



EDINBURG CISD

CAVAZOS ELEMENTARY ROOFING IMPROVEMENTS ECISD CSP 25-78

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PLACE 4

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CARMEN GONZALEZ

LETTY FLORES

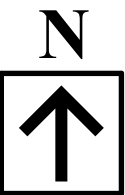
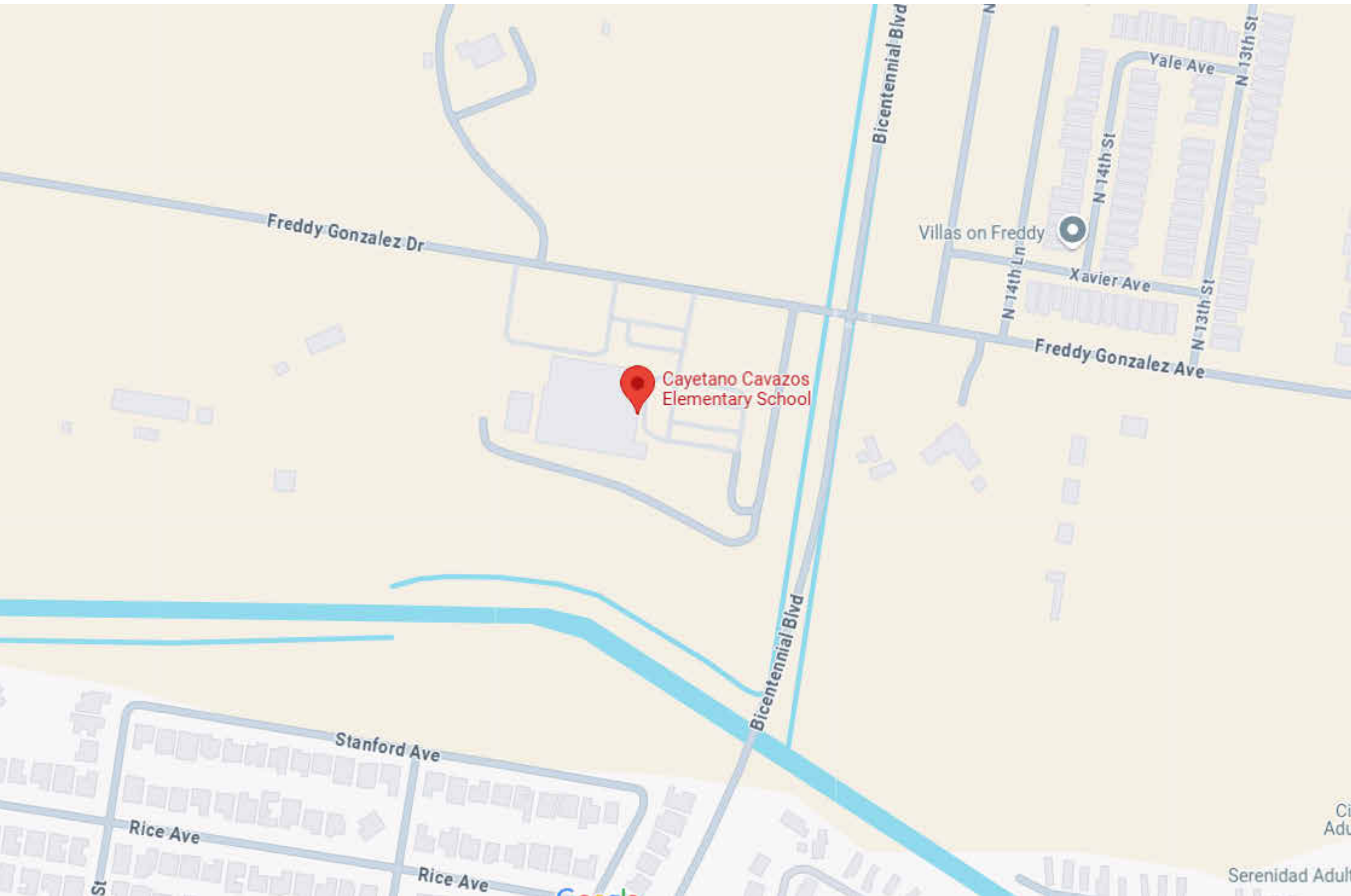
LUIS G. ALAMIA

LETICIA "LETTY" GARCIA

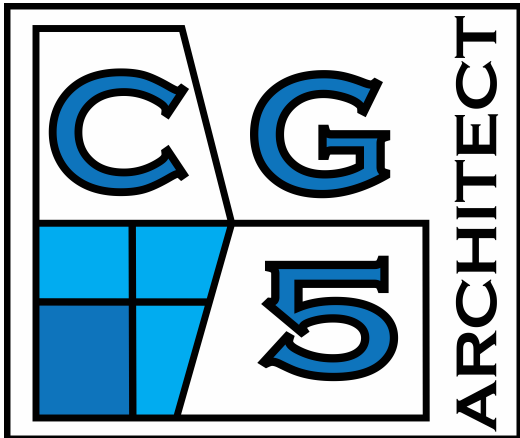
XAVIER SALINAS

DOMINGA "MINGA" VELA

VICINITY MAP:



ARCHITECT



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PROJECT INFORMATION

LOCATION: 1501 FREDDY GONZALEZ DR, MCALLEN, TX, 78504

ARCHITECT OF RECORD: JOSE CARLOS GARCIA III, RA, AIA
TBAE: # 22658
TBAE FIRM: BR 4247
CG5 ARCHITECT LLC
1314 E 22ND ST.
MISSION, TX, 78572

OWNER: EDINBURG CISD

PROJECT DESCRIPTION:
EDINBURG CISD ROOF RENOVATIONS



TEXAS ARCHITECT
FIRM No: BR4247
WWW.CG5ARCHITECT.COM

SEAL:



**CAVAZOS
ELEMENTARY
SCHOOL
ROOFING
IMPROVEMENTS
ECISD CSP 25-78**

1501 FREDDY
GONZALEZ DR,
MCALLEN, TX,
78504

CLIENT:

ECISD

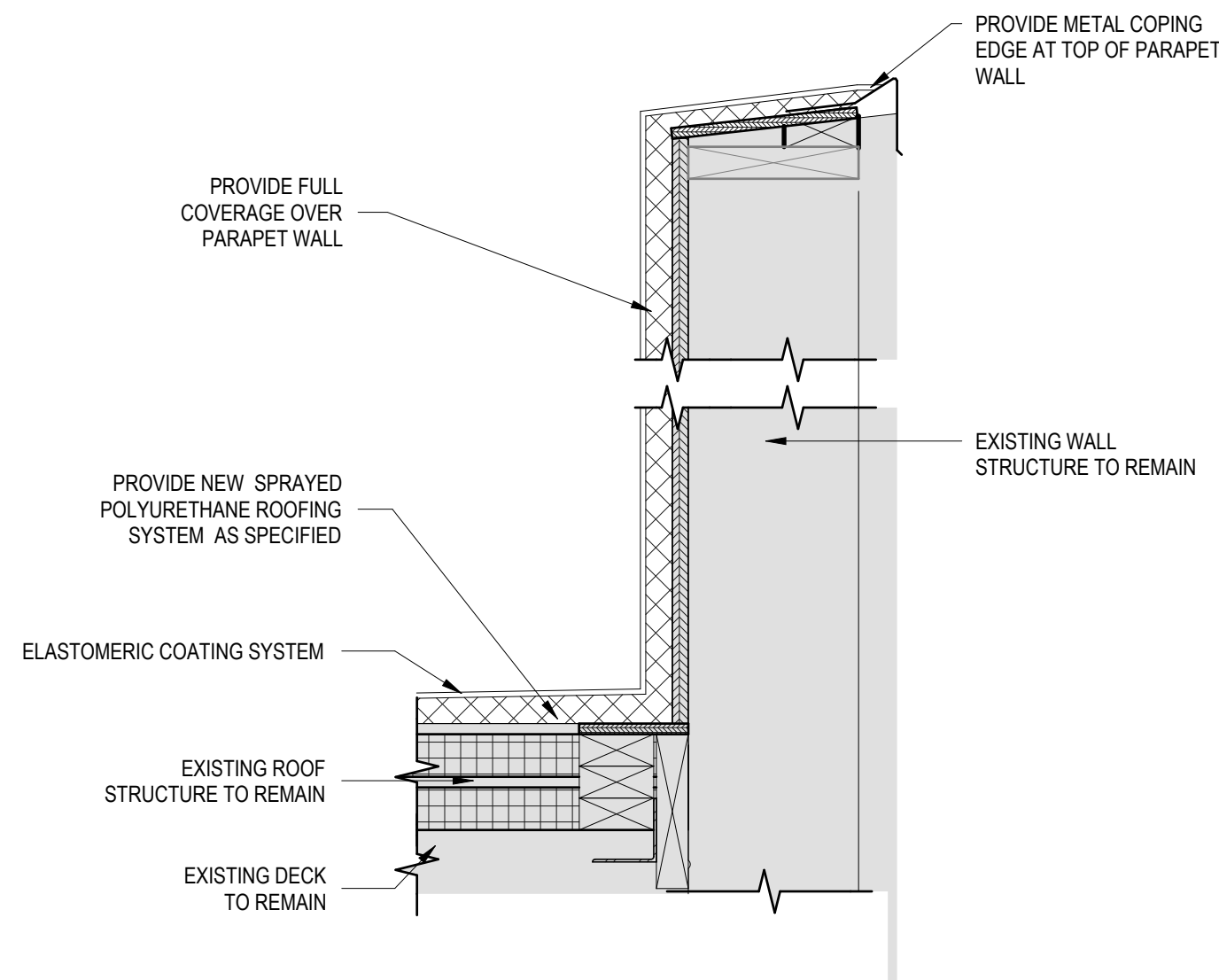
REVISION:

