



Asbury Park Housing Authority
HOUSING AUTHORITY & URBAN REDEVELOPMENT AGENCY

Gymnasium Space Renovation at
Robinson Towers located at
1000 ½ Third Avenue-Asbury Park, NJ 07712

BID # RFP-AP-57-0-2024/CB

BIDs due by January 29th, 2025 @ 11:00am

ASBURY PARK HOUSING AUTHORITY | 1000 ½ THIRD AVENUE ASBURY PARK, NJ 07712



NOTICE TO BIDDERS

In accordance with the Local Public Contracts Law, N.J.S.A. 40A:11-1 et seq., sealed bids will be received by the Asbury Park Housing Authority (the Authority) on **Wednesday, January 29th, 2025, at 11:00 A.M.** prevailing time in the Asbury Park Housing Authority's Conference Room, 1000 ½ Third Avenue, Asbury Park, NJ 07712. Electronic bids will also be received by the Authority at which time and place bids will be opened and read in public for:

**Gymnasium Space Renovation
at
Robinson Towers located at 1000 ½ Third Avenue
Asbury Park, NJ 07712**

Bidders and the public may attend the bid opening. During the bid opening process, the bidders will be announced as well as bid amounts.

Bid responses must be made on the standard proposal forms, unless otherwise indicated. Physical copies must be enclosed in a sealed package bearing the name and address of the bidder and the "**BID TITLE NAME**" on the outside, and addressed to **Cynthia Beniquez**, at the address above.

Any Bid Addenda will be issued to any bidders who have picked up a BID package.

The information for the Bidders, Form of Bid, and Specifications may be reviewed, obtained and submitted, at no cost, via:

1. Visiting our website at www.aphanj.org. Select Business tab, then select Requests for Proposals. Select appropriate RFP.
2. Copies may also be picked up in person at:

Asbury Park Housing Authority
1000 ½ Third Avenue
Asbury Park, NJ 07712

A pre-bid site visit is scheduled for Wednesday, January 9th, 2025 @ 11:00 AM. Bidders to meet at the housing authority listed above for introduction. Please confirm your attendance by calling Edwin McDonald, Director of Maintenance, at 732.774.2660 (Ext. 303), emcdonald@aphanj.org

All questions shall be in written form of Request for information & emailed to MVMK Architecture attention Anthony Vandermark - anthonyvandermark@mvmkarchitecture.com, Request for information shall be sent no later than January 16, 2025 by 5:00pm.

Bidders shall comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17-27 et seq.

Publication Date: December 21st, 2024



Shemea Daniels, Executive Director
Asbury Park Housing Authority



ASBURY PARK HOUSING AUTHORITY GENERAL INSTRUCTIONS

1. SUBMISSION OF BIDS

A. Sealed bids shall be received by the Asbury Park Housing Authority ("Authority") in accordance with public advertisement as required by law, a copy of said notice being attached hereto and made a part of these specifications.

B. Each bid shall be submitted on the proposal form attached, in a) sealed envelope or b) electronic submission.

- (1) Addressed to **Cynthia Beniquez**
- (2) Bearing the name and address of the bidder on the outside
- (3) Clearly marked "BID" with the name of the item(s) being bid. Provide One (1) Original & One (1) copy of the bid. **Faxed or emailed bids will NOT be accepted.**
- (4) Visiting our website at www.aphanj.org. Select Business tab, then select Requests for Proposals. Select appropriate RFP.

C. It is the bidder's responsibility to see that bids are presented to the Purchasing Agent on or before the hour and at the place designated. Bids may be hand delivered or mailed. **If the bid is sent by express mail, the designation in B. above must also appear on the outside of the express company envelope.** Bids received after the designated time and date will be returned unopened.

D. The Authority reserves the right to postpone the date for presentation and opening of bids and will give written notice of any such postponement to each prospective bidder as required by law.

E. Sealed bids forwarded before the time of opening of bids may be withdrawn upon written application of the bidder. Once bids have been opened, they shall remain firm for a period of sixty (60) calendar days.

F. Each bid proposal form must give the full business address, business phone, fax, e-mail, the contact person of the bidder, and be signed by an authorized representative as follows:

- Bids by partnerships must be signed in the partnership name by one of the members of the partnership or by an authorized representative followed by the signature and designation of the person signing.
- Bids by corporations must be signed in the legal name of the corporation, followed by the name of the State in which incorporated and must contain the signature and designation of the president, secretary or other person authorized to bind the corporation in the matter.
- Bids by sole-proprietorship shall be signed by the proprietor.
- When requested, satisfactory evidence of the authority of the officer signing shall be furnished.

G. Multiple Bids Not Accepted



More than one bid from an individual, a firm or partnership, a corporation or association under the same or different names shall not be considered.

H. Official Request for Bid packages are available from at the office of 1000 ½ Third Avenue, Asbury Park, NJ 07712 and via the Authority website at www.aphanj.org at no cost to the prospective bidders. All addenda will be forwarded to any bidder who has picked up a bid package.

I. Results of all bids will be read at the BID opening.

2. PREPARATION OF BIDS (PRICING INFORMATION AND FORMS)

A. The Authority is exempt from any local, state or federal sales, use or excise tax and will not pay for New Jersey State Sales and Use Tax included in any invoices.

B. Any quotation showing any erasure alteration must be initialed by the bidder in ink. Unit prices and totals are to be inserted in spaces provided. Prices must be written in both words and figures, with the price written in words governing in the event of any inconsistency. In case of any error in extensions, the unit price shall be considered the bid.

C. Failure to sign and give all information in the bid may result in the bid being rejected.

D. Estimated Quantities (Open-End Contracts, Purchase as Needed) The Authority has attempted to identify the item(s) and the estimated amounts of each item bid to cover its requirements; however, past experience shows that the amount ordered may be different than that submitted for bidding. The right is reserved to decrease or increase the quantities specified in the specifications pursuant to N.J.A.C. 5:30-11.2 and 11.10. *NO MINIMUM PURCHASE IS IMPLIED OR GUARANTEED.*

E. Good and Services Contracts: Bidders shall insert prices for furnishing goods and services required by these specifications. Prices shall be net including any charges for packing, crating, containers etc. All transportation charges shall be fully prepaid by the contractor, F.O.B. destination and placement at locations specified by the AUTHORITY. No additional charges will be allowed for any transportation costs resulting from partial shipments made at vendor's convenience when a single shipment is ordered.

F. Any bidder may withdraw its bid at any time before the time set for receipt of bids. No bid may be withdrawn in the 60 day period after the bids are received.

G. All forms shall be completed and attached to the bid proposal. **BIDDER IS ALERTED TO THE BID DOCUMENT CHECKLIST PAGE.**

H. **Alternates.** Bidders must fill in its bid for the base contract scope of work, plus all alternates. The Authority reserves the right to award the bid to the lowest bid price for the base bid plus any alternates that are chosen in its sole discretion.

I.

3. FIRM FIXED CONTRACT



This is a firm fixed contract, prices firm, with no price escalation.

4. INTERPRETATIONS AND ADDENDA

A. The bidder understands and agrees that its bid is submitted on the basis of the specifications prepared by the Authority. The bidder accepts the obligation to become familiar with these specifications.

B. Bidders are expected to examine the specifications and related documents with care and observe all their requirements. Ambiguities, errors or omissions noted by bidders should be promptly reported in writing to the Purchasing Agent. In the event the bidder fails to notify the Authority of such ambiguities, errors or omissions, the bidder shall be bound by the bid.

C. No oral interpretation of the meaning of the specifications will be made to any bidder. Every request for an interpretation shall be in writing, addressed to Anthony Vandermark, referencing the Contract Name in the subject line, at anthonyvandermark@mvmkarchitecture.com. In order to be given consideration, written requests for interpretation and or clarification must be received at last three (3) business days prior to the date fixed for the opening of the bids.

D. All interpretations, clarifications and any supplemental instructions will be in the form of written addenda to the specifications, and will be distributed to all prospective bidders. All addenda so issued shall become part of the specification and bid documents, and shall be acknowledged by the bidder by completing the Acknowledgement of Receipt of Addenda form. The Authority's interpretations or corrections thereof shall be final.

Pursuant to N.J.S.A. 40A:11-23(c)(1) when issuing addenda, the Authority shall provide required notice prior to official receipt of bids to any person who has submitted a bid or who has received a bid package.

E. Discrepancies in Bids

1. If the amount shown in words and its equivalent figures do not agree, the written words shall be binding. Ditto marks are not considered writing or printing and shall not be used.
2. In the event that there is a discrepancy between the unit prices and the extended totals, the unit price shall prevail. In the event there is an error of the summation of the extended totals, the computation by the Authority of the extended totals shall govern.

5. BRAND NAMES, STANDARDS OF QUALITY AND PERFORMANCE

A. Brand names and or descriptions used in this bid are to acquaint bidders with the type of commodity desired and will be used as a standard by which alternate or competitive materials offered will be judged. Competitive items must be equal to the standard described and be of the same quality of work.

B. Variations between the goods and services described and the goods and services offered are to be fully identified and explained by the bidder on a separate sheet and submitted with the bid proposal form. Vendor's literature will not suffice in explaining



exceptions to these specifications. In the absence of any exceptions by the bidder, it will be presumed and required that materials as described in the proposal be delivered.

C. It is the responsibility of the bidder to demonstrate the equivalency of goods and services offered. The Authority reserves the right to evaluate equivalency of a product which, in its deliberations, meets its requirements.

D. In submitting its bid, the bidder certifies that the goods or services to be furnished will not infringe upon any valid patent or trademark and that the successful bidder shall, at its own expense, defend any and all actions or suits charging such infringement, and will save the Authority harmless from any damages resulting from such infringement.

E. Only manufactured and farm products of the United States, wherever available, shall be used pursuant to N.J.S.A. 40A:11-18.

F. The contractor shall guarantee any or all goods and services supplied under these specifications. Defective or inferior goods shall be replaced at the expense of the contractor. The contractor will be responsible for return freight or restocking charges.

G. If awarded the contract or purchase order, the contractor agrees to comply with all applicable Occupational Safety and Health Administration code requirements.

6. METHOD OF CONTRACT AWARD

A. Award will be made the lowest responsible bidder. The authority reserves the right to accept or reject any or all bids, and to waive minor identified irregularities and technicalities if it is in its best interest to do so.

B. The authority reserves the right to award equal or tie bids at their discretion to any one of the tie bidders.

C. The Authority reserves the right to choose which alternates, if any, will become part of the Contract. The bid will be awarded based on the base bid plus any alternates chosen by the Authority.

D. The form of contract will be submitted by the Authority to the successful bidder. Terms of the specifications/bid package prevail. Bidder exceptions must be formally accepted by the Authority; material exceptions shall not be approved.

7. CAUSES FOR REJECTING BIDS

Bids may be rejected for any of the following reasons:

A. All bids may be rejected pursuant to N.J.S.A. 40A:11-13.2;

B. If more than one bid is received from an individual, firm or partnership, corporation or association under the same name;

C. Multiple bids from an agent representing competing bidders;

D. The bid is inappropriately unbalanced;



E. If the successful bidder fails to enter into a contract within 21 days, Sundays and holidays excepted, or as otherwise agreed upon by the parties to the contract. In this case at its option, the AUTHORITY may accept the bid of the next lowest responsible bidder. (N.J.S.A. 40A:11-24b).

8. CHALLENGE TO SPECIFICATIONS

Any prospective bidder who wishes to challenge a bid specification shall file such challenge in writing with the contracting agent no less than three business days prior to the opening of the bids. Challenges filed after that time shall be considered void and having no impact on the contracting unit or the award of contract.

9. NON-COLLUSION AFFIDAVIT – N.J.S.A. 52:34-15

The Non-Collusion Affidavit, which is part of these specifications, shall be properly executed and submitted intact with the proposal.

10. NEW JERSEY ANTI-DISCRIMINATION – N.J.S.A. 10:2-1

There shall be no discrimination against any employee engaged in the work required to produce the goods and services covered by any contract resulting from this bid, or against any applicant to such employment because of race, religion, sex, national origin, creed, color, ancestry, age, marital status, affectional or sexual orientation, familial status, liability for service in the Armed Forces of the United States, or nationality. This provision shall include, but not be limited to the following: employment upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this bid.

11. MANDATORY EEO/AFFIRMATIVE ACTION EVIDENCE – N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17-27 et seq.

No firm may be issued a contract unless it complies with the affirmative action provisions of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1 et seq. as administered by the Division of Purchase & Property Contract Compliance and Audit Unit (Division).

12. OWNERSHIP DISCLOSURE–N.J.S.A. 52:25-24.2 (P.L. 1977 c.33)

N.J.S.A. 52:25-24.2 provides that no business organization, regardless of form of ownership, shall be awarded any contract for the performance of any work or the furnishing of any goods and services, unless, prior to the receipt of the bid or accompanying the bid of said business organization, bidders shall submit a statement setting forth the names and addresses of all persons and entities that own ten percent or more of its stock or interest of any type at all levels of ownership. The disclosure shall be continued until names and addresses of every stockholder, partner, or member exceeding the ten percent ownership, has been listed.

The included State of Ownership shall be completed and attached to the bid proposal. This requirement applies to all forms of business organizations, including, but not limited to, corporations and partnerships, publicly-owned corporations, limited partnerships, limited liability corporations, limited liability partnerships, sole proprietorship, and Subchapter S corporations.



Not-for-profit entities should fill in their name, check the not-for-profit box, and certify the form. No other information is necessary.

13. PROOF OF N.J. BUSINESS REGISTRATION CERTIFICATE N.J.S.A. 52:32-44

Pursuant to N.J.S.A. 52:32-44, the AUTHORITY is prohibited from entering into a contract with an entity unless the bidder/proposer/contractor, and each subcontractor that is required by law to be named in a bid/proposal/contract has a valid Business Registration Certificate on file with the Division of Revenue and Enterprise Services within the Department of the Treasury. Prior to contract award or authorization, the contractor shall provide the Contracting Agency with its proof of business registration and that of any named subcontractor(s).

14. DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN, RUSSIA AND BELARUS*

N.J.S.A. 52:32-55 prohibits State and Local public contracts with persons or entities engaging in certain investment activities in energy or finance sectors of Iran. Bidders must indicate if they comply with the law by certifying the form.

**P.L. 2022, c.3 prohibits State and Local public contracts with persons or entities engaging in certain investment activities in Russia or Belarus, but this requirement is currently stayed pending litigation.*

15. PAY TO PLAY – NOTICE OF DISCLOSURE REQUIREMENT

Business entities are advised of their responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A. 19:44A-20.27 if they receive contracts in excess of \$50,000 from public entities in a calendar year. Business entities are responsible for determining if filing is necessary. Additional information on this requirement is available from ELEC at 888-3133532 or at www.elec.state.nj.us.

16. W-9

Successful bidder/respondent shall complete W-9 Form and submit to Purchasing prior to contract award. The form is available at the following link: www.irs.gov/pub/irs-pdf/fw9.pdf

17. FORCE MAJEURE

Neither party shall be responsible for any resulting loss or obligation to fulfill duties as specified in any of the terms or provisions of this Agreement if the fulfillment of any term or provision of this Agreement is delayed or prevented by any revolutions, insurrections, riots, wars, acts of enemies, national emergencies, strikes, floods, fires, acts of God, or by any cause not within the control of the party whose performance is interfered with which by the exercise of reasonable diligence such party is unable to prevent. Additionally, if the fulfillment of any of the terms and provisions of this Agreement is delayed or prevented by any court order, or action or injunction or other such agreement, this Agreement shall become voidable by the Authority by notice to each party.

18. PAYMENT



Contractor shall submit a bill for all work completed during the preceding month. Payment will be made after a properly executed voucher has been received and formally approved on the voucher list at the Authority's regular meeting.

Retainage will be held in the amount of 2% of the amount due on each partial payment, in accordance with N.J.S.A. 40A:11-16.3.

Payments shall be made to Contractor in accordance with New Jersey's Prompt Payment Law, N.J.S.A. 2A:30A-1, et seq., and applicable terms of the Contract. In accordance with N.J.S.A. 40A:11-16.2, two percent (2%) retainage of the amount of due on each partial payment shall be withheld pending completion of the contract.

19. TRUTH IN CONTRACTING LAW

N.J.S.A. 2C:27-10 provides that a person commits a crime if said person offers a benefit to a public servant for an official act performed or to be performed by a public servant, which is a violation of official duty. N.J.S.A. 2C:27-11 provides that a bidder commits a crime if said person, directly or indirectly, confers or agrees to confer any benefit not allowed by law to a public servant.

20. INSURANCE AND INDEMNIFICATION

20.1 **Indemnification** – If awarded the contract or purchase order, the contractor or vendor shall assume the risk of an responsibility for, and agrees to indemnify, defend and save harmless the Authority and its employees from and against any and all claims, demands, suits, actions, judgments and costs and expenses in connection therewith on account of the loss of life, property or injury or damage to the person, body or property of any person or persons whatsoever arising from or resulting from the work, services or materials supplied under the contract or purchase order. This indemnification provision is not limited by, but is in addition to the insurance obligations contained in the contract or purchase order.

20.2 **Insurance Requirements** – If awarded the contract or purchase order, the contractor or vendor shall assume all responsibility for its actions and those of anyone working for it while engaged in or traveling to or from any work, service or activity connected with the work. The contractor shall carry sufficient insurance to protect it and the Authority from any property damage or bodily injury claims arising out of the performance of the work.

Evidence of current insurance coverage shall be provided in the form of a certificate which shall be submitted no later than ten days after receipt of the notice of intent to award the contract or purchase order.

21. BID BOND AND CONSENT OF SURETY X Applicable Not Applicable

21.1 **Bid Bond.** The Bidder must submit a guaranty that it will enter into the Contract if awarded the bid as the lowest responsible bidder, in the form of a Bid Bond, substantially in the form in the amount of 10% of the bid, but not in excess of \$20,000, or, at the option of the bidder, by certified check or cashier's check drawn to the order of the Authority, in conformance with N.J.S.A. 18A:64A-25.16.



- 21.2 **Consent of Surety.** Upon being awarded the Contract, the successful bidder must submit a certification by a surety duly qualified to engage in the surety business in the State of New Jersey, consenting to provide a separate performance bond and labor and material payment bond, both bonds to be in an amount equal to one hundred percent (100%) of the total contract price, conditioned so as to indemnify the Owner against any loss due to the failure of the Contractor to meet its obligations under the awarded Contract, utilizing a form of Consent of Surety substantially in conformance with N.J.S.A. 18A:64A-25.16. Such Consent of Surety, where signed by an attorney-in-fact, shall have attached a copy of the Power of Attorney establishing the unqualified authority of the signer to sign such a commitment by the surety. Such surety shall meet all the requirements of N.J.S.A. 18A:64A-25.17(c).

The Consent of Surety must guarantee performance for any option to renew that may be exercised by the College.

22. PREVAILING WAGE RATES X Applicable Not Applicable

Contractor shall be required to strictly comply with the provisions of the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq. Contractor and each and every Subcontractor (regardless of tier) shall keep an accurate record showing the name, craft or trade, and actual hourly rate of wages paid to each worker employed by it in connection with this Project. Records shall be preserved for a minimum of two (2) years from the date of final payment. All employees directly employed on this Project shall be paid the prevailing rate in this area for each type of work in compliance with the latest applicable determination of the New Jersey Department of Labor & Workforce Development. A copy of such wage-rate determination, if not included in the Bid Solicitation, can be obtained from the Authority. Contractor and all Subcontractors shall post the Prevailing Wage Rates for each craft and classification involved, as determined by the Commissioner of Labor & Workforce Development, including the effective date of any changes thereof, in prominent and easily accessible places at the site of the work and at such place or places as are used by them to pay workers their wages.

**23. PUBLIC WORKS CONTRACTOR REGISTRATION
 X Applicable Not Applicable**

1. The Public Works Contractor Registration Act (PWCRA) requires that all contractors, including named subcontractors, register with the Department of Labor and Workforce Development **prior** to submitting price proposals or engaging on certain public works contracts that exceed the prevailing wage threshold. The bidder and all named subcontractors in a bid proposal (including out-of-state contractors) must be registered with the Department of Labor's Division of Wage and Hour Compliance at the time proposals **are received** by the public entity.

The PWCRA defines "public works projects" as contracts for "public work" as defined in the Prevailing Wage Act [N.J.S.A. 34:11-56.26(5)]. The term means:

- "Construction, reconstruction, demolition, alteration, or repair work, or maintenance work, including painting and decorating, done under contract and paid for in whole or in part out of the funds of a public body, except work performed under a rehabilitation program.



- "Public work" shall also mean construction, reconstruction, demolition, alteration, or repair work, done on any property or premises, whether or not the work is paid for from public funds,..."
- "Maintenance work" means the repair of existing facilities when the size, type or extent of such facilities is not thereby changed or increased. While "maintenance" includes painting and decorating and is covered under the law, it does not include work such as routine landscape maintenance or janitorial services.

24. Subcontractor Listing Requirement

IF APPLICABLE Bidders shall set forth the name of all Subcontractors to whom they will subcontract the following categories of work as required by N.J.S.A. 40A:11-16 ("**Named Subcontractors**").

- a) Plumbing and gas fitting work ☐ Applicable ☐ Not Applicable
- b) Refrigeration, heating and ventilating systems and equipment
 ☐ Applicable ☐ Not Applicable
- c) Electrical work, including any electrical power plants, tele-data, fire alarm or security systems ☐ Applicable ☐ Not Applicable
- d) Structural steel and ornamental iron work. NOT APPLICABLE
- e) **If the Bidder does not possess the following DPMC Code classification, then the Bidder must name a subcontractor who possess such classification:**
 ☐ Applicable ☐ Not Applicable
 - **DPMC Code** _____
 - **DPMC Code** _____

A List of Subcontractors Form is included in the Bid Solicitation for the identification of the Bidder's Subcontractors and such form must be properly completed and submitted with the Bid.

Bidder shall ensure that all of its Subcontractors are duly licensed and fully capable of timely and competently performing any aspect of the Contract work delegated to them by Bidder. Bidder shall assume full and unqualified responsibility for the Project performance of all its Subcontractors.

25. New Jersey Right to Know Act (N.J.S.A. 34:5A-13)

The Worker and Community Right to Know Act requires New Jersey public employers to make information available to their employees who are exposed or potentially exposed to hazardous chemical substances in the workplace. Therefore, the successful bidder must comply with the following:

All direct use containers shall bear a label indicating the chemical name(s) and Chemical Abstract Service numbers of all hazardous substances in the container, and



all other substances which are among the five most predominant substances in the container, or their trade secret registry number(s). (N.J.A.C. 8:59-5).

"Container" means a receptacle used to hold a liquid, solid or gaseous substance such as bottles, bags, barrels, cans, cylinders, drums and cartons. (N.J.A.C. 8:59-1.3).



CHECKLIST

A. FAILURE TO SUBMIT THE FOLLOWING WITH BID IS MANDATORY CAUSE FOR REJECTION OF BID

INITIAL

- **Acknowledgment of receipt of addenda (if any)** _____
- **Bid Bond (if required)** _____
- **Consent of Surety (if required)** _____
- **Ownership disclosure form** _____
- **List of subcontractors (if any)** _____
- **Non-Collusion Affidavit** _____
- **References** _____

B. MANDATORY ITEM(S), REQUIRED NO LATER THAN TIME PERIOD INDICATED

- **Business Registration Certificate** – Bidder – Prefer with Bid Response. Required by Law prior to award of contract. _____
- **Public Works Contractor Registration Certificate** (if applicable) Prefer with Bid Response. Required by Law prior to award of contract _____
- **EEO Certification** _____
- **Affirmative Action Evidence** _____
- **Disclosure of Investment Activities in Iran** _____
- **Certificate of Insurance** - prior to award of contract. _____



ASBURY PARK HOUSING AUTHORITY

BID PROPOSAL FORM/SIGNATURE PAGE

The undersigned declares that he/she has authority to bind the Bidder, that he/she has read the Notice, Instructions, Affidavits and Scope of Services attached, that he/she has determined the conditions affecting the bid and agrees, if this bid is accepted, to furnish and deliver services per the following:

The undersigned is a (circle one): individual proprietorship, partnership, corporation, with:

Principal office at

Company

Federal I.D. # or Social Security #

Address

Signature of Authorized Agent

Type or Print Name

Title of Authorized Agent

Date

Telephone Number

Email Address

Fax Number



OWNERSHIP DISCLOSURE FORM

BID SOLICITATION #: RFP-AP-57-0-2024/CB VENDOR {BIDDER}:

PART 1

PLEASE COMPLETE THE QUESTIONS BELOW BY CHECKING EITHER THE "YES" OR THE "NO" BOX.
ALL PARTIES ENTERING INTO A CONTRACT WITH THE STATE ARE REQUIRED TO
COMPLETE THIS FORM PURSUANT TO N.J.S.A. 52:25-24.2

	YES	NO
1. Are there any individuals, corporations, partnerships, or limited liability companies owning a 10% or greater interest in the Vendor {Bidder}?	☐	☐
IF THE ANSWER TO QUESTION 1 IS "NO", PLEASE SIGN AND DATE THE FORM.		
IF THE ANSWER TO QUESTION 1 IS "YES", PLEASE ANSWER QUESTION 2–4 BELOW.		
2. Of those parties owning a 10% or greater interest in the Vendor {Bidder}, are any of those parties individuals?	☐	☐
3. Of those parties owning a 10% or greater interest in the Vendor {Bidder}, are any of those parties corporations, partnerships, or limited liability companies ?	☐	☐
4. If you answer to Question 3 is "YES" , are there any parties owning a 10% or greater interest in the corporation, partnership, or limited liability company referenced in Question 3?	☐	☐
5. Is the Vendor {Bidder} incorporated as a not-for-profit organization?	☐	☐
IF THE ANSWER TO THIS QUESTION IS "YES", EXECUTE THE CERTIFICATION SECTION.		
IF ANY OF THE ANSWERS TO QUESTION 2-4 ARE "YES", PLEASE PROVIDE THE REQUESTED INFORMATION IN PART 2 BELOW.		

PART 2

PLEASE PROVIDE FURTHER INFORMATION RELATED TO QUESTIONS 2–4 ANSWERED AS "YES".

If you answered **"YES"** for questions 2, 3, or 4, you must disclose identifying information related to the individuals, corporations, partnerships, and/or limited liability companies owning a 10% or greater interest in the Vendor {Bidder}. Further, if one or more of these entities is itself a corporation, partnership, or limited liability company, you must also disclose all parties that own a 10% or greater interest in that corporation, partnership, or limited liability company. This information is required by statute.

INDIVIDUALS

NAME				
ADDRESS 1				
ADDRESS 2				
CITY	STATE	ZIP		

NAME				
ADDRESS 1				
ADDRESS 2				
CITY	STATE	ZIP		

NAME				
ADDRESS 1				
ADDRESS 2				
CITY	STATE	ZIP		

NAME				
ADDRESS 1				
ADDRESS 2				
CITY	STATE	ZIP		

Attach Additional Sheets If Necessary



PART 2 continued

PARTNERSHIPS / CORPORATIONS / LIMITED LIABILITY COMPANIES

ENTITY NAME			
PARTNER NAME			
ADDRESS 1			
ADDRESS 2			
CITY	STATE	ZIP	

ENTITY NAME			
PARTNER NAME			
ADDRESS 1			
ADDRESS 2			
CITY	STATE	ZIP	

ENTITY NAME			
PARTNER NAME			
ADDRESS 1			
ADDRESS 2			
CITY	STATE	ZIP	

Attach Additional Sheets If Necessary

In the alternative, to comply with the ownership disclosure requirement, a Vendor {Bidder} with any direct or indirect parent entity which is publicly traded may submit the name and address of each publicly traded entity and the name and address of each person that holds a 10 percent or greater beneficial interest in the publicly traded entity as of the last annual filing with the federal Securities and Exchange Commission or the foreign equivalent, and, if there is any person that holds a 10 percent or greater beneficial interest, also shall submit links to the websites containing the last annual filings with the federal Securities and Exchange Commission or the foreign equivalent and the relevant page numbers of the filings that contain the information on each person that holds a 10 percent or greater beneficial interest. N.J.S.A. 52:25-24.2.

PART 3

PUBLICLY TRADED PARENT COMPANY DISCLOSURE

Ownership disclosure (name and address) can be met by submitting the last annual filing of an SEC or similar foreign regulator document or providing the website link to such documents, and include relevant page numbers. See N.J.S.A 52:25-24.2.

<u>TITLE OF ATTACHED DOCUMENTS OR WEBLINK</u>	<u>PAGE #</u>

Attach Additional Sheets if Necessary

CERTIFICATION

I, the undersigned, certify that I am authorized to execute this certification on behalf of the Vendor {Bidder}, that the foregoing information and any attachments hereto, to the best of my knowledge are true and complete. I acknowledge that the AUTHORITY of CALDWELL, NJ is relying on the information contained herein, and that the Vendor {Bidder} is under a continuing obligation from the date of this certification through the completion of any contract(s) with the AUTHORITY to notify the AUTHORITY in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I will be subject to criminal prosecution under the law, and it will constitute a material breach of my agreement(s) with the AUTHORITY, permitting the AUTHORITY to declare any contract(s) resulting from this certification void and unenforceable.

Signature (Do not enter Vendor ID as a signature)

Date

Print Name and Title

FEIN/SSN



**NON-COLLUSION AFFIDAVIT
(N.J.S.A. 52:34-15)**

State of _____

County of _____

I, _____ residing in _____
(Name of Affiant) (Name of Municipality)

in the AUTHORITY of _____ and State of _____

of full age, being duly sworn according to law on my oath depose and say that:

I am _____ of the Company of _____
(Title or Position) (Name of Firm/Company)

The Bidder making this proposal and that I executed the said Proposal with full authority to do so; that said Bidder/Respondent has not, directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above numbered project; and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that the Owner relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract. I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by BIDDER.

(Signature of Affiant)

NOTARY

(Type of Print Name of Affiant)



EXHIBIT A

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127) N.J.A.C. 17:27

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

The contractor or subcontractor (where applicable) will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Authority Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor (where applicable) will 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 age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

(Signature of bidder)



AFFIRMATIVE ACTION COMPLIANCE NOTICE X **Applicable** **Not Applicable**

FOR CONSTRUCTION CONTRACTS

(N.J.S.A. 10:5-31 et seq.) IN.J.A.C. 17:27-1 et seq.)

This is a contract for construction subject to the Mandatory EEO language applicable to construction contracts. The successful Bidder must, subsequent to notice of Contract award and prior to Contract execution, submit Affirmative Action Evidence consisting of an Initial Project Workforce, *i.e.*, Form AA-201. The Bidder also agrees to submit monthly to the College and the New Jersey Department of Treasury, Division of Contract Compliance and EEO, a copy of the Monthly Project Workforce Report for the duration of its Contract performance.

A failure to timely submit the required Affirmative Action Evidence or otherwise fail to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1 et seq. may result in forfeiture of the Bidder's Bid Guarantee and the result in the Bidder's liability for the extra costs incurred in contracting with another contractor to perform the Contract or result in rejection of Bidder's Bid Proposal as non-responsive.

COMPANY: _____ SIGNATURE: _____

PRINT NAME: _____ TITLE: _____

DATE: _____



AMERICANS WITH DISABILITIES ACT OF 1990 Equal Opportunity for Individuals with Disability

The Contractor and the Owner, do hereby agree that the provisions of Title II of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C. S121 01 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant there unto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the owner pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event that the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the owner in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the owner, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the owner's grievance procedure, the contractor agrees to abide by any decision of the owner which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the owner, or if the owner incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The Owner shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim, If any action or administrative proceeding is brought against the owner or any of its agents, servants, and employees, the *owner shall* expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or other process received by the owner or its representatives.

It is expressly agreed and understood that any approval by the owner of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the owner pursuant to this paragraph.

It is further agreed and understood that the owner assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the owner from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.



THESE ARE **SAMPLES** OF THE **ONLY** ACCEPTABLE
BUSINESS REGISTRATION CERTIFICATES.

PREFER SUBMITTED WITH BID RESPONSE
REQUIRED BY LAW PRIOR TO AWARD OF CONTRACT

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE
FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS

DEPARTMENT OF TREASURY
DIVISION OF REVENUE
PO BOX 252
TRENTON, NJ 08646-0252

TAXPAYER NAME:
TAX REGISTRATION TEST ACCOUNT

TAXPAYER IDENTIFICATION#:
970-097-382/500

ADDRESS:
**847 ROEBLING AVE
TRENTON NJ 08611**

EFFECTIVE DATE:
01/01/01

FORM-BRC(08-01)

TRADE NAME:
CLIENT REGISTRATION

SEQUENCE NUMBER:
0107330

ISSUANCE DATE:
07/14/04

John S. Tully
Acting Director

This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.



STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE

Taxpayer Name: TAX REG TEST ACCOUNT

Trade Name:

Address: 847 ROEBLING AVE
TRENTON, NJ 08611

Certificate Number: 1095907

Date of Issuance: October 14, 2004

For Office Use Only:
20041014112823533



Disclosure of Investment Activities in Iran

Bidder Name:

Part 1: Certification

*BIDDERS ARE TO COMPLETE PART 1 BY CHECKING **EITHER BOX.***

Pursuant to Public Law 2012, c.25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division's website www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders must review this list prior to completing the below certification. Failure to complete the certification may render a bidder's proposal non-responsive. If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

☐

Check the Appropriate Box

I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification below.

☐

OR

I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as nonresponsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

Part 2: Additional Information

PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN. You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran on additional sheets provided by you.



Part 3: Certification

I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments there to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the Owner is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts to notify the Owner in writing of any changes to the answers of information contained herein.

I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the Owner and that the Owner at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	



NOT CURRENTLY REQUIRED PENDING LITIGATION

**CERTIFICATION OF NON-INVOLVEMENT IN PROHIBITED ACTIVITIES IN RUSSIA
OR BELARUS**

**PURSUANT TO P.L.2022, c.3
CONTRACT / Common Area Flooring**

CONTRACT / BID SOLICITATION No. RFP-AP-57-0-2024/CB

Prohibited Activities: Engaged in prohibited activities in Russia or Belarus” means (1) companies in which the Government of Russia or Belarus has any direct equity share; (2) having any business operations commencing after the effective date of this act that involve contracts with or the provision of goods or services to the Government of Russia or Belarus; (3) being headquartered in Russia or having its principal place of business in Russia or Belarus, or (4) supporting, assisting or facilitating the Government of Russia or Belarus in their campaigns to invade the sovereign country of Ukraine, either through in-kind support or for profit.

Failure to provide such description will result in the bid being rendered as non-responsive, and the Owner will not be permitted to contract with such person or entity, and if a bid is accepted or contract is entered into without delivery of the certification, appropriate penalties, fines and/or sanctions will be assessed as provided by law.

CHECK THE APPROPRIATE BOX

_____ I, the undersigned , am authorized by the person or entity seeking to enter into or renew the contract identified above, to certify that the Vendor/Bidder is not engaged in prohibited activities in Russia or Belarus as such term is defined in P.L.2022, c.3,ⁱ section 1.e, except as permitted by federal law.

CHECK ONE BOX BELOW:

_____ I understand that if this statement is willfully false, I may be subject to penalty, as set forth in P.L.2022, c.3, section 1.d.

OR

_____ I, the undersigned am unable to certify above because the person or entity seeking to enter into or renew the contract identified above, or one of its parents, subsidiaries, or affiliates may have engaged in prohibited activities in Russia or Belarus. If checked, a detailed, accurate and precise description of the activities is provided below.

Signature of Authorized Representative

Date:_____

(PRINT NAME) _____



BID BOND

We, the Bidder, _____, as **PRINCIPAL**, and _____ as **SURETY**, are held and firmly bound unto AUTHORITY, hereinafter called the "Obligee", in the penal sum of 10% of the Principal's Total Bid Price, NTE \$20,000.00, lawful money of the United States, for the payment of which sum well and truly to be made the Principal and the Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The **CONDITION** of this obligation is such that, whereas the Principal has submitted the accompanying bid, dated _____, 20__, for the following Project:

AUTHORITY

NAME OF PROJECT: Gymnasium Renovation at Robinson Towers

NOW, THEREFORE, if the Obligee shall accept the Bid of the Principal and the Principal shall timely enter into a Contract with the Obligee in accordance with the terms of such Bid, and give such bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and materials furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if Principal shall pay to the Obligee the difference not to exceed the penalty hereof consisting of the difference between the amount specified in said Bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said Bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20__.

The name and corporate seal of each corporate party is affixed and this bid bond is herewith duly signed by its undersigned representative, pursuant to authority of its governing body.

PRINCIPAL / BIDDER

ATTEST:

Principal's Name

Signature

Principal's Address

Name

Officer's Signature

Title

Name of Signer

Date

Title of Signer

Date (Affix Corporate Seal)



SURETY COMPANY (FOR BID BOND)

Name of Surety

Name of Witness

Address of Surety

Signature of Witness

Signature of Attorney-in-Fact

Title of Witness

Name of Attorney-in-Fact

Date

Date

(Affix Corporate Seal)

An attorney-in-fact who signs must attach a certified and effectively dated copy of their power of attorney clearly indicating signer's authority to sign the required Bid Bond.



CONSENT OF SURETY

RE: _____
(Bidder)

ASBURY PARK HOUSING AUTHORITY (Owner)

NAME OF PROJECT: **Gymnasium Renovation at Robinson Towers**

ON NOTICE TO OWNER, the undersigned surety company, being duly qualified to engage in the surety business in the State of New Jersey and meeting all the conditions and requirements of the Project Owner's Bid Solicitation, does hereby certify, consent, agree, promise, covenant, represent, guarantee and warrant to the Project Owner that, if the Contract for this Project is awarded to the Contractor/Bidder, the undersigned surety company shall promptly issue the separate performance bond and the labor and material payment bond, both bonds to be in an amount equal to one hundred percent (100%) of the total contract price and to be conditioned so as to indemnify the Project Owner against any loss due to the failure of the Contractor/Bidder to meet its obligations under the awarded Project Contract and otherwise in the form required by the Project Owner's Bid Solicitation.

CONTRACTOR/BIDDER

SURETY COMPANY

Print Company Name

Company Name

Signature

By: _____
Signature - Attorney in Fact

Name of Signer

Name of Attorney in Fact

Title of Signer

Date: _____

Date: _____

An attorney-in-fact who signs must attach a certified and effectively dated copy of their power of attorney verifying signer's unqualified authority to sign this Consent of Surety.



LIST OF SUBCONTRACTORS REQUIRED TO BE NAMED
PURSUANT TO N.J.S.A. 40A:11-16

The Bidder **must** name any subcontractors that it intends to use to perform work for the following trades and include the information required. **If the Bidder intends to perform the scope of work with its own forces, it should check the box "Self-Performed."** **Failure to identify all subcontractors in the following trades that will be used in the Project shall result in rejection of the bid.**

<u>Trade</u>	<u>Self-Performed</u>	<u>Subcontracted</u>	<u>N/A</u>
Plumbing and gas fitting	_____	_____	_____
HVACR	_____	_____	_____
Electrical Work, including fire alarm and security	_____	_____	_____
Structural steel, ornamental iron work	_____	_____	_____

DPMC Code _____ ☐ Applicable ☐ Not Applicable

- DPMC Code _____
- DPMC Code _____

For all subcontractors identified above, list

Name of subcontractor

Address

Scope of work to be performed

License No. (if applicable)

Please use additional sheets as necessary



DATE: _____, 2025

TO: **Asbury Park Housing Authority**
1000 1/2 3rd Avenue
Asbury Park, NJ 07712

Attn: Director – Ms. Shemea Daniels

FROM:

Name of Bidder

Street Address

City, State and Zip Code

Phone Number.

Email Address

The bidder is: (Check one and complete information)

- ☐ An individual using the trade name of _____.
- ☐ A partnership organized under the laws of the State of _____.
- ☐ A corporation organized under the laws of the State of _____.

Having carefully examined the Instructions to Bidders, General Conditions, Supplementary General Conditions, Drawings and Specifications for the **Gymnasium Renovation at Robinson Towers located at 1000 1/2 Third Avenue, Asbury Park, NJ 07712** Prepared by MVMK Architecture, LLC and all Addenda issued by the Architects (the "Contract Documents"), as well as the premises and conditions affecting the work, the Und-ary to, proper for, or incidental to:



BASE BID: For all Labor & Material for the Gymnasium Renovation at Robinson Towers located at 1000 ½ Third Avenue, Asbury Park, NJ 07712

FOR THE SUM

OF _____ **DOLLAR**
S

(\$ _____).

(Bid amount shall be in both words and figures. In case of discrepancy amount shown in words will govern.)

ALTERNATE BIDS

N/A

UNIT PRICES

Unit Price GC#1 – Interlocking Rubber Floor Installation

Cost to include Labor & Material per 24" x 24" of Installed

FOR THE SUM

OF _____ **DOLLARS**(\$ _____
_____).

(Bid amount shall be in both words and figures. In case of discrepancy amount shown in words will govern.)

ALLOWANCES – To Be Included in Base Bid

\$5,000 – Five Thousand Dollars

ADDENDA

The Undersigned acknowledges receipt of the following Addenda:

(INSERT NUMBER AND DATE OF ALL ADDENDA RECEIVED)

Addendum No. _____ Dated: _____ Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____ Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____ Addendum No. _____ Dated: _____

In submitting this bid, it is understood that the unrestricted right is reserved by the Owner to reject any and all bids. If written notice of acceptance of this bid is mailed, faxed, or delivered to the undersigned at the business address stated below within sixty (60) days after the date of opening bids, the undersigned will within eight (8) days after the date of such mailing, faxing, or delivering of such notice, execute and deliver the necessary contract, performance-payment bond and insurance and all other documents as described in the Specifications.



The Bidder designates the following address and fax number for service of the notice of acceptance by mail, fax or hand delivery (if different from address at top):

Address: _____

Fax Number: _____

The Undersigned agrees that time of completion of the work to be done hereunder is an ESSENTIAL CONDITION of the contract. By submitting his Proposal for the work, the Undersigned warrants that he shall substantially complete all the work called for in his contract within a period of _____ **45** _____ consecutive calendar days from the date of "Notice to Proceed".

The Undersigned agrees that should he fail to complete the Work within the Contract Time, the Owner may retain from the monies that are due or which may become due to the Bidder under the Contract, the sum of **Five Hundred Dollars (\$500.00)** for each consecutive calendar day beyond the number of days allowed by the contract; as indicated in the Supplementary General Conditions, paragraph 8.5 "**Liquidated Damages**". The Undersigned agrees, that any wages paid by the Owner to any inspector or inspectors necessarily employed by it on the work, for any number of days in excess of the Contract Time shall be deducted from the Contract Sum.

The undersigned bidder has checked the accuracy of all the figures and computations contained in this bid proposal and further understands that the Owner will not be responsible for any errors or omissions made therein by the bidder.

Name of Bidder: _____

Authorized Signature: _____

Print or Type Name & Title _____

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB

0348-0046

1. * Type of Federal Action: ☐ a. contract ☒ b. grant ☐ c. cooperative agreement ☐ d. loan ☐ e. loan guarantee ☐ f. loan insurance	2. * Status of Federal Action: ☐ a. bid/offer/application ☒ b. initial award ☐ c. post-award	3. * Report Type: ☒ a. initial filing ☐ b. material change
4. Name and Address of Reporting Entity: ☒ Prime ☐ SubAwardee * Name * Street 1 Street 2 * City State Zip Congressional District, if known:		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: 	7. * Federal Program Name/Description: CFDA Number, if applicable:	
8. Federal Action Number, if known: 	9. Award Amount, if known: \$	
10. a. Name and Address of Lobbying Registrant: Prefix * First Name Middle Name * Last Name Suffix * Street 1 Street 2 * City State Zip		
b. Individual Performing Services (including address if different from No. 10a) Prefix * First Name Middle Name * Last Name Suffix * Street 1 Street 2 * City State Zip		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature: Completed on submission to Grants.gov *Name: Prefix * First Name Middle Name * Last Name Suffix Title: Telephone No.: Date: Completed on submission to Grants.gov		
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)

US Department of Housing and Urban Development
Office of Housing/Federal Housing Commissioner

US Department of Agriculture
Farmers Home Administration

Part I to be completed by Controlling Participant(s) of Covered Projects (See instructions) Reason for submission:		For HUD HQ/FmHA use only	
1. Agency name and City where the application is filed		2. Project Name, Project Number, City and Zip Code	
3. Loan or Contract amount \$	4. Number of Units or Beds	5. Section of Act	6. Type of Project (check one) ☐ Existing ☐ Rehabilitation ☐ Proposed (New)

7. List all proposed Controlling Participants and attach complete organization chart for all organizations showing ownership %

Name and address (Last, First, Middle Initial) of controlling participant(s) proposing to participate	8 Role of Each Principal in Project	9. SSN or IRS Employer Number (TIN)

Certifications: The controlling participants(s) listed above hereby apply to HUD or USDA FmHA, as the case maybe, for approval to participate as controlling participant(s) in the role(s) and project listed above. The controlling participant(s) certify that the information provided on this form and in any accompanying documentation is true and accurate. I/we acknowledge that making, presenting, or submitting a false, fictitious, or fraudulent statement, representation, or certification may result in criminal, civil, and/or administrative sanctions, including fines, penalties, and imprisonment. The controlling participants(s) further certify to the truth and accuracy of the following:

1. Schedule A contains a listing, for the last ten years, of every project assisted or insured by HUD, USDA FmHA and/or State and local government housing finance agencies in which the controlling participant(s) have participated or are now participating.
2. For the period beginning 10 years prior to the date of this certification, and except as shown on the certification:
 - a. No mortgage on a project listed has ever been in default, assigned to the Government or foreclosed, nor has it received mortgage relief from the mortgagee;
 - b. The controlling participants have no defaults or noncompliance under any Conventional Contract or Turnkey Contract of Sale in connection with a public housing project;
 - c. There are no known unresolved findings as a result of HUD audits, management reviews or other Governmental investigations concerning the controlling participants or their projects;
 - d. There has not been a suspension or termination of payments under any HUD assistance contract due to the controlling participant's fault or negligence;
 - e. The controlling participants have not been convicted of a felony and are not presently the subject of a complaint or indictment charging a felony. (A felony is defined as any offense punishable by imprisonment for a term exceeding one year, but does not include any offense classified as a misdemeanor under the laws of a State and punishable by imprisonment of two years or less);
 - f. The controlling participants have not been suspended, debarred or otherwise restricted by any Department or Agency of the Federal Government or of a State Government from doing business with such Department or Agency;
 - g. The controlling participants have not defaulted on an obligation covered by a surety or performance bond and have not been the subject of a claim under an employee fidelity bond;
3. All the names of the controlling participants who propose to participate in this project are listed above.
4. None of the controlling participants is a HUD/FmHA employee or a member of a HUD/FmHA employee's immediate household as defined in Standards of Ethical Conduct for Employees of the Executive Branch in 5 C.F.R. Part 2635 (57 FR 35006) and HUD's Standard of Conduct in 24 C.F.R. Part 0 and USDA's Standard of Conduct in 7 C.F.R. Part 0 Subpart B.
5. None of the controlling participants is a participant in an assisted or insured project as of this date on which construction has stopped for a period in excess of 20 days or which has been substantially completed for more than 90 days and documents for closing, including final cost certification, have not been filed with HUD or FmHA.
6. None of the controlling participants have been found by HUD or FmHA to be in noncompliance with any applicable fair housing and civil rights requirements in 24 CFR 5.105(a). (If any controlling participants have been found to be in noncompliance with any requirements, attach a signed statement explaining the relevant facts, circumstances, and resolution, if any).
7. None of the controlling participants is a Member of Congress or a Resident Commissioner nor otherwise prohibited or limited by law from contracting with the Government of the United States of America.
8. Statements above (if any) to which the controlling participant(s) cannot certify have been deleted by striking through the words with a pen, and the controlling participant(s) have initialed each deletion (if any) and have attached a true and accurate signed statement (if applicable) to explain the facts and circumstances.

Name of Controlling Participant	Signature of Controlling Participant	Certification Date (mm/dd/yyyy)	Area Code and Tel. No.
This form prepared by (print name)		Area Code and Tel. No.	

Schedule A: List of Previous Projects and Section 8 Contracts. Below is a complete list of the controlling participants' previous participation projects and participation history in covered projects as per 24 CFR, part 200 §200.214 and multifamily Housing programs of FmHA, State and local Housing Finance Agencies, if applicable. **Note:** Read and follow the instruction sheet carefully. Make full disclosure. Add extra sheets if you need more space. Double check for accuracy. If no previous projects, write by your name, "**No previous participation, First Experience**".

1. Controlling Participants' Name (Last, First)	2. List of previous projects (Project name, project ID and, Govt. agency involved)	3. List Participants' Role(s) (indicate dates participated, and if fee or identity of interest participant)	4. Status of loan (current, defaulted, assigned, foreclosed)	5. Was the Project ever in default during your participation Yes No If yes, explain		6. Last MOR rating and Physical Insp. Score and date

Part II- For HUD Internal Processing Only

Received and checked by me for accuracy and completeness; recommend approval or refer to Headquarters after checking appropriate box.

Date (mm/dd/yyyy)	Tel No. and area code	☐ A. No adverse information; form HUD-2530 approval recommended. ☐ B. Name match in system ☐ C. Disclosure or Certification problem ☐ D. Other (attach memorandum)
Staff	Processing and Control	
Signature of authorized reviewer		Signature of authorized reviewer Approved ☐ Yes ☐ No
		Date (mm/dd/yyyy)

Instructions for Completing the Previous Participation Certificate, form HUD-2530

Carefully read these instructions and the applicable regulations. A copy of the regulations published at 24 C.F.R. part 200, subpart H, § 200.210-200.222 can be obtained on-line at www.gpo.gov and from the Account Executive at any HUD Office. Type or print neatly in ink when filling out this form. Incomplete form will be returned to the applicant.

Attach extra sheets as you need them. Be sure to indicate "Continued on Attachments" wherever appropriate. Sign each additional page that you attach if it refers to you or your record. **Carefully read the certification before you sign it.** Any questions regarding the form or how to complete it can be answered by your HUD Account Executive.

Purpose: This form provides HUD/USDA FmHA with a certified report of all previous participation in relevant HUD/USDA programs by those parties submitting the application. The information requested in this form is used by HUD/USDA to determine if you meet the standards established to ensure that all controlling participants in HUD/USDA projects will honor their legal, financial and contractual obligations and are of acceptable risks from the underwriting standpoint of an insurer, lender or governmental agency. HUD requires that you certify and submit your record of previous participation, in relevant projects, by completing and signing this form, before your participation can be approved.

HUD approval of your certification is a necessary precondition for your participation in the project and in the capacity that you propose. If you do not file this certification, do not furnish the information requested accurately, or do not meet established standards, HUD will not approve your certification.

Note that approval of your certification does not obligate HUD to approve your project application, and it does not satisfy all other HUD program requirements relative to your qualifications.

Who Must Sign and File Form HUD-2530: Form HUD-2530 must be completed and signed by all Controlling Participants of Covered Projects, as such terms are defined in 24 CFR part 200 §200.212, and as further clarified by the Processing Guide (HUD notice H 2016-15) referenced in 24 CFR §200.210(b) and available on the HUD website at: http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/prevparticipation.

Where and When Form HUD-2530 Must Be Filed: The original of this form must be submitted to the HUD Office where your project application will be processed at the same time you file your initial project application. This form must be filed with applications for projects listed in 24 CFR §200.214 and for the Triggering Events listed at 24 CFR §200.218.

Review of Adverse Determination: If approval of your participation in a HUD project is denied, withheld, or conditionally granted on the basis of your record of previous participation, you will be notified by the HUD Office. You may request reconsideration in accordance with 24 CFR §200.222 and further clarified by the Processing Guide. Request must be made in writing within 30 days from your receipt of the notice of determination.

The Department of Housing and Urban Development (HUD) is authorized to collect this information by law 42 U.S.C. 3535(d) and by regulation at 24 CFR 200.210. This information is needed so that principals applying to participate in multifamily programs can become HUD-approved controlling participants. The information you provide will enable HUD to evaluate your record with respect to established standards of performance, responsibility and eligibility. Without prior approval, a controlling participant may not participate in a proposed or existing multifamily or healthcare project. HUD uses this information to evaluate whether or not controlling participants pose an unsatisfactory underwriting risk. The information is used to evaluate the potential controlling participants and approve only individuals and organizations that will honor their legal, financial and contractual obligations.

Privacy Act Statement: The Housing and Community Development Act of 1987, 42 U.S.C. 3543 requires persons applying for a Federally-insured or guaranteed loan to furnish his/her Social Security Number (SSN). HUD must have your SSN for identification of your records. HUD may use your SSN for automated processing of your records and to make requests for information about you and your previous records with other public agencies and private sector sources. HUD may disclose certain information to Federal, State and local agencies when relevant to civil, criminal, or regulatory investigations and prosecutions. It will not be otherwise disclosed or released outside of HUD, except as required and permitted by law. You must provide all of the information requested in this application, including your SSN.

Public reporting burden for this collection of information is estimated to average three hour 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. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

A response is mandatory. Failure to provide any of the information will result in your disapproval of participation in this HUD program.

Specifications For

Gymnasium Space Renovation
at
Robinson Towers located at 1000 ½ Third Avenue
Asbury Park, NJ 07712

for the

Asbury Park Housing Authority
1000 ½ 3rd Avenue
Asbury Park, New Jersey 07712

MVMK

Minervini Vandermark Melia Kelly

Architecture + Design

360 14th Street

Hoboken, New Jersey 07030

t. 201-386-0637 / f. 201-386-0628

www.mvmkarchitectuire.com

November 13th, 2024

Specifications For

**Gymnasium Space Renovation at
Asbury Park, NJ 07712**

for the

Asbury Park Housing Authority

1000 ½ 3rd Avenue

Asbury Park, New Jersey 07712

Ms. Shemea Daniels, MBA

Executive Director – Asbury Park Housing Authority

Executive Director

Architect:

MVMK, L.L.C.

ARCHITECTURE

360 Fourteenth Street

Hoboken, New Jersey 07030

t. 201-386-0637 / f. 201-386-0628

Mr. Anthony C. Vandermark, AIA

NJ No. 17698

Principal

MEP Engineer:

UR Engineering

1311 Ridge Ave 1st Floor

Philadelphia, PA 19123

Mr. Chris Yan, PE

Principal

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DEFINITIONS

Wherever reference is made to the Owner, Title of Project, or Architect, they shall be as follows:

OWNER:

**Asbury Park Housing Authority
1000 ½ 3rd Avenue
Asbury Park, NJ 07712**

ADDRESS BIDS AND MAIL TO:

**Asbury Park Housing Authority
1000 ½ 3rd Avenue
Asbury Park, NJ 07712**

Attn: Executive Director – Ms. Shemea Daniels

TITLE OF PROJECT:

**Gymnasium Space Renovation at
Robinson Towers located at 1000 ½ Third Avenue
Asbury Park, NJ 07712**

ARCHITECT:

**MVMK LLC
360 Fourteenth Street
Hoboken, New Jersey 07030**

Anthony Vandermark, Jr AIA – anthonyvandermark@mvmkarchitecture.com

EMP ENGINEER:

**UR Engineering
1311 Ridge Ave 1st Floor
Philadelphia, PA 19123**

Anthony Vandermark, Jr AIA – anthonyvandermark@mvmkarchitecture.com

BIDDER:

Bidder shall be a single contract bidder or a separate prime contract bidder.

CONTRACTOR:

In case of a single contract, all terms such as "General Contractor", "Steel Contractor", "Plumbing Contractor", "Heating Contractor", "Electrical Contractor", etc., shall be changed to read "the Contractor".

SCOPE

It is the intention that the Drawings, Specifications and other contract documents provide for the complete construction of **Gymnasium Space Renovation at Robinson Towers located at 1000 ½ Third Avenue Asbury Park, NJ 07712** complete in all its parts. Any work shown on the Drawings and not particularly described in the Specifications or vice versa, or any work evidently necessary to complete the Contract, shall be included in the bid.

During the course of the work, should any ambiguities or discrepancies be found in or between the Drawings and Specifications, the Architect will interpret the intent of the Drawings and Specifications. It is expressly stipulated

INSTRUCTIONS TO BIDDERS

that neither the Drawings nor the Specifications shall take precedence one over the other, and that the Architect will interpret or construe the Drawings and Specifications so as to secure the most substantial and complete performance of the work as is most consistent with the needs and requirements of the work.

PREPARATION OF THE BID

The "complete" Bid Form includes the Bid Bond, Guarantee Certificate of Surety, Ownership Disclosure Certification, Non-Collusion Affidavit and any other documents noted in these Instructions to Bidders & Bid Form Checklist to be submitted with this Bid.

Bid prices must be filled in, in ink, in both words and figures for lump sum bids, base bids, alternative bids, and unit prices for the contract or work for which the bid is made.

For Alternate Manufacturer Bids, if any have been specified applicable to the bidder's work, the bidder may, if he wishes, enter an amount for each alternate manufacturer listed in the Bid Form.

Insert applicable allowances, if any have been specified applicable to the bidder's work.

Conditional bids will not be accepted. Bids may be withdrawn prior to the advertised time for the opening of bids or authorized postponement thereof. Bids received after the advertised time will not be considered. Bidders shall be solely responsible for premature opening or late delivery of bids not properly marked or addressed.

Bidders must submit their bids in a sealed envelope addressed to the Owner and bearing on outside; the name of the bidder, his address, the title of the project, and the type of work bid upon.

ALTERNATIVES, ALLOWANCES, AND UNIT PRICES

As indicated in specification Section 012000, "Alternates, Allowances, and Unit Prices."

QUALIFICATIONS OF BIDDERS

The Owner may make such investigation as he deems necessary to determine the ability of the bidders to perform the work which, in the case of a Single Contract, includes investigation of the major subcontractors. The bidder shall furnish any information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid, if the investigation fails to satisfy the Owner that the bidder is properly qualified to carry out the work contemplated herein.

A bidder on public works whose bids will exceed \$20,000, must be classified and qualified by the New Jersey Department of the Treasury. In the case of a Single Contract, the Contractor and his major subcontractors for general construction work, structural steel work, plumbing work, heating and ventilating work, and electrical work as applicable, must be classified and qualified.

AWARD OF CONTRACT

A contract, if awarded, will be made to that qualified bidder or bidders whose base bid plus or minus sums bid on the alternate bids which the Owner elects to accept, totals the lowest number of dollars in any combination.

BID SECURITY

All bidders are required to submit with their bids a bid security.

The Bid Security shall be in the amount of ten (10%) percent of the Bid but not in excess of \$20,000 and payable to the order of the Owner. Bid Security, at the option of the bidder, may be a certified or cashier's check drawn on an incorporated bank or trust company, or a bid bond equivalent in scope to the sample Bid Bond included with the Bid Form.

All bid security except the security of the three (3) apparent lowest responsible bidders shall, if requested, be

INSTRUCTIONS TO BIDDERS

returned after ten (10) days from the opening of bids, Sundays and holidays excepted, and the bids of such bidders shall be considered as withdrawn. Within three (3) days after the awarding of the contract and the approval of the Contractor's performance bond, the bid security of the remaining unsuccessful bidders shall be returned to them forthwith, Sundays and holidays excepted.

If the successful bidder fails to execute the Contract and furnish the Performance Bond and Labor & Materials Payment Bond within eight (8) days from the date of "Notice of Acceptance," the award of the Contract may be rescinded and the bid security will become liable up to its full amount for any difference between the amount of his bid and the Contract which the Owner may be obliged to award to another bidder or bidders.

If the bid is not accepted within sixty (60) days after the date of opening of bids, or any length of time thereafter, if agreed to by the Owner and the bidder, or if the bidder executes the Contract and delivers the performance bond, the bid security will be returned to the bidder.

No interest will be allowed on the bid security deposits.

If the bid security is in the form of a bid bond, the bonding company shall fulfill the obligation as herein stated.

GUARANTEE CERTIFICATE FROM SURETY COMPANY

All bidders are required to submit with their bid a guarantee certificate from a surety company authorized to do business in New Jersey and satisfactory to the Owner, stating that it will provide the Contractor with a bond for the faithful performance of all provisions relating to the performance of the Agreement with the Owner during the course of construction; and including the guarantees required under Article 12 of Chapter 44 of Title 2A of the New Jersey Statutes; and a maintenance bond during the one year warranty period after the date of Substantial Completion.

BOND OF AN INDIVIDUAL

If a bidder desires to offer the bond of an individual instead of that of a surety company, he shall submit with his bid a certificate signed by such individual similar to that required of a surety company.

The Owner may reject any such bid if it is not satisfied with the sufficiency of the individual surety offered.

PERFORMANCE AND LABOR AND MATERIAL PAYMENT BOND

A New Jersey Statutory Performance Bond and a Labor and Material Payment Bond, from a surety company authorized to do business in New Jersey and satisfactory to the Owner, in the amount of one hundred (100%) percent of the Contract Sum shall be delivered simultaneously with the executed Contract. If, at any time, or for any reason, the bonds cease to be adequate security for the Owner, the successful bidder shall, within five (5) days after notice, substitute an acceptable bond with surety satisfactory to the Owner.

The premium on bonds shall be paid by the successful bidder.

BONDING ATTORNEYS

Attorneys in fact, who sign bonds, shall file with each bond a certified and effectively dated copy of their power of attorney.

OWNERSHIP DISCLOSURES REQUIRED

Pursuant to L. 1977, N.J.S. 52:25-24.2, the bidder shall submit with his bid, or prior to receipt of bids, a statement setting forth the names and addresses of all stockholders in the corporation or partnership bidding who own ten (10%) percent or greater interest therein.

If one or more such stockholder or partner is itself a corporation or partnership, the bidder shall submit further disclosures pursuant to the law.

INSTRUCTIONS TO BIDDERS

NON-COLLUSION AFFIDAVIT

The Bidder shall submit with his bid a statement of non-collusion with verbiage similar to that on the "Sample Non-Collusion Affidavit."

TAXES

Public Housing Work is exempt from taxation, but Contractors and subcontractors are required to file with their suppliers, State Tax Form ST-13 listing Owner's name and location of project, to qualify for the exemption. Forms and additional information are available at the State Tax Department. No allowance will be made by the Owner for any such taxes paid by the Contractors due to their failure to file appropriate exemption forms.

AFFIRMATIVE ACTION DOCUMENT SUBMISSION

If, prior to or at the time the public agency submits a contract for signing, a construction Contractor does not submit to the public agency evidence of an existing federally approved or sanctioned Affirmative Action Program; then no later than three (3) days after the Contractor signs the construction contract, the Contractor shall complete and submit the Projected Manning Table Form AA201-A (Building Construction) or AA201-B (Heavy Construction) to the public agency and the Affirmative Action Office. The Contractor should retain the copy marked "Contractor", submit the copy marked "Public Agency" to the Owner and the remaining copies shall be forwarded immediately to:

Affirmative Action Office
Department of the Treasury
State House
CN 209
Trenton, New Jersey 08625

CONDITIONS OF THE WORK

Bidders shall submit bids subject to and in accordance with all the conditions stated herein, required by the Specifications, Drawings, and actual conditions. Bidders shall carefully examine the site(s), as well as the Drawings and Specifications and fully inform themselves as to the existing conditions and to the work of others coming in conjunction with their work, both labor and materials even though not especially shown or noted, but which are necessary to obtain a complete and finished condition.

Bidders are advised that construction terms and conditions set forth in the Contract Documents will be rigidly enforced.

FORM OF CONTRACT

Contracts will be based on the Contract Form (see attached) between the Housing Authority & Contractor.

The Contract will be subject to all statutory provisions on the matter of Public Works, Public Contracts and Prevailing Rates of Wages under the laws of New Jersey.

ADDENDA AND INTERPRETATIONS

Should any error, omissions, inconsistencies or obscure wording appear or occur in the Drawings and Specifications or should there be any discrepancies between Drawings and Specifications, the bidder, shall, before submitting his bid, apply to the Architect in writing, for an interpretation and determination of the intent of the Drawings and Specifications. Requests for such interpretations, to be given consideration, must be received at least seven (7) days prior to the date fixed for the opening of bids.

Interpretations and any supplemental instructions will be in the form of written Addenda (no oral or facsimile

INSTRUCTIONS TO BIDDERS

interpretations will be given) to the Specifications, which if issued, will be mailed by certified or registered mail with return receipt requested to all bidders of record, not later than three (3) days prior to the date fixed for the opening of bids. Each bidder shall ascertain, prior to submitting his bid, that he had received all Addenda issued and he shall acknowledge their receipt in his bid. Failure of any bidder to receive any Addenda or interpretation shall not relieve the bidder from any obligation under his bid as submitted. Addenda so issued shall become part of the Contract Documents.

The price bid for the work of any Contract shall **NOT** be based in any manner upon oral opinions or real or alleged instructions of an oral nature, regardless or whether such opinions or instructions are expressed by the Owner, the Architect or his Consultants, or agents or representatives of any of them.

PROGRESS PAYMENTS

Monthly progress payments will be made based on the value of labor and materials incorporated in the work and of materials suitably stored at the site. An itemized schedule of value shall be submitted with each application for payment.

Refer to Article 9 of the General Conditions and the Supplementary General Conditions for retainage and other conditions pertaining to payments.

All applications for payment, shall be accompanied by paid invoices for materials incorporated in the work, and for materials suitably stored at the site, and affidavit(s) by subcontractors whose work was included in the next to the last application to the effect such work and such materials have been paid for.

TIME AND METHOD OF PROCEDURE

Time is of the essence of the Contract and work shall commence as of the date of the "Notice to Proceed" and shall be substantially completed in 30 consecutive calendar days.

Refer to Supplementary General Conditions for conditions pertaining to liquidated damages and reimbursement of any wages paid by the Owner for inspector(s) due to failure to complete the project within the Contract Time.

The Owner shall not be liable to any Contractor or sub-contractor due to any performance, non-performance, or delay in performance, for any reason, of any Contractor or subcontractor.

OBLIGATION OF BIDDER

At the time of the opening of bids, each bidder will be presumed to have inspected the site(s) and to have read and to be thoroughly familiar with the contract documents (including addenda). The failure or neglect of any bidder to receive or examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect to his bid.

The bidder shall examine the contents of the Project Manual and the set of Drawings and assure himself that all pages of the Specifications, Drawings, and other contract documents are included in the documents obtained for bidding purposes. Should the Specifications, Drawings, and other contract documents be incomplete, the bidder shall notify the Architect in writing, who will supply the bidder with any missing pages of Specifications, Drawings, or other contract documents. The lack of such written notification by the bidder will be construed as evidence that the Specifications, Drawings, and other contract documents supplied him for bidding purposes are full and complete and as a waiver of any subsequent claim to the contrary.

ENUMERATION OF PRIME CONTRACTS

The Bidding Documents have been assigned and enumerated by specification section, listed in Section 01010 - Summary of Work.

The bidding documents consists of the following items:

INSTRUCTIONS TO BIDDERS

ADDENDA, if issued.
INSTRUCTIONS TO BIDDERS
BID FORM
GENERAL CONDITIONS
SUPPLEMENTARY GENERAL CONDITIONS
SPECIFICATIONS, as outlined in the Table of Contents
and included in the Project Manual.
DRAWINGS;

All drawings included within the Construction Document / Specification Set

END OF INSTRUCTIONS TO BIDDERS

**U.S. Department of Housing and
Urban Development**

Office of Public and Indian Housing

**Instructions to Bidders for Contracts
Public and Indian Housing Programs**

Instructions to Bidders for Contracts

Public and Indian Housing Programs

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1. Bid Preparation and Submission

(a) Bidders are expected to examine the specifications, drawings, all instructions, and, if applicable, the construction site (see also the contract clause entitled **Site Investigation and Conditions Affecting the Work** of the *General Conditions of the Contract for Construction*). Failure to do so will be at the bidders' risk.

(b) All bids must be submitted on the forms provided by the Public Housing Agency/Indian Housing Authority (PHA/IHA). Bidders shall furnish all the information required by the solicitation. Bids must be signed, and the bidder's name typed or printed on the bid sheet and each continuation sheet which requires the entry of information by the bidder. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority. (Bidders should retain a copy of their bid for their records.)

(c) Bidders must submit as part of their bid a completed form HUD-5369-A, "Representations, Certifications, and Other Statements of Bidders."

(d) All bid documents shall be sealed in an envelope which shall be clearly marked with the words "Bid Documents," the Invitation for Bids (IFB) number, any project or other identifying number, the bidder's name, and the date and time for receipt of bids.

(e) If this solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "No Bid" in the space provided for any item on which no price is submitted.

(f) Unless expressly authorized elsewhere in this solicitation, alternate bids will not be considered.

(g) Unless expressly authorized elsewhere in this solicitation, bids submitted by telegraph or facsimile (fax) machines will not be considered.

(h) If the proposed contract is for a Mutual Help project (as described in 24 CFR Part 905, Subpart E) that involves Mutual Help contributions of work, material, or equipment, supplemental information regarding the bid advertisement is provided as an attachment to this solicitation.

2. Explanations and Interpretations to Prospective Bidders

(a) Any prospective bidder desiring an explanation or interpretation of the solicitation, specifications, drawings, etc., must request it at least 7 days before the scheduled time for bid opening. Requests may be oral or written. Oral requests must be confirmed in writing. The only oral clarifications that will be provided will be those clearly related to solicitation procedures, i.e., not substantive technical information. No other oral explanation or interpretation will be provided. Any information given a prospective bidder concerning this solicitation will be furnished promptly to all other prospective bidders as a written amendment to the solicitation, if that information is necessary in submitting bids, or if the lack of it would be prejudicial to other prospective bidders.

(b) Any information obtained by, or provided to, a bidder other than by formal amendment to the solicitation shall not constitute a change to the solicitation.

3. Amendments to Invitations for Bids

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date on the bid form, or (3) by letter, telegram, or facsimile, if those methods are authorized in the solicitation. The PHA/IHA must receive acknowledgement by the time and at the place specified for receipt of bids. Bids which fail to acknowledge the bidder's receipt of any amendment will result in the rejection of the bid if the amendment(s) contained information which substantively changed the PHA's/IHA's requirements.

(c) Amendments will be on file in the offices of the PHA/IHA and the Architect at least 7 days before bid opening.

4. Responsibility of Prospective Contractor

(a) The PHA/IHA will award contracts only to responsible prospective contractors who have the ability to perform successfully under the terms and conditions of the proposed contract. In determining the responsibility of a bidder, the PHA/IHA will consider such matters as the bidder's:

- (1) Integrity;
- (2) Compliance with public policy;
- (3) Record of past performance; and
- (4) Financial and technical resources (including construction and technical equipment).

(b) Before a bid is considered for award, the bidder may be requested by the PHA/IHA to submit a statement or other documentation regarding any of the items in paragraph (a) above. Failure by the bidder to provide such additional information shall render the bidder non responsible and ineligible for award.

5. Late Submissions, Modifications, and Withdrawal of Bids

(a) Any bid received at the place designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it:

(1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);

(2) Was sent by mail, or if authorized by the solicitation, was sent by telegram or via facsimile, and it is determined by the PHA/IHA that the late receipt was due solely to mishandling by the PHA/IHA after receipt at the PHA/IHA; or

(3) Was sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and observed holidays.

(b) Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a) of this provision.

(c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date and the bid, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, bidders should request the postal clerk to place a hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(d) The only acceptable evidence to establish the time of receipt at the PHA/IHA is the time/date stamp of PHA/IHA on the proposal wrapper or other documentary evidence of receipt maintained by the PHA/IHA.

(e) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and Failure by a bidder to acknowledge receipt of the envelope or wrapper.

(f) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful bid that makes its terms more favorable to the PHA/IHA will be considered at any time it is received and may be accepted.

(g) Bids may be withdrawn by written notice, or if authorized by this solicitation, by telegram (including mailgram) or facsimile machine transmission received at any time before the exact time set for opening of bids; provided that written confirmation of telegraphic or facsimile withdrawals over the signature of the bidder is mailed and postmarked prior to the specified bid opening time. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

6. Bid Opening

All bids received by the date and time of receipt specified in the solicitation will be publicly opened and read. The time and place of opening will be as specified in the solicitation. Bidders and other interested persons may be present.

7. Service of Protest

(a) Definitions. As used in this provision:

"Interested party" means an actual or prospective bidder whose direct economic interest would be affected by the award of the contract.

"Protest" means a written objection by an interested party to this solicitation or to a proposed or actual award of a contract pursuant to this solicitation.

(b) Protests shall be served on the Contracting Officer by obtaining written and dated acknowledgement from —

[Contracting Officer designate the official or location where a protest may be served on the Contracting Officer]

(c) All protests shall be resolved in accordance with the PHA's/IHA's protest policy and procedures, copies of which are maintained at the PHA/IHA.

8. Contract Award

(a) The PHA/IHA will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the PHA/IHA considering only price and any price-related factors specified in the solicitation.

(b) If the apparent low bid received in response to this solicitation exceeds the PHA's/IHA's available funding for the proposed contract work, the PHA/IHA may either accept separately priced items (see 8(e) below) or use the following procedure to determine contract award. The PHA/IHA shall apply in turn to each bid (proceeding in order from the apparent low bid to the high bid) each of the separately priced bid deductible items, if any, in their priority order set forth in this solicitation. If upon the application of the first deductible item to all initial bids, a new low bid is within the PHA's/IHA's available funding, then award shall be made to that bidder. If no bid is within the available funding amount, then the PHA/IHA shall apply the second deductible item. The PHA/IHA shall continue this process until an evaluated low bid, if any, is within the PHA's/IHA's available funding. If upon the application of all deductibles, no bid is within the PHA's/IHA's available funding, or if the solicitation does not request separately priced deductibles, the PHA/IHA shall follow its written policy and procedures in making any award under this solicitation.

(c) In the case of tie low bids, award shall be made in accordance with the PHA's/IHA's written policy and procedures.

(d) The PHA/IHA may reject any and all bids, accept other than the lowest bid (e.g., the apparent low bid is unreasonably low), and waive informalities or minor irregularities in bids received, in accordance with the PHA's/IHA's written policy and procedures.

