer operational shall a trouble condition be sent to the control panel. Sensors that transmit a common trouble indication for both sensor end-of-life and other causes of detector trouble shall not be considered as equal. Performing a “sensitivity” check from the panel shall report the approximate number months of CO sensor life remaining.
- G. Placing the CO detector in test mode shall facilitate the use of direct injection of small quantities of CO to check detector functionality.
- H. The Combination photoelectric smoke-heat & CO detector shall be an EDWARDS

SIGA-PHCD.

2.5.1.1.3. Photo-CO Detector

- A. Provide analog/addressable combination photoelectric smoke and carbon monoxide (CO) detectors at the locations shown on the drawings.
- B. The combination smoke and CO detector shall provide two independent signals (smoke & CO) to the control panel for programming system responses. When mounted in a sounder base, the detector shall be capable of initiating a temporal 3-3-3 when smoke is detected or temporal 4-4-4-4 when CO is detected. Detectors that transmit a common signal to the control panel for both smoke and CO alarms shall not be considered as equals. The detector shall be listed under standards UL-268 and UL-2075.
- C. Each smoke detector shall be individually programmable to operate at any one of five (5) sensitivity settings. The detector shall also store pre-alarm and alternate pre-alarm sensitivity settings. Pre alarm sensitivity values shall be configurable in 5% increments of the alarm and alternate alarm sensitivity settings respectively. The detector shall be able to differentiate between a long term drift above the pre alarm threshold and fast rise above the threshold. The detector shall monitor the sensitivity of the smoke sensor. If the sensitivity shifts outside the UL limits, a trouble signal shall be sent to the panel. It shall be possible to automatically change the sensitivity of individual intelligent addressable smoke detectors for day and night (alternate) periods.
- D. Each detector shall utilize an environmental compensation algorithm that shall automatically adjust for background environmental conditions such as dust, temperature, and pressure. The detector shall provide a maintenance alert signal when 80% (dirty) of the available compensation range has been used. The detector shall provide a dirty fault signal when 100% or greater compensation has been used.
- E. The electro-chemical CO sensor shall generate a CO alarm in compliance with UL-2034 requirements. The sensor shall have a nominal six-year life. When the sensor approaches the end of its useful life, it shall transmit a maintenance condition to the control panel, indicating the CO sensor board replacement is required. Only when the sensor is no longer operational shall a trouble condition be sent to the control panel. Sensors that transmit a common trouble indication for both sensor end-of-life and other causes of detector trouble shall not be considered as equal. Performing a “sensitivity” check from the panel shall report the approximate number months of CO sensor life remaining.
- F. Placing the CO detector in test mode shall facilitate the use of direct injection of small quantities of CO to check detector functionality.
- G. The Combination photoelectric smoke & CO detector shall be an EDWARDS SIGA-PCD.

2.5.1.1.4. Heat-CO Detector

- A. Provide analog/addressable combination heat and carbon monoxide (CO) detectors at the locations shown on the drawings.
- B. A Low mass thermistor shall provide a 135°F fixed-temperature heat sensing for the detection of heat due to fire. The sensor monitors the temperature of the surrounding air and determines whether an alarm should be initiated.
- C. The combination heat and CO detector shall provide two independent signals (fire & CO) to the control panel for programming system responses. When mounted in a sounder base, the detector shall be capable of initiating a temporal 3-3-3 when heat is detected or temporal 4-4-4-4 when CO is detected. Detectors that transmit a common signal to the control panel for both heat and CO alarms shall not be considered as equals. The detector shall be listed under standards UL-521 and UL-2075.
- D. The electro-chemical CO sensor shall generate a CO alarm in compliance with UL-2034 requirements. The sensor shall have a nominal six-year life. When the sensor approaches the end of its useful life, it shall transmit a maintenance condition to the control panel, indicating the CO sensor board replacement is required. Only when the sensor is no longer operational shall a trouble condition be sent to the control panel. Sensors that transmit a common trouble indication for both sensor end-of-life and other causes of detector trouble shall not be considered as equal. Performing a “sensitivity” check from the panel shall report the approximate number months of CO sensor life remaining.
- E. Placing the CO detector in test mode shall facilitate the use of direct injection of small quantities of CO to check detector functionality.
- F. The Combination heat & CO detector shall be an EDWARDS SIGA-HCD.

2.5.1.1.6. Rate of Rise Detector

- A. Provide intelligent combination fixed temperature / rate-of-rise heat detectors at the locations shown on the drawings.
- B. The detector shall continually monitor the temperature of the air in its surroundings to minimize thermal lag to the time required to process an alarm. The detector shall utilize a low mass thermistor heat sensor and operate at a nominal fixed temperature alarm point rating of 135°F and at a temperature rate-of-rise alarm point of 15°F per minute. The integral microprocessor shall determine if an alarm condition exists and initiate an alarm based on the analysis of thermistor data. Systems using central intelligence for alarm decisions shall not be considered as equal.
- C. The heat detector shall be rated for ceiling installation at a minimum of 50 ft centers and also be suitable for wall mount applications.

- D. The Intelligent combination fixed temperature / rate-of-rise heat detector shall be an EDWARDS SIGA-HRD.

2.5.1.1.7. CO Detector

- A. Provide addressable carbon monoxide (CO) detectors at the locations shown on the drawings.
- B. The CO detector shall provide a signal to the control panel for programming system responses. When mounted in a sounder base, the detector shall be capable of initiating a temporal 4-4-4-4 signal when CO is detected. The detector shall be listed under standard UL-2075.
- C. The electro-chemical CO sensor shall generate a CO alarm in compliance with UL-2034 requirements. The sensor shall have a nominal six-year life. Performing a “sensitivity” check from the panel shall report the approximate number months of sensor life remaining. When the sensor approaches the end of its useful life, it shall transmit a maintenance condition to the control panel, indicating the CO sensor board replacement is required. Only when the sensor is no longer operational shall a trouble condition be sent to the control panel. Detectors that transmit a common trouble indication for both sensor end-of-life and other causes of detector trouble shall not be considered as equal.
- D. Placing the CO detector in test mode shall facilitate the use of direct injection of small quantities of CO to check detector functionality.
- E. The CO detector shall be an EDWARDS SIGA-COD.

2.5.1.1.8. Standard Base

- A. Provide standard detector bases suitable for mounting on either North American 1-gang, 3½ or 4 inch octagon box and 4 inch square box, European BESA or 1-gang box.
- B. The bases shall utilize a twist-lock design and provide screw terminals for all field wiring connections.
- C. The base shall contain no active electronics and support all Signature series detector types.
- D. The base shall be capable of supporting a Remote Alarm LED Indicator. Provide remote LED alarm indicators where shown on the plans.
- E. Removal of the respective detector shall not affect communications with other detectors.
- F. The standard addressable detector base shall be an EDWARDS SIGA-SB or SB4.

- G. The remote LED indicator shall be an EDWARDS SIGA-LED

2.5.1.1.9. Relay Base

- A. Provide relay detector bases suitable for mounting on either North American 1-gang, 3½ or 4 inch octagon box and 4 inch square box, European BESA or 1-gang box; at the locations shown on the drawings.
- B. The bases shall utilize a twist-lock design and provide screw terminals for all field wiring connections.
- C. The base shall contain no electronics and support all Signature series detector types.
- D. Removal of the respective detector shall not affect communications with other detectors.
- E. The relay base shall meet the following requirements:
 - 1. The relay shall be a bi-stable type and selectable for normally open or normally closed operation.
 - 2. The position of the relay contact shall be supervised.
 - 3. The operation of the base relay shall be configurable for control by its respective detector or for independent programmable control from the fire alarm panel. Relay bases not configurable for detector or panel operation shall not be considered equal.
 - 4. The base relay shall provide form "C" contacts with a minimum rating of 1 amp @ 30 Vdc and be listed for pilot duty.
 - 5. The standard addressable relay detector base shall be an EDWARDS SIGA-RB or RB4.

2.5.1.1.10. Sounder Base

- A. Provide audible detector mounting bases suitable for mounting on a North American 1-gang, 3½ or 4 inch octagon box and 4 inch square box, or European BESA or 1-gang box; at the locations shown on the drawings.
- B. The bases shall utilize a twist-lock design and provide screw terminals for all field wiring connections.
- C. Removal of the respective detector shall not affect communications with other detectors.
- D. The audible base shall support all detector types and shall be capable of single or group operation.

- E. The audible base shall emit a temporal 3-3-3 fire alarm tone when smoke or heat has been detected. The audible base shall emit a temporal 4-4-4-4 CO alarm tone when CO has been detected. The outputs shall be configurable for low or high output by moving a reversible jumper. The system shall be UL2017 listed for dual signaling for this purpose.
- F. The audible bases shall provide a UL-268 reverberant room sound output of 90.8 dBA at 10ft for temporal 3-3-3 fire alarm and 84.1 dBA at 10 ft. for temporal 4-4-4-4 CO alarm.
- G. The detector sounder base shall be an EDWARDS SIGA-AB4GT.

2.5.1.1.11. Low Frequency Sounder Base

- A. Provide audible detector mounting bases suitable for mounting on a North American 1-gang, 3½ or 4 inch octagon box and 4 inch square box or AB4G-SB surface mount box; at the locations shown on the drawings.
- B. The bases shall utilize a twist-lock design and provide screw terminals for all field wiring connections.
- C. Removal of the respective detector shall not affect communications with other detectors.
- D. The audible base shall support all detector types and shall be capable of single or group operation.
- E. The audible base shall emit a 520 Hz tone as defined by NFPA 72 2010 edition and NFPA 720 2012 edition standards in a temporal 3-3-3 fire alarm pattern when smoke or heat has been detected or a temporal 4-4-4-4 CO alarm pattern when CO has been detected. The sound outputs shall be configurable for low or high output by moving a reversible jumper. The system shall be UL2017 listed for dual signaling for this purpose.
- F. The audible bases shall be listed to UL 268 and UL 464.
- G. The detector sounder base shall be an EDWARDS SIGA-AB4G-LF.

2.5.1.2. Manual Stations

2.5.1.2.1. Single Action Single Stage

- A. Provide addressable single action, single stage fire alarm stations at the locations shown on the drawings.
- B. The manual station shall be suitable for mounting on North American 2 ½ deep 1-gang boxes and 1 ½ deep 4 square boxes with 1-gang covers. If indicated as surface

mounted, provide manufacturer's surface back box.

- C. The fire alarm station shall be of metal construction, shall be finished in red with silver "PULL IN CASE OF FIRE" lettering, shall show visible indication of operation and incorporate an internal toggle switch.
- D. The manual pull station will have an addressable module integral to the unit.
- E. The station shall be reset using a common tool.
- F. Manual pull stations that initiated an alarm condition when opening the unit are not acceptable.
- G. The addressable single action, single stage fire alarm station shall be an EDWARDS SIGA-270

2.5.1.3. Modules

2.5.1.3.1. General

General Requirements for Intelligent Addressable Heat, Smoke and CO Detectors

- A. Each detector shall contain an integral microprocessor which shall determine if the device is normal, in alarm, or has an internal trouble. The microprocessor's non-volatile memory shall permanently store the detector's serial number, device type and system address. It shall be possible to address each intelligent device without the use of switches. Devices requiring switches for addressing shall not be considered as equal. Memory shall automatically be updated with the hours of operation, last maintenance date, number of alarms and troubles, time of last alarm, and analog signal patterns for each sensing element just before the last alarm.
- B. Each detector shall be capable of identifying up to 32 diagnostic codes. This information shall be available for system maintenance. The diagnostic code shall be stored at the detector.
- C. Each addressable detector on the Signaling Line Circuit (SLC) shall transmit information regarding its location with respect to other intelligent devices on the signaling line circuit to the control panel, creating an "As-Built" circuit map. The circuit mapping function shall provide location supervision of all intelligent devices on the signaling line circuit. An intelligent detector's programmed system response functions shall be associated with the detector's actual location on the signaling line circuit and not with the detector's address. After system commissioning, detectors improperly installed in the wrong location shall function according to the mapped programmed response for its location on the circuit, not its detector's address.
- D. A status indicator shall be provided on each detector. Flashing green shall indicate normal operation; flashing RED shall indicate the alarm state. The indicator shall

be visible from any direction.

- E. The system shall allow for changing of detector types for service replacement purposes without the need to reprogram the system. The replacement detector type shall automatically continue to operate with the same programmed sensitivity levels and functions as the detector it replaced, without the need for reprogramming. System shall display an off-normal condition until the proper detector type is installed or a change in the device type profile has been made.
- F. Detectors shall be rated for operation in the following environment unless specifically noted:
 - Temperature: 32°F to 120°F
 - Humidity: 0-93% RH, non-condensing
- G. Detectors with addressing components in the base shall not be considered as equal.
- H. The intelligent detectors shall be EDWARDS Signature Series devices.

2.5.1.3.2. One Input Monitor

- A. Provide addressable single input multifunction modules at the locations shown on the drawings.
- B. The module shall be suitable for mounting on North American 2½” deep 1-gang boxes and 1½” deep 4” square boxes with 1-gang covers.
- C. Each module shall provide one (1) supervised Class B input circuit configurable as one of the following “personalities.”
 1. Normally-Open Alarm Latching (for alarm initiation applications)
 2. Normally-Open Alarm Delayed Latching (for waterflow switch applications)
 3. Normally-Open Active Non-Latching (for limit switch and monitor applications)
 4. Normally-Open Active Latching (for tamper switch and supervisory applications)
- D. Each module shall identify and report by device address, ground faults and opens associated with its initiating device circuit, to the control panel. Single function modules or without individual ground fault detection identification capability shall not be considered as equal.

- E. The Intelligent Single Input Module shall be an EDWARDS SIGA-CT1.

2.5.1.3.3. Two Input Monitor

- A. Provide addressable dual input multifunction modules at the locations shown on the drawings.
- B. The module shall be suitable for mounting on North American 2½” deep 1-gang boxes and 1½” deep 4” square boxes with 1-gang covers.
- C. Each module shall provide two (2) supervised Class B input circuit configurable as one of the following “personalities.”
1. Normally-Open Alarm Latching (for alarm initiation applications)
 2. Normally-Open Alarm Delayed Latching (for waterflow switch applications)
 3. Normally-Open Active Non-Latching (for limit switch and monitor applications)
 4. Normally-Open Active Latching (for tamper switch and supervisory applications)
- D. Each module shall identify and report by device address, ground faults and opens associated with its initiating device circuits, to the control panel. Single function modules or without individual ground fault detection identification capability shall not be considered as equal.
- E. The Addressable Dual Input Module shall be an EDWARDS SIGA-CT2.

2.5.1.3.4. Notification Circuit

- F. Provide addressable notification appliance circuit modules at the locations shown on the drawings.
- G. The module shall be suitable for mounting in North American 2 ½” deep 2-gang boxes and 1 ½” deep 4” square boxes with 2-gang covers, or European 100mm square boxes.
- H. The addressable NAC module shall provide one (1) supervised Class B notification appliance circuit.
- I. The NAC control module shall be configurable for the following operations:
- 24 VDC synchronized NAC circuit, 2 amps @ 24 VDC.
 - Audio notification circuit 25Vrms @ 50 watts or 70 Vrms @ 35 watts

- J. The addressable notification appliance circuit module shall be an EDWARDS SIGA-CC1

2.5.1.3.5. Waterflow-Tamper

- K. Provide addressable dual input waterflow / tamper modules at the locations shown on the drawings.
- L. The module shall be suitable for mounting on North American 2½” deep 1-gang boxes and 1½” deep 4” square boxes with 1-gang covers.
- M. Each module shall provide two (2) supervised Class B input circuit configured as:
 - 1. Normally-Open Alarm Delayed Latching for waterflow switch applications.
 - 2. Normally-Open Active Latching for tamper switch and supervisory applications.
- N. Each module shall identify and report by device address, ground faults and opens associated with its initiating device circuits, to the control panel. Modules or without individual ground fault detection identification capability shall not be considered as equal.

2.5.2. Notification Appliances

2.5.2.1. Low Profile

2.5.2.1.1. LED Compact Notification Devices

- A. Provide low profile wall mounted horn-strobes at the locations shown on the drawings.
- B. Low profile LED horns, strobes and horn-strobes shall mount in a North American 1-gang box, and protrude less than 1” from the finished wall. Units shall support interchangeable covers with alternate markings and colors. Cover shall be able to be removed while device is mounted on wall.
- C. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd. Selected strobe rating shall be visible when the strobe is in its installed position. Candela setting switch shall be accessible while device is mounted on wall. Current draw shall not exceed 24 mA VDC (32 mA FWR) per device.
- D. The horn-strobe shall provide an audible output of at least 86 dBA at 10 ft. when measured in reverberation room per UL-464, and have a selectable steady or synchronized temporal (3-3-3) output pattern and high/low dB settings

- E. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd. Selected strobe rating shall be visible when the horn-strobe is in its installed position. Candela setting switch shall be accessible while device is mounted on wall. Current draw shall not exceed 45 mA VDC (55 mA FWR) per device.
- F. When multiple strobes are installed within view of each other, their outputs shall be synchronized within ten (10) milliseconds of each other for an indefinite period without the need for separate synchronization modules. LED light pulse width shall be less than twenty (20) milliseconds.
- G. Horn and strobe power, horn silencing, and strobe synchronization shall be accomplished over a single pair of wires. In and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware. Units shall be equipped with a diagnostics port to allow for checking of supply voltage without removing device from the wall.
- H. The horns, strobes and horn-strobes shall be EDWARDS Genesis LED G1 Series.

2.5.2.1.2. LED Wall Mount Notification Devices

- A. Provide low profile wall mounted horns, strobes and horn-strobes at the locations shown on the drawings.
- B. Low profile LED strobes shall mount in standard North American 1-gang, 2-gang, 4-inch octagon, and 4-inch square electrical boxes, and protrude less than 1.5" from the finished wall. Units shall support interchangeable covers with alternate markings and colors. Cover shall be able to be removed while device is mounted on wall.
- C. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd and 110cd. Selected strobe rating shall be visible when the strobe is in its installed position. Candela setting switch shall be accessible while device is mounted on wall. Current draw shall not exceed 28 mA VDC (34 mA FWR) per device.
- D. The horn-strobe shall provide an audible output of at least 85 dBA at 10 ft. when measured in reverberation room per UL-464, and have a selectable steady or synchronized temporal (3-3-3) output pattern and high/low dB settings
- E. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd and 110cd. Selected strobe rating shall be visible when the horn-strobe is in its installed position. Candela setting switch shall be accessible while device is mounted on wall. Current draw for horn-strobe shall not exceed 50 mA VDC (60 mA FWR) per device.
- F. When multiple strobes are installed within view of each other, their outputs shall

be synchronized within ten (10) milliseconds of each other for an indefinite period without the need for separate synchronization modules. LED light pulse width shall be less than twenty (20) milliseconds.

- G. Horn and strobe power, horn silencing, and strobe synchronization shall be accomplished over a single pair of wires. In and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware. Units shall be equipped with a room side wiring plate including a diagnostics check bar for continuity verification.
- H. The horns, strobes and horn-strobes shall be EDWARDS Genesis LED G4 Series.

2.5.2.1.3. Horns

- A. Provide low profile wall mounted horns at the locations shown on the drawings.
- B. Low profile horns shall mount in a North American 1-gang box, and protrude less than 1" from the finished wall. The word FIRE shall be prominently displayed on the housing.
- C. The horns shall provide an audible output of 85 dBA at 10 ft. when measured in reverberation room per UL-464, and have a selectable steady or synchronized temporal (3-3-3) output pattern.
- D. Horn power, horn silencing, and strobe synchronization shall be accomplished over a single pair of wires. In and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware.
- E. The horns shall be EDWARDS Genesis G1 Series.

2.5.2.1.4. Low Frequency Speakers

- A. The audible and/or visible signal shall be United Technologies Genesis G4HF Hi-Fidelity or GCHF Hi-Fidelity Series or approved equal and shall be listed by Underwriters Laboratories Inc. per agency listings and approval meeting ULC-S541, year 2004 UL requirements for standards UL1638 and UL1971; complies with UL1480 Fifth Edition. UL/ULC File Number: S2813. FM, MEA, CSFM approved. CSFM File Number: 7320-1657: 0211/0285. Speaker-strobes comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule.
- B. Agency listings and approvals, Low Frequency G4HF Models shall be listed by Underwriters Laboratories Inc. per UL 464 listed for low frequency signaling applications. Meets ULC-S541, year 2004 UL requirements for standards UL1638 and UL1971; complies with UL1480 Fifth Edition. FM, MEA, CSFM pending. Speaker-strobes comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule.

- C. The notification appliance (combination audible/visible) shall produce a peak sound output of 90dBA or greater as measured in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of power wires.
- D. The audible/visible and visible signaling appliance shall also maintain a minimum strobe flash rate of one flash per second. The strobe flash synchronization for all strobes shall be one flash per second (fps) within 200 milliseconds over 30 minutes on common circuit. All strobes synchronization source shall comply with UL 1971 synchronization standard. Temporal setting (private mode only): synchronized to temporal output on the same circuit. Synchronization sources shall be SIGA-CC1S, SIGA-MCC1S, SIGA-CC2A, SIGA-MCC2A, G1M-RM BPS6A, BPS10A, APS6A, APS10A, iO Series, Fireshield Plus 3, 5 and 10 zones.
- E. The appliance shall be intended for indoor wall mounted applications only. Speakers and speaker-strobes shall be flush mounted to a North American 4" square electrical box, 2 1/8" (54 mm) deep or a European 100 mm square box. Signals may be surface mounted to a Genesis surface-mount box. The appliance wire connection screw terminals shall have separate inputs for speaker and strobe. Field wiring shall be connected to Genesis signals with terminals that accommodate #18 to #12 AWG (0.75 mm² to 2.5 mm²) wiring. The unit shall be provided with a mounting bracket with terminals and barriers for input/output wiring and shall be flush mounted to a North American 4" square electrical box, 2 1/8" (54 mm) deep or a European 100 mm square box. Signals may be surface mounted to a Genesis surface-mount box.
- F. The appliance shall have a strobe operating voltage of 16 - 33 Vdc Regulated, 16-33 V Full wave rectified (UL Voltage Designations "Regulated 24" and "24 fwr"). The appliance shall be capable of DC blocking capacitor for audio circuit supervision. Also, the appliance shall be capable of mounting to a surface back box. The unit shall also be able to verify voltage at the unit without removing unit.

2.5.2.1.5. Low Frequency Audible Signals

- A. The low-profile wall-mounted low frequency audible/strobe shall be listed to UL 1971 and UL 464 and for fire protective signaling service. The low frequency audible/strobe shall serve as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe lights entire operating voltage range. The strobe light shall have field-selectable candela settings including 15, 30, 75 and 110. The strobe light shall consist of a xenon flash tube.
- B. The low frequency audible shall comply with UL 464, Section 24.3 for Low Frequency Audible Output. Appliances shall have an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern at standard or low audible output levels. The low frequency audible on low frequency audible-only

appliances shall be capable of operating on a coded notification appliance circuit.

- C. The low frequency strobe shall operate between 32°F and 120°F and be listed to operate on filtered/regulated as well as full-wave rectified EDWARDS Genesis compatible notification appliance circuits.
- D. Audibles, strobes and Audible/strobes shall all function on one pair of wires. Appliances that require separate wires for strobes and separate wires for audible are not acceptable.
- E. All audible and visible signals on the same notification appliance circuit and in the same operating zone shall be fully synchronized to within 10 milliseconds.
- F. The low frequency Audible strobe shall mount to a standard 4 × 4 × 1½-inch back box or appliance manufacturer provided surface-mount back box.
- G. All notification appliances shall be 100 per cent compatible with EDWARDS Genesis communication and synchronization protocols. The low frequency Audible/strobe appliances shall be EDWARDS G4LF Series.

2.5.2.1.6. Strobes

- A. Provide low profile wall mounted strobes at the locations shown on the drawings.
- B. Low profile strobes shall mount in a North American 1-gang box, and protrude less than 1” from the finished wall. The word FIRE shall be prominently displayed on the housing.
- C. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd & 110cd. Selected strobe rating shall be visible when the strobe is in its installed position. Amber lens strobes shall be available with outputs of 12/24/60/88cd. Light shall be evenly distributed throughout the required volume using cavity and mask “FullLight” technology to prevent hot spots. Strobes using specular reflectors shall not be considered as equal.
- D. When multiple strobes are installed within view of each other, their outputs shall be synchronized within ten (10) milliseconds of each other for an indefinite period without the need for separate synchronization modules.
- E. Horn and strobe power, horn silencing, and strobe synchronization shall be accomplished over a single pair of wires. In and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware.
- F. The strobes shall be EDWARDS Genesis G1 Series.

2.5.2.1.7. Horn-Strobes

- A. Provide low profile wall mounted horn-strobes at the locations shown on the drawings.
- B. Low profile horn-strobes shall mount in a North American 1-gang box, and protrude less than 1" from the finished wall. The word FIRE shall be prominently displayed on the housing. The word FIRE shall be prominently displayed on the housing.
- C. The horn-strobe shall provide an audible output of 85 dBA at 10 ft. when measured in reverberation room per UL-464, and have a selectable steady or synchronized temporal (3-3-3) output pattern.
- D. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd & 110cd. Selected strobe rating shall be visible when the horn-strobe is in its installed position. Amber lens strobes shall be available with outputs of 12/24/60/88cd. Light shall be evenly distributed throughout the required volume using cavity and mask "FullLight" technology to prevent hot spots. Strobes using specular reflectors shall not be considered as equal.
- E. When multiple strobes are installed within view of each other, their outputs shall be synchronized within ten (10) milliseconds of each other for an indefinite period without the need for separate synchronization modules.
- F. Horn and strobe power, horn silencing, and strobe synchronization shall be accomplished over a single pair of wires. In and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware.
- G. The horn-strobes shall be EDWARDS Genesis G1 Series.

2.5.2.1.8. Speaker-Strobe-Wall

- A. Provide low profile wall mounted speaker-strobes at the locations shown on the drawings.
- B. The low profile speaker-strobes shall mount in a North American 4" x 2 1/8" square electrical box, without trims or extension rings, and protrude less than 1" from the finished wall. The word FIRE shall be prominently displayed on the housing.
- C. The speaker output shall be switch selectable from the following available settings: 2W (90dBA), 1W (87dBA), 1/2W (84dBA), or 1/4W (81dBA) at 10 ft. when measured in reverberation room per UL-464. Frequency response shall be 400 to 4,000Hz. The selected speaker wattage shall be visible when the speaker-strobe is in its installed position.
- D. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd & 110cd. Selected strobe rating shall be visible when the speaker-strobe is in its installed position. Amber lens strobes

shall be available with outputs of 12/24/60/88cd. Light shall be evenly distributed throughout the required volume using cavity and mask “FullLight” technology to prevent hot spots. Strobes using specular reflectors shall not be considered as equal.

- E. When multiple strobes are installed within view of each other, their outputs shall be synchronized within ten (10) milliseconds of each other for an indefinite period without the need for separate synchronization modules
- F. Horn and strobe power, horn silencing, and strobe synchronization shall be accomplished over a single pair of wires. Both the speaker and strobe elements shall provide in and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware.
- G. The low profile wall mounted speaker-strobes shall be an EDWARDS G4HF series.

2.5.2.1.9. Speaker-Strobe-Ceiling

- A. Provide low profile ceiling mounted speaker-strobes at the locations shown on the drawings.
- B. Speaker-strobes shall mount in a North American 4” x 2 1/8” square electrical box, or a 960A-4RF round flush box, and protrude less than 1.6” from the finished ceiling. The word FIRE shall be prominently displayed on the housing.
- C. The speaker output shall be switch selectable from the following available settings: 2W (91dBA), 1W (87dBA), 1/2W (84dBA), or 1/4W (80dBA) at 10 ft. when measured in reverberation room per UL-1480. Frequency response shall be 400 to 4,000Hz. The selected speaker wattage shall be visible when the speaker-strobe is in its installed position.
- D. The strobe output shall be switch selectable as required by its application from the following available settings: 15cd, 30cd, 75cd & 95cd or 95cd, 115cd, 150cd, &177cd. Selected strobe rating shall be visible when the speaker-strobe is in its installed position. Amber lens strobes shall be available with outputs of 13/26/65/82cd or 82/100/130/155cd.
- E. When multiple strobes are installed within view of each other, their outputs shall be synchronized within ten (10) milliseconds of each other for an indefinite period without the need for separate synchronization modules
- F. Strobe power and synchronization shall be accomplished over a single pair of wires. Both the speaker and strobe elements shall provide in and out screw terminals shall accommodate 18AWG to 12 AWG wiring and have captive hardware.
- G. The low profile ceiling mounted speaker-strobes shall be an EDWARDS Genesis GCHF series.

2.5.3. Accessories

2.5.3.2. Surge Suppression Devices

- A. The system shall utilize the following electrical surge protection devices to prevent damage and nuisance alarms caused by nearby lightning strikes, stray currents, or voltage transients.
- B. On the AC Input of all fire alarm panels, remote power supplies and HPSA sites: Transtector ACO100BWN3, Leviton OEM-120EFI, EFI HWM-120, Ditek DTK-120HW or DTK-120/240 CM. *AC Surge protectors shall be installed at the electrical panel board feeding the fire alarm equipment.* Excess lead length shall be trimmed. The branch circuit conductor shall be formed into a 5-10 turn 1” diameter tie-wrapped coil just downstream of the suppressor connection.
- C. On each DC fire alarm circuit entering or leaving the building: Transtector TSP8601, Citel American B280 -24V, Edco P264 and P642, Ditek DTKxLVL series, or equal.

