

Invitation to Bid (ITB)



"Preparing students to become responsible, respectful, independent learners equipped with the critical thinking skills necessary to compete in our global society."



Sabal Palm Elementary School Building 8 Roof Replacement Project

ITB 2421-2025

ITB Released: April 4, 2024

Deadline for Questions*: April 17, 2024

Bids Due*: 2:00 p.m. on May 9, 2024

Debbie Bates

Procurement Officer

Leon County Schools

Facilities and Construction Department

3397 West Tharpe Street

Tallahassee, Florida 32303

*Timeline subject to change. Changes will be communicated through an addendum to this ITB (see Section 1.8)

ITB Timeline

Steps in the ITB Process	Date and Time	Location (if applicable)
Release of ITB	April 4, 2024	District Website https://www.leonschools.net/Page/4233 DemandStar https://www.demandstar.com/app/agencies/florida/leon-county-schools-purchasing-department/procurement-opportunities/ed9224e2-7a4c-4013-91a2-56aa6ed77478/
Written Questions Due	April 15, 2024	Submit to: Debbie Bates, Procurement Officer Subject: ITB 2421-2025, Sabal Palm Elementary School Building 8 Roof Replacement Project Email: batesd@leonschools.net
Anticipated Posting of Answers to Submitted Questions	April 17, 2024	District Website https://www.leonschools.net/Page/4233 DemandStar https://www.demandstar.com/app/agencies/florida/leon-county-schools-purchasing-department/procurement-opportunities/ed9224e2-7a4c-4013-91a2-56aa6ed77478/
Sealed Bids Due and Opened	May 9, 2024	Submit to: Leon County Schools Purchasing Department Attn: Debbie Bates, Procurement Officer ITB 2421-2025, Sabal Palm Elementary School Building 8 Roof Replacement Project 3397 West Tharpe Street Tallahassee, FL 32303* *Also, the location for the Response Opening
Anticipated Date of District Advertisement of Notice of Award Recommendation	May 28, 2024	District Website https://www.leonschools.net/Page/4233 DemandStar https://www.demandstar.com/app/agencies/florida/leon-county-schools-purchasing-department/procurement-opportunities/ed9224e2-7a4c-4013-91a2-56aa6ed77478/

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SECTION 1: Key information



1.1 Quick Facts

The School Board of Leon County, Florida (hereinafter referred to as the "District") is seeking proposals (Bids) from available and qualified firms (Bidders) to provide kitchen and food service equipment, in accordance with these Specifications.

- a. The use of capitalization (such as Bidder) denotes words and phrases with special meaning as defined in [Section 5, Definitions](#).
- b. All dates and times reflect Eastern Time (Tallahassee, Florida) unless otherwise indicated.
- c. The District reserves the right to perform, or cause to be performed, the services herein described in any manner it sees fit, including, but not limited to, award of other contracts, utilization of existing State or governmental contracts, public purchasing cooperatives, or to perform the work with its own employees.

1.2 Bidder Qualifications



Bidder shall maintain a permanent place of business, have adequate equipment to perform the requested services, be financially solvent, and maintain enough qualified personnel to perform the services of this Contract.

- a. Bidder must have a minimum of three (3) years of experience providing Building 8 Roof Replacement of the same or similar nature and completed projects of like scope and size contemplated by this ITB; and
- b. Bidder must be duly licensed to conduct business in the State of Florida; and

1.3 How to Contact us (Procurement Rules and Information)



- a. All questions related to this ITB must be made in writing, via email, to the Procurement Officer listed below. Questions will only be accepted if submitted in writing on or before the date and time specified in the Timeline.
- b. On or about the date referenced in the Timeline, the District will advertise its answers to written questions on the District's website at <https://www.leonschools.net/Page/4233> and DemandStar at <https://www.demandstar.com/app/agencies/florida/leon-county-schools-purchasing-department/procurement-opportunities/ed9224e2-7a4c-4013-91a2-56aa6ed77478>.
- c. Between the release of the solicitation and the end of the 72-hour period following the advertisement of the Notice of Board Decision (the 72-hour period excludes Saturdays, Sundays, and District holidays), Bidders to this ITB or persons acting on their behalf may not contact any employee, officer or member of the Leon County School Board or Superintendent concerning any aspect of this solicitation, except in writing to the Procurement Officer as provided in this solicitation or directed by the District. Violation of this provision may be grounds for rejecting a Bid.

- d. Any person requiring special accommodations responding to this solicitation because of a disability should contact the LCS Purchasing Department at (850) 488-1206 at least five (5) days before any pre-solicitation conference, solicitation opening, or public meeting. Persons who are deaf, hard-of-hearing, deaf-blind, or speech-disabled may contact the LCS Purchasing Office by using the Florida Relay Service at 1-800-955-8771 (TTY/ASCII).
- e. **The District's Procurement Officer**
Name: Debbie Bates, Facilities and Construction Analyst
Facilities and Construction Department
Leon County Schools
3420 West Tarpe Street
Tallahassee, FL 32303
Telephone: (850) 617-5977
Email: batesd@leonschools.net
- f. The Bidder shall not initiate or execute any decision or action arising from any verbal discussion with any District employee related to this ITB (see Section 2.2). Only written communications from the District's Procurement Officer and formal addendums are considered duly authorized expressions on behalf of the District. Additionally, only written communications from a Bidder are recognized as duly authorized expressions on behalf of the Bidder.



1.4 Developing Your Bid

- a. This ITB is being issued as part of an open, competitive process and sets out the steps and conditions that apply.
- b. Bidders should take the time to read and understand the ITB. In particular, they should:
 - 1. Review Title XLVIII, [K-20 Education Code](#), within the Florida Statutes.
 - 2. Develop a strong understanding of the District's requirements detailed in [Section 2](#).
 - 3. Ensure their company is on file and in good standing with the Florida Department of State, or provide certification of exemption from this requirement, as required for all entities defined under Chapters 607, 617, or 620, Florida Statutes (F.S.), seeking to do business with the District.
- c. Bidders should prepare a clear and concise Bid, avoiding complicated jargon, and thoroughly describe their ability to meet the expectations of the District.
- d. Bidders must follow the format and instructions included in this ITB for their Bid submittal.
- e. Bids that contain provisions that are contrary to the material requirements of this ITB are not permitted. Including alternate provisions or conditions to material requirements will be considered a counter offer and will result in the Bid being deemed non-responsive.
- f. Bidders must use Attachment I, Price Sheet, to submit pricing. Bidders shall not change or substantially alter the form but fill it out completely, as instructed in Section 3.2 of this ITB.

- g. Bidders should thoroughly review their Bid before submission to ensure the Bid is complete and accurate and it has provided all information requested in the format prescribed in Section 3, Procurement Rules and Information.
- h. The District is not liable for any costs incurred by a Bidder while responding to this ITB, including the costs associated with attending site visits, oral presentations, or negotiations, as applicable.
- i. Bidders are expected to submit questions or concerns they have regarding the requirements or terms and conditions of this solicitation during the question and answer phase, per Section 1.3, a.
- j. The District shall reject any and all Bids that do not meet the following **pass/fail criteria (also referred to as Mandatory Responsiveness Criteria)**. Any Bid rejected for failure to meet these requirements will not be evaluated further:
 - 1. The Bidder's Bid shall demonstrate that it has a minimum of three (3) years of experience providing Building 8 Roof Replacement of the same or similar nature and completed projects of like scope and size contemplated by this ITB.;
 - 2. The Bidder must confirm that all services to be provided under the Contract will be compliant with all laws, rules, and other authority applicable to providing the services, including, but not limited to, Florida's Open Government laws (Article I, Section 24, Florida Constitution, and Chapter 119, F.S.);
 - 3. The Bidder shall complete and submit the following:
 - a. Attachment I, Price Sheet,
 - b. Attachment II, Notice of Conflict of Interest,
 - c. Attachment III, Bidder Contact Information, and
 - d. Attachment IX, Documentation of Business Experience.



1.5 Submitting Your Bid

- a. Bidders shall submit their Bids in a sealed envelope or package with the ITB number and the date and time of the Bid opening clearly marked on the sealed envelope or packaging. Bidders may submit their Bids by mail, courier, delivery services (such as FedEx or UPS), or hand-delivery to the location below. **The District will not accept any Bids submitted via email or fax.**
- b. Bidders must mail or otherwise deliver their Bids to the following address:
Leon County Schools Purchasing Department
 ITB 2421-2025, Sabal Palm Elementary School Building 8 Roof Replacement Project
 Attn: Debbie Bates, Procurement Officer
 3397 West Tharpe Street
 Tallahassee, FL 32303
- c. It is the Bidder's responsibility to ensure their Bid is delivered to the District by the date and time stipulated in the Timeline. The District's clock will stamp Bids received and shall provide the official time for the Bid opening. **Late Bids will not be accepted.**

- d. Submit one (1) signed, original, and two(2) copies.
- e. If the Bidder includes information in their Bid that they believe is and have marked as confidential or trade secret, they should submit a redacted copy of their Bid; as outlined in Section 3.5, the Bidder should submit one (1) redacted hard copy and two (2) redacted copies.
- f. Bidders are encouraged to print Bid documents double-sided and minimize the use of non-recyclable materials.



1.6 Bid Opening

- a. Bids are due and will be publicly opened at the time, date, and location specified in the Timeline.
- b. District staff are not responsible for the inadvertent opening of a Bid that is improperly sealed, addressed, or not correctly identified with the ITB number.
- c. After the Bid Opening, interested parties may submit a written request to the Procurement Officer for the names of all Bidders.

1.7 Disposition of Bids

- a. The District reserves the right to withdraw this ITB at any time and, by doing so, assumes no liability to any Bidder.
- b. The District reserves the right to reject any Bids received in response to this ITB.
- c. The District reserves the right to waive Minor Irregularities when doing so would be in the best interest of the District. At its exclusive option, the District may correct Minor Irregularities but is under no obligation to do so.
- d. All documentation produced as part of this Bid shall become the exclusive property of the District, may not be returned to or removed by the Bidder or its agents, and will become a matter of public record, subject to the provisions of Chapter 119, F.S. Selection or rejection of the Bid will not affect this right. Should the District reject all Bids and re-solicit, information submitted in response to this ITB will become a matter of public record as indicated in Section 119.071, F.S. The District shall have the right to use any ideas, adaptations of any ideas, or recommendations presented in any Bid. The award or rejection of a Bid shall not affect this right.

1.8 Changes to the ITB

The District will post all addenda and materials relative to this procurement on the District's Purchasing website at <https://www.leonschools.net/Page/4233> and on DemandStar at <https://www.demandstar.com/app/agencies/florida/leon-county-schools-purchasing-department/procurement-opportunities/ed9224e2-7a4c-4013-91a2-56aa6ed77478/>.

Interested parties are responsible for monitoring this site for new or changing information relative to this procurement. Bidders are responsible for ensuring that all addendums have been read and incorporated, as applicable, in their Bid.



1.9 Protest Procedures

Per Section 120.57(3), F.S., a Notice of Intent to Protest or a Formal Written Protest must be filed with the District's Purchasing Department within the timeframes established in Florida Statutes. Filings may be made physically at 3397 W. Tharpe Street, Tallahassee, Florida 32305, or via email to Bidprotests@leonschools.net. Protests must be made in compliance with Rules 28-110.003 and 28-110.004, Florida Administrative Code (F.A.C.). Filings received on a weekend, District holiday, or after 5:00 p.m. will be filed the next business day.

Failure to file a protest within the time prescribed in Section 120.57(3), F.S., or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, F.S.

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SECTION 2: Scope of Work

2.1 Background

The District and the School Board were created under Section 4, Article IX of the Constitution of the State of Florida. The District is an independent taxing and reporting entity managed, controlled, operated, administered, and supervised by District school officials, following relevant provisions of the Florida K-20 Education Code, Chapters 1000 – 1013, F.S. The Board consists of five (5) elected officials responsible for the adoption of policies that govern the operation of District public schools. The elected Superintendent of Schools is responsible for the administration and management of the schools within the applicable parameters of state laws, State Board of Education Rules, and School Board policies.

The District provides a standard, traditional curriculum to a student body of approximately 31,000 students ranging from pre-kindergarten through the 12th grade. LCSB also provides adult education at a variety of facilities during regular and non-school hours. In addition to the standard curriculum, LCSB offers specialized technical training programs for higher-grade levels. LCSB operates 48 schools, including elementary (K-5), combination (K-8), middle schools, high schools, and a technical college.

2.2 Procurement Overview

Through this solicitation, the District is seeking competitive Bids to provide Building 8 Roof Replacement to the District at Sabal Palm Elementary School.

The District will work with the Successful Bidder(s) to execute a purchase order for services soon after the award of this ITB. Successful Bidder must have the ability to begin Building 8 Roof Replacement on or before June 1, 2024.

2.3 Contract Term

Upon award by the School Board, the Purchasing Department will issue a purchase order(s) for any supplies, equipment, or services as a result of this ITB. The ITB and the corresponding purchase order(s) will constitute the complete agreement between the successful Bidder and the School Board. Unless otherwise stipulated in the ITB or agreed to in writing by both parties, no other Contract documents shall be issued or accepted.

The purchase order resulting from this Bid shall be in effect on or about May 29, 2024, after Board approval with the work to begin upon Notice to Proceed and substantially completed within ninety days.

2.4 Scope of Work

The District requires services to provide and install Building 8 Roof Replacement at Sabal Palm Elementary School. The Contractor's work shall meet all requirements specified in Exhibit I, Sabal Palm Elementary School Building 8 Roof Replacement Project Construction Documents and Specifications of this ITB.

The Successful Bidders is responsible for providing a complete scope of work in accordance with the Construction Documents and Specifications and as required for a complete and functional installation.

- a. Exhibit I, Construction Documents and Specifications.
- b. Building 8 Roof Replacement.
- c. All labor and materials, scaffolding and general conditions are to be provided by winning bidder.

- d. Winning bidder to provide a clean and safe work space for the employees and students at Sabal Palm Elementary School.
- e. All work will need to be scheduled/accomplished to minimize interruption to school operations and in consideration and safety of building occupants.
- f. Clean up any debris from the Jobsite on a daily basis and at the final.

2.5 Drawings and Submittals

Exhibit I, Sabal Palm Elementary School Building 8 Roof Replacement Project Construction Documents and Specifications of this ITB.

2.6 Pricing

The District is requesting a total base bid price using Attachment I, Price Sheet. The Contractor shall include in their cost all labor, materials, equipment, tools, transportation, and any other facilities and services required for the proper execution and completion of the work as specified herein. The price is not subject to any material or labor escalation for the duration of the Project.

2.7 Mandatory Pre-Bid Meeting

Mandatory Pre-Bid Conferences and Site Visits will be held:

On Friday, April 12, 2024 at 10:30 a.m., at Sabal Palm Elementary School 2813 Ridgeway Street, Tallahassee, Florida 32310.

Attendance at these site visits is mandatory for consideration for the location you are submitting a Bid. Each Bidder shall have a maximum of two (2) representatives. They are to meet at the site in the front office and document attendance on the conference "sign-in" sheet. Attendees and Project Coordinator will inspect the site. Questions will be answered at that time; however, verbal answers are not binding on the Leon County School Board. Only those questions subsequently submitted in writing during the question and answer period, and answered through an addendum to this ITB will be considered binding upon the Board.

2.8 Prequalification

Interested firms must hold a Certificate of Prequalification from the Leon County School Board, Construction & Facilities Department. Certificates will be valid for one (1) year from the date of School Board approval and must be renewed annually. Instructions are available at:

<https://www.leonschools.net/Page/4815> . Submittals for work from firms not prequalified at the time of submittal will be deemed nonresponsive and will not be considered.

The bonding capacity identified in the firms prequalification shall be greater than or equal to the firms total bid price.

2.9 Permits

Contractor shall apply for and obtain any and all such permits and regulatory approvals as may be required by the Board or any other governmental or administrative agency, in order to legally complete the work required hereunder, and by signing and returning their Bid, Contractor acknowledges that the cost thereof has been included in the base price.

2.10 Safety

Contractor and its employees must comply with the Board's safety policies. Contractor is responsible to adhere to all OSHA Job Safety Requirements include the use of all PPE (personal protective equipment) for staff.

2.11 Performance and Payment Bonds

The Performance and Payment Bonds shall be secured from any agency of a surety or insurance company who shall have an established place of business in the State of Florida and be duly licensed to conduct business there. It is to be furnished as prescribed in Section 255.05 and 1013.47, Florida Statutes. In the event the Contract is awarded to the Bidder, Bidder shall, within eight (8) Owner business days after the award by the Owner of the Contract, furnish the required Performance and Payment Bonds.

2.12 Property Damage

The Contractor will be responsible to repair or replace, to the Leon County School Board's satisfaction, any damage caused in pursuit of the work specified herein. Such repairs will be at the sole expense of the awarded Contractor.

2.13 Quality

All materials used must be new and equal to or exceed specifications. The manufacturer's standard guarantee shall apply.

2.14 Contact Person

The successful Vendor shall be notified of the name and phone number of the Project Coordinator person. Only the Project Coordinator may authorize changes to the scope of work.

2.15 Warranties

The Contractor warrants that all provided commodities and contractual services are free from liens and encumbrances, and are free from defects in design, materials, and workmanship. The Contractor warrants the commodities and contractual services are suitable for and will perform per the ordinary use for which they are intended. The Contractor must agree to assist the District in resolving any dispute over warranty terms with the manufacturer. Any manufacturer's warranty that extends beyond the expiration of the warranty will be passed on to the District.

2.16 Performance Monitoring

The District may utilize any or all of the following methodologies in monitoring the Successful Proposer(s) performance under the Contract and in determining compliance with Contract terms and conditions:

- On-site reviews of work performed;
- Documentation/review of timely response to work requests;
- Documentation/review of timely completion of work as assigned; and
- Documentation/review of invoices.

The Contract Manager will provide a written monitoring report to the Successful Proposer within 30 days of a monitoring visit. Non-compliance issues identified by the Contract Manager will be described in detail

to provide the Successful Proposer(s) the opportunity for correction, where feasible.

Within 10 calendar days of receipt of the District's written monitoring report the Successful Proposer shall provide a formal Corrective Action Plan (CAP) to the Contract Manager (email acceptable), in response to all noted deficiencies to include responsible individuals and required time frames for achieving compliance. Unless specifically agreed upon in writing by the Contract Manager, time frames for compliance shall not exceed 30 calendar days from the date of receipt of the monitoring report by the Successful Proposer. CAPs that do not contain all information required shall be rejected by the Contract Manager in writing. The Successful Proposer shall have 15 calendar days from the receipt of such written rejection to submit a revised CAP; this will not increase the required time for achieving compliance. All noted deficiencies shall be corrected within the time frames identified in the CAP, or as amended with prior approval of the District. If deficiencies are not corrected within the approved timeframe, the District will impose a financial consequence of \$100 per day until corrected. The Contract Manager may conduct follow-up monitoring at any time to determine compliance based upon the submitted CAP.

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SECTION 3: Procurement Rules and Information

3.1 Contents and Format of Bid Submittals

All Bids must include the following required forms:

- a. Attachment I, Price Sheet, indicating pricing for the services as detailed.
- b. Completed Application for Vendor Status* and associated forms
<https://www.leonschools.net/cms/lib/FL01903265/Centricity//Domain/195/FORMS/Application%20for%20Vendor%20Status-ACH%20forms%20MAY%202023.pdf>;
- c. Attachment II, Notice of Conflict of Interest
- d. Attachment III, Bidder Contact Information
- e. Attachment IV, Local Preference Affidavit (if applicable)
- f. Attachment V, Subcontracting Form (if applicable)
- g. Attachment VI, Drug-Free Workplace Certification (if applicable)
- h. Attachment VII, Certification Regarding Debarment
- i. Attachment VIII, Certification Regarding Lobbying
- j. Attachment IX, Documentation of Business Experience

***Please note, if the Vendor is already registered with the District, it does not need to submit another application.**

3.2 Basis of Award

The District intends to issue an award to the one Responsible Bidder, who provides the lowest Total Price. The District will apply a preference to Vendors as indicated in Sections 3.6, 3.7, and 3.8.

In the event the Responsible Bidder with the lowest Total Price is found non-responsive, the District may proceed to the next Responsive Bid from a Responsible Vendor with the next lowest Total Price and continue the award process. Any and all award(s) made as a result of this ITB shall conform to all applicable Board policies, State Board rules, and Florida Statutes.

3.3 Advertising Notice of Board Decision

The District reserves the right to award one (1) or more Contracts, in whole or in part, for the services sought in this ITB. The District reserves the right to accept or reject any and all offers or separable portions and to waive any Minor Irregularity, technicality, or omission if the District determines doing so will serve the best interest of the Board. While the Board will encourage use by all District departments, the Contract(s) is not an exclusive agreement, and the Board may secure the same or similar goods and services from other vendors in accordance with applicable procurement laws, rules, and policies.

As in any competitive solicitation, the Board shall advertise a public notice of Board Decision when the Board has decided on the outcome of the solicitation, including, but not limited to, a decision to award a Contract(s), reject all Bids, or to cancel/withdraw the ITB.

The Notice of Board Decision will be advertised on or about the date shown in the Timeline and will remain posted for a period of 72 hours (Saturdays, Sundays, and District holidays shall be excluded in the computation of the 72-hour period).

3.4 No Prior Involvement and Conflicts of Interest

Any Bidder who participated through decision, approval, disapproval, recommendation, preparation of any part of the purchase, influenced the content of the solicitation, rendered advice, investigated, audited, or served in any other advisory capacity is ineligible to participate in this solicitation.

Additionally, no Bidder shall compensate in any manner, directly or indirectly, any officer, agent, or employee of the District for any act or service which he/she may do or perform for, or on behalf of, any officer, agent, or employee of the Bidder. No officer, agent, or employee of the District or Board shall have any interest, directly or indirectly, in any Contract or purchase made or authorized to be made by anyone for, or on behalf of, the Board. The Bidder shall have no interest and shall not acquire any interest that shall conflict in any manner or degree with the performance of the services required under this ITB.

3.5 Confidentiality, Proprietary, or Trade Secret Material

The District takes its public records responsibilities, as provided under Chapter 119, F.S., and Article I, Section 24 of the Florida Constitution, very seriously. If the Bidder considers any portion of the documents, data, or records submitted in response to this solicitation to be confidential, trade secret, or otherwise not subject to disclosure under Chapter 119, F.S., the Florida Constitution, or other authority, the Bidder must also simultaneously provide the District with a separate redacted copy of its Bid and briefly describe in writing the grounds for claiming exemption from the public records law, including the specific statutory citation for such exemption. This redacted copy shall contain the District's solicitation name, number, and the name of the Bidder on the cover and shall be clearly titled "Redacted Copy." The redacted copy shall be provided to the District at the same time the Bidder submits its Bid to the solicitation and must only exclude or redact those exact portions that are claimed confidential, proprietary, or trade secret. The Bidder shall be responsible for defending its determination that the redacted portions of its response are confidential, trade secret, or otherwise not subject to disclosure.

Further, the Bidder shall protect, defend, and indemnify the District for any and all claims arising from or relating to the Bidder's determination that the redacted portions of its response are confidential, proprietary, trade secret, or otherwise not subject to disclosure. If the Bidder fails to submit a Redacted Copy with its Bid, the District is authorized to produce the entire documents, data, or records submitted by the Bidder in answer to a public record request for these records. In no event shall the District, Board, or any of its employees or agents be liable for disclosing or otherwise failing to protect the confidentiality of information submitted in response to this solicitation.

3.6 Florida Preference

When a school district is required to make purchases of personal property through competitive solicitation and the lowest responsible and responsive bid, proposal, or reply is by a vendor whose principal place of business is in a state or political subdivision which grants a preference by that state or political subdivision, and then the school district shall award an equal preference to the lowest responsible and responsive
Page 19 of 45 vendor having a principal place of business within Florida. In a competitive solicitation in which the lowest bid is submitted by a vendor whose principal place of business is located outside the

state, and that state does not grant a preference in competitive solicitation to vendors having a principal place of business in that state, the preference to the lowest responsible and responsive vendor having a principal place of business in the State of Florida shall be five (5) percent. F.S. 287.084(1)(a). A vendor whose principal place of business is outside this state must accompany any written bid, proposal, or reply documents with a written opinion of an attorney at law licensed to practice law in that foreign state as to the preferences, if any or none, granted by the law of that state to its own business entities whose principal places of business are in that foreign state in the letting of any or all public contracts. F.S. 287.084(2).

3.7 Small Business Participation

This ITB is subject to the small business development provisions specified in Board Policy 6325.

3.8 Local Business Preference

This ITB is subject to the local preference provisions specified in Board Policy 6450.

SECTION 4: Contract Terms and Conditions

4.1 Contract Modifications

Unless otherwise stated in the Contract, modifications shall be valid only through the execution of a formal Contract amendment signed by both parties.

4.2 Use by Other Public Agencies

Pursuant to their own governing laws and subject to the agreement of the Contractor, other entities may be permitted to make purchases at the terms and conditions contained herein. Any such purchases are independent of the agreement between the District and Contractor, and the District shall not be a party to any transaction between the Contractor and any other purchaser.

The District hereby notifies interested parties that the Florida Department of Management Services purchasing agreements and state term contracts have been reviewed for the goods and services contemplated by this solicitation, and the District has determined conducting our own solicitation is in our best interest.

4.3 Travel Expenses

The District shall not be responsible for the payment of any travel expenses incurred by Bidders due to this ITB or Contract.

4.4 E-Verify

Per Executive Order 11-116, "The Provider agrees to utilize the U.S. Department of Homeland Security's E-Verify system, <https://e-verify.gov/employers>, to verify the employment eligibility of all new employees hired during the contract term by the Provider. The Provider shall also include a requirement in subcontracts that the subcontractor shall utilize the E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term." Contractors meeting the terms and conditions of the E-Verify System are deemed to comply with this provision.

Beginning January 1, 2021, every public employer, Contractor, and subcontractor shall register with and use the E-Verify system to verify the work authorization status of all newly hired employees. A public employer, Contractor, or subcontractor shall not enter into a contract unless each party to the Contract registers with and uses the E-Verify system per Section 448.095, F.S.

4.5 Subcontracts

The Contractor may, only with the prior written consent of the District, enter into written subcontracts for the delivery or performance of services as indicated in this ITB. Anticipated subcontract agreements known at the time of Bid submission must be identified in the submitted Bid using Attachment VII, Subcontracting Form. If a subcontract has been identified at the time of submission, a copy of the proposed subcontract must be submitted to the District. No subcontract, which the Contractor enters into concerning the performance of any of its functions under the Contract, shall in any way relieve the Contractor of any responsibility for the performance of its duties. All subcontractors, regardless of function, providing services on District property shall comply with the District's security requirements, as defined by the Board, including background checks, compliance with Board Policy 2.021, the Jessica Lunsford Act, and all other Contract requirements. All payments to the subcontractor shall be made by the Contractor.

If a subcontractor is utilized by the Contractor, the Contractor shall pay the subcontractor within seven (7) working days after receipt of full or partial payments from the District, per Section 287.0585, F.S. It is understood and agreed that the District shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract and that the Contractor shall be solely liable to the subcontractor for all expenses and liabilities under the Contract. Failure by the Contractor to pay the subcontractor within seven (7) working days will result in a penalty to be paid by the Prime Contractor to the subcontractor in the amount of one-half ($\frac{1}{2}$) of one percent (1%) of the amount due per day from the expiration of the period allowed herein for payment. Such penalty shall be in addition to actual payments owed and shall not exceed fifteen percent (15%) of the outstanding balance due.

4.6 Background Screening Requirements/Jessica Lunsford Act

Florida Statutes contain certain fingerprinting and screening requirements pertaining to all persons or entities entering into contracts with Schools, School Boards, School Districts, and Charter Schools who may have personnel who will be on school grounds when students may be present. All contractor staff must successfully pass a Level 2 background screening. Any individual who fails to meet the statutory requirements shall not be allowed on school grounds. Failure to comply with the statutory requirements will be considered a material default of this Contract.

The Contractor shall bear all costs associated with background screening.

District Contact

Donald Kimbler

Safety & Security

Phone: (850) 487-7293

Email: kimblerd@leonschools.net

Monday-Friday (excluding District holidays), 8:00 a.m. – 5:00 p.m.

4.7 Insurance

Below are the minimum insurance requirements the Contractor(s) must maintain:

- 4.7.1 General Liability: Limits not less than \$1,000,000 per occurrence for Bodily Injury/ Property Damage; \$1,000,000 General Aggregate. Limits not less than \$1,000,000 for Products/Completed Operations Aggregate.
- 4.7.2 Workers Compensation: Florida Statutory limits in accordance with Chapter 440; Employer's Liability limits not less than \$100,000/\$100,000/\$500,000 (each accident/disease-each employee/disease-policy limit).
- 4.7.3 Auto Liability: Owned, Non-Owned, and Hired Auto Liability with Bodily Injury and Property Damage limits of not less than \$1,000,000 Combined Single Limit. If the Contractor does not own any vehicles, hired and non-owned automobile liability coverage in the amount of \$1,000,000 shall be accepted. In addition, an affidavit signed by the Contractor must be furnished to the District indicating the following: "(Contractor Name) does not own any vehicles. In the event the insured acquires any vehicles throughout the term of this agreement, the insured agrees to provide proof of "Any Auto" coverage effective the date of acquisition."
- 4.7.4 Acceptability of Insurance Carriers: The insurance policies shall be issued by companies qualified to do business in the State of Florida. The insurance companies must be rated at least A-VI by AM Best or Aa3 by Moody's Investor Service.
- 4.7.5 Verification of Coverage: Proof of insurance must be furnished within fifteen (15) days of the award of the Contract.
- 4.7.6 Required Conditions: Liability policies must contain the following provisions. In addition, the following wording must be included on the Certificate of Insurance:
 - 4.7.6.1 All liability policies are primary of all other valid and collectible coverage maintained by the School Board of Leon County, Florida.
 - 4.7.6.2 Certificate Holder: The School Board of Leon County, Florida, 2757 W. Pensacola St., Tallahassee, FL 32303
 - 4.7.6.3 The School Board of Leon County, Florida, reserves the right to review, reject, or accept any required policies of insurance, including limits, coverages, or endorsements, herein throughout the term of this agreement
- 4.7.7 Cancellation of Insurance: Vendors are prohibited from providing services under this Contract with the District without the minimum required insurance coverage and must notify the District within two (2) business days if required insurance is canceled.

4.8 Copyrights, Right to Data, Patents, and Royalties

Where contracted activities produce original writing, sound recordings, pictorial reproductions, drawings, or other graphic representation and works of any similar nature, the District has the right to use, duplicate, and disclose such materials in whole or in part, in any manner, for any purpose whatsoever and to have others acting on behalf of the District to do so.

The District shall have unlimited rights to use, disclose or duplicate, for any purpose whatsoever, all information and data developed, derived, documented, or furnished by the Bidder. All computer programs and other documentation produced as part of the Contract shall become the exclusive property of the District and may not be copied or removed by any employee of the Contractors without express written permission of the District.

The Contractor, without exception, shall indemnify and save harmless the District, the Board, and its employees from liability of any nature or kind, including costs and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or supplied by the Vendor. The Vendor has no liability when such claim is solely and exclusively due to the combination, operation, or use of any article supplied hereunder with equipment or data not supplied by the Contractor or is based solely and exclusively upon the District's alteration of the article. The District will provide prompt written notification of a claim of copyright or patent infringement and will afford the Contractor the full opportunity to defend the action and control the defense of such claim.

Further, if such a claim is made or is pending, the Contractor may, at its option and expense, procure for the District the right to continue the use of, replace, or modify the article to render it non-infringing. If none of the alternatives are reasonably available, the District agrees to return the article to the Contractor upon its request and receive reimbursement, fees, and costs, if any, as may be determined by a court of competent jurisdiction. If the Contractor uses any design, device, or materials covered by letter, patent or copyright, it is mutually agreed and understood without exception that the Contract prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work to be performed hereunder.

4.9 Independent Contractor Status

The Successful Bidder shall be considered an independent Contractor in the performance of its duties and responsibilities. The District shall neither have nor exercise any control or direction over the methods by which the Contractor shall perform its work and functions other than as provided herein. Nothing is intended to, nor shall be deemed to constitute, a partnership or a joint venture with the Contractor(s).

4.10 Contact with Students

No Contractor staff, subcontractors, suppliers, or anyone involved in any manner with providing goods or services under the Contract(s) shall have direct or indirect contact with students at school sites. A violation of this provision shall result in immediate termination of the offender and issuance of a trespass notice from the Board. The Contractor shall be responsible for ensuring compliance by all employees, independent Contractors, subcontractors, or other persons involved in any manner with providing goods or services under the Contract(s).

4.11 Assignment

The Contractor shall not assign its responsibilities or interests to another party without the prior written approval of the District. The Board shall, at all times, be entitled to assign or transfer its rights, duties, and obligations to another governmental entity of the State of Florida upon giving written notice to the Contractor.

4.12 Force Majeure

Neither party shall be liable for loss or damage suffered as a result of any delay or failure in performance under the Contract or interruption of performance resulting directly or indirectly from acts of God, fire, explosions, earthquakes, floods, water, wind, lightning, civil or military authority, acts of public enemy, war, riots, civil disturbances, insurrections, strikes, or labor disputes.

4.13 Severability

The invalidity or unenforceability of any particular provision shall not affect the other provisions hereof and shall be construed in all respects as if such invalid or unenforceable provision was omitted, so long as the material purposes can still be determined and effectuated.

4.14 Reservation of Rights

The District reserves the exclusive right to make certain determinations regarding the service requirements. The absence of the District setting forth a specific reservation of rights does not mean that any provision regarding the services to be performed is subject to mutual agreement. The District reserves the right to make any and all determinations exclusively which it deems are necessary to protect the best interests of the District and the health, safety, and welfare of the District's employees and of the general public which is served by the Board, either directly or indirectly, through these services.

4.15 Americans with Disabilities Act

The Bidder shall comply with the Americans with Disabilities Act (ADA). In the event of the Bidder's noncompliance with the non-discrimination clauses, the ADA, or with any other such rules, regulations, or orders, the Contract may be canceled, terminated, or suspended in whole or in part, and the Bidder may be declared ineligible for further contracts.

4.16 Employment of District Personnel

The Contractor shall not knowingly engage, employ, or utilize, on a full-time, part-time, or any other basis during the term of the Contract, any current or former employee of the District where such employment conflicts with Section 112.3185, F.S.

4.17 Legal Requirements

The applicable provisions of all federal, state, county, and local laws and all ordinances, rules, and regulations shall govern development, submittal, and evaluation of all Bids received in response to this ITB and shall govern any and all claims and disputes which may arise between a person(s) submitting a Bid hereto and the Leon County School Board, by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any Contractor shall not constitute a cognizable defense against the legal effect thereof.

4.18 Conflict of Law and Controlling Provisions

The Contract, plus any conflict of law issue, shall be governed by the laws of the State of Florida. The venue for any legal proceedings will be Leon County, Florida.

4.19 Default

If the awarded Bidder should breach the Contract(s) awarded, the Board reserves the right to seek all remedies in law or in equity.

4.20 Termination

4.20.1 Termination at Will

The Contract may be terminated by the District upon no less than 30 calendar days' notice and by the Contractor upon no less than 120 calendar days' notice, without cause, unless a lesser time is mutually agreed upon by both parties. Notice shall be delivered by certified mail (return receipt requested), by another method of delivery whereby an original signature is obtained, or in-person with proof of delivery.

4.20.2 Termination for Cause

Performance issues will be handled per Section 2.6 of the ITB. In the event the Contractor's performance issues are not remedied or are so egregious as to cause damage to life, safety, or property, the District may terminate the Contract upon 24 hours' written notice to the Contractor. Notice shall be delivered by certified mail (return receipt requested), in-person with proof of delivery, or by another method of delivery whereby an original signature is obtained.

4.20.3 Termination for Unauthorized Employment

Violation of the provisions of Section 274A of the Immigration and Nationality Act shall be grounds for unilateral cancellation of the Contract.

4.20.4 Termination for Lack of Funds

In the event the funds to finance this Contract become unavailable, the District may terminate the Contract upon no less than 24 hours notice, in writing, to the Contractor. Notice shall be delivered by certified mail (return receipt requested), in-person with proof of delivery, or by another method of delivery whereby an original signature is obtained. The District shall be the final authority as to the availability of funds.