(e) Unless precluded elsewhere in the solicitation, the PHA/IHA may accept any item or combination of items b i d .

(f) The PHA/IHA may reject any bid as nonresponsive if it is materially unbalanced as to the prices for the various items of work to be performed. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

(g) A written award shall be furnished to the successful bidder within the period for acceptance specified in the bid and shall result in a binding contract without further action by either p a r t y .

9. Bid Guarantee (applicable to construction and equipment contracts exceeding \$25,000)

All bids must be accompanied by a negotiable bid guarantee which shall not be less than five percent (5%) of the amount of the bid. 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 U.S. Government and authorized to do business in the state where the work is to be performed. In the case where the work under the contract will be performed on an Indian reservation area, the bid guarantee may also be an irrevocable Letter of Credit (see provision 10, Assurance of Completion, below). Certified checks and bank drafts must be made payable to the order of the PHA/IHA. The bid guarantee shall insure the execution of the contract and the furnishing of a method of assurance of completion by the successful bidder as required by the solicitation. Failure to submit a bid guarantee with the bid shall result in the rejection of the bid. Bid guarantees submitted by unsuccessful bidders will be returned as soon as practicable after bid o p e n i n g .

10. Assurance of Completion

(a) Unless otherwise provided in State law, the successful bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation. This assurance may be [Contracting Officer check applicable items] —

[] (1) a performance and payment bond in a penal sum of 100 percent of the contract price; or, as may be required or permitted by State law;

[] (2) separate performance and payment bonds, each for 50 percent or more of the contract price;

[] (3) a 20 percent cash escrow;

[] (4) a 25 percent irrevocable letter of credit; or,

[] (5) an irrevocable letter of credit for 10 percent of the total contract price with a monitoring and disbursements agreement with the IHA (applicable only to contracts awarded by an IHA under the Indian Housing Program).

(b) Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. Individual sureties will not be considered. U.S. Treasury Circular Number 570, published annually in the Federal Register, lists companies approved to act as sureties on bonds securing Government contracts, the maximum underwriting limits on each contract bonded, and the States in which the company is licensed to do business. Use of companies listed in this circular is mandatory. Copies of the circular may be downloaded on the U.S. Department of Treasury website <http://www.fms.treas.gov/c570/index.html>, or ordered for a minimum fee by contacting the Government Printing Office at (202) 512-2168.

(c) Each bond shall clearly state the rate of premium and the total amount of premium charged. The current power of attorney for the person who signs for the surety company must be attached to the bond. The effective date of the power of attorney shall not precede the date of the bond. The effective date of the bond shall be on or after the execution date of the contract.

(d) Failure by the successful bidder to obtain the required assurance of completion within the time specified, or within such extended period as the PHA/IHA may grant based upon reasons determined adequate by the PHA/IHA, shall render the bidder ineligible for award. The PHA/IHA may then either award the contract to the next lowest responsible bidder or solicit new bids. The PHA/IHA may retain the ineligible bidder's bid guarantee .

11. Preconstruction Conference (applicable to construction contracts)

After award of a contract under this solicitation and prior to the start of work, the successful bidder will be required to attend a preconstruction conference with representatives of the PHA/IHA and its architect/engineer, and other interested parties convened by the PHA/IHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract (e.g., Equal Employment Opportunity, Labor Standards). The PHA/IHA will provide the successful bidder with the date, time, and place of the conference.

12. Indian Preference Requirements (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)

(a) HUD has determined that the contract awarded under this solicitation is subject to the requirements of section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)). Section 7(b) requires that any contract or subcontract entered into for the benefit of Indians shall require that, to the greatest extent feasible

(1) Preferences and opportunities for training and employment (other than core crew positions; see paragraph (h) below) in connection with the administration of such contracts or subcontracts be given to qualified "Indians." The Act defines "Indians" to mean persons who are members of an Indian tribe and defines "Indian tribe" to mean any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians; and,

(2) Preference in the award of contracts or subcontracts in connection with the administration of contracts be given to Indian organizations and to Indian-owned economic enterprises, as defined in section 3 of the Indian Financing Act of 1974 (25 U.S.C. 1452). That Act defines "economic enterprise" to mean any Indian-owned commercial, industrial, or business activity established or organized for the purpose of profit, except that the Indian ownership must constitute not less than 51 percent of the enterprise; "Indian organization" to mean the governing body of any Indian tribe or entity established or recognized by such governing body; "Indian" to mean 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; and Indian "tribe" to mean 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.

(b) (1) The successful Contractor under this solicitation shall comply with the requirements of this provision in awarding all subcontracts under the contract and in providing training and employment opportunities.

(2) A finding by the IHA that the contractor, either (i) awarded a subcontract without using the procedure required by the IHA, (ii) falsely represented that subcontracts would be awarded to Indian enterprises or organizations; or, (iii) failed to comply with the contractor's employment and training preference bid statement shall be grounds for termination of the contract or for the assessment of penalties or other remedies.

(c) If specified elsewhere in this solicitation, the IHA may restrict the solicitation to qualified Indian-owned enterprises and Indian organizations. If two or more (or a greater number as specified elsewhere in the solicitation) qualified Indian-owned enterprises or organizations submit responsive bids, award shall be made to the qualified enterprise or organization with the lowest responsive bid. If fewer than the minimum required number of qualified Indian-owned enterprises or organizations submit responsive bids, the IHA shall reject all bids and readvertise the solicitation in accordance with paragraph (d) below.

(d) If the IHA prefers not to restrict the solicitation as described in paragraph (c) above, or if after having restricted a solicitation an insufficient number of qualified Indian enterprises or organizations submit bids, the IHA may advertise for bids from non-Indian as well as Indian-owned enterprises and Indian organizations. Award shall be made to the qualified Indian enterprise or organization with the lowest responsive bid if that bid is -

(1) Within the maximum HUD-approved budget amount established for the specific project or activity for which bids are being solicited; and

(2) No more than the percentage specified in 24 CFR 905.175(c) higher than the total bid price of the lowest responsive bid from any qualified bidder. If no responsive bid by a qualified Indian-owned economic enterprise or organization is within the stated range of the total bid price of the lowest responsive bid from any qualified enterprise, award shall be made to the bidder with the lowest bid.

(e) Bidders seeking to qualify for preference in contracting or subcontracting shall submit proof of Indian ownership with their bids. Proof of Indian ownership shall include but not be limited to:

(1) Certification by a tribe or other evidence that the bidder is an Indian. The IHA shall accept the certification of a tribe that an individual is a member.

(2) Evidence such as stock ownership, structure, management, control, financing and salary or profit sharing arrangements of the enterprise.

(f) (1) All bidders must submit with their bids a statement describing how they will provide Indian preference in the award of subcontracts. The specific requirements of that statement and the factors to be used by the IHA in determining the statement's adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement shall be rejected as nonresponsive. The IHA may require that comparable statements be provided by subcontractors to the successful Contractor and may require the Contractor to reject any bid or proposal by a subcontractor that fails to include the statement.

(2) Bidders and prospective subcontractors shall submit a certification (supported by credible evidence) to the IHA in any instance where the bidder or subcontractor believes it is infeasible to provide Indian preference in subcontracting. The acceptance or rejection by the IHA of the certification shall be final. Rejection shall disqualify the bid from further consideration.

(g) All bidders must submit with their bids a statement detailing their employment and training opportunities and their plans to provide preference to Indians in implementing the contract; and the number or percentage of Indians anticipated to be employed and trained. Comparable statements from all proposed subcontractors must be submitted. The criteria to be used by the IHA in determining the statement(s)'s adequacy is included as an attachment to this solicitation. Any bid that fails to include the required statement(s), or that includes a statement that does not meet minimum standards required by the IHA shall be rejected as nonresponsive.

(h) Core crew employees. A core crew employee is an individual who is a bona fide employee of the contractor at the time the bid is submitted; or an individual who was not employed by the bidder at the time the bid was submitted, but who is regularly employed by the bidder in a supervisory or other key skilled position when work is available. Bidders shall submit with their bids a list of all core crew employees.

(i) Preference in contracting, subcontracting, employment, and training shall apply not only on-site, on the reservation, or within the IHA's jurisdiction, but also to contracts with firms that operate outside these areas (e.g., employment in modular or manufactured housing construction facilities).

(j) Bidders should contact the IHA to determine if any additional local preference requirements are applicable to this solicitation.

(k) The IHA [] does [] does not [Contracting Officer check applicable box] maintain lists of Indian-owned economic enterprises and Indian organizations by specialty (e.g., plumbing, electrical, foundations), which are available to bidders to assist them in meeting their responsibility to provide preference in connection with the administration of contracts and subcontracts.

ADDITIONAL INSTRUCTIONS TO BIDDERS

1. The required bid documents to be submitted with each Bid Proposal Form shall include, but not necessarily limited to the following:
 - Certified check payable to the order of the Housing Authority of the Asbury Park (APHA) in the amount equal to five percent (5%) of the bid or a bid bond for a like sum of the bid amount executed by a surety company authorized to do business in the State of NJ and be acceptable to the Federal Government (Federal Treasury Department circular 570);
 - Consent of Surety;
 - Non-Collusion Affidavit;
 - Ownership Disclosure; In the event the Bidder is a corporation or a partnership, a statement must be submitted setting forth the names and addresses of all stock holders in the corporation or partnership, who owns ten percent (10%) of greater interest therein as the case may be;
 - Exhibit B-PL. 1975, C. 127 (N.J.A.C. 17.27) Mandatory Affirmative Action Language Statement;
 - Affidavit for Affirmative Action Plan;
 - Contractors Qualification Questionnaire;
 - Statement of Compliance;
 - Disclosure of Lobbying Activities;
 - Representation, Certifications, and other Statements of Bidders form HUD- 5369-A;
 - Previous Participation Certification form HUD-2530;
 - Copy of the contractors, and all subcontractors listed, Business Registration Certificate as required pursuant to section 1 of P.L.2001, c.134 (C.52:32-44);
 - Contractors Certificate of Insurance;
 - List of subcontractors pursuant to section 16 of P.L. 1971, c.198 (C.40A:11-16).

The successful Bidder will be required to furnish and pay for Performance/Payment Bonds in the amount equal to one hundred percent (100%) of the contract price.

2. All request for clarifications of the bid documents during the bid shall be directed to Onboard Engineering, shall be submitted in written form, and submitted to the office of Onboard Engineering.
3. By the act of submitting a bid, the contractor acknowledges that he/she has thoroughly examined the bid documents and the site of the work where said work will be performed and has satisfied themselves of the conditions necessary to complete the project scope of work necessary for a complete and operational system as specified and/or implied.
4. The project will be monitored by Onboard Engineering and their consultants. All project related communications, correspondence, shop drawings, permits, approvals, payments request, etcetera shall be directed to Onboard Engineering for review and distribution.
5. Any work to be performed during other than normal working hours of 8:00 am to 5:00 pm Monday through Friday, except Federal Holidays shall be approved by the Housing Authority.
6. Note that all work is being performed at an occupied site. The contractor shall take all necessary precautions to protect the tenants and the APHA personnel. Remove all trash / debris from the site. Provide barricades and warning lights as required. Cover ground openings and clean site of all hazards at the end of each work day.

General Conditions for Construction Contracts - Public Housing Programs

**U.S. Department of Housing and Urban
Development**
Office of Public and Indian Housing
OMB Approval No. 2577-0157 (exp. 3/31/2023)

**Applicability. This form is applicable to any
construction/development contract greater than \$150,000.**

This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 2 CFR 200, and those requirements set forth in Section 3 of the Housing and Urban Development Act of 1968 and its amendment by the Housing and Community Development Act of 1992, implemented by HUD at 24 CFR Part 135. The form is required for construction contracts awarded by Public Housing Agencies (PHAs).

The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, HAs would be unable to enforce their contracts.

Public reporting burden for this collection of information is estimated to average 1.0 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. Responses to the collection of information are required to obtain a benefit or to retain a benefit.

The information requested does not lend itself to confidentiality.

HUD may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB number.

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1. Definitions

- (a) "Architect" means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms "architect" and "engineer" shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect's authority is as set forth elsewhere in this contract.
- (b) "Contract" means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5370), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from the U.S. Department of Labor, any special conditions included elsewhere in the contract, the specifications, and drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.
- (c) "Contracting Officer" means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.
- (d) "Contractor" means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.
- (e) "Drawings" means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled Specifications and Drawings for Construction herein.
- (f) "HUD" means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD's role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.
- (g) "Project" means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.
- (h) "PHA" means the Public Housing Agency organized under applicable state laws which is a party to this contract.
- (j) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
- (l) "Work" means materials, workmanship, and manufacture and fabrication of components.
- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.
- (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
- (c) At all times during performance of this 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 who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
- (d) 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. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
- (e) The Contractor shall lay out the work from base lines and benchmarks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.
- (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
- (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
- (h) The Contractor's responsibility 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.

3. Architect's Duties, Responsibilities, and Authority

- (a) The Architect for this contract, and any successor, shall be designated in writing by the Contracting Officer.

2. Contractor's Responsibility for Work

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- (b) The Architect shall serve as the Contracting Officer's technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. The Architect may provide direction on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the scope of the contract; (2) constitutes a change as defined in the Changes clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction Progress Schedule; or (5) changes any of the other express terms or conditions of the contract.
- (c) The Architect's duties and responsibilities may include but shall not be limited to:
- (1) Making periodic visits to the work site, and on the basis of his/her on-site inspections, issuing written reports to the PHA which shall include all observed deficiencies. The Architect shall file a copy of the report with the Contractor's designated representative at the site;
 - (2) Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance by the Contracting Officer;
 - (3) Reviewing and making recommendations with respect to - (i) the Contractor's construction progress schedules; (ii) the Contractor's shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor; and, (iv) the Contractor's price breakdown and progress payment estimates; and,
 - (4) Assisting in inspections, signing Certificates of Completion, and making recommendations with respect to acceptance of work completed under the contract.

4. Other Contracts

The PHA may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with PHA 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 the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by PHA employees.

Construction Requirements

5. Pre-construction Conference and Notice to Proceed

- (a) Within ten calendar days of contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with representatives of the PHA, its Architect, and other interested parties convened by the PHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The PHA will provide the Contractor with the date, time, and place of the conference.
- (b) The contractor shall begin work upon receipt of a written Notice to Proceed from the Contracting Officer or designee. The Contractor shall not begin work prior to receiving such notice.

6. Construction Progress Schedule

- (a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring labor, materials, and equipment). 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. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments or take other remedies under the contract until the Contractor submits the required schedule.
- (b) The Contractor shall enter the actual progress on the chart as required by the Contracting Officer, and immediately deliver three copies of the annotated schedule to the Contracting Officer. If the Contracting Officer determines, upon the basis of inspection conducted pursuant to the clause entitled Inspection and Acceptance of Construction, 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 the Contracting Officer, without additional cost to the PHA. In this circumstance, the Contracting Officer 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 the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.
- (c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the Default clause of this contract.

7. Site Investigation and Conditions Affecting the Work

- (a) 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, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. 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 the PHA, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the PHA.

- (b) The PHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the PHA. Nor does the PHA assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding, or representation is expressly stated in this contract.

8. Differing Site Conditions

- (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) 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.
- (b) The Contracting Officer 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 the Contracting Officer has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the 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 the PHA 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 clause and the contract modified in writing accordingly.
- (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.
- (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

9. Specifications and Drawings for Construction

- (a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. 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. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be

promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

- (b) 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 the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to" or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.
- (c) Where "as shown" "as indicated", "as detailed", or of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place" that is "furnished and installed".
- (d) "Shop drawings" means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. 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. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- (e) 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. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer 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 variations described and approved in accordance with (f) below.
- (f) 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. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer 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.
- (g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be

required in the planning and production of the work. Such requests may be submitted as the need arises, but each such request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

- (h) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the PHA and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.
- (i) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to the Contracting Officer.

10. As-Built Drawings

- (a) "As-built drawings," as used in this clause, 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. "As-built drawings" shall be synonymous with "Record drawings."
- (b) As required by the Contracting Officer, the Contractor shall provide the Contracting Officer accurate information to be used in the preparation of permanent as-built drawings. 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.
- (c) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are submitted to the Contracting Officer.

11. Material and Workmanship

- (a) All equipment, material, and articles furnished under this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. 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. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.
- (b) Approval of equipment and materials.
 - (1) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer 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. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

- (2) When required by the specifications or the Contracting Officer, 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.
- (3) Certificates shall be submitted in triplicate, 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.
- (4) Approval of a sample shall not constitute a waiver of the PHA right to demand full compliance with contract requirements. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- (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. The Contracting Officer 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 the Contracting Officer determines necessary to ensure 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.
- (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.
- (c) 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 (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35.

12. Permits and Codes

- (a) The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules and regulations. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the contract, all work installed shall comply with all applicable codes and regulations as amended by any

waivers. Before installing the work, the Contractor shall examine the drawings and the specifications for compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer. Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled Changes herein to conform to the code or regulation.

- (b) The Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of the work. Where the PHA 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.

13. Health, Safety, and Accident Prevention

- (a) In performing this contract, the Contractor shall:
- (1) 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;
 - (2) Protect the lives, health, and safety of other persons;
 - (3) Prevent damage to property, materials, supplies, and equipment; and,
 - (4) Avoid work interruptions.
- (b) For these purposes, the Contractor shall:
- (1) Comply with regulations and standards issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96), 40 U.S.C. 3701 et seq.; and
 - (2) Include the terms of this clause in every subcontract so that such terms will be binding on each subcontractor.
- (c) The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by 29 CFR Part 1904.
- (d) The Contracting Officer 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. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. 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.
- (e) The Contractor shall be responsible for its subcontractors' compliance with the provisions of this clause. The Contractor shall take such action with respect to any subcontract as the PHA, the Secretary of Housing and Urban Development, or the Secretary of Labor shall direct as a means of enforcing such provisions.

14. Temporary Heating

The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to properly protect all work and materials against damage by dampness and cold, to dry out the work, and to facilitate the completion of the work. Any permanent heating equipment used shall be turned over to the PHA in the condition and at the time required by the specifications.

15. Availability and Use of Utility Services

- (a) The PHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. 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 the PHA or, where the utility is produced by the PHA, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.
- (b) The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, 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. Before final acceptance of the work by the PHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

16. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

- (a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract, and which do not unreasonably interfere with the work required under this contract.
- (b) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. 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 directed by the Contracting Officer.
- (c) 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. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.
- (d) 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.
- (e) 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.

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- (f) 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.
 - (g) No structural members shall be altered or in anyway weakened without the written authorization of the Contracting Officer unless such work is clearly specified in the plans or specifications.
 - (h) 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 planes 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.
 - (i) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.
 - (j) The Contractor shall indemnify and save harmless the PHA 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 the PHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
 - (k) 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, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

17. Temporary Buildings and Transportation of Materials

- (a) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the PHA. 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. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
- (b) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. 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. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

18. Clean Air and Water

The contractor shall comply with the Clean Air Act, as amended, 42 USC 7401 et seq., the Federal Water Pollution Control Water Act, as amended, 33 U.S.C. 1251 et seq., and standards issued pursuant thereto in the facilities in which this contract is to be performed.

19. Energy Efficiency

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 (Pub.L. 94-163) for the State in which the work under the contract is performed.

20. Inspection and Acceptance of Construction

- (a) Definitions. As used in this clause -
 - (1) "Acceptance" means the act of an authorized representative of the PHA by which the PHA approves and assumes ownership of the work performed under this contract. Acceptance may be partial or complete.
 - (2) "Inspection" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies) to determine whether it conforms to contract requirements.
 - (3) "Testing" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.
- (b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. All work is subject to PHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
- (c) PHA inspections and tests are for the sole benefit of the PHA and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) constitute or imply acceptance; or (4) affect the continuing rights of the PHA after acceptance of the completed work under paragraph (j) below.
- (d) The presence or absence of the PHA inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.
- (e) 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 the Contracting Officer. The PHA 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 reinspection or retest necessary. The PHA 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.

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- (f) The PHA may conduct routine inspections of the construction site on a daily basis.
 - (g) The Contractor shall, without charge, replace or correct work found by the PHA not to conform to contract requirements, unless the PHA decides that it is in its interest to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
 - (h) If the Contractor does not promptly replace or correct rejected work, the PHA may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) terminate for default the Contractor's right to proceed.
 - (i) If any work requiring inspection is covered up without approval of the PHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. If at any time before final acceptance of the entire work, the PHA 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, the Contracting Officer 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.
 - (j) The Contractor shall notify the Contracting Officer, 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. If the Architect determines that the state of preparedness is as represented, the PHA will promptly arrange for the inspection. Unless otherwise specified in the contract, the PHA shall accept, as soon as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the PHA's right under any warranty or guarantee.

21. Use and Possession Prior to Completion

- (a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
- (b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled Permits and Codes herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas

occupied without proper remuneration therefore. If prior possession or use by the PHA 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.

22. Warranty of Title

The 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.

23. Warranty of Construction

- (a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of _____ (one year unless otherwise indicated) from the date of final acceptance of the work. If the PHA takes possession of any part of the work before final acceptance, this warranty shall continue for a period of (one year unless otherwise indicated) from the date that the PHA takes possession.
- (b) The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damage to PHA-owned or controlled real or personal property when the damage is the result of—
 - (1) The Contractor's failure to conform to contract requirements; or
 - (2) Any defects of equipment, material, workmanship or design furnished by the Contractor.
- (c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for (one year unless otherwise indicated) from the date of repair or replacement.
- (d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
- (e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the PHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:
 - (1) Obtain all warranties that would be given in normal commercial practice;
 - (2) Require all warranties to be executed in writing, for the benefit of the PHA; and,
 - (3) Enforce all warranties for the benefit of the PHA.
- (g) In the event the Contractor's warranty under paragraph (a) of this clause has expired, the PHA may bring suit at its own expense to enforce a subcontractor's, manufacturer's or supplier's warranty.

- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defect of material or design furnished by the PHA nor for the repair of any damage that results from any defect in PHA furnished material or design.
- (i) Notwithstanding any provisions herein to the contrary, the establishment of the time periods in paragraphs (a) and (c) above 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, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to its obligation other than specifically to correct the work.
- (j) This warranty shall not limit the PHA's rights under the Inspection and Acceptance of Construction clause of this contract with respect to latent defects, gross mistakes or fraud.

24. Prohibition Against Liens

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

Administrative Requirements

25. Contract Period

this contract within _____ calendar days of the effective date of the contract, or within the timeschedule established in the notice to proceed issued by the Contracting Officer.

26. Order of Provisions

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. 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 does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

27. Payments

- (a) The PHA shall pay the Contractor the price as provided in this contract.
- (b) The PHA 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 the Contracting Officer. The PHA may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
- (c) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, 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 the Contracting Officer 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.

- (d) The Contractor shall submit, on forms provided by the PHA, periodic estimates showing the value of the work performed during each period based upon the approved

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 the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.

- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:

- (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) 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,
- (3) 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.

Name:

Title:

Date:

- (f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.
- (g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments.

Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of the PHA's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the PHA.

- (h) All material and work covered by progress payments made shall, at the time of payment become the sole property of the PHA, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of the PHA to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of the PHA in the course of their employment, the Contractor shall restore such damaged work without cost to the PHA and to seek redress for its damage only from those who directly caused it.
- (i) The PHA shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against the PHA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
- (j) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
- (k) The PHA shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of the PHA to withhold moneys from the Contractor shall in no wise impair the obligations of any surety or sureties under any bonds furnished under this contract.

28. Contract Modifications

- (a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.
- (b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or

responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.

- (c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

29. Changes

- (a) The Contracting Officer 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:
 - (1) In the specifications (including drawings and designs);
 - (2) In the method or manner of performance of the work;
 - (3) PHA-furnished facilities, equipment, materials, services, or site; or,
 - (4) Directing the acceleration in the performance of the work.
- (b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.
- (c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.
- (d) If any change under this clause 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, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
- (e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
- (f) 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 in at least the following details:

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- (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; and, Bond Costs when size of change warrants revision.
 - (2) Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
 - (3) Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change. The allowability 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), as implemented by HUD Handbook 2210.18, 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.
 - (g) 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.
 - (h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.
 - (i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled Disputes herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.
 - (j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

30. Suspension of Work

- (a) 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 the PHA.
- (b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer'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. However, no adjustment shall be made under this clause 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.

- (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer 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, (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

31. Disputes

- (a) "Claim," as used in this clause, 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. 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. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- (b) Except for disputes arising under the clauses 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 clause.
- (c) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.
- (d) The Contracting Officer 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.
- (e) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) days after receipt of the Contracting Officer's decision.
- (f) The Contractor shall proceed diligently with performance of this 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 the Contracting Officer.

32. Default

- (a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will ensure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the Contracting Officer 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. In this event, the PHA 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. The Contractor and its sureties shall be liable for any damage to the PHA 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 the PHA in completing the work.

- (b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if—
- (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 (i) acts of God, or of the public enemy, (ii) acts of the PHA or other governmental entity in either its sovereign or contractual capacity, (iii) acts of another contractor in the performance of a contract with the PHA, (iv) fires, (v) floods, (vi) epidemics, (vii) quarantine restrictions, (viii) strikes, (ix) freight embargoes, (x) unusually severe weather, or (xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and
 - (2) The Contractor, within days (10 days unless otherwise indicated) from the beginning of such delay (unless extended by the Contracting Officer) notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the 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 the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the Disputes clause of this contract.
- (c) 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 the PHA.

33. Liquidated Damages

- (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, as specified in the clause entitled Default of this contract, the Contractor shall pay to the PHA as liquidated damages, the sum of \$_____ [Contracting Officer insert amount] for each day of delay. 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. To the extent that the Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due the PHA. The Contractor remains liable for damages caused other than by delay.
- (b) If the PHA terminates the 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 the PHA in completing the work.

- (c) If the PHA does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

34. Termination for Convenience

- (a) 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 the PHA. Any such termination shall be affected 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 such termination becomes effective.
- (b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA 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 (including reasonable profit) 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 the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.
- (c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.
- (d) Any disputes with regard to this clause are expressly made subject to the provisions of the Disputes clause of this contract.

35. Assignment of Contract

The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from the PHA under the contract may be assigned to a bank, trust company, or other financial institution. Such assignments of claims shall only be made with the written concurrence of the Contracting Officer. 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 the Contracting Officer.

36. Insurance

- (a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:
- (1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.
 - (2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than \$_____ [Contracting Officer insert amount]

per occurrence to protect the 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 under (3) below. If the Contractor has a "claims made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

- (3) 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 \$_____ [Contracting Officer insert amount] per occurrence.

- (b) Before commencing work, the Contractor shall furnish the PHA 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. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. 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. It need not be carried on landscape work. 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 the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.
- (c) All insurance shall be carried with companies which are financially responsible and admitted doing business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. 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 the Contracting Officer.

37. Subcontracts

- (a) Definitions. As used in this contract -

(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.

(2) "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.

- (b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily 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 of the state in which the work under this contract is to be performed.
- (c) 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.
- (d) 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 to the work of subcontractors.
- (e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

38. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms

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:

- (a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- (d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and
- (e) Using 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.

39. Equal Employment Opportunity

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

- (a) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.
- (b) 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, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training, including apprenticeship.

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- (c) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.
 - (d) 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.
 - (e) 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 clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.
 - (f) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
 - (g) The Contractor shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. 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.
 - (h) In the event of a determination that the Contractor is not in compliance with this clause or any rule, regulation, 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. 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.
 - (i) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor. 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 litigation to protect the interests of the United States.
 - (j) Compliance with the requirements of this clause shall be to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act and the Indian Preference clause of this contract.

40. Employment, Training, and Contracting Opportunities for Low-Income Persons, Section 3 of the Housing and Urban Development Act of 1968.

- (a) 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, 12 U.S.C. 1701u (section 3). 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.
- (b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.
- (c) 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 notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 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 shall begin.
- (d) The contractor agrees to include this section 3 clause 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 section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. 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.
- (e) 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.
- (f) 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.
- (g) With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

41. 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.

42. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees

No member, officer, or employee of the PHA, 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 the PHA 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.

43. Limitations on Payments made to Influence Certain Federal Financial Transactions

- (a) The Contractor agrees to comply with Section 1352 of 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, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) 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.

44. Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the PHA harmless from loss on account thereof; except that the PHA shall be responsible for all 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. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall promptly notify the Contracting Officer. Failure to give such notice shall make the Contractor responsible for resultant loss.

45. Examination and Retention of Contractor's Records

- (a) The PHA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until 3 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.
- (b) The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as paragraph (a) above. "Subcontract," as used in this clause, excludes purchase orders not exceeding \$10,000.
- (c) The periods of access and examination in paragraphs (a) and (b) above for records relating to (1) appeals under the Disputes clause 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 the PHA, 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.

46. Labor Standards - Davis-Bacon and Related Acts

If the total amount of this contract exceeds \$2,000, the Federal labor standards set forth in the clause below shall apply to the development or construction work to be performed under the contract.

- (a) Minimum Wages.
 - (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 is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); 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. 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). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) 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.

- (2) (i) 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. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met: (A) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (B) The classification is utilized in the area by the construction industry; and (C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (ii) 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. 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.
- (iii) 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. 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 is necessary.
- (iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause 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.
- (3) 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.
- (4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the

amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account asset for the meeting of obligations under the plan or program.

- (b) Withholding of funds. 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. 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. 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.
- (c) Payrolls and basic records.

- (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 the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(2) (i) The Contractor shall submit weekly 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. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. 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.)

(ii) 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:

(A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c) (1) of this clause and that such information is correct and complete;

(B) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and

(C) 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.

(iii) 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" required by subparagraph (c)(2)(ii) of this clause.

(iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) 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. 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. 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.

(d) (1) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship 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. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator 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. 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 predetermined rate for the work performed until an acceptable program is approved.

(2) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under

- the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed 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. 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. 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. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (3) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (e) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (f) Contract termination; debarment. A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.
- (g) Compliance with Davis-Bacon and related Act requirements. All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (h) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.
- (i) Certification of eligibility.
- (1) 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 the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (2) 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 section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.
- (j) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.
- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, 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 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in subparagraph (j)(1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation of the provisions set forth in subparagraph (j)(1) of this clause, 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 required by provisions set forth in subparagraph (j)(1) of this clause.
- (3) Withholding for unpaid wages and liquidated damages. 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 as provided in the provisions set forth in subparagraph (j)(2) of this clause.
- (k) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, 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. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

47. Non-Federal Prevailing Wage Rates

- (a) 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:
 - (1) The applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;
- (b) 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
- (c) An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

48. Procurement of Recovered Materials.

- (a) In accordance with Section 6002 of 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) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. 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.
- (b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of \$10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) 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 (ii) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

General Conditions of the **Contract for Construction**

Public Housing Programs

This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 24 CFR 85.36 and those requirements set forth in Section 3 of the Housing and Urban development Act of 1968, as amended, and implemented by HUD at 24 CFR 135 and by its amendment by the Housing and Community Development Act 1992, implemented by HUD in the Interim Rule published June 30, 1994. The form is required for construction contracts awarded by Public Housing Agencies (PHAs) .

The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, HAs would be unable to enforce their contracts.

Public reporting burden for this collection of information is estimated to average 1.0 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.

Responses to the collection of information; are required to obtain a benefit or to retain a benefit.

The information requested does not lend itself to confidentiality.

HUD may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB number

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General Conditions of the Contract for Construction

Public and Indian Housing Programs

Conduct of Work

1. Definitions

- (a) **“Architect”** means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms “architect” and “engineer” shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect’s authority is as set forth elsewhere in this contract.
- (b) **“Contract”** means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5369-A), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from either the U.S. Department of Labor or HUD, any special conditions included elsewhere in the contract, the specifications, and

drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.

- (c) **“Contracting Officer”** means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.
- (d) **“Contractor”** means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.
- (e) **“Drawings”** means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled **Specifications and Drawings for**

Construction herein.

- (f) **“HUD”** means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD’s role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.
- (g) **“Project”** means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.
- (h) **“PHA”** means the Public Housing Agency organized under applicable state laws which is a party to this contract.
- (i) **“Specifications”** means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
- (l) **“Work”** means materials, workmanship, and manufacture and fabrication of components.

2. Contractor’s Responsibility for Work

- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled **Availability and Use of Utility Services** herein.
- (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
- (c) At all times during performance of this 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 who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
- (d) 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. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor’s performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
- (e) The Contractor shall lay out the work from base lines and

bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.

- (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
- (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
- (h) The Contractor’s responsibility 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.

3. Architect’s Duties, Responsibilities, and Authority

- (a) The Architect for this contract, and any successor, shall be designated in writing by the Contracting Officer.
- (b) The Architect shall serve as the Contracting Officer’s technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. The Architect may provide direction on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the scope of the contract; (2) constitutes a change as defined in the **Changes** clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction Progress Schedule; or (5) changes any of the other express terms or conditions of the contract.
- (c) The Architect’s duties and responsibilities may include but shall not be limited to:
 - (1) Making periodic visits to the work site, and on the basis of his/her on-site inspections, issuing written reports to the PHA which shall include all observed deficiencies. The Architect shall file a copy of the report with the Contractor’s designated representative at the site;
 - (2) Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance by the Contracting Officer;
 - (3) Reviewing and making recommendations with respect to -
 - (i) the Contractor’s construction progress schedules; (ii) the Contractor’s shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor; and,
 - (iv) the Contractor’s price breakdown and progress payment estimates; and,
 - (4) Assisting in inspections, signing Certificates of Comple-

tion, and making recommendations with respect to acceptance of work completed under the contract.

4. Other Contracts

The PHA may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with PHA 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 the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by PHA employees.

Construction Requirements

5. Preconstruction Conference and Notice to Proceed

- (a) Within ten calendar days of contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with representatives of the PHA, its Architect, and other interested parties convened by the PHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The PHA will provide the Contractor with the date, time, and place of the conference.
- (b) The contractor shall begin work upon receipt of a written Notice to Proceed from the Contracting Officer or designee. The Contractor shall not begin work prior to receiving such notice.

6. Construction Progress Schedule

- (a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring labor, materials, and equipment). 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. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments or take other remedies under the contract until the Contractor submits the required schedule.
- (b) The Contractor shall enter the actual progress on the chart as required by the Contracting Officer, and immediately deliver three copies of the annotated schedule to the Contracting Officer. If the Contracting Officer determines, upon the basis of inspection conducted pursuant to the clause entitled *Inspection and Acceptance of Construction*, 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 the Contracting Officer, without additional cost to the PHA. In this circumstance, the Contracting Officer 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 the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

- (c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the **Default** clause of this contract.

7. Site Investigation and Conditions Affecting the Work

- (a) 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, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. 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 the PHA, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the PHA.
- (b) The PHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the PHA. Nor does the PHA assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

8. Differing Site Conditions

- (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) 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.

- (b) The Contracting Officer 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 the Contracting Officer has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the 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 the PHA 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 clause and the contract modified in writing accordingly.
- (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.
- (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

9. Specifications and Drawings for Construction

- (a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. 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. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.
- (b) 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 the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.
- (c) Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place", that is "furnished and installed".
- (d) "Shop drawings" means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of

structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. 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. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

- (e) 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. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer 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 variations described and approved in accordance with (f) below.
- (f) 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. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer 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.
- (g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be required in the planning and production of the work. Such requests may be submitted as the need arises, but each such request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.
- (h) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the PHA and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.
- (i) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to the Contracting Officer.

10. As-Built Drawings

- (a) "As-built drawings," as used in this clause, 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. "As-built drawings" shall be synonymous with "Record drawings."
- (b) As required by the Contracting Officer, the Contractor shall provide the Contracting Officer accurate information to be used in the preparation of permanent as-built drawings. 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.
- (c) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are submitted to the Contracting Officer.

11. Material and Workmanship

- (a) All equipment, material, and articles furnished under this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. 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. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.
- (b) Approval of equipment and materials.
 - (1) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer 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. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.
 - (2) When required by the specifications or the Contracting Officer, 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.

- (3) Certificates shall be submitted in triplicate, 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.
- (4) Approval of a sample shall not constitute a waiver of the PHA right to demand full compliance with contract requirements. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- (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. The Contracting Officer 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 the Contracting Officer determines necessary to insure compliance of materials with the specifications. The Contractor will assume all costs of re-testing materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.
- (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.
- (c) Prohibition against use of lead-based paint. The Contractor shall comply with the prohibition against the use of lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35.

12. Permits and Codes

- (a) The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules and regulations. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the contract, all work installed shall comply with all applicable codes and regulations as amended by any waivers. Before installing the work, the Contractor shall examine the drawings and the specifications for compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer. Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled **Changes** herein to conform to the code or regulation.
- (b) The Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of the work. Where the PHA 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.

13. Health, Safety, and Accident Prevention

- (a) In performing this contract, the Contractor shall:
- (1) 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;
 - (2) Protect the lives, health, and safety of other persons;
 - (3) Prevent damage to property, materials, supplies, and equipment; and,
 - (4) Avoid work interruptions.
- (b) For these purposes, the Contractor shall:
- (1) Comply with regulations and standards issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96), 40 U.S.C. 327 et seq.; and,
 - (2) Include the terms of this clause in every subcontract so that such terms will be binding on each subcontractor.
- (c) The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by 29 CFR Part 1904.
- (d) The Contracting Officer 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. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. 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.
- (e) The Contractor shall be responsible for its subcontractors' compliance with the provisions of this clause. The Contractor shall take such action with respect to any subcontract as the PHA, the Secretary of Housing and Urban Development, or the Secretary of Labor shall direct as a means of enforcing such provisions.

14. Temporary Heating

The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to properly protect all work and materials against damage by dampness and cold, to dry out the work, and to facilitate the completion of the work. Any permanent heating equipment used shall be turned over to the PHA in the condition and at the time required by the specifications.

15. Availability and Use of Utility Services

- (a) The PHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise pro-

vided 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 the PHA or, where the utility is produced by the PHA, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

- (b) The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, 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. Before final acceptance of the work by the PHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

16. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

- (a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract, and which do not unreasonably interfere with the work required under this contract.
- (b) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. 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 directed by the Contracting Officer.
- (c) 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. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.
- (d) 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.
- (e) 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.
- (f) 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.
- (g) No structural members shall be altered or in any way weakened without the written authorization of the Contracting Officer, unless such work is clearly specified in the plans or specifications.
- (h) 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 planes 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.

- (i) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.
- (j) The Contractor shall indemnify and save harmless the PHA 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 the PHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- (k) 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, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

17. Temporary Buildings and Transportation of Materials

- (a) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the PHA. 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. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
- (b) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. 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. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

18. Clean Air and Water Applicable to Contracts in Excess of \$100,000

- (a) Definition. "Facility" means any building, plant, installation, structure, mine, vessel or other floating craft, location, or site of operations, owned, leased, or supervised by the Contractor or any subcontractor, used in the performance of the contract or any subcontract. When a location or site of operations includes more than one building, plant, installation, or structure, the entire location or site shall be deemed a facility except when the Administrator, or a designee, of the Environmental Protection Agency (EPA) determines that independent facilities are collocated in one geographical area.

- (b) In compliance with regulations issued by the United States Environmental Protection Agency (EPA), 40 CFR Part 15, pursuant to the Clean Air Act, as amended ("Air Act"), 42 U.S.C. 7401, et seq., the Federal Water Pollution Control Act, as amended ("Water Act"), 33 U.S.C. 1251, et seq., and Executive Order 11738, the Contractor agrees to —

- (1) Not utilize any facility in the performance of this contract or any subcontract which is listed on the EPA List of Violating Facilities pursuant to Part 15 of the regulations for the duration of time that the facility remains on the list;
- (2) Promptly notify the Contracting Officer if a facility the Contractor intends to use in the performance of this contract is on the EPA List of Violating Facilities or the Contractor knows that it has been recommended to be placed on the List;
- (3) Comply with all requirements of the Air Act and the Water Act, including the requirements of Section 114 of the Air Act and Section 308 of the Water Act, and all applicable clean air and clean water standards; and,
- (4) Include or cause to be included the provisions of this clause in every subcontract, and take such action as HUD may direct as a means of enforcing such provisions.

19. Energy Efficiency

The Contractor shall comply with all 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 (Pub.L. 94-163) for the State in which the work under the contract is performed.

20. Inspection and Acceptance of Construction

- (a) Definitions. As used in this clause -

- (1) "**Acceptance**" means the act of an authorized representative of the PHA by which the PHA approves and assumes ownership of the work performed under this contract. Acceptance may be partial or complete.
- (2) "**Inspection**" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies) to determine whether it conforms to contract requirements.
- (3) "**Testing**" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.

- (b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. All work is subject to PHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
- (c) PHA inspections and tests are for the sole benefit of the PHA and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) constitute or imply acceptance; or, (4) affect the continuing rights of the PHA after acceptance of the

- completed work under paragraph (j) below.
- (d) The presence or absence of the PHA inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.
 - (e) 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 the Contracting Officer. The PHA 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 reinspection or retest necessary. The PHA 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.
 - (f) The PHA may conduct routine inspections of the construction site on a daily basis.
 - (g) The Contractor shall, without charge, replace or correct work found by the PHA not to conform to contract requirements, unless the PHA decides that it is in its interest to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
 - (h) If the Contractor does not promptly replace or correct rejected work, the PHA may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) terminate for default the Contractor's right to proceed.
 - (i) If any work requiring inspection is covered up without approval of the PHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. If at any time before final acceptance of the entire work, the PHA 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, the Contracting Officer 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.
 - (j) The Contractor shall notify the Contracting Officer, 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. If the Architect determines that the state of preparedness is as represented, the PHA will promptly arrange for the inspection. Unless otherwise specified in the contract, the PHA shall accept, as soon as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes

amounting to fraud, or the PHA's right under any warranty or guarantee.

21. Use and Possession Prior to Completion

- (a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
- (b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled **Permits and Codes** herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefor. If prior possession or use by the PHA 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.

22. Warranty of Title

The 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.

23. Warranty of Construction

- (a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of ____ (one year unless otherwise indicated) from the date of final acceptance of the work. If the PHA takes possession of any part of the work before final acceptance, this warranty shall continue for a period of (one year unless otherwise indicated) from the date that the PHA takes possession.
- (b) The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damage to PHA-owned or controlled real or personal property when the damage is the result of—
 - (1) The Contractor's failure to conform to contract requirements; or
 - (2) Any defects of equipment, material, workmanship or de-

sign furnished by the Contractor.

- (c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for (one year unless otherwise indicated) from the date of repair or replacement.
- (d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
- (e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the PHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:
 - (1) Obtain all warranties that would be given in normal commercial practice;
 - (2) Require all warranties to be executed in writing, for the benefit of the PHA; and,
 - (3) Enforce all warranties for the benefit of the PHA.
- (g) In the event the Contractor's warranty under paragraph (a) of this clause has expired, the PHA may bring suit at its own expense to enforce a subcontractor's, manufacturer's or supplier's warranty.
- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defect of material or design furnished by the PHA nor for the repair of any damage that results from any defect in PHA furnished material or design.
- (i) Notwithstanding any provisions herein to the contrary, the establishment of the time periods in paragraphs (a) and (c) above 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, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to its obligation other than specifically to correct the work.
- (j) This warranty shall not limit the PHA's rights under the **Inspection and Acceptance of Construction** clause of this contract with respect to latent defects, gross mistakes or fraud.

24. Prohibition Against Liens

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

Administrative Requirements

25. Contract Period

The Contractor shall complete all work required under this contract within ____ calendar days of the effective date of the contract, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

26. Order of Precedence

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. 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 does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

27. Payments

- (a) The PHA shall pay the Contractor the price as provided in this contract.
- (b) The PHA 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 the Contracting Officer. The PHA may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
- (c) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, 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 the Contracting Officer 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.
- (d) The Contractor shall submit, on forms provided by the PHA, 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 the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made:

I hereby certify, to the best of my knowledge and belief, that:

 - (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
 - (2) 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,
 - (3) 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.

Name:

Title:

Date:

- (f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.
- (g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments. Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of the PHA's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the PHA.
- (h) All material and work covered by progress payments made shall, at the time of payment become the sole property of the PHA, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of the PHA to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of the PHA in the course of their employment, the Contractor shall restore such damaged work without cost to the PHA and to seek redress for its damage only from those who directly caused it.

- (i) The PHA shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against the PHA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
- (j) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
- (k) The PHA shall not (1) determine or adjust any claims for payment or disputes arising thereunder between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of the PHA to withhold moneys from the Contractor shall in nowise impair the obligations of any surety or sureties under any bonds furnished under this contract.

28. Contract Modifications

- (a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.
- (b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.
- (c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

29. Changes

- (a) The Contracting Officer 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:
 - (1) In the specifications (including drawings and designs);
 - (2) In the method or manner of performance of the work;
 - (3) PHA-furnished facilities, equipment, materials, services, or site; or,
 - (4) Directing the acceleration in the performance of the work.
- (b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer

written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.

- (c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.
- (d) If any change under this clause 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, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
- (e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
- (f) 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 in at least the following details:
 - (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; and, Bond Costs - when size of change warrants revision.
 - (2) Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
 - (3) Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change.

The allowability 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), as implemented by HUD Handbook 2210.18, 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.

- (g) 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.
- (h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.
- (i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled **Disputes** herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.
- (j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

30. Suspension of Work

- (a) 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 the PHA.
- (b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer'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. However, no adjustment shall be made under this clause 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.
- (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer 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, (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

31. Disputes

- (a) "Claim," as used in this clause, 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. 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. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

- (b) Except for disputes arising under the clauses entitled **Labor Standards and Labor Standards- Nonroutine Maintenance**, 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 clause.
- (c) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.
- (d) The Contracting Officer 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.
- (e) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) days after receipt of the Contracting Officer's decision.
- (f) The Contractor shall proceed diligently with performance of this 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 the Contracting Officer.

32. Default

- (a) If 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, the Contracting Officer 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. In this event, the PHA 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. The Contractor and its sureties shall be liable for any damage to the PHA 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 the PHA in completing the work.
- (b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if—
 - (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 (i) acts of God, or of the public enemy, (ii) acts of the PHA or other governmental entity in either its sovereign or contractual capacity, (iii) acts of another contractor in the performance of a contract with the PHA, (iv) fires, (v) floods, (vi) epidemics, (vii) quarantine restrictions, (viii) strikes, (ix) freight embargoes, (x) unusually severe weather, or (xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

- (2) The Contractor, within days (10 days unless otherwise indicated) from the beginning of such delay (unless extended by the Contracting Officer) notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the 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 the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the **Disputes** clause of this contract.
- (c) 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 the PHA.

33. Liquidated Damages

- (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, as specified in the clause entitled **Default** of this contract, the Contractor shall pay to the PHA as liquidated damages, the sum of \$ [Contracting Officer insert amount] for each day of delay. 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. To the extent that the Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due the PHA. The Contractor remains liable for damages caused other than by delay.
- (b) If the PHA terminates the 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 the PHA in completing the work.
- (c) If the PHA does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

34. Termination for Convenience

- (a) 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 the PHA. 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 such termination becomes effective.

- (b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA 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 (including reasonable profit) 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 the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefor; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.
- (c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.
- (d) Any disputes with regard to this clause are expressly made subject to the provisions of the *Disputes* clause of this contract.

35. Assignment of Contract

The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from the PHA under the contract may be assigned to a bank, trust company, or other financial institution. Such assignments of claims shall only be made with the written concurrence of the Contracting Officer. 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 the Contracting Officer.

36. Insurance

- (a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:
 - (1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.
 - (2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than \$[Contracting Officer insert amount] per occurrence to protect the 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 under (3) below. If the Contractor has a "claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

- (3) 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 \$___ [Contracting Officer insert amount] per occurrence.

- (b) Before commencing work, the Contractor shall furnish the PHA 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. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the super-structure is started. It need not be carried on landscape work. 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 the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.
- (c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. 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 the Contracting Officer.

37. Subcontracts

- (a) Definitions. As used in this contract -
 - (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.
 - (2) "**Subcontractor**" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.
- (b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily 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 of the state in which the work

under this contract is to be performed.

- (c) 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.
- (d) 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 to the work of subcontractors.
- (e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

38. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms

<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:

- (a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- (d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and
- (e) Using 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.

39. Equal Employment Opportunity

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

- (a) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.
- (b) 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, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training, including apprenticeship.
- (c) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be

provided by the Contracting Officer that explain this clause.

- (d) 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.
- (e) 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 clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.
- (f) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
- (g) The Contractor shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. 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.
- (h) In the event of a determination that the Contractor is not in compliance with this clause or any rule, regulation, 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. 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.
- (i) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor. 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 litigation to protect the interests of the United States.
- (j) Compliance with the requirements of this clause shall be to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act and the *Indian Preference* clause of this contract.

40. Employment, Training, and Contracting Opportunities for Low-Income Persons, Section 3 of the Housing and Urban

Development Act of 1968.

- (a) 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, 12 U.S.C. 1701u (section 3). 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.
- (b) The parties to this contract agree to comply with HUDs regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.
- (c) 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 notice advising the labor organization or workers representative of the contractors commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 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 shall begin.
- (d) The contractor agrees to include this section 3 clause 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 section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. 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.
- (e) 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 contractors obligations under 24 CFR part 135.
- (f) Noncompliance with HUDs 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.
- (g) Pursuant to 24 CFR 905.170(b), compliance with Section 3 requirements shall be to the maximum extent consistent with, but not in derogation of compliance with section 7(b) of the Indian Self-Determination and Education Assistance, 25 U.S.C. section 450e(b) when this law is applicable.

41. 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.

42. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees

No member, officer, or employee of the PHA, 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 the PHA 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.

43. Limitations on Payments made to Influence Certain Federal Financial Transactions

- (a) The Contractor agrees to comply with Section 1352 of 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, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) 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.

44. Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the PHA harmless from loss on account thereof; except that the PHA shall be responsible for all 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. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall promptly notify the Contracting Officer. Failure to give such notice shall make the Contractor responsible for resultant loss.

45. Examination and Retention of Contractor's Records

- (a) The PHA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until 3 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.

- (b) The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as paragraph (a) above. "Subcontract," as used in this clause, excludes purchase orders not exceeding \$10,000.
- (c) The periods of access and examination in paragraphs (a) and (b) above for records relating to (1) appeals under the **Disputes** clause 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 the PHA, 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.

46. Labor Standards - Davis-Bacon and Related Acts

If the total amount of this contract exceeds \$2,000, the Federal labor standards set forth in the clause below shall apply to the construction work to be performed under the contract, except if the construction work has been determined to be "Nonroutine Maintenance" subject to the terms of that clause of this contract.

(a) Minimum Wages.

- (1) All laborers and mechanics employed or working upon the site of the work (or, under the United States Housing Act of 1937 or under the Housing Act of 1949, in the construction or development of the project) will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); 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. Such laborers and mechanics shall be paid not less than 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 Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; pro-

vided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) 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.

- (2) (i) Any class of laborers or mechanics 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. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(A) The work to be performed by the classification requested is not performed by a classification in the wage determination;

(B) The classification is utilized in the area by the construction industry; and

(C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

- (ii) 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. 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.
- (iii) 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. 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 is necessary.
- (iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (b)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under

this contract from the first day on which work is performed in the classification.

- (3) 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.
- (4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; **provided**, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
- (b) **Withholding of funds.** 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. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or, under the United States Housing Act of 1937 or under the Housing Act of 1949, 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. 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. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.
- (c) **Payrolls and basic records.** (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 at the site of the work (or, under the United States Housing Act of 1937 or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and

actual wages paid. Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

- (2) (i) The Contractor shall submit weekly 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. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.
- (ii) 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:
 - (A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c)(1) of this clause and that such information is correct and complete;
 - (B) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and
 - (C) 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.
- (iii) 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" required by subparagraph (c)(2)(ii) of this clause.
- (iv) The falsification of any of the above certifications

may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

- (3) The Contractor or subcontractor shall make the records required under subparagraph (d)(1) 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. 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. 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.

- (d) (1) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Ad-

ministrator 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. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (2) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed 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. 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. 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. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (3) **Equal employment opportunity.** The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (e) **Compliance with Copeland Act requirements.** The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (f) **Contract termination; debarment.** A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.

(g) **Compliance with Davis-Bacon and related Act requirements.** All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

(h) **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.

(i) **Certification of eligibility.** (1) 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 the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(2) No part of this contract 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).

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

(j) **Contract Work Hours and Safety Standards Act.** As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, 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 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the provisions set forth in subparagraph (j)(1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation of the provisions set forth in subparagraph (j)(1) of this clause, 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 required by provisions set forth in subparagraph (j)(1) of this clause.

(3) **Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the De-

partment 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 as provided in the provisions set forth in subparagraph (j)(2) of this clause.

(k) **Subcontracts.** The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, 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. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

[] 47. Labor Standards-Non-routine Maintenance

(If checked, for contracts exceeding \$2,000, HUD has determined that the construction covered by this contract consists of non-routine maintenance (as defined in 24 CFR 968.203) necessary for the operation of the Public or Indian Housing project; and the labor standards set forth below and the provisions of Section 12 of the United States Housing Act of 1937 which pertain to such work shall apply. Clause 47 does not apply to this contract.)

(a) **Minimum Wages.** (1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Housing and Urban Development which is attached hereto and made a part hereof. Such laborers and mechanics shall be paid the appropriate wage rate on the wage determination for the classification of work actually performed, without regard to skill. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination 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.

(2) (i) Any class of laborers or mechanics 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. HUD shall approve an additional classification and wage rate only when the following criteria have been met:

(A) The work to be performed by the classification required is not performed by a classification in

the wage determination;

(B) The classification is utilized in the area by the industry; and

(C) The proposed wage rate bears a reasonable relationship to the wage rates contained in the wage determination.

(ii) The wage rate determined pursuant to this paragraph shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(b) **Withholding of funds.** The Contracting Officer, upon his or her own action or upon request of HUD shall withhold or cause to be withheld from the Contractor under this contract or any other contract subject to HUD-determined wage rates, with the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the Contractor or any subcontractor the full amount of wages required by this clause. In the event of failure to pay any laborer or mechanic employed or working on the site of the work all or part of the wages required by the contract, the Contracting Officer or HUD may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, or advance, until such violations have ceased. The PHA or HUD 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.

(c) **Payrolls and basic records.**

(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 at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

(2) (i) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (d)(1) above. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the OMB under OMB control number 1215-0149).

(ii) 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:

(A) that the payroll for the payroll period contains the information required to be maintained

under subparagraph (c)(1) of this clause and that such information is correct and complete;

(B) that each laborer or mechanic employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and

(C) that each laborer or mechanic has been paid not less than the applicable wage rates for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(iii) 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" required by subparagraph (c)(2)(ii) of this clause.

(iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) available for inspection, copying, or transcription by authorized representatives of HUD or the PHA and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, 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. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment or denial of participation in HUD's programs pursuant to 24 CFR Part 24.

(d) **Compliance with Copeland Act requirements.** The Contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

(e) **Contract termination; debarment.** A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 24 CFR Part 24.

(f) **Disputes concerning labor standards.**

(1) Disputes arising out of the labor standards provisions of paragraphs (a), (b), (c), and (e) of this clause shall be subject to the general disputes clause of this contract.

(2) Disputes arising out of the labor standards provisions of paragraphs (d), and (g) of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this paragraph (f)(2) include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.

(g) **Contract Work Hours and Safety Standards Act.** As used

in this paragraph, the terms “laborers” and “mechanics” include watchmen and guards.

(1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which 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 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the provisions set forth in subparagraph (g)(1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the provisions set forth in subparagraph (g)(1) of this clause, 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 required by provisions set forth in subparagraph (g)(1) of this clause.

(3) **Withholding for unpaid wages and liquidated damages.** 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 as provided in the provisions set forth in subparagraph (g)(2) of this clause.

(h) **Subcontracts.** The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the provisions contained in this clause.

48. Non-Federal Prevailing Wage Rates

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 either of the following occurs:

- (1) Such non-Federal prevailing wage rate exceeds: (A) the applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 276a et seq) to be prevailing in the locality with respect to such trade; (B) an applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor or a DOL-recognized State Apprenticeship Agency; or (C) an applicable trainee wage rate based thereon specified in a DOL-certified trainee program; or
- (2) Such non-Federal prevailing wage rate, exclusive of any fringe benefits, exceeds the applicable wage rate determined by the Secretary of HUD to be prevailing in the locality with respect to such trade or position.



STATE OF NEW JERSEY
Department of Labor and Workforce Development
Division of Wage and Hour Compliance - Public Contracts Section
PO Box 389
Trenton, NJ 08625-0389

PREVAILING WAGE RATE DETERMINATION

The New Jersey Prevailing Wage Act (N.J.S.A. 34:11-56.25 et seq.) requires that the Department of Labor and Workforce Development establish and enforce a prevailing wage level for workers engaged in public works in order to safeguard their efficiency and general well being and to protect them as well as their employers from the effects of serious and unfair competition.

Prevailing wage rates are wage and fringe benefit rates based on the collective bargaining agreements established for a particular craft or trade in the locality in which the public work is performed. In New Jersey, these rates vary by county and by the type of work performed.

Applicable prevailing wage rates are those wages and fringe benefits in effect on the date the contract is awarded. All pre-determined rate increases listed at the time the contract is awarded must also be paid, beginning on the dates specified. Rates that have expired will remain in effect until new rates are posted.

Prevailing Wage Rate

The prevailing wage rate for each craft will list the effective date of the rate and the following information:

W = Wage Rate per Hour

B = Fringe Benefit Rate per Hour*

T = Total Rate per Hour

- * Fringe benefits are an integral part of the prevailing wage rate. Employers not providing such benefits must pay the fringe benefit amount directly to the employee each payday. Employers providing benefits worth less than the fringe benefit amount must pay the balance directly to the employee each payday.

Unless otherwise stated in the Prevailing Wage Rate Determination, the fringe benefit rate for overtime hours remains at the straight time rate.

When the Overtime Notes in the Prevailing Wage Rate Determination state that the overtime rates are "inclusive of benefits," the benefit rate is increased by the same factor as the wage rate (i.e. multiplied by 1.5 for time and one-half, multiplied by 2 for double time, etc.).

Apprentice Rate Schedule

An "apprentice" is an individual who is registered with the United States Department of Labor - Office of Apprenticeship and enrolled in a certified apprenticeship program during the period in which they are working on the public works project.

The apprentice wage rate is a percentage of the journeyman wage rate, unless otherwise indicated. The apprentice benefit rate is the full journeyman benefit rate, unless otherwise indicated.

If there is no apprentice rate schedule listed, the individual must be paid at least the journeyman rate even if that individual is in a certified apprentice program for that trade.

If there is no ratio of apprentices to journeymen listed for a particular craft, then the ratio shall be one (1) apprentice to every four (4) journeymen.

Comments/Notes

For each craft listed there will be comments/notes that cover the definition of the regular workday, shift differentials, overtime, recognized holidays, and any other relevant information.

Public Works Contractor Registration

The Public Works Contractor Registration Act (N.J.S.A. 34:11-56.48, et seq.) requires that **all** contractors, subcontractors, or lower tier subcontractors who are working on or who bid on public works projects register with the Department of Labor and Workforce Development. Applications are available at www.nj.gov/labor (click on Wage & Hour and then go to Registration & Permits).

Pursuant to N.J.S.A. 34:11-56.51:

No contractor shall bid on any contract for public work as defined in section 2 of P.L.1963, c. 150 (C.34:11-56.26) unless the contractor is registered pursuant to this act. No contractor shall list a subcontractor in a bid proposal for the contract unless the subcontractor is registered pursuant to P.L.1999, c.238 (C.34:11-56.48 et seq.) at the time the bid is made. No contractor or subcontractor, including a subcontractor not listed in the bid proposal, shall engage in the performance of any public work subject to the contract, unless the contractor or subcontractor is registered pursuant to that act.

Snow Plowing

Snow plowing contracts are not subject to the New Jersey Prevailing Wage Act or the Public Works Contractor Registration Act.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Air Conditioning & Refrigeration - Service and Repair

PREVAILING WAGE RATE

	03/01/24
Journeyman (Mechanic)	W45.23 B30.03 T75.26

Craft: Air Conditioning & Refrigeration - Service and Repair

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
As Shown	1st Year	2nd Year	3rd Year	4th Year	5th Year	Wage = %	of Jnymn	Wage		
Wage and Bene	40%	50%	60%	70%	80%	Bene = %	of Jnymn	Bene		

Ratio of Apprentices to Journeymen - 1:4

Craft: Air Conditioning & Refrigeration - Service and Repair

COMMENTS/NOTES

THESE RATES MAY BE USED FOR THE FOLLOWING:

- Service/Repair/Maintenance Work to EXISTING facilities.
- Replacement or Installation of air conditioning and refrigeration equipment when the combined tonnage does not exceed 15 tons for refrigeration, or 25 tons for air conditioning.
- Replacement or Installation of "packaged" or "unitary" rooftop-type units when the combined tonnage of the units does not exceed 75 tons.

NOTE: These rates may NOT be used for any work in new construction (including work on new additions).

The regular workday shall consist of 8 hours, starting between 6:00 AM and 10:00 AM, Monday through Friday.

SHIFT DIFFERENTIALS:

- The second and third shifts shall be paid an additional 15% of the hourly rate.
- All shifts must run for a minimum of 5 consecutive days.

OVERTIME:

Hours worked in excess of 8 per day or before or after the regular workday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Boilermaker

PREVAILING WAGE RATE

	01/12/24
Foreman	W54.11 B47.08 T101.19
General Foreman	W56.11 B48.14 T104.25
Journeyman	W49.11 B45.31 T94.42

Craft: Boilermaker

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	65%	70%	75%	80%	85%	90%	95%			
Benefit =	38.33	39.30	40.32	41.31	42.32	43.32	44.30			

Ratio of Apprentices to Journeymen - *

* 1 apprentice will be allowed for the first 5 journeymen, 1 apprentice for the next 10 journeymen and 1 apprentice for each succeeding 20 journeymen up to a maximum of 5 apprentices per contractor on any one job.

Craft: Boilermaker

COMMENTS/NOTES

HIGH WORK: All apprentices working on the erection, repair, or dismantling of smoke stacks, standpipes, or water towers shall be paid the Journeyman rate.

The regular workday shall consist of 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall work 7 1/2 hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 10%.
- The third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 20%.
- For "Municipal Water Works" projects only, the following shall apply: Two, four day, 10 hour shifts may be worked at straight time Monday through Thursday. The day shift shall work four days, at 10 hours, for 10 hours pay. The second shift shall work four days, at nine and a half hours, for 10 hours pay, plus 10% the hourly rate for new work and .25 cents on repair work. Friday may be used as a make-up day at straight time, due to weather conditions, holiday or any other circumstances beyond the employer's control.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.
- If any other craft employed by the same contractor, or a subcontractor thereof, receives double time in lieu of time and one-half, then the Boilermaker shall receive double time in lieu of time and one-half.
- For "Municipal Water Works" projects only, the following shall apply: Four 10 hour days may be worked Monday through Thursday at straight time. Friday may be used as a make-up day for a day lost to inclement weather, holiday or other conditions beyond the control of the employer. Overtime shall be paid for any hours that exceed 10 hours per day or 40 hours per week.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Boilermaker - Minor Repairs

PREVAILING WAGE RATE

	01/12/24
Foreman	W35.88 B17.89 T53.77
General Foreman	W36.38 B17.89 T54.27
Mechanic	W34.38 B17.89 T52.27

Craft: Boilermaker - Minor Repairs

COMMENTS/NOTES

NOTE: These rates apply to MINOR REPAIR WORK ONLY (repair work in the field for which the contract amount does not exceed \$125,000.00), for boilers that do not produce electric or are not used in the heating of petroleum products.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Thanksgiving Day, day after Thanksgiving, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Bricklayer, Stone Mason

PREVAILING WAGE RATE

	05/09/24
Deputy Foreman	W51.60 B37.68 T89.28
Foreman	W56.35 B37.68 T94.03
Journeyman	W48.60 B37.68 T86.28

Craft: Bricklayer, Stone Mason

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	50%	55%	60%	65%	70%	75%	80%		
Benefits	5.61	6.88	7.50	8.13	28.95	30.86	32.78	34.67		

Ratio of Apprentices to Journeymen - 1:5

Craft: Bricklayer, Stone Mason

COMMENTS/NOTES

The regular workday shall consist of 8 hours, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the first, or day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 10%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 10%, inclusive of benefits, and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 10%, inclusive of benefits, and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When an irregular shift must be established, this shift shall receive the regular rate plus 10%, inclusive of benefits.

OVERTIME:

- The first 2 hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. The first 10 hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday may be used as a make-up day for hours lost to inclement weather.
- When Bricklayers/Stone Masons work on Saturday with Laborers, and no other crafts are working on the project for the day, benefits may be paid at straight time. If other crafts are present, the applicable overtime rate for benefits shall be paid.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Carpenter

PREVAILING WAGE RATE

	05/09/24
Foreman	W64.41 B38.73 T103.14
Journeyman	W56.01 B33.76 T89.77

Craft: Carpenter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	40%	55%	65%	80%	90%					
Benefit	59.25% of	Appren	tice	Wage Rate	for all	intervals	+ \$0.57			

Ratio of Apprentices to Journeymen - 1:3

For Solar installation- all work on solar projects that fall under the jurisdiction of the carpenters, and does not require an electrician, the ratio of Apprentices to Journeymen shall be 1:1.

Craft: Carpenter

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES REGISTERED AS OF 5-1-19:

INTERVAL PERIOD AND RATES
Yearly 40% 55% 65% 80%
Benefits 59.25% of apprentice wage rate for all intervals + \$0.57

FOREMAN REQUIREMENTS:

- When there are 2 or more Carpenters on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Carpenters on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 6:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 10%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 10% and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 10% and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When an irregular shift must be established, this shift shall receive the regular rate plus 15%, inclusive of benefits.
- All time worked before and after a regularly established shift shall be paid at the applicable overtime rate. When a portion of the regularly established shift works into Saturday, Sunday or a holiday, that time worked shall be paid at the established shift rate.

OVERTIME:

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PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans' Day may be substituted for the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Carpenter - Resilient Flooring

PREVAILING WAGE RATE

	05/01/24
Foreman	W64.41 B38.64 T103.05
Journeyman	W56.01 B33.67 T89.68

Craft: Carpenter - Resilient Flooring

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	40%	55%	65%	80%	90%					
Benefit	59.25%	of	Appren	tice	Wage Rate	for all	intervals	+ \$0.48		

Ratio of Apprentices to Journeymen - *

* 1 apprentice shall be allowed to every 2 journeymen or major fraction thereof. No more than 3 apprentices on any one job or project.

Craft: Carpenter - Resilient Flooring

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES REGISTERED AS OF 5-1-19:

INTERVAL PERIOD AND RATES
Yearly 40% 55% 65% 80%
Benefits 59.25% of apprentice wage rate for all intervals + \$0.48.

FOREMAN REQUIREMENTS:

- On any job where there are 4 or more Carpenters of Resilient Flooring, 1 must be designated a Foreman.

FOR SYNTHETIC TURF INSTALLATION ONLY:

- The rate shall be 90% of the wage and benefit rate.

The regular workday consists of 8 hours, starting between 6:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular wage rate plus 10%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular wage rate, the second shift shall receive the regular wage rate plus 10% and the third shift shall receive the regular wage rate plus 15%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular wage rate plus 10% and the third shift shall receive the regular wage rate plus 15%.
- When an irregular shift must be established, this shift shall receive the regular rate plus 15%, inclusive of benefits.

OVERTIME:

- Hours in excess of 8 per day or 40 per week, or before or after the regular workday, Monday through Friday, shall be paid at time and one-half the wage rate. Saturday may be used as a make-up day, at straight time, up to 8 hours, for hours lost to reasons beyond the control of the employer, up to a total of 40 hours per week; hours in excess of 8 on Saturday shall

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

then be paid at time and one-half the wage rate. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the wage rate. All hours on Sundays and holidays shall be paid at double the wage rate.

- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for hours lost to reasons beyond the control of the employer. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the wage rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. Veterans' Day may be substituted for the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Carpenter-Residential Construction

PREVAILING WAGE RATE

	05/09/24
Foreman	W54.29 B11.99 T66.28
Journeyman	W47.21 B11.14 T58.35

Craft: Carpenter-Residential Construction

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	40%	55%	65%	80%						
Benefit	12% of	Appren	tice	wage rate	for all	intervals	+ \$5.48			

Ratio of Apprentices to Journeymen - 1:3

Craft: Carpenter-Residential Construction

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Carpenters on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Carpenters on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 6:00 AM and 9:00 AM.

RESIDENTIAL CONSTRUCTION:

All residential construction (excluding commercial buildings and institutional housing), no more than four (4) floors in height above grade consisting of those projects involving the construction, alteration, or repair of town houses or row houses, single family homes, mobile homes, multi-family homes, mixed-use buildings that include commercial space on the first floor or below grade, and apartment buildings.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 10%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 10% and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 10% and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When an irregular shift must be established, this shift shall receive the regular rate plus 15%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans' Day may be substituted for the day after Thanksgiving.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Cement Mason PREVAILING WAGE RATE

See "Bricklayer, Stone Mason" Rates

Craft: Cement Mason COMMENTS/NOTES

See " Bricklayer, Stone Mason" Rates

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Commercial Painter

PREVAILING WAGE RATE

	05/29/24
Foreman	W48.90 B30.71 T79.61
General Foreman	W53.34 B30.71 T84.05
Journeyman	W44.45 B30.71 T75.16

Craft: Commercial Painter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	45%	55%	65%	70%	75%	80%	80%		
Benefits	9.40	9.40	11.90	11.90	13.00	13.00	15.90	15.90		

Ratio of Apprentices to Journeymen - 1:4

Craft: Commercial Painter

COMMENTS/NOTES

* Commercial Painters perform work on all commercial structures such as offices, schools, hotels, shopping malls, restaurants, condominiums, etc.

Spraying, sandblasting, lead abatement work on commercial buildings, work performed above 3 stories or 30 feet in height, or using swing scaffolds requires an additional 10% of the wage rate.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day,

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Diver

PREVAILING WAGE RATE

	05/01/24
Diver	W64.72 B52.74 T117.46
Tender	W52.98 B52.74 T105.72

Craft: Diver

COMMENTS/NOTES

NOTE: All dive crews must consist of a Tender, a Diver, and a standby Diver (standby Diver is the same rate as a Diver).

DEPTH & PENETRATION RATES: Divers shall be paid the following depth and penetration rates, in addition to the regular hourly rate, when applicable:

AIR DIVES:

0-59 feet: No additional wage
60-74 feet: + \$0.25 per foot
75-125 feet: + \$0.78 per foot

MIXED GAS DIVES:

0-74 feet: No additional wage
75-125 feet: + \$1.00 per foot
126-200 feet: + \$2.00 per foot

PENETRATION DIVES:

126-200 feet: + \$1.50 per foot
201-275 feet: + \$1.75 per foot
276-350 feet: + \$2.00 per foot
351-425 feet: + \$2.50 per foot

SHIFT DIFFERENTIAL:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis and receive an additional 113% of the wage rate.
- When a three shift schedule is established, all three shifts shall be established on an 8 hour basis, but the second and third shifts shall receive an additional 113% of the wage rate.
- Benefits on shift work shall be paid at the straight-time rate.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Dockbuilder/Pile Driver

PREVAILING WAGE RATE

	05/01/24
Foreman	W60.93 B52.74 T113.67
Foreman (Concrete Form Work)	W59.82 B39.39 T99.21
Journeyman	W52.98 B52.74 T105.72
Journeyman (Concrete Form Work)	W52.02 B39.39 T91.41

Craft: Dockbuilder/Pile Driver

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	21.19	26.49	34.44	42.38						
Benefits	34.70	for all	intervals							

Ratio of Apprentices to Journeymen - *

* When there are 4 or fewer Dockbuilders/Pile Drivers on a job, no more than 1 may be an apprentice. When there are 5 or more Dockbuilders/Pile Drivers, there may be 1 apprentice for every 5 Dockbuilders/Pile Drivers.

Craft: Dockbuilder/Pile Driver

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR CONCRETE FORM WORK ONLY:

INTERVAL	PERIOD AND RATES			
Yearly	20.81	26.01	33.81	41.62
Benefits	26.73 for all intervals			

CREOSOTE HANDLING:

When handling creosote products on land piling, floating marine construction, and construction of wharves, the worker shall receive an additional \$0.25 per hour.

HAZARDOUS WASTE WORK:

- Hazardous waste removal work on a state or federally designated hazardous waste site where Level A, B, or C personal protection is required: an additional 20% of the hourly rate, per hour.
- Hazardous waste removal work in Level D, or where personal protection is not required: an additional \$1.00 per hour.

CERTIFIED WELDER: When required on the job by the project owner, a Certified Welder shall receive an additional \$1.00 per hour.