No.	Description	Date

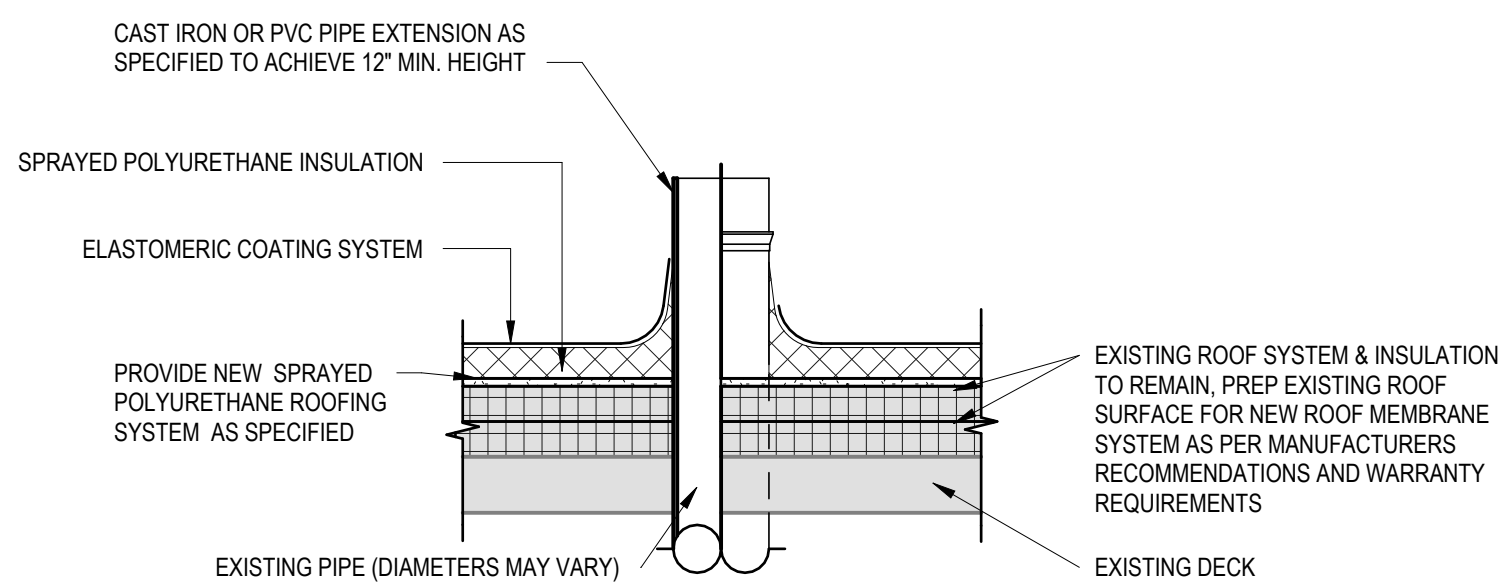
PROJECT #: 25-030102
DRAWN BY:
CHECKED BY: CG3
DATE: 4/23/2025