4.20.5 Contract Termination Requirements

If at any time, the Contract is canceled, terminated, or otherwise expires, and a Contract is subsequently executed with a Contractor other than the Contractor or service delivery is provided by the District, the Contractor has the affirmative obligation to assist in the smooth transition of Contract services to the subsequent Provider. This includes but is not limited to, the timely provision of all Contract-related documents, information, and reports not otherwise protected from disclosure by law to the replacing party.

4.21 Public Records

To the extent that information is utilized in the performance of the Contract(s) or generated as a result of it, and to the extent that information meets the definition of "public record," as defined in Section 119.011(12), F.S., said information is recognized by the parties to be a public record and, absent a provision of law or administrative rule or regulation requiring otherwise, shall be made available for inspection and copying by any person upon request as provided in Chapter 119, F.S. The Contractor agrees to (a) keep and maintain public records required to perform the service; (b) upon request from the District's custodian of

public records, provide the District with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law; (c) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Contractor does not transfer the records to the District; and (d) upon completion of the Contract, transfer, at no cost, to the District all public records in possession of the Contractor or keep and maintain public records required by the District to perform the service. If the Contractor transfers all public records to the District upon completion of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records.

All records stored electronically must be provided to the District, upon request from the District's custodian of public records or Contract Manager, in a format that is compatible with the information technology systems of the District. Unless a greater retention period is required by state or federal law, all documents pertaining to the program contemplated by this ITB shall be retained by the Bidder for five (5) years after the termination of the resulting Contract or longer as may be required by any renewal or extension of the Contract. The District may unilaterally cancel the Contract for refusal by the Bidder to allow public access to all documents, papers, letters, or other material made or received by the Bidder in conjunction with the Contract unless the records are exempt from Section 24(a) of Art. I of the State Constitution and either Sections 119.07(1), or 119.071, F.S.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, JULIE JERNIGAN, AT jerniganj@leonschools.net, (850)487-7363, 520 S. Appleyard Dr., Tallahassee, FL 32304.

4.22 Indemnification

The Contractor shall be liable and agrees to be liable for, and shall indemnify, defend, and hold the District, Board, its employees, agents, officers, heirs, and assignees harmless from any and all claims, suits, judgments, or damages including court costs and attorney's fees arising out of intentional acts, negligence, or omissions by the Contractor, or its employees or agents, in the course of the operations of the Contract, including any claims or actions brought under Title 42 USC §1983, the Civil Rights Act.

4.23 Disputes

Any dispute concerning the performance of the terms of the Contract shall be resolved informally by the Contract Manager. Any dispute that cannot be resolved informally shall be reduced to writing and delivered to the District's Assistant Superintendent of Business Services or designee. The District's Assistant Superintendent of Business Services, or designee, shall decide the dispute, reduce the decision to writing, and deliver a copy to the parties, the Contract Managers, and the District's Contract Administrator.

4.24 Federal Terms and Conditions

For any solicitation that involves, receives, or utilizes Federal funding, the following terms and conditions shall be considered a part of the solicitation and resulting Contract, and the Vendor accepts and acknowledges that it is and will continue to be in compliance with said terms and conditions for the term of the awarded Contract:

- a. Equal Employment Opportunity (2 CFR Part 200.326(C)): All vendors, Contractors, and subcontractors must comply with Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, implementing regulations at 41 CFR Part 60. This applies to all construction contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3.
- b. Copeland "Anti-Kickback" Act (2 CFR Part 200.326(D)): All vendors, Contractors, and subcontractors must comply with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145) as supplemented in Department of Labor regulations (29 CFR part 3). Applies to all contracts and sub grants for construction or repair.
- c. Davis-Bacon Act (2 CFR Part 200.326(D)): All vendors, Contractors, and subcontractors must comply with the Davis-Bacon Act (40 U.S.C. 3141-3144 and 3146-3148) as supplemented by Department of Labor regulations (29 CFR part 5). This applies to all prime construction contracts in excess of \$2,000 awarded by the District and sub-grantees when required by Federal grant program legislation.
- d. Contract Work Hours & Safety Standards Act (2 CFR Part 200.326(E)): All vendors, Contractors, and sub-Contractors must comply with 40 U.S.C. 3702 and 3704 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708) as supplemented by Department of Labor regulations (29 CFR part 5). This applies to all applicable contracts awarded by the District and sub-grantees in excess of \$100,000 that involve the employment of mechanics or laborers.
- e. Access to Records (2 CFR Part 200.336): All vendors, Contractors, and subcontractors shall give access to the District, the appropriate Federal agency, the Inspectors General, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the Vendor which is directly pertinent to this specific solicitation for the purpose of making audit, examination, excerpts, and transcripts.
- f. Rights to Inventions Made Under a Contract or Agreement (2 CFR Part 200.326 (F)): The recipient or subrecipient must comply with the requirements of 37 CFR Part 401 and any implementing regulations issued by the awarding agency. This applies to Federal awards meeting the definition of "funding agreement" under 37 CFR §401.2(a), and the recipient or subrecipient wishes to enter into a contract with a small business firm or non-profit organization.
- g. Clean Air Act (2 CFR 200.326(G)): All vendors, Contractors, and subcontractors must comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water pollution Control Act as amended (33 U.S.C. 1251-1387). Applies to contracts, subcontracts and sub grants for amounts in excess of \$150,000.
- h. Energy Efficiency (2 CFR 200.326(H)): All vendors, Contractors, and subcontractors must comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201).

- i. Federal Debarment Certification (2 CFR Part 200.326(l)): Certification regarding debarment, suspension, ineligibility, and voluntary exclusion as required by Executive Orders 12549 and 12689, Debarment and Suspension; and in accordance with 2 CFR Part 180, Section 300.
 - 1. The prospective lower tier participant certifies, by submission and signature of this Bid, that neither it nor its principals, its agents, or its representatives are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
 - 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Bid.
- j. Anti-Lobbying Certification (2 CFR Part 220.326(J)): Certification regarding the use of Federal funds as required by Byrd Anti-Lobbying Amendment 31 U.S.C. 1352. This provision applies to vary at or above \$100,000.
 - 1. The Contractor certifies, by submission and signature of their Bid, that during the term and after the awarded term of all contracts resulting from this procurement, it is in compliance with all applicable provisions of the Byrd Anti-Lobbying Amendment 31 U.S.C. 1352, including that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352.
 - 2. Where funds other than Federal appropriated funds are used for such purpose in connection with obtaining any Federal award, the Contractor must disclose the same.
- k. Procurement of recovered materials (2 CFR §200.322): The non-federal entity that is a state agency or agency of a political subdivision of a state and its Contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. This applies to items where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeds \$10,000.
- l. Records Retention: (2 CFR §200.333): Financial records, supporting documents, statistical records, and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three years from the date of submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient.

4.25 Anti-Discrimination

No person shall, on the basis of sex (including transgender, gender nonconforming and gender identity), marital status, sexual orientation, race, religion, ethnicity, national origin, age, color, pregnancy, disability, military status, or genetic information be excluded from participation in, be denied the proceeds or benefits of, or be otherwise subjected to, discrimination in the performance of this Contract.

Per Section 287.05701, F.S., the Board will not consider a Vendor's social, political, or ideological interests when determining if a vendor is considered responsible. Nor will the Board provide a preference based on a vendor's social, political, or ideological beliefs. The Board will not request nor shall a Respondent be expected to provide documentation of its social, political, or ideological interests or those of its employees.

4.26 Discriminatory Vendor List

Per the provisions of 287.134(2)(a), F.S. "An entity or affiliate who has been placed on the discriminatory vendor list may not submit a Bid on a contract to provide any goods or services to a public entity, may not submit a Bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids on leases of real property to a public entity, may not be awarded or perform work as a Contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity." The Vendor certifies, by submission and signature of their Bid, that neither the Bidder nor its principal Vendor, agent, or representative is presently on the discriminatory vendor list or otherwise precluded by Section 287.134, F.S. from participating in this Contract.

4.27 Public Entity Crime & Convicted Vendor List

Per the provisions of 287.133 (2)(a), F.S. "a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Bid, Bid or reply on a contract to provide any goods or services to a public entity, may not submit a Bid, Bid or reply on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids, Bids or replies on leases of real property to a public entity, may not be awarded or perform work as a Contractor, supplier, subContractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida Statute 287.017 for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list. The Vendor certifies, by submission and signature of their Bid, that neither the Bidder nor its principal, agent, or representative is presently debarred, suspended, proposed for debarment, declared ineligible, voluntarily excluded from participation in this transaction, or otherwise precluded by Section 287.133, F.S. from participating in this Contract.

4.28 Scrutinized Companies Certification

The Bidder certifies they are not listed on the Scrutinized Companies that Boycott Israel List, created under Section 215.4725, F.S., and they are not currently engaged in a boycott of Israel. If the Contract exceeds \$1,000,000 in total (not including renewal years), the Bidder certifies that it is not listed on either the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List created under Sections 215.473 and 215.4725, F.S., and further certifies they are not engaged in business operations in Cuba or Syria as stated in Section 287.135(2)(b)2, F.S. Per Sections 287.135(5) and 287.135(3), F.S., the Bidder agrees the Board may immediately terminate the Contract for cause if the Bidder is found to have submitted a false certification or if the Bidder is placed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, or has engaged in business operations in Cuba or Syria during the term of the Contract. Any company that submits a Bid for a contract or upon execution or renewal of a contract with an agency or local governmental entity for goods or services of any amount must certify that the company is not participating in a boycott of Israel.

4.29 Vendor Interests

Per Section 287.05701, F.S., the Board will not consider a Vendor's social, political, or ideological interests when determining if a vendor is considered responsible. Nor will the Board provide a preference based on a vendor's social, political, or ideological beliefs. The Board will not request nor shall a Respondent be expected to provide documentation of its social, political, or ideological interests or those of its employees.

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SECTION 5: Definitions

In this ITB, the following words and expressions have the definitions below unless the context otherwise clearly leads to a different interpretation.

Adjacent County	Any private independent vendor whose county (Gadsden, Wakulla and Jefferson) abuts Leon County and has been licensed at least six (6) months preceding the Bid or Bid opening, as required by local, State, and Federal law, to provide the goods and services to be purchased.
Business Day	Any weekday in Florida, excluding Saturdays, Sundays, and observed holidays.
Contract	The written agreement entered by the Board and Successful Bidder(s) resulting from the award of this solicitation for the delivery of the goods or services described herein.
Contract Manager	The District representative, or their designee, who is responsible for oversight of the resulting Contract, including performance monitoring and certification of invoices for payment.
District/Board (LCS)	Leon County School District, with the Leon County School Board serving as the contracting entity
District Project Manager	The District representative, or their designee, who is responsible for assigning and monitoring the individual projects on site, documenting deficiencies, and certifying project completion
Mandatory Responsiveness Requirements	Terms, conditions, and requirements that must be met by the Bidder to be considered responsive to this solicitation.
Material Deviation(s)	A deviation which, in the District's sole discretion, is not in substantial accordance with the requirements herein, provides a significant competitive advantage to one Bidder over other Bidders, has a potentially substantial effect on the quantity or quality of items proposed, services proposed, or cost to the District.
Minor Irregularity	A variation from the requirements herein that does not give the Bidder a substantial competitive advantage or benefit not enjoyed by other Bidders and does not adversely impact the interests of the District.
Bidder	A legally qualified corporation, partnership, or other business entity that submits a Bid to the District in response to this ITB. This term differs from suppliers, which refers to the marketplace at large.
Responsible Bidder or Vendor	A Bidder who can fully perform all aspects of the Contract Requirements and has the integrity and reliability to ensure good faith performance.
Responsive Bid	A Bid submitted by a Responsible Bidder which conforms to all material aspects of this ITB.
Service Provider Identification Number (SPIN)	A SPIN is a unique nine-digit number assigned to service providers by USAC when an FCC Form 498 is filed. This number is also known as the service provider's 498 ID. A vendor may have more than one if the business units are separated by state, type of service, or for other reasons. One SPIN/498 ID is required to participate in the Schools and Libraries Program.
Subcontract	An agreement between the Contractor and any other person or organization in which that person or organization agrees to perform any duties on the Bidder's behalf under the Contract. The Successful Bidder is not relieved of its duties under the Contract when it enters a Subcontract.
Successful Bidder(s) or Contractor	The Bidder(s) who are awarded the Contract(s) to deliver the goods or provide the services sought in this ITB.

Sabal Palm Elementary School Building 8 Roof Replacement Project

Attachment I
Price Sheet

ITB No. 2421-2025

Sabal Palm Elementary School Building 8 Roof Replacement Project

Description	Total Bid Price
Total cost of Building 8 Roof Replacement as specified.	\$ _____

Company Name

FEIN

Authorized Representative Name (Printed)

Authorized Representative Title

Authorized Representative Signature

Date

Sabal Palm Elementary School Building 8 Roof Replacement Project

Attachment II
Notice of Conflict of Interest

(Bidders shall complete either Section 1 or Section 2.)

Company Name: _____

Solicitation Number: ITB 2421-2025

To participate in this solicitation process and comply with the provisions of Chapter 112.313, Florida Statutes, the undersigned corporate officer hereby discloses the following information to the Leon County School Board.

Section 1

I hereby certify that no official or employee of the School Board requiring the goods or services described in these specifications has a material financial interest in this company.

Authorized Representative (Signature)

Authorized Representative (Print)

Section 2

I hereby certify that the following named Leon County School Board official(s) and employee(s) have a material financial interest(s) (over 5%) in this company, and they have filed Conflict of Interest Statements with the Leon County Supervisor of Elections, before the Bid Opening.

Name	Title/Position	Date of Filing
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Authorized Representative (Signature)

Authorized Representative (Print)

Date

Sabal Palm Elementary School Building 8 Roof Replacement Project

Attachment III
Bidder Contact Information

The Bidder shall identify the contact information for solicitation and contractual purposes via the requested fields in the table below.

	For solicitation purposes, the Bidder's representative shall be:	For contractual purposes, should the Bidder be awarded, the Bidder's representative shall be:
Name:		
Title:		
Street Address:		
City, State, Zip code		
Telephone: (Office)		
Telephone: (Cell)		
Email:		

Company Name **Authorized Representative (Signature)** **Date**

FEIN # **Authorized Representative (Printed)**

Sabal Palm Elementary School Building 8 Roof Replacement Project

Attachment IV

Local Preference Affidavit

To qualify for the Local Vendor Preference, a Bidder must have a physical location in Leon County (or an Adjacent County), employ at least one (1) person at that location, and have been licensed, as required, for at least six (6) months before the Bid Opening. The Bidder, on a day-to-day basis, should provide the goods/services provided under this Contract substantially from the local business address. Post Office boxes are not acceptable for purposes of obtaining this preference.

By completing this Affidavit, the Bidder affirms that it is a local or Adjacent County Business, as defined by Board Policy 6450.

Please complete the following in support of the self-certification:

Bidder Name: _____

Physical Address: _____

County: _____

Phone of Local Location: _____

Length of Time at this Location: _____ **# of Employees at this Location:** _____

Is your business certified as a small business enterprise through Leon County Schools? _____

STATE OF FLORIDA

COUNTY OF _____

Authorized Representative (Print)

Authorized Representative (Signature)

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization this _____ day of _____, 20____, by _____ (name of authorized representative) as _____ (position title) for _____ (company name).

Notary Signature

(NOTARY SEAL)

Name of Notary (Typed, Printed, or Stamped)

Personally Known ☐ **OR** Produced Identification ☐ Type of Identification _____

Sabal Palm Elementary School Building 8 Roof Replacement Project

Attachment V
Subcontracting Form

The Bidder shall complete the information below on all subContractors that will be providing services to the Bidder to meet the requirements of the Contract, should the Bidder be awarded. Submission of this form does not indicate the District's approval of such subContractor(s) but provides the District with information on proposed subContractors for review.

Complete a separate sheet for each sub-contractor.

Prime Bidder Name: _____

Type/Description of Goods or Service SubContractor will provide:

SubContractor Company Name: _____ FEIN: _____

Contact Person: _____ Contact Phone Number: _____

Address: _____

Email address: _____

Currently Registered as a Small Business with Leon County Schools? Yes _____ No _____

Local Bidder per PO6450? Yes _____ No _____

In a job description format, identify the responsibilities and duties of the subContractor based on the specifications or scope of services outlined in this solicitation.

Attachment VI

Drug-Free Workplace Certification

The undersigned Bidder, in accordance with Section 287.087, F.S., hereby certifies that.

Name of Business

1. Publishes a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Informs employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Gives each employee engaged in providing the commodities or contractual services sought in this solicitation a copy of the statement specified in Paragraph 1.
4. In the statement specified in Paragraph 1, notify the employees that, as a condition of working on the commodities or contractual services sought in this solicitation, the employee will abide by the terms of the statement and will notify the employer of any conviction of, plea of guilty, or nolo contendere to, any violation of Chapter 893, F.S., or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Imposes sanctions on or requires satisfactory participation in a drug abuse assistance or rehabilitation program by any employee who is so convicted as available in their community.
6. Make a good faith effort to continue to maintain a drug-free workplace through the implementation of Paragraphs 1 thru 5.

As the person authorized to sign this statement, I certify that this company complies fully with the above requirements.

Authorized Officer (Printed Name) _____

Authorized Officer (Signature) _____

Date _____

Sabal Palm Elementary School Building 8 Roof Replacement Project

Attachment VII
Certification Regarding Debarment, Suspension,
Ineligibility and Voluntary Exclusion AD-1048

Lower Tier Covered Transactions

The following statement is made in accordance with the Privacy Act of 1974 (5 U.S.C. § 552a, as amended). This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, and 2 C.F.R. §§ 180.300, 180.335, Participants' responsibilities. The regulations were amended and published on August 31, 2005, in 70 Fed. Reg. 51865-51880. Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the proposed covered transaction.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0505-0027. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal, civil, fraud, privacy, and other statutes may be applicable to the information provided.

(Read instructions on page two before completing certification.)

- A. The prospective lower tier participant certifies, by submission of this Bid, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
- B. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Bid.

ORGANIZATION NAME	PR/AWARD NUMBER OR PROJECT NAME
NAME(S) AND TITLE(S) OF AUTHORIZED REPRESENTATIVE(S)	
SIGNATURE(S)	DATE

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its agencies, offices, employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint \(https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer\)](https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442.

Sabal Palm Elementary School Building 8 Roof Replacement Project

Instructions for Certification

1. By signing and submitting this form, the prospective lower-tier participant is providing the certification set out on page 1 in accordance with these instructions.
2. The certification in this clause is a material representation of the fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower-tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person(s) to which this Bid is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "Bid," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549, at 2 C.F.R. Parts 180 and 417. You may contact the department or agency to which this Bid is being submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower-tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower-tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower-tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the System for Award Management (SAM) database.
8. Nothing contained in the foregoing shall be construed to require the establishment of a system of records to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph (5) of these instructions, if a participant in a covered transaction knowingly enters into a lower-tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Attachment VIII
Certification Regarding Lobbying

For Contracts, Grants, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of Congress or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal-appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying, in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

By _____

Date: _____

(Signature of Official (Executive Director) Authorized to Sign Application)

By _____

Date: _____

(Signature of Official (Chief Financial Officer) Authorized to Sign Application)

For _____

Name of Grantee

Title of Grant Program

Sabal Palm Elementary School Building 8 Roof Replacement Project

Disclosure of Lobbying Activities

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

1. Type of Federal Action

- ☐ a. Contract
☐ b. Grant
☐ c. Cooperative Agreements
☐ d. Loan
☐ e. Loan Agreement
☐ f. Loan Insurance

2. Status of Federal Action

- ☐ a. Bid/offer/application
☐ b. Initial award
☐ c. Post-award

3. Report Type

- ☐ a. Initial filing
☐ b. Material changes

For a material change only:

Year: Quarter:

Date of last report:

4. Name and Address of Reporting Entity

5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime

☐ Prime ☐ Subawardee ☐ Tier if known

Name:

Name:

Street:

Street:

City/State/ Zip

City/State/ Zip

Congressional District, if known

Congressional District, if known

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, if applicable

8. Federal Action Number, if known

9. Award Amount, if known

10. a. Name and Address of Lobbying Registrant: if individual, last name, first name, MI

10. b. Individuals Performing Services: including address if different from 10.a.

11. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature:

Print Name:

Title:

Telephone No:

Date:

Sabal Palm Elementary School Building 8 Roof Replacement Project

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State, and zip code of the reporting entity. Include the Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or sub-award recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants, and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State, and zip code of the prime Federal recipient. Include the Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organizational level below the agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Bid (ITB) number; Invitations to Bid (ITB) number; grant announcement number; the contract, grant, or loan award number; the application/Bid control number assigned by the Federal agency). Included prefixes, e.g., "ITB-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State, and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form; print his/her name, title, and telephone number

Attachment IX**DOCUMENTATION OF BUSINESS EXPERIENCE**

The Bidder shall complete this form to demonstrate it meets the minimum qualifications outlined in Section 1.4(j) Mandatory Responsiveness Criteria of this solicitation. Failure to provide information demonstrating that the Bidder has met the criteria will cause the Bidder to be deemed non-responsive.

A. Company Profile

Bidder's Company Name:

Bidder's Taxpayer ID Number:

Number of Years in Business:

Number of Employees:

Contact Person:

Contact's Telephone Number:

Contact's Email Address:

List of Owners/Partners:

Other Pertinent

Company Information:

Sabal Palm Elementary School Building 8 Roof Replacement Project

B. Previous Project List

List a minimum of three (3) projects completed by the Bidder in the past three years providing services of similar size and scope as contemplated in this solicitation. Use additional sheets if necessary.

Project Name and Owner's Name	Description of Project (include size and scope)	Project Start Date	Project End Date	Project Owner/ Manager Name, Phone, and Email

Sabal Palm Elementary School Building 8 Roof Replacement Project

Exhibit I

Sabal Palm Elementary School Building 8 Roof Replacement Project

Project Description

THE PROJECT INCLUDES THE ROOF REPLACEMENT FOR AN EXISTING SCHOOL BUILDING. THE AREA OF THE ROOF IS APPROXIMATELY 31,689 SF.

BUILDING 8
ROOF REPLACEMENT

FOR

Sabal Palm Elementary School

2813 Ridgeway Street | Tallahassee, FL 32310

LCS Project No. 7-23-M-217



Applicable Codes:

THE SUBJECT PROJECT IS TO COMPLY WITH THE FOLLOWING COMPONENTS OF THE FLORIDA BUILDING CODE (FBC), SEVENTH (2020) EDITION (UNLESS NOTED OTHERWISE).

- FL BLDG CODE, BUILDING (FBC-B)
- FL BLDG CODE, EXISTING BUILDING (FBC-EB)
- FL BLDG CODE, ACCESSIBILITY (FBC-A)
- FL BLDG CODE, ENERGY CONSERVATION (FBC- EC)
- FL BLDG CODE, MECHANICAL (FBC-M)
- FL BLDG CODE, FUEL GAS (FBC-FG)
- FL BLDG CODE, PLUMBING (FBC-P)
- FL FIRE PREVENTION CODE (FFPC), SEVENTH EDITION
- NATIONAL ELECTRICAL CODE (NEC 70), 2017 EDITION
- ASCE STANDARD 7-16 (STRUCTURAL WINDLOAD CRITERIA)

General Notes:

- THE CONTRACTOR SHALL MAKE AVAILABLE TO THE BUILDING INSPECTOR ANY DOCUMENTATION NECESSARY TO VERIFY THAT ALL PRODUCTS REQUIRING APPROVAL PER FS 553.842 ARE IN COMPLIANCE.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FIELD CONDITIONS AT THE SITE PRIOR TO START OF CONSTRUCTION. IF NEEDED, NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES OR DISCOVERED PROBLEMS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL APPROVAL OF ALL FINISH MATERIAL SELECTIONS PER THE OWNER'S REQUEST.
- THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE MATERIALS AND METHODS OF CONSTRUCTION USED FOR THIS PROJECT.
- ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
- ALL MATERIALS, SYSTEMS AND CONSTRUCTION COMPONENTS ARE TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS.
- ALL WORK IS TO BE IN STRICT COMPLIANCE WITH ALL STATE AND LOCAL LAWS AND CODES WHICH APPLY TO THIS USE AND TO GENERALLY ACCEPTED CONSTRUCTION TRADE PRACTICES.
- THE CONTRACTOR SHALL REMOVE FROM THE SITE AND DISPOSE OF ALL TRASH, DEBRIS AND CONSTRUCTION MATERIALS DUE TO CONSTRUCTION PRIOR TO COMPLETION OF THE WORK. THE CONTRACTOR SHALL LEAVE THE SITE IN A CONDITION EQUAL TO OR BETTER THAN IT WAS BEFORE COMMENCEMENT OF THE WORK ON THIS CONTRACT. THE CONTRACTOR SHALL ALSO INSURE THAT ALL PROPER SAFETY MEASURES ARE TAKEN DURING THE TIME OF CONSTRUCTION.
- BEFORE SUBMITTING FOR THE WORK, EACH BIDDER WILL BE RESPONSIBLE TO EXAMINE THE PREMISES AND SATISFY HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE AND COMPLETE THE WORK UNDER THIS CONTRACT. NO ALLOWANCE WILL SUBSEQUENTLY BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR OMISSION ON HIS PART.
- THE CONTRACTOR SHALL PAY FOR INSPECTION PERMITS, CERTIFICATES, CONNECTION FEES, SYSTEM DEMAND CHARGES AND LICENSE FEES IN CONNECTION WITH HIS WORK.
- CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR COORDINATING WORK OF SUBCONTRACTORS TO AVOID INTERFERENCES.
- ERECT AND MAINTAIN REASONABLE PRECAUTIONS FOR SAFETY AND HEALTH INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS INCLUDING PROMULGATING SAFETY REGULATIONS. PROVIDE SAFETY PRECAUTIONS AND BARRICADES FOR PEDESTRIANS AT CONSTRUCTION VEHICLE ACCESS AND EGRESS LOCATIONS.
- COORDINATE AND SEQUENCE DEMOLITION, CLEANING AND CONSTRUCTION WORK. SUBMIT A COMPLETELY DETAILED CONSTRUCTION SCHEDULE PRIOR TO PRE-CONSTRUCTION CONFERENCE.
- THE CONTRACTOR SHALL STRICTLY BE HELD TO THE PROJECT SCHEDULE. HE SHALL PROVIDE SUFFICIENT MANPOWER AND EQUIPMENT TO FULLY MOBILIZE, PROCEED WITH AND COMPLETE THE WORK.
- THE CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE OWNER FOR ON-SITE STORAGE OF CONSTRUCTION MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SECURITY OF EQUIPMENT AND MATERIALS.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK ENVIRONMENT AT ALL TIMES AND SHALL CLEAN CONSTRUCTION SITE OF DEBRIS AT COMPLETION OF THE JOB AND BEFORE FINAL PAYMENT IS MADE.
- CONTRACTOR'S USE OF AN APPROVAL STAMP ON DOCUMENTS SUBMITTED AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS CERTIFIES THAT THE CONTRACTOR HAS COMPLIED WITH THE CONTRACT DOCUMENT REQUIREMENTS RELATED TO "SHOP DRAWINGS, PRODUCT DATA AND SAMPLES".
- THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT IN WRITING OF SUCH DEVIATION AT THE TIME OF SUBMITTAL AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS BY THE ARCHITECT'S APPROVAL THEREOF.
- CONTRACTOR SHALL GUARANTEE THE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE IN ADDITION TO THE WARRANTIES PROVIDED BY MATERIAL SUPPLIERS AND MANUFACTURERS.

Drawing Index:

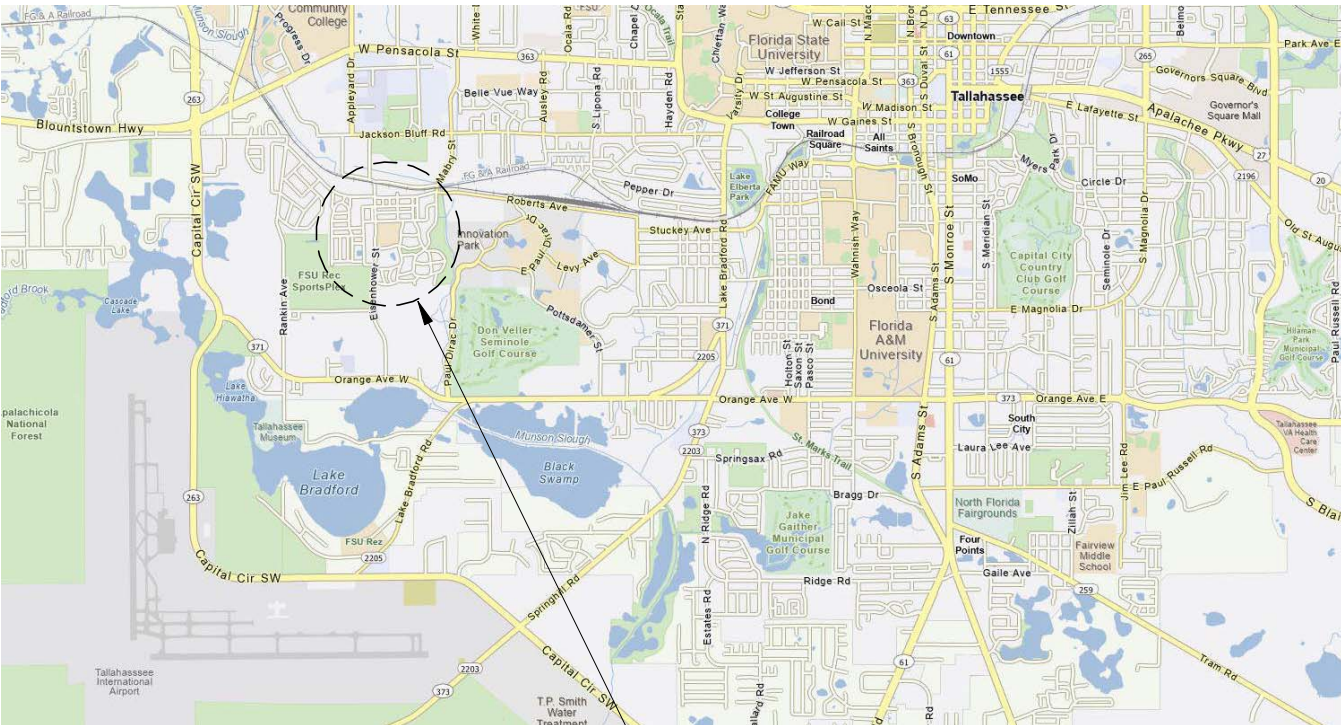
CS	COVER SHEET
AD1.0	DEMOLITION ROOF PLAN - WEST
AD1.1	DEMOLITION ROOF PLAN - EAST
A1.0	ROOF PLAN - WEST
A1.1	ROOF PLAN - EAST
A5.0	ROOF DETAILS
A9.0	EXISTING CONDITIONS IMAGES
S1.0	STRUCTURAL NOTES
S1.1	C&C ROOF DIAGRAM AND WIND PRESSURES
S2.0	PARTIAL ROOF FRAMING PLAN AND SECTIONS



SITE PLAN:



LOCATION MAP:



AREA MAP:

bki

ARCHITECTURE

BKJ, Inc., Architecture

1621 Physicians Dr.

Tallahassee, Florida 32308

(P) 850.778.8007 | (F) 850.546.6150

www.bkjarchitecture.com

FL Architecture Corporation A42802280

SEAL:

PROJECT TITLE:

Building 8 Roof Replacement
Sabal Palm Elementary
2813 Ridgeway Street
Tallahassee, FL 32310

JOB NO.: 23.115

DESIGNED: SC

DRAWN: JH

CHECKED: ML/SC

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REVISIONS:

DRAWING PHASE:
100% Construction Documents

DRAWING TITLE:

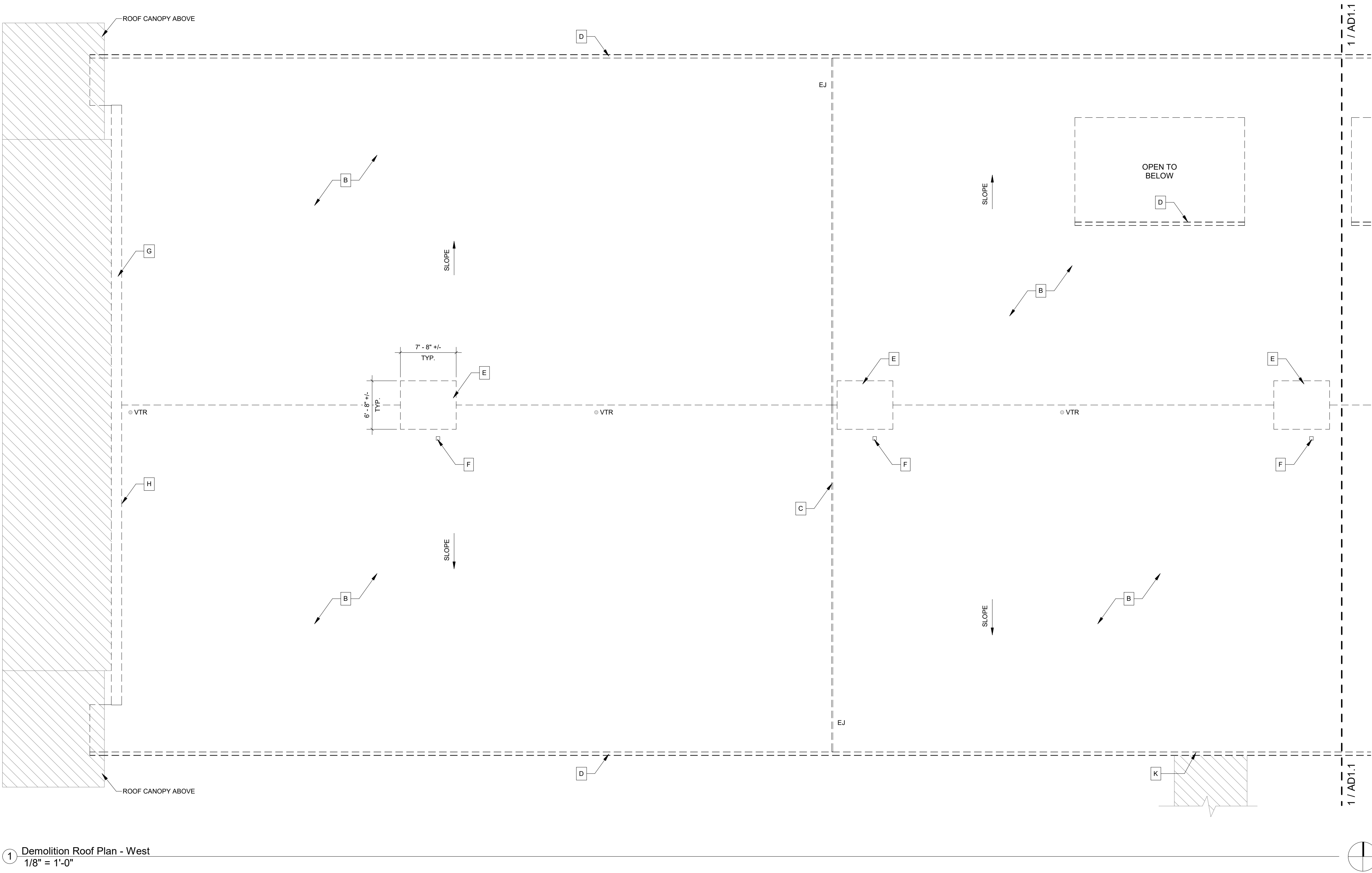
Cover Sheet

SHEET NO.:

CS

DATE:

July 12, 2023



1 Demolition Roof Plan - West
1/8" = 1'-0"

General Demolition Notes:

1. ALL DASHED ELEMENTS ARE TO BE REMOVED AS INDICATED PER LEGEND.
2. "SAFE-OFF" M.P.E. SYSTEMS BY QUALIFIED MECHANICAL, PLUMBING, AND ELECTRICAL CONTRACTOR, AS REQUIRED.
3. REMOVE ALL EXISTING MEMBRANE FLASHING, PERIMETER FLASHING, COUNTER FLASHING, VTR FLASHING, EXPANSION JOINTS, CANT STRIPS, ANY ABANDONED ROOF EQUIPMENT IDENTIFIED BY OWNER, CURBS AND WOOD BLOCKING / NAILERS AS NOTED.
4. REMOVE EXISTING ROOFING & FLASHING SYSTEMS DOWN TO STEEL ROOF DECK.
- EOR SHALL INSPECT EXPOSED METAL DECK ONCE UNCOVERED FOR STRUCTURAL INTEGRITY - COORDINATE ANY DECK REPAIRS / REPLACEMENT W/ NEW WORK SCOPE.
5. ALL DAMAGE TO FINISH SURFACES AND ALL THROUGH-SLAB OR WALL PENETRATIONS THAT REMAIN FOLLOWING THE DEMOLITION OF EXISTING ELEMENTS SHALL BE NOTED BY CONTRACTOR FOR REPAIR AND SEALING DURING RENOVATION.
6. PROTECT EXISTING SITE ELEMENTS IN PROXIMITY TO WORK AREA. DISTURBED OR DAMAGED ELEMENTS SHALL BE REPAIRED OR REPLACED.
7. EXISTING TREES / VEGETATION ON SITE PLAN NOT SHOWN FOR CLARITY - PROTECT EXISTING VEGETATION ADJACENT TO STRUCTURES. VEGETATION DISTURBED OR DAMAGED SHALL BE REPLACED BY CONTRACTOR.
8. EXISTING TREES ADJACENT TO STRUCTURES TO BE TRIMMED AS NECESSARY TO ACCOMMODATE NEW WORK SCOPE.
9. BUILDING IS FULLY OCCUPIED, CONTRACTOR'S EFFORTS SHALL NOT INTERFERE WITH BUILDING OPERATIONS. MAINTAIN A WATERTIGHT ROOF AT ALL TIMES. SCHEDULE WORK APPROPRIATELY W/ PROJECT MANAGER.
10. SEE PROJECT MANUAL FOR RELATED SPECIFICATIONS & PROJECT REQUIREMENTS.
11. DISPOSE OF ALL DEMOLISHED ROOF MATERIAL IN APPROVED DUMP SITE.
12. COORDINATE SITE MOBILIZATION FOR DEMOLITION & CONSTRUCTION PHASES W/ THE PROJECT MANAGER.