FOREMAN REQUIREMENTS:

The first Dockbuilder/Pile Driver on the job shall be designated a Foreman.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

SHIFT DIFFERENTIAL:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis and receive an additional 113% of the wage rate.
- When a three shift schedule is established, all three shifts shall be established on an 8 hour basis, but the second and third shifts shall receive an additional 113% of the wage rate.
- Benefits on shift work shall be paid at the straight-time rate.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Drywall Finisher

PREVAILING WAGE RATE

	05/29/24
Foreman	W47.75 B31.11 T78.86
General Foreman	W49.92 B31.11 T81.03
Journeyman	W43.41 B31.11 T74.52

Craft: Drywall Finisher

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	50%		60%	70%		80%	90%		
Benefits	Intervals	1 to 2 =	11.90	Intervals	3 to 4 =	15.03	Intervals	5 to 6 =	18.84	

Ratio of Apprentices to Journeymen - 1:4

Craft: Drywall Finisher

COMMENTS/NOTES

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Electrician

PREVAILING WAGE RATE

	06/03/24	06/02/25	06/01/26
Assistant General Foreman	W68.31 B53.97 T122.28	W72.04 B54.39 T126.43	W74.47 B56.23 T130.70
Foreman (2 to 4 Journeymen)	W63.27 B49.99 T113.26	W66.73 B50.37 T117.10	W68.98 B52.08 T121.06
Foreman (5 to 10 Journeymen)	W64.39 B50.87 T115.26	W67.91 B51.26 T119.17	W70.20 B53.00 T123.20
General Foreman (101+ Journeymen)	W78.39 B61.93 T140.32	W82.67 B62.41 T145.08	W85.46 B64.52 T149.98
General Foreman (24 to 100 Journeymen)	W72.79 B57.51 T130.30	W76.76 B57.96 T134.72	W79.35 B59.92 T139.27
Journeyman, Cable Splicer	W55.99 B44.24 T100.23	W59.05 B44.58 T103.63	W61.04 B46.09 T107.13
Lead Foreman (11 to 23 Journeymen)	W67.19 B53.09 T120.28	W70.86 B53.50 T124.36	W73.25 B55.31 T128.56
Plan Reader	W60.47 B47.78 T108.25	W63.77 B48.15 T111.92	W65.92 B49.78 T115.70

Craft: Electrician

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	30%	40%	50%	60%	80%					
Benefits	12.59	16.79	20.99	25.18	33.57					

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 6-3-24:

INTERVAL	PERIOD AND RATES				
Yearly	30%	40%	50%	60%	80%
Benefits	13.27	17.69	22.12	26.54	35.39

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

APPRENTICE RATE SCHEDULE AS OF 6-2-25:

INTERVAL	PERIOD AND RATES				
Yearly	30%	40%	50%	60%	80%
Benefits	13.37	17.83	22.29	26.75	35.66

APPRENTICE RATE SCHEDULE AS OF 6-1-26:

INTERVAL	PERIOD AND RATES				
Yearly	30%	40%	50%	60%	80%
Benefits	13.83	18.43	23.05	27.65	36.87

THESE RATES ALSO APPLY TO THE FOLLOWING:

- All burglar and fire alarm work.
- All fiber optic work.
- Teledata work in new construction (including additions).
- Teledata work involving 16 instruments or more.

FOREMAN REQUIREMENTS (Foreman counts, do not include apprentices):

- 2 to 4 Journeymen- 1 must be a Foreman (2 to 4 JW).
 - 5 to 11 Journeymen- 1 must be a Foreman (5 to 10 JW).
 - 12 to 22 workers- 1 must be a Lead Foreman and 1 must be a Foreman (5 to 10 JW).
 - 23 workers- 1 must be a Lead Foreman and 2 must be a Foreman (5 to 10 JW).
 - 24 to 34 workers- 1 must be a General Foreman (24 to 100) and 3 must be a Foreman (5 to 10 JW).
 - 35 to 36 workers- 1 must be a General Foreman (24 to 100) and 4 must be a Foreman (5 to 10 JW).
 - 37 to 46 Journeymen- 1 must be a General Foreman (24 to 100), 1 must be an Assistant General Foreman and 4 must be a Foreman (5 to 10 JW)
 - For each additional 10 Journeymen- 1 additional Foreman (5 to 10) shall be added.
 - For each additional 40 Journeymen- 1 additional Assistant General Foreman shall be added.
 - 101+ Journeymen- 1 must be a General Foreman (101+).
- The regular workday shall be 8 hours, between the hours of 7:00 am and 4:30 pm.

HEIGHT WORK:

- Work performed 50 feet above ground or floor - additional \$2.00 per hour.
- Work on radio and transmission towers, and smoke stacks: +25% of the Total Rate.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Saturday holidays will be observed the preceding Friday. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Electrician - Teledata (15 Instruments and Less)

PREVAILING WAGE RATE

	06/03/24	12/02/24
Journeyman Technician (1-2 workers on job)	W50.33 B24.53 T74.86	W53.04 B23.62 T76.66
Master Tech./Gen. Foreman (26+ workers on job)	W65.43 B31.89 T97.32	W68.95 B30.71 T99.66
Senior Tech./Asst. Gen. Foreman (16-25 workers on job)	W59.89 B29.19 T89.08	W63.12 B28.11 T91.23
Technician A/Foreman (9-15 workers on job)	W57.38 B27.96 T85.34	W60.46 B26.93 T87.39
Technician B/Foreman (4-8 workers on job)	W54.86 B26.74 T81.60	W57.81 B25.75 T83.56
Technician C/Foreman (3 workers on job)	W52.34 B25.51 T77.85	W55.16 B24.57 T79.73

Craft: Electrician - Teledata (15 Instruments and Less)

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
* 6 Months	35%	35%	40%	43%	48%	54%	61%	67%	74%	81%
Benefit	8.58	8.58	9.81	10.55	11.77	13.24	14.96	16.44	18.15	19.87

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician - Teledata (15 Instruments and Less)

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 12-2-24

INTERVAL	PERIOD AND RATES									
6 Months	35%	35%	40%	43%	48%	54%	61%	67%	74%	81%
Benefit	8.27	8.27	9.44	10.15	11.34	12.76	14.41	15.83	17.48	19.13

* The apprentice wage rate is paid at the percentage of the Journeyman Technician wage rate .

NOTES:

- 1) These rates are for service, maintenance, moves and/or changes affecting 15 instruments or less. These rates may NOT be used for any new construction or any fiber optic work.
- 2) The number of workers on the jobsite is the determining factor for which Foreman category applies.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

HEIGHT WORK (work performed 50 feet above ground/floor): +\$2.00 per hr.

The regular workday consists of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, per hour, inclusive of benefits
- 3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate, per hour, inclusive of benefits

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, that are not shift work, and the first 10 hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. Hours in excess of 10 on Saturday and all hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.

- Four 10-hour days may be worked Monday thru Friday, between the hours of 7:00 AM and 5:30 PM. A make-up day may be used for the day not being worked during the four 10-hour day schedule if a holiday occurs during the week or for any other conditions that prevent an employee from working the four 10-hour day schedule.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. Saturday holidays will be observed the preceding Friday.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Electrician - Teledata (16 Instruments & More)	PREVAILING WAGE RATE

See "Electrician" Rates

Craft: Electrician - Teledata (16 Instruments & More)	COMMENTS/NOTES

See ELECTRICIAN Rates

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Electrician- Outside Commercial

PREVAILING WAGE RATE

	06/03/24	06/02/25	06/01/26
Assistant General Foreman	W68.60 B53.68 T122.28	W72.35 B54.08 T126.43	W74.79 B55.91 T130.70
Cable Splicer & Equipment Operator	W56.23 B44.00 T100.23	W59.30 B44.33 T103.63	W61.30 B45.83 T107.13
Foreman (2 to 4 Journeymen)	W63.54 B49.72 T113.26	W67.01 B50.09 T117.10	W69.27 B51.79 T121.06
Foreman (5 to 10 Journeymen)	W65.96 B49.30 T115.26	W68.20 B50.97 T119.17	W70.50 B52.70 T123.20
Foreman- (5-10 Journeymen)	W64.66 B50.60 T115.26	W0.00 B0.00 T0.00	W0.00 B0.00 T0.00
General Foreman (101+ Journeymen)	W78.72 B61.60 T140.32	W83.02 B62.06 T145.08	W85.82 B64.16 T149.98
General Foreman (24 to 100 Journeymen)	W73.10 B57.20 T130.30	W77.09 B57.63 T134.72	W79.69 B59.58 T139.27
Groundman	W39.36 B30.80 T70.16	W41.51 B31.03 T72.54	W42.91 B32.08 T74.99
Journeyman Lineman	W56.23 B44.00 T100.23	W59.30 B44.33 T103.63	W61.30 B45.83 T107.13
Lead Foreman (11 to 23 Journeymen)	W67.48 B52.80 T120.28	W71.16 B53.20 T124.36	W73.56 B55.00 T128.56
Plan Reader	W60.73 B47.52 T108.25	W64.04 B47.88 T111.92	W66.20 B49.50 T115.70

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Electrician- Outside Commercial

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	60%	65%	70%	75%	80%	85%	90%			
Benefits	25.04	27.13	29.21	31.30	33.28	35.48	37.56			

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician- Outside Commercial

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 6-3-24:

INTERVAL	PERIOD AND RATES							
Yearly	60%	65%	70%	75%	80%	85%	90%	
Benefits	26.40	28.60	30.80	33.00	35.20	37.40	39.60	

APPRENTICE RATE SCHEDULE AS OF 6-2-25:

INTERVAL	PERIOD AND RATES							
Yearly	60%	65%	70%	75%	80%	85%	90%	
Benefits	26.60	28.81	31.03	33.24	35.46	37.68	39.90	

APPRENTICE RATE SCHEDULE AS OF 6-1-26:

INTERVAL	PERIOD AND RATES							
Yearly	60%	65%	70%	75%	80%	85%	90%	
Benefits	27.50	29.78	32.08	34.37	36.66	38.95	41.24	

* FOR UTILITY WORK PLEASE SEE STATEWIDE RATES

FOREMAN REQUIREMENTS (Foreman counts, do not include apprentices):

- 2 to 4 Journeymen Lineman- 1 must be a Foreman (2 to 4 JL).
- 5 to 11 Journeymen Lineman- 1 must be a Foreman (5 to 10 JL).
- 12 to 22 Journeymen Lineman- 1 must be a Lead Foreman and 1 must be a Foreman (5 to 10 JL).
- 23 Journeyman Lineman- 1 must be a Lead Foremen and 2 must be a Foreman (5 to 10 JL).
- 24 to 34 Journeyman Lineman- 1 must be a General Foreman (24 to 100) and 3 must be a Foreman (5 to 10 JL).
- 35 to 36 workers- 1 must be a General Foreman (24 to 100) and 4 must be a Foreman (5 to 10 JL).
- 37 to 46 Journeymen Lineman- 1 must be a General Foreman (24 to 100), 1 must be and Assistant General Foreman and 4 must be a Foreman (5 to 10 JL).
- For each additional 10 Journeymen- 1 additional Foreman (5 to 10) shall be added.
- For each additional 40 Journeymen- 1 additional Assistant General Foreman shall be added.
- 101+ Journeymen- 1 must be a General Foreman (101+).

HAZMAT WORK:

- Work is to be performed by a Journeyman Lineman who is qualified to perform HAZMAT work- additional 10% per hour.

SHIFT DIFFERENTIALS:

- 2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate per hour, inclusive benefits.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

RECOGNIZED HOLIDAYS: New Year's Day, Presidents Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Saturday holidays will be observed the preceding Friday. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Electrician-Solar

PREVAILING WAGE RATE

	06/03/24	06/02/25	06/01/26
Assistant General	W68.31	W72.04	W74.47
Foreman (66+ Journeymen)	B53.97 T122.28	B54.39 T126.43	B56.23 T130.70
Foreman (1 to 16 Journeymen)	W64.39 B50.87 T115.26	W67.91 B51.26 T119.17	W70.20 B53.00 T123.20
General Foreman (101+ Journeymen)	W78.39 B61.93 T140.32	W82.67 B62.41 T145.08	W85.46 B64.52 T149.98
General Foreman (33 to 100 Journeymen)	W72.79 B57.51 T130.30	W76.76 B57.96 T134.72	W79.35 B59.92 T139.27
Journeyman, Cable Splicer	W55.99 B44.24 T100.23	W59.05 B44.58 T103.63	W61.04 B46.09 T107.13
Solar Lead Foreman (17 to 32 Journeymen)	W67.19 B53.09 T120.28	W70.86 B53.50 T124.36	W73.25 B55.31 T128.56

Craft: Electrician-Solar

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	30%	40%	50%	60%	80%					
Benefits	12.59	16.79	20.99	25.18	33.57					

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician-Solar

COMMENTS/NOTES

* These rates apply to all aspects of a SOLAR project.

APPRENTICE RATE SCHEDULE AS OF 6-3-24:

INTERVAL	PERIOD AND RATES				
Yearly	30%	40%	50%	60%	80%
Benefits	13.27	17.69	22.12	26.54	35.39

APPRENTICE RATE SCHEDULE AS OF 6-2-25:

INTERVAL	PERIOD AND RATES				
Yearly	30%	40%	50%	60%	80%
Benefits	13.37	17.83	22.29	26.75	35.66

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

APPRENTICE RATE SCHEDULE AS OF 6-1-26:

INTERVAL	PERIOD AND RATES				
Yearly	30%	40%	50%	60%	80%
Benefits	13.83	18.43	23.05	27.65	36.87

FOREMAN REQUIREMENTS (Foreman counts, do not include apprentices):

- 1 to 6 Journeymen- 1 must be a Foreman (1 to 16 JW).
 - 17 to 32 Journeymen- 1 must be a Solar Lead Foreman and 1 must be a Foreman (1 to 16 JW).
 - 33 Journeymen- 1 must be a General Foreman (33 to 100) and 2 must be a Foreman (1 to 16 JW).
 - 34 to 49 Journeymen- 1 must be a General Foreman (33 to 100) and 3 must be a Foreman (1 to 16 JW).
 - 50 to 66 Journeymen- 1 must be a General Foreman (33 to 100), 1 must be an Assistant General Foreman and 4 must be a Foreman (1 to 16 JW).
 - 67 to 82 Journeymen- 1 must be a General Foreman (33 to 100), 1 must be an Assistant General Foreman and 5 must be a Foreman (1 to 16 JW).
 - For each additional 16 Journeymen- 1 additional Foreman (1 to 16) shall be added.
 - For each additional 40 Journeyman- 1 additional Assistant General Foreman shall be added.
 - 101+ Journeymen- 1 must be a General Foreman (101+).
- The regular workday shall be 8 hours, between the hours of 7:00 am and 4:30 pm.

HEIGHT WORK:

- Work performed 50 feet above ground or floor - additional \$2.00 per hour.
- Work on radio and transmission towers, and smoke stacks: +25% of the Total Rate.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holidays will be observed the preceding Friday. Sunday holidays will be observed the following Monday.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Electrician-Utility Work (North) PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Craft: Electrician-Utility Work (North) APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
* 6 Months	60%	65%	70%	75%	80%	85%	90%			
Benefits	69% of	Appren	tice	Wage	Rate	for all	intervals			

Craft: Electrician-Utility Work (North) COMMENTS/NOTES

Electrician-Utility Work (North) rates are located in the "Statewide" rate package.

* The apprentice wage rate is paid at the percentage of the Journeyman Lineman wage rate located in the "Statewide" rate package.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Elevator Constructor

PREVAILING WAGE RATE

	01/01/24
Helper-Over 5 Years	W48.28 B43.04 T91.32
Helper-Under 5 Years	W48.28 B42.08 T90.36
Mechanic (Journeyman) over 5 years	W68.97 B44.70 T113.67
Mechanic (Journeyman) under 5 years	W68.97 B43.32 T112.29
Mechanic in Charge (Foreman) over 5 years	W77.59 B45.39 T122.98
Mechanic in Charge (Foreman) under 5 years	W77.59 B43.84 T121.43
Probationary Helper (1st 6 months)	W34.49 B41.25 T75.74

Craft: Elevator Constructor

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	55%	65%	70%	80%						
Benefits	full	journeyma n	benefit	rate for	all	intervals				

Ratio of Apprentices to Journeymen - *

* Total number of helpers and apprentices shall not exceed the number of mechanics on the job except where 2 teams are working, 1 additional helper or apprentice may be employed for first 2 teams and an extra helper or apprentice for each additional 3 teams. Further, the employer may use as many helpers or apprentices as needed under the direction of a mechanic in wrecking old plants, handling and hoisting material, and on foundation work. When replacing cables on existing elevators, employer may use 2 helpers or apprentices to 1 mechanic.

Craft: Elevator Constructor

COMMENTS/NOTES

SHIFT DIFFERENTIALS:

- 2nd Shift (4:30 PM to 12:30 AM) shall be established on the basis of 7.5 hours of work for 8 hours of pay, plus an additional 10% per hour.
- 3rd Shift (12:30 AM to 8:00 AM) shall be established on the basis of 7 hours of work for 8 hours of pay, plus an additional 15% per hour.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays, Sundays, and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday to Thursday or Tuesday to Friday, at straight time. When working a 4-10 hour day schedule, all hours worked on a day other than the days established for the 4-10 hour schedule shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and day after, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Glazier

PREVAILING WAGE RATE

	05/09/24
* Leadman	W53.43 B31.98 T85.41
Foreman	W55.43 B32.22 T87.65
General Foreman	W57.43 B32.47 T89.90
Journeyman	W51.43 B31.74 T83.17

Craft: Glazier

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
6 Months	46%	46%	55%	55%	61%	61%	70%	70%		
Benefits	12.44	12.44	14.76	14.76	18.16	18.16	19.79	19.79		

Ratio of Apprentices to Journeymen - 1:4

Craft: Glazier

COMMENTS/NOTES

Hazard/Height Pay: +\$1.00 per hour

* When there are three (3) men working on a jobsite for three (3) days or longer, 1 Journeyman may be designated as a Leadman for the duration of the job, provided he has his OSHA certification.

FOREMAN REQUIREMENTS:

- When there are 4 or more Glaziers on a job, 1 must be designated a Foreman.
- When there are 15 or more Glaziers on a job, 1 must be designated a General Foreman.

The regular workday shall consist of 8 hours, between 7:00 AM and 5:30 PM, Monday to Friday.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Heat & Frost Insulator

PREVAILING WAGE RATE

	09/25/24
Foreman	W61.97 B39.22 T101.19
General Foreman	W64.31 B40.33 T104.64
Journeyman	W59.44 B38.66 T98.10

Craft: Heat & Frost Insulator

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	27.89	33.09	39.84	46.51						
Benefits	22.35	26.53	29.50	32.61						

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator

COMMENTS/NOTES

NOTE: These rates apply to the installing of insulation on hot and cold mechanical systems.

The regular workday shall be 8 hours between 7:00 AM and 3:30 PM. In addition, the regular workday may also be 8 hours between 6:00 AM and 2:30 PM.

SHIFT DIFFERENTIAL:

- Shift work must run for a minimum of 5 consecutive workdays.
- Second Shift shall work 7.5 hours and receive 8 hours pay, at the regular rate, plus 25% per hour.
- Third Shift shall work 7 hours and receive 8 hours pay, at the regular rate, plus 30% per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Heat & Frost Insulator - Asbestos Worker

PREVAILING WAGE RATE

	09/25/24
Asbestos Helper Abatement	W36.89 B24.92 T61.81

Craft: Heat & Frost Insulator - Asbestos Worker

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	HEAT &	FROST	INSULAT OR						

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator - Asbestos Worker

COMMENTS/NOTES

NOTE: These rates apply only to the removal of insulation materials/asbestos from mechanical systems, including containment erection and demolition, and placing material in appropriate containers.

The regular workday shall be 8 hours between 7:00 AM and 3:30 PM. In addition, the regular workday may also be 8 hours between 6:00 AM and 2:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- The second shift shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 25% per hour.
- The third shift shall work 7 hours and receive 8 hours pay at the regular rate, plus 30% per hour.

OVERTIME: The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Industrial Painter- Bridges

PREVAILING WAGE RATE

	03/21/24	02/01/25	02/01/26
Foreman	W64.29 B35.91 T100.20	W0.00 B0.00 T102.20	W0.00 B0.00 T104.20
General Foreman	W66.79 B35.91 T102.70	W0.00 B0.00 T104.70	W0.00 B0.00 T106.70
Journeyman	W59.29 B35.91 T95.20	W0.00 B0.00 T97.20	W0.00 B0.00 T99.20

Craft: Industrial Painter- Bridges

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	50%	70%	90%							
Benefits	14.10	21.26	27.88							

Ratio of Apprentices to Journeymen - 1:3

Craft: Industrial Painter- Bridges

COMMENTS/NOTES

* Industrial Painters perform work on all industrial structures, such as bridges.

These rates apply to: All bridges that span waterways, roadways, railways and canyons. All tunnels, overpasses, viaducts and all appurtenances.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate, except Veterans Day, which shall be paid at time and one-half the regular rate.
- During a regular work week schedule, Saturday may be used as a make-up day lost to inclement weather, paid at the regular rate.
- Four 10-hour days may be worked, at the regular rate, Monday through Thursday. When the four 10-hour day schedule is used, the 11th and 12th hours shall be paid at time and one-half the regular rate. After the 12th hour, a worker shall be paid at double the regular rate. Friday may be used as a make-up day lost to inclement weather, paid at the regular rate.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Industrial Painter- Structural Steel

PREVAILING WAGE RATE

	03/21/24	02/01/25	02/01/26
Foreman	W53.03 B33.56 T86.59	W0.00 B0.00 T88.59	W0.00 B0.00 T90.59
General Foreman	W55.53 B33.56 T89.09	W0.00 B0.00 T91.09	W0.00 B0.00 T93.09
Journeyman	W48.03 B33.56 T81.59	W0.00 B0.00 T83.59	W0.00 B0.00 T85.59

Craft: Industrial Painter- Structural Steel

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	INDUST	RIAL	PAINTER	BRIDGES					

Ratio of Apprentices to Journeymen - 1:3

Craft: Industrial Painter- Structural Steel

COMMENTS/NOTES

* Industrial Painters perform work on all industrial structures, such as water tanks, waste water facilities, refineries, any structural steel work, etc.

These rates apply to: All work in power plants (any aspect). On steeples, on dams, on hangers, transformers, substations, on all open steel, in refineries, tank farms, water/sewerage treatment facilities and on pipelines.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate, except for Veterans Day, which shall be paid at time and one-half the regular rate.
- During the regular work week schedule, Saturday may be used to make-up a day lost to inclement weather, paid at the regular rate.
- Four 10-hour days may be worked, at the regular rate, Monday through Thursday. When the four 10-hour day schedule is used, the 11th and 12th hours shall be paid at time and one-half the regular rate. After the 12th hour, a worker shall be paid at double the regular rate. Friday may be used as a make-up day lost to inclement weather, paid at the regular rate.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Industrial Painter- Water Tanks

PREVAILING WAGE RATE

	03/21/24	02/01/25	02/01/26
Foreman	W54.08 B33.21 T87.29	W0.00 B0.00 T89.29	W0.00 B0.00 T91.29
General Foreman	W56.58 B33.21 T89.79	W0.00 B0.00 T91.79	W0.00 B0.00 T93.79
Journeyman	W49.08 B33.21 T82.29	W0.00 B0.00 T84.29	W0.00 B0.00 T86.29

Craft: Industrial Painter- Water Tanks

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	50%	70%	90%							
Benefits	14.10	21.26	27.88							

Ratio of Apprentices to Journeymen - 1:3

Craft: Industrial Painter- Water Tanks

COMMENTS/NOTES

* Industrial Painters perform work on all industrial structures, such as water tanks, waste water facilities, refineries, any structural steel work, etc.

These rates apply to: All new and repaint water tanks (interior and exterior).

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate, except Veterans Day, which shall be paid at time and one-half the regular rate.
- During a regular work week schedule, Saturday may be used to make-up a day lost to inclement weather, paid at the regular rate.
- Four 10-hour days may be worked, at the regular rate, Monday through Thursday. When the four 10-hour day schedule is used, the 11th and 12th hours shall be paid at time and one-half the regular rate. After the 12th hour, a worker shall be paid at double the regular rate. Friday may be used as a make-up day lost to inclement weather, paid at the regular rate.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Ironworker

PREVAILING WAGE RATE

	07/03/24
Rod /Fence Foreman	W53.29 B50.87 T104.16
Rod/Fence Journeyman	W48.44 B50.87 T99.31
Structural Foreman	W55.82 B50.87 T106.69
Structural Journeyman	W50.74 B50.87 T101.61

Craft: Ironworker

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
6 Months	50%	60%		Yearly	70%	80%	90%			
Benefits	same as	journeyma n	amount							

Ratio of Apprentices to Journeymen - 1:4

Craft: Ironworker

COMMENTS/NOTES

HAZARDOUS WASTE WORK: On hazardous waste removal work on a state or federally designated hazardous waste site where the Ironworker is required to wear Level A,B, or C personal protection: + \$3.00 per hour

The regular workday consists of 8 hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

When there are 2 or more Ironworkers on a job, 1 shall be designated a Foreman.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule is established, the first, or day shift , shall be established on an 8 hour basis .The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15%, and the third shift shall receive the regular rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis.
- When an irregular shift is established for the Ironworker (Structural) classification, the rate shall be paid at time and one-half the regular rate, inclusive of benefits. When an irregular shift is established for the Rod /Fence classification, the shift shall be established on an 8 hour basis and receive the regular rate, plus 20%.

OVERTIME:

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits. Saturday may be used as a make-up day for a day lost to inclement weather. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits.

- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Laborer - Asbestos & Hazardous Waste Removal

PREVAILING WAGE RATE

	08/21/24
Foreman	W45.88 B26.21 T72.09
Journeyman (Handler)	W40.78 B26.21 T66.99

Craft: Laborer - Asbestos & Hazardous Waste Removal

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	22.47	28.55	32.62	36.70						
Benefit	22.31	for	all	intervals						

Ratio of Apprentices to Journeymen - *

* Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than one (1) apprentice for each additional three (3) journeymen.

Craft: Laborer - Asbestos & Hazardous Waste Removal

COMMENTS/NOTES

NOTE: These rates apply to work in connection with Asbestos, Radiation, Hazardous Waste, Lead, Chemical, Biological, Mold Remediation and Abatement.

The regular workday shall be 8 hours.

OVERTIME:

- Hours in excess of 8 per day, Monday through Saturday, and all hours on Sunday and holidays shall be paid at time and one-half the regular rate.
- Benefits on ALL overtime hours shall be paid at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Easter, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. (Holidays start at 12:00 am).

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Laborer - Building

PREVAILING WAGE RATE

	08/28/24
Class A Journeyman	W39.25 B33.17 T72.42
Class B Journeyman	W38.25 B33.17 T71.42
Class C Journeyman	W32.51 B33.17 T65.68
Foreman	W44.16 B33.17 T77.33
General Foreman	W49.06 B33.17 T82.23

Craft: Laborer - Building

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
6 Months	60%	70%	80%	90%	of Class B	wage rate				
Benefit	29.92	29.92	29.92	29.92						

Ratio of Apprentices to Journeymen - *

* Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than one (1) apprentice for each additional three (3) journeymen.

Craft: Laborer - Building

COMMENTS/NOTES

CLASS A: Specialist laborer including mason tender or concrete pour crew; scaffold builder (scaffolds up to 14 feet in height); operator of forklifts, Bobcats (or equivalent machinery), jack hammers, tampers, motorized tampers and compactors, vibrators, street cleaning machines, hydro demolition equipment, riding motor buggies, conveyors, burners; and nozzlemen on gunite work.

CLASS B: Basic laborer - includes all laborer work not listed in Class A or Class C.

CLASS C: Janitorial-type light clean-up work associated with the TURNOVER of a project, or part of a project, to the owner. All other clean-up work is Class B.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- When a 2-shift schedule is worked, including a day shift, both shifts shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%.
- When a 3-shift schedule is worked, the day shift shall be established on the basis of 8 hours pay for 8 hours worked, the second shift shall be established on the basis of 8 hours pay for 7.5 hours worked, and the third shift shall be established

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

on the basis of 8 hours pay for 7 hours worked. The day shift shall receive the regular rate, the second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

- When a second or third shift is worked with no day shift, the second or third shift shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

- When an irregular shift must be established this shift shall receive the regular rate plus an additional 10%.

OVERTIME:

- Hours in excess of 8 per day, or outside the regular workday that are not shift work, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. Saturday may be used as a make-up day (paid at straight time) for a day lost to inclement weather, or for a holiday that is observed during the work week, Monday through Friday. All hours on Sundays and holidays shall be paid at double the regular rate.

- Four 10-hour days may be worked Monday to Thursday, at straight time, with Friday used a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the regular rate.

- Benefits on ALL overtime hours shall be paid at time and one-half.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Laborer - Heavy & General PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Craft: Laborer - Heavy & General APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	60%	70%	80%	90%						
Benefit	25.08	for	all	intervals						

Ratio of Apprentices to Journeymen - *

* No more than 1 apprentice for the first journeyman and no more than 1 apprentice for each additional 3 journeymen.

As of 3-1-25, benefits shall be 26.13.
As of 3-1-26, benefits shall be 27.13.

Craft: Laborer - Heavy & General COMMENTS/NOTES

Heavy & General Laborer rates are located in the "Statewide" rate package.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Laborer-Residential and Modular Construction

PREVAILING WAGE RATE

	04/01/23
* Skilled Tradesman (only applies to Modular Construction)	W27.90 B5.45 T33.35
Foreman (person directing crew, regardless of his skill classification)	W31.90 B5.45 T37.35
Laborer (for single family and stand-alone duplex owned by single owner)	W17.85 B2.95 T20.80
Residential and Modular Construction Laborer	W23.90 B5.45 T29.35

Craft: Laborer-Residential and Modular Construction

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
As shown	800 hours	600 hours	600 hours							
wage & benefits	70%	80%	90%							

Ratio of Apprentices to Journeymen-

One (1) apprentice shall be allowed for the first journeyman on site and no more than one (1) additional apprentice for each additional three (3) journeymen on site.

Craft: Laborer-Residential and Modular Construction

COMMENTS/NOTES

*** SKILLED TRADESMAN-**

any worker doing work not typically done by a Building Laborer. Some examples are installing interior doors, sheet rock, hooking up appliances, installing light fixtures, installing railing systems, etc. Please note where local building codes require that certain work be performed under the supervision of a licensed tradesman (i.e. Plumber, Electrician, etc.) Laborers shall work under such supervision.

RESIDENTIAL CONSTRUCTION- All residential construction (not commercial), single-family, stand-alone duplex houses, townhouses and multi-family buildings of not more than four (4) floors. Each housing unit must be fully and independently functional; each housing unit must have its own kitchen and bathroom. The definition includes all incidental items such as site work, parking areas, utilities, streets and sidewalks. Please note the construction must be Residential in nature. A First Floor at or below grade may contain commercial space not to exceed 50% square footage of the floor; at least 50% of the First Floor must contain living accommodations or related nonresidential uses (e.g. laundry space, recreation/hobby rooms, and/or corridor space). Basement stories below grade used for storage, parking, mechanical systems/equipment, etc., are considered basement stories which are not used in determining the building's height. An attic is an unfinished space located immediately below the roof. Such space is not used in determining a building's height even if used for storage purposes. In addition, barracks and dormitories are not considered residential projects.

MODULAR RESIDENTIAL CONSTRUCTION- all aspects of modular residential construction (not commercial) at the site of installation of structures of no more than four (4) stories, including all excavation and site preparation, footings and

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

foundation systems whether poured on-site or prefabricated, all underground waterproofing, underground utilities, concrete slabs, sidewalks, driveways, paving, hardscape and landscaping. Please note the construction must be Residential as defined above. All work performed by the Set Crew (the crew of workers who set the modular boxes on the foundation), including the rigging, setting, attaching and assembly of all modules and structural members, preparation of the foundation to accept modules, such as sill plates, connection of all in-module and under-module connections including, but not limited to, plumbing, electrical, HVAC, fire suppression, CATS, telephone, television/internet, and fiber optic, the building or installation of any porches or decks regardless of material or method of construction, the on-site installation of, or completion of any roof system, doors, windows and fenestrations, including flashing, gutter and soffit systems, waterproofing, insulation and interior and exterior trim work, and painting. Please note that modular construction does not include on-site stick built construction, tip up construction or panel built construction.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

OVERTIME:

Hours worked in excess of 8 per day/40 per week, Monday through Saturday, and all hours worked on Sunday and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOILDAYS:

New Year's Day, Martin Luther King Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Millwright

PREVAILING WAGE RATE

	05/01/24
Foreman	W66.04 B39.75 T105.79
Journeyman	W57.43 B34.65 T92.08

Craft: Millwright

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	55%	65%	80%	90%					
Benefits	59.25% of	Appren	tice	Wage	Rate	for all	intervals	+ \$0.62		

Ratio of Apprentices to Journeymen - 1:3

Craft: Millwright

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Millwrights on a job, 1 shall be designated as a Foreman.

The regular workday shall consist of 8 hours, starting between 6:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When an irregular shift must be established, this shift shall receive the regular rate plus 15%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. Veterans' Day may be substituted for the day after Thanksgiving.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Operating Engineer PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Craft: Operating Engineer APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	60%	70%	80%	90%						

Ratio of Apprentices to Journeymen - *

* 1 apprentice for each piece of heavy equipment. At least 10 pieces of heavy equipment or a minimum of 5 Operating Engineers must be on site.

Craft: Operating Engineer COMMENTS/NOTES

Operating Engineer rates are located in the "Statewide" rate package.

County - MONMOUTH

PREVAILING WAGE RATE

APPRENTICE RATE SCHEDULE

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**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Painter - Line Striping

PREVAILING WAGE RATE

	12/01/23
Apprentice (1st year)	W29.89 B15.70 T45.59
Apprentice (2nd year)	W34.10 B26.65 T60.75
Foreman (Charge Person)	W43.10 B27.43 T70.53
Journeyman 1 (at least 1 year of working exp. as a journeyman)	W38.33 B27.43 T65.76
Journeyman 2 (at least 2 years of working exp. as a journeyman)	W42.10 B27.43 T69.53

Craft: Painter - Line Striping

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									

Ratio of Apprentices to Journeymen - 1:1

Craft: Painter - Line Striping

COMMENTS/NOTES

OVERTIME:

Hours in excess of 8 per day, Monday through Saturday, and all hours on Sundays and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day. Veterans Day may be substituted for the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Paperhanger

PREVAILING WAGE RATE

	05/29/24
Foreman	W53.79 B30.71 T84.50
Journeyman	W48.90 B30.71 T79.61

Craft: Paperhanger

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	COMME	CIAL	PAINTER						
		R								

Craft: Paperhanger

COMMENTS/NOTES

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans Day, Thanksgiving Day, Christmas Day

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Pipefitter PREVAILING WAGE RATE

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Craft: Pipefitter COMMENTS/NOTES

See PLUMBERS Rates

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Plasterer PREVAILING WAGE RATE

See "Cement Mason" Rates

Craft: Plasterer COMMENTS/NOTES

See CEMENT MASON Rates

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Plumber

PREVAILING WAGE RATE

	07/10/24
Assistant General Foreman	W61.61 B46.07 T107.68
Foreman	W61.04 B46.07 T107.11
General Foreman	W64.43 B46.07 T110.50
Journeyman	W56.52 B46.07 T102.59

Craft: Plumber

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	35%	45%	55%	65%	75%					
Benefits	28.75	31.41	34.08	36.74	39.41					

Ratio of Apprentices to Journeymen - 1:4

Craft: Plumber

COMMENTS/NOTES

The regular workday shall consist of 8 hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS (number of Plumbers on site):

- (1 to 8)- 1 Foreman
- (9 to 16)- 1 Foreman and 1 Assistant General Foreman
- (17 to 40)- 1 Foreman for every (1 to 8 Plumbers) and 1 Assistant General Foreman every (1 to 5 gangs). One note, a "gang" is a group of 8 men.
- (41 and more)- 1 Foreman for every (1 to 8 Plumbers), 1 Assistant General Foreman every (1 to 5 gangs) and 1 General Foreman. One note, for every additional Assistant General Foreman over five designated, the General Foreman shall receive an additional 10 cents per hour.

SHIFT DIFFERENTIALS:

- The second shift shall work 7.5 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 25%, inclusive of benefits.
- When a third shift is worked, the third shift shall work 7.5 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 30%, inclusive of benefits.
- A second shift may be established without a first shift, provided the second shift starts at 1:00 PM or later.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, that are not shift work, and the first 10 hours on Saturdays, shall be paid at time and one-half, inclusive of benefits. Hours in excess of 10 on

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Saturdays, and all hours on Sundays and holidays, shall be paid at double time, inclusive of benefits.

- Four 10-hour days may be worked, Mon to Thurs, at straight time, with Friday used as a make-up day for a day lost due to inclement weather. If Fri. is not a make-up day, the first 10 hours shall be paid at time and one-half, and hours in excess of 10 at double time, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Roofer PREVAILING WAGE RATE

	06/01/24
Foreman	W47.52 B32.34 T79.86
Journeyman	W44.52 B32.34 T76.86

Craft: Roofer APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	17.80	22.26	26.71	28.94	31.16	33.39	35.62	40.07		
Benefits	2.19	2.19	28.34	28.34	28.34	28.34	28.34	28.34		

Ratio of Apprentices to Journeymen - *

* [A] For roofing jobs that are of the 1 or single ply nature: 1:2 or fraction thereof

[B] For roofing jobs on new built up roofs 1:3 or fraction thereof

[C] For roofing jobs that are of a tear-off nature: 1:2 or fraction thereof

[D] For re-roofing jobs (not requiring complete removal of existing systems, installation done over existing roof): 1:3 or fraction thereof.

Craft: Roofer COMMENTS/NOTES

Pitch: +.50 per hour

Mop Man: +.30 per hour

The regular workday consists of 8 hours between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays, Sundays, and holidays shall be paid at time and one-half the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Sheet Metal Sign Installation

PREVAILING WAGE RATE

	04/17/24
Foreman	W44.19 B43.87 T88.06
Journeyman	W41.69 B43.87 T85.56

Craft: Sheet Metal Sign Installation

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 hours	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%
Benefits	14.62	16.66	18.72	20.79	23.33	25.43	27.52	29.62	31.73	33.82

Ratio of Apprentices to Journeymen - 1:3

Craft: Sheet Metal Sign Installation

COMMENTS/NOTES

FOREMAN REQUIREMENT:

When there are 6 or more Sheet Metal Sign Installers on a job, 1 shall be designated a Foreman.

The regular workday consists of 8 hours, between 7:00 AM and 3:30 PM.

OVERTIME:

Hours before or after the regular workday, Monday through Friday, and all hours worked on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

Four(4) 10 hour days may be worked, Monday through Friday, at straight time, for projects lasting at least one week in duration. The fifth day may be used as a make-up day at straight time for a day lost due to inclement weather. However, if the fifth day is not a make-up day, all hours worked will be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Sheet Metal Worker

PREVAILING WAGE RATE

	06/01/24
Foreman	W62.92 B47.79 T110.71
Journeyman	W59.08 B47.79 T106.87

Craft: Sheet Metal Worker

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 months	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%
Benefits	14.79	16.52	18.26	19.97	21.70	30.58	32.87	35.13	37.41	39.96

Ratio of Apprentices to Journeymen- 1:3, except for the following types of work where the ratio shall be 1:1 (architectural metal work, testing and balancing, lockers, shelving and toilet partitions).*

* For work performed in a fabrication shop, the ratio will be applied on a "company-wide" basis (i.e. the total number of apprentices and journeymen employed by the company).

Craft: Sheet Metal Worker

COMMENTS/NOTES

JOB SITE FOREMAN REQUIREMENTS:

- When there are 2 to 9 Sheet Metal Workers on a jobsite, 1 must be designated a Foreman.
- When there are 10 to 16 Sheet Metal Workers on a job site, 2 must be designated Foremen.
- When there are 17 to 23 Sheet Metal Workers on a job site, 3 must be designated Foremen.
- For every 7 additional Sheet Metal Workers on a job site, there shall be 1 additional Foreman.

SHOP FOREMAN REQUIREMENTS (For custom fabrication):

- When there are 1 to 10 Sheet Metal Workers in the shop, 1 must be designated a Foreman.
- For every 10 additional Sheet Metal Workers in the shop, 1 must be designated a Foreman.

The regular workday consists of 8 hours, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- There must be a day shift worked in order to have a 2nd and/or 3rd Shift.
- Shop work does not satisfy shift requirements.
- 2nd Shift (4:30 PM-12:30 AM) shall be paid an additional 15% of the regular rate per hour inclusive of benefits, and receive 8 hours pay for 7.5 hours of work.
- 3rd Shift (12:30 AM-8:00 AM) shall be paid an additional 25% of the regular rate per hour inclusive of benefits, and receive 8 hours pay for 7 hours of work.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, that are not shift work, and all

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

hours on Saturday, shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.

- Benefits on overtime hours are as follows:

Time and one-half = \$55.09.

Double-time = \$62.39.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holidays will be observed the preceding Friday, Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Sprinkler Fitter

PREVAILING WAGE RATE

	07/01/24
Foreman	W73.06 B39.71 T112.77
General Foreman	W76.79 B39.71 T116.50
Journeyman	W68.56 B39.71 T108.27

Craft: Sprinkler Fitter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 hours									80%	85%
Benefits							Intervals	9 to 10	Jourymn	Ben.

Ratio of Apprentices to Journeymen - 1:3

Craft: Sprinkler Fitter

COMMENTS/NOTES

Apprentice rate schedule for those apprentices registered as of 7-1-13:

Interval Period and Rates
1000 Hrs. 25% 30% 40% 45% 55% 60% 70% 75% 85% 90%
Ben. 14.31 14.31 29.86 29.86 29.86 29.86 Intervals 7-10 Journey. Ben.

Apprentice rate schedule for those apprentices registered as of 7-1-22:

Interval Period and Rates
1000 Hrs. 30% 35% 40% 45% 50% 55% 60% 70% 85% 95%
Ben. 14.31 14.31 29.86 29.86 29.86 29.86 Intervals 7-10 Journey. Ben.

APPRENTICE RATE SCHEDULES AS OF 7-1-24:

Apprentice rate schedule for those apprentices registered as of 7-1-13:

Interval Period and Rates
1000 Hrs. 25% 30% 40% 45% 55% 60% 70% 75% 85% 90%
Ben. 14.41 14.41 30.71 30.71 30.71 30.71 Intervals 7-10 Journey. Ben.

Apprentice rate schedule for those apprentices registered as of 7-1-22:

Interval Period and Rates
1000 Hrs. 30% 35% 40% 45% 50% 55% 60% 70% 85% 95%
Ben. 14.41 14.41 30.71 30.71 30.71 30.71 Intervals 7-10 Journey. Ben.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

The regular workday consists of 8 consecutive hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- The first Sprinkler Fitter on the job must be designated a Foreman.
- On any job having 12 or more Sprinkler Fitters, one must be designated a General Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 2 consecutive workdays.
- 2nd and 3rd shift shall receive an additional 15% of the regular rate, per hour.
- Any "off hours" shift starting at 8:00 PM or later shall receive an additional 25% of the regular rate, per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate. Hours worked in excess of 10 per day, Monday through Friday, and all hours on Saturday, Sunday and holidays, shall be paid double the regular rate.

Four 10 hour days may be worked, Monday through Friday, at straight-time.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Tile Finisher-Marble

PREVAILING WAGE RATE

	07/01/24
Finisher	W49.99 B37.54 T87.53

Craft: Tile Finisher-Marble

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
750 Hours	40%	60%	65%	70%	75%	85%	95%			
Benefits	Interval 1	thru 5 =	75% of	jyrm. ben	rate	Interval 6	thru 7 =	full jyrm	benefit	rate

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Finisher-Marble

COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Tile Setter - Ceramic

PREVAILING WAGE RATE

	06/03/24
Finisher	W49.08 B32.98 T82.06
Setter	W63.91 B36.26 T100.17

Craft: Tile Setter - Ceramic

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
750 Hours	35%	40%	50%	55%	60%	65%	70%	75%	80%	90%

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Ceramic

COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, and the first 10 hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Saturdays after 10 hours shall be paid double the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Tile Setter - Marble

PREVAILING WAGE RATE

	07/01/24
Tile Setter	W63.92 B40.20 T104.12

Craft: Tile Setter - Marble

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
750 Hours	40%	60%	65%	70%	75%	85%	95%			
Benefits	Interval 1	thru 5 =	75% of	jyrm. ben	rate	Interval 6	thru 7 =	full jyrm	benefit	rate

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Marble

COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays, and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Tile Setter - Mosaic & Terrazzo

PREVAILING WAGE RATE

	07/01/24
Grinder or Assistant	W59.37 B41.48 T100.85
Mechanic	W60.98 B41.49 T102.47
Terrazzo Resinous Worker	W50.76 B33.86 T84.62

Craft: Tile Setter - Mosaic & Terrazzo

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1500 Hours	35%	45%	60%	70%	80%	90%				

Ratio of Apprentices to Journeymen - 1:5

Craft: Tile Setter - Mosaic & Terrazzo

COMMENTS/NOTES

The regular workday consists of 7 hours, between 8:00 AM and 3:30 PM.

OVERTIME:

- Hours in excess of 7 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Monday after Easter, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Truck Driver

PREVAILING WAGE RATE

	05/01/24
Bucket, Utility, Pick-up, Fuel Delivery trucks	W47.56 B40.88 T88.44
Dump truck (single axle), Asphalt Distributor, Tack Spreader	W47.56 B40.88 T88.44
Euclid-type vehicles (large off-road equipment)	W47.71 B40.88 T88.59
Helper on Asphalt Distributor truck	W47.56 B40.88 T88.44
Low Boy Driver	W49.21 B40.88 T90.09
Slurry Seal, Seeding/Fertilizing/Mulchi ng truck	W47.56 B40.88 T88.44
Straight 3-axle trucks, Dump Truck (3-axle), Dump Truck (tandem)	W47.61 B40.88 T88.49
Tractor-Trailer truck (all types)	W47.71 B40.88 T88.59
Vacuum or Vac-All truck (entire unit)	W47.56 B40.88 T88.44
Winch Trailer Driver	W47.81 B40.88 T88.69

Craft: Truck Driver

COMMENTS/NOTES

Foreman: + \$.75 cents per hour. Overtime rate shall be increased accordingly.

HAZARDOUS WASTE REMOVAL WORK:

- On a hazardous waste site requiring Level A, B, or C personal protection for any worker: + \$3.00 per hour.
- On a hazardous waste site not designated Level A, B, or C: + \$1.00 per hour.

The regular workday consists of 8 hours starting between 6:00 AM and 8:00 AM.

SHIFT DIFFERENTIAL:

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Any shift starting at a time other than 6:00 AM or 8:00 AM shall receive an additional \$3.00 per hour.

BLENDED RATE:

- When a truck driver is performing work on site and also serving as a material delivery driver, the driver shall be paid a "blended rate" which shall be 80% of the above-listed wage rates, plus the full benefit rate. This rate shall be used when the driver "round robins" for a minimum of 6 hours during the work day.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

- Benefits on overtime shall be \$48.74.

- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day. Veteran's Day may be substituted for the day after Thanksgiving. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - MONMOUTH

Craft: Truck Driver-Material Delivery Driver

PREVAILING WAGE RATE

	05/01/24
Driver	W38.05 B40.88 T78.93
New Hires: 1st Year	W38.05 B40.88 T78.93

Craft: Truck Driver-Material Delivery Driver

COMMENTS/NOTES

NOTE: These rates may only be used for the delivery of *materials TO the job site (*building materials that will become a permanent part of the job site, such as sand, stone, aggregates, asphalt, sheetrock, 2x4's, etc.). In addition, only the following types of truck may be used for such deliveries (Dump Truck or Flat-bed truck). Please note that this rate does not apply to material suppliers or their employees (who do not perform services at the job site), and for the delivery of equipment and/or items that will not become a permanent part of the job site.

OVERTIME: Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate. Benefits on overtime shall be \$46.29.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans's Day, Thanksgiving Day, Christmas Day. Veteran's Day may be substituted for the day after Thanksgiving. Sunday holidays will be observed the following Monday.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - MONMOUTH

Craft: Welder PREVAILING WAGE RATE

Welder

Craft: Welder COMMENTS/NOTES

Welders rate is the same as the craft to which the welding is incidental .

STATEWIDE RATES

OPERATING ENGINEERS **Rates Expiration Date :**

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must be established for 5 consecutive workdays.
- Any work started outside of the allowed start time, 6:00 AM to 9:00 AM, except for * tidal work, shall be considered an irregular shift and paid at straight time, plus 15% for the first eight hours, inclusive of benefits.
- * FOR TIDAL WORK- a contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work), providing the eight hour shift is completed between the hours of 5:00 AM and 6:30 PM.
- All time worked in excess of an established shift (an established shift is a shift that is determined at the time of the bid) shall be paid at the applicable overtime rate. When a portion of an established shift works into Saturday, Sunday or a holiday, that time worked shall be paid at the established shift rate.
- When working with other trades who receive a higher irregular shift differential, these employees shall also receive the higher differential rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veterans Day.

For projects bid after April 1, 2020, on hazardous waste removal work of any kind, including a state or federally designated site, where the operating engineer is required to wear level A, B, or C personal protection, the operating engineer shall receive an hourly wage rate of his regular hourly wage plus \$5.00 per hour.

- An operating engineer working at a hazardous waste removal project or site at a task requiring hazardous waste related certification, but who is not working in a zone requiring level A, B, or C personal protection, shall receive an hourly wage rate of his regular rate plus \$1.00 per hour.

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
58.88	39.15	98.03	100.53

CLASSIFICATIONS:

- A-Frame
- Backhoe (combination)
- Boom Attachment on loaders (Except pipehook)
- Boring & Drilling Machine
- Brush Chopper, Brush Shredder, Tree Shredder, Tree Shearer
- Bulldozer, finish grade
- Cableway
- Carryall
- Concrete Pump
- Concrete Pumping System (Pumpcrete & similar types)
- Conveyor, 125 feet or longer
- Drill Doctor (Duties include dust collector and maintenance)
- Front End Loader (2 cu. yds. but less than 5 cu. yds.)
- Grader, finish
- Groove Cutting Machine (ride-on type)
- Heater Planer
- Hoist: Outside Material Tower Hoist (all types including steam, gas, diesel, electric, air hydraulic, single and double drum, concrete, brick shaft caisson, snorkle roof, and other similar types, Except Chicago-boom type) * receives an additional \$1.00 per hour on 100 ft. up to 199 ft. total height, and an additional \$2.00 per hour on 200 ft. and over total height.
- Hydraulic Crane (10 tons & under)
- Hydraulic Dredge
- Hydro-Axe
- Hydro-Blaster

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
58.88	39.15	98.03	100.53

CLASSIFICATIONS:

Jack (screw, air hydraulic, power-operated unit, or console type, Except hand jack or pile load test type)

Log Skidder

Pan

Paver, concrete

Plate & Frame Filter Press

Pumpcrete (unit type)

Pumpcrete, Squeezecrete, or Concrete Pumping machine (regardless of size)

Scraper

Side Boom

Straddle Carrier (Ross and similar types)

Whiphammer

Winch Truck (hoisting)

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
56.97	39.15	96.12	98.62

CLASSIFICATIONS:

- Asphalt Curbing Machine
- Asphalt Plant Engineer
- Asphalt Spreader
- Autograde Curb Trimmer & Sidewalk Shoulder Slipform (CMI & similar types)
- Autograde Curecrete Machine (CMI & similar types)
- Autograde Tube Finisher & Texturing Machine (CMI & similar types)
- Bar Bending Machines (Power)
- Batcher, Batching Plant, & Crusher [On Site]
- Belt Conveyor System
- Boom-Type Skimmer Machine
- Bridge Deck Finisher
- Bulldozer (all sizes)
- Captain (Power Boats)
- Car Dumper (railroad)
- Compressor & Blower unit for loading/unloading of concrete, cement, fly ash, or similar type materials (used independently or truck-mounted)
- Compressor (2 or 3 battery)
- Concrete Breaking Machine
- Concrete Cleaning/Decontamination Machine
- Concrete Finishing Machine
- Concrete Saw or Cutter (ride-on type)
- Concrete Spreader (Hetzl, Rexomatic & similar types)
- Concrete Vibrator

OPERATING ENGINEERS **Rates Expiration Date :**

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
56.97	39.15	96.12	98.62

CLASSIFICATIONS:

Conveyors - under 125 feet

Crane Signalman

Crushing Machine

Directional Boring Machine

Ditching Machine - Small (Ditchwitch, Vermeer or similar types)

Dope Pot - Mechanical (with or without pump)

Dumpster

Elevator

Fireman

Fork Lift (Economobile, Lull & similar types)

Front End Loader (1 cu. yd. and over but less than 2 cu. yds.)

Generator (2 or 3 battery)

Giraffe Grinder

Goldhofer/Hydraulic Jacking Trailer

Grader & Motor Patrols

Grout Pump

Gunnite Machine (Excluding nozzle)

Hammer - Vibratory (in conjunction with generator)

Heavy Equipment Robotics - Operator/Technician

Hoist (roof, tugger, aerial platform hoist, house car)

Hopper

Hopper Doors (power operated)

Ladder (motorized)

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
56.97	39.15	96.12	98.62

CLASSIFICATIONS:

- Laddervator
- Locomotive (Dinky-type)
- Maintenance Utility Man
- Master Environmental Maintenance Technician
- Mechanic
- Mixer (Except paving mixers)
- Pavement Breaker (truck-mounted or small self-propelled ride-on type)
- Pavement Breaker - maintenance of compressor or hydraulic unit
- Pipe Bending Machine (power)
- Pitch Pump
- Plaster Pump (regardless of size)
- Post Hole Digger (post pounder, auger)
- Rod Bending Machines
- Roller (black top)
- Scale (power)
- Seamen Pulverizing Mixer
- Shoulder Widener
- Silo
- Skimmer Machine (boom type)
- Steel Cutting Machine (service & maintenance)
- Tamrock Drill
- Tractor
- Transfer Machines

OPERATING ENGINEERS **Rates Expiration Date :**

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
56.97	39.15	96.12	98.62

CLASSIFICATIONS:

Tug Captains

Tug Master (Power Boats)

Ultra High Pressure Waterjet Cutting Tool System -
Operator/Maintenance Technician

Vacuum Blasting Machine - Operator/Maintenance Technician

Vibrating Plant (used with unloading)

Welder & Repair Mechanic

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
51.63	39.15	90.78	93.28

CLASSIFICATIONS:

Assistant Engineer/Oiler

Driller's Helper

Field Engineer - Transit man or Instrument man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Mechanic's Helper

Off Road Back Dump

Tire Repair & Maintenance

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
49.05	39.15	88.20	90.70

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
59.21	39.15	98.36	100.86

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (minimum)

OPERATING ENGINEERS **Rates Expiration Date :**

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
60.47	39.15	99.62	102.12

CLASSIFICATIONS:

Autograde Pavement Profiler (CMI & similar types)

Autograde Pavement Profiler - Recycle Type (CMI & similar types)

Autograde Placer/Trimmer/Spreader Combination (CMI & similar types)

Autograde Slipform Paver (CMI & similar types)

Backhoe (Excavator)

Central Power Plant

Concrete Paving Machine

Cranes, Derricks, Pile Drivers (all types), under 100 tons with a boom (including jib and/or leads) under 100 ft.

Draglines

Drill, Bauer, AMI and similar types

Drillmaster, Quarrymaster

Drillmaster/Quarrymaster (down-the-hole drill), rotary drill, self-propelled hydraulic drill, self-powered drill

Elevator Grader

Field Engineer-Chief of Party

Front End Loader (5 cu. yards or larger)

Gradall

Grader, Rago

Helicopter Co-Pilot

Helicopter Communications Engineer

Juntann Pile Driver

Locomotive (large)

Mucking Machine

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
60.47	39.15	99.62	102.12

CLASSIFICATIONS:

- Pavement & Concrete Breaker (Superhammer & Hoe Ram)
- Pile Driver
- Prentice Truck
- Roadway Surface Grinder
- Scooper (loader & shovel)
- Shovel (Excavator)
- Trackhoe (Excavator)
- Tree Chopper with boom
- Trenching Machine (cable plow)
- Tunnel Boring Machine
- Vacuum Truck

OPERATING ENGINEERS

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
55.34	39.15	94.49	96.99

CLASSIFICATIONS:

- Chipper
- Compressor (single)
- Concrete Spreader (small type)
- Conveyor Loader (Except elevator graders)
- Engines, Large Diesel (1620 HP) & Staging Pump
- Farm Tractor
- Fertilizing Equipment (operation & maintenance)
- Fine Grade Machine (small type)
- Form Line Grader (small type)
- Front End Loader (under 1 cubic yard)
- Generator (single)
- Grease, Gas, Fuel, & Oil Supply Trucks
- Heaters (Nelson or other type)
- Lights - portable generating light plant
- Mixer, Concrete (small)
- Mulching Equipment (operation & maintenance)
- Power Broom or Sweeper
- Pump (diesel engine & hydraulic - regardless of power)
- Pump (larger than 2 inch suction, including submersible pumps)
- Road Finishing Machine (small type)
- Roller - grade, fill, or stone base
- Seeding Equipment (operation & maintenance)
- Sprinkler & Water Pump Trucks

OPERATING ENGINEERS **Rates Expiration Date :**

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
55.34	39.15	94.49	96.99

CLASSIFICATIONS:

Steam Generator or Boiler

Stone Spreader

Tamping Machine (vibrating ride-on type)

Temporary Heating Plant (Nelson or other type, including
proprane, natural gas, and flow-type units)

Water or Sprinkler Truck

Welding Machine (gas, diesel, or electric convertor, of any type)

Welding System - Multiple (rectifier transformer type)

Wellpoint Systems (including installation by bull gang and
maintenance)

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
62.29	39.15	101.44	103.94

CLASSIFICATIONS:

Helicopter Pilot/Engineer

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
66.97	39.15	106.12	108.62

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), 100 tons and over and TOWER CRANE with boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
65.97	39.15	105.12	107.62

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), 100 tons and over and TOWER CRANE with boom (including jib and/or leads) from 100 ft. to
139 ft.

OPERATING ENGINEERS **Rates Expiration Date :**

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
62.47	39.15	101.62	104.12

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types) , under 100 tons with a boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
64.97	39.15	104.12	106.62

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), 100 tons and over and TOWER CRANE with a boom (including jib and/or leads) under 100 ft.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
61.47	39.15	100.62	103.12

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), under 100 tons with a boom (including jib and/or leads) from 100 ft. to 139 ft.

STRUCTURAL STEEL ERECTION

Rates Expiration Date :

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must be established for 5 consecutive workdays.
- Any work started outside of the allowed start time, 6:00 AM to 9:00 AM, except for * tidal work, shall be considered an irregular shift and paid at straight time, plus 15% for the first eight hours, inclusive of benefits.
- * FOR TIDAL WORK- a contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work), providing the eight hour shift is completed between the hours of 5:00 AM and 6:30 PM.
- All time worked in excess of an established shift (an established shift is a shift that is determined at the time of the bid) shall be paid at the applicable overtime rate. When a portion of an established shift works into Saturday, Sunday or a holiday, that time worked shall be paid at the established shift rate.
- When working with other trades who receive a higher irregular shift differential, these employees shall also receive the higher differential rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veterans Day.

For projects bid after April 1, 2020, on hazardous waste removal work of any kind, including a state or federally designated site, where the operating engineer is required to wear level A, B, or C personal protection, the operating engineer shall receive an hourly wage rate of his regular hourly wage plus \$5.00 per hour.

- An operating engineer working at a hazardous waste removal project or site at a task requiring hazardous waste related certification, but who is not working in a zone requiring level A, B, or C personal protection, shall receive an hourly wage rate of his regular rate plus \$1.00 per hour.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
64.10	39.15	103.25	105.75

CLASSIFICATIONS:

Helicopter Co-Pilot & Communications Engineer

STRUCTURAL STEEL ERECTION

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
60.04	39.15	99.19	101.69

CLASSIFICATIONS:

- A-Frame
- Cherry Picker -10 tons or less (Over 10 tons use crane rate)
- Hoist (all types Except Chicago-boom)
- Jack (screw, air hydraulic, power-operated unit or console type, Except hand jack or pile load test type)
- Side Boom
- Straddle Carrier

STRUCTURAL STEEL ERECTION

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
57.38	39.15	96.53	99.03

CLASSIFICATIONS:

- Aerial Platform Used On Hoists
- Apprentice Engineer/Oiler with Compressor or Welding Machine
- Captain (Power Boats)
- Compressor (2 or 3 in battery)
- Concrete Cleaning/Decontamination Machine Operator
- Conveyor or Tugger Hoist
- Directional Boring Machine
- Elevator or House Car
- Fireman
- Forklift
- Generator (2 or 3)
- Heavy Equipment Robotics, Operator/Technician
- Maintenance Utility Man
- Master Environmental Maintenance Technician
- Tug Master (Power Boats)
- Ultra High Pressure Waterjet Cutting Tool System Operator/Maintenance Technician
- Vacuum Blasting Machine Operator/Maintenance Technician
- Welding Machines, Gas or Electric Converters on any type-2 or 3 in battery including diesels

STRUCTURAL STEEL ERECTION

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
55.85	39.15	95.00	97.50

CLASSIFICATIONS:

- Compressor (Single)
- Generators
- Welding Machines, Gas, Diesel, Or Electric Converters of any type-single
- Welding System, Multiple (Rectifier Transformer Type)

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
52.09	39.15	91.24	93.74

CLASSIFICATIONS:

- Assistant Engineer/Oiler
- Drillers Helper
- Field Engineer - Transit/Instrument Man
- Maintenance Apprentice (Deckhand)
- Maintenance Apprentice (Oiler)
- Off Road Back Dump

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
59.66	39.15	98.81	101.31

CLASSIFICATIONS:

- Lead Engineer, Foreman Engineer, Safety Engineer (Minimum)

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
49.05	39.15	88.20	90.70

CLASSIFICATIONS:

- Field Engineer - Rodman or Chainman

STRUCTURAL STEEL ERECTION

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
60.80	39.15	99.95	102.45

CLASSIFICATIONS:

Field Engineer-Chief of Party

Vacuum Truck

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
68.99	39.15	108.14	110.64

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms, including jib, 140 ft. and over, above ground). Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), and Pile Drivers (all types) 100 tons and over and Tower Cranes.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
67.33	39.15	106.48	108.98

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), 100 tons and over and Tower Crane.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
64.49	39.15	103.64	106.14

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, 140 ft. and over, above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), Pile Drivers (all types), under 100 tons.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
62.83	39.15	101.98	104.48

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), under 100 tons.

STRUCTURAL STEEL ERECTION

Rates Expiration Date :

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
64.49	39.15	103.64	106.14

CLASSIFICATIONS:

Helicopter Pilot & Engineer

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST **Rates Expiration Date :**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Monmouth, Ocean, Salem, Sussex, Warren

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must be established for 5 consecutive workdays.
- Any work started outside of the allowed start time, 6:00 AM to 9:00 AM, except for * tidal work, shall be considered an irregular shift and paid at straight time, plus 15% for the first eight hours, inclusive of benefits.
- * FOR TIDAL WORK- a contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work), providing the eight hour shift is completed between the hours of 5:00 AM and 6:30 PM.
- All time worked in excess of an established shift (an established shift is a shift that is determined at the time of the bid) shall be paid at the applicable overtime rate. When a portion of an established shift works into Saturday, Sunday or a holiday, that time worked shall be paid at the established shift rate.
- When working with other trades who receive a higher irregular shift differential, these employees shall also receive the higher differential rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veterans Day.

For projects bid after April 1, 2020, on hazardous waste removal work of any kind, including a state or federally designated site, where the operating engineer is required to wear level A, B, or C personal protection, the operating engineer shall receive an hourly wage rate of his regular hourly wage plus \$5.00 per hour.

- An operating engineer working at a hazardous waste removal project or site at a task requiring hazardous waste related certification, but who is not working in a zone requiring level A, B, or C personal protection, shall receive an hourly wage rate of his regular rate plus \$1.00 per hour.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
60.47	39.15	99.62	102.12

CLASSIFICATIONS:

Driller

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
53.63	39.15	92.78	95.28

CLASSIFICATIONS:

Driller's Helper

FREE AIR TUNNEL JOBS

Rates Expiration Date :

{For apprentice rates refer to "Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

- SHIFT DIFFERENTIALS:
- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
 - When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
 - Shifts shall receive an additional \$3.00 per hour.

- OVERTIME:
- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
 - Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

- Hazardous Waste Work:
- where Level A, B, or C protection is required: + \$5.00/hr
 - other Hazardous Waste site: + \$1.00/hr

Traffic Control Coordinator: When either of the work classifications found below are working as a Traffic Control Coordinator they are to receive \$.75 above their current rate of pay.

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
65.06	37.33	102.39	106.26	109.94

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
64.69	37.33	102.02	105.88	109.57

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrician Foreman, Rigging Foreman

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

FREE AIR TUNNEL JOBS **Rates Expiration Date :**

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
64.06	37.33	101.39	105.26	108.94

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Cleanup Foreman, Grout Foreman

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
67.19	37.33	104.52	108.38	112.07

CLASSIFICATIONS:

Blaster

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
63.38	37.33	100.71	104.57	108.26

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
62.94	37.33	100.27	104.13	107.82

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Manitenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Tod Man)

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
62.75	37.33	100.08	103.94	107.63

CLASSIFICATIONS:

Semi-Skilled Men (including Bell or Signal Man Top or Bottom, Form Worker & Mover, Concrete Worker, Shaft Man, Tunnel Laborer, Caulker's Helper, all other semi-skilled)

Semi-Skilled Men (including Miner's Helper, Chuck Tender, Track Man, Nipper, Brake Man, Derail Man, Cable Man, Hose Man, Gravel Man, Form Man)

FREE AIR TUNNEL JOBS

Rates Expiration Date :

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
62.25	37.33	99.58	103.44	107.13

CLASSIFICATIONS:

All Others (including Powder Watchman, Change House Attendant, Top Laborer)

DRILL FOR GROUND WATER SUPPLY

Rates Expiration Date :

The well driller and/or helper may perform all work relative to the construction, finishing, and servicing of wells, pumps and borings for ground water supply. The present methods of well drilling entailing as they do, many diverse job operations calling for drilling, pump discharge, piping, and the operation of various types of related power equipment, shall all be within the job duties and functions of the well driller and/or helper. In the event that an extension of work should occur beyond water well drilling functions, into the field of general construction work, such extension of work would come under the appropriate rates listed elsewhere in this wage determination.

- For Work Hours, Shift Differentials, Overtime Rates, and Recognized Holidays see the "Operating Engineers" section of this wage determination.

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
59.22	39.15	98.37	100.87

CLASSIFICATIONS:

Driller

Effective Dates:

07/01/2024			07/01/2025
Rate	Fringe	Total	Total
52.38	39.15	91.53	94.03

CLASSIFICATIONS:

Driller's Helper

OPERATING ENGINEERS MARINE-DREDGING **Rates Expiration Date :**

NOTE: These wage rates only apply to dredging and other marine construction activities occurring in navigable waters and their tributaries.

Boat crews carrying explosive material (dynamite, pourfex, and other similar materials) shall be paid at 120% of the hourly wage rate for hours engaged in handling of said materials. Employees required to possess a Hazardous Material Certification as a condition of employment shall be compensated at 120% of the hourly wage rate.

OVERTIME:

Hours in excess of 40 per week, and all hours on Saturdays and Sundays, shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Martin Luther King Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
47.07	15.34	62.41	63.92	65.74

CLASSIFICATIONS:

Lead Dredgerman, Operator, Leverman

Licensed Tug Operator with MOTV, Deck Captain

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
40.71	14.90	55.61	56.92	58.47

CLASSIFICATIONS:

Derrick Operator, Spider/Spill Barge Operator

Engineer, Electrician, Chief Welder, Chief Mate

Fill Placer, Operator II

Licensed Boat Operator

Maintenance Engineer

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
38.31	14.73	53.04	54.27	55.75

CLASSIFICATIONS:

Certified Welder

OPERATING ENGINEERS MARINE-DREDGING **Rates Expiration Date :**

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
37.26	14.66	51.92	53.12	54.54

CLASSIFICATIONS:

Mate, Drag Barge Operator, Steward, Assistant Fill Placer

Welder

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
36.07	14.57	50.64	51.80	53.18

CLASSIFICATIONS:

Boat Operator

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
29.96	14.15	44.11	45.07	46.22

CLASSIFICATIONS:

Shoreman, Deckhand, Rodman, Scowman

Effective Dates:

10/03/2024			10/01/2025	10/01/2026
Rate	Fringe	Total	Total	Total
41.94	14.99	56.93	58.27	59.89

CLASSIFICATIONS:

Crane Operator

MICROSURFACING/SLURRY SEAL

Rates Expiration Date :

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:
Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem
IN ALL OTHER COUNTIES use the Heavy and General Laborers - North "Slurry Seal Laborer" rates.

SHIFT DIFFERENTIALS:
Any shift starting at 3:30 PM or later shall receive an additional \$0.35/hr

OVERTIME:
Hours in excess of 8 per day or 40 per week shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

Effective Dates:

03/01/2017		
Rate	Fringe	Total
36.50	21.27	57.77

CLASSIFICATIONS:

Foreman

Effective Dates:

03/01/2017		
Rate	Fringe	Total
33.80	21.27	55.07

CLASSIFICATIONS:

Box man

Effective Dates:

03/01/2017		
Rate	Fringe	Total
31.75	21.27	53.02

CLASSIFICATIONS:

Microsurface/Slurry Preparation

Effective Dates:

03/01/2017		
Rate	Fringe	Total
31.75	21.27	53.02

CLASSIFICATIONS:

Squeegee man

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

MICROSURFACING/SLURRY SEAL Rates Expiration Date :

Effective Dates:

03/01/2017

Rate	Fringe	Total
30.30	21.27	51.57

CLASSIFICATIONS:

Cleaner, Taper

ASPHALT LABORERS - SOUTH **Rates Expiration Date :**

"THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$5.00/hr
- other Hazardous Waste site: + \$1.00/hr

FOR TIDE WORK (pertains to tidal water): A contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work) providing the eight (8) hour shift is completed between the hours of 5:00 AM and 6:30 PM.

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
53.55	37.33	90.88	94.33	97.58

CLASSIFICATIONS:

Paving Foreman

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.10	37.33	87.43	90.88	94.13

CLASSIFICATIONS:

Head Raker

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.25	37.33	87.58	91.03	94.28

CLASSIFICATIONS:

Screedman

ASPHALT LABORERS - SOUTH **Rates Expiration Date :**

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.70	37.33	87.03	90.48	93.73

CLASSIFICATIONS:

Tampers, Smoothers, Kettlemen,
Painters, Shovelers, Roller Boys

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.80	37.33	87.13	90.58	93.83

CLASSIFICATIONS:

Milling Controller

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.00	37.33	87.33	90.78	94.03

CLASSIFICATIONS:

Traffic Control Coordinator

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.95	37.33	87.28	90.73	93.98

CLASSIFICATIONS:

Raker, Luteman

TEST BORING PRELIMINARY TO CONSTRUCTION-NORTH

Rates Expiration Date :

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:
Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset, Union

SHIFT DIFFERENTIAL:
Employees on a shift other than between the hours of 8:00 AM and 5:00 PM shall receive an additional \$2.00 per hour.

OVERTIME:
Hours in excess of 8 per day, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Hazardous Waste Pay (for Levels A, B, and C): an additional 15% of the hourly rate, per hour.

A newly hired Helper with no experience in the industry shall be paid as follows:
1st year on the job - 70% of Helper wage rate
2nd year on the job - 80% of Helper wage rate
3rd year on the job - 90% of Helper wage rate
All helpers receive full fringe benefit rate.

Effective Dates:

10/18/2024

Rate	Fringe	Total
37.58	34.49	72.07

CLASSIFICATIONS:

Helper (4th year helper)

Effective Dates:

10/18/2024

Rate	Fringe	Total
47.88	34.49	82.37

CLASSIFICATIONS:

Driller

Effective Dates:

10/18/2024

Rate	Fringe	Total
54.50	34.49	88.99

CLASSIFICATIONS:

Foreman

HEAVY & GENERAL LABORERS - NORTH **Rates Expiration Date :**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

FOR TIDE WORK (pertains to tidal water): A contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work) providing the eight (8) hour shift is completed between the hours of 5:00 AM and 6:30 PM.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$5.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	11/12/2024		03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.30	37.33	86.63	90.08	93.33

CLASSIFICATIONS:

"D" Rate:

basic, landscape, asphalt, slurry seal, or railroad track laborer; utility meter installer; flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofer; timberman; wagon drill or drill master helper; powder carrier; magazine tender; signal man; power buggy operator; tree cutter; operator of basic power tools

Effective Dates:

	11/12/2024		03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.00	37.33	87.33	90.78	94.03

CLASSIFICATIONS:

"C" Rate:

pipe layer; laser man; conduit or duct line layer; operator of jack hammer, chipping hammer, pavement breaker, concrete cutter, asphalt cutter, sheet hammer, or walk-behind saw cutter; sandblaster; acetylene cutting or burning; wagon drill, directional drill, or hydraulic drill operator; drill master; core driller; asphalt raker or lute man

HEAVY & GENERAL LABORERS - NORTH

Rates Expiration Date :

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.25	37.33	87.58	91.03	94.28

CLASSIFICATIONS:

"B" Rate:

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; asphalt screedman; rammer; hardscaping; gunite nozzle man

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
53.80	37.33	91.13	94.58	97.83

CLASSIFICATIONS:

"A" Rate:

blaster

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
53.55	37.33	90.88	94.33	97.58

CLASSIFICATIONS:

"FOREMAN" Rate:

labor foreman, asphalt foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
54.55	37.33	91.88	95.33	98.58

CLASSIFICATIONS:

"GENERAL FOREMAN" Rate

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.75	37.33	88.08	91.53	94.78

CLASSIFICATIONS:

TRAFFIC CONTROL COORDINATOR Rate

HEAVY & GENERAL LABORERS - NORTH

Rates Expiration Date :

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
54.05	37.33	91.38	95.83	100.08

CLASSIFICATIONS:

" CERTIFIED FOREMAN Rate" :

Effective Dates:

11/12/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
55.05	37.33	92.38	96.83	101.08

CLASSIFICATIONS:

" CERTIFIED GENERAL FOREMAN Rate" :

HEAVY & GENERAL LABORERS - SOUTH

Rates Expiration Date :

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:
Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

- SHIFT DIFFERENTIALS:
- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
 - When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
 - Shifts shall receive an additional \$3.00 per hour.

FOR TIDE WORK (pertains to tidal water): A contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work) providing the eight (8) hour shift is completed between the hours of 5:00 AM and 6:30 PM.

