

SPECIFICATIONS FOR

Renovations of Barracks No.2, JP-1 & Domestic Violence Offices Tom Green County

SAN ANGELO, TEXAS



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**POWER SYSTEMS INC.
MEP CONSULTANT
(325) 659-2235**

**100% Final CD's Set Issued
for Bidding & Construction
02/11/2022**

Project Manual

PROJECT NO. 305-14-1121

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SECTION 00 2116

GENERAL CONDITIONS FOR BIDDING

1. For General Conditions for Bidding – Refer to RFP #22-016.

Request for Proposal

Renovations of Barracks No.2 – JP-1 & Domestic Violence Offices Tom Green County

1. For Request for Proposal – Refer to RFP #22-016.

PROPOSAL FOR LUMP SUM CONTRACT

1. For BID PROPOSAL FORM – Refer to RFP #22-016.

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- A. For Supplementary Conditions – Refer to RFP #22-016.

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PREVIALING WAGE RATE

1. For PREVAILING WAGE RATES – Refer to RFP #22-016.



AIA[®] Document A101[®] – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the _____ day of _____ in the year _____
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

The Architect:
(Name, legal status, address and other information)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101[®]-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement.

AIA Document A201[®]-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

The Owner and Contractor agree as follows.

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

- Not later than () calendar days from the date of commencement of the Work.

By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date
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§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
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§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance
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§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price
------	-------

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)
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§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner’s prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner’s final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect’s final Certificate for Payment, or as follows:

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

_____ % _____

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 15.4 of AIA Document A201–2017
- Litigation in a court of competent jurisdiction
- Other *(Specify)*

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

(Name, address, email address, and other information)

§ 8.3 The Contractor’s representative:

(Name, address, email address, and other information)

§ 8.4 Neither the Owner’s nor the Contractor’s representative shall be changed without ten days’ prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

.5 Drawings

Number	Title	Date
--------	-------	------

.6 Specifications

Section	Title	Date	Pages
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.7 Addenda, if any:

Number	Date	Pages
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Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

- AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

The Sustainability Plan:

Title	Date	Pages
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Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
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.9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

(Printed name and title)

CONTRACTOR (Signature)

(Printed name and title)



AIA Document A101[®] – 2017 Exhibit A

Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the _____ day of _____ in the year _____
(In words, indicate day, month and year.)

for the following **PROJECT**:
(Name and location or address)

THE OWNER:
(Name, legal status and address)

THE CONTRACTOR:
(Name, legal status and address)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Document A201[®]–2017, General Conditions of the Contract for Construction. Article 11 of A201[®]–2017 contains additional insurance provisions.

TABLE OF ARTICLES

- A.1 GENERAL
- A.2 OWNER'S INSURANCE
- A.3 CONTRACTOR'S INSURANCE AND BONDS
- A.4 SPECIAL TERMS AND CONDITIONS

ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A201[™]–2017, General Conditions of the Contract for Construction.

ARTICLE A.2 OWNER'S INSURANCE

§ A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

§ A.2.2 Liability Insurance

The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

§ A.2.3 Required Property Insurance

§ A.2.3.1 Unless this obligation is placed on the Contractor pursuant to Section A.3.3.2.1, the Owner shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Owner's

property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section A.2.3.1.3, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

§ A.2.3.1.1 Causes of Loss. The insurance required by this Section A.2.3.1 shall provide coverage for direct physical loss or damage, and shall not exclude the risks of fire, explosion, theft, vandalism, malicious mischief, collapse, earthquake, flood, or windstorm. The insurance shall also provide coverage for ensuing loss or resulting damage from error, omission, or deficiency in construction methods, design, specifications, workmanship, or materials. Sub-limits, if any, are as follows:

(Indicate below the cause of loss and any applicable sub-limit.)

Cause of Loss	Sub-Limit
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§ A.2.3.1.2 Specific Required Coverages. The insurance required by this Section A.2.3.1 shall provide coverage for loss or damage to falsework and other temporary structures, and to building systems from testing and startup. The insurance shall also cover debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and reasonable compensation for the Architect's and Contractor's services and expenses required as a result of such insured loss, including claim preparation expenses. Sub-limits, if any, are as follows:

(Indicate below type of coverage and any applicable sub-limit for specific required coverages.)

Coverage	Sub-Limit
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§ A.2.3.1.3 Unless the parties agree otherwise, upon Substantial Completion, the Owner shall continue the insurance required by Section A.2.3.1 or, if necessary, replace the insurance policy required under Section A.2.3.1 with property insurance written for the total value of the Project that shall remain in effect until expiration of the period for correction of the Work set forth in Section 12.2.2 of the General Conditions.

§ A.2.3.1.4 Deductibles and Self-Insured Retentions. If the insurance required by this Section A.2.3 is subject to deductibles or self-insured retentions, the Owner shall be responsible for all loss not covered because of such deductibles or retentions.

§ A.2.3.2 Occupancy or Use Prior to Substantial Completion. The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section A.2.3.1 have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

§ A.2.3.3 Insurance for Existing Structures

If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage from the causes of loss identified in Section A.2.3.1, notwithstanding the undertaking of the Work. The Owner shall be responsible for all co-insurance penalties.

§ A.2.4 Optional Extended Property Insurance.

The Owner shall purchase and maintain the insurance selected and described below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. For each type of insurance selected, indicate applicable limits of coverage or other conditions in the fill point below the selected item.)

- § A.2.4.1 Loss of Use, Business Interruption, and Delay in Completion Insurance**, to reimburse the Owner for loss of use of the Owner's property, or the inability to conduct normal operations due to a covered cause of loss.

- § A.2.4.2 Ordinance or Law Insurance**, for the reasonable and necessary costs to satisfy the minimum requirements of the enforcement of any law or ordinance regulating the demolition, construction, repair, replacement or use of the Project.

- § A.2.4.3 Expediting Cost Insurance**, for the reasonable and necessary costs for the temporary repair of damage to insured property, and to expedite the permanent repair or replacement of the damaged property.

- § A.2.4.4 Extra Expense Insurance**, to provide reimbursement of the reasonable and necessary excess costs incurred during the period of restoration or repair of the damaged property that are over and above the total costs that would normally have been incurred during the same period of time had no loss or damage occurred.

- § A.2.4.5 Civil Authority Insurance**, for losses or costs arising from an order of a civil authority prohibiting access to the Project, provided such order is the direct result of physical damage covered under the required property insurance.

- § A.2.4.6 Ingress/Egress Insurance**, for loss due to the necessary interruption of the insured's business due to physical prevention of ingress to, or egress from, the Project as a direct result of physical damage.

- § A.2.4.7 Soft Costs Insurance**, to reimburse the Owner for costs due to the delay of completion of the Work, arising out of physical loss or damage covered by the required property insurance: including construction loan fees; leasing and marketing expenses; additional fees, including those of architects, engineers, consultants, attorneys and accountants, needed for the completion of the construction, repairs, or reconstruction; and carrying costs such as property taxes, building permits, additional interest on loans, realty taxes, and insurance premiums over and above normal expenses.

§ A.2.5 Other Optional Insurance.

The Owner shall purchase and maintain the insurance selected below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance.)

- § A.2.5.1 Cyber Security Insurance** for loss to the Owner due to data security and privacy breach, including costs of investigating a potential or actual breach of confidential or private information.
(Indicate applicable limits of coverage or other conditions in the fill point below.)

§ A.2.5.2 Other Insurance
(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Coverage

Limits

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

§ A.3.1 General

§ A.3.1.1 Certificates of Insurance. The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies.

§ A.3.1.2 Deductibles and Self-Insured Retentions. The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 Additional Insured Obligations. To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

§ A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

§ A.3.2.2 Commercial General Liability

§ A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than _____ (\$) each occurrence, _____ (\$) general aggregate, and _____ (\$) aggregate for products-completed operations hazard, providing coverage for claims including

- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2 personal injury and advertising injury;
- .3 damages because of physical damage to, or destruction of, tangible property, including the loss of use of such property;
- .4 bodily injury or property damage arising out of completed operations; and
- .5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.

§ A.3.2.2 The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:

- .1 Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
- .2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
- .3 Claims for bodily injury other than to employees of the insured.
- .4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured
- .5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
- .6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
- .7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
- .8 Claims related to roofing, if the Work involves roofing.
- .9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
- .10 Claims related to earth subsidence or movement, where the work involves such hazards.
- .11 Claims related to explosion, collapse, and underground hazards, where the Work involves such hazards.

§ A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than _____ (\$__) per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.

§ A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ A.3.2.5 Workers' Compensation at statutory limits.

§ A.3.2.6 Employers' Liability with policy limits not less than _____ (\$__) each accident, _____ (\$__) each employee, and _____ (\$__) policy limit.

§ A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks

§ A.3.2.8 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate.

§ A.3.2.9 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate.

§ A.3.2.10 Coverage under Sections A.3.2.8 and A.3.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate.

§ A.3.2.11 Insurance for maritime liability risks associated with the operation of a vessel, if the Work requires such activities, with policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate.

§ A.3.2.12 Insurance for the use or operation of manned or unmanned aircraft, if the Work requires such activities, with policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate.

§ A.3.3 Contractor's Other Insurance Coverage

§ A.3.3.1 Insurance selected and described in this Section A.3.3 shall be purchased from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain any of the types of insurance selected below for a duration other than the expiration of the period for correction of Work, state the duration.)

§ A.3.3.2 The Contractor shall purchase and maintain the following types and limits of insurance in accordance with Section A.3.3.1.

(Select the types of insurance the Contractor is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. Where policy limits are provided, include the policy limit in the appropriate fill point.)

- § A.3.3.2.1** Property insurance of the same type and scope satisfying the requirements identified in Section A.2.3, which, if selected in this section A.3.3.2.1, relieves the Owner of the responsibility to purchase and maintain such insurance except insurance required by Section A.2.3.1.3 and Section A.2.3.3. The Contractor shall comply with all obligations of the Owner under Section A.2.3 except to the extent provided below. The Contractor shall disclose to the Owner the amount of any deductible, and the Owner shall be responsible for losses within the deductible. Upon request, the Contractor shall provide the Owner with a copy of the property insurance policy or policies required. The Owner shall adjust and settle the loss with the insurer and be the trustee of the proceeds of the property insurance in accordance with Article 11 of the General Conditions unless otherwise set forth below.

(Where the Contractor's obligation to provide property insurance differs from the Owner's obligations as described under Section A.2.3, indicate such differences in the space below. Additionally, if a party other than the Owner will be responsible for adjusting and settling a loss with the insurer and acting as the trustee of the proceeds of property insurance in accordance with Article 11 of the General Conditions, indicate the responsible party below.)

- § A.3.3.2.2 Railroad Protective Liability Insurance**, with policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate, for Work within fifty (50) feet of railroad property.
- § A.3.3.2.3 Asbestos Abatement Liability Insurance**, with policy limits of not less than _____ (\$__) per claim and _____ (\$__) in the aggregate, for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos-containing materials.
- § A.3.3.2.4** Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.
- § A.3.3.2.5** Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.
- § A.3.3.2.6 Other Insurance**
(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage

Limits

§ A.3.4 Performance Bond and Payment Bond

The Contractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:

(Specify type and penal sum of bonds.)

Type	Penal Sum (\$0.00)
Payment Bond	
Performance Bond	

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

ARTICLE A.4 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Insurance and Bonds Exhibit, if any, are as follows:

SECTION 01 1100
PROJECT SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: Renovations of Barracks No. 2, JP-1 & Domestic Violence Offices
- B. Owner's Name: Tom Green County
- C. Architect's Name: KFW Architects AIA
- D. Project Base Proposal shall consist of the renovation of an Existing 3,630 sq/ft. Barracks Building into a TGC Maintenance Department Workshop. Majority of the renovation is interior work, but there is some limited sitework for improving Building accessibility. New interior walls will be metal stud with painted drywall. All new finish work, modified structural work, and modified MEP work will be part of the project. Note that there are some additional Barracks 2 specific deduct alternates for the County's review.

All existing JP-1 Office work shall be included in Deduct Alternate No. 1A. Work shall consist of removal and replacement of existing front Office (corridor) entry counters and transaction windows.

All existing Domestic Violence Office work shall be included in Deduct Alternate No.1B. Work shall consist of installing new front Office (corridor) entry counters and transaction window.

By submitting a bid, each bidder agrees to waive any claims it has or may have against the Owner, the Engineer, the Architect, and their respective employees and offices, arising out of or in connection with the administration, evaluation, or recommendation of any bid; waiver of any requirements under the Bid Documents; or the Contract Documents; acceptance or rejection of any bids; and award of the Contract. By submitting a bid, each bidder agrees to exhaust its administrative remedies under Owner's (Tom Green County) Policy or the Dispute Clause of any resulting contract before seeking judicial relief of any type in connection with any matter related to this solicitation, the award of any contract, and any dispute under any resulting contract.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price.

1.03 WORK BY OWNER

- A. Owner will provide the following:
 - 1. Asbestos abatement.

1.04 OWNER OCCUPANCY

- A. Owner intends to occupy the Project upon Substantial Completion.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations. Note that the Barracks will not be operational during construction and that all necessary safety precautions to protect property shall be taken.
- C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations. Note that both the JP-1 and Domestic Violence Offices will remain open and in operation during the renovation. All necessary safety precautions to protect property shall be taken.
- D. Schedule the Work to accommodate Owner occupancy.

1.05 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Arrange use of site and premises to allow:
 - 1. Work by Others.
 - 2. Work by Owner.
- C. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Utility Outages and Shutdown:
 - 1. Prevent accidental disruption of utility services to other facilities.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 2000
PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

1.02 RELATED SECTIONS

- A. Contract Documents issued by the Architect.

1.03 SCHEDULE OF VALUES

- A. Submit a printed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet. Contractor's standard form or electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- C. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify site mobilization.
- D. Include in each line item, the amount of Allowances specified in this section.
- E. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.
- F. Revise schedule to list approved Change Orders, with each Application for Payment.
- G. A Five Percent (5%) Retainage will be withheld on all items being billed for and shown as work completed.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit to the Architect at monthly intervals.
- B. Present required information in typewritten form.
- C. Form: AIA G702 Application and Certificate for Payment and AIA G703 - Continuation Sheet including continuation sheets when required.
- D. For each item, provide a column for listing each of the following:
 - 1. Item Number.
 - 2. Description of work.
 - 3. Scheduled Values.
 - 4. Previous Applications.
 - 5. Work in Place and Stored Materials under this Application.
 - 6. Authorized Change Orders.
 - 7. Total Completed and Stored to Date of Application.
 - 8. Percentage of Completion.
 - 9. Balance to Finish.
 - 10. Retainage.
- E. Execute certification by signature of authorized officer.
- F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored Products.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
- H. Submit three copies of each Application for Payment or email Pay Application with Items "I" below to Kye Franke, kye@kfwarchitects.com.
- I. Include the following with the application:
 - 1. Transmittal letter as specified for Submittals in Section 01 3000.
 - 2. Construction progress schedule, revised and current as specified in Section 01 3000.
 - 3. Partial release of liens from major Subcontractors and vendors.
- J. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.05 MODIFICATION PROCEDURES

- A. Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing supplemental instructions on AIA Form G710, or other documents.
- B. Construction Change Directive: Architect may issue a document, signed by Owner, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. The document will describe changes in the Work, and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change in Work.
- C. Proposal Request: Architect may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change. Contractor shall prepare and submit a fixed price quotation within 7 calendar days.
- D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.
- E. Computation of Change in Contract Amount:
 - 1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
 - 3. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- F. Substantiation of Costs: Provide full information required for evaluation.
 - 1. On request, provide following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.

2. Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work was performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- G. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract on AIA G701.
- H. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- I. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- J. Promptly enter changes in Project Record Documents.

1.06 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due. Submit to Architect.
- B. Application for Final Payment will not be considered until the following have been accomplished:
 1. All closeout procedures specified in Section 01 7000.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 2200

ALLOWANCES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cash allowances.
 - 2. Contingency allowance.
- B. Related Sections
 - 1. Section 01 2000 – Price and Payment Procedures.
 - 2. Section 01 3000 – Administrative Requirements.
- C. Include in Contract Sum cash allowances scheduled at end of Section and contingency allowance specified in this Section.
- D. Designate in Construction Progress Schedule specified in delivery dates for products under each allowance.
- E. Designate in Schedule of Values specified in quantities of materials under unit cost allowances.

1.2 CASH ALLOWANCES

- A. General:
 - 1. Purchase products under each allowance as directed by Architect.
 - 2. Amount of allowance includes:
 - a. Net cost of product, less any applicable trade discounts.
 - b. Delivery to site.
 - c. Applicable taxes.
 - d. Labor required under allowance, only when labor is specified to be included in allowance.
 - 3. In addition to amounts of allowances, include in Contract Sum, General Contractor's costs for:
 - a. Handling at site, including unloading, uncrating, and storing.
 - b. Protection from elements and from damage.
 - c. Labor required for installation and finishing, except where installation is specified to be part of allowance.
 - d. Other expenses required to complete installation.
 - 4. General Contractor's overhead and profit shall be included in the Contract Sum itself, including on any allowances as noted. At the conclusion of the Project, Construction Manager shall return any unused portion of allowances back to the Owner and the reduction of the General Contractor's overhead and profit should be reflected on the final payment for this reduction in construction cost.
 - 5. At closeout of Contract, funds remaining in Allowances will be credited to Owner by Change Order showing final construction cost.
- B. Selection of Products:
 - 1. Architect's Duties:
 - a. Consult with General Contractor in consideration of products and suppliers.
 - b. Make selection; designate products to be used.
 - 2. General Contractor's Duties:
 - a. Assist Architect in determining:
 - 1) Supplier or installer, as applicable. Cost, delivered and unloaded at site.
 - b. Obtain proposals from suppliers when requested by Architect.

- c. Notify Architect of any effect anticipated by selection of product or supplier under consideration on construction schedule or contract sum.
- d. On notification of selection, enter into purchase agreement with designated supplier.

C. Delivery:

1. General Contractor's Duties:
 - a. Arrange for delivery and unloading.
 - b. Promptly inspect products for damage or defects.
 - c. Submit any claims for transportation damage.

D. Installation: Comply with requirements of referenced specification section.

E. Adjustment of Costs:

1. Should actual purchase cost be more or less than specified amount of allowance, Contract Sum will be adjusted by Change Order equal to amount of difference.
2. Amount of Change Order will recognize any changes in handling costs at site, labor, installation costs, overhead, profit, and other expenses caused by selection under allowance.
3. For products specified under unit cost allowance, unit cost shall apply to quantity listed in Schedule of Values.
4. Submit invoices or other data to substantiate quantity actually used.
5. Submit any claims for additional costs at site or other expenses caused by selection under allowances, prior to execution of work. Failure to do so will constitute waiver of claims for additional costs.

1.3 **CONTINGENCY ALLOWANCES:**

Include in Contract Sum a stipulated sum of **Two Thousand Dollars (\$2,000)** for General Contractor Contingency & **Four Thousand Dollars (\$4,000)** for Owner Contingency for use (both) upon Owner's instruction.

1. General Contractor's costs for products, delivery, installation, equipment and labor will be included in "Field Request for Owner's Contingency" (FROC) and "Field Request Contractor's Contingency" (FRCC) forms authorizing expenditure of funds from these Contingency Allowance. Both Contingency Allowances shall be required to have signed authorization of the Owner, Architect and General Contractor.
2. Funds will be drawn from Contingency Allowance only by FROC & FRCC, signed by Owner, Architect and General Contractor.
3. General Contractor's overhead and profit shall be included in the Contract Sum itself, including on the contingency and any allowances as noted. At the conclusion of the Project, General Contractor shall return any unused portion of the contingency or allowances back to the Owner and the reduction of the General Contractor's overhead and profit should be reflected on the final payment for this reduction in construction cost.
4. At Closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order showing final construction cost.

1.4 **TOILET ACCESSORIES ALLOWANCE:**

Two Hundred Dollars (\$200)

1.5 **INTERIOR SIGNAGE ALLOWANCE:**

Five Hundred Dollars (\$500). Refer to Spec. Section 10 1423 for related information.

1.6 **FINISH HARDWARE ALLOWANCE:**

Two Thousand dollars (2,000). Refer to Spec. Section 08 7100 for related information.

END OF SECTION

SECTION 01 2300

ALTERNATES

PART 1 GENERAL

1.1 SUMMARY:

- A. Section Includes Documentation of changes to Contract Sum and Contract Time.
- B. Contract Documents contain pertinent requirements for materials and methods to accomplish work described herein.
- C. Provide alternate costs for inclusion in Contract Sum if accepted by Owner.

1.2 RELATED REQUIREMENTS:

- A. Owner/General Contractor Agreement: Alternates accepted by Owner for incorporation into the Work.
- B. Individual specification sections identified.

1.3 PROCEDURES:

- A. All work (including any alternates) shall be part of Base Proposal cost. Any alternates will be exercised at the option of Owner and then deducted from the Base Proposal.
- B. Coordinate related work and modify surrounding work as required to complete the work, including changes under each Alternate, when acceptance is designated in Owner/General Contractor Agreement.