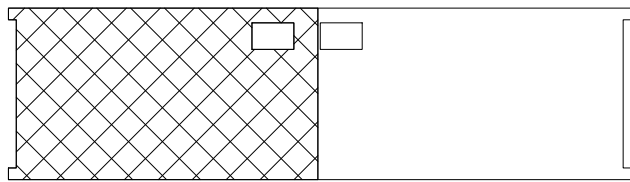
NOTE:
ALL ROOF WORK SHALL END WITH NIGHTLY TIE-IN TO CREATE A COMPLETE WATERPROOF ROOF AT END OF DAY OR PRIOR TO PRECIPITATION.

Demolition Plan Legend:

- EXISTING ELEMENTS TO REMAIN
- ELEMENTS TO BE DEMOLISHED
- NOT IN CONTRACT
- EXISTING VENT THROUGH ROOF TO REMAIN
- EXPANSION JOINT
- D.S. DOWNSPOUT

Demolition Keynotes:

- A REMOVE AND DISPOSE OF EXISTING ROOF MOUNTED TRI-POD.
- B REMOVE AND DISPOSE OF EXISTING ROOFING SYSTEM, FLASHING, AND INSULATION DOWN TO EXISTING STRUCTURAL DECK - CLEAN AND PREPARE DECK AS REQUIRED TO RECEIVE NEW ROOFING SYSTEM - TYP. - ENSURE STRUCTURAL DECK IS CLEAN & DRY.
- C REMOVE AND DISPOSE OF EXISTING EXPANSION JOINT IN ITS ENTIRETY.
- D REMOVE AND DISPOSE OF EXISTING GUTTER AND DOWNSPOUTS IN THEIR ENTIRETY.
- E REMOVE AND DISPOSE OF EXISTING ROOF VENTILATORS / EQUIPMENT CURBS IN THEIR ENTIRETY. COORDINATE WITH STRUCTURAL DWGS FOR NEW WORK SCOPE.
- F REMOVE AND DISPOSE OF EXISTING JUNCTION BOXES IN THEIR ENTIRETY. "SAFE-OFF" AND TERMINATE EXISTING WIRING AT SOURCE PANEL.
- G REMOVE AND DISPOSE OF EXISTING PARAPET WALL CAP IN ITS ENTIRETY.
- H REMOVE AND DISPOSE OF EXISTING COUNTER / BASE FLASHING IN ITS ENTIRETY.
- I REMOVE AND DISPOSE OF EXISTING METAL WALL PANELS IN THEIR ENTIRETY.
- J REMOVE EXISTING / TEMPORARY INFILL ROOFING MATERIAL - CONFIRM CONDITION OF REMAINING STRUCTURAL DECK PRIOR TO INSTALLING NEW ROOFING SYSTEM. COORDINATE WITH STRUCTURAL
- K REMOVE EXISTING FLASHING AT OVERHANG / WALKWAY CANOPY TRANSITION - PREPARE SUBSTRATE AS REQUIRED TO RECEIVE NEW FLASHING DURING NEW WORK PHASE.



Key Plan
NTS

SEAL:

PROJECT TITLE:

Building 8 Roof Replacement
Sabal Palm Elementary
2813 Ridgeway Street
Tallahassee, FL 32310

JOB NO.: 23.115

DESIGNED: SC

DRAWN: JH

CHECKED: ML/SC

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REVISIONS:

DRAWING PHASE:
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DRAWING TITLE:

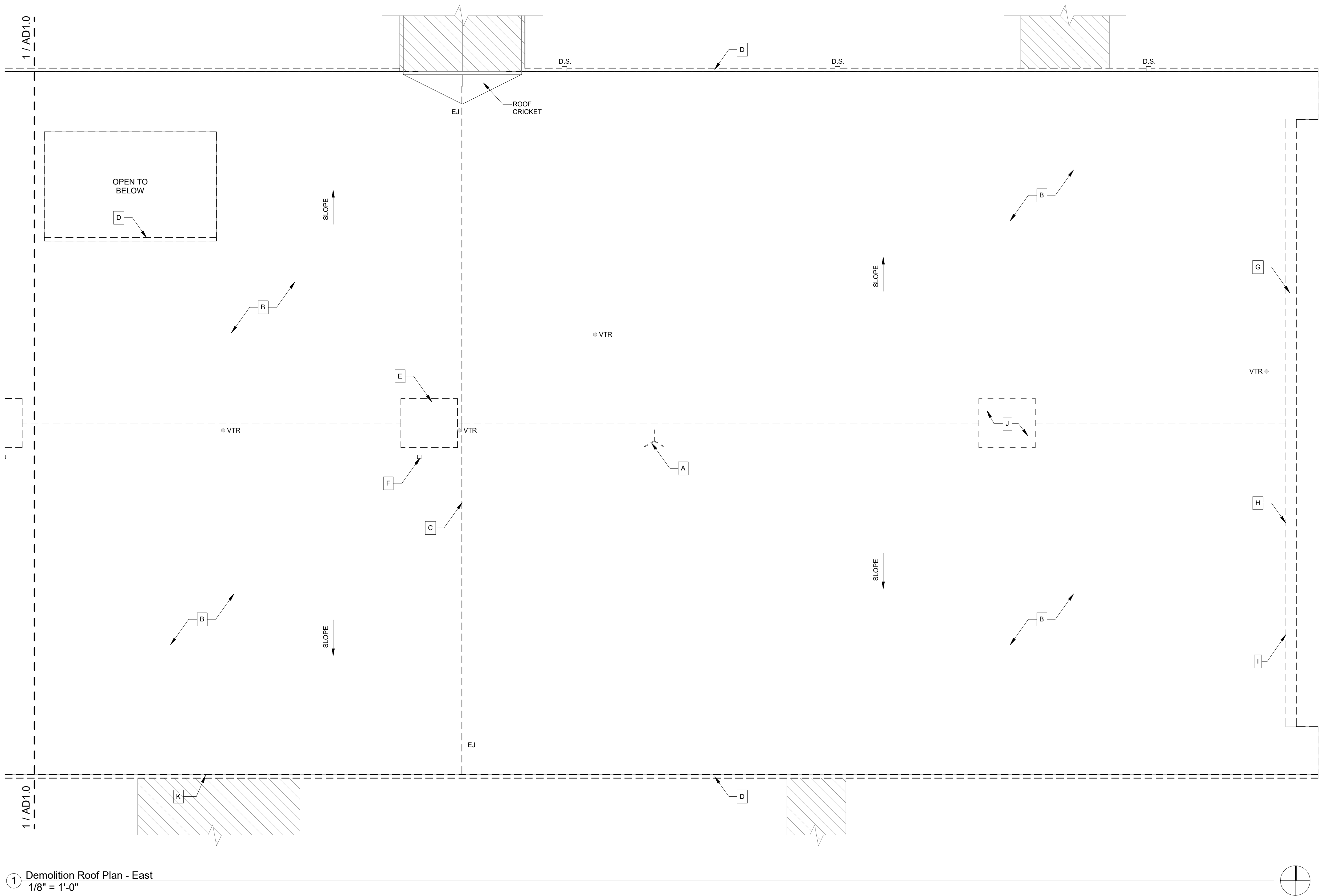
Demolition Roof Plan - West

SHEET NO.:

AD1.0

DATE:

July 12, 2023



1 Demolition Roof Plan - East
1/8" = 1'-0"

General Demolition Notes:

1. ALL DASHED ELEMENTS ARE TO BE REMOVED AS INDICATED PER LEGEND.
2. "SAFE-OFF" M.P.E. SYSTEMS BY QUALIFIED MECHANICAL, PLUMBING, AND ELECTRICAL CONTRACTOR, AS REQUIRED.
3. REMOVE ALL EXISTING MEMBRANE FLASHING, PERIMETER FLASHING, COUNTER FLASHING, VTR FLASHING, EXPANSION JOINTS, CANT STRIPS, ANY ABANDONED ROOF EQUIPMENT IDENTIFIED BY OWNER, CURBS AND WOOD BLOCKING / NAILERS AS NOTED.
4. REMOVE EXISTING ROOFING & FLASHING SYSTEMS DOWN TO STEEL ROOF DECK. - EOR SHALL INSPECT EXPOSED METAL DECK ONCE UNCOVERED FOR STRUCTURAL INTEGRITY - COORDINATE ANY DECK REPAIRS / REPLACEMENT W/ NEW WORK SCOPE.
5. ALL DAMAGE TO FINISH SURFACES AND ALL THROUGH-SLAB OR WALL PENETRATIONS THAT REMAIN FOLLOWING THE DEMOLITION OF EXISTING ELEMENTS SHALL BE NOTED BY CONTRACTOR FOR REPAIR AND SEALING DURING RENOVATION.
6. PROTECT EXISTING SITE ELEMENTS IN PROXIMITY TO WORK AREA. DISTURBED OR DAMAGED ELEMENTS SHALL BE REPAIRED OR REPLACED.
7. EXISTING TREES / VEGETATION ON SITE PLAN NOT SHOWN FOR CLARITY - PROTECT EXISTING VEGETATION ADJACENT TO STRUCTURES. VEGETATION DISTURBED OR DAMAGED SHALL BE REPLACED BY CONTRACTOR.
8. EXISTING TREES ADJACENT TO STRUCTURES TO BE TRIMMED AS NECESSARY TO ACCOMMODATE NEW WORK SCOPE.
9. BUILDING IS FULLY OCCUPIED, CONTRACTOR'S EFFORTS SHALL NOT INTERFERE WITH BUILDING OPERATIONS. MAINTAIN A WATERTIGHT ROOF AT ALL TIMES. SCHEDULE WORK APPROPRIATELY W/ PROJECT MANAGER.
10. SEE PROJECT MANUAL FOR RELATED SPECIFICATIONS & PROJECT REQUIREMENTS.
11. DISPOSE OF ALL DEMOLISHED ROOF MATERIAL IN APPROVED DUMP SITE.
12. COORDINATE SITE MOBILIZATION FOR DEMOLITION & CONSTRUCTION PHASES W/ THE PROJECT MANAGER.

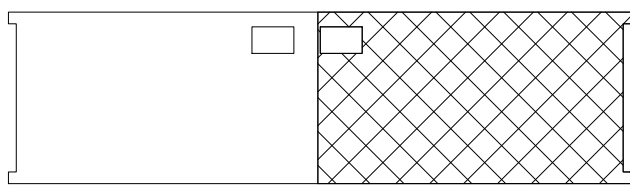
NOTE:
ALL ROOF WORK SHALL END WITH NIGHTLY TIE-IN TO CREATE A COMPLETE WATERPROOF ROOF AT END OF DAY OR PRIOR TO PRECIPITATION.

Demolition Plan Legend:

- EXISTING ELEMENTS TO REMAIN
- ELEMENTS TO BE DEMOLISHED
- NOT IN CONTRACT
- EXISTING VENT THROUGH ROOF TO REMAIN
- EXPANSION JOINT
- DOWNSPOUT

Demolition Keynotes:

- A REMOVE AND DISPOSE OF EXISTING ROOF MOUNTED TRI-POD.
- B REMOVE AND DISPOSE OF EXISTING ROOFING SYSTEM, FLASHING, AND INSULATION DOWN TO EXISTING STRUCTURAL DECK - CLEAN AND PREPARE DECK AS REQUIRED TO RECEIVE NEW ROOFING SYSTEM - TYP. - ENSURE STRUCTURAL DECK IS CLEAN & DRY.
- C REMOVE AND DISPOSE OF EXISTING EXPANSION JOINT IN ITS ENTIRETY.
- D REMOVE AND DISPOSE OF EXISTING GUTTER AND DOWNSPOUTS IN THEIR ENTIRETY.
- E REMOVE AND DISPOSE OF EXISTING ROOF VENTILATORS / EQUIPMENT CURBS IN THEIR ENTIRETY. COORDINATE WITH STRUCTURAL DWGS FOR NEW WORK SCOPE.
- F REMOVE AND DISPOSE OF EXISTING JUNCTION BOXES IN THEIR ENTIRETY. "SAFE-OFF" AND TERMINATE EXISTING WIRING AT SOURCE PANEL.
- G REMOVE AND DISPOSE OF EXISTING PARAPET WALL CAP IN ITS ENTIRETY.
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- K REMOVE EXISTING FLASHING AT OVERHANG / WALKWAY CANOPY TRANSITION - PREPARE SUBSTRATE AS REQUIRED TO RECEIVE NEW FLASHING DURING NEW WORK PHASE.



Key Plan
NTS



SEAL:

PROJECT TITLE:

Building 8 Roof Replacement
Sabal Palm Elementary
2813 Ridgeway Street
Tallahassee, FL 32310

JOB NO.: 23.115

DESIGNED: SC

DRAWN: JH

CHECKED: ML/SC

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REVISIONS:

DRAWING PHASE:
100% Construction Documents

DRAWING TITLE:

Demolition Roof Plan - East

SHEET NO.:

AD1.1

DATE:

July 12, 2023

Roof Plan General Notes:

1. ANY PENETRATIONS THROUGH AN EXISTING FIRE RATED ASSEMBLY, EITHER PRIOR TO CONSTRUCTION ACTIVITIES, OR AS A RESULT OF CONSTRUCTION SHALL BE SEALED WITH APPROPRIATE U.L. RATED ASSEMBLY.
2. BUILDING IS FULLY OCCUPIED. CONTRACTOR'S EFFORTS SHALL NOT INTERFERE WITH BUILDING OPERATIONS. MAINTAIN A WATER TIGHT ROOF AT ALL TIMES. SCHEDULE WORK APPROPRIATELY WITH PROJECT MANAGER.
3. EOR SHALL INSPECT EXPOSED METAL DECK ONCE UNCOVERED FOR STRUCTURAL INTEGRITY - COORDINATE ANY DECK REPAIRS / REPLACEMENT W/ NEW WORK SCOPE.
4. EXTEND VTR'S AS NEEDED TO ENSURE 12" MIN. HEIGHT ABOVE FINISHED ROOF PER MANUFACTURER'S REQUIREMENTS.

NOTE:
ALL ROOF WORK SHALL END WITH NIGHTLY TIE-IN TO CREATE A COMPLETE WATERPROOF ROOF AT END OF DAY OR PRIOR TO PRECIPITATION.

Roof Plan Legend:

- EXISTING ELEMENTS TO REMAIN
- ELEMENTS TO BE DEMOLISHED
- NOT IN CONTRACT
- EXISTING VENT THROUGH ROOF TO REMAIN
- EXPANSION JOINT
- D.S. DOWNSPOUT
- AREA OF ROOF INFILL
- NEW ROOF WALKWAY PADS

Roof Plan Keynotes:

- 1 CLEAN AND PREPARE EXISTING STRUCTURAL DECK. INSTALL INSULATION, COVERBOARD, BASE SHEET AND KEE CAP SHEET.
- 2 INSTALL NEW EXPANSION JOINT WHERE REMOVED DURING DEMOLITION PHASE. REFER TO DETAIL 4/A5.0.
- 3 INSTALL NEW DRIP EDGE/FLASHING PER ROOF MANUFACTURERS REQUIREMENTS.
- 4 INSTALL NEW SEAMLESS GUTTER, SCUPPER, AND DOWNSPOUTS WHERE REMOVED DURING DEMOLITION PHASE UNLESS OTHERWISE NOTED - LOCATIONS OF NEW SCUPPERS / DOWNSPOUTS TO BE CENTERED OVER EXISTING SPLASH CISTERNS.
- 5 INSTALL NEW DECKING WHERE ROOF VENTILATORS WERE REMOVED DURING DEMOLITION PHASE. COORDINATE WITH STRUCTURAL DWGS.
- 6 INSTALL NEW METAL WALL PANELS AT ENDS AND BACKSIDE OF PARAPET WALL.
- 7 INSTALL NEW PARAPET WALL CAP.
- 8 INSTALL NEW SEAMLESS GUTTER WHERE REMOVED DURING DEMOLITION PHASE & PROVIDE NEW DOWNSPOUT TO EXISTING SPLASH CISTERN - LOCATION / ROUTING OF NEW DOWNSPOUT TO BE DETERMINED ON SITE.
- 9 PROVIDE NEW ROOF WALK PADS PER MANUFACTURER'S REQUIREMENTS. LOCATION / EXTENTS IS APPROXIMATE - CONTRACTOR TO COORDINATE WITH OWNER ON SITE.
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ARCHITECTURE

BKJ, Inc., Architecture

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Tallahassee, Florida 32308

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www.bkjarchitecture.com

FL Architecture Corporation A430002280

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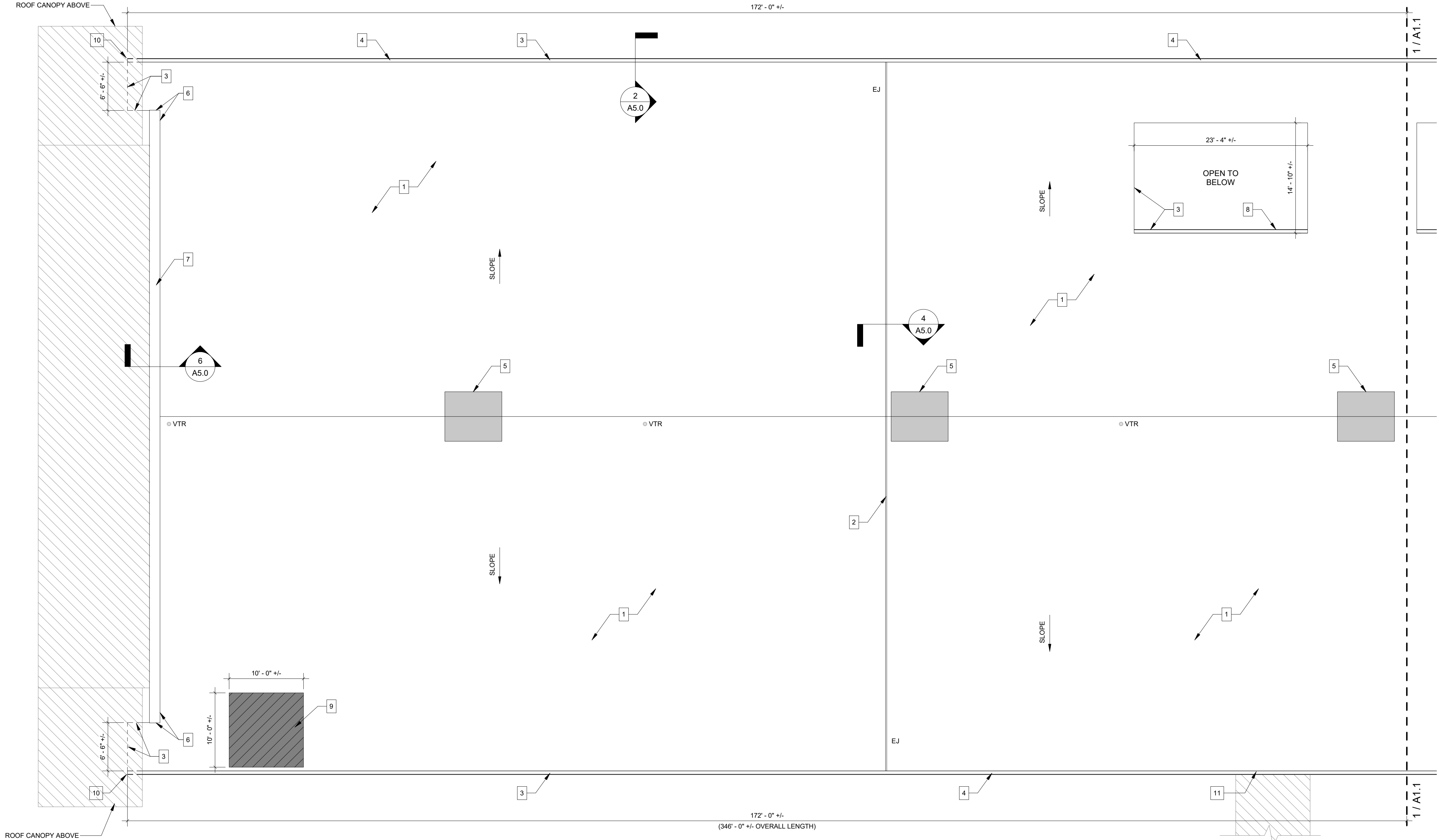
Roof Plan - West

SHEET NO.:

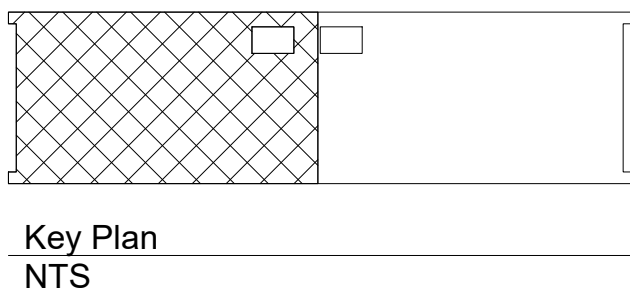
A1.0

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July 12, 2023



1 Roof Plan - West
1/8" = 1'-0"



Roof Plan General Notes:

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4. EXTEND VTR'S AS NEEDED TO ENSURE 12" MIN. HEIGHT ABOVE FINISHED ROOF PER MANUFACTURER'S REQUIREMENTS.

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FL Architecture Corporation A428002280

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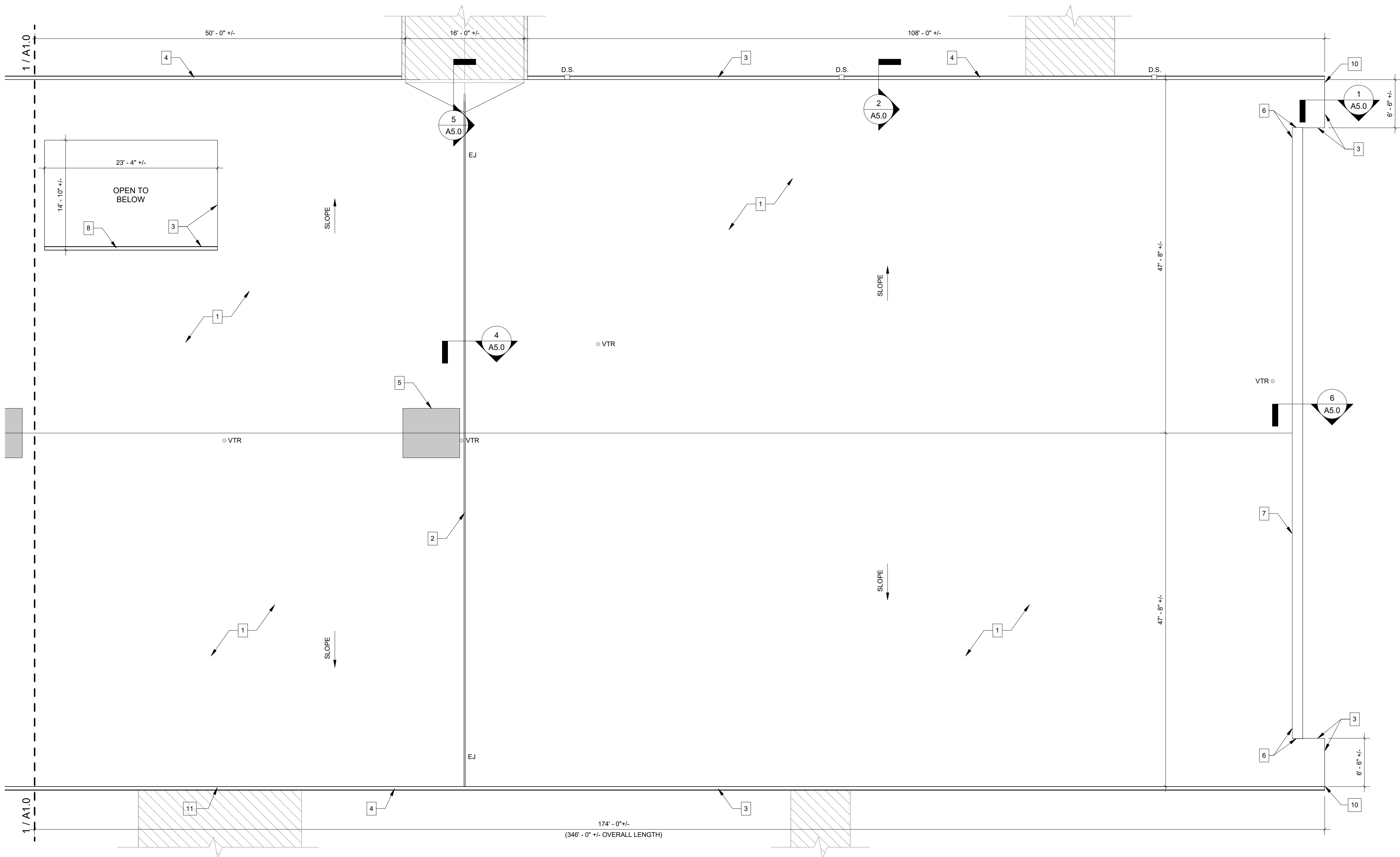
Roof Plan - East

SHEET NO.:

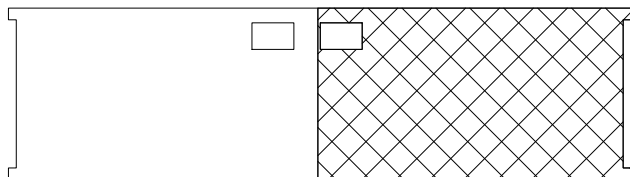
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DATE:

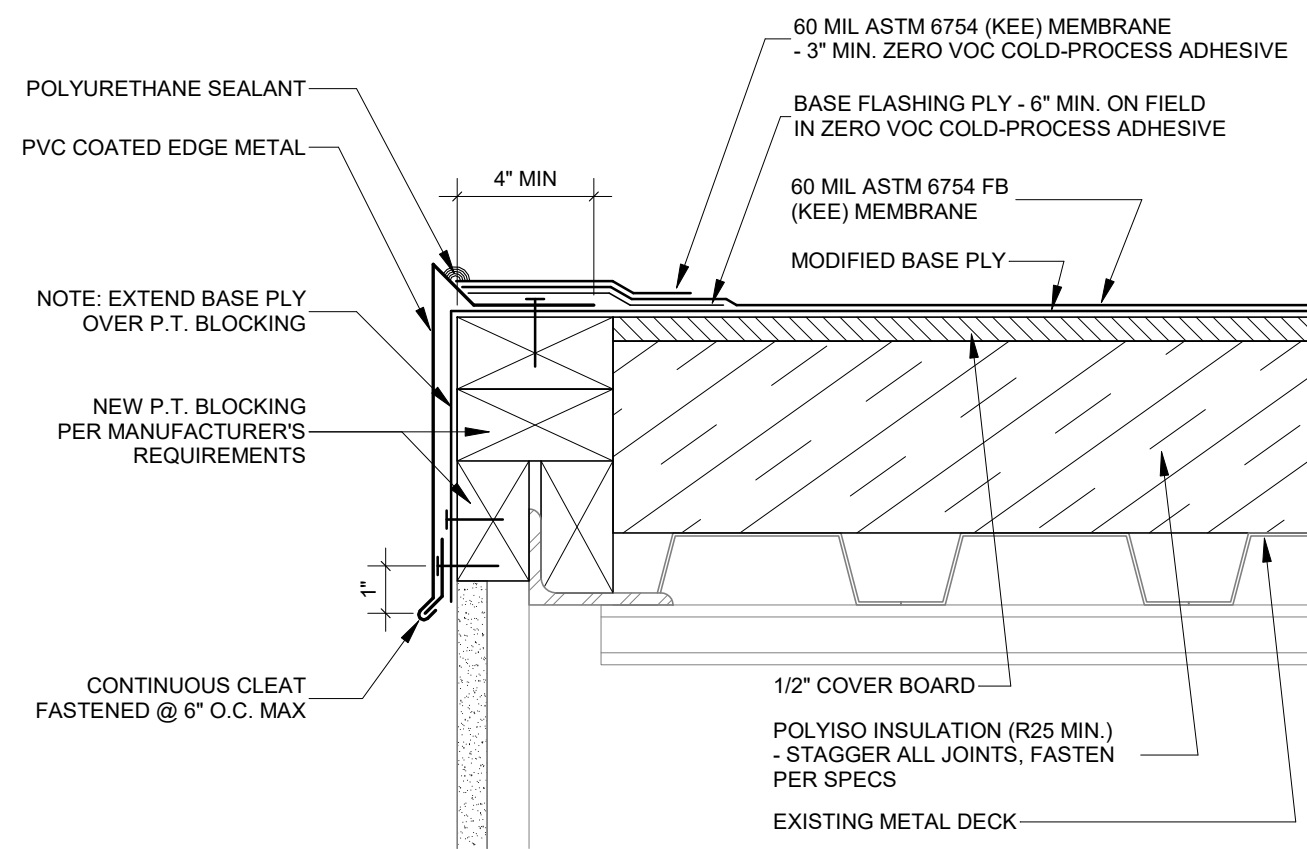
July 12, 2023



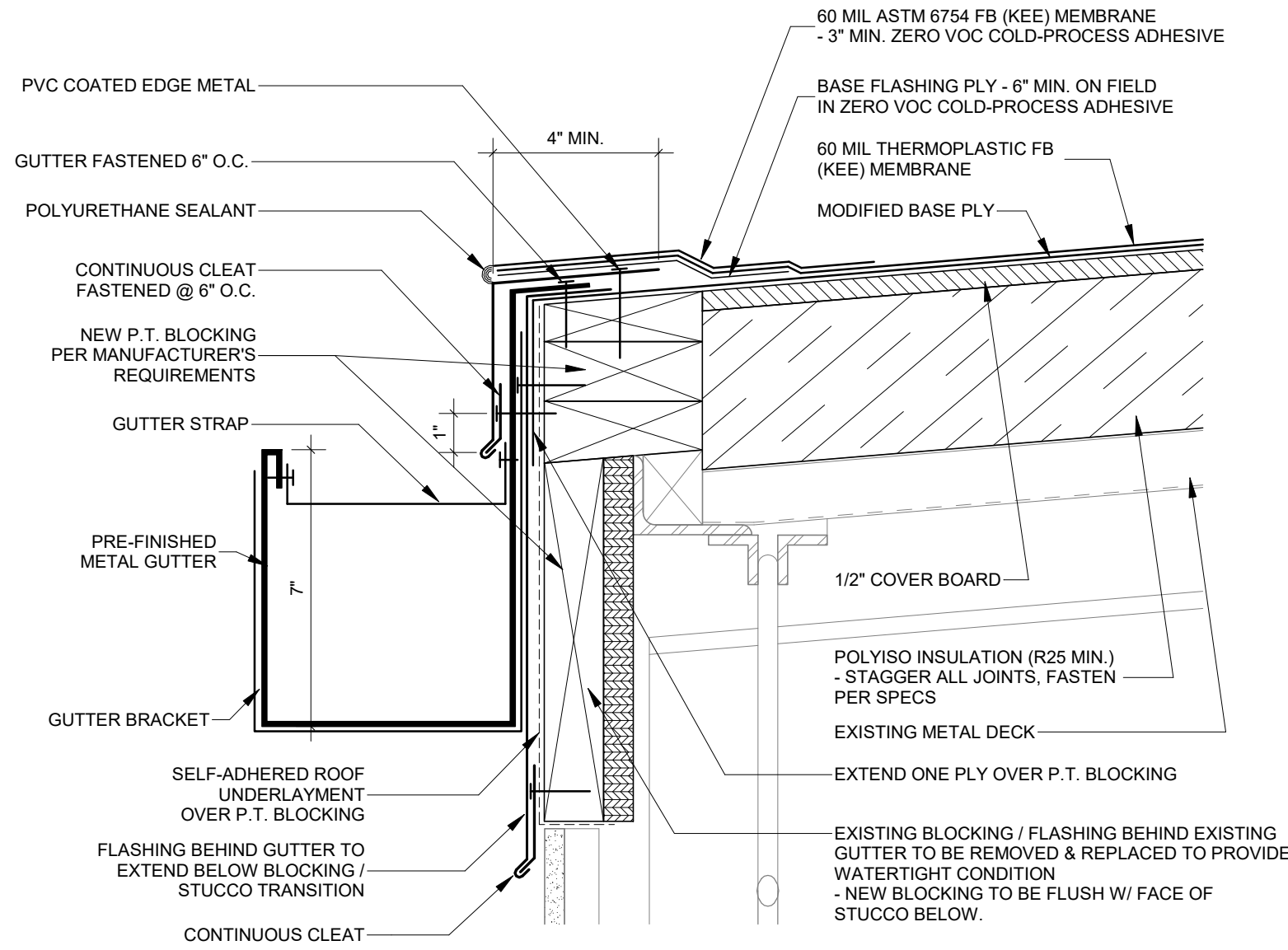
1 Roof Plan - East
1/8" = 1'-0"