- OVERTIME:
- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
 - Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

- Hazardous Waste Work:
- where Level A, B, or C protection is required: + \$5.00/hr
 - other Hazardous Waste site: + \$1.00/hr
- Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.30	37.33	86.63	90.08	93.33

- CLASSIFICATIONS:
- basic, landscape, or railroad track laborer; utility meter installer; flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofers; tree cutter, timberman
- Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.30	37.33	86.63	90.08	93.33

- CLASSIFICATIONS:
- wagon drill or drill master helper; powder carrier; magazine tender; signal man

HEAVY & GENERAL LABORERS - SOUTH

Rates Expiration Date :

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.00	37.33	87.33	90.78	94.03

CLASSIFICATIONS:

pipe layer; laser man; conduit or duct line layer; operator of jack hammer, chipping hammer, pavement breaker, concrete cutter, asphalt cutter, sheet hammer, or walk-behind saw cutter; sandblaster; acetylene cutting or burning

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.00	37.33	87.33	90.78	94.03

CLASSIFICATIONS:

wagon or directional drill operator; drill master

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
53.80	37.33	91.13	94.58	97.83

CLASSIFICATIONS:

blaster

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
53.55	37.33	90.88	94.33	97.58

CLASSIFICATIONS:

labor foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
54.55	37.33	91.88	95.33	98.58

CLASSIFICATIONS:

general foreman

HEAVY & GENERAL LABORERS - SOUTH

Rates Expiration Date :

Effective Dates:

03/21/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.25	37.33	87.58	91.03	94.28

CLASSIFICATIONS:

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; rammer; gunite nozzle man

PIPELINE - MAINLINE TRANSMISSION **Rates Expiration Date :**

These rates apply to the following: welding on Transportation Mainline pipe lines (cross-country pipe lines, or any segments thereof, transporting coal, gas, oil, water or other transportable materials, vapors or liquids, including portions of such pipe lines within private property boundaries up to the final metering station or connection - the point where a valve, consumer connection, or town border station divides mainline transmission lines or higher pressure lateral and branch lines from lower pressure distribution systems).

PER DIEM PAYMENT:

In addition to the total wage rate paid for each craft, the following per diem (per day) amounts must also be paid - Pipeline Journeyman: \$80.50; Pipeline Journeyman Welder: \$140.50; and Pipeline Helper: \$64.50. Note: in order to receive the per diem payment an employee must work a minimum of 8 hours in a 24 hour period.

NOTES:

- Journeymen employed as "stringer bead" welders and journeymen who are regularly employed as "hot-pass" welders shall receive \$1.00 per hour more than other journeymen.
- Welders running "stringer bead" or "hot-pass" on "cutouts" or "tie-ins" on a production basis shall be paid \$1.00 per hour above the journeymen rate.
- Whenever a welder helper is employed using a power buffer or power grinder immediately behind the stringer bead and/or hot-pass welders, and the pipe gang is set on a production basis, the helper shall be paid \$2.00 per hour above the helper rate.
- If back welding is performed inside a pipe under either or both of the following conditions, the welder engaged in the welding will receive \$3.00 per hour above the regular rate for the job only for the days on which such back welding is performed:
 - The employer elects, as a regular procedure, to back weld each line-up. This condition is not intended to apply to occasional back welding performed by the pipe gang to repair a bead, to rectify a "high-lo" condition or wall thickness, etc.
 - A welder is required to back weld a completed weld behind the firing line.
- If the welder helper is required to go inside the pipe for the purpose of brushing, buffing and grinding the weld, they shall receive a wage rate \$1.00 per hour above the regular helper rate for the days involved.
- Welders working on "hot work" shall be paid \$2.00 per hour above the regular rate for each day engaged in such work. "Hot work" is defined as work on lines in service where there is the danger of fire or explosion.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, and all hours on Sundays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

06/13/2024

Rate	Fringe	Total
57.34	35.90	93.24

CLASSIFICATIONS:

Pipeline Journeyman Welder

PIPELINE - MAINLINE TRANSMISSION

Rates Expiration Date :

Effective Dates:

06/13/2024

Rate	Fringe	Total
57.34	35.90	93.24

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

06/13/2024

Rate	Fringe	Total
33.84	25.02	58.86

CLASSIFICATIONS:

Pipeline Helper

PIPELINE - GAS DISTRIBUTION **Rates Expiration Date :**

These rates apply to the following: welding on gas line distribution systems (that portion of the gas distribution system placed in streets, roads, subways, tunnels, viaducts, highways and easements which serves the users of gas).

SHIFT DIFFERENTIALS:

An "irregular" shift may start any time from 5:00 PM to 12:00 AM, Monday through Friday, and shall receive an additional 15% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of forty per week, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

11/04/2024

Rate	Fringe	Total
64.70	34.74	99.44

CLASSIFICATIONS:

Pipeline Journeyman Welder

Effective Dates:

11/04/2024

Rate	Fringe	Total
64.70	34.74	99.44

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

11/04/2024

Rate	Fringe	Total
41.73	24.77	66.50

CLASSIFICATIONS:

Pipeline Helper

ASPHALT LABORERS- NORTH **Rates Expiration Date :**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$5.00/hr
- other Hazardous Waste site: + \$1.00/hr

FOR TIDE WORK (pertains to tidal water): A contractor can start their job according to tide schedules (tide schedules are the various high and low tides related to this work) providing the eight (8) hour shift is completed between the hours of 5:00 AM and 6:30 PM.

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
53.55	37.33	90.88	94.33	97.58

CLASSIFICATIONS:

Asphalt Foreman

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.25	37.33	87.58	91.03	94.28

CLASSIFICATIONS:

Asphalt Screedman

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
50.00	37.33	87.33	90.78	94.03

CLASSIFICATIONS:

Asphalt Raker or Lute Man

ASPHALT LABORERS- NORTH

Rates Expiration Date :

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
49.30	37.33	86.63	90.08	93.33

CLASSIFICATIONS:

Asphalt Laborer

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date :**

Electrician-Utility Work (North)

(For apprentice rates refer to Electrician-Utility Work (North) in any county rate package).

These rates apply to work contracted for by the following utility companies:

Public Service Electric & Gas Co. of NJ, GPU Energy, Borough of Madison Electric Department, Sussex Rural Electric Cooperative, Rockland Utilities, and Butler Municipal Electric Co.

These rates do not apply to work on substations or switching stations.

For Utility work contracted for by a utility company other than those listed above or those listed under "Electrician-Utility Work (South), see the "Outside Commercial Rates" for the county in which the jobsite is located.

* FOR OUTSIDE COMMERCIAL RATES PLEASE SEE COUNTY RATES

The regular workday is 8 hours, between 6:00 AM and 6:00 PM.

FOR EMERGENCY WORK ONLY: (emergency work is defined as work caused by storm, catastrophe, act of god, and circumstances beyond the control of the employer)-all hours of work shall be paid at double the hourly rate.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

2nd shift (between the hours of 4:30 PM and 1:00 AM): 8 hours of work + 17.3% of the regular rate, inclusive of benefits.

3rd shift (between the hours of 12:30 AM and 9:00 AM): 8 hours of work + 31.4% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, that is not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.

Four 10-hour days may be worked, at straight time, between 6:00 AM and 6:00 PM, Monday through Thursday.

RECOGNIZED HOLIDAYS:

New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day and Christmas Day, or day on which they are legally observed.

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
62.94	43.42	106.36	109.56

CLASSIFICATIONS:

Chief Lineman

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
59.38	40.97	100.35	103.36

CLASSIFICATIONS:

Journeyman Lineman

ELECTRICIAN- UTILITY WORK (NORTH)

Rates Expiration Date :

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
59.38	40.97	100.35	103.36

CLASSIFICATIONS:

Special License Operator

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
58.79	40.56	99.35	102.32

CLASSIFICATIONS:

Transit Man

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
57.00	39.33	96.33	99.21

CLASSIFICATIONS:

Line Equipment Operator

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
49.88	34.41	84.29	86.81

CLASSIFICATIONS:

Dynamite Man

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
74.23	51.21	125.44	129.20

CLASSIFICATIONS:

General Foreman

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
68.29	47.12	115.41	118.85

CLASSIFICATIONS:

Assistant General Foreman

ELECTRICIAN- UTILITY WORK (NORTH)

Rates Expiration Date :

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
66.51	45.89	112.40	115.76

CLASSIFICATIONS:

Line Foreman

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
48.10	33.18	81.28	83.72

CLASSIFICATIONS:

Street Light Mechanical Leader

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
45.72	31.54	77.26	79.58

CLASSIFICATIONS:

Groundman Winch Operator

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
45.72	31.54	77.26	79.58

CLASSIFICATIONS:

Groundman Truck Operator

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
45.13	31.13	76.26	78.55

CLASSIFICATIONS:

Street Light Mechanic

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
45.13	31.13	76.26	78.55

CLASSIFICATIONS:

Line Equipment Mechanic

ELECTRICIAN- UTILITY WORK (NORTH)

Rates Expiration Date :

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
38.60	26.63	65.23	67.17

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
35.63	24.58	60.21	62.02

CLASSIFICATIONS:

Groundman 1st Year

Effective Dates:

12/03/2023			12/01/2024
Rate	Fringe	Total	Total
58.79	40.56	99.35	102.32

CLASSIFICATIONS:

Line Equipment Foreman

ELECTRICIAN- UTILITY WORK (SOUTH) **Rates Expiration Date :**

Electrician-Utility Work (South)

(For apprentice rates refer to Electrician-Utility Work (South) in any county rate package).

These rates apply to work contracted for by the following utility company:

Atlantic City Electric.

These rates do not apply to work on substations or switching stations.

For utility work contracted for by a utility company other than the one listed above or those listed under "Electrician-Utility Work (North)", see the "Outside Commercial Rates" for the county in which the jobsite is located.

* FOR OUTSIDE COMMERCIAL RATES PLEASE SEE COUNTY RATES

The regular workday is 8 hours, between 7:00 AM and 4:30 PM.

FOR EMERGENCY WORK ONLY: (emergency work is defined as work caused by storm, catastrophe, act of god, and circumstances beyond the control of the employer)- all hours of work shall be paid at double the hourly rate.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

When two (2) or three (3) shifts are worked the following shall apply:

1st shift (between the hours of 8:00 AM and 4:30 PM)

2nd shift (between the hours of 4:30 PM and 12:30 AM): 8 hours of work + 10% of the regular rate of pay for 7.5 hours worked.

3rd shift (between the hours of 12:30 AM and 8:00 AM): 8 hours of work + 15% of the regular rate of pay for 7 hours worked.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, that is not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate. All hours on Sundays and Holidays shall be paid double the hourly rate.

Four 10-hour days may be worked, at straight time, between 6:00 AM and 6:00 PM, Monday through Thursday with Friday used as a make-up day.

RECOGNIZED HOLIDAYS:

New Year's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day or on days celebrated.

WORKING RULES:

There shall be a Foreman in charge of each work crew. No crews are to exceed twelve (12) men, including Foremen.

There shall be a General Foreman designated for transmission work when three (3) or more crews are on the same job and for distribution work where there are more than twenty (20) employees on site.

A small job crew shall consist of five (5) or less employees, one (1) of the Journeyman Linemen in the crew shall be designated as a Small Job Foreman.

Work performed from ladders and/or mechanical lift equipment shall be the work of Linemen and/or Apprentices.

On new construction, fitting and framing poles, towers or structures may be done by Journeymen and/or Apprentices. Groundmen may assist, but may not perform any work which would be performed by Linemen if assembled in the air.

There shall be a Journeyman Lineman in each pole setting, erection, grounding, wire and cable-pulling crew of more than three (3) men.

Effective Dates:

12/03/2023

Rate	Fringe	Total
69.38	57.15	126.53

CLASSIFICATIONS:

General Foreman

ELECTRICIAN- UTILITY WORK (SOUTH) **Rates Expiration Date :**

Effective Dates:

12/03/2023

Rate	Fringe	Total
61.79	52.45	114.24

CLASSIFICATIONS:

Foreman

Effective Dates:

12/03/2023

Rate	Fringe	Total
58.54	50.46	109.00

CLASSIFICATIONS:

Small Job Foreman

Effective Dates:

12/03/2023

Rate	Fringe	Total
54.20	47.78	101.98

CLASSIFICATIONS:

Heavy Equipment Operator

Effective Dates:

12/03/2023

Rate	Fringe	Total
54.20	47.78	101.98

CLASSIFICATIONS:

Cable Splicer

Effective Dates:

12/03/2023

Rate	Fringe	Total
54.20	47.78	101.98

CLASSIFICATIONS:

Journeyman Lineman

Effective Dates:

12/03/2023

Rate	Fringe	Total
54.20	47.78	101.98

CLASSIFICATIONS:

Journeyman Welder

ELECTRICIAN- UTILITY WORK (SOUTH)

Rates Expiration Date :

Effective Dates:

12/03/2023

Rate	Fringe	Total
54.20	47.78	101.98

CLASSIFICATIONS:

Journeyman Painter

Effective Dates:

12/03/2023

Rate	Fringe	Total
43.36	41.09	84.45

CLASSIFICATIONS:

Light Equipment Operator

Effective Dates:

12/03/2023

Rate	Fringe	Total
37.94	37.71	75.65

CLASSIFICATIONS:

Groundman Truck Driver

Effective Dates:

12/03/2023

Rate	Fringe	Total
35.23	36.05	71.28

CLASSIFICATIONS:

Groundman 3rd Year

Effective Dates:

12/03/2023

Rate	Fringe	Total
32.52	34.37	66.89

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/03/2023

Rate	Fringe	Total
29.81	32.69	62.50

CLASSIFICATIONS:

Groundman 1st Year

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date :

Effective Dates:

12/03/2023

Rate	Fringe	Total
23.85	29.03	52.88

CLASSIFICATIONS:

Flagman

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS **Rates Expiration Date :**

****THESE RATES APPLY TO CONSTRUCTION ON NEW TRANS HUDSON TUNNELS ONLY****

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$5.00/hr
- other Hazardous Waste site: + \$1.00/hr

Traffic Control Coordinator: When either of the work classifications found below are working as a Traffic Control Coordinator they are to receive \$.75 above their current rate of pay.

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
78.08	37.33	115.41	119.68	123.81

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
77.63	37.33	114.96	119.23	123.36

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrical Foreman, Rigging Foreman

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS **Rates Expiration Date :**

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
76.88	37.33	114.21	118.48	122.61

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Clean-up Foreman, Grout Foreman

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
80.63	37.33	117.96	122.23	126.36

CLASSIFICATIONS:

Blaster

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
76.05	37.33	113.38	117.66	121.78

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
75.53	37.33	112.86	117.13	121.26

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Maintenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Rod Man)

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
75.30	37.33	112.63	116.91	121.03

CLASSIFICATIONS:

Semi-Skilled Men (including Bell or Signal Man top or bottom, Form Worker & Mover, Concrete Worker, Shaft Man, Tunnel Laborer, Caulker's Helper, all other semi-skilled)

Semi-Skilled Men (including Miner's Helper, Chuck Tender, Track Man, Nipper, Brake Man, Derail Man, Cable Man, Hose Man, Gravel Man, Form Man)

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS

Rates Expiration Date :

Effective Dates:

04/17/2024			03/01/2025	03/01/2026
Rate	Fringe	Total	Total	Total
74.70	37.33	112.03	116.31	120.43

CLASSIFICATIONS:

All others (including Powder Watchman, Change House Attendant, Top Laborer, Job Steward)

Public reporting burden for this collection of information is estimated to average 1 hour 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. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number. Construction practices and HUD administrative requirements establish the need that HAs maintain certain records or submit certain documents in conjunction with the oversight of the award of construction contracts for the construction of new low-income housing developments or modernization of existing developments. These forms are used by HAs to provide information on the construction progress schedule and schedule of amounts for contract payments. Responses to the collection of information are required to obtain a benefit or to retain a benefit. The information requested does not lend itself to confidentiality.

Name, Address, and Zip Code of Contractor

Instructions for Preparation of form HUD-51000

1. A separate breakdown is required for each project and prime contract instructions for preparation are given below.
 - a. **Heading.** Enter all identifying information required for both forms.
 - b. **Columns 1 and 2.** In column 1, enter the item numbers starting with No. 1, and in column 2 enter each principal division of work incorporated in the contract work.
 - (1) **Master List.** The Master list contains the basic items into which any construction contract may be subdivided for the purpose of preparing the Construction Progress Schedule and the Periodical Estimates for Partial Payments. Only those items shall be selected which apply to the particular contract. To ensure uniformity, no change shall be made in the item numbers. Generally, about 25 to 40 major items appear in a contract.
 - (2) **Items Subdivided.** In the Contractor's breakdown, against which all periodical estimates will be checked prior to payment, each major item must be subdivided into sub-items pertinent to the project involved and in agreement with the Contractor's intended basis for requesting monthly payments.
 - c. **Column 3.** Enter the total quantity for each sub-item of each principal division of work listed in the breakdown.
 - d. **Column 4.** Enter the appropriate unit of measure for each sub-item of work opposite the quantities described in column 3, such as "sq. ft.," "cu. yd.," "tons," "lb.," "lumber per M/BM," "brickwork per M," etc., applicable to the particular sub-item. Items shown on "lump sum" or equivalent basis will be paid for only on completion of the whole item and not on a percentage of completion basis.
 - e. **Column 5.** Enter the unit price, in place, of each sub-item of work.
 - f. **Column 6.** Enter the amount of each sub-item obtained by multiplying the quantities in column 3 by the corresponding unit prices in column 5.
 - g. **Column 7.** Enter the amount of principal item only, obtained by adding the amounts of all sub-items of each principal division of work listed in column 6. Continue with the breakdown on form HUD-51000.
 - h. The "Schedule of Amounts for Contract Payments" shall be signed and dated in the space provided at the bottom of each sheet of the form by the individual who prepared the breakdown for the Contractor.
2. The minimum number of copies required for each submission for approval is an original and two copies. When approved, one fully approved copy will be returned to the Contractor.

Master List of Items

Item No.	Division of Work	Item No.	Division of Work	Item No.	Division of Work
1	Bond	20	Rough Carpentry		Site Improvements
2	General Conditions	21	Metal Bucks	44	Retaining Walls
3	Demolition & Clearing	22	Caulking	45	Storm Sewers
	Structures	23	Weatherstripping	46	Sanitary Sewers
4	General Excavation	24	Lath & Plastering-Drywall	47	Water Distribution System
5	Footing Excavation	25	Stucco	48	Gas Distribution System
6	Backfill	26	Finish Carpentry	49	Electrical Distribution System
7	Foundation Piles & Caissons	27	Finish Hardware	50	Street & Yard Lighting
8	Concrete Foundations	28	Glass & Glazing	51	Fire & Police Alarm System
9	Concrete Superstructures	29	Metal Doors	52	Fire Protection System
10	Reinforcing Steel	30	Metal Base & Trim	53	Street Work
11	Waterproofing & Dampproofing	31	Toilet Partitions	54	Yard Work
12	Spandrel Waterproofing	32	Floors	55	(Other)
13	Structural Steel	33	Painting & Decorating	56	(Other)
14	Masonry	34	Screens		Equipment
15	Stonework	35	Plumbing	57	Shades & Drapery Rods
16	Miscellaneous & Ornamental Metal	36	Heating	58	Ranges
17	Metal Windows	37	Ventilating System	59	Refrigerators
18	Roofing	38	Electrical	60	Kitchen Cabinets & Work Tables
19	Sheet Metal	39	Elevators	61	Laundry Equipment
		40	Elevator Enclosures—Metal	62	(Other)
		41	Incinerators—Masonry & Parts		Punch List ½
		42	(Other)	63	Lawns & Planting
		43	(Other)	64	

1 General Conditions should be 3% to 5% of contract amount.

2 Punch List should be approximately 1/2 of 1% or \$30 per dwelling unit, whichever is greater.

Instructions

Headings. Enter all identifying data required. Periodic estimates must be numbered in sequence beginning with the number 1.

Columns 1 and 2. The "Item Number" and "Description of Item" must correspond to the number and descriptive title assigned to each principal division of work in the "Schedule of Amounts for Contract Payments", form HUD-51000.

Column 3. Enter the accumulated value of each principal division of work completed as of the closing date of the periodic estimate. Enter the total in the space provided.

Certifications. The certification of the contractor includes the analysis of amounts used to determine the net balance due. In the first paragraph, enter the name of the Public Housing Agency, the contractor, and the date of the contract. Enter the calculations used in arriving at the "Balance Due This Payment" on lines 1 through 16.

Enter the contractor's name and signature in the certification following line 16.

The latter portion of this certification relating to payment of legal rates of wages, is required by the contract before any payment may be made. However, if the contractor does not choose to certify on behalf of his/her subcontractors to wage payments made by them, he/she may modify the language to cover only himself /herself and attach a list of all subcontractors who employed labor on the site during the period covered by the Periodic Estimate, together with the individual certifications of each.

Certification of the Contractor or Duly Authorized Representative

According to the best of my knowledge and belief, I certify that all items and amounts shown on the other side of this form are correct; that all work has been performed and material supplied in full accordance with the items and conditions of the contract between the (name of owner)

_____ and (contractor) _____
dated (mm/dd/yyyy) _____, and duly authorized deviations, substitutions, alterations, and additions; that the following is a true and correct statement of the Contract Account up to and including the last day of the period covered by this estimate, and that no part of the "Balance Due This Payment" has been received.

1. Original Contract Amount \$ _____

Approved Change Orders:

2. Additions (Total from Col. 3, form HUD-51002) \$ _____
3. Deductions (Total from Col. 5, form HUD-51002) \$ _____ (net) \$ _____
4. Current Adjusted Contract Amount (line 1 plus or minus net) \$ _____

Computation of Balance Due this Payment

5. Value of Original Contract work completed to date (from other side of this form) \$ _____

Completed Under Approved Change Orders

6. Additions (from Col. 4, form HUD-51002) \$ _____
7. Deductions (from Col. 5, form HUD-51002) \$ _____ (net) \$ _____
8. Total Value of Work in Place (line 5 plus or minus net line 7) \$ _____
9. **Less:** Retainage, _____ % \$ _____
10. Net amount earned to date (line 8 less line 9) \$ _____
11. **Less:** Previously earned (line 10, last Periodic Estimate) \$ _____
12. Net amount due, work in place (line 10 less line 11) \$ _____

Value of Materials Properly Stored

13. At close of this period (from form HUD-51004) \$ _____
14. **Less:** Allowed last period \$ _____
15. Increase (decrease) from amount allowed last period \$ _____
16. **Balance Due This Payment** \$ _____

I further certify that all just and lawful bills against the undersigned and his/her subcontractors for labor, material, and equipment employed in the performance of this contract have been paid in full in accordance with the terms and conditions of this contract, and that the undersigned and his/her subcontractors have complied with, or that there is an honest dispute with respect to, the labor provisions of this contract.

Name of Contractor	Signature of Authorized Representative	Title	Date (mm/dd/yyyy)

Certificate of Authorized Project Representative and of Contracting Officer

Each of us certifies that he/she has checked and verified this Periodic Estimate No. _____; that to the best of his/her knowledge and belief it is a true statement of the value of work performed and material supplied by the contractor; that all work and material included in this estimate has been inspected by him/her or by his/her authorized assistants; and that such work has been performed or supplied in full accordance with the drawings and specifications, all applicable accessibility requirements (including Section 504 and Title II of the Americans with Disabilities Act; and the Fair Housing Act and Title III of the Americans with Disabilities Act, if applicable), the terms and conditions of the contract, and duly authorized deviations, substitutions, alterations, and additions, all of which have been duly approved.

We, therefore, approve as the "Balance Due this Payment" the amount of \$ _____

Authorized Project Representative	Date (mm/dd/yyyy)	Contracting Officer	Date (mm/dd/yyyy)

I certify the information on this form and in any accompanying documentation is true and accurate. I acknowledge making, presenting, or submitting a false, fictitious, or fraudulent statement, representation, or certification may result in criminal, civil, and/or administrative sanctions, including fines, penalties, and confinement for up to 5 years, (18 U.S.C. §§ 287, 1001 and 31 U.S.C. §3729)

SECTION 011000 - SUMMARY

PART 1 - GENERAL REQUIREMENTS

1.01 SUMMARY

- A. The owner is: **The Asbury Park Housing Authority**
1000 ½ 3rd Avenue
Asbury Park NJ 07712
- Attn: Ms. Shemea Daniels, MBA – Executive Director**
Mr. Ed McDonald - Director of Maintenance
- B. Section Includes:
1. Project description.
 2. Contracts scope description.
 3. Applicable regulatory requirements.
 4. Permits and licenses.
 5. Access to the site.
 6. Contractor's use of the premises.
 7. Coordination requirements.
 8. Coordination drawings.
 9. Pre-construction meeting.

1.02 PROJECT DESCRIPTION

- A. The project consists of
Gymnasium Space Replacement at
Robinson Towers located at 1000 ½ Third Avenue
Asbury Park, NJ 07712
1. As shown in contract documents prepared by MVMK, LLC
- B. The work consists of:
- Gymnasium Space Replacement at**
Robinson Towers located at 1000 ½ Third Avenue
Asbury Park, NJ 07712
- C. **Milestone Events and Dates:**
1. Initial Mobilization, Initial Site Setup and Commencement of Construction
Date of Contract Signing & Notice to Proceed
 2. **Substantial Completion** of All aspects of this project:

45 Consecutive Calendar Days after Contract Signing & Notice to Proceed Issued
- D. The Contractor shall complete any uncompleted items on the Certificate of Substantial completion with 30 calendar days or a time fixed by the Architect on the Certificate of Substantial Completion. If the contractor fails to complete all uncompleted items within the time established, the Contractor will pay additional Liquidated Damages in the same amount established for Substantial completion until all work is finally completed.

1.03 ENUMERATION OF PRIME CONTRACTS

- A. The General Contractor's prime contract shall include the work described in:
 - 1. The agreement & all project work.
 - 2. The general and supplementary conditions.
 - 3. All Specifications & Construction Documents

1.04 DEFINITIONS

- A. **Furnish:** To supply products to the project site, including delivering ready for unloading and replacing damaged and rejected products.
- B. **Install:** To put products in place in the work ready for the intended use, including unloading, unpacking, handling, storing, assembling, installing, erecting, placing, applying, anchoring, working, finishing, curing, protecting, cleaning, and similar operations.
- C. **Indicated:** Shown, noted, scheduled, specified, or drawn, somewhere in the contract documents.

1.05 REGULATORY REQUIREMENTS

- A. The following regulations are applicable to this project:
 - 1. The International Building Code (current edition).
- B. Other regulations may also be applicable.
- C. Submit copies of all permits, licenses, and similar permissions obtained, and receipts for fees paid, to the owner directly.

1.06 ACCESS TO THE SITE AND USE OF THE PREMISES

- A. Access to site will be extremely limited; obtain owner's approval of proposed routes of access.
- B. The following existing facilities may not be used by construction personnel:
 - 1. Toilet facilities – Only with approval from the owner
 - 2. Contractor to provide Port O John in the event toilet facilities are not granted by ownerhsip
- C. The owner & tenants will occupy the existing building during the construction period.
 - 1. The owner will endeavor to cooperate with the contractor's operations when the contractor has notified the owner in advance of need for changes in operations in order to accommodate construction operations.
 - 2. Conduct the work so as to cause the least interference with the owner's operations.
- D. Coordinate with Local Authorities as to which routes are capable of handling heavy truck traffic.

- E. Signs: Provide signs adequate to direct visitors.
 - 1. Do not install, or allow to be installed, signs other than specified sign(s) and signs identifying the principal entities involved in the project.
- F. All deliveries by the Contractors to be coordinated with the Owner, prior to the delivery date.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. A pre-construction meeting will be held at a time and place designated by the construction manager, architect & owner's representatives for the purpose of identifying responsibilities of the owner's and the architect's personnel and explanation of administrative procedures.
- B. The contractor shall also use this meeting for the following minimum agenda:
 - 1. Construction schedule.
 - 2. Use of areas of the site
 - 3. Delivery and storage.
 - 4. Safety.
 - 5. Security.
 - 6. Cleaning up.
 - 7. Contractor procedures relating to:
 - a. Submittals.
 - b. Applications for payment.
 - c. Record documents.
- C. Attendees shall include:
 - 1. The Owner's Representatives
 - 2. The Contractor's Construction Manager.
 - 3. The Architect and any consultants.
 - 4. The General Contractor, their superintendents & Sub-Contractors.
 - 5. Others interested in the work.
- D. Owner's Representative

Mr. Ed McDonald - Director of Maintenance

**The Asbury Park Housing Authority
1000 ½ 3rd Avenue
Asbury Park NJ 07712**

3.02 COORDINATION WITH OCCUPANTS

- A. Occupied areas include all areas in which the owner's regular operations will be going on or to which the owner requires access during the construction period, whether conducted by the owner or his customers, clientele, or the public.
- B. Contractors shall coordinate all work schedules with the owner.
- C. Limit access through occupied areas to those days and times which the owner approves.

- D. Provide separated access from the exterior to the construction area, without passing through occupied area, unless coordinated with the owner in advance.
- E. When the following must be modified, provide alternate facilities acceptable to the owner:
 - 1. Emergency means of egress.
 - 2. Entrances which must remain open.
 - 3. Utilities which must remain in operation.
 - 4. Informational signage.

3.03 SECURITY PROCEDURES

- A. Limit access to the site to persons involved in the work.
- B. Provide secure storage for materials for which the owner has made payment and which are stored on site.
- C. Secure completed work as required to prevent loss.

3.04 COORDINATION

- A. **The General contractor shall coordinate his activities with the activities of other contractors.**
 - 1. Inform the owner when coordination of his work is required.
- B. Participate in progress meetings; report progress, changes required in schedules, and unresolved problems.
- C. Observe work for compliance with contract documents and notify the applicable contractor in writing of observed defects in the work.
- D. Coordinate maintenance of record documents.
- E. Assist the architect with final inspections.

END OF SECTION 011000

SECTION 012000 - ALTERNATES, ALLOWANCES AND UNIT PRICES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Alternates:
 - a. N/A
 - 2. Allowances:
 - a. List of Allowances to be included in contract.
 - b. Procedures for using allowance amounts.
 - 3. Unit Prices:
 - a. See Unit Prices Below
- B. Related Sections:
 - 1. Applications for payment: Elsewhere in Division 1.
 - 2. Procedures for modifications to the contract: Elsewhere in Division 1.
 - 3. Contract closeout procedures: Elsewhere in Division 1.

1.02 ALTERNATES

- A. N/A

1.03 ALLOWANCE LIST

- B. **Allowance GC-1** - General Allowance (To be included in the base bid of project)
General Construction Allowance - \$5,000.00 - (Five Thousand Dollars)

1.04 UNIT PRICES

- A. **GC-1 – Provide new 24” x 24” (per square foot) Rubber Flooring**
Price includes all Labor & Material to replace 24” x 24” Area of Rubber Flooring

1.05 SUBMITTALS

- A. Supporting Data: With applications for payment covering allowance work submit executed modification to the contract.
 - 1. For variations in lump sum cost, include invoices showing actual cost.
- B. Supporting Data: With applications for payment covering unit price work submit substantiated measurement of quantity installed or executed.

1.06 CONTRACT CONSIDERATIONS

A. Allowances & Unit Prices:

1. Include in the contract sum all allowances defined in the contract documents.

B. Procedures for Modifications to the Contract: Procedures for submitting and handling modifications due to changes are specified elsewhere.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 012000

SECTION 012500 - PROGRESS DOCUMENTATION AND PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Progress documentation requirements:
 - a. Preliminary demolition schedule.
 - b. Contractor's demolition & construction schedule.
 - c. Progress reports.
 - d. Progress photographs.
 - 2. Progress procedures:
 - a. Progress meetings if needed.
- B. Contract time is indicated elsewhere.
- C. Related Sections:
 - 1. Applications for payment: Elsewhere in Division 1.
 - 2. Coordination meetings: Elsewhere in Division 1.
 - 3. Preconstruction meeting: Elsewhere in Division 1.
 - 4. Schedule of values: Elsewhere in Division 1.
 - 5. Submittal schedule: Elsewhere in Division 1.
 - 6. Quality control activities schedule: Elsewhere in Division 1.
 - 7. Milestone Dates and Events: Elsewhere in Division 1.

1.02 SUBMITTALS

- A. Preliminary demolition & construction schedule.
 - 1. Submit within 7 days after notice to proceed.
- B. Contractor's demolition & construction schedule.
 - 1. Submit before second project meeting, or as directed by the Architect .
 - 2. Submit revised schedule with application for payment.
- C. PDF Daily construction progress reports: Submit every week.
- D. PDF Progress Reports: Submit with each application for payment if needed.
- E. Digital Progress Photographs: Submit with each application for payment.
- F. PDF Minutes of progress meetings if applicable

1.03 FORM OF SUBMITTALS

- A. Schedules - General:

1. Provide legend of symbols and abbreviations for each schedule.
 2. Use the same terminology as that used in the contract documents.
 3. Provide digital copies via PDF of all submittals
- C. Reports - General:
1. Provide pdf's of any construction & remediation information
- D. Photographs: Digital
1. Provide weekly photos of remediation & construction

1.04 COORDINATION

- A. The General Work Contractor, Contract No.1 is responsible for coordinating all prime Contractor's schedules.
- B. Each Prime Contractor responsible for coordinating reporting with other contractors.
- C. In preparation of schedules, take into account the time allowed or required for the housing authority administrative procedures.
- D. Notify entity responsible for coordination of schedules promptly when problems are anticipated in meeting schedule dates.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PRELIMINARY CONSTRUCTION SCHEDULE

- A. The General Work Contractor, Contract No.1, shall prepare and submit preliminary demolition & construction schedule:
 1. All prime Contractors submit their schedules to the General Work Contractor in time for incorporation into the preliminary construction schedule.
 2. Submit digital copies to all other prime contractors.
- B. Provide preliminary demolition schedule in the form of bar charts or network analysis diagrams:
 1. Show activities of construction in detail;
 2. Show completion of the work in advance of the date established for substantial completion.
 3. Include dates and description of all submittals required during construction.
 - a. Include those required by the construction schedule.
 - b. Submittal dates may be provided in a separate list rather than on the schedule.
 4. The Architect will notify the Contractors if schedule is not satisfactory; revise and resubmit.
 - a. Resubmit within 3 days.

3.02 CONTRACTOR'S DEMOLITION & CONSTRUCTION SCHEDULE

- A. The General Construction Work Contractor, Contract No.1 shall prepare and submit a complete construction schedule:
 - 1. Obtain and incorporate schedules of all other prime Contractors.
 - 2. Base any demolition schedule on preliminary construction schedule, with adjustments due to changes since start of work.
- B. Provide demolition & construction schedule:
 - 1. Show each prime Contractor work and the activities of all prime contractors.
 - 2. Use the same items of work as shown in the schedule of values.
 - 3. Where related activities must be performed in sequence, show relationship graphically.
 - 4. Indicate activities separately for:
 - a. Each Unit
 - b. Exterior and/or Interior Alterations.
 - 5. Incorporate the submittal schedule specified elsewhere.
 - 6. Incorporate the quality control activities schedule specified elsewhere.
 - 7. Show dates of:
 - a. Each activity that influences the construction time.
 - b. Occupancy of public property and obstruction of the public way.
 - c. Preconstruction meeting.
 - d. Specified pre-installation meetings.
 - e. Quality control activities which involve long lead time or long elapsed time.
 - f. Ordering dates for products requiring long lead time.
 - g. All submittals required.
 - h. Completion of mechanical work.
 - i. Completion of electrical work.
 - j. Completion of Plumbing Work
 - m. Substantial and final completion, with time frames for the Architect's completion procedures.
 - 8. Show dates required for:
 - a. Delivery of Owner-furnished products.
 - b. Selection of products to be furnished under an allowance.
 - c. Approval of mock-ups required for approval of products.
 - 9. In developing the schedule take into account:
 - a. Phased completion if agreed upon.
 - b. Work under other contracts.
 - c. Work by Owner.
 - d. Continued occupancy.
 - e. Interruption of services to occupied facilities.
 - f. Occupancy by Owner prior to substantial completion.
 - g. Site limitations.
 - h. Provisions made for future work.

- I. Weather, including seasonal changes.
 - J. Need for temporary heating, ventilating, or air-conditioning.
- 10. Include the following supporting report(s):
 - a. Data summary.
 - b. Critical path summary as needed.
 - c. Cost summary as needed.
- C. The Architect will notify the Contractor if schedule is not satisfactory; revise and resubmit.
 - 1. Resubmit within (7) days unless otherwise directed by the Architect.
- D. The General Construction Work Contractor shall provide digital copies of schedule and distribute to the Architect, to the Owner, to all prime Contractors, and to other entities whose work will be influenced by schedule dates.
 - 1. Each prime Contractor shall make digital copies to his subcontractors, suppliers, and other parties.
 - 2. Hang a copy of the schedule up in each field office or meeting room.
- E. The General Construction Work Contractor shall update the schedule whenever changes occur or are made, or when new information is received, but not less often than at the same intervals at which applications for payment are made.
 - 1. Indicate changes made since last issue; show actual dates for activities completed.
 - 2. Submit updated schedule with application for payment.
 - 3. Issue updated schedule with report of meeting at which revisions are made.
 - 4. Issue updated schedule in same manner as original schedule.
 - 5. Include the same supporting reports as for original schedule.
 - 6. Updating of Schedule: The General Construction Work Contractor, Contract No.1 will be required to update the Schedule at intervals not less than those at which applications for than those at which applications for payment are made.
All original supporting reports will be required. If any additional information not originally asked for or not applicable to the original submission is required, Specifier will need to describe that information.

3.03 PROGRESS REPORTS

- A. Daily Construction Logs: Every day, the General Construction Work Contractor shall record the following information concerning events at the site:
 - 1. Weather conditions; high and low temperatures.
 - 2. Approximate number of persons at the site.
 - 3. Names of prime Contractors at site.
 - 4. Visitors to the site.
 - 5. All information required of each prime Contractor.
- B. Daily Construction Logs: Every day, each prime Contractor shall record the following information concerning events at the site:
 - 1. Modifications to the contract received; modifications implemented.
 - 2. Changes in occupancy.
 - 3. Delays; reasons for delay.
 - 4. Emergencies and accidents.
 - 5. Equipment and system start-ups and tests.

6. Field quality control activities conducted.
 7. Instrument and meter readings.
 8. Losses of material and property.
 9. Meetings held and significant decisions made there.
 10. Names of subcontractors at site.
 11. Special reports made.
 12. Orders and requests of representatives of governing authorities.
 13. Unusual events.
 14. Utility service disconnections and connections.
- C. Progress Reports: The General Construction Work Contractor shall prepare a narrative report describing the general state of completion of the work and describing in detail the following:
1. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
 2. Actual and potential problems.
 3. Status of change order work.
 4. Effect of delays, problems, and changes on the schedules of other prime contractors.
 5. Outstanding change proposal requests.
 6. Status of corrective work ordered by the Architect.
- D. Progress Photographs: Contractors shall take and submit progress photographs:
1. Take photos of site before start of construction.
 2. Take a minimum of 12 photos for each submission.
 3. Take photos not more than one week prior to submittal of application for payment.
 4. Take photos from positions chosen to show the current status of completion and progress since previous photos were taken.
 - a. Select 2 views which will show overall status during entire construction period; take photographs of these views each time.

3.04 PROGRESS MEETINGS

- A. The General Construction Work Contractor shall schedule and conduct periodic progress meetings during the construction period, prepare and distribute agenda, and record and distribute minutes.
1. Have meetings bi-weekly or as directed by the Architect / Owner.
 2. Notify the Architect and the Owner at least one week in advance of date of meeting; the Architect and the Owner may attend.
- B. The following are required to attend:
1. All prime Contractors.
 2. All prime Contractors' superintendents.
 3. Major subcontractors and suppliers.
 4. Others who have an interest in the agenda.
- C. Prepare and distribute agenda prior to meetings; cover the following topics when applicable:
1. Review minutes of previous meeting.
 2. Status of submittals and impending submittals.
 3. Off-site fabrication and delivery schedules.

4. Actual progress of activities in relation to the schedule.
 5. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
 6. Actual and potential problems.
 7. Status of change order work.
 8. Effect of proposed changes on schedule and coordination.
 9. Effect of delays, problems, and changes on the schedules of all prime Contractors.
 10. Status of corrective work ordered by the Architect.
 11. Progress expected to be made during the next period.
- D. Record minutes and distribute copies within 5 days to the Architect, to the Owner, to all participants, and to all entities affected by decisions made.

END OF SECTION 012500

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SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 01300 "Or Equal" Substitution Procedures for administrative procedures for handling requests for substitutions made after the Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and

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finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- e. Quotation Form: Use forms acceptable to Architect.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract Documents, Contractor may initiate a claim by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use CSI Form 13.6A, "Change Order Request (Proposal)," with attachments CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."
- C. Contractor Responsibilities: Contractor shall compensate the Architects and/or his consultants at a cost of \$250.00 per hour for all re-designs. Contractor shall not be required to compensate the Architect and/or his consultants if a re-design is required because of a latent or changed condition.

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
- B. Unit-Price Adjustment: See Section "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

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1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 013000 - SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Preparing and processing of submittals for review and action.
 - 2. Preparing and processing of informational submittals.
- B. Submit the following for the architect's review and action via digital format:
 - 1. Shop drawings.
 - 2. Product data.
 - 3. Samples.
 - 4. **Submittals for which procedures are not defined elsewhere.**
- C. Submit the following as informational submittals:
 - 1. Certificates.
 - 2. Coordination drawings.
 - 3. Reports.
 - 4. Qualification statements for manufacturers/installers.
- D. Specific submittals are described in individual sections.
 - 1. Provide other information required by Division 15 for mechanical work.
 - 2. Provide other information required by Division 16 for electrical work.
- E. **Do not commence work which requires review of any submittals until receipt of returned submittals with an acceptable action.**
- F. Do not allow submittals without an acceptable action marking to be used for the project.
- G. **Submit all submittals to the Architect.**
 - 1. Contractor to allow for adequate time for mailing; failure of the Contractor in this respect will not be considered as grounds for an extension of the contract time.
- H. **Do not submit substitute items that have not been approved by means of the procedure specified elsewhere.**
- I. **Do not include requests for substitution (either direct or indirect) on submittals; comply with procedures for substitutions specified elsewhere.**
- J. Related Sections: The following are specified elsewhere in Division 1:
 - 1. Payment, modification, and completion submittals.
 - a. Applications for payment.
 - b. Schedule of values.
 - c. Change proposals.
 - 2. Progress of work submittals:

- a. Contractor's construction schedules.
 - b. Progress reports.
 - c. Progress photographs.
- 3. Quality control submittals:
 - a. Inspection reports.
 - b. Test reports.
- 4. Product submittals:
 - a. Product option submittals.
 - b. Requests for substitution.
 - c. Operating and maintenance data.
 - d. Warranties.
 - e. Maintenance materials and tools.
- 5. Contract closeout submittals:
 - a. Equipment and systems demonstration reports.
 - b. Request for determination of substantial completion.
 - c. Certificate of occupancy.
 - d. Project record documents.
 - e. Bonds.
- 6. Other administrative submittals:
 - a. Survey data.
 - b. Layout data.

1.02 DEFINITIONS

A. Shop Drawings: See General Conditions.

1. Shop drawings also include:

- a. Product data specifically prepared for this project.
- b. Shop or plant inspection and test reports, when made on specific materials, products, or systems to be used in the work.

B. Product Data: See General Conditions.

1. Product data submittals also include:

- a. Performance curves, when issued by the manufacturer for all products of that type.
- b. Selection data showing standard colors.
- c. Wiring diagrams, when standard for all products of that type.

C. Samples: See General Conditions.

D. Informational Submittals: Submittals identified in the contract documents as to be submitted for information only.

1.03 FORM OF SUBMITTALS

- A. Sheet Size Digital Format:
 - 1. Minimum: 8 1/2 inches by 11 inches.
 - 2. Maximum: 36 inches by 48 inches.
 - 3. Exception: Full size pattern or template drawings.
- B. Number of Copies:
 - 1. Submittals for Review: 1 digital copy for distribution
 - 2. Informational Submittals: 1 digital copy for distribution
- C. Samples: 3 sets of each.
 - 1. 1 set will be returned. 1 for architect & 1 for owner
- D. If additional items are needed by other entities involved in work represented by the samples, submit with original submittal, and mark accordingly.
- E. Provide additional copies, if required for operating and maintenance data, marked to indicate their purpose.
- F. Provide additional copies for project record documents as requested.
- G. Copies in excess of the number requested will not be returned, unless they are marked to indicate their purpose.

1.04 COORDINATION OF SUBMITTALS

- A. Coordinate submittals and activities that must be performed in sequence, so that the architect has enough information to properly review the submittals.
- B. **Coordinate submittals of different types for the same product or system so that the architect has enough information to properly review each submittal.**
 - 1. Contractor to be responsible for coordination of submittals from his/her different subcontractors to provide a complete system for review by the Architect.
- C. Coordinate submittals for products requiring color selections. Submit together with sufficient time for Architect to review and make the required color selections.
 - 1. Floor, wall, ceiling finish materials, cabinetry, and any product required to receive a color selection to be color coordinated with the color selections of the room are to be submitted within the same time period.
 - 2. The Architect will make the final decision as to whether a product is necessary in the color selection scheme of the area in question.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 TIMING OF SUBMITTALS

- A. Schedule of Submittals:
 - 1. Prepare and submit for approval a schedule showing the required dates of submittal of all required

SUBMITTALS

013000-3

- submittals.
 - 2. Organize the schedule by the applicable specification section number.
 - 3. Submit Schedule of Submittals within ten (10) working days after "Notice to Proceed."
 - 4. Revise and resubmit the schedule for approval when requested.
- B. Transmit each submittal at or before the time indicated on the approved schedule of submittals.
- C. Deliver each submittal requiring approval in time to allow for adequate review and processing time, including resubmittals if necessary; failure of the contractor in this respect will not be considered as grounds for an extension of the contract time.
- D. Deliver each informational submittal prior to start of the work involved, unless the submittal is of a type which cannot be prepared until after completion of the work; submit promptly.
- E. If a submittal must be processed within a certain time in order to maintain the progress of the work, state so clearly on the submittal.
- F. Allow a minimum of 10 working days for the first processing of each submittal. Allow more time when submittals must be coordinated with later submittals.**
- G. Allow a minimum of 5 working days for processing of resubmittals.**
- H. If a submittal must be delayed for coordination with other submittals not yet submitted, the architect may at his option either return the submittal with no action or notify the contractor of the other submittals which must be received before the submittal can be reviewed.
- I. All required submittals must be completely and properly submitted to the Architect within 30 calendar days from "Notice to proceed". Failure to make submittals within this time period shall constitute a delay by the responsible contractor, and may cause for Liquidated Damages as defined in other sections of these contract documents.**

3.02 SUBMITTAL PROCEDURES – GENERAL - Digital Copies Only

- A. Contractor Review: Contract to sign each copy of each submittal certifying compliance with the requirements of the contract documents.**
- B. Notify the Architect, in writing and at time of submittal, of all points upon which the submittal does not conform to the requirements of the contract documents, if any.
- C. Preparation of Submittals:
- 1. Label each copy of each submittal, with the following information:
 - a. Project name.
 - b. Date of submittal.
 - c. Contractor's name and address.
 - d. Architect's name and address.
 - e. Construction Manager's name & address
 - f. Subcontractor's name and address.
 - g. Supplier's name and address.
 - h. Manufacturer's name.
 - i. Specification section where the submittal is specified.
 - j. Numbers of applicable drawings and details.
 - k. Other necessary identifying information.

2. Pack submittals suitably for shipment.
 3. Submittals to receive Architect's action marking: Provide blank space on the label or on the submittal itself for action marking; minimum 4 inches wide by 5 inches high.
- D. Transmittal of Submittals:
1. **Submittals will be accepted from the general contractor ONLY. Submittals received from other entities will be returned without review or action.**
 2. Submittals received without a transmittal form will be returned without review or action.
 3. Transmittal form: Use AIA G810.
 - a. Any form acceptable to the Architect, obtain approval prior to submittal.
 - b. The contractor's certification signature.
 4. **Fill out a separate transmittal form for each submittal; also include the following:**
 - a. Other relevant information.
 - b. Requests for additional information.

3.03 SHOP DRAWINGS – Digital Copies Only

- A. Content: Include the following information:
1. Dimensions, at accurate scale.
 2. All field measurements that have been taken, at accurate scale.
 3. Names of specific products and materials used.
 4. Details, identified by contract document sheet and detail numbers.
 5. Show compliance with the specific standards referenced.
 6. Coordination requirements; show relationship to adjacent or critical work.
 7. Name of preparing firm.
- B. Preparation:
1. **Reproductions of contract documents are not acceptable as shop drawings.**
 2. Identify as indicated for all submittals.
 3. Space for architect's action marking shall be adjacent to the title block.

3.04 PRODUCT DATA - Digital Copies Only

- A. Submit all product data submittals for each system or unit of work as one submittal.
- B. When product data submittals are prepared specifically for this project (in the absence of standard printed information) submit such information as shop drawings and not as product data submittals.
- C. Content:
1. Submit manufacturer's standard printed data sheets.
 2. Identify the particular product being submitted; submit only pertinent pages.
 3. Show compliance with properties specified.
 4. Identify which options and accessories are applicable.
 5. Include recommendations for application and use.
 6. Show compliance with the specific standards referenced.
 7. Show compliance with specified testing agency listings; show the limitations of their labels or seals, if any.
 8. Identify dimensions which have been verified by field measurement.

9. Show special coordination requirements for the product.

3.05 SAMPLES

A. Samples:

1. Provide samples that are the same as proposed product.
2. Where unavoidable variations must be expected, submit "range" samples, minimum of three (3) units, and describe or identify variations among units of each set.
3. Where selection is required, provide full set of **all options**.
 - a. **"All options"**, means both standard and custom selections.
4. Where products are to match a sample prepared by other entities, prepare sample to match.

B. Preparation:

1. Attach a description to each sample.
2. Attach name of manufacturer or source to each sample.
3. Where compliance with specified properties is required, attach documentation showing compliance.
4. Where there are limitations in availability, delivery, or other similar characteristics, attach description of such limitations.
5. Where samples are specified to be returned for installation in the work, indicate such requirement on transmittal form.
6. Where selection is required, the first submittal may be a single set of all options; after return of submittal with selection indicated, submit standard number of sets of selected item.

C. Keep final sample set(s) at the project site, available for use during progress of the work.

3.06 WARRANTIES - Digital Copies Only

- A. Submit to the Architect certified copies of all guarantees and warranties required by the Contract Documents.

3.07 REVIEW OF SUBMITTALS

- A. Submittals for approval will be reviewed, marked with appropriate action, and returned.
- B. Informational submittals: Submittals will be reviewed.

3.08 RETURN, RESUBMITTAL, AND DISTRIBUTION

- A. Submittals will be returned to the contractor by email.
- B. Perform resubmittals in the same manner as original submittals; indicate all changes other than those requested by the Architect.
- C. Distribution:
 1. Distribute returned submittals to all subcontractors and suppliers involved in work covered by the submittal.
 2. Distribute to each prime contractor.
 3. Record distribution on transmittal form with copy to the architect.

END OF SECTION 013300

SECTION 014000 - QUALITY CONTROL PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. General quality control activities.
 - 2. Procedures for the following:
 - a. Preparation and maintenance of schedule of quality control activities.
 - b. Testing and evaluation of test results.
 - c. Inspections.
 - 3. Procedures for quality control activities performed by:
 - a. Public authorities having jurisdiction.
 - b. Architect.
 - c. Construction Manager
 - d. Independent testing agencies.
 - e. Contractors.
 - f. Manufacturers' representatives.
 - 4. Procedures for submittal of quality control documentation.
- B. Quality control activities required are specified in other sections.
- C. See General Conditions for additional requirements for testing, inspections, and approvals.
- D. The cost of quality control activities specified to be paid for by the owner is not to be included in the contract sum.
- E. Related Sections:
 - 1. Alternates if applicable: Elsewhere in Division 1.
 - 2. Contractor's construction schedule: Elsewhere in Division 1.
 - 3. Submittal procedures: Elsewhere in Division 1.

1.02 CONTRACT CONDITIONS

- A. Independent testing agencies, whether employed by the owner or the contractor, may not change the requirements of the contract documents and may not approve any portion of the work.
- B. Employment of testing agencies, by the contractor or the owner, shall not relieve the contractor of his obligation to perform the work in accordance with the contract documents.

1.03 DEFINITIONS

- A. Certificate: A written statement that a portion of the work as accomplished or a particular product conforms to the requirements of the contract documents.
- B. Owner's Testing Agency: Any independent testing and inspection agency employed by the owner to perform certain quality control activities.

1.04 REFERENCE STANDARDS

- A. ASTM E 699-79 -- Standard Criteria for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating Building Components in Accordance with Test Methods Promulgated by ASTM Committee E-6

1.05 SUBMITTALS

- A. Schedule of Quality Control Activities:
 - 1. Submit as part of the contractor's construction schedule.
 - 2. Revise as required by the owner, to coordinate with the owner's testing agency activities.
 - 3. Distribute to:
 - a. The Owner & Construction Manager.
 - b. The Architect.
 - c. Each entity performing work for which quality control activities are specified.
- B. Reports: Provide digital copies of reports.
 - 1. Unless otherwise indicated, submit for review by the architect.
 - 2. Submit reports within 2 weeks after execution of quality control activity, but not later than the date of application for payment for the work to which the quality control activity relates.
 - 3. Reports shall be prepared by the entity performing the quality control activity.
 - 4. Submit copies directly to governing authorities when so directed.
 - 5. When the contractor employs an independent testing agency, submit copies directly to the Architect.
 - 6. Include the following information in all types of reports:
 - a. Date of report.
 - b. Project name (and number, if applicable).
 - c. Description of the quality control activity.
 - d. Name, address, and telephone number of entity performing activity.
 - e. Date quality control activity was performed.
 - f. Specification section(s) involved.
 - g. Basis for evaluation (test method, etc.).
 - h. Results or conclusions, including evaluations and interpretations.
 - i. Title, name, and signature of person performing activity.
 - 7. Include the following information in all test reports:
 - a. Locations from which samples were taken, if any.
 - b. Ambient conditions at time of activity.
 - c. Recommendations for retesting, if any.
- C. Certificates: Submit for information only, unless otherwise indicated.
 - 1. Certificates shall be signed by the product manufacturer, unless otherwise specified or not applicable.
 - 2. Include the following information:
 - a. Date of certificate.
 - b. Project name (and number, if applicable).
 - c. Description of the product or system certified.
 - d. Specification section(s) involved.
 - e. When actual materials to be used are to be certified, include lot identification markings, destination

- or shipment, and quantity in shipment.
- f. Title, name, and signature of person authorized to make certification.

1.06 QUALITY ASSURANCE

- A. Qualifications of Testing and Inspection Personnel:
 - 1. As indicated in individual sections.
 - 2. Independent Testing Agency Qualifications: When employed by the contractor:
 - a. A firm independent from the contractor's organization.
 - b. Having experience in the testing specified, and having the capability to conduct satisfactorily the testing specified without delaying the progress of the work, as shown by information supplied as required by ASTM E 699.
 - c. Approved by the Architect.
 - d. Authorized to conduct business in the state in which the project is located.
 - 3. Do not employ the same testing agency the owner has employed for testing or inspecting the same portion of the work (if any), unless otherwise agreed upon in writing.
- B. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to either the National Bureau of Standards (NBS) standards or to accepted values of natural physical constants.

1.07 SEQUENCING AND SCHEDULING

- A. Prepare a schedule of quality control activities required.
 - 1. Include activities of the owner's testing agencies.
 - 2. Provide the following information for each activity:
 - a. Specification section number.
 - b. Description of the activity.
 - c. Identification of test or inspection methods.
 - d. Enumeration of results required.
 - e. Number of tests required.
 - f. Number and type of samples to be taken, if any.
 - g. Starting time of activity.
 - h. The date that the work will be ready for the owner's testing agency access.
 - i. Elapsed time required for activity.
 - j. Entity responsible.
 - k. Special requirements for activity.
- B. Coordinate quality control activities to avoid delay and to make it unnecessary to uncover work for testing or inspection.
- C. Notify the owner's testing agencies 2 weeks prior to commencement or completion of work which is to be tested or inspected, whichever is applicable.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 GENERAL

- A. Provide work of the specified quality; where quality level is not indicated, provide work of quality customary in similar types of work.
 - 1. Where codes, laws, or regulations require work of higher quality or performance, provide work complying with those codes, laws, and regulations.
 - 2. Where two or more quality provisions of the contract documents conflict, comply with the most stringent requirement; where requirements are different but apparently equal, and where it is uncertain which requirement is most stringent, obtain clarification from the architect before proceeding.
 - 3. Actual quality may exceed the specified quality; verify that such differences are acceptable to the owner (other criteria may make excessive quality undesirable).
- B. Control products, suppliers, manufacturers, site conditions, installers, and workmanship in such a manner as to produce work of the specified quality.
- C. Comply with manufacturers' instructions and recommendations.
 - 1. Keep a record of instructions and recommendations which supplement or conflict with the manufacturer's written instructions.
 - 2. When manufacturers' instructions and recommendations conflict with the contract documents, obtain clarification from the architect before proceeding.
- D. Use installers who are capable of producing work of the specified quality.
- E. Each prime contractor shall perform all specified quality control activities related to his work unless indicated to be performed by other entities.

3.02 TESTING

- A. Perform tests specified.
- B. When results of tests are unsatisfactory, make whatever changes or repairs are necessary and retest.
- C. Submit written report of each original test and of each retest.

3.03 INSPECTING

- A. Perform inspections specified.
- B. When inspections reveal unsatisfactory work, make whatever changes or repairs are necessary and re-inspect.
- C. Submit written report of each original inspection and each re-inspection.

3.04 PROTECTION AND REPAIR

- A. When work is uncovered during quality control activities, provide protection from damage.
- B. Correct work damaged by quality control activities; where repair is indicated as an unacceptable method, replace the work.

END OF SECTION 014000

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Temporary utilities.
2. Temporary construction.
3. Protective facilities.
4. Employee facilities.
5. Administrative facilities.
6. Temporary services.

B. Enumeration of Temporary Facilities and Services:

1. **General Construction Work Contractor** shall provide, be responsible and pay for the following, as specified in this section, for the use of all contractors and subcontractors:
 - a. Employee parking facilities.
 - b. Existing property protection.
 - c. Fire protection facilities, other than piped utilities.
 - d. Fire protection services.
 - e. Other employee protection facilities required by law.
 - f. Project identification sign(s).
 - g. Public protective facilities required by law.
3. Waste disposal service.
4. **Contractor** shall provide and pay for the following, as specified in this section, for the use of all contractors and subcontractors:
 - a. Electrical service & extension cords.
 1. Include electric service usage charges.
 - b. Sanitary Services & Water Usage
5. Each contractor shall provide all other facilities and services required to accomplish his work.

C. Related Sections:

1. Construction use of permanent elevators: Division 1
2. Access to site: Elsewhere in Division 1.
3. Regulatory requirements: Elsewhere in Division 1.
4. Storage and protection of materials and equipment: Elsewhere in Division 1.

1.02 REFERENCES

- A. FM P7825 -- Approval Guide; Factory Mutual System;

- B. NEMA WD 6 -- Wiring Devices--Dimensional Requirements; National Electrical Manufacturers Association

1.03 DEFINITIONS

- A. Temporary Facilities: Construction, fixtures, fittings, and other built items required to accomplish the work but which are not incorporated into the finished work.
- B. Temporary Utilities: A type of temporary facility; primary sources of electric power, water, natural gas supply, etc., obtained from public utilities, other main distribution systems, or temporary sources constructed for the project, but not including the fixtures and equipment served.
- C. Temporary Services: Activities required during construction which do not directly accomplish the work.

1.04 SUBMITTALS

- A. Reports of inspections, tests, and approvals for the installation and use of construction facilities, which are made or given by public authorities.
- B. Copies of permits required by public authorities.

1.05 QUALITY ASSURANCE

- A. Comply with requirements of governing authorities, as to type, quantity, location, and use of temporary facilities.
- B. Comply with requirements of governing authorities, as to type and frequency of temporary services.
- C. Comply with requirements of public utilities affected.

1.06 PROJECT CONDITIONS

- A. Obtain easements where required.
- B. Coordinate scheduling of the implementation and termination of temporary facilities and services with all other contractors affected.
- C. Use of permanent facilities prior to substantial completion is subject to the owner's approval and conditions.
 - 1. Each permanent facility used for construction purposes shall be operated, maintained, and protected during such use by the original installer.
 - 2. Specified warranties shall not be reduced or voided by temporary use.

1.07 SEQUENCING AND SCHEDULING

- A. Maintain required facilities until not needed or until shortly before substantial completion; remove facilities before substantial completion.
 - 1. Exception: Where use of permanent facilities is allowed.
- B. Change over to use of permanent facilities, when applicable, as soon as possible, except when use of permanent facilities is not allowed.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Provide materials which are both suitable for the use and durable enough to withstand the use and abuse to be expected.
- B. Temporary Heating Units: UL or FM labeled for the fuel used; do not use gasoline-burning, open burning, or solid fuel heaters or salamanders.
 - 1. Use equipment that is known to be safe and that will not damage work in progress.

2.02 TEMPORARY UTILITIES

- A. Temporary Power: (See 3.05)
 - 1. Provide electricity adequate for demand of construction operations. Include electric service usage charges that are incurred by the owner.
 - a. Electrical service & extension cords.

2.03 PROTECTIVE FACILITIES

- A. Fire Protection Facilities: Provide at least the temporary facilities required by the authorities having jurisdiction.
 - 1. Provide Fire extinguishers for the project. Fire extinguishers building shall not be used during construction.
 - 2. Reinstate facilities into operation as soon as possible.
- B. Existing Property Protection: Provide fixed barriers to prevent damage due to construction machinery, vehicles, and adjacent work; provide for:

2.04 EMPLOYEE FACILITIES

- A. Existing lighting to be used. If additional lighting required, provide at least the lighting required by law; two (2) watts per square foot minimum. Other required special lighting to be provided by each prime contractor.

2.06 TEMPORARY CONSTRUCTION

- A. Temperature Control and Ventilation Facilities: Provide adequate facilities:
 - 1. To provide proper conditions for installation.
 - 2. For drying and curing of completed work.
 - 3. For protection from deterioration due to high or low temperatures and humidity's.
 - 4. To provide suitable working conditions
 - 5. Permanent equipment and facilities may be used.
- B. Temporary Enclosures for Mold & Remediation Resistance: When building separation walls is not yet complete but interior tenant units may be exposed provide temporary enclosures adequate to keep out weather.

PART 3 - EXECUTION

3.01 GENERAL

- A. Cooperate with owner if temporary facilities will be required.

3.02 TEMPORARY SERVICES

- A. Waste Disposal Service: Provide contracted removal service at regular intervals.
 - 1. Remove waste at least once a week.
 - 2. When temperature exceeds or is expected to exceed 80 degrees F, remove at least twice a week.
 - 3. Provide waste collection containers for use of all contractors.
- B. Dust Control Services: Keep down dust on roads regularly.

3.03 TERMINATION AND REMOVAL

- A. Permanent Facilities Used during Construction: Clean; replace parts that are worn in excess of that expected during normal usage

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. General product requirements, including:
 - a. General specification requirements for all products.
 - b. Product options.
 - c. Procedures for substitution requests.
 - d. General requirements and procedures for maintenance materials and tools.
2. General requirements for product documentation, including:
 - a. Requirements and procedures for schedule of products.
 - b. General requirements for operation and maintenance data.
 - c. General requirements for warranties.
3. General procedures for products including:
 - a. Procedures for transportation and handling.
 - b. Procedures for delivery and receiving.
 - c. Procedures for storage.

B. Related Sections:

1. Submittal transmission, handling, and action procedures: Elsewhere in Division 1.
2. General installation procedures: Elsewhere in Division 1.
3. Project record documents: Elsewhere in Division 1.

1.02 DEFINITIONS

- A. Damage: Any sort of deterioration whether due to mold / moisture, normal wear and tear, accident, or abuse, resulting in soiling, marring, breakage, corrosion, rotting, or impairment of function.

1.03 SUBMITTALS

- A. Schedule of Products: Submit for approval.
- B. Final Schedule of Products: Submit for project record.
- C. Operation and Maintenance Data: Submit for information only.
- D. Warranties: Submit for project record.
- E. Receipts for maintenance materials and tools.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Components required to be supplied in quantity within a specification section shall be identical, interchangeable, and made by the same manufacturer.
- B. Do not use products removed from existing construction, unless specifically permitted by the contract documents or approved by the owner.

2.02 MAINTENANCE MATERIALS AND TOOLS

- A. Maintenance Materials: Parts and materials for repair and maintenance; specific items required are specified in product sections.
 - 1. Provide products and tools which are identical to those used in the work; if necessary to obtain identical items, order at the same time as products to be installed or tools to be used in the work.
- B. Package appropriately and label to show type and quantity of contents.
- C. Deliver, handle, and store in the same manner as products to be installed.
- D. Do not turn over to the owner until date of substantial completion, unless otherwise approved by the owner.
- E. Deliver to the owner; unload.
- F. Obtain receipt prior to final payment.

PART 3 - EXECUTION

3.01 PRODUCT OPTIONS

- A. It is the contractor's responsibility to select products which comply with the contract documents and which are compatible with one another, with existing work, and with products selected by other contractors.
 - 1. Where visual matching to an established physical sample is required, **the Architect's decision will be final.**
- B. **Do not use any substitute products which have not been approved in accordance with the requirements of the contract documents.**
- C. Where the specification is silent on whether substitutions will be considered, substitutions will not be considered.
- D. Definition of Substitute Product: Any product which does not meet the requirements of the contract documents, whether in product characteristics, performance, quality, or manufacturer or brand names, is considered a substitute.
- E. Product Options: Where products are specified using more than one method, such as description with a manufacturer list, use a product meeting the requirements of both specification methods.
- F. Products Specified by Reference Standard: Use any product meeting the specification. Provisions of reference standards shall not modify the responsibilities of the owner or architect as defined in the contract documents.
- G. Products Specified by Description: Use any product meeting the specification.
- H. Products Specified by Performance Requirements: Use any product meeting the specification.
- I. Products Specified to Match a Physical Sample: Use any product that matches; obtain the architect's approval.
- J. Products Specified by Listing a Brand Name Product as the "Basis of Design": Provide a product

equivalent to the product specified within the limits of variation specified; submit substitution request for all products other than that listed as basis of design.

- K. Products Specified by Listing Brand Name(s) Accompanied by Language Indicating that Substitutions Are Not Allowed: Provide one of the products listed.
- L. Products Specified by Listing Brand Name(s) Accompanied by Language Indicating that Substitutions Are Allowed: Provide a product meeting the specification; submit substitution request for any brand-name product that is not listed.
- M. Products Specified by Listing Manufacturer(s) Accompanied by Language Indicating that Substitutions Are Not Allowed: Provide a product meeting the specification and made by one of the manufacturers listed.
- N. Products Specified by Listing Manufacturer(s) Accompanied by Language Specifically Indicating that Substitutions Are Allowed: Provide a product meeting the specification; submit substitution request for any manufacturer not listed.
- O. Language indicating that substitutions are **not** allowed includes:
 - 1. "Provide one of the following products."
 - 2. "Provide products made by one of the manufacturers listed."
 - 3. "Provide products complying with the contract documents and made by one of the following."
 - 4. "No substitutions."
 - 5. Other similar language.
- P. Language indicating that substitutions are allowed includes:
 - 1. Substitutions will be considered.
 - 2. "... will be among those considered acceptable."
 - 3. Other similar language.

3.02 SUBSTITUTIONS AFTER AWARD OF THE CONTRACT

- A. Substitutions will be considered within **30** calendar days after the award of the contract; subsequent requests will be considered only when, through no fault of the contractor, none of the specified products is available.
- B. The contractor will be notified in writing within a reasonable time; verbal acceptance will not be valid.
- C. Acceptable substitutions will be added to the contract documents by appropriate modification.

3.03 SUBSTITUTION PROCEDURE

- A. Submission of request for substitution shall constitute a representation by the contractor that he:
 - 1. Has investigated the proposed product and determined that it is equal to or better than the specified product.
 - 2. Will provide the same warranty for the proposed product as for the specified product.
 - 3. Will coordinate the installation and make other changes which may be required for the work to be complete in all respects, including:
 - a. Redesign.
 - b. Additional components and capacity required by other work affected by the change.
 - 4. Waives all claims for additional costs and time extensions which subsequently may become apparent and which are caused by the change.
 - 5. Will reimburse the owner for additional costs for evaluation of the substitution request, redesign if

- required, and re-approval by authorities having jurisdiction if required.
6. Will reimburse the Owner for additional costs related to modifications to all other trades resulting from substitutions of systems or equipment from that specified.
- B. Substitutions will not be considered when acceptance would require substantial revision of the contract documents.
- C. **Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals without separate written request.**
- D. Substitution requests will not be considered when submitted directly by subcontractor or supplier.
- E. Substitution Request Procedure: Submit written request with complete data substantiating compliance of the proposed product with the requirements of the contract documents.
1. Submit request to the architect.
 2. Submit 3 copies of each request and accompanying data.
 3. Submit all requests on a standard form.
 4. Only one request for substitution will be considered for each product.
- F. Data Required with Substitution Request: Provide at least the following data:
1. Identify product by specification section and paragraph number.
 2. Manufacturer's name and address, trade name and model number of product (if applicable), and name of fabricator or supplier (if applicable).
 3. Complete product data.
 4. A list of other projects on which the proposed product has been used, with project name, the design professional's name, and owner contact.
 5. An itemized comparison of the proposed product to the specified product, based upon the cited requirements of the individual specification sections.
 6. Net amount of change to the contract sum.
 7. List of maintenance services and replacement materials available.
 8. Statement of the effect of the substitution on the construction schedule.
 9. Description of changes that will be required in other work or products if the substitute product is approved.
- G. The Architect will determine acceptability of the proposed substitution.
- H. When the proposed substitution is not accepted, provide the product (or one of the products, as the case may be) specified.

3.04 SCHEDULE OF PRODUCTS

- A. Prepare a complete schedule of products used, including the following for each product:
1. Manufacturer's name.
 2. Brand or trade name.
 3. Model number, if applicable.
 4. Reference standard, if more than one is applicable.
 5. Arrange products in the schedule by specification sections; indicate paragraph where specified.
- B. Prepare and submit a preliminary schedule within 10 working days after award of contract; resubmit when revised; submit final schedule prior to final payment.
- C. Schedule of products shall not be used to obtain approval of substitute products; make separate request for substitution.

3.05 OPERATION AND MAINTENANCE DATA

- A. Provide operation and maintenance data as specified in individual product sections.
 - 1. Provide data sufficient for operation and maintenance by owner without further assistance from the manufacturer.
 - 2. Provide completed data in time for use during owner instruction.
- B. Data Required For Products - General:
 - 1. Name of manufacturer and product.
 - 2. Name, address, and telephone number of subcontractor or supplier.
 - 3. Local source of replacements.
 - 4. Local source of replaceable parts and supplies.
- C. Product Data: Where product data is specified for inclusion in operation and maintenance data, provide manufacturer's data sheets marked to indicate specific product and product options actually installed; delete inapplicable data.
- D. Project Record Documents: Provide an additional copy of applicable record documents for inclusion with the operation and maintenance data.
- E. Coordination Drawings: When coordination drawings are prepared, include a copy with the operating and maintenance data.
- F. Custom Manufactured Products: Provide all information needed for reordering.
- G. Finish Materials: Manufacturer's product data, color/texture designations, and manufacturer's instructions for care, cleaning, and maintenance.
- H. Products Exposed to Weather and Products for Moisture Protection: Manufacturer's product data, recommended inspection schedule and procedures, maintenance and repair procedures, and maintenance materials required.
- I. Equipment: Provide at least the following information:
 - 1. Product data giving equipment and function description, with normal operating characteristics and limiting conditions.
 - 2. Starting, operating, and troubleshooting procedures.
 - 3. Cleaning and maintenance requirements and procedures.
 - 4. External finish maintenance requirements.
 - 5. List of maintenance materials required.
 - 6. List of special tools required.
 - 7. Parts list: List all replaceable parts, with ordering data.
 - 8. Recommended quantity of spare parts to be maintained in storage.
- J. Systems: Provide overall function description, with diagrams, prepared especially for this project.
- K. Form of Data: Prepare data in the form of an instructional manual.
 - 1. Arrange contents logically, using section numbers and sequence of sections indicated on the table of contents of this project manual.
 - 2. When multiple volumes are used, arrange by related subjects; identify contents in cover title.
 - 3. Assemble into 3-ring binders with maximum 2-inch ring size.
 - a. Hardback, cleanable plastic covers.

- b. Identify each book with title "Operation and Maintenance Instructions" and project name.
 - c. Page size 8-1/2 by 11 inches, maximum.
 - d. Prepare special typewritten data on minimum 20-pound paper.
 - e. Provide tabbed divider for each product and system.
 - f. Drawings: Bind in with other data; provide reinforced binding edge; fold larger drawings to size of pages.
- 1. Do not use pockets or loose drawings.
- 4. Provide table of contents for each volume listing:
 - a. Name of the project.
 - b. Name, address, telephone number, and contact name of:
 - 1. Architect.
 - 2. Contractor.
 - c. Index of products and systems included in volume.

3.06 WARRANTIES

- A. Provide warranties as specified in individual product sections.
- B. Manufacturer Warranties: Manufacturer's standard product warranty running for the manufacturer's standard term, unless otherwise indicated.
 - 1. Submit copies of all manufacturer warranties which extend beyond the end of the contract correction period.
- C. Special Project Warranties: Written warranty commencing at date of substantial completion, running for the term indicated, and signed by the entities specified.
 - 1. Where completion of warranty item is materially delayed beyond the date of substantial completion, provide warranty commencing on date of acceptance.
 - 2. Submit each special project warranty.
- D. Provide 2 notarized copies of each executed warranty.
- E. Show actual date of commencement on each warranty.