1.4 DESCRIPTION OF ALTERNATES:

Deduct Alternate No. 1A - Contractor shall deduct from the Base Proposal all material & labor costs related to **JP-1 Office Renovation** in its entirety.

Deduct Alternate No. 1B - Contractor shall deduct from the Base Proposal all materials & labor costs related to **Domestic Violence Office Renovation** in its entirety.

Deduct Alternate No. 2 - Contractor shall deduct from the Base Proposal all materials & labor costs related to the interior painting of **Barracks 2**. This painting work deduction shall include all of Barracks 2 areas, except for new & existing hollow metal doors & frames which shall remain in Base Proposal to be painted.

Deduct Alternate No. 3 - Contractor shall deduct from the Base Proposal all materials & labor costs related to either demolition or replacement of all existing light fixtures with new fixtures in **Barracks 2** as listed under General Renovation Notes 21 & 23.

Deduct Alternate No. 4 - Contractor shall deduct from the Base Proposal all materials & labor costs related to demolition or removal of all existing detention furniture, detention plumbing fixtures and other detention components in **Barracks 2** as listed under General Renovation Notes 3, 6, 8, 11 & 17.

END OF SECTION

SECTION 01 2500

SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Product Substitution Procedures.

1.2 GENERAL

- A. Definition: Proposal by Contractor to use manufacturer, product, material, or system different from one required in Contract Documents.
- B. Do not substitute Products unless a substitution request has been approved by Architect.
- C. Substitutions during Bidding: Refer to Instructions to Bidders.
- D. Architect will consider substitution requests within 30 days after award of Contract. After initial 30 day period, substitutions requests will be considered only due to non-availability of a specified Product through no fault of Contractor.
- E. In case of non-availability of a specified Product notify Architect in writing as soon as non-availability becomes apparent.

1.3 SUBSTITUTION REQUESTS

- A. Submit substitution requests on form provided in Project Manual
- B. Document specified product and proposed substitution with complete data, including:
 - 1. Product identification, including name and address of manufacturer.
 - 2. Product description, performance and test data, and reference standards.
 - 3. Sample, if requested.
 - 4. Description of any anticipated effect that acceptance of proposed substitution will have on Progress Schedule, construction methods, or other items of Work.
 - 5. Description of any differences between specified product and proposed substitution.
 - 6. Difference in cost between specified product and proposed substitution.
- C. Burden of proof for substantiating compliance of proposed substitution with Contract Document requirements remains with Contractor.
- D. A request constitutes a representation that the Contractor:
 - 1. Has investigated the proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Will reimburse Owner for design services associated with re-approval by authorities or revisions to Contract Documents to accommodate the substitution.
- E. Substitutions will not be considered if:
 - 1. They are indicated or implied on Shop Drawings or other submittals without submittal of a substitution request.
 - 2. Approval will require substantial revision of Contract Documents without additional compensation to Architect.

F. Submit electronically in Adobe PDF format.

G. Architect will notify Contractor of approval or rejection of each Substitution Request.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 01 2900

PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Schedule of Values.
 - 2. Applications for Payment.
- B. Related Sections:
 - 1. Section 01 7700 - Closeout Procedures.

1.2 SCHEDULE OF VALUES

- A. General:
 - 1. Submit a Schedule of Values to Architect at least 20 days prior to submitting first Application for Payment.
 - 2. Upon request of Architect, furnish additional data to support values given that will substantiate their correctness.
 - 3. Approved Schedule of Values will be used as basis for reviewing Contractor's Applications for Payment.
- B. Form and Content:
 - 1. Format: AIA Document G703 - Continuation Sheet of Application and Certification for Payment
 - 2. Use Table of Contents of Project Manual as basis of format for listing costs of Work.
 - 3. List installed value of component parts of Work in sufficient detail to serve as basis for computing values for progress payments.
 - 4. Include separate line items for:
 - a. Site mobilization.
 - b. Bonds and insurance.
 - c. Contractor's overhead and profit.
 - 5. For items on which payment will be requested for stored materials, break down value into:
 - a. Cost of materials, delivered and unloaded, with taxes paid.
 - b. Total installed value.
 - 6. For each line item that has a value of more than \$25,000.00, break down costs to list major products or operations under each item.
 - 7. Total of costs listed in Schedule shall equal Contract Sum.
- C. Submit electronic copy via Adobe PDF.
- D. Review and Resubmittal:
 - 1. After initial review by Architect, revise and resubmit if required.
 - 2. Revise and resubmit along with next Application for Payment when a Change Order is issued. List each Change Order as a new line item.

1.3 APPLICATIONS FOR PAYMENT

- A. Preparation:
 - 1. Format: AIA Document G702 - Application and Certification for Payment, supported by AIA Document G703 - Continuation Sheet.
 - 2. Prepare required information in typewritten format or on electronic media format.
 - 3. Use data from reviewed Schedule of Values. Provide dollar value in each column for each line item representing portion of work performed.

4. List each authorized Change Order as a separate line item, listing Change Order number and dollar value.
 5. Prepare Application for Final Payment as specified in Section 01 7700.
- B. Waivers of Lien:
1. Along with each Application for Payment, submit waivers of lien from Contractor and each Subcontractor or Sub-subcontractor included on the current month's Application for Payment.
 2. Submit partial waivers on each item for amount requested, prior to deduction of retainage.
 3. For completed items, submit full or final waiver.
- C. Substantiating Data:
1. When Architect requires substantiating information, submit data justifying dollar amounts in question.
 2. Provide one copy of data with cover letter showing Application number and date, and line item number and description.
- D. Submittal:
1. Submit 5 copies of each Application for Payment.
 2. Payment period: Submit at intervals stipulated in Owner/Contractor Agreement.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 01 3100

PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Project coordination.
 - 2. Coordination drawings.
 - 3. Project meetings.
- B. Related Sections:
 - 1. Section 01 7700 - Contract Closeout.

1.2 PROJECT COORDINATION

- A. Coordinate scheduling, submittals, and work of various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical items that are indicated diagrammatically on Drawings.
 - 1. Follow routing shown as closely as practical; place runs parallel with building lines.
 - 2. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean up of work of separate Sections in preparation for Substantial Completion.
- F. After Owner occupancy, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities.

1.3 COORDINATION

- A. Hold coordination meetings with trades providing mechanical, plumbing, fire protection, and electrical work.
- B. Resolve conflicts between trades, prepare composite coordination drawings and obtain signatures on original composite coordination Drawings.
- C. When conflicts cannot be resolved:
 - 1. Cease work in areas of conflict and request clarification prior to proceeding.
 - 2. Prepare drawings to define and to indicate proposed solution.
 - 3. Submit drawings for approval when actual measurements and analysis of Drawings and Project Manual indicate that various systems cannot be installed without significant deviation from intent of Contract Documents.

- D. Submit original composite coordination drawings as part of Project Record Documents specified in Section 01 7700.

1.4 PROJECT MEETINGS

- A. Schedule and administer preconstruction conference, progress meetings, and pre-installation conferences
- B. Make physical arrangements for meetings; notify involved parties at least 4 days in advance.
- C. Record significant proceedings and decisions at each meeting; reproduce and distribute copies to parties in attendance and others affected by proceedings and decisions made.

1.5 PRECONSTRUCTION CONFERENCE

- A. Schedule within 15 days after date of Notice to Proceed at Contractor's central site convenient to all parties.
- B. Attendance:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect and principal consultants.
 - 4. Major subcontractors and suppliers as Contractor deems appropriate.
- C. Review and Discuss:
 - 1. Relation and coordination of various parties, and responsible personnel for each party.
 - 2. Use of premises, including office and storage areas, temporary controls, and security procedures.
 - 3. Construction schedule and critical work sequencing.
 - 4. Processing of:
 - a. Contract modifications.
 - b. Shop Drawings, Product Data, and Samples.
 - c. Applications for Payment.
 - d. Substitutions.
 - e. Requests for Information.
 - f. Other required submittals.
 - 5. Adequacy of distribution of Contract Documents.
 - 6. Procedures for maintaining contract closeout submittals.
 - 7. Installation and removal of temporary facilities.
 - 8. Notification procedures and extent of testing and inspection services.

1.6 PROGRESS MEETINGS

- A. Schedule bi-monthly progress meetings.
- B. Location: Contractor's Project field office.
- C. Attendance:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect and consultants as appropriate to agenda.
 - 4. Subcontractors and suppliers as appropriate to agenda.
 - 5. Others as appropriate to agenda.
- D. Review and Discuss:

1. Work progress since previous meeting, including:
 - a. Field observations, deficiencies, conflicts, and problems.
 - b. Progress and completion date.
 - c. Corrective measures needed to maintain quality standards, progress, and completion date.
2. Status of:
 - a. Requests for information.
 - b. Submittals.
 - c. Contract modifications.
3. Coordination between various elements of Work.
4. Maintenance of Project Record Documents.
5. Contractor is to provide minutes to all progress meetings and send them out to all parties.

1.7 PRE-INSTALLATION CONFERENCES

- A. Where required in individual specification Section, convene a pre-installation conference at project site or other designated location.
- B. Require attendance of parties directly affecting or affected by work of the specific Section.
- C. Review conditions of installation, preparation and installation procedures, and coordination with related work.

END OF SECTION

SECTION 01 3216

CONSTRUCTION PROGRESS SCHEDULES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Construction progress schedule.
- B. Related Sections:
 - 1. Section 01 1100 - Summary of Work:
 - 2. Section 01 2900 - Payment Procedures.

1.2 FORMAT

- A. Prepare Progress Schedule as a horizontal bar chart with separate bar for each major portion of Work or operation, identifying first work day of each week.
- B. Sequence of Listings: Chronological order of the start of each item of Work.
- C. Scale and Spacing: To provide space for notations and revisions.
- D. Sheet Size: Multiples of 8-1/2 x 11 inches.

1.3 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification Section number.
- C. Identify work of logically grouped activities.
- D. Provide subschedules to define critical portions of the entire Progress Schedule.
- E. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- F. Provide separate schedule of submittal dates for Shop Drawings, Product Data, and Samples, including:
 - 1. Dates reviewed submittals will be required from Architect.
 - 2. Decision dates for selection of finishes.
 - 3. Delivery dates for [Owner furnished products] [and] [Products identified under Allowance].
- G. Coordinate content with Schedule of Values specified in Section 01 2900.
- H. Revisions:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
- I. Provide narrative report to define problem areas, anticipated delays, and impact on Progress Schedule. Report corrective action taken, or proposed, and its effect.

1.4 SUBMITTAL

- A. Submit initial Progress Schedule within 15 days after date of Notice to Proceed. After review, resubmit required revised data within 10 days.
- B. Submit revised Progress Schedule with each Application for Payment.
- C. Submit one copy.

1.5 DISTRIBUTION

- A. Distribute copies of approved Progress Schedule to project site file, Subcontractors, suppliers, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in Progress Schedule.

END OF SECTION

SECTION 01 3300
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Submittal procedures.
 - 2. Proposed Products list.
 - 3. Submittal schedule.
 - 4. Shop Drawings.
 - 5. Product Data.
 - 6. Samples.
 - 7. Quality control submittals.

- B. Related Sections:
 - 1. Section 01 4000 - Quality Requirements.

1.2 SUBMITTAL PROCEDURES

- A. Number each submittal with Project Manual section number and a sequential number within each section. Number resubmittals with original number and an alphabetic suffix.

- B. Identify Project, Contractor, Subcontractor or supplier, pertinent Drawing sheet and detail numbers, and specification Section number, as appropriate.

- C. Submit all submittals listed under "Submittals for Review" simultaneously for each Product or Specification Section.

- D. Where multiple products functions as an assembly, group submittals for all related Products into single submittal.

- E. Architect will not review incomplete submittals.

- F. Apply Contractor's stamp, signed or initialed certifying that:
 - 1. Submittal was reviewed.
 - 2. Products, field dimensions, and adjacent construction have been verified.
 - 3. Information has been coordinated with requirements of Work and Contract Documents.

- G. Schedule submittals to expedite the Project, and deliver to Architect. Coordinate submittal of related items.

- H. For each submittal, allow 14 days for Architect's review, excluding delivery time to and from Contractor.

- I. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of completed Work.

- J. Revise and resubmit submittals when required; identify all changes made since previous submittal.

- K. Distribute copies of reviewed submittals to concerned parties and to Project Record Documents file. Instruct parties to promptly report any inability to comply with provisions.

1.3 PROPOSED PRODUCTS LIST

- A. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- B. Submit electronically in Adobe PDF format.

1.4 SUBMITTAL SCHEDULE

- A. Within 15 days after date of Notice to Proceed, submit a submittal schedule showing all submittals proposed for project, including submittals listed as:
 - 1. Submittals for Review.
 - 2. Quality Control Submittals.
 - 3. Closeout Submittals.
- B. Include for each submittal:
 - 1. Specification section number.
 - 2. Description of submittal.
 - 3. Type of submittal.
 - 4. Anticipated submittal date.
 - 5. For submittals requiring Architect's review, date reviewed submittal will be required from Architect.
- C. Submit electronically in Adobe PDF format.

1.5 SHOP DRAWINGS

- A. Present information in clear and thorough manner.
- B. Identify details by reference to sheet and detail numbers or room number shown on Drawings.
- C. Reproductions of details contained in Contract Documents are not acceptable.
- D. Submit electronically in Adobe PDF format.

1.6 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data.
- B. Supplement manufacturers' standard data to provide information unique to this Project.
- C. Submit electronically in Adobe PDF format.

1.7 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Where so indicated, submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Architect's selection.
- C. Include identification on each sample, with full Project information.
- D. Unless otherwise specified in individual specifications, submit two of each sample.
- E. Architect will notify Contractor of approval or rejection of samples, or of selection of color, texture, or pattern if full range is submitted.

1.8 QUALITY CONTROL SUBMITTALS

- A. Quality control submittals specified in Section 01 4000 are for information and do not require Architect's responsive action except to require resubmission of incomplete or incorrect information.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 01 4000
QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. References and standards.
- B. Quality assurance submittals.
- C. Mock-ups.
- D. Control of installation.
- E. Tolerances.
- F. Testing and inspection services.
- G. Manufacturers' field services.

1.02 RELATED SECTIONS

- A. Document 00700 - General Conditions: Inspections and approvals required by public authorities.
- B. Section 01 3000 - Administrative Requirements: Submittal procedures.
- C. Section 01 6000 - Product Requirements: Requirements for material and product quality.

1.03 REFERENCES

- A. ASTM C 1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 1997.
- B. ASTM E 329 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction; 2000b.
- C. ASTM E 543 - Standard Practice for Agencies Performing Nondestructive Testing; 1999.
- D. ASTM E 548 - Standard Guide for General Criteria used for Evaluating Laboratory Competence; 1994.

1.04 SUBMITTALS

- A. Testing Agency Qualifications:
 - 1. Prior to start of Work, submit agency name, address, and telephone number, and names of full-time registered Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- B. Design Data: Submit for Architect's knowledge as contract administrator or for the Owner, for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- C. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.

1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test/inspection.
 - h. Date of test/inspection.
 - i. Results of test/inspection.
 - j. Conformance with Contract Documents.
 - k. When requested by Architect, provide interpretation of results.
 2. Test reports are submitted for Architect's knowledge as contract administrator or for the Owner, for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- D. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, in quantities specified for Product Data.
1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect.
- E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- F. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.05 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.

- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.06 TESTING AND INSPECTION AGENCIES

- A. Owner will employ services of an independent testing agency to perform certain specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION

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

3.03 TOLERANCES

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

3.04 TESTING AND INSPECTION

- A. See individual specification sections for testing required.
- B. Testing Agency Duties:
 - 1. Provide qualified personnel at site. Cooperate with Architect and Contractor in

performance of services.

2. Perform specified sampling and testing of products in accordance with specified standards.
 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 4. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
 5. Perform additional tests and inspections required by Architect.
 6. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Agency may not approve or accept any portion of the Work.
 3. Agency may not assume any duties of Contractor.
 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
1. Deliver to agency at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect. Payment for re testing will be charged to the Contractor by deducting testing charges from the Contract Price.

3.05 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Architect 30 days in advance of required observations.

- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION

SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

Note: General Contractor will require a superintendent, dedicated to this project.

1.01 SECTION INCLUDES.

- A. Temporary sanitary facilities.
- B. Temporary Controls: Barriers, enclosures, and fencing.
- C. Security requirements.
- D. Vehicular access and parking.
- E. Waste removal facilities and services.
- F. Field offices

1.02 TEMPORARY UTILITIES

- A. Existing utilities may be used.

1.03 TELEPHONE SERVICE

- A. Provide and maintain a mobile phone with voice mail or an answering service. Mobile phone shall be accessible during normal business hours during mobilization and for the duration of the project.

1.04 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. Maintain daily in clean and sanitary condition.

1.05 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.06 FENCING

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition. This can be chain link fencing – no PVC orange fencing.

1.07 EXTERIOR ENCLOSURES

- A. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and

to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.08 INTERIOR ENCLOSURES

- A. Provide temporary partitions and ceilings extending from floor to structure above to separate work areas from completed areas, to prevent penetration of dust and moisture, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:
 - 1. Maximum flame spread rating of 75 in accordance with ASTM E 84.

1.09 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.10 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and TGC.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.11 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site as required by TGC.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.

1.13 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

END OF SECTION

SECTION 01 6000
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations and procedures.
- F. Procedures for Owner-supplied products.
- G. Spare parts and maintenance materials.

1.02 RELATED SECTIONS

- A. Section 01 4000 - Quality Requirements: Product quality monitoring.

1.03 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 15 days after date of Agreement.
 - 2. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.
- E. Indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Do not use products having any of the following characteristics:
 - 1. Made using or containing ACM's, CFC's or HCFC's.
- C. Provide interchangeable components from the same manufacturer for components being

replaced.

- D. Motors: Refer to Division 16 sections, NEMA MG 1 Type. Specific motor type is specified in individual specification sections.
- E. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Size terminal lugs to NFPA 70, include lugs for terminal box.
- F. Cord and Plug: Provide minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

2.03 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.04 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra products of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.
- B. Architect will consider requests for substitutions only within 30 days after date of Agreement.
- C. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- D. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- E. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 5. Will reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- F. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

G. Substitution Submittal Procedure:

1. Submit three copies of request for substitution for consideration using the substitution request forms included at the end of this section. Limit each request to one proposed substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
3. The Architect will notify Contractor in writing of decision to accept or reject request.

3.02 OWNER-SUPPLIED PRODUCTS

A. Owner's Responsibilities:

1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
2. Arrange and pay for product delivery to site.
3. On delivery, inspect products jointly with Contractor.
4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
5. Arrange for manufacturers' warranties, inspections, and service.

B. Contractor's Responsibilities:

1. Review Owner reviewed shop drawings, product data, and samples.
2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
3. Handle, store, install and finish products.
4. Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.04 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment

favorable to product.

- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- G. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 01 7000
EXECUTION REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Cleaning and protection.
- F. Starting of systems and equipment.
- G. Demonstration and instruction of Owner personnel.
- H. Closeout procedures, except payment procedures.

1.02 RELATED SECTIONS

- A. Section 01 1100 - Summary: Work sequence.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures.
- C. Section 01 4000 - Quality Requirements: Testing and inspection procedures.
- D. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.
- E. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.04 PROJECT CONDITIONS

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere.
- C. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
- D. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

1.05 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.

- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis-fabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.02 PREPARATION

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

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 1. Review conditions of installation, preparation and installation procedures.
 2. Review coordination with related work.

- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 CUTTING AND PATCHING

- A. Execute cutting and patching to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
- B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new products in accordance with requirements of Contract Documents.
- F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
- H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- I. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.
- J. Patch or replace surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.06 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do no burn or bury.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is req'd., obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.08 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- C. Verify that wiring and support components for equipment are complete and tested.
- D. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- E. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.09 DEMONSTRATION AND INSTRUCTION

- A. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

3.10 ADJUSTING

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

3.11 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Use cleaning materials that are not hazardous.
- C. Clean int. and ext. glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.

- F. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

General clean up provided by the Contractor shall consists of sweeping and mopping of all non-carpeted areas; cleaning of all light fixtures, exit lights, HVAC vents, grills and registers; counter tops, sink/lavs; restroom fixtures, faucets and flush valves; walls, windows; doors and door knobs; mirrors. General cleaning may also include any other cleaning as may be deemed necessary by the TGC.

3.12 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Notify Architect when work is considered ready for Substantial Completion.
- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's review.
- D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
- E. Notify Architect when work is considered finally complete.
- F. Complete items of work determined by Architect's final inspection.

END OF SECTION

SECTION 01 7800
CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.02 RELATED SECTIONS

- A. Conditions of the Contract: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittal procedures, shop drawings, product data, and samples.
- C. Section 01 7000 - Execution Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Submit 1 copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 - 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish first floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.
- G. All project record documents will be issued to architect upon completion of project.

3.02 OPERATION AND MAINTENANCE DATA

- A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
 - 2. Information for re-ordering custom manufactured products.

- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

3.05 OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual.
- C. Binders: Commercial quality, 8-1/2" x 11" three D side ring binders with durable plastic covers; 2" maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
- E. Text: Manufacturer's printed data, or typewritten data.
- F. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- G. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- H. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.