3. Part 3 - Execution

3.1. Installation

3.1.1. General

General

- A. The entire system shall be installed in a skillful manner in accordance with approved manufacturer’s installation manuals, shop drawings and wiring diagrams.
- B. All work shall be performed in accordance with the requirements of NFPA 70 and NFPA 72.
- C. Coordinate locations of all devices with all other divisions’ drawings and specifications.

All fire alarm devices shall be accessible for periodic maintenance. Should a device location indicated on the contract drawings not meet this requirement, it shall be the responsibility of the installing contractor to bring it, in writing, to the attention of the Project Engineer.

- D. EFasten equipment to structural members of building or metal supports attached to structure, or to concrete surfaces.
- E. All systems and system components listed to UL864 Control Units for Fire Protective Signaling Systems may be installed within a common conduit raceway system, in accordance with the manufacture’s recommendations. System(s) or

system components not listed to the UL864 standard shall utilize a separate conduit raceway system for each of the sub-systems.

- F. No wiring except life safety system circuits and system power supply circuits shall be permitted in the control panel enclosures.
- G. Any low-voltage copper wiring that leaves the protection of a building shall be provided with a compatible UL 497B listed transient protection devices where the circuit leaves the building and where it enters the next building.
- H. Devices containing end-of-line resistors shall be appropriately labeled. Devices should be labeled such that removal of the device is not required to identify the EOL device.
- I. Concrete floors shall be X-rayed prior to core drilling on post tension slabs. Verify with engineer on type of slab prior to bid.

3.1.2. Electrical

Electrical

BOXES, ENCLOSURES AND WIRING DEVICES

- A. Boxes shall be installed plumb and firmly in position.
- B. Extension rings with blank covers shall be installed on junction boxes where required.
- C. Junction boxes served by concealed conduit shall be flush mounted.
- D. Fire alarm system junction box covers shall be painted red.
- E. Wiring within cabinets, enclosures, boxes, junction boxes and fittings shall be installed in a neat and workmanlike manner, installed parallel with or at right angles to the sides and back of any box, enclosure or cabinet, and routed to allow access for maintenance. All conductors that are terminated, spliced, or otherwise interrupted in any enclosure, cabinet, mounting or junction box shall be connected to terminal blocks. Mark each terminal in accordance with the wiring diagrams of the system. Make all connections with approved pressure type terminal blocks, which are securely mounted. All terminal block screws shall have pressure wire connectors of the self-lifting or box lug type. No more than two conductors shall be installed under one connection. Wire nuts, crimp splices and similar devices shall not be used.

CONDUCTORS

- A. Each conductor shall be identified as shown on the drawings at terminal points.

Permanent wire markers shall be located within 2 inches of the wire termination. Marker text shall be visible with protective doors or covers removed.

- B. Maintain a consistent color code for fire alarm system conductor functions throughout the installation.
- C. All wiring shall be installed in compliance with the National Electric Code, NFPA 70, and the equipment manufacturer's requirements.
- D. Wiring for Signaling Line Circuit and Initiating Device Circuit field wiring shall be solid copper, No. 18 AWG twisted pair conductors at a minimum. Speaker circuits; 16 AWG twisted pair at a minimum. Telephone circuits shall be 18 AWG twisted-shielded pair at a minimum. 24VDC visual and audible Notification Appliance Circuits shall be solid copper No. 14 AWG size conductors at a minimum. The wiring sizes listed herein are minimum sizes. Use larger wire sizes when recommended by the manufacturer, based on system configuration and project specific calculations.
- E. Where shielded wiring is used, the shield shall be grounded at only one point, which shall be in or adjacent to the FACP or other control equipment. Shields shall be continuous, treated as a third conductor, and insulated from ground except as noted.
- F. T-taps (branches) are permitted in Class B SLC circuits with interconnections occurring on terminal strips.
- G. Circuits to third-party systems (HVAC, Elevators, fire pumps, etc.) shall terminate in terminal cabinets within three (3) feet of the controllers for those systems.
- H. AC power wiring shall be No. 12 AWG solid copper having insulation rated for 600 volts.
- I. Crimp type spade lugs shall be used for terminations of stranded conductors to binder screws or stud type terminals.
- J. All wiring shall be checked and tested to insure that there are no grounds, opens or shorts.

DEVICES

- A. All devices and appliances shall be mounted to or in an approved electrical box.

RACEWAYS

- A. Conduits shall be sized according to the conductors contained therein. Cross sectional area percentage fill for system conduits shall not exceed 40%.
- B. Install all conductors in rigid metal conduit or electro-metallic tubing, utilizing

compression type fittings and couplings, with a minimum diameter 3/4". The use of flexible metal conduit not exceeding a six (6) foot length shall be permitted for initiating device circuits.

- C. All fire alarm conduit systems shall be routed and installed to minimize the potential for physical, mechanical or fire damage, and shall not interfere with existing building systems, facilities or equipment.
- D. Run conduit or tubing concealed in finished areas unless specifically shown otherwise on the drawings. Conduit may be exposed in unfinished mechanical/electrical rooms, and basement levels.
- E. All system conduits, junction boxes, pull boxes, terminal cabinets, electrical enclosures and device back box locations shall be readily accessible for inspection, testing, service and maintenance.

OPEN CABLE

- A. Power Limited cable, when not installed in UL listed metal conduit or raceway, shall be mechanically protected by building construction features per NFPA 70, Article 760, and shall be plenum rated when not run in conduit.
- B. Installation shall be in areas not subjected to mechanical injury.
- C. All circuits shall be supported by the building structure. Cable shall be attached by straps or bridal rings to the building structure at intervals not greater than 10 feet. The use of staples is prohibited. Fire alarm wiring shall not be bundled or strapped to existing conduit, pipe or wire in the facility.
- D. Where wiring is installed above drop ceilings, cable shall not be laid on ceiling tiles.
- E. Cable shall not be fastened in a manner that puts tension on the cable.
- F. Power Limited Cable shall be FPLP, FPLR or FPL, or permitted substitute.

3.1.3. FA Components

DEVICES

- A. All devices and appliances shall be mounted to or in an approved electrical box.
- B. All wall mounted control equipment shall comply with requirements defined by the International Building Code.

FIRE ALARM CONTROL PANELS

- A. Mount the enclosure with the top of the cabinet 72" above the finished floor or

center the cabinet at 63", whichever is lower.

- B. Label the fire alarm panels with the room number, electrical panel number and circuit breaker number feeding them.
- C. Paint the handles of the dedicated circuit breakers feeding fire alarm panels red, and install handle locks.
- D. Within the panel, all non-power limited wiring must be properly separated from power limited circuits.
- E. Grounds shall comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.

REMOTE ANNUNCIATOR

- A. Mount the panel; with the top of the panel 72" above the finished floor or center the panel at 63", whichever is lower.

REMOTE POWER SUPPLIES AND AUXILIARY FIRE ALARM PANELS

- A. Locate the panel or cabinet with the top of the panel 72" above the finished floor or center the panel at 63", whichever is lower.
- B. Do not locate these panels above ceilings or where inaccessible by a person standing on the finished floor of the space.
- C. Label the power supplies and auxiliary FACPs with the room number, electrical panel number and circuit breaker number feeding them.
- D. Paint the handles of the dedicated circuit breakers feeding fire alarm panels red, and install handle locks.
- E. Within the panel, all non-power limited wiring must be properly separated from power limited circuits.

MANUAL PULL STATIONS

- A. Mount stations so that their operating handles are between 42" and 48" above the finished floor.

NOTIFICATION APPLIANCES

Mount assemblies as follows:

- A. All wall mounted audio/visual devices shall be mounted so the entire lens is between 80" and 96" above the finished floor. Where low ceilings exist, devices shall be mounted within 6" of the ceiling.

- B. Each speaker's (horn) output shall be set to the wattage value indicated for its specific location as shown on the drawings.
- C. Each strobe's output shall be set to the candela value indicated for its specific location as shown on the drawings.
- D. Each speaker (horn)-strobe's outputs shall be set to the wattage/candela value indicated for its specific location as shown on the drawings.
 - 1. Where ceiling height exceeds 30 feet, appliances shall be suspended from the ceiling to a height of 30 feet maximum above the finished floor.
 - 2. Appliances installed outdoors shall be UL listed for outdoor use.

SMOKE DETECTORS

- 1. Smoke and heat detector heads shall not be installed until after construction clean-up is completed. Detector heads installed prior to construction clean-up shall be cleaned by the manufacturer or replaced.
- 2. Detectors located on the wall shall have the top of the detector at least 4" and not more than 12" below the ceiling.
- 3. On smooth ceilings, detectors shall not be installed over 30 ft. apart in any direction.
- 4. Install smoke detectors no closer than 3 ft. from air handling supply air diffusers or return air openings.
- 5. Locate detectors no closer than 12" from any part of a lighting fixture.

END OF LINE RESISTORS

- 1. Devices containing end-of-line resistors shall be appropriately labeled.

REMOTE STATUS AND ALARM INDICATORS

- 1. Install near each smoke detector and each sprinkler water-flow switch and valve-tamper switch that is not readily visible from normal viewing position.

SINGLE STATION SMOKE ALARMS

- 1. Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm causes the alarm in all smoke alarms to sound.

CO DETECTORS

1. Ceiling mounted CO detectors should be kept 12” from sidewalls.
2. Wall mounted CO detectors should be at least 48” above the finished floor, but less than 6” from the ceiling.
3. Locate at least 60” from fuel burning appliances.
4. Install CO detectors no closer than 3 ft. from air handling supply air diffusers or return air openings.

HEAT DETECTORS

1. Heat detectors shall be installed in strict accordance with their UL listing and the requirements of NFPA 72.
2. Heat detectors installed in the elevator machinery room to meet ANSI A17.1 requirements for elevator power disconnect, shall be located adjacent to each sprinkler head. Coordinate temperature rating and location with sprinkler rating and location.

ADDRESSABLE CONTROL (RELAY) MODULES

1. Install the module less than 3 feet from the device controlled.
2. Orient the device mounting for best maintenance access.
3. Label all addressable control modules as to their function.
4. Provide a dedicated 24VDC circuit to feed all auxiliary relays required for inductive loads (auxiliary relays, door holders). Circuits shall be supervised via an end-of-line relay and addressable input module. Auxiliary relays shall not derive their power from the starter or load being controlled.

3.1.4. Fire Stopping

1. Provide fire stopping for holes at conduit penetrations through floor slabs, fire rated walls, partitions with fire rated doors, corridor walls, and vertical service shafts in accordance with the fire stopping provisions of this contract.

* * * END OF SECTION * * *



General Terms & Conditions for Construction Services

Table of Contents

Table of Contents

1.	ARTICLE I: CONTRACTOR RESPONSIBILITIES	5
2.	ARTICLE II: HOUSING AUTHORITY RIGHTS AND RESPONSIBILITIES	8
3.	ARTICLE III: A/E'S DUTY, RESPONSIBILITY AND AUTHORITY	8
3.3.	Site Visits and Observation	10
3.4.	Testing and Inspection Services	10
3.5.	A/E Review and Approval of Work.....	10
3.6.	Limitation of A/E's Authority.....	11
4.	ARTICLE IV: PRECONSTRUCTION ACTIVITIES.....	11
4.1.	Pre-construction Conference	11
4.2.	Certificate of Insurance	12
4.3.	Building and Trade Permits, Licenses and Codes	12
4.4.	Plan Approval and Permits	12
4.5.	Trade Permits and Licenses.....	13
4.6.	Local Permits:	13
4.7.	National Pollutant Discharge Elimination System (NPDES) Storm Water General Permit:	13
5.	ARTICLE V: CONSTRUCTION REQUIREMENTS	13
5.2.	Environmental Controls.....	13
5.3.	Construction Procedures.....	14
5.3.5.	Additional Contractor Responsibilities.....	14
5.4.	Utilities	15
5.4.4.	Water and Drainage	15
5.4.5.	Electric Service	16
5.4.6.	Payment of Utility Services.....	17
5.5.	Hoisting Facilities	17
5.6.	Interruption of Existing Services.....	17
5.7.	Construction Supervision	17
5.8.	Construction Progress Schedule	18
5.9.	Progress Meetings	21
5.10.	Project Coordination.....	21
5.11.	Additional Tests and Inspections	22
5.12.	Review of Contract Documents.....	22
5.14.	Protection of the Project.....	24
5.14.3.	Temporary Heating.....	24
5.14.5.	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements.....	24
5.14.6.	Vibration, Noise, and Dust Control.....	26

- 5.15. General Warranty - Materials, Equipment and Workmanship26
- 5.15.8. Approval of Equipment and materials28
- 5.15.11. Substitutions30
- 5.16. Specifications and Drawings for Construction30
- 5.18. Project Document Maintenance and Submittal.....31
- 5.19. Temporary Buildings and Transportation of Materials33
- 5.20. Facilities33
- 5.21. Progress Cleaning33
- 5.22. Use of Premises34
- 5.23. GDPM Use of Premises / Possession Prior to Completion.....34
- 5.24. Smoking and Tobacco Products35
- 5.25. Correction of the Work.....35
- 6. ARTICLE VI: SUBCONTRACTORS.....37
- 6.2. Evaluation and Approval37
- 6.3. Suspension/Debarment38
- 6.4. Contractor's Responsibility38
- 6.5. Mandatory Contract Provisions/Forms38
- 6.6. Replacement of Subcontractors.....38
- 6.7. Contingent Assignment of Subcontract 3
- 6.8. Prompt Payment of Subcontracts 3
- 6.9. Subcontracting To Meet Diversity & Contracting Goals 4
- 7 ARTICLE VII: SUBCONTRACTORS 4
- 7.2. Forms..... 4
- 7.3. StepOne-PencilApplication 4
- 7.4. Progress Payments41
- 7.5. Allowances.....42
- 7.6. Unit Prices42
- 7.7. Schedule of Values42
- 7.8. Labor Payments/Retainage43
- 7.9. Material Payments/Retainage43
- 7.10. Payments Withheld44
- 7.11. Payment Request45
- 8 Article VIII: Contract Modifications.....45
- 8.2. Change Order45
- 8.4. Change Directive46
- 8.5. Change Order Procedure47
- 8.6. Change Order Proposal47
- 8.7. Differing Site Conditions 4

- 8.8. Minor Changes in the Work 4
- 8.9. Change Order Cost or Credit Determination 5
- 8.10. Time Extension53
- 8.11. Critical Path54
- 9 ARTICLE IX: DISPUTE RESOLUTION & CLAIM PROCEDURE54
- 9.2. Initiation of a Claim by Contractor55
- 9.3. Substantiation of Claims General55
- 9.4. Substantiation of Claims for increase of the Contract Sum56
- 9.5. Substantiation of Claims for Extension of the Contract Time56
- 9.6. Certification of a Claim56
- 9.7. Delay and Delay Damage Limitations57
- 9.8. Derivative Claims58
- 9.9. Claim Decision58
- 9.10. Audit of a Claim59
- 9.11. False Certification of a Claim.....60
- 10. ARTICLE X: SUSPENSION AND TERMINATION61
- 10.1. Suspension of the Work.....61
- 10.2. Termination for Convenience62
- 10.3. Termination for Cause/Default63
- 10.6. Contractor Insolvency65
- 11 ARTICLE XI: CONSTRUCTION CLOSEOUT66
- 11.1. Inspection and Construction of the Work66
- 11.2. Routine Inspections67
- 11.3. Substantial Completion67
- 11.4. Demonstration and Training, Operating Appurtenances69
- 11.5. Acceptance of Defective Work.....69
- 11.6. Building Commissioning70
- 11.7. Partial Contract Completion70
- 11.8. Final Contract Completion.....70
- 12. Article XII: Warranty71
- 12.2. Warranty of Construction71
- 13 Article XII: Bonds and Insurance72
- 13.1. Bid Bond/Guaranty72
- 13.2. Payment and Performance Bond.....73
- 13.4. General Insurance Requirements74
- 13.5. Minimum Contractor Coverage Requirements74
- 13.6. Waivers of Subrogation.....77
- 14. Article XIV: Indemnification.....78

15.	Article XV: Damages	78
15.1.	Liquidated Damages	78
15.2.	Mutual Waiver of Consequential Damages	80
16	Article XVI: Labor Standards Davis-Bacon and Related Acts	80
16.17.	Subcontracts	86
16.18.	Non-Federal Prevailing Wage Rates	87
17	ARTICLE XVIII: SECTION 3	87
18	ARTICLE XVIII: Equal Opportunity Prohibition against Discrimination	88
19	ARTICLE XIX: HEALTH, SAFETY, AND ACCIDENT PREVENTION	90
19.3.	Notification of Non-Compliance Procedure	90
19.4.	Safety Plan	90
19.5.	Safety Data Sheets	91
19.6.	Hazardous Materials	91
19.7.	Fires or Hot-Work	91
19.8.	Explosives and Blasting	92
20	ARTICLE XX: CONTRACT DOCUMENTS AND CONTRACT RECORDS.....	92
20.1.	Examination and Retention of Contractor's Records	92
20.2.	Examination and Audit of Contractor's Records	93
20.3.	Ownership of Contract Documents	93
20.4.	Intent of Contract Documents	94
20.5.	Use of Electronic Files	94
20.6.	Order of Precedence.....	95
21	ARTICLE XXI: MISCELLANEOUS	95
21.5.	Limitation on Payments Made to Influence Certain Federal Financial Transactions	97

1. ARTICLE I: CONTRACTOR RESPONSIBILITIES

- 1.1.** The Contractor shall perform the Work in a workmanlike manner, consistent with the standards of skill and care exercised by entities licensed to perform (where required by Ohio and/or Federal Law) and regularly performing comparable work in the same or similar locality under the same or similar circumstances.
- 1.2.** The Contractor shall perform the Work in accordance with the Contract Documents.
- 1.3.** The Contractor shall furnish all labor, services, materials, tools, equipment, superintendence, and transportation necessary for performance of the Work. Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by GDPM.
- 1.4.** The Contractor shall perform on the site and with its own organization, work equivalent to at least twelve percent (12%) of the total amount of work to be performed under the order. This percentage may reduce by a supplemental agreement to this Construction Contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be the advantage of GDPM.
- 1.5.** At all times during performance of this Construction Contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent whose qualifications and experience are satisfactory to GDPM and has authority to act on behalf of the Contractor. Further, Contractor must remain on-site or be immediately available if contacted.
- 1.6.** The Contractor shall be responsible for all damages, including, but not limited to, damages to persons or property that occur as a result of the Contractor's breach of this Construction Contract, fault or negligence and shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others.
- 1.7.** The Contractor shall also be responsible for all storage, protection and cleaning of materials delivered and Work performed on the Project, until Substantial Completion and acceptance of the entire Project, except for any completed unit of Work which may have not been accepted under the Construction Contract.
- 1.8.** The Contractor shall lay out the work from base lines and bench marks indicated in the drawings and be responsible for all lines, levels, and measurements of all work executed under the Contract Documents.
 - 1.8.1.** The Contractor shall verify the lines, bench marks, figures and dimensions indicated in the Contract Documents before laying out the work and will be held responsible for any error(s) resulting from its failure to do so.
- 1.9.** The Contractor shall confine all operations (including storage of materials) on GDPM's premises to areas authorized or approved by GDPM.
- 1.10.** The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. At no time shall Contractor use GDPM trash receptacles.
 - 1.10.1.** After completing the Work and before final inspection, the Contractor shall:
 - Remove from the premises all scaffolding, equipment, tools, materials (including rejected materials) that are not the property of GDPM and rubbish caused by its work;
 - Leave the work area in a clean, neat, and orderly condition satisfactory to GDPM;

- Perform all specified tests; and
- Deliver the installation in complete and operating condition.

1.11. The Contractor must perform the Work so as to not interfere with, disturb, hinder, or delay the services of separate consultants or the work of separate contractors.

1.11.1. The intent of this Section, 1.11, is to benefit any separate consultants and separate contractors and to demonstrate that the separate consultants or separate contractors are intended third-party beneficiaries of Contractor's obligations under the Contract.

1.11.2. The Contractor must cooperate and coordinate fully with all separate consultants and separate contractors and must freely share all of the Contractor's Project-related information with them to facilitate the timely and proper performance of the Work and of the services and work of the separate consultants and separate contractors.

1.11.3. The Contractor must afford every separate consultant and separate Contractor proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of their services and work.

1.11.4. If the Contractor damages the property or work of any separate consultant or separate Contractor caused by Contractor or by failure to perform the Work with due diligence, delays, interferes with, hinders, or disrupts the services of any separate consultant or separate Contractor who suffers additional expense and damage as a result, the Contractor is responsible for that damage, injury, or expense.

1.12. The Contractor shall remove any snow and ice as may be required for reasonably safe access to the Project, including, without limitation, building entries, driveways, parking lots, and sidewalks.

1.13. If the proper execution or result of any part of the Work depends upon work performed or services provided by GDPM, a separate consultant, or a separate Contractor, the Contractor must inspect that other work and appropriate instruments of service, and promptly report to GDPM in writing any defects or deficiencies in that other work or services that render it unavailable or unsuitable for the proper execution and results of the Work.

1.13.1. The Contractor's failure to inspect and promptly report any issues in writing will constitute an acceptance of the other work and services as fit and proper for integration with the Contractor's Work unless in the opinion of GDPM, the defects and deficiencies in the other work and appropriate instruments of service were not reasonably discoverable at the time of the Contractor's inspection.

1.14. The Contractor shall not delay the Work on account of any claim, dispute, or action between the Contractor and GDPM or the Contractor, a Separate Consultant or Separate Contractor.

1.15. The Contractor shall develop and keep a Construction Progress Schedule and prepare and keep current a schedule of submittals that is coordinated with the Construction Progress Schedule for GDPM's acceptance.

1.16. The Project's regular work hours shall be between 8:00 am and 5:00 pm, or as determined and approved by GDPM.

1.16.1. The Contractor may modify the regular work hours only if Contractor receives written authorization from GDPM's Project Manager and/or Construction Contract Administrator.

- 1.17.** The Contractor shall coordinate the Work with the activities and responsibilities of the Project's architect or engineer ("A/E"), GDPM and Contractor's surety to achieve the Substantial Completion date and Contract Completion.
- 1.18.** The Contractor shall keep a daily log containing a record of weather, number of workers on Site for the Contractor, identification of equipment, Work accomplished, problems encountered and other similar relevant data. Such information must be made available to GDPM immediately upon request.
- 1.19.** The Contractor hereby represents and agrees that, prior to submitting its bid or quote to perform the Work on the Project, it has had a competent person carefully and diligently review each part of the Contract Documents, including the Divisions of the Specifications and parts of the Drawings that are not directly applicable to the Work.
- 1.19.1.** Contractor further represents and agrees that, based upon its careful and diligent review of the Contract Documents, that it is not aware of any conflicts, inconsistencies, errors, or omissions in the Contract Documents for which it has not notified GDPM or the A/E.
- 1.19.2.** If there are any such conflicts, inconsistencies, errors, or omissions in the Contract Documents, the Contractor shall notify GDPM of such in writing and Contractor shall:
- Provide the labor, equipment, or materials of the better quality or greater quantity; and/or
 - Comply with the more stringent requirements.
- 1.19.3.** The Contractor will not be entitled to any additional compensation for any conflicts, inconsistencies, errors, or omissions that would have been discovered by such careful and diligent review.
- 1.20.** The Contractor hereby represents and agrees that the Project is a public project involving public funds.
- 1.20.1.** The Contractor further understands that GDPM expects and requires that each Contractor adhere to the highest ethical and performance standards.
- 1.20.2.** Accordingly, Contractor hereby pledges and agrees that:
- It will act at all times with absolute integrity and truthfulness in its dealings with GDPM and the A/E;
 - It will use its best efforts to cooperate with GDPM and the A/E and all other contractors and consultants on the Project and at all times will act with professionalism and dignity in its dealings with GDPM, the A/E, and other contractors;
 - It will assign only competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks that are assigned to him/her; and
 - It has read, understands and will comply with the terms of the Contract Documents.
- 1.21.** Emergency
- 1.21.1.** In the event of an emergency affecting the safety of the Project, other property, or individuals, the Contractor, without special instructions or authorization, shall act to prevent the threatened damage, injury, or loss.

1.21.2. If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of its actions in response to any emergency, the Contractor may request a Change Order by giving written notice no later than 48-hours after the emergency.

1.22. The Contractor's responsibilities will terminate when all work has been completed, the final inspection made, and the Work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

2. ARTICLE II: HOUSING AUTHORITY RIGHTS AND RESPONSIBILITIES

2.1. GDPM shall designate a Project Manager and/or Construction Contract Administrator for the Project.

2.2. GDPM shall have access to the Work and Site at all times, whether the Project is in preparation or progress.

2.3. GDPM is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.

2.4. Upon the date indicated in the Notice to Proceed, or other document provided by GDPM that authorizes Contractor to commence Work, GDPM shall provide the Site to the Contractor in a condition to permit the Contractor to perform the Work.

2.5. If the Site provided by GDPM is not in a condition to permit the Contractor to perform the Work, Contractor shall notify, in writing, GDPM's Project Manager and/or Construction Contract Administrator within one working day hours of the Notice to Proceed, or other document as applicable, and identify the conditions which are preventing Contractor from performing the Work.

3. ARTICLE III: A/E'S DUTY, RESPONSIBILITY AND AUTHORITY

3.1. The A/E for this Contract and any successor shall be designated in writing by GDPM.

3.2. The A/E's duties and responsibilities may include, but shall not be limited to:

3.2.1. Attend and conduct the Construction Progress Meetings.

3.2.2. Making periodic visits to the work site and on the basis of his/her on-site inspections, issuing written reports to GDPM which shall include all observed deficiencies.

3.2.2.1. The A/E shall electronically send a copy of the report to GDPM and to the Contractor's designated representative at the site.

3.2.2.2. Said report shall include a summary of up-to-date project completion information and summary of any changes to the Work to date.

3.2.3. Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance to the Contracting Officer.

3.2.4. The A/E may authorize minor changes or alterations in the Work that are consistent with the intent of the Contract Documents and do not involve adjustment of the Contract Sum or Contract Time, or both.

3.2.4.1. The A/E has no authority to authorize the Contractor to perform additional or extra Work for which the Contractor may seek adjustment of the Contract Sum or the Contract Time, or both.

3.2.5. Reviewing and making recommendations with respect to:

- The Contractor's Construction Progress Schedules;
- The Contractor's shop and detailed drawings; and
- The Contractor's price breakdown and progress payment estimates.

3.2.6. Assisting in inspections, signing Certificates of Completion, and making recommendations with respect to acceptance of work completed under the contract; and

3.2.7. Approve or certify applicable forms required under the Contract Documents.

3.3. Site Visits and Observation

3.3.1. The A/E shall notify, advise, and consult with GDPM and protect GDPM against Defective Work throughout completion of the Project, which includes the Correction Period, and for such time period GDPM may extend A/E's services.

3.3.1.1. The A/E should designate a field representative, subject to GDPM's approval, to attend meetings, to observe and check the progress and quality of the Work, and to take action as necessary or appropriate to achieve conformity with the Contract Documents.

3.3.1.2. The A/E shall have its consultants attend to the Project at intervals required by its agreement or required by GDPM.

3.3.2. The A/E is authorized to disapprove or reject Defective Work. The A/E shall immediately notify GDPM, in writing, any time the A/E disapproves or rejects an item of Work.

3.3.3. The A/E is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for work safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.

3.4. Testing and Inspection Services

3.4.1. Unless otherwise specified in the Contract Documents, the A/E shall apply for, secure, and pay for the costs of structural testing and special inspections under the Ohio Building Code; testing including geotechnical analysis, environmental testing and analysis, concrete, masonry, structural steel, reinforcing steel, welding, bolts, steel connections, HVAC systems and controls, plumbing and piping, air, and water balancing and testing, or other testing, or approvals required by Applicable Law.

3.5. A/E Review and Approval of Work

3.5.1. Any information the Contractor submits to the A/E is for the sole purpose of determining whether the Work and information is generally consistent with the Contract's intent, and will not relieve the Contractor of its sole responsibility for the performance, preparation, completeness, and accuracy of the Work and information.

3.5.2. By reviewing information submitted by the Contractor, A/E is not taking on responsibility for construction means, methods, manners, techniques, sequences, procedures, or for work safety precautions and programs in connection with the Work.

3.6. Limitation of A/E's Authority

3.6.1. The A/E shall serve as the technical representative for GDPM with respect to architectural, engineering, and design matters related to the Work performed under the Contract.

3.6.2. Subject to the Contractor's responsibility under ARTICLE I, the A/E may provide direction on Contract performance.

3.6.3. Such direction shall be within the scope of the Contract and may not be of a nature which:

- Institutes additional work outside of the scope of the Contract;
- Constitutes a change (except as provided for in 3.2.4);
- Causes an increase or decrease in the cost of the Contract;
- Alters the Construction Progress Schedule;
- Changes any of the other express terms or conditions of the Contract;
- Accepts any defective or non-conforming services, Work, or vendor-furnished items;
- Makes any settlements on GDPM's behalf;
- Assumes any responsibilities of the Contractor or Subcontractors; or
- Binds GDPM to any authorizations under, modifications of, or amendments to the Contract Documents other than as expressly provided herein.