3.07 TRANSPORTATION AND HANDLING

- A. Require supplier to package finished products in a manner which will protect from damage during shipping, handling, and storage.
- B. Transport products by methods which avoid damage.
- C. Deliver in dry, undamaged condition in manufacturer's unopened packaging.
- D. Provide equipment and personnel adequate to handle products by methods which prevent damage.
- E. Provide additional protection during handling where necessary to prevent damage to products and packaging.
- F. Lift large and heavy components at designated lift points only.

3.08 DELIVERY AND RECEIVING

- A. Arrange deliveries of products to allow time for inspection prior to installation.
- B. Coordinate delivery to avoid conflict with the work and to take into account both the conditions at the site and the availability of personnel, handling equipment, and storage space.
- C. Clearly mark partial deliveries to identify contents, to permit easy accumulation of entire delivery, and to facilitate assembly.
- D. Promptly inspect shipments and remedy damage, incorrect quantity, incompleteness, improper or illegible labeling, and noncompliance with requirements of contract documents and approved submittals.

3.09 STORAGE

- A. No indoor storage areas are available on site.
- B. General Storage Procedures:
 - 1. Store products immediately on delivery.
 - 2. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 - 3. Store in a manner to prevent damage to the stored products and to the work.
 - 4. Store moisture-sensitive products in weather tight enclosures.
 - 5. Store indoors if necessary to keep temperature and humidity within ranges required by manufacturer.
 - 6. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
 - 7. Arrange storage to provide access for inspection and inventory.
 - 8. Periodically inspect and remedy damage and noncompliance with required conditions.
- C. Loose Granular Materials: Store on solid surfaces in well-drained area; prevent mixing with foreign materials.
- D. Exterior Storage:
 - 1. Cover products subject to weather damage with impervious sheet covering; provide ventilation to avoid condensation.
 - 2. Provide surface drainage to prevent runoff or ponded water from damaging stored products.
 - 3. Prevent damage and contamination from refuse and chemically injurious materials and liquids.
 - 4. Store fabricated products on substantial platforms, blocking, or skids above the ground, sloped to drain.

END OF SECTION 016000

SECTION 017000 – CONSTRUCTION PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Laying out the work.
 - 2. General construction and installation procedures.
 - 3. Cleaning during construction.
 - 4. Project completion procedures.
 - 5. Final cleaning.
- B. Related Sections:
 - 1. Cleaning requirements for specific products and systems: Applicable product sections in Divisions 2-16.
 - 2. Final payment procedures: Elsewhere in Division 1.
 - 3. Sequence of the work: Elsewhere in Division 1.
 - 4. Waste removal services: Elsewhere in Division 1.

1.02 DEFINITIONS

- A. Concealed Spaces: Spaces which are not accessible after completion of construction.
- B. Cutting: Removal of material by cutting, sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation.
- C. Damage: Any sort of deterioration whether due to weather, normal wear and tear, accident, or abuse, resulting in soiling, marring, breakage, corrosion, rotting, or impairment of function.
- D. Debris: Rubbish, waste materials, litter, volatile wastes, and similar materials, with the exception of surplus materials which are to become the property of the owner.
- E. Fire Barriers: Any wall, floor, ceiling, or roof which is indicated as having a fire resistance rating.
- F. Patching: Restoration to completed condition by patching, repairing, refinishing, finishing, filling, closing up, and similar operations.
- G. Smoke Barriers: Any wall, floor, ceiling, or roof which is indicated as being designed to prevent passage of smoke and gases; may be indicated as "smoke barrier," "smoke partitions," "smoke wall," or similar designation.
- H. Spaces Not Normally Occupied: Accessible spaces such as roofs, accessible plenums and shafts, accessible spaces above ceilings, trenches, equipment vaults, manholes, accessible attics, and similar spaces, but not including the interior of duct or concealed spaces.

1.03 QUALITY ASSURANCE

- A. Cleaning: Perform cleaning in accordance with the recommendations of the manufacturer or fabricator of the product or system. Use only cleaning materials and tools which are specifically recommended, which are not hazardous to health or property, and which will not damage finishes.

1.04 PROJECT CONDITIONS

- A. Take precautions to prevent fires and to facilitate fire-fighting operations.

1. Keep flammable materials in non-combustible containers; store away from potential fire sources; remove flammable waste regularly.
 2. Keep temporary and permanent fire fighting facilities readily accessible; keep fire fighting routes open.
 3. Do not allow smoking in areas where highly combustible materials are present.
 4. Carefully supervise the operation of potential fire sources, including heating units.
 5. Conduct welding operations in manner to prevent fire; comply with local regulations.
- B. Take precautions to prevent accidents due to physical hazards:
1. Provide barricades, warning lights, or signs as required to inform personnel and the public of the hazard being protected against.
 2. Safety barricades: Comply with regulations.
 3. Provide temporary walkways where walking surfaces are hazardous.
 4. Notify the owner before beginning work that involves hazardous operations.
- C. Take care to prevent particulates, pollution of air, water, and soil.
1. Comply with environmental protection regulations.
 2. Limit effluent and rainwater runoff into waterways as required by regulations.
 3. Do not dump contaminants in areas that will result in contamination of waterways.
- D. Control windblown dust; prevent erosion to site and nuisance to neighbors
- E. Protect existing property indicated to remain, including:
- F. Do not use tools or equipment which produce harmful levels of noise.
- G. Keep the site and adjacent public ways free of hazardous and unsanitary conditions and public nuisances.
- H. Provide adequate traffic control by means of signs, signals, and flagmen, as necessary.
- I. Conduct construction operations so that no part of the work is subjected to damaging operations or influences which are in excess of those to be expected during normal occupancy conditions.
- J. Conduct construction operations so that waste of power, water, and fuel is avoided.
- K. Provide temporary supports as required to prevent movement and structural failure.
- L. Install products only during environmental conditions which will ensure the best possible results.

1.06 SEQUENCING AND SCHEDULING

- A. Install products only at the time and in the sequence which will ensure the best possible results.
- B. Coordinate required administrative activities with related construction activities.
- C. Contractor to install and guarantee that effected kitchen area will be operational at end of each work day. This is to include running water and functional range / oven, refrigerator.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Patching Materials: Identical to the materials of the work to be cut, unless indicated as specific materials specified

in other sections.

PART 3 - EXECUTION

3.01 LAYING OUT THE WORK

- A. The General Work Contractor shall perform all layout work and locate the construction on the site where indicated.
- B. Verify locations of layout control points.
- C. Check layout data provided in the contract documents.
 - 1. Promptly notify the architect of discrepancies found.
- D. As the work proceeds, check the location, level, and plumbness of every major element.
- E. Furnish location data required for work related to the project which is to be performed by other entities, including public utilities.
- F. Reference Points: Where actual location or elevation of layout points or lines cannot be marked, provide temporary reference points or marks sufficient to locate the construction.
 - 1. Preserve reference points during construction.
 - 2. Promptly report and replace lost or destroyed reference points.
 - 3. Promptly report the necessity to relocate reference points due to required changes in grades or locations.
 - 4. Remove temporary reference points and marks when no longer needed; restore marked construction to original condition.

3.02 GENERAL EXAMINATION REQUIREMENTS

- A. Prior to performing work, examine the applicable substrates and the conditions under which the work is to be performed.
- B. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding.
 - 1. If the conditions to be corrected involve the work of another prime contract, notify the architect promptly.
 - 2. Commencement of work by the contractors will be acceptance of all conditions. Any remedial work required to perform their work will be at contractor's expense, with no cost to the owner.
- C. Conditions which could have been discovered by examination will not be allowed as cause for claims for extra work.
 - 1. The existence and location of construction indicated as existing on the drawings are not guaranteed.
- D. Verify that utility requirements of operating equipment are compatible with building utilities.
- E. Verify space requirements of items which are shown diagrammatically on the drawings.

3.03 GENERAL PREPARATION REQUIREMENTS

- A. Take field measurements as required to fit the work properly.
- B. Recheck measurements prior to installing each product.

3.04 GENERAL INSTALLATION PROCEDURES

- A. Accurately locate the work and components of the work; make vertical work plumb; make horizontal work level.
- B. See sections describing specific parts of the work for additional requirements.
- C. Where space is limited, install components to maximize space available for maintenance and to maximize ease of removal for replacement.
- D. In finished areas, conceal pipes, ducts, and wiring within the construction, unless otherwise indicated.
- E. Coordinate exact locations of fixtures and outlets with finish elements.
- F. Install work in such manner and sequence as to preclude, if possible, or at least to minimize, cutting and patching.

3.05 CLEANING AND PROTECTION

- A. Remove debris from concealed spaces prior to enclosing the space.
- B. Keep the site and the work free of waste materials and debris.
 - 1. Remove waste from site at least once a day.
 - 2. When temperature exceeds or is expected to exceed 80 degrees F, remove waste at frequency necessary to prevent development of health hazards and nuisance odors.
 - 3. Keep hazardous and unsanitary materials in containers separate from other waste.
- C. Clean areas in which work is to be done to level of cleanliness necessary for proper execution of that work.
 - 1. Where dust would impair execution of work, broom- and vacuum-clean the entire interior area and keep clean.
- D. Keep installed work clean, and clean again when soiled by other operations.
 - 1. Provide periodic cleaning as required to prevent damage due to soiling.
 - 2. Remove liquid spills promptly.
- E. Protect installed work from soiling and damage.
 - 1. Provide protective coverings as required.
 - 2. Provide protective coverings for work which may be damaged by subsequent operations.
 - 3. Where heavy abuse is expected, use minimum of plywood for protection.
 - 4. Maintain protective coverings until substantial completion.

3.06 CUTTING AND PATCHING PROCEDURES

- A. Fire/Smoke Barriers: Do not cut more than absolutely necessary.
 - 1. Cut penetration holes to sizes required for penetration seal assemblies required.
 - 2. Patch all oversize holes and cuts made in error.
 - 3. Perform patching in a manner which complies in all respects with the original construction; if not possible, report nature of difficulty to the architect and request instructions.
- B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.

- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, **in the Architect's opinion**, reduce the building's aesthetic qualities or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.
- D. Materials: Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of the existing materials.
- E. Inspection: Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.
- F. Preparation:
1. Provide temporary support of Work to be cut.
 2. Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
 3. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
 4. Take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.
- G. Performance:
1. Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations.
 - a. In general, where cutting is required, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover opening not in use.
 - b. To avoid marring existing finished surfaces, cut or drill from exposed or finished side into concealed surfaces.
 - c. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
 - d. Comply with requirements of applicable Sections of Division - 2, where cutting and patching requires excavating and backfilling.
 - e. Bypass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions is to be removed. Cap, valve or plug and seal the remaining portions of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
 2. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 - a. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 - b. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - c. Where removal of walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary to achieve uniform color and appearance.

(1)Where patching occurs in a smooth painted surface, extend final paint coat over unbroken area containing the patch, after the patched area has received primer and second coat.

- d. Patch, repair or re-hang existing ceiling as necessary to provide an even plane surface of uniform appearance.
- H. Cleaning: Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

3.07 INSTALLATION OF COMPONENTS

- A. Install all products in accordance with manufacturer's instructions and recommendations, whether conveyed in writing or not.
- B. Mounting Heights: Where mounting heights are not indicated, mount at heights directed by the Architect.**
- C. Separate incompatible materials with suitable materials or spacing.
 - 1. Prevent cathodic corrosion.
- D. Provide all anchors and fasteners required and use methods necessary to securely fasten work.
 - 1. Allow for thermal expansion and contraction, and for building movement.
- E. Joints in Exposed Work:
 - 1. Make joints of uniform widths.
 - 2. Where joint locations are not indicated, arrange joints for the best visual effect.
 - a. When in doubt, obtain the architect's instructions.
- F. After installation, adjust operating components to proper operation.

3.08 FINAL CLEANING

- A. The General Work Contractor, shall perform all final cleaning.**
- B. Remove materials and equipment which are not part of the work and all debris from the site prior to substantial completion.
 - 1. Remove all surplus materials which are to remain property of the contractor; obtain the owner's instructions as to disposition of surplus material remaining on site and deliver, store, or dispose of as directed.
 - 2. Remove protective coverings.
 - 3. Remove temporary facilities.
- C. Dispose of debris in a lawful manner.
 - 1. Do not burn or bury debris on the site.
 - 2. Do not dispose of volatile wastes in storm or sanitary drains.
- D. Perform final cleaning after substantial completion has been certified, but before final payment.**
 - 1. Use only professional cleaners.
 - 2. **Clean to the level of cleanliness that would be expected by a residential building owner from a maid service.**

- E. In spaces to be occupied, remove dirt, stains, and other foreign substances from all accessible surfaces and remove nonpermanent labels.
- F. In spaces not normally occupied, remove debris and surface dust and wipe equipment clean, removing excess lubrication, paint, and other foreign substances.
- G. Remove paint and other coatings from permanent labels and from mechanical and electrical equipment nameplates.
- H. Leave the project clean and ready for occupancy.

3.09 PROJECT COMPLETION PROCEDURES

- A. Complete the work, prior to substantial completion, as required to obtain consent to occupancy from the governing authorities.
- B. Arrange for final inspections by governing authorities to be accomplished prior to substantial completion.
 - 1. Obtain certificate of occupancy.
- C. If temporary locking systems differ from permanent locking systems, change over to permanent systems prior to substantial completion.
- D. Final Extermination: The General Work Contractor, Contract #1, shall engage a licensed exterminator to make a final inspection and rid the project of rodents, insects, and other pests.

END OF SECTION 017000

SECTION 018000 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Project record documents consisting of:
 - a. Record drawings, including As-built drawings.
 - b. Record project manual (specifications).
 - c. Progress Photographs – See Specification Section 012500.
- B. Related Sections:
 - 1. Payment, Modification, and Completion Procedures: Elsewhere in Division 1.
 - 2. Operation and maintenance data: Elsewhere in Division 1.
 - 3. Warranties: Elsewhere in Division 1.

1.02 SUBMITTALS

- A. Project Record Documents: Submit prior to substantial completion.
 - 1. Submit digital marked-up print set.
 - 2. Sets shall include all drawings, whether changed or not.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 MAINTENANCE OF PROJECT RECORD DOCUMENTS

- A. Do not use record documents of any type for construction purposes.
- B. Maintain any needed record documents in a secure location at the site while providing for access by the contractor and the architect during normal working hours; store in a fire-resistive room or container outside of normal working hours.
- C. Record information as soon as possible after it is obtained.
- D. Assign a person or persons responsible for maintaining record documents.
- E. Record the following types of information on all applicable record documents:
 - 1. Dimensional changes.
 - 2. New and revised details.
 - 3. Depths of foundations.
 - 4. Locations and depths of underground utilities.
 - 5. Actual routings of piping and conduits.
 - 6. Revisions to electrical circuits.
 - 7. Actual equipment locations.
 - 8. Sizes and routings of ducts.
 - 9. Locations of utilities concealed in construction.
 - 10. Particulars on concealed products which will not be easy to identify later.
 - 11. Changes made by modifications to the contract; note identification numbers if applicable.
 - 12. New information which may be useful to the owner, but which was not shown in either the contract documents or submittals.

3.02 RECORD AND AS-BUILT DRAWINGS

- A. Each contractor shall maintain a digital copy of the contract drawings, marked to show changes which occur due to his work.
- B. Where the actual work differs from that shown on the drawings, mark this set to show the actual work.
 - 1. Mark location of concealed items before they are covered by other work.
 - 2. Mark either record contract drawings or shop drawings, whichever are best suited to show the change.
 - 3. Where changes are marked on record shop drawings, mark cross-reference on the applicable contract drawing.
- C. When the contractor is required by a provision of a modification to prepare a new drawing, rather than to revise existing drawings, obtain instructions from the Architect as to the drawing scale and information required.
- D. Keep drawings in labeled for revisions.
- E. Where record drawings are also required as part of operation and maintenance data submittals, make copies from the original record drawing set.
- F. As-Built Drawings: Each contractor shall submit the following complete sets of digital As-Built record drawings (same size format as original project drawings);

3.03 RECORD PROJECT MANUAL

- A. Each contractor shall maintain a digital copy of the project manual, marked to show changes which occur due to his work.
- B. Where the actual work differs from that shown in the digital project manual, mark the record copy to show the actual work.
 - 1. Include a copy of each addendum and modification to the contract.
 - 2. In addition to the types of information required on all record documents, record the following types of information:
 - a. Product options taken, when the specification allows more than one.
 - b. Product substitutions.
 - c. Proprietary name and model number of actual products furnished, for each product, material, and item of equipment specified.
 - d. Name of the supplier and installer, for each product for which neither a product data submittal nor a maintenance data submittal was specified.

3.04 RECORD SUBMITTALS

- A. Each contractor shall maintain a complete digital set of all submittals made during construction, marked to show changes which occur due to his work.
 - 1. Maintain submittals in electronic file
 - 2. Sort submittals by applicable specification section and file in order of submittal identification number.
- B. Record Product Data Submittals: Record the types of information specified for all record documents.
 - 1. In addition, record the following types of information:

- a. Changes in the products as delivered to the site.
 - b. Changes in manufacturer's instructions or recommendations for installation.
- C. Record Coordination Drawings: Record the types of information required for all record documents.
 - 1. Mark up in the manner specified for record drawings.

3.05 TRANSMITTAL TO OWNER, CONSTRUCTION MANAGER & ARCHITECT

- A. Collect, organize, label, and electronically file package ready for reference.
 - 1. Submittals.
 - 2. "PROJECT RECORD DOCUMENTS - This document has been prepared using information furnished by _____", and the date of preparation.
- B. Submit to the architect for transmittal to the owner, unless otherwise indicated.

END OF SECTION 018000

SECTION 020720 - MINOR DEMOLITION FOR REMODELING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Demolition and removal of small portions of buildings

1.02 SUBMITTALS

A. Photographs: Before starting work, file with the architect photographs documenting existing conditions that later could be mistaken for damage caused by demolition operations.

B. Submit proposed schedule of demolition activities indicate:

1. Starting and ending dates for each activity as appropriate.
2. Interruption and restoration of utility services.
3. Submittal of proposed demolition activities will be reviewed by the Owner to determine that proposed activities will not interfere with the Owner's operations.

C. Project Record Documents:

1. Identify location of capped utilities.
2. Indicate unanticipated structural, electrical, or mechanical conditions.

1.03 PROJECT CONDITIONS

A. Occupancy:

1. The Owner will not occupy portions of the existing building.

B. Existing Conditions:

1. After the project is begun, the contractor is responsible for the condition of construction to be demolished. The Owner does not warrant that the existing conditions of construction items to be demolished will not have changed since the time of inspection for bidding purposes.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and sealed.

B. Survey existing conditions and correlate with drawings and specifications to determine extent of demolition required.

C. Insofar as is practicable, arrange operations to reveal unknown or concealed structural conditions for examination and verification before removal or demolition.

3.02 PREPARATION

- A. Traffic: Do not obstruct walks or public ways without the written permission of governing authorities and of the owner. Where routes are permitted to be closed, provide alternate routes if required.
- B. Protection:
 - 1. Provide for the protection of persons passing around or through the area of demolition.
 - 2. Perform demolition so as to prevent damage to adjacent improvements and facilities to remain.
 - 3. Provide protective measures to ensure free and safe passage of persons to and from occupied areas.
 - 4. Erect temporary protection such as walls etc., where required by authorities having jurisdiction.
 - 5. Protect walls, floors, and other new or existing work from damage during demolition operations.
- C. Temporary Partitions:
 - 1. Provide substantial construction designed by the contractor to provide effective protection as required.
- D. Structural Support:
 - 1. Construct and maintain shoring, bracing, and supports as necessary to ensure the stability of structures. The architect / owner are not responsible for methods or means of providing the temporary shoring of structures.
- E. Damages: Without cost to the owner and without delay, repair any damages caused to facilities to remain.

3.03 UTILITY SERVICES

- A. Disconnect and cap indicated utilities before starting demolition operations.
- B. Identify location of capped utilities on project record documents.
- C. Obtain written approval before interrupting existing utilities.
- D. Bypass Connections: Provide as necessary to maintain service to occupied areas.
- E. Notify the owner at least 72 hours in advance of changeover.

3.04 POLLUTION CONTROLS

- A. Control as much as practicable the spread of dust and dirt.
- B. Observe environmental protection regulations.
- C. Do not allow water usage that results in freezing or flooding.
- D. Do not allow adjacent improvements to remain to become soiled by demolition operations.

3.05 DEMOLITION - GENERAL

- A. Remove: Unless items are otherwise indicated to be reinstalled or salvaged, remove and scrap.
- B. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare for service; reinstall in the same location (or in the location indicated).
- C. Remove and Install New: Remove and dispose of items indicated and install new items in the same location (or in the location indicated).
- D. Remove and Salvage: Items indicated to be salvaged will remain the owner's property. Carefully remove and clean items indicated to be salvaged; pack or crate to protect against damage; identify contents of containers; deliver to the locations indicated.
- E. Remove and Scrap: Remove and dispose of items indicated.
 - 1. Items of value to the contractor:
 - a. Do not store removed items on site.
- F. Existing to Remain: Construction or items indicated to remain shall be protected against damage during demolition operations. Where practicable, and with the architect's permission, the contractor may elect to remove items to a suitable storage location during demolition and then properly clean and reinstall the items.
- G. Perform work in a systematic manner.
- H. Perform selective demolition using methods which are least likely to damage work to remain and which will provide proper surfaces for patching.
- I. Remove debris daily.
- J. Use any methods permitted by governing regulations and the requirements of the contract documents.
- K. Do not use tools or equipment which produce harmful levels of noise.
- L. All existing surfaces effected by demolition to be re-finished to match new adjacent surfaces.

3.07 DISPOSAL OF DEMOLISHED MATERIALS

- A. Promptly dispose of materials resulting from demolition operations. Do not allow materials to accumulate on site.
- B. Transport materials resulting from demolition operations and legally dispose of off-site.
- C. Off-site disposal location shall not be within one-half mile of any portion of the project site or within sight of the project site.
- D. Do not burn removed materials on project site.
- E. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

3.08 CLEANING

- A. Remove tools and equipment. Dispose of scrap.

- B. Broom clean interior areas.
- C. Leave exterior areas free of debris.
- D. Clean soil, smudges, and dust from surfaces to remain.
- E. Return structures and surfaces to remain to condition existing prior to commencement of demolition.

END OF SECTION 020720

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Carpentry work not specified as part of other sections and which generally is not exposed, except as otherwise indicated.
 - 2. Rough carpentry for:
 - a. Miscellaneous lumber for attachment and support of other work.
 - 3. Preservative treatment.
 - 4. Fire retardant treatment.

1.02 SUBMITTALS

- A. Treated Wood: Treating plant's instructions for use, including storage, cutting, and finishing.
 - 1. Pressure preservative treatment: Treating plant's certification of compliance with specified standards and stating process employed and preservative retention values.
 - a. Treatment for above-ground use: Certification of kiln drying after treatment.
 - 2. Fire-retardant treatment: Treating plant's certification of compliance with specified requirements.
 - 3. Submit two (2) copies of each of the above required submittals.

1.03 QUALITY ASSURANCE

- A. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.
- B. Grade Stamps for Concealed Lumber: Each piece of lumber, applied by inspection agency and showing compliance with each specified requirement.
 - 1. Marking of Fire-Retardant Treated Wood: Each piece of lumber or plywood, applied by inspection agency, and showing compliance with specified standards.
 - a. Comply with International Building Code requirements:
 - 1. AWPA C20 or AWPA C27.
 - 2. ASTM E84.
 - 3. Labeling (IBC Section 2311).

1.04 DELIVERY STORAGE AND HANDLING

- A. Protect wood products against moisture and dimensional changes. Support stacks at several

uniformly spaced points to prevent deformation. Store stacks raised above ground. Cover to protect from rain and snow. Select and arrange cover to allow air circulation under and all around stacks to prevent condensation. Maintain and restore displaced coverings. Remove from the site any wood products that have been subjected to moisture or that do not comply with the specified moisture requirements.

1.05 JOB CONDITIONS

- A. Installer's Inspection of Conditions: Installer must examine the existing substrates and conditions under which the work is to be performed, and must perform whatever preparatory work is required in order to render the existing substrates and other conditions satisfactory for the installation specified. Coordination: Fit carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of nailers, blocking, cants and similar supports to allow proper attachment of other work.

PART 2 - PRODUCTS

2.01 DIMENSION LUMBER

- A. Size: Provide nominal sizes indicated, complying with PS 20 except where actual sizes are specifically required.
- B. Miscellaneous Lumber: Provide dimension lumber and boards necessary for the support of work specified in other sections, whether or not specifically indicated, and including but not limited to blocking, nailers, etc.
1. Moisture content: 19 percent maximum (S-dry), at time of dressing.
 2. Lumber: S4S, No. 1 or construction grade.
 3. Boards: Construction, 2 common, or No.2 grade.

2.02 MISCELLANEOUS MATERIALS

- A. Fasteners: Provide as required by applicable codes and as otherwise indicated.
1. Provide fasteners with a hot-dip zinc coating (ASTM A 153) for treated lumber and where wood is in ground contact, subjected to high relative humidity, or exposed to weather.

2.03 WOOD TREATMENT BY PRESSURE PROCESS - IF NEEDED

- A. Above Ground Lumber: AWPA C-2 or C (waterborne preservatives).
1. Kiln dried after treatment (KDAT) to 19 percent maximum moisture content.
 2. Treat the following:
 1. Wood in Contact with masonry or concrete:
 1. Minimum Retention : .25 pcf. of CCA.
 - b. Other members indicated on drawings:
 1. Minimum Retention: .25 pcf of CCA.
 - c. Plywood Boards in contact with roofs.

1. Minimum Retention: .25 pcf of CCA.

B. Fire-Retardant Treatment:

1. Fire-Retardant Treatment: Use only treatment materials which will not bleed or bloom or be detrimental to applied finishes.
2. Low-Hygroscopic-Type Fire-Retardant Treatment: AWPAC20, Interior Type A for lumber, C27 for plywood; not containing halogens, sulfates, or ammonium phosphate; recommended by manufacturer for use with materials to be exposed to relative humidity of up to 95 percent, and listed by testing agency for material requiring milling after treatment.
 - a. Treatment products: The following products, provided they comply with requirements of the contract documents will be among those considered acceptable:
 - (1) "Dricon"; Hickson Corporation.
 - (2) "Flame Proof LHC"; Osmose Wood Preserving, Inc.
3. Treat members indicated on the drawings.

C. Fasteners: Hot-dip galvanized steel (ASTM A153).

PART 3 - EXECUTION

3.01 INSTALLATION - GENERAL

- A. Arrange work to use full length pieces except where lengths would exceed commercially available lengths. Discard pieces with defects that would lower the required strength or appearance of the work.
- B. Cut and fit members accurately. Install plumb and true to line and level.
- C. Fasten carpentry in accordance with applicable codes and recognized standards.
 1. Securely attach carpentry work to substrates by anchoring and fastening as shown and as required by recognized standards. Make tight connections between members. Install fasteners without splitting of wood; pre-drill as required.
- D. Where exposed, countersink screw / bolt and fill flush with suitable filler product.
- E. Use fasteners of appropriate type and length. Pre-drill members when necessary to avoid splitting wood.
- F. **Complete fabrication of treated items prior to treatment, wherever possible. If cut after treatment, coat cut surface with heavy brush coat of same chemical used for treatment. Inspect each piece of lumber after drying and discard damaged or defective pieces.**
- G. Blocking and Nailers) if required for construction shall be secured to building structure as indicated. Unless otherwise indicated, nailers of 2" nominal thickness shall be secured with not less than 3/8" diameter bolts or anchor bolts at not over 2'-8" ' on center. Nailers over 2" nominal thickness shall be secured with not less than 1/2" diameter bolts or anchor bolts at not over 4' on center.

- H. Provide fastenings at 12" o.c. and no greater than 3" from end of synthetic boards. Where trim members are indicated to be fastened to masonry, bolts shall be attached to suitable drilled anchors as listed above.

3.02 MISCELLANEOUS CARPENTRY

- A. Provide miscellaneous blocking, nailers, grounds, and framing as shown and as required for support of facing materials, fixtures, specialty items, and trim. Cut and shape to the required size. Provide in locations required by other work.
- B. Use countersunk fasteners appropriate to applied loading.
- C. Install permanent grounds for concrete and masonry where required.

END OF SECTION 061000

SECTION 079000 - JOINT SEALANTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. The sealing of joints indicated on schedule at the end of this section.
 - 2. The sealing of exterior joints, including:
 - a. Interior wall & Component joints.
 - b. Joints around perimeter of frames.
 - 3. The sealing of interior joints, including:
 - a. Wall joints.
 - b. Joints between dissimilar materials (including walls and soffits, ceilings and ceramic tile, etc.).
 - c. Joints around perimeter of frames.
 - d. Joints between countertops and walls.
 - 4. The sealing of concealed joints in sound-retardant assemblies, including:
 - a. Around all outlet boxes, between top and bottom stud runners and structure, and at all other joints in gypsum board walls.
 - 5. The sealing of joints in floors and pedestrian paving.
 - 6. The sealing of other joints indicated on drawings.
- B. Joints of a nature similar to that of joints indicated on the schedule shall be sealed with same sealer, whether indicated on drawings to be sealed or not.
- C. Related Sections:
 - 1. Joint sealers in electrical work: Division 16.

1.02 DEFINITIONS

- A. Substrates:
 - 1. **M-type substrates:** Concrete, concrete masonry units, brick, mortar, natural stone. The term "masonry" means brick, stone, and concrete masonry work.
 - 2. **G-type substrates:** Glass and transparent plastic glazing sheets.
 - 3. **A-type substrates:** Metals, porcelain, glazed tile, and smooth plastics.
 - 4. **O-type substrates:** Wood, unglazed tile; substrates not included under other

categories.

B. Products:

1. **Type "S " products:** Products are those furnished in prepackaged cartridges or other forms in which no job-site mixing is required.
2. **Type "M" products:** Products are those furnished in two or more parts for mixing at the job site.

C. Grade: (Defines the flow characteristics of the sealant)

1. **Grade P:** Refers to products having sufficient flow to fill joints in horizontal surfaces and remain level and smooth at temperatures as low as 40 degrees F. This designation generally applies to products rated for traffic use.
2. **Grade NS:** Refers to products suitable for installation in joints in vertical surfaces without sagging at temperatures between 40 degrees F. and 122 degrees F. This designation can apply for both traffic and non-traffic uses.

D. Use Classifications:

1. **Use T:** Classifies sealants designed for joints in surfaces subject to pedestrian and vehicular traffic.
2. **Use NT:** Classifies sealants designed for nontraffic exposures.

1.03 SUBMITTALS

- A. **Product Data:** Manufacturer's data on each joint sealer, with instructions for substrate preparation and installation.
- B. **Samples for Color Selection:** Cured samples of actual products showing manufacturer's full range of colors. (Products exposed to view only.)
- C. **Certified Product Test Reports:** Independent testing agency reports showing compliance with all specified requirements.
 1. Reports may be on tests conducted up to 24 months before submission, provided the products tested were aged specimens of the same formulation as that to be used.
- D. **Certificates:** For each sealer, provide manufacturer's certificate stating that the product complies with the specifications and is appropriate for the use it is being put to.
- E. **Installer Qualifications:** For approval by the Architect.
- F. **Installer's Preconstruction Inspection Report:** List all conditions detrimental to performance of joint sealer work.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Execution of 20 sealer installations of similar size and scope.
 - 2. Similar installations completed within 5 years before start of this project.
 - 3. Lead mechanic assigned from among those experienced on previous similar projects.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original containers or bundles with labels showing manufacturer, product name or designation, color, shelf life, and installation instructions.

1.06 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install sealers if any of the following conditions exist:
 - 1. Air or substrate temperature exceeds the range recommended by sealer manufacturer or is below 40 degrees F (4.4 degrees C).
 - 2. Substrate is wet, damp, or covered with snow, ice, or frost.
- B. Dimensional Limitations: Do not install sealers if joint dimensions are less than or greater than that recommended by sealer manufacturer; notify the architect and get sealer manufacturer's recommendations for alternative procedures.

1.07 WARRANTY

- A. Submit written warranty signed by contractor and installer guaranteeing to correct failures in sealer work that occur within **3 years** after substantial completion, without reducing or otherwise limiting any other rights to correction which the Owner may have under the contract documents. Failure is defined as failure to remain weather tight due to faulty materials or workmanship. Correction is limited to replacement of sealers.

PART 2 - PRODUCTS

2.01 MATERIALS - GENERAL

- A. General: Provide only products which are recommended and approved by their manufacturer for the specific use to which they are put and which comply with all requirements of the contract documents.
 - 1. For each generic product, use only materials from one manufacturer.
 - 2. Provide only materials which are compatible with each other and with joint substrates.
 - 3. Colors of exposed sealers: As selected by the Architect from manufacturer's full range of all available colors.
- B. Products: The design is based on the product(s) listed for each generic type. Comparable products from other manufacturers will be considered for substitution. Comply with

Section 01600 requirements for substitutions.

2.02 ELASTOMERIC SEALANTS

- A. Elastomeric Sealants - General: Chemically curing elastomeric sealants of types indicated, complying with ASTM C 920, including specific Type, Grade, Class, and Uses indicated, as well as all other requirements specified.
1. Where movement capability exceeding that measured by ASTM C 920 is specified, sealant shall withstand the total movement indicated while remaining in compliance with the other requirements specified, when tested in accord with ASTM C 719, with base joint width measured at the time of application.
 2. For M-type substrates: Comply with requirements for Use M.
 3. For G-type substrates: Comply with requirements for Use G.
 4. For A-type substrates: Comply with requirements for Use A.
 5. For O-type substrates: Comply with requirements for Use M (minimum) and Use O for the particular substrate.
- B. Type "1"; Mildew-Resistant Silicone Sealant: One-part, Type S, Grade NS, Class 25, Use NT, formulated with fungicide, for interior use on nonporous substrates.
1. Products:
 - a. "Proglaze White"; Tremco, Inc.
- C. Type "2"; Two-Part Nonsag Low-Modulus Urethane Sealant: Type M, Grade NS, Substrates M,A,O Class 25, Use NT, plus movement capability of 50 percent in both extension and compression.
1. Products:
 - a. "Dymeric"; Tremco Construction Division.
 - b. "Sikaflex 2c NS", plus or minus 50% movement; Sika Corporation.
- D. Type "3"; Multipart Pourable Urethane Sealant: Type M, Grade P, Class 25, Use T. Substrates M,A,O
1. Products:
 - a. "THC-900"; Tremco, Inc.
 - b. "Sikaflex 2c SL", plus or minus 50% movement; Sika Corporation.
- E. Type "4"; Nonsag Urethane Sealant for Use T: Type S or M, Grade NS, Class 25, Use T.
1. Products:
 - a. "Chem-Calk 2641"; Bostik Inc.
 - b. "Dynatred"; Pecora Corporation.
 - c. "Sikaflex 1a"; Sika Corporation.

- F. Type "5"; One-Part Nonsag Low-Modulus Urethane Sealant: Type S, Grade NS, Class 25, Use NT, Substrates M,A,O plus movement capability of 50 percent in both extension and compression.

1. Products:

- a. "Dymonic"; Tremco Construction Division.
- b. "Sikaflex - 15LM", plus 100%-50% movement; Sika Corporation.

- G. Type "6"; One-Part Pourable Urethane Sealant: Type S, Grade P, Class 25, Use T.

1. Products:

- a. "Chem-Calk 950"; Bostik Inc.
- b. "Vulkem 45"; Mameco International, Inc.
- c. "Urexpan NR-201"; Pecora Corporation.
- d. "Sonolastic SL-1"; Sonneborn Building Products Division/ChemRex, Inc.
- e. "Sikaflex - 1c SL"; 25% movement; Sika Corporation.

- H. Type "7"; Urethane Sealant for Water Immersion: One- or two-part urethane, Grade NS, Class 25, Use NT, specifically recommended by the manufacturer for sealing joints immersed continuously in water.

1. Products:

- a. "Vulkem 116"; Mameco International, Inc.
- b. "Vulkem 922"; Mameco International, Inc.
- c. "Permapol RC 270 Reservoir Sealant"; Products Research & Chemical Corporation.
- d. "Sikaflex 1A"; one part; Sika Corporation.
- e. "Sikaaflex - 2CNS"; two part; Sika Corporation.

2.03 LATEX SEALANTS

- A. Type "8"; Acrylic-Latex Emulsion Sealant: One-part, nonsag, mildew-resistant, paintable; complying with ASTM C 834.

1. Products:

- a. "Tremco Acrylic Latex 834"; Tremco Construction Division.

2.04 NONCURING SEALERS (Acoustical Sealant)

- A. Type "9"; Noncuring Butyl Sealant: Nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic rubber sealant.

1. Products:

- a. "Tremco Acoustical Sealant"; Tremco, Inc.

2.05 FIRE RESISTANT JOINT SEALERS

- A. General: Provide manufacturer's standard fire-stopping sealant, **with accessory materials**, having fire resistance ratings indicated as established by testing identical assemblies per **ASTM E 814** by Underwriters Laboratory, Inc. or other testing and inspecting agency acceptable to authorities having jurisdiction.
- B. One-Part Fire-Stopping Sealant: One part **elastomeric sealant formulated for use in a through-penetration fire-stop system** for sealing openings around cables, conduit, pipes and similar penetrations through walls and floors.
- C. Products: Subject to compliance with requirements, provide one of the following:
 - 1. "Dow Corning Fire Stop Sealant"; Dow Corning Corp.
 - 2. "3M Fire Barrier Caulk CP-25"; Electrical Products Div. /3M.
 - 3. "RTV 7403"; General Electric Co.
 - 4. "Metacaulk 950"; Metalines.

2.06 COMPRESSION SEALS

- A. Compressible Foam Sealer: High-density open-cell urethane foam saturated with nondrying water-repellent; precompressed in rolls or sticks; permanently flexible, mildew-resistant, nonstaining.
 - 1. For vertical above grade applications:
 - a. Select sizes so that installed sealer is compressed as recommended by manufacturer to provide a weathertight seal.
 - b. Products:
 - 1. "Emseal Sof-Joint Seal"; Emseal Joint Systems, Ltd.

2.07 SEALANT BACKERS

- A. Backers - General: Nonstaining; recommended or approved by sealant manufacturer for specific use.
- B. Backer Rods: Flexible, nonabsorbent, compressible polyurethane foam, either open-cell or non-gassing closed-cell, unless otherwise restricted by sealant manufacturer; preformed to appropriate size and shape.

2.08 JOINT FILLER

- A. Concrete Slab Application:
 - 1. Basis of Design: "Poly Strip & Poly Joint"; HPI Products Corp.
 - 2. Provide performed highly flexible, closed cell, low density, polyethylene foam material joint filler with effective compressive and recovery capabilities to prevent damage to concrete slab and structure during the expansion and contraction cycles.

- a. Provide joint filler for full thickness of the concrete slab.
- b. Provide joint filler compatible with joint sealer as specified, submit written documentation of filler compatibility with sealer.

2.09 MISCELLANEOUS MATERIALS

- A. Primers: As recommended by sealer manufacturer.
- B. Cleaners: As recommended by sealer manufacturer and not damaging to substrates.
- C. Masking Tape: Nonabsorbent, non-staining.
- D. Tooling Agents: Approved by sealant manufacturer; non-staining to sealant and substrate.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine joints for characteristics that may affect sealer performance, including configuration and dimensions.
- B. Do not begin joint sealer work until unsatisfactory conditions have been corrected.
- 3. **Commencement of work shall constitute acceptance of conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the Owner.**

3.02 PREPARATION

- A. Cleaning: Just before starting sealer installation, clean out joints in accordance with recommendations of sealer manufacturers and as follows:
 - 1. Remove all material that could impair adhesion, including dust, dirt, coatings, paint, oil and grease. Exception: Materials tested to show acceptable adhesion and compatibility.
 - 2. Dry out damp and wet substrates thoroughly.
 - 3. Clean M-type and O-type substrates by suitable mechanical or chemical methods.
 - 4. Remove loose particles by vacuuming or by blowing with oil-free compressed air.
 - 5. Concrete: Remove laitance and form-release coatings.
 - 6. Clean A-type and G-type substrates by chemical or other methods which will not damage the substrate.
 - 7. Use methods which will not leave residues that will impair adhesion.
- B. Priming: Prime substrates as recommended by sealer manufacturer.
- C. Masking Tape: Use masking tape to keep primers and sealers off of adjacent surfaces which would be damaged by contact or by cleanup. Remove tape as soon as practical.
- D. Install fillers where needed to provide proper joint depth or support for sealant backers.
 - 1. Place joint filler approximately 3/4 inch below the surface of top of slab.
 - 2. Joint sealant to be placed filling the remaining void, to provide concave condition.

3.03 INSTALLATION

- A. Comply with sealer manufacturers' installation instructions and recommendations, except where more restrictive requirements are specified.
- B. Elastomeric Sealants: Comply with recommendations of ASTM C 962.
- C. Latex Sealants: Comply with recommendations of ASTM C 790.
 - 1. **Painting of exposed interior latex sealants will not be permitted.**
 - 2. Painting of exposed sealants around interior door frames will not be permitted.
- D. Sealants in Acoustical Assemblies: Comply with recommendations of ASTM C 919.
- E. Backers:
 - 1. Install backers at depth required to result in shape and depth of installed sealant which allows the most joint movement without failure.
 - a. Make backers continuous, without gaps, tears, or punctures.
 - b. Do not stretch or twist backers.
 - 2. If backers become wet or damp before installation of sealant, dry out thoroughly before proceeding.
- F. Sealants: Use methods recommended by manufacturer; completely fill the joint; make full contact with bond surfaces; tool nonsag sealants to smooth surface eliminating air pockets.
 - 1. Use concave joint shape shown in Figure 6A in ASTM C 962, where not otherwise indicated.
- G. Compressible Foam Sealers: Use methods recommended by manufacturer; do not stretch; use as few end joints as possible; make tight, sealed joints at corners and intersections; in cold weather, accelerate expansion using heat.

3.04 PROTECTION AND CLEANING

- A. Clean surfaces adjacent to joints as work progresses and before sealants set using methods and materials approved by manufacturers of sealers and of surfaces to be cleaned.
- B. Protect joint sealers from contamination and damage.
- C. Remove and replace damaged sealers.

3.05 SCHEDULE OF JOINT SEALERS

- A. General: Unless otherwise indicated, joints around perimeter of frames, where indicated to be sealed, are to be sealed using sealer specified for the substrate adjacent to the frame.
- 2. **All joints to be sealed regardless of whether or not they are indicated on drawings.**

C. Exterior Joints for Which No Other Sealer Is Indicated:

1. Use one of the following sealants:
 - a. Type "2" : Two-part non-sag low-modulus urethane sealant.
 - b. Type "5": One-part non-sag low-modulus urethane sealant.
2. Backer: Backer rod.
3. Joint shape: Concave joint configuration.

D. Interior Joints for Which No Other Sealer Is Indicated:

1. Use one of the following sealants:
 - a. Type "8": Acrylic-emulsion latex sealant.
2. Backer: Backer rod.
3. Joint shape: Concave joint configuration.

E. Interior Floor Joints and Pedestrian Paving Joints, Less than 1-1/2 Percent Slope:

1. Use one of the following sealants:
 - a. Type "3": Two-part pourable urethane sealant.
 - b. Type "4": Two-part nonsag urethane sealant for Use T.
 - c. Type "6": One-part pourable urethane sealant.
2. Backer: Compressible joint filler as indicated.
3. Joint shape: Concave joint configuration.

F. Joints around Pipes, Ducts, and Conduit Penetrating Exterior Walls and Roofs:

1. Use one of the following sealants:
 - a. Same as used for adjacent substrates.

G. Joints in Interior Wet Areas:

1. Use one of the following sealants:
 - a. Type "1": Mildew-resistant silicone sealant.
2. Backer: Backer rod.
3. Joint shape: Concave joint configuration.

H. Concealed Joints in Acoustical Assemblies:

1. Use one of the following sealants:
 - a. Type "9": Noncuring butyl sealant.

I. Joints immersed continuously in water:

1. Use the following sealant:
 - a. Type "7": Urethane Sealant for Water Immersion.
2. Backer: Backer rod.
3. Joint shape: Concave joint configuration.

END OF SECTION 079200

SECTION 085113 ALUMINUM WINDOWS

This suggested guide specification has been developed using the current edition of the Construction Specifications Institute (CSI) "Manual of Practice," including the recommendations for the CSI 3 Part Section Format and the CSI Page Format. Additionally, the development concept and organizational arrangement of the American Institute of Architects (AIA) MASTERSPEC Program has been recognized in the preparation of this guide specification. Neither CSI, AIA, USGBC nor ILF endorse specific manufacturers and products. The preparation of the guide specification assumes the use of standard contract documents and forms, including the "Conditions of the Contract," published by the AIA.

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Summary

- A. Section includes Kawneer Architectural Aluminum Windows including perimeter trims, stools, accessories, shims and anchors, and perimeter sealing of window units.
 1. Types of aluminum windows include:
 - a. Kawneer Series 8400TL Thermal Windows
 - b. Model 8470TL Horizontal Sliding Window
 - c. 4" (101.6) frame depth
 - d. HS-AW70 (XOX)
- B. Related Sections:
 1. 079200 "Joint Sealants"

1.3 Definitions

- A. Definitions: For fenestration industry standard terminology and definitions refer to American Architectural Manufacturers Association (AAMA) – AAMA Glossary (AAMA AG).

1.4 Performance Requirements

- A. General Performance: Aluminum-framed window system shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.
- B. Window Performance Requirements:
 1. Performance Requirements: Provide aluminum windows of performance indicated that comply with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS)
 - a. Performance Class and Grade: HS-AW70 - 148" x 79" (3759 x 2007 mm) (XOX).
 2. Air Leakage: The test specimen shall be tested in accordance with ASTM E 283. The air leakage rate shall not exceed 0.30 cfm/ft² (1.5 L/s·m²) at a static air pressure differential of 6.2 psf (300 PA).
 3. Water Resistance: The test specimen shall be tested in accordance with ASTM E 331 and ASTM E 547. There shall be no leakage as defined in the test method at a static air pressure differential of 10 psf (479 Pa).
 4. Uniform Load Deflection: A minimum static air pressure difference of 70 psf (3352 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of L/175 of the span of any framing member.
 5. Uniform Load Structural Test: A minimum static air pressure difference of 105 psf (5027 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330. The unit shall be evaluated after each load.
 6. Component Testing: Window components shall be tested in accordance with procedures described in AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).
 7. Energy Efficiency:
 - a. Thermal Transmittance Test: (U-Factor): When tested in accordance with AAMA 1503, the conductive thermal transmittance (U-Factor) shall not be more than:
 - 1) U-factor not more than .55 BTU/hr/sf/°F or () BTU/hr/sf/°F per AAMA 507 or NFRC 100 when using project specified glass.
 - b. Condensation Resistance Test (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than (CRF) 50_{frame} and 61_{glass} (clear).
or
Temperature Index (I): When tested to CSA-A440-00, the Temperature Index shall not be less than (I) 38.2_{frame} and 61.2_{glass} (clear).
 8. Windborne-Debris-Impact-Resistance Performance: Shall be tested in accordance with ASTM E 1886 and information in ASTM E 1996 and TAS 201/203.
 - a. Large – Missile Impact: For aluminum-framed systems located within 30 feet (9.1 m) of grade.

9. Blast Mitigation Performance: Shall be tested or proven through analysis to meet ASTM F1642, GSA-TS01, and UFC 04-010.01 performance criteria.
To meet UFC 04-010.01, B-3.1 Standard 10 for Windows and Skylights, the following options are available:
 - a. Section B-3.1.1 Dynamic analysis
 - b. Section B-3.1.2 Testing
 - c. Section B-3.1.3 ASTM F2248 Design Approach
 10. Forced Entry Resistance: All windows shall conform to ASTM F588, Grade 10.
 11. Thermal Barrier Tests: Testing shall be in general accordance with AAMA 505 Dry Shrinkage and Composite Thermal Cycling test procedure, AAMA TIR-A8, Structural Performance of Composite Thermal Barrier systems.
 12. Sound: Testing per AAMA 1801 with 1" [25.4 mm] insulating glass made with (1/4" [6.35 mm] exterior with, 1/2" [12.7 mm] airspace, 1/4" [6.35 mm] interior): minimum (34 STC) and (29 OITC).
- C. Environmental Product Declarations (EPD): Shall have a Type III Product-Specific EPD created from a Product Category Rule.

1.5 Submittals

- A. Product Data: Include construction details, material descriptions, fabrication methods, dimensions of individual components and profiles, hardware, finishes, and operating instructions for each type of aluminum window indicated.
 1. Environmental Product Declaration (EPD):
 - a. Include a Type III Product-Specific EPD created from a Product Category Rule.
- B. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other work, operational clearances and installation details.
- C. Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color selection.

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed Necessary for product improvement.
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- D. Samples for Verification: For aluminum windows and components required.
- E. Product Schedule: For aluminum windows. Use same designations indicated on Drawings.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for each type, class, grade, and size of aluminum window. Test results based on use of downsized test units will not be accepted.

1.6 Quality Assurance

- A. Installer Qualifications: An installer which has had successful experiences with installation of the same or similar units required for this project and other projects of similar size and scope.
- B. Manufacturer Qualifications: A manufacturer capable of fabricating aluminum windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion of test reports, and calculations.
- C. Source Limitations: Obtain aluminum windows through one source from a single manufacturer.
- D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum windows and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements." Do not modify size and dimensional requirements.
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockup for type(s) of window(s) indicated, in location(s) shown on Drawings.
- F. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.7 Project Conditions

- A. Field Measurements: Verify aluminum window openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.8 Warranty

- A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.
- B. Insulating Glass: Warranted to be free from defects (excluding breakage) for a period of five (5) years.

PART 2 - PRODUCTS

2.1 Manufacturers

- A. Basis-of-Design Product:
 - 1. Kawneer Company Inc.
 - 2. Model 8470TL Horizontal Sliding Window
 - 3. 4" (101.6 mm) frame depth
 - 4. HS-AW70 (XX or XOX)
- B. Subject to compliance with requirements, provide a comparable product by the following:
 - 1. Manufacturer: (EFCO _____)
 - 2. Series: (SX45 _____)
 - 3. Profile dimension: (4 1/2" _____)
 - 4. Performance Grade: (AW70 Equiv _____)
- C. Substitutions: Refer to Substitutions Section for procedures and submission requirements.
 - 1. Pre-Contract (Bidding Period) Substitutions: Submit written requests ten (10) days prior to bid date.
 - 2. Post-Contract (Construction Period) Substitutions: Submit written request in order to avoid window installation and construction delays.
 - 3. Product Literature and Drawings: Submit product literature and drawings modified to suit specific project requirements and job conditions.
 - 4. Certificates: Submit certificate(s) certifying substitute manufacturer (1) attesting to adherence to specification requirements for window system performance criteria, and (2) has been engaged in the design, manufacture and fabrication of aluminum windows for a period of not less than ten (10) years. (Company Name)
 - 5. Test Reports: Submit test reports verifying compliance with each test requirement required by the project.
 - 6. Samples: Provide samples of typical product sections and finish samples in manufacturer's standard sizes.
- D. Substitution Acceptance: Acceptance will be in written form, either as an addendum or modification, and documented by a formal change order signed by the Owner and Contractor.

2.2 Materials

- A. Aluminum Extrusions: Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.070" (1.78 mm) wall thickness at any location for the main frame and sash members.

- B. Thermal Barrier:
 - 1. Thermal Barrier: The thermal barrier shall be Kawneer IsoLock® with a nominal 3/8" (9.53 mm) separation consisting of a two-part, chemically curing high density polyurethane which is mechanically and adhesively bonded to the aluminum.
- C. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.
- D. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- E. Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- F. Sealant: For sealants required within fabricated windows, provide window manufacturer's standard, permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

2.3 Window System

- A. Series 8400TL Thermal Window - Horizontal Sliding Window.

2.4 Glazing

- A. Glass and Glazing Materials: Refer to Division 08 Section "Glazing" for glass units and glazing requirements applicable to glazed aluminum window units.
- B. Glazing System: Glazing method shall be a wet/dry type in accordance with manufacturer's standards. Exterior glazing shall be silicone back bedding sealant. Interior glazing shall be snap-in type glazing beads with an interior gasket in accordance with AAMA 702 or ASTM C864.

2.5 Hardware

- A. General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, or other corrosion-resistant material compatible with aluminum; designed to smoothly operate, tightly close, and securely lock aluminum windows, and sized to accommodate sash weight and dimensions.
- B. Horizontal Sliding Window Typical Hardware:
 - 1. Continuous Integral Pulls
 - 2. Stainless Steel Ball Bearing Rollers
 - 3. Stainless Steel Roller Track
 - 4. Plunger Lock.
- C. Exterior Panning and Interior Trims: Extruded aluminum, 6063-T6 alloy and temper, extruded to profiles and details indicated. Seal exterior joints with manufacturer's standard sealant to assure water-tight joints.
 - 1. Exterior Panning and Trims: All panning profiles shall be a minimum thickness of 0.062" (1.57 mm) to match the profiles as shown the drawings. Any profile variations shall be submitted to the architect and/or owner for approval 10 days prior to bid date. All panning shall be factory fabricated for field assembly. All corner joinery shall be factory cut. Joinery at the sill shall be coped and butt-type construction. All preparations for assembly shall be completed by the window manufacturer. Upon assembly, panning frame joints shall be back-sealed to prevent moisture penetration.
 - 2. Interior Trims: The interior face trim minimum wall thickness shall be 0.062" (1.57 mm). The face trim shall snap-fit onto concealed mounting clip. Exposed fasteners shall not be accepted. The mounting clip shall be extruded aluminum of 6063-T6 alloy and temper. The minimum wall thickness shall be 0.062" (1.57 mm). The trim clips shall be provided in 4" (101.6 mm) lengths and spaced a maximum of 18" (457.2 mm) center to center.

2.6 Accessories

- A. Optional Insect Screens: Extruded aluminum frames, 6063-T6 alloy and temper, joined at corners: 18 x 16 mesh aluminum screen cloth; frames finished to match aluminum windows; splines shall be extruded vinyl, removable to permit rescreening.

2.7 Fabrication

- A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fit joints; make joints flush, hairline and weatherproof.
 - 3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
 - 4. Physical and thermal isolation of glazing from framing members.
 - 5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 6. Provisions for field replacement of glazing.
 - 7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- B. Window Frame Joinery: Screw-spline, factory sealed frame and vent corner joints.
- C. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.
- D. Fabricate aluminum windows that are re-glazable without dismantling sash or framing.

- E. Sub frames: Provide sub frames with anchors for window units as shown, of profile and dimensions indicated but not less than 0.093" (2.4 mm) thick extruded aluminum. Miter or cope corners, and join with concealed mechanical joint fasteners. Finish to match window units. Provide sub frames capable of withstanding design loads of window units.
- F. Factory-Glazed Fabrication: Glaze aluminum windows in the factory where practical and possible for applications indicated. Comply with requirements in Division 08 Section "Glazing" and with AAMA/WDMA/CSA 101/I.S.2/A440-08 (NAFS).
- G. Glazing Stops: Provide snap-on glazing stops coordinated with Division 08 Section "Glazing" and glazing system indicated. Provide glazing stops to match frame.

2.8 Aluminum Finishes

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Factory Finishing:
 - 1. Kawneer PermadiZe® (50% PVDF), AAMA 2604, Fluoropolymer Coating (Color __Medium Bronze____).
 - 2. Samples to be provided at time of award

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
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PART 3 - EXECUTION**3.1 Examination**

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight window installation.
 - 1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
 - 2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches (76 mm) of opening.
 - 3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
 - 4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Installation

- A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.
- B. Install aluminum-framed window system level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Set sill members in bed of sealant or with gaskets, as indicated, for weather tight construction.
- D. Install aluminum-framed window system and components to drain condensation, water penetrating joints, and moisture migrating within system to the exterior.
- E. Separate aluminum from dissimilar material to prevent corrosion or electrolytic action at points of contact.

3.3 Field Quality Control

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections and prepare test reports.
 - 1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.
- B. Testing Services: Testing and inspecting of installed windows shall take place as follows:
 - 1. Testing Methodology: Testing Standard shall be per AAMA 502 including reference to ASTM E 783 for Air Leakage Test and ASTM E 1105 for Water Penetration Test.
 - a. Air Leakage Test: Conduct test in accordance with ASTM E 783 at a minimum uniform static test pressure of 6.2 psf (300 Pa). The maximum allowable rates of air leakage for field testing shall not exceed 1.5 times the project specifications.
 - b. Water Infiltration Test: Water penetration resistance tests shall be conducted in accordance with ASTM E 1105 at a static test pressure equal to 2/3 the specified water test pressure.
 - 2. Testing Extent: Architect shall select window units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer's representative present.
 - 3. Test Reports: Shall be prepared according to AAMA 502.

3.4 Adjusting, Cleaning, And Protection

- A. Adjust operating sashes, screens, hardware, and accessories for a tight fit at contact points and weather stripping for smooth operation and weather tight closure. Lubricate hardware and moving parts.
- B. Clean aluminum surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- C. Clean glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.
- D. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.
- E. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.

DISCLAIMER STATEMENT

This guide specification is intended to be used by a qualified construction specifier. The guide specification is not intended to be verbatim as a project specification without appropriate modifications for the specific use intended. The guide specification must be used and coordinated with the procedures of each design firm, and the particular requirements of a specific construction project.

END OF SECTION 085113

SECTION 08800 - GLAZING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Insulating glass.
 - 2. Wire Glass.
 - 3. Safety Glass.
 - 4. Glazing sealants.
 - 5. Glazing accessories.
- B. Types of work in this section include work for:
 - 1. Metal-framed sloped glazing.
 - 2. Exterior windows.
 - 3. Interior windows.
 - 4. Exterior doors.
 - 5. Interior doors.
 - 6. Glazed aluminum curtain wall.
- C. Related Sections:
 - 1. Glazing work for metal-framed sloped glazing: Division 7.
 - 2. Compression gaskets: Elsewhere in Division 8.

1.02 PERFORMANCE REQUIREMENTS

- A. Exterior Glazing: Provide glazing assemblies which will withstand normal conditions without failure, loss of weathertightness, or deterioration.
 - 1. Design to accommodate thermal movement resulting from:
 - a. Air temperature range of 120 degrees F.
 - b. Material temperature range of 180 degrees F.
- B. Deterioration includes:
 - 1. For insulating glass:
 - a. Moisture or dirt between panes.
 - b. Development of condensation between panes.
 - c. Damage to internal coating, if any.
 - d. Development of other visible indication of seal failure.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's data, describing product characteristics, installation instructions and recommendations, and maintenance procedures.
- B. Samples of Glass: 12-inch-square samples, of:
 - 1. All glass types.

- C. Certificates for each product, from manufacturer stating that product used on the project complies with specified requirements.
- D. Sealant-Substrate Test Reports: For each exterior sealant.
- E. Insulating Unit Warranty.

1.04 QUALITY ASSURANCE

- A. Standard for Sealed Insulating Glass Units: ASTM E 774, with compliance certified by independent certification program.
 - 1. Label each unit permanently on spacer or on one pane.
 - 2. Certification agency:
 - a. Insulating Glass Certification Council (IGCC).
 - b. Associated Laboratories, Inc. (ALI).
- B. Certified Safety Glazing: Provide Category II products which comply with test requirements of 16 CFR 1201 and ANSI Z97.1 and permanently marked with label of:
 - 1. Safety Glazing Certification Council (SGCC).
- C. Fire Resistive Glazing Products for Door Assemblies: Provide products identical to those tested per ASTM E152 (UL10B) labeled and listed by:
 - 1. Underwriter Laboratories Inc. (UL)
- D. Fire Resistive Glazing Products for Window Assemblies: Provide products identical to those tested per ASTM E163 (ULG) labeled and listed by:
 - 1. Underwriters Laboratories Inc. (UL)
- E. Sealant-Substrate Tests: Have manufacturer of sealant test glazing materials, glass, and substrates for proper adhesion and compatibility.
 - 1. Use sealant manufacturer's standard test methods.
 - 2. Provide as many samples as manufacturer requires.
 - 3. Allow adequate time for testing to prevent delay in the work.
 - 4. Submit sealant manufacturer's report on testing and recommendations for use of sealants and preparation of substrates.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect products in accordance with manufacturer's recommendations; specifically, avoid damage to glass edges; prevent damage due to temperature changes, sunlight, and moisture.

1.06 PROJECT CONDITIONS

- A. Environmental Conditions: Do not install glazing when either air or substrate temperature exceeds the range recommended by manufacturer or when substrate is wet, damp, or covered with snow, ice, or frost.
- B. Install bulk sealants only at air and substrate temperatures above 40 degrees F.

1.07 WARRANTY

- A. Submit a written warranty guaranteeing to correct failures in glazing which occur within the period indicated after substantial completion, without reducing or otherwise limiting any other rights to correction which the owner may have under the contract documents.

1. Warranty on insulating glass: **10 years.**

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Glass Manufacturers - General:

1. Obtain materials from only one manufacturer or fabricator for each type; obtain tinted primary glass (if any) used for each type from only one manufacturer.
2. Sealed Insulated Glass:
 - a. Basis of design: "Low E" dual seal insulating glass, .40 "U" value; Kawneer.

2.02 GLASS TYPES

- A. Glass Types - General: Provide glass types fabricated of the glass products indicated.

1. Select products to comply with performance requirements indicated, in accordance with manufacturer's recommendations.
2. Exterior glass thickness: 6 mm (1/4 inch nominal), unless otherwise indicated, or recommended by manufacturer for each window type and size.
3. Interior glass thickness: 6 millimeter (1/4 inch nominal), unless otherwise indicated, or recommended by manufacturer for each window type and size.
4. Fabricate glass with bite and edge clearance dimensions, including tolerances, as recommended by manufacturer and FGMA "Glazing Manual."
5. Cut tempered glass to size and shape and drill holes prior to tempering.

- B. **Glass Type I - 1:** Sealed insulating units.

1. Total thickness: 1 inch, nominal.
2. Exterior pane: Transparent float glass, tinted.
 - a. Fully tempered float glass.
 - b. Color: To be selected by Architect after award of contract.
3. Interior pane: Transparent float glass.
 - a. Fully tempered float glass.
 - b. Color: Clear.

- C. **Glass Type S - 1:** Float glass. (for interior non-rated doors and windows wherever else specified).

1. Thickness: 1/4 inch.
2. Fully tempered.
3. Color: Clear.

- D. **Glass Type W-1:** Wire glass, (for interior rated doors and windows wherever else specified).

1. Thickness: 1/4 inch.
2. Color: Clear.

3. Fire resistance rated.

2.03 BASIC GLASS PRODUCTS

- A. Sealed Insulating Units: Factory-assembled multiple panes separated by and sealed to spacers forming air-tight, dehydrated air space(s).
 1. ASTM E 774, Class A.
 2. Spacer seals: Dual seal; manufacturer's standard materials.
 3. Spacer corner construction: Manufacturer's standard.
 4. Drying agent: Manufacturer's standard.
- B. Float Glass: Quality q3, unless otherwise indicated.
 1. Fully tempered: ASTM C 1048, Kind FT, Type I.
 - a. Tong marks are not permitted on any piece.
- C. Wire Glass: ASTM C1036 type II, Class I, quality q8., polished both sides square wire mesh.

2.04 INSTALLATION MATERIALS

- A. Installation Materials - General: Select products which have appropriate performance characteristics as recommended by glass and glazing materials manufacturers and which are compatible with all materials with which they will come into contact.
- B. Exterior Glazing Sealant: Non-acid curing silicone complying with ASTM C 920, Grade NS, Type S or M, Class 25, Uses NT, A, and G.
 1. Demonstrate compatibility and adhesion by preconstruction testing.
 2. Colors: To match substrates.
- C. Interior Glazing Sealant: Clear, non-sag silicone sealant.
- D. Glazing Blocks: Neoprene, EPDM, or silicone.
 1. Setting blocks: 80 to 90 Shore A hardness.
 2. Spacers: As required to provide face and edge clearances recommended by FGMA "Glazing Manual," unless greater clearances are recommended by glazing manufacturer.
- E. Backer Rods: Flexible, nonabsorbent, compressible polyurethane foam, either open-cell or non-gassing closed-cell, unless otherwise restricted by sealant manufacturer; preformed to appropriate size and shape.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine frames and rabbets in which glazing is to be installed for conditions that could be detrimental to the longevity of the glazing. In particular, check for conditions that would void the manufacturer's warranty.
- B. Do not proceed with installation until unsatisfactory conditions have been corrected.
- C. **Commencement of installation work shall constitute acceptance of conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the Owner.**

3.02 PREPARATION

- A. Clean surfaces to receive glazing just before installation of glazing.

3.03 INSTALLATION - GENERAL

- A. Comply with recommendations for installation contained in the FGMA "Glazing Manual" and "Sealant Manual" except when specifically not recommended or prohibited by the glass or glazing material manufacturer; comply with manufacturer's recommendations.
- B. Protect glazing from edge damage during handling and installation.
- C. Do not install glass that has edge damage or defects that reduce glass strength or performance or diminish appearance.
- D. Install glass so that visual characteristics, such as pattern, bow, and roll wave distortion, are uniform.

3.04 GLAZING IN FRAMES

- A. Use the following glazing methods in the locations indicated in other specification sections:
 - 1. Compression gaskets, both sides.
 - 2. Sealant one side, compression gasket other side.
- B. Permanently adhere setting and edge blocks to frame.
- C. Do not block weep holes.
- D. Sealants:
 - 1. Remove applied coatings from surfaces, unless such coatings have been tested to show acceptable adhesion and compatibility.
 - 2. Use continuous spacers.
 - a. Exception: For lights of less than 100 united inches, non-continuous spacers may be used, with backer rods to form proper sealant shape.
 - 3. Use primer where required for proper adhesion as determined by sealant-substrate testing.
 - 4. Tool sealant, eliminating air pockets, with a definite slope away from glazing.
- E. Compression Gaskets: Secure gaskets so they will not work out under normal movement.
 - 1. Install so they fit tightly at corners, allowing for stretch during installation.
 - 2. Do not use joints in gaskets, except at corners.
 - 3. Miter-cut corners and seal joint with sealant.
- 4. Install gaskets so they protrude slightly past face of framing.

3.05 PROTECTION AND CLEANING

- A. Immediately after installing glazing in frames, apply warning tape or bands across opening without touching glazing.
- B. Do not apply tape or labels to glazing; remove temporary tabs.
- C. Protect glazing during subsequent construction operations; remove dirt, contaminants, staining agents and other deposits promptly using manufacturer's recommended procedures.

1. Inspect glazing below and near exterior concrete and masonry frequently but not less than monthly.
 2. Clean off excess sealants as work progresses using methods which will not damage glazing.
- D. Replace glazing that is damaged.
- E. Wash both sides of glazing, using manufacturer's recommended procedures not more than 10 days before inspection for substantial completion.

END OF SECTION 08800

SECTION 092600 - GYPSUM BOARD AND FIRE PROTECTION BOARD SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Metal support systems.
 - 2. Gypsum wallboard.
 - 3. Exterior Gypsum Board
 - 4. Gypsum Board Suspension System.
 - 5. Fire Protection Board
 - 6. Drywall finishing.
 - 7. Water-resistant gypsum backing board.
 - 8. Gypsum core sheathing system.
 - 9. Polyethylene Vapor Retarder.
- B. Related Sections:
 - 1. Painting: Elsewhere in Division 9.

1.02 SYSTEM DESCRIPTION

- A. Sound-Rated Construction: Where indicated, provide construction built in accordance with manufacturer's assemblies which have been laboratory-tested per ASTM E 90 for designated STC ratings.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for systems required, including installation instructions and data sufficient to show compliance with requirements.
- B. Samples: Submit the following:
 - 1. Verification samples:
 - a. Gypsum core sheathing panels: Two 12-inch-square samples.
 - b. Joint tape and sealant: To be included with mock-up.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Provide installation by a company specializing in work similar to that required on this project and with not less than 5 years of documented experience.
- B. Regulatory Requirements: At locations indicated on drawings, provide fire-rated assemblies tested in accordance with ASTM E 119 and acceptable to authorities for ratings required. Provide assemblies as listed in the following:
 - 1. Underwriters Laboratories Inc.'s (UL) "Fire Resistance Directory."
- C. Seismic Requirements:
 - 1. The wall and ceiling systems (all components and their attachments) shall be designed and constructed to resist seismic forces in accordance with International Building Code Architectural Component Design. Provisions shall be made for lateral support and interaction of other architectural, mechanical and electrical systems or components incorporated into ceiling which impose seismic forces into walls and ceiling system.

- a. Seismic Hazard Exposure Group: Group **II**
 - b. Seismic Performance Category: C
 - c. Comply with Requirements of IBC (Current Edition) Architectural Components Seismic Coefficient and Performance Criteria Factor.
 - d. Provide certification that the wall and ceiling system assemblies are **DESIGNED AND CONSTRUCTED TO MEET THE IBC (current adopted) Architectural Component Design.**
- D. **Fireblocking and Draftstopping:** Comply with the IBC (Current adopted) National Building Code requirements for installation of fireblocking and / or draftstopping, to prevent the fire passage of flame and product of combustion through concealed spaces or openings in gypsum board systems, in the event of fire.
- E. Mock-up: Prior to commencement of gypsum sheathing work at exterior walls, erect sample panel to serve as standard of appearance and workmanship throughout construction period.
 - 1. Build at location and to design indicated on drawings, or otherwise directed by the Architect.
 - a. Include joint treatment method to be used with joint tape and sealant.
 - 2. Adjust until mock-up appearance and workmanship are acceptable to the Architect.
 - 3. Upon completion of construction and at the direction of the architect, demolish mock-up construction completely and remove debris.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original and unopened packages, containers, or bundles, with brand names and manufacturer's labels intact and legible.
- B. Store materials in dry location, fully protected from weather and direct exposure to sunlight.
- C. Stack gypsum board products flat and level, properly supported to prevent sagging or damage to ends and edges.
- D. Store corner bead and other metal and plastic accessories to prevent bending, sagging, distortion, or other mechanical damage.

1.06 PROJECT CONDITIONS

- A. Temperature: Maintain temperature in areas of installation between 50 and 70 degrees F for at least 24 hours before installation begins and for not less than 48 hours after joint finishing has been completed.
- B. Ventilation: Provide controlled ventilation during joint finishing operations, to eliminate excessive moisture. Avoid drafts during hot, dry weather to prevent excessively fast drying of joint compound.

PART 2 - PRODUCTS

2.01 FRAMING MATERIALS

- A. General: Select size and gauge of framing members and establish spacing to comply with requirements of ASTM C 754 unless otherwise specifically indicated.
 - 1. Maximum deflection: L/240 at 5 lb per square foot.

- B. Studs and Tracks: ASTM C 645, steel with protective coating.
 - 1. Nominal depths: As indicated on drawings.
- C. Ceiling Channels: ASTM C 754, cold-rolled or hot-rolled steel, with rust-inhibitive finish.
- D. Grid Suspension System: Manufactured steel ceiling suspension system with interlocking components, complying with requirements of ASTM C 645.
- E. Hanger Wire: ASTM A 641, soft, Class 1 galvanized.
 - 1. Ceiling hangers: Minimum 8 gage wire.
 - 2. Furring channel ties: Minimum 18 gage wire.
- F. Furring Members: ASTM C 645, steel with protective coating.
 - 1. Hat-shaped except as otherwise indicated.
 - 2. Where indicated as "resilient" or "acoustical," or where required for STC ratings indicated, provide manufacturer's special type designed for attachment by one flange for reduced sound transmission.
 - 3. C-shaped studs, in locations indicated.
- G. Furring Fasteners/Connectors: Manufacturer's recommended system for specific application indicated, complying with ASTM C 754.
- H. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
 - 1. Gold Bond Building Products, a National Gypsum Division.
 - 2. Georgia Pacific
 - 3. USG Corporation.

2.02 GYPSUM BOARD

- A. Gypsum Wallboard: ASTM C 36; maximum lengths available.
 - 1. Type: Standard, except as otherwise indicated.
 - 2. Type: Fire-resistant (Type X or equivalent) where required for fire-resistant rated assemblies.
 - 3. Edges: Tapered, unless otherwise other edge is required for specific application.
 - 4. Thickness: 5/8 inch, except as otherwise shown.
- B. Gypsum Backing Board: ASTM C 442 backing board or ASTM C 36 wallboard; maximum lengths available.
- C. Moisture- Resistant Gypsum Backing Board: ASTM C 630; maximum lengths available:
 - 1. Standard type, except as otherwise indicated.
 - 2. Edges: Tapered, for taped joint treatment.
- D. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
 - 1. Gold Bond Building Products, a National Gypsum Division.
 - 2. USG Corporation.
 - 3. Georgia Pacific
- 5. Exterior Gypsum Board: ASTM C79.

1. Type: Regular board.
 1. "Gold Bond Regular Gypsum Sheathing".
 2. "Dense Glass Gold"
2. Edges: Tongue and Groove
3. Thickness: ½ inch
4. Size 2'0" x 8'0".

2.03 FIRE PROTECTION BOARD

- A. Calcium-Silicate fiber cement boards.
 1. Density: minimum 54 pounds per cubic foot.
 2. Edges: Square.
 3. Thickness: Varies. Provide thicknesses as required by manufacturer to obtain the column and beam ratings indicated on the Contract Drawings.
- B. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
 1. "Promat-H"; Promat, Inc.

2.04 GYPSUM BOARD CEILING SUSPENSION SYSTEM

- A. Heavy-Duty Drywall Furring Tee's or framing as indicated on the construction drawingssssssss:
 1. Provide manufacturer's standard suspension system accessories required for each condition indicated on the contract documents.
- B. The following system indicated, is the "Basis of Design", other manufacturer's will be considered for substitution, provided they comply with the contract documents and are submitted as per the requirements of specification section 01600;
 1. "Perimeter Solutions"; Armstrong World Industries, Inc.