COVER PAGE

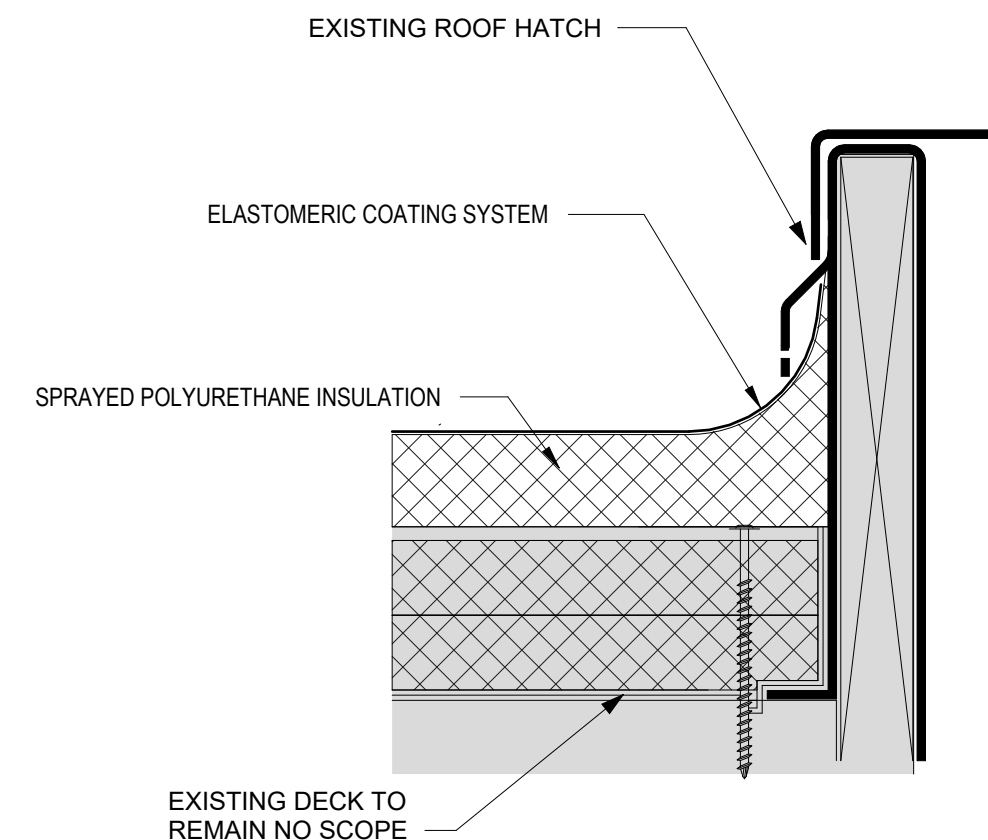
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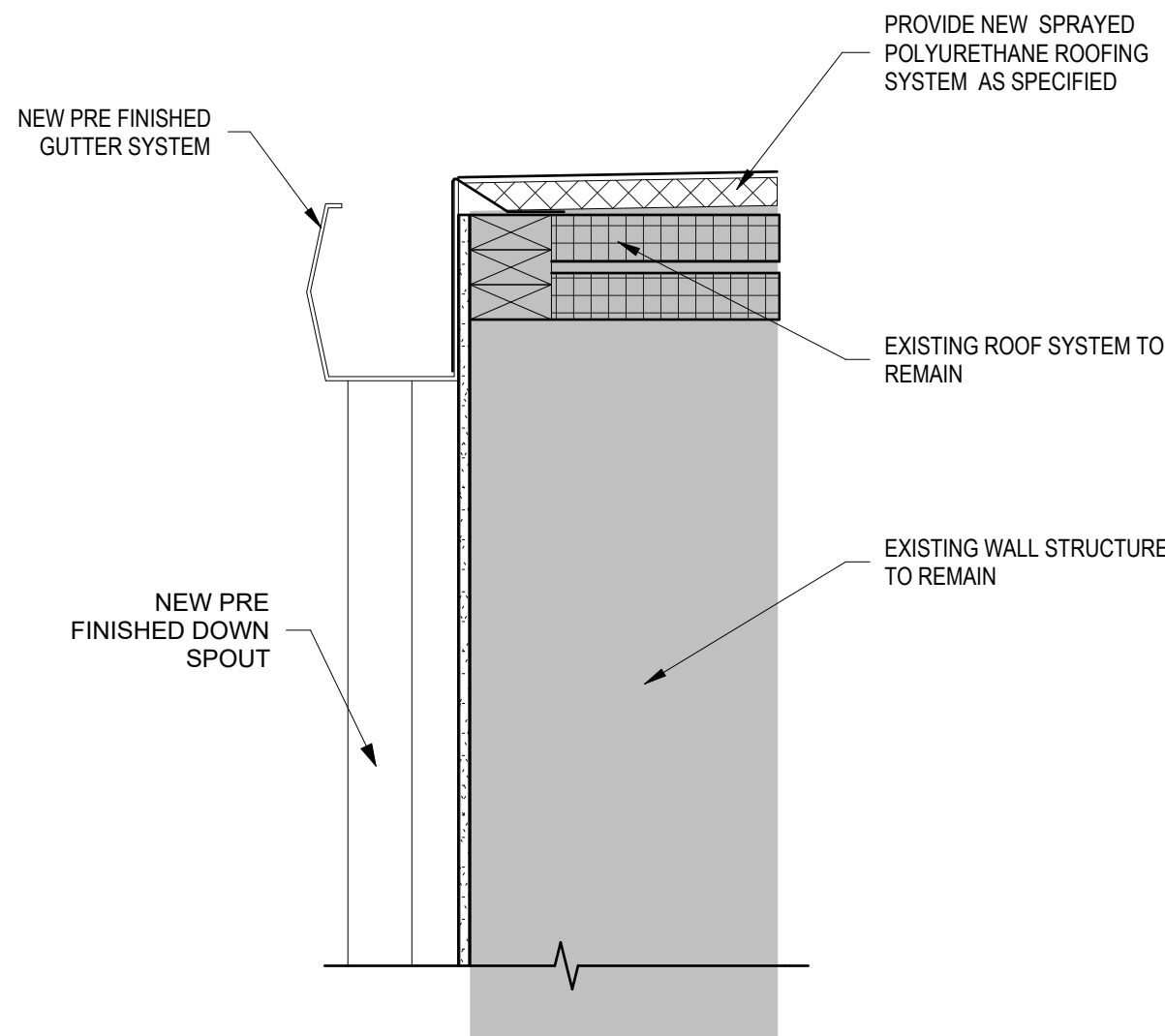
SECTION DETAIL -
PARAPET WITH NO
T-BAR1
1 1/2" = 1'-0"



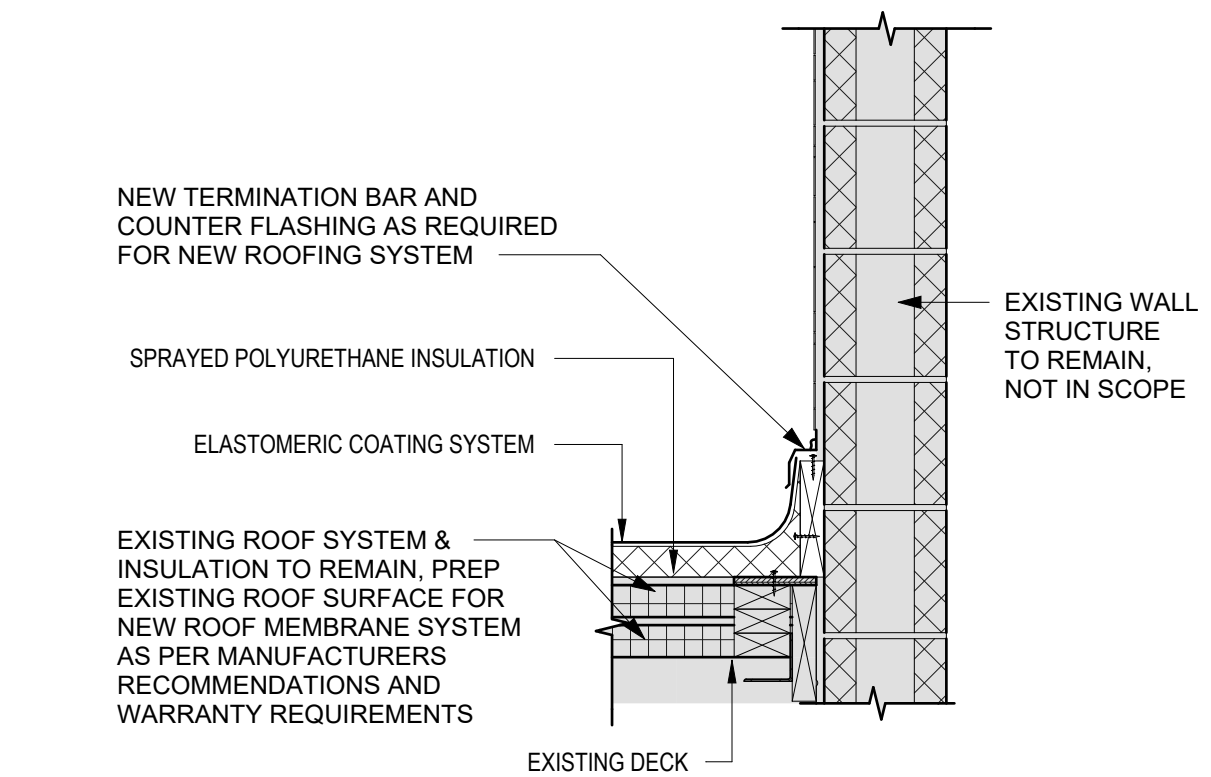
SECTION DETAIL-
PIPE/CONDUCT
PENETRATION DETAIL1
1" = 1'-0"



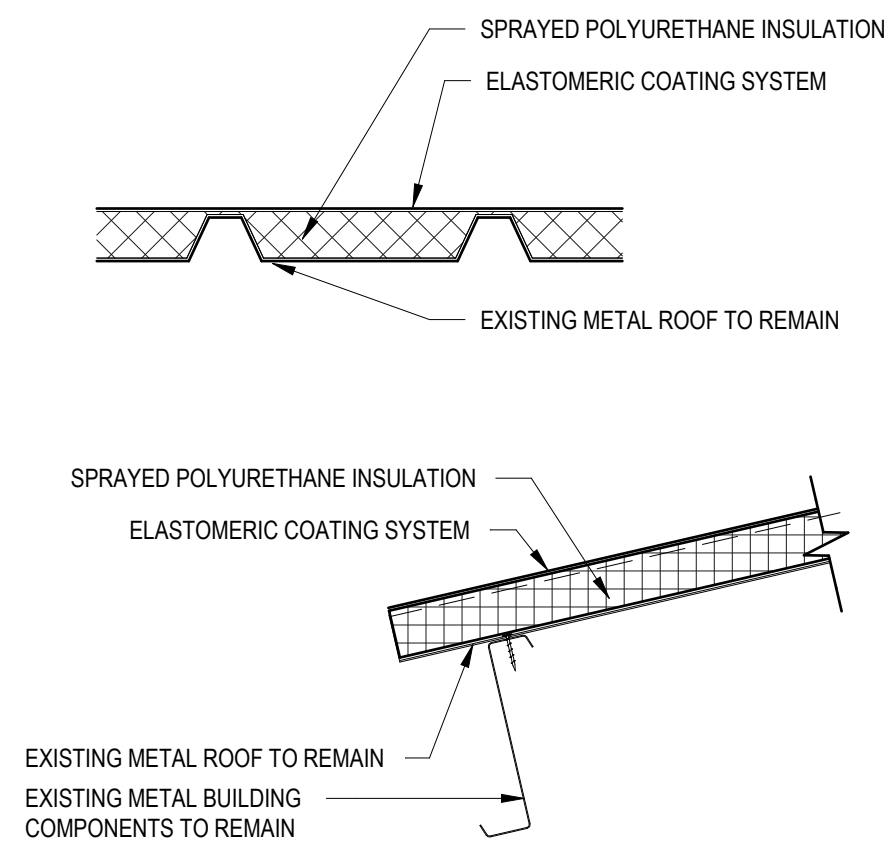
HATCH FLASHING
DETAIL
3" = 1'-0"