- d. Photocopies of warranties and bonds.

3.06 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.

END OF SECTION

SECTION 02 4116

STRUCTURE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition of designated wall structures.
 - 2. Disconnection and removal of utilities.
 - 3. Demolition of walks, paving, curbs, gutters, and site improvements.
 - 4. Removal of materials from site.

1.2 SUBMITTALS

- A. Submittals for Review:
 - 1. Demolition procedures and operational sequence.
- B. Quality Control Submittals: Submit prior to beginning demolition:
 - 1. Permits authorizing building demolition.
 - 2. Certificates of severance of utility services.
 - 3. Permit for transportation and disposal of debris.

1.3 QUALITY ASSURANCE

- A. Comply with applicable codes, ordinances, rules, and regulations, including those for demolition, transportation, and disposal of debris.
- B. Arrange for, obtain permits and certificates for, and pay fees required for:
 - 1. Transportation and disposal of debris.
 - 2. Demolition.
 - 3. Utility severance or relocation, including removing meters and capping lines.
 - 4. Use or closing of streets, sidewalks, or other public places.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

3.1 PREPARATION

- A. Prior to beginning demolition, verify that:
 - 1. Structures are unoccupied and removed from service.
 - 2. Temporary controls and devices are in place and operational.
 - 3. Utilities are temporarily or permanently disconnected or relocated as required.
 - 4. Items salvaged for Owner are removed and stored in designated area.

3.2 DEMOLITION

- A. Demolish structures in accordance with demolition procedures approved by Architect.
- B. Do not use water to extent causing flooding, contaminated runoff, or icing.
- C. Break concrete and masonry into sections less than 3 feet in any dimension.
- D. Remove slabs and foundations to full depth.

- E. Remove below grade wood and metal.
- F. Remove walks, paving, curbs, gutters, and site improvements.
- G. Uniformly grade areas to smooth surface. Adjust contours to eliminate water ponding and provide positive drainage. Make grade changes gradually. Blend slopes into level areas.

3.3 MATERIAL DISPOSAL

- A. Salvage: Remove, protect, and relocate materials designated to remain property of Owner.
- B. Disposal:
 - 1. Materials, equipment, and debris resulting from demolition operations becomes property of the General Contractor. Remove debris as soon as practical.
 - 2. Cover debris in trucks to prevent spillage during transportation.
 - 3. Do not store or burn materials on site.
 - 4. Transport debris to off-site disposal area and legally dispose of.

END OF SECTION

SECTION 03 1000

CONCRETE FORMING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Forms for cast-in-place concrete, with shoring, bracing, and anchorage.
 - 2. Form accessories.
 - 3. Stripping of forms.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. American Concrete Institute (ACI):
 - 1. 301 - Specifications for Structural Concrete for Buildings.
 - 2. 347 - Recommended Practice for Concrete Formwork.
- B. American Society of Mechanical Engineers (ASME) A17.1 - Safety Code for Elevators and Escalators.
- C. Engineered Wood Association (APA) PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings: Diagram of proposed construction joints not indicated on Drawings.

1.4 QUALITY ASSURANCE

- A. Design formwork in accordance with ACI 301 and 347 [under supervision of Professional Structural Engineer licensed in State in which project is located].

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Architectural Form Liners:
 - 1. Dayton Superior. (www.daytonsuperior.com)
 - 2. Fitzgerald Formliners.
 - 3. Greenstreak, Inc.
- B. Acceptable Manufacturers - Form Accessories:
 - 1. Dayton Superior. (www.daytonsuperior.com)
 - 2. Greenstreak, Inc.
 - 3. Meadow Burke. (www.meadowburke.com)
 - 4. Nox-Crete Products Group.
- C. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Forms:
 - 1. Wood:
 - a. Concealed surfaces:
 - 1) Lumber, No. 2 Common or better, dressed to smooth contact surfaces, or:
 - 2) APA Rated Plyform Class I or II with HDO faces.
 - b. Exposed surfaces: Non absorptive medium density overlay plywood.
 - 2. Metal: Minimum 16 gage steel, tight fitting, stiffened to support concrete.
- B. Tubular Forms:
 - 1. Round, spirally wound laminated fiberboard, surface treated with release agent, non reusable.

2.3 ACCESSORIES

- A. Form Release Agent: Nonstaining, colorless mineral oil that will not absorb moisture, stain concrete, or impair adhesion of coatings to be applied to concrete.
- B. Construction Joints Forms: Formed galvanized steel, minimum 18 gage, with keyway.
- C. Anchors and Fasteners: Size as required, sufficient strength to maintain forms in place while concrete is placed.

PART 3 EXECUTION

3.1 CONSTRUCTION

- A. Construct formwork, shoring, and bracing to produce concrete of required shape, line, and dimension.
- B. Arrange and assemble formwork with minimum joints, located to allow dismantling without damage to concrete.
- C. Make joints watertight.
- D. Provide chamfer strips in corners of forms to produce beveled external corners.
- E. Camber formwork to compensate for deflection during concrete placement.
- F. Adjust supports to take up settlement caused by concrete placement.
- G. Provide temporary openings in formwork to allow cleaning and observation; locate at bottom of forms. Close with tight fitting panels flush with face of forms.
- H. Construct forms for beams and girders so that sides may be removed without disturbing bottom of form or its support.
- I. Clean contact and screed surfaces prior to concrete placement.
- J. Construction Joints:
 - 1. Unless otherwise indicated on drawings, each unit of construction is a single unit; place concrete continuously to provide monolithic construction.
 - 2. Obtain Architect's approval of construction joint locations not indicated on Drawings.
 - 3. Provide keys and dowels in joints.
 - 4. Use construction joint form for joints in floor slabs. Set screed edge at required elevation. Secure to prevent movement.
- K. Form Release Agent:

1. Apply form release agent to formwork prior to placing reinforcing, anchoring devices, and embedded items; follow manufacturer's instructions.
 2. Do not allow agent to puddle in forms or to contact hardened concrete against which fresh concrete is to be placed.
- L. Inserts and Embedded Parts:
1. Before concrete is placed, install inserts, anchor slots, anchor bolts, and embedded parts required for attachment of work.
 2. Provide formed openings where required for pipes, conduits, sleeves, and other work passing through concrete members.
 3. Maintain in position during concrete placement.
- M. Form Removal:
1. Do not remove formwork until concrete has attained sufficient strength to resist dead loads plus applied live loads.
 2. Remove formwork in manner that will not damage surfaces of concrete; patch work damaged during form removal operations.
 3. Provide shoring, reshoring, and bracing as required.
- N. Installation Tolerances:
1. Construct formwork to maintain tolerances required by ACI 301.

END OF SECTION

SECTION 03 2000
CONCRETE REINFORCING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Reinforcing bars, wire fabric, and accessories for cast-in-place concrete.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. American Concrete Institute (ACI) 301 - Specifications for Structural Concrete for Buildings.
- B. ASTM International (ASTM):
 - 1. A185/A185M - Standard Specification for Welded Steel Wire Reinforcement, Plain, for Concrete.
 - 2. A615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 - 3. A767 - Standard Specification for Zinc-Coated (Galvanized) Bars for Concrete Reinforcement.
 - 4. D3963 - Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Reinforcing Steel.
- C. American Welding Society (AWS) D1.4 - Structural Welding Code - Reinforcing Steel.
- D. Concrete Reinforcing Steel Institute (CRSI):
 - 1. Manual of Practice.
 - 2. Publication 63 - Recommended Practice for Placing Reinforcing Bars.
 - 3. Publication 65 - Recommended Practice for Placing Bar Supports, Specifications and Nomenclature.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings:
 - a. Include bar sizes, spacings, laps, locations, and quantities of reinforcing bars, wire fabric, and accessories.
 - b. Provide bending and cutting schedules.
 - c. Show complete layout plan for each layer of reinforcing.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver reinforcing to project site in bundles marked with tags indicating bar size, length, and mark.
- B. Store reinforcing above ground in dry, well drained area; protect from corrosion.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Reinforcing Bars:
 - 1. ASTM A615/A615M, deformed billet steel as indicated on Drawings.

- B. Welded Wire Fabric:
 - 1. ASTM A185/A185M. Furnish in flat sheets.

2.2 ACCESSORIES

- A. Spacers, Chairs, Bolsters, and Bar Supports:
 - 1. Sized and shaped for strength and support of reinforcement during concrete placement.
 - 2. Galvanized or plastic coated steel for surfaces exposed to weather.
- B. Tie Wire: Annealed steel, minimum 16 gage.

2.3 FABRICATION

- A. Fabricate in accordance with ACI 301 and CRSI Manual.
- B. Bend bars cold; do not heat or bend by makeshift methods. Discard damaged bars.
- C. Welding: AWS D1.4.
- D. Fabrication Tolerances:
 - 1. Sheared length: Plus or minus 1 inch.
 - 2. Bends in stirrups and ties: Plus or minus 1/2 inch.
 - 3. All other bends: Plus or minus 1 inch.

PART 3 EXECUTION

3.1 PREPARATION

- A. Before placing in work, thoroughly clean reinforcing of loose rust, mill scale, dirt, oil, and other materials that could reduce bonding.
- B. Inspect reinforcing left protruding for future bonding or following delay in work, and clean if necessary.

3.2 INSTALLATION

- A. Install reinforcing in accordance with ACI 301, and CRSI Manual and Publications 63 and 65.
- B. Accurately position reinforcing; securely tie at intersections.
- C. Welding: AWS D1.4.
- D. Install wire fabric reinforcing in longest practical lengths. Offset end laps in adjacent widths to prevent continuous lap.
- E. Do not displace or damage vapor retarder.
- F. Locate splices not indicated on Drawings at points of minimum stress.
- G. Clean and reprotect [galvanized] [epoxy coated] surfaces cut or damaged during installation.

END OF SECTION

SECTION 03 3000

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cast-in-place concrete for slabs on grade.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. American Concrete Institute (ACI):
 - 1. 301 - Structural Concrete for Buildings.
 - 2. 305R - Hot Weather Concreting.
 - 3. 306R - Cold Weather Concreting.
 - 4. 308 - Standard Practice for Curing Concrete.
 - 5. 318 - Building Code Requirements for Structural Concrete.
- B. ASTM International (ASTM):
 - 1. C31 - Standard Test Method for Method of Making and Curing Concrete Test Specimens in the Field.
 - 2. C33 - Standard Specification for Concrete Aggregates.
 - 3. C39 - Standard Test Method for Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 - 4. C94 - Standard Specification for Ready-Mixed Concrete.
 - 5. C143 - Standard Test Method for Slump of Portland Cement Concrete.
 - 6. C150 - Standard Specification for Portland Cement.
 - 7. C171 - Standard Specification for Sheet Materials for Curing Concrete.
 - 8. C172 - Standard Test Method for Method of Sampling Freshly Mixed Concrete.
 - 9. C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
 - 10. C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 - 11. C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
 - 12. C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
 - 13. C494 - Standard Specification for Chemical Admixtures for Concrete.
 - 14. C618 - Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolans for Use as a Mineral Admixture in Portland Cement Concrete.
 - 15. C1116/1116M - Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
 - 16. D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Concrete Mix Designs: Include:
 - a. Proportions of cement, fine and coarse aggregates, [fibrous reinforcing where scheduled,] and water.
 - b. Combined aggregate gradation.
 - c. Aggregate specific gravities and gradations.
 - d. Water/cement ratio, design strength, slump, and air content.
 - e. Type of cement and aggregates.
 - f. Air dry density and split cylinder ratio for lightweight concrete.

- g. Type and proportion of admixtures.
- h. Special requirements for pumping.
- i. Range of ambient temperature and humidity for which design is valid.
- j. Special characteristics of mix requiring precautions in mixing, placing, or finishing techniques to achieve finished product.

1.4 QUALITY ASSURANCE

- A. Concrete Mix Design: In accordance with ACI 301, Method 1 or 2.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Mix and deliver concrete to project ready mixed in accordance with ASTM C94.
- B. Schedule delivery so that pours will not be interrupted for over 15 minutes.
- C. Place concrete on site within 90 minutes after proportioning materials at batch plant.

1.6 PROJECT CONDITIONS

- A. Cold Weather Placement - Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures. Comply with ACI 306R and following requirements:
 - 1. Air temperature at or expected to fall below 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- B. Hot Weather Placement - Place concrete in accordance with ACI 305R and following requirements:
 - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Use chilled mixing water or chopped ice if water equivalent of ice is calculated in total amount of mixing water.
 - 2. If required, cover reinforcing steel with water soaked burlap, so that steel temperature will not exceed ambient air temperature.
 - 3. Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.
 - 4. Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Concrete Chemicals:
 - 1. BASF Corporation. (www.buildingsystems.basf.com)
 - 2. Dayton Superior. (www.daytonsuperior.com)
 - 3. W. R. Meadows, Inc. (www.wrmeadows.com)
 - 4. Meadow Burke. (www.meadowburke.com)
 - 5. Nox-Crete Products Group. (www.nox-crete.com)
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Portland Cement: ASTM C150, Type I or III, gray color.

- B. Aggregates:
 - 1. Fine: ASTM C33, clean, hard, durable, uncoated natural sand, free from silt, loam, and clay.
 - 2. Coarse: ASTM C33, clean, hard, durable, uncoated crushed stone, maximum size No. 467, Table No. 2.
 - 3. Lightweight: ASTM C330, expanded shale or clay produced by rotary kiln method.
- C. Fibrous Reinforcing: ASTM C1116/1116M, 100 percent virgin polypropylene free from reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.

2.3 ACCESSORIES

- A. Water: Clean and potable.
- B. Admixtures:
 - 1. Water reducing or water reducing/set retarding: ASTM C494, Type A or D.
 - 2. Air entraining: ASTM C260.
- C. Expansion Joint Filler: ASTM D1752, non asphaltic type.
- D. Non Shrink Grout: Premixed, consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
- E. Bonding Agent: Two component modified epoxy resin.
- F. Curing Compound: ASTM C309, water based type.
- G. Curing Paper: ASTM C171, waterproof paper or polyethylene film.

2.4 MIXES

- A. Proportions: In accordance with ACI 301.
- B. Design concrete to yield characteristics indicated on Drawings.
- C. Use accelerating admixture in cold weather only when approved by Architect. Use of admixtures will not reduce cold weather placement requirements.

PART 3 EXECUTION

3.1 PREPARATION

- A. Notify Architect and Testing Laboratory minimum 24 hours prior to placing concrete.
- B. Accurately position anchor bolts, sleeves, conduit, inserts, and accessories. Do not cut reinforcing steel to facilitate installation of inserts or accessories.
- C. Remove water and debris from forms and excavations.
- D. Close openings left in forms for cleaning and inspection.
- E. Prepare previously placed [and existing] concrete surfaces by cleaning with steel wire brush and applying bonding agent in accordance with manufacturer's instructions.
- F. Where new concrete is doweled to existing, drill holes in existing concrete, insert steel dowels, and pack holes solid with non shrink grout.

3.2 PLACEMENT OF CONCRETE

- A. Place concrete in accordance with ACI 301 and ACI 318.
- B. Ensure reinforcement, inserts, and embedded parts are not disturbed during concrete placement.
- C. Deposit concrete as nearly as possible in its final position to minimize handling and flowing.
- D. Place concrete continuously between predetermined expansion, control, and construction joints.
- E. Do not place partially hardened, contaminated, or retempered concrete.
- F. Do not allow concrete to free fall over 8 feet; provide tremies, chutes, or other means of conveyance.
- G. Consolidate concrete with mechanical vibrating equipment. Hand compact in corners and angles of forms.
- H. Screed slabs level, to flatness tolerance of 1/8 inch in 10 feet.

3.3 PLACEMENT OF SEPARATE FLOOR TOPPINGS

- A. Prior to placing toppings, remove deleterious material from concrete substrates; broom surfaces clean.
- B. Apply bonding agent to concrete substrate; follow manufacturer's instructions.

**** OR ****

- C. Apply sand and cement slurry coat to concrete surfaces just prior to placing topping.
- D. Place divider strips and reinforcing.
- E. Place toppings to required lines and elevations; screed level, to tolerance of 1/8 inch in 10 feet.

3.4 PLACEMENT OF GROUT

- A. Remove loose and foreign matter from concrete; lightly roughen bonding surface.
- B. Just prior to grouting, thoroughly wet concrete surfaces; remove excess water.
- C. Mix grout in accordance with manufacturer's instructions. Do not retemper.
- D. Place grout continuously, by most practical means; avoid entrapped air. Do not vibrate grout.

3.5 PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Provide artificial heat to maintain temperature of concrete above minimum specified temperature for duration of curing period.
- D. Keep forms sufficiently wet to prevent cracking of concrete or loosening of form joints.

3.6 CURING

- A. Cure concrete in accordance with ACI 308:
 - 1. Horizontal surfaces:
 - a. Surfaces to receive additional toppings or setting beds: Use curing paper method.
 - b. Other surfaces: Use either curing paper or curing compound method.
 - 2. Vertical surfaces: Use either wet curing or curing compound method.
- B. Curing Compound Method:
 - 1. Spray compound on surfaces in two coats, applying second at right angle to first, at minimum rate recommended by manufacturer.
 - 2. Restrict traffic on surfaces during curing.
- C. Curing Paper Method:
 - 1. Spread curing paper over surfaces, lapping ends and sides minimum 4 inches; maintain in place by use of weights.
 - 2. Remove paper after curing.
- D. Wet Curing Method: Spray water over surfaces and maintain wet for 7 days.

3.7 CLEANING

- A. Remove efflorescence, stains, oil, grease, and foreign materials from exposed surfaces.

END OF SECTION

SECTION 03 3500
CONCRETE FINISHING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Concrete Floor Liquid Densifier Sealer.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.
 - 2. Section 03 3000 - Cast-In-Place Concrete.

1.2 REFERENCES

- A. American Concrete Institute (ACI):
 - 1. 301 - Structural Concrete for Buildings.
 - 2. 302.1 - Guide for Concrete Floor and Slab Construction.
- B. ISO International Organization for Standardization
 - 1. ANSI/ISO 9001 – Quality Management Systems - Requirements.

1.3 DEFINITIONS

- A. Specified Overall Value (SOV): Describes the flatness or levelness value which must be achieved when all measured values of that type on a given Test Surface are combined.
- B. Minimum Local Value (MLV): Describes the flatness or levelness value below which repair or replacement is required and applies to Minimum Local Area.
- C. Minimum Local Area (MLA): An area bounded by construction or contraction joints or by column lines or half-column lines, whichever is smaller; no boundary crosses a construction joint or expansion joint.
- D. Level: Horizontal, normal to the direction of gravity. An envelope is defined by 2 level lines which are separated by stated distances.

1.4 SUBMITTALS

- A. Submittals for Review:
 - 1. Product List: List manufacturer name and product name.
 - 2. Product Data: Descriptive data for sealer/hardener.
 - 3. Manufacturer Certificate: Indicating products listed on Contractor's Product List are compatible and suitable for the specified applications

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 3 years experience in work of this Section.
- B. Manufacturer: ISO 9001 quality certified as primary manufacturer of specified products.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Concrete Sealer/Hardener:

1. The Euclid Chemical Company (www.euclidchemical.com)
2. Manufacturer Single Source: Provide liquid densifier sealer and related concrete treatment and admixture products from a single qualified manufacturer.

B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

A. Concrete Materials: Specified in Section 033000.

PART 3 EXECUTION

3.1 FINISHING INTERIOR FLOOR SURFACES

- A. Finish concrete floor surfaces in accordance with ACI 301 and ACI 302.1
- B. Wood float surfaces to receive thick set tile
- C. Steel trowel and fine broom finish surfaces to receive thin set tile
- D. Steel trowel and seal surfaces to be exposed. Apply sealer/hardener in strict accordance with manufacturer's instructions.
- E. In areas with floor drains, maintain design floor elevation at walls; slope surfaces uniformly to drains as indicated.
- F. Tolerances
 1. Maximum variation of surface flatness for exposed concrete floors: 1/8 inch in 10 feet.

3.2 FINISHING EXTERIOR SLAB SURFACES

- A. Finish exterior concrete slab surfaces in accordance with ACI 301.
- B. Steel trowel and broom finish surfaces.
- C. Steel trowel and cross rake ramp surfaces.
- D. Tolerances:
 1. Maximum variation of surface flatness: 1/4 inch in 10 feet.
 2. Correct defects by grinding or removal and replacement of defective work. Re-measure corrected areas by same process.

END OF SECTION

SECTION 05 4000

COLD-FORMED METAL FRAMING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Formed steel stud wall framing.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. American Iron and Steel Institute (AISI) - Specification for the Design of Cold-Formed Steel Structural Members.
- B. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.
- C. American Welding Society (AWS) D1.3 - Structural Welding Code - Sheet Steel.
- D. ASTM International (ASTM):
 - 1. A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members.
 - 2. C1513 - Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections.
- E. Society for Protective Coatings (SSPC) - Painting Manual.
- F. Steel Framing Alliance (SFA).