2.05 GYPSUM CORE SHEATHING SYSTEM

- A. Sheathing: Gypsum sheathing, complying with ASTM C 79.
 1. Type X, non-combustable gypsum sheathing board core with fiberglass mattes both sides.
 - a. Fire resistance: ASTM E136
 1. Flame Spread: 0, as per ASTM E84.
 2. Smoke Developed: 0, as per ASTM E84.
 2. Edges and ends: Manufacturer's standard.
 3. Thickness: 5/8 inch.
 4. Size: 4 feet by 9 feet, or 4 feet by 10 feet, as required for coordination with framing.
 5. Fasteners: ASTM C 954; self-drilling, self-tapping, bugle head galvanized or cadmium-plated steel screws.
 6. Joint tape: Manufacturer's approved types, self-adhering fiberglass mesh compatible with sheathing panels.
 7. Joint Sealant:
 - a. Types approved by manufacturer of sheathing panels, for LONG TERM JOINT PROTECTION.

1. Basis of design: "Elmer's Siliconized Acrylic Lates", Borden, Inc.
Warranty: 20-year manufacturer's standard warranty.
8. Provide miscellaneous materials as produced or recommended by manufacturer of gypsum sheathing products.
9. Warranty: Manufacturer's standard warranty against material defects.
 - a. Warranty period: 5 years, start at approved date for substantial completion.
- B. The following system indicated, is the "Basis of Design", other manufacturer's will be considered for substitution, provided they comply with the contract documents and are submitted as per the requirements of specification section 01600;
 1. Basis of design: "DENS-GLASS GOLD, Firestop Type X"; Georgia-Pacific Corp.

2.06 TRIM AND ACCESSORIES

- A. General: Except as otherwise specifically indicated, provide trim and accessories by manufacturers of gypsum board materials, made of galvanized steel or zinc alloy and configured for concealment in joint compound.
 1. Include corner beads, edge trim, and other trim units necessary for project conditions. Provide accessories as required in order to achieve details indicated, whether or not specific accessories are shown on the drawings.
- B. Exposed Trim: At locations indicated, provide the following trim units:
 1. "Fry 'F' Molding, DRMF-625-75, Black anodized; FRY Reglet Corporation.
 2. Provide other trim units shown or referenced on the contract documents.
- C. Control Joints: At locations indicated, or if not indicated, location as required in section 3.04 of this specification section.

2.06 JOINT TREATMENT (Gypsum Board)

- A. General: Provide products by manufacturer of gypsum boards. Comply with ASTM C 475 and with manufacturer's recommendations for specific project conditions.
- B. Joint Tape: Manufacturer's standard types.
- C. Joint Compound:
 1. Chemical hardening type, for the following applications:
 - a. Interior use: Taping and prefilling.
 2. Vinyl-based ready-mixed type for interior use, and as follows:
 - a. Topping compound: Type specifically formulated for finishing drywall over taping compound.

2.07 MISCELLANEOUS MATERIALS

- A. General: Provide miscellaneous materials as produced or recommended by manufacturer of gypsum products.
- B. Screws: ASTM C 1002; self-drilling type; lengths as recommended by gypsum board manufacturer for project conditions.

- C. Acoustical Sealants: ASTM C 919; nondrying, non-hardening, non-skinning type for concealed locations; non-oxidizing, skinning type for exposed locations.
- D. Vapor Retarder: Polyethylene sheet, 6.0 mils, 0.13 perms, ASTM D 4397.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Inspection: Verify that project conditions and substrates are appropriate to begin installation of work of this section.

3.02 PREPARATION

- A. Coordinate installation of anchorage devices for suspended ceilings/soffits, verifying that spacing and rated strength are correct for anticipated load conditions.

3.03 INSTALLATION OF METAL FRAMING

- A. General: Comply with provisions of ASTM C 754 except where exceeded by other requirements.
- B. Suspended Ceilings and Soffits:
 - 1. Secure hangers to structure or to anchorage devices so that full strength of hanger can be achieved.
 - a. Install ceiling channels at spacing indicated or required, but not greater than permitted by ASTM C 754.
 - 2. Secure furring members by means of screws, clips, or wire ties, as appropriate to substrate. Space furring members as follows:
 - a. 16 inches on center.
 - 3. Grid suspension system: Secure perimeter angles to walls at designated ceiling height. install hangers at 48 inches on center along main beams spaced at 48 inches on center; secure cross-furring members to main beams and perimeter angles at the following spacing:
 - a. 16 inches on center.
 - 4. Level ceiling system to a tolerance of 1/8 inch in 12 feet, or to a higher tolerance if required by specific project conditions.
 - 5. Level soffits to a tolerance of 1/8 inch in 12 feet, or to a higher tolerance if required by specific project conditions.
 - 6. Reinforce openings and interruptions in horizontal framing system with additional furring channels. Ensure that entire suspension system is laterally braced.
 - 7. **Install splay hangers or other means of seismic restraint as required to meet the requirements of ASTM E 580 and BOCA (1993 adopted) National Building Code for Architectural Component Design.**
- C. Steel Studs:
 - 1. General: Install tracks and studs in accordance with manufacturer's recommendations and as follows:
 - a. Stud spacing: 16 inches on center, except as otherwise shown or required for a specific wall type or application.
 - 2. Door openings: Comply with recommendations of USG Corporation's "Gypsum Construction Handbook," reinforcing openings as required for size and weight of doors.
 - a. At openings in fire-rated partitions, comply with requirements of governing authorities for framing.
 - 3. Partition heights: Extend studs to suspended ceiling height or to underside of floor or roof construction above, or as indicated for specific locations on the drawings.

4. Blocking and bracing: Install blocking and bracing as recommended by manufacturer for adequate support of wall-mounted items installed as work of other sections.
 5. **Install all means of seismic restraint as required to meet the requirements of BOCA Code (1993 adopted), Architectural Component Design.**
- D. Wall Furring:
1. General: Install wall furring members in accordance with manufacturer's recommendations.
 - a. Resilient furring members: Install by means of fasteners in single flange, in accordance with manufacturer's instructions.
 - b. Spacing: 16 inches on center, except as otherwise shown or required for a specific wall type or application.
 2. On solid walls, install furring members vertically.

3.04 INSTALLATION OF GYPSUM BOARD

- A. General: Comply with ASTM C 840 and GA-216 except where exceeded by other requirements.
1. Wherever possible, install gypsum board to minimize butt end joints.
 2. Apply ceiling boards prior to installation of wallboards. Arrange to minimize butt end joints near center of ceiling area.
 3. Install wallboards in a manner which will minimize butt end joints in center of wall area. Stagger vertical joints on opposite sides of walls.
 4. Butt all joints loosely, with maximum of 1/16 inch between boards.
 5. Place wrapped edges adjacent to one another; do not place cut edges or butt ends adjacent to wrapped edges.
 6. Support all edges and ends of each board on framing or by solid substrate, except that long edges at right angles to framing members in non-fire-rated construction may be left unsupported.
 7. In double-layer ceiling work, apply base layer with long edges perpendicular to framing members, with face layer in opposite direction, and with all joints offset.
 8. In double-layer wall applications, apply base layer with long edges parallel to framing members, with face layer in opposite direction, and with all joints offset.
- B. Control Joints: Form control joints by means of 1/4-inch space between adjacent gypsum boards, with each edge supported on separate framing member, ready to receive trim accessory. On Gypsum Board Sheathing Suspension System, form control joints by means of 1/4 inch space between adjacent gypsum boards with edge supported on continuous framing member. All control joints, if not indicated on drawings are to be located as follows.
1. Not more than 30 feet apart on walls which are not intersected by other walls for 50 feet or more.
 2. On ceilings with perimeter relief, not more than 50 feet apart in both directions.
 3. On ceilings without perimeter relief, not more than 30 feet apart in both directions.
- C. Isolation Joints: Where gypsum board construction intersects structural components, provide isolation by stopping board a minimum of 1/4 inch from structure, for finishing by means of exposed or semi exposed trim.
- D. Sound-Rated Construction: Seal perimeter of construction with acoustical sealant, complying with ASTM C 919. Carefully seal around penetrations and at control joints and other openings.
- E. Installation on Metal Framing and Furring:
1. Single-layer application: Install gypsum board by means of screw attachment.
 - a. On walls and partitions, plan installation so that leading edge or end of gypsum board is attached to open end of stud flange first.
 2. Double-layer application:
 - a. Install base layer by means of 1-inch screws, spaced at 24 inches on center.
 - b. Install face layer by means of screws at least 3/8 inch longer than total thickness of

- gypsum board layers, spaced at 12 inches on center.
3. For fire-rated construction, install gypsum board by means of screws as specified for the tested assembly.
- F. Installation of Backing Board:
1. At "wet" locations, install moisture-resistant gypsum backing board.
 - a. Install moisture-resistant gypsum backing board in accordance with manufacturer's recommendations for installation, include minimum clearances and sealing of penetration and edges. Do not install water-resistant backing board on ceilings or over vapor retarders.
- G. Installation of Vapor Retarder:
1. General: Install polyethylene vapor retarder on interior side of cold metal framing members of exterior insulated walls, to comply with the following requirements:
 - a. Extend vapor retarder to extremities of exterior insulated walls and to cover miscellaneous voids in insulated substrate, including those which stuffed with loose thermal insulation.
 - b. Place vertical joints in vapor retarders over framing by lapping not less than two (2) wall studs. Fasten vapor retarders to framing at top, end, and bottom edges, at perimeter of wall openings, and lap joints; space fasteners at 16 inches on center.
 - c. Seal all joints in vapor retarder including joints caused by pipes, conduits, electrical boxes and similar items penetrating vapor retarders with cloth or aluminized tape which bonds permanently to vapor retarder.
 - d. Repair any tears or punctures and seal all joints in vapor retarder immediately before concealment by application of gypsum board or other construction.

3.05 INSTALLATION OF FIRE PROTECTION BOARD

- A. General: Comply with Manufacturers Installation requirements, except where exceeded by other requirements herein.
1. Wherever possible, install fire protection board to minimize joints.
 2. Stagger vertical joints on opposite sides of beams and columns.
 3. Butt all joints, with maximum of 1/16 inch between boards.
 4. Support all edges and ends of each board by solid substrate.
- B. Columns: Comply with Manufacturers Installation requirements.
1. Fire protection boards shall be cut the width of the column flange or web plus the thickness of the board.
 2. Boards shall be placed directly against the column overlapping the edge of the board on one side. Fasten the boards into edge with the required faster; as recommended by the fire protection board manufacturer.
 3. Horizontal joints on the flange and web should be offset a minimum of 12 inches.
 4. Column protection should extend to the floor or roof platform per contract documents.
 5. Applications of the column assembly shall be in accordance with the fire protection board manufacturers Product Catalog (latest edition) which shall be considered as part of this specification.

3.06 INSTALLATION OF GYPSUM BOARD SHEATHING

- A. General: Comply with Manufacturers Installation requirements, except where exceeded by other requirements herein.
1. Wherever possible, install gypsum board sheathing to minimize joints.
 2. Locate edge joints parallel to and located on framing. Stagger intermediate end joints of adjacent lengths of sheathing panels.
 3. Locate fasteners minimum 3/8" from edges and ends of sheathing panels.
 4. Butt all joints, with maximum of spacing as recommended by manufacturer.

- B. Provide solid metal framing to support horizontal edges which do not bear on horizontal framing members.
- C. Attach sheathing to each support, spacing screws at 4 inches on center at edge and end supports, and 8 inches on center at supports in field of sheathing board.
- D. Coordinate installation of flashings, anchors, and similar items necessary to construct and weatherproof wall systems.
- E. Joint Treatment:
 - 1. Use methods recommended by manufacturer for LONG TERM JOINT PROTECTION, for a permanent barrier against wind and air infiltration.
 - a. Methods and Materials: To be submitted for review and approval by the Architect

3.07 INSTALLATION OF EXTERIOR GYPSUM BOARD SHEATHING

- A. Apply sheathing horizontally with the long dimension at right angles to the framing with grooved edges down, interlocking the tongue of previously installed panels with all edges butted but not forced into place.
- 2. Stagger all vertical joints and abut them over the centers of framing members.
- 3. Fit sheathing snugly around all openings.
- 4. Secure sheathing to studs with galvanized screw spaced not over 4" o.c. along ends and 8" o.c. intermediate framing.
 - 1. Fasteners shall bear tightly against the face of the sheathing but should not cut into the face paper.
 - 2. Fasteners shall be no less than 3/8 inches from the edges and ends of the sheathing..

3.08 INSTALLATION OF TRIM AND ACCESSORIES

- A. General: Comply with manufacturer's recommendations for installation of trim items. Except for items intended by manufacturer to be left exposed or semi exposed, install trim units for concealment in joint finishing compound. Wherever possible, fasten metal trim items to substrate with same fasteners used to install gypsum board products.
- B. Corner Bead: Install metal corner bead at all external corners unless details clearly indicate its omission at specific locations.
- C. Edge Trim: Install edge trim at locations indicated and wherever edge of gypsum board otherwise would be exposed.
- D. Control Joints: Install one-piece control joints at required locations. Do not remove tape until finishing operations are complete.

3.09 FINISHING

- A. General: Comply with ASTM C 840 and GA-216 except where exceeded by other requirements.
 - 1. Do not mix joint compounds except as specifically recommended by manufacturer.
- B. Finish gypsum board and fire protection board in accordance with the following level of finish, except where indicated otherwise on the drawings:
 - 1. Level 5: Embed tape in joint compound at all joints and interior angles. Provide three

separate coats of compound at all joints, angles, fastener heads, and accessories. Apply a thin skim coat of joint compound or special-purpose coating to the entire gypsum board surface. Provide smooth surfaces free of tool marks and ridges.

- C. Joint Treatment: Tape and finish joints in accordance with manufacturer's instructions for compounds used, using proper hand tools designed for the purpose.
 - 1. Avoid raising nap of face paper when sanding; carefully sponge down any areas roughened by sanding process.
- D. Penetrations: Fill cutouts and openings around fixtures and penetrations with joint compound.

3.10 CLEANING

- A. Promptly remove any residual gypsum drywall materials from adjacent or adjoining surfaces, leaving spaces ready for subsequent finishing operations and decorating.

END OF SECTION 092600

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Resilient Floor & Resilient base

1.02 SUBMITTALS

- A. Product Data: Submit technical data from each manufacturer of resilient products required.
- B. Initial Samples: Submit manufacturer's standard color selection samples for resilient products required, including all available colors and patterns.
- C. Verification Samples: Submit samples of each type, color, and pattern of resilient product required, as follows:
- D. Fire Test Certification: Submit certified test reports for resilient flooring products showing compliance with requirements, prepared by an independent testing agency acceptable to governing authorities.
- E. Maintenance Procedures: Submit manufacturer's published instructions for care and cleaning of resilient flooring products specified.
- F. **Certification: Submit certification that resilient tile flooring and accessories have been manufactured within the last 12 months, and contain NO ASBESTOS.**

1.03 QUALITY ASSURANCE

- A. Manufacturer: For each type of product required, including adhesives, cleaning compounds, and other accessories, provide the same product by one manufacturer throughout the project.
- B. Fire Performance Ratings: Provide products which have been tested and certified to comply with the following requirements:
 - 1. Critical radiant flux (CRF): ASTM E 648 or NFPA 253; minimum value as follows:
 - a. 0.45 watt per square centimeter.
 - 2. Smoke density: ASTM E 662; maximum 450.
- C. Installer: Manufacturer-certified for acceptable performance in installation of vinyl flooring.

1.04 PROJECT CONDITIONS

- A. Environmental Requirements: At least 48 hours prior to beginning work, move resilient flooring materials to areas of installation and maintain at minimum 70 degrees F until 48 hours after completing installation and at minimum 55 degrees F thereafter.
- B. Sequencing: Do not begin installation of resilient flooring products until painting has been completed for each area.

- C. Existing Conditions: Do not install resilient flooring on concrete substrates until testing has been conducted to assure that moisture levels are acceptable.

1.05 MAINTENANCE

- A. Extra Materials: At time of completing installation, deliver stock of maintenance materials to the Owner. Furnish products matching those actually installed, packaged for storage and clearly labeled.
 - 1. Resilient tile: 2 percent of each variety installed.
 - 2. Resilient sheet: 2 percent of each variety installed, in full roll width.
 - 3. Resilient base: 5 percent of each variety installed.

1.06 WARRANTY

- A. Submit a written warranty signed by the manufacturer, installer, and the contractor, guaranteeing to correct failures in resilient flooring which occur within the warranty period after substantial completion date, without reducing or otherwise limiting any other rights to correction which Owner may have under the contract documents. Failures are defined to include faulty workmanship or faulty materials. Correction may include repair or replacement.
 - 1. Warranty Period: Manufacturer's standard for each indicated product.

PART 2 - PRODUCTS

2.01 RESILIENT BASE MATERIALS

- A. Vinyl Wall Base: FS SS-W-40, Type II, and as follows:
 - 1. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
 - a. Armstrong World Industries, Inc.
 - b. Roppe Corporation, USA.
 - c. Mannington Commercial
 - 2. Height: 6 inches, verify with drawings.
 - 3. Thickness: 1/8 inch.
 - 4. Style: Standard toe base.
 - 5. Corners: At the contractor's option, provide prefabricated units matching base in color and finish, or site-fabricate corners, using heat-forming tool acceptable to manufacturer.
 - 6. Finish: Dull, or matte.

2.02 MISCELLANEOUS ACCESSORIES

- A. Resilient Edge Strips: Solid rubber or vinyl edging, in tapered or rounded profile, nominally 1 inch in width and 1/8 inch in thickness.
 - 1. Color: Matching flooring.

- B. Adhesive: Type recommended by manufacturer of resilient product for specific substrate conditions.
- C. Primer: Type recommended by manufacturer of resilient product for application to concrete substrates.
- C. Patching Compound: Latex leveling and patching compound acceptable to manufacturer of resilient flooring product.
- D. Sealers or Polishes: Types recommended by flooring manufacturer.

2.03 COLORS AND PATTERNS

- A. Provide colors and patterns of resilient flooring materials as selected by the Architect from manufacturer's full range of product line.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. General: Inspect substrates and conditions of installation to verify that work may properly commence. Do not proceed with the work until unsatisfactory conditions have been corrected.
- B. Concrete Substrates: Perform manufacturer's recommended moisture tests before beginning installation, to verify that concrete surfaces have cured sufficiently to allow adhesive bond to resilient flooring.
- C. **Commencement of work shall constitute acceptance of conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the owner.**

3.02 PREPARATION

- A. Substrates: Fill minor depressions, cracks, and other irregularities with patching compound.
 - 1. Remove paint, curing compounds, and other materials that could interfere with adhesion of resilient products.
 - 2. Sweep or vacuum clean substrate immediately prior to beginning installation in each area.
 - 3. Apply primer to concrete substrates prior to application of adhesive, following manufacturer's printed instructions.

3.03 GENERAL INSTALLATION REQUIREMENTS

- A. Comply with manufacturer's published recommendations for installation in each area, extending resilient flooring into spaces which are partially concealed. Cut and fit tightly to fixtures, pipes, and other obstructions, as well as to walls and partitions.
- B. Access Covers: Install resilient flooring tightly to removable access covers in field of flooring, taking care that pattern will match when covers are in closed position.
- C. Tightly adhere resilient flooring to substrate with no open joints or cracks, and without raised or blistered areas. Spread adhesive evenly, so that final installation will be without telegraphed markings from adhesive or substrate.

3.04 TILE INSTALLATION

- A. Layout: Establish center of each space and lay tile from center point, so tiles at each edge will be

not less than 1/2 tile and equal in width.

1. See specific layout drawings where provided.
- B. Matching: In each space, use tiles from same production run, and lay tiles in same sequence as removed from cartons. Discard broken, chipped, or otherwise damaged tiles.
- C. Installation: Apply adhesive with notched trowel, following manufacturer's instructions. Install tile only after adhesive has developed sufficient tack, firmly butting tiles to achieve hairline joints. Roll each area of installation at regular intervals, to assure firm bonding of tiles to substrate.

3.05 INSTALLATION OF RESILIENT BASE

- A. Apply base securely in locations indicated, using maximum lengths available to minimize joints. Adhere to substrate with full spread of adhesive, assuring continuous contact with vertical and horizontal surfaces. Site-fabricate corners, coping or mitering inside corners and heat-forming outside corners using manufacturer-approved device, or provide preformed corner units.
- B. Apply resilient base to columns and other fixed, freestanding elements in spaces where resilient base is scheduled.
 1. At irregular vertical surfaces where top edge of resilient base does not make continuous contact, fill voids with manufacturer's recommended adhesive compound.

3.06 INSTALLATION OF MISCELLANEOUS ACCESSORIES

- A. Resilient Edge Strips: At locations shown on drawings, or where otherwise required to protect edge of resilient flooring, install resilient edge strips securely with recommended adhesive, to achieve tightly butted joint.

3.07 CLEANING

- A. Initial Cleaning: Remove excess and waste materials promptly, and sweep or vacuum clean resilient flooring as soon as installation has been completed in each area. After adhesive has had adequate time to set, mop each area with damp mop and mild detergent.
- B. Final Cleaning: Remove scuff marks, excess adhesive, and other foreign substances, using only cleaning products and techniques recommended by manufacturer of resilient products.

3.08 PROTECTION

- A. Construction Period: Cover traffic routes across completed resilient flooring with plywood, hardboard, or other durable material to protect against damage from loaded dollies and other construction traffic.
 1. Polish: Apply protective polish to clean resilient flooring surfaces, unless manufacturer of resilient product recommends otherwise.
- B. Final Protection: Cover resilient floor surface with non-staining building paper until substantial completion in each area.

END OF SECTION 096513

SECTION 097000 - INTERLOCKING RUBBER TILE FLOORING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Rubber Roll Flooring for Interior / Exterior Applications
- B. Related Sections:
 - 1. Finish of concrete substrate for resilient flooring installation: Division 3.

1.02 SUBMITTALS

- A. Product Data: Submit technical data from each manufacturer of resilient products required.
- B. Initial Samples: Submit manufacturer's standard color selection samples for resilient products required, including all available colors and patterns.
- C. Verification Samples: Submit samples of each type, color, and pattern of resilient product required, as follows:
 - 1. Actual tiles.
 - 2. Cut sections of sheet flooring, not less than six inches square.
 - 3. Cut sections of resilient flooring accessories, not less than six inches in length.
 - 4. Welding bead for vinyl flooring, not less than length of flooring samples.
 - 5. Other materials requested by the architect.
- D. Fire Test Certification: Submit certified test reports for resilient flooring products showing compliance with requirements, prepared by an independent testing agency acceptable to governing authorities.
- E. Maintenance Procedures: Submit manufacturer's published instructions for care and cleaning of resilient flooring products specified.
- F. **Certification: Submit certification that resilient tile flooring and accessories have been manufactured within the last 12 months, and contain NO ASBESTOS.**

1.03 QUALITY ASSURANCE

- A. Manufacturer: For each type of product required, including adhesives, cleaning compounds, and other accessories, provide the same product by one manufacturer throughout the project.
- B. Fire Performance Ratings: Provide products which have been tested and certified to comply with the following requirements:
 - 1. Critical radiant flux (CRF): ASTM E 648 or NFPA 253; minimum value as follows:
 - a. 0.45 watt per square centimeter.
 - 2. Smoke density: ASTM E 662; maximum 450.

- C. Installer: Manufacturer-certified for acceptable performance in installation of vinyl flooring.

1.04 PROJECT CONDITIONS

- A. Environmental Requirements: At least 48 hours prior to beginning work, move resilient flooring materials to areas of installation and maintain at minimum 70 degrees F until 48 hours after completing installation and at minimum 55 degrees F thereafter.
- B. Sequencing: Do not begin installation of resilient flooring products until painting has been completed for each area.
- C. Existing Conditions: Do not install resilient flooring on concrete substrates until testing has been conducted to assure that moisture levels are acceptable.

1.05 MAINTENANCE

- A. Extra Materials: At time of completing installation, deliver stock of maintenance materials to the Owner. Furnish products matching those actually installed, packaged for storage and clearly labeled.
 - 1. Resilient tile: 2 percent of each variety installed.
 - 2. Resilient sheet: 2 percent of each variety installed, in full roll width.
 - 3. Resilient base: 5 percent of each variety installed.

1.06 WARRANTY

- A. Submit a written warranty signed by the manufacturer, installer, and the contractor, guaranteeing to correct failures in resilient flooring which occur within the warranty period after substantial completion date, without reducing or otherwise limiting any other rights to correction which Owner may have under the contract documents. Failures are defined to include faulty workmanship or faulty materials. Correction may include repair or replacement.
 - 1. Warranty Period: Manufacturer's standard for each indicated product.

PART 2 - PRODUCTS

2.01 INTERLOCKING RUBBER FLOORING MATERIALS

- A. Interlocking Rubber Flooring:
 - 1. Manufacturer: Iron Company
 - 2. 24" x 24" x 1/2" Interlocking Rubber Tile Flooring IC (RL-Tile-2212)
 - 2. Comparable products of other manufacturers will be considered for substitution.
 - 3. Colors, Full Range Color Choices – Blue Grey Fleck Basis of Design
 - a. **The Architect reserves the right to use a maximum of three (3) colors, in any pattern, per room or space, at no cost to the owner. Flooring patterns and colors will be provided to the Contractor after award of contract.**
 - 4. Provide Maximum Install Wall to Wall Width & Length
 - 5. Provide Glue Adhesion to Concrete Substrate as indicated below:
 - a. First clean your sub floor so that it is free of all dirt, dust and debris.

- b. Lay out the tiles in the room as you would like them to look after complete installation. **Note:** If the color does not appear to match, rotate them or turn them 180 degrees to ensure the color matches.
- c. Next you will want to let your tiles acclimate to the space they are being installed for at least 24-48 hours.
- d. Now make any necessary perimeter cuts to the tiles to fit them into the room using a straight edge and a utility knife with a fresh blade.
- e. Put down adhesion in accordance with manufacturer's recommendation
- f. After all tiles have been glued down, it is often recommended to use a 100 pound roller on the floor in order to guarantee good adherence to the sub floor. If a roller is not available, walking on the flooring in small choppy steps ensuring every spot of flooring has been walked on can also work.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. General: Inspect substrates and conditions of installation to verify that work may properly commence. Do not proceed with the work until unsatisfactory conditions have been corrected.
- B. Concrete Substrates: Perform manufacturer's recommended moisture tests before beginning installation, to verify that concrete surfaces have cured sufficiently to allow adhesive bond to resilient flooring.
- C. **Commencement of work shall constitute acceptance of conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the owner.**

3.02 PREPARATION

- A. Substrates: Fill minor depressions, cracks, and other irregularities with patching compound.
 - 1. Remove paint, curing compounds, and other materials that could interfere with adhesion of resilient products.
 - 2. Sweep or vacuum clean substrate immediately prior to beginning installation in each area.
 - 3. Apply primer to concrete substrates prior to application of adhesive, following manufacturer's printed instructions.

3.03 GENERAL INSTALLATION REQUIREMENTS

- A. Comply with manufacturer's published recommendations for installation in each area, extending resilient flooring into spaces which are partially concealed. Cut and fit tightly to fixtures, pipes, and other obstructions, as well as to walls and partitions.
- B. Access Covers: Install resilient flooring tightly to removable access covers in field of flooring, taking care that pattern will match when covers are in closed position.
- C. Tightly adhere resilient flooring to substrate with no open joints or cracks, and without raised or blistered areas. Spread adhesive evenly, so that final installation will be without telegraphed markings from adhesive or substrate.

3.04 TILE INSTALLATION

- A. Layout: Establish center of each space and lay tile from center point, so tiles at each edge will be not less than 1/2 tile and equal in width.
 - 1. Provide layout drawings as needed
- B. Matching: In each space, use tiles from same production run, and lay tiles in same sequence as removed from cartons. Discard broken, chipped, or otherwise damaged tiles.
 - 1. Lay tile square to room axis.
 - 2. Lay tile to achieve monolithic appearance, with pattern in all tiles oriented in same direction.
 - 3. Lay tile in patterns indicated or as directed by the Architect.
- C. Installation: Apply adhesive with notched trowel, following manufacturer's instructions. Install tile only after adhesive has developed sufficient tack, firmly butting tiles to achieve hairline joints. Roll each area of installation at regular intervals, to assure firm bonding of tiles to substrate.

3.05 INSTALLATION OF RESILIENT BASE

- A. Apply base securely in locations indicated, using maximum lengths available to minimize joints. Adhere to substrate with full spread of adhesive, assuring continuous contact with vertical and horizontal surfaces. Site-fabricate corners, coping or mitering inside corners and heat-forming outside corners using manufacturer-approved device, or provide preformed corner units.
- B. Apply resilient base to columns and other fixed, freestanding elements in spaces where resilient base is scheduled.
 - 1. At irregular vertical surfaces where top edge of resilient base does not make continuous contact, fill voids with manufacturer's recommended adhesive compound.

3.06 INSTALLATION OF MISCELLANEOUS ACCESSORIES

- A. Resilient Edge Strips: At locations shown on drawings, or where otherwise required to protect edge of resilient flooring, install resilient edge strips securely with recommended adhesive, to achieve tightly butted joint.

3.07 CLEANING

- A. Initial Cleaning: Remove excess and waste materials promptly, and sweep or vacuum clean resilient flooring as soon as installation has been completed in each area. After adhesive has had adequate time to set, mop each area with damp mop and mild detergent.
- B. Final Cleaning: Remove scuff marks, excess adhesive, and other foreign substances, using only cleaning products and techniques recommended by manufacturer of resilient products.

3.08 PROTECTION

- A. Construction Period: Cover traffic routes across completed resilient flooring with plywood, hardboard, or other durable material to protect against damage from loaded dollies and other construction traffic.

END OF SECTION 09650

SECTION 099000 - PAINTING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Painting and finishing of exposed interior items and surfaces.
 - 2. Field painting of exposed mechanical items.
- B. Section does not include:
 - 1. Factory finishing of manufactured products.
 - 2. Painting of concealed surfaces, unless specifically indicated.
 - 3. Pre-finished metal surfaces.
 - 4. Moving parts of equipment.

1.02 DEFINITIONS

- A. DFT (dry film thickness): Thickness, measured in mils, of a coat of paint in the cured state.

1.03 SUBMITTALS

- A. **All submittals shall conform to the requirements of Specifications sections 013000 "Submittals"**
- B. **A substitution submittals shall conform to the requirements of Specification Section 016000 "Product Requirements"**
- C. Product Data: Manufacturer's technical data sheets for each coating.
 - 1. Material analysis including vehicle type and percentage by weight and by volume of vehicle, resin, and pigment.
 - 2. Application instructions including mixing, surface preparation, compatible primers and topcoats, recommended wet and dry film thickness, recommended application methods.
- D. Color and Texture Samples:
 - 1. Provide for each coating system, color, and texture and applied to representative substrate samples.
 - 2. Before proceeding with work in this section. Provide 1 complete space (wall) field mock up panel of each color scheme required. Adjacent surfaces & materials such as: door frames & moldings / trim shall be painted as part of mock design. Each mock system shall show all colors, finishes, textures and finish workmanship. The owner / Architect reserves the right to reject color scheme on three different presentations.
 - a. Label each sample with coating name & color.

1.04 QUALITY ASSURANCE

- A. Materials:
 - 1. All coating materials required by this section shall be provided by a single manufacturer, unless otherwise required or approved.
- B. Applicator: Firm with not less than 5 years of successful experience in painting work similar in scope to work of this project.
 - 2. Maintain throughout duration of the work a crew of painters who are fully qualified to satisfy requirements of the specifications.
- C. The Architect reserves the right to take representative samples of any of the materials and workmanship and have it tested by an approved laboratory to verify the materials and DFT's confirmation in accordance to this Specification at no additional cost to the owner.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in manufacturers' original containers bearing coating name and color, material composition data, date of manufacture, legal notices if applicable, and mixing, thinning and application instructions.
- B. Storage:
 - 1. Store materials in an orderly fashion and in clean, well-closed containers with labels intact.
 - 2. Maintain above 45-50 degrees F. Do not allow materials to freeze.

1.06 PROJECT CONDITIONS

- A. Apply coatings only under the following environmental conditions:
 - 1. Air and surface temperatures are between 50 and 100 degrees F, unless otherwise recommended by manufacturer.
 - 2. Surface temperature is at least 5 degrees F above dew point.
 - 3. Relative humidity is less than 85 percent.
- B. Do not apply coatings during inclement weather except within enclosed, conditioned spaces.
 - 1. Provide continuous ventilation and heating to prevent accumulation of hazardous fumes and to maintain surface and ambient temperatures above 45 degrees F for 24 hours before, during, and for 48 hours after application of finishes, or longer if required to obtain a full cure as indicated by manufacturer's instructions.
 - 2. Provide temporary lighting to achieve a well lit surface with a level of at least 80 foot candles measured mid-height.

1.07 COORDINATION

- A. General: Perform work in proper sequence with work of other trades to avoid damage to finished work.

- B. Coordination: Where special coatings will be applied over shop coatings specified in other sections, coordinate work of such other sections to ensure that only approved, compatible primers are applied.
 - 1. Furnish the Architect with product data on both coatings demonstrating coating compatibility.

1.08 MAINTENANCE STOCK

- A. At time of completing application, deliver stock of maintenance material to the owner. Furnish not less than one properly labeled and sealed 1-gallon can of each type of finish coat of each color, taken from lots furnished for the work.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. The brand-name products listed in the schedule at the end of this section and made by the following manufacturer are the basis of the contract documents:
 - 1. Sherwin –Williams, Co.
101 Prospect Avenue NW
Cleveland, OH 44115
Tel: (800) 321-8194
Fax: (216) 566-1392
www.sherwin-williams.com
- B. Substitutions: Comparable Products from other manufacturers will be considered for equivalent substitutions.

2.02 PRODUCTS

- A. **For Bathroom Walls - Drywall (Walls, Ceilings, Gypsum Board, Plaster Board, etc.)**
 - 1. Latex Systems

(4 mils wet, 1.7 mils dry per coat)
 - a. Semi-Gloss Finish

1st Coat: S-W Harmony® Interior Latex Primer, B11 Series
(4 mils wet, 1.3 mils dry per coat)

2nd Coat: S-W Harmony Interior Latex Semi-Gloss, B10 Series

3rd Coat: S-W Harmony Interior Latex Semi-Gloss, B10 Series
(4 mils wet, 1.6 mils dry per coat)
- B. **For Kitchen Walls – Drywall (Walls, Ceilings, Gypsum Board, Plaster Board, etc.)**
 - 1. Latex Systems
 - a. Egg-Shell Finish

1st Coat: S-W Harmony Interior Latex Primer, B11 Series
(4 mils wet, 1.3 mils dry per coat)

2nd Coat: S-W Harmony Interior Latex Eg-Shel, B9 Series

3rd Coat: S-W Harmony Interior Latex Eg-Shel, B9 Series
(4 mils wet, 1.7 mils dry per coat)

C. For Apartment Ceilings (Concrete, Plaster or Textured)

a. Low Sheen Finish

1st Coat: S-W Loxon Concrete & Masonry Primer Sealer, A24W8300
(8 mils wet, 3.2 mils dry)

2nd Coat: S-W ProMar 200 Zero VOC Latex Low Sheen Enamel, B24-2600 Series

3rd Coat: S-W ProMar 200 Zero VOC Latex Low Sheen Enamel, B24-2600 Series
(4 mils wet, 1.6 mils dry per coat)

D. For Interior Apartment Doors (Wood or Masonite)

a. Semi-Gloss Finish

1st Coat: S-W Premium Wall & Wood Primer, B28W8111
(4 mils wet, 1.8 mils dry)

2nd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss Enamel, B31 Series

3rd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss Enamel, B31 Series
(4 mils wet, 1.3 mils dry per coat)

E. METAL Ferrous- (Structural Steel Columns, Joists, Trusses, Beams, Miscellaneous & Ornamental Iron, Sashes, Doors, Partitions)

1. Latex Systems

a. Semi-Gloss Finish

1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series
(5-10 mils wet, 2-4 mils dry)

2nd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss Enamel, B31 Series

3rd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss Enamel, B31 Series
(4 mils wet, 1.3 mils dry per coat)

F. Colors: To Be Verified with Ownership and Site Management

1. Bathroom Walls – Snowbound SW 7006
2. Kitchen Walls – Antique White SW 6119
3. Apartment Walls & Doors – Pearly White SW 7009
4. Ceilings - White

- a. For multi-coat systems, apply each coat using a successively darker tint or shade, unless approved otherwise.
- b. Top Coat Colors & Patterns: Contractor to allow three (3) colors for each room. Colors to be selected & approved by the Owner / Architect after the award of the contract.

F. Lead and Chromate Contents:

1. All paint products must be free of any lead or chromate contents.

G. Volatile Organic Compound Compliant (VOC.):

1. All paint products must meet State of New York City VOC. environmental regulations.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify that surfaces and conditions are ready for work in accordance with coating manufacturers' recommendations.
- B. Prior to commencement of work, examine surfaces scheduled to be finished.
 1. Report any unsatisfactory conditions in writing.
 2. Do not apply coatings to unsatisfactory substrates.
 3. Beginning painting work on an area will be deemed acceptance by the contractor for painting surfaces in that area.

3.02 SURFACE PREPARATION

- A. Apply coatings to surfaces that are clean and properly prepared in accordance with Manufacturers' instructions and as herein specified. Remove dirt, dust, grease, oils, and foreign matter. Prepare surface for proper texture necessary to optimum coating adhesion and intended finished appearance. Plan cleaning, preparation, and coating operations to avoid contamination of freshly coated surfaces.
 1. Do not apply coatings to labels that identify equipment, fire-resistance ratings, etc.
 2. Remove hardware, cover plates, and similar items before applying coatings.
 3. Provide protection for non-removable items not scheduled for coating. After application of coatings, install removed items. Use only skilled workmen for removal and replacement of such items.
 4. Protect surfaces not scheduled for coating. Clean, repair, or replace to the satisfaction of the architect any surfaces inadvertently spattered or coated.
- B. Concrete:
 1. Apply coatings to fully cured surfaces that are at least 28 days old.
 2. Perform any required surface repairs before applying coatings. Remove any fins or protrusions from surface. Patch any holes and cracks in an approved manner.
 3. Clean surface of all dirt, oil, wax, grease, or other contaminants before preparing a surface profile. Use appropriate detergents and pressurized hot water. Thoroughly flush cleaning agents from the surface.
 4. Surface profile, horizontal surfaces: Acid etch or brush-off blast to remove laitance and to prepare surface profile. New surfaces that have been cured using membrane-forming

curing compounds shall be prepared by brush-off blast method.

5. Acid etching: Prepare surface profile by uniformly etching surface to a texture, to touch, of 100 grit sandpapers; do not over-etch surface. After etching, surface shall be free from surface glaze, laitance, salts, loosely adhering material, etching solutions, and foreign material of any kind.
 - a. After detergent cleaning and while floor is in a saturated but surface dry condition, apply acid solution (1 part 20 degree Baume muriatic acid to 2 to 4 parts potable water) using low pressure spray equipment.
 - b. When bubbling action begins to subside, remove salt formations, loose material, and spent solution by scrubbing with stiff bristle broom and flushing with water under moderate pressure. Repeat rinsing operation until pH test papers yield a pH of 7 or higher on the surface.
6. Brush-off blast cleaning: Prepare surface profile and remove laitance and solid contaminants from surface by abrasive blast cleaning. After blast cleaning, surface shall be free from curing compounds, surface glaze, laitance, salts, loosely adhering material, and foreign material of any kind.
 - a. Perform blasting operation so as to open any surface voids, bug holes, etc., and to remove curing compounds, surface glaze, laitance, salts, loosely adhering material, and foreign material of any kind, but without exposing underlying aggregate or fracturing aggregate surfaces.
 - b. Use only dry, oil-free air and clean media, unless other blast cleaning methods are approved.
 - c. After blast cleaning, completely remove dust and loose particles by vacuuming; brushing or blowing will not be permitted.
 - d. Patch surface voids, bug holes, etc., in an approved manner, and allow to cure before applying coatings.
7. Allow substrate to dry thoroughly. Test for moisture in accordance with coating manufacturer's recommendations before applying coatings.

C. Masonry:

1. Apply coatings to fully cured surfaces that are at least 28 days old.
2. Perform any required surface repairs before applying coatings. Remove any fins or protrusions from surface. Patch any holes and cracks in an approved manner. Verify the joints are struck flush or concave unless otherwise specifically required.
3. Clean surface of all dirt, oil, wax, grease, or other contaminants. Use appropriate detergents and hot water. Thoroughly flush cleaning agents from surface.

D. Wood: Scrape and remove any sap or pitch deposits from surface and clean with mineral spirits. Seal any knots and pitch pockets with a suitable product recommended by the coating manufacturer. Sand rough spots. Remove dust.

1. After first coat has dried, fill holes, cracks, or depressions with suitable wood filler recommended by the coating manufacturer. Sand filler when dry.
2. Sand surfaces lightly between successive coats. Remove dust.

E. Ferrous Metal:

1. Clean and prepare surface profile in accordance with the applicable SSPC specifications for hand tool or power tool cleaning.
2. Intricate fabricated shapes may be pickled in lieu of hand or power tool cleaning.
3. Before hand or power tool cleaning, remove visible oil, grease, soluble welding residue, and salts by solvent cleaning. After hand or power tool cleaning, re-clean surfaces if necessary.

4. Before touching up coatings damaged by handling or welding, prepare damaged surfaces.
- F. Galvanized Metal: Solvent clean in accordance with SSPC specifications.
- G. Gypsum Board:
1. Latex Fill minor defects
 2. Spot Prime Defects after repair
- H. Mildew:
1. Remove mildew by scrubbing with solution of trisodium phosphate and bleach.
 2. Rinse with clean water and allow surface to dry.

3.03 MIXING AND THINNING

- A. Remove and discard any skin formed on surface of coatings in containers. Discard any containers where skin comprises 2 percent or more of the remaining material. Do not add thinner except as specifically recommended (not merely permitted) by the coating manufacturer for proper coating application under the circumstances prevailing at the project site when application equipment recommended by the coating manufacturer is employed. Use only the quantities and the types of thinner recommended.
- B. Mix materials using mechanical mixers in accordance with coating manufacturer's instructions. Agitate mixed materials during application if recommended by manufacturer.
- C. Combine multi-component paints in quantities needed for use within the manufacturers recommended pot life at the anticipated application temperatures. Discard remaining mixed material after pot life has expired.
- D. Strain pigmented coatings after mixing except where mechanical application equipment is provided with effective strainers.
- E. Tinting: Except where coating materials cannot be tinted, tint each successive coat of paint a sufficiently contrasting color to facilitate identification of complete coating coverage.

3.04 APPLICATION

- A. General:
1. Apply coatings in accordance with coating manufacturer's instructions and using application method best suited for obtaining full, uniform coverage of surfaces to be coated.
 2. Employ only application equipment that is clean, properly adjusted, in good working order, and of the type recommended by the coating manufacturer.
 3. Apply successive coats after adequate cure of the preceding coat and within the recommended recoating time.
 4. Apply each coat to achieve the dry film thickness per coat recommended by the coating manufacturer. Application rates in excess of those recommended and fewer numbers of coats than specified will not be accepted.
 5. Completed coatings shall be free of defects such as runs, sags, variations in color, lap or brush marks, and skips.
 6. Apply coatings according to the schedule at the end of this section and as otherwise indicated. Coat all similar surfaces not specifically mentioned unless specifically

- exempted.
- a. Ensure that all surfaces receive a dry film thickness equivalent to those of flat surfaces.
- 7. Coat front and back of miscellaneous items such as covers, access panels, and grilles. Apply fully finish coats behind movable items of furniture and equipment before installation. Apply prime coat only behind non-movable items of furniture and equipment before installation.
- 8. Sand gloss coats before applying subsequent coatings.
- B. Remove coatings not in compliance with this specification, re-clean and re-prepare surfaces as specified, and apply coatings to comply with the contract documents.
- C. Scheduling:
 - 1. Apply first coat of material to properly prepared surfaces without delay.
 - 2. Apply successive coats within the time limits recommended by the manufacturer
- D. Mechanical Items:
 - 1. Paint mechanical items exposed to view in finished spaces and in equivalent rooms.
 - 2. Color-Code items in accordance with requirements indicated in respective sections.
- E. The General Construction Work Contractor / Painting Contractor is responsible for finish painting of the entire project as noted within these specifications.

3.05 PRIME COATS

- A. General:
 - 1. Field apply bottom coats scheduled except where the contract documents require shop coating of ferrous metals.
 - 2. Where first coat shows signs of suction spots or poorly sealed areas, reapply first coat material to adequately seal surface before preceding with successive coats.
 - 3. Apply block fillers using manufacturer's recommended application techniques with sufficient material and coats to achieve a pinhole-free surface.
 - 4. Ferrous metals that have not been shop primed shall be field primed promptly after arrival at the site or shall be stored away from the effects of weather.
 - 5. Re-prepare and retouch damaged prime coats using approved, compatible primer.
- B. Primers for Catalyzed Coatings: Where catalyzed bottom coatings are scheduled for metal surfaces, standard "shop primers" will not be accepted; apply only the coatings scheduled in this section. Either field-apply the scheduled coatings to bare, properly prepared metal or arrange with suppliers of these items to shop-apply the scheduled coatings to bare, properly prepared metal (unless shop or field application only is specifically indicated).
- C. Primers for Wood and Wood Products:
 - 1. Apply first coat to wood upon receipt at the site and before wood is exposed to sun or rain.
 - 2. Before installation, prime both concealed and exposed surfaces of interior wood, including cut ends.

3.06 FINISH COATS

A. Number of Coats and Minimum Coating Thickness:

1. Apply not less than the number of coats indicated.
2. Apply each coat to achieve not less than the dry film thicknesses indicated per coat.
3. Apply additional coats at no additional cost to the owner when necessary to achieve complete hiding, uniform texture, or uniform sheen and appearance.

3.07 CLEANING AND PROTECTION

A. Cleaning:

1. Clean work area on a daily basis; dispose of spent materials and empty containers. If requested, turn over the architect all empty coatings containers used during the course of each day.
2. Remove all trace of coatings from adjacent surfaces not scheduled to be coated. Remove by appropriate methods that do not damage surfaces.

B. Protection:

1. Protect work against damage until fully cured. Provide signs identifying wet surfaces until surfaces are adequately cured.
2. Shortly before final completion of the project, examine surfaces for damage to coatings and restore coatings to new, undamaged condition.
3. Touch-up of minor damage will be acceptable where result is not visibly different from surrounding surfaces. Where result is different either in color, sheen, or texture, recoat entire surface.

END OF SECTION 099000

SECTION 099510 - VINYL WALL COVERINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Vinyl wall coverings.
 - 2. Vinyl wall covering accessories.

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data and installation instructions for wall coverings and installation materials.
- B. Selection Samples: Where it is specified that wall covering colors or patterns will be selected from manufacturer's standards, submit actual swatches illustrating manufacturer's full range of colors and patterns available.
- C. Verification Samples: Submit full width samples of each wall covering, illustrating range of color and pattern variation.
- D. Maintenance Instructions: Submit manufacturer's instructions for maintenance of installed work, including precautions for use of cleaning materials which could damage wall coverings.

1.03 QUALITY ASSURANCE

- A. Installer: A firm specializing in wall covering work with not less than 5 years of experience in installing wall coverings similar to those required for this project.
- B. Fire Hazard Classification: Provide wall coverings which have been tested in accordance with ASTM E 84 and certified for not less than the following performance:
 - 1. Class A: Flame spread 10, smoke developed 5.
- C. UL Label: Provide materials bearing UL label and marking, indicating compliance with fire hazard classification requirements.
- D. Fire Detection Characteristics:
 - 1. Vinyl Wall Coverings shall maintain the early warning affects formulation based on ASTM - E 603-77.
- E. Field Constructed Mock-up: Install 3 full-width panels for each type of wall covering required, including one corner, in areas designated by the architect. Satisfactory installation may be incorporated as part of finished work.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original containers, labeled clearly to permit identification without opening.
- B. Store materials under cover in original undamaged packages or containers. Do not store rolled goods in upright position.
- C. Maintain temperature in storage area above 40 degrees F and below 90 degrees F.

1.05 PROJECT CONDITIONS

- A. Temperature: Maintain temperature between 60 degrees F and 90 degrees F at areas of installation for at least 72 hours before and 72 hours after application of materials.
- B. Lighting: Install wall covering materials only after permanent lighting system is installed and operable in areas of installation.
- C. Ventilation: Where toxic materials and flammable or explosive solvents and adhesives are used, maintain appropriate precautions and provide adequate and continuous ventilation during installation and until volatile substances have dispersed.

1.06 MAINTENANCE

- A. Maintenance Materials: After wall covering installation has been completed, deliver to the owner replacement and patching materials for materials installed. Furnish maintenance materials which precisely match materials installed, in manufacturer's original, labeled containers, and in quantities not less than the following:
 - 1. Vinyl wall covering: 1 percent of each color/pattern installed.

PART 2 - PRODUCTS

2.01 COLORS AND PATTERNS

- A. Colors and patterns for wall coverings will be selected from manufacturers' full range of all available colors, after contract award.

2.02 VINYL WALL COVERING

- A. Manufacturer: MDC Wallcoverings; a Division of Genon Contract Wallcoverings
 - 1. Pattern/type: "Horizon Line" - Type II.
 - a. Color, Texture and Pattern: Shadow.
 - 2. Comparable products of other manufacturers will be considered for substitution. See Specification Section 016000.
 - 3. Additional requirements:
 - a. Width: 54 inches minimum.
 - b. Total weight: 20.0 oz. / Ply.
 - c. Backing: Osnaburg
 - d. Random reversible

2.03 ACCESSORIES

- A. Adhesives and Sealers: Provide products recommended specifically by manufacturer of

wall covering for use on scheduled substrates and certified to be mildew resistant and nonstaining to wall covering.

B. Drywall Sealer: Surface sealer for gypsum wallboard substrates, formulated to permit removal of wall covering without damage to wallboard.

PART 3 - EXECUTION

3.01 EXAMINATION:

A. Commencement of work shall constitute acceptance of all conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the Owner.

3.02 PREPARATION

A. Remove wall covering materials from packaging and place in area of installation not less than 24 hours before commencing installation.

B. Temporarily remove electrical cover plates and other surface-mounted fixtures in areas to receive wall coverings.

C. Gypsum Wallboard Substrates: Patch nicks, scratches, and other surface irregularities in gypsum wallboard substrates with latex filler.

1. Sand filling material smooth and flush with substrate.

D. Prime and seal substrates in accordance with wall covering manufacturer's recommendations for type of substrate.

1. Apply release coat to gypsum drywall.

E. Test substrates with electronic moisture meter to verify that moisture content does not exceed limits recommended by manufacturer of wall coverings.

F. Remove mildew from walls and treat surface to inhibit further mildew growth.

G.

3.03 INSTALLATION

A. Perform installation in accordance with manufacturer's instructions, except where more stringent requirements are shown or specified, and except where project conditions require extra precautions or provisions to ensure satisfactory performance of the work.

B. Vinyl Wall Covering:

1. Install sequential lengths of vinyl wall covering consecutively, reversing alternate strips unless pattern will not permit reversal. Do not skip areas above and below openings for subsequent installation. Unless specifically indicated otherwise on the drawings make all seams plumb.

2. Plan installation so that seams do not occur within 4 inches of corners or major openings. Install vinyl wall covering by applying adhesive to its back surface and pressing wall covering into place before adhesive has set. Except where prohibited

by pattern design, overlap edges slightly and cut through both layers to create tightly butted seams. Smooth with brush, roller, or other device to eliminate wrinkles, air bubbles, and other imperfections before adhesive has set.

3. Clean away excess adhesive at seams before it has set, using damp sponge.

4. Trim vinyl wall covering carefully at electrical boxes and other interruptions to avoid gaps and necessity for patches.

3.04 ADJUSTING AND CLEANING

A. Carefully replace electrical cover plates and other fixtures temporarily removed in preparation for wall covering installation. Correct any areas where wall covering gaps occur to the satisfaction of the Architect.

B. Clean areas where wall covering installation has occurred of all resulting debris. Remove scraps, excess material, traces of adhesive, and other trash, leaving the premises in neat and clean condition.

END OF SECTION 099510

SECTION 103500 – GYMNASIUM EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Gymnasium Equipment:
 - a. Location of each piece of equipment is shown on drawings..

1.02 SUBMITTALS

- A. Product Data: Submit all information for the gym equipment as required. Include data for fittings and accessories.
- B. Shop Drawings: Show configuration of gymnasium equipment and base. Detail jointing, anchorage, and support systems. Show finishes, and flagpole fittings and accessories. Show plot/site plan verifying location of installation of flagpole.
- C. Samples for Verification Purposes: Submit cut sheets for equipment type, finish, and color required. Each sample will serve as standard to be expected in the completed work.
- D. Certificate: Submit contractors certification that design complies with requirements of the contract documents.
- E. Manufacturer's Qualification Statement: Submit statement indicating compliance with qualifications requirements specified under "Quality Assurance."
- G. Installer's Qualification Statement: Submit statement indicating compliance with qualifications requirements specified under "Quality Assurance."
- H. Manufacturer's Instructions: Submit for each product specified in this section. Include instructions for examination, preparation, and protection of adjacent work.
- I. Maintenance Data: Submit for each product specified in this section. Include cleaning and preventive maintenance instructions.

1.03 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Firm regularly engaged in manufacture of products specified in this section, and whose products have been in satisfactory use under similar service conditions for not less than 5 years.
- B. Installer's Qualifications: Firm regularly engaged in installation of products specified in this section, with a minimum of 5 years of experience.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Execute product manufacturer's special instructions to prevent damage to products.
- B. Provide suitable protection for the gymnasium equipment before shipment. Spiral-wrap with heavy kraft paper or polyethylene material.

- C. Deliver gymnasium equipment and accessories properly labeled and in original wrappings.
- D. Store and handle materials in a manner which will prevent damage prior to installation.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
 - 1. Life Fitness / Hammer Strength
9525 Bryn Mawr Avenue, Rosemont IL 60018

Attention: Erika Murphy – Business Development Representative North East Region

2.02 EQUIPMENT

- A. Treadmill:
 - 1. Product: Life Fitness Integrity + Treadmill (Cardio)
 - a. Provide Discover SE 4 Console for each unit
 - 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 - 3. Setup & Power: Provide Floor Mounting Kits as needed
 - a. All power cords and cabling needed
 - b. All assembly components to be included
- B. Elliptical:
 - 1. Product: Life Fitness Integrity + Elliptical Cross Trainer (Cardio)
 - a. Provide Discover SE 4 Console for each unit
 - 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 - 3. Setup & Power: Provide Floor Mounting Kits as needed
 - a. All power cords and cabling needed
 - b. All assembly components to be included
- C. Stair Master:
 - 1. Product: Life Fitness Powermill Climber (Cardio)
 - a. Provide Discover SE 4 Console for each unit
 - 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 - 3. Setup & Power: Provide Floor Mounting Kits as needed
 - a. All power cords and cabling needed
 - b. All assembly components to be included

GYMASIUM EQUIPMENT

D. Stationary Bike by Life Fitness:

1. Product: Life Fitness Integrity + Lifecycle Commercial Upright Bike (Cardio)
 - a. Provide Discover SE 4 Console for each unit
2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
3. Setup & Power: Provide Floor Mounting Kits as needed
 - a. All power cords and cabling needed
 - b. All assembly components to be included

E. Lat & Row Cable Machine by Life Fitness:

1. Product: Pulldown Row Hammer Strength
 - a. Provide Discover SE 4 Console for each unit
2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
3. Setup & Power: Provide Floor Mounting Kits as needed
 - a. All power cords and cabling needed
 - b. All assembly components to be included

F. Universal Machine by Life Fitness:

1. Product: Synergy90 Cable Machine
 - a. Signature Series Dual Adjustable Pulley by Life Fitness
2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
3. Setup & Power: Provide Floor Mounting Kits as needed
 - a. All power cords and cabling needed
 - b. All assembly components to be included

G. Round Dumbbells & Racking Stand:

1. Product: Hammer Strength Round Rubber Dumbbells w/ Racking System
 - a. Provide 5 lbs through 50 lbs of single pair of each (5 lbs increments)
 - b. Provide Hammer Strength 2 Tier Dumbbell Racking System
2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
3. Setup: Provide Floor Mounting Kits as needed
 - a. All assembly components to be included

- H. Wall Mirror System :
1. Product: ¼” Thick Mirrors with J-Track System
 - a. Provide ¼” thick mirrors in sizes as indicated in plans
 - b. Provide safety backing on mirrors to ensure shatter proof
 1. Basis of Design Supplier: Fab Glass & Mirror Co.
 - c. Provide J-Track at entire perimeters of all mirror assemblies
 1. Basis of Design J-Track by DK Hardware
 - a. Brixwell 0D636BN-CCP72-XCP10 J-Bar 1/4" Glass Standard Mirror Channel Brushed Nickel
 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 3. Installation: Provide all screw & anchors for existing & new substrates
 - a. Provide shop drawing submittal of all assemblies in the space
- I. Axiom Series Leg Curl / Extension by Life Fitness:
1. Product: Leg Curl – SKU OPE-LCE
 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 3. Setup: Provide Floor Mounting Kits as needed
 - a. All assembly components to be included
- J. Rubber Curl & Barbell Set:
1. Product: TKO Rubber Curl w/ 5 Bar Racking System
 - c. Provide 20 lbs through 60 lbs of of each curling bar (10 lbs increments)
 - d. Provide TKO Single Tier Dumbbell Racking System
 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 3. Setup: Provide Floor Mounting Kits as needed
 - a. All assembly components to be included
- K. Freestanding Foldable Workout Weight Bench:
1. Product: Multi-adjustable Workout Bench by Nice People
 - e. Product: 660 lbs capacity
 - f. 8 backrest positions
 2. Equivalent products of other manufacturers will be considered provided they comply with requirements of the contract documents, (see Specification Section 016000).
 3. Setup: Provide Floor Mounting Kits as needed
 - a. All assembly components to be included

2.03 FABRICATION

- A. Fabrication - General: Provide each piece of equipment as a complete unit fabricated by a single manufacturer, including base, anchorage devices, fittings, and accessories as necessary for proper installation.
- B. Fabricate and ship each piece of equipment as a single unit, unless shipping constraints preclude this alternative. Where equipment size dictates shipment in more than one section, provide waterproof enclosure designed to allow precise, weather-tight joining during installation.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that conditions conform to requirements of contract documents.
- B. Verify that substrate & finish flooring is in suitable condition to receive new equipment..
- C. Do not begin gym equipment installation until unsuitable conditions have been corrected. Commencement of installation indicates acceptance of conditions.

3.02 INSTALLATION

- A. Gym Equipment Installation - General: Install gym equipment, base assembly, and fittings as indicated in contract documents and in accordance with manufacturer's instructions.
- B. Install gym equipment in erect, plumbed, operating position.
- C. Field Joints: Provide snug-fitting, weathertight, hairline joints.
- D. Tolerances:
 - 1. Maximum variation as per manufacturers specifications.

3.03 ADJUSTING AND CLEANING

- A. Clean surfaces.
- B. Verify smooth and proper operation of all installed fittings. Adjust as necessary.

END OF SECTION 103500

SECTION 10520 - FIRE PROTECTION SPECIALTIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Portable fire extinguishers.
 - 2. Fire extinguisher cabinets.
 - 3. Fire blankets.
 - 4. Fire blanket cabinets.
 - 5. Fire extinguisher mounting brackets.

1.02 SUBMITTALS

- A. Product Data: Manufacturer's data showing compliance with contract documents.
- B. Samples: Finishes of cabinets, on actual material.
- C. Operating and Maintenance Data: Instruction manual complying with requirements of NFPA 10.
- D. Certification: Installer shall submit written certification that the fire extinguishers installed comply with the contract documents and are fully and correctly charged.

1.03 QUALITY ASSURANCE

- A. Provide only fire extinguishers which comply with NFPA 10.
- B. Labels: Provide only fire extinguishers which are listed and labeled by Underwriters Laboratories Inc., Factory Mutual System, or Warnock- Hershey.

1.04 PROJECT CONDITIONS

- A. Do not deliver or install extinguishers until just before substantial completion.
- B. Do not use permanent fire extinguishers for construction period fire protection.

PART 2 - PRODUCTS

2.01 FIRE EXTINGUISHERS

- A. Manufacturers: Products of the following manufacturers, provided they comply with requirements of contract documents, will be among those considered acceptable:
 - 1. Fire extinguishers:
 - a. Amerex Corporation.
 - b. Ansul Fire Protection/A Grinnell Company.
 - c. Walter Kidde Division/Kidde, Inc.
- B. Fire Extinguisher Assembly FE - 1 :
 - 1. Rating: 2A-10B:C, 5 pounds capacity.
 - 2. Type: Multipurpose dry chemical (ammonium phosphate).

- a. Stored pressure type.
 - b. Larsen's Fire Extinguisher, MP series; MP5.
 - 3. Cabinet mounted, (see cabinet #1).
 - 4. Polyester Epoxy painted Steel cylinder.
 - 5. Pressure gauge.
 - 6. Heavy duty valve and siphon tube.
- C. Fire Extinguisher Assembly FE - 2 :
 - 1. Rating: 2A-10B:C, 5 pound capacity.
 - 2. Type: Multipurpose dry chemical (ammonium phosphate).
 - a. Stored pressure type.
 - b. Larsen's Fire Extinguisher, MP series; MP5.
 - 3. Wall mounted bracket.
 - a. Larsen's No. 821, steel, painted red..
 - 4. Polyester Epoxy painted steel cylinder.
 - 5. Pressure gauge.
 - 6. Heavy duty valve and siphon tube.
- D. Fire Extinguisher Assembly FE - 3 :
 - 1. Rating: 40B:C, 6 pound capacity.
 - 2. Type: Regular dry chemical (sodium bicarbonate or potassium bicarbonate).
 - a. Stored pressure type.
 - b. Larsen's Fire Extinguisher, DC series; DC6.
 - 3. Wall mounted bracket.
 - a. Larsen's No. 808. steel, painted red.
 - 4. Polyester Epoxy painted steel cylinder.
 - 5. Pressure gauge.
 - 6. Heavy duty valve and siphon tube.
- E. Fire Extinguisher Assembly FE - 4 :
 - 1. Rating: 3A-40B:C, 6 pound capacity.
 - 2. Type: Multipurpose dry chemical (ammonium phosphate).
 - a. Stored pressure type.
 - b. Larsen's Fire Extinguisher, MP series; MP6.
 - 3. Wall mounted.
 - a. Larsen's No. 808. steel, painted red.
 - 4. Polyester Epoxy painted steel cylinder.
 - 5. Pressure gauge.
 - 6. Heavy duty valve and siphon hose.

- F. Fire Extinguisher Assembly FE - 5 :
1. Rating: 20A-120B:C, 20 pound capacity.
 2. Type: Multipurpose dry chemical (ammonium phosphate).
 - a. Stored pressure type.
 - b. Larsen's Fire Extinguisher, MP series; MP20.
 3. Wall mounted.
 - a. Larsen's No. 864. steel, painted red.
 4. Polyester Epoxy painted steel cylinder.
 5. Pressure gauge.
 6. Heavy duty valve and siphon hose.
- G. Identification of Wall-Mounted Fire Extinguishers: Provide manufacturer's standard vinyl decal on wall above extinguisher.
- H. Brackets: Provide wall bracket for each wall-mounted extinguisher.

2.02 CABINETS AND CABINET ACCESSORIES

- A. Manufacturers: Products of the following manufacturers, provided they comply with requirements of contract documents, will be among those considered acceptable:
1. Cabinets and accessories:
 - a. J.L. Industries.
 - b. Larsen's Manufacturing Company.
 2. Provide fire-rated cabinet with flame shield, certified and listed by Warnock Hersey for one and two hour combustible and non-combustible wall systems to meet ASTM E-814 standards. All fire-rated cabinets to have factory drilled mounting holes and factory supplied anchoring devices.
- B. Cabinet #1 :
1. Basis of design: "Architectural Series No. FS-AL2409-5R"; Larsen's Manufacturing, Co.
 - a. Products of other manufacturers, provided they comply with requirements of contract documents, will be acceptable, (See Specification Section 01600).
 2. Size:(inside dimensions) 24 inches high, 9.5 inches wide, 5 inches deep.
 3. Style: Semi-recessed mounted, protruding not more than 1-1/2 inches from face of wall.
 - a. Square edge trim.
 4. Single flat door.
 - a. Full glazing, with frame.

1. Tempered glass, 1/4 inch thick.
 2. Clear.
- b. Door material: Aluminum, satin anodized.
 1. Color: Clear anodized.
 - c. Surface mounted door handle, finished to match door.
 - d. Friction or roller catch.
5. Trim (box flange or frame): Same material and finish as door.
 6. No lettering on door or trim.
 7. Box: Manufacturer's standard material and construction.
 8. Provide wall bracket for extinguisher, inside cabinet.
- C. Cabinet #2: (FB-1)
1. Basis of design; Fire Blanket Cabinet No.# FB-68-6; Larsen Manufacturer Co.
 - a. Products of other manufacturers, provided they comply with requirements of contract documents, will be acceptable, (see Specification Section 01600).
 2. Fire Blankets: 100 percent wool or fire-retardant treated fabric; minimum 62 by 80 inches.
- D. Hinges: Provide hinges for each door; concealed or continuous type; allow full 180 degree opening of door.
1. Exposed hinges : Finish to match door.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Prepare openings for recessed cabinets.

3.02 INSTALLATION

- A. Perform installation in accordance with the manufacturer's instructions except where more stringent requirements are shown or specified, and except where project conditions require extra precautions or provisions to ensure satisfactory performance of the work.
- B. Install extinguishers in locations indicated.
- C. Install brackets for wall mounted extinguishers at height necessary to place the top of the extinguisher at 48 inches above finish floor.
- D. Install cabinets at locations indicated.
- E. Mounting Heights:
 1. Fire Extinguisher Cabinets: Install so that top of cabinet is 48 inches above finish floor.
 2. Valve Cabinets: Install so that centerline of cabinet is 60 inches above finish floor.
- F. Install extinguishers.

3.03 OWNER PERSONNEL INSTRUCTION

A. Instruct designated personnel of owner in:

1. Operation of extinguishers.
2. Frequency of inspection and maintenance.
3. Procedures for inspection and maintenance.
4. Designation of inspection and maintenance entity.

3.04 CHARGE ALL EXTINGUISHERS PRIOR TO SUBSTANTIAL COMPLETION.

END OF SECTION 10520

INTERIOR RENOVATION TO AN EXISTING GYMNASIUM SPACE
NEW FLOORING OVER EXISTING, AND WALL BASE REPLACEMENT AT:
ROBINSON TOWERS located at
1000 ½ Third Avenue,
ASBURY PARK, NEW JERSEY 07712



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ARCHITECTURAL SYMBOLS LEGEND:

	COLUMN GRID / COLUMN DESIGNATIONS		DETAIL # SHEET #	PLAN DETAIL DESIGNATIONS		ROOM NAME [T100]	ROOM NAME AND ROOM NUMBER DESIGNATIONS		INDICATES COLUMN TO RECEIVE FIRE BOARD TREAT. IN LIEU OF SPRAY ON TREATMENT		
	SECTION # SHEET #	SECTION DETAIL DESIGNATIONS		ELEVATION DETAIL # SHEET # DRAWN ON	ELEVATION DETAIL DESIGNATIONS		PARTITION # N SUBSCRIPT	PARTITION DESIGNATION (SEE PARTITION LEGEND THIS SHEET)		TYPE DESIG. FE-#	PORTABLE FIRE EXTINGUISHER LOCATION SYMBOL TYPE DESIGNATION SEE PORTABLE FIRE EXTINGUISHER SCHEDULE DESCRIPTION OF TYPE
	NOTE #	NOTE DESIGNATION		ELEVATION DETAIL # SHEET # DRAWN ON	INTERIOR ELEVATION DETAIL DESIGNATIONS		WINDOW / VISION PANEL FRAME NUMBER DESIGNATIONS		A	LETTER DESIGNATES WINDOW EX.	
	CASEWORK / EQUIPMENT NUMBER - SEE SCHEDULE FOR INFORMATION						NUMBER (ONLY) DESIGNATES VISION PANEL EX.	10			
	INDICATES COLUMN TO RECEIVE FIRE BOARD TREAT. IN LIEU OF SPRAY ON TREATMENT		TYPE DESIG. FE-#				RADON "T" VENT LOCATION DESIGNATION V = DESIGNATES VENT THRU ROOF		DATUM EL. (+0'-0")		ELEVATION OF FINISH FLOOR DESIGNATIONS
	AREA OF WORK										



GENERAL NOTES:

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNIFORM CONSTRUCTION CODE OF THE STATE OF NEW JERSEY (BC 2021 NJ). ALL RELATED CODES AND STANDARDS, AND THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION. ALL STRUCTURAL, ELECTRICAL AND MECHANICAL WORK SHALL COMPLY WITH THE GOVERNING CODES AS ADMINISTERED BY THE LOCAL BUILDING OFFICIALS AND SHALL BE CONSIDERED AS PART OF THE CONSTRUCTION DOCUMENTS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN, CALLED FOR AND/OR REASONABLY IMPLIED, UNLESS OTHERWISE AGREED TO (IN WRITING) BY THE OWNER.
- THE CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL APPLICATIONS, PERMITS, TESTS, INSPECTIONS, APPROVALS AND CERTIFICATES FROM ALL LOCAL, COUNTY, STATE, AND FEDERAL AGENCIES HAVING JURISDICTION.
- PLUMBING, HVAC AND ELECTRICAL WORK WHERE REQUIRED SHALL BE "DESIGN-BUILD" BY THE GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS. ALL WORK SHALL MEET OR EXCEED STANDARD CRITERIA FOR SIMILAR INSTALLATIONS (UNLESS NOTED OTHERWISE TO MEET A MORE STRINGENT CRITERIA) AND SHALL BE PERFORMED IN COMPLIANCE WITH GENERAL NOTES.
- ALL CONTRACTORS SHALL REVIEW AND COORDINATE THE PLANS AND SPECIFICATIONS FOR THE PROPOSED WORK WITH THE EXISTING BUILDING, UTILITIES AND FIELD CONDITIONS AND SHALL REPORT ANY AND ALL DISCREPANCIES AND INTERFERENCES TO THE ARCHITECT (IN WRITING) PRIOR TO COMMENCING WORK AND ORDERING MATERIALS. THE CONTRACTORS SHALL BE RESPONSIBLE FOR THE COMPLETENESS AND CORRECT FIT OF THEIR WORK WITH THAT OF ADJACENT TRADES.
- MAINTAIN ALL UTILITIES IN FUNCTIONAL ORDER. WATER AND WEATHER TIGHTNESS OF ALL WORK AREAS, ACCESS TO AND SECURITY OF PREMISES, JOB-SITE SAFETY, AND PROVIDE AND MAINTAIN FIRE EXTINGUISHERS DURING THE COURSE OF CONSTRUCTION.
- ALTERNATE PROPOSALS FOR DETAILS OF CONSTRUCTION, DIFFERENT PRODUCT MANUFACTURERS, AND ASSEMBLIES MAY BE CONSIDERED WHEN SPECIFICALLY BROUGHT TO THE ATTENTION OF THE ARCHITECT (IN WRITING) ON A TIMELY BASIS WHICH WOULD NOT DELAY THE PROGRESS OF THE WORK.
- ALL CONTRACTORS SHALL GUARANTEE THEIR WORK (IN WRITING) FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE (U.N.O.), IN ADDITION TO PROVIDING A PERFORMANCE BOND FOR THE WORK.
- ALL CONTRACTORS SHALL PROVIDE MANUFACTURERS' GUARANTEES, OPERATION AND MAINTENANCE PROCEDURES (I.E. HANDS-ON-INSTRUCTION) FOR ALL MATERIALS AND EQUIPMENT, FIXTURES AND DEVICES.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES, TECHNIQUES AND JOB-SITE SAFETY AND SHALL COORDINATE SAME WITH OWNER AND ALL ADJACENT TRADES. THE GENERAL CONTRACTOR SHALL SUPERVISE ALL WORK AND SHALL ASSURE THAT ALL DESIGN CONDITIONS ARE VERIFIED AND SATISFIED.
- CHANGES TO THE PLANS AND/OR SPECIFICATIONS AND/OR THE USES THEREOF WHICH CAUSE ANY KIND OF DAMAGE TO PERSONS OR PROPERTY (DIRECTLY OR INDIRECTLY) SHALL BE THE RESPONSIBILITY OF THOSE PARTIES AUTHORIZING AND/OR UNDERTAKING SUCH CHANGES WHERE SUCH CHANGES HAVE NOT BEEN AUTHORIZED BY THE ARCHITECT. MATTERS NOT ADDRESSED BY THE PLANS AND SPECIFICATIONS SHALL BE, WHEN ADDRESSED BY OTHERS, THE RESPONSIBILITY OF THOSE OTHERS.
- LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK AND REPORT ALL INTERFERENCES WITH PROPOSED WORK TO THE ARCHITECT. RELOCATE EXISTING TELEPHONE, ELECTRICAL, PLUMBING LINES, ETC. AS CONDITIONS WARRANT TO MAINTAIN AND PROVIDE COMPLETE AND FUNCTIONING SYSTEMS.
- COORDINATE LOCATION OF MATERIAL STOCK PILES WITH ALL TRADES AND OWNER, AND MAINTAIN OWNERS ACCESS.
- ALL DEBRIS FROM DEMOLITION AND CONSTRUCTION WORK SHALL BE REMOVED FROM THE SITE ON A REGULAR BASIS BY THE GENERAL CONTRACTOR.
- ALL STRUCTURAL LUMBER TO BE 2x4 (MINIMUM), E = 1,700,000 (MINIMUM) W/ MAX. MOISTURE CONTENT 19 %, UNLESS NOTED OTHERWISE.
- ALL NEW WALLS AND CEILINGS TO BE 5/8" GYPSUM BOARD UNLESS NOTED OTHERWISE TAPED, SPACKLED, SANDED, AND PAINTED. USE 1/2" CEMENT BOARD AS BASE FOR FASTEN GYPSUM BOARD W/ NO. 6 SCREWS SPACED AT 12" O.C. TYP.