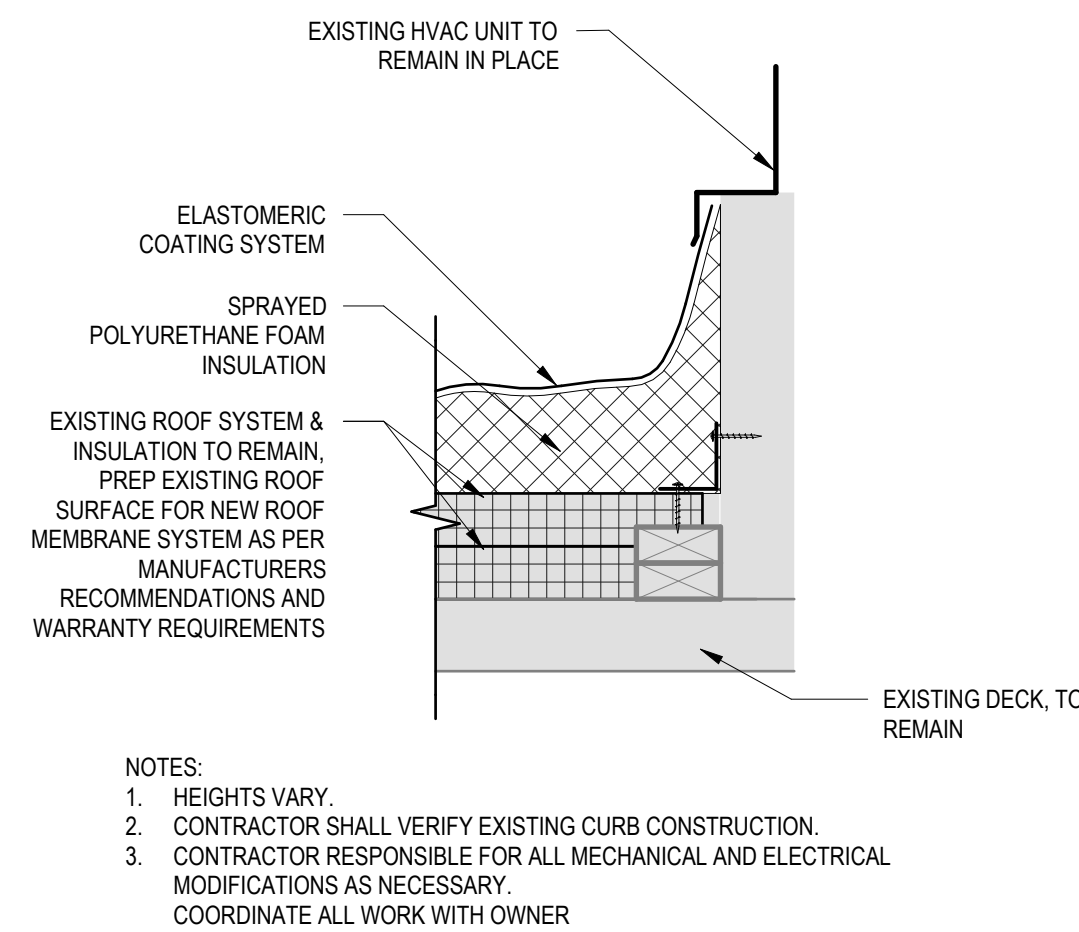
SECTION DETAIL-
GUTTER DETAIL1
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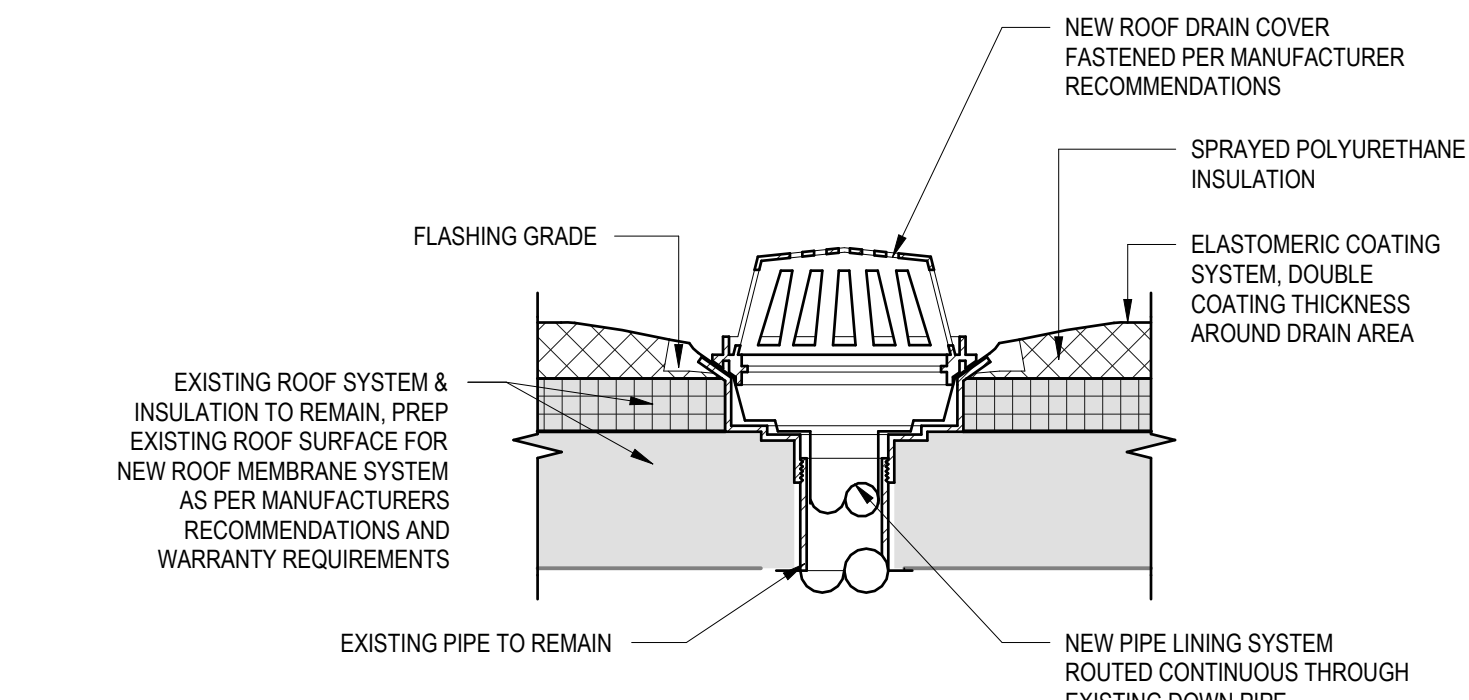
VERTICAL WALL
TRANSITION DETAIL
1" = 1'-0"