3.7. The Contractor acknowledges and agrees that GDPM's legal counsel may from time to time provide legal services to the Project and that in doing so may communicate with the A/E, as GDPM's representative on the Project.

3.7.1. The Contractor agrees that such communications will be privileged communications and, if there is a Claim contemplated or pending, any written communications will be protected by the attorney client privilege and considered confidential work product.

4. ARTICLE IV: PRECONSTRUCTION ACTIVITIES

4.1. Pre-construction Conference

4.1.1. Within ten calendar days, unless otherwise indicated by GDPM, of Contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with GDPM representatives, GDPM's A/E, and other interested parties convened by GDPM.

4.1.1.1. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the Contract.

4.1.1.2. The A/E will be responsible for taking minutes and distributing said minutes within seventy-two (72) hours of completion of the meeting.

4.1.1.3. GDPM will provide the A/E and Contractor with the date, time, and place of the conference. Generally, the information will be contained in the issued Notice to Proceed.

4.2. Certificate of Insurance

4.2.1. Before commencing work, the Contractor and each Subcontractor shall furnish GDPM with certificates of insurance showing the minimum insurance coverage is in force and will insure all operations under the Contract.

4.3. Building and Trade Permits, Licenses and Codes

4.3.1. The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules, and regulations.

4.3.1.1. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the Contract, all Work installed shall comply with all applicable laws, ordinances, codes, rules, and regulations, as may be amended by any waivers.

4.3.1.2. Before installing the Work, the Contractor shall examine all drawings and the specifications for compliance with applicable laws, ordinances, codes, rules, and regulations bearing on the Work and shall immediately report, in writing, any discrepancy it may discover to GDPM's Project Manager and/or Construction Contract Administrator and the A/E. (HUD term had 'contracting officer')

4.3.1.3. If required by any governing jurisdiction, GDPM will modify the Contract by change order so that the Work on the Project will conform to the applicable laws, ordinances, codes, rules, and regulations.

4.3.1.4. If the Contractor installs any Work that does not comply with all applicable laws, ordinances, codes, rules, and regulations before providing notice hereunder to GDPM and receiving direction from GDPM, Contractor shall be responsible for all costs resulting from any removal, demolishing, and disposing of any Work that must be replaced or repaired.

4.3.2. Notwithstanding the provisions below, the Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of Work.

4.3.2.1. Where GDPM can arrange for the issuance of all or part of these permits, fees, and licenses, without cost to the Contractor, the Contract amount shall be reduced accordingly.

4.4. Plan Approval and Permits

4.4.1. The A/E shall facilitate the required structural, plumbing, HVAC, and electrical plan reviews during the design phase, as required by the governing jurisdiction for securing an overall building permit to start construction.

4.4.2. The Contractor shall schedule and attend all intermediate and final inspections required for any permit applicable to the Work or any governing jurisdiction.

4.4.3. If applicable, the Contractor shall schedule with the State Fire Marshal or local fire authority for the life safety inspection for occupancy permits.

4.4.4. The Contractor shall give the A/E and GDPM reasonable notice of the dates and times for any inspections.

4.4.4.1. The Contractor shall pay for all initial inspections and re-inspections required as a result of Contractor's failure to receive approval for its Work.

4.5. Trade Permits and Licenses

4.5.1. The Contractor shall secure and pay the fees for any permit, inspection, or license applicable to the Contractor's particular trade.

4.6. Local Permits:

4.6.1. The Contractor shall secure and pay the fees for any permits, inspections, licenses, capacity charges, or tap fees required by local authorities having jurisdiction over the Work.

4.6.2. The Contractor shall give the A/E and GDPM reasonable notice of the date(s) arranged for inspections.

4.7. National Pollutant Discharge Elimination System (NPDES) Storm Water General Permit:

4.7.1. If applicable, the A/E shall secure the NPDES general permit by submitting a Notice of Intent (NOI) application form to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction.

4.7.2. The Contractor shall be a co-permittee, if required under Applicable Law.

4.7.3. The A/E shall prepare and certify the storm water pollution prevention plan to provide sedimentation and erosion controls at the Work.

4.8. The A/E shall prepare and process the required Notice of Termination (NOT) prior to Contract Completion.

5. ARTICLE V: CONSTRUCTION REQUIREMENTS

5.1. Commencement of Work on Site

5.1.1. Unless GDPM agrees otherwise in writing, the Construction Stage will commence with GDPM issuing the Notice to Proceed and will terminate upon Substantial Completion, Certificate of Occupancy issuance, and the Completion of all punch list items delivered to Contractor by GDPM which must occur no later than 10 days after date of Substantial Completion.

5.1.2. Notice to Proceed:

5.1.2.1. The Contractor shall begin work upon the date indicated in a written Notice to Proceed from GDPM or its designee.

5.1.2.2. The Contractor shall not begin work prior to receiving such notice.

5.1.2.3. If GDPM Board of Commissioners' approval is required, the Notice to Proceed shall be issued within 180 days of GDPM Board of Commissioner's approval.

5.1.2.4. When applicable and if the Notice to Proceed is not issued within 180 days of GDPM Board of Commissioners' approval, GDPM may, in its sole discretion, terminate the Contract without recourse from the Contractor.¹

5.2. Environmental Controls

5.2.1. The Contractor shall protect its Work and materials from damage from water, moisture, and other weather, including damage from water run-off from other property or structures, and damage from heat, cold, and humidity.

5.2.2. Contractor is not authorized to use permanent HVAC system without express written authorization from GDPM

5.2.3. Until the permanent HVAC system is complete and available for use:

5.2.3.1. The Contractor shall make arrangements and pay for installation and maintenance of temporary heating and ventilating systems; and

5.2.3.2. The Contractor shall pay the costs incurred in operating the temporary heating and ventilating systems.

5.2.4. When the permanent HVAC system is complete and available for use:

5.2.4.1. The Contractor shall start up and maintain operation of the permanent HVAC system, including filters, and promptly remove temporary heating and ventilating systems.

5.2.4.2. If the Project consists entirely of new construction, the Contractor shall pay the costs of energy consumed in operating the permanent HVAC system until Substantial Completion.

5.2.4.3. From the date of Substantial Completion, GDPM shall pay the cost of operating the permanent HVAC system for the occupied portion of the Project.

5.2.4.4. Use of the permanent HVAC system during construction shall not change, modify or reduce the Contractor's warranty and service obligations under the Contract Documents.

5.3. Construction Procedures

5.3.1. The Contractor is solely responsible for and has control over all construction means, methods, techniques, sequences, and procedures, for safety precautions and programs in connection with the Work, and for coordinating all portions of the Work.

5.3.2. If the Contract Documents give instructions that affect construction means, methods, manners, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety of them and, except as expressly stated herein, be fully and solely responsible for the jobsite safety of the means, manners, methods, techniques, sequences, or procedures.

5.3.3. If the Contractor determines that the means, methods, manners, techniques, sequences, or procedures specified in the Contract Documents may not be safe, the Contractor shall give timely written notice to GDPM.

5.3.4. The Contractor shall not proceed with that portion of the Work without further written instructions from GDPM.

5.3.5. Additional Contractor Responsibilities

5.3.5.1. The Contractor shall lay out and coordinate all lines, levels, elevations, and measurements for all of the Work, coordinate and verify existing conditions, and notify the A/E and GDPM of discrepancies and conflicts before proceeding with installation or excavation.

5.3.5.2. The Contractor shall perform all cutting, fitting, or patching required for the Work and shall not endanger the Project by cutting, excavating, or otherwise altering the Work or any part of it.

5.3.5.3. If the Design requires sleeves for completing the specified Work, the Contractor and all Subcontractors shall coordinate to furnish and install the sleeves.

- The Contractors are responsible for the exact location of and size of all holes and openings required to be formed or built for the Work.

5.3.5.4. The Contractor's patching shall match and blend with the existing adjacent surfaces.

5.3.5.5. In addition to the items herein, The Contractor is responsible for all items in Article I, Contractor's Responsibilities.

5.4. Utilities

5.4.1. Availability and Use of Utilities

5.4.1.1. If GDPM has existing access to utilities, GDPM shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and service as specified herein so long as the utility use does not interfere with GDPM's operations.

5.4.1.2. Unless otherwise provided in the Contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to GDPM or where the utility is produced by GDPM, at reasonable rates as determined by GDPM.

5.4.1.3. The Contractor shall ~~carefully conserve any utilities furnished~~ provided by GDPM without charge.

5.4.1.4. The Contractor, at its expense and in a manner satisfactory to GDPM, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges.

5.4.1.5. Before final acceptance of the Work by GDPM, the Contractor shall remove all the temporary connections, distribution lines, meters, appurtenances and associated paraphernalia.

5.4.2. The Contractor shall comply with the Ohio Revised Code and any local rules, regulations and ordinances concerning utilities.

5.4.2.1. In addition, before starting excavation or trenching, the Contractor shall determine the location of any underground utilities and notify any public authority or utility having jurisdiction over the Project and secure any required approval.

5.4.3. The Contractor shall give at least 2 business days in advance of excavation to GDPM of underground utilities registered with the Ohio Underground Utility Protection Services ("OUPS").

5.4.3.1. The Contractor is required, within 48 hours' notice, to stake, mark, or otherwise designate the location for its utilities in the construction area together with its approximate depth.

5.4.3.2. In the event Contractor damages a utility line, the Contractor shall immediately notify the appropriate utility company or government official, the A/E and GDPM of the problem.

5.4.4. Water and Drainage

5.4.4.1. The Contractor shall provide water necessary for the Work until the permanent plumbing system is available for use.

5.4.4.2. The Contractor shall provide temporary drainage and dewatering necessary for the Work and shall employ pumps, trenches, drains, sumps, and other necessary elements required to provide satisfactory working conditions for the protection, execution, and completion of the Project.

5.4.4.3. The Contractor shall make arrangements and pay for installation and maintenance of temporary plumbing systems until the permanent plumbing system is available for use.

5.4.4.4. When the permanent plumbing system is complete and available for use:

- The Contractor shall start up and maintain operation of the permanent plumbing systems, and make arrangements and pay for removal of temporary plumbing systems.
- If the Project consists entirely of new construction, the Contractor shall pay the costs of water consumed and sewage charges until Substantial Completion.
- If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, GDPM shall pay the costs of water consumed and sewage charges.
- If separate metering of utilities is available, the Contractor and GDPM will pay the costs of their respective use.

5.4.4.5. After the date of Substantial Completion, GDPM shall pay the costs of water consumed and sewage charges for the occupied portion of the Project.

5.4.4.6. Use of the permanent plumbing system during construction shall not change, modify, or reduce the Contractor's warranty and service obligations under the Contract Documents.

5.4.5. Electric Service

5.4.5.1. The Contractor shall provide temporary light and power; pay the charges for temporary electric service, installation, and removal if required.

5.4.5.2. If the Project consists entirely of new construction, the Contractor shall pay the cost of energy consumed until Substantial Completion.

5.4.5.3. If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, GDPM shall pay the cost of energy consumed. GDPM will charge Contractor the cost of the energy consumed in accordance with 5.4.6.

5.4.5.4. If separate metering of utilities is available, the Contractor and GDPM will pay the costs of their respective use.

5.4.5.5. From the date of Substantial Completion, GDPM shall pay the cost of energy consumed for the occupied portions of the Project.

5.4.5.6. Use of the permanent electrical system during construction shall not change, modify, or reduce the Contractor's warranty and services obligations under the Contract Documents.

5.4.6. Payment of Utility Services

- 5.4.6.1. Unless otherwise expressly stated in the Contract Documents, Contractor shall reimburse GDPM the cost of utility services during the Construction Period.
- 5.4.6.2. Unless otherwise expressly stated in the Contract Documents, payment for reimbursement of GDPM for the cost of utility services during the Contract Period shall be made directly to GDPM.
- 5.4.6.3. If payment is not received, GDPM may deduct the cost of utility services from payments otherwise due to the Contractor.
- 5.4.6.4. If the payments otherwise due to the Contractor are not sufficient to fully reimburse GDPM, either Contractor or its surety shall make whatever payments are necessary to fully reimburse GDPM.
- 5.4.6.5. **Process for Payment:** Reimbursement from the contractor shall be performed on a quarterly basis unless a more frequent payment schedule is agreed upon between GDPM and the contractor prior to start of the project.

5.5. Hoisting Facilities

- 5.5.1. The Contractor shall erect and maintain any hoisting equipment required for its Work.
- 5.5.2. If the electric service requirements of hoisting facilities differ from that available at the Site, the Contractor shall provide and pay for all necessary connections.
- 5.5.3. If a permanent elevator is identified in the Contract Documents to be used for hoisting materials or personnel during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

5.6. Interruption of Existing Services

- 5.6.1. Whenever it becomes necessary to interrupt existing services in use by GDPM or its tenants, including, but not limited to, sewer, water, gas, steam lines, electric, telephone, Wi-Fi, and cable service, the Contractor shall continue the associated Work on a non-stop 24-hour per day basis until that Work is completed and the service restored, or perform the associated Work at an alternate time as required by and in coordination with GDPM.
- 5.6.2. Before beginning that Work, the Contractor shall apply in writing to, and receive approval in writing from GDPM to establish a time when interruption of the service will cause a minimum of interference with the activities of GDPM and its tenants.

5.7. Construction Supervision

- 5.7.1. Unless waived by GDPM in writing, the Contractor shall provide continuous supervision at the Site through a competent project manager or superintendent when any Work is being performed.
- 5.7.2. The Contractor's project manager and superintendent shall each have responsibility and authority to act on behalf of the Contractor.
 - 5.7.2.1. All communication to the Contractor's project manager and superintendent shall be binding as if given directly by the Contractor.
- 5.7.3. The Contractor shall submit an outline of the qualifications and experience of the Contractor's proposed project manager and superintendent, including references, to GDPM no later than 2 days after request from GDPM.

- 5.7.3.1.** The Contractor shall submit an outline of the qualifications and experience of the Subcontractor's proposed project manager and proposed superintendent, including references, to GDPM no later than 2 days after GDPM's request.
- 5.7.3.2.** GDPM may reject the Contractor or Subcontractor's proposed project manager and/or proposed superintendent.
- 5.7.3.2.1.** If GDPM does not notify the Contractor of the rejection within 30 days after receiving the required information, it shall then indicate that GDPM does not have an objection, but does not affect GDPM's rights under the Contract Documents or any other provision relative to the project manager or superintendent.
- 5.7.3.3.** If GDPM rejects the Contractor or Subcontractor's proposed project manager or proposed superintendent, the Contractor shall replace, or cause the Subcontractor to replace the project manager or superintendent (as appropriate) with someone acceptable to GDPM at no additional cost.
- 5.7.4.** If GDPM does not object the proposed project manager or superintendent, the Contractor and its Subcontractor shall not replace their respective project managers and superintendents without prior written approval of GDPM.

5.8. Construction Progress Schedule

- 5.8.1.** The Contractor shall, no later than seven days of the issuance of the Notice to Proceed or another period of time determined by GDPM, prepare and electronically submit to GDPM, for approval viable schedule showing the order in which the Contractor proposes to perform the Work, the dates on which the Contractor contemplates starting and completing the several salient features of the Work (including acquiring labor, materials, and equipment).
- 5.8.2.** The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period.
- 5.8.3.** The Chart must be in a Critical Path Method (CPM) format.
- 5.8.4.** If the Contractor fails to submit a schedule within the time prescribed, GDPM may withhold approval of progress payments or take other remedies under the Contract until Contractor submits the required schedule.
- 5.8.5.** The Contractor shall monitor the Work for conformance with the Construction Progress Schedule and shall initiate revisions as required herein.
- 5.8.6.** The Contractor shall enter the actual progress on the chart as required by GDPM, and immediately provide electronic copies of the annotated schedule to GDPM.
- 5.8.6.1.** If GDPM determines, upon the basis of inspection conducted, herein that the Contractor is not meeting the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by GDPM, without additional cost to GDPM.
- 5.8.6.2.** In this circumstance, GDPM may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as GDPM deems necessary to demonstrate how the approved rate of progress will be regained.

5.8.7. Failure of the Contractor to comply with the requirements of GDPM shall be grounds for a determination by GDPM that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract.

5.8.7.1. Upon making this determination, GDPM may terminate the Contractor's right to proceed with the work, or any separable part of it.

5.8.8. Unless otherwise agreed to in writing, The Contractor shall develop the Construction Progress Schedule using commercially available, personal computer software acceptable to GDPM and shall submit all baseline and updated schedules to GDPM in the schedule's native format.

5.8.9. This submission shall be in electronic format.

5.8.10. The Construction Progress Schedule shall not exceed the time limits under the Contract Documents. Further, the Progress Schedule shall provide for reasonable, efficient, and economical execution of the Project and shall relate to the entire project to the extent required by the Contract Documents.

5.8.10.1. In the event that a Construction Progress Schedule submitted by Contractor shows a completion date that extends beyond the Contract Time permitted to Contractor in the Contract Documents, such Construction Progress Schedule shall not be deemed to modify the Contract Time permitted in the Contract Documents.

5.8.10.2. The Contractor shall use the Construction Progress Schedule to plan, organize, and execute the Project, record and report actual performance and progress, and show how it plans to coordinate and complete all remaining work by contract completion within applicable milestones.

- The Project participants shall use the Construction Progress Schedule as a tool for scheduling and reporting sequences and/or the progress of the Work.
- The Contractor shall provide a clear graphics legend and other data including without limitation, milestone dates, constraints, and other items required by the Project and GDPM.
- Each submission shall show GDPM's contract number and project name.

5.8.11. The Contractor shall provide the following in each schedule:

5.8.11.1. Activity identification and description of each activity broken down to a maximum duration that is appropriate for the activity;

5.8.11.2. Responsibility of the Contractor;

5.8.11.3. Contractor's resources and crew size for each activity; and

5.8.11.4. Provide early start, early finish, late start, late finish dates.

5.8.11.5. The Construction Progress Schedule shall show all submittal dates, review and approval durations for coordination drawings, Shop Drawings, other action submittals and mock-up Work.

5.8.12. The Contractor shall submit the initial and all updates of the Construction Progress Schedule in graphic and tabular form to GDPM.

5.8.12.1. With each monthly schedule update, the Contractor shall include a list of all changes to the previously approved baseline schedule or monthly updated schedule.

- 5.8.13.** The Construction Progress Schedule shall be managed using early start dates and early finish dates.
- 5.8.13.1.** The Contractor must exhaust all existing float before claiming additional time for a Change Order.
- 5.8.14.** The Contractor's failure to submit and properly maintain an approved Construction Progress Schedule may result in withholding payment in accordance with the Contract Documents.
- 5.8.15.** For each Progress Meeting, the Contractor shall provide a 2-6 week look-ahead schedule, as appropriate for the Project.
- 5.8.16.** On a monthly basis, the Contractor shall prepare and submit to GDPM a written report describing:
- 5.8.16.1.** Activities begun or finished during the preceding month;
- 5.8.16.2.** Activities in progress and expected completion;
- 5.8.16.3.** Activities to be started or finished in the upcoming month including, without limitation, the Contractor's workforce size and total resource hours associated with those activities;
- 5.8.16.4.** Recommendations for adjusting the Construction Progress Schedule to meet Milestone dates and the Substantial Completion date; and
- 5.8.16.5.** Other information requested by GDPM.
- 5.8.17.** If it is apparent that the Contractor may be unable to meet Critical Path activities, Milestone completion dates, or the Substantial Completion date(s), GDPM shall direct the Contractor to submit within 3 days a Recovery Plan to avoid or minimize a delay in the Project.
- 5.8.17.1.** A Recovery Plan shall include, without limitation, adjustments to one or more of the following:
- Workforce
 - Hours per shift
 - Shifts per workday
 - Workdays per week
 - Equipment
 - Activity logic
- 5.8.17.2.** If GDPM approves the Recovery Plan, the Contractor shall prepare a revised Construction Progress Schedule within 3 business days to GDPM.
- If GDPM does not approve the Recovery Plan, the Contractor shall submit within 3 days an alternate Recovery Plan to GDPM in writing for review and in accordance the Contract Documents.
- 5.8.18.** The Contractor shall update the Construction Progress Schedule on a monthly basis, or other interval(s) as approved by GDPM, in accordance with the Contract Documents.
- 5.8.18.1.** The Contractor shall submit a tabular copy showing all changes to the previously approved schedule.

5.8.18.2. The original or initially approved Construction Progress Schedule and all subsequent Construction Progress Schedules submitted by the Contractor, and accepted by GDPM, shall serve as an affirmation that the Contractor agrees to meet the applicable requirements and updated Construction Progress Schedule.

5.8.18.3. The Contractor's failure to timely submit updated Construction Progress Schedules as deemed necessary by GDPM may result in withholding payments from Contractor.

5.9. Progress Meetings

5.9.1. Unless otherwise indicated in writing, GDPM shall schedule bi-weekly Progress Meetings for the Contractor and other persons involved in the Project as deemed necessary for coordination of the Work by GDPM, including Contractor's Subcontractors on the Project.

5.9.1.1. The purpose of the Progress Meeting is to review progress on the Project during the previous week, discuss anticipated progress during the following weeks, review critical operations, and discuss critical problems.

5.9.2. The Contractor shall be represented at every Progress Meeting by a person authorized with signatory authority to make decisions regarding possible modifications of the Contract Documents or Construction Progress Schedule.

5.9.2.1. GDPM shall notify the Contractor and other persons involved in the Project of the time and place of the Progress Meeting that shall thereafter be the same day and hour of the week for the duration of the Project, unless GDPM notifies the Contractor and other Persons involved in the Project of a different day and hour at least 2 days in advance.

5.9.2.2. The Contractor shall have any of its subcontractors attend the Progress Meeting as determined advisable by the Contractor, or as requested by GDPM.

5.9.2.3. Unless otherwise indicated in writing, A/E shall prepare a written report of each Progress Meeting and distribute the report to the GDPM and the Contractor.

5.9.2.4. If any person in attendance objects to anything in a report of a Progress Meeting, the person shall notify GDPM and any other affected person in writing explaining the objections within seven calendar days.

5.9.2.5. The report of each Progress Meeting shall reflect any objection made to the report of the previous Progress Meeting and any response.

5.10. Project Coordination

5.10.1. If determined needed by GDPM, the Contractor or Subcontractor(s), The Contractor shall prepare Coordination Drawings for any Coordination Area.

5.10.1.1. The Contractor shall prepare the Coordination Drawings with Computer-Aided Design ("CAD") or Building Information Modeling ("BIM") software acceptable to GDPM.

5.10.1.2. The Coordination Drawings shall show all affected work, including without limitation, plan and elevation dimensions.

5.10.2. After the Contractor completes the Coordination Drawing, the Contractor shall forward a copy of the Coordination Drawings to GDPM.

5.10.2.1. The A/E shall report any concerns in writing to the Coordination Participants within 14 days after receiving the drawings.

5.11. Additional Tests and Inspections

- 5.11.1.** If the A/E or GDPM determines that any portion of the Work requires special inspection, testing, or approval not otherwise required under the Contract Documents, the A/E and/or GDPM shall order such inspection, testing, or approval.
- 5.11.2.** If the special inspection, testing, or approval reveals Defective Work, the Contractor shall pay all associated costs and will not be entitled to any related adjustment of the Contract Times. Those costs may include without limitation:
- The cost of special inspection, testing, or approval;
 - The cost of additional special inspections, testing, or approvals, to evaluate Remedial Work;
 - The cost of correcting Defective Work; and
 - All related GDPM-incurred fees and charges of contractors, engineers, architects, attorneys, and other professionals.
- 5.11.3.** GDPM may deduct the costs described under the Contract Documents from payments then or thereafter due the Contractor. If payments then or thereafter due to the Contractor are not sufficient to cover those amounts, the Contractor or its surety shall immediately pay the amount of the insufficiency to GDPM.
- 5.11.4.** If the special inspection, testing, or approval reveals that the Work complies with the Contract Documents, and the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Time, or both, on account of the special inspection, testing, or approval, the Contractor may file a Claim by requesting a Change Order by giving written notice within 7 days after the special inspection, testing, or approval.
- 5.11.5.** If the Contractor is aware of the need of an inspection, testing, or approval, or of a need to have any inspection, testing, or approval completed by a particular time to avoid delay, then the Contractor shall timely communicate such information to GDPM.
- 5.11.6.** Except as described in Additional Tests and Inspections, GDPM shall pay for any inspection, testing, or approval that did not become a requirement until after award of Contract.
- 5.11.7.** The Contractor shall coordinate with and give GDPM reasonable notice of the anticipated dates of all inspections, testing, or approvals.

5.12. Review of Contract Documents

- 5.12.1.** Before starting each portion of the Work, the Contractor shall carefully study and compare the various Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the Site affecting it.
- 5.12.2.** If the Contractor finds any perceived ambiguity, conflict, error, omission, or discrepancy on or between any of the Contract Documents, or between any of the Contract Documents and any Applicable Law, the Contractor, before proceeding with the Work, shall promptly submit of Requests for Information ("RFI") to GDPM for an interpretation or clarification.
- 5.12.2.1.** Before submitting any RFI, the Contractor shall carefully review the Contract Documents to ensure that the Contract Documents do not answer the RFI.

5.12.2.2. If Contractor indicates that the information requested in the RFI affects the critical path of the Project's Construction Progress Schedule and attaches the portion of the Project's Construction Progress Schedule that verifies that the information requested in the RFI affects the critical path, GDPM shall make all reasonable efforts to respond to the RFI within 7 business days of receiving the RFI.

5.12.3. If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of clarifications or instructions issued in response to a RFI, the Contractor may submit a Claim by requesting a Change Order by giving notice within 3 business days of receiving the RFI response.

5.12.4. If Contractor does not notify GDPM in accordance with this Article Five or any other section of the Contract Documents that addresses adjustments to the Contract Sum and Contract Time, the Contractor will have accepted the RFI response without an adjustment to the Contract Sum or Contract Time and irrevocably waives his right to submit or request an adjustment to the Contract Sum and/or Contract Time.

5.12.5. Frivolous RFI

5.12.5.1. If the Contractor submits a frivolous RFI, as determined by GDPM, Contractor shall be liable to GDPM for the costs related to the review and response of the RFI.

5.12.5.1.1. GDPM may deduct the costs described herein from payments then or thereafter due to the Contractor.

5.12.5.1.2. If payments then or thereafter due to the Contractor are not sufficient to cover GDPM's costs, the Contractor or its surety shall immediately pay the amount of the insufficiency to GDPM.

5.12.5.2. Frivolous RFIs may be returned unanswered.

5.12.5.3. Delays caused by improper or frivolous RFI's are the sole responsibility of the Contractor who shall waive the Contractor's right to seek adjustments to the Contract Sum and Contract Time.

5.13. Site Investigation and Conditions Affecting the Work

5.13.1. The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including, but not limited to:

- Conditions bearing upon transportation, disposal, handling, and storage of materials;
- The availability of labor, water, electric power and roads;
- Uncertainties of weather, river stages, tides, or similar physical conditions at the site;
- The conformation and conditions of the ground; and
- The character of equipment and facilities needed preliminary to and during work performance.

5.13.2. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by GDPM, as well as from the drawings and specifications made part of this contract.

5.13.2.1. Any failure of the Contractor Site Investigation and Conditions Affecting the Work will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the Work, or for proceedings to successfully perform the Work without additional expense to GDPM.

5.13.3. GDPM assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by GDPM. Nor does GDPM assume responsibility for any understanding reached or representations made concerning conditions which can affect the Work by any of its officers or agents before execution of this Contract, unless that understanding or representation is expressly stated in this Contract.

5.14. Protection of the Project

5.14.1. The Contractor shall protect the Project from weather and maintain the Work and all materials, apparatus, and fixtures free from injury or damage until Substantial Completion of the Work.

5.14.1.1. The Contractor shall at all times cover or protect the Work and materials.

5.14.1.2. The Contractor, at its own expense, shall remove, and replace with new, any Work damaged as a result of the Contractor's failure to provide coverage or protection.

5.14.1.3. After the date of Substantial Completion of the Work, GDPM is responsible for protecting and maintaining all materials, apparatus, and fixtures for the occupied portion of the Project from injury or damage.

5.14.2. The Contractor shall protect the Project and existing or adjacent property from damage at all times and shall erect and maintain necessary barriers, lateral support, furnish and keep lighted necessary danger signals at night, and take reasonable precautions to prevent injury or damage to individuals or property.

5.14.3. Temporary Heating

5.14.3.1. The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to protect all Work and materials against damage by dampness and cold, to dry out the Work, and to facilitate the completion of Work.

5.14.3.2. Any permanent heating equipment used shall be turned over to GDPM in the condition and at the time required by the specifications.

5.14.4. The Contractor shall not load, or permit any part of the Project to be loaded, in any manner that endangers the Project, or any portion thereof.

5.14.4.1. The Contractor shall not subject any part of the Project or existing or adjacent property to stress or pressure that endangers the Project or property.

5.14.5. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

5.14.5.1. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work sites, which are not to be removed under this Contract, and which do not unreasonably interfere with the Work required under this Contract.

5.14.5.2. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place.