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings: Indicate framing layout, components, connections, fastenings, etc.
 - 2. Product Data: Indicate framing components, sizes, materials, finishes, and accessories.
- B. Quality Control Submittals:
 - 1. Certificates of Compliance: Certificate from Professional Structural Engineer responsible for system design that system was designed in accordance with Contract Document requirements, applicable Building Code, and generally accepted engineering practices.

1.4 QUALITY ASSURANCE

- A. Manufacturer and Installer Qualifications: Minimum 5 years experience in work of this Section.
- B. Manufacturer: Current member of SFA.
- C. Calculate structural properties of framing members in accordance with AISI Specifications.
- D. Welder Qualifications: AWS D1.3.
- E. Design exterior wall stud system to withstand:
 - 1. Live and dead loads in accordance with Building Code.

2. Wind pressure loads in accordance with ASCE 7.
 3. Movement caused by an ambient temperature range of 120 degrees F and a surface temperature range of 160 degrees F.
 4. Maximum deflection under loading: L/600 without sheathing materials.
- F. Design system to accommodate construction tolerances, deflection of building structural members, and clearances at openings.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
1. California Expanded Metal Company. (www.cemcosteel.com)
 2. ClarkDietrich Building Systems. (www.clarkdietrich.com)
 3. Craco Mfg., Inc. (www.cracometals.com)
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Framing Materials:
1. ASTM A1003/A1003M, galvanized sheet steel, G60 coating class.
 2. Fabricate components to ASTM C955.
 3. Studs: Channel profile, punched for utility access.
 4. Tracks:
 - a. Depth: As indicated on construction documents.
 - b. Channel profile, same gage and depth as studs, unpunched.
 - c. Top track: Deflection compensating type, deep leg runner with slotted screw holes; permit plus or minus 1/2 inch movement of overhead structure without damage to framing.
 - d. Bottom track: 1-1/4 inch high legs.

2.3 ACCESSORIES

- A. Bracing, Furring, Bridging: Formed sheet steel, thickness determined by performance requirements specified.
- B. Plates, Gussets, Clips: Formed sheet steel, thickness determined by performance requirements specified.
- C. Fasteners: ASTM C1513; self-drilling, self-tapping screws.
- D. Touch Up Paint: SSPC Paint 20, Type I or II.
- E. Welding Materials: AWS D1.3; type required for materials being welded.

2.4 FABRICATION

- A. Prefabricate framing components using templates. Field fabrication prohibited except for minor alterations to accommodate site conditions.
- B. Cut and fit members to tight fit.
- C. Assemble components using screw connection method.

- D. Fabricate straight, level, and true, without warp or rack.
- E. Fabrication Tolerances:
 - 1. Variation from indicated length: Maximum 1/2 inch for components up to 30 feet long; maximum 3/4 inch for components over 30 feet long.
 - 2. Variation from indicated height: Maximum 1/4 inch for components up to 5 feet high; maximum 1/2 inch for components over 5 feet high.

PART 3 EXECUTION

3.1 INSTALLATION - GENERAL

- A. Install framing components in accordance with ASTM C1007, manufacturer's instructions, and approved Shop Drawings.
- B. Welding: In accordance with AWS D1.3.
- C. Make provisions for erection stresses. Provide temporary alignment and bracing.

3.2 INSTALLATION - STUD FRAMING

- A. Place top and bottom tracks in straight lines with ends butted. Fasten tracks at maximum 12" o.c.
- B. Place studs at spacing indicated and not more than 2 inches from abutting walls and at each side of openings.
- C. Connect studs to top and bottom tracks using fastener method.
- D. Construct corners using minimum of three studs.
- E. Double studs at wall openings, door jambs, and window jambs. Do not splice studs.
- F. Erect studs, brace, and reinforce to develop full strength, to achieve design requirements.
- G. Install headers above openings and intermediate studs above and below openings to align with wall stud spacing.
- H. Install framing between studs for attachment of mechanical and electrical items, and to prevent stud rotation.
- I. Laterally brace walls at location indicated.

3.3 INSTALLATION TOLERANCES

- A. Maximum Variation from True Position and any Member from Plane: 1/4"

3.4 ADJUSTING

- A. Touch up field connections and breaks in factory coatings with touch up paint applied in accordance with manufacturer's instructions.

END OF SECTION

SECTION 07 2115

BATT INSULATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Provide glass fiber acoustical insulation for interior partitions as indicated in building plans.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. C665 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Wood Frame and Light Construction Buildings.
 - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 3. E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C.

1.3 SUBMITTALS

- A. Quality Control Submittals:
 - 1. Certificates of Compliance: Certification from an independent testing laboratory that insulation meets fire hazard classification requirements.

1.4 QUALITY ASSURANCE

- A. Fire Hazard Classification:
 - 1. Noncombustible, tested to ASTM E136.
 - 2. Flame spread/smoke developed rating of 25/50 or less, tested to ASTM E84.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store insulation in clean, dry, sheltered area, off ground or floor, until used. Protect against wetting and moisture absorption.

1.6 PROJECT CONDITIONS

- A. Do not install until insulation until building is substantially water and weather tight.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Johns Manville. (www.jm.com)
 - 2. Knauf Insulation. (www.knaufusa.com)
 - 3. Owens Corning. (www.owenscorning.com)
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Thermal & Acoustical Batt Insulation:

1. Type: ASTM C665, glass fiber composition.
2. Facing: Unfaced.
 - a. Thickness: Fill Wall Cavity, full height.
 - b. R-19 for 6" metal stud wall framing (16" wide)
 - c. R-15 for 3 5/8" metal stud wall framing (16" wide)

PART 3 EXECUTION

3.1 INSTALLATION

- A. Friction fit between framing members.
- B. Butt insulation to adjacent construction. Butt ends and edges.
- C. Carry insulation around pipes, wiring, boxes, and other components.
- D. Ensure complete enclosure of spaces without voids.

END OF SECTION

SECTION 07 9200

JOINT SEALERS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sealants and joint backing.
- B. Pre-compressed foam sealers.

1.02 RELATED SECTIONS

- A. Section 08 8000 - Glazing: Glazing sealants and accessories.
- B. Section 09 3000 - Tile: Sealant used with tile.

1.03 REFERENCES

- A. ASTM C 834 - Standard Specification for Latex Sealants; 2000.
- B. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants; 1998.
- C. ASTM C 1193 - Standard Guide for Use of Joint Sealants; 2000.
- D. ASTM D 1667 - Standard Specification for Flexible Cellular Materials--Vinyl Chloride Polymers and Copolymers (Closed-Cell Foam); 1997.

1.04 SUBMITTALS

- A. Contact Contractor for submittal procedures.
- B. Product Data: Provide data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.
- C. Manufacturer's Installation Instructions: Indicate special procedures.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the work of this section with minimum three years experience.

1.06 ENVIRONMENTAL REQUIREMENTS

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

1.07 COORDINATION

- A. Coordinate the work with all sections referencing this section.

1.08 WARRANTY

- A. Correct defective work within a (5) five year period after Date of Substantial Completion.
- B. Warranty: Include coverage for installed sealants and accessories which fail to achieve airtight seal, exhibit loss of adhesion or cohesion, or do not cure.
- C. The Warranties submitted under this Section shall not deprive the Owner of other rights or remedies that the Owner may have under other provisions of the Contract Documents and the laws of governing jurisdictions and is in addition to and runs concurrently with other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 PRODUCTS

2.01 SEALANTS

- A. General Purpose Exterior Sealant: Polyurethane; ASTM C 920, Grade NS, Class 25, Uses M, G, and A; single component.
 - 1. Color: Standard colors matching finished surfaces.
 - 2. Applications: Use for:
 - a. Control, expansion, and soft joints in masonry.
 - b. Joints between concrete and other materials.
 - c. Joints between metal frames and other materials.
 - d. Other exterior joints for which no other sealant is indicated.
- B. Exterior Expansion Joint Sealer: Pre-compressed foam sealer; urethane with water-repellent;
 - 1. Color: Black.
 - 2. Size as required to provide weather-tight seal when installed.
 - 3. Provide product recommended by manufacturer for traffic-bearing use.
 - 4. Applications: Use for:
 - a. Exterior wall expansion joints.
 - b. Horizontal pedestrian traffic joints.
- C. Exterior Metal Lap Joint Sealant: Butyl or polyisobutylene, nondrying, non-skinning, non-curing.
 - 1. Applications: Use for:
 - a. Concealed sealant bead in sheet metal work.
 - b. Concealed sealant bead in siding overlaps.

- D. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C 834, Type OP, Grade NF single component, paintable.
 - 1. Color: Standard colors matching finished surfaces.
 - 2. Applications: Use for:
 - a. Interior wall and ceiling control joints.
 - b. Joints between door and window frames and wall surfaces.
 - c. Other interior joints for which no other type of sealant is indicated.
- E. Tile Sealant: White silicone; ASTM C 920, Uses I, M and A; single component, mildew resistant.
 - 1. Applications: Use for:
 - a. Joints between plumbing fixtures and floor and wall surfaces.
 - b. Joints between kitchen and bath countertops and wall surfaces.
- F. Interior Floor Joint Sealant: Polyurethane, self-leveling; ASTM C 920, Grade P, Class 25, Uses T, M and A; single component.
 - 1. Approved by manufacturer for wide joints up to 1-1/2 inches.
 - 2. Color: Standard colors matching finished surfaces.
 - 3. Applications: Use for:
 - a. Expansion joints in floors.
- G. Concrete Paving Joint Sealant: Polyurethane, self-leveling; ASTM C 920, Class 25, Uses T, I, M and A; single component.
 - 1. Color: Gray.
 - 2. Applications: Use for:
 - a. Joints in sidewalks and vehicular paving.

2.02 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces are ready to receive work.

- B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION

- A. Remove loose materials and foreign matter which might impair adhesion of sealant.
- B. Clean and prime joints in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C 1193.
- D. Protect elements surrounding the work of this section from damage or disfigurement.

3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C 1193.
- C. Measure joint dimensions and size joint backers to achieve the following, unless otherwise indicated:
 - 1. Width/depth ratio of 2:1.
 - 2. Neck dimension no greater than 1/3 of the joint width.
 - 3. Surface bond area on each side not less than 75 percent of joint width.
- D. Install bond breaker where joint backing is not used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- G. Tool joints concave.
- H. Pre-compressed Foam Sealant: Do not stretch; avoid joints except at corners, ends, and intersections; install with face 1/8 to 1/4 inch below adjoining surface.

3.04 CLEANING

- A. Clean adjacent soiled surfaces.

3.05 PROTECTION OF FINISHED WORK

- A. Protect sealants until cured.

END OF SECTION

SECTION 08 1113

HOLLOW METAL DOORS/FRAMES & WINDOWS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Hollow steel doors and frames.

B. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. Section 08 7100 - Door Hardware.
3. Section 08 8000 - Glazing.

1.2 REFERENCES

A. American National Standards Institute (ANSI)/Steel Door Institute (SDI):

1. A250.8 - Recommended Specifications for Standard Steel Doors and Frames.
2. A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
3. A250.11 - Recommended Erection Instructions for Steel Frames.

B. ASTM International (ASTM):

1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
2. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
3. C518 - Standard Test Method for Steady State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.

C. National Fire Protection Association (NFPA) 80 - Standard for Fire Doors and Fire Windows.

D. Steel Door Institute (SDI) 117 - Manufacturing Tolerances for Standard Steel Doors and Frames.

E. Underwriters Laboratories (UL):

1. 10B - Standard for Fire Tests of Door Assemblies.
2. 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.

1.3 SUBMITTALS

A. Submittals for Review:

1. Shop Drawings: Show locations, elevations, dimensions, model designations, [fire] [thermal] [acoustical] ratings, preparation for hardware, and anchoring details.
2. Product Data: Show elevations, dimensions, gages of metal, hardware reinforcing gages and locations, and anchor types.

1.4 QUALITY ASSURANCE

A. Doors: ANSI/SDI A250.8.

1. Grade: III - Extra Heavy Duty, 16 gauge
2. Model: 1 - Full Flush
3. Exterior doors: Maximum thermal transmittance (U-value) of 0.50, tested to ASTM C518.

B. Frames: ANSI/SDI A250.8, Grade III - Extra Heavy Duty, 16 gauge

C. Fire Door and Frame Construction: Conform to UL 10B.

D. Installed Fire Rated Door and Frame Assemblies: Conform to NFPA 80.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Ship door frames with removable angle spreader; do not remove until frame is installed.
- B. Store doors upright in protected, dry area, off ground or floor, with at least 1/4 inch space between individual units.
- C. Do not cover with non-vented coverings that create excessive humidity.
- D. Remove wet coverings immediately.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Ceco Door. (www.cecodoor.com)
 - 2. Curries. (www.curries.com)
 - 3. Pioneer Industries, Inc. (www.pioneerindustries.com)
 - 4. Steelcraft. (www.steelcraft.com)
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Steel Sheet:
 - 1. ASTM A1008/1008M, cold rolled.
- B. Galvanized Steel Sheet:
 - 1. ASTM A653/A653M, hot dipped, Structural Quality, Class G40 galvanized.
- C. Door Core:
 - 1. Exterior doors: Rigid polystyrene insulation
 - 2. Interior fire-rated and non-fire rated doors: Resin impregnated fibrous honeycomb

2.3 ACCESSORIES

- A. Glass, Glazing Sealers, and Accessories: Specified in Section 08 8000.
- B. Primer: Zinc rich type.

2.4 FABRICATION

- A. Fabricate doors and frames in accordance with ANSI/SDI A250.8.
- B. Fabricate exterior doors and frames from galvanized steel sheet.
- C. Doors:
 - 1. Fabricate from minimum 16 gage sheets.
 - 2. Close top and bottom edges of doors with steel channel, minimum 16 gauge, extending full width of door, and spot welded to both faces, with top channel flush and bottom channel recessed.
- D. Frames:
 - 1. Fabricate from minimum 16 gage sheets.
 - 2. Close corner joints tight with trim faces mitered and face welded, full profile welded, or continuously welded and ground smooth.
 - 3. Anchors:
 - a. Provide one anchor at each jamb for each 30 inches of door height.
 - b. Design anchors to provide positive fastenings to adjacent construction.
 - c. Provide one floor anchor welded to each jamb.
 - 4. Where frames will be filled with concrete or grout, install silencers in frames before erection.
- E. Accurately form to required sizes and profiles.
- F. Grind and dress exposed welds to form smooth, flush surfaces.
- G. Do not use metallic filler to conceal manufacturing defects.
- H. Fabricate with internal reinforcement for hardware specified in Section 087100; weld in place.
- I. Glazing Stops:
 - 1. Manufacturer's standard, screw on type with mitered corners.
 - 2. Form stops from minimum 20 gage steel; prefit for field glazing.
 - 3. Locate screws within 1 inch of ends of stops and maximum 8 inches on center.
 - 4. Install glazing stops on secure side of frames.
- J. Design Clearances:
 - 1. Between door and frame: Maximum 1/8 inch.
 - 2. Between meeting edges of pairs of doors:
 - a. Non-fire rated doors: 3/16 inch plus or minus 1/16 inch.
 - b. Fire-rated doors: 1/8 inch plus or minus 1/16 inch.
 - 3. Undercut:
 - a. Non-fire rated doors: Maximum 3/4 inch.
 - b. Fire-rated doors: Comply with NFPA 80.
 - 4. Between face of door and stop: 1/16 to 3/32 inch.

K. Manufacturing Tolerances: In accordance with SDI-117.

2.5 FINISHES

- A. Dress tool marks and surface imperfections to smooth surfaces.
- B. Clean and chemically treat steel surfaces.
- C. Touch up damaged metallic coatings.
- D. Apply manufacturer's standard rust inhibiting primer paint, air-dried or baked on, meeting requirements of ANSI/SDI A250.10.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install doors and frames in accordance with ANSI/SDI A250.11.
- B. Set plumb and level.
- C. Secure to adjacent construction using fastener type best suited to application.
- D. Install glass as specified in Section 08 8000.
- E. Install hardware in accordance with Section 08 7100.

3.2 ADJUSTING

- A. Touch up minor scratches and abrasions in primer paint to match factory finish.

END OF SECTION

**SECTION 08 7100
DOOR HARDWARE**

PART 1 GENERAL

1.01 SECTION INCLUDES

Hardware for swinging doors except special types of unique and non-matching hardware specified in other sections.

1.02 RELATED WORK

- A. Section 08 11 13 – Hollow Metal Door Frames

1.03 REFERENCES

- A. ADA - Americans with Disabilities Act of 1990 including Accessibility Guidelines as amended by the D.O.J. September 15, 2010, as adopted by the Authority Having Jurisdiction (AHJ).
- B. ANSI A117.1 - Buildings and Facilities - Providing Accessibility and Usability for Physically Handicapped People.
- C. ANSI/BHMA A156 (.1 through .21)
- D. ANSI/DHI – A115.IG Installation Guide for Doors and Hardware.
- F. NFPA 80 - Fire Doors and Windows.
- G. NFPA 101 – Life Safety Code
- H. IBC - International Building Code, as adopted by public Authority Having Jurisdiction (AHJ).
- I. State and local Rules and Regulations for Barrier Free Facilities, as adopted by AHJ.

1.04 DOOR HARDWARE TYPES

- A. Types of finish hardware required include, but is not necessarily limited to, the following:
 - 1. Hinges
 - 2. Lock cylinders.
 - 3. Keys, keying, and key control.
 - 4. Locksets, latch sets, and privacy sets.
 - 5. Closers.
 - 6. Overhead, wall, and floor stops.
 - 7. Protection plates.
 - 8. Gasketing for exterior and interior doors, as required.
 - 9. Silencers.
- B. Refer to Part 2 Products for Manufacturer's identification and allowable substitutions.

1.05 SUBMITTALS

- A. Under provisions of Section 01 34 00, submit the following:
 - 1. Product information: Manufacturer's published technical product data for all specified door hardware items indicating compliance with the requirements.
 - 2. Hardware Schedule:
 - a. Hardware schedules are intended for the Contractor's coordination of the work. Review and acceptance by the Architect or Owner does not relieve the Contractor of his exclusive responsibility to fulfill the requirements as shown and specified.
 - b. Submit hardware schedule in the manner and format as specified, complying with the actual construction progress schedule requirements for each draft. Include the following information:
 - 1) Explanation of all abbreviations, symbols, codes, at the like, including door handing.
 - 2) Type, style, function, size, and finish of each hardware item.

- 3) Door and frame sizes and materials cross referenced to the Architect's marks in the door schedule.
 - 4) Room identification (name and number) on each side of door opening as indicated on the drawings.
 - 5) Product name, model number, description, and name of manufacturer of each item.
 - 6) Fastenings and other pertinent information.
 - 7) Locations of hardware cross referenced to architectural floor plans and door schedules.
 - 8) Mounting heights and locations of each type of hardware.
3. Key Schedule:
 - a. Key schedule, cylinders, keying and installation shall be done by the TGC facility locksmith.
 4. Templates: Hardware supplier will furnish hardware templates to the Contractor for each fabricator of doors, frames, and other work to be shop prepared or factory prepared for the installation of hardware. Upon request check shop drawings of such other work, to conform with those adequate provisions are made for proper location and installation of hardware.
- B. Under provisions of Section 01 70 00, submit the following:
1. Product information.
 2. Hardware schedule.
 3. Manufacturer's published operation and maintenance data. Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
 4. Tools and extra materials as required.
 5. Manufacturer's warranties, revise to meet criteria as established within this section. Warranty periods shall commence upon acceptance of the building by the owner. Where warranties listed exceed the manufacturer's standard warranty, obtain in writing an extended warranty to meet the requirements above and as noted. If the manufacturer will not meet these requirements, and another approved manufacturer will comply, supply the alternate approved manufacturer.

1.06 QUALITY ASSURANCE

- A. Acceptable Designs:
1. Items specified in this section are products which are of acceptable design.
 2. Do not substitute products without Architect's written prior approval per Section 01 60 00. Requests for approval shall be submitted by factory authorized distributor firms representing the products proposed for substitution. Items that are noted to allow no substitution are matching existing materials and the owner's material inventory for servicing the facility.
- C. Regulatory and Operational Requirements:
1. Provide hardware for all openings, whether specified or not, in compliance with NFPA Standard No. 80, proper operation and local building code requirements. Where required provide only hardware which has been tested and listed by UL or FM for types and sizes of doors required and complies with requirements of door and door frame labels. Label hardware, as required, for compliance with pressure testing criteria as dictated in IBC.
 2. Provide hardware which meets or exceeds handicap accessibility per local building code requirements. Conform to the Americans with Disabilities Act (ADA) of 1990 as amended by the D.O.J. September 15, 2010, as adopted by the Authority Having Jurisdiction (AHJ).

1.07 DELIVERY, STORAGE, HANDLING, AND PROTECTION

- A. Deliver, store, handle, and protect products to project site under provisions of Section 01600 and as specified herein.
- B. Require hardware supplier to:
1. Tag each item or package separately, with identification related to final hardware schedule.
 2. Include manufacturer's basic installation instructions with each item or package.