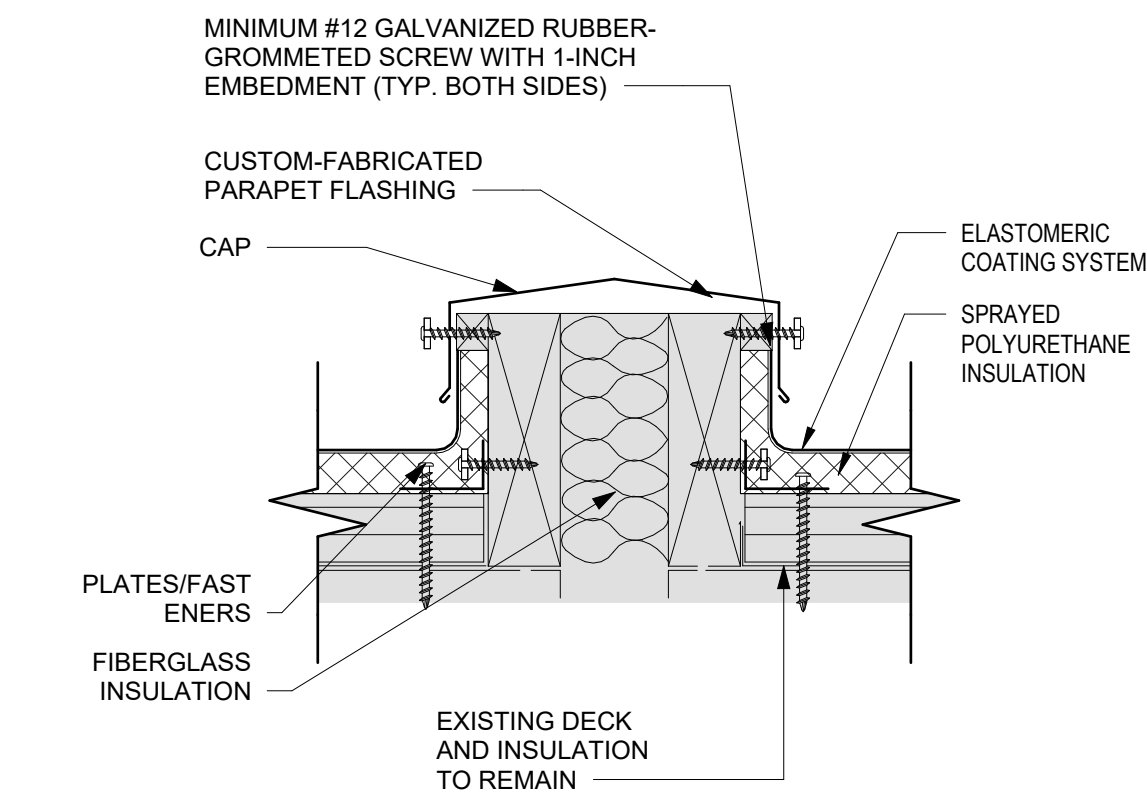
SECTION DETAIL -
METAL ROOF
RETROFIT
1 1/2" = 1'-0"



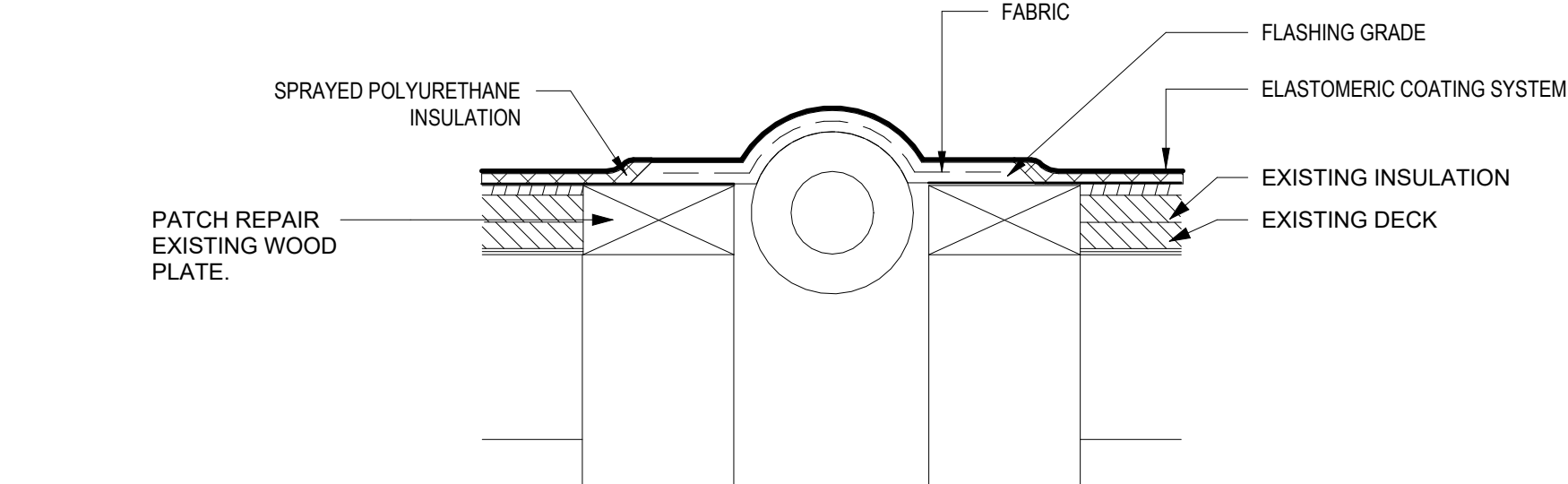
SECTION DETAIL -
HVAC UNIT ROOF
CURB DETAIL
1 1/2" = 1'-0"



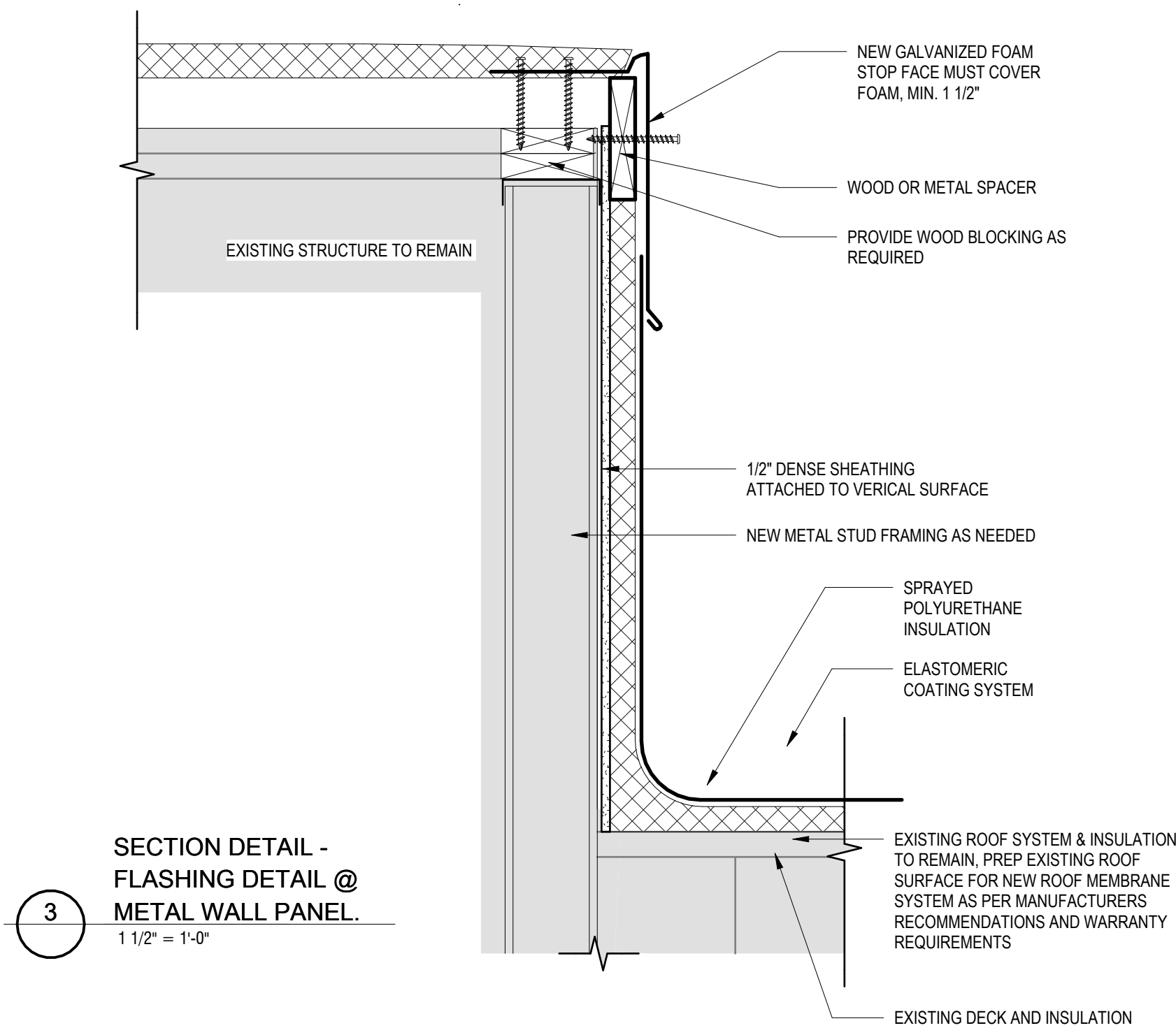
SECTION DETAIL -
PIPE/CONDUIT
PENETRATION
SYSTEM
1 1/2" = 1'-0"