- ALL DOOR TRIM TO BE 1"x4" AZEK PAINT GRADE TRIM
- ALL PAINTING AND STAINING SHALL BE PERFORMED UNDER THIS CONTRACT AT AREAS OF NEW WORK (UNLESS NOTED OTHERWISE). ALL COLORS AND FINISHES SHALL BE AS SELECTED BY THE ARCHITECT. SUBMIT SAMPLES FOR SELECTION BY THE ARCHITECT.
- THE DRAWINGS PREPARED BY THE ARCHITECT REPRESENT GENERAL DESIGN INTENT AND ARE NOT TO BE CONSTRUED - EXPLICITLY OR IMPLICITLY - TO REPRESENT THE ACTUAL "AS-BUILT" CONDITION OF ANY BUILDING. IN ACCORDANCE WITH FIELD CONDITIONS, TRADE PRACTICES, BUILDER PREFERENCES, MATERIAL AND EQUIPMENT SELECTIONS, OWNER'S REQUIREMENTS, THE REQUIREMENTS OF UTILITY COMPANIES AND AGENCIES HAVING JURISDICTION AND ANY SUCH-LIKE CIRCUMSTANCE AND/OR CONDITION, THE OWNER MAY CHOOSE TO ALTER VARIOUS ELEMENTS OF THE BUILDING WHILE MAINTAINING THE GENERAL DESIGN INTENT OF THE DRAWINGS AND COMPLIANCE WITH CODES, STANDARDS AND AGENCIES HAVING JURISDICTION. NO FUTURE OWNER OF THIS BUILDING SHALL RELY UPON THE ARCHITECT'S DRAWINGS FOR ANY PURPOSE AS BEING "AS-BUILT" DRAWINGS.
- ALL NEW WORK SHALL INCLUDE ELEMENTS OF CONSTRUCTION SELECTED TO MATCH EXISTING ELEMENTS OF CONSTRUCTION (UNLESS NOTED OTHERWISE) USED IN SIMILAR CONDITIONS INCLUDING, BUT NOT NECESSARILY LIMITED TO THE FOLLOWING (AS MAY BE APPLICABLE TO THIS PROJECT):
 - DEMOLITION
 - CARPENTRY, INSULATION AND DRYWALL
 - PAINTING
 - PLUMBING
 - ELECTRICAL
 - HEATING AND AIR CONDITIONING
 - MISC. ITEMS AS CALLED FOR ON PLANS
- EACH CONTRACTOR SHALL REMOVE ALL MANNER OF EXISTING ELEMENTS (IN THEIR TRADE) THAT WOULD INTERFERE WITH THE PROPOSED WORK OF THEIR TRADE AND ADJACENT TRADES - AS SHOWN AND/OR REASONABLY IMPLIED. WHERE THESE ELEMENTS WHICH INTERFERE ARE REQUIRED IN ORDER TO MAINTAIN THE EXISTING AND PROPER FUNCTION OF THE BUILDING UPON THE COMPLETION OF THE PROJECT, EACH CONTRACTOR SHALL (IN IT OWN TRADE) RELOCATE, AND/OR ALTER OR MAKE NEW THOSE ELEMENTS TO PROVIDE THE PROPER FUNCTION, AND SHALL DO SO IN COORDINATION WITH THE GENERAL CONTRACTOR AND ALL ADJACENT TRADES.
- CONTRACTOR TO MAINTAIN LIABILITY INSURANCE OF SUFFICIENT AMOUNT AS AGREED UPON BY THE OWNER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- ALL INTERIOR ENVIRONMENT SHALL BE COMPLIANT AS PER IBC CURRENT EDITION NATURAL LIGHT: HABITABLE & OCCUPIABLE ROOMS SHALL HAVE 250 FOOT-CANDLES
- NOTHING IN THESE DOCUMENTS SHALL IMPOSE LIABILITY ON THE ARCHITECT/ENGINEER FOR CLAIMS, LAWSUITS, EXPENSES OR DAMAGES ARISING FROM, OR IN ANY MANNER RELATED TO THE EXPOSURE TO, OR THE HANDLING, MANUFACTURE OR DISPOSAL OF ASBESTOS, ASBESTOS PRODUCTS, OR HAZARDOUS WASTE IN ANY OF ITS VARIOUS FORMS, AS DEFINED BY THE ENVIRONMENTAL PROTECTION AGENCY.
- CONTRACTOR SHALL IDENTIFY AND NOTIFY THE OWNER AND THE ARCHITECT OF THE PRESENCE OF ASBESTOS OR OTHER SUSPECTED HAZARDOUS MATERIALS BEFORE INITIATING THE DEMOLITION OF SAME, AT WHICH TIME APPROPRIATE IDENTIFICATION AND REMOVAL OF SUCH SUSPECTED MATERIALS BY A LICENSED AND APPROVED CONTRACTOR SHALL COMMENCE. METHOD AND COST OF REMOVAL SHALL BE APPROVED AND PAID FOR DIRECTLY BY THE OWNER.
- PROJECT SITE (INTERIOR) TO BE AIR TESTED FOR MOLD PARTICULATES AT THE CONTRACTOR'S EXPENSE. IN ADDITION, MOLD REMEDIATION CERTIFIED EXPERT TO INSPECT PROJECT SITE (INTERIOR) PRIOR TO COMMENCEMENT TO ANY PROPOSED REPLACEMENT WORK. ANY MOLD TO BE REMEDIATED AND AIR TESTED PRIOR TO COMMENCEMENT OF REPLACEMENT WORK. ALL TESTING AND REPORTING TO BE CERTIFIED BY MOLD REMEDIATION EXPERT AT CONTRACTOR'S EXPENSE.

DEMOLITION NOTES:

- UNLESS OTHERWISE INDICATED ON THE CONTRACT DOCUMENTS; WHERE CUTTING, PATCHING, OR REPAIRING ARE REQUIRED:
- PATCH AND REPAIR EXISTING FINISHES TO MATCH EXISTING ADJACENT FINISHES WHERE DAMAGED BY WORK UNDER THIS CONTRACT.
 - DO NOT CUT AND PATCH CONSTRUCTION THAT WILL BE VISIBLE IN A MANNER THAT WOULD, IN THE ARCHITECT'S OPINION, REDUCE THE BUILDINGS AESTHETIC QUALITIES OR RESULT IN THE VISUAL EVIDENCE OF CUTTING AND PATCHING.
 - REMOVE ANY WORK CUT AND PATCHED IN A VISUALLY UN-SATISFACTORY MANNER AND REPLACE WITH NEW MATERIALS.
 - RESTORE EXPOSED FINISHES OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO ADJOINING CONSTRUCTION IN A MANNER THAT WILL ELIMINATE EVIDENCE OF PATCHING AND REFINISHING.
 - WHERE PATCHED / PAINTED SURACES CANNOT BE PAINTED TO MATCH EXISTING PAINT COLORS & CONDITIONS EXACTLY, PAINT ENTIRE ROOM TYP.

SCOPE OF WORK

THE FOLLOWING PROJECT AS PRESENTED IN THESE DOCUMENTS SHALL CONSIST OF THE FOLLOWING:

- INSTALLING NEW RUBBERIZED FLOORING OVER EXISTING VCT.
- REMOVING ALL EXISTING FINISHES DOWN TO SUBSTRATE.
- REMOVE ALL EXISTING LIGHTING AND PREPARE ELECTRICAL TO RECEIVE NEW. REFER TO ELECTRICAL DRAWINGS FOR SWITCHING.
- INSTALLING NEW SHEET METALLIC WAINSCOTING WITH TRIM AND BASE MOLDING.
- REPLACING ALL EXISTING ALUMINUM WINDOWS WITH NEW.
- INSTALLING NEW POWER FOR FUTURE GYM EQUIPMENT.
- INSTALLING NEW WALL MOUNTED MIRRORS AS DESIGNATED ON PLANS.
- INSTALL NEW LIGHTING AS PER ELECTRICAL DRAWINGS.
- INSTALL NEW MINI SPLIT HVAC AS PER MECHANICAL DRAWINGS.
- INSTALL NEW REINFORCED CONCRETE PAD FOR MINI SPLIT CONDENSER.
- INSTALL NEW CASEWORK FOR CONDENSATE UNIT.
- RE-DIRECT EXISTING PIPING AS PER MECHANICAL DRAWINGS.

DRAWING LIST

- A-001 - COVER SHEET - TITLE PAGE & GENERAL NOTES
A-100 - DEMOLITION PLAN FLOOR PLAN, EQUIPMENT LAYOUT & DOOR SCHEDULE
A-200 - REFLECTED CEILING PLAN, INTERIOR ELEVATIONS & WINDOW DETAILS

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1	12/16/2024	ISSUED TO CLIENT
#	Date	Issue

Project Title

ROBINSON TOWERS

1000 1/2 3RD AVE
ASBURY PARK, NJ 07712

Project Description

INTERIOR RENOVATION TO AN
EXISTING GYMNASIUM SPACE

Applicant

ASBURY PARK HOUSING AUTHORITY

Project Number: 24-1679

Drawn by : ACV, CV

Checked by : ACV

Scale : As Noted

Sheet Title

TITLE PAGE / GENERAL NOTES /
KEY PLAN

Sheet Number

A-001

1. UNLESS OTHERWISE INDICATED ON THE CONTRACT DOCUMENTS; WHERE CUTTING, PATCHING, OR REPAIRING ARE REQUIRED: PATCH AND REPAIR EXISTING FINISHES TO MATCH EXISTING ADJACENT FINISHES WHERE DAMAGED BY WORK UNDER THIS CONTRACT.
2. TEST FOR HAZARDOUS MATERIALS LIKE ASBESTOS IN INSULATION, FLOORING, OR CEILING TILES, AND LEAD-BASED PAINT ON WALLS. IF FOUND, NOTIFY LICENSED PROFESSIONALS TO REMOVE THESE MATERIALS BEFORE STARTING DEMOLITION WORK.
3. DO NOT CUT AND PATCH CONSTRUCTION THAT WILL BE VISIBLE IN A MANNER THAT WOULD, IN THE ARCHITECT'S OPINION, REDUCE THE BUILDINGS AESTHETIC QUALITIES OR RESULT IN VISUAL EVIDENCE OF CUTTING AND PATCHING.
4. REMOVE ANY WORK CUT AND PATCHED IN A VISUALLY UNSATISFACTORY MANNER AND REPLACE WITH NEW MATERIALS.
5. USE NEW MATERIALS THAT ARE IDENTICAL TO EXISTING MATERIALS. IF IDENTICAL MATERIALS ARE NOT AVAILABLE OR CANNOT BE USED WHERE EXPOSED SURFACES ARE INVOLVED, USE MATERIALS THAT MATCH EXISTING, ADJACENT SURFACES TO THE FULLEST EXTENT POSSIBLE WITH REGARD TO VISUAL EFFECT AND WHOSE PERFORMANCE WILL EQUAL OR SURPASS THAT OF THE EXISTING MATERIALS. ARCHITECT TO APPROVE ALL MATERIAL SELECTIONS.
6. WHERE PATCHED SURFACES CANNOT BE PAINTED TO MATCH EXISTING PAINT COLORS AND CONDITIONS EXACTLY, PAINT THE ENTIRE SURFACE TO THE ADJACENT CORNER TYPE
7. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DAMAGED JOISTS/FRAMING/ EXISTING FOUNDATION DAMAGES FOUND DURING THE DEMOLITION PHASE.
8. EXISTING OPENINGS AND DIMENSIONS TO BE VERIFIED ON SITE BY CONTRACTOR.
9. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, INCLUDING SAFETY GOGGLES, GLOVES, AND A DUST MASK OR RESPIRATOR TO PROTECT AGAINST DUST AND DEBRIS DURING DEMOLITION OF EXISTING FINISHES. CLEAR THE AREA, REMOVE OR COVER ANY FURNITURE, FLOOR COVERINGS, OR BELONGINGS IN THE WORK AREA.
10. AFTER THE DEMOLITION, CLEAN THE AREA THOROUGHLY TO REMOVE REMAINING DEBRIS, DUST, AND HAZARDOUS MATERIALS. SWEEP THE FLOORS AND REMOVE ANY LEFTOVER TOOLS, MATERIALS, OR PROTECTIVE COVERINGS.
11. SEPARATE HAZARDOUS WASTE (SUCH AS OLD PAINT, ASBESTOS, OR LEAD PAINT) FROM REGULAR DEMOLITION WASTE. FOLLOW LOCAL REGULATIONS FOR THE SAFE DISPOSAL OF HAZARDOUS MATERIALS AND ENSURE THEY ARE PROPERLY CONTAINED DURING REMOVAL.

	AREA NOT IN SCOPE OF WORK
	EXTENT OF PROPOSED INTERIOR RENOVATION
	WALL TO BE REMOVED
	WINDOW TO BE REMOVED

1. LAYOUT IS BASED ON PREVIOUS DOCUMENTATION OF PRE-EXISTING/ PRE-DEMOLISHED CONDITIONS.
2. BIDDER TO PATCH, REPAIR, RE-PAINT ANY WALL BASE & DOOR FRAME LOCATIONS DAMAGED BY NEW FLOORING WORK, TYP.
3. EXISTING ALUMINUM WINDOWS TO BE REMOVED IN ITS ENTIRELY AND REPLACED. GC TO INSTALL NEW WINDOWS IN ACCORDANCE WITH KAWNEER'S INSTALLATION MANUAL AND GUIDELINES.
4. EXISTING AC UNIT TO BE REMOVED.
5. ENSURE THAT THE SUBFLOOR IS CLEAN, DRY, LEVEL, AND SMOOTH, ANY IMPERFECTIONS, MISALIGNMENTS, OR ADHESIVE ISSUES MUST BE CORRECTED PRIOR TO INSTALLING NEW VCT FLOOR FINISH.
6. GC TO INSPECT FOR STRUCTURAL INTEGRITY OF THE EXISTING ROUGH OPENING AND SURROUNDING AREAS FOR WATER DAMAGE OR ROT. NOTIFY ARCHITECT OF ANY IRREGULARITIES. INSTALL METAL FLASHING OVER THE SIDES AND TOP OF THE WINDOW FRAME AND APPLY A BEAD OF SEALANT AROUND THE EXTERIOR PERIMETER OF THE WINDOW FRAME WHERE THE WINDOW.
7. PATCH AND REPAIR ANY CRACKS, MOLD AND MILDEW, MOISTURE DAMAGE, OR IMPERFECTIONS OF THE EXISTING WALLS PRIOR TO APPLYING NEW COAT OF PAINT TO ENTIRE LENGTH AND HEIGHT OF WALLS.
8. STRIP AND SCRAP EXISTING CEILING TEXTURE/FINISH, REMOVE DUST, DIRT, DEBRIS AND ANY REMAINING PAINT PARTICLES FROM SURFACE. NOTIFY ARCHITECT OF ANY WATER DAMAGE TO STRUCTURE, PATCH AND REPAIR ANY AREA WITH WATER DAMAGE OR STAINS PRIOR TO APPLYING PRIME AND FINISH PAINT COAT.
9. G.C TO THOROUGHLY INSPECT THE EXPOSED PIPES AND DUCTWORK IN THE CEILING AREA. COVER AND SECURE ANY EXPOSED MECHANICAL/PLUMBING EQUIPMENT USING THICK, DURABLE DROP CLOTHS OR PLASTIC SHEETING TO COVER EXPOSED PIPES AND DUCTS.
10. GC TO SAFELY REMOVE ANY EXISTING VALVES, FITTINGS, AND SECTIONS OF THE PIPE THAT WILL BE REROUTED. REFER TO MECHANICAL DRAWINGS.

	WINDOW TYPE TAG
	EQUIPMENT KEYNOTE TAG

TAG	QTY.	EQUIPMENT
1	2	LIFE FITNESS TREADMILL
2	1	LIFE FITNESS POWERWALK CLIMBER
3	1	LIFE FITNESS CROSS-TRAINER
4	1	LIFE FITNESS UPRIGHT BIKE
5	1	LIFE FITNESS ADJUSTABLE BENCH
6	1	LIFE FITNESS DUMBBELL TRAY W/ DUMBBELL SET
7	1	LIFE FITNESS DUAL PULLDOWN / ROW
8	1	LIFE FITNESS SYNRG60 VERSA CABLE
9	1	LIFE FITNESS AXIOM SERIES LEG CURL / EXTENSION
10	1	TKO RUBBER CURL BARBELL SET W/ 5-BAR RACK

*ALL EQUIPMENT PROVIDED BY OTHERS - NOT IN SCOPE OF WORK.



CEILING LEGEND:	
X'-X" CLG	CEILING HEIGHT
	NEW PAINTED CEILING
L1	LINEAR TRACK LIGHT FIXTURE
L2	2'X2' SQUARE SUSPENDED LIGHT FIXTURE

GENERAL CEILING NOTES:

- ALL EXISTING ELECTRICAL RECEPTACLES, SMOKE+CO2 DETECTORS, LIGHT SWITCHES TO BE REPLACED.
- REFER TO MEP DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION ELEMENTS LOCATION AND SPECIFICATION.
- PROVIDE SMOKE DETECTORS AS INDICATED. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- REFER TO ELECTRICAL DRAWINGS FOR SWITCH AND RECEPTACLE LOCATION.
- CONFIRM THE SPECIFICATIONS OF THE NEW SUSPENDED LIGHT FIXTURES, INCLUDING SIZE, WEIGHT, AND TYPE (E.G., PENDANT LIGHTS, CHANDELIERS, OR RECESSED LIGHTING) WITH OWNERSHIP.
- LICENSED ELECTRICIAN TO ENSURE THAT CIRCUITS AND ELECTRICAL WIRING ARE PROPERLY RATED FOR THE LOAD OF THE NEW LIGHTING FIXTURES AND ANY NECESSARY ELECTRICAL WORK. ENSURE ALL WIRING IS COMPLIANT WITH NATIONAL AND LOCAL ELECTRICAL CODES.

LIGHTING SCHEDULE:

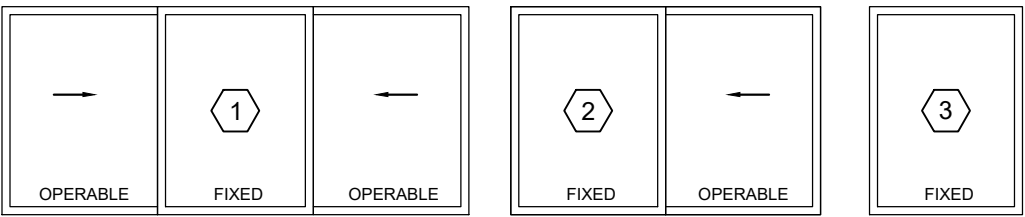
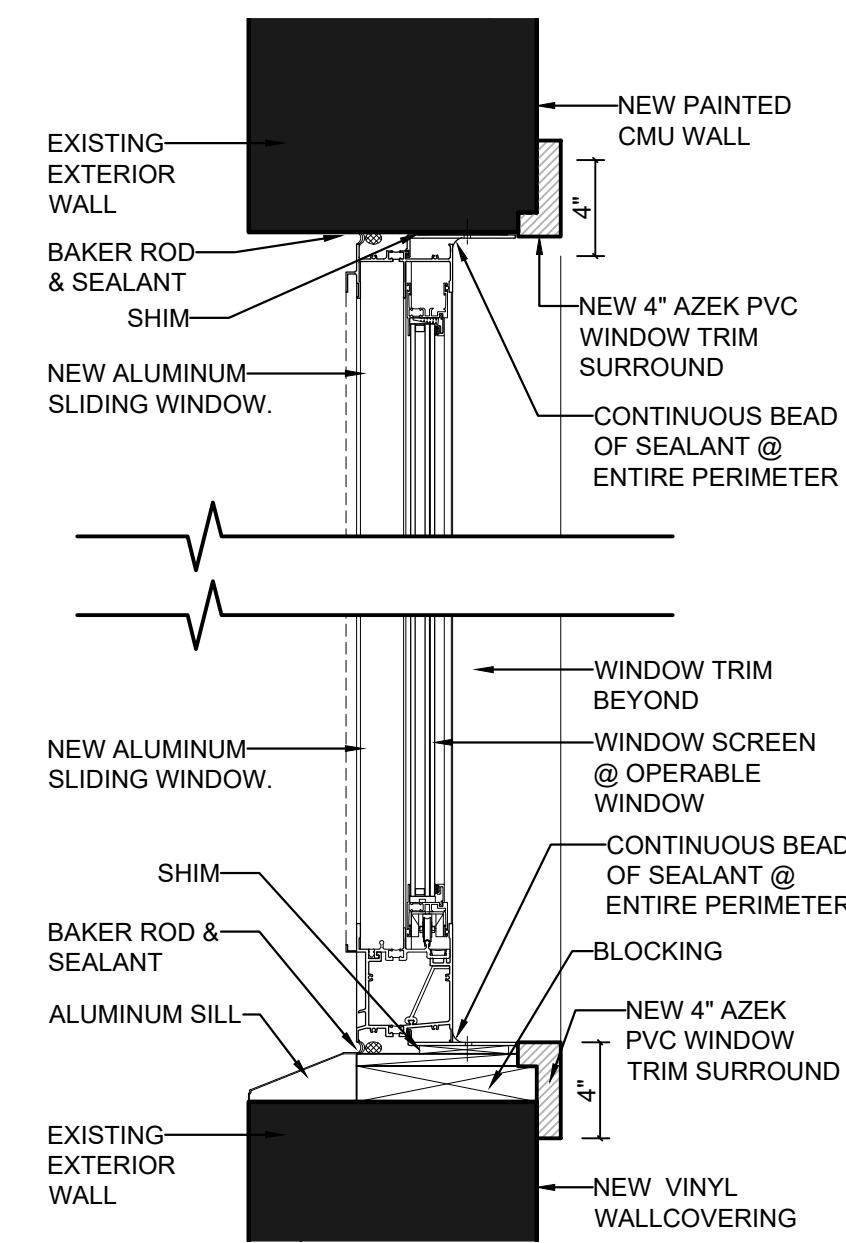
LIGHT	MODEL	QTY	TYPE	WATTS	VOLT.	METHOD	MANUFACTURER
L1	SC9465	8	LED	40	120	SUSPENDED (10'-0" A.F.F.)	SUPERIOR LIGHTING
L2	SC9605	8	LED	40	120	SUSPENDED (10'-0" A.F.F.)	SUPERIOR LIGHTING



L1
SUSPENDED LINEAR FIXTURE

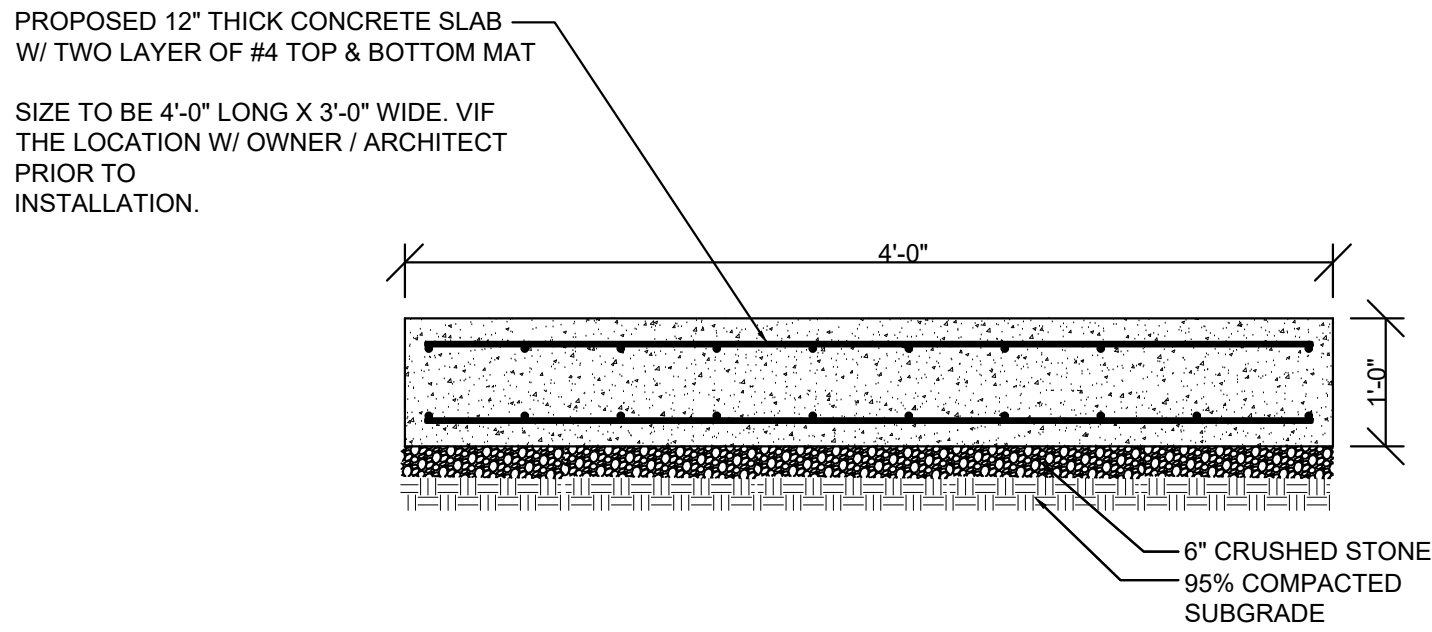


L2
SUSPENDED 2x2 FIXTURE



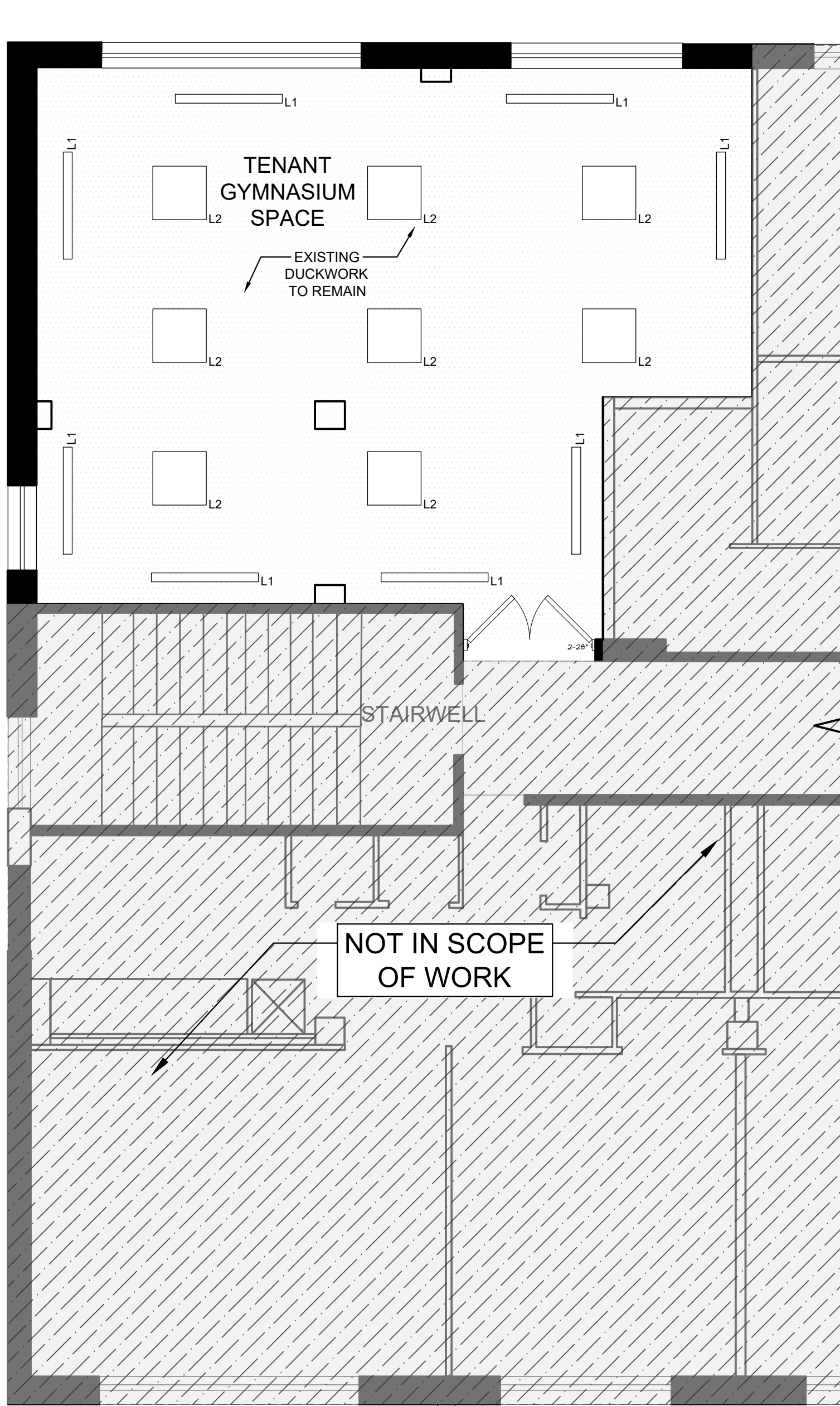
WINDOW SCHEDULE				
WINDOW SYMBOL	MANUFACTURER	MODEL	MIN. R.O (W x H)	NOTES
1	KAWNEER	8400TL	G.C. VERIFY	LOCK PIN @ 4" (OPENING RESTRICTION)
2	KAWNEER	8400TL	G.C. VERIFY	LOCK PIN @ 4" (OPENING RESTRICTION)
3	KAWNEER	8400TL	G.C. VERIFY	LOCK PIN @ 4" (OPENING RESTRICTION)

- NOTES:
- VERIFY ALL ROUGH OPENING DIMENSIONS W/ MANUFACTURER. G.C. TO VERIFY WITH OWNER PRIOR TO ORDERING.
 - GC TO VERIFY ALL COUNTS WITH OWNERSHIP.
 - VERIFY WITH OWNER IF GRILLES AND SCREENS ARE TO BE ORDERED.



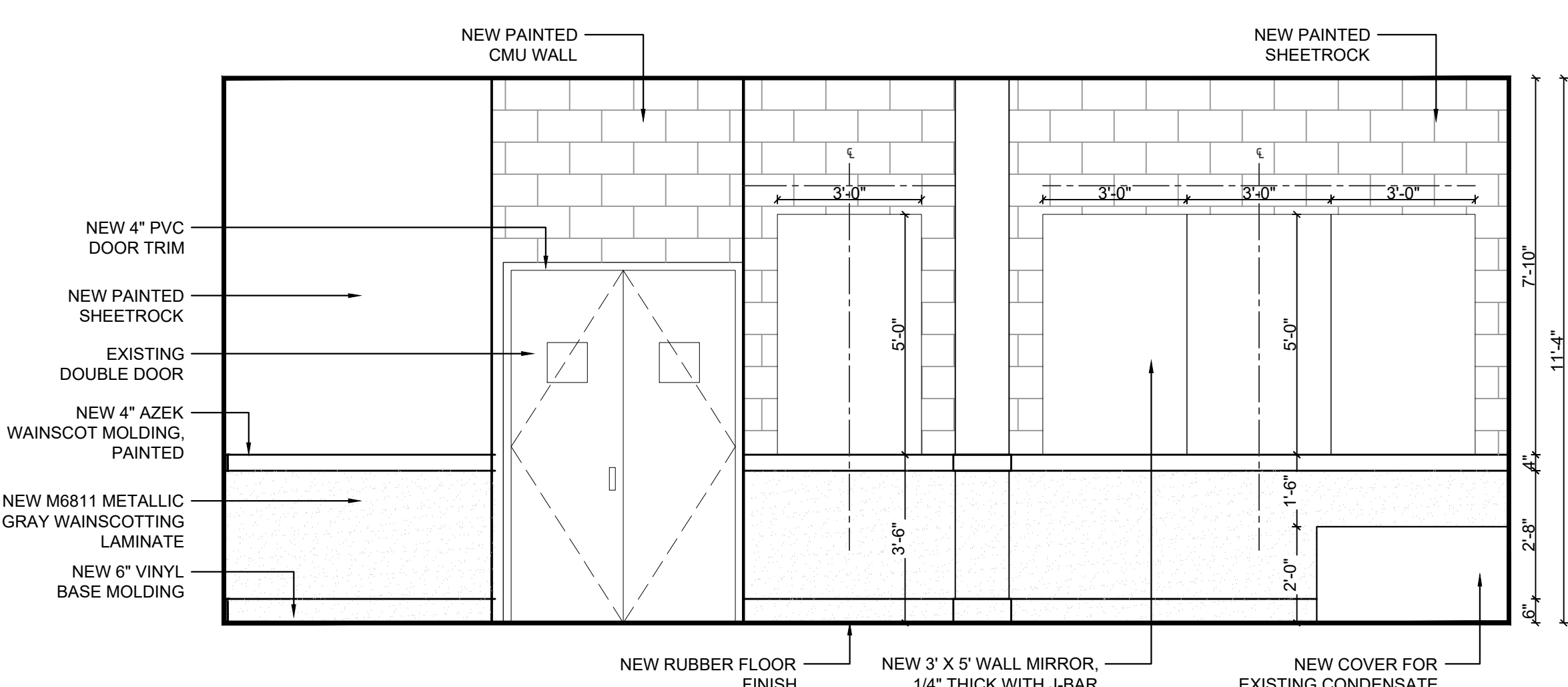
CONDENSER PAD DETAIL

SCALE: 1/2"=1'-0"



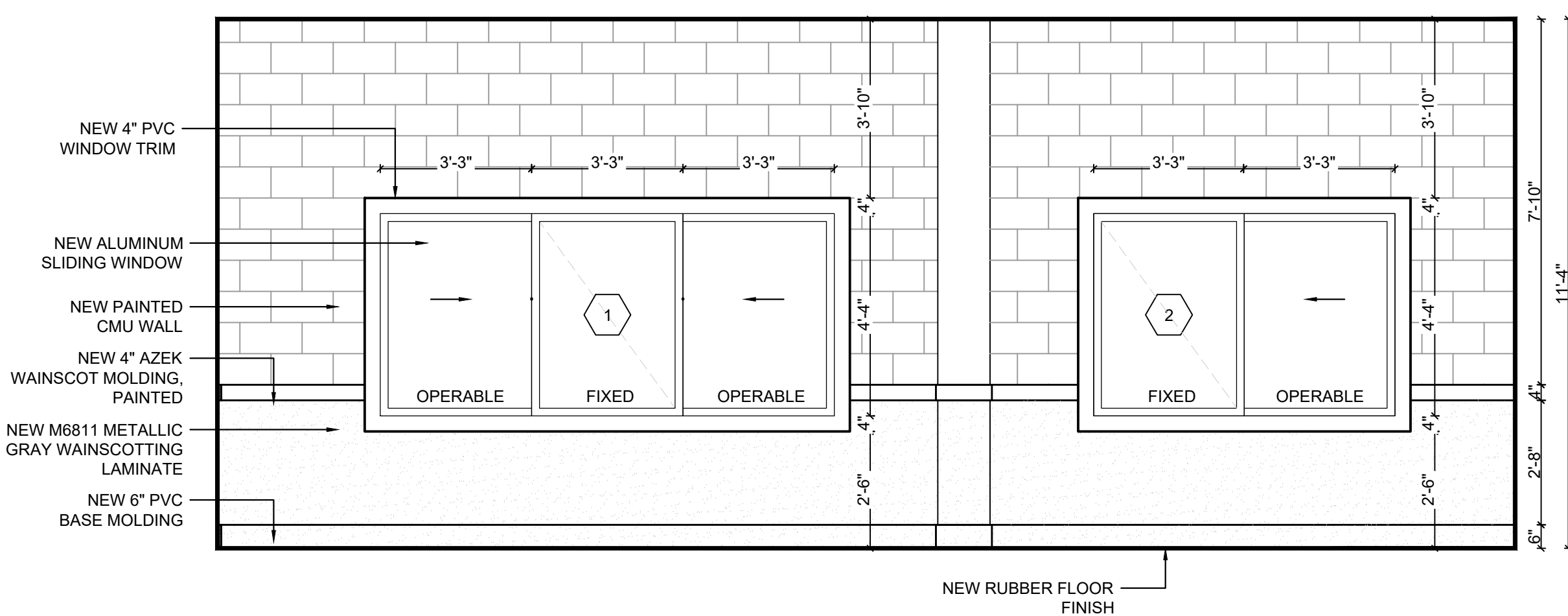
1ST FLOOR PLAN RCP

SCALE: 1/4"=1'-0"



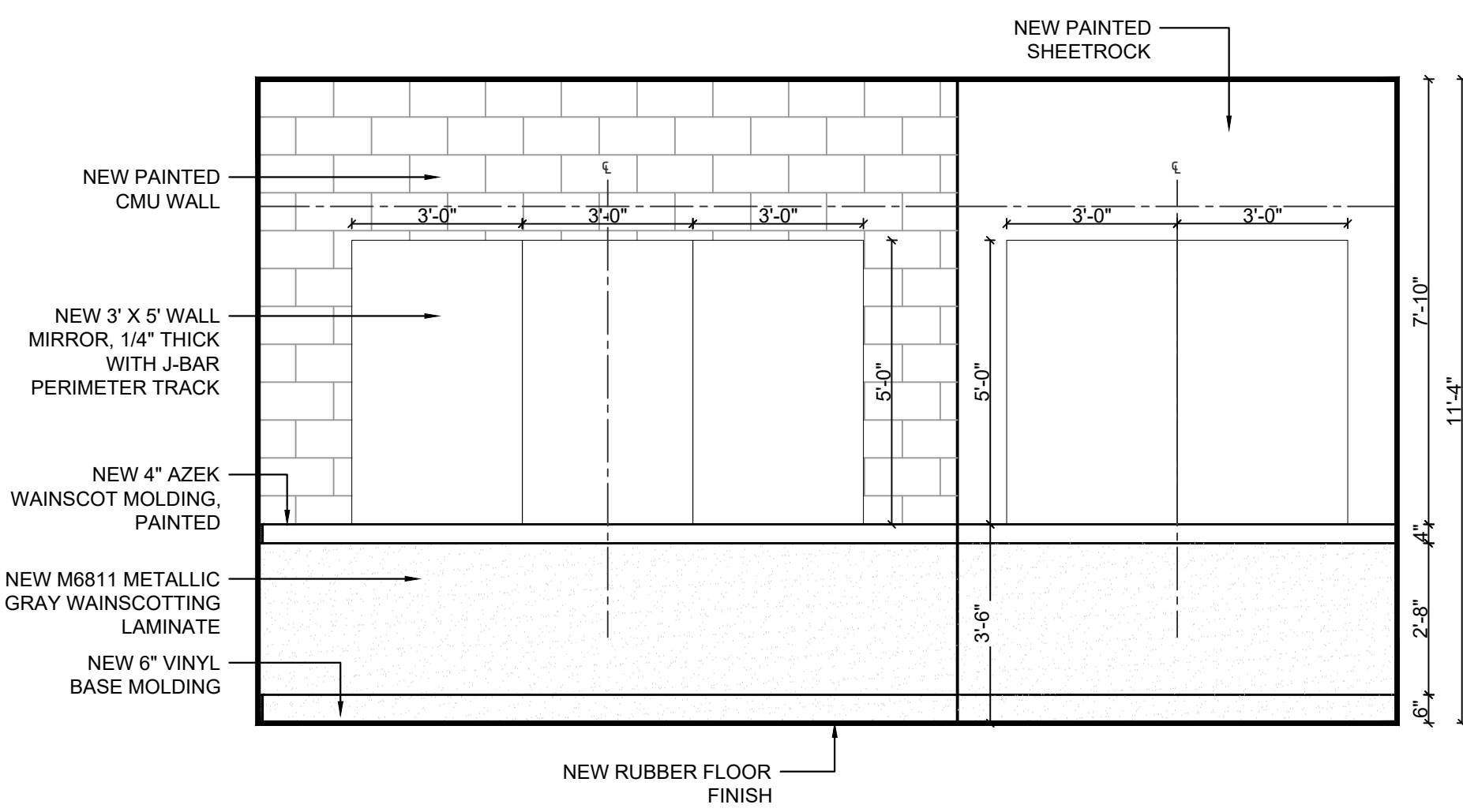
INTERIOR ELEVATION

SCALE: 3/8"=1'-0"



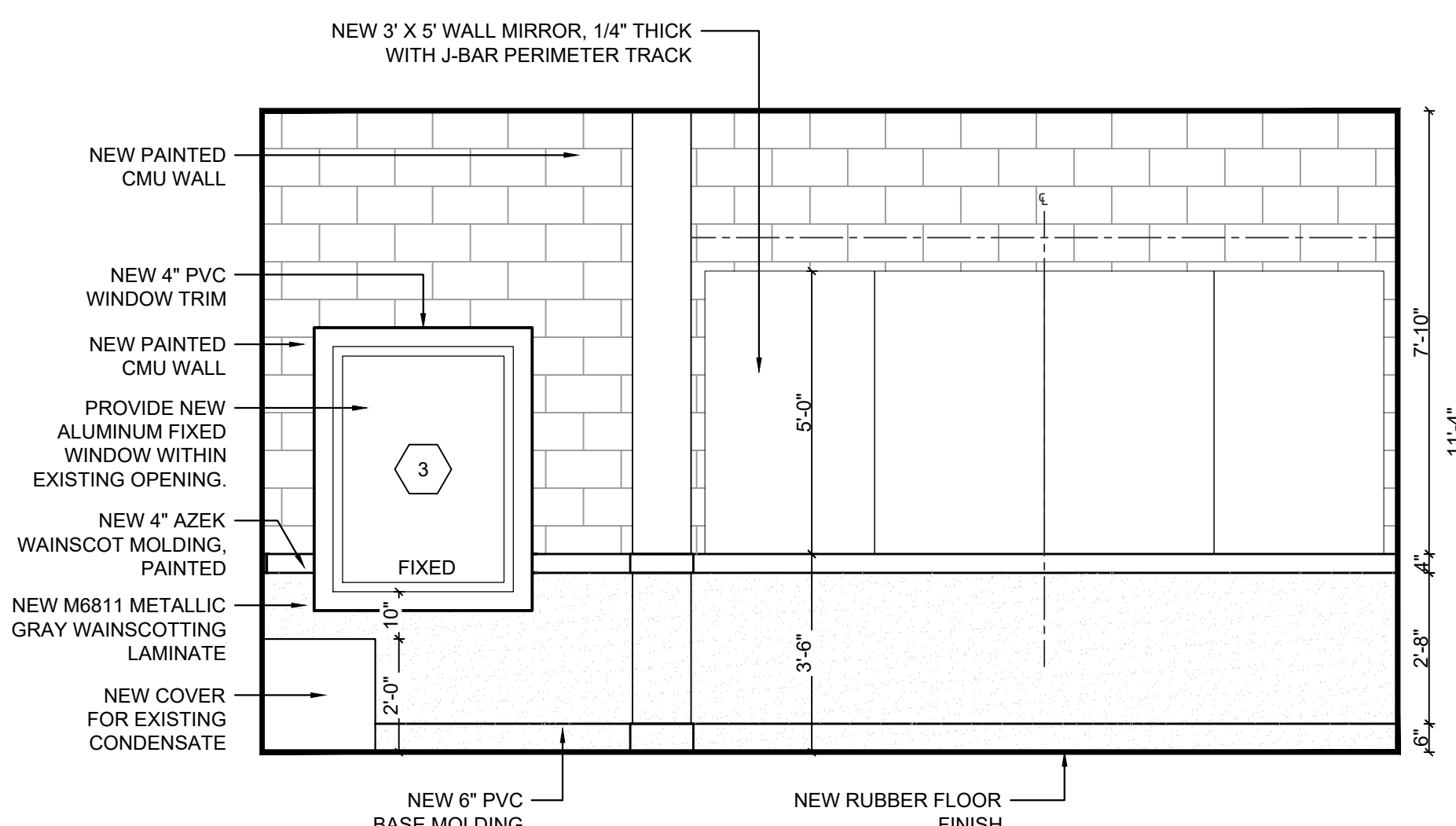
INTERIOR ELEVATION

SCALE: 3/8"=1'-0"



INTERIOR ELEVATION

SCALE: 3/8"=1'-0"



INTERIOR ELEVATION

SCALE: 3/8"=1'-0"

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1 12/16/2024 ISSUED TO CLIENT
Date Issue

Project Title

ROBINSON TOWERS

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ASBURY PARK, NJ 07712

Project Description

INTERIOR RENOVATION TO AN
EXISTING GYMNASIUM SPACE

Applicant

ASBURY PARK HOUSING AUTHORITY

Project Number: 24-1679

Drawn by : ACV, CV

Checked by : ACV

Scale : As Noted

Sheet Title

REFLECTED CEILING PLAN,
INTERIOR ELEVATIONS &
WINDOW DETAILS

Sheet Number

A-200

GENERAL NOTES		MECHANICAL GENERAL NOTES		MECHANICAL SPECIFICATIONS		SINGLE LINE DUCTWORK MEANING																																	
1. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES SHOWN UNDER THIS DRAWING AND SPECIFICATIONS TO COMPLETE THE CONSTRUCTION WORK. THE CONTRACTOR SHALL INCLUDE AT NO EXTRA COST ANY NOT SPECIFIED BUT NECESSARY WORK TO COMPLETE ANY PART OF THIS INSTALLATION IN A SUBSTANTIAL MANNER. 2. WORK RESULT DEFINITIONS: 2.1. FURNISH: OBTAIN AND SUPPLY TO JOB SITE. 2.2. INSTALL: FIX AT LOCATION AS SPECIFIED, CONNECT TO ALL UTILITIES SO READY FOR USE. 2.3. PROVIDE: FURNISH AND INSTALL. 2.4. MECHANICAL/ELECTRICAL/PLUMBING WORK, ETC.: ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, SERVICES AND OTHER INCIDENTALS NECESSERY FOR A COMPLETED AND OPERABLE INSTALLATION. 3. CONTRACTOR IS TO BE LICENSED AND ABLE TO WORK IN THE LOCAL JURISDICTION. CONTRACTOR IS TO PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE THE PROJECT SCOPE AND SPECIFICATIONS PER CONTRACT DOCUMENTS AND ACCORDING TO THE LOCAL CODES, LAWS, ORDINANCES AND STANDARD (TYPICAL) TRADE PROCEDURES. 4. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING AND OBTAINING ALL PERMITS, INSPECTIONS AND APPROVALS AND ALL RELATED FEES. 5. THE WORK SHALL CONFORM TO THE MORE STRINGENT OF ALL APPLICABLE CODES AND REGULATIONS, UL GUIDELINES, MANUFACTURER'S INSTRUCTIONS, BUILDING OPERATION MANUALS, AND TO THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL AHJ. 6. WORK IS TO BE DONE IN A PROFESSIONAL MANNER AND CONTRACTOR IS TO GUARANTEE THE REMEDY OF ANY DEFECTS IN WORK PERFORMED BY CONTRACTOR IN THE PERIOD OF ONE YEAR FROM THE DATE OF THE CERTIFICATE OF COMPLETION AND ACCEPTANCE OF WORK. 7. THE CONTRACTOR SHALL EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT ON SITE FROM ENVIRONMENTAL DAMAGE AND VANDALISM UNTIL FINAL APPROVAL DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE REPLACEMENT TO ALL EQUIPMENT AND MATERIALS DAMAGED. 8. SITE CONDITIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK. ANY DISCREPANCIES FOUND BETWEEN FIELD CONDITIONS AND CONTRACT DOCUMENTS/PLANS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER. UNLESS OTHERWISE NOTED IN CONTRACTS, CONTRACTOR SHALL FILE NECESSARY PLANS FOR PERMITTING, GIVE NECESSARY NOTICES AND PAY ANY PERMIT FEES, TAXES AND COSTS IN CONNECTION TO CONTRACTORS SCOPE OF WORK. 9. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK TO BE PERFORMED. LOCATIONS ARE APPROXIMATED AND FIELD CONDITIONS SHOULD BE VERIFIED BEFORE START OF WORK. DRAWINGS ARE NOT TO BE SCALED. CHANGES ON THE FIELD AND WORK DONE ON SITE ARE TO CONFORM WITH LOCAL, STATE AND FEDERAL BUILDING/PLUMBING CODES (GENERAL CONTRACTOR AND OWNER MUST BE NOTIFIED AND APPROVE). ADJUSTMENTS ARE ALSO TO PASS INSPECTIONS DONE BY THE LOCAL JURISDICTION. CONTRACTOR IS TO SCHEDULE ANY REQUIRED INSPECTIONS PERTAINING TO CONTRACTORS SCOPE OF WORK. CONTRACTOR IS TO NOTIFY THE ENGINEER OF ANY CHANGE ORDERS IF PLANS ARE CONSTRUCTION DRAWINGS. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS NOR WORK DONE ON SITE. 10. CONTRACTOR SHALL INSTALL THE SYSTEMS AND EQUIPMENT PER MANUFACTURERS REQUIREMENTS AND TEST THE INSTALLATION UPON COMPLETION AS NECESSARY PER THE LOCAL JURISDICTION. CONTRACTOR IS TO TEST AND ADJUST ALL SAFETY CONTROLS, MATERIALS AND EQUIPMENT TO BE FROM NFPA, NEMA, ASME, IEEE, UL OR OTHER REGULATORY INSTITUTION RECOGNIZED BY THE INDUSTRY. 11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY OTHER TRADES DUE TO SUBSTATION OF SPECIFIED EQUIPMENT. WHEN EQUIPMENT FURNISHED IS DIFFERENT THAN SCHEDULED, ADDITIONAL COSTS OF RELATED ELECTRICAL, STRUCTURAL AND OTHER WORK SHALL BE COVERED BY THIS CONTRACTOR. 12. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES INVOLVED IN FILED TO COMPLETE INSTALLATION AND HAVE THE SYSTEM READY FOR OPERATION. 13. CONTRACTOR SHALL COORDINATE LOCATION OF ALL WALL, FLOOR AND ROOF OPENINGS WITH STRUCTURAL AND OTHER TRADES. ANY BEAM OR SHEAR WALL PENETRATION FOR DUCTWORK AND/OR PIPING SHALL BE COORDINATED FOR EXACT SIZES AND LOCATIONS BEFORE FABRICATION. 14. CONTRACTOR SHALL PROVIDE STARTUP AND COMMISSIONING PROCEDURES BEFORE FINAL ACCEPTANCE BY OWNER. 15. CONTRACTOR IS RESPONSIBLE FOR ALL TRASH AND DEBRIS REMOVAL FROM THE JOB PREMISES DAILY OR PER OWNER'S REQUEST SCHEDULE.		1. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS THAT ALL WORK, EQUIPMENT, APPURTENANCES, CONTROLS AND WIRING BE FURNISHED AND INSTALLED TESTED, COMPLETED AND READY FOR OPERATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT THE PROPOSED SYSTEMS CAN BE INSTALLED AS REQUIRED FROM THE DRAWINGS AND SPECIFICATIONS. IF ANY DEPARTURES FROM THE DRAWINGS AND SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND CLEAR JUSTIFICATION SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL. NO SUCH DEPARTURES SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER. 2. MECHANICAL CONTRACTOR SHALL PROVIDE ALL STARTERS AND CONTROLS FOR ALL EQUIPMENT THEY FURNISH. THE ELECTRICAL CONTRACTOR WILL INSTALL AND PROVIDE POWER WIRING FOR SAID DEVICES. THE INSTALLATION OF ALL CONTROLS AND WIRING, WHETHER LOW VOLTAGE (UNDER 100 VOLTS) OR LINE VOLTAGE (OVER 100 VOLTS) IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR, AND SHALL BE INCLUDED IN THE MECHANICAL CONTRACTOR'S WORK. HOWEVER, ALL CONTROL WIRING OVER 100 VOLTS WILL BE INSTALLED BY ELECTRICAL SECTION UNDER SUPERVISION OF THE CONTROL CONTRACTOR. REFER TO THE SPECIFICATIONS FOR ADDITION DETAILS. 3. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND DUCT ROUTING INDICATED ON THE DRAWING MAY REQUIRE SITE MODIFICATION DUE TO UNFORESEEN CONSTRUCTION CONDITIONS. THE CONTRACTOR SHALL VERIFY SUCH MODIFICATION AND CONTACT THE ARCHITECT FOR DIRECTION. 4. ALL SLEEVES, OPENINGS, CUTTING AND PATCHING OF EVERY NATURE REQUIRED IN CONNECTION WITH THIS CONTRACT SHALL BE DONE BY THIS CONTRACTOR WITH MECHANICS EXPERIENCED IN THEIR RESPECTIVE TRADES. ALL PATCHING SHALL MATCH ADJACENT SURFACES. 5. DUCT SIZES SHOWN ON THE DRAWING ARE INTERNAL FREE AREA SIZES. DUCT SIZES MUST BE INCREASED TO ALLOW FOR INSULATION LINING AS REQUIRED. 6. EACH RESPECTIVE CONTRACTOR SHALL FIRE STOP ALL NEW SLEEVES THROUGH CONCRETE FLOORS AND FIRE RATES WALLS OR PARTITIONS WITH UL RATED ASSEMBLIES WITH EQUAL FIRE RATING COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS. 7. COORDINATE ALL EQUIPMENT CLEARANCE WITH OTHER TRADES. FAILURE TO COORDINATE THE WORK WITH OTHER TRADES RESULTING IN CONFLICTS WILL RESULT IN THE CONTRACTOR CORRECTING THE WORK AT THEIR OWN COST. 8. ACCESS PANELS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. AND SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY THE GENERAL CONSTRUCTION CONTRACTOR. IT WILL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO INFOR THE GENERAL CONSTRUCTION SECTION WHERE EACH ACCESS PANEL IS REQUIRED AND ALSO COORDINATE ALL LOCATIONS WITH THE ARCHITECT. 9. ALL HVAC CEILING OR WALL MOUNTED EQUIPMENT SHALL BE SUPPORTED WITH STRUCTURAL STEEL AND THREADED RODS. ALL UNITS SHALL BE ISOLATED FROM BUILDING CONSTRUCTION FOR VIBRATION CONTROL. 10. BALANCE ALL DUCTS, DIFFUSERS, AND GRILLES TO OBTAIN THE AIR QUANTITIES AS SHOWN ON PLANS. THE CONTRACTOR IS TO PROVIDE BALANCING DAMPER AT TAKEOFFS IN ALL LOW PRESSURE DUCTWORK AND TURNING VANES AT ALL 90 DEGREE ELBOWS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. 11. ALL DUCTWORK SHOWN SHALL BE INSTALLED WITH RIGID METAL DUCWORK, UNLESS OTHERWISE NOTED ON PLAN. PROVIDE FLEXIBLE CONNECTIONS ON ALL DUCTS CONNECTING TO FANS AND AIR HANDLER UNITS. FLEXIBLE CONNECTORS SHALL NOT EXCEED 5FT IN DEVELOPED LENGTH. 12. CONTRACTOR TO VERIFY AND PROVIDE FIRE DAMPERS AT ALL DUCTWORK PENETRATING POINT OF FIRE-RATED WALLS, CEILINGS AND FLOORS, WITH EXEPTIONS SPECIFIED IN CURRENT ADOPTED EDITION OF INTERNATIONAL MECHANICAL CODE AND INTERNATIONAL BUILDING CODE. 13. CONTRACTOR SHALL INSTALL RECIRCULATION HOOD FOR RESIDENTIAL KITCHEN EXHAUST UNLESS DUCTED EXHAUST HOOD IS SHOWN ON PLAN. 14. DRYER EXHAUST DUCTS EQUIPMENT: - EXHAUST DUCTS SHALL BE CONSTRUCTED OF METAL NOT LESS THAN 0.016 INCH (0.4MM) IN THICKNESS, AND BE SUPPORTED AT 4-FOOT INTERVALS AND SECURED IN PLACE. THE EXHAUST DUCTS SHALL NOT BE JOINED WITH SCREWS OR SIMILAR FASTENERS THAT PROTRUDE MORE THAN 1/8 INCH INTO THE INSIDE OF THE DUCT. - THE MAXIMUM DEVELOPED LENGTH OF THE EXHAUST DUCTS SHALL BE 35 FEET UNLESS OTHERWISE NOTED ON PLAN. - WHERE NOTED "LONG-VENT TYPE DRYER", CONTRACTOR SHALL PROVIDE THE DRYER WITH EXACT SAME MODEL AS THE PLAN SHOWS AND PROVIDE THE DRYER'S INSTALLATION INSTRUCTION TO THE CODE OFFICIALS PRIOR TO THE CONCEALMENT INSPECTION. 15. ALL DUCT PENETRATION THROUGH WALLS SHALL BE SEALED. ALL TRANSVERSE DUCT SEAMS SHALL BE SEALED WITH APPROVED MASTIC. DUCT TAPE IS NOT ACCEPTABLE. 16. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS FOR AIR TERMINAL DEVICES. ALL DUCT IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASE OR SUSPENDED/DROPPED CEILING, UNLESS OTHERWISE NOTED ON PLAN. 17. ALL EQUIPMENT, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE-YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER, UNLESS OTHERWISE NOTED.		1. <u>MECHANICAL PIPING MATERIAL:</u> 1.1. CONDENSATE PIPE: 3/4" DIAMETER CONDENSATE PIPING FOR HVAC EQUIPMENT UP TO 20TONS. PIPING MATERIAL: CAST IRON, GALVANIZED STEEL, COPPER, PVC OR POLYPROPYLENE PIPE OR TUBING. 1.2. REFRIGERANT PIPE MATERIAL: HARD-DRAWN(TEMPERED) TOPPER TUBE, TYPE L ARC. 1.3. REFRIGERANT PIPE JOINT: BRAZED, BRAZING MATERIAL SHALL BE SILFOS 15. 1.4. THE MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND LICENSES PERTAINING TO HIS WORK. 1.5. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINAING MECHANICAL WORK WITH OTHER TRADES SO AS TO PROVIDE THE SYSTEM AS DESCRIBED. 2. <u>SCOPE OF WORK:</u> MECHANICAL CONTRACTORS SCOPE OF WORK INCLUDES PROVIDING LABOR, MATERIAL, EQUIPMENT, ACCESSORIES, SERVICES AND TESTS IN ORDER TO COMPLETE PROJECT ASSIGNMENT AND ENABLE THE PASSING OF MECHANICAL INSPECTIONS OF LOCAL JURISDICTION. HVAC CONTRACTOR IS TO COORDINATE WITH OTHER TRADES AND OTHER CONTRACTORS TO ABIDE BY THE GENERAL SPECIFICATIONS OF THE PLAN INCLUDING: DUCTWORK, DIFFUSER, ACCESSORIES, ETC. 3. <u>DUCT WORK:</u> 3.1. ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL FABRICATED AND ERECTED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS. PROVIDE TURNING VANES IN ALL ELBOWS, MANUAL VOLUME DAMPERS IN ALL BRANCHES, AIR EQUALIZERS AND SIMILAR DEVICES AS REQUIRED TO PROPERLY BALANCE THE SYSTEMS AND PRODUCE QUIET, DRAFTLESS OPERATIONS. DUCTWORK SIZES SHOWN ON THE PLANS ARE SHEET I.D. FREE AREA. 3.2. CHANGE IN DIRECTION ELBOWS SHALL HAVE AN INSIDE RADIUS OF NOT LESS THAN THE WIDTH OF DUCT. WHERE SQUARE ELBOWS ARE NECESSARY PROVIDE SIGNLE THICKNESS TURNING VANE A MAXIMUM OF 3" ON CENTER. 3.3. PROVIDE BALANCING DAMPERS IN ALL DUCT BRANCHES TO AIR GRILLES/DIFFUSERS AND AS SHOWN. 3.4. VOLUME DAMPERS SHALL BE PROVIDED AT ALL BRANCHES AND TAKE-OFFS. 3.5. SUPPORT HORIZONTAL DUCTS WITH HANGERS SECURED TO BAR JOISTS OR STRUCTURAL STEEL ABOVE AT INTERVALS NOT TO EXCEED 8'-0". 3.6. FLEXIBLE DUCT SHALL BE USED ONLY FOR SUPPLY AIR SYSTEM. THE MAXIMUM FLEXIBLE DUCT LENGTH SHALL NOT EXCEED 14 FEET. FLEXIBLE DUCTWORK SHALL BE INSTALLED WITHOUT KINKS OR 90 DEGREE BENDS. SPACE STRAP HANGERS NO MORE THAN 3 FEET APART TO SUPPORT FLEXIBLE DUCTWORK. MAXIMUM PERMISSIBLE SAC OF FLEXIBLE DUCT SHALL BE 0.5 INCH PER FOOT OF SPACING BETWEEN HANGERS. 3.7. THE INSTALLATION OF ALL FLEXIBLE DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA & ASHRAE STANDARDS. ALL FLEXIBLE DUCTWORK SHALL CONFORM WITH THE UL RATING UNDER FLEXIBLE AIR DUCT TEST UL-181. 3.8. PROVIDE FIRE DAMPERS AND FIRE/SMOKE DAMPERS WHERE SHOWN ON DRAWINGS AND/OR WHERE REQUIRED BY NFPA90A. FOR DUCTS THAT PENETRATE FIRE WALLS, FLOORS AND PARTITIONS, PROVIDE SLEEVES WHERE PENETRATIONS ARE NOT PERPENDICULAR TO SURFACE PENETRATION. ENCLOSE DAMPERS IN 10 GAUGE STEEL SLEEVE. 3.9. PROVIDE ACCESS TO ALL FIRE DAMPERS AND FIRE/SMOKE DAMPERS. VOLUME DAMPERS AND MOTOR OPERATED DAMPERS. ACCESS PANELS IN RATED ASSEMBLIES SHALL BE FIRE RATED INSULATED ACCESS DOOR. ACCESS PANELS IN NON-RATED DRYWALL CEILINGS SHALL BE CEILING/ROOF-IN ACCESS PANEL. ACCESS PANELS IN NON-RATED WALLS SHALL BE NORMAL ACCESS DOOR. 3.10. ANY DUCTWORK PASSING THROUGH A RATED WALL NEEDS TO HAVE A FIRE DAMPER OR FIRE/SMOKE DAMPER. SEE ARCHITECTURAL PLAN FOR FINAL LOCATIONS OF ALL FIRE WALLS OR SMOKE PARTITIONS. ALL DUCT PENETRATIONS OR RATED ASSEMBLIES MUST MEET THE REQUIREMENTS OF 2018 IBC(INTERNATIONAL BUILDING CODE) SECTION 705 AND 2018 IMC(INTERNATIONAL MECHANICAL CODE)610. 4. <u>BALANCING AND ADJUSTING:</u> 4.1. THE MECHANICAL CONTRACTOR SHALL PROVIDE COMPLETE BALANCING OF ALL SYSTEMS.		<table><tr><th colspan="3">MECHANICAL CONTRACTOR SHALL VERIFY THE METHOD AND TYPICAL MEANS/MATERIAL OF INSTALLATION FOR EACH TYPE OF DUCT PRIOR TO WORK.</th></tr><tr><th>TYPE</th><th>SINGLE LINE</th><th>ACTUAL CONSTRUCTION</th></tr><tr><td>ELBOW</td><td></td><td></td></tr><tr><td>SPLIT OR TAKE-OFF</td><td></td><td></td></tr><tr><td>TAP TAKE-OFF</td><td></td><td></td></tr><tr><td>RISE OR DROP</td><td></td><td></td></tr><tr><td>TRANSITION</td><td></td><td></td></tr><tr><td>HORIZONTAL OFFSET</td><td></td><td></td></tr><tr><td>CONNECTION TO LINEAR DIFFUSER PLENUM</td><td></td><td></td></tr><tr><td>FIRE DAMPER (FD)</td><td></td><td></td></tr></table>				MECHANICAL CONTRACTOR SHALL VERIFY THE METHOD AND TYPICAL MEANS/MATERIAL OF INSTALLATION FOR EACH TYPE OF DUCT PRIOR TO WORK.			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1. ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS, AND OTHER REGULATIONS BY AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO: - 2021 INTERNATIONAL BUILDING, NJ EDITION - 2021 INTERNATIONAL MECHANICAL CODE - 2021 INTERNATIONAL ENERGY CONSERVATION CODE - 2021 NATIONAL STANDARD PLUMBING CODE, NJ EDITION - 2020 NATIONAL ELECTRIC CODE - SMACNA DUCT CONSTRUCTION STANDARDS - THE NATIONAL BOARD OF FIRE UNDERWRITERS ALL MATERIALS AND EQUIPMENT SHALL BEAR THE STAMPS OR SEALS OF THE NFPA, NEMA, ASME, IEEE, UL AND OTHER RECOGNIZED INDUSTRY REGULATORY GROUPS.																																							

MECHANICAL ABBREVIATIONS			
(E) (ED) (ER) (N)	EXISTING EXISTING TO BE DEMOLISHED EXISTING TO BE RELOCATED NEW	DB DDC DIA DN DP DWG DX EA EAT EC EDH EF EG EMS EP ESP ET EWT EXH F FCU FD FE FLR FFE FPI FPM FSD FT FTR GAL GC GPH GPM H	DRY BULB DIRECT DIGITAL CONTROL DIAMETER DOWN DIFFERENTIAL PRESSURE DRAWING DIRECT EXPANSION EXHAUST AIR ENTERING AIR TEMPERATURE ELECTRICAL CONTRACTOR ELECTRIC DUCT HEATER EXHAUST FAN EXHAUST GRILLE EMERGENCY MANAGEMENT SYSTEM EJECTOR PUMP (SEWAGE) EXTERNAL STATIC PRESSURE EXPANSION TANK ENTERING WATER TEMPERATURE EXHAUST FAN FREE AREA FAN COIL UNIT FIRE DAMPER FULL LOAD AMPS FLOOR FINISHED FLOOR ELEVATION FINS PER INCH FEET PER MINUTE FIRE SMOKE DAMPER FOOT/FEET CEILING CLEANOUT GENERAL CONTRACTOR CONNECT CONTINUE CONDENSING UNIT
ABV AC AD AF AFF AHU AP APPX ARCH ATC B BDD BF BFP BLDG BMS BOD BOT BTU BTUH CAP CD CFM CH CLG CO COND CONN CONT CU	ABOVE AIR CONDITIONING ACCESS DOOR AIR FILTER ABOVE FINISHED FLOOR AIR HANDLER UNIT ACCESS PANEL APPROXIMATELY ARCHITECT AUTOMATIC TEMPERATURE CONTROL BOILER BACKDRAFT DAMPER BELOW FLOOR BACKFLOW PREVENTOR BUILDING BUILDING MANAGEMENT SYSTEM BOTTOM OF DUCT BOTTOM OF PIPE BRITISH THERMAL UNIT BTU PER HOUR CAPACITY CEILING DIFFUSER CUBIC FEET PER HOUR CUBIC FEET PERM MINUTE CHILLER CLG CO COND CONN CONT CU	DB DDC DIA DN DP DWG DX EA EAT EC EDH EF EG EMS EP ESP ET EWT EXH F FCU FD FE FLR FFE FPI FPM FSD FT FTR GAL GC GPH GPM H	HEATING COIL HEAT PUMP/HORSE POWER HVAC HEATING VENTILATION AND AIR CONDITIONING HOT WATER HOT WATER RETURN INSIDE DIAMETER INCH INTERIOR INDIRECT WASTE INDIRECT WASTE RECEPTOR KILOWATTS LEAVING AIR TEMPERATURE LINEAR BAR GRILLE LINEAR DIFFUSER/LOUVERED DOOR LEAVING WATER TEMPERATURE MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPERE MOTORIZED DAMPER MECHANICAL MOTOR OPERATED DAMPER MAKE UP AIR MINIMUM MAXIMUM OVER-CURRENT PROTECTION NITROUS OXIDE NOT APPLICABLE FEET PER MINUTE NOT IN CONTRACT NOT IN SCOPE NORMALLY OPEN NOT TO SCALE OXYGEN OUTSIDE AIR OUTSIDE AIR TEMPERATURE OUTSIDE DIAMETER
PC PD PP PRV PSI PSIG RA RG RPM RTU SA SAT SD SF SG SP TEMP TOP TSP TYP UC UH UN VAV VD VIF VFD VSD WB W/ W/O WSP WH	PLUMBING CONTRACTOR PRESSURE DROP PUMP PRESSURE REDUCING/REGULATING VALVE POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH GAUGE RETURN AIR RETURN GRILLE REVOLUTIONS PER MINUTE ROOF TOP UNIT QUANTITY SUPPLY AIR SUPPLY AIR TEMPERATURE SMOKE DAMPER SQUARE FEET SUPPLY GRILLE STATIC PRESSURE TEMPERATURE TOP OF PIPE TOTAL STATIC PRESSURE TYPICAL UNDERCUT DOOR UNIT HEATER UNLESS OTHERWISE NOTED VARIABLE AIR VOLUME VOLUME DAMPER VERIFY IN FIELD VARIABLE FREQUENCY DRIVE VARIABLE SPEED DRIVE WET BULB TEMPERATURE WITH WITHOUT WATER SOURCE HEAT PUMP WATER HEATER	DB DDC DIA DN DP DWG DX EA EAT EC EDH EF EG EMS EP ESP ET EWT EXH F FCU FD FE FLR FFE FPI FPM FSD FT FTR GAL GC GPH GPM H	HEATING COIL HEAT PUMP/HORSE POWER HVAC HEATING VENTILATION AND AIR CONDITIONING HOT WATER HOT WATER RETURN INSIDE DIAMETER INCH INTERIOR INDIRECT WASTE INDIRECT WASTE RECEPTOR KILOWATTS LEAVING AIR TEMPERATURE LINEAR BAR GRILLE LINEAR DIFFUSER/LOUVERED DOOR LEAVING WATER TEMPERATURE MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPERE MOTORIZED DAMPER MECHANICAL MOTOR OPERATED DAMPER MAKE UP AIR MINIMUM MAXIMUM OVER-CURRENT PROTECTION NITROUS OXIDE NOT APPLICABLE FEET PER MINUTE NOT IN CONTRACT NOT IN SCOPE NORMALLY OPEN NOT TO SCALE OXYGEN OUTSIDE AIR OUTSIDE AIR TEMPERATURE OUTSIDE DIAMETER

MECHANICAL DRAWING LIST

SHEET NUMBER	DRAWING TITLE	ISSUE FOR REVIEW 12/05/2024
M000	MECHANICAL COVER SHEET	●
M100	MECHANICAL PLAN AND SCHEDULES	●

MEP

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SEAL

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2	12/05/2024	ISSUE FOR REVIEW
1	11/27/2024	ISSUE FOR REVIEW
#	Date	Issue