3. As material is received by hardware supplier from various manufacturers, sort and repackage in containers with each item clearly marked with appropriate opening numbers to match the approved hardware schedule. Two or more identical items may be packed in the same container.
 4. Deliver individually packaged hardware items at the proper times to the proper locations (shop or project site) for installation.
 5. Inventory hardware jointly with representatives of the General Contractor, hardware supplier and the hardware installer until each is satisfied that count is correct.
- C. Protect hardware from theft by cataloging and storing in a secure and lockable area. Control the handling and installation of hardware items which are not immediately replaceable, so that the completion of the work will not be delayed by hardware losses, both before and after installation. Replace lost, missing, damaged, or stolen door hardware items at no additional cost to the Owner as required to meet schedule requirements.

1.08 **SEQUENCING AND SCHEDULING**

- A. Coordinate work of this section with the work of other sections of work under provisions of Section 01 04 00
- B. Furnish hardware templates to each fabricator of doors, frames, and other work to be shop or factory prepared for the installation of hardware.
- C. Verify completeness and suitability of door hardware with the hardware supplier and the hardware installer.

1.09 **MAINTENANCE MATERIALS**

- A. Under provisions of Section 01 70 00, furnish to Owner a complete set of special wrenches and tools applicable to each different or special hardware component as needed for Owner's continued adjustment, maintenance, removal, and replacement of door hardware.
- B. Special tools and accessories shall be supplied by the hardware component manufacturer.

PART 2 PRODUCTS

2.01 **MATERIALS AND FABRICATION**

- A. General:
 1. Provide all door hardware for complete work, in accordance with the drawings and as specified herein.
 2. Quantities listed, in any instance, are for the Contractor's convenience only and are not guaranteed.
 3. Provide items and quantities not specifically mentioned to ensure a proper and complete operational installation. Match the quality and finish of items specified.
 4. Provide miscellaneous hardware as listed in hardware groups.
 5. All hardware is to be anti-ligature type.
- B. Hand of door: Drawings show direction of slide, swing or hand of each door leaf. Door schedule indicates door and frame sizes, materials, required fire ratings, and other pertinent information. Furnish each item of hardware for proper installation and operation of door movement as indicated.
- C. Manufacturer's Name Plate: Do not use manufacturer's products which have manufacturer's name or trade name displayed in a visible location (omit removable name plates), except in conjunction with required UL or FM labels and as otherwise acceptable to the Architect. Manufacturer's identification will be permitted on rim of lock cylinders and latch faceplates only.
- D. Base Metals: Produce hardware units of basic metal and forming method indicated, using manufacturer's standard metal alloy, composition, temper and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI A156 series standard for each type hardware item and with ANSI A156.18 for finish designations indicated. Do not furnish "optional" materials or forming methods for those indicated, except as otherwise specified.

- E. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated.
 - 1. Screws: Furnish manufacturer's standard security head screws.
 - 2. Concealed Fasteners: Provide concealed fasteners for hardware units which are exposed when door is closed, except to extent no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work, except where it is not feasible to adequately reinforce the work. In such cases, provide sleeves for each thru-bolt or use sex screw fasteners.

2.02 HINGES

- A. Manufacturer:
 - 1. Listed in Door Hardware Schedule: Stanley
 - 2. Approved Substitutions: Hager, McKinney or approved equal prior to bidding.
 - 3. Continuous hinges are as manufactured by Stanley. Equals by Select or ABH are acceptable (required on main entry door).
- B. Templates: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template produced units.
- C. Screws: Furnish Phillips flat head or machine screws for installation of units, except furnish Phillips flat head or wood screws for installation of units into wood. Finish screw heads to match surface of hinges.
- D. Pin Tips: Hospital type.
- E. Continuous hinges are to be warranted for a period of two years.

2.03 LOCK CYLINDERS

- A. Manufacturer:
 - 1. Listed in Door Hardware Schedule: Sargent
 - 2. Substitutions: None – facility standard
- B. Contact the Owner's locksmith that will provide, key and install all lock cylinders as required.

Provide temporary construction cores as needed for security during the construction phase. These cylinders shall be returned to the hardware supplier once the permanent cylinders are installed.

- C. Construct lock cylinder parts from brass/bronze, stainless steel, or nickel silver.

2.04 KEYS, KEYING, AND KEY CONTROL

- A. Keys:
 - 1. Material: Provide keys of nickel silver only.
 - 2. Quantities: These quantities are to establish a maximum allowable quantity of cut keys to service the project and may not necessarily be assigned as noted. A lesser quantity of cut keys required will not result in any credits, nor a quantity of uncut keys to be issued unless noted otherwise.
 - a. 3 change keys per each cylinder unit.
 - b. New keys shall coordinate with exist grand master & master keys.
- B. Keying:
 - 1. Comply with Owner's written instructions for masterkeying and, except as otherwise indicated, provide individual change keys for each lock which is not designated to be keyed alike with a group of related locks. All keying and required materials shall be provided by the Owner's locksmith.
 - 2. Grandmaster key all cylinder items to coordinate with the Owner's instructions. Existing system is Sargent, verify. Confirm series with the Owner and match accordingly. Permanently inscribe each key with the notation "DO NOT DUPLICATE".

2.05 LOCKSETS, LATCHSETS, AND PRIVACY SETS:

- A. Manufacturer:
 - 1. Listed in Door Hardware Schedule: Best 9K
 - 2. Approved Substitutions: Sargent 10-Line or approved equals prior to bidding
- B. Types: Locksets, latch sets, and privacy sets as indicated in Door Hardware Schedule.
- C. Strikes: Provide manufacturer's standard wrought box strike for each latch or lock bolt. Provide dust-proof strikes for foot bolts, except where not available. At these locations, provide manufacturer's standard recessed strike. Provide roller type strikes where recommended by lock, latch or bolt manufacturer. If aluminum frames are specified, confirm with the aluminum frame supplier that the standard lock strikes will function. Provide the manufacturer's standard extended lip strikes if required.
- D. Lock Throw: Provide 3/4" minimum throw of mortise type latches and deadbolts used. Cylindrical latches will be 1/2" minimum. Comply with UL requirements for throw of bolts and latch bolts on rated fire openings.
- E. Locks and latches shall be warranted for a period of five years.

2.06 CLOSERS:

- A. Manufacturer:
 - 1. Listed in Door Hardware Schedule: Stanley QDC100
 - 2. Approved Substitutions: 4040 XP-DA, Dorma 8916-DA
- B. Size of Units: Except as otherwise specifically indicated, comply with the manufacturer's recommendations for size of door control unit, depending on the size of the door, exposure to weather and anticipated frequency of use.
- C. Provide manufacturer's standard through bolt attachment where door construction is not adequate for support.
- D. Arms:
 - 1. All closers shall be concealed overhead with dead stop feature. Multi-Purpose Room & Staff Office doors shall also have hold-open feature.
- E. Mount all closers to the maximum allowable degree of opening by the closer manufacturer's template. Where closer arms incorporate dead stop features, mount closers to the maximum degree of opening available before conflict with adjacent structures. If not apparent on the contract documents, verify the use of open space with the Architect or Owner's Representative to determine the maximum allowable degree of opening.
- F. Access Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units complying with ANSI A117.1 provisions for door opening force. Fire protection has precedence over handicap compatibility, check with local jurisdiction.
- G. Closers shall have the manufacturer's standard adjustable delayed action feature.
- H. Automatic ADA door operator with time clock override is required on main entry door.
- I. Door closers and related hardware shall be warranted for a period of twenty-five years or lifetime. Electronic closers shall be warranted for a period of two years.

2.08 WALL AND FLOOR STOPS

- A. Manufacturers:
 - 1. Listed in Door Hardware Schedule: Trimco
 - 2. Approved Substitutions: Rockwood, DonJo or approved equal prior to bidding.
- B. General: Except as otherwise indicated, provide stops (wall, floor or overhead) at each leaf of every swinging door leaf.

2.09 OVERHEAD STOPS

- A. Manufacturer:
 - 1. Listed in Door Hardware Schedule: ABH
 - 2. Approved Substitutions: Glynn Johnson, Dorma or approved equal prior to bidding.

- B. Mount stops to the maximum degree of opening available before conflict with adjacent structures, or, if adjacent structures are not considered, to the maximum allowable by stop manufacturer's template.
- C. If not apparent on the contract documents, verify the use of open space with the Architect or Owner's Representative to determine the maximum allowable degree of opening.
- D. Overhead stops shall integrate with the concealed overhead closer as specified.
- E. Overhead stops shall be warranted for a period of two years.

2.10 SILENCERS

- A. Manufacturers:
 1. Listed in Door Hardware Schedule: Trimco
 2. All non-fire rated hollow metal door frames require silencers.
 3. Approved Substitutions: Hager, Ives or approved equal prior to bidding.

2.11 FINISHES

- A. Exposed surfaces of hardware shall be Dark Anodized, Satin Bronze, Oil Rubbed (US10B) unless noted otherwise.
- B. The designations used in the schedule and elsewhere to indicate hardware finishes are the industry recognized standard commercial finishes common to the product's manufacturer listed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Under provisions of Section 01 0400, examine and verify that substrates and project site conditions are ready to receive work of this section.
- B. Do not begin installation until finishes indicated to be field applied have been applied to doors, frames, and similar items requiring project site finishing and are thoroughly dry and cured.
- C. Do not begin installation until unsatisfactory conditions are corrected in a manner acceptable to the installer. Beginning installation means installer accepts project site conditions and substrates as ready to receive work of this section.

3.02 INSTALLATION

- A. General: Types and approximate quantities of door hardware required for this project are indicated at the end of this section.
- C. Heights: Mount hardware units at heights indicated in "Recommended Locations for Builders Hardware for /standard Steel Doors and Frames" by the Door and Hardware Institute, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by the Architect.
- D. Substrates: Adjust and reinforce attachment substrates as necessary for proper installation and operation of hardware.
- E. Installation:
 1. Install each hardware item in compliance with the manufacturer's instructions, requirements of NFPA 80, NFPA 101, IBC, ADA, State Rules and Regulations for Barrier Free Facilities and recommendations of the DHI.
 2. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
 3. Drill and countersink units which are not factory prepared for fasteners. Space fasteners and anchors in accordance with industry standards.
 4. Where not factory machined, machine cut for hardware per template, as required.
 5. Cut and fit thresholds and floor covers to profile of door frames. Join units with concealed welds. Cut smooth openings for spindles, bolts, or similar items. Screw thresholds to substrate with the manufacturer's standard machine screws/expansion anchors (MS/EA) unless otherwise noted. Fill cavities of thresholds at sound rated openings with 1 inch thick

(uncompressed thickness) low density fiberglass sill sealer insulation full width and length of the threshold. In addition to fastening requirements, set thresholds for exterior doors in a full bed of butyl-rubber or polyisobutylene mastic sealant.

6. Do not install hardware which is incomplete or apparently improper for application. Notify the hardware supplier immediately of any such deficiencies. Failure to comply with this requirement indicates the hardware installer's acceptance of responsibility for proper application and performance.
- F. Cutting and Patching:
Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Division-9 sections.

3.03 **ADJUSTING**

- A. Initial Adjustment:
1. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Adjust resilient faced sound stops for continuous contact with door and threshold. Adjust weatherstripping and sweeps to completely seal doors with frames and to adjacent structures.
 2. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
- B. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.05 **CLEANING AND DEBRIS**

- A. Cleaning:
1. Clean work under provisions of Section 01 7000
 2. Clean adjacent surfaces soiled by work of this section.
- B. Debris: Under provisions of Section 01 5000, remove debris from project site and legally dispose of off-site.

3.06 **MAINTENANCE**

- A. Approximately six months after the acceptance of hardware in each area, the hardware installer shall:
1. Return to the project and re-adjust every item of hardware to restore proper function of doors and hardware.
 2. Consult with and instruct Owner's personnel in recommended additions to the maintenance procedures.
 3. Replace hardware items which have deteriorated or failed due to faulty design, materials or installation of hardware units.
 4. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware and submit to the Architect.

3.07 **PROTECTION**

Under provisions of Section 01 5000, protect work of this section as required so that work will be without damage or deterioration at the time of completion and acceptance by the Owner.

3.08 DOOR HARDWARE

List of Manufacturers

(NOTE: COORDINATE ALL DOOR HARDWARE MFG AND KEYING WITH THE OWNER PRIOR TO BIDDING/ORDERING AND PREPARING THE DOORS AND FRAMES FOR DOOR HARDWARE!)

AB	ABH Corporation	Overhead Stops
BE	Best Access Systems	Locks
BY	By Others	Cylinders
DM	Dorma	Electric Strikes, Auto Operator
NA	National Guard	Weatherstrip, Thresholds
PR	Precision	Exit Devices, Power Supplies
RC	Rutherford Controls	Operator Switches
ST	Stanley	Hinges, Door Closers, Wire Harnesses
TK	Telkee	Key Cabinet
TR	Trimco	Stops, Flat Goods

Finish Codes

<u>Code</u>	<u>Description</u>
626, 652	Brushed Chrome
628	Clear Anodized Aluminum
313	Dark Anodized Aluminum
613 (US10B)	Oxidized Satin Bronze, Oil Rubbed
630	Satin Stainless Steel
689	Painted Aluminum
695	Painted Dark Bronze
GREY	Grey

Option List

<u>Code</u>	<u>Description</u>
C	Quick Connect Wiring Option (Precision)
CD	Cylinder Dogging (Precision)
LD	Less Dogging (Precision)
FL	Fire Exit Hardware (Precision)
TS	Touchbar Monitoring Switch (Precision)
MLR	Motorized Latch Retraction (Precision)
LM	Latchbolt Monitor (Dorma)
N Mounting	Spanner Through Bolt Mounting (Trimco)
B4E	Beveled 4 Edges - Kick and Mop Plates (Trimco)
CS	Counter Sinking of Kick and Mop Plates (Trimco)
MS/EA	Machine Screws/Expansion Anchors (NGP)
SMS-TEKS	Self-Drilling Machine Screws (NGP)

3.09 BID ALLOWANCE

Refer to Spec. Section 01 2200 for Finish Hardware Allowance.

END OF SECTION

SECTION 09 2900
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Metal stud wall framing.
- B. Metal channel ceiling framing.
- C. Acoustic insulation.
- D. Gypsum wallboard.
- E. Joint treatment and accessories.
- F. Textured finish system.

1.02 REFERENCES

- A. ASTM C 36/C 36M - Standard Specification for Gypsum Wallboard; 1999.
- B. ASTM C 475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 1994.
- E. ASTM C 630/C 630M - Standard Specification for Water-Resistant Gypsum Backing Board; 1996a.
- F. ASTM C 645 - Standard Specification for Nonstructural Steel Framing Members; 1999.
- G. ASTM C 665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 1998.
- H. ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 1999a.
- I. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board; 1999.
- J. Application of Gypsum Panel Products or Metal Plaster Bases; 1998.
- K. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 1999.
- L. ASTM E 413 - Classification for Rating Sound Insulation; 1987 (Reapproved 1999).
- M. GA-216 - Application and Finishing of Gypsum Board; Gypsum Association; 2000.
- N. GA-600 - Fire Resistance Design Manual; Gypsum Association; 2000.

1.03 SYSTEM DESCRIPTION

- A. Acoustic Attenuation for Interior Partitions Indicated as Acoustic: Thickness as indicated on the drawings.

1.04 SUBMITTALS

- A. See Division 01 - Administrative Requirements, for submittal procedures.

- B. Product Data: Provide data on metal framing.
- C. Samples: Submit two samples of gypsum board finished with proposed texture application, 12x12 inch in size, illustrating finish and texture.

1.05 **QUALITY ASSURANCE**

- A. Perform in accordance with ASTM C 840. Comply with requirements of GA-600 for fire-rated assemblies.
- B. Applicator Qualifications: Company specializing in performing the work of this section with minimum three years of experience.

PART 2 PRODUCTS

2.01 **MANUFACTURERS**

- A. Gypsum Board:
 - 1. G-P Gypsum Corporation: www.gp.com.
 - 2. National Gypsum Company: www.nationalgypsum.com.
 - 3. USG Corporation: www.usg.com.
 - 4. Substitutions: See Section 01600 - Product Requirements.

2.03 **GYP SUM BOARD MATERIALS** (refer to partition schedules for exact locations)

- A. Regular Gypsum Board: ASTM C1396; 48 inches wide x 5/8 inch thick, maximum practical length, tapered edge.
- B. Fire Resistant Gypsum Board: ASTM C1396, Type X; 48 inches wide x 5/8 inch thick, maximum practical length, tapered edge; apply to fire rated assemblies.

2.04 **ACCESSORIES**

- A. Acoustic Insulation: ASTM C 665; preformed glass fiber, friction fit type, unfaced. Full thickness.
- B. Acoustic Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.
- C. Corner Beads: Galvanized steel.
- D. Edge Trim: Bead type(s) as detailed.
- E. Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.
 - 1. Ready-mixed vinyl-based joint compound.
- F. Textured Finish Materials: Latex-based compound; plain.
- G. Screws: ASTM C 1002; self-drilling type; cadmium-plated for exterior locations.
- H. Nails: ASTM C 514.
- I. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- J. Adhesive for Attachment to Wood: ASTM C 557.

PART 3 EXECUTION

3.01 **EXAMINATION**

- A. Verify that project conditions are appropriate for work of this section to commence.

3.02 **ACOUSTIC ACCESSORIES INSTALLATION**

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
 - 1. Place one bead continuously on substrate before installation of perimeter framing members.
 - 2. Place continuous bead at perimeter of each layer of gypsum board.
 - 3. Seal around all penetrations by conduit, pipe, ducts , and rough-in boxes.

3.03 **GYPSUM BOARD INSTALLATION**

- A. Comply with ASTM C 840 , and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Non-Rated: Install gypsum board vertically, with ends and edges occurring over firm bearing.
- C. Single-Layer Fire-Rated: Install gypsum board vertically, with edges and ends occurring over firm bearing.
- D. Double-Layer Installation: Use gypsum backing board for first layer, placed perpendicular to framing or furring members. Use fire rated gypsum backing board for fire rated partitions and ceilings. Place second layer perpendicular to first layer. Offset joints of second layer from joints of first layer.
- E. Installation on Metal Framing: Use screws for attachment of all gypsum board except face layer of non-rated double-layer assemblies, which may be installed by means of adhesive lamination.
- F. Moisture Protection: Install moisture resistant board in areas called for in 2.03B above, as indicated on the drawings. Treat cut edges and holes in moisture resistant gypsum board with sealant.

3.04 **INSTALLATION OF TRIM AND ACCESSORIES**

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated. Verify locations with architect.
 - 1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.

3.05 **JOINT TREATMENT**

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Feather coats of joint compound so that camber is maximum 1/32 inch.
 - 2. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile, and fixed cabinetry.

3.06 **TEXTURE FINISH**

- A. Level 4 finish with light rolled on texture.

3.07 **TOLERANCES**

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness:
1/8 inch in 10 feet in any direction.

END OF SECTION

SECTION 09 6513

RESILIENT BASE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Resilient wall base.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM) F1861 - Standard Specification for Resilient Wall Base.
- B. Resilient Floor Covering Institute (RFCI) – Floor Score Certification Program.

1.3 MAINTENANCE

- A. Extra Materials: One unopened carton of each profile and color.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Design Basis: Contract Documents are based on products by Armstrong (www.armstrong.com)
- B. Equivalent products by following manufacturers are acceptable:
 - 1. Allstate Rubber Corp. (www.allstaterubber.com)
 - 2. Burke Flooring. (www.burkeflooring.com)
 - 3. Johnsonite, Inc. (www.johnsonite.com)
 - 4. Roppe Corp. (www.roppe.com)
- C. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Resilient Base:
 - 1. Type: ASTM F1861, thermoset vulcanized rubber.
 - 2. Thickness: 0.080
 - 3. Profile: Coved.
 - 4. Height: 4 inches.
 - 5. Length: Continuous rolls.
 - 6. Color: Refer to Finish Schedules at the front of the specifications manual.
 - 7. Finish: Satin.

2.3 ACCESSORIES

- A. Adhesive:
 - 1. Water based, waterproof, recommended by base manufacturer.

PART 3 EXECUTION

3.1 PREPARATION

- A. Prepare surfaces to receive base:
 - 1. Remove materials that could interfere with adhesion.
 - 2. Fill low spots with patching compound; finish flush with adjacent surface.
 - 3. Remove high spots, ridges and nibs.

3.2 INSTALLATION

- A. Apply adhesive continuously to back of base.
- B. Maintain top edge true to line and bottom edge in continuous contact with floor. Butt joints tight; butt base tight to adjacent construction.
- C. Do not install pieces less than 6 inches long.
- D. Miter and butt inside corners.
- E. At outside corners "V" cut back of base to 2/3 of its thickness and bend around corner.
- F. At exposed ends, install premolded units.
- G. Scribe to door frames and other interruptions.

END OF SECTION

SECTION 09 7800

FIBERGLASS REINFORCED PANELS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Prefinished FRP (Fiberglass Reinforced Plastic) wall panels for decorative and/or sanitary environments.

1.2 ENVIRONMENTAL CONDITIONS

- A. Building should be fully enclosed prior to installation with sufficient heat (70°) and ventilation consistent with good working conditions for finish work.

1.3 SUBMITTALS

- A. Submittals for Review:
 - a. Samples: 6 x 6 inch panel showing selected color.