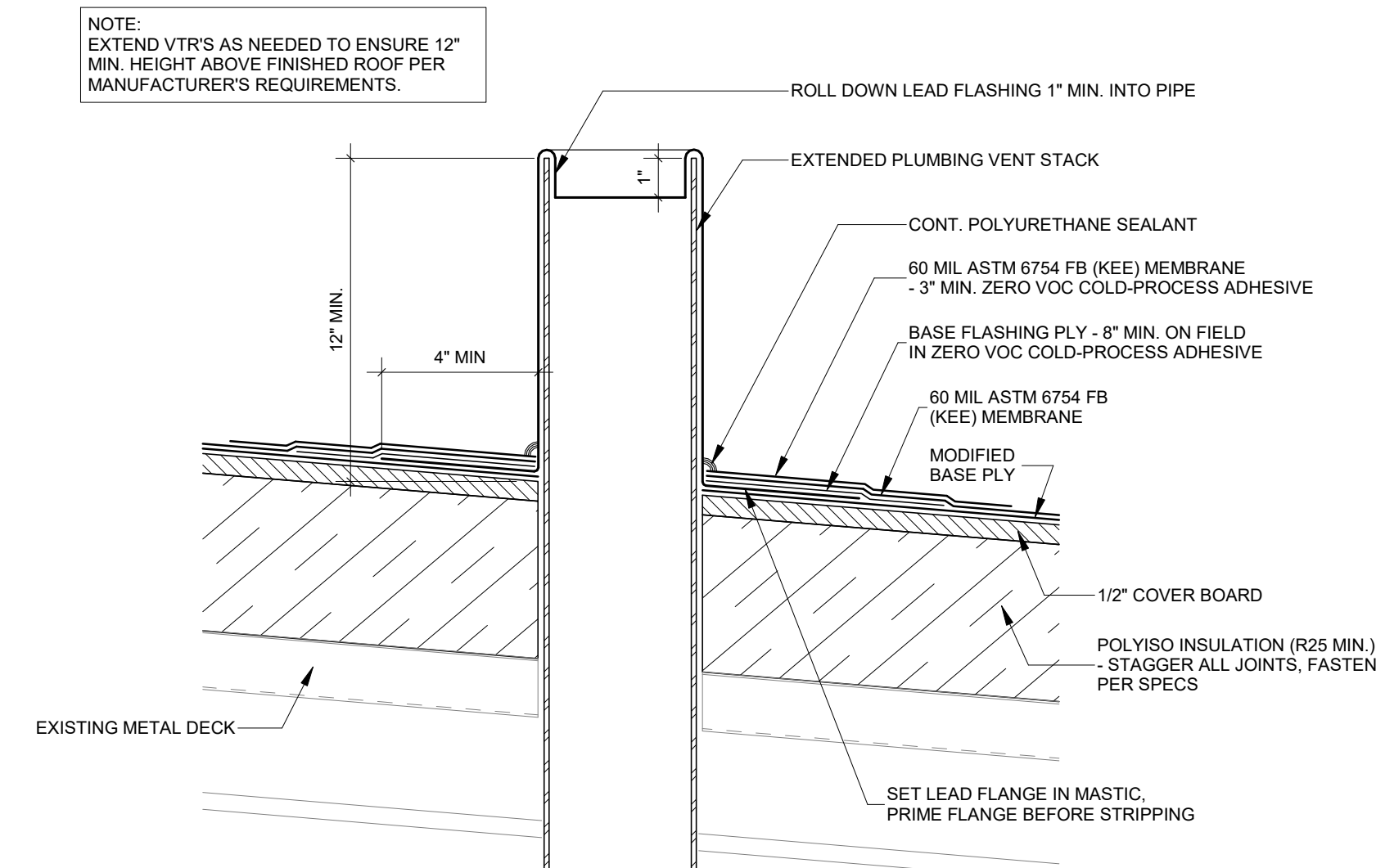
Key Plan
NTS



① Roof Edge Detail - Rake
3" = 1'-0"

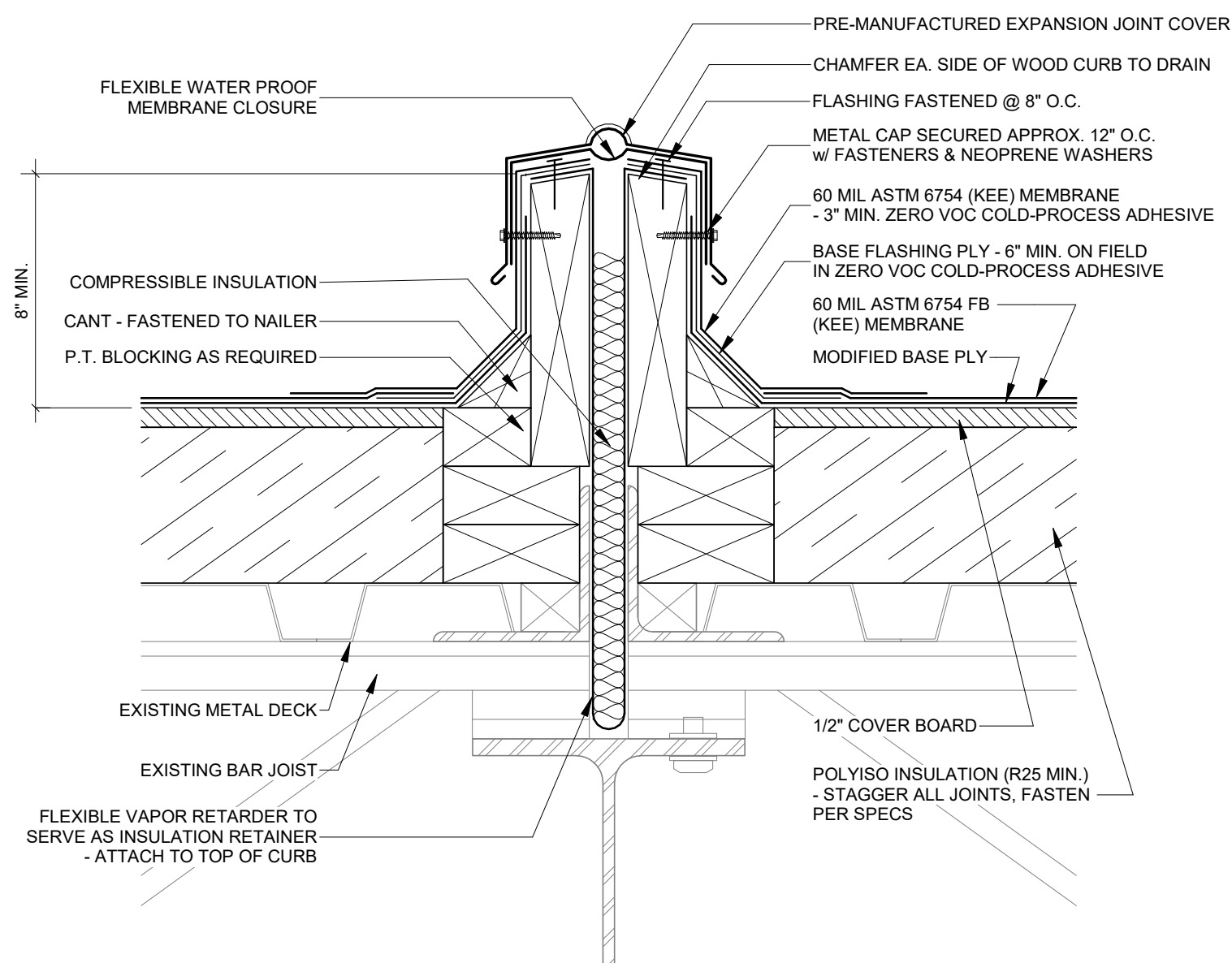


② Roof Edge Detail - Gutter
3" = 1'-0"

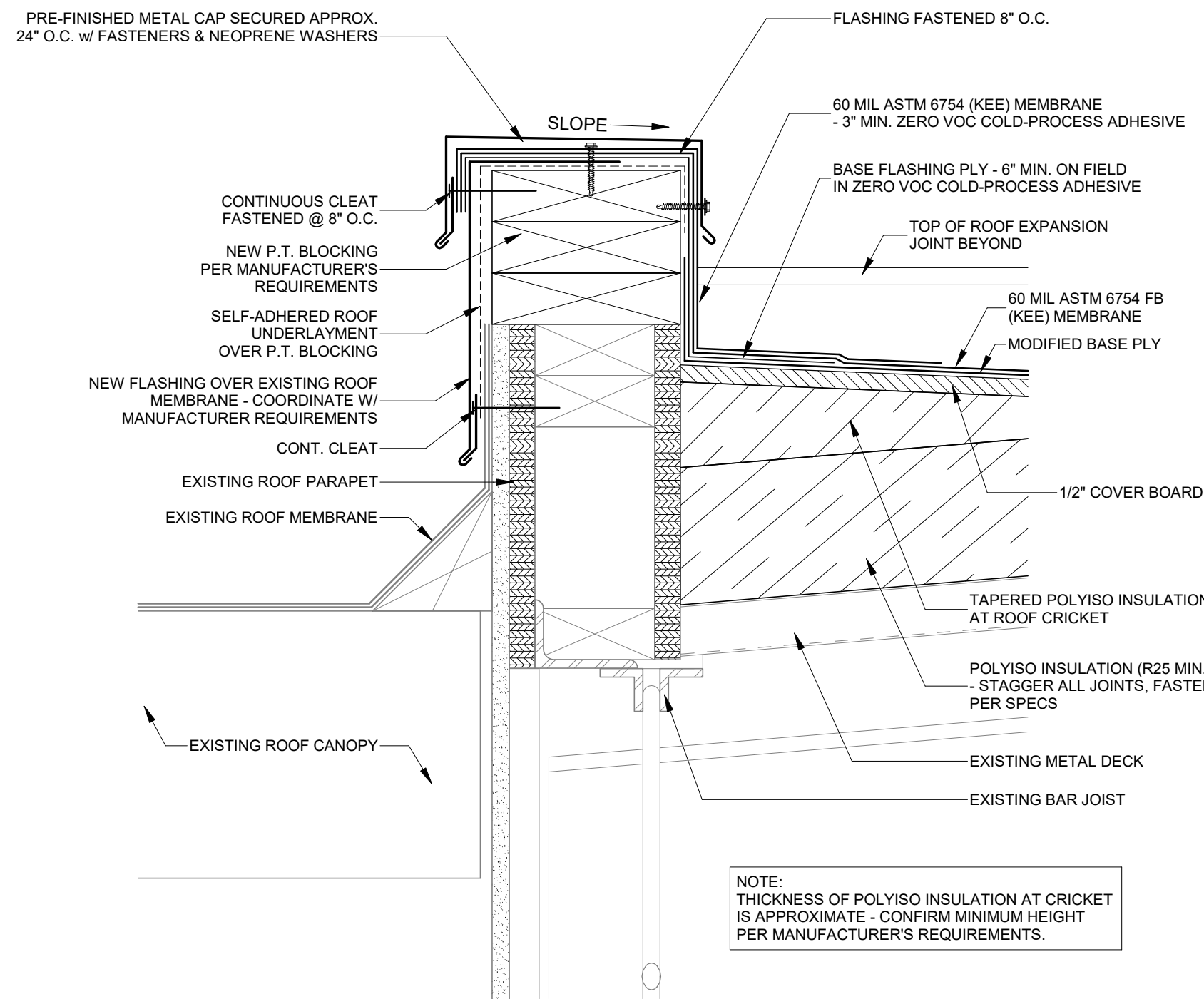


③ Vent Thru Roof Detail
3" = 1'-0"

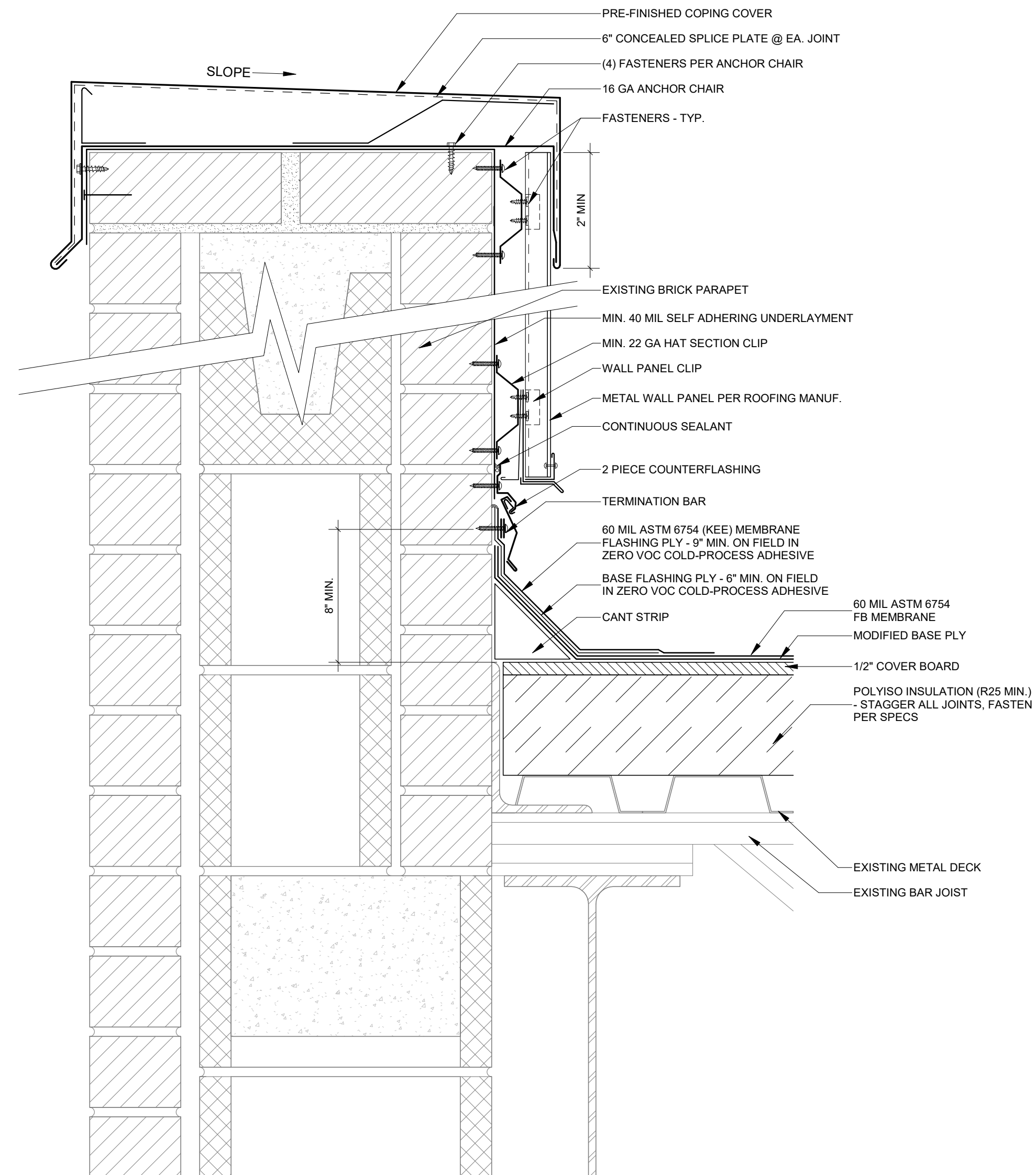
NOTE:
EXISTING STRUCTURAL DETAILS / ELEMENTS ON THIS
SHEET ARE BASED ON THE RECORD DRAWINGS PROVIDED
BY THE CLIENT AND SHOULD BE VERIFIED ON SITE FOR
CONFORMANCE WITH MANUFACTURER REQUIREMENTS.



④ Roof Expansion Joint Detail
3" = 1'-0"



⑤ Roof Parapet / Cricket Detail
3" = 1'-0"



⑥ Roof Edge Detail - Typical Sidewall/Parapet
3" = 1'-0"

SEAL:

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Building 8 Roof Replacement
Sabal Palm Elementary
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REVISIONS:

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DRAWING TITLE:

Roof Details

SHEET NO.:

A5.0

DATE:

July 12, 2023



Existing Overall Roof Condition



Example of Existing Roof Ventilator



Existing Roof Infill Condition

NOTE: EXISTING CONDITIONS IMAGES ARE REPRESENTATIVE OF TYPICAL CONDITIONS AND ARE FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF THE EXISTING ROOF SYSTEM AS WELL AS ALL OTHER ASSOCIATED IMPROVEMENTS AS SPECIFIED IN THE CONTRACT DOCUMENTS.

Existing Conditions Keynotes:

- 1 REMOVE & REPLACE EXISTING ROOFING SYSTEM. CLEAN AND PREPARE EXISTING STRUCTURAL DECK. INSTALL INSULATION, COVERBOARD, BASE SHEET AND KEE CAP SHEET.
- 2 REMOVE ALL EXISTING ROOF VENTILATORS & INFILL REMAINING ROOF OPENING - COORDINATE WITH STRUCTURAL DRAWINGS FOR NEW WORK SCOPE.
- 3 REMOVE EXISTING JUNCTION BOXES. "SAFE-OFF" AND TERMINATE EXISTING WIRING AT SOURCE PANEL.
- 4 REMOVE EXISTING / TEMPORARY INFILL ROOFING MATERIAL - CONFIRM CONDITION OF REMAINING STRUCTURAL DECK PRIOR TO INSTALLING NEW ROOFING SYSTEM.
- 5 REMOVE & REPLACE EXISTING PARAPET CAP.
- 6 REMOVE EXISTING WALL / BASE FLASHING.
- 7 REMOVE & REPLACE EXISTING WALL PANELS.
- 8 REMOVE & REPLACE EXISTING FLASHING / FLASHING CAP AT ROOF TRANSITION.
- 9 REMOVE & REPLACE EXISTING EXPANSION JOINT - COORDINATE WITH STRUCTURAL DRAWINGS FOR NEW WORK SCOPE.
- 10 REMOVE & REPLACE EXISTING DRIP EDGE / FLASHING.
- 11 REMOVE & REPLACE EXISTING GUTTER / DOWNSPOUT.
- 12 REMOVE & REPLACE ROOFING MATERIAL IN EXISTING VTR'S - EXTEND VTR'S AS NEEDED TO ENSURE 12" MIN. HEIGHT ABOVE FINISHED ROOF PER MANUFACTURER'S REQUIREMENTS.
- 13 EXISTING TREES ADJACENT TO STRUCTURE TO BE TRIMMED AS NECESSARY TO ACCOMMODATE NEW WORK SCOPE.



Existing Parapet Wall - West End



Existing Parapet Wall - East End



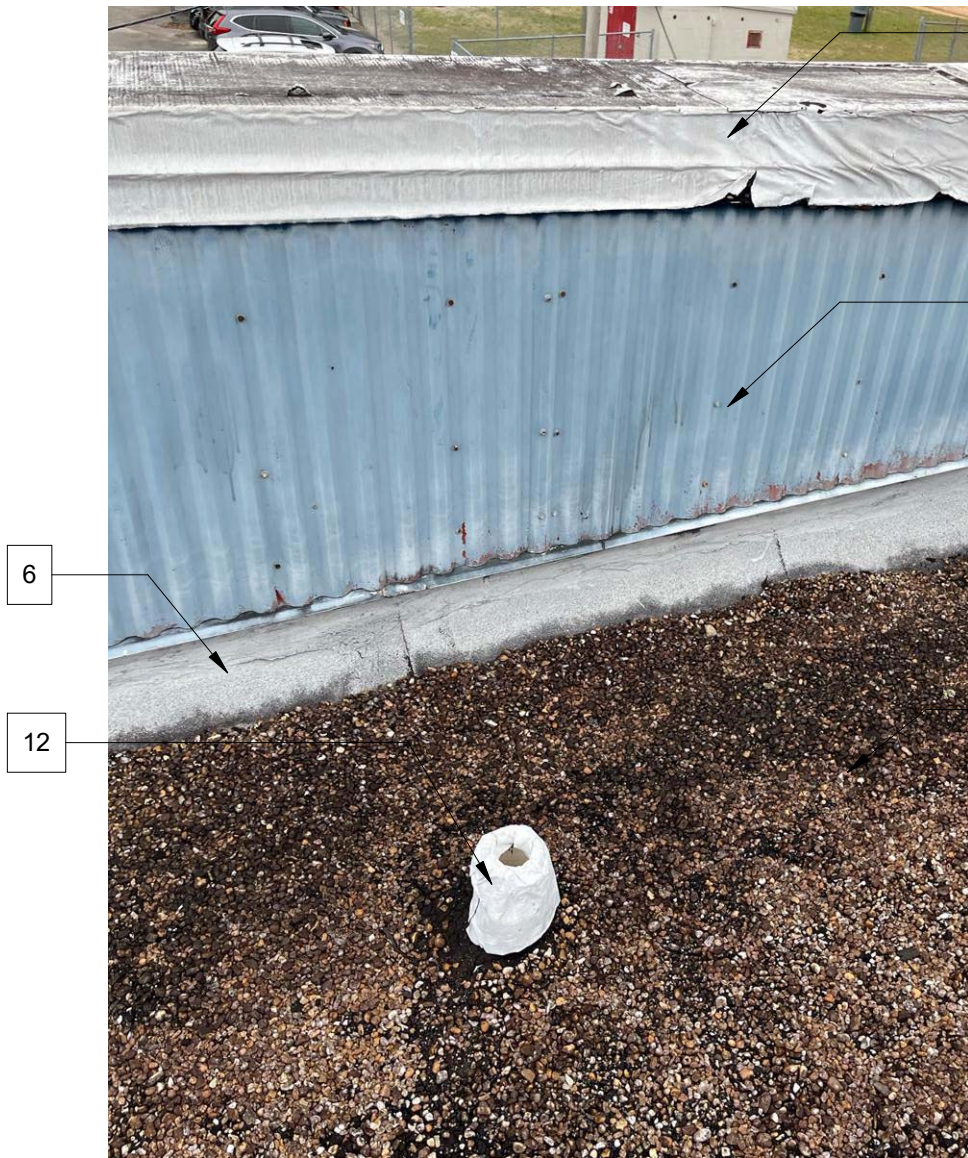
Existing Roof Curb/Cricket Transition



Existing Expansion Joint - East End



Existing Expansion Joint - West End



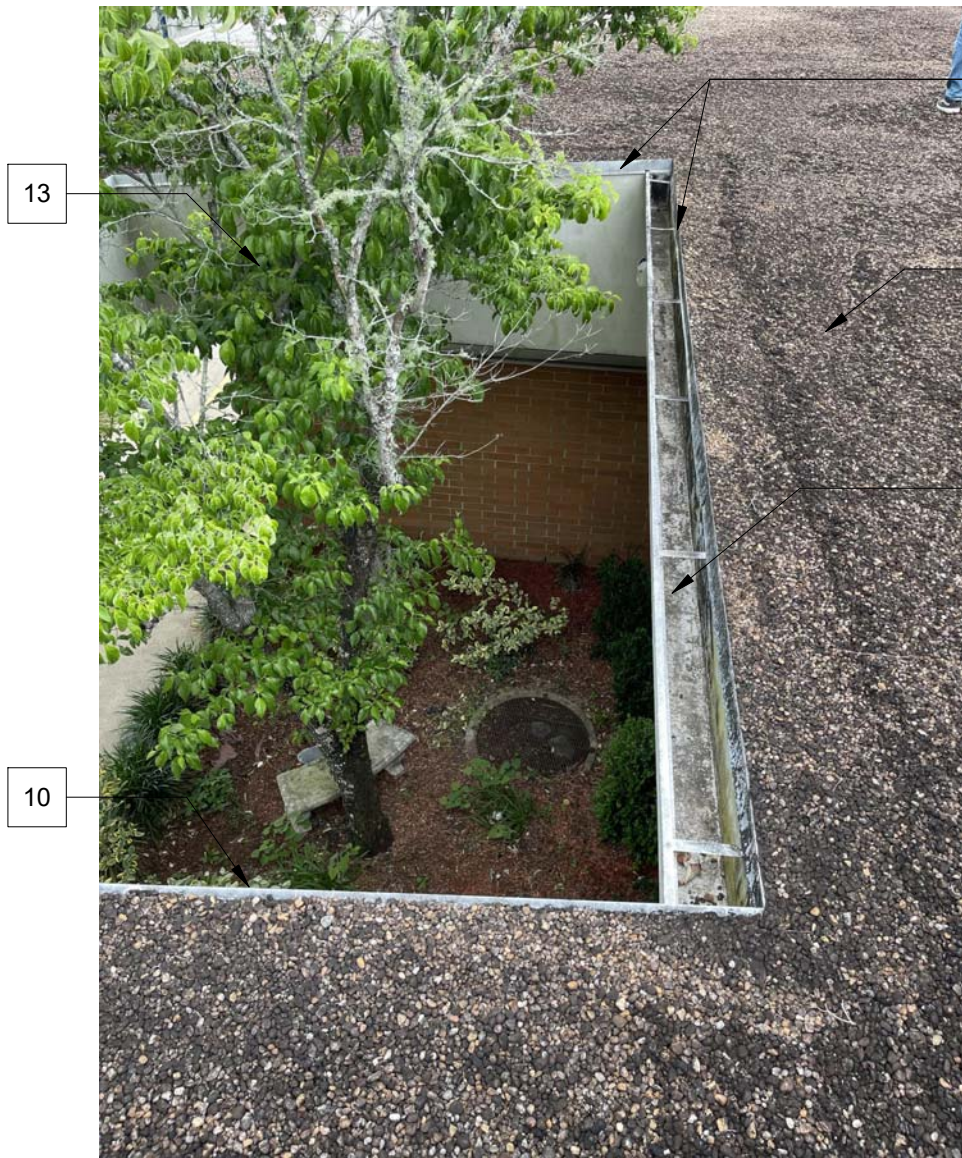
Existing VTR - Typical



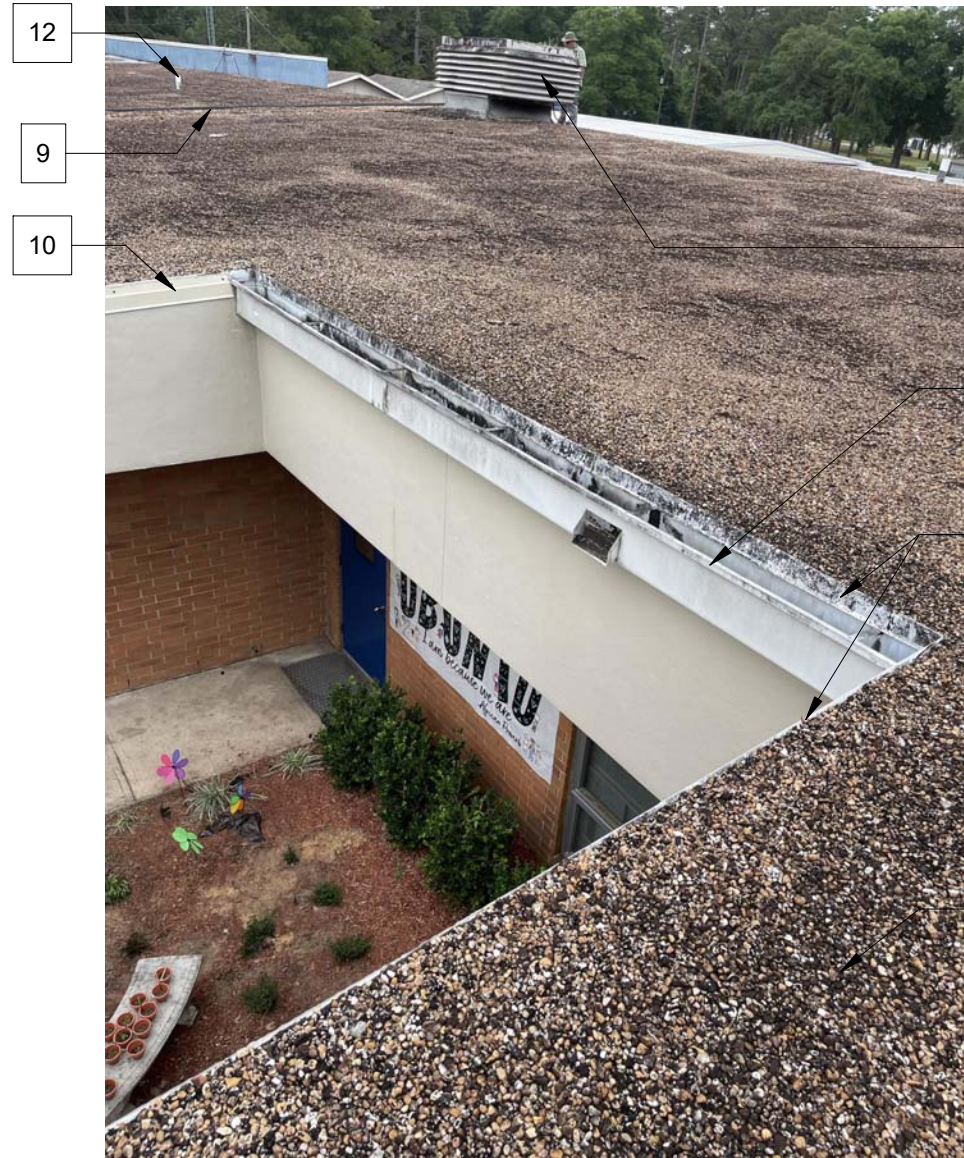
Existing Edge Condition



Existing Downspout - Typical



Existing Roof Opening - West



Existing Roof Opening - East

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REVISIONS:

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100% Construction Documents

DRAWING TITLE:
Existing Conditions Images

SHEET NO.:
A9.0

DATE:
July 12, 2023

Project Description

THE PROJECT INCLUDES THE ROOF REPLACEMENT FOR AN EXISTING SCHOOL BUILDING. THE AREA OF THE ROOF IS APPROXIMATELY 31,689 SF.

BUILDING 8
ROOF REPLACEMENT

FOR

Sabal Palm Elementary School

2813 Ridgeway Street | Tallahassee, FL 32310

LCS Project No. 7-23-M-217



Applicable Codes:

THE SUBJECT PROJECT IS TO COMPLY WITH THE FOLLOWING COMPONENTS OF THE FLORIDA BUILDING CODE (FBC), SEVENTH (2020) EDITION (UNLESS NOTED OTHERWISE).

- FL BLDG CODE, BUILDING (FBC-B)
- FL BLDG CODE, EXISTING BUILDING (FBC-EB)
- FL BLDG CODE, ACCESSIBILITY (FBC-A)
- FL BLDG CODE, ENERGY CONSERVATION (FBC- EC)
- FL BLDG CODE, MECHANICAL (FBC-M)
- FL BLDG CODE, FUEL GAS (FBC-FG)
- FL BLDG CODE, PLUMBING (FBC-P)
- FL FIRE PREVENTION CODE (FFPC), SEVENTH EDITION
- NATIONAL ELECTRICAL CODE (NEC 70), 2017 EDITION
- ASCE STANDARD 7-16 (STRUCTURAL WINDLOAD CRITERIA)

General Notes:

- THE CONTRACTOR SHALL MAKE AVAILABLE TO THE BUILDING INSPECTOR ANY DOCUMENTATION NECESSARY TO VERIFY THAT ALL PRODUCTS REQUIRING APPROVAL PER FS 553.842 ARE IN COMPLIANCE.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FIELD CONDITIONS AT THE SITE PRIOR TO START OF CONSTRUCTION. IF NEEDED, NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES OR DISCOVERED PROBLEMS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL APPROVAL OF ALL FINISH MATERIAL SELECTIONS PER THE OWNER'S REQUEST.
- THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE MATERIALS AND METHODS OF CONSTRUCTION USED FOR THIS PROJECT.
- ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
- ALL MATERIALS, SYSTEMS AND CONSTRUCTION COMPONENTS ARE TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS.
- ALL WORK IS TO BE IN STRICT COMPLIANCE WITH ALL STATE AND LOCAL LAWS AND CODES WHICH APPLY TO THIS USE AND TO GENERALLY ACCEPTED CONSTRUCTION TRADE PRACTICES.
- THE CONTRACTOR SHALL REMOVE FROM THE SITE AND DISPOSE OF ALL TRASH, DEBRIS AND CONSTRUCTION MATERIALS DUE TO CONSTRUCTION PRIOR TO COMPLETION OF THE WORK. THE CONTRACTOR SHALL LEAVE THE SITE IN A CONDITION EQUAL TO OR BETTER THAN IT WAS BEFORE COMMENCEMENT OF THE WORK ON THIS CONTRACT. THE CONTRACTOR SHALL ALSO INSURE THAT ALL PROPER SAFETY MEASURES ARE TAKEN DURING THE TIME OF CONSTRUCTION.
- BEFORE SUBMITTING FOR THE WORK, EACH BIDDER WILL BE RESPONSIBLE TO EXAMINE THE PREMISES AND SATISFY HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE AND COMPLETE THE WORK UNDER THIS CONTRACT. NO ALLOWANCE WILL SUBSEQUENTLY BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR OMISSION ON HIS PART.
- THE CONTRACTOR SHALL PAY FOR INSPECTION PERMITS, CERTIFICATES, CONNECTION FEES, SYSTEM DEMAND CHARGES AND LICENSE FEES IN CONNECTION WITH HIS WORK.
- CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR COORDINATING WORK OF SUBCONTRACTORS TO AVOID INTERFERENCES.
- ERECT AND MAINTAIN REASONABLE PRECAUTIONS FOR SAFETY AND HEALTH INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS INCLUDING PROMULGATING SAFETY REGULATIONS. PROVIDE SAFETY PRECAUTIONS AND BARRICADES FOR PEDESTRIANS AT CONSTRUCTION VEHICLE ACCESS AND EGRESS LOCATIONS.
- COORDINATE AND SEQUENCE DEMOLITION, CLEANING AND CONSTRUCTION WORK. SUBMIT A COMPLETELY DETAILED CONSTRUCTION SCHEDULE PRIOR TO PRE-CONSTRUCTION CONFERENCE.
- THE CONTRACTOR SHALL STRICTLY BE HELD TO THE PROJECT SCHEDULE. HE SHALL PROVIDE SUFFICIENT MANPOWER AND EQUIPMENT TO FULLY MOBILIZE, PROCEED WITH AND COMPLETE THE WORK.
- THE CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE OWNER FOR ON-SITE STORAGE OF CONSTRUCTION MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SECURITY OF EQUIPMENT AND MATERIALS.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK ENVIRONMENT AT ALL TIMES AND SHALL CLEAN CONSTRUCTION SITE OF DEBRIS AT COMPLETION OF THE JOB AND BEFORE FINAL PAYMENT IS MADE.
- CONTRACTOR'S USE OF AN APPROVAL STAMP ON DOCUMENTS SUBMITTED AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS CERTIFIES THAT THE CONTRACTOR HAS COMPLIED WITH THE CONTRACT DOCUMENT REQUIREMENTS RELATED TO "SHOP DRAWINGS, PRODUCT DATA AND SAMPLES".
- THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT IN WRITING OF SUCH DEVIATION AT THE TIME OF SUBMITTAL AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS BY THE ARCHITECT'S APPROVAL THEREOF.
- CONTRACTOR SHALL GUARANTEE THE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE IN ADDITION TO THE WARRANTIES PROVIDED BY MATERIAL SUPPLIERS AND MANUFACTURERS.