- 5.14.5.2.1.** If any limbs or branches of trees are broken during performance of this Contract, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as specifically directed by GDPM.
- 5.14.5.3.** The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor.
- 5.14.5.3.1.** Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.
- 5.14.5.4.** The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the Project.
- 5.14.5.5.** Any equipment temporarily removed as a result of work under this Contract shall be protected, cleaned, and replaced in the same condition as at the time of award of this Contract.
- 5.14.5.6.** New work which connects to existing Work shall correspond in all respects with that to which it connects and/or be similar to existing Work unless otherwise required by the specifications.
- 5.14.5.7.** No structural members shall be altered or in any way weakened without the written authorization of GDPM, unless such work is clearly specified in the Plans or specifications.
- 5.14.5.8.** If the removal of the existing Work exposes discolored or unfinished surfaces, or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious.
- This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different plans or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the plans or specifications.
- 5.14.5.9.** The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before commencement of any Work.
- 5.14.5.10.** The Contractor shall indemnify and save harmless GDPM from any damages on account of settlement or the loss of lateral support of adjoining property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for which GDPM may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- 5.14.5.11.** The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the work.
- If the Contractor fails or refuses to repair the damage promptly, GDPM may have the necessary Work performed and charge the cost to the Contractor.

5.14.6. Vibration, Noise, and Dust Control

5.14.6.1. The Contractor shall provide controls/barriers for vibrations, noise, and dust control in occupied buildings as required by the construction operations.

5.14.6.2. The Contractor will not be permitted to exhaust or release unfiltered air, dust, construction debris, or other undesirable products into the exterior atmosphere or into occupied areas of the building.

5.14.6.2.1. GDPM may limit or stop the Work if the Contractor does not maintain proper air-quality standards.

5.14.6.2.2. Such stoppage may result in a charge to the Contractor.

5.14.6.3. In certain occupied buildings, tasks might be of such a nature that noise and vibration cannot be tolerated.

- In such spaces and as approved by GDPM, Work may be scheduled for other than normal working hours.
- The Contractor is cautioned that weekend or overtime work, if required, shall be performed at no additional cost.
- Permission to work other than standard hours shall be received from GDPM prior to the occurrence.
- Weekend or overtime Work shall be reflected in the Construction Progress Schedule.

5.14.6.4. The Contractor is responsible for vibration control and control of transmission of noise arising from the Work.

5.14.6.5. Principal considerations that shall be given to noise and vibrations control are:

- Noise control in compliance with Occupational Safety and Health Administration (OSHA) shall be for all areas of the facility, including equipment rooms, boiler rooms, and fan rooms.
- Vibration control to limit sound produced by construction equipment, and for protection of the equipment existing in the building and the building structure.
- Vibration control to provide for the maximum usefulness of the facility by keeping levels of vibration within ranges conducive to peaceful enjoyment of residential living or work or other uses for which the facility was designed

5.15. General Warranty - Materials, Equipment and Workmanship

5.15.1. The Contractor warrants to GDPM and A/E that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise.

5.15.1.1. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit.

5.15.1.2. Work, materials, or equipment not conforming to these requirements may be considered defective.

5.15.1.3. If required by the A/E, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

5.15.2. If the Contractor breaches any of its obligations, the Contractor will pay the Owner for its damages and expenses, including but not limited to attorneys' and consultants' fees and expenses, arising out of or related to such breach.

5.15.2.1. The Contractor's obligation shall be joint and several.

5.15.3. Additional Warranties

5.15.3.1. The Contractor gives the Owner the following additional warranties:

5.15.3.1.1. If the Contractor's Work includes all or part of the exterior roofing system, provided that the Architect has designed the roofing system to be weather tight, the Contractor warrants that the roofing system will be weather tight; and

5.15.3.1.2. If the Contractor's Work includes all or part of the exterior wall system, provided that the Architect has designed the wall system to be weather tight, the Contractor warrants that the wall system will be weather tight. Weather tight shall mean the roofing and/or wall system does not permit any infiltration of water in any form that would have any adverse effect on GDPM's operations or the Project.

5.15.4. The Contractor shall, at the time of final completion of the Work and as a condition precedent to final payment to Contractor, assign to GDPM all manufacturer's warranties related to the materials and labor used in the Work and further agrees to perform the Work in such manner as to preserve any and all such manufacturer's warranties and deliver to the A/E the warranties, project manual, operating procedures, and other materials related to each of the building systems and materials included in the Contractor's Work and as required by the Specifications.

5.15.5. Upon notice of the breach of any of the warranties or guarantees identified herein, or any other warranties or guarantees under the Contract Documents, the Contractor, in addition to any other requirements in the Contract Documents, shall commence to correct such breach and all damage resulting therefrom within two (2) business days from written notice thereof, thereafter use its best efforts to correct such breach and damage to the satisfaction of GDPM and A/E, and, except when an extension of time is granted in writing by GDPM, correct such breach and damage to the satisfaction of GDPM within thirty (30) calendar days of such notice, or such other time as provided in the notice; provided, however, that if such notice is given after final payment the 2-day period shall be extended to seven (7) calendar days.

5.15.5.1. If the Contractor fails to commence to correct such breach and damage, or to correct such breach or damage as provided above, GDPM, without prejudice to any of its other rights or remedies at law or under the Contract Documents, may correct the breach without further notice to Contractor.

5.15.5.2. The Contractor shall pay GDPM's reasonable costs and expenses incurred in connection with the or related to such correction and/or breach, including without limitation GDPM's administrative, legal, and consulting expenses and additional service fees of the A/E.

5.15.5.3. The foregoing warranties and obligations of the Contractor shall survive final payment and/or termination of the Contract and shall not be limited by any other terms contained in the Contract Documents.

- 5.15.5.4.** If the Contractor fails to pay the GDPM any amounts due hereunder, the Contactor shall pay the GDPM, in addition to the amounts due, a late payment fee of one and one-half percent (1.5%) per month for each month or part thereof that the payments are not paid when due.
- 5.15.6.** Contractor shall bring to or store at the Site only the materials and equipment required for the Work. If possible, materials and equipment should be installed in their final positions when brought to the Site.
- 5.15.7.** All equipment, material, and articles furnished under this Contract shall be of the most suitable grade for the purpose intended, unless otherwise specifically provided in this Contract.
- 5.15.7.1.** References in the Contract to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.
- 5.15.7.2.** The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by GDPM in writing, is equal to that named in the specifications, unless otherwise specifically provided in this Contract so long as Contractor has submitted a substitution request to GDPM.
- 5.15.7.3.** If the substituted material has not been approved by GDPM in writing, the substituted material may be considered Defective Work by GDPM or A/E.

5.15.8. Approval of Equipment and materials

- 5.15.8.1.** The Contractor shall obtain GDPM's approval of the machinery and mechanical and other equipment to be incorporated into the work.
- I. When requesting approval, the Contractor shall furnish to GDPM the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment.
 - II. When required by this contract or by GDPM, the Contractor shall also obtain GDPM's approval of the material or articles which the Contractor contemplates incorporating into the work.
 - III. When requesting approval, the Contractor shall provide full information concerning the material or articles.
 - IV. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.
- 5.15.8.2.** When required by the specifications or GDPM, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid.
- The Contractor shall label, or otherwise properly mark on the container, the material or product represented, its place of origin, the name of the producer, the Contractor's name, and the identification of the construction project for which the material or product is intended to be used.
- 5.15.8.3.** Certificates shall be submitted electronically describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.

5.15.8.4. Approval of a sample shall not constitute a waiver of GDPM's right to demand full compliance with contract requirements.

- Materials, equipment and accessories may be rejected for cause even though samples have been approved.

5.15.8.5. Wherever materials are required to comply with recognized standards or specifications, such specifications shall be accepted as establishing the technical qualities and testing methods, but shall not govern the number of tests required to be made nor modify other Contract requirements.

- GDPM may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples.
- Check tests will be made on materials delivered for use only as frequently as GDPM determines necessary to insure compliance of materials with the specifications.
- The Contractor will assume all costs of retesting materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.

5.15.8.6. After approval, samples will be kept in the Project office until completion of work. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.

5.15.9. BUILD AMERICA BUY AMERICIA BABA REQUIREMENTS: Pursuant to the Build America, Buy America Act (BABA), enacted as part of the Infrastructure Investment and Jobs Act (IIJA). Pub. L. 117-58, 41 U.S.C. § 8301 note, the Federal Financial Assistance used to fund this infrastructure project is required to apply a domestic content procurement preference (the “Buy America Preference” or “BAP”) for all construction, alteration, maintenance, or repair of infrastructure, including buildings and real property, unless application of the BAP has been waived by HUD. Additional details on fulfilling the BABA requirements can be found at:

https://www.hud.gov/program_offices/general_counsel/build_america_buy_america.

BABA is the Build America, Buy America Act. BABA requires any “infrastructure project” funded by any “Federal Financial Assistance” (FFA) apply a domestic content procurement preference, meaning that all iron, steel, manufactured products, and construction materials used in the infrastructure project have been produced in the United States, unless the awarding agency has issued a waiver of this requirement. This is called the “Buy American Preference” (BAP).

In order to ensure compliance with BABA requirements, Contractor will be required to:

- Request waiver if the contractor cannot fulfill BABA requirements.
- Provide sufficient product purchase info to enable GDPM to comply with the documentation requirements. Sufficient documentation may include:
 - A certificate from the manufacturer or reseller that the product complies with BABA;
 - For products that cost less than \$100 per product, a copy of a label that indicates the product was made in the United States; or
 - For small purchases of product that are less than the simplified acquisition threshold either a copy of a product specification that provides sufficient detail to conclude that the product complies with BABA or a communication other than a certification from a manufacturer or reseller of a product that confirms

that the product is BABA compliant.

5.15.10. Requirements concerning lead-based paint: The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act.

5.15.11. Substitutions

5.15.11.1. If the Contractor provides approved Substitutions that require changes to the Contract Documents, the Contractor shall be solely responsible for the additional costs incurred as a result, including without limitation changes to the design by the A/E.

5.15.11.2. GDPM shall consider Requests for Substitutions after the bid opening only when the Contractor can conclusively demonstrate to GDPM the following conditions:

- I. The specified Basis of Design Components, Acceptable Components, or previously approved Substitutions through no fault of the Contractor are not available; or
- II. The specified Basis of Design Components, Acceptable Components, or previously approved Substitutions will not perform as designed or intended.

5.15.11.3. The Contractor's incorporation of unapproved Substitutions in the Work shall constitute Defective Work.

5.15.11.4. If the Contractor provides an unacceptable Component, the Contractor shall be solely responsible for the costs of coordination and modification required.

5.16. Specifications and Drawings for Construction

5.16.1. The Contractor shall keep on the work site a stamped, permit set of the drawings and specifications and shall at all times give GDPM access thereto.

- 5.16.1.1.** Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both.
- 5.16.1.2.** In case of difference between drawings and specifications, the specifications shall govern.
- 5.16.1.3.** In case of a discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to GDPM, who shall promptly make a determination in writing.
- 5.16.1.4.** Any adjustment by the Contractor without such determination shall be at its own risk and expenses.
- 5.16.1.5.** GDPM shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.
- 5.16.2.** Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of GDPM is intended.
- 5.16.3.** Where "shown," indicated", "detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this Contract unless otherwise stated, the word "provided" as used herein shall be understood to mean "provide complete in one place" that is "furnished and installed".
- 5.16.4.** "Shop Drawings" means drawings, submitted to GDPM by the Contractor, subcontractor or any lower tier subcontractor, showing in detail, 1) the proposed fabrication and assembly of structural elements and 2) the installations (i.e., form, fit, and attachment details) of materials of equipment.
 - 5.16.4.1.** It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the Contract.
 - 5.16.4.2.** GDPM may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- 5.16.5.** If this Contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other Contract requirements and shall indicate its approval thereon as evidence of such coordination and review.
 - 5.16.5.1.** Shop Drawings submitted to the A/E without evidence of the Contractor's approval may be returned for resubmission.
 - 5.16.5.2.** GDPM will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate GDPM's reasons therefore.
 - 5.16.5.3.** Any Work done before such approval shall be at the Contractor's risk.
 - 5.16.5.4.** Approval by the A/E shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this Contract, except with respect to approved variations.
- 5.16.6.** If shop drawings show variations from the Contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission.

5.16.6.1. If the A/E approves any such variation and GDPM concurs, GDPM shall issue an appropriate modification to the Contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

5.16.7. It shall be the responsibility of the Contractor to make timely requests to GDPM for such large scale and full size drawings, color schemes, and other additional information, not already in possession, which shall be required in the planning and production of the work.

5.16.7.1. Such requests may be submitted as the need arises, but each such request shall be filed with ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

5.16.8. The Contractor shall electronically submit to GDPM for approval (unless otherwise indicated) all shop drawings as called for under the various headings of the specifications.

5.16.8.1. As required by GDPM, the Contractor, upon completing the work under this Contract, shall furnish a complete set of drawings as finally approved.

5.16.8.2. These drawings show all changes and revisions made up to the time the work is completed and accepted.

5.16.9. Specifications and Drawings for Construction shall be included in all subcontracts at any tier.

5.16.9.1. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to GDPM.

5.17. As Built Drawings

5.17.1. "As-built drawings," means drawings submitted by the Contractor or subcontractor at any tier to show the construction of a particular structure or Work as actually completed under the Contract.

5.17.1.1. "As-built drawings" shall be synonymous with "Record Drawings".

5.17.2. As required by GDPM, the Contractor shall provide GDPM accurate information to be used in the preparation of permanent as-built drawings.

5.17.2.1. For this purpose, the Contractor shall record on one set of contract drawings all changes from the installations originally indicated, and record final locations of underground lines by depth from finish grade and by accurate horizontal offset distances to permanent surface improvements such as buildings, curbs, or edges of walks.

5.17.3. As Built Drawings shall be included in all subcontracts at any tier.

5.17.4. It shall be the responsibility of the Contractor to ensure that all As-Built Drawings prepared by subcontractors are submitted to GDPM.

5.18. Project Document Maintenance and Submittal

5.18.1. During Construction

5.18.1.1. The Contractor shall maintain in good order at a secure location on the Site:

- I. A complete copy of all Contract Documents; Shop Drawings, Product Data, samples and similar required submittals; manufacturer operating and maintenance instructions; certificates; warranties; RFIs and responses thereto; and other Project- related documents, all marked currently and accurately to record field changes and selections made during construction and to show

Actual installation where installation varies from Work as originally shown, including the exact location and depth of underground utility lines; and

II. A set of Drawings as approved by any applicable jurisdiction and Specifications.

5.18.1.2. Before submitting each Contract Payment Request, the Contractor shall record all changes on the Contract Documents, neatly in a contrasting color, noting new information not shown on the original Contract Documents.

- Failure to record all changes may cause payment to be withheld or delayed by GDPM.

5.18.1.3. The Contractor shall keep a record of changes made to the Specifications, noting particularly any approved variation from manufacturer's installation instructions and recommendations.

5.18.1.4. If the Contractor uses Shop Drawings to indicate as-built conditions, the Contractor shall cross-reference the Shop Drawing sheet numbers to the corresponding sheet numbers on the Contract Documents.

- The Contractor shall note related numbers where applicable.

5.18.2. Before Contract Completion

5.18.2.1. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize the As-Built Documents into manageable sets, bind the sets with durable paper cover sheets, and deliver the As-Built Documents to GDPM.

5.18.2.2. When applicable, The Contractor's As-Built Documents submission shall include, but is not limited to:

- I. Certificate of Occupancy;
- II. Inspection certificates for pressure piping, elevator, boiler, electrical, plumbing or piping purification, etc.
- III. Letter of Approval from the local fire authority or State Fire Marshal for the fire suppression system;
- IV. Operation and Maintenance Manuals, organized into suitable sets of manageable size;
- V. Indexed data bound in individual binders, with pocket folders for folded sheet information and appropriate identification marked on the front and the spine of each binder;
- VI. Neatly and accurately marked sets of As-Built Documents, and other Contract Documents reflecting the actual construction of the Project;
- VII. Detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems, and components;
- VIII. Assignment to GDPM of all warranties and guarantees, including the most-recent address and telephone number of any Subcontractors or manufacturers;
- IX. An affidavit to certify that all Subcontractors have been paid in full for all Work performed or materials furnished for the Project;
- X. Final certified payroll reports; and

- XI. An affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all requirements of HUD and the Ohio Revised Code.

5.18.2.3. By submitting the As-Built Documents to GDPM, the Contractor certifies that its As-Built Documents are complete, correct, and accurate.

5.19. Temporary Buildings and Transportation of Materials

5.19.1. Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of GDPM and shall be built with labor and materials furnished by the Contractor without expense to GDPM.

5.19.1.1. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work.

5.19.1.2. With the written consent of GDPM, the buildings and utilities may be abandoned and need not be removed.

5.19.2. The Contractor shall, as directed by GDPM, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by GDPM.

5.19.2.1. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, or local law or regulation.

5.19.2.2. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage.

5.19.2.3. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

5.20. Facilities

5.20.1. The Contractor shall provide and maintain in a clean condition:

5.20.1.1. Suitable facilities, including temporary facilities, equipment, services, and enclosed storage for its use at the Site;

5.20.1.2. Adequate space, equipment, and furnishings to conduct progress meetings, and store approved documents and permits;

5.20.1.3. Adequate sanitary facilities for use by all Persons at the Site.

5.21. Progress Cleaning

5.21.1. The Contractor shall remove all waste materials, rubbish, and mud attributable to the Work in accordance with the Specifications, if applicable, and to an appropriate disposal location.

5.21.2. The Contractor shall perform weekly broom cleaning of hard flooring surfaces in the area of the Work.

5.21.3. The Contractor shall remove, at the end of each working day or more frequently, as appropriate, for the Project, all waste materials and rubbish from the disposal location.

5.21.4. The Contractor shall remove, as appropriate for the Project or as the A/E or GDPM directs, any waste materials or rubbish from areas adjacent to the Project.

5.21.5. The Contractor shall dispose of waste materials, rubbish, and construction debris in a lawful manner in approved recycling facilities or landfills and record of such disposal shall be available upon written request of GDPM.

5.21.6. If the Contractor fails to clean up during the progress of the Work, GDPM may clean up on behalf of the Contractor and at the Contractor's expense.

5.21.6.1. If the Contractor fails to maintain the areas adjacent to the Project clean and free of waste materials and rubbish, GDPM may also direct the local jurisdiction responsible for the area to have the area cleaned to its satisfaction at the Contractor's expense.

5.21.6.2. GDPM may deduct the cleaning costs from payments then or thereafter due the Contractor.

- If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to GDPM.

5.21.7. The Contractor shall remove excavated material and spoil to a suitable off-site location approved by GDPM.

5.21.7.1. If GDPM designates a location on its property for disposal or storage of clean topsoil and/or subsoil in the Contract Documents, the Contractor shall remove such materials to the designated location.

5.22. Use of Premises

5.22.1. The Contractor shall use corridors, stairs, and elevators as designated by GDPM and only during those times that are designated by GDPM.

5.22.2. The Contractor shall exercise extreme care to not exceed the carrying capacity of elevators or damage the cab interior, including but not limited to damaging the cab padding, in any way.

5.22.3. Loitering or wandering through interior of buildings or exterior grounds outside the limits of the Work will not be permitted.

5.22.4. The Contractor shall confine its apparatus, materials, and the operations of its workers to the limits indicated by law, ordinances, permits and the directions of GDPM.

5.22.5. Unless expressly required or approved by GDPM, no signs or advertising of any kind will be permitted on or about the Site, except those appearing on trucks and trailers.

5.22.6. GDPM may deduct the costs associated with remedying Contractor's misuse of the premises from payments then or thereafter due the Contractor.

- If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to GDPM.

5.23. GDPM Use of Premises / Possession Prior to Completion

5.23.1. GDPM shall have the right to take possession of or use any completed or partially completed part of the Work.

- I. Before taking possession of or using any Work, GDPM shall furnish the Contractor a list of items of Work remaining to be performed or corrected on those portions of the Work that GDPM intends to take possession of or use.

- II. However, failure of GDPM to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the Contract.
- III. GDPM's possession or use shall not be deemed acceptance of Work under the Contract.

5.23.2. While GDPM has such possession or use, the Contractor shall be relieved of the responsibility for:

- I. The loss of or damage to the Work resulting from GDPM's possession or use, notwithstanding the terms herein;
- II. All maintenance costs on the areas occupied; and
- III. Furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefore.

5.23.3. If timely requested by the Contractor and if prior possession or use by GDPM delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the Contract shall be modified in writing accordingly.

5.24. **Smoking and Tobacco Products**

5.24.1. Smoking is not permitted at any property under construction, unless GDPM has a specifically designated area for smoking, and is not permitted within 50 feet of any entrance of a GDPM owned building.

5.24.2. This prohibition applies to new construction and rehabilitation.

5.24.3. The Contractor shall enforce these restrictions on any individual employed by the Contractor, or a Subcontractor.

5.24.4. A violation of GDPM's Non-Smoking Policy may result in a fee for damages to be made payable by Contractor to GDPM in the amount of \$250 per incident per day. Parties acknowledge and agree that this fee for damages is a reasonable amount to provide for the violation of the Non-Smoking Policy and is not necessarily putative in nature, but covers the actual reasonable cost to remedy such breach.

5.24.5. GDPM may deduct the costs associated with Contractor's breach of GDPM's Non-Smoking Policy from payments then or thereafter due the Contractor.

- If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to GDPM.

5.25. **Correction of the Work**

5.25.1. ***Before Substantial Completion***

5.25.1.1. If the Contractor provides Defective Work or fails or neglects to perform the Work in accordance with the Construction Progress Schedule, GDPM or the A/E may issue a written notice to the Contractor and Contractor's Surety directing the Contractor to correct the Defective Work or recover schedule deficiencies.

- Unless otherwise specified in that written notice, the Contractor shall begin to correct the Defective Work and recover the schedule deficiencies within no more than three days after GDPM issues the written notice.

5.25.1.2. If the Contractor fails to commence and diligently pursue correction of Defective Work or recovery of schedule deficiencies within three (3) business days of Contractor's receipt of written notice from GDPM or the A/E, GDPM may correct the Defective Work or take action to recover schedule deficiencies without giving further notice to the Contractor or Contractor's Surety.

5.25.2. *During the Correction Period*

5.25.2.1. If GDPM issues a notice during the Correction Period, GDPM may correct the Defective Work itself without giving further notice to the Contractor or Contractor's Surety if the Contractor fails to:

- a. Notify GDPM in writing of the Contractor's intent to correct the Defective Work within 3 days after GDPM issues the notice; and
- b. Thereafter promptly commence and diligently pursue correction of Defective Work.

5.25.2.2. The Correction Period:

- a. Commences on the date of issuance of the written notice of Defective Work to Contractor and/or Contractor's surety and expires upon the date indicated in said written notice;
- b. Relates only to the Contractor's specific obligation and opportunity to correct the Work during the Correction Period;
- c. Does not establish a period of limitation with respect to any of the Contractor's other obligations under the Contract Documents;
- d. Has no relationship to the time within which GDPM may seek to enforce the Contract; and
- e. Does not establish a period of limitation with respect to the commencement of litigation to establish the Contractor's liability under the Contract or otherwise.

5.25.3. *After the Correction Period:*

5.25.3.1. GDPM may correct, at the Contractor's expense, the Defective Work without giving further notice to the Contractor or Contractor's Surety if the Contractor or Contractor's surety fails to

- a. Notify GDPM in writing of the intent to correct the Defective Work; and
- b. Promptly commence and diligently pursue correction of Defective Work.

5.25.4. *After Substantial Completion*

5.25.4.1. In addition to the Contractor's other obligations under the Contract Documents, if any of the Work is found to be Defective Work after Substantial Completion, the Contractor shall correct it promptly after receipt of written notice from GDPM to do so, unless GDPM has previously acknowledged and accepted the Defective Work in writing.

5.25.4.2. GDPM may send a copy of the written notice to the Contractor's Surety, but is not obligated to do so.

5.25.5. Emergency Correction of Defective Work

5.25.5.1. Notwithstanding any other provision of the Contract, if in GDPM's opinion the Defective Work presents a threat of imminent harm or danger to people, property, or the environment, GDPM may order the Contractor to immediately correct Defective Work or GDPM may correct the Defective Work, at Contractor's expense, itself without any prior notice to the Contractor or Contractor's Surety.

5.25.6. Responsibility for Costs of Correction

5.25.6.1. The Contractor shall pay all of the costs and damages associated with the correction of Defective Work and the recovery of schedule deficiencies.

5.25.6.2. Those costs and damages may include, but are not limited to:

- The related fees and charges of contractors, engineers, architects, attorneys, and other professionals; and
- The cost of correcting or replacing adjacent work.

5.25.6.3. GDPM may deduct those costs and damages from payments then or thereafter due the Contractor.

5.25.6.3.1. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to GDPM.

6. ARTICLE VI: SUBCONTRACTORS

6.1. Definitions: As used in this Contract:

6.1.1. "Subcontract" means any contract, purchase order, or other purchase agreement, including modifications and change orders to the foregoing, entered into by a subcontractor to furnish supplies, materials, equipment, and services for the performance of the prime contract or a subcontract.

6.1.2. "Subcontractor" means any supplier, vendor, or firm that furnished supplies, materials, equipment, or services to or for the Contractor or another subcontractor.

6.2. Evaluation and Approval

6.2.1. When submitting its Bid, the Contractor shall submit a Subcontractor and Material Supplier Declaration Form through which the Contractor identifies its Subcontractor and provide a list of subcontractors and material suppliers and equipment with bid.

6.2.2. Within 10 days after the Notice to Proceed, the Contractor shall submit to GDPM, an updated Subcontractor and Material Supplier Declaration form.

6.2.3. In its discretion, GDPM will evaluate the use of proposed subcontractors. If GDPM rejects any proposed Subcontractor, the Contractor shall propose a replacement Subcontractor with no adjustment of the Contract Sum. The proposed replacement will also be evaluated.

6.2.4. If requested by GDPM, Contractor must supply additional information on use of proposed subcontractor within five business days of such request. The Contractor's failure to timely submit the information regarding a proposed Subcontractor may result in withholding payment to Contractor.

6.3. Suspension/Debarment

6.3.1. The Contractor shall not enter into any subcontract with any subcontractor who has been denied participation by GDPM or has been temporarily or permanently denied participation in a HUD program or who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or the State of Ohio.

6.4. Contractor's Responsibility

6.4.1. The Contractor shall be as fully responsible for the acts or omissions of its Subcontractors and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor.

6.4.2. Contractor is responsible for scheduling and coordinating the Work of the Subcontractors.

6.4.3. The Contractor is fully responsible for any delay, interference, disruption, or hindrance attributable to the Contractor's Subcontractors.

6.4.4. The Contractors shall require that each of its Subcontractors have a competent supervisor at the Site whenever the Subcontractor is performing Work.

6.4.5. The Contractor shall use GDPM's form of Subcontract for each of its subcontractors And material suppliers. Contractor shall not agree to any provision, which seeks to bind GDPM, or with terms inconsistent with or at variance from these Contract Documents.

6.4.6. The Contractor will not be relieved of its full responsibility for Subcontractors and their performance of the Work by:

6.4.6.1. The participation of GDPM, HUD, or the A/E in the processes described under this ARTICLE VI SUBCONTRACTORS or other related provisions of the Contract Documents;
or

6.4.6.2. GDPM's rejection of a Subcontractor or failure to reject a Subcontractor.

6.5. Mandatory Contract Provisions/Forms

6.5.1. The Contractor shall insert appropriate clauses in all subcontracts to bind Subcontractors to the terms and conditions of this Contract insofar as they are applicable in the work of Subcontractors.

6.5.2. GDPM reserves the right to reassign accepted agreements

6.5.3. Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and GDPM or between the Subcontractor and HUD.

6.5.4. The Contractor must include in the contract with its Subcontractors the applicable labor provisions and prevailing wages as was provided to the Contractor by GDPM.

6.5.5. No less than 10 days before the Work is to be performed by a Subcontractor, or within a shorter period as mutually agreed by the Contractor and GDPM, the Contractor shall submit to GDPM a complete copy of the executed Subcontract between the Contractor and Subcontractor.

6.6. Replacement of Subcontractors

6.6.1. The Contractor shall not replace any Subcontractor after execution of the Subcontract without prior written approval of GDPM.

6.6.2. The Contractor shall not add any subcontractors after the Contract Execution without

updating the Material Supplier and Subcontractor Form or prior to written approval of GDPM.

6.7. Contingent Assignment of Subcontract

6.7.1. The Contractor hereby assigns its Agreement with each Subcontractor to GDPM provided that the assignment is effective only after termination of the Contract by GDPM and only for those agreements that GDPM accepts by notifying Contractor and applicable Subcontractor in writing.

6.8. Prompt Payment of Subcontracts

6.8.1. The Contractor shall make payments to the Subcontractor in accordance with Applicable Law, including the Ohio Revised Code that include, without limitation, the requirements under this Section, 6.8 - Prompt Payment of Subcontracts.

6.8.2. If a Subcontractor requests payment in time to allow the Contractor to include the request in its Contractor Payment Application Request the Contractor, within ten calendar days after receipt of payment from GDPM, shall pay to the:

6.8.2.1. Subcontractor, an amount equal to the percentage of completion of the subcontractors contract allowed by GDPM for the amount of labor or work performed;

6.8.2.2. Material Supplier, an amount that is equal to all or a portion of the invoice for materials which represents the materials furnished by the material supplier

6.8.3. The Contractor may reduce the amount paid by any retainage provision contained in the Contract, invoice, or purchase order between the Contractor and Subcontractor and may withhold amounts that may be necessary to:

6.8.3.1. Resolve disputed liens or claims involving the Work or labor performed by the Subcontractor; or

6.8.3.2. Account for failure of the Subcontractor to perform its obligations under its agreement with the Contractor as required under the Ohio Revised Code.