1.4 DELIVERY AND STORAGE OF MATERIALS

- A. Materials are to be factory packaged on strong pallets. All materials are to be stored lying flat, under cover and protected from the elements. Panels should be allowed to acclimate to room temperature (70°) for 48 hours prior to installation.

1.5 WARRANTY

- A. All products shall be warranted to be free from defects for a period of 30 days after delivery.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Design Basis: Contract Documents are based on products by:
 - Marlite, 202 Harger St.
 - Dover, OH 44622
 - 330.343.6621 (www.marlite.com)
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. FRP Wall Panels:
 - 1. Type: Glass fiber reinforced plastic, USDA approved for incidental food contact.
 - 2. Size: 3/32 inch thick x 48 inches wide x 9 feet long.
 - 3. Color: S100 S/2/S White
 - 4. Surface texture: Smooth.

2.3 ACCESSORIES

- A. Trim:
 - 1. One piece extruded PVC, manufacturer's standard profile.
 - 2. Inside and outside corners, and J-molding (no trim at vertical joints between panels).
 - 3. Color: To match panels

- B. Adhesive:
 - 1. Compatible with panels and substrate; recommended by panel manufacturer.
 - 2. C-551 Marlite FRP Adhesive is available in 3 ½ gallon cans. A water- resistant, non-flammable adhesive, C-551 meets ASTM Specification C557
 - 3. C-375 Marlite Construction Adhesive is available 3 ½ gallon cans. A strong, flexible, water-resistant, solvent based adhesive formulated for fast, easy application, C-375 meets ASTM Specification C557
- C. Joint Sealer:
 - 1. As supplied and recommended by manufacturer.
 - 2. Marlite® Brand Color Match Sealant, Colors available to coordinate with Marlite Panels.
 - 3. Divisions between panels will not use a trim piece. These 1/8" joints will be caulked with same color as panel.
- D. Patching Compound: White latex type.

PART 3 EXECUTION

3.1 PREPARATION

- A. Prepare substrate to receive panels:
 - 1. Remove high spots.
 - 2. Fill low spots with patching compound; sand smooth.
 - 3. Remove loose and foreign matter that could impair adhesion.

3.2 CONDITIONING

- A. Panels should be opened and allowed to acclimate for 48 hours prior to installation.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Caulk joints: Panel-to-panel joints
- C. Install trim:
 - 1. Internal and external corners.
 - 2. Exposed edges: J molding.
 - 3. Secure to substrate.
- D. Cut panels to fit perimeter and around penetrations. Ensure that trim will completely cover cut edges.
- E. Maintain 1/8 to 3/16 inch expansion space at perimeter and around penetrations.
- F. Adhere panels to substrate with full bed of adhesive.
- G. Install continuous bead of joint sealer between panels and trim and between trim and adjacent construction.

3.4 MAINTENANCE

Wipe down using a damp cloth and mild soap solution or cleaner. Refer to manufacturer's specific cleaning recommendations. Do not use abrasive cleaners.

END OF SECTION

SECTION 099100

PAINTING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior Paints and Coatings
 - a. Drywall: Gypsum board.
 - b. Masonry: Concrete Masonry Units
 - 2. Interior High Performance Paints and Coatings:
 - a. Masonry: Concrete Masonry Units
 - b. Metal Ferrous: Decks, structural steel, joists, trusses, beams, and similar items including dryfall coatings.
 - c. Drywall: Gypsum board
 - 3. Surface preparation and field application of paints.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. Green Seal, Inc. (GS) 11 - Standard for Paints and Coatings.
- B. Master Painters Institute (MPI)- Architectural Painting Specification Manual.
- C. Society for Protective Coatings (SSPC) - Painting Manual.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Product Data: Manufacturer's data on materials proposed for use including:
 - a. Product designation and grade.
 - b. Product analysis and performance characteristics.
 - c. Standards compliance.
 - d. Material content.
 - e. Mixing and application procedures.
 - 2. Paint Schedule: Indicate types and locations of each surface, paint materials, and number of coats to be applied.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Materials, Preparation, and Workmanship: Conform to MPI Painting Manual.
- C. Mockup: Provide a mock-up for evaluation of surface preparation techniques and application workmanship
 - 1. Finish surfaces for verification of products, colors and sheens
 - 2. Finish area designated by Architect
 - 3. Provide samples that designate primer and finish coats.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Container Labels: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage rates, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- B. Paint Materials: Store at ambient temperature from 45 to 90 degrees F in ventilated area, or as required by manufacturer's instructions.

1.6 PROJECT CONDITIONS

- A. Do not apply materials when surface and ambient temperatures or relative humidity are outside ranges required by paint manufacturer.
- B. Maintain ambient and substrate temperatures above manufacturer's minimum requirements for 24 hours before, during, and after paint application.
- C. Do not apply materials when relative humidity is above 85 percent or when dew point is less than 5 degrees F different than ambient or surface temperature.
- D. Provide lighting level of 30 foot candles at substrate surface.

1.7 MAINTENANCE

- A. Extra Materials: 1 gallon of each color and sheen.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Sherwin Williams. (www.sherwin-williams.com)
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Paints and Coatings:
 - 1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by manufacturer.
- C. Coating Application Accessories: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.
- D. Color: Paint colors as selected.

2.3 ACCESSORIES

- A. Accessory Materials: Paint thinners and other materials required to achieve specified finishes; commercial quality.
- B. Patching Materials: Latex filler.
- C. Fastener Head Cover Materials: Latex filler.

- D. Gypsum Board Texture

2.4 MIXES

- A. Deliver paints pre-mixed and pre-tinted.
- B. Uniformly mix to thoroughly disperse pigments.
- C. Do not thin in excess of manufacturer's recommendations.
- D. Re-mix paint during application; ensure complete dispersion of settled pigment and uniformity of color and gloss.

2.4 PAINT SYSTEMS

A. Drywall – Gypsum Board Interior Walls

1. Latex Systems

a. Eg-Shel Finish

- 1) 1st Coat: S-W Harmony Interior Latex Primer, B11 (4mils wet, 1.3 mils dry)
- 2) 2nd Coat: S-W Harmony Interior Latex Eg-Shel, B9 Series
- 3) 3rd Coat: S-W Harmony Interior Latex Eg-Shel, B9 Series

B. Metal –

1. , Steel doors, frames: Alkyd Systems (Water based):

a. Semi-Gloss Finish

- 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series (5.0 mils wet, 2.0 mils dry)
- 2) 2nd Coat: S-W Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series

2. Exposed interior structural steel columns, beams: Dryfall Waterborne Topcoat:

a. Eg-Shel Finish

- 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series (5.0 mils wet, 2.0 mils dry)
- 2) 2nd Coat: S-W Pro Industrial Waterborne Acrylic Dryfall, B42-800 Series

PART 3 EXECUTION

3.1 EXAMINATION

- A. Test shop applied primer for compatibility with subsequent coatings.
- B. Measure moisture content of surfaces using electronic moisture meter. Do not apply coatings unless moisture content of surfaces are below following maximums:
 1. Gypsum board: 12 percent.
 2. Masonry and concrete: 12 percent.

3.2 PREPARATION

- A. General:
 1. Protect adjacent and underlying surfaces.
 2. Remove electrical plates, hardware, light fixture trim, escutcheons, thermostats and fittings prior to preparing surfaces or finishing.
 3. Correct defects and clean surfaces capable of affecting work of this section.
 4. Seal marks that may bleed through surface finishes with waterborne stain blocker.
- B. Gypsum Board:
 1. Fill minor defects with filler compound. Spot prime defects after repair.

2. Apply level 5 texture in accordance manufacturer's instructions.
- C. Existing Brick and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry. Install primer and elastomeric finish coats.
- D. Uncoated Ferrous Metals: SSPC Method SP2 - Hand Tool Cleaning or Method SP3 - Power Tool Cleaning.
- E. Shop Primed Ferrous Metals:
 1. SSPC Method SP2 - Hand Tool Cleaning or Method SP3 - Power Tool Cleaning.
 2. Feather edges to make patches inconspicuous.
 3. Prime bare steel surfaces.

3.3 APPLICATION

- A. Apply paints in accordance with manufacturer's instructions.
- B. Apply primer or first coat closely following surface preparation to prevent recontamination.
- C. Do not apply finishes to surfaces that are not dry.
- D. Apply coatings to minimum dry film thickness recommended by manufacturer.
- E. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.
- F. Apply coatings to uniform appearance without laps, sags, curtains, holidays, and brush marks.
- G. Allow applied coats to dry before next coat is applied.
- H. When required apply an additional finish coat to ensure color consistency.
- I. Continue paint finishes behind wall-mounted accessories.
- J. Sand between coats on interior metal surfaces.
- K. Match final coat to approved color samples.
- L. Mechanical and Electrical Components:
 1. Remove unfinished and primed louvers, grilles, covers, and access panels; paint separately.
 2. Paint exposed and insulated pipes, conduit, boxes, ducts, hangers, brackets, collars, and supports unless factory finished.
 3. Do not paint name tags or identifying markings.
 4. Paint exposed conduit and electrical equipment in finished areas.

3.5 CLEANING

- A. Remove paint from adjacent surfaces.

END OF SECTION

SECTION 10 1423

INTERIOR PANEL SIGNS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Plastic interior panel signs.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. United States Department of Justice (USDOJ) - ADA Standards for Accessible Design (SAD).
- B. 2012 Texas Accessibility Standards

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings: Include sign locations, sizes, mounting heights, and content.
 - 2. Samples:
 - a. 3 x 3 inch sign samples showing available colors.
 - b. After color selection, submit typical sign illustrating pictograms, characters, and Braille indications.

1.4 QUALITY ASSURANCE

- A. Conform to 2012 Texas Accessibility Standards for sign design, construction, location, and mounting height.
- B. Mockup:
 - 1. Size: One full-size sign.
 - 2. Locate where directed.
 - 3. Approved mockup may remain as part of the Work.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Signs:
 - 1. Type: Melamine plastic laminate, non static, fire retardant, self extinguishing, matte finish.
 - 2. Thickness: 1/8 inch.
 - 3. Face and core colors: To be selected from manufacturer's full color range, to match existing in color, font, and style.

2.2 ACCESSORIES

- A. Tape: Double sided, waterproof, pressure sensitive

2.3 FABRICATION

- A. Fabricate signs by reverse engraving process to produce characters and graphics in contrasting color, raised 1/32 inch.

- B. Characters:
 - 1. Height: 5/8 inch.
 - 2. Style: Sans serif style to be selected, upper case.
 - 3. Stroke width, strike thickness, character spacing, and line spacing: In accordance with 2012 Texas Accessibility Standards.
- C. Pictograms:
 - 1. Utilize standard international pictograms.
 - 2. Locate pictograms within 6 inch vertical void with text descriptors below pictogram.
- D. Provide round Grade II Braille indications with contractions placed below each corresponding character.
- E. Corners: Square.
- F. Edges: Square.

PART 3 EXECUTION

3.1 PREPARATION

- A. Clean surfaces of loose and foreign matter.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Locate signs on wall adjacent to scheduled doors in compliance with current Texas Accessibility Standards.

3.3 BID ALLOWANCE

Refer to Spec. Section 01 2200 for Signage Allowance.

END OF SECTION

SECTION 10 2813

TOILET ACCESSORIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Toilet accessories.
 - 2. Framed mirrors.

- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. A123/A123M - Standard Specification for Zinc (Hot-Galvanized) Coatings on Iron and Steel Products.
 - 2. A269 - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
 - 3. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - 4. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
 - 5. B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
 - 6. C1036 - Standard Specification for Flat Glass.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Product Data:
 - a. Schedule accessories by room; show plans and elevations, and identify room name and number, type and quantity of accessories, and mounting heights.
 - b. Include manufacturer's brochures showing sizes, details of function, finishes, and attachment methods.
 - 2. Samples: One of each accessory, if requested.

3. Warranty: Sample warranty form.

1.4 QUALITY ASSURANCE

- A. Conform to applicable accessibility code for locating accessories.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Design Basis: Contract Documents are based on products per accessories schedule.
- B. Equivalent products by following manufacturers are acceptable:
 1. A and J Washroom Accessories. (www.ajwashroom.com)
 2. American Specialties, Inc. (www.americanspecialties.com)
 3. Bobrick Washroom Equipment, Inc. (www.bobrick.com)
 4. Bradley Corp. (www.bradleycorp.com)
 5. Seachrome Corporation (<https://seachrome.com/>)
 6. GAMCO. (www.gamcousa.com)
- C. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Stainless Steel:
 1. Sheet: ASTM A666, Type 304, rollable temper.
 2. Tubing: ASTM A269.
- B. Galvanized Steel:
 1. ASTM A1008/A1008M.
- C. Mirror Glass: ASTM C1036, Type I, Class 1, Quality q1, 3/16 inch thick.

2.3 ACCESSORIES

- A. Fasteners: Stainless steel where exposed, hot dip galvanized where concealed; type best suited to substrate conditions.

2.4 FABRICATION

- A. Use stainless steel for exposed surfaces; galvanized steel may be used in concealed locations.
- B. Form exposed surfaces from single sheet of stock, free from joints, and flat, without distortion.
- C. Weld joints of fabricated components and grind smooth.
- D. Fabricate grab bars of tubing, free of visible joints, return to wall with end attachment flanges.
- E. Fabricate soap dispensers to operate with less than 5 pound force.
- F. Provide hangers, adapters, anchor plates, and accessories required for installation.
- G. Key locks alike; furnish six keys.
- H. Mirrors:
 - 1. Frame: Where shown, one piece, roll formed stainless steel channel, 1/2 x 1/2 inch, with corners mitered.
 - 2. Mirror: Apply one coat of silver, one coat of electroplated copper, and one coat of organic mirror backing compound to back surface of glass.
 - 3. Backing: Galvanized steel sheet.
 - 4. Isolate glass from frame and backing with resilient, waterproof padding.
- I. Shop assemble units and package complete with anchors and fittings.

2.5 FINISHES

- A. Stainless Steel: No. 4 satin.
- B. Galvanizing: ASTM A123/A123M to 1.25ounces per square foot.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Set plumb, level, square, and rigid.
- C. Install wiring between power supply and accessories.

END OF SECTION

SECTION 10 4413

FIRE EXTINGUISHERS AND CABINETS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Portable fire extinguishers.
 - 2. Cabinets
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM) E814 - Standard Test Method for Fire Tests of Through-Penetration Firestops.
- B. National Fire Protection Association (NFPA) 10 - Portable Fire Extinguishers.
- C. Underwriters Laboratories (UL):
 - 1. 299 - Dry Chemical Fire Extinguishers.
 - 2. 711 - Rating and Fire Testing of Fire Extinguishers.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Product Data: Include data on extinguishers and cabinets, operational features, materials, finishes, and anchorage.
- B. Closeout Submittals:
 - 1. Maintenance Data: Include test, refill, or recharge schedules and re-certification requirements.

1.4 QUALITY ASSURANCE

- A. Provide fire extinguishers complying with UL 711 and applicable code.
- B. Cabinets in Fire Rated Partitions: Tested in accordance with ASTM E814 with fire resistance rating equivalent to adjacent construction.
- C. Conform to applicable accessibility code for locating extinguishers.

1.5 PROJECT CONDITIONS

- A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Products by following manufacturers are acceptable:
 - 1. Larsen's Mfg. Co. (www.larsensmfg.com)

- B. Substitutions: Under provisions of Section 01 6000.

2.2 COMPONENTS

- A. Extinguishers:
 - 1. Dry Chemical Type: Cast steel tank, with pressure gage.
 - 1. Class A:B:C
 - 2. Size 10.
 - 3. Finish: Baked enamel, red color.
- B. Cabinets:
 - 1. Surface mounted as manufactured by Larsen's Manufacturing Company.
 - 2. Brackets: Formed steel, sized to accommodate extinguisher.

2.3 ACCESSORIES

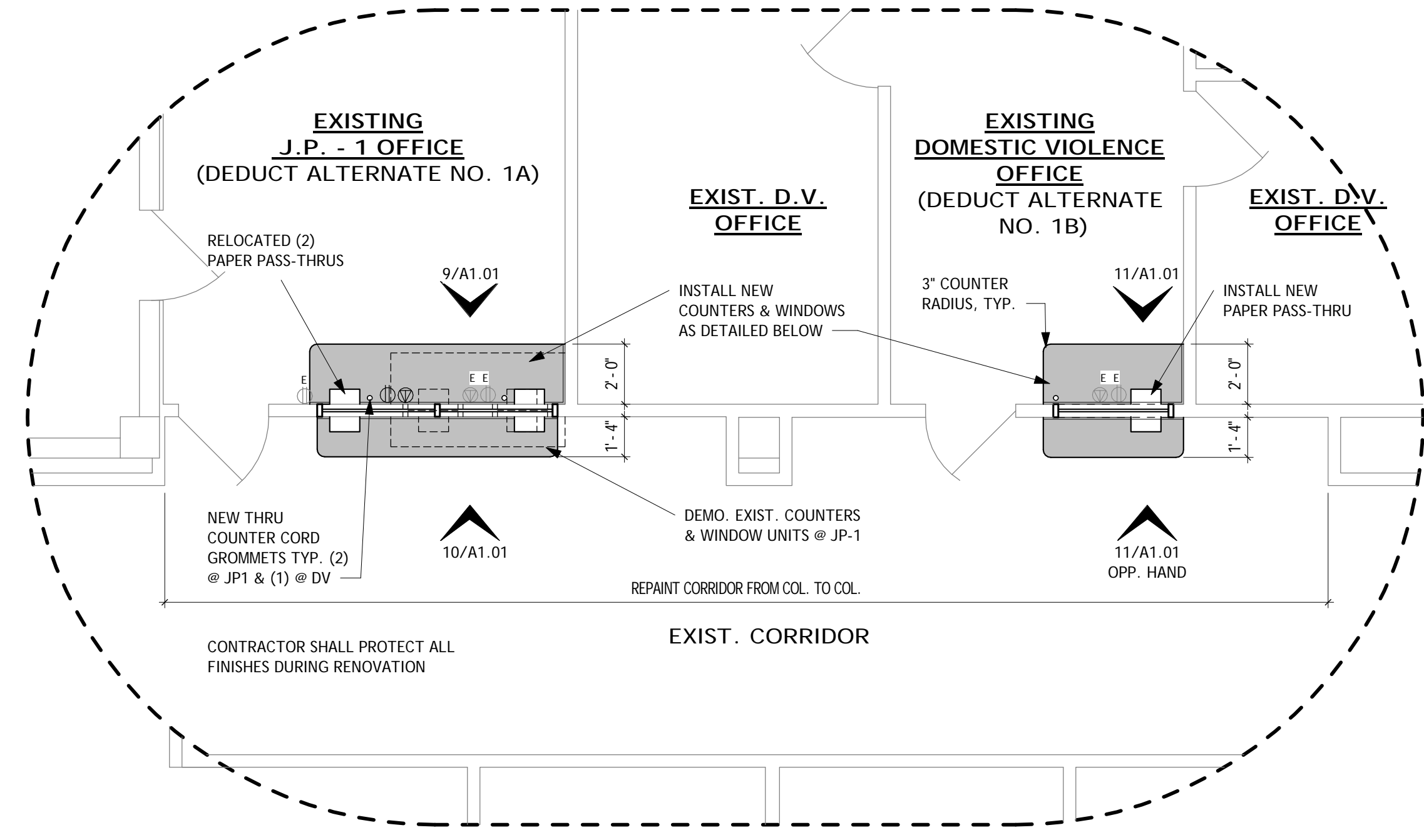
- A. Mounting Hardware: Type best suited to application. Pre-drill for anchors.