Drawing Index:

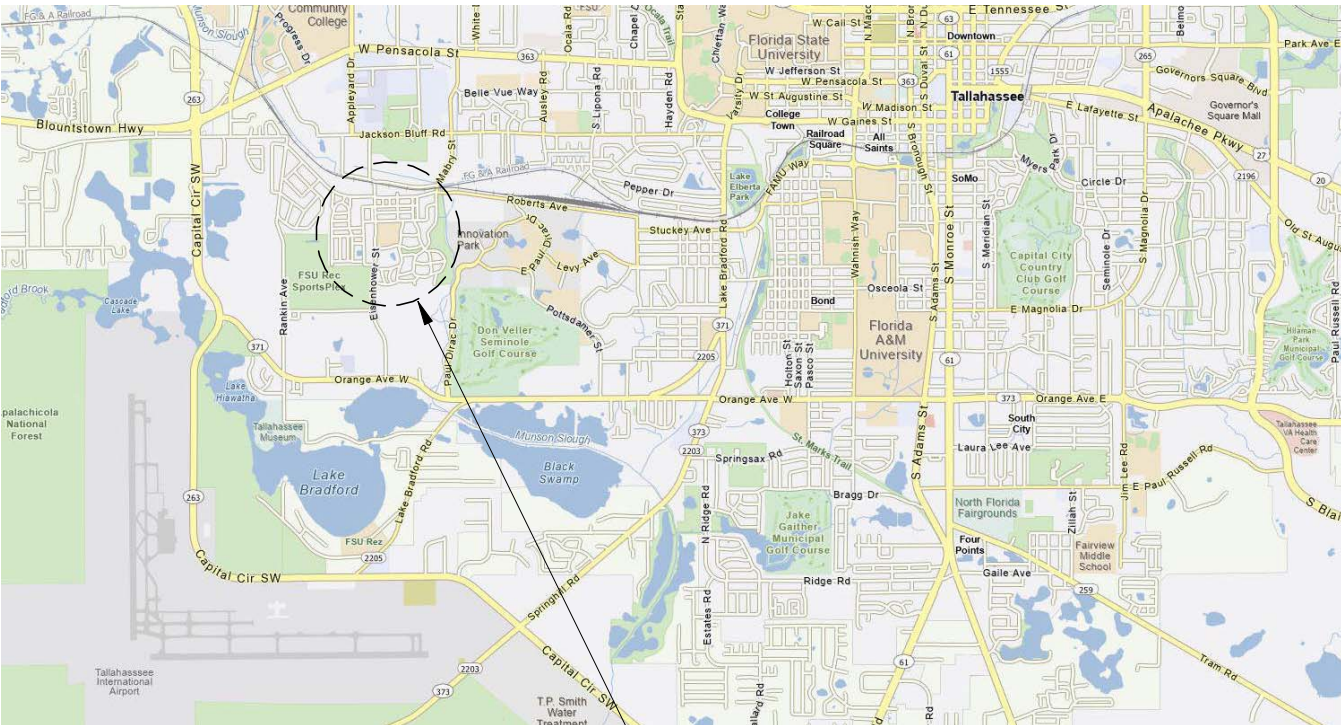
CS	COVER SHEET
AD1.0	DEMOLITION ROOF PLAN - WEST
AD1.1	DEMOLITION ROOF PLAN - EAST
A1.0	ROOF PLAN - WEST
A1.1	ROOF PLAN - EAST
A5.0	ROOF DETAILS
A9.0	EXISTING CONDITIONS IMAGES
S1.0	STRUCTURAL NOTES
S1.1	C&C ROOF DIAGRAM AND WIND PRESSURES
S2.0	PARTIAL ROOF FRAMING PLAN AND SECTIONS



SITE PLAN:



LOCATION MAP:



AREA MAP:

bki

ARCHITECTURE

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Tallahassee, Florida 32308

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www.bkjarchitecture.com

FL Architecture Corporation A42802280

SEAL:

PROJECT TITLE:

Building 8 Roof Replacement
Sabal Palm Elementary
2813 Ridgeway Street
Tallahassee, FL 32310

JOB NO.: 23.115

DESIGNED: SC

DRAWN: JH

CHECKED: ML/SC

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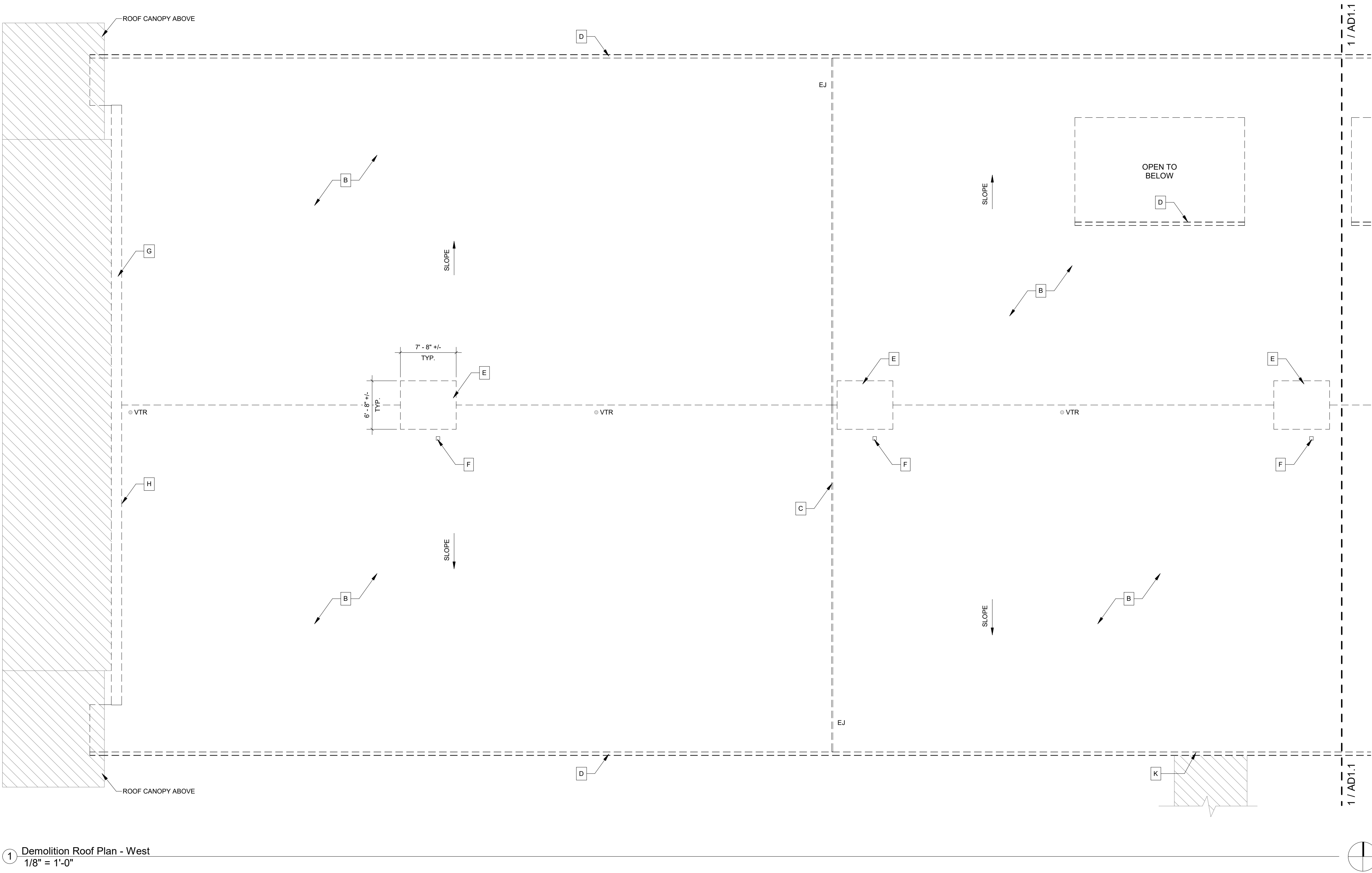
Cover Sheet

SHEET NO.:

CS

DATE:

July 12, 2023



1 Demolition Roof Plan - West
1/8" = 1'-0"

General Demolition Notes:

1. ALL DASHED ELEMENTS ARE TO BE REMOVED AS INDICATED PER LEGEND.
2. "SAFE-OFF" M.P.E. SYSTEMS BY QUALIFIED MECHANICAL, PLUMBING, AND ELECTRICAL CONTRACTOR, AS REQUIRED.
3. REMOVE ALL EXISTING MEMBRANE FLASHING, PERIMETER FLASHING, COUNTER FLASHING, VTR FLASHING, EXPANSION JOINTS, CANT STRIPS, ANY ABANDONED ROOF EQUIPMENT IDENTIFIED BY OWNER, CURBS AND WOOD BLOCKING / NAILERS AS NOTED.
4. REMOVE EXISTING ROOFING & FLASHING SYSTEMS DOWN TO STEEL ROOF DECK.
- EOR SHALL INSPECT EXPOSED METAL DECK ONCE UNCOVERED FOR STRUCTURAL INTEGRITY - COORDINATE ANY DECK REPAIRS / REPLACEMENT W/ NEW WORK SCOPE.
5. ALL DAMAGE TO FINISH SURFACES AND ALL THROUGH-SLAB OR WALL PENETRATIONS THAT REMAIN FOLLOWING THE DEMOLITION OF EXISTING ELEMENTS SHALL BE NOTED BY CONTRACTOR FOR REPAIR AND SEALING DURING RENOVATION.
6. PROTECT EXISTING SITE ELEMENTS IN PROXIMITY TO WORK AREA. DISTURBED OR DAMAGED ELEMENTS SHALL BE REPAIRED OR REPLACED.
7. EXISTING TREES / VEGETATION ON SITE PLAN NOT SHOWN FOR CLARITY - PROTECT EXISTING VEGETATION ADJACENT TO STRUCTURES. VEGETATION DISTURBED OR DAMAGED SHALL BE REPLACED BY CONTRACTOR.
8. EXISTING TREES ADJACENT TO STRUCTURES TO BE TRIMMED AS NECESSARY TO ACCOMMODATE NEW WORK SCOPE.
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10. SEE PROJECT MANUAL FOR RELATED SPECIFICATIONS & PROJECT REQUIREMENTS.
11. DISPOSE OF ALL DEMOLISHED ROOF MATERIAL IN APPROVED DUMP SITE.
12. COORDINATE SITE MOBILIZATION FOR DEMOLITION & CONSTRUCTION PHASES W/ THE PROJECT MANAGER.

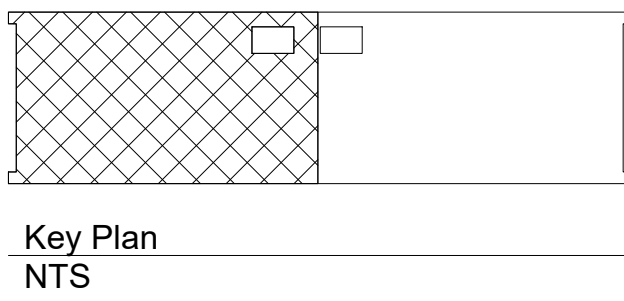
NOTE:
ALL ROOF WORK SHALL END WITH NIGHTLY TIE-IN TO CREATE A COMPLETE WATERPROOF ROOF AT END OF DAY OR PRIOR TO PRECIPITATION.

Demolition Plan Legend:

- EXISTING ELEMENTS TO REMAIN
- ELEMENTS TO BE DEMOLISHED
- NOT IN CONTRACT
- EXISTING VENT THROUGH ROOF TO REMAIN
- EXPANSION JOINT
- D.S. DOWNSPOUT

Demolition Keynotes:

- A REMOVE AND DISPOSE OF EXISTING ROOF MOUNTED TRI-POD.
- B REMOVE AND DISPOSE OF EXISTING ROOFING SYSTEM, FLASHING, AND INSULATION DOWN TO EXISTING STRUCTURAL DECK - CLEAN AND PREPARE DECK AS REQUIRED TO RECEIVE NEW ROOFING SYSTEM - TYP. - ENSURE STRUCTURAL DECK IS CLEAN & DRY.
- C REMOVE AND DISPOSE OF EXISTING EXPANSION JOINT IN ITS ENTIRETY.
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- K REMOVE EXISTING FLASHING AT OVERHANG / WALKWAY CANOPY TRANSITION - PREPARE SUBSTRATE AS REQUIRED TO RECEIVE NEW FLASHING DURING NEW WORK PHASE.



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CHECKED: ML/SC

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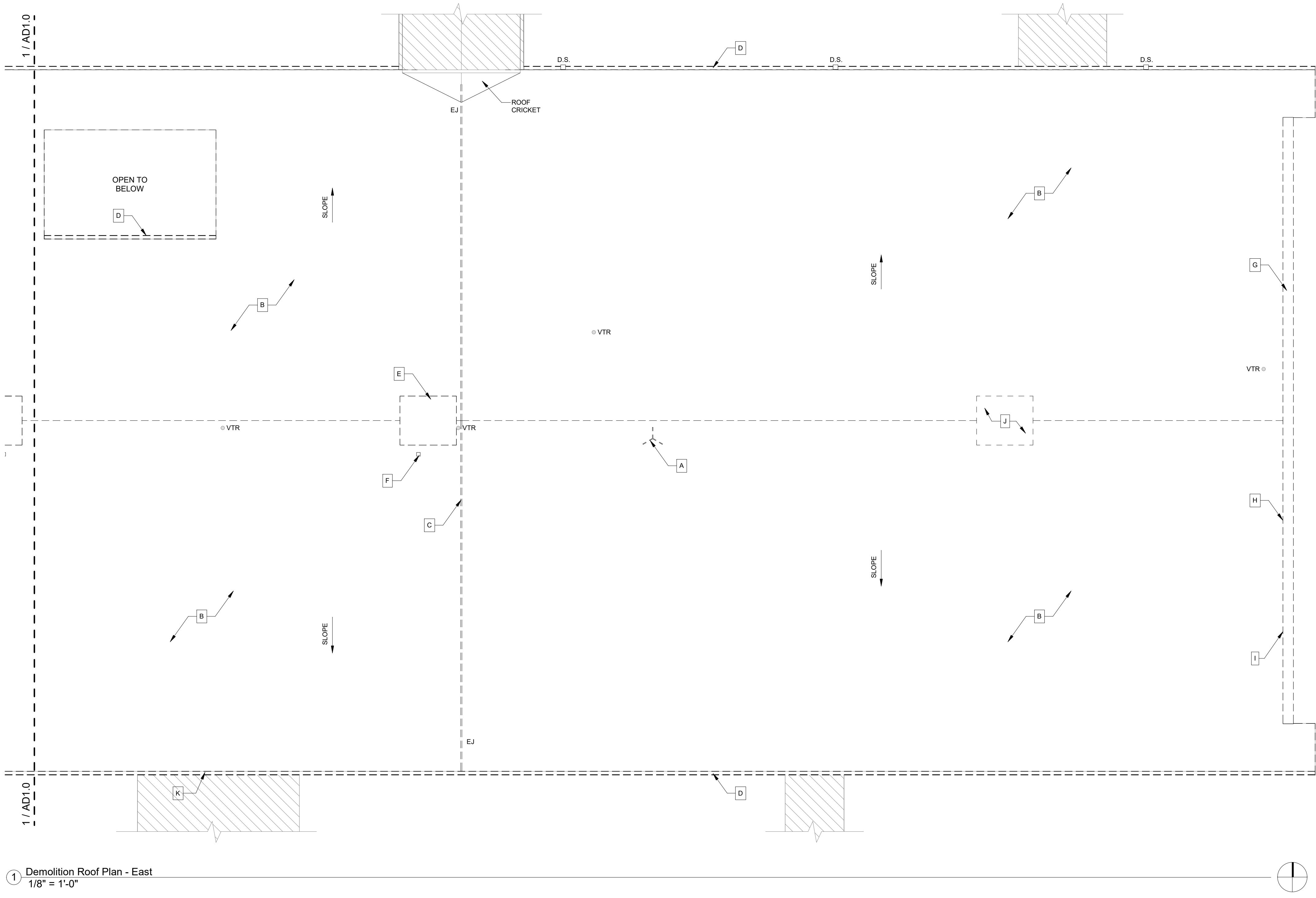
Demolition Roof Plan - West

SHEET NO.:

AD1.0

DATE:

July 12, 2023



1 Demolition Roof Plan - East
1/8" = 1'-0"

General Demolition Notes:

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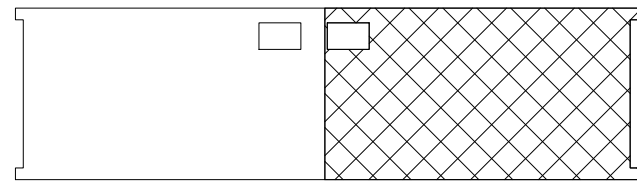
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Demolition Plan Legend:

- EXISTING ELEMENTS TO REMAIN
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- DOWNSPOUT

Demolition Keynotes:

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Key Plan
NTS



SEAL:

PROJECT TITLE:

Building 8 Roof Replacement
Sabal Palm Elementary
2813 Ridgeway Street
Tallahassee, FL 32310

JOB NO.: 23.115

DESIGNED: SC

DRAWN: JH

CHECKED: ML/SC

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REVISIONS:

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DRAWING TITLE:

Demolition Roof Plan - East

SHEET NO.:

AD1.1

DATE:

July 12, 2023



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DRAWING TITLE:

Roof Plan - West

SHEET NO.:

A1.0

DATE:

July 12, 2023

Roof Plan General Notes:

1. ANY PENETRATIONS THROUGH AN EXISTING FIRE RATED ASSEMBLY, EITHER PRIOR TO CONSTRUCTION ACTIVITIES, OR AS A RESULT OF CONSTRUCTION SHALL BE SEALED WITH APPROPRIATE U.L. RATED ASSEMBLY.

2. BUILDING IS FULLY OCCUPIED, CONTRACTOR'S EFFORTS SHALL NOT INTERFERE WITH BUILDING OPERATIONS. MAINTAIN A WATER TIGHT ROOF AT ALL TIMES. SCHEDULE WORK APPROPRIATELY WITH PROJECT MANAGER.

3. EOR SHALL INSPECT EXPOSED METAL DECK ONCE UNCOVERED FOR STRUCTURAL INTEGRITY - COORDINATE ANY DECK REPAIRS / REPLACEMENT W/ NEW WORK SCOPE.

4. EXTEND VTR'S AS NEEDED TO ENSURE 12" MIN. HEIGHT ABOVE FINISHED ROOF PER MANUFACTURER'S REQUIREMENTS.

NOTE:

ALL ROOF WORK SHALL END WITH NIGHTLY TIE-IN TO CREATE A COMPLETE WATERPROOF ROOF AT END OF DAY OR PRIOR TO PRECIPITATION.

Roof Plan Legend:

EXISTING ELEMENTS TO REMAIN

----- ELEMENTS TO BE DEMOLISHED

 NOT IN CONTRACT

● VTR EXISTING VENT THROUGH ROOF TO REMAIN

EJ EXPANSION JOINT

D.S. DOWNSPOUT

AREA OF ROOF INFILL

 NEW ROOF WALKWAY PADS

Roof Plan Keynotes:

1	CLEAN AND PREPARE EXISTING STRUCTURAL DECK. INSTALL INSULATION, COVERBOARD, BASE SHEET AND KEE CAP SHEET.
---	---

2 INSTALL NEW EXPANSION JOINT WHERE REMOVED DURING DEMOLITION PHASE. REFER TO DETAIL 4/A5.0.

3 INSTALL NEW DRIP EDGE/FLASHING PER ROOF MANUFACTURERS REQUIREMENTS.

4. INSTALL NEW SEAMLESS GUTTER, SCUPPER, AND DOWNSPOUTS WHERE REMOVED DURING DEMOLITION PHASE UNLESS OTHERWISE NOTED - LOCATIONS OF NEW SCUPPERS / DOWNSPOUTS TO BE CENTERED OVER EXISTING SPLASH CISTERNS.

5 INSTALL NEW DECKING WHERE ROOF VENTILATORS WERE REMOVED DURING DEMOLITION PHASE. COORDINATE WITH STRUCTURAL DWGS

6	INSTALL NEW METAL WALL PANELS AT ENDS AND BACKSIDE OF PARAPET WALL.
---	---

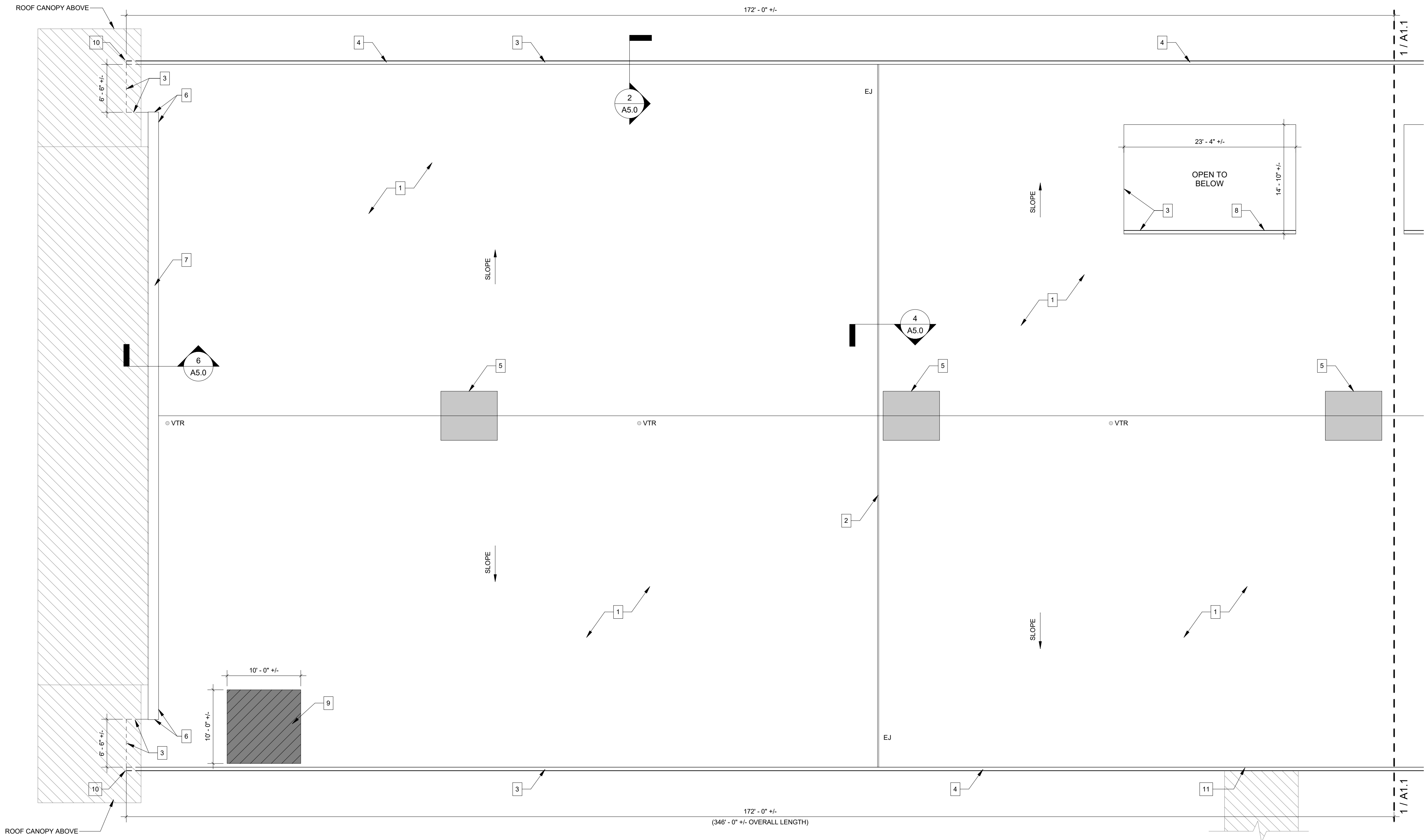
7 INSTALL NEW PARAPET WALL CAP.

8 INSTALL NEW SEAMLESS GUTTER WHERE REMOVED DURING DEMOLITION PHASE & PROVIDE NEW DOWNSPOUT TO EXISTING SPLASH CISTERN - LOCATION / ROUTING OF NEW DOWNSPOUT TO BE DETERMINED ON SITE.

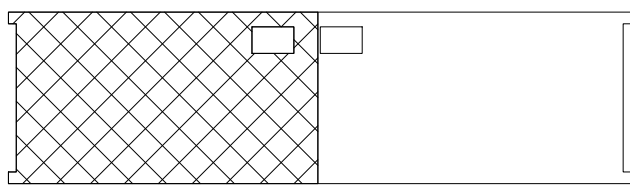
9 PROVIDE NEW ROOF WALK PADS PER MANUFACTURER'S REQUIREMENTS.
LOCATION / EXTENTS IS APPROXIMATE - CONTRACTOR TO COORDINATE
WITH OWNER ON SITE.

10	FLASHING BEHIND GUTTER TO EXTEND AROUND CORNER TO CONCEAL END OF EXPOSED BLOCKING - CONTRACTOR TO COORDINATE EXTENTS OF FLASHING WITH AOR ON-SITE.
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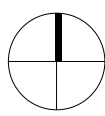
11	PROVIDE NEW FLASHING AT OVERHANG / WALKWAY CANOPY TRANSITION - FLASHING TO BE INSTALLED BEHIND GUTTER AND ON TOP OF WALKWAY CANOPY FOR WATERTIGHT CONDITION.
----	---



1 Roof Plan - West
1/8" = 1'-0"



Key Plan
NTS



Roof Plan General Notes:

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bki
ARCHITECTURE

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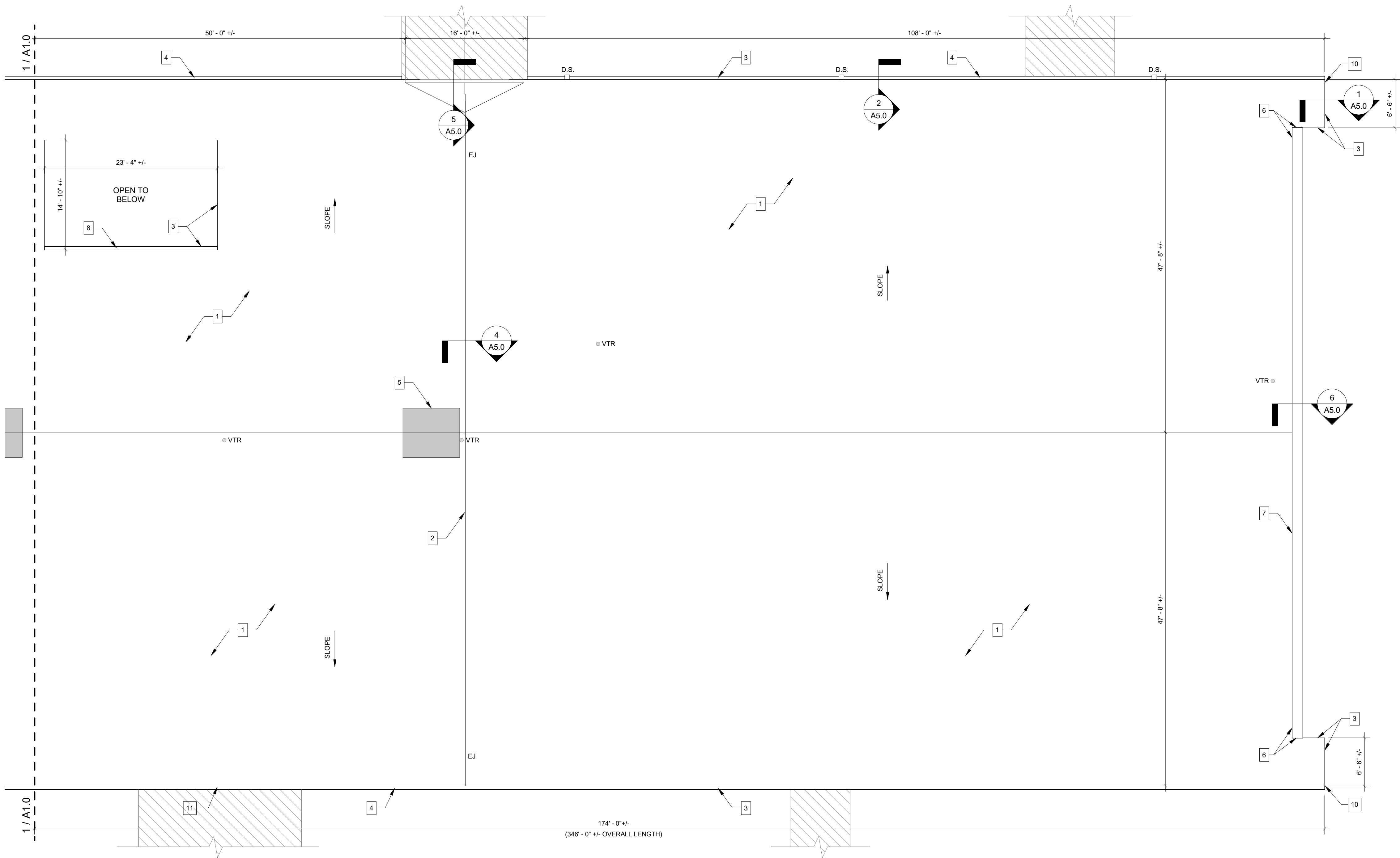
Roof Plan - East

SHEET NO.:

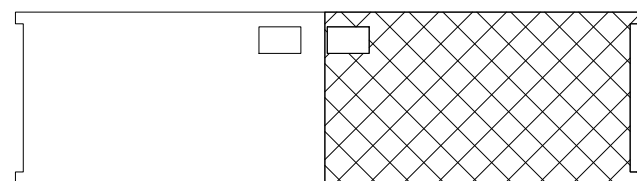
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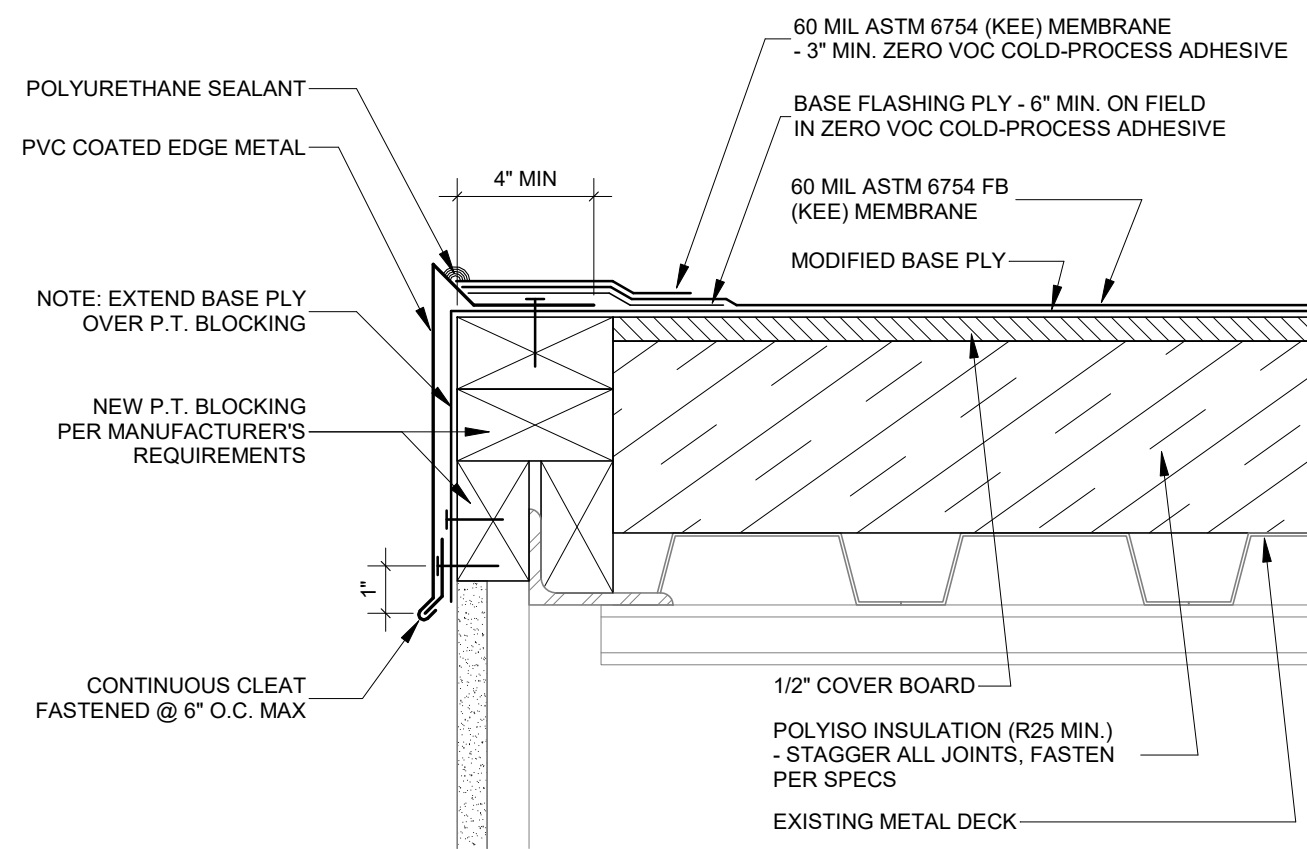
July 12, 2023



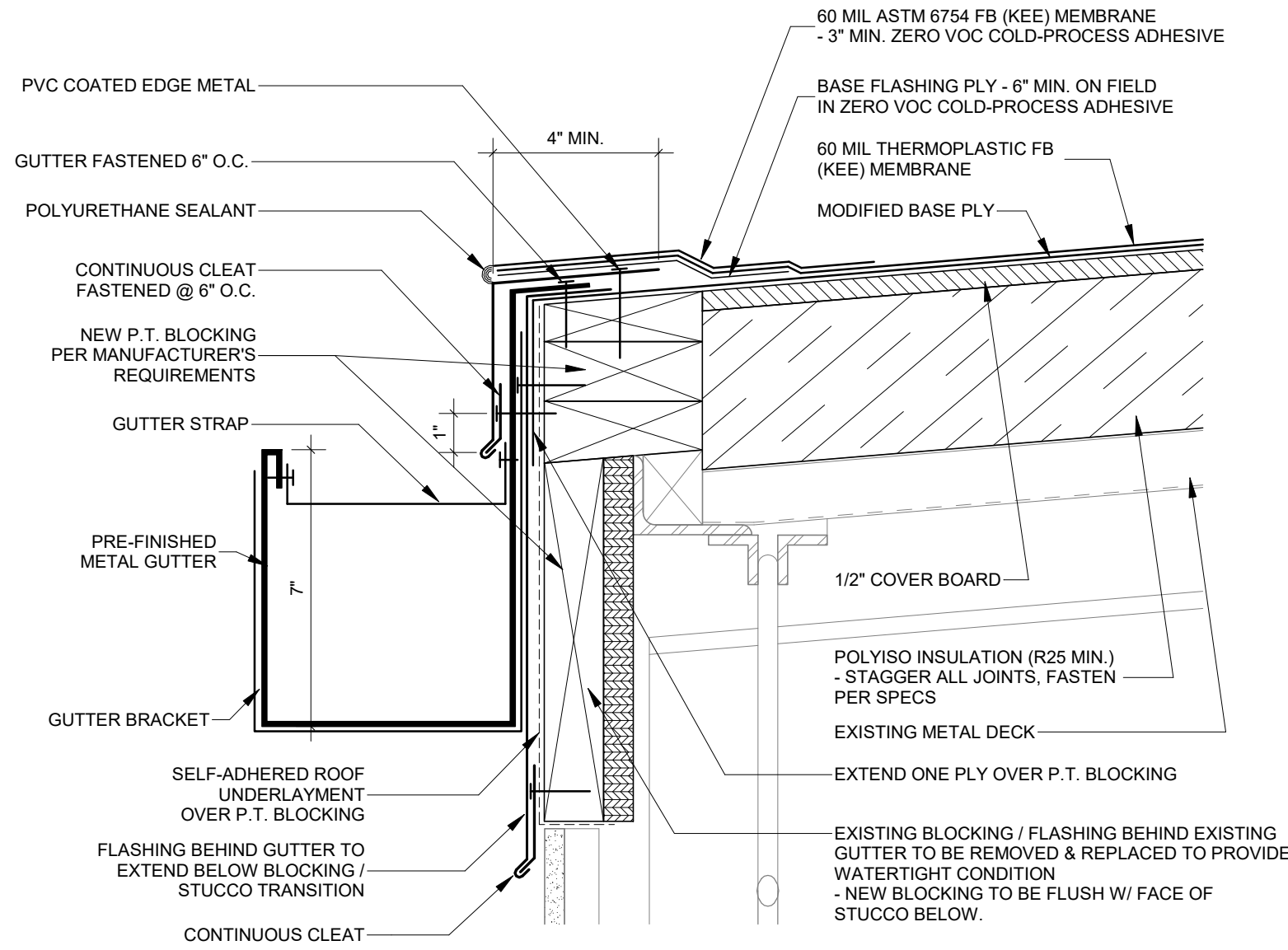
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1/8" = 1'-0"



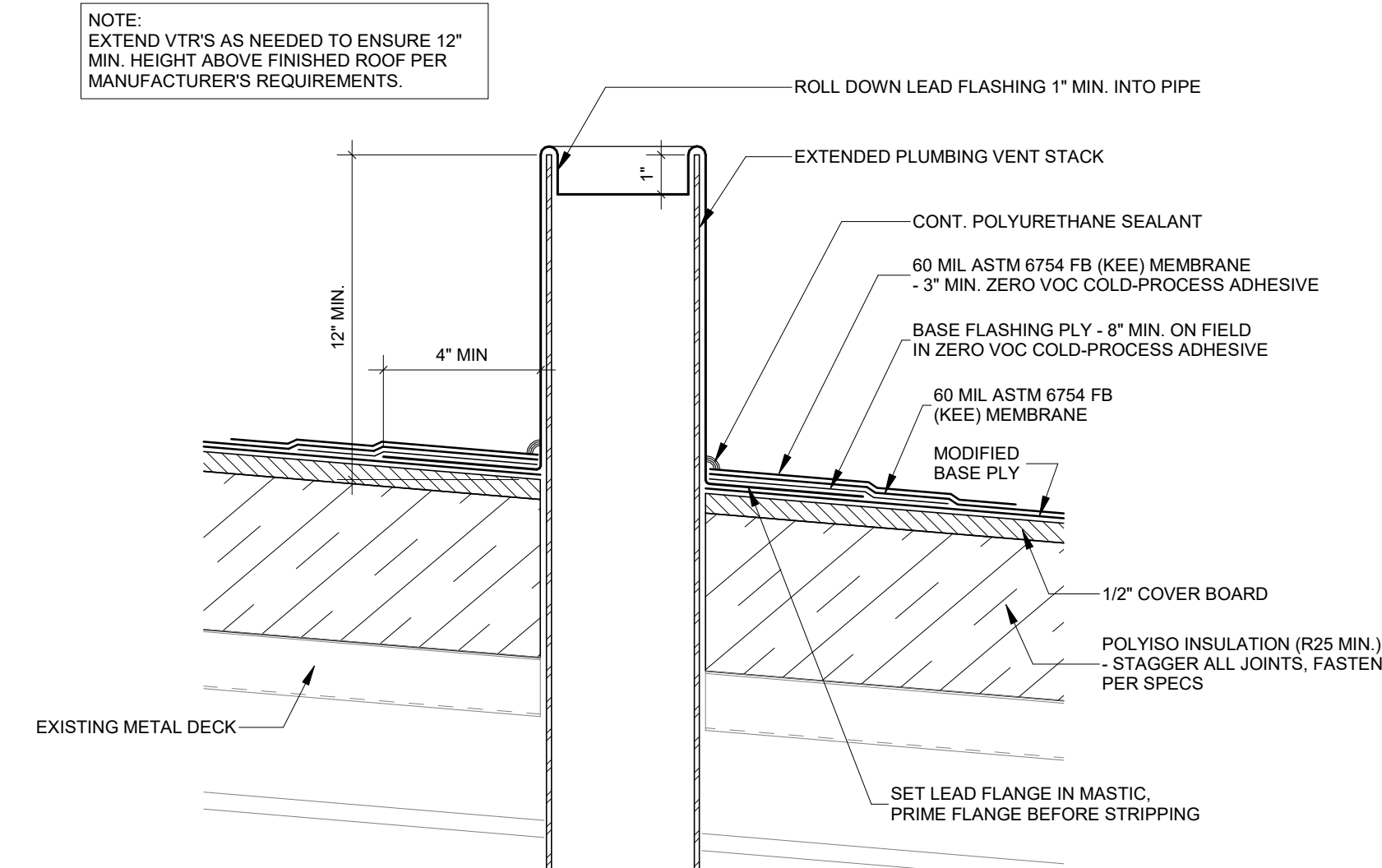
Key Plan
NTS



① Roof Edge Detail - Rake
3" = 1'-0"