6.8.4. Labor Payments: Within ten days of receipt of payment from GDPM, the Contractor shall pay Subcontractor in the following manner:

6.8.4.1. Partial payments to the Subcontractor for labor performed under either a Unit Price or lump sum Subcontract shall be made at the rate of 92 percent of the amount invoiced through the Subcontractor's request for payment that shows the Work of the Subcontractor is up to 50% complete.

6.8.4.2. After the Work of the Subcontractor is 50 percent complete, as evidenced by payments of at least 50 percent of the total amount due under the Subcontract, no additional funds shall be retained from payments for labor.

6.8.5. Material Payment

6.8.5.1. Required by ORC for payment to Contractor by GDPM:

- The Contractor shall pay the Subcontractor at the rate of 95% of the invoice cost, not to exceed the scheduled value in a unit price or lump sum Subcontract, for materials delivered to the Site, or other offsite storage location approved by GDPM, provided the Subcontractor provides the information required with its request for payment.

- The Contractor shall pay the Subcontractor at the rate of 100% of the scheduled

value for materials incorporated into the Project.

6.8.6. If Contractor fails to comply with the payment provisions set forth, the Contractor shall pay to the applicable Subcontractor, in addition to any payment due, interest in the amount of 18 percent per annum of the payment due, beginning the eleventh day following the receipt of payment from GDPM and ending on the date of full payment of the payment due plus interest.

6.8.7. If GDPM receives a Claim Affidavit from a Subcontractor, Subcontractor shall proceed in accordance with Applicable Law, including the Ohio Revised Code.

6.8.8. Laborers, Subcontractors, and Material Suppliers may secure payment rights in accordance with Applicable Law, including the Ohio Revised Code.

6.9. Subcontracting To Meet Diversity & Contracting Goals

6.9.1. The Contractor shall take the following steps to ensure that, whenever possible, Subcontracts are awarded to small business firms, minority firms, women's business enterprises, and labor surplus area firms:

6.9.1.1. Place qualified small and minority businesses and women's business enterprises on solicitations lists;

6.9.1.2. Ensure that small and minority businesses and women's business enterprises are solicited whenever they are potential resources

6.9.1.3. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;

6.9.1.4. Establish a delivery schedule, where the requirements of the Contract permit, which encourages participation by small and minority businesses and women's business enterprises; and

6.9.1.5. Use the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies.

7 ARTICLE VII: SUBCONTRACTORS

7.1. GDPM Obligation

7.1.1. GDPM shall pay the Contractor the price as provided in the Contract.

7.2. Forms

7.2.1. Unless expressly authorized to the contrary, Contractor must use appropriate GDPM forms.

7.3. Step One - Pencil Application

7.3.1. The purpose of a pencil application (HUD Form) is assisting the Contractor in identifying any potential error or omission in the pay application.

7.3.2. If submitted timely (as set forth below) GDPM will review and help identify any potential issues. However, the GDPM Construction Administrator's approval or suggestion does not guarantee approval of the payment application by GDPM.

7.3.3. The Contractor shall initially submit a pencil application by no later than the 15th of each month.

7.3.4. Generally, the GDPM Construction Administrator will review the pencil application, and make any suggested corrections and return to the Contractor within a reasonable amount of time.

7.3.5. The Contractor shall then submit the final payment application to the GDPM Construction Administrator or project manager by the 23rd of each month.

7.3.6. Failure to submit a pencil application may result in a significant delay in payment.

7.4. Progress Payments

7.4.1.1. GDPM shall make progress payments approximately every 30 days as the work proceeds on estimates of Work accomplished which meets the standards of quality established under the Contract, as approved by GDPM.

7.4.1.2. Subject to GDPM's written determination and approval more frequent payments may be made to contractors which are qualified as small businesses.

7.4.2. Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by GDPM, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments.

- The breakdown shall be approved by GDPM and must be acceptable to HUD.
- If the contract covers more than one Project, the Contractor shall furnish a separate breakdown for each.
- The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price.
- The Contractor shall prorate its overhead and profit over the construction period of the contract.

7.4.3. The Contractor shall submit, on forms provided by GDPM, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the contract price.

- Such estimates shall be submitted not later than ---- days in advance of the date set for payment and are subject to correction and revision as required.
- The estimates must be approved by GDPM prior to payment.
- If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.

7.4.4. Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made:

7.4.4.1. I hereby certify, to the best of my knowledge and belief, that:

- The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the Contract;
- Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and
- This request for progress payments does not include any amounts which the prime Contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

7.5. Allowances

7.5.1. The Contract Sum includes the Allowances (if any) identified in the Contract.

7.5.2. All allowances include the costs to the Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes.

7.6. Unit Prices

7.6.1. Where the Contract provides that all or a part of the Work is to be Unit Price Work, initially that Contract Sum will include for all Unit Price Work:

7.6.1.1. An amount equal to the sum of the established Unit Prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Contract

7.6.1.2. The Contractor's fee on that Unit Price Work

7.6.2. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Sum.

7.6.2.1. GDPM will determine the actual quantities and classifications of Unit Price Work performed by the Contractor.

7.6.2.2. Before final payment, an appropriate Change Order will be issued to reconcile the Contract Sum so that it reflects actual amount due to the Contractor on account of Unit Price Work actually performed.

7.7. Schedule of Values

7.7.1. Within seven days after issuance of Letter of Intent or other period as mutually agreed by the Contractor and GDPM, the Contractor shall submit to GDPM a Schedule of Values on a form provided for by GDPM, with separate amounts shown for labor and materials for each branch of Work.

7.7.1.1. The Contractor shall clearly indicate on the Schedule of Values, but is not necessarily limited to, the cost of payment and performance bond(s), permit costs, the amount(s) allocated, including separate items for the Contractor's Fee (Overhead and Profit), and the amount(s) of labor and materials, as appropriate.

7.7.2. The grand total shown on the Schedule of Values shall equal the total Contract Sum.

7.7.3. GDPM may use the approved Schedule of Values to determine cost or credit to GDPM resulting from any change in the Work.

7.7.3.1. The first items shall be a breakdown of the General Conditions Cost

7.7.3.2. The amounts for labor and materials shall accurately reflect the cost for each item.

7.7.3.2.1. The Contractor shall clearly indicate on the Schedule of Values, the amount(s) allocated, including separate items for Contractor's Fee (overhead and profit), for each Section 3 certified Business used in the performance of the Work.

7.7.3.2.2. Contractor's Fee shall be included in the totals for labor and materials.

7.7.3.3. If the material allocation exceeds 55 percent of the Contract Sum, the Contractor shall provide, upon request, sufficient information to support the higher percentage.

7.7.3.4. Subcontract Work shall show amounts for labor and materials.

7.7.3.2.3. Fringe benefits shall be shown as a part of labor costs.

7.7.3.5. When more than one major structure is included in the Work, the Contractor shall subdivide the Schedule of Values accordingly, with cost details for each structure shown separately.

7.7.3.6. The line items shall be coordinated with line items in the Project Schedule, which may require division of items of Work by area of the Project by floor, phase, or other appropriate area.

7.7.3.7. Mechanical and electrical Work shall be included in separate line items for all major pieces of equipment, and group smaller equipment items by type.

7.7.3.8. Line items shall be included for each Allowance, Punch List Work, and Project Record Document Submittals, delivery of attic stock, and specified demonstrations and training.

7.7.4. GDPM may return the Schedule of Values to the Contractor for re-submittal if it does not meet the requirements or contains insufficient items or details of the Work, or approve the Schedule of Values if GDPM determines that it conforms to section 7.7

7.7.5. No payment shall be made until the GDPM has approved the Contractor's Schedule of Values.

7.8. Labor Payments/Retainage

7.8.1. The unit or lump sum price stated in the contract shall be used in determining the amount to be paid and shall constitute full and final compensation for all the work.

7.8.2. Partial payment to the contractor for work performed under the lump sum price shall be based on a schedule prepared by the contractor and approved by GDPM and/or A/E who shall apportion the lump sum price to the major components entering into or forming a part of the work under the lump sum price.

7.8.3. GDPM shall make partial payments to the contractor for labor performed under either a unit or lump sum price contract at the rate of ninety per cent of the estimates prepared by Contractor and approved by the A/E.

7.8.4. All labor performed after the job is fifty percent completed shall be paid for at the rate of one hundred per cent of the estimates submitted by the contractor and approved by GDPM and/or the A/E.

7.9. Material Payments/Retainage

7.9.1. Provided such materials have been inspected and found to meet the specifications, GDPM shall pay the Contractor at the rate of ninety percent of the invoice cost, not to exceed the scheduled value in a Unit Price or lump sum contract, for materials delivered to the Site, or other off-Site storage location approved by GDPM, provided the Contractor provides the following information with the Contractor Payment Request:

- A list of the fabricated materials consigned to the Project, giving the place of storage, together with copies of invoices, in order to verify quantity and cost; and
- A certification of materials stored off-site, prepared by the Contractor and signed-off on by GDPM and/or the A/E, to evidence that the materials are in conformity with the Specifications and have been tagged with the Project name and number for delivery to the Project.

7.9.2. The Contractor shall directly reimburse GDPM and/or the A/E for all costs incurred to visit a storage site, other than the areas adjacent to the Site.

7.9.3. Provided such materials have been inspected and found to meet the specifications, GDPM shall pay the balance of the scheduled value when the materials are incorporated into and becomes a part of the Work.

7.9.4. When payment is allowed for materials delivered to the Site or other off-site storage location, approved by GDPM, but not yet incorporated into the Project, such material shall become the property of the GDPM, but if such material is stolen, destroyed, or damaged by casualty before being used, the contractor shall be required to replace it at the contractor's own expense.

7.9.5. GDPM may, at its sole discretion, retain any material not ultimately incorporated into the Project or return it to the Contractor for credit of an amount proportionate to the value of the extra materials.

7.9.6. Payment on approved estimates filed with GDPM or its representative shall be made within (30) thirty days.

7.9.7. Release of Retainage

7.9.7.1. When the Contractor has achieved Substantial Completion of all Work, and there is no other reason to retain funds; upon request of the Contractor, the funds retained in connection with the Work shall be released and paid to the Contractor, withholding only that amount necessary to assure faithful completion in the sole discretion of GDPM.

7.10. Payments Withheld

7.10.1. GDPM may withhold funds from or may assess Liquidated Damages against a Contractor Payment Request.

7.10.2. GDPM may decline to approve any Contractor Payment Request or part thereof, or nullify any previous Contractor Payment Request, in whole or in part, to the extent necessary in GDPM's sole opinion to protect GDPM from loss because of:

- Defective Work not remedied;
- Overpayment of any schedule of values line item without prior approval of related change order by Contracting Officer
- Overpayment due to calculation error;
- Damage caused by the Contractor;
- Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- Reasonable evidence that the Work will not be completed within the Contract Times, and that the unpaid balance would not be adequate to cover damages under the Contract Documents for the anticipated delay;
- Failure to comply with Applicable Law including, but not limited to, the requirements of the Ohio Revised Code.

7.11. Payment Request

- 7.11.1. The Contractor and each of its subcontractors, regardless of tier, shall execute a Payment Release Affidavit to certify that the Contractor and each of its subcontractors, regardless of tier, have complied with all applicable requirements of the ORC, and to certify that all of its subcontractors have been paid in full for all Work performed or materials furnished under the Contract.
- 7.11.2. GDPM shall pay Contractor in approximately 30 days from the date of acceptance of the Payment Request.
- 7.11.3. The Contractor, as a condition precedent to final payment, shall complete all requirements of the Contract Documents.
- 7.11.4. Acceptance of final payment by the Contractor or a Subcontractor constitutes the payee's waiver of all claims against GDPM except those previously made in writing and identified by that payee as unsettled at the time of the final Contractor Payment Request.

8 Article VIII: Contract Modifications

8.1. Changes in Work

- 8.1.1. GDPM may order changes in the Work without invalidating the Contract, subject to the limitations set forth in this Article and elsewhere within the Contract Documents, a change in the Work may be accomplished by a Change Order, Change Directive, or order for a minor change in the Work.
- 8.1.2. Except as provided, no order, statement or conduct of GDPM shall be treated as a change or entitle the Contractor to an equitable adjustment.
- 8.1.3. Only GDPM's Contracting Officer has authority to modify any term or condition of this Contract. Any Contract modification shall be authorized in writing.
- 8.1.4. The Contracting Officer may modify the contract unilaterally:
- Pursuant to a specific authorization stated in a Contract clause; or
 - For administrative matters which do not change the rights or responsibilities of the parties.
- 8.1.5. All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and GDPM.
- 8.1.6. Except as expressly stated herein, the Contractor's failure to obtain prior written authorization from GDPM for a change in the Work constitutes a waiver by the Contractor of an adjustment to the Contract Sum or Contract Time or both.
- 8.1.7. The Contractor shall perform all changes in the Work under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly with the change unless otherwise provided in the Change Order, Change Directive or order for a minor change in the Work.
- 8.1.8. **HUD Approval:** When a proposed modification requires the approval of HUD prior to its issuance; such modification shall not be effective until the required approval is received by GDPM.

8.2. Change Order

- 8.2.1. GDPM may, at any time, without notice to the sureties, by written order designated or

indicated to be a change order, make changes in the Work within the general scope of the

Contract including changes:

- In the specifications (including drawings and designs);
- In the method or manner of performance of the Work;
- GDPM-furnished facilities, equipment, materials, services, or site; or
- Directing the acceleration of the Work.

8.3. Increase or decrease of cost

8.3.1. If any change causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the Work under this contract, whether or not changed by any such order, GDPM shall make an equitable adjustment as set forth in Section 8.8 *Change Order Cost or Credit Determination* below and modify the Contract in writing.

8.3.2. The Contractor shall proportionally increase the amount of the Bond whenever the Contract Sum is increased.

8.3.3. If any notice of any change affecting the Contract is required by the provision of the Bond, notice is the Contractor's responsibility.

8.3.4. Except for an adjustment based on defective specifications, no proposal for any change shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as required.

8.3.4.1. In the case of defective specifications for which GDPM is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specification.

8.3.5. The Contractor must assert its right to an adjustment within 30 days after:

8.3.5.1. Receipt of a written change order, or

8.3.5.2. The furnishing of a written notice by submitting a written statement describing the general nature and the amount of the proposal.

8.3.6. If the facts justify it, GDPM may extend the period for submission.

8.4. Change Directive

8.4.1. Notwithstanding Form HUD-5370 Article 29(b), Parties agree that Change Order Directives may be utilized during the course of the Work.

8.4.2. A Change Directive is a written order prepared by GDPM directing a change in the Work and May, if necessary, state a proposed basis for adjustment, if any, of Contract Sum or Contract Time, or both.

8.4.3. A Change Directive shall be used to direct a change in the Work in the absence of a total agreement on the terms of a Change Order and shall only be used in the absence of total agreement on the terms of a Change Order concerning the associated change of the Work.

8.4.4. Upon receipt of a Change Directive, the Contractor shall promptly proceed with the change in the Work involved.

8.4.5. Within 14 days after receiving the Change Directive, the Contractor shall respond with a

Change Order Proposal for adjustment of the Contract Sum or Contract Time or both.

8.4.6. If the Contractor does not respond to the Change Directive as required above, GDPM shall determine the adjustments, if any, of the Contract Sum and Contract Times.

- If the Contractor does not agree with GDPM's determination, the Contractor shall initiate a claim within 10 days of the date on which GDPM issues the determination, and the Contractor's failure to do so shall constitute an irrevocable waiver the Claim.

8.4.7. If GDPM and the Contractor agree on the adjustment of the Contract Sum and Contract Time associated with the Change Order Directive, GDPM shall prepare an appropriate Change Order.

8.5. Change Order Procedure

8.5.1. Any Change Order Request must be in writing and submitted by the Contractor to GDPM in accordance with the Notice Provision.

8.5.2. The Contractor's cost of preparing and providing Proposals is included in the Contract Sum.

8.5.3. If GDPM Agrees with Change Order Proposal:

- GDPM shall prepare each Change Order, attach the supporting documentation, and issue the Change Order to the Contractor for signature.
- Within 3 days after issuance of Change Order to Contractor, Contractor must sign the Change Order and resubmit to GDPM.
- Change Order is not approved until GDPM's Contracting Officer signs the Change Order.

8.5.4. If GDPM disagrees with Change Order Proposal or Contracting Officer doesn't approve Change Order:

- GDPM will notify Contractor in writing with reasons; and
- Contractor has 14 days to modify the Change Order Request or invoke Article Dispute Resolution/Claim Procedure.
- Failure to reach an agreement on any proposal shall be a dispute under Article Dispute Resolution/Claim Procedure.

8.5.5. Nothing in the change order procedure, however, shall excuse the Contractor from proceeding with the contract change pursuant to an issued Change Directive.

8.6. Change Order Proposal

8.6.1. The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract with at least the following details:

8.6.1.1. Direct Costs:

- Materials (list individual items, the quantity and unit cost of each, and the aggregate cost)
- Transportation and delivery costs associated with materials
- Labor breakdowns by hours or unit costs (identified with specific Work to be performed)
- Construction equipment exclusively necessary for the change
- Costs of preparation and/ or revision to shop drawings resulting from the change
- Worker's Compensation and Public Liability Insurance

- Employment taxes under FICA and FUTA
- Bond Costs

8.6.1.2. Indirect Costs: Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.

8.6.1.3. Profit:

8.6.1.3.1. The amount of profit shall be negotiated and paid in accordance with Section 8.9 *Change Order Cost or Credit Determination* below and may vary according to the nature, extent, and complexity of the work required by the change.

- The allow-ability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR 1-31), in effect on the date of this Contract.
- The Contractor shall not be allowed a profit on the profit received by any subcontractor.
- Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs.
- On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the Work.

8.6.2. The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the Contract in its entirety.

8.6.3. GDPM shall act on proposals within 30 days after their receipt, or notify the Contractor of the date such action will be taken. Equitable adjustments shall be made in accordance with Section

8.9 Change Order Cost or Credit Determination below

8.6.4. Failure to reach an agreement on any change order proposal shall be a dispute under the Disputes Article herein. Nothing in this Section, however, shall excuse the Contractor from proceeding with the contract as changed.

8.6.5. By signing a Change Order, the Contractor irrevocably certifies that the elements of a Change Order described herein are completely satisfied, and waives all rights, if any, to seek further adjustment of the Contract Sum or Contract Times, or both, at a later date with respect to the associated change in the Work, including without limitation on account of the "cumulative impact" of the associated change in the Work in combination with one or more of the other changes in the Work.

8.6.6. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

8.6.7. Except in an emergency endangering life or property, as determined by GDPM, no change shall be made by the Contractor without a prior written authorization from GDPM's Contracting Officer. When the Change Order is signed by the Contractor and GDPM's Contracting Officer, the fully executed Change Order modifies the Contract Documents and authorizes and directs the Contractor to proceed, and the Contractor shall promptly proceed

with the associated change in the Work.

8.7. Differing Site Conditions

8.7.1. The Contractor shall promptly, and before the conditions are disturbed, give a written notice to GDPM of:

- Subsurface or latent physical conditions at the site which differ materially from those indicated in this contract; or
- Unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract. Written notice of the condition shall be given immediately to GDPM.
- The Contractor's failure to give notice of the Differing Site Condition as required shall constitute an irrevocable waiver of any associated claim.

8.7.2. GDPM shall investigate the site conditions promptly after receiving the notice.

- Work shall not proceed at the affected site, except at the Contractor's risk, until GDPM has provided written instructions to the Contractor.
- If the conditions do materially so differ and cause an increase or decrease in Contractor's cost of, or the time required for, performing any part of the Work under this Contract, whether or not changed as a result of the conditions, the Contractor shall file a claim in writing to GDPM within ten days after receipt of such instructions and, in any event, before proceeding with the Work.
- An equitable adjustment in the Contract price, the delivery schedule, or both shall be made under this Section and in accordance with Section 8.9 *Change Order Cost or Credit Determination* below, and the Contract modified in writing accordingly.

8.7.3. No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed, unless the Contractor has given the written notice required; provided that the time prescribed for giving such written notice may be extended by GDPM.

8.7.4. No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed if made after final payment under this contract.

8.7.5. If GDPM determines that the Contractor has not encountered a Differing Site Condition and the Contractor does not agree with that determination, the Contractor must initiate a Claim within 10 days of the date that GDPM issues its determination.

8.8. Minor Changes in the Work

8.8.1. Notwithstanding Form HUD-5370 Article 29(b), GDPM may order minor changes in the Work not involving adjustment of the Contract Sum or extension of the Contract Times and not inconsistent with the intent of the Contract Documents.

- Such changes shall be effected by written order ("no cost change order") issued to the Contractor.

8.8.2. The Contractor shall promptly carry out each order for a minor change in the Work if the Contractor agrees that the order does not involve adjustment of the Contract Sum and Contract Times.

8.8.3. If the Contractor reasonably believes that it would be entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of an order for a minor change in the Work, the Contractor, within 3 business days after receiving the order, shall give GDPM written notice of the Contractor's position, and not proceed with the subject Work without

First receiving a Change Order related to it.

8.8.4. The Contractor waives its right to an adjustment of the Contract Sum or Contract Times on account of an order for a minor change in the Work by:

- a. Starting the Work that is the subject of the order for a minor change in the Work; or
- b. Failing to give the notice described herein within 3 business days after receiving the order for a minor change in the Work.

8.9. Change Order Cost or Credit Determination

8.9.1. Notwithstanding any provisions set forth in this Section 8.8 *Change Order Cost of Credit Determinations*, the allowability of any direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR1-31), as implemented by HUD Handbook 2210.18, in effect on the date of this Contract.

8.9.2. The maximum cost or credit resulting from a change in the Work shall be determined as described below.

- a. Proposals shall include the information required.
- b. A Unit Price Proposal shall only be valid when incorporated into the Contract by Change Order.
- c. The maximum cost or credit includes all compensation for impact costs. However, additional costs for impacts shall not be allowed.

8.9.3. The Contractor shall not assign any portion of the Work to another Person whereby the Contractor would benefit directly or indirectly from the double application of charges for overhead or profit.

8.9.4. GDPM may require notarized invoices for material costs and may audit the records of the Contractor and Subcontractors.

8.9.5. For each change in the Work, the Contractor shall furnish a detailed Proposal itemized on the Proposal Worksheet Summary Form published by GDPM through which the Contractor shall document the related changes in the Contract Sum.

- a. Any Subcontractor pricing shall also be itemized on the Proposal Worksheet Summary Form.

8.9.6. Pricing Criteria

8.9.6.1. This Section *Pricing Criteria* establishes the exclusive and maximum amount that GDPM shall pay for any Change Order, including, but not limited to, all amounts for interference with, delay, hindrance, disruption, or impact of the Work

- a. These Pricing Criteria also govern the value of deduct Change Orders and the Contractor's entitlement to additional compensation or damages through the claims and dispute resolution processes on account of changes in the Work.

8.9.6.2. In order to expedite the review and approval process, Proposals shall be prepared in the categories and order as listed below.

8.9.6.3. Contractor Personnel Costs

- a. The Contractor's on-Site management (including supervision and administrative personnel) are not subject to State or Federal Prevailing Wage Rates.
- b. These costs will be calculated on an hourly basis according to the rates acceptable to GDPM.
- c. In no event will the Contractor be entitled to an increase in the Contract Sum on

account of Contractor Personnel Costs unless the Contractor actually incurs

Additional Contractor Personnel Costs solely on account of the associated change in the Work.

8.9.6.4. Labor

- a. Field labor directly involved in the Work shall be based upon the actual rate of pay to the worker.
- b. If the Project is subject to payment of prevailing wage rates, field labor shall be paid according to the relevant classification of labor as established in the applicable prevailing wage determination.
- c. In no event will the Contractor be entitled to an increase in the Contract Sum on account of labor costs unless the Contractor actually incurs additional labor costs solely on account of the associated change in the Work.
- d. Under no conditions will the increase exceed those additional labor costs the Contractor actually incurs.
- e. The cost for supervision above the level of working forepersons (such as general forepersons, superintendent, project manager, etc.) Is included in the adjustment to Contractor Personnel Costs.

8.9.6.5. Fringes

- a. Fringe benefit credit for labor is only allowable for prevailing wage fringe benefits including, but not limited to, Health and Welfare, vacation, apprenticeship training, and certain types of pension plans.
- b. Each fringe benefit for which credit is requested shall be calculated on an hourly basis and listed as a separate line item.
- c. The Contractor shall submit documentation supporting the calculation of the amounts for each fringe benefit for each worker classification, including labor provided by Subcontractors.

8.9.6.6. Allowable Payroll Expenses: Allowable payroll expenses for labor including payroll taxes as well as other benefits that are required by Applicable Law, shall each be a separate line item.

8.9.6.7. Equipment Rentals

- a. All charges for certain non-owned heavy or specialized equipment at up to 100 percent of the documented rental cost
- b. No rental charges shall be allowed for hand tools, minor equipment, simple scaffolds, etc.
- c. Downtime due to repairs, maintenance and weather delays shall not be allowed.
- d. Contractor shall submit copies of actual paid invoices to substantiate rental costs.

8.9.6.8. Owned Equipment

- a. All charges for certain heavy or specialized equipment owned by the Contractor or Subcontractor performing the Work shall be paid at up to 100 percent of the cost listed by the current edition of the Associated Equipment Distributors' *AED Green Book* heavy equipment rental rates.
- b. No recovery shall be allowed for hand tools, minor equipment, simple scaffolds, etc.
- c. The longest period of time that the equipment is to be required for the Work shall be the basis for the pricing.
- d. Downtime due to repairs, maintenance, and weather delays shall not be allowed.

8.9.6.9. Trucking

- a. A reasonable delivery charge or per-mile trucking charge for delivery of required

Materials or equipment.

- b. Charges for use of a pick-up truck shall not be allowed.

8.9.6.10. Materials

- a. The actual cost (including all discounts, rebates or related credits) of all materials incorporated into the changed Work.
- b. Documentation shall show costs, quantities, or Unit Prices of all items, as appropriate.
- c. The cost or credit for reusable materials shall be limited to 33 percent of the material cost for each use.

8.9.6.11. Contractor's General Conditions Costs

- a. The Contractor's General Conditions Costs to the extent attributable to an associated change in the Contract Time for achievement of Final Acceptance resulting from the change in Work.
- b. In no event shall the Contract Sum adjustment per day of Contract Time adjustment exceed an amount equal to (1) the sum of the General Conditions Costs line items in the Contractor's Schedule of Values approved by GDPM, (2) divided by the total number of days of the original Contract Time for achievement of Final Acceptance.
- c. The Contractor shall:
 - o Exclude the bond premium from the Schedule of Values for the purposes of the calculation; and
 - o Include the actual adjustment of the Bond Premium attributable to an associated change in the Contract Sum.
- d. If the Contractor purchases Builder's Risk insurance for the Project, the Contract shall:
 - o Exclude the Builder's Risk insurance premium from the Schedule of Values for the purposes of the calculation; and
 - o Include the actual adjustment of the Builder's Risk insurance premium attributable to an associated change in the Contract Sum.

8.9.6.12. Subcontractor Overhead and Profit

- a. Adjustment of the Contract Sum on account of a change in Subcontractor-performed Work shall include the Subcontractor's aggregate overhead and profit allowance equal to 15 percent of the sum of the Subcontractor's costs that are associated with that changed Work.
- b. The allowance applies to each Subcontractor tier.
- c. The allowance covers:
 - 1. The costs required to schedule and coordinate the Work
 - 2. Telephone
 - 3. Telephone charges
 - 4. Facsimile
 - 5. Telegrams
 - 6. Postage
 - 7. Photos
 - 8. Photocopying
 - 9. Hand tools
 - 10. Simple scaffolds (one level high)
 - 11. Tool breakage

12. Tool repairs
13. Tool replacement
14. Tool blades
15. Tool bits
16. Home office estimating and expediting
17. Home office clerical and accounting support
18. Home office labor (management, supervision, engineering)
19. All other home office expense, legal services, travel, and parking expenses

- d. An exception is allowed for shop or engineering labor, which shall not be subject to Prevailing Wage rates for steel fabricators, sheet metal fabricators, and sprinkler system fabricators performing work off-site.
 - o Recovery for these matters shall be allowed on an hourly basis.
- e. An exception is allowed for field supervision labor, for those portions of the Change Order Work that will be performed, or was performed, at times when the superintendent is not required to be on site, including but not limited to overtime hours due to acceleration and/or extensions of the Contract Times.
 - o Recovery for this matter will be allowed on an hourly basis.

8.9.6.13. Contractor's Fee: Adjustment of the Contract Sum on account of a change in the Work shall include an allowance for the Contractor's Fee equal to 10 percent of the sum of the costs that are associated with that changed Work.

8.9.6.14. Miscellaneous

- a. Adjustment of the Contract Sum on account of a change in Work may include the following costs with no allowance for Contractor's Fee or Subcontractor overhead and profit.
 - The premium portion only for approved overtime (labor and fringes).
 - The straight time portion is included.

8.9.6.15. Costs that shall not be reimbursed for Change Order Work include the following

- b. Voluntary employee deductions including, but not limited to, deductions for charitable donations or U.S. savings bonds
- c. Employee profit sharing

8.10. Time Extension

8.10.1. Contractor's **Change** Order Proposal shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the Contract in its entirety. Every adjustment of the Contract Times associated with any Change Order Proposal shall be determined as provided herein, which establishes the Contractor's maximum entitlement for any change in the Work, including without limitation all adjustments for interference, delay, hindrance, or disruption of the Work.