EXECUTION

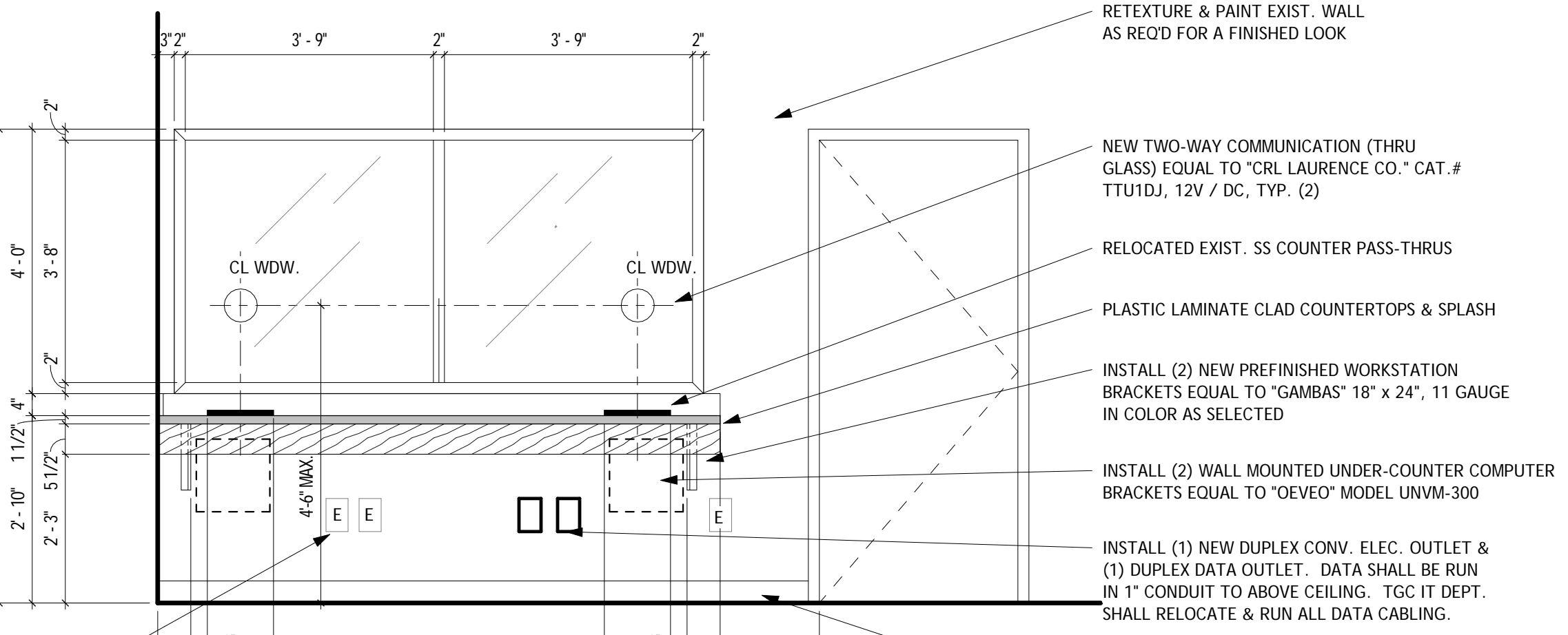
2.4 INSTALLATION

- A. Install cabinets in accordance with manufacturer's instructions with centerline of cabinet set at 3'-6" AFF.
- B. Set plumb, level, and rigid.
- C. Place an extinguisher in each cabinet.

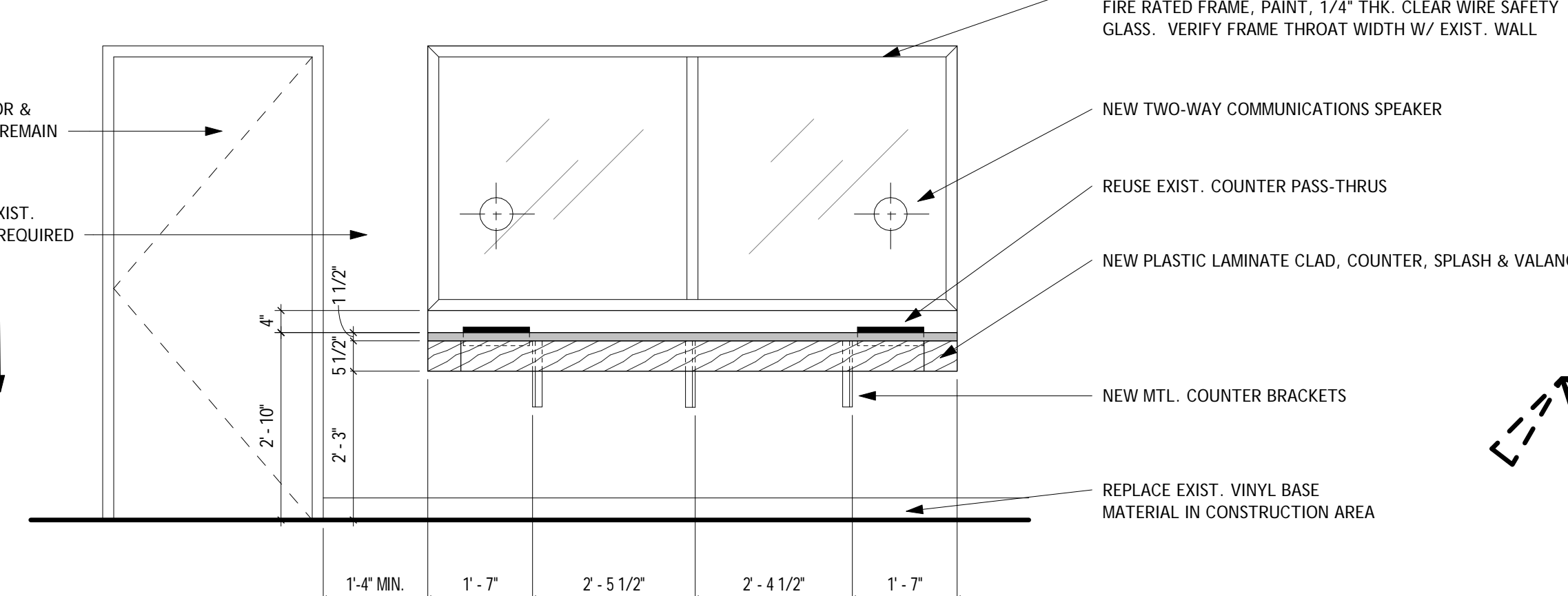
END OF SECTION



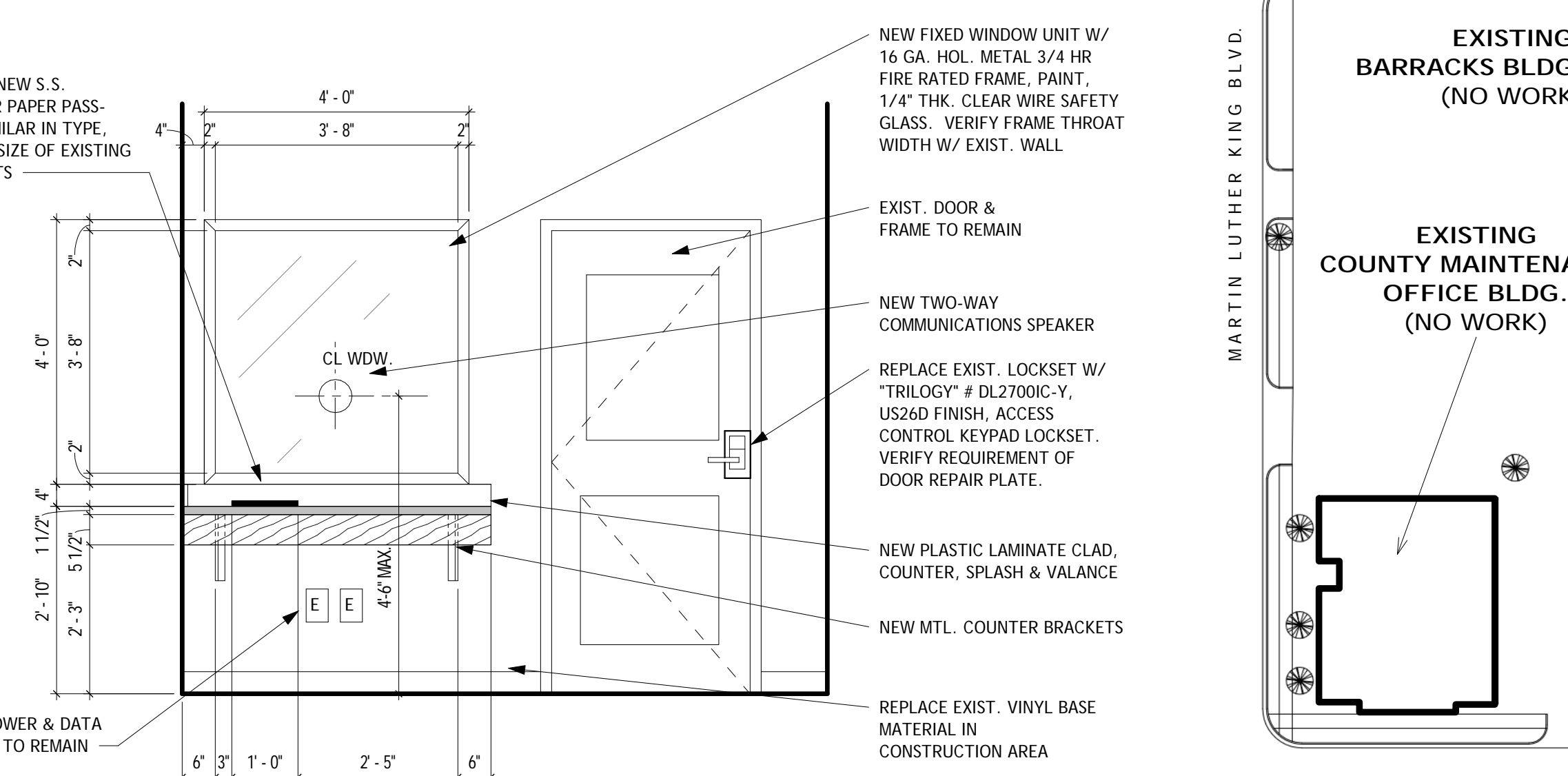
8 JP-1 & DOMESTIC VIOLENCE OFFICE - RENOVATION FLOOR PLAN
1/4" = 1'-0"



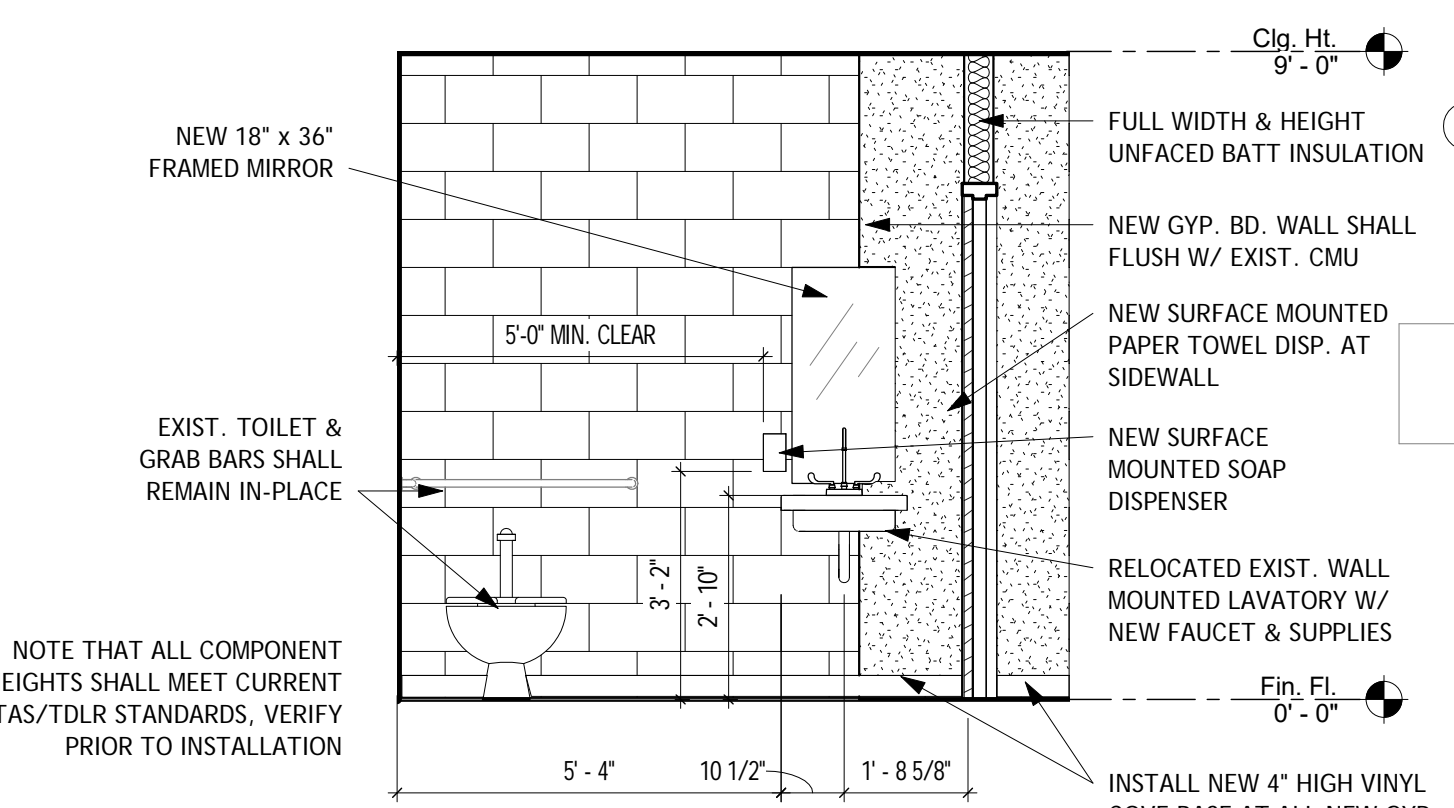
9 COUNTER ELEV. JP-1 OFFICE SIDE
1/2" = 1'-0"



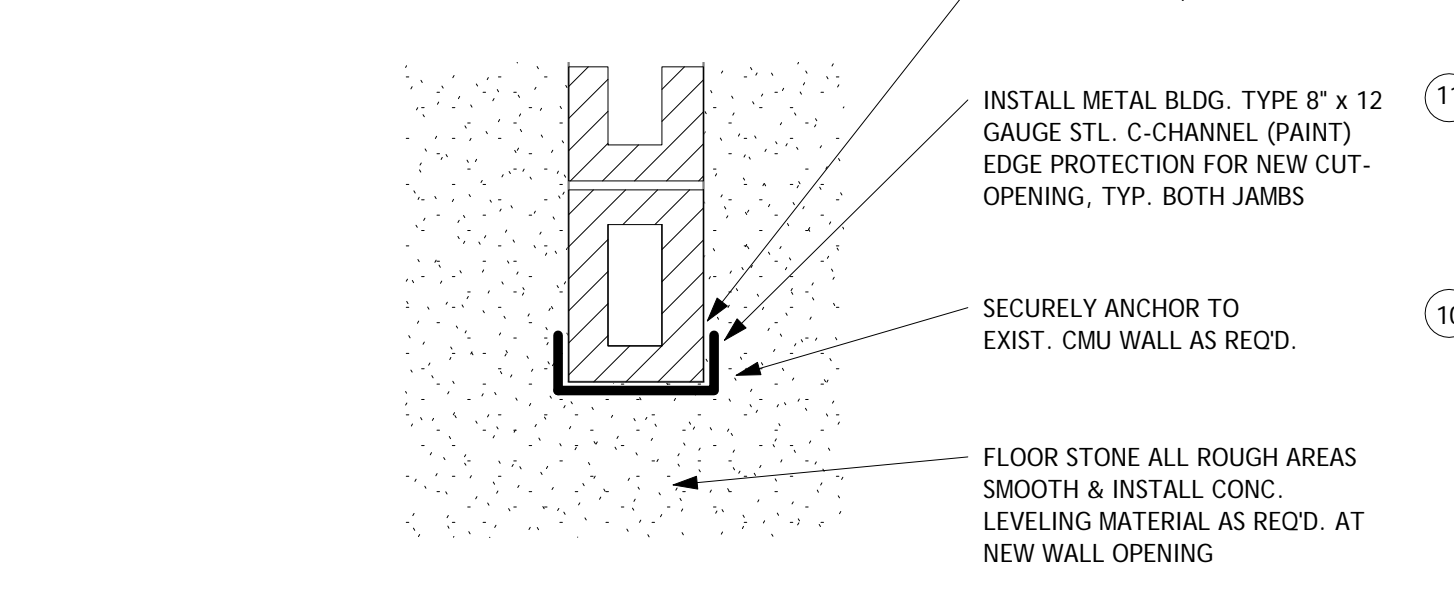
10 COUNTER/WDW. ELEV. JP-1 CORRDOR SIDE
1/2" = 1'-0"



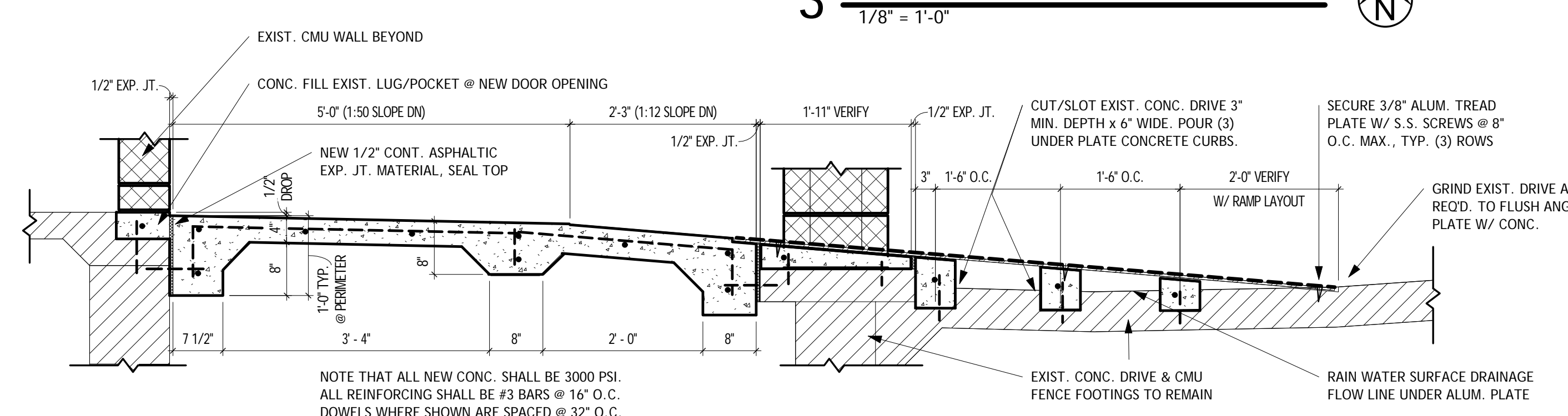
11 COUNTER/WDW. ELEV. D.V. OFFICE SIDE
1/2" = 1'-0"



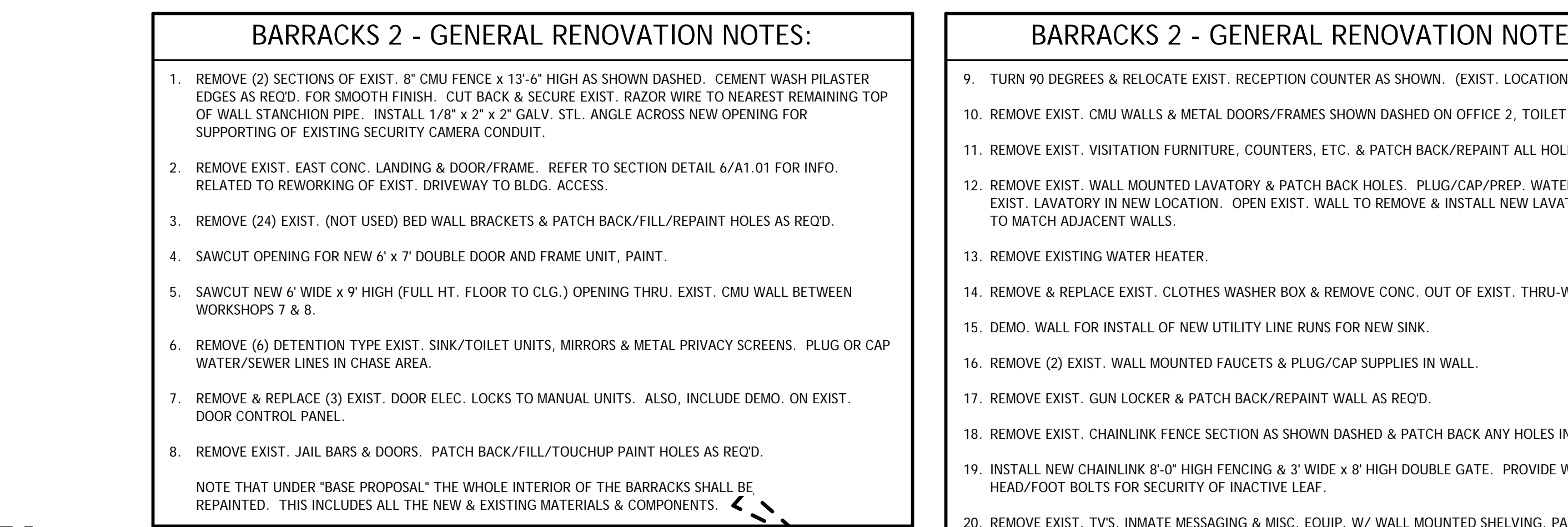
4 Elevation 1 - a
3/8" = 1'-0"