CURB STYLE
EXPANSION JOINT
3" = 1'-0"



ROOF EXPANSION
JOINT DETAIL
3" = 1'-0"

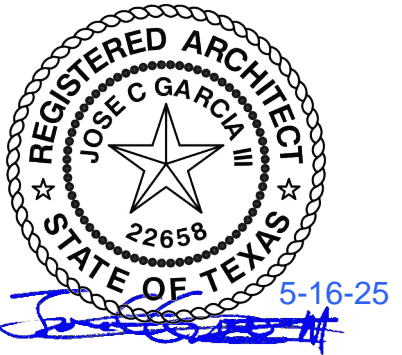


SECTION DETAIL -
FLASHING DETAIL @
METAL WALL PANEL.
1 1/2" = 1'-0"



TEXAS ARCHITECT
FIRM No: BR4247
WWW.CG5ARCHITECT.COM

SEAL:



CAVAZOS
ELEMENTARY
SCHOOL
ROOFING
IMPROVEMENTS
ECISD CSP 25-78

1501 FREDDY
GONZALEZ DR,
MCALLEN, TX,
78504

CLIENT:

ECISD

REVISION:

No.	Description	Date

PROJECT #: 25-030102
DRAWN BY:
CHECKED BY: CG3
DATE: 4/23/2025

ROOF DETAILS

G1.0

f. Requested substitution has received necessary approvals of authorities having jurisdiction.		and credits to be made. If requested, furnish survey data to substantiate quantities.	3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.	coordination drawings, and other information necessary to fully describe items needing interpretation.	C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other Sections and when required for coordination with other construction.	from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.			
g. Requested substitution is compatible with other portions of the Work.									
h. Requested substitution has been coordinated with other portions of the Work.									
i. Requested substitution provides specified warranty.									
j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.									
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.									
4. Include costs of labor and supervision directly attributable to the change.		4. Include costs of labor and supervision directly attributable to the change.		a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.		1) Review schedule for next period.			
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.		5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.		C. RFI Forms: AIA Document G716.					
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.		6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.		1. Attachments shall be electronic files in PDF format.					
7. Proposal Request Form: Use form acceptable to Architect.		7. Proposal Request Form: Use form acceptable to Architect.		D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.					
1. The following Contractor-generated RFIs will be returned without action:		1. The following Contractor-generated RFIs will be returned without action:		a. Contract Documents.					
a. Requests for approval of submittals.		a. Requests for approval of submittals.		b. Options.					
b. Requests for approval of substitutions.		b. Requests for approval of substitutions.		c. Related RFIs.					
c. Requests for approval of Contractor's means and methods.		c. Requests for approval of Contractor's means and methods.		d. Related Change Orders.					
d. Requests for coordination information already indicated in the Contract Documents.		d. Requests for coordination information already indicated in the Contract Documents.		e. Purchases.					
e. Requests for adjustments in the Contract Time or the Contract Sum.		e. Requests for adjustments in the Contract Time or the Contract Sum.		f. Deliveries.					
f. Requests for interpretation of Architect's actions on submittals.		f. Requests for interpretation of Architect's actions on submittals.		g. Submittals.					
g. Incomplete RFIs or inaccurately prepared RFIs.		g. Incomplete RFIs or inaccurately prepared RFIs.		h. Sustainable design requirements.					
2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.		2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.		i. Review of mockups.					
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."		3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."		j. Possible conflicts.					
a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.		a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.		k. Compatibility requirements.					
E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use software log that is part of web-based Project management software.		E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use software log that is part of web-based Project management software.		l. Time schedules.					
F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.		F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.		m. Weather limitations.					
16.7 PROJECT MEETINGS		16.7 PROJECT MEETINGS		n. Manufacturer's written instructions.					
A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.		A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.		o. Warranty requirements.					
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of seven days prior to meeting.		1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of seven days prior to meeting.		p. Compatibility of materials.					
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.		2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.		q. Acceptability of substrates.					
3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within days of the meeting.		3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within days of the meeting.		r. Temporary facilities and controls.					
B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.		B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.		s. Space and access limitations.					
1. Attendees: Authorized representatives of Owner and Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.		1. Attendees: Authorized representatives of Owner and Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.		t. Regulations of authorities having jurisdiction.					
2. Agenda: Discuss items of significance that could affect progress, including the following:		2. Agenda: Discuss items of significance that could affect progress, including the following:		u. Testing and inspecting requirements.					
a. Preparation of Record Documents.		a. Preparation of Record Documents.		v. Installation procedures.					
b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.		b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.		w. Coordination with other work.					
c. Procedures for completing and archiving web-based Project software site data files.		c. Procedures for completing and archiving web-based Project software site data files.		x. Required performance results.					
d. Submittal of written warranties.		d. Submittal of written warranties.		y. Protection of adjacent work.					
e. Requirements for completing sustainable design documentation.		e. Requirements for completing sustainable design documentation.		z. Protection of construction and personnel.					
f. Requirements for preparing operations and maintenance data.		f. Requirements for preparing operations and maintenance data.		3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.					
g. Requirements for delivery of material samples, attic stock, and spare parts.		g. Requirements for delivery of material samples, attic stock, and spare parts.		4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.					
h. Requirements for demonstration and training.		h. Requirements for demonstration and training.		5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.					
i. Preparation of Contractor's punch list.		i. Preparation of Contractor's punch list.		D. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 90 days prior to the scheduled date of Substantial Completion.					
j. Procedures for processing Applications for Payment at Substantial Completion and for final payment.		j. Procedures for processing Applications for Payment at Substantial Completion and for final payment.		1. Conduct the conference to review requirements and responsibilities related to Project closeout.					
k. Submittal procedures.		k. Submittal procedures.		2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.					
l. Coordination of separate contracts.		l. Coordination of separate contracts.		3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:					
m. Owner's partial occupancy requirements.		m. Owner's partial occupancy requirements.		a. Preparation of Record Documents.					
n. Installation of Owner's furniture, fixtures, and equipment.		n. Installation of Owner's furniture, fixtures, and equipment.		b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.					
o. Responsibility for removing temporary facilities and controls.		o. Responsibility for removing temporary facilities and controls.		c. Procedures for completing and archiving web-based Project software site data files.					
4. Minutes: Entity conducting meeting will record and distribute meeting minutes.		4. Minutes: Entity conducting meeting will record and distribute meeting minutes.		d. Submittal of written warranties.					
E. Progress Meetings: Conduct progress meetings at regular intervals.		E. Progress Meetings: Conduct progress meetings at regular intervals.		e. Requirements for completing sustainable design documentation.					
1. Coordinate dates of meetings with preparation of payment requests.		1. Coordinate dates of meetings with preparation of payment requests.		f. Requirements for preparing operations and maintenance data.					
2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.		2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.		g. Requirements for delivery of material samples, attic stock, and spare parts.					
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.		3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.		h. Requirements for demonstration and training.					
a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments		a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments		i. Preparation of Contractor's punch list.					
b. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.		b. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.		j. Procedures for processing Applications for Payment at Substantial Completion and for final payment.					
c. Review present and future needs of each contractor present, including the following:		c. Review present and future needs of each contractor present, including the following:		k. Submittal procedures.					
1) Interface requirements.		1) Interface requirements.		l. Coordination of separate contracts.					
2) Sequence of operations.		2) Sequence of operations.		m. Owner's partial occupancy requirements.					
3) Resolution of BIM component conflicts.		3) Resolution of BIM component conflicts.		n. Installation of Owner's furniture, fixtures, and equipment.					
4) Status of submittals.		4) Status of submittals.		o. Responsibility for removing temporary facilities and controls.					
5) Status of sustainable design documentation.		5) Status of sustainable design documentation.		4. Minutes: Entity conducting meeting will record and distribute meeting minutes.					
6) Deliveries.		6) Deliveries.		5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.					
7) Off-site fabrication.		7) Off-site fabrication.		3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.					
8) Access.		8) Access.		7. Proposal Request Form: Use form acceptable to Architect.					
9) Site use.		9) Site use.		1. The following Contractor-generated RFIs will be returned without action:					
10) Temporary facilities and controls.		10) Temporary facilities and controls.		a. Requests for approval of submittals.					
11) Progress cleaning.		11) Progress cleaning.		b. Requests for approval of substitutions.					
12) Quality and work standards.		12) Quality and work standards.		c. Requests for approval of Contractor's means and methods.		16.5 GENERAL COORDINATION PROCEDURES			
13) Status of correction of deficient items.		13) Status of correction of deficient items.		d. Requests for coordination information already indicated in the Contract Documents.					
14) Field observations.		14) Field observations.		e. Requests for adjustments in the Contract Time or the Contract Sum.					
15) Status of RFIs.		15) Status of RFIs.		f. Requests for interpretation of Architect's actions on submittals.					
16) Status of Proposal Requests.		16) Status of Proposal Requests.		g. Incomplete RFIs or inaccurately prepared RFIs.					
17) Pending changes.		17) Pending changes.		2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.					
18) Status of Change Orders.		18) Status of Change Orders.		3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."		a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.			
19) Pending claims and disputes.		19) Pending claims and disputes.		a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.					
20) Documentation of information for payment requests.		20) Documentation of information for payment requests.		E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use software log that is part of web-based Project management software.					
F. Coordination Meetings: Conduct Project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.		F. Coordination Meetings: Conduct Project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.		F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.					
1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.		1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.		16.6 REQUEST FOR INFORMATION (RFI)					
2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.		2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.		A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.					
a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.		a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.		1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.		16.1 RELATED DOCUMENTS			
b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.		b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.		2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.					
c. Review present and future needs of each contractor present, including the following:		c. Review present and future needs of each contractor present, including the following:		3. Use of web-based Project software.					
1) Interface requirements.		1) Interface requirements.		4. Procedures for processing field decisions and Change Orders.					
2) Sequence of operations.		2) Sequence of operations.		5. Procedures for testing and inspecting.					
3) Resolution of BIM component conflicts.		3) Resolution of BIM component conflicts.		6. Procedures for processing Applications for Payment.					
4) Status of submittals.		4) Status of submittals.		7. Distribution of the Contract Documents.		16.2 SUMMARY			
5) Deliveries.		5) Deliveries.		8. Submittal procedures.					
6) Off-site fabrication.		6) Off-site fabrication.		9. Sustainable design requirements.					
7) Access.		7) Access.		a. Preparation of Record Documents.					
8) Site use.		8) Site use.		b. Use of the premises and existing building.					
9) Temporary facilities and controls.		9) Temporary facilities and controls.		c. Work restrictions.					
10) Work hours.		10) Work hours.		d. Working hours.		16.3 DEFINITIONS			
11) Hazards and risks.		11) Hazards and risks.		e. Owner's occupancy requirements.					
12) Progress cleaning.		12) Progress cleaning.		f. Responsibility for temporary facilities and controls.					
13) Quality and work standards.		13) Quality and work standards.		g. Procedures for moisture and mold control.					
14) Status of RFIs.		14) Status of RFIs.							