Project Title

ROBINSON TOWERS

1000 1/2 3RD AVE
ASBURY PARK, NJ 07712

Project Description

Applicant
ASBURY PARK HOUSING AUTHORITY

Project Number: 24-1679

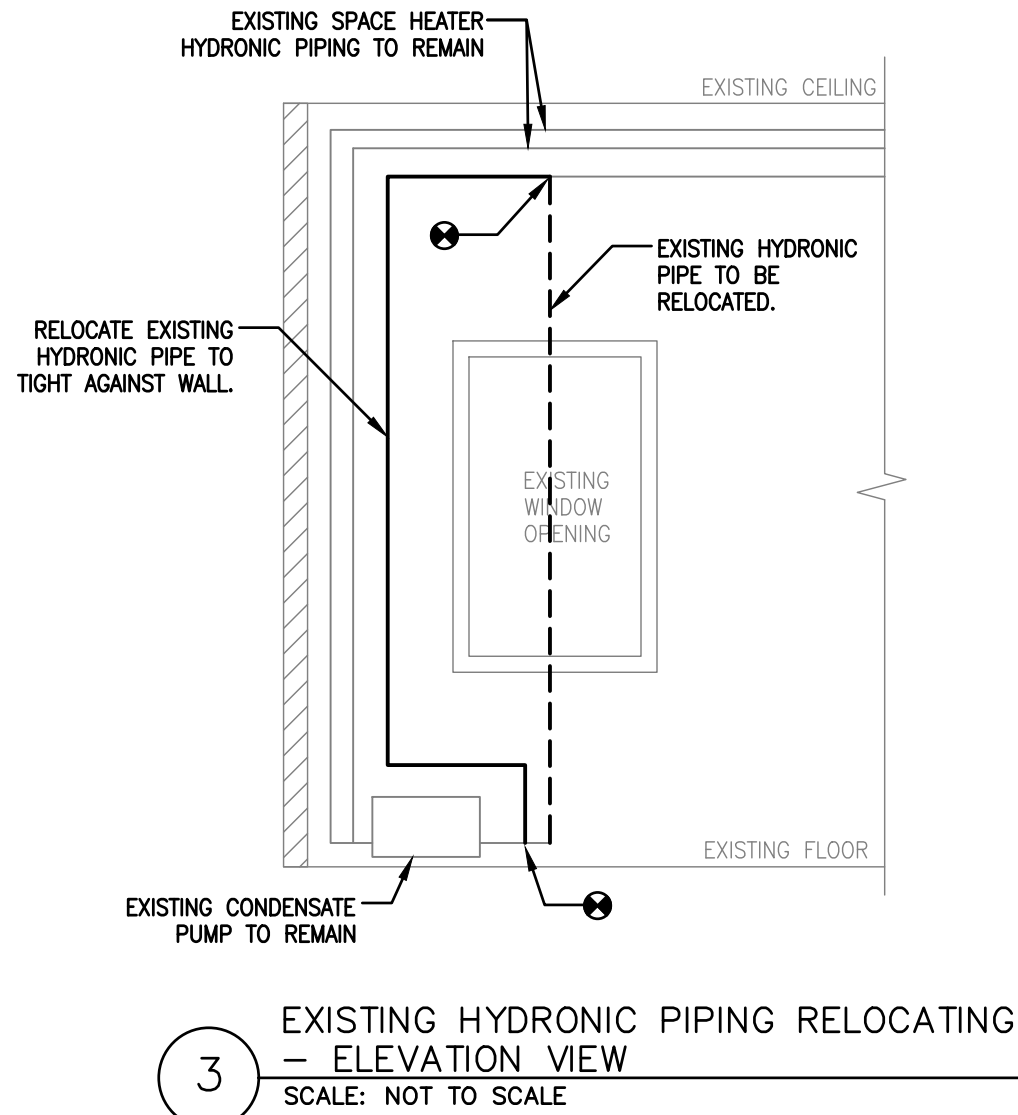
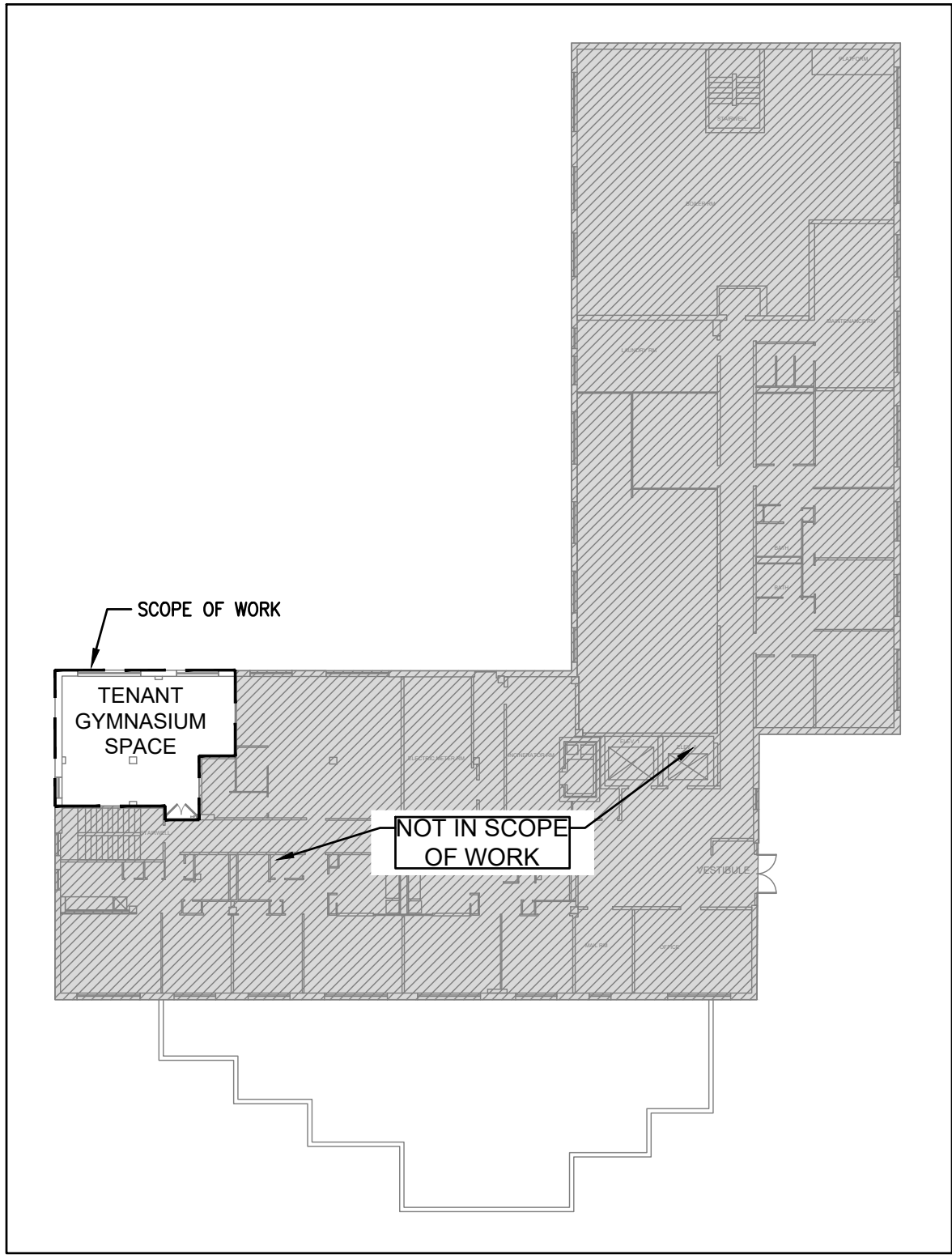
Drawn by : URE

Checked by :

Scale : As Noted

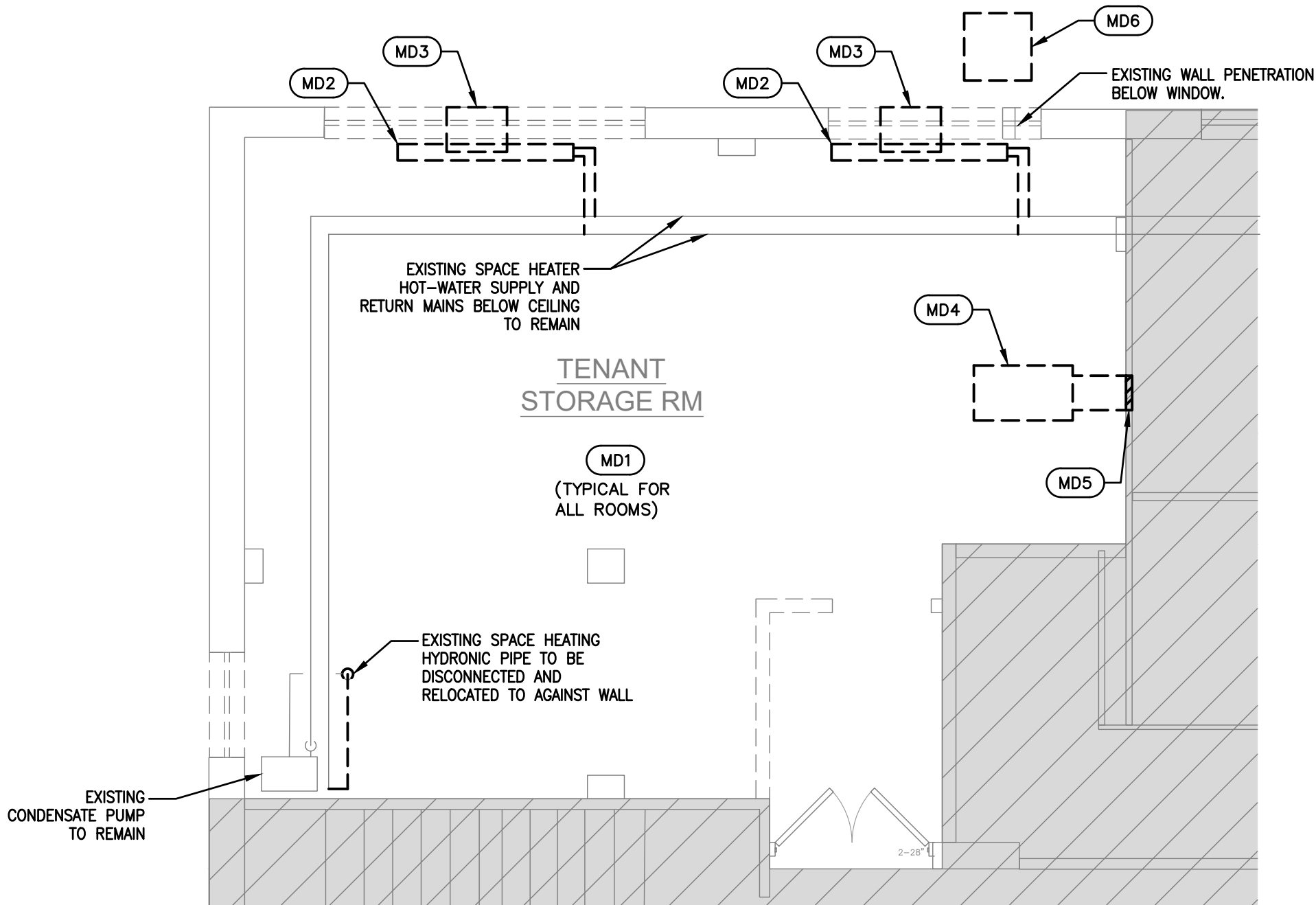
Sheet Title
MECHANICAL COVER SHEET

PROJECT KEY PLAN (N.T.S)

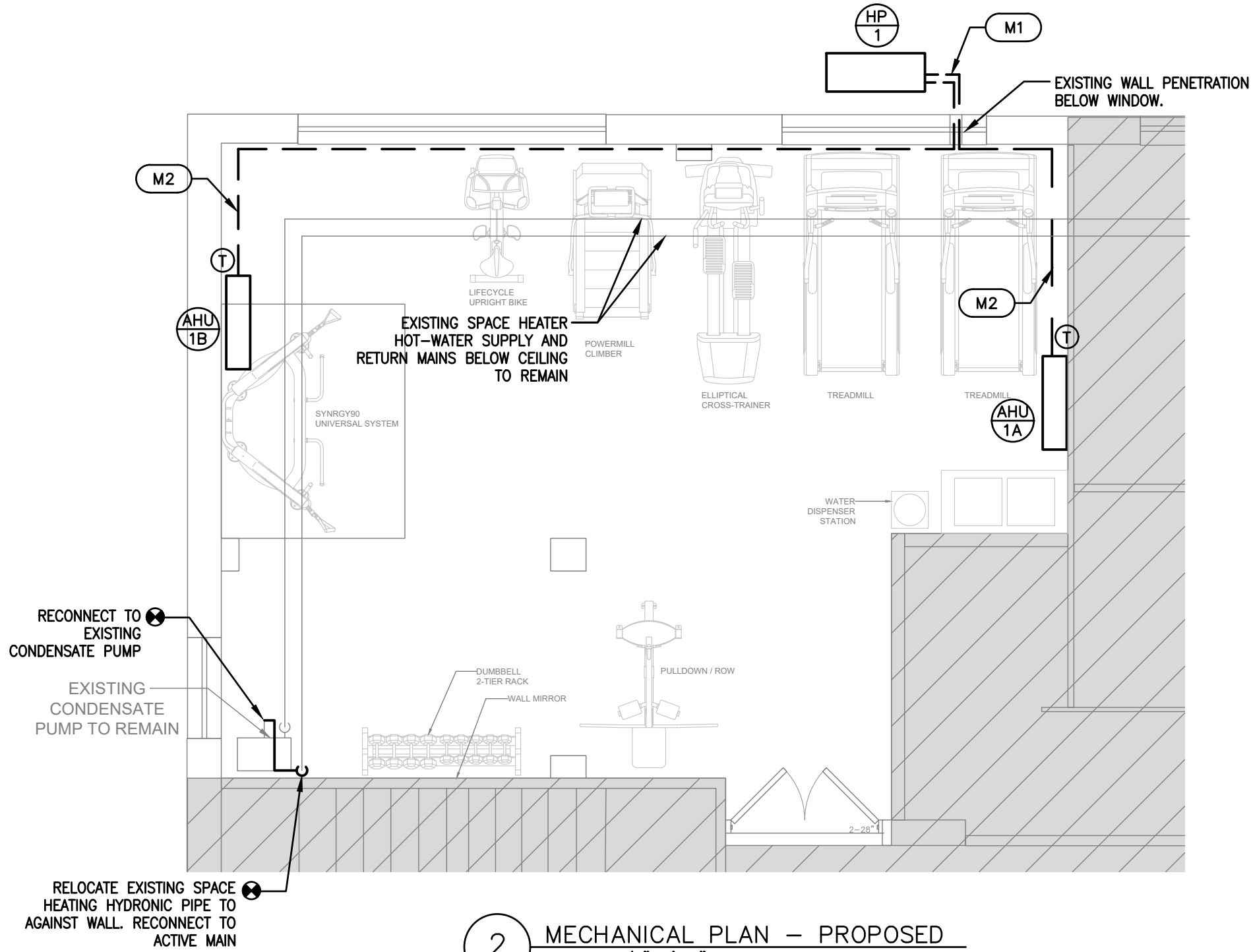


INSULATION SCHEDULE					
	BASIS OF DESIGN	TYPE	THICKNESS(IN.)	VAPOR BARRIER	REMARKS
HVAC SPLIT-SYSTEM REFRIGERANT LIQUID/SUCTION PIPING	AEROCEL REF	FLEXIBLE ELASTOMERIC	1	YES	
NOTES: 1. EXCLUDES FACTORY INSULATED EQUIPMENT.					

MINI-SPLIT SYSTEM HVAC UNIT SCHEDULE																				
SYSTEM NO.	INDOOR UNIT NO.	SUPPLY FAN			CONTROL	COOLING PERFORMANCE (OUTDOOR TEMP: 14°F TO 115°F)			HEATING PERFORMANCE (OUTDOOR TEMP: -15°F TO 75°F)			REFRIGERANT TYPE	ELECTRICAL CHARACTERISTICS-AHU			ELECTRICAL CHARACTERISTICS-HP			DESIGN BASIS MANUFACTURER: FUJITSU AND MODEL	
		TOTAL SA CFM	OA CFM	ESP ("WG)		TOTAL MBH	POWER CONSUMPTION (W)	SEER	RATED MBH @47°F	RATED MBH @17°F	HSPF		MCA	WATTS	VOLT./PH/HZ	MCA	MOCP	VOLT./PH/HZ	AHU	HP
1 (2-ZONE)	1A, 1B	450	—	—	T-STAT	22	—	20	25	—	10.3	R-410A	0.24	26	230/1/60	25.1	30	230/1/60	ASUH12LPAS	24RLXFZH



1 MECHANICAL PLAN - DEMO
SCALE: 1/4"=1'-0"



2 MECHANICAL PLAN - PROPOSED
SCALE: 1/4"=1'-0"

GENERAL NOTES -
MECHANICAL PLANS

- CONTRACTOR TO COORDINATE LOCATION OF NEW PIPING AND HVAC EQUIPMENT LOCATION WITH LIGHTING FIXTURES AND PLUMBING PIPING ABOVE CEILING ON SITE.
- UNLESS OTHERWISE NOTED, ALL DUCTWORK SHOWN ON PLAN IS LOCATED OVERHEAD, TIGHT TO THE UNDERSIDE OF THE BUILDING STRUCTURE, WITH ROOM ALLOWING INSULATION IF REQUIRED.
- MECHANICAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE SUPPORTED BY BUILDING STRUCTURE ELEMENTS, OR MOUNTING BRACKET APPROVED BY HVAC EQUIPMENT MANUFACTURER.
- REFRIGERANT PIPING (REF.) SHOWN ON PLAN SHALL BE INSULATED AND LOCATED TIGHT ABOVE FLOOR THROUGH EXISTING EXTERIOR WALL OPENING. EXACT LOCATION SHALL BE FIELD VERIFIED.
- COORDINATE WITH ALL OTHER TRADES FOR EXTERIOR WALL OPENINGS.
- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED WITH ADEQUATE CLEARANCE SPACE ON ALL SIDES FOLLOWING MANUFACTURER'S INSTRUCTION.
- OUTDOOR CONDENSER UNIT TO BE PLACED ON NEW PAD ON GRADE UNLESS OTHERWISE NOTED ON PLAN. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTION FOR DETAILS.
- VENTILATION IS PROVIDED FOLLOWING IMC 2021, SECTION 402. ALL OCCUPIED SPACES ARE PROVIDED WITH NATURAL VENTILATION BY OPERABLE DOORS AND/OR WINDOWS TO THE OUTDOORS. REQUIRED OPERABLE OPENINGS (SF) EQUALS TO MIN. 4% OF FLOOR AREA.
- EXPOSED REFRIGERANT, POWER, AND CONTROL WIRING FROM BUILDING TO THE REMOTE CONDENSING UNIT MUST BE PROTECTED. PIPING MUST BE BUNDLED AND COVERED WITH PVC SPLIT INSULATION JACKET WITH CEMENTED JOINTS.
- COORDINATE W/ OWNER FOR HP EXACT LOCATION.

MECHANICAL DEMO KEY NOTES

MDX

- EXISTING DUCTWORK AND PIPING SERVING OTHER AREAS SHALL BE REMAIN AND BE PROTECTED DURING DEMOLITION PHASE.
- EXISTING HOT-WATER RADIATOR TO BE DISCONNECTED AND REMOVED. CAP HOT-WATER SUPPLY AND RETURN PIPING TO CLOSEST ACTIVE MAINS BELOW CEILING.
- DISCONNECT AND REMOVE EXISTING PORTABLE WINDOW AC UNIT.
- DISCONNECT AND REMOVE EXISTING AIR HANDLER UNIT BELOW CEILING AND ALL ASSOCIATED POWER, PIPING AND DUCTWORK.
- REMOVE EXISTING DUCTWORK TO OTHER AREAS. INFILL WALL OPENING TO MATCH THE SURROUNDING.
- REMOVE EXISTING CONDENSER AND ASSOCIATED POWER AND PIPING. CLEAN AND PREPARE EXISTING EXTERIOR WALL PENETRATION FOR NEW REFRIGERANT LINES.

MECHANICAL PLAN KEY NOTES

MX

- REFRIGERANT LINES TO CORRESPONDING AHU. PIPING SHALL BE INSTALLED ALONG WALL. FOLLOW MANUFACTURER'S INSTRUCTION FOR REFRIGERANT PIPING SIZING UNLESS OTHERWISE NOTED ON PLAN.
- 3/4" CONDENSATE LINE BUNDLED WITH REFRIGERANT PIPING, DRAIN TO THE BUILDING OUTDOOR AREA(S) APPROVED BY AHJ.

MVMK

Minervini Vandermark Melia Kelly

Architecture + Design

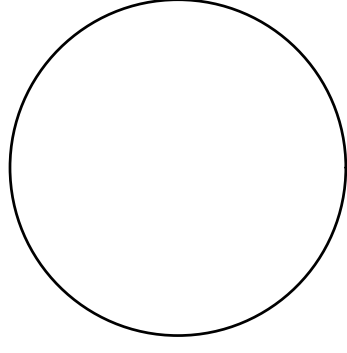
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MEP



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2 12/05/2024 ISSUE FOR REVIEW

1 11/27/2024 ISSUE FOR REVIEW

Date Issue

Project Title

ROBINSON TOWERS

1000 1/2 3RD AVE

ASBURY PARK, NJ 07712

Project Description

Applicant

ASBURY PARK HOUSING AUTHORITY

Project Number: 24-1679

Drawn by : URE

Checked by :

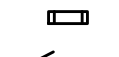
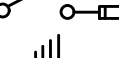
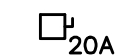
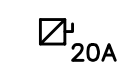
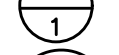
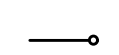
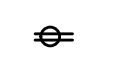
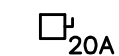
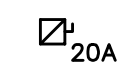
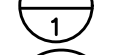
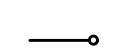
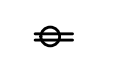
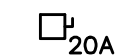
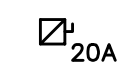
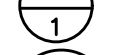
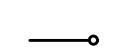
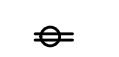
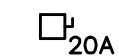
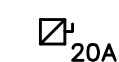
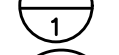
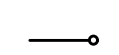
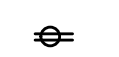
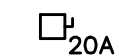
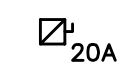
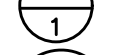
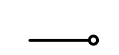
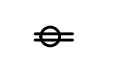
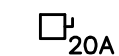
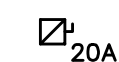
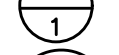
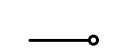
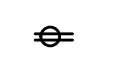
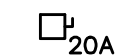
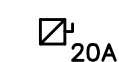
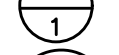
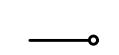
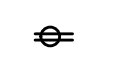
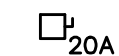
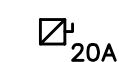
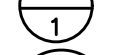
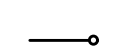
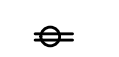
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MECHANICAL PLANS AND SCHEDULES

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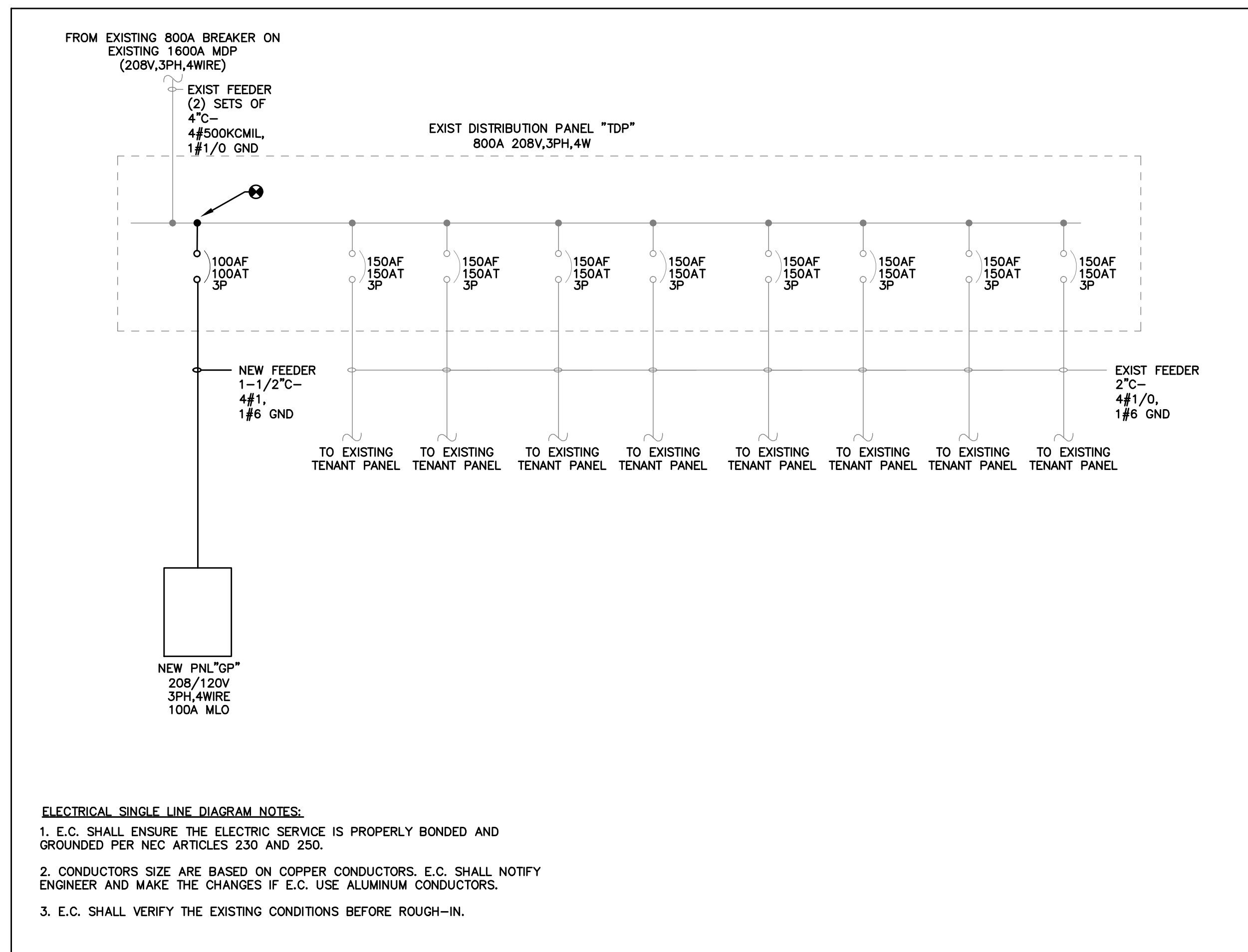
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ELECTRICAL & FIRE ALARM GENERAL NOTES		ABBREVIATIONS		LEGENDS: SINGLE LINE DIAGRAM	
1. THE FIRE ALARM SYSTEM SHALL COMPLY WITH LATEST APPROVED NFPA72, INTERNATIONAL BUILDING CODE AND ALL OTHER LOCAL CODES AND THE BUILDING IS NOT SPRINKLERED. 2. ALL PENETRATIONS OF FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA. 3. ALL EQUIPMENT SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CABLING. 4. DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, CONDUITS, CABINET SIZES, PENETRATION SLEEVES, PULL BOXES, BACKBOXES AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE AND MANUFACTURER SPEC FOR THE PROPER INSTALLATION OF ALL WORK. 5. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 760 OF THE LATEST APPROVED NATIONAL ELECTRIC CODE. ALL FIRE ALARM CABLE MUST BE MARKED TYPE FPL (NON PLENUM) OR FPLP (PLENUM) AND PROVIDED IN ACCORDANCE WITH THE PROJECT REQUIREMENTS. 6. COORDINATE EXACT LOCATION(S) OF ALL CEILING MOUNTED CABLE, CONDUITS, EQUIPMENT AND/OR DEVICES WITH ALL ARCHITECTURAL PLANS, REFLECTED CEILING PLANS AND AFFECTED TRADES PRIOR TO INSTALLATION. 7. ALL SMOKE DETECTORS SHALL BE MOUNTED TO FINISHED CEILING AND/OR DECKING, UNLESS NOTED OTHERWISE. DETECTORS SHALL NOT BE INSTALLED ON BOTTOM OF OPEN WEB JOISTS OR ON BEAMS EXCEEDING 12 INCHES DEPTH FROM FINISHED CEILING OR DECK. REFER TO NFPA 72 FOR ALL INITIATING DEVICE INSTALLATION REQUIREMENTS. PROVIDE DETECTORS IN SUFFICIENT QUANTITY TO COMPLY WITH ALL NFPA 72 REQUIREMENTS BASED ON CEILING CONDITIONS AND PROTECTED SPACE REQUIREMENTS. 8. PROTECTIVE ANTI-DUST COVERS SHALL BE INSTALLED AND MAINTAINED ON ALL SYSTEM SMOKE DETECTORS UNTIL FINAL ACCEPTANCE BY THE AUTHORITIES HAVING JURISDICTION. 9. SMOKE DETECTORS SHALL NOT BE INSTALLED LESS THAN 3 FEET FROM ANY HVAC SUPPLY OR RETURN AIR REGISTER AND A MINIMUM OF 1 FOOT AWAY FROM ALL LIGHTING FIXTURES. 10. WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILINGS, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNIMPEDED. 11. WHERE CONDUIT IS USED, THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN DEDICATED CONDUITS. ALL CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 AND CONTRACT DOCUMENTS. ALL CONDUITS SHALL BE SIZED IN ACCORDANCE WITH NEC AND SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. 12. ALL SYSTEM WIRING AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC AND MANUFACTURER'S REQUIREMENTS. WIRING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES. ALL WIRING SHALL TEST FREE FROM ALL GROUNDS, SHORTS AND EMI. 13. NO A.C. CARRYING CONDUCTORS ARE PERMITTED TO SHARE RACEWAYS WITH ANY FIRE ALARM INITIATING AND INDICATING CIRCUIT. 14. ALL AC ELECTRICAL CIRCUITS FEEDING THE FIRE ALARM CONTROL EQUIPMENT SHALL BE EQUIPPED WITH CIRCUIT BREAKER LOCKOUT DEVICE IN ACCORDANCE WITH NFPA 72. 15. THE CONTRACTOR SHALL TEST ALL WIRES AND CIRCUITS TO ENSURE THEY ARE FREE OF ANY GROUNDS AND SHORTS PRIOR TO COMMISSIONING OF THE SYSTEM. 16. ALL AUXILIARY ALARM RELAYS MUST BE INSTALLED WITHIN 3 FEET OF THE EQUIPMENT TO BE CONTROLLED IN ACCORDANCE WITH ALL NFPA 72 REQUIREMENT. 17. ALL FIRE ALARM DEVICES AND EQUIPMENT SHALL BE LABELED UNIQUE IDENTIFICATION NUMBER. LABELS TO BE SIMILAR TO "BROTHER P-TOUCH" BLACK LETTERING ON WHITE BACKGROUND, SELF-ADHESIVE TAPE. ALL DEVICE LABELS SHALL BE INSTALLED PRIOR TO SYSTEM CHECKOUT. 18. ALL EQUIPMENT EXPOSED TO THE ENVIRONMENT OR INSTALLED IN PROXIMITY TO AREAS WITH HIGH MOISTURE, OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL PROVIDED WITH ENCLOSURES AND OR BACKBOXES RATED FOR THE ENVIRONMENTAL CONDITIONS. 19. THE STROBE INTENSITY OF ALL VISUAL INDICATING APPLIANCES SHALL BE IN ACCORDANCE WITH NFPA 72 AND UL 1971. STROBE CANDELA RATINGS SHALL BE PROVIDED IN ACCORDANCE WITH DEVICE LOCATIONS AND SHALL CONFORM TO ALL ICC/ANSI 117 AND NFPA 72 INSTALLATION REQUIREMENTS. CONTRACTOR SHALL PROVIDE THE REQUIRED CANDELA POWER AND LOCATE ALL VISUAL INDICATING APPLIANCES AS REQUIRED TO MEET THE REQUIREMENTS OF ALL ABOVE REFERENCED CODES AND STANDARDS. 20. SMOKE ALARMS INSTALLED LESS THAN 10FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE SHOULD BE PHOTOELECTRIC SMOKE ALARMS. PHOTOELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY IFC SECTION 907.2.11 OR 907.2.11.2. 21. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY IFC SECTION 907.2.11 OR 907.2.11.2. 22. MINIMUM SIZE CONDUIT TO BE 3/4". ALL FIRE ALARM CIRCUIT WIRED WITH MIN. 18 AWG FPLR. 23. FIRE ALARM CONTROL PANEL WILL BE MONITORED BY A 24 HR UL LISTED CENTRAL STATION.		A AMPERE AF AMPERE FRAME AFF ABOVE FINISH FLOOR AFG ABOVE FINISH GRADE AHU AIR HANDLER UNIT AIC AMPS INTERRUPTING CURRENT ATS AUTOMATIC TRANSFER SWITCH C CONDUIT CB CIRCUIT BREAKER CT CURRENT TRANSFORMER E.C. ELECTRICAL CONTRACTOR ELEC ELECTRICAL EMT ELECTRICAL METALLIC TUBING (ED) EXISTING TO BE DEMOLISHED (E.) EXISTING TO REMAIN (ER) EXISTING TO BE RELOCATED FSD FIRE/SMOKE DAMPER FU FUSE G/GND GROUNDING GFI GROUND FAULT INTERRUPTER HP HORSE POWER HZ HERTZ JB JUNCTION BOX KV KILOVOLT KVA KILOVOLT AMPERE KW KILOWATT LSI LONG,SHORT,INSTANTANEOUS TRIP SETTING LTC LIGHTING MAX MAXIMUM MCB MAIN CIRCUIT BREAKER MLO MAIN LUGS ONLY (N.) NEW NIS NOT IN SCOPE NTS NOT TO SCALE Ø PHASE PNL PANEL/PANELBOARD PRI PRIMARY PT POTENTIAL TRANSFORMER (RL) EXISTING SHOWN RELOCATED SEC SECONDARY TYP TYPICAL U.O.N UNLESS OTHERWISE NOTED UPS UNINTERRUPTIBLE POWER SUPPLY V VOLT W WATT XFMR TRANSFORMER		 CIRCUIT BREAKER  DISCONNECT SWITCH  TRANSFORMER  FUSE  FUSED SWITCH  GROUND CONNECT  CURRENT TRANSFORMER  POTENTIAL TRANSFORMER  METER  MOTOR  DELTA CONNECTION  GROUNDED WYE CONNECTION  TRANSIENT VOLTAGE SURGE SUPPRESSION  POINT OF CONNECTION TO EXISTING EQUIPMENT	
		MOUNTING HEIGHT - ELECTRICAL/FIRE ALARM EQUIPMENT		LEGENDS: ELECTRICAL	
		6" BELOW CEILING	TV MONITOR OUTLETS, EXIT SIGNS, BATTERY UNITS, EMERGENCY REMOTE HEADS AND FIRE ALARM AUDIBLE DEVICES	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		CENTERED ABOVE DOOR OR WINDOW OPENING	WARNING AND SIGNALING FIXTURES/SIGNS	LEGENDS: ELECTRICAL	
		6'-0"	FIRE ALARM VISUAL OR VISUAL/AUDIBLE DEVICES SHALL BE MOUNTED SO THAT THE ENTIRE LENS IS NOT LESS THAN 80" AND NOT GREATER THAN 96" ABOVE FINISHED FLOOR. IF CEILING DOES NOT PERMIT A MOUNTING HEIGHT OF AT LEAST 80" ABOVE FINISHED FLOOR, THE LENS OF THE DEVICES SHALL BE WITHIN 6" OF THE FINISHED CEILING	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		6'-6"	TOP OF FLUSH AND SURFACE MOUNTED ELECTRICAL LIGHTING OR POWER PANELBOARDS AND TELEPHONE CABINETS.	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		6'-3"	TOP OF BACK MOUNTED WALL EXIT FIXTURES(NOT MOUNTED ABOVE DOOR)	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		6'-0"	TOP OF FIRE ALARM CONTROL PANEL, TOP OF THE HIGHEST ELECTRICAL SAFETY DISCONNECT SWITCHES, MAGNETIC STARTERS AND CONTRACTORS.	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		4'-6"	WALL-MOUNTED TELEPHONE AND PAY STATIONS, WALL-MOUNTED INTERCOM, NURSECALL STATIONS, CLOCK CONTROL PANEL(3'-6" AT HANDICAP LOCATIONS) AND FIRE ALARM ANNUNCIATION PANEL	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		3'-10"	ELECTRICAL PANEL IN MULTI-FAMILY DWELLING SUCH THAT HIGHEST BREAKER IS 46"AFF. WALL MOUNTED ELECTRICAL DEVICE LIGHTING SWITCHES, MANUAL MOTOR STARTERS, THERMOSTATS AND FIRE ALARM MANUAL PULL STATIONS; SHALL BE MOUNTED AT 46" TO THE CENTER OF THE DEVICE AND SUCH THAT THE MAXIMUM HEIGHT FOR THE HIGHEST OPERABLE FUNCTION DOES NOT EXCEED 48"	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	
		2'-0"	ELECTRICAL RECEPTACLE WITHIN ELECTRICAL/MECHANICAL ROOMS AND ELEVATOR MACHINE ROOMS	 20A NON-FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  20A FUSED DISCONNECT SWITCH(AMPERE RATING SHOWN)  MOTOR  JUNCTION BOX  EXHAUST FAN  EQUIPMENT DESIGNATION  HOME RETURN TO PANEL  CONCEALED WIRING IN WALL/CEILING  CONCEALED WIRING IN OR UNDER FLOOR SLAB OR ACCESS FLOOR  INDICATES CONDUIT DOWN  INDICATES CONDUIT UP  DUPLEX RECEPTACLE OUTLET  QUADPLEX RECEPTACLE OUTLET  DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED  QUADPLEX RECEPTACLE OUTLET FLOOR MOUNTED  SPECIAL PURPOSE RECEPTACLE OUTLET(NEMA CONFIGURATION AS INDICATED ON DRAWING)  RECEPTACLE DESIGNATIONS: GFI DENOTES GROUND FAULT INTERRUPTER IG DENOTES ISOLATED GROUND RECEPTACLE TP DENOTES TAMPER PROOF RECEPTACLE WP DENOTES RECEPTACLE WEATHERPROOF ENCLOSURE + DENOTES RECEPTACLE BE MOUNTED ABOVE COUNTER/LAVATORY COORDINATE HEIGHT WITH ARCHITECT  SWITCH DESIGNATIONS: 3a DENOTES THREE-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE 4a DENOTES FOUR-WAY SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE Da DENOTES DIMMER SWITCH, LOWER CASE LETTER DENOTES LIGHTING CONTROL ZONE OS DENOTES OCCUPANCY SENSOR SWITCH JS DENOTES DOOR JAMB SWITCH PT DENOTES PROGRAMMABLE TIME SWITCH	

ELECTRICAL DRAWING LIST

SHEET NUMBER	DRAWING TITLE			
E000	ELECTRICAL COVER SHEET	●		
E100	ELECTRICAL POWER & FA PLAN	●		
E300	ELECTRICAL SINGLE LINE & LOAD CALC.	●		
E400	ELECTRICAL SPECIFICATION	●		
E401	ELECTRICAL SPECIFICATION	●		

ISSUE FOR REVIEW 12/05/2024



1 ELECTRICAL SINGLE LINE DIAGRAM
SCALE: N.T.S.

ELECTRICAL LOAD CALCULATION

PANEL NAME: GP

Location: GYM

Mounting: Surface

Volts: 208

Phases: 3

Wires: 4

A.I.C Rating

Mains Ty

Mains Ra

MCB Rating

10k

MLO

100

N/A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	TREADMILL	20	1	1500	3680					2	45	MINI-SPUT	2
3	ELLIPTICAL CROSS	20	1			1500	3680						4
5	POWERMILL CLIMBER	20	1					600	1500	1	20	TREADMILL	6
7	BIKE MACHINE	20	1	1500						1	20	SPARE	8
9	GENERAL LIGHT	20	1			500				1	20	SPARE	10
11	WATER DISPENSER	20	1					300		1	20	SPARE	12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
Total Load:				6680		5680		2400					
Total Amps:				18.5		15.8		6.7					
Load Classification				Connected Load		Demand Factor		Demand Load		Panel Loads			
Load - Light				500		100%		500					
Load-Receptacles				0		Note.2		0		Total Connect Load		14760	
Load-Largest Motor				0		125%		0		Total Demand Load		14760	
Load-Kitchen Equipment				0		65%		0		Total Connect Amp		41	
Load-MISC				14260		100%		14260		Total Demand Amp		41	

Notes:

1. Provide GFCI Protection for the device.

2. First 10kVA at 100%, Remainder at 50%

3. Provide an approved breaker locking device and mark the circuit breaker in red.

DWELLING UNIT LOAD CALCULATIONS (NEC 2020-SECTION 220)		
PROJECT: 1000 1/2 3rd Ave(Existing (105)Residential Units Plus (1) additional Gym)		
UNIT NUMBER:	(105) Units	
Total SQUARE FOOTAGE:	63840	
	LOAD(WATTS)	NEC SECTION
LIGHTING/RECEPT. (105 UNITS)	191520	NEC 220.83(A)
SMALL APPLIANCE(105) UNITS	315000	NEC 220.83(A)
DISHWASHER(24UNITS)	N/A	NEC 220.83(A)
HOOD/MICROWAVE(102 UNITS)	105000	NEC 220.83(A)
WATER HEATER(ELEC)	N/A	NEC 220.83(A)
LAUNDRY RECEPT.(WASHER)	N/A	NEC 220.83(A)
DRYER(ELEC)	N/A	NEC 220.83(A)
TOTAL CONNECTING LOAD	611520	
<u>DEMAND OPTION CALCULATION (NEC 220.83(A))</u>		LOAD(WATTS)
HVAC/ HEATING LOAD FROM	=	N/A
EXISTING BUILDING BOILER SYSTEM		
LIGHTING/RECEPT., SMALL APPLIANCE	=	100% OF FIRST 8KVA
RANGE, WATER HEATERS, WASHER, DRYER AND		249408
ALL PERMANENTLY CONNECTED MOTORS		
TOTAL EXISTING DEMAND		249408
TOTAL NEW GYM LOAD(208V/3PH)		17760
TOTAL AMP (208V/3PH)		742

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MEP

SEAL

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prosecution by fullest extent of the law.

1	12/05/2024	ISSUE FOR REVIEW
#	Date	Issue

Project Title

ROBINSON TOWERS
1000 1/2 3RD AVE
ASBURY PARK, NJ 07712

Project Description

Applicant
ASBURY PARK HOUSING AUTHORIT

Project Number:	24-1679
Drawn by	: URE
Checked by	:
Scale	: As Noted

Sheet Title

ELECTRICAL SINGLE LINE &
LOAD CALCULATION

Sheet Number

E300

ELECTRICAL SPECIFICATIONS: SECTION 1 (GENERAL)	
A. GENERAL	E. SUBMITTALS
1. ELECTRICAL EQUIPMENT, DEVICES, AND CONDUIT ROUTINGS ARE SHOWN ON DRAWINGS TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY AND MAY NOT INDICATE ALL EQUIPMENT AND DEVICES REQUIRED FOR A COMPLETE SYSTEM. THE ELECTRICAL CONTRACTOR (EC) SHALL PROVIDE ALL REQUIRED ELECTRICAL EQUIPMENT, DEVICES, WIRE, AND CONDUIT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. COORDINATE INSTALLATION OF ELECTRICAL SYSTEMS WITH BUILDING STRUCTURE AND OTHER UTILITIES IN FIELD.	1. PRIOR TO RUSH-IN OR ORDERING ANY EQUIPMENT, SUBMIT SHOP DRAWINGS FOR EACH TYPE OF PRODUCT. INCLUDE DETAILED DIMENSIONED OUTLINE PLANS AND ELEVATIONS, AND WIRING DIAGRAMS FOR POWER, CONTROL AND SIGNAL WIRING. WIRING DIAGRAMS SHALL DIFFERENTIATE BETWEEN MANUFACTURER-INSTALLED AND FIELD-INSTALLED WIRING. UNLESS OTHERWISE NOTED, ELECTRONIC COPIES OF SUBMITTALS SHALL BE PROVIDED.
2. CONTRACTORS BIDDING ON THE PROJECT SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH ALL JOB CONDITIONS PRIOR TO SUBMITTING BID. NO EXTRA COMPENSATION SHALL BE PAID FOR EXTRA WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO DO SO. ALL WORK REQUIRED TO ACCOMMODATE EXISTING CONDITIONS, WHETHER SHOWN ON CONTRACT DRAWINGS OR NOT, SHALL BE COORDINATED AND ALL COSTS TO DO SO SHALL BE INCLUDED IN THE BIDS. CONTRACTOR SHALL PAY EXTRA ATTENTION TO EXISTING CONDITIONS AFFECTING REMOVAL OF EXISTING EQUIPMENT AND THE ENTRANCE OF NEW EQUIPMENT.	2. SHOP DRAWINGS SUBMITTED WITHOUT CONTRACTOR'S APPROVAL STAMP SHALL NOT BE REVIEWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING OF PROPOSED EQUIPMENT PRIOR TO SUBMITTING TO ARCHITECT/ENGINEER. THE COST OF ANY REDESIGNING CAUSED BY A SUBSTITUTION OR LACK OF COORDINATION SHALL BE BORNE BY THE CONTRACTOR.
3. CONTRACTOR SHALL REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR EXACT LOCATION OF HVAC, PLUMBING OR OTHER EQUIPMENT REQUIRING ELECTRIC SERVICE. ANY DISCREPANCIES BETWEEN DRAWINGS SHALL BE CLARIFIED BY THE ARCHITECT OR ENGINEER.	3. UNLESS OTHERWISE NOTED, THE CONTRACTOR MAY SUBMIT ANOTHER EQUAL TYPE OR MANUFACTURER OTHER THAN SPECIFIED, WHERE SUCH SUBSTITUTIONS ARE ALLOWED, AND THEY ALTER THE DESIGN OR SPACE REQUIREMENTS, THE CONTRACTOR SHALL PAY FOR ALL COSTS INVOLVED SUCH AS ARCHITECTS AND ENGINEER'S REDESIGN FEES AND ANY ADDITIONAL CONSTRUCTION COSTS FOR HIS OWN WORK AND THAT OF OTHER TRADES. EQUIPMENT SHALL NOT BE PURCHASED, OR WORK STARTED UNTIL SHOP DRAWINGS ARE APPROVED. SHOULD A SUBSTITUTION BE SUBMITTED FOR REVIEW, IT MUST BE APPROVED. THERE SHALL BE NO COST TO THE OWNER FOR A PRODUCT BY THE LISTED MANUFACTURERS.
4. COORDINATE ELECTRICAL WORK WITH THE WORK OF OTHER TRADES SO AS TO MINIMIZE INTERFERENCES AND TO MINIMIZE INTERRUPTION OF SERVICE IN ANY AREA.	F. QUALITY ASSURANCE
5. ELECTRICAL WORK SHALL BE DONE AT SUCH TIME, AND IN SUCH MANNER, TO LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF THE SITE'S AND/OR BUILDING'S ACTIVITIES. PROVISIONS SHALL BE MADE TO PERMIT THE USE OF ALL EXISTING ELECTRICAL SYSTEMS AT ALL TIMES. PROVIDE TEMPORARY FACILITIES TO SECURE THESE CONDITIONS AND REMOVE SUCH TEMPORARY FACILITIES WHEN NO LONGER REQUIRED.	1. INSTALLER QUALIFICATIONS: PERSONNEL WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE WORK INDICATED, AND WHOM IS TRAINED AND CERTIFIED BY NFPA 70E AND OSHA REGULATION 29 CFR 1910.269.
6. ELECTRICAL SHUTDOWN WORK SHALL BE SCHEDULED AT SUCH TIME AND IN SUCH MANNER AS DIRECTED AND APPROVED BY THE OWNER AND TENANT. PROVIDE A MINIMUM ONE (1) WEEK NOTICE.	2. OBTAIN EACH TYPE OF PRODUCT THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER.
7. WHERE SHUTDOWN PERIODS CANNOT BE OF DURATION TO ACCOMMODATE THE NEW WORK, THE CONTRACTOR SHALL PERFORM THE WORK IN A SERIES OF PRE-PLANNED STAGES OF MINIMUM ALLOWABLE SHUTDOWN PERIODS. PROVIDE TEMPORARY FACILITIES TO ALLOW RE-ENERGIZING OF SERVICE BETWEEN WORKING STAGES.	3. PROVIDE PRODUCTS BY ONE OF THE MANUFACTURERS LISTED IN SECTION 2 ARTICLES HEREIN.
8. THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL TRADES AS REQUIRED FOR CONSTRUCTION OR AS REQUIRED TO MAINTAIN NORMAL OPERATIONS OF THE SITE AND/OR BUILDING'S ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, MAKING ALL ARRANGEMENTS WITH THE UTILITY CO. WHERE ADEQUATE, EXISTING SERVICES MAY BE USED UPON PERMISSION OF OWNER.	4. THE PRODUCTS SHALL BE LISTED AND LABELED AS DEFINED BY NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR EARTH AND WEATHER RESISTANT. THE CONTRACTOR SHALL BE PROTECTED BY APPROVED FITTINGS AND TREATMENT. FERROUS METALS NOT OF CORROSION-RESISTANT STEEL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 OR ASTM A153 EXCEPT WHERE OTHER EQUIVALENT PROTECTIVE TREATMENT IS SPECIFICALLY APPROVED IN WRITING.
9. CONTRACTOR, UPON COMPLETION OF EACH DAYS WORK, SHALL REMOVE ALL TOOLS, MATERIALS, APPARATUS AND RUBBISH OF ANY SORT. PREMISES SHALL BE KEPT NEAT AND ORDERLY AND IN A BROOM CLEAN CONDITION.	G. OPERATION AND MAINTENANCE DATA
10. CUTTING AND PATCHING SHALL BE DONE BY THIS CONTRACTOR AS REQUIRED FOR THE INSTALLATION OF ELECTRICAL WORK. CUTTING SHALL BE DONE BY COMPETENT MECHANICS. SURFACES SHALL BE PATCHED AND REFINISHED TO MATCH ORIGINAL SURFACE CONDITION.	1. SUBMIT THREE (3) BOUND MANUALS CONTAINING COMPLETE TYPE WRITTEN INSTRUCTIONS ON OPERATION, CARE, AND MAINTENANCE FOR EACH TYPE OF PRODUCT. INCLUDE THE FOLLOWING:
11. WORK SHALL NOT BE COVERED OR CONCEALED UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED. ANY WORK THAT IS COVERED OR CONCEALED PRIOR TO INSPECTION AND TESTING SHALL BE UNCOVERED, AND AFTER IT HAS BEEN INSPECTED, TESTED, AND APPROVED, SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.	1.1. MANUFACTURER'S PRODUCT DATA SHEETS STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
12. METALLIC MATERIALS SHALL BE PROTECTED AGAINST CORROSION. EQUIPMENT ENCLOSURES SHALL BE GIVEN A RUST-INHIBITING TREATMENT AND THE STANDARD FINISH BY THE MANUFACTURER. ALUMINUM SHALL NOT BE USED IN CONTACT WITH EARTH AND WHEN IN CONTACT WITH DISSIMILAR METAL, SHALL BE PROTECTED BY APPROVED FITTINGS AND TREATMENT. FERROUS METALS NOT OF CORROSION-RESISTANT STEEL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 OR ASTM A153 EXCEPT WHERE OTHER EQUIVALENT PROTECTIVE TREATMENT IS SPECIFICALLY APPROVED IN WRITING.	1.2. NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY.
13. PROVIDE ACCESS PANELS AS REQUIRED BY NFPA 70 (NEC) FOR ACCESS TO ELECTRICAL EQUIPMENT AND DEVICES LIKELY TO REQUIRE EXAMINATION, ADJUSTING, SERVICING, OR MAINTENANCE. CEILING ACCESS PANELS SHALL HAVE AN OPENING NOT SMALLER THAN 22 X 22 AND 22 X 30 IN OTHER LOCATIONS. ACCESS PANELS SHALL MATCH ADJACENT FINISHES.	1.3. COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.
	1.4. SPARE PARTS LISTS.
	1.5. WIRING DIAGRAMS.
	1.6. WARRANTIES.
B. SCOPE OF WORK	H. WARRANTY
1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTAL CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS APPLY TO THIS SPECIFICATION.	1. SUBMIT A WRITTEN WARRANTY TO OWNER AGREEING TO REPAIR OR REPLACE PRODUCTS AND ASSOCIATED COMPONENTS THAT FAIL IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. WARRANTY SHALL BE COMPREHENSIVE, NO DEDUCTIBLE SHALL BE ALLOWED FOR TRAVEL, TIME, SERVICE HOURS, OR REPAIR PARTS.
2. FURNISH ALL LABOR, EQUIPMENT, MATERIALS, SERVICES, TESTING, APPURTENANCES, AND PROGRAMMING REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, MANUFACTURER'S INSTRUCTIONS, AND CODES AND REGULATIONS IN FORCE.	I. CERTIFICATIONS
3. PROCURE, ALL PERMITS AND INSPECTIONS AND PAY FOR SAME.	1. PROVIDE THE OWNER WITH ALL APPLICABLE CERTIFICATIONS REQUIRED BY THE PROJECT.
4. THE ELECTRICAL WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:	2. AT THE END OF THE PROJECT, PROVIDE THE OWNER WITH A LETTER STATING THAT THE PROJECT HAS BEEN COMPLETED IN COMPLIANCE WITH CODES, STANDARDS AND THE CONTRACT DOCUMENTS.
4.1. DEMOLITION AND INSTALLATION OF LIGHTING FIXTURES.	
4.2. DEMOLITION AND INSTALLATION OF WIRING DEVICES.	
4.3. DEMOLITION AND INSTALLATION OF FIRE ALARM EQUIPMENT AND DEVICES.	
4.4. DEMOLITION AND INSTALLATION OF POWER DISTRIBUTION EQUIPMENT.	
4.5. DEMOLITION AND RELOCATION OF TELEPHONE AND DATA OUTLETS.	
4.6. INSTALLATION OF TELEPHONE AND DATA RACEWAYS.	
4.7. DEMOLITION AND INSTALLATION OF ACCESS CONTROL SYSTEM EQUIPMENT AND DEVICES.	
4.8. DEMOLITION OF HVAC AND PLUMBING EQUIPMENT FEEDERS.	
4.9. WIRING OF HVAC AND PLUMBING EQUIPMENT.	
C. DEFINITIONS	
1. WHEREVER THE WORD "PROVIDE" APPEARS ON THE DRAWINGS OR IN THE SPECIFICATIONS, IT SHALL MEAN FURNISH AND INSTALL WITH ALL REQUIRED WORK, MATERIALS, EQUIPMENT AND APPURTENANCES.	
2. WHEREVER THE WORD "FURNISH" APPEARS ON THE DRAWINGS OR IN THE SPECIFICATION, IT SHALL MEAN TO PURCHASE AND DELIVER TO THE INSTALLING CONTRACTORS DEVICES, EQUIPMENT AND ACCESSORIES AS SPECIFIED.	
3. WHEREVER THE WORD "INSTALL" APPEARS ON THE DRAWINGS OR IN THE SPECIFICATION, IT SHALL MEAN TO RECEIVE, HANDLE, INSPECT FOR PROPER CONDITION AND INSTALL WITH ALL REQUIRED ASSOCIATED WORK MATERIALS, EQUIPMENT AND APPURTENANCES.	
D. RECORD DRAWINGS	
1. KEEP ONE SET OF CONTRACT DRAWINGS ASIDE AT THE SITE, NEATLY AND CLEARLY. MARK ALL DEVIATIONS FROM CONTRACT DRAWINGS AND ANY DATA THAT IS PERTINENT FOR COMPLETION OF DOCUMENTS. AT COMPLETION OF PROJECT, TRANSFER MARKS TO A SET OF REPRODUCIBLE DRAWINGS AND DELIVER THIS SET OF DRAWINGS TO ARCHITECT/ENGINEER FOR SUBMISSION TO OWNER PRIOR TO FINAL ACCEPTANCE. A FULL SET OF ELECTRONIC, SCANNED, DRAWINGS IN ADOBE .PDF FORMAT SHALL BE PROVIDED ALONG WITH THE HARDCOPIES.	

ELECTRICAL SPECIFICATIONS: SECTION 2 (PRODUCTS)	
A. GROUNDING	E. RACEWAYS AND BOXES
1. COMPLY WITH UL 467 FOR GROUNDING AND BONDING MATERIALS AND EQUIPMENT.	1. RIGID STEEL CONDUIT (RSC): ANSI C80.1.
2. INSULATED CONDUCTORS: COPPER WIRE OR CABLE INSULATED FOR 600 V.	2. ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3.
3. BARE COPPER CONDUCTORS:	3. FLEXIBLE METALLIC CONDUIT (FMC): INTERLOCKED GALVANIZED STEEL.
3.1. SOLID CONDUCTORS: ASTM B 3.	4. LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC): FMC WITH PVC JACKET.
3.2. STRANDED CONDUCTORS: ASTM B 8.	5. NONMETALLIC-SHEATHED CABLE(NM): TYPE NM, NMC AND NMS.
3.3. TINNED CONDUCTORS: ASTM B 33.	6. FITTINGS FOR CONDUIT: NEMA FB 1.
4. GROUND BUS: RECTANGULAR BARS OF ANNEALED COPPER, 1/4 X 2 INCHES IN CROSS SECTION. STAND-OFF INSULATORS FOR MOUNTING.	6.1. EMT FITTINGS: STEEL COMPRESSION FOR 2 INCH AND SMALLER. STEEL SET-SCREW FOR 2-1/2 INCH AND LARGER. DIE-CAST NOT PERMITTED.
5. CONNECTORS	7. SHEET METAL OUTLET AND DEVICE BOXES: NEMA FB 1, FERROUS ALLOY, TYPE FD, WITH GASKETED COVER.
5.1. LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS IN WHICH USED FOR SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS CONNECTED.	8. SHEET METAL PULL AND JUNCTION BOXES: NEMA OS 1.
5.2. BOLTED CONNECTORS FOR CONDUCTORS AND PIPES: COPPER OR COPPER ALLOY, PRESSURE TYPE WITH AT LEAST TWO BOLTS. PIPE CONNECTORS SHALL BE CLAMP TYPE, SIZED FOR PIPE.	10. CAST METAL PULL AND JUNCTION BOXES: NEMA FB 1, GALVANIZED, CAST IRON WITH GASKETED COVER.
5.3. WELDED CONNECTORS: EXOTHERMIC-WELDING KITS OF TYPES RECOMMENDED BY KIT MANUFACTURER FOR MATERIALS BEING JOINED AND INSTALLATION CONDITIONS.	11. SURFACE RACEWAYS: TWO-PIECE, GALVANIZED STEEL WITH SNAP-ON COVERS, CONTINUOUS DIVIDER, AND GRAY BAKED ENAMEL FINISH: WIREMOLD 64000 SERIES OR APPROVED EQUAL.
5.4. BUS-BAR CONNECTORS: MECHANICAL TYPE, CAS SILICON BRONZE, SOLDERLESS COMPRESSION-TYPE WIRE TERMINALS, AND LONG-BARREL, TWO-BOLT CONNECTION TO GROUND BUS BAR.	12. SLEEVES FOR RACEWAYS: ASTM A 53/A 53M, TYPE E, GRADE B, SCHEDULE 40, GALVANIZED STEEL, PLANE ENDS.
5.5. COMPRESSION CABLE CONNECTORS: IRREVERSIBLE GROUNDING CONNECTORS.	13. RACEWAY
6. APPLICATIONS:	13.1. OUTDOOR EXPOSED LOCATIONS: RIGID STEEL CONDUIT.
6.1. CONDUCTORS: INSTALL SOLID CONDUCTORS FOR NO. 10 AWG AND SMALLER AND STRANDED FOR NO. 8 AND LARGER.	13.2. OUTDOOR BOXES, ABOVEGROUND: NEMA 250, TYPE 3R.
6.2. UNDERGROUND GROUNDING CONDUCTORS: INSTALL BARE TINNED-COPPER, NO. 4/0 AWG MINIMUM.	13.3. INTERIOR LOCATIONS: EMT (DRY AREAS), RSC (DAMP OR WET AREAS)
6.3. GROUNDING ELECTRODE CONDUCTORS: BARE TINNED-COPPER.	13.4. INTERIOR BOXES: NEMA 250, TYPE 1.
6.4. BONDING JUMPERS: BARE COPPER.	13.5. CLEAN PROCESS LOCATIONS: PVC-COATED STEEL CONDUIT.
6.5. EQUIPMENT GROUNDING CONDUCTORS: COPPER WITH GREEN-COLORED INSULATION.	13.6. HAZARDOUS AREAS: RSC WITH SEAL FITTINGS.
7. CONDUCTOR TERMINATIONS AND CONNECTIONS:	13.7. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING MOTORS, CONDENSING UNITS, AND TRANSFORMERS): LFMC, MAXIMUM LENGTH 3 FEET 0 INCH.
7.1. PIPE AND EQUIPMENT GROUNDING CONDUCTOR TERMINATIONS: BOLTED CONNECTIONS.	13.8. ENCLOSURES: NEMA 250 TYPE 1, EXCEPT USE NEMA 250 TYPE 3R IN DAMP OR WET LOCATIONS.
7.2. UNDERGROUND CONNECTIONS (EXCEPT AT TEST WELLS): WELDED CONNECTORS.	13.9. MINIMUM RACEWAY SIZE: 3/4-INCH TRADE SIZE.
7.3. CONNECTION TO GROUND RODS AT TEST WELLS: BOLTED CONNECTORS.	13.10. ONE AND TWO-FAMILY DWELLINGS AND THEIR ATTACHED OR DETACHED GARAGES AND STORAGE: NM.
7.4. CONNECTION TO STRUCTURAL STEEL: WELDED CONNECTORS.	13.11. ONE-TO-SEVERAL DWELLINGS PERMITTED TO BE OF TYPES III,IV AND V CONSTRUCTION: NM.
	13.12. OTHER STRUCTURES PERMITTED TO BE OF TYPES III,IV AND V CONSTRUCTION. CABLES SHALL BE CONCEALED WITH WALL, FLOORS OR CEILING. PROVIDE A MINIMUM 1/4 INCH BARRIER OF MATERIAL THAT HAS AT LEAST A 15-MINUTE FINISH RATING: NM.
B. HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	14. EXPANSION FITTINGS SHALL BE PROVIDED WITH INTERNAL BONDING JUMPERS.
1. SEISMIC BRACING DRAWINGS AND CALCULATIONS SHALL BE PROVIDED BY THE CONTRACTOR.	F. WIRING DEVICES
2. SEISMIC BRACING DESIGN AND LAYOUT DRAWINGS SHALL BE EITHER PREPARED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN Pennsylvania OR PREPARED BY QUALIFIED DESIGNER/ENGINEER WITH EXPERIENCE IN THE DESIGN OF SEISMIC BRACING FOR ELECTRICAL SYSTEMS, AND REVIEWED BY A REGISTERED STRUCTURAL ENGINEER.	1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
3. STEEL SLOTTED SUPPORT CHANNEL: HOT DIPPED GALVANIZED 12-GAGE THICK STEEL WITH HOLES 1-1/2 INCHES ON CENTER.	1.1. HUBBELL
4. HANGER RODS: THREADED HIGH TENSILE STRENGTH GALVANIZED CARBON STEEL WITH FREE RUNNING THREADS, WITH MINIMUM 1/4 INCH DIAMETER.	1.2. ARROW HART
4.1. PROVIDE PROTECTIVE CAPS ON THE END OF EACH HANGER ROD.	1.3. LEVITON
5. BEAM CLAMPS: MALLEABLE IRON WITH TAPERED HOLE IN BASE AND BACK TO ACCEPT EITHER BOLT OR HANGER ROD. SET SCREW SHALL BE HARDENED STEEL.	1.4. PASS & SEYMOUR/LEGRAND
6. CONDUIT CLAMPS FOR TRAPEZE HANGERS: GALVANIZED STEEL, NOTCHED TO FIT TRAPEZE WITH SINGLE BOLT TO TIGHTEN.	2. ALL DEVICES SHALL BE SPECIFICATION GRADE.
7. CONDUIT CLAMPS: ONE-HOLE MALLEABLE IRON FOR SURFACE MOUNTED CONDUITS.	3. SWITCHES: 120/277VAC, 20 AMP. COMPLY WITH NEMA WD 1, UL 20, AND FS W-5-898.
8. CABLE TIES: SELF-LOCKING HIGH STRENGTH NYLON WITH 185 DEGREE F TEMPERATURE RATING.	4. DUPLEX RECEPTACLES: 125VAC, 20 AMP. COMPLY WITH NEMA WD1, NEMA WD6 CONFIGURATION 5-20R, UL 498, AND FS W-4-598.
9. ALL CONDUIT SUPPORTS SHALL BE DESIGNED WITH A MINIMUM OF 50% SPARE CAPACITY FOR FUTURE CONDUITS.	5. ISOLATED GROUND RECEPTACLES: 125VAC, 20 AMP. COMPLY WITH NEMA WD1, NEMA WD6 CONFIGURATION 5-20R, UL 498, AND FS
10. FIRE STOPPING: UL CLASSIFIED AND/OR FM SYSTEM APPROVED AND TESTED TO THE REQUIREMENTS OF ASTM E 814 AND UL 1479. FIRE STOPPING MATERIAL SHALL BE FM APPROVED WITH AN HOUR RATING GREATER THAN OR EQUAL TO THE ASSOCIATED CEILING, FLOOR, OR WALL CABLE OR CONDUIT PENETRATES.	6. GFCI RECEPTACLES: STRAIGHT BLADE, NON-FEED-THROUGH TYPE WITH AUTO-MONITORING (SELF-TEST) FOR PERIODIC AUTOMATIC TESTING OF GFCI DEVICE AND ITS ABILITY TO RESPOND TO A GROUND FAULT. COMPLY WITH NEMA WD1, NEMA WD6, UL 498, UL 43 CLASS A, AND FS W-C-598.
11. CONCRETE BASES: COORDINATE WEIGHTS, DIMENSIONS, AND INSTALLATION DETAILS FOR FREE-STANDING EQUIPMENT WITH THE GENERAL CONTRACTOR.	6.1. DAMP AND WET LOCATIONS: LISTED WEATHER-RESISTANT (WR) TYPE, WITH WR MARKING ON FACE WHEN INSTALLED.
C. ELECTRICAL IDENTIFICATION	7. SPECIAL PURPOSE RECEPTACLES: CONFIGURATION, VOLTAGE AND AMPERE RATINGS AS INDICATED IN SCHEDULE ON DRAWINGS.
1. EQUIPMENT IDENTIFICATION LABELS: ENGRAVED, LAMINATED ACRYLIC WITH TAPED BACKS AND DRILLED HOLES FOR SCREW MOUNTING. SCREWS SHALL BE STAINLESS STEEL.	8. FLOOR BOXES: PROVIDE PRODUCT INDICATED IN SCHEDULE ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE ALTERNATE MANUFACTURERS.
2. COLOR FOR PRINTED LEGEND: BLACK LETTERS ON WHITE FIELD.	8.1. TYPE: MODULAR, FLUSH-TYPE, DUAL-SERVICE UNITS SUITABLE FOR WIRING METHOD USED. ABOVE GRADE BOXES SHALL BE STAMPED-STEEL AND APPROVED FOR USE ON ABOVE GRADE FLOORS. ON GRADE BOXES SHALL BE CAST-STEEL AND BE APPROVED FOR USE IN ON GRADE FLOORS.
2.1. LEGEND: INDICATE EQUIPMENT DESIGNATION, VOLTAGE, PHASE, AND NUMBER OF WIRES.	9. POKE-THRU ASSEMBLIES: PROVIDE PRODUCT INDICATED IN SCHEDULE ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE ALTERNATE MANUFACTURERS.
	9.1. DESCRIPTION: COMPLY WITH UL 514 SCRUB WATER EXCLUSION REQUIREMENTS, LISTED AND LABELED FOR FIRE RATING OF FLOOR-CEILING ASSEMBLY. FACTORY-FABRICATED AND -WIRED ASSEMBLY OF BELOW-FLOOR JUNCTION BOX WITH MULTICHANNELLED, THROUGH-FLOOR RACEWAY/FIRESTOP UNIT AND DETACHABLE MATCHING FLOOR SERVICE OUTLET ASSEMBLY, OR OCCUPANCY MODE.
D. CONDUCTORS AND CABLES	10. FINISH: UNLESS OTHERWISE NOTED, ALL FINISHES SHALL BE SELECTED BY THE ARCHITECT.
1. INSULATED CURRENT CARRYING WIRE AND GROUNDING CONDUCTORS SHALL BE COPPER AND SHALL CONFORM TO NFPA 70.	10.1. NORMAL CIRCUITS: GRAY PLASTIC
2. COPPER CONDUCTORS: COMPLY WITH NEMA WC 70/ICEA S-95-658.	10.2. EMERGENCY CIRCUITS: RED PLASTIC.
3. CONDUCTOR INSULATION: COMPLY WITH NEMA WC 70/ICEA S-95-658 FOR TYPE THHN-THWN-2.	10.3. UPS CIRCUITS: [ORANGE] PLASTIC. ORANGE IS ONLY APPLICABLE FOR ISOLATED GROUND SYSTEMS
4. MULTICONDUCTOR CABLE: COMPLY WITH NEMA WC 70/ICEA S-95-658 FOR METAL CLAD CABLE, TYPE MC, WITH GALVANIZED INTERLOCKING STEEL ARMOR AND FULL SIZE GREEN INSULATED COPPER GROUND WIRE.	11. COVER PLATES: ONE PIECE TO SUIT WIRING DEVICES INSTALLED.
5. VARIABLE FREQUENCY CONTROLLER (VFC) CABLE: COMPLY WITH UL 1277, UL 1685, AND NFPA 70 FOR TYPE TC-ER.	11.1. INDOOR, FINISHED AREAS: PER ARCHITECTURAL DRAWINGS. IF NOT NOTED ON ARCHITECTURAL DRAWINGS PROVIDE WHITE WITH SMOOTH SATIN FINISH.
5.1. TYPE TC-ER WITH OVERSIZED CROSSLINKED POLYETHYLENE INSULATION, SPIRAL-WRAPPED FOIL PLUS 85 PERCENT COVERAGE BRAIDED SHIELDS AND INSULATED FULL-SIZE GROUND WIRE, AND SUNLIGHT- AND OIL-RESISTANT OUTER PVC JACKET.	11.2. INDOOR, UNFINISHED AND BACK OF HOUSE AREAS: GALVANIZED STEEL.
6. CONDUCTORS NO. 12 OR SMALLER SHALL BE SOLID COPPER WIRE. CONDUCTORS NO. 8 OR LARGER SHALL BE STRANDED COPPER WIRE.	11.3. OUTDOOR LOCATIONS, RECEPTACLES: NEMA 250, TYPE 3R, EXTRA-DUTY WEATHER RESISTANT, DIE-CAST ALUMINUM WHILE-IN-USE TYPE WITH FOAM GASKET AND LOCKABLE COVER.
7. CONDUCTORS NOT SMALLER THAN 12 AWG FOR POWER CIRCUITS. CONDUCTORS NOT SMALLER THAN 14 AWG FOR CONTROL CIRCUITS, UNLESS OTHERWISE NOTED.	11.4. OUTDOOR LOCATIONS, SWITCHES: NEMA 250, TYPE 3R WEATHERPROOF CLEAR SILICONE RUBBER BUBBLE PLATE.
8. COLOR-CODING FOR PHASE AND VOLTAGE LEVEL IDENTIFICATION: USE COLORS LISTED BELOW FOR FEEDER AND BRANCH CIRCUITS. COLORS SHALL BE FACTORY APPLIED, OR FOR SIZES LARGER	
THAN 6 AWG, FIELD APPLIED WITH COLOR-CODING CONDUCTOR TAPE.	G. LIGHTING CONTROL DEVICES
8.1. COLORS FOR 208Y/120V CIRCUITS:	1. MANUFACTURERS: PROVIDE PRODUCT INDICATED ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE ALTERNATE MANUFACTURERS.
8.1.1. PHASE A: BLACK.	2. DAYLIGHT-HARVESTING SWITCHING CONTROLS: CEILING-MOUNTED, LIGHT-LEVEL SENSOR UNIT, WITH SEPARATE POWER PACK, TO DETECT CHANGES IN INDOOR LIGHTING LEVELS THAT ARE PERCEIVED BY THE EYE.
8.1.2. PHASE B: RED.	3. DAYLIGHT-HARVESTING DIMMING CONTROLS: SENSING DAYLIGHT AND ELECTRICAL LIGHTING LEVELS, THE SYSTEM ADJUSTS THE INDOOR ELECTRICAL LIGHTING LEVELS. AS DAYLIGHT INCREASES, THE LIGHTS ARE DIMMED.
8.1.3. PHASE C: BLUE.	3.1. CEILING-MOUNTED DIMMING CONTROLS: SOLID-STATE, LIGHT-LEVEL SENSOR UNIT, WITH SEPARATE CONTROL UNIT, TO DETECT CHANGES IN LIGHTING LEVELS THAT ARE PERCEIVED BY THE EYE.
8.1.4. NEUTRAL: WHITE.	
8.1.5. GROUND: GREEN.	
8.1.6. ISOLATED GROUND: GREEN WITH YELLOW STRIPE	
8.2. COLORS FOR 480Y/277V CIRCUITS:	
8.2.1. PHASE A: BROWN.	
8.2.2. PHASE B: ORANGE.	
8.2.3. PHASE C: YELLOW.	
8.2.4. NEUTRAL: GRAY.	
8.2.5. GROUND: GREEN.	
9. CONDUCTOR AND CABLE METHODS SHALL CONFORM TO THE FOLLOWING, REFER TO SINGLE LINE DIAGRAM FOR OTHER CABLE REQUIREMENTS:	4. INDOOR OCCUPANCY SENSORS: WALL- OR CEILING-MOUNTED, SOLID-STATE, INDOOR OCCUPANCY SENSORS WITH A SEPARATE POWER PACK. SENSORS SHALL BE FIELD-CONFIGURABLE TO VACANCY OR OCCUPANCY MODE.
9.1. FEEDERS: TYPE THHN-THWN-2, SINGLE CONDUCTORS IN RACEWAY.	4.1. ULTRASONIC TYPE: CEILING-MOUNTED, DETECT OCCUPANTS IN COVERAGE AREA THROUGH PATTERN CHANGES OF REFLECTED ULTRASONIC ENERGY.
9.2. BRANCH CIRCUITS CONCEALED IN CEILINGS AND WALLS: METAL CLAD CABLE, TYPE MC.	4.2. DUAL-TECHNOLOGY TYPE: CEILING-MOUNTED, DETECT OCCUPANTS IN COVERAGE AREA USING PIR AND ULTRASONIC DETECTION METHODS.
9.3. BRANCH CIRCUITS HOMERUNS: TYPE THHN-THWN-2, SINGLE CONDUCTORS IN RACEWAY.	5. SWITCHBOX-MOUNTED OCCUPANCY SENSORS: AUTOMATIC WALL-SWITCH OCCUPANCY SENSOR, SUITABLE FOR MOUNTING IN A SINGLE SWITCHBOX. SENSORS SHALL BE FIELD-CONFIGURABLE TO VACANCY OR OCCUPANCY MODE.
9.4. BRANCH CIRCUITS EXPOSED IN MECHANICAL AND ELECTRICAL ROOMS: TYPE THHN-THWN-2, SINGLE CONDUCTORS IN RACEWAY.	6. EMERGENCY SHUNT RELAY: NORMALLY CLOSED, ELECTRICALLY HELD RELAY, ARRANGED FOR WIRING IN PARALLEL WITH AUTOMATIC SWITCHING CONTACTS, COMPLYING WITH UL 924.
9.5. RACEWAYS EXPOSED TO DIRECT SUNLIGHT ON OR ABOVE ROOFTOPS: TYPE XHHW-2, SINGLE CONDUCTORS IN RACEWAY.	
9.6. VFC OUTPUT CIRCUITS (IN CONDUIT, ISOLATED FROM OTHER CIRCUITS): TYPE XHHW-2, SINGLE CONDUCTORS IN RACEWAY.	
9.7. VFC OUTPUT CIRCUITS (IN CABLE TRAY OR ALONGSIDE OTHER POWER CIRCUITS): TYPE TC-ER CABLE IN RACEWAY.	
9.8. UNDERGROUND LOCATIONS: TYPE XHHW-2, SINGLE CONDUCTORS IN RACEWAY.	
9.9. CONNECTION TO LIGHTING FIXTURES: METAL CLAD CABLE, TYPE MC.	
9.10. CONNECTION TO LIGHTING FIXTURES WITH 0-10 V DIMMING: METAL CLAD CABLE, TYPE MC-PCS.	
10. SPLICES: UNLESS NOTED OTHERWISE, FEEDERS SHALL NOT BE SPLICED.	

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