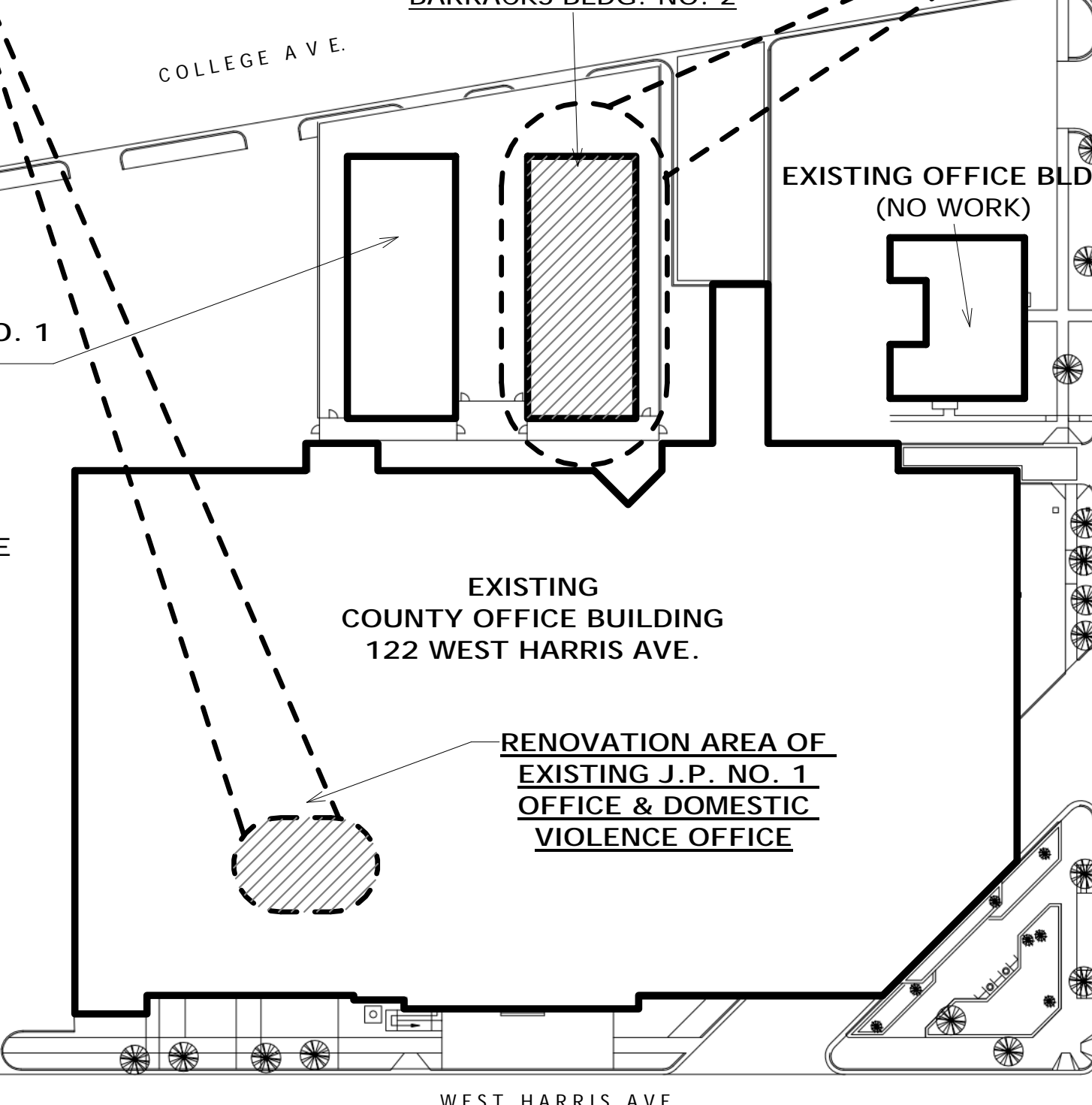
5 OPENING JAMB DETAIL
1 1/2" = 1'-0"



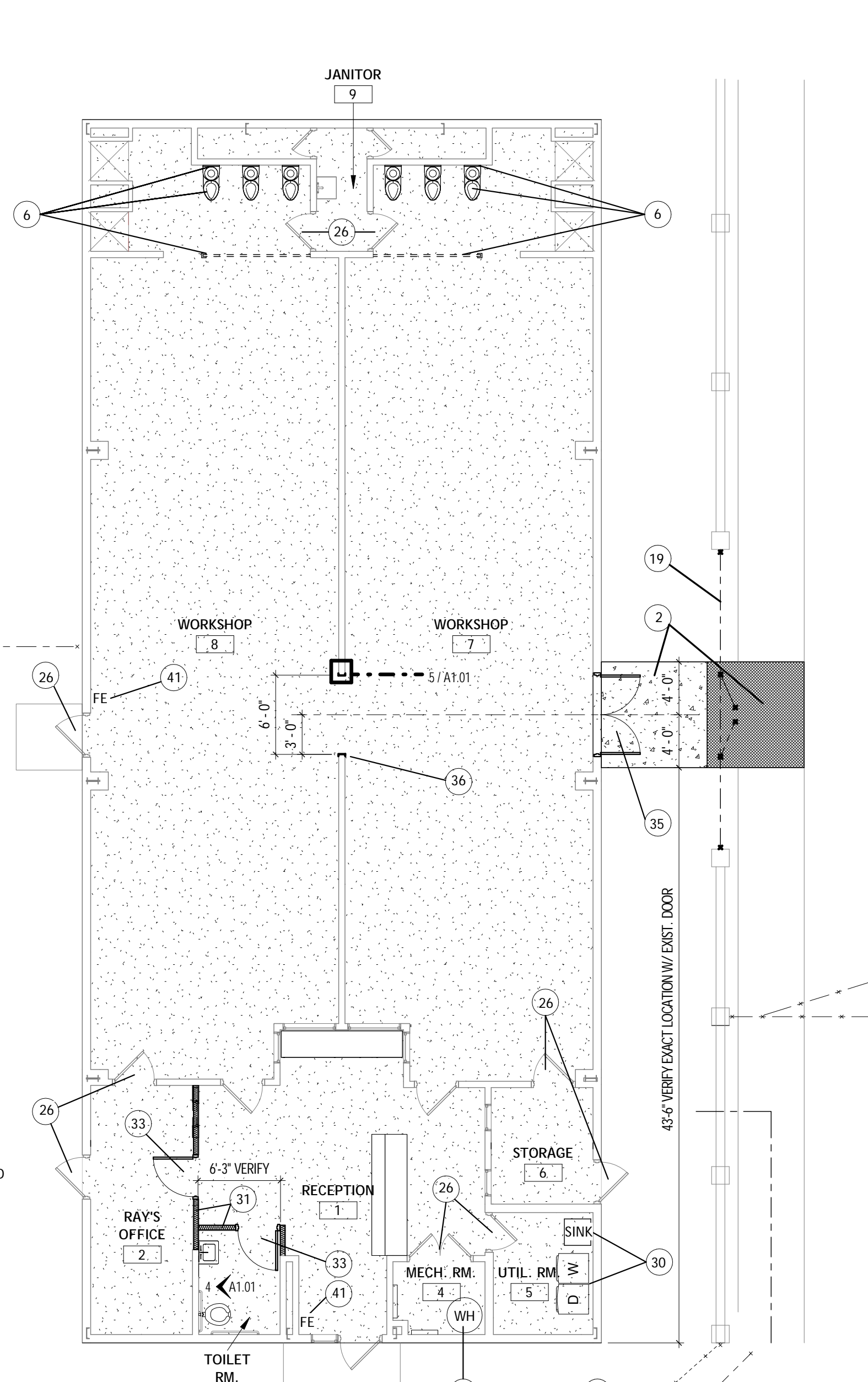
3 PARTIAL DEMO. FLOOR PLAN
1/8" = 1'-0"



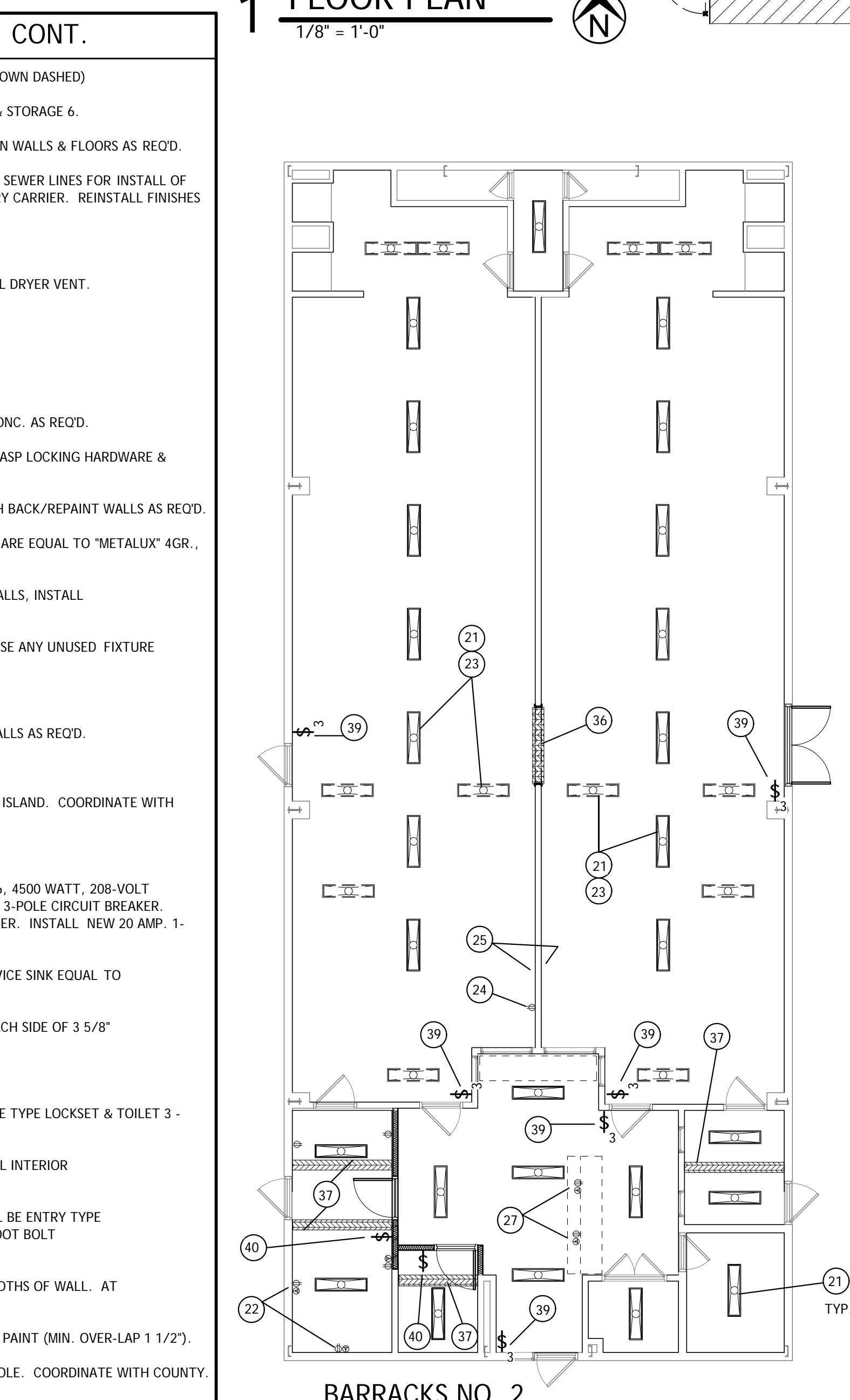
6 CONC. - DIAMOND PLATE DRAINAGE BRIDGE
3/4" = 1'-0"



7 OVERALL BLOCK SITE PLAN



1 FLOOR PLAN
1/8" = 1'-0"



2 REFLECTED CLG. & ELEC. PLAN
1/8" = 1'-0"

- BARRACKS 2 - GENERAL RENOVATION NOTES:**
- REMOVE (2) SECTIONS OF EXIST. 8" CMU FENCE X 13'-6" HIGH AS SHOWN DASHED. CEMENT WASH PLASTER EDGES AS REQD. FOR SMOOTH FINISH. CUT BACK & SECURE EXIST. RAZOR WIRE TO NEAREST REMAINING TOP OF WALL STANCHION PIPE. INSTALL 1/8" x 2" x 2" GALV. STL. ANGLE ACROSS NEW OPENING FOR SUPPORTING OF EXISTING SECURITY CAMERA CONDUIT.
 - REMOVE EXIST. EAST CONC. LANDING & DOOR/FRAME. REFER TO SECTION DETAIL 6/A1.01 FOR INFO. RELATED TO REWORKING OF EXIST. DRIVEWAY TO BLDG. ACCESS.
 - REMOVE (24) EXIST. (NOT USED) BED WALL BRACKETS & PATCH BACK/FILL/REPAINT HOLES AS REQD.
 - SAWCUT OPENING FOR NEW 6' x 7' DOUBLE DOOR AND FRAME UNIT. PAINT.
 - SAWCUT NEW 6' WIDE x 9' HIGH (FULL HT. FLOOR TO CLG.) OPENING THRU. EXIST. CMU WALL BETWEEN WORKSHOPS 7 & 8.
 - REMOVE (6) DETENTION TYPE EXIST. SINK/TOILET UNITS, MIRRORS & METAL PRIVACY SCREENS. PLUG OR CAP WATER/SEWER LINES IN CHASE AREA.
 - REMOVE & REPLACE (3) EXIST. DOOR ELEC. LOCKS TO MANUAL UNITS. ALSO, INCLUDE DEMO. ON EXIST. DOOR CONTROL PANEL.
 - REMOVE EXIST. JAIL BARS & DOORS. PATCH BACK/FILL/TOUCHUP PAINT HOLES AS REQD.
- NOTE THAT UNDER "BASE PROPOSAL" THE WHOLE INTERIOR OF THE BARRACKS SHALL BE REPAINTED. THIS INCLUDES ALL THE NEW & EXISTING MATERIALS & COMPONENTS.

- BARRACKS 2 - GENERAL RENOVATION NOTES: CONT.**
- TURN 90 DEGREES & RELOCATE EXIST. RECEPTION COUNTER AS SHOWN. (EXIST. LOCATION SHOWN DASHED)
 - REMOVE EXIST. CMU WALLS & METAL DOORS/FRAMES SHOWN DASHED ON OFFICE 2, TOILET 3 & STORAGE 6.
 - REMOVE EXIST. VISITATION FURNITURE, COUNTERS, ETC. & PATCH BACK/REPAINT ALL HOLES IN WALLS & FLOORS AS REQD.
 - REMOVE EXIST. WALL MOUNTED LAVATORY & PATCH BACK HOLES. PLUG/CAP/PREP. WATER & SEWER LINES FOR INSTALL OF EXIST. LAVATORY IN NEW LOCATION. OPEN EXIST. WALL TO REMOVE & INSTALL NEW LAVATORY CARRIER. REINSTALL FINISHES TO MATCH ADJACENT WALLS.
 - REMOVE EXISTING WATER HEATER.
 - REMOVE & REPLACE EXIST. CLOTHES WASHER BOX & REMOVE CONC. OUT OF EXIST. THRU-WALL DRYER VENT.
 - DEMO. WALL FOR INSTALL OF NEW UTILITY LINE RUNS FOR NEW SINK.
 - REMOVE (2) EXIST. WALL MOUNTED FAUCETS & PLUG/CAP SUPPLIES IN WALL.
 - REMOVE EXIST. GUN LOCKER & PATCH BACK/REPAINT WALL AS REQD.
 - REMOVE EXIST. CHAINLINK FENCE SECTION AS SHOWN DASHED & PATCH BACK ANY HOLES IN CONC. AS REQD.
 - INSTALL NEW CHAINLINK 6'-0" HIGH FENCING & 3' WIDE x 8' HIGH DOUBLE GATE. PROVIDE W/HSP LOCKING HARDWARE & HEAD/FOOT BOLTS FOR SECURITY OF INACTIVE LEAF.
 - REMOVE EXIST. TV'S, INMATE MESSAGING & MISC. EQUIP. W/ WALL MOUNTED SHELVING, PATCH BACK/REPAINT WALLS AS REQD.
 - REMOVE & REPLACE INTERIOR SURFACE MOUNTED LIGHT FIXTURES AS SHOWN. NEW FIXTURES ARE EQUAL TO "METALUX" 4GR., LED-1X4 TROFFER W/ SURFACE MOUNT KIT. TOTAL NEW FIXTURE COUNT EQUALS (27).
 - ADD (3) DATA PORTS & (5) ELEC. CONV. DUPLEX OUTLETS IN OFFICE 2. DUE TO EXIST. CMU WALLS, INSTALL WIREMOLD 5000 FOR NEW RACEWAYS.
 - ONLY (7) NEW LIGHT FIXTURES (ON EACH SIDE) IN WORKROOM 7 & 8 SHALL BE REPLACED. CLOSE ANY UNUSED FIXTURE OPENINGS W/ 3/4" PLYWD. W/ HARDWD. EDGES & MIN. 1/2" OVERLAP AT PERIMETER. PAINT.
 - ADD (1) CONV. ELEC. OUTLET AT PLUS 40" AFF AT WORK TABLE LOCATION IN WORKSHOP 8.
 - LOWER EXISTING TV OUTLETS TO STANDARD HEIGHTS AT (2) LOCATIONS. TOUCHUP PAINT WALLS AS REQD.
 - REKEY/KEY ALL EXIST. OR NEW DOOR LOCKS.
 - ADD (2) CONV. ELEC. OUTLETS & (2) DATA PORTS ON OPERATOR SIDE OF ROTATED RECEPTION ISLAND. COORDINATE WITH COUNTY FOR EXACT LOCATIONS OF BOXES.
 - EXIST. FIRE ALARM SYSTEM & COMPONENTS SHALL REMAIN IN-PLACE & OPERATIONAL.
 - INSTALL NEW 40 GAL. ELECTRIC WATER HEATER EQUAL TO "BRADFORD WHITE" MODEL RE340T6, 4500 WATT, 208-VOLT SINGLE PHASE, DUAL ELEMENT WITH 22" DRAIN PAN. AT EXIST. ELEC. PANEL, REMOVE 70 AMP, 3-POLE CIRCUIT BREAKER. INSTALL NEW 30 AMP, 2-POLE CIRCUIT BREAKER & #10 BRANCH CIRCUIT TO NEW WATER HEATER. INSTALL NEW 20 AMP, 1-POLE CIRCUIT BREAKER & #12 BRANCH CIRCUIT FOR NEW OFFICE RECEPTACLES.
 - INSTALL NEW CLOTHES WASHER PLUMBING BOX EQUAL TO "QATEY" 38878 WITH VALVES & SERVICE SINK EQUAL TO "JUSTEE" MODEL #19CFP FURNISHED W/ DRAIN & FAUCET.
 - NEW DRYWALL PARTITIONS CONSISTING OF (1) LAYER 5/8" GYP. BD. (TEXTURE & PAINT) ON EACH SIDE OF 3 5/8" MTL. STUDS @ 16" O.C. RAN TO BOTTOM OF EXIST. CLG. LINE.
 - SAND ALL EXIST. DOORS & FRAMES THAT ARE TO REMAIN, PRIME & PAINT.
 - NEW 3' x 7' HOL. MTL. DOORS & FRAMES (PAINT) W/ NEW LEVER HARDWARE. OFFICE 2 - OFFICE TYPE LOCKSET & TOILET 3 - PRIVACY SET TYPE. COORDINATE NEW HARDWARE TYPE AND KEYING WITH OWNER, TYPICAL.
 - PATCH BACK ALL INTERIOR WALL & CEILING AREAS AS REQD. PRIOR TO PAINTING. REPAINT ALL INTERIOR WALLS & CEILINGS.
 - NEW 3' x 7' HOL. MTL. DOUBLE DOOR & FRAME (PAINT) W/ NEW HARDWARE. HARDWARE SHALL BE ENTRY TYPE LOCKSET ON ACTIVE SIDE & DUMMY ON OTHER. INACTIVE SHALL HAVE HEAVY DUTY HEAD & FOOT BOLT SYSTEM. COORDINATE NEW DOOR HARDWARE TYPE AND KEYING WITH OWNER, TYPICAL.
 - INSTALL MTL. CHANNEL JAMB COVERS @ NEW CUT-OPENING ON BOTH SIDES, VERIFY EXACT WIDTHS OF WALL. AT OPENING HEAD, INSTALL 3/4" PLYWOOD W/HARDWD. EDGES. PAINT (MIN. OVER LAP 1 1/2").
 - AT EXIST. CLG. AREAS WHERE WALLS WERE REMOVED, INSTALL 3/4" PLYWD. W/HARDWD. EDGES. PAINT (MIN. OVER-LAP 1 1/2").
 - CONTRACTOR SHALL DEMO. EXISTING SMOKE PURGE SYSTEM PANEL & PATCH BACK/REPAINT HOLE. COORDINATE WITH COUNTY.
 - INSTALL (3) PAIRS OF NEW 3-WAY LIGHT SWITCHES W/ WIREMOLD 5000 RACEWAYS. VERIFY W/ OWNER FOR LOCATIONS.
 - INSTALL NEW IN WALL LIGHT SWITCHES FOR OFFICE 2 & TOILET ROOM 3.
 - INSTALL (2) NEW FIRE EXTINGUISHERS WITH SURFACE MOUNTED CABINETS. SEE PLAN FOR LOCATIONS.

Drawn By _____
Checked By _____

POWER SYSTEMS
MEP ENGINEER

378 W. CONCHO AVE.
SAN ANGELO, TX 76903
KNovichitects.com

NEW
KFW ARCHITECTS AIA

100% FINAL
CONSTRUCTION DOCUMENTS SET
ISSUED FOR
BIDDING &
CONSTRUCTION
01-28-2022

02-11-2022

RENOVATIONS OF
BARRACKS NO.2 - JP-1 &
DOMESTIC VIOLENCE OFFICES
TOM GREEN COUNTY

Project No. 305-14-1121
Date 02-11-2022
Sheet Number
A1.01

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