CLIENT:
ECISD

REVISION:

No.	Description	Date

PROJECT #:
DRAWN BY:
CHECKED BY:
DATE:

1501 FREDDY GONZALEZ DR,
MCALLEN, TX,
78504

GENERAL
SPECS

G2.1

- 19.2 SUMMARY
- A. Section Includes:
1. Submittal schedule requirements.
 2. Administrative and procedural requirements for submittals.

- B. Related Requirements:
1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 2. Section 013100 "Project Management and Coordination" for submitting coordination drawings and subcontract list and for requirements for web-based Project software.
 3. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 4. Section 013233 "Photographic Documentation" for submitting preconstruction photographs, periodic construction photographs, and Final Completion construction photographs.
 5. Section 014000 "Quality Requirements" for submitting test and inspection reports, and schedule of tests and inspections.
 6. Section 017700 "Closeout Procedures" for submitting closeout submittals and maintenance material submittals.
 7. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 8. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 9. Section 017900 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

- 19.3 DEFINITIONS
- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

- 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. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

- 19.4 SUBMITTAL SCHEDULE
- A. Submittal Schedule: Submit, as an action submittal, a list 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. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal Schedule: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal Schedule: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule as required to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal Category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
 - g. Scheduled dates for purchasing.
 - h. Scheduled date of fabrication.
 - i. Scheduled dates for installation.
 - j. Activity or event number.

- 19.5 SUBMITTAL FORMATS
- A. Submittal Information: Include the following information in each submittal:
1. Project name.
 2. Date.
 3. Name of Architect.
 4. Name of Construction Manager.
 5. Name of Contractor.
 6. Name of firm or entity that prepared submittal.
 7. Names of subcontractor, manufacturer, and supplier.
 8. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier and alphanumeric suffix for resubmittals.
 9. Category and type of submittal.
 10. Submittal purpose and description.
 11. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
 12. Drawing number and detail references, as appropriate.
 13. Indication of full or partial submittal.
 14. Location(s) where product is to be installed, as appropriate.
 15. Other necessary identification.
 16. Remarks.
 17. Signature of transmitter.

- B. Options: Identify options requiring selection by Architect.
- C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

- D. Paper Submittals:
1. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal.
 2. Provide a space approximately 6 by 8 inches (150 by 200 mm) on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return two copies.
 4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
 5. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
 6. Transmittal for Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using AIA Document G810 transmittal form.

- E. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

- F. Submittals Utilizing Web-Based Project Software: Prepare submittals as PDF files or other format indicated by Project management software.

- 19.6 SUBMITTAL PROCEDURES
- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Email: Prepare submittals as PDF package and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
 - a. Architect will return annotated file. Annotate and retain one copy of file as a digital Project Record Document file.
2. Paper: Prepare submittals in paper form and deliver to Architect.

- B. 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.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, 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.
4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.

- a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.

- D. 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.

- E. 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.

- F. 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.

- 19.7 SUBMITTAL REQUIREMENTS
- A. 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 unsuitable 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.
- h. Availability and delivery time information.

4. For equipment, include the following in addition to the above, as applicable:

- a. Wiring diagrams that show factory-installed wiring.
- b. Printed performance curves.
- c. Operational range diagrams.
- d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.

5. Submit Product Data before Shop Drawings, and before or concurrently with Samples.

- B. 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 unless submittal based on Architect's digital data drawing files is otherwise permitted.

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. Paper Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm).

- C. Samples: Submit Samples for review of type, color, pattern, and texture for a check of these characteristics with other materials.