8.10.2. This **also** governs time adjustments for deduct Change orders and Contractor's entitlement to additional time through the claims and dispute resolution process on account of changes in the Work.

8.10.3. The Contractor shall substantiate all changes in the Contract Times with:

- a. A written description of the nature of the interference, disruption, hindrance or

Delay ("disruption or delay");

- b. Identification of Persons and events responsible for the disruption or delay;
- c. Date, or anticipated date, of commencement of the disruption or delay;
- d. Identification of activities by schedule activity number and name on the Construction Progress Schedule, which may be affected by the disruption or delay, or new activities created by the disruption or delay and the relationship with existing activities;
- e. Anticipated duration of the disruption or delay and of any remobilization period;
- f. Specific number of days of extension requested and specific number of days for remobilization requested;
- g. Recommended action to avoid or minimize any future disruption or delay; and
- h. A detailed written proposal for an increase in the Contract Sum which would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, if any.

8.10.4. A Change Order may authorize extension of the Contract Time for specific elements, while maintaining milestone dates for unaffected elements. Such a Change Order may also authorize an appropriate adjustment to Liquidated Damages.

8.11. Critical Path

8.11.1. Time extensions shall depend upon the extent to which the Work on the critical path of the Construction Progress Schedule is affected.

8.12. Granting Time Extension

8.12.1. A Change Order granting a time extension may provide that the Contract Times shall be extended for only elements so interfered with, disrupted, hindered, or delayed and related remobilization and that shall not be altered and may further provide for adjustment of Liquidated Damages.

9 ARTICLE IX: DISPUTE RESOLUTION & CLAIM PROCEDURE

9.1. General

9.1.1. "Claim," as used in this Article, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract.

9.1.2. A claim arising under the Contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant.

9.1.3. A voucher, invoice, application for payment, or other routine request for payment that is not in dispute when submitted is not a Claim. However, the submission may be converted to a Claim by complying with the requirements of this Article, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

9.1.4. Except for disputes arising under the article entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this Contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this Article.

9.1.5. All Claims by the Contractor shall be made in writing and submitted to GDPM for a written decision.

9.1.6.A claim by GDPM against the Contractor shall be subject to a written decision by the Contracting Officer.

9.2. Initiation of a Claim by Contractor

9.2.1. Every Claim shall accrue upon the date of occurrence of the event giving rise to the Claim.

9.2.2. Except as provided, the Contractor shall initiate every Claim by giving written notice of the Claim to GDPM within fourteen (14) days after occurrence of the event giving rise to the Claim, with the following exceptions:

9.2.2.1. The 14-day time limit on initiating a Claim arising from the response of an RFI by GDPM begins to run on the date of the response.

9.2.2.2. The 14-day time limit on initiating a Claim arising from GDPM's determination concerning a Differing Site Condition begins to run on the date of the determination.

9.2.2.3. Contractor's written notice of claim must be delivered to the Contracting Officer prior to GDPM's issuance of final contract payment.

9.2.3. The Contractor's written notice of a Claim shall provide the following information:

9.2.3.1. Nature and anticipated amount of the impact, including all costs for any interference, disruption, hindrance, or delay, which shall be calculated and be a fair and reasonably accurate assessment of the damages suffered or anticipated by the Contractor;

9.2.3.2. Identification of the circumstances responsible for causing the impact, including, but not limited to, the date or anticipated date, of the commencement of any interference, disruption, hindrance, or delay;

9.2.3.3. Identification of activities on the Construction Progress Schedule that will be effected by the impact or new activities that may be created and the relationship with existing activities;

9.2.3.4. Anticipated impacts and anticipated duration of any interference, disruption, hindrance, delay, or impact, and any remobilization period; and

9.2.3.5. Recommended action to avoid or minimize any interference, disruption, hindrance, delay, or impact.

9.2.4. The Contractor's failure to initiate a Claim as and when required shall constitute the Contractor's irrevocable waiver of the Claim.

9.3. Substantiation of Claims General

9.3.1. Within 30 days after the initiation of a Claim, the Contractor shall submit to the project manager or other GDPM designee, an electronic copy of all information and statements required to substantiate a Claim and all other information that the Contractor believes substantiates the Claim.

9.3.2. The Contractor shall file the one electronic copy with GDPM.

9.3.3. The Contractor shall substantiate all of its Claims by providing the following minimum information:

- A narrative of the circumstances, which gave rise to the Claim, including without limitation the start date of the event or events and the actual or anticipated finish date;
- Detailed identification of the Work affected by the event giving rise to the Claim;

- Copies of the Contractor's daily log for each day of impact;
- Copies of relevant correspondence and other information regarding or supporting Contractor's entitlement;
- Copies of any and all information related to the Contractor's costs, including all job cost reports, bid take offs, and other financial information related to the Contractor's Claim;
- A notarized certification

9.4. Substantiation of Claims for increase of the Contract Sum

9.4.1.In addition to the minimum information required by Contractor, the Contractor shall substantiate each Claim for an increase of the Contract Sum with:

- Written documentation of the actual additional direct and indirect costs to the Contractor due to the event giving rise to the Claim;
- A written statement from the Contractor that the increase requested is the entire increase in the Contract Sum associated with the Claim; and
- The general substantiation documentation.

9.5. Substantiation of Claims for Extension of the Contract Time

9.5.1.In addition to the minimum information required by Contractor, the Contractor shall substantiate each Claim for an extension of the Contract Times with:

- Written documentation of the actual delay to the critical path of the Construction Progress Schedule due to the event giving rise to the Claim;
 - A detailed written Proposal for an increase in the Contract Sum that would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, A written statement from the Contractor that the extension requested is the entire extension of the Contract Times associated with the Claim; and
- The general substantiating documentation.
- In addition, if adverse weather conditions are the basis for a Claim for additional time, the Contractor shall document the Claim with data substantiating that weather conditions were abnormal for the period, could not have been reasonably anticipated, and had an adverse effect on a critical element of the scheduled construction.

9.6. Certification of a Claim

9.6.1.The Contractor shall certify each Claim within 30 days after initiating the Claim or before Contract Completion, whichever is earlier, by providing the notarized certification specified below, signed and dated by the Contractor:

"The undersigned Contractor certifies that the Claim is made in good faith; that the supporting data is accurate and complete to the best of the Contractor's knowledge and belief; that the amount requested is a fair, reasonable, and necessary adjustment for which the Contractor believes that GDPM is liable; and that the undersigned is duly authorized to certify the Claim on behalf of the Contractor."

9.7. Delay and Delay Damage Limitations

9.7.1. Subject to other provisions of the Contract, the Contractor will be entitled to an extension of the Contract Times if Contractor demonstrates that delay is "excusable". To be excusable, the delay must be a delay in the commencement or progress of Work on the critical path of the Construction Progress Schedule and shall be caused by acts of unforeseeable nature or the public enemy, acts of the government not arising from the Contractor's failure to comply with Applicable Law, fires, floods, epidemics, weather, and labor disputes beyond the Contractor's control. The delay shall be beyond the control of the Contractor and without fault or negligence of Contractor and shall be unforeseeable prior to submitting a response to the initial solicitation for construction Work.

9.7.2. Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum, or an extension of the Contract Times, or both:

- On account of the impact of any normal adverse weather on any of the Work or on account of the impact of any abnormal adverse weather on Work not on the critical path;
- Unless contractor demonstrates that the event giving rise to the claim caused a delay to the overall completion of the Contract;
- To the extent that a delay occurs concurrently with a delay attributable to the Contractor; or
- On account of the delay of any Work not on the critical path.

9.7.3. When the Contractor is prevented from completing any part of the Work on the critical path within the Contract Time due to weather conditions, provided the Contractor properly initiates a Claim, the Contract Time will be extended by one (1) day for each work day lost due to weather that delays Work on the critical path in excess of those in the following table:

Month(s)	Number of Workdays Lost Due To Weather
January & February	8
March	7
April	6
May	5
June - August	4
September	5
October - December	6

9.7.4. Contractor shall not be entitled to an increase in Contract Time and/or Contract Sum for non- delays. Non-excusable delays include, but are not limited to, delays which are foreseeable or preventable by the Contractor (e.g. financial difficulties, supplier delays where supplies are obtainable from other source, defective specifications where defect is apparent prior to start of the Contract Work.).

9.7.5. Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages on account of a delay in the commencement or progress of Work on the critical path. Such claims may be compensable in limited circumstances and in accordance with the following:

9.7.5.1. GDPM Ordered Suspension of Work. Increased sum may be permitted for increased costs of performance, excluding profit, for "unreasonable delays", ordered by GDPM.

9.7.5.2. Constructive Suspension of Work: work is prevented by GDPM without express order of Contracting Officer (e.g. delay in issuance of notice to proceed, delay in availability of site, delay due to interference with Contractor's Work, delay of approvals, delay in inspections).

9.7.5.3. If GDPM does not order a Suspension of Work, the delay will generally not be compensable unless Contractor demonstrates that GDPM is solely at fault for the delay (E.g. GDPM implied duty to cooperate).

9.7.5.4. For such delay claims, Contractor must notify GDPM in writing within 14 days of event giving rise to the claim.

9.7.5.5. For such delay claims, potential recovery is limited to:

9.7.5.5.1. Indirect cost increase that occurred during the extended performance period;

9.7.5.5.2. Unabsorbed office overhead that occurred during the extended performance; period

9.7.5.5.3. Material cost increases that occur during the delay;

9.7.5.5.4. Lost productivity caused by the delay;

9.7.5.5.5. Damages directly related to or attributable to the delay.

9.7.6. Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages arising from a delay in the commencement or progress of Work caused by the occurrence or non-occurrence of an event beyond GDPM's control such as acts of Nature or the public enemy, acts of the government, fires, floods, epidemics, labor disputes, unusual delivery delays, weather, or damages caused by the Contractor.

9.8. Derivative Claims

9.8.1. Notwithstanding any other provision of the Contract Documents to the contrary, if GDPM prosecutes a claim, suit, or appeal against a Separate Consultant or Separate Contractor to recover damages the Contractor suffers on account of the acts or negligent acts of a Separate Consultant or Separate Contractor or person or entity for whom either is legally responsible, GDPM's liability to the Contractor shall not exceed the amount GDPM actually recovers from the Separate Consultant or Separate Contractor on account of those damages less the costs GDPM incurs recovering them. GDPM is not obligated to prosecute any such claim, suit, or appeal.

9.9. Claim Decision

9.9.1. GDPM shall, within 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.

9.9.2. The Contracting Officer's decision shall be final unless the Contractor:

- Appeals in writing to a higher level at GDPM in accordance with GDPM's policy and procedures;
- Refers the appeal to an independent mediator or arbitrator; or
- Files suit in a court of competent jurisdiction. Such appeal(s) must be made within 15 days after receipt of GDPM's decision.

9.9.3. The Contractor shall proceed diligently with performance of the contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of GDPM.

9.10. Audit of a Claim

9.10.1. All Claims shall be subject to audit at any time following filing of the Claim, whether or not the Claim is part of a lawsuit.

9.10.2. The audit may be performed by GDPM staff or by a consultant engaged by GDPM.

9.10.3. The audit may begin upon 10-days' notice to the affected Contractor or affected Subcontractor.

9.10.4. The Contractor shall cooperate with the request.

9.10.5. Failure of the Contractor or Subcontractor to produce sufficient records to allow GDPM to audit and verify a Claim shall constitute an irrevocable waiver of the Claim or portion of the Claim that could not be completely audited.

9.10.6. The Contractor shall make available to GDPM all Contractor and Subcontractor documents related to the Claim including, without limitation, the following documents:

1. Daily time sheets and superintendent's daily reports;
2. Union agreements, if any, and employer agreements;
3. Insurance, welfare, fringes, and benefits records;
4. Payroll tax returns;
5. Material invoices, purchase orders, Subcontracts, and all material and supply acquisition contracts;
6. Material cost distribution worksheets;
7. Equipment records (list of Contractor equipment, rates, etc.);
8. Vendor rental agreements and Subcontractor invoices;
9. Subcontractor payment certificates;
10. Canceled checks (payroll and vendors);
11. Job cost report;
12. Job payroll ledger;
13. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
14. Cash disbursements journal;
15. Financial statements for all years reflecting operations on the Project;
16. Income tax returns for all years reflecting operations on the Project;
17. Depreciation records on all equipment utilized whether the records are maintained by the Contractor, its accountant, or others;
18. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all other source documents;

19. All documents that reflect the Contractor's actual profit and overhead during the years the Project was being performed;
20. All documents related to the preparation of the Contractor's Bid, including the final calculations on which the Bid was based, unless the documents are placed in escrow under provisions of the Instructions to Bidders;
21. All documents that relate to the Claim together with all documents that support the amount of damages as to the Claim;
22. Worksheets used to prepare the Claim establishing the cost components for items of the Claim including, but not limited to, labor, fringes, benefits and insurance, materials, equipment, Subcontractors, and all documents that establish the periods of time, individuals involved, the hours and rate of pay for the individuals; and
23. All other documents requested by GDPM to review the Claim.

9.11. False Certification of a Claim

9.11.1. If the Contractor falsely certifies all or any part of a Claim, the portion of the Claim falsely certified shall be denied, and may be sufficient cause for GDPM to exclude Contractor from future contracting opportunities.

9.11.2. The Contractor shall not knowingly present or cause to be presented to GDPM a false or fraudulent Claim. "*Knowingly*" shall have the same meaning as in the Federal False Claims Act.

9.12. If the Contractor knowingly presents or causes to be presented a false or fraudulent Claim, then the Contractor shall be liable to the GDPM for the same civil penalty and damages as the United States Government would be entitled to recover and shall also indemnify and hold GDPM harmless from all costs and expenses, including GDPM's attorneys' and consultants' fees and expenses incurred in investigating and defending against such Claim and in pursuing the collection of such penalty, damages and fees and expenses.

9.13. Claims based upon Defective Specifications: Contractor may be entitled to compensation for increased costs of performance when increased cost is due to Contractor following GDPM-provided defective design specifications.

9.14. Claims based on GDPM ordered Change: If the Contracting Officer makes a direct change Within the scope of the contract, Contractor may be entitled to an increase in Contract Sum or Time if the change increases or decreases the cost or time of performance. Recovery under this provision is limited to changes by the Contracting Officer or a formally designated representative. Contractor shall not be entitled to compensation for any change ordered by un-designated person even if such person is a GDPM agent or employee. Claims for changes must be asserted within 14 calendar days after written change order.

9.15. Claims based upon Differing Site Conditions: To be compensable, Claims based upon Differing Site Conditions is limited to the following:

9.15.1. Differing Site Condition must be an actual physical condition of the job site.

9.15.2. Differing Site Condition must have existed at the time of contract commencement

9.15.3. Differing Site Condition must not have been discoverable during site inspection.

9.15.4. Differing Site Condition must be of a nature that materially differs from conditions indicated in the information provided by GDPM in the solicitation documents.

9.15.5. Differing Site Condition must be an unknown and unusual condition that differs materially from what is ordinarily encountered on the particular type of Work in the particular locality (it must be unusual for that particular area).

9.16.Subcontractor Claims: A subcontractor shall not submit a claim directly to GDPM. Any claim related to a Subcontractor must be brought directly by and certified by the Contractor as if the Claim were brought by the Contractor itself. The Contractor may "sponsor" the Subcontractor Claim only by affirmatively and clearly agreeing to do so in writing and must be expressly permitted in the initial agreement between Contractor and Subcontractor. Any claim falsely certified will subject the Contractor to debarment from future GDPM contracting opportunities.

9.17. Initiation of Claim by GDPM: All GDPM initiated Claims must be presented within eight (8) Years of notice of event giving rise to the Claim unless such claim is based upon breach of warranty in which case the term of the warranty shall apply.

10. ARTICLE X: SUSPENSION AND TERMINATION

10.1. Suspension of the Work

10.1.1. The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of GDPM.

10.1.2. If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of GDPM in the administration of this Contract, or by GDPM's failure to act within the time specified (or within a reasonable time if not specified) in this Contract, an adjustment shall be made for any increase in the cost of performance of the Contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the Contract modified in writing accordingly.

10.1.3. However, no adjustment shall be made for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which any equitable adjustment is provided for or excluded under any other provision of this Contract.

10.1.4. A claim shall not be allowed:

- For any costs incurred more than 14 calendar days before the Contractor shall have notified GDPM in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and
- Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, for interruption, but no later than the date of final payment under the Contract.

10.1.5. If GDPM suspends the Work under this Article and the Contractor submits a proper Payment Request, subject to all other provisions of the Contract Documents, the Contractor shall be entitled to payment of compensation due under the Contract Documents for the Work performed before the suspension based upon the Schedule of Values.

10.1.6. GDPM, without prejudice to any other right or remedy it may have, may order the Contractor in writing to suspend, delay, or interrupt the performance of the Work in whole or in part for such period as GDPM may determine for any of the following reasons:

- Defective Work;

- The Contractor is causing undue risk of damage to any part of the Project or adjacent area;
- The Contractor fails to furnish or perform the Work in such a way that the complete Work will conform to the requirements of the Contract Documents; or
- Any other cause GDPM reasonably believes justifies suspension.

10.1.7. GDPM's exercise of its right to suspend the Work shall not entitle Contractor to any adjustment of the Contract Sum, Contract Time or both.

10.1.8. Upon receipt of the notice of suspension, the Contractor shall cease Work on the suspended activities and take all necessary or appropriate steps to limit disbursements and minimize respective costs.

10.1.9. The Contractor shall furnish a report to GDPM within 5 days of receiving the notice of suspension, describing the status of the Work, including, but not limited to, results accomplished, resulting conclusions, and other information as GDPM may require.

10.1.10. GDPM's right to stop the Work shall not give rise to any duty to exercise the right for the benefit of the Contractor or any other party, and GDPM's exercise or failure to exercise the right shall not prejudice any of GDPM's other rights including the right to suspend the Work in the future under the same or similar circumstances.

10.2. Termination for Convenience

10.2.1. GDPM, through the Contracting Officer, may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of GDPM.

10.2.2. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which termination becomes effective.

10.2.3. Upon delivery of the Notice of Termination, the Contractor shall immediately proceed with performance of the following duties in accordance with instructions from GDPM:

1. Cease operations as specified in the Notice;
2. Place no further orders and enter into no further subcontracts for materials, labor, services, or facilities, except as necessary to complete continued portions of the Project;
3. Terminate all subcontracts and orders to the extent they are related to the Work terminated;
4. Proceed with Work not terminated; and
5. Take actions that may be necessary, or that GDPM may direct, for the protection and preservation of the terminated Work.

Failure to do any actions set forth in this Provision (**10.2.3**), may lead to Contractor's liability for actual damages as a result of Contractor's failure to protect the Work.

10.2.4. If the performance of the work is terminated, either in whole or in part, GDPM shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by GDPM of a properly presented claim setting out in detail:

1. The total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor;
2. The cost of settling and paying claims under subcontracts and material orders for

Work performed and materials and supplies delivered to the site, payment for which has not been made by GDPM to the Contractor or by the Contractor to the subcontractor or supplier;

3. The cost of preserving and protecting the work already performed until GDPM or assignee takes possession thereof or assumes responsibility therefore; and
4. An amount constituting a reasonable profit on the value of the work performed by the Contractor.

10.2.5. Unless GDPM deems in writing that additional time is needed for review, GDPM will act on the Contractor's claim within 60 days of receipt of the Contractor's claim.

10.2.6. Any disputes are expressly made subject to the Article titled ***Dispute Resolution and Claim Procedure*** of this Contract.

10.2.7. If GDPM terminates the Work the termination shall not affect the rights or remedies of GDPM against the Contractor then existing or which may thereafter accrue.

10.2.8. Notwithstanding this Provision **10.2 Termination for Convenience**, if GDPM terminates the Work but there exists an event of Contractor's default, the Contractor shall be entitled to receive only such amounts as it would be entitled to receive following the occurrence of an event of default as provided for below.

10.3. Termination for Cause/Default

10.3.1. If the Contractor materially breaches this Contract, including without limitation, the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this Contract, or any extension thereof, or fails to complete said work within this time, GDPM may, by written notice to the Contractor, terminate the right to proceed with the work (or separable part of the work) that has been delayed. Other examples of material breaches of the Contract include but are not limited to:

- Refusal to remedy defective work;
- Failure to supply enough properly skilled workers or proper materials;
- Failure to provide revised Construction Progress Schedule or Recovery Plan;
- Failure to properly make payment to Subcontractors or Consultants; or
- Disregarding laws, ordinances, or rules, regulations, or orders of a public authority with jurisdiction over the Project.

10.3.2. In the event of a Termination under this Provision, GDPM may take over the work and complete it, by contract or otherwise, and may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work.

10.3.3. The Contractor and its sureties shall be liable for any damage to GDPM resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by GDPM in completing the Work.

10.3.4. In accordance with the Ohio Revised Code, if GDPM intends to exercise its termination right, GDPM shall issue not less than 5 days written notice ("5-Day Notice") to the Contractor and the Contractor's Surety. However, notwithstanding any provision of the Contract to the contrary, the issuance of the 5-Day Notice is not a condition precedent to GDPM's exercise of its rights and GDPM's decision to not issue a 5-Day Notice will not

Prejudice GDPM's rights under this Contract.

- 10.3.5.** If the Contractor fails to satisfy the requirements set forth in the 5-Day Notice within 15 days of receipt of the 5-Day Notice or as otherwise specified in the Notice, GDPM may declare the Contractor in default, terminate the Contract, and employ upon the Work the additional force or supply materials or either as appropriate, and remove Defective Work.
- 10.3.6.** If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the Parties will be the same as if the termination had been for convenience of GDPM.
- 10.3.7.** If the Contract is terminated, the Contractor's Surety may perform the Contract. Contractor and its Surety are subject to the following provisions and Contractor shall ensure the following provisions are contained within the Agreement between the Surety and Contractor regarding the Work that is the subject of this Contract.
- 10.3.7.1.** If the Contractor's Surety does not commence performance of the Contract within 10 days of the date of Contract termination, GDPM may complete the Work by means that GDPM deems appropriate.
- 10.3.7.2.** GDPM may take possession of and use all materials, facilities, and equipment at the Site or stored off-site, for which GDPM has paid.
- 10.3.7.3.** If GDPM notifies the Contractor's Surety that the Contractor is in default or terminates the Contract, the Surety shall promptly and in not more than 21 days complete an investigation of the claimed material default or termination.
- 10.3.7.4.** As part of such investigation, the Surety shall visit the offices of the Contractor, A/E and GDPM to review the available project records.
- 10.3.7.5.** If the Surety proposes to take over the Work, the Surety shall do so no later than the expiration of such 21 day period or 10 days after the date GDPM terminates the Contract, whichever is later.
- 10.3.7.6.** If GDPM terminates the Work, and the Surety proposes to provide a replacement contractor, the replacement contractor shall be fully capable of performing the Work in accordance with the Contract Documents, including meeting all the requirements of the Contract Documents. If the Contractor is terminated, the replacement contractor shall not be the Contractor.
- 10.3.7.7.** The surety shall provide GDPM with the results of its investigation, including any written report or documents.
- 10.3.7.8.** Termination for Cause/Default is in addition to GDPM's other rights under the Contract Documents and is not intended to create any rights of the Surety, including but not limited to the right to take over the Contractor's obligations.
- 10.3.7.9.** If the Contract is terminated for cause, the Contractor shall not be entitled to further payment. If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including without limitation the fees and charges of engineers, architects, attorneys, and other professionals and court costs, and other damages incurred by GDPM and not expressly waived, the Contractor or Surety shall immediately pay the amount of insufficiency to GDPM.
- 10.3.7.9.1.** This obligation for payment shall survive termination of the Contract.
- 10.3.7.10.** If the Contractor's Surety performs the Work, the provisions of the Contract Documents govern the Surety's performance, with the Surety in place of Contractor

In all provisions including, but not limited to, provisions for payment for the Work, and provisions of the right of GDPM to complete the Work.

10.4. If GDPM terminates the Contract, the termination shall not affect any rights or remedies of GDPM against the Contractor then existing or which may thereafter accrue.

10.5. GDPM's retention or payment of funds due to the Contractor shall not release the Contractor or the Contractor's Surety from liability for performance of the Work in accordance with the Contract Documents.

10.6. Contractor Insolvency

10.6.1. *Bankruptcy of Contractor:* If the Contractor files a voluntary petition in bankruptcy or has an involuntary petition in bankruptcy filed against it, the Contractor, the Contractor as the debtor-in- possession, or the trustee of the Contractor's bankruptcy estate shall notify GDPM in writing within 5 days of such filing and file a motion to assume or reject the Contract within 20 days after the filing of the petition and shall diligently prosecute that motion to conclusion so as to obtain an order granting or denying that motion within 45 days after the filing of the petition.

- The failure to file and prosecute that motion Contractor shall constitute a material breach of the Contract as time is of the essence with respect to Contractor's performance of all terms of this Contract.
- The Contractor agrees to the granting of relief from the automatic stay of the Bankruptcy Code, to permit GDPM to terminate the Contract for cause in such instance and issue and serve all notices necessary to terminate the Contract or arising out of termination of the Contract and to take any other action necessary to terminate the Contract.

10.6.2. *Receivership or Assignment for the Benefit of Creditors:* If the Contractor makes a general assignment for the benefit of creditors or if a receiver is appointed for all or a substantial part of Contractor's business or property, GDPM shall serve written notice to the Contractor and Contractor's Surety stating that any failure of the Contractor to provide adequate assurance of continued performance shall be considered a rejection of the Contract, which shall result in termination of the Contract for cause.

- Such termination of the Contract need not be evidenced by an order of any court

10.7. A Contractor's right to Proceed shall not be terminated for Cause or the Contractor charged with damages under this the Provisions for Termination for Cause/ Default as set forth above if:

10.7.1. The delay in completing the Work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

1. Acts of God, or of the public enemy;
2. Acts of GDPM or other governmental entity in either its sovereign or contractual capacity,
3. Acts of another contractor in the performance of contract with GDPM;
4. Fire;
5. Floods;
6. Epidemics;
7. Quarantine restrictions;

8. Strikes;
9. Freight embargos;
10. Unusually severe weather; or
11. As determined by GDPM, delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of either the Contractor or Subcontractors and suppliers.

10.7.2. The Contractor, within 10 days from the beginning of such delay as set forth in this Provision, unless otherwise extended by GDPM, shall notify GDPM in writing of the causes of delay.

10.7.3. GDPM's Contracting Officer shall ascertain the facts and extent of the delay.

10.7.4. If in the judgment of GDPM's Contracting Officer, the findings of fact warrant such action, time for completing the Work shall be extended by written modification to the Contract. The findings of fact of the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the Article titled Dispute Resolution and Claim Procedure.

11 ARTICLE XI: CONSTRUCTION CLOSEOUT

11.1. Final Cleaning

11.1.1. Before requesting the Substantial Completion inspection of the Work, the Contractor shall clean the Site, remove waste materials and rubbish attributable to the Project, and restore the property to an acceptable condition so that upon Substantial Completion, the site is ready for occupancy by GDPM.

11.1.2. If the Contractor performs any Work after final cleaning, the Contractor shall clean the affected area as provided above so that upon Substantial Completion, the site is ready for occupancy by GDPM.

11.1.3. Final cleaning shall be done to the reasonable satisfaction of GDPM.

11.1. Inspection and Construction of the Work

11.1.1. The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the Work performed under the Contract conforms to all Contract requirements.

11.1.2. All Work is subject to GDPM inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract.

11.1.3. GDPM inspections and tests are for the sole benefit of GDPM and shall not:

- Relieve the Contractor of responsibility for providing adequate quality control measures;
- Relieve the Contractor of responsibility for loss or damage of the material before acceptance;
- Constitute or imply acceptance; or
- Affect the continuing rights of GDPM after acceptance of the completed work.

11.1.4. The presence or absence of the GDPM inspector does not relieve the Contractor from any Contract requirement. And, the inspector is not authorized to change any term or condition of the specifications without the Contracting Officer's written authorization.

11.1.5. All instructions and approvals with respect to the work shall be given to the Contractor by

GDPM and shall be in writing.

11.1.6. The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by GDPM.

11.1.7. GDPM may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary.

11.1.8. GDPM shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size and performance tests shall be performed as described in the Contract Documents.

11.2. Routine Inspections

11.2.1. At its discretion, GDPM may conduct routine inspections of the construction Site on a daily basis.

11.2.2. The Contractor shall, without charge, replace or correct Work found by GDPM not to conform to contract requirements, unless GDPM decides that it is in its interest to accept the Work with an appropriate adjustment in Contract Sum.

11.2.3. The Contractor shall promptly segregate and remove rejected material from the premises.

11.2.4. If the Contractor does not promptly replace or correct rejected Work, GDPM may:

11.3.4.1. By Contract or otherwise, replace or correct the Work and charge the cost to the Contractor; or

11.3.4.2. Terminate for default the Contractor's right to proceed.

11.2.5. If any work requiring inspection is covered up without approval of GDPM, it must, if requested by GDPM, be uncovered at the expense of the Contractor.

11.2.6. If at any time before final acceptance of the all Work, GDPM considers it necessary or advisable, to examine Work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and material.