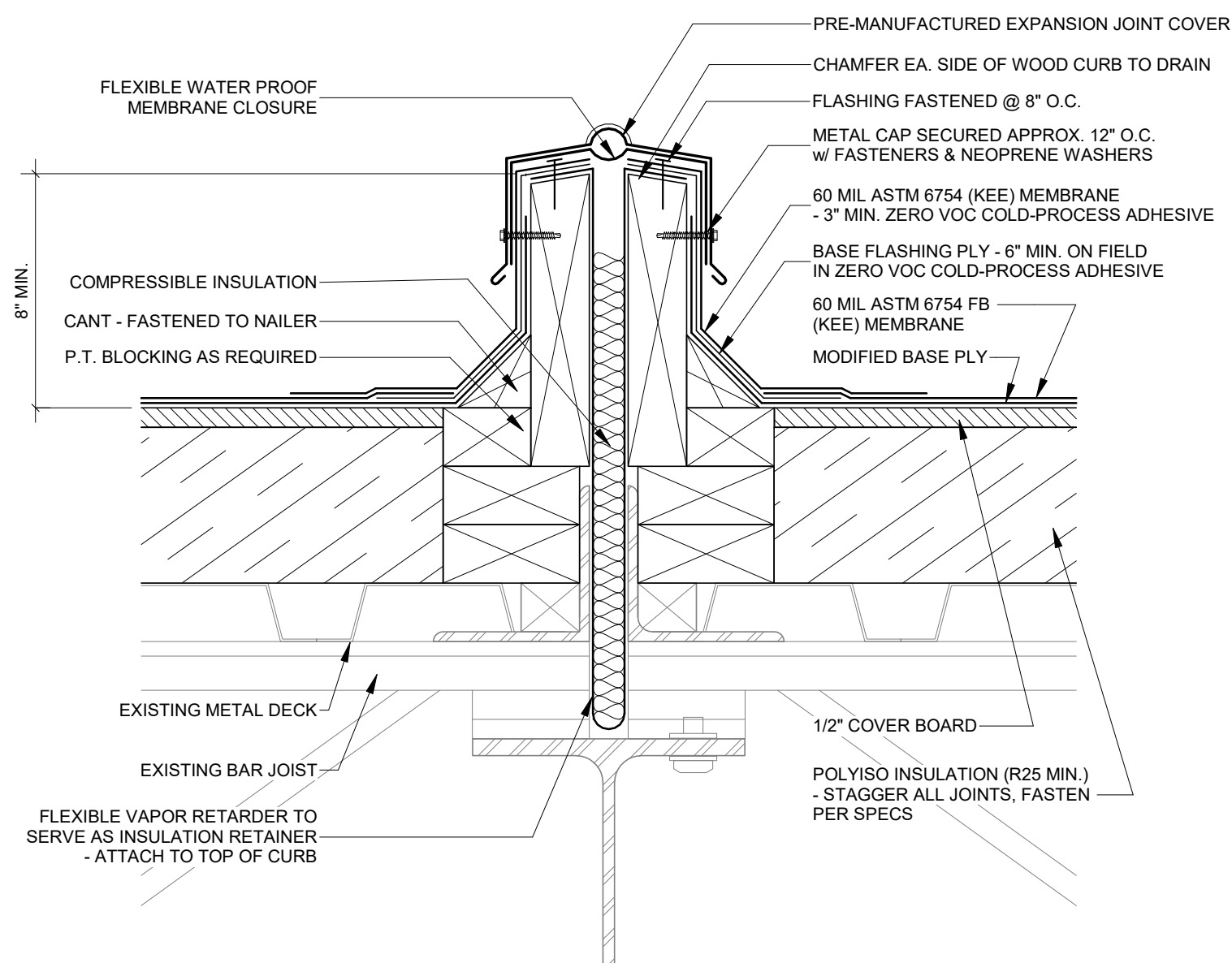


② Roof Edge Detail - Gutter
3" = 1'-0"

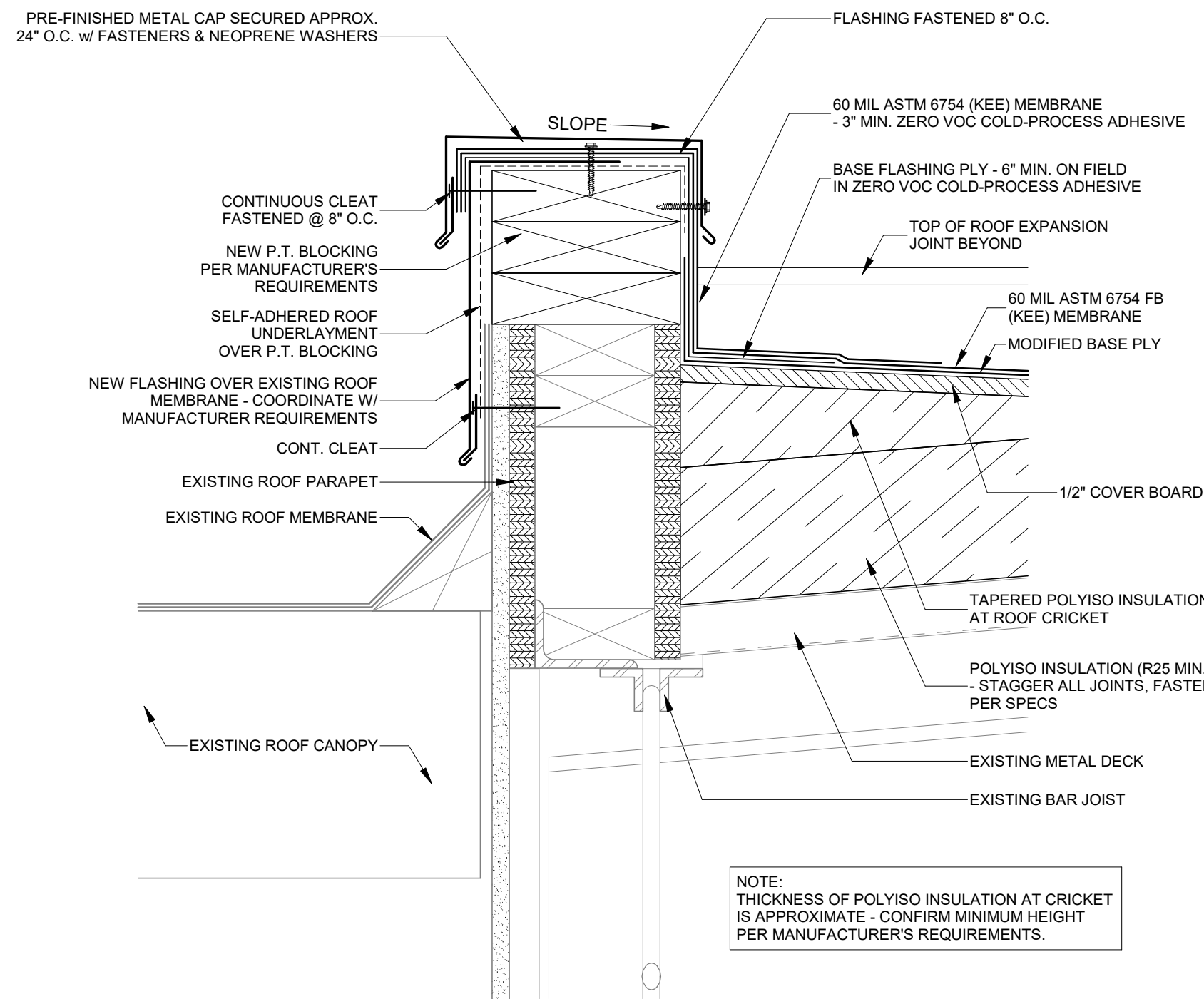


③ Vent Thru Roof Detail
3" = 1'-0"

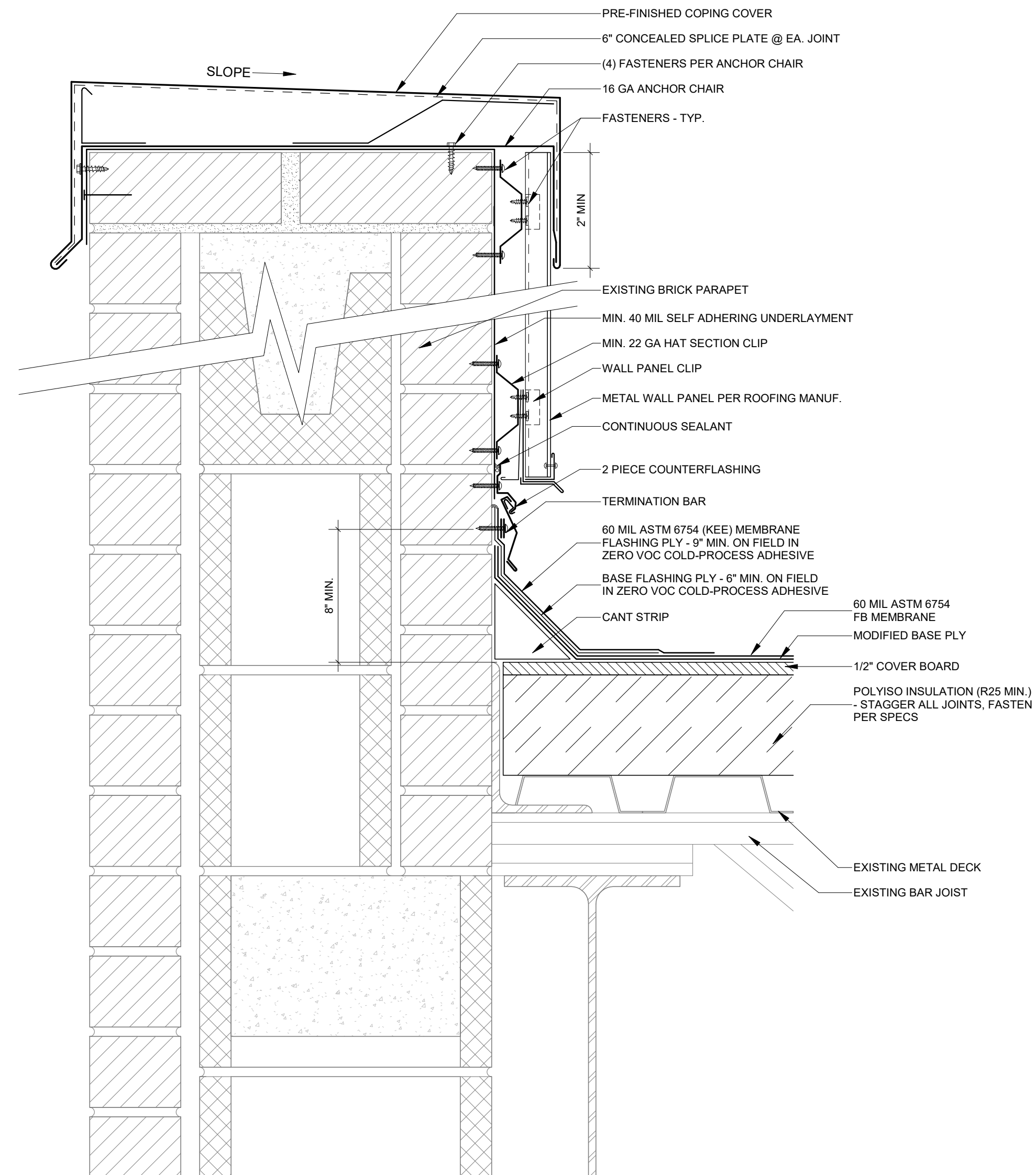
NOTE:
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CONFORMANCE WITH MANUFACTURER REQUIREMENTS.



④ Roof Expansion Joint Detail
3" = 1'-0"



⑤ Roof Parapet / Cricket Detail
3" = 1'-0"



⑥ Roof Edge Detail - Typical Sidewall/Parapet
3" = 1'-0"

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DRAWING TITLE:

Roof Details

SHEET NO.:

A5.0

DATE:

July 12, 2023



Existing Overall Roof Condition



Example of Existing Roof Ventilator



Existing Roof Infill Condition

NOTE: EXISTING CONDITIONS IMAGES ARE REPRESENTATIVE OF TYPICAL CONDITIONS AND ARE FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF THE EXISTING ROOF SYSTEM AS WELL AS ALL OTHER ASSOCIATED IMPROVEMENTS AS SPECIFIED IN THE CONTRACT DOCUMENTS.

Existing Conditions Keynotes:

- 1 REMOVE & REPLACE EXISTING ROOFING SYSTEM. CLEAN AND PREPARE EXISTING STRUCTURAL DECK. INSTALL INSULATION, COVERBOARD, BASE SHEET AND KEE CAP SHEET.
- 2 REMOVE ALL EXISTING ROOF VENTILATORS & INFILL REMAINING ROOF OPENING - COORDINATE WITH STRUCTURAL DRAWINGS FOR NEW WORK SCOPE.
- 3 REMOVE EXISTING JUNCTION BOXES. "SAFE-OFF" AND TERMINATE EXISTING WIRING AT SOURCE PANEL.
- 4 REMOVE EXISTING / TEMPORARY INFILL ROOFING MATERIAL - CONFIRM CONDITION OF REMAINING STRUCTURAL DECK PRIOR TO INSTALLING NEW ROOFING SYSTEM.
- 5 REMOVE & REPLACE EXISTING PARAPET CAP.
- 6 REMOVE EXISTING WALL / BASE FLASHING.
- 7 REMOVE & REPLACE EXISTING WALL PANELS.
- 8 REMOVE & REPLACE EXISTING FLASHING / FLASHING CAP AT ROOF TRANSITION.
- 9 REMOVE & REPLACE EXISTING EXPANSION JOINT - COORDINATE WITH STRUCTURAL DRAWINGS FOR NEW WORK SCOPE.
- 10 REMOVE & REPLACE EXISTING DRIP EDGE / FLASHING.
- 11 REMOVE & REPLACE EXISTING GUTTER / DOWNSPOUT.
- 12 REMOVE & REPLACE ROOFING MATERIAL IN EXISTING VTR'S - EXTEND VTR'S AS NEEDED TO ENSURE 12" MIN. HEIGHT ABOVE FINISHED ROOF PER MANUFACTURER'S REQUIREMENTS.
- 13 EXISTING TREES ADJACENT TO STRUCTURE TO BE TRIMMED AS NECESSARY TO ACCOMMODATE NEW WORK SCOPE.



Existing Parapet Wall - West End



Existing Parapet Wall - East End



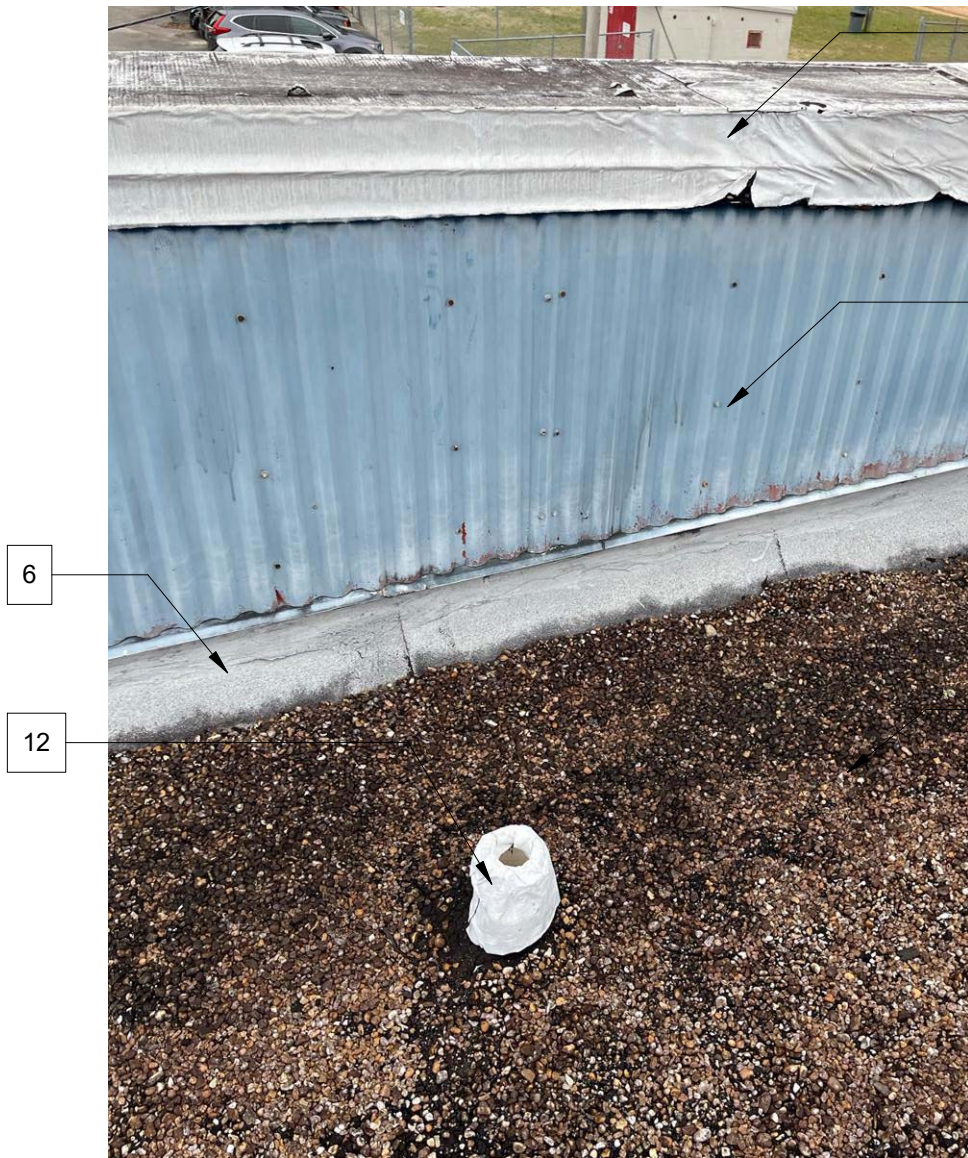
Existing Roof Curb/Cricket Transition



Existing Expansion Joint - East End



Existing Expansion Joint - West End



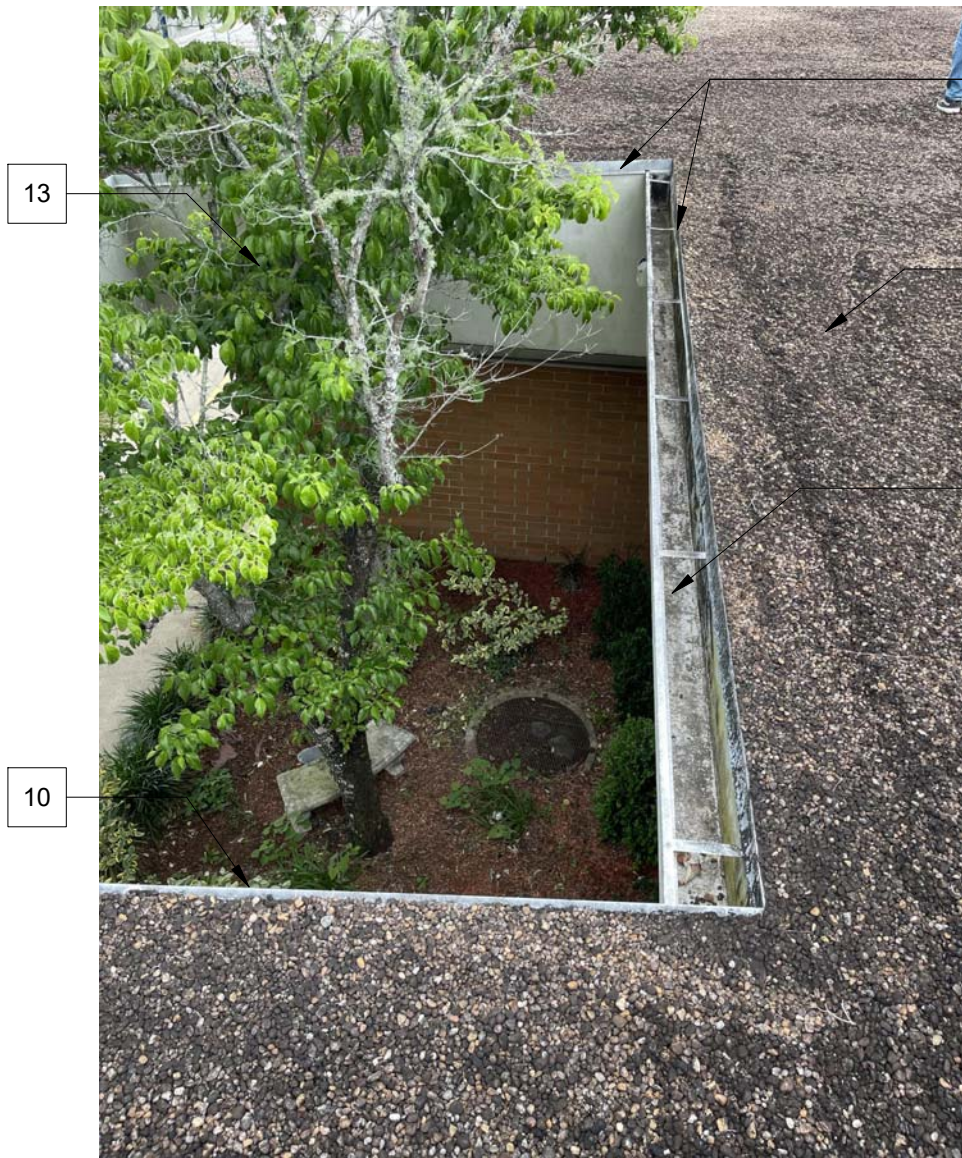
Existing VTR - Typical



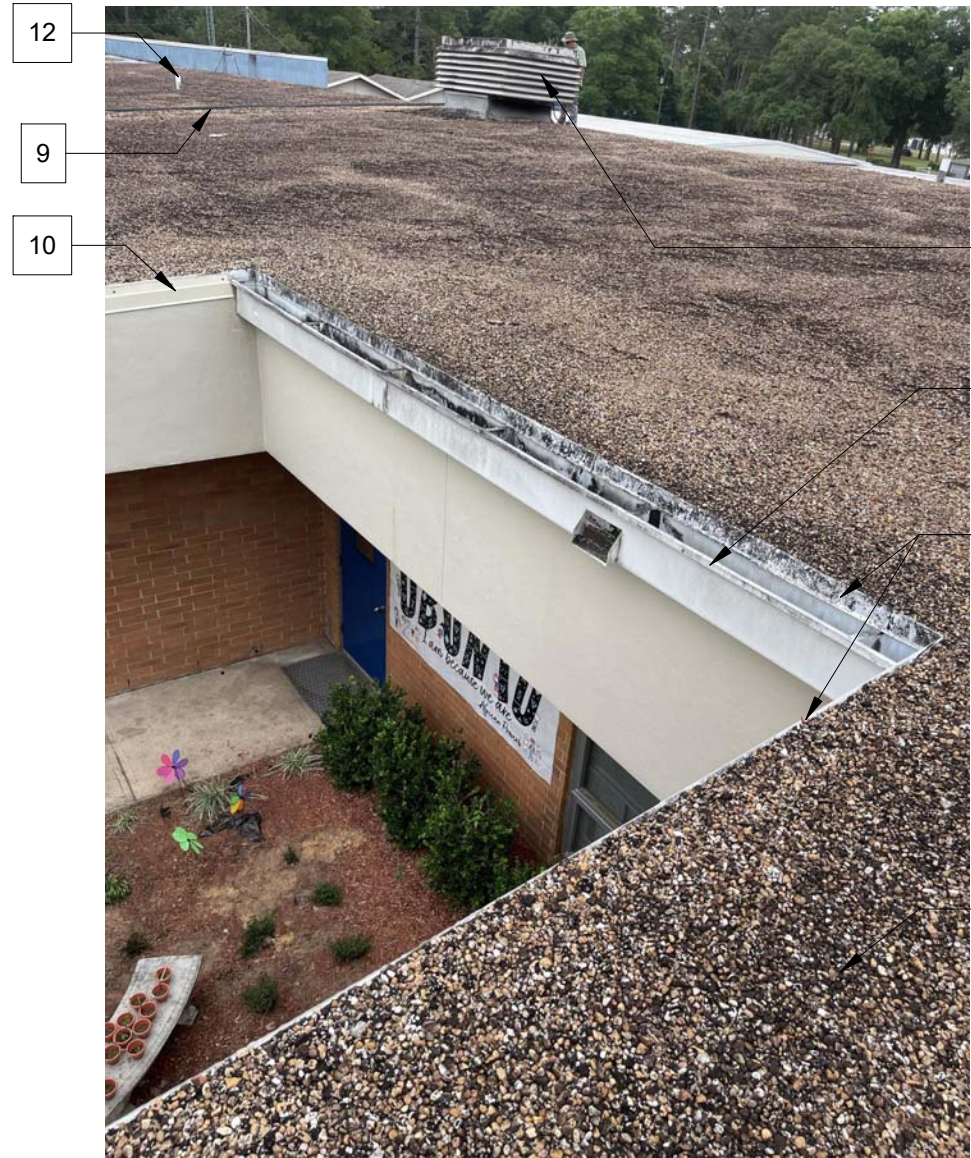
Existing Edge Condition



Existing Downspout - Typical



Existing Roof Opening - West



Existing Roof Opening - East

bkj

ARCHITECTURE

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SEAL:

PROJECT TITLE:

Building 8 Roof Replacement
Sabal Palm Elementary
2813 Ridgeway Street
Tallahassee, FL 32310

JOB NO.: 23.115
DESIGNED: SC
DRAWN: JH
CHECKED: ML/SC

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REVISIONS:

DRAWING PHASE:
100% Construction Documents

DRAWING TITLE:
Existing Conditions Images

SHEET NO.:
A9.0

DATE:
July 12, 2023

Submittal:

100% Construction Documents

BKJ Architecture Project No. 23.115

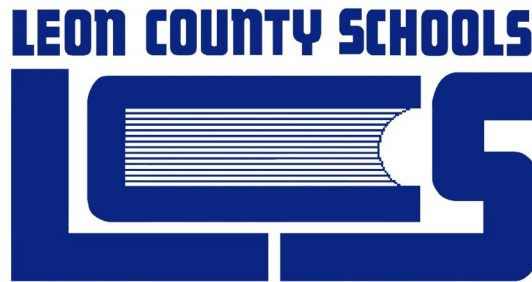
LCS Project No. 7-23-M-217

July 12, 2023



Building 8 Roof Replacement
for
Sabal Palm Elementary School

2813 Ridgeway St., Tallahassee, Florida 32310



BKJ, Inc. Architecture
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FL Architecture Corp. AA26002280

Set No.:

Date issued:

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LCS Sabal Palm Elementary – Building 8 Roof Replacement

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Access to site.
4. Work restrictions.
5. Specification and drawing conventions.

1.2 PROJECT INFORMATION

A. Project Identification: LCS Sabal Palm Elementary – Building 8 Roof Replacement.

1. Project Location: 2813 Ridgeway St, Tallahassee, Florida 32310.

B. Owner: Leon County Schools.

1. Owner's Representative: Ryan Williams, 850.815.0475, williamsr3@leonschools.net.

C. Architect: BKJ, Inc. Architecture.

1. Architect: Seth Campbell, 850.778.8007, scampbell@bkjarchitecture.com.
2. Architect Project Executive: Michael Lamantia, 850.778.8007, mlamantia@bkjarchitecture.com

D. Contractor: TBD.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. The project includes replacing an existing low slope roofing system with a new KEE fleeceback roofing membrane including complete system to existing structural roof deck (ie. polyiso insulation, coverboard, base & cap sheets, etc.), replacing all edge metal, replacing all coping caps, replacing all metal wall panels, replacing all gutters and downspouts, and minor repairs due to the new roof work. The area of the roof is approximately 31,689 SF.

B. Type of Contract.

1. Project will be constructed under a single prime contract.

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1.4 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited by Owner's right to perform work or to retain other contractors on portions of Project. The building will be occupied during construction. Contractor to coordinate work with building users and not disrupt normal building operations.

1.5 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor-air intakes.
- C. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

1.6 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 2. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.3 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic copies of digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 - 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
- B. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Architect Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

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2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 4. Transmittal Form for Electronic Submittals: Use software-generated form from electronic project management software electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Related physical samples submitted directly.
 - m. Indication of full or partial submittal.
 - n. Transmittal number, numbered consecutively.
 - o. Other necessary identification.

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5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name
- E. Options: Identify options requiring selection by Architect.
- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
 1. Post electronic submittals as PDF electronic files directly to specifically established for Project.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 3. Action Submittals: Submit six paper copies of each submittal unless otherwise indicated. Architect, through Construction Manager, will return four copies.
 4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
 5. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

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- a. Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:
 - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.

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- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through Construction Manager, will return submittal with options selected.
 6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- F. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."

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- G. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- H. Schedule of Tests and Inspections: Comply with requirements specified in Section 014000 "Quality Requirements."
- I. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

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- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
 - 1.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

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SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 3. Specific test and inspection requirements are not specified in this Section.

1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
- D. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- F. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

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- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- J. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.3 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.4 INFORMATIONAL SUBMITTALS

- A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
 - 1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.
 - 2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.5 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.

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4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Field Reports: Prepare written information documenting tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
5. Other required items indicated in individual Specification Sections.

C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

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- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329 Insert standard; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Contractor responsibilities include the following:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - d. When testing is complete, remove test specimens, assemblies, mockups; do not reuse products on Project.
 - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
 - 2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
 - 3. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.

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5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
6. Demolish and remove mockups when directed unless otherwise indicated.

1.7 QUALITY CONTROL

- A. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B. Manufacturer's Field Services: Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of the Work, and submittal of written reports.
- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of Contractor.
- E. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 1. Access to the Work.

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2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

- F. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.8 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections and in Statement of Special Inspections attached to this Section, and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retesting and reinspecting corrected work.
 - 7.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

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1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

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SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

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- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store materials in a manner that will not endanger Project structure.
 - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 - 5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

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- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 3. Refer to other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:
 - 1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - 3. Products:
 - a. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
 - 4. Manufacturers:
 - a. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

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5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Coordination of Owner-installed products.
6. Progress cleaning.
7. Starting and adjusting.
8. Protection of installed construction.

- B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.2 INFORMATIONAL SUBMITTALS

- A. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- C. Certified Surveys: Submit two copies signed by land surveyor.
- D. Final Property Survey: Submit 10 copies showing the Work performed and record survey data.

1.3 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.

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1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with requirements of Section 018113.13 "Sustainable Design Requirements - LEED for New Construction and Major Renovations," Section 018113.16 "Sustainable Design Requirements - LEED for Commercial Interiors," Section 018113.19 "Sustainable Design Requirements - LEED for Core and Shell Development," and Section 018113.23 "Sustainable Design Requirements - LEED for Schools."
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.
 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

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- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor professional engineer to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

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- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
- C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- D. Final Property Survey: Engage a land surveyor to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

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

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1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 2. Allow for building movement, including thermal expansion and contraction.
 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.

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5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

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- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements"

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

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SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 2. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.2 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

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1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by . Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain signature for receipt of submittals.
 5. Submit test/adjust/balance records.
 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Advise Owner of changeover in heat and other utilities.
 6. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 8. Complete final cleaning requirements, including touchup painting.
 9. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.

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1.6 FINAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
 - 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Submit pest-control final inspection report and warranty.
 - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings.
- B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Architect will return annotated copy.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.

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2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, Building Name/Number and name of Contractor.
4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.
 - h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.

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- i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- j. Remove labels that are not permanent.
- k. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- l. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- m. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- n. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
- o. Leave Project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700

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SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Operation manuals for systems, subsystems, and equipment.
 - 3. Product maintenance manuals.

1.2 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
 - 2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return two copies.
- C. Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information.

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- B. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
 2. Table of contents.
 3. Manual contents.
- C. Title Page: Include the following information:
1. Subject matter included in manual.
 2. Name and address of Project.
 3. Name and address of Owner.
 4. Date of submittal.
 5. Name and contact information for Contractor.
 6. Name and contact information for Architect.
 7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- E. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- F. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- G. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.

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2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.2 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor is delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.
 7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
 1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
 1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.
 4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.

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8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

2.3 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
 1. Product name and model number.
 2. Manufacturer's name.
 3. Color, pattern, and texture.
 4. Material and chemical composition.
 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 1. Inspection procedures.
 2. Types of cleaning agents to be used and methods of cleaning.
 3. List of cleaning agents and methods of cleaning detrimental to product.
 4. Schedule for routine cleaning and maintenance.
 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
- C. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.

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- D. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
- E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

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SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. Related Requirements:
 - 1. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set(s) of marked-up record prints.
 - 2. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints and one set(s) of file prints.
 - 2) Submit record digital data files and one set(s) of plots.
 - 3) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned record prints and one set(s) of prints.
 - 2) Print each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit one paper copy and annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one paper copy and annotated PDF electronic files and directories of each submittal.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised Drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it.
 - c. Record and check the markup before enclosing concealed installations.
 - 2. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
 - 1. Format: Annotated PDF electronic file with comment function enabled.
 - 2. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
- C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Format: Annotated PDF electronic file with comment function enabled.
 - 3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
 - 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

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2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file paper copy .

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file paper copy .

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file paper copy.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

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SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected site elements.
2. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
1. Maintain fire-protection facilities in service during selective demolition operations.

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PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

3.3 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.

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4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.5 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

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SECTION 053100 - STEEL DECKING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roof deck.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Roof deck.

B. Shop Drawings:

1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.3 INFORMATIONAL SUBMITTALS

A. Certificates:

1. Welding certificates.
2. Product Certificates: For each type of steel deck.

B. Test and Evaluation Reports:

1. Research Reports: For steel deck, from ICC-ES showing compliance with the building code.

C. Field Quality-Control Submittals:

1. Field quality-control reports.

D. Qualification Statements: For welding personnel and testing agency.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Welding Qualifications: Qualify procedures and personnel in accordance with SDI QA/QC and the following welding code:
 - a. AWS D1.3/D1.3M.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in accordance with SDI MOC3. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. AISI Specifications: Comply with calculated structural characteristics of steel deck in accordance with AISI S100.
- B. Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Indicate design designations from UL's "Fire Resistance Directory" or from listings of another qualified testing agency.

2.2 ROOF DECK

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. New Millennium Building Systems, LLC.
 - 2. Vulcraft Group; Division of Nucor Corp.
- B. Roof Deck: Fabricate panels, without top-flange stiffening grooves, to comply with SDI RD and with the following:
 - 1. Galvanized-Steel Sheet: ASTM A653/A653M, Structural Steel (SS), Grade 33, G60 zinc coating.
 - 2. Deck Profile: Type WR, wide rib.
 - 3. Profile Depth: 1-1/2 inches.
 - 4. Design Uncoated-Steel Thickness: 0.0295 inch.
 - 5. Span Condition: Simple span.
 - 6. Side Laps: Overlapped.