- If such Work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction.
- If, however, such Work is found to meet the requirements of the Contract, GDPM shall make an equitable adjustment to cover the cost of the examination and reconstruction, including, if completion of the Work was thereby delayed, an extension of time.

11.3. Substantial Completion

11.3.1. Contractor's Punch List

1. When the Contractor considers the Work, or a designated portion thereof, Substantially Complete, the Contractor shall inspect the Work and prepare a list of Defective Work and incomplete or unacceptable Work ("Contractor's Punch List").
2. The Contractor shall list all items of Work not in compliance with the Contract Documents, including items the Contractor is requesting to be deferred.
3. The Contractor shall proceed to correct all items listed on the Contractor's Punch List and

certify that the incomplete items listed on the Contractor's Punch List are to its knowledge an accurate and complete list by signing the Contractor's Punch List.

4. The Contractor's failure to include an item on the Contractor's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
5. The Contractor shall submit the signed Contractor's Punch List to GDPM together with a request for a Substantial Completion inspection of the Work.

11.3.2. Substantial Completion Inspection

1. The Contractor shall notify GDPM, in writing, as to the date when, in its opinion, all or a designated portion of the Work will be substantially completed and ready for inspection.
2. If GDPM and/or the A/E determine that the state of preparedness is as represented, GDPM will promptly arrange for the inspection.
3. Unless otherwise specified in the Contract, GDPM shall accept, as soon as practicable after completion and inspection, all work required by the Contract or that portion of the Work that GDPM determines and designates can be accepted separately.
4. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or GDPM's right under any warranty or guarantee.
5. Within 3 business days after receipt of the request for the Substantial Completion inspection of the Work, GDPM shall notify the Contractor of acceptance or rejection of the request, stating reasons for any rejection.
6. Within 7 days after its acceptance of the Contractor's request, GDPM and/or the A/E shall conduct the Substantial Completion inspection to determine whether the Work, or designated portion, is in conformity with the Contract Documents and Substantially Complete.
7. If GDPM and/or the A/E determines that the Work is Substantially Complete, within 3 business days after the Substantial Completion inspection, GDPM and/or the A/E shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion and include a list of Defective, incomplete, or unacceptable Work ("GDPM's Punch List").
8. GDPM's Punch List shall include:
 - The items on the Contractor's Punch List that are not yet completed or corrected as of the date of the Substantial Completion inspection; and
 - Comments from GDPM.

11.3.3. GDPM shall submit the Certificate of Substantial Completion to the Contractor for their written acceptance.

11.3.4. Upon their acceptance and consent of the Contractor's Surety, and subject to GDPM's right to withhold payment, GDPM shall release retainage.

11.3.5. GDPM and/or the A/E's failure to include an item on GDPM's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.

- If GDPM subsequently determines that the Work is not

substantially Complete, GDPM may request compensation for related expenses.

- GDPM may deduct the additional expenses from payments then or thereafter due the Contractor.
- If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to GDPM.

11.3.6. Completion of Punch List Items

1. The Contractor shall complete all items on GDPM's Punch List prior to date of Final Contract Completion.
2. After completing all items on GDPM's Punch List, the Contractor shall provide a written request for Final Inspection of the Work.
3. If Work on the Punch List cannot be timely completed, the Contractor shall submit a change order in accordance with the provisions of this Contract.
4. Within 3 business days after receipt of the request for the Final Inspection of the Work, GDPM and/or the A/E shall complete a Final Inspection of the Work for compliance with the Contract Documents.
5. If multiple inspections of items on GDPM's Punch List are required due to the Contractor's failure to properly and timely complete them, the Contractor shall pay any additional costs incurred by the A/E and GDPM resulting from any attendant delay.
6. GDPM may deduct those additional costs from payments then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to GDPM.

11.4. Demonstration and Training, Operating Appurtenances

11.4.1. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall perform demonstration and training of GDPM's maintenance staff and other staff as requested by GDPM.

11.4.2. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize and submit operating appurtenances and loose items related to operation and maintenance of the completed Project to GDPM, including, but not limited to:

- Keys to door and window hardware, panels, and other devices not directly provided to GDPM from the manufacturer;
- Operating handles, levers, cranks, specialized wrenches or drivers, remote controls, and similar items; and
- Extra materials (e.g., attic stock).

11.5. Acceptance of Defective Work

11.5.1. Defective Work may only be knowingly accepted by GDPM in writing instead of GDPM requiring its removal or correction, in which case the Contract Sum must be equitably reduced to account for the reduction in benefit of the Work received by GDPM on account of the Defective Work.

11.5.2. GDPM may only accept Defective Work through a deduct Change Order that makes explicit reference to Acceptance of Defective Work

11.5.3. None of the following will constitute acceptance of Defective Work, a release of the Contractor's obligation to perform the Work in accordance with the Contract, or a waiver of any rights set forth in the Contract or otherwise provided by Applicable Law:

1. Observations or inspections by GDPM or the A/E;
2. The making of any payment;
3. Substantial Completion or the issuance of a Certificate of Substantial Completion;
4. Partial Occupancy and GDPM's use or occupancy of the Work or any part of it;
5. Contract Completion or the issuance of a partial or final Certificate of Contract Completion;
6. Any review or approval of a submittal;
7. Any inspection, test, or approval by other Persons; or
8. Any correction of Defective Work by GDPM.

11.6. Building Commissioning

11.6.1. If the Project scope includes building commissioning, the Contractor shall participate in the Commissioning Process, as prescribed in the Contract Documents.

11.6.2. The Contractor shall permit the A/E, GDPM, or a third-party Commissioning Agent ("CxA") if applicable, access to commission performance based equipment, fixtures, and/or systems (e.g., HVAC, fire protection, smoke evacuation, fume hoods, emergency power, etc.), prior to Substantial Completion.

11.6.3. The A/E, GDPM, or CxA, if applicable, shall promptly notify, in writing, the Contractor of any deficiency identified during the Commissioning Process.

11.6.4. To facilitate the Commissioning Process, the Contractor shall submit 4 sets of Operation and Maintenance manuals for dynamic and engineered systems to GDPM and CxA, if applicable, for approval. This submission shall occur within 30 days of obtaining approval of all related Contractor submittals required by the Contract Documents.

11.7. Partial Contract Completion

11.7.1. When items of Work cannot be completed until a subsequent date, GDPM shall prepare a partial Certificate of Contract Completion that shall include a detailed list of the deferred Work and the date(s) by which the Contractor will complete that Work.

11.7.2. GDPM shall submit the partial Certificate of Contract Completion to Contractor for their written acceptance. Upon their acceptance of the partial Certificate of Contract Completion and consent of the Contractor's Surety, GDPM may release payment to the Contractor, as determined in the sole discretion of GDPM.

11.8. Final Contract Completion

11.8.1. When all items on GDPM's Punch List have been completed to the satisfaction of GDPM, all requirements of the Contract Documents have been completed, and the provisions have been fulfilled, GDPM shall prepare and recommend execution of final Contract payment.

11.8.2. The date that GDPM executes the final Contract payment is the date of Contract Completion.

11.8.3. Nothing in Contract Completion shall constitute a waiver of GDPM's ability to pursue damages as the result of any breach of the Contract by the Contractor or Liquidated Damages.

11.9. Partial Occupancy: if the building authority with jurisdiction over the project issues a partial certificate of occupancy, GDPM may occupy or use a portion of the Project prior to Contract Completion. The Contractor shall be relieved of the obligation to maintain the area accepted for partial Occupancy, but shall remain obligated to complete and correct the Work and to carry insurance as required by the Contract Documents during performance of any such Work.

12. Article XII: Warranty

12.1. Warranty of Title: Contractor warrants good title to all materials, supplies, and equipment incorporated in the Work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charges, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien upon the premises or anything appurtenant thereto.

12.2. Warranty of Construction

12.2.1. Contractor warrants to GDPM that all materials and equipment furnished under this Contract shall be new and of good quality unless otherwise required or permitted by the Contract Documents. In addition, Contractor warrants that work performed under this Contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by Contractor or any subcontractor or supplier at any tier.

- a. This warranty shall continue for a period of one-year from the date of final acceptance of the Work.
- b. If GDPM takes possession of any part of the Work prior to final acceptance, this warranty shall continue for a period of one year from the date GDPM takes possession.
- c. Work not conforming to the requirements, including Substitutions not properly approved and authorized, may be considered Defective Work.
- d. If Contractor or a Subcontractor recommends a particular product, material, system, or item of equipment for incorporation into the Project and GDPM accepts that recommendation, the above warranty includes a warranty from Contractor to GDPM that the recommended product, material, system, or item of equipment is fit and appropriate for the associated purpose.
- e. If required by GDPM, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

12.2.2. Contactor shall remedy, at Contractor's expense, any failure to conform, or any defect. Further, Contractor shall remedy, at Contractor's expense, any damage to GDPM-owned or controlled real or personal property when the damage is the result of: (1) Contractor's failure to conform to contract requirements; or (2) any defects of equipment, material, workmanship or design furnished by Contractor.

12.2.3. Contractor shall restore any work damaged in fulfilling the terms and conditions of Warranty of Construction. Contractor's warranty with respect to work repaired or replaced will run for not less than one year of repair or replacement.

12.2.4. GDPM shall notify Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage. If Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, GDPM shall have the right to replace,

repair or otherwise remedy the failure, defect, or damage at Contractor's expense.

12.2.5. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, Contractor shall:

- a. Obtain all warranties that would be given in normal commercial practice;
- b. Require all warranties to be executed in writing, for the benefit of GDPM; and
- c. Enforce all warranties for the benefit of GDPM.

12.2.6. In the event Contractor's warranty under this provision has expired, GDPM may bring suit to enforce a subcontractor's or manufacturer's or supplier's warranty.

12.2.7. Unless a defect is caused by the negligence of the Contractor or its subcontractor or supplier at any tier, Contractor shall not be liable for the repair or defect of material or design furnished by GDPM or for the repair of any damage that results from any defect in GDPM furnished material or design.

12.2.8. Notwithstanding any provisions herein to the contrary, the establishment of time periods in this Article relate only to the specific obligation of the Contractor to correct the work and have no relationship to the time within which its obligation to comply with the contract may be sought to be enforced, or to the time within which proceedings may be commenced to establish Contractor's liability with respect to its obligations other than specifically to correct the work.

12.2.9. This Warranty shall not limit GDPM's rights under the Inspection and Acceptance of Construction related provisions within this Contract with respect to latent defects, gross negligence or fraud.

12.3. Warranty Walk-through Contractor: At GDPM's request, Contractor shall perform a walkthrough of the property no earlier than three months prior to the expiration of any Warranty. If Contractor is unavailable for the warranty walk-thru, the warranty shall be extended until the time Contractor is available.

12.4. All warranties, including but not limited to, material, equipment and special warranties and warranties otherwise required by the Contract Documents shall be issued in the name of GDPM, or shall be transferrable to GDPM and shall commence, unless otherwise indicated in the Contract Documents, upon issuance of certification of substantial completion.

13 Article XII: Bonds and Insurance

13.1. Bid Bond/Guaranty

13.1.1. The Contractor shall provide to GDPM a bid guaranty in the form of either: (1) a bond for 10% of the bid; or (2) a certified check, cashier's check or letter of credit revocable only at the option of GDPM and shall be in the amount of 10% of the bid.

13.1.2. The bid guaranty shall be conditioned to provide that Contractor will, after award, enter into a contract with GDPM in accordance with the bid, plans, details, and specifications.

13.1.3. If the bidder fails to enter into the Contract and GDPM awards Contract to next lowest bidder, the bidder and the surety on the bidder's bid are liable to GDPM for the lesser of either:

- The difference between the bid and that of the next lowest bidder; or
- For a penal sum in the amount of 10% of the bid.

13.1.4. If GDPM does not award the Contract to the next lowest bidder but resubmits the Project for bidding, the bidder failing to enter into the Contract and the surety on the bidder's bond are liable to GDPM for a penal sum not to exceed 10% of the amount of the bid.

13.1.5. Where GDPM accepts a bid but the bidder fails or refuses to enter into a proper contract in accordance with the bid, plans, details, and specifications within ten days after Notice of Intent, the bidder and surety on any bond are liable for the amount of the difference between the bidder's bid and the next lowest bidder.

13.1.6. All bid guaranties shall be payable to GDPM, be for the benefit of GDPM and be deposited with GDPM.

13.2. Payment and Performance Bond

13.2.1. Contract Commencement does not occur until GDPM receives a Payment and Performance Bond

13.2.2. Contractor must, within 10 days of GDPM's delivery of signed Contract to Contractor, unless otherwise specified by GDPM in writing, deliver to GDPM a payment and performance bond with a penal sum in the amount of 100% of the Contract Sum (which includes all acceptable alternates).

13.2.3. The payment and performance bond must contain a condition that indemnifies GDPM against all damages suffered by Contractor's failure to perform the Contract according to the provisions and in accordance with the plans, details, and specifications and to pay all lawful claims of subcontractors, material suppliers, and laborers for labor performed or material furnished in carrying forward, performing or completing the Contract.

13.2.4. The bond shall be obtained from companies holding certificates of authority as acceptable sureties and shall be listed on the U.S. Treasury Circular 570 (T-List).

13.2.4.1. Each company shall be licensed to do business in Ohio and satisfactory to GDPM.

13.2.5. The Contractor shall submit with the executed Bond:

13.2.5.1. A certified copy of the authority to act (power of attorney) of the agent signing the Bond on behalf of the Surety, and

13.2.5.2. A current signed Certificate of Compliance issued by the Ohio Department of Insurance demonstrating that Surety is licensed to do business in Ohio.

13.2.6. If the Contract Sum increases at any time such that it exceeds the sum of the Bond, the Contractor shall cause the penal sum of the Bond to be increased such that the sum equals one-hundred percent (100%) of the increased Contract Sum.

13.2.7. Any time Contractor increases the sum of the Bond, the Contractor shall deliver to GDPM written consent of the affected Surety confirming the increased sum. GDPM's receipt of that written consent is a condition precedent to GDPM's obligation to pay the Contractor for any portion of the Work associated with the increase.

13.2.8. If notice of any change affecting the Contract is required by any Surety or by the provision of any Bond, the Contractor shall provide that notice.

13.3. Form of Bond: All bonds and guarantees must be provided for on a form deemed acceptable by GDPM and must be drafted and executed in accordance with all HUD and State of Ohio requirements. Unless otherwise so indicated, Contractor shall use GDPM's Bond Forms.

13.4. General Insurance Requirements

13.4.1. Prior to commencing Work, Contractor and each subcontractor shall furnish GDPM with certificates of insurance demonstrating coverage that meets the Minimum Contractor Coverage Requirements as outlined below is in full force and will insure all operations under the Contract.

13.4.2. Throughout the performance of the Work or longer as may be described below, Contractor and each Subcontractor shall obtain, pay for and keep in force, the minimum insurance coverage.

13.4.3. On a case-by-case basis, GDPM and Contractor may agree to adjust the below requirements for any particular subcontractor.

13.4.4. All insurance shall be carried with companies which are financially responsible and admitted to do business in the State of Ohio.

13.4.5. If any such insurance is due to expire during the construction period, Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to GDPM.

13.4.6. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to GDPM.

13.5. Minimum Contractor Coverage Requirements

13.5.1. Workers' Compensation: The amount of Workers' Compensation coverage shall be in accordance with the State of Ohio Workers' Compensation laws.

13.5.2. Commercial General Liability: With a combined single limit for bodily injury and property damage of not less than \$1,000,000 per occurrence unless otherwise specified by GDPM in writing, to protect Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability.

13.5.2.1. If Contractor has a "claims made" policy, then the following additional requirements apply: (1) the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and (2) the extended reporting period may not be less than five years following the completion date of the Contract.

13.5.3. Employers Liability Coverage: Unless otherwise specified by GDPM in writing, Contractor shall maintain employer's liability coverage with:

13.5.3.1. An each accident limit of not less than \$1,000,000;

13.5.3.2. A disease each-employee limit of not less than \$1,000,000; and

13.5.3.3. A disease policy limit of not less than \$1,000,000.

13.5.4. Automobile Liability: On owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$ 1,000,000 per occurrence.

- 13.5.5. Builder's Risk Insurance:** Before commencing Work, Contractor shall furnish GDPM with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force.
- 13.5.5.1.** The Builder's Risk Insurance shall be for the benefit of the Contractor and GDPM as their interests may appear and each shall be named in the policy or policies as an insured.
- 13.5.5.2.** If installing equipment supplied by GDPM, Contractor shall carry insurance on such equipment from the time Contractor takes possession thereof until the Contract work is accepted by GDPM.
- 13.5.5.3.** The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. Builder's Risk coverage need not be carried on landscape work.
- 13.5.5.4.** Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by GDPM.
- 13.5.5.5.** Contractor may terminate this insurance on buildings as of the date taken over for occupancy by GDPM.
- 13.5.5.6.** The amount of Builder's Risk coverage shall not be less than the total completed value of the Project, including the value of permanent fixtures and decorations, with a deductible of not more than \$25,000 per occurrence. Any deductible over the amount specified in this provision shall be authorized in writing by GDPM.
- 13.5.5.7.** Coverage shall include a provision to pay the reasonable extra costs of acceleration and expediting temporary and permanent repairs to, or permanent replacement of, damaged property.
- 13.5.5.8.** This shall include overtime wages and the extra costs of "express" or other means of expedited transportation and/or delivery of supplies necessary to the repair or replacement.
- 13.5.5.9.** Coverage shall include "soft costs endorsement" including, but not limited to, the reasonable extra costs of the A/E and reasonable Contractor extension or acceleration costs.
- 13.5.5.10.** Coverage shall include material in transit or stored in off-site and identified for the Project.
- 13.5.5.11.** Coverage shall waive all rights between GDPM, Contractor, and Subcontractors at any tier, for damages caused by fire or any other perils to the extent of actual recovery of any insurance proceeds under the policy.
- 13.5.5.12.** Coverage shall include appropriate sub-limits for installation coverage.
- 13.5.5.13.** Coverage shall include provisions for mechanical or electrical breakdown, or boiler system testing.
- 13.5.5.14.** Coverage shall include temporary structures and scaffolding, along with collapse coverage.
- 13.5.5.15.** Coverage shall be primary to all other applicable insurance.

13.5.5.16. The builder's risk policy shall specifically permit partial occupancy by GDPM prior to Contract Completion and coverage shall remain in effect until all punch items are completed.

13.5.5.17. The Contractor's tools and equipment shall not be covered under the builder's risk policy. It is the Contractor's sole responsibility to maintain such coverage, which shall be included in its Overhead (a component of Contractor's Fee) and not included as a separate item in Contractor's Schedule of Values.

13.5.5.18. If Contractor is involved solely in the installation of material and equipment and not in new building construction, Contractor shall purchase and maintain a builder's risk, builder's risk-renovations, or installation floater insurance policy that complies with this Provision.

13.5.6. *Umbrella/Excess Liability:* Contractor may employ an umbrella/excess liability policy to achieve the above required minimum coverage. Unless otherwise specified by GDPM in writing, for Construction Contracts in excess \$1,000,000, the Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$2,000,000 (in addition to the above-required limits) if the Work (or Work to be performed by the Subcontractor) includes any of the following:

- a. Brick/block masonry;
- b. Exterior caulking/sealant;
- c. Cast-in-place or precast concrete;
- d. Damp proofing/waterproofing;
- e. Electrical;
- f. Elevator;
- g. Exterior glass and/or glazing;
- h. Exterior marble, granite, and/or other stonework;
- i. Miscellaneous metals;
- j. Plaster/stucco;
- k. Plumbing;
- l. HVAC;
- m. Roofing and/or sheet metal;
- n. Scaffolding;
- o. Spray-on fireproofing;
- p. Sprinkler and/or fire protection; or
- q. Structural steel and/or metal deck.

13.5.7. Unless otherwise specified by GDPM in writing, Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$5,000,000 (in addition to the above-required limits) if the Work (or the Work to be performed by the Subcontractor) includes any of the following:

- a. Caissons and/or piles;
- b. Major Demolition;

- c. Excavation and/or utility work;
- d. Sheeting, shoring, and/or underpinning;
- e. Window washing equipment; or
- f. Wrecking.

13.5.8. Professional Liability: Unless otherwise specified by GDPM in writing, Contractor shall maintain professional liability insurance (including without limitation for sprinkler and/or fire protection and other design-build work included in the Work) without design-build exclusions with a limit not-less than \$1,000,000 each claim and an annual-aggregate limit of not less than \$2,000,000.

13.5.8.1. The professional liability policy shall have an effective date on or before the date that Contractor first started to provide any Project-related services.

13.5.8.2. Upon submission of the associated certificate of insurance and at each policy renewal, the Contractor shall advise GDPM in writing of any actual or alleged claims that may erode the professional liability limits.

13.5.8.3. Contractor shall maintain the professional liability insurance in effect for no less than 5 years after the earlier of the termination of the Contract or Substantial Completion of all Work.

13.5.9. Additional Property Insurance: For any demolition, blasting, excavating, tunneling, shoring, or similar operations, the Contractor shall provide and maintain Property Damage Liability insurance with a limit of liability equal to the limit as specified in the applicable provisions of this Article.

13.5.10. Equipment Coverage:

13.5.10.1. GDPM will not insure or be liable for damage to any Contractor or Subcontractor owned, leased, rented, or borrowed tools, equipment, or vehicles.

13.5.10.2. Contractor and Subcontractors are solely responsible for maintaining all insurance necessary to cover their tools, equipment, and vehicles.

13.5.11. Pollution Coverage: Contractor shall maintain Pollution Liability Insurance, including Asbestos Liability Insurance, covering liability for bodily injury, property damage, and environmental damage resulting from "sudden accidental" or "gradual" pollution and related cleanup costs incurred by the Contractor, all arising out of the Work to be performed under this contract. Combined single limit per occurrence shall not be less than \$500,000, or the equivalent. Annual aggregate limit shall not be less than \$1,000,000.

13.6. Waivers of Subrogation

13.6.1. To the fullest extent permitted by Applicable Law, Contractor waives all rights against GDPM and its agents and employees for damages to the extent covered by any insurance, except rights to the proceeds of that insurance.

13.6.2. All policies shall accomplish the waiver of subrogation by endorsement or otherwise.

13.6.3. GDPM and Contractor waive all rights against each other for damages caused by fire or other perils to the extent actual recovery of any insurance proceeds under any property insurance or builder's risk insurance applicable to the Work.

14. Article XIV: Indemnification

- 14.1.** To the fullest extent permitted by federal and State Law, Contractor shall indemnify, defend, and hold harmless the Indemnified Parties from and against all claims, costs, damages, losses, fines, penalties, and expenses (including but not limited to all fees and charges of attorneys and other professionals, and all court, arbitration, or other dispute-resolution costs) arising out of or in connection with the Project.
- 14.2.** The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others. Contractor shall hold and save GDPM, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- 14.3.** Contractor's indemnification obligations under this Article exists regardless of whether or not and the extent to which the claim, damage, loss, fine, penalty, or expense is caused by a party indemnified pursuant to this Article.
- 14.4.** Nothing in this Article obligates Contractor to indemnify any individual or entity from and against the consequences of that individual or entity's own negligence.
- 14.5.** Contractor's obligations under this Article shall not extend to the liability of the A/E, A/E's consultants, agents, representatives, or employees for negligent preparation or approval of Drawings, Specifications, Change Orders, opinions, and other responsibility of the A/E, except to the extent covered by Contractor's insurance.
- 14.6.** In claims against an Indemnified Party by any direct or indirect employee (or the survivor or personal representative of that employee) of the Contractor or a person or entity for whom the Contractor may be liable, the indemnification obligations under this Article will not be limited by a limitation on the amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefits acts.
- 14.7.** Contractor's indemnification obligation under this Article will survive termination of the Contract and Contract Completion.
- 14.8.** GDPM may deduct, from the Contract Sum, the claims, losses, fines, penalties, and expenses for which Contractor is liable under this Article.
- 14.9.** If those claims, damages, losses, fines, penalties and expenses exceed the unpaid balance of the Contract Sum, Contractor shall immediately pay the difference to GDPM.

15. Article XV: Damages

15.1. Liquidated Damages

- 15.1.1.** If Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to GDPM as liquidated damages in accordance with the table below.
- 15.1.1.1.** If different completion dates are specified in the contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed.
- 15.1.1.2.** To the extent that Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due GDPM.
- 15.1.1.3.** Contractor remains liable for damages caused other than by delay.

- 15.1.2. If GDPM terminates Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned GDPM in completing the work.
- 15.1.3. If GDPM does not terminate Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.
- 15.1.4. If Contractor fails to achieve a Milestone within the associated Contract Time, it would be difficult, if not impossible, to determine GDPM's resulting damages.
- 15.1.5. Therefore, if the Contractor fails to achieve a Milestone within the associated Contract Time, the Contractor shall (at GDPM's option) pay to or credit GDPM the Liquidated Damages per day sum determined according to the following schedule for each day that the Contractor fails to achieve a Milestone within the associated Contract Time.

Total Contract Sum	Daily Liquidated Damages
Less than \$150,000	\$200
\$150,000-\$500,000	\$400
\$500,000.01 - \$1,000,000	\$500
\$1,000,000.01 - \$2,000,000	\$1,000
More than \$2,000,000	\$2,000

- 15.1.6. If Contractor simultaneously fails to achieve two or more Milestones, GDPM shall be entitled to recover the sum of the associated Liquidated Damages per day rates.
- 15.1.7. The Liquidated Damages described are only intended to compensate GDPM for the direct damages it incurs as a result of Contractor's failure to achieve the Milestones within their associated Contract Times.
- 15.1.8. The Liquidated Damages described are not intended to compensate GDPM for any damages GDPM incurs on account of:
 - 15.1.8.1. Any claims attributable to Contractor that are brought by others including Separate Consultants and Separate Contractors; or
 - 15.1.8.2. Any failure of Contractor to timely, properly, and completely perform the Contract other than the failure to achieve the Milestones within their associated Contract Times.
- 15.1.9. The parties acknowledge that the above-listed Liquidated Damages per day sums are not penalties, and they each irrevocably waive the right (if any) to challenge the validity and enforceability of those Liquidated Damages per day sums.
 - 15.1.9.1. Notwithstanding any other provision of the Contract Documents to the contrary, if a court determines that the Liquidated Damages per day sums or their application are void and unenforceable, GDPM shall be entitled to recover the actual damages that it incurs on account of the Contractor's failure to achieve one or more of the Milestones within the Contract Times.
- 15.1.10. In addition to other rights that GDPM may have relative to the Liquidated Damages, GDPM may deduct the Liquidated Damages from the Contract Sum as the damages accrue. If payments then or thereafter due to the Contractor are not sufficient to cover such amounts, Contractor shall immediately pay the amount of the insufficiency to

GDPM.

15.2. Mutual Waiver of Consequential Damages

15.2.1. Except for the Liquidated Damages provided for above, GDPM and Contractor each waive against the other all Claims for consequential damages that may arise out of or relate to this Contract.

15.2.1.1. GDPM's waiver includes Claims for loss of use, income, profit, revenue, financing, cost of capital, business and reputation, management and employee productivity, and consequential damages arising from termination of the Contract or related to insolvency.

15.2.1.2. The Contractor's waiver includes:

15.2.1.2.1. Claims for unabsorbed home-office overhead;

15.2.1.2.2. Any other form of overhead in excess of that specifically

provided for; **15.2.1.2.3.** Delay damages except as otherwise specifically

provided for; **15.2.1.2.4.** Increased cost of funds for the Project;

15.2.1.2.5. Lost opportunity to work on other projects;

15.2.1.2.6. Losses of financing, business, and reputation;

15.2.1.2.7. Loss of profit except anticipated profit, arising directly from properly performed Work;

15.2.1.2.8. Loss of bonding capacity; and

15.2.1.2.9. Consequential damages arising from termination of the Contract or related to insolvency.

15.2.2. Notwithstanding Section 15.2.1, this Section 15.2:

15.2.2.1. Does not apply to any damages that would be covered by insurance provided in connection with the Project if the Contract did not include Section 15.2.1;

15.2.2.2. Does not apply to Contractor's indemnity obligations for third-party claims against the Indemnified Parties even if those claims are for damages that Section 15.2.1 would otherwise preclude;

15.2.2.3. Does not preclude GDPM's recovery of Liquidated Damages; and

15.2.2.4. Does not apply to Claims for damages arising from GDPM's or Contractor's gross negligence or willful misconduct.

15.3. This Article 15 shall survive termination of the Contract.

16 Article XVI: Labor Standards Davis-Bacon and Related Acts

16.1.1. All rulings and interpretations of the Davis Bacon and Related Acts contained in 29 CFR Part 3 are herein incorporated by reference in this Contract.

16.2. Minimum Wages

16.2.1. All laborers and mechanics employed under this Contract in the development or construction of the project(s) involved will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the

Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which shall be attached to the Contract Documents and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

- 16.2.2.** Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the regular weekly period, are deemed to be constructively made or incurred during such weekly period.
- 16.2.3.** Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4).
- 16.2.4.** Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- 16.2.5.** The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5 and the Davis-Bacon poster (WH-1321)) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.
- 16.2.6.** Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.
- 16.2.7.** HUD shall approve any additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:
 - 16.2.7.1.** The work to be performed by the classification requested is not performed by a classification in the wage determination;
 - 16.2.7.2.** The classification is utilized in the area by the construction industry; and
 - 16.2.7.3.** The proposed wage rate, including bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- 16.2.8.** If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210.
- 16.2.9.** The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- 16.2.10.** In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where

appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination.

16.2.11. The Administrator or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30 day period that additional time was necessary.

16.2.12. The wage rate (including fringe benefits where appropriate) shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.

16.2.13. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

16.2.14. If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met.

16.2.15. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

16.3. Withholding of Funds

16.3.1. HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract.

16.3.2. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the Project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

16.3.3. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.

16.4. Payrolls and Basic Records

16.4.1. Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the Project. Such records shall contain:

16.4.1.1. The name, address, and social security number of each such worker;

16.4.1.2. His or her correct classification

- 16.4.1.3.** Hourly rates of wages paid, including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in the Davis-Bacon Act;
 - 16.4.1.4.** Daily and weekly number of hours worked;
 - 16.4.1.5.** Deductions made; and
 - 16.4.1.6.** Actual wages paid.
- 16.4.2.** Whenever the Secretary of Labor has found, under 29 CFR 5.5, that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.
- 16.4.3.** Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- 16.4.4.** The Contractor shall submit for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer for transmission to HUD or its designee.
- 16.4.5.** The payrolls submitted shall set out accurately and completely all of the information required to be maintained.
- 16.4.6.** This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
- 16.4.7.** The Contractor is responsible for the submission of copies of payrolls by all subcontractors (Approved by the Office of Management and Budget under OMB Control Number 1214-0149).
- 16.4.8.** Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- 16.4.8.1.** That the payroll for the payroll period contains the information required to be maintained and that such information is correct and complete;
 - 16.4.8.2.** That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and
 - 16.4.8.3.** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.
- 16.4.9.** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance".
- 16.4.10.** The falsification of any of the above certifications may subject the Contractor or

subcontractor to civil or criminal prosecution under Title 18 and Title 31 of the United States Code.

16.5. Records

16.5.1. The Contractor or subcontractor shall make the records available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job.

16.5.2. If the Contractor or Subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds.

16.5.3. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

16.6. Apprentices & Trainees

16.6.1. Apprentices will be permitted to work at less than predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

16.6.2. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program.

16.6.3. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

16.6.4. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

16.6.5. Where a Contractor is performing construction on a project in a locality other than that in which registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or Subcontractor's registered program shall be observed.

16.6.6. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

16.6.7. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program.

16.6.8. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification.

16.6.9. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

16.6.10. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable pre-determined rate for the work performed until an acceptable program is approved.

16.7. Trainees

16.7.1. Except as provided for in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

16.7.2. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

16.7.3. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

16.7.4. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program.

16.7.5. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices.

16.7.6. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed.

16.7.7. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.

16.7.8. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work until an acceptable program is approved.

16.8. **Equal Employment Opportunity:** The utilization of apprentices, trainees, and journeymen shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR Part 30.

16.9. **Compliance with Copeland Act requirements:** Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this Contract

16.10. **Contract Termination; Debarment:** A breach of this Article may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor.

16.11. **Disputes Concerning Labor Standards:** Disputes arising out of the labor standards provisions of Disputes Concerning Labor Standards shall not be subject to ARTICLE 9 DISPUTE RESOLUTION/CLAIM PROCEDURE of this contract. Such disputes shall be resolved in accordance

with the procedures of the Department of Labor. Disputes within the meaning of Disputes Concerning Labor Standards include disputes between the Contractor (or any of its subcontractors) and GDPM, HUD, the U.S. Department of Labor, or the employees or their representatives.

16.12. Certification of Eligibility: By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by virtue of the Davis-Bacon Act or 29 CFR 5.12.

16.12.1. No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of the Davis-Bacon Act or 29 CFR 5.12.

16.12.2. The penalty for making false statements is prescribed in the U. S. Criminal Code 18 U.S.C. 1001.

16.13. Contract Work Hours and Safety Standards Act: As used in this provision - Contract Work Hours and Safety Standards Act, the terms "laborers" and "mechanics" include watchmen and guards.

16.13.1. Overtime Requirements

16.14. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one half pay for all hours worked in excess of 40 hours in such workweek.

16.15. Violation; liability for unpaid wages; Liquidated Damages

16.15.1. In the event of any violation, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages.

16.15.2. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages.

16.15.3. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages.

16.16. Withholding for unpaid wages and liquidated damages

16.16.1. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages.

16.17. Subcontracts

16.17.1. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in subcontracts, and such other clauses as HUD or its designee may by

appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts.

16.17.2. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

16.18. Non-Federal Prevailing Wage Rates

16.18.1. Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-federal prevailing wage rate exceeds:

16.18.1.1. The applicable wage rate determined by the Secretary of Labor pursuant to the Davis- Bacon Act (40 U.S.C. 276(a)) to be prevailing in the locality with respect to such trade;

16.18.1.2. An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL- recognized State Apprenticeship Agency; or

16.19. An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

17 ARTICLE XVIII: SECTION 3

17.1. In order to promote Employment, Training, and Contracting Opportunities for Low-Income Persons, the Contractor shall participate in GDPM's Section 3 Program.

17.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended.

17.2. The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

17.3. The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement Section 3.

17.4. As evidence by the execution of the Contract, the parties to this Contract certify that they are under no contractual or other impediments that would prevent them from complying with the Part 135 regulations.

17.5. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a narrative advising the labor organization or workers' representative of the Contractor's commitments, and will post copies of this notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice.

17.6. The notice shall describe the preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work will begin.

17.7. The Contractor agrees to include this Article - SECTION 3 in every subcontract subject to

compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Article upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135

17.8. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.

17.9. The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the Contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR Part 135.

17.10. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

17.11. Section 3 Reporting Requirements:

- Contractor must acknowledge and abide by any request for Section 3 documentation made by GDPM. In addition, contractor must follow any specific Section 3 reporting requirements required by GDPMS procurement department.

18 ARTICLE XVIII: Equal Opportunity Prohibition against Discrimination

18.1. During the performance of this contract, the Contractor agrees as follows:

18.1.1. Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, sexual orientation, or handicap.

18.1.2. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap. Such action shall include, but not be limited to:

18.1.2.1. Employment;

18.1.2.2. Upgrading;

18.1.2.3. Demotion;

18.1.2.4. Transfer;

18.1.2.5. Recruitment or recruitment advertising;

18.1.2.6. Layoff or termination;

18.1.2.7. Rates of pay or other forms of compensation; and

18.1.2.8. Selection for training, including apprenticeship.

18.1.3. The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by GDPM that explain this Article.

18.1.4. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor; state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or handicap.

18.1.5. The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be

provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this Article, and post copies of the notice in conspicuous places available to employees and applicants for employment.

18.1.6. The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

18.1.7. The Contractor shall furnish all information and reports required by Executive Order 11246, as amended, the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, pursuant thereto.

18.1.8. The Contractor shall permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

18.1.9. In the event of a determination that the Contractor is not in compliance with this Article or any rules, regulations, or order of the Secretary of Labor, this contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government Contracts, or Federally assisted construction contracts under the procedures authorized, in Executive Order 11246, as amended.

18.1.10. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law, including the following as provided by ORC:

18.1.10.1. In the event Contractor fails to comply with these nondiscrimination provisions, GDPM shall deduct from the amount payable to the Contractor a forfeiture of the statutory penalty pursuant to ORC for each person who is discriminated against or intimidated.

18.1.10.2. The Contract may be terminated or suspended in whole or in part by GDPM and all money due hereunder may be forfeited in the event of a subsequent violation of the foregoing nondiscrimination provisions.

18.1.11. The Contractor shall include the terms and conditions of this Article in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

18.1.12. The Contractor shall take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into the litigations to protect the interests of the United States.

18.1.13. Compliance with the requirements of this Article shall be to the maximum extent consistent with, but not in derogation of compliance with the Indian Self-Determination and Education Assistance Act and the Indians Preference Clause of this Contract.

18.2. The Contractor shall cooperate fully with the States Equal Opportunity Coordinator (EOC), with any other official or agency of the state or federal government that seeks to eliminate unlawful employment discrimination, and with all other state and federal efforts to assure equal employment practices under the Contract.

19 ARTICLE XIX: HEALTH, SAFETY, AND ACCIDENT PREVENTION

19.1. Contractor Obligations. In performing this contract, the Contractor shall:

- 19.1.1. Take reasonable precautions to ensure safety of individuals on the Project;
- 19.1.2. Ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation;
- 19.1.3. Protect the lives, health, and safety of other persons;
- 19.1.4. Prevent damage to property, materials, supplies, and equipment;
- 19.1.5. Avoid work interruptions;

19.2. For these purposes, the Contractor shall:

- 19.2.1. Comply with regulations and standards issued by the Secretary of Labor (failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act);
- 19.2.2. Include the terms of this Article in every subcontract that such terms will be binding on each subcontractor. The Contractor shall be responsible for its subcontractors' compliance with the provisions of this Article;
 - 19.2.2.1. The Contractor shall take such action with respect to any subcontract as GDPM, the Secretary of Housing or Secretary of Labor shall direct as a means of enforcing such provisions.
- 19.2.3. Maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational diseases or damages to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by applicable law;
- 19.2.4. Pay any fine or cost incurred because of Contractor's violation, or alleged violation, of any Applicable Law.

19.3. Notification of Non-Compliance Procedure

- 19.3.1. GDPM shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required.
- 19.3.2. After receiving the notice, the Contractor shall immediately take corrective action.
- 19.3.3. If the Contractor fails or refuses to take corrective action promptly, GDPM may issue an order stopping all or part of the work until satisfactory corrective action has been taken.
- 19.3.4. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under these circumstances.

19.4. Safety Plan

- 19.4.1. The Contractor is responsible for designing and implementing its own site-specific safety

plan, including compliance with OSHA regulations and such plan shall meet or exceed GDPM's site-specific safety plan (if any).

19.4.2. Before starting any Work, the Contractor shall submit to GDPM a copy of the Contractor's site-specific safety plan and safety manuals.

19.5. Safety Data Sheets

19.5.1. The Contractor shall identify any material it uses at the Site with a Safety Data Sheet ("SDS") meeting the requirements of OSHA's Hazardous Communication Standard.

19.5.2. The Contractor shall maintain a notebook containing all of its applicable SDSs.

19.5.3. This notebook shall be kept at the Site for the duration of the Project.

19.6. Hazardous Materials

19.6.1. Prohibition against Hazardous Materials: The Contractor shall not introduce Hazardous Materials to the Project.

19.6.2. Work Stoppage Due to Hazardous Materials:

- a. If the Contractor encounters material the Contractor reasonably believes to be, or contain, a Hazardous Material that has not been rendered harmless, the Contractor shall immediately stop Work in the affected area and verbally report the condition to GDPM, and within 1 business day deliver written notice of the condition to GDPM.
- b. GDPM will promptly determine the necessity of GDPM retaining a qualified environmental consultant to evaluate the suspected Hazardous Material and to issue a related written report.
- c. Where appropriate, GDPM will engage a licensed abatement contractor to remove the material or render it harmless as directed.
- d. The Contractor shall resume Work in the affected area upon written notice from GDPM that: (1) The suspect material was evaluated and found not to be or contain a Hazardous Material; or (2) The suspect material has been removed or rendered harmless.
- e. If the Contractor knowingly or negligently proceeds with the Work in an area where a Hazardous Material exists and has not been rendered harmless, the Contractor shall be solely responsible for all related claims, damages, losses, and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performing the Work in the affected area.
- f. The term "rendered harmless" means that the level of exposure is less than any applicable exposure standards set forth in Applicable Law.

19.7. Fires or Hot-Work

19.7.1. Contractor shall not burn any fires on the Site(s).

19.7.1.1. The Contractor shall notify the Project Manager 24 hours before the start of non-routine or non-recurring hot-work.

- a. Use of sources of fire, flame or sparks and flammable materials shall be kept to an absolute minimum.
- b. At the beginning of the Project, the Contractor shall inform the Project Manager of its intent to use blowtorches, welding apparatus or similar exposed flame

and sparking devices.

- c. Similar notice shall be given in regard to the use of flammable liquids, adhesives, and cleaners.

19.7.2. The Contractor shall furnish an appropriate number of fire extinguishers (minimum of 1), which shall be within the immediate areas where work is being done at all times. The extinguisher shall be adequate and suitable for the class of fire likely to be caused by the Contractor's operations.

19.8. Explosives and Blasting

19.8.1. The Contractor shall not conduct blasting on, or bring explosives to the Work Site without written approval of GDPM and other authorities with jurisdiction.

19.8.2. The Contractor shall perform all blasting, storing, and handling of explosives as required under Applicable Law.

19.8.3. The Contractor shall carry appropriate liability insurance coverage, as required by the Contract Documents, for its blasting and explosives storage and handling operations.

19.8.3.1. Immediately upon request, the Contractor shall deliver evidence of that insurance to GDPM.

20 ARTICLE XX: CONTRACT DOCUMENTS AND CONTRACT RECORDS

20.1. Examination and Retention of Contractor's Records

20.1.1. GDPM, HUD, or the Comptroller of the United States, or any of their duly authorized representatives shall, until 6 years after final payment under this contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this Contract for the purpose of making audit, examination, excerpts, and transcriptions.

20.1.2. The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as 20.1.1. "Subcontract," as used in Examination and Retention of Contractor's Records, excludes purchase orders not exceeding \$10,000.

20.1.3. The periods of access and examination for records relating to (1) appeals under the DISPUTE RESOLUTION/CLAIM PROCEDURE Article of this contract, (2) litigation or settlement of claims arising from the performance of this contract, or (3) costs and expenses of this contract to which GDPM, HUD, or Comptroller General or any of their duly authorized representatives has taken exception, shall continue until disposition of such appeals, litigation, claims, or exceptions.

20.1.4. If a dispute arises with any other Person about whether that Person should be given access to the documents, the Contractor or Subcontractor as applicable, shall indemnify GDPM against all costs, expenses, and damages, including but not limited to attorneys' fees, incurred or paid by reason of that dispute.

20.1.5. The right of inspection, audit, and reproduction extends to all documents necessary to permit adequate evaluation of the cost of pricing data submitted along with the computations and projections used therein.

20.1.6. If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to GDPM for a period of 6 years from the date of any applicable final settlement or payment, as applicable.

20.2. Examination and Audit o/ Contractor's Records

- 20.1.7.** GDPM may examine all books, records, documents and other data of the Contractor and its Subcontractors related to the bidding, pricing, or performance of the Work for the purpose of evaluating any Contractor Payment Request, Proposal, Modification, or Claim.
- 20.1.8.** The above referenced materials shall be made available at the office of the Contractor or Subcontractor, as applicable, at all reasonable times for inspection, audit, and reproduction until the expiration of 6 years after the date of Substantial Completion of all Work.
- 20.1.8.1.** The Contractor shall maintain, and require its Subcontractors to maintain complete and accurate business records at its principal place of business.
- 20.1.8.1.1.** If the principal place of business is greater than 50 miles from the Site, the Contractor shall timely make records available, and shall require its Subcontractors to timely make records available, at the office of GDPM upon request for the records.
- 20.1.8.2.** To the extent that the Contractor or Subcontractor, as applicable, informs GDPM in writing that any documents provided to GDPM are trade secrets, GDPM shall treat these documents, to the extent permitted by law, as trade secrets of the Contractor or Subcontractor, as applicable.
- 20.1.8.2.1.** If a dispute arises with any other Person about whether that Person should be given access to the documents, the Contractor or Subcontractor as applicable, shall indemnify GDPM against all costs, expenses, and damages, including but not limited to attorneys' fees, incurred or paid by reason of that dispute.
- 20.1.9.** The right of inspection, audit, and reproduction extends to all documents necessary to permit adequate evaluation of the cost of pricing data submitted along with the computations and projections used therein.
- 20.1.10.** If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to GDPM for a period of 6 years from the date of any applicable final settlement or payment, as applicable.
- 20.1.11.** Records that relate to disputes, litigation, or settlement of Claims arising out of the performance of the Work shall be made available until the dispute, litigation or Claims have been finally decided or settled.

20.3. Ownership of Contract Documents

- 20.1.12.** GDPM shall have exclusive ownership of, all proprietary interest in, and the right to full and exclusive possession of all information, materials and documents discovered or produced by Contractor pursuant to the terms of this Contract, including but not limited to reports, memoranda, drawings or letters concerning the research and reporting tasks of this Contract.
- 20.1.13.** For data other than computer software, the Contractor grants to GDPM and others acting on its behalf, a paid-up, nonexclusive, irrevocable, world-wide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly by or on behalf of GDPM.
- 20.1.14.** GDPM alone owns the Contractor's Documents and the Contract Documents and

every right, title, and interest therein.

20.1.15. The Contractor must execute and deliver and cause its agents and subcontractors to execute and deliver, to GDPM any transfers, assignments, documents or other instruments necessary to vest in GDPM the complete right, title, interest in and ownership of the Contractor's Documents.

20.1.16. The Contractor may retain copies of the Contractor's Documents and the Contract Documents for information, reference, and performance of the Work.

20.1.17. The submission or distribution of the Contractor's Documents or the Contract Documents to meet official regulatory requirements or for similar purposes in connection with the Project is not a waiver of GDPM's reserved rights in the Contractor's Documents.

20.1.18. Any unauthorized use of the Contractor's Documents or the Contract Documents shall be at the sole risk of the entity making the unauthorized use.

20.4. Intent of Contract Documents

20.1.19. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of Work by the Contractor.

20.1.20. The Contract Documents are complementary, and what is required by one is binding as if required by all.

20.1.21. The Contractor shall provide all labor materials necessary for the entire completion of the Work described in the Contract Documents and reasonably inferable to produce the intended results.

20.1.22. The Drawings govern dimensions, details, and location of the Work.

20.1.23. The Specifications govern the quality of materials and workmanship.

20.1.24. The organization of the Specifications in divisions, sections, and articles, and the arrangement of Drawings shall not restrict the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

20.1.25. Unless otherwise defined in the Contract Documents, words that have well known technical or construction industry meanings are used within those recognized meanings.

20.5. Use of Electronic Files

20.1.26. GDPM and Contractor reasonably expect that they will provide electronic files to each other to facilitate the design and construction of the Project consistent with current practices and customs in the construction industry.

20.1.27. GDPM and Contractor acknowledge that the use of electronic files involves risks not generally associated with the use of paper documents. Those risks may include, but not be limited to, alteration (inadvertent or intentional) and deterioration, both of which may not be apparent through casual observation.

20.1.28. In the event of a discrepancy between information contained in a paper version of a document and the electronic file of that document, the paper will govern.

20.1.29. Use of electronic files does not relieve the Contractor of its responsibility for the preparation, completeness, or accuracy of the Contractor's Documents.

20.6. Order of Precedence

20.1.30. In the event of any inconsistency or conflict within any of the Contract Documents, the Contractor shall provide the better quality of Work and comply with the stricter requirement.

20.1.31. In the event of a conflict between the contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation applies to GDPM and does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order.

20.1.31.1. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

21 ARTICLE XXI: MISCELLANEOUS

21.1. **Assignment:** The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from GDPM under the contract may be assigned to a bank, trust company, or other financial institution.

21.1.1. Such assignments of claims shall only be made with the written concurrence of GDPM.

21.1.2. If the Contractor is a partnership, this contract shall inure to the benefit of the surviving or remaining member(s) of such partnership as approved by GDPM.

21.1.3. *Assignment of Anti-trust Claims:* By signing the Agreement, the Contractor assigns, conveys and transfers to GDPM any right, title, and interest to any claims or causes of action it may have or acquire under state or federal antitrust laws relating to any goods, products, or services purchased, procured, or rendered to GDPM pursuant to the Contract.

21.1.4. GDPM and Contractor each bind themselves, their successors, assigns and legal representatives, to the other party to this Contract and to the successors, assigns, and legal representatives of the other party with respect to the Contract.

21.2. **Contractor Performance Evaluation:** GDPM may evaluate the Contractor's Performance at any time including without limitation during the progress of the Work, at the completion of a phase of the Project, and/or completion of the Project.

21.2.1. GDPM shall retain the evaluation.

21.2.2. The Contractor may request a copy of the completed evaluation(s).

21.2.3. If the Contractor wishes to comment or take exception to any rating or remark, the Contractor must send a response in writing to GDPM within 30 days of Contract Completion and/or Termination.

21.2.4. GDPM may use the evaluation(s) in determining the responsibility of the Contractor for award of future contracts.

21.2.5. Poor evaluations may lead to a determination that Contractor is not responsible and therefore ineligible for award of future contracts for a period of not less than one year.

21.2.6. GDPM may request information from the Contractor for use in evaluating the A/E's performance. If information is requested, the Contractor shall comply in a timely and responsive manner.

21.2.7. If a breach of the Contract is committed by the Contractor or is attributable to a Subcontractor, that breach will be used in the responsibility analysis of the Contractor and Subcontractor (where applicable) for future contracts or subcontracts for a period of 5 years

after the date of the breach unless said breach results in Contractor being placed on debarment list, then for the period provided therein.

21.3. *Prohibition against Liens:* The Contractor is prohibited from placing a lien on GDPM's property. This prohibition shall apply to all subcontractors at any tier and all material suppliers.

21.4. *Conflict of Interest*

21.4.1. Interest of Members of Congress: No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this contract or to any benefit that may arise therefrom.

21.4.2. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees: No member, officer, or employee of GDPM, no member of the governing body of the locality in which the Project is situated, no member of the governing body of the locality in which GDPM was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the Project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this Contract or the proceeds thereof.

21.5. *Limitation on Payments Made to Influence Certain Federal Financial Transactions*

21.5.1. The Contractor agrees to comply with Title 31, United States Code which prohibits the use of Federal appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions:

21.5.1.1. The awarding of any Federal contract;

21.5.1.2. The making of any Federal grant;

21.5.1.3. The making of any Federal loan;

21.5.1.4. The entering into of any cooperative agreement; or

21.5.1.5. The modification of any Federal Contract, grant, loan, or cooperative agreement.

21.5.2. The Contractor further agrees to comply with the requirement of the Act to furnish a disclosure (OMB Standard Form LLL, Disclosure of Lobbying Activities) if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

21.6. *Procurement of Recovered Materials:* In accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) 40 CFR that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.

21.6.1. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of

Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.

21.6.2. This provision *Procurement of Recovered Materials* shall apply to items purchased under this contract where:

21.6.2.1. The Contractor purchases in excess of \$10,000 of the item under this contract; or

21.6.2.2. During the preceding: (1) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (2) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

21.7. *Royalties and Patents:* The Contractor shall pay all royalties and license fees and assume all costs incident to the use, in the performance of the Work or the incorporation in the Work, of any design, inventions, process, product, or device that is the subject of patent rights or copyrights held by others.

21.7.1. Contractor shall defend all suits or claims for infringement of any patent rights or copyrights and shall save GDPM harmless from loss on account thereof; except that GDPM shall be responsible for any such loss when a particular design, process, or the product of a particular manufacturer or manufacturers is specified and the Contractor has no reason to believe that the specified design, process, or product is an infringement.

21.7.2. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent or copyright, the Contractor shall promptly notify the Contracting Officer.

21.7.2.1. Failure to give such notice shall make the Contractor responsible for resultant loss.

21.8. *Contract Period:* The Contractor shall complete all Work required within the required number of days of the effective date of the contract as set forth in the solicitation, supplemental terms, or within the time schedule established in the notice to proceed issued by GDPM.

21.9. *Other Contracts:* GDPM may undertake or award other contracts for additional work at or near the site of the work under this contract.

21.9.1. The Contractor shall fully cooperate with the other contractors and with GDPM employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by GDPM.

21.9.2. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by GDPM employees.

21.10. *Drug-Free Workplace:* Each contractor shall be enrolled in and in good standing and shall require all subcontractors with whom the Contractor is in contract for the public improvement to be enrolled in and be in good standing in the Bureau of Workers' Compensation's Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in the Revised Code prior to a subcontractor providing labor at the project site of the public improvement.

21.11. *Energy Efficiency and Sustainability Requirements:* The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act for the State in which the work under the contract is performed.

21.11.1. If the Project is designed and constructed under the Leadership in Energy and Environmental Design ("LEED" Rating System developed by the U.S. Green Building

Council or another rigorous rating system used to facilitate achievement of sustainability goals for the Project, the Contractor shall provide submittals certifying achievement of sustainable designed rating system criteria for verification by the Green Building Certification Institute or other third party in accordance with the Contract Documents.

21.12. Clean Air and Water: The contractor shall comply with the Clean Air Act, as amended 42 USC, the Federal Water Pollution Control Water Act, as amended 33 U.S.C., and standards issued pursuant thereto in the facilities in which this contract is to be performed.

21.13. Public Relations: Public relations or publicity about the Project shall be solely within the control of and consent of GDPM.

21.13.1. Contractor shall submit to GDPM all advertising and publicity related material relating to this Contract, including without limitation, information provided in social media, wherein GDPM's name is mentioned or language used from which the connection of GDPM's name may, in GDPM's judgment, be inferred or implied.

21.13.2. Contractor shall not publish or use such advertising and publicity matters without prior express written consent of GDPM.

21.14. Governing Law: This Contract shall be governed and construed exclusively by its terms and by the laws of the State of Ohio and any suit filed to enforce any term of this Contract shall be filed only in a court of competent jurisdiction in Montgomery County, Ohio. The parties to this Contract shall comply with Applicable Law.

21.15. Written Notice: Notice under the Contract Documents shall be validly given if delivered personally to a member of the organization for whom the notice is intended.

21.16. Taxes: Parties acknowledge that GDPM is a tax exempt entity and Contractor must use tax exemption status for all purchases made for the Project in which tax exemption is permitted under law.

21.17. Computing Time: When the Contract Documents refer to a period of time by a number of days, the period shall be computed to exclude the first and include the last day of the period. If the last day of the period falls on a Saturday or Sunday, or a legal holiday, that day shall be omitted from the computation and the period shall end on the next business day.

21.17.1. Except as excluded, the Contract Times and all other periods referred to in the Contract Documents includes Saturdays, Sundays, and all days defined as legal holidays below.

21.17.2. The standard workdays for the Work are Monday through Friday, excluding legal holidays.

21.17.3. The Legal Holidays are as follows:

- New Year's Day
- Martin Luther King Jr. Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veterans Day
- Thanksgiving Day

- Christmas Day

- 21.18. Time is of the Essence:** All time limits set forth in the Contract Documents are of the essence.
- 21.18.1.** By signing this Contract, Contractor acknowledges that the Contract Times are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.
- 21.18.2.** By Signing the Construction Schedule, the Contractor acknowledges that the specified milestone dates are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.
- 21.18.3.** The Notice to Proceed Establishes the date for commencement of the Work.
- 21.18.4.** The Contractor acknowledges that it may be subject to interference, disruption, hindrance, or delay in the progress of the Work from any cause. The sole remedy for such interference, disruption, hindrance, or delay shall be an extension of the Contract Time, unless otherwise required by law.
- 21.19. Extent of Contract:** The Contract Documents represent the entire and integrated agreement between GDPM and the Contractor and supersede all prior negotiations, representations, or agreement, either written or oral. This Contract may be executed in any number of counterparts, each of which shall be regarded as original and all of which constitute but one and the same instrument. The captions and headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any of the provisions or sections hereof.
- 21.20. Severability:** If any provision of this Contract is determined by a court having jurisdiction to be unenforceable to any extent, the rest of the provisions of this Contract will remain enforceable to the fullest extent permitted by law.
- 21.21. Electronic Signature:** Any party hereto may deliver a copy of its counterpart signature page of any Contract Documents via email, fax, or web-based project management software. Each party shall be entitled to rely upon a scanned or facsimile signature of the other party in such a manner as if such a signature were an original.
- 21.22. No Third Party Interest:** Except as expressly provided herein, no person or entity, other than GDPM and Contractor, will have any right or interest under the Contract, and the Contract does not create a contractual relationship of any kind between any persons or entities other than GDPM and the Contractor.
- 21.23. No Waiver:** The failure of GDPM or Contractor to insist on any one or more instances upon strict performance of any one or more of the provisions of the Contract or to exercise any rights under the Contract or provided by law will not be construed as a waiver or relinquishment of that provision or of the right to subsequently demand strict performance or exercise the right and the rights will continue unchanged and remain in full force and effect.
- 21.24. Survival of Obligations:** All representations, indemnity obligations, warranties, guarantees, and other expressed continuing obligations under the Contract, will survive final payment, completion and acceptance of the Work, and termination or completion of the Contract.
- 21.25. Force Majeure:** Neither party shall be liable for failure to perform if such failure is caused by conditions beyond its control including, but not limited to, Acts of God, Government restrictions (including the denial or cancellation of any export or other necessary license), wars, and/or insurrections.
- 21.26. Privacy:** The Contractor agrees to Comply with the Privacy Act of 1974 (the Act) and the

agency rules and regulations issued under the Act and any Personal information collected, used, or acquired in connection with this Contract shall be protected against unauthorized use, disclosure, modification or loss. Contractor shall ensure that its directors, officers, employees, subcontractors or agents use personal information solely for the purposes of accomplishing the services set forth herein.

21.26.1. Contractor agrees not to release, divulge, publish, transfer, sell or otherwise make known to unauthorized persons personal information without express written consent of GDPM or otherwise required by law.

21.26.2. Contractor agrees to indemnify and hold harmless GDPM for any damages related to Contractor's unauthorized use of personal information.

21.27. ***Contractor Status:*** It is understood that the Contractor is an independent contractor and is not to be considered an employee of GDPM, or assume any right, privilege or duties of an employee.