2.3 ACCESSORIES

- A. Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
- B. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 minimum diameter.
- C. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.

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- D. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 33,000 psi, not less than 0.0359-inch design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.
- E. Galvanizing Repair Paint: ASTM A780/A780M.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Install deck panels and accessories in accordance with SDI C, SDI NC, and SDI RD, as applicable; manufacturer's written instructions; and requirements in this Section.
- B. Install temporary shoring before placing deck panels if required to meet deflection limitations.
- C. Locate deck bundles to prevent overloading of supporting members.
- D. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- E. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- F. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.
- G. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- H. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.

3.2 INSTALLATION OF ROOF DECK

- A. Fasten roof-deck panels to steel supporting members by arc spot (puddle) welds of the surface diameter indicated or arc seam welds with an equal perimeter that is not less than 1-1/2 inches long, and as follows:
 - 1. Weld Diameter: 5/8 inch, nominal.
 - 2. Weld Spacing: Weld edge and interior ribs of deck units with a minimum of two welds per deck unit at each support. Space welds as indicated.
- B. Side-Lap Fastening: Fasten side laps of panels between supports, at intervals not exceeding the lesser of one-half of the span or 12 inches, and as follows:

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1. Mechanically fasten with self-drilling, No. 10 diameter or larger, carbon-steel screws.
- C. End Bearing: Install deck ends over supporting frame with a minimum end bearing of 1-1/2 inches, with end joints as follows:
 1. End Joints: Lapped 2 inches minimum.
- D. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels in accordance with deck manufacturer's written instructions. Weld or mechanically fasten to substrate to provide a complete deck installation.
 1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.

3.3 REPAIR

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint in accordance with ASTM A780/A780M and manufacturer's written instructions.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Tests and Inspections:
 1. Special inspections and qualification of welding special inspectors for cold-formed steel roof deck in accordance with quality-assurance inspection requirements of SDI QA/QC.
 - a. Field welds will be subject to inspection.
 2. Steel decking will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

END OF SECTION 053100

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood blocking and nailers.

PART 2 - PRODUCTS

2.1 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.

- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

- D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
3. Wood floor plates that are installed over concrete slabs-on-grade.

2.2 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

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- B. Power-Driven Fasteners: NES NER-272.
- C. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
- D. Install fire-retardant treated plywood backing panels with classification marking of testing agency exposed to view.
- E. Shear Wall Panels: Install shear wall panels to comply with manufacturer's written instructions.
- F. Metal Framing Anchors: Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.
- G. Do not splice structural members between supports unless otherwise indicated.
- H. Comply with AWWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
- I. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- J. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in FBC's International Building Code.
 - 3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in FBC's International Residential Code for One- and Two-Family Dwellings.

3.2 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes sufficiently wet that moisture content exceeds that specified, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

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SECTION 074214.001 – METAL WALL PANELS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Supplementary Conditions and Division 1 Specification Sections apply to this section.

1.2 SUMMARY

- A. This section includes pre-formed flat seam wall panel system complete with anchor clips, fasteners, flashing, and trim.
- B. Related Sections:
 - 1. Section 075500 – Modified Bituminous Membrane Roofing
- C. Related Work Specified Elsewhere:
 - 1. Division 06 Section – Rough Carpentry
 - 2. Division 07 Section – Sheet Metal Flashing and Trim

1.3 REFERENCES

- A. American Iron and Steel Institute (AISI):
 - 1. Specification for the Design of Cold-Formed Steel Structural Members.
 - 2. American Society for Testing and Materials (ASTM): B.
 - 3. ASTM A240 Specification for Heat Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels: C.
 - 4. ASTM A792 Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
 - 5. ASTM A875 Specification for Steel Sheet, Zinc-5% Aluminum Alloy-Coated by the Hot-Dip Process.
 - 6. ASTM B209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate
 - 7. ASTM B370 Specification for Copper and Sheet and Strip for Building Construction
 - 8. ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
 - 9. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Air Pressure Differences
 - 10. ASTM E331 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference
- B. Sheet Metal and Air Conditioning Contractors National Association (SMACNA):
 - 1. Architectural Sheet Metal Manual

1.4 SUBMITTALS FOR REVIEW

- A. Shop Drawings: Show wall panels (and roofing system, if applicable) with flashings and accessories in elevations, sections and details. Include metal thickness and finishes, panel lengths, joining details, anchorage details, flashings and special fabrication provisions for termination and penetrations. Indicate relationships with adjacent and interfacing work. Indicate fastener types and spacing; and provide fastener pullout values. Shop drawings must be completed by the wall panel manufacturer's engineering department. Any and/or all changes recommended by the successful bidder must be approved by the manufacturer in writing prior to submittal.

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- B. Product Data: Include manufacturer's detailed material and system description, concealed anchor clips, sealant and closure installation instructions, and finish specifications. Indicate fastener types and spacing; and required fastener pullout values.
- C. Samples: Provide full-size samples of the following materials and system components. Samples shall be of identical material type, thickness, panel width, and material grade/alloy as the system specified for this project.
 - 1. Submit sample of panel section, at least 4" long x full panel width showing panel profile and also a sample of color selected.
 - 2. Submit sample of foam closure strips to fit inside and outside specified panel profile.
 - 3. Submit sample of panel fasteners.
- D. Specimen Warranty: Provide an unexecuted copy of the warranty specified for this Project, identifying the terms and conditions required of the Manufacturer and the Owner.
- E. Any material submitted as equal to the specified material must be accompanied by a report signed and sealed by a professional engineer licensed in the state in which the installation is to take place. This report shall show that the submitted equal meets the Design and Performance criteria in this specification. Substitution requests submitted without licensed engineer approval will be rejected for non-conformance.

1.5 SUBMITTALS FOR INFORMATION

- A. Design and Test Reports: Provide the following certified test reports from an independent testing laboratory:
 - 1. Independent laboratory testing report for system design load and seam integrity.
 - 2. A letter from an officer of the manufacturing company certifying that the materials furnished for this project are the same as represented in tests and supporting data.
 - 3. Manufacturer's verifications that the panels are factory roll formed.
 - 4. ASTM E283 Test results must clearly demonstrate compliance with the performance requirements specified in article 1.9 ASTM E331 Test Report.
 - 5. ASTM E330 Test results must clearly demonstrate compliance with the performance requirements specified in article 1.9.
 - 6. ASTM E331 Test results must clearly demonstrate compliance with the performance requirements specified in article 1.9.
- B. Mill production reports certifying that the metal thicknesses are within allowable tolerances of the nominal or minimum thickness or gauge specified.
- C. Design Loads: Submit copy of manufacturer's minimum design load calculations according to ASCE 7, Method 2 for Components and Cladding. In no case shall the design loads be taken to be less than those detailed in Design and Performance Criteria article.
- D. Qualification Data for Wall System Installer: Refer to Quality Assurance Article below.
- E. Certification of work progress inspection frequency: Refer to Quality Assurance Article below.
- F. Pre-installation Conference Proceedings: Refer to Quality Assurance Article below.
- G. Test Reports: Submit third party validation of environmental claims, prepared by UL Environment, for all metal wall panels containing recycled content and/or bio based content.

1.6 CONTRACT CLOSEOUT SUBMITTALS

- A. General: Comply with Requirements of Division 01 Section Closeout Submittals.

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- B. Special Project Warranty: Provide specified warranty for the Project, executed by the authorized agent of the Manufacturer.
- C. Wall Panel Maintenance Instructions: Provide a manual of manufacturer's recommendations for maintenance of installed systems.
- D. Insurance Certification: Assist Owner in preparation and submittal of wall installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on wall panel system installation and associated work.
- E. Demonstration and Training Schedule: Provide a schedule of proposed dates and times for instruction of Owner's personnel in the maintenance requirements for completed wall panel system installation work. Refer to Part 3 for additional requirements.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an Installer who has completed the Manufacturer's Approved Contractor course and is currently certified for the installation of the specified system.
- B. If required, fabricator/installer shall submit work experience and evidence of adequate financial Responsibility. The Owner's representative reserves the right to inspect fabrication facilities in determining qualifications.
- C. Source Limitations: Obtain all components of the wall panel system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the Manufacturer.
 - 1. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.
 - 2. Manufacturer shall have direct authority and control over all fabrication of steel components as well as the raw materials used in their fabrication.
- D. Source Quality Control: Manufacturer shall have in place a documented, standardized quality control program such as ISO-9001 approval.
- E. Engage the Manufacturer's Field Representative to conduct required periodic inspections of work in progress as described herein and shall furnish written documentation of all such inspections.
- F. Manufacturer will provide inspections three (3) days per five (5) working days to ensure the wall assembly is compliant with all manufacturer guidelines.
- G. Approved Manufacturers:
 - a. The Garland Company, Inc.
 - b. Tremco CPG, Inc.
 - c. Pac-Clad, Peterson Inc.
- H. Alternate Manufacturers: The following manufacturer criteria must be submitted. Alternate systems will not be considered for approval unless each of these items has been submitted for review at least 10 business days prior to bid opening.
 - 1. Submit each item listed in article 1.4 (A through E) for evaluation of the proposed system.
 - 2. Tests shall have been made for identical systems within the ranges of specified performance criteria.
 - 3. Empirical calculations for wall performance shall only be acceptable for positive loads.

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4. A list of a minimum of five (5) jobs where the proposed alternate material was used under similar conditions. The reference list shall include date of project, size of project, project address, and telephone number of architect/owner contact.
5. A financial statement demonstrating a minimum of a 3:1 ratio of assets to liabilities.
6. A written statement from the manufacturer stating that they will provide the building owner with a daily site inspection for a minimum of one (1) hour per day by an experienced, full time employee of the company.
7. A written statement from the manufacturer stating that they will provide the engineer of record with a daily site inspection by an experienced full time employee of the company.
8. A written statement from a corporate officer of the manufacturing company stating that he or she has reviewed the specifications and confirms that the proposed system meets or exceeds all performance requirements listed as well as meets the panel size, gauge, weight, clip design, sealant design, uplift pressures and height of the vertical seam.
9. A copy of manufacturer's warranty.
10. Proof that the manufacturer has been in business for a minimum number of years equal to the warranty period required for this project.

1.8 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-installation conference approximately two (2) weeks before scheduled commencement of system installation and associated work.
- B. Require attendance of installer of each component of associated work which must precede or follow wall panel work (including mechanical or electrical work if any), Architect, Owner, system manufacturer's representative, and other representatives directly concerned with performance of the Work, including (where applicable) Owner's insurers, testing agencies and governing authorities.
- C. Objectives of conference to include:
 1. Review foreseeable methods and procedures related to work, including set up and mobilization areas for stored material and work area.
 2. Tour representative areas of building, inspect and discuss condition of substrates, penetrations and other preparatory work performed by others.
 3. Review structural loading limitations of wall framing and inspect for unacceptable variations in planarity.
 4. Review system requirements (drawings, specifications and other contract documents).
 5. Review required submittals both completed and yet to be completed.
 6. Review and finalize construction schedule related to work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 7. Review required inspection, testing, certifying and material usage accounting procedures.
 8. Review weather and forecasted weather conditions and procedures for unfavorable conditions, including possibility of temporary wall protection (if not mandatory requirement).
 9. Record discussion of conference including decisions and agreements (or disagreements) reached. Furnish copy of record to each party attending. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.
 10. Review notification procedures for weather or non-working days.
- D. The Owner's Representative will designate one of the conference participants to record the proceedings and promptly distribute them to the participants for record.

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- E. The intent of the conference is to resolve issues affecting the installation and performance of wall panel work. Do not proceed with work until such issues are resolved the satisfaction of the Owner and Engineer of Record. This shall not be construed as interference with the progress of Work on the part of the Owner or Engineer of Record.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Manufacturer's Responsibilities:
 - 1. All panels shall be shipped from the manufacturer with a strippable film or similar packaging material separating the individual panels to minimize flexing, stressing, scratching or otherwise damaging the material during transit to the job.
 - 2. Fully cover steel with tarpaulins or similar protective cover during transit to prevent dirt and debris from coming in contact with the finished goods.
- B. Installer's Responsibilities:
 - 1. Stack pre-finished materials to prevent twisting, bending, abrasion and denting and elevate one end to facilitate moisture run-off.
 - 2. Unload wall panels using a boom or crane, supporting the panels in at least two locations during lifting, and never lift more than three panels at a time.
 - 3. Protect moisture-sensitive materials and water-based from the weather.
 - 4. Inspect materials upon delivery. Reject and remove physically damaged or marred material from project site.

1.10 PROJECT CONDITIONS

- A. Determine that work of other trades will not hamper or conflict with necessary fabrication and storage and protection requirements for wall panel system.
 - 1. Protection:
 - a. Protect completed work from subsequent construction operations. Comply with Manufacturer's recommendations.
 - b. Do not encumber the site with stored materials or equipment.
 - c. Do not support wall-mounted equipment directly on the wall panel system.
- B. Ascertain that work of other trades which penetrates the wall or is to be made watertight by the wall is in place an approved prior to installation.

1.11 DESIGN AND PERFORMANCE CRITERIA

- A. Thermal Expansion and Contraction:
 - 1. Completed metal wall panel and flashing system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling, producing excess stress on structure, anchors or fasteners, or reducing performance ability.
 - 2. Interface between panel and clip shall provide for unlimited thermal movement in each direction along the longitudinal direction.
- B. Uniform wind load capacity:
 - 1. Installed wall panel system shall withstand negative design wind loading pressures complying with the following criteria. Anchor clips shall be installed exactly as specified in article 3.
 - 2. Capacity shall be determined using uniform static air pressure method in accordance with ASTM E330. Allowable safe working loads shall be determined by dividing the ultimate test load by the safety factor specified above.
- C. ASTM E283: Static pressure air infiltration (doors, windows, curtain walls):
 - 1. Pressure Leakage Rate
 - a. 1.57 PSF 0.0033 cfm/sq. ft.

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- b. 6.24 PSF 0.0056 cfm/sq. ft.
 - c. 12.0 PSF 0.062 cfm/sq. ft.
 - d. 15.0 PSF 0.064 cfm/sq. ft.
 - e. 20.0 PSF 0.074 cfm/sq. ft.
- D. ASTM E330: Uniform static load test for structural performance for 1 ½" panel profile:
Test results must provide an allowable pressure of no less than:
 - 1. 42 lbs/sqft. For 3'-0" spans
 - 2. 52 lbs/sqft for 1'-0" span
- E. ASTM E331: Static pressure water infiltration (doors, windows, curtain walls):
 - 1. Pressure Result:
 - a. 5 Gal./Hr. per S.F. and Static No Leakage
 - b. Pressure of 20.0 Psf. For 15 minutes.

1.12 WARRANTIES

- A. Manufacturer shall execute a single warranty covering of the following criteria. Multiple-source warranties are not acceptable.
 - 1. Manufacturer's thirty (30) year watertight warranty.
 - 2. Manufacturer's standard thirty (30) year finish warranty covering checking, crazing, peeling, chalking, fading, or adhesion.
 - 3. Installer's two (2) year warranty covering wall panel system installation.
 - 4. Warranties shall commence on date of Substantial Completion.
 - 5. Provide a single warranty by a single approved manufacturer for roof areas, wall areas, and transitions between the two systems, if applicable.

1.13 MANUFACTURER'S INSPECTIONS

- A. When the project is in progress, the wall panel system manufacturer will inspect the work not less than [3] days per week. In addition, the manufacturer will:
 - 1. Keep the Architect or Owner informed as to the progress and quality of the work as observed.
 - 2. Provide periodic job site inspections a minimum of [3] days per week.
 - 3. Report to the Architect in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.
 - 4. Confirm after completion that manufacturer has observed no applications procedures in conflict with the specifications other than those that may have been previously reported and corrected.

PART 2 – PRODUCTS

2.1 PRODUCTS, GENERAL

- A. Refer to Division 01 Section "Common Product Requirements."
- B. Basis of Design: Materials, manufacturer's product designations, and/or manufacturer's names specified here in shall be regarded as the minimum standard of quality required for work of this Section. Comply with all manufacturer and contractor/fabricator quality and performance criteria specified in Part 1.
- C. Substitutions: Products proposed as equal to the products specified in this Section shall be submitted in accordance with Bidding Requirements and Division 01 provisions.
 - 1. Proposals shall be accompanied by a copy of the manufacturer's standard specification section. That specification section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place.

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Substitution requests containing specifications without licensed engineer certification shall be rejected for non-conformance.

2. Include a list of three (3) projects of similar type and extent, located within a one hundred mile radius from the location of the project. In addition, the three projects must be at least five (5) years old and be available for inspection by the Architect, Owner or Owner's Representative.
3. Equivalency of performance criteria, warranty terms, submittal procedures, and contractual terms will constitute the basis of acceptance.
4. The Owner's decision regarding substitutions will be considered final. Unauthorized substitutions will be rejected.

2.2 ACCEPTABLE MANUFACTURERS

- A. The design is based upon R-MER Wall Pan wall panel systems engineered and manufactured by

The Garland Company
3800 East 91st Street
Cleveland, Ohio 44105
Telephone: (800) 762-8225
Website: www.garlandco.com

- B. Additional Acceptable Manufacturers:

- a. Tremco CPG, Inc. – Tremlock Metal Wall Panel
- b. Pac-Clad / Peterson Inc. – Flush & Reveal Wall Panel Systems

- C. Site Formed Panels: Bidder will not be allowed to supply panels formed at the job-site on portable roll formers; metal panels must be factory pre-manufactured and engineered for this project.

2.3 METAL WALL PANEL SYSTEM

- A. General

1. The products, quality, and performance criteria specified shall be regarded as the minimum standard of quality required for the project.
2. Basis of Design: R-MER Wall Pan System manufactured by The Garland Company, Cleveland, OH.

- B. Materials:

1. Panel material: [22 ga.], Zinc-Coated (Galvanized) Steel Sheet, as per ASTM A653: G90 (Z275) coating designation; structural quality, grade 40 ksi (275 MPa).
2. Flashing and flat stock material: Fabricate in profiles indicated on drawings of same material, thickness, and finish as wall panel system, unless indicated otherwise.

- C. Finish on surfaces:

1. Exposed surfaces for coated panels:
 - a. Two coat coil applied, baked-on full-strength (70% resin) fluorocarbon coating system (polyvinylidene fluoride, PVF2), applied by manufacturer's approved applicator.
 - b. Coating system shall provide nominal 1.0 mil dry film thickness, consisting of primer and color coat.
 - c. Color: Custom color selected by architect.

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2. Unexposed surfaces for coated panels shall be baked-on polyester coating with .20 - .30 dry film thickness (TDF).
3. Exposed and unexposed surfaces for uncoated panels shall be as shipped from the mill.

D. Characteristics:

1. Fabrication: Panels shall be factory roll-formed from the specified metal. Field rolled panels will not be allowed.
2. Configuration: Interlocking flush/flat seams incorporating concealed anchor clips. Through fastened or exposed fastener systems are not acceptable.
3. Panel seam legs shall be one and one half (1 ½) inch nominal concealed depth behind the panel face. Seam shall allow for expansion and contraction of panels due to thermal changes.
3. Anchor clips: Clips shall be 22 gauge galvalume steel designed to allow thermal movement of the panel in each direction along the longitudinal dimension.
4. Panel Width (Seam Spacing): [12"] nominal.
5. Panel lengths: Full length without joints to the extent as is practical.
6. Panel Profile: Acceptable profiles as detailed below – to be determined once manufacturer has been selected.
 - a. Profile of panel face shall have a single Vee-groove reveal located three (3) inches in from each panel seam. These will absorb thermal stresses, reduce oil canning, and provide aesthetic appeal.

E. Accessories:

1. Fasteners:
 - a. Concealed fasteners: Corrosion resistant steel screws, #10 x 1" long, pancake head, Phillips drive. Use self-drilling, self-tapping for metal substrate or A-point for plywood substrate.
 - b. Exposed fasteners: Series 410 stainless steel screws or one eighth (1/8) inch diameter stainless steel waterproof rivets. All exposed fasteners shall be factory painted to match the color of the wall panels.
2. Provide all miscellaneous accessories for complete installation.

2.4 ACCESSORY PRODUCTS

A. Sealant:

1. Acceptable product:
 - a. Concealed Application: Non-curing butyl sealant or equal.
 - b. Exposed Application: Garland SS sealant or equal.
2. Colors: As selected by architect from sealant manufacturer's standard selection.

B. Wall Substrate:

1. Install ¾" high x 24 gauge (minimum) galvanized steel furring hat sections to wall structural substrate. Hat sections shall be installed perpendicular to panel seams, and shall be spaced thirty (30) inches on center (maximum) to accommodate the panel fastener spacing given in article 3.2 C.

C. Underlayment:

1. Underlayment shall be one ply of 40 mil minimum self-adhesive membrane per roof manufacturer. Seams shall be lapped in accordance with manufacturer's recommendations.

1.5 FABRICATION

- A. Shop fabricate metal panels and flashing components to the maximum extent possible, forming metal work with clear, sharp, straight, and uniform bends and rises. Hem exposed edges of flashings.

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- B. Form flashing components from full single width sheet in minimum ten (10'-0") feet sections. Provide shop fabricated, mitered corners, joined using closed end pop rivets and joint sealant.
- C. Fabricate panels and related sheet metal work in accordance with approved shop drawings and applicable standards.

PART 3 – EXECUTION

3.1 EXECUTION, GENERAL

- A. Comply with requirements of Division 01 Section "Common Execution Requirements."

3.2 PREPARATION

- A. Inspection: Examine the alignment and placement of the building structure and substrate. Correct any objectionable warp, waves or buckles in the substrate before proceeding with installation of the pre-formed metal panels.
- B. Pre-installation conference: Prior to beginning metal wall panel work, convene a pre-installation conference as specified in Part 1 of this Specification.
- C. It is understood that the ongoing operations of the Owner area of a critical nature as to leak sensitivity. Do not work on more wall area than can be restored completely watertight in one day.

3.3 INSTALLATION, GENERAL

- A. Install wall system when the atmospheric dry bulb temperature is minimum forty (40) degrees Fahrenheit and rising.
- B. Install all components of the wall system in exact accordance with the manufacturer's standard published procedures as applicable to these project conditions and substrates.

3.4 WALL PANEL INSTALLATION

- A. Comply with all details and install wall panel materials and flashings in accordance with approved Manufacturer's shop drawings and manufacturer's product data within specified erection tolerances.
- B. Isolate dissimilar metals and masonry or concrete from metals with bituminous coating. Use gasketed fasteners where required to prevent corrosive action between fastener, substrate, and panels.
- C. Limit exposed fasteners to extent indicated on shop drawings.
- D. Seal laps and joints in accordance with system manufacturer's product data.
- E. Installed system shall be true to line and plane and free of dents, and physical defects. In light gauge panels with wide flat surfaces, some oil canning may be present. Oil canning does not affect the finish or structural integrity of the panel and is therefore not cause for rejection.
- F. Form joints in linear sheet metal to allow for one fourth (1/4) inch minimum expansion at twenty (20'-0") feet on center maximum and eight (8'-0") feet from corners.

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- G. At joints in linear sheet metal items, set sheet metal items in two (2) one fourth (1/4) inch beads of butyl sealant. Extend sealant over all metal surfaces. Mate components for positive seal. Allow no sealant to migrate onto exposed surfaces.

3.5 CLEANING

- A. Clean installed work in accordance with the manufacturer's instructions.
- B. Replace damaged work than cannot be restored by normal cleaning methods.

3.6 CONSTRUCTION WASTE MANAGEMENT

- A. Remove and properly dispose of waste products generated during construction. Comply with requirements of authorities having jurisdiction.

3.7 FINAL INSPECTION

- A. At completion of installation and associated work, meet with Contractor, Architect, installer, installer of associated work, Owner, system manufacturer's representative, and other representatives directly concerned with performance of system.
- B. Inspect work and flashing of penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. Repair or replace deteriorated or defective work found at time above inspection as required to produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- D. Notify the Architect upon completion of corrections.
- E. Following the final inspection, provide written notice of acceptance of the installation from the system manufacturer.
- F. Immediately correct leakage during construction. If the Contractor does not respond within twenty four (24) hours, the Owner will exercise rights to correct the Work under the terms of the Conditions of the Contract.

3.8 DEMONSTRATION AND TRAINING

- A. At a time and date agreed to by the Owner, instruct the Owner's facility manager, or other representative designated by the Owner, on the following procedures:
 - 1. Troubleshooting procedures
 - 2. Notification procedures for reporting leaks or other problems
 - 3. Maintenance
 - 4. The Owner's obligations for maintaining the warranty in effect and force
 - 5. The Manufacturer's obligations for maintaining the warranty in effect and force

END OF SECTION 074214.001

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SECTION 075500 - MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cold Applied 2-Ply Thermoplastic Hybrid Roof System (KEE FB 60). (2.17)(3.4)
- B. Accessories. (2.19)
- C. Edge Treatment and Roof Penetration Flashings. (2.20)(3.9)

1.2 RELATED SECTIONS

- A. Section 053100 - Steel Roof Deck
- B. Section 061000 - Rough Carpentry
- C. Section 074214.001 - Metal Wall Panels
- D. Section 076200 - Sheet Metal Flashing and Trim

1.3 REFERENCES

- A. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.
- B. ASTM D 312 - Standard Specification for Asphalt used in Roofing.
- C. ASTM D 1079 Standard Terminology Relating to Roofing, Waterproofing and Bituminous Materials.
- D. ASTM D 1227 Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing.
- E. ASTM D 4586 Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- F. ASTM D 4601 Standard Specification for Asphalt Coated Glass Fiber Base Sheet Used in Roofing.
- G. ASTM D 5147 Standard Test Method for Sampling and Testing Modified Bituminous Sheet Materials.
- H. ASTM D 6162 Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
- I. ASTM D 6754 - Standard Specification for Ketone Ethylene Ester (KEE) Sheet Roofing.
- J. ASTM E 108 - Standard Test Methods for Fire Test of Roof Coverings
- K. Factory Mutual Research (FM): Roof Assembly Classifications.
- L. National Roofing Contractors Association (NRCA): Roofing and Waterproofing Manual.
- M. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual.

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- N. Underwriters Laboratories, Inc. (UL): Fire Hazard Classifications.
- O. Warnock Hersey (WH): Fire Hazard Classifications.
- P. ANSI-SPRI ES-1 Wind Design Standard for Edge Systems used with Low Slope Roofing Systems.
- Q. ASCE 7, Minimum Design Loads for Buildings and Other Structures
- R. UL - Fire Resistance Directory.
- S. FM Approvals - Roof Coverings and/or RoofNav assembly database.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Perform work in accordance with all federal, state and local codes.
- B. Design Requirements:
 - 1. Uniform Wind Uplift Load Capacity
 - a. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria.
 - 1) Design Code: ASCE 7, Method 2 for Components and Cladding.
 - 2) Importance Category:
 - a) III
 - 3) Importance Factor of:
 - a) 1.0
 - 4) Wind Speed: 130 mph
 - 5) Exposure Category:
 - a) C.
 - 6) Design Roof Height: 15 feet.
 - 7) Minimum Building Width: 392 feet.
 - 8) Roof Pitch: 1 :12.
 - 9) Roof Area Design Uplift Pressure:
 - a) Zone 1'- Center Ridge Line 26.4 psf
 - b) Zone 1 - Field of roof 40.9 psf
 - c) Zone 2 - Eaves, ridges, hips and rakes 51.8 psf
 - d) Zone 3 - Corners 68.1 psf
 - 2. Live Load: 20 psf, or not to exceed original building design.
 - 3. Dead Load:
 - a. Installation of new roofing materials shall not exceed the dead load capacity of the existing roof structure.
- C. Energy Star: Roof System shall comply with the initial and aged reflectivity required by the U.S. Federal Government's Energy Star program.
- D. Roof System membranes containing recycled or bio-based materials shall be third party certified through UL Environment.
- E. Roof system shall have been tested in compliance with the following codes and test requirements:
 - 1. Cool Roof Rating Council:
 - a. CRRC Directory CRRC 0700-0041
 - 2. RoofNav Assembly: 411495-409383-0

1.5 SUBMITTALS

- A. Provide the following to the Owner at the time of bid submittal:

BKJ 23.115

MODIFIED BITUMINOUS MEMBRANE ROOFING 075500 - 2

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1. Written certification from the roofing system manufacturer corporate officer certifying that the applicator is currently approved for installation of the specified roofing system.
 2. Descriptive product data including MSD sheets.
 3. Sample copy of contractor's workmanship warranty.
 4. Sample copy of specified Manufacturer's warranty.
 5. Sample copy of Manufacturer's Architectural Indemnification Agreement.
- B. Product Data: Submit brochures containing material samples, SDS, schedules, charts, literature, and illustrations to indicate the performance, fabrication procedures, product variations, and accessories.
1. Within four (4) weeks of award of contract, submit:
 - a. Minimum of two (2) samples of each sheet material and descriptive literature.
 - b. Manufacturer's specifications and other independent test data according to ASTM designation 6754 Standard Test Methods for Sampling and Testing Keytone Ethylene Ester (KEE) Sheet Material needed to prove compliance with specified requirements.
 - c. All other data and information to satisfy requirements of manufacturer on warranty needs.
 - d. A written statement from the roofing materials manufacturer's corporate officer approving the installer and stating the intent to guarantee the completed project as specified.
 - e. Samples of proposed warranty complete with any addenda necessary to meet the warranty requirements as specified.
 - f. Certified copy of ISO 9001 compliance.
- C. Submit under provisions of Section 013300.
- D. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation instructions.
- E. Shop Drawings: Submit shop drawings including installation details of roofing, flashing, fastening, insulation and vapor barrier, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
- F. Design Pressure Calculations: Submit design pressure calculations for the roof area in accordance with ASCE 7 and local Building Code requirements. Include a roof system attachment analysis report, certifying the system's compliance with applicable wind load requirements before Work begins.
- G. Recycled or Bio-Based Materials: Provide third party certification through UL Environment of roof System membranes containing recycled or bio based materials.
- H. Verification Samples: For each modified bituminous membrane ply product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- I. Manufacturer's Certificates: Provide to certify products meet or exceed specified requirements.
- J. Test Reports: Submit test reports, prepared by an independent testing agency, for all modified bituminous sheet roofing, indicating compliance with ASTM D5147. Testing must be performed at 77 deg. F. Tests at 0 deg. F will not be considered.
- K. Closeout Submittals: Provide manufacturer's maintenance instructions that include

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recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified with documented ISO 9001 certification and minimum of twelve years of documented experience and must not have been in Chapter 11 bankruptcy during the last five years.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and a certified Pre-Approved Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

1.7 PRE-INSTALLATION MEETINGS

- A. Convene minimum two weeks prior to commencing Work of this section.
- B. Review installation procedures and coordination required with related Work.
- C. Inspect and make notes of job conditions prior to installation:
 - 1. Record minutes of the conference and provide copies to all parties present.
 - 2. Identify all outstanding issues in writing designating the responsible party for follow-up action and the timetable for completion.
 - 3. Installation of roofing system shall not begin until all outstanding issues are resolved to the satisfaction of the Architect.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above ground level and covered with "breathable" tarpaulins.
- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface except store KEE FB 60 rolls flat on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Store at room temperature wherever possible, until immediately prior to installing the roll. During winter, store materials in a heated location with a 50 degree F (10 degree C)

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minimum temperature, removed only as needed for immediate use. Keep materials away from open flame or welding sparks.

- E. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
- F. Adhesive storage shall be between the range of above 50 degree F (10 degree C) and below 80 degree F (27 degree C). Area of storage shall be constructed for flammable storage.

1.9 COORDINATION

- A. Coordinate Work with installing associated metal flashings as work of this section proceeds.

1.10 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.11 WARRANTY

- A. Base Bid-Upon completion of the work, provide the Manufacturer's written and signed Edge-To-Edge NDL System Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installer, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition including all metal components.
 - 1. Warranty Period:
 - a. 30 years continuous from date of acceptance.
 - b. If required Manufacturer must provide annual inspection of roof conditions at no charge for the entirety of the warranty period.
- B. Installer is to guarantee all work against defects in materials and workmanship for a period indicated following final acceptance of the Work.
 - 1. Warranty Period:
 - a. 5 years from date of acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer's:
 - 1. Garland Company, Inc. (The); 3800 E. 91st St., Cleveland, OH 44105. ASD. Toll Free: 800-321-9336. Phone: 216-641-7500. Fax: 216-641-0633. Web Site: www.garlandco.com.
 - 2. Tremco CPG, Inc.; 3735 Green Road, Beachwood, Ohio 44122. Toll Free: 800-562-2728. Phone: 216-292-5000. Web Site: www.tremcoroofing.com.
 - 3. Fibertite, Inc.; 1000 Venture Blvd., Wooster, OH 44691. Toll Free: 800-927-8578. Phone: 330-262-1111. Fax: 330-263-6950. Web Site: www.fibertite.com.
- B. Requests for substitutions will be considered in accordance with provisions of Section

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01600.

- C. The Products specified are intended and the Standard of Quality for the products required for this project. If other products are proposed the bidder must disclose in the bid the manufacturer and the products that they intend to use on the Project. If no manufacturer and products are listed, the bid may be accepted only with the use of products specified.
1. Bidder will not be allowed to change materials after the bid opening date.
 2. If alternate products are included in the bid, the products must be equal to or exceed the products specified. Supporting technical data shall be submitted to the Architect/ Owner for approval prior to acceptance.
 3. In making a request for substitution, the Bidder/Roofing Contractor represents that it has:
 - a. Personally investigated the proposed product or method, and determined that it is equal or superior in all respects to that specified.
 - b. Will provide the same guarantee for substitution as for the product and method specified.
 - c. Will coordinate installation of accepted substitution in work, making such changes as may be required for work to be completed in all respects.
 - d. Will waive all claims for additional cost related to substitution, which consequently become apparent.
 - e. Cost data is complete and includes all related cost under his/her contract or other contracts, which may be affected by the substitution.
 - f. Will reimburse the Owner for all redesign cost by the Architect for accommodation of the substitution.
 4. Architect/ Owner reserves the right to be the final authority on the acceptance or rejection of any or all bids, proposed alternate roofing systems or materials that has met ALL specified requirement criteria.
 5. Failure to submit substitution package, or any portion thereof requested, will result in immediate disqualification and consideration for that particular contractors request for manufacturer substitution.

2.2 COLD APPLIED 2-PLY THERMOPLASTIC HYBRID ROOF SYSTEM - KEE FB 60

- A. Base (Ply) Sheet: One ply bonded to the prepared substrate with Interply Adhesive:
1. ASTM D 6162 Type III
- B. Thermoplastic Cap (Ply) Sheet: One ply bonded to the prepared substrate with Interply Adhesive (2):
1. ASTM D 6754
- C. Interply Adhesive: (1)
1. Cold applied solvent free membrane adhesive: zero V.O.C. compliant performance requirements.
- D. Interply Adhesive: (2)
1. Cold applied solvent free membrane adhesive: zero V.O.C. compliant performance requirements.
- E. Flashing Base Ply: One ply bonded to the prepared substrate with Flashing Ply Adhesive:
1. ASTM D 6162 Type III
- F. Flashing Cap (Ply) Sheet: One ply bonded to the prepared substrate with Flashing Ply Adhesive:
1. ASTM D 6754
- G. Flashing Ply Adhesive (1):
1. Cold applied solvent free membrane adhesive: zero V.O.C. compliant performance

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requirements.

- H. Flashing Ply Adhesive (2):
 - 1. Cold applied solvent free membrane adhesive: zero V.O.C. compliant performance requirements.

2.3 ACCESSORIES:

- A. Roof Insulation: Provide polyiso insulation meeting a minimum of R25 and install per manufacturer's specifications / requirements.
- B. Roof Cover Board: Provide USG Securrock for proper adhesion of the self-adhered base sheet.
- C. Nails and Fasteners: Non-ferrous metal or galvanized steel, except that hard copper nails shall be used with copper; aluminum or stainless steel nails shall be used with aluminum; and stainless steel nails shall be used with stainless steel. Fasteners shall be self-clinching type of penetrating type as recommended by the deck manufacturer. Fasten nails and fasteners flush-driven through flat metal discs not less than 1 inch (25 mm) diameter. Omit metal discs when one-piece composite nails or fasteners with heads not less than 1 inch (25 mm) diameter are used.
- D. Urethane Sealant Hybrid - One part, non-sag sealant as approved and furnished by the membrane manufacturer for moving joints.
 - 1. Tensile Strength, ASTM D 412: 250 psi
 - 2. Elongation, ASTM D 412: 450%
 - 3. Hardness, Shore A ASTM C 920: 35
 - 4. Adhesion-in-Peel, ASTM C 92: 30 pli
- E. Non-Shrink Grout - All weather fast setting chemical action concrete material to fill pitch pans.
 - 1. Flexural Strength, ASTM C 78: (modified) 7 days 1100psi
 - 2. High Strength, ASTM C 109: (modified) 24 days 8400lbs (3810kg)
- F. Pitch Pocket Sealer - Two part, 100% solids, self-leveling, polyurethane sealant for filling pitch pans as recommended and furnished by the membrane manufacturer.
 - 1. Durometer, ASTM D 2240: 40-50 Shore
 - 2. Elongation, ASTM D 412: 250%
 - 3. Tensile Strength, ASTM D 412: 200 @ 100 mil
- G. Glass Fiber Cant - Glass Cant: Continuous triangular cross Section made of inorganic fibrous glass used as a cant strip as recommended and furnished by the membrane manufacturer.

2.4 EDGE TREATMENT AND ROOF PENETRATION FLASHINGS

- A. Pre-Manufactured Coping Cap: Edge Coping Cap Cover and Splice Plate.
 - 1. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 22 gauge, 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.
- B. Pre-Manufactured Coping Cap: Edge Coping Chairs
 - 1. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 0.0635 nom./ 16 gauge, 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.
- C. Pre-Manufactured Edge Metal Finishes:
 - 1. Exposed and unexposed surfaces for mill finish flashing, fascia, and coping cap, as

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- shipped from the mill
2. Exposed surfaces for coated panels:
 - a. Steel Finishes: fluorocarbon finish. Epoxy primer baked both sides, .2-.25 mils thickness as approved by finish coat manufacturer.
Weathering finish as referred by National Coil Coaters Association (NCCA).
Provided with the following properties.
 - 1) Pencil Hardness: ASTM D3363, HB-H / NCCA II-2.
 - 2) Bend: ASTM D-4145, O-T / NCCA II-19
 - 3) Cross-Hatch Adhesion: ASTM D3359, no loss of adhesion
 - 4) Gloss (60 deg. angle): ASTM D523, 25+/-5%
 - 5) Reverse Bend: ASTM D2794, no cracking or loss of adhesion
 - 6) Nominal Thickness: ASTM D1005
 - a) Primer: 0.2 mils
 - b) Topcoat, 0.7 mils min
 - c) Clear Coat (optional, only used with 22 ga. steel) 0.3 mils
 - 7) Color: Provide as specified. (Subject to minimum quantities)
 - D. Manufactured Flashing Ply: galvalume steel and modified membrane roof termination/flashing system comprised of a flexible, tie-in membrane, factory-bonded within a watertight, mechanical seal to a galvalume steel vertical flashing or fascia reveal profile. Siliconized modified polyester, epoxy primer baked both sides. Modified membrane is a 180 mil, Styrene-Butadiene-Styrene SBS (Styrene-Butadiene-Styrene) rubber modified membrane reinforced with a dual fiberglass scrim.
 1. Tensile Strength, ASTM D 5, 147
 - a. 2 in/min. @ 73.4 +/- 3.6 deg. F MD 210 lbf/in CMD 210 lbf/in
 - b. 50 mm/min. @ 23 +/- 3 deg. C MD 36.75 kN/m CMD 36.75 kN/m
 2. Tear Strength, ASTM D 5147
 - a. 2 in/min. @ 73.4 +/- 3.6 deg. F MD 250 lbf CMD 250 lbf
 - b. 50 mm/min. @ 23 +/- 3 deg. C MD 1112 N CMD 1112 N
 3. Elongation at Maximum Tensile, ASTM D5147
 - a. 2 in/min. @ 73.4 +/- 3.6 deg. F MD 6.0% CMD 6.0%
 - b. 50 mm/min. @ 23 +/- 3 deg. C MD 6.0% CMD 6.0%
 4. Low Temperature Flexibility, ASTM D5147: Passes -30 deg. F (-34 deg. C)
 5. Coating Properties:
 - a. Pencil Hardness, NCCA II-2 - ASTM D3363, F-H
 - b. Bend, NCCA II-19, ASTM D 4145, 2-T
 - c. Adhesion / Cross-Hatch, ASTM D3359, no loss of adhesion
 - d. Gloss (60 deg. angle), ASTM D 523, 90 +/- 5%
 - e. Reverse Impact, ASTM D 2794 no cracking or loss of adhesion
 - f. Nominal Thickness, ASTM D 1005, primer and topcoat 1.0 mils.
 - E. Flashing Boot - Neoprene pipe boot for sealing single or multiple pipe penetrations adhered in approved adhesives as recommended and furnished by the membrane manufacturer.
 - F. Vents and Breathers: Heavy gauge aluminum and fully insulated vent that allows moisture and air to escape but not enter the roof system as recommended and furnished by the membrane manufacturer.
 - G. Pitch pans, Rain Collar 24 gauge stainless or 20oz (567gram) copper. All joints should be welded/soldered watertight. See details for design.
 - H. Drain Flashings should be 4lb (1.8kg) sheet lead formed and rolled.
 - I. Plumbing stacks should be 4lb (1.8kg) sheet lead formed and rolled.
 - J. Liquid Flashing - An asphaltic-polyurethane, low odor, liquid flashing material designed for

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specialized details unable to be waterproofed with typical modified membrane flashings.

1. Tensile Strength, ASTM D 412: 400 psi
 2. Elongation, ASTM D 412: 300%
 3. Density @77 deg. F 8.5 lb/gal typical
- K. Fabricated Flashings: Fabricated flashings and trim are specified in Section 07620.
1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the CDA Copper Development Association "Copper in Architecture - Handbook" as applicable.
- L. Manufactured Roof Specialties: Shop fabricated copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are specified in Section 07710.
1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the NRCA "Roofing and Waterproofing Manual" as applicable.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Inspect and approve the deck condition, slopes and fastener backing if applicable, parapet walls, expansion joints, roof drains, stack vents, vent outlets, nailers and surfaces and elements.
- C. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
- D. If substrate preparation and other conditions are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. General: Clean surfaces thoroughly prior to installation.
 1. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
 2. Fill substrate surface voids that are greater than 1/4 inch wide with an acceptable fill material.
 3. Roof surface to receive roofing system shall be smooth, clean, free from loose gravel, dirt and debris, dry and structurally sound.
 4. Wherever necessary, all surfaces to receive roofing materials shall be power broom and vacuumed to remove debris and loose matter prior to starting work.
 5. Do not apply roofing during inclement weather. Do not apply roofing membrane to damp, frozen, dirty, or dusty surfaces.
 6. Fasteners and plates for fastening components mechanically to the substrate shall provide a minimum pull-out capacity of 300 lbs. (136 k) per fastener. Base or ply sheets attached with cap nails require a minimum pullout capacity of 40 lb. per nail.
 7. Prime decks where required, in accordance with requirements and recommendations of the primer and deck manufacturer.
- B. Metal Deck: Metal deck shall be installed as specified in Section 053100.
 1. When re-roofing over steel decks, surface corrosion shall be removed, and repairs to severely corroded areas made. Loose or inadequately secured decking shall be fastened, and irreparable or otherwise defective decking shall be replaced.
 - a. Areas identified as corroded must remain open, inspected by EOR prior to the continuation of roofing.

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- 1) EOR will determine if the conditions requires replacement or preventative treatment with rust inhibitor primer.

3.3 INSTALLATION - GENERAL

- A. Install modified bitumen membranes and flashings in accordance with manufacturer's instructions and with the recommendations provided by the National Roofing Contractors Association's Roofing & Waterproofing Manual, the Asphalt Roofing Manufacturers Association, and applicable codes.
- B. General: Avoid installation of modified bitumen membranes at temperatures lower than 40-45 degrees F. When work at such temperatures unavoidable use the following precautions:
 1. Take extra care during cold weather installation and when ambient temperatures are affected by wind or humidity, to ensure adequate bonding is achieved between the surfaces to be joined. Use extra care at material seam welds and where adhesion of the applied product to the appropriately prepared substrate as the substrate can be affected by such temperature constraints as well.
 2. Unrolling of cold materials, under low ambient conditions must be avoided to prevent the likelihood of unnecessary stress cracking. Rolls must be at least 40 degrees F at the time of application. If the membrane roll becomes stiff or difficult to install, it must be replaced with roll from a heated storage area.
- C. Commence installation of the roofing system at the lowest point of the roof (or roof area), working up the slope toward the highest point. Lap sheets shingle fashion so as to constantly shed water
- D. All slopes greater than 2:12 require back-nailing to prevent slippage of the ply sheets. Use ring or spiral-shank 1 inch cap nails, or screws and plates at a rate of 1 fastener per ply (including the membrane) at each insulation stop. Place insulation stops at 16 ft o.c. for slopes less than 3:12 and 4 feet o.c. for slopes greater than 3:12. On non-insulated systems, nail each ply directly into the deck at the rate specified above. When slope exceeds 2:12, install all plies parallel to the slope (strapping) to facilitate backnailing. Install 4 additional fasteners at the upper edge of the membrane when strapping the plies.

3.4 INSTALLATION COLD APPLIED ROOF SYSTEM

- A. Base Ply: Cut base ply sheets into 18 foot lengths and allow plies to relax before installing. Install base sheet in Interply Adhesive: applied at the rate required by the manufacturer. Shingle base sheets uniformly to achieve one ply throughout over the prepared substrate. Shingle in proper direction to shed water on each large area of roofing.
 1. Lap ply sheet ends 8 inches. Stagger end laps 12 inches minimum.
 2. Solidly bond to the substrate and adjacent ply with specified cold adhesive at the rate of 2 to 2-1/2 gallons per 100 square feet.
 3. Roll must push a puddle of adhesive in front of it with adhesive slightly visible at all side laps. Use care to eliminate air entrapment under the membrane.
 4. Install subsequent rolls of modified across the roof as above with a minimum of 4 inch side laps and 8 inch staggered end laps. Lay modified membrane in the same direction as the underlayers but the laps shall not coincide with the laps of the base layers.
 5. Extend plies 2 inches beyond top edges of cants at wall and projection bases.
 6. Install base flashing ply to all perimeter and projection details.
 7. Allow the one ply of base sheet to cure at least 30 minutes before installing the modified membrane. However, the modified membrane must be installed the same day as the base plies.
- B. Thermoplastic Cap Ply: Allow plies to relax before installing. Install in interplay adhesive applied at the rate required by the manufacturer. Shingle sheets uniformly over the prepared

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substrate to achieve the number of plies specified. Shingle in proper direction to shed water on each large area of roofing.

1. All field seams exceeding 10 feet in length shall be welded with an approved automatic welder.
 2. All field seams must be clean and dry prior to initiating any field welding. Remove foreign materials from the seams (dirt, oils, etc.) with acetone or authorized alternative. Use CLEAN WHITE COTTON cloths and allow approximately five minutes for solvents to dissipate before initiating the automatic welder. Do not use denim or synthetic rags for cleaning.
 3. Contaminated areas within a membrane seam will inhibit proper welding and will require a membrane patch or strip.
 4. All welding shall be performed only by qualified personnel to ensure the quality and continuity of the weld. The lap or seam area of the membrane may be intermittently tack welded to hold the membrane in place.
 5. The back interior edge of the membrane shall be welded first, with a thin, continuous weld to concentrate heat along the exterior edge of the lap during the final welding pass.
 6. Follow local code requirements for electric supply, grounding and surge protection. The use of a dedicated, portable generator is highly recommended to ensure a consistent electrical supply, without fluctuations that can interfere with weld consistency.
 7. Properly welded seams shall utilize a 1.5 inch wide nozzle, to create a homogeneous weld, a minimum of 1.5 inches in width.
- C. Fibrous Cant Strips: Provide non-combustible perlite or glass fiber cant strips at all wall/curb detail treatments where angle changes are greater than 45 degrees. Cant may be set in approved cold adhesives, hot asphalt or mechanically attached with approved plates and fasteners.
- D. Wood Blocking, Nailers and Cant Strips: Provide wood blocking, nailers and cant strips as specified in Section 06114.
1. Provide nailers at all roof perimeters and penetrations for fastening membrane flashings and sheet metal components.
 2. Wood nailers should match the height of any insulation, providing a smooth and even transition between flashing and insulation areas.
 3. Nailer lengths should be spaced with a minimum 1/8 inch gap for expansion and contraction between each length or change of direction.
 4. Nailers and flashings should be fastened in accordance with Factory Mutual "Loss Prevention Data Sheet 1- 49, Perimeter Flashing" and be designed to be capable of resisting a minimum force of 200 lbs/lineal foot in any direction.
- E. Metal Work: Provide metal flashings, counter flashings, parapet coping caps and thru-wall flashings as specified. Install in accordance with the SMACNA "Architectural Sheet Metal Manual" or the NRCA Roofing Waterproofing manual.
- F. Termination Bar: Provide a metal termination bar or approved top edge securement at the terminus of all flashing sheets at walls and curbs. Fasten the bar a minimum of 8 inches (203 mm) o/c to achieve constant compression. Provide suitable, sealant at the top edge if required.
- G. Flashing Base Ply: Install flashing sheets by the same application method used for the base ply.
1. Seal curb, wall and parapet flashings with an application of mastic and mesh on a daily basis. Do not permit conditions to exist that will allow moisture to enter behind, around or under the roof or flashing membrane.
 2. Prepare all walls, penetrations, expansion joints and where shown on the Drawings to

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be flashed with required primer at the rate of 100 square feet per gallon. Allow primer to dry tack free.

3. Adhere to the underlying base ply with specified flashing ply adhesive unless otherwise specified. Nail off at a minimum of 8 inches (203 mm) o.c. from the finished roof at all vertical surfaces.
4. Solidly adhere the entire flashing ply to the substrate. Secure the tops of all flashings that are not run up and over curb through termination bar fastened at 6 inches (152 mm) O.C. and sealed at top.
5. Seal all vertical laps of flashing ply with a three-course application of trowel-grade mastic and fiberglass mesh.
6. Coordinate counter flashing, cap flashings, expansion joints and similar work with modified bitumen roofing work as specified.
7. Coordinate roof accessories, miscellaneous sheet metal accessory items, including piping vents and other devices with the roofing system work.
8. Secure the top edge of the flashing sheet using a termination bar only when the wall surface above is waterproofed, or nailed 4 inches on center and covered with an acceptable counter flashing.

H. Flashing Cap Ply:

1. Seal curb, wall and parapet flashings with an application of mastic and mesh on a daily basis. Do not permit conditions to exist that will allow moisture to enter behind, around or under the roof or flashing membrane.
2. Prepare all walls, penetrations, expansion joints and where shown on the Drawings to be flashed with required primer at the rate of 100 square feet per gallon. Allow primer to dry tack free.
3. Adhere to the underlying base flashing ply with specified flashing ply adhesive unless otherwise specified. Nail off at a minimum of 8 inches (203 mm) o.c. from the finished roof at all vertical surfaces.
4. Coordinate counter flashing, cap flashings, expansion joints and similar work with modified bitumen roofing work as specified.
5. Coordinate roof accessories, miscellaneous sheet metal accessory items with the roofing system work.
6. All stripping shall be installed prior to flashing cap sheet installation.
7. Heat and scrape granules when welding or adhering at cut areas and seams to granular surfaces at all flashings.
8. Secure the top edge of the flashing sheet using a termination bar only when the wall surface above is waterproofed, or nailed 4 inches on center and covered with an acceptable counter flashing.

- I. Roof Walkways: Provide walkways to all electric vents & mechanical units. Coordinate extents on site with manufacturer for warranty requirements.

3.5 INSTALLATION EDGE TREATMENT AND ROOF PENETRATION FLASHING

A. Metal Edge:

1. Inspect the nailers to assure proper attachment and configuration.
2. Run one ply over the edge. Assure coverage of all wood nailers. Fasten plies with ring shank nails at 8 inches (203 mm) o.c.
3. Install continuous cleat and fasten at 6 inches (152 mm) o.c.
4. Install new metal edge hooked to continuous cleat and set in bed of roof cement. Fasten flange to wood nailers every 3 inches (76 mm) o.c. staggered.
5. Prime metal edge at a rate of 100 square feet per gallon and allow to dry. Do not prime for Green-Lock System lightly sand metal to improve bond.
6. Strip in flange with base flashing ply covering entire flange in bitumen with 6 inches (152 mm) on to the field of roof. Assure ply laps do not coincide with metal laps.
7. Install a second ply of modified flashing ply in bitumen over the base flashing ply, 9

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inches (228 mm) on to the field of the roof. Seal outside edge with rubberized cement.

B. Metal Edge:

1. Inspect the nailers to assure proper attachment and configuration.
2. Run base ply over the edge. Assure coverage of all wood nailers.
3. Install continuous cleat and fasten at 6 inches (152 mm) o.c.
4. Install new metal edge hooked to continuous cleat and set in bed of roof cement. Fasten flange to wood nailers every 3 inches (76 mm) o.c. staggered.
5. Prime metal edge and allow to dry - Lightly sand metal to improve bond. (Confirm priming requirements with manufacturer).
6. Strip in flange with base flashing ply covering entire flange in bitumen with 6 inches (152 mm) on to the field of roof. Assure ply laps do not coincide with metal laps.
7. Install the thermoplastic Cap Ply in bitumen or foam adhesive over the base flashing ply, 9 inches (228 mm) on to the field of the roof. Heat weld outside edge of the membrane to the Thermoplastic Cap Ply of the field.

C. Pre-Manufactured Flash-less Snap-On Metal Edge System:

1. Position base ply of the Built-Up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and thermoplastic cap ply with proper material and procedure according to manufacturer's recommendations. Thermoplastic cap ply shall stop at the edge of the roof and shall not turn over the edge of the nailer.
2. Prior to installing the base anchor, assure a level plane is present. If not, shim the roof edge surface as required.
3. Extruded base anchor: Apply two 1/4" beads of approved sealant on the bottom surface of the top flange of the extruded anchor.
4. Set the extruded anchor on the edge and face fasten through pre-punched slots every 18 inches o.c. for 5.75 inch face fascia, and 18 inches o.c. staggered for any fascia size greater than 5.75 inches. Begin fastening 6 inches from ends.
5. Install approved sealant at the ends of the base frame to prevent water from running between base anchor joints.
6. Install compression seals every 40 inches on center in the slots located at the top of the extruded anchor.
7. Install fascia cover setting the top flange over the top flange and compression seals of the base anchor. Assure compression seals are in place during this process. Beginning on one end and working towards the opposite end, press downward firmly (do not rotate) until "snap" occurs and cover is engaged along entire length of miter.
8. Install splice plate at each end of the base anchor and fascia cover prior to the installation of the next adjacent ten foot piece.

D. Roof Edge With Gutter:

1. Inspect the nailer to assure proper attachment and configuration. Increase slope at metal edge by additional degree of slope in first board.
2. Run base ply over the edge. Assure coverage of all wood nailers.
3. Install gutter and strapping.
4. Install continuous cleat and fasten at 6 inches (152 mm) o.c.
5. Install new metal edge hooked to continuous cleat and set in bed of roof cement. Fasten flange to wood nailer every 3 inches (76 mm) o.c. staggered.
6. Prime metal edge and allow to dry - Lightly sand metal to improve bond. (Confirm priming requirements with manufacturer).
7. Strip in flange with base flashing ply covering entire flange in bitumen with 6 inches (152 mm) onto the field of the base ply. Assure ply laps do not coincide with metal laps.
8. Then install thermoplastic cap field ply run over the base flashing ply in bitumen or foam adhesive.
9. Install a second ply of thermoplastic flashing cap ply heat welded over the

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thermoplastic cap ply, 9 inches (228 mm) on to the field of the roof.

E. Pre-manufactured Snap-On Coping Cap:

1. Install miters first.
2. Position base flashing ply over the wall edge covering nailers completely, fastening 8 inches on center. Install base ply and thermoplastic cap ply with proper material and procedure according to manufacturer's recommendations.
3. Install minimum 16 gauge, 16 inch long by specified width anchor chair. Coordinate required spacing with Roof Manufacturer Representative.
4. Install 6 inch wide splice plate by centering over 16 inch long by specified width anchor chair. Apply two beads of sealant to either side of the splice plate's center. Approximately 2 inches from the coping cap joint. Install Coping Cap by hooking outside hem of coping on outside face of anchor chair. Press downward on inside edge of coping until "snap" occurs and hem is engaged on the entire chair.

F. Expansion Joint:

1. Minimum curb height is 8 inches (203 mm) above finished roof height. Chamfer top of curb. Prime vertical curb and allow to dry.
2. Mechanically attach wood cant to expansion joint nailers. Run all base field plies over cant a minimum of 2 inches (50 mm).
3. Install compressible insulation in neoprene cradle.
4. Install base flashing ply covering curb set in bitumen with 6 inches (152 mm) on to field of the roof.
5. Then install thermoplastic cap field ply run over the base flashing ply in bitumen or foam adhesive.
6. Install the thermoplastic flashing ply in bitumen or foam over the base flashing ply, 9 inches (228 mm) on to the field of the roof.
7. Install pre-manufactured expansion joint cover. Fasten sides at 12 inches (609 mm) o.c. with fasteners and neoprene washers. Furnish all joint cover laps with butyl tape between metal covers.

G. Plumbing Stack:

1. Minimum stack height is 12 inches (609 mm).
2. Run roof base ply over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.
3. Prime flange of new sleeve. Install properly sized sleeves set in 1/4 inch (6 mm) bed of roof cement.
4. Install base flashing ply in bitumen.
5. Install thermoplastic cap ply in bitumen or foam adhesive.
6. Caulk the intersection of the membrane with elastomeric sealant.
7. Turn sleeve a minimum of 1 inch (25 mm) down inside of stack.

H. Pitch Pocket Umbrella:

1. Run all base plies up to the penetration.
2. Place the pitch pocket over the penetration and prime all flanges.
3. Strip in flange of pitch pocket with one ply of base flashing ply. Extend 6 inches (152 mm) onto field of roof.
4. Then install thermoplastic cap field ply run over the base flashing ply in bitumen or foam adhesive.
5. Install the thermoplastic flashing ply in bitumen or foam over the base flashing ply, 9 inches (228 mm) on to the field of the roof.
6. Fill pitch pocket half full with non-shrink grout. Let this cure and top off with pourable sealant.
7. Caulk joint between roof system and pitch pocket with elastomeric sealant.
8. Place a watershedding type bonnet over the top of the pitch pocket and clamp the top with a drawband collar. Caulk the upper edge of the band with an elastomeric sealant.

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3.6 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
- B. Remove asphalt markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

3.7 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

3.8 FIELD QUALITY CONTROL

- A. Inspection: Provide manufacturer's field observations at start-up and at intervals of three(3) of every five(5) working days. Provide a final inspection upon completion of the Work.
 - 1. Warranty shall be issued upon manufacturer's acceptance of the installation.
 - 2. Field observations shall be performed by a Sales Representative employed full-time for a minimum of five(5) years by the manufacturer and whose primary job description is to assist, inspect and approve membrane installations for the manufacturer.
 - 3. Provide observation reports from the Sales Representative indicating procedures followed, weather conditions and any discrepancies found during inspection.
 - 4. Provide a final report from the Sales Representative, certifying that the roofing system has been satisfactorily installed according to the project specifications, approved details and good general roofing practice.

3.9 SCHEDULES

- A. Base (Ply) Sheet:
 - 1. 80 mil SBS (Styrene-Butadiene-Styrene) rubber modified roofing base sheet reinforced with a fiberglass and polyester composite scrim, performance requirements according to ASTM D 5147.
 - a. Tensile Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 310 lbf/in XD 310 lbf/in
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 54.25 kN/m XD 54.25 kN/m
 - b. Tear Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 650 lbf XD 650 lbf
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 2891 N XD 2891 N
 - c. Elongation at Maximum Tensile, ASTM D5147
 - 1) 2 in/min. @ 73.4 +/- 3.6F MD 8% XD 8%
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 8% XD 8%
 - d. Low Temperature Flexibility, ASTM D 5147, Passes -30 deg. F (-34.4 deg. C)
- B. Thermoplastic/Modified Cap (Ply) Sheet:

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1. 60 mil thermoplastic, ketone ethylene ester (KEE) roofing membrane with polyester scrim. ASTM D6754
 - a. Breaking Strength, ASTM D 751, Proc. B, strip
 - 1) 375 lbf. (1,668 N)
 - b. Tear Strength ASTM D 751
 - 1) 120 lbf. min. (534 N)
 - c. Elongation at Break (%), ASTM D 751, Proc. B, Strip
 - 1) 40.0%
 2. HP FB 60(Alternate): 60 mil thermoplastic, ketone ethylene ester (KEE) roofing membrane with polyester scrim. ASTM D6754
 - a. Breaking Strength, ASTM D 751, Proc. B, strip
 - 1) 368 lbf. (1,668 N)
 - b. Tear Strength ASTM D 751
 - 1) 148 lbf. min. (534 N)
 - c. Elongation at Break (%), ASTM D 751, Proc. B, Strip
 - 1) 36.0%
- C. Interply Adhesive:
1. Cold applied solvent free membrane adhesive: zero V.O.C. compliant performance requirements:
 - a. Non-Volatile Content ASTM D 4586 100%
 - b. Density ASTM D 1475 12.3 lbs./gal. (1.47 g/cm³)
 - c. Viscosity Brookfield Spindle T-E at 5 rpm 124,000 cPs.
 - d. Flash Point ASTM D 93 400 deg. F min. (232 deg. C)
 - e. Slope: up to 3:12
 2. High-performance, moisture-cured polymer, white adhesive used to construct cold process roofing systems on single or multiple plies of approved base sheets and approved membranes.
 - a. Non-Volatile Content ASTM D 4586 100%
 - b. Density ASTM D 1475 12.8 lbs./gal. (1.47 g/cm³)
 - c. Viscosity Brookfield Spindle T-E at 5 rpm 60,000 cPs.
 - d. Flash Point ASTM D 93 400 deg. F min. (232 deg. C)
 - e. Slope: up to 3:12
 3. Dual component, urethane insulation/membrane adhesive.
 - a. Tensile Strength (ASTM D 412) 250 psi
 - b. Density (ASTM D 1875) 8.5 lbs./gal.
 - c. Viscosity (ASTM D 2556) 22,000 - 60,000 cP
 - d. Peel Strength (ASTM D 903) 17 lb./in.
 - e. Flexibility (ASTM D 816) Pass @ -70 deg. F (-56.7 deg. C)
- D. Flashing Base Ply:
1. 80 mil SBS (Styrene-Butadiene-Styrene) rubber modified roofing base sheet reinforced with a fiberglass and polyester composite scrim, performance requirements according to ASTM D 5147.
 - a. Tensile Strength, ASTM D5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 310 lbf/in XD 310 lbf/in
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 54.25 kN/m XD 54.25 kN/m
 - b. Tear Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 500 lbf XD 500 lbf
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 2224 N XD 2224 N
 - c. Elongation at Maximum Tensile, ASTM D5147
 - 1) 2 in/min. @ 73.4 +/- 3.6F MD 8% XD 8%
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 8% XD 8%
 - d. Low Temperature Flexibility, ASTM D 5147, Passes -30 deg. F (-34.4 deg. C)
- E. Flashing Ply Adhesive:

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1. Dual component, urethane insulation/membrane adhesive.
 - a. Tensile Strength (ASTM D 412) 250 psi
 - b. Density (ASTM D 1875) 8.5 lbs./gal.
 - c. Viscosity (ASTM D 2556) 22,000 - 60,000 cP
 - d. Peel Strength (ASTM D 903) 17 lb./in.
 - e. Flexibility (ASTM D 816) Pass @ -70 deg. F (-56.7 deg. C)
 2. Cold applied solvent free flashing adhesive: zero V.O.C.
 - a. Non-Volatile Content ASTM D 4586 100%
 - b. Density ASTM D 1475 11.8 lbs./gal. (1.17 g/cm³)
 - c. Viscosity Brookfield 400,000 cPs.
 - d. Flash Point ASTM D 93 400 deg. F min. (232 deg. C)
- F. Surfacing:
1. Flashing Cap (Ply) Sheet:
 - a. 60 mil thermoplastic, ketone ethylene ester (KEE) roofing membrane with polyester scrim. ASTM D 6754.
 - 1) Breaking Strength, ASTM D 751, Proc. B, strip
 - a) 378 lbf
 - 2) Tear Strength ASTM D 751
 - a) 120 lbf. minimum.
 - 3) Elongation at Break (%), ASTM D 751, Proc. B, Strip
 - a) 40.0%
 - b. HP FB 60(Alternate): 60 mil thermoplastic, ketone ethylene ester (KEE) roofing membrane with polyester scrim. ASTM D6754
 - 1) Breaking Strength, ASTM D 751, Proc. B, strip
 - a) 368 lbf. (1,668 N)
 - 2) Tear Strength ASTM D 751
 - a) 148 lbf. min. (534 N)
 - 3) Elongation at Break (%), ASTM D 751, Proc. B, Strip
 - a) 36.0%

END OF SECTION

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SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Formed roof-drainage sheet metal fabrications.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified.

1.3 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
 - 1. For copings and roof edge flashings that are SPRI ES-1 tested, shop shall be listed as able to fabricate required details as tested and approved.
- B. Mockups: Build mockups to verify selections made under Sample submittals to demonstrate aesthetic effects and to set quality standards for fabrication and installation.
 - 1. Build mockup of typical roof edge, approximately 10 feet long.

1.4 WARRANTY

- A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Finish Warranty Period: 30 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

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- C. Sheet Metal Standard for Copper: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
- D. SPRI Wind Design Standard: Manufacture and install copings and roof edge flashings tested according to SPRI ES-1 and capable of resisting the following design pressure:
 - 1. Design Pressure: As indicated on Drawings.
- E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet: Provide aluminum-zinc alloy-coated steel sheet according to ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40 ; prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 1. Surface: Manufacturer's standard clear acrylic coating on both sides.
 - 2. Exposed Coil-Coated Finish:
 - a. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 3. Color: As selected by Architect from manufacturer's full range.

2.3 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.

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2. Fasteners for Copper Sheet: Copper, hardware bronze or passivated Series 300 stainless steel.
 3. Fasteners for Aluminum-Zinc Alloy-Coated Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- D. Elastomeric Sealant: ASTM C 920, elastomeric silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- F. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- G. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.
- H. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.4 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
1. Obtain field measurements for accurate fit before shop fabrication.
 2. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 3. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- C. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- D. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- E. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.
- F. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.

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- G. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.
- H. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints where necessary for strength.

2.5 ROOF-DRAINAGE SHEET METAL FABRICATIONS

- A. Hanging Gutters: Fabricate to cross section required, complete with end pieces, outlet tubes, and other accessories as required. Fabricate seamless sections per manufacturer requirements. Furnish flat-stock gutter brackets and gutter spacers and straps fabricated from same metal as gutters, of size recommended by cited sheet metal standard but with thickness not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers, and gutter accessories from same metal as gutters. Shop fabricate interior and exterior corners.
 - 1. Accessories: Wire-ball downspout strainer.
- B. Downspouts: Fabricate rectangular downspouts to dimensions indicated, complete with mitered elbows. Furnish with metal hangers from same material as downspouts and anchors. Shop fabricate elbows.
 - 1. Fabricate from the following materials:
 - a. Aluminum-Zinc Alloy-Coated Steel: 0.022 inch thick.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 - 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - 3. Space cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
 - 4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 - 5. Torch cutting of sheet metal flashing and trim is not permitted.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
 - 1. Coat concealed side of uncoated-aluminum and stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
 - 2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

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- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
 - 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
 - 2. Use lapped expansion joints only where indicated on Drawings.
- D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction.
- G. Rivets: Rivet joints in uncoated aluminum where necessary for strength.

3.2 ROOF-DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.
- B. Hanging Gutters: Join sections as needed with riveted and soldered joints. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchor them in position. Provide end closures and seal watertight with sealant. Slope to downspouts.
 - 1. Install gutter with expansion joints at locations indicated, but not exceeding, 50 feet apart. Install expansion-joint caps.
 - 2. Install continuous gutter screens on gutters with noncorrosive fasteners, hinged to swing open for cleaning gutters.
- C. Downspouts: Join sections with 1-1/2-inch telescoping joints. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at top and bottom and at approximately 60 inches o.c.

3.3 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.

END OF SECTION 076200

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SECTION 053100 - STEEL DECKING

PART 1 - GENERAL

Kimberly M. Holloway, P.E.

1.1 SUMMARY

A. Section Includes:

1. Roof deck.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Roof deck.

B. Shop Drawings:

1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.3 INFORMATIONAL SUBMITTALS

A. Certificates:

1. Welding certificates.
2. Product Certificates: For each type of steel deck.

B. Test and Evaluation Reports:

1. Research Reports: For steel deck, from ICC-ES showing compliance with the building code.

C. Field Quality-Control Submittals:

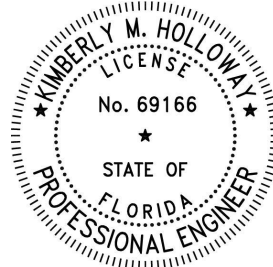
1. Field quality-control reports.

D. Qualification Statements: For welding personnel and testing agency.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Welding Qualifications: Qualify procedures and personnel in accordance with SDI QA/QC and the following welding code:
 - a. AWS D1.3/D1.3M.



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1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in accordance with SDI MOC3. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. AISI Specifications: Comply with calculated structural characteristics of steel deck in accordance with AISI S100.
- B. Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Indicate design designations from UL's "Fire Resistance Directory" or from listings of another qualified testing agency.

2.2 ROOF DECK

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. New Millennium Building Systems, LLC.
 - 2. Vulcraft Group; Division of Nucor Corp.
- B. Roof Deck: Fabricate panels, without top-flange stiffening grooves, to comply with SDI RD and with the following:
 - 1. Galvanized-Steel Sheet: ASTM A653/A653M, Structural Steel (SS), Grade 33, G60 zinc coating.
 - 2. Deck Profile: Type WR, wide rib.
 - 3. Profile Depth: 1-1/2 inches.
 - 4. Design Uncoated-Steel Thickness: 0.0295 inch.
 - 5. Span Condition: Simple span.
 - 6. Side Laps: Overlapped.

2.3 ACCESSORIES

- A. Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
- B. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 minimum diameter.
- C. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.

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- D. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 33,000 psi, not less than 0.0359-inch design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.
- E. Galvanizing Repair Paint: ASTM A780/A780M.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Install deck panels and accessories in accordance with SDI C, SDI NC, and SDI RD, as applicable; manufacturer's written instructions; and requirements in this Section.
- B. Install temporary shoring before placing deck panels if required to meet deflection limitations.
- C. Locate deck bundles to prevent overloading of supporting members.
- D. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- E. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- F. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.
- G. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- H. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.

3.2 INSTALLATION OF ROOF DECK

- A. Fasten roof-deck panels to steel supporting members by arc spot (puddle) welds of the surface diameter indicated or arc seam welds with an equal perimeter that is not less than 1-1/2 inches long, and as follows:
 - 1. Weld Diameter: 5/8 inch, nominal.
 - 2. Weld Spacing: Weld edge and interior ribs of deck units with a minimum of two welds per deck unit at each support. Space welds as indicated.
- B. Side-Lap Fastening: Fasten side laps of panels between supports, at intervals not exceeding the lesser of one-half of the span or 12 inches, and as follows:

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1. Mechanically fasten with self-drilling, No. 10 diameter or larger, carbon-steel screws.
- C. End Bearing: Install deck ends over supporting frame with a minimum end bearing of 1-1/2 inches, with end joints as follows:
 1. End Joints: Lapped 2 inches minimum.
- D. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels in accordance with deck manufacturer's written instructions. Weld or mechanically fasten to substrate to provide a complete deck installation.
 1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.

3.3 REPAIR

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint in accordance with ASTM A780/A780M and manufacturer's written instructions.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Tests and Inspections:
 1. Special inspections and qualification of welding special inspectors for cold-formed steel roof deck in accordance with quality-assurance inspection requirements of SDI QA/QC.
 - a. Field welds will be subject to inspection.
 2. Steel decking will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

END OF SECTION 053100