1. Transmit Samples that contain multiple, related components, such as accessories together in one submittal package.
2. Identification: Permanently attach label on unexposed side of Samples that includes the following:

- a. Project name and submittal number.
- b. Generic description of Sample.
- c. Product name and name of manufacturer.
- d. Sample source.
- e. Number and title of applicable Specification Section.
- f. Specification paragraph number and generic name of each item.

3. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics and identification information for record.
4. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
5. Paper Transmittal: Include paper transmittal, including complete submittal information indicated.
6. 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 that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
- b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

7. 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, will return submittal with options selected.

8. 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.

- 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
- 2) 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.

- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.

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

- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

- G. Certificates:

1. Certificates and Certifications Submittals: Submit 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. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead, certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.

- H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
2. 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.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. 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.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

- a. Name of evaluation organization.
- b. Date of evaluation.
- c. Time period when report is in effect.
- d. Product and manufacturers' names.
- e. Description of product.
- f. Test procedures and results.
- g. Limitations of use.

- 19.8 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 insufficient 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 file and three 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.

- 19.9 CONTRACTOR'S REVIEW

- A. Action Submittals 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. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include 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.

1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

- 19.10 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required.

1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.

2. Paper Submittals: Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

- B. 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.

- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.

- E. Architect will discard submittals received from sources other than Contractor.

- F. Submittals not required by the Contract Documents will be returned by Architect without action.

- PART 20 - PRODUCTS (Not Used)

- PART 21 - EXECUTION (Not Used)

- END OF SECTION 013300

- SECTION 014000 - QUALITY REQUIREMENTS

- PART 22 - GENERAL

- 22.1 RELATED DOCUMENTS

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

- 22.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection 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. Specific quality-assurance and quality-control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.

2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, Commissioning Authority, or authorities having jurisdiction are not limited by provisions of this Section.

- C. Related Requirements:

1. Section 012100 "Allowances" for testing and inspection allowances.

- 22.3 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced," unless otherwise further described, 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.

- B. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

- C. 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, assembly, and similar operations.

1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).

- 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. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.

- E. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by 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 Tests and Inspections: Tests and inspections that are performed at the source (e.g., plant, mill, factory, or shop).

- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" shall have the same meaning as the term "testing agency."

- H. 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.

- I. 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. Contractor's quality-control services do not include contract administration activities performed by Architect.

- 22.4 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 Statement: Submit a statement 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, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

- 22.5 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the Architect regarding the conflict and obtain clarification prior to proceeding with the Work. Refer conflicting requirements that are different, but apparently equal, to Architect for clarification 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.



TEXAS ARCHITECT
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CAVAZOS
ELEMENTARY
SCHOOL
ROOFING
IMPROVEMENTS
ECISD CSP 25-78

1501 FREDDY
GONZALEZ DR,
MCALLEN, TX,
78504

CLIENT:
ECISD

REVISION:		
No.	Description	Date

PROJECT #: 25-030102
DRAWN BY:
CHECKED BY: CG3
DATE: 4/23/2025

GENERAL
SPECS

G2.2

22.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems:
- Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
 - Primary wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- D. 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.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
- Specification Section number and title.
 - Entity responsible for performing tests and inspections.
 - Description of test and inspection.
 - Identification of applicable standards.
 - Identification of test and inspection methods.
 - Number of tests and inspections required.
 - Time schedule or time span for tests and inspections.
 - Requirements for obtaining samples.
 - Unique characteristics of each quality-control service.
- F. Reports: Prepare and submit certified written reports and documents as specified.
- G. Permits, Licenses, and Certificates: For Owner's record, 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.

22.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities and to coordinate Owner's quality-assurance and quality-control activities. Coordinate with Contractor's Construction Schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
- Project quality-control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
- Contractor-performed tests and inspections, including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections. Distinguish source quality-control tests and inspections from field quality-control tests and inspections.
 - Special inspections required by authorities having jurisdiction and indicated on the Statement of Special Inspections.
 - Owner-performed tests and inspections indicated in the Contract Documents, including tests and inspections indicated to be performed by Commissioning Authority.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring the Work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports, including log of approved and rejected results. Include Work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming Work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

22.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
- Date of issue.
 - Project title and number.
 - Name, address, telephone number, and email address of testing agency.
 - Dates and locations of samples and tests or inspections.
 - Names of individuals making tests and inspections.
 - Description of the Work and test and inspection method.
 - Identification of product and Specification Section.
 - Complete test or inspection data.

- Test and inspection results and an interpretation of test results.
- Record of temperature and weather conditions at time of sample-taking and testing and inspection.
- Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
- Name and signature of laboratory inspector.
- Recommendations on retesting and reinspecting.

- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

- Name, address, telephone number, and email address of technical representative making report.
 - Statement on condition of substrates and their acceptability for installation of product.
 - Statement that products at Project site comply with requirements.
 - Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - Statement of whether conditions, products, and installation will affect warranty.
 - Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

- Name, address, telephone number, and email address of factory-authorized service representative making report.
- Statement that equipment complies with requirements.
- Results of operational and other tests and a statement of whether observed performance complies with requirements.
- Statement of whether conditions, products, and installation will affect warranty.
- Other required items indicated in individual Specification Sections.

22.9 QUALITY ASSURANCE

- A. 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. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- 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, applying, 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 is similar in material, design, and extent to those indicated for this Project.
- 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 in the activities indicated.
- Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing and Inspecting Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented in accordance with ASTM E329, and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- H. Manufacturer's Technical 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. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installations of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. 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 Contractor's responsibilities, including the following:

- Provide test specimens representative of proposed products and construction.

- Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
- Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
- Build site-assembled test assemblies and mockups, using installers who will perform same tasks for Project.
- Build laboratory mockups at testing facility, using personnel, products, and methods of construction indicated for the completed Work.
- When testing is complete, remove test specimens and test assemblies, and laboratory mockups; do not reuse products on Project.
- Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect and Commissioning Authority,, 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.

22.10 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
- Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
 - Payment for these services will be made from testing and inspection allowances specified in Section 012100 "Allowances," as authorized by Change Orders.
 - Costs for retesting and reinspecting construction that replaces or is necessitated by Work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
- Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - Engage a qualified testing agency to perform quality-control services.
 - Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
 - Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- 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, Commissioning Authority, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

- Notify Architect, Commissioning Authority, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
- Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
- Conduct and interpret tests and inspections, and state in each report whether tested and inspected Work complies with or deviates from requirements.
- Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
- Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
- Do not perform duties of Contractor.

- E. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- F. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- G. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives 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:

- Access to the Work.

- Incidental labor and facilities necessary to facilitate tests and inspections.
 - Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
 - Facilities for storage and field curing of test samples.
 - Delivery of samples to testing agencies.
 - Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - Security and protection for samples and for testing and inspection equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.

- Schedule times for tests, inspections, obtaining samples, and similar activities.

- Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Contractor's quality-control plan. Coordinate and submit concurrently with Contractor's Construction Schedule. Update and submit with each Application for Payment.

- Schedule Contents: Include tests, inspections, and quality-control services, including Contractor- and Owner-retained services, commissioning activities, and other Project-required services paid for by other entities.
- Distribution: Distribute schedule to Owner, Architect, Commissioning Authority, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 23 - PRODUCTS (Not Used)

PART 24 - EXECUTION

24.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
- Date test or inspection was conducted.
 - Description of the Work tested or inspected.
 - Date test or inspection results were transmitted to Architect.
 - 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, Commissioning Authority's, and authorities' having jurisdiction reference during normal working hours.
- Submit log at Project closeout as part of Project Record Documents.

24.2 REPAIR AND PROTECTION

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

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 25 - GENERAL

25.1 RELATED DOCUMENTS

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

25.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
- Section 011000 "Summary" for work restrictions and limitations on utility interruptions.
 - Section 012100 "Allowances" for allowance for metered use of temporary utilities.

25.3 USE CHARGES

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited

to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.

- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services and metering as required for construction operations.

25.4 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Implementation and Termination Schedule: Within 15 days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.
- C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, types, styles, graphic elements, and message content.
- D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- E. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.

- Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
 - Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
 - Indicate methods to be used to avoid trapping water in finished work.
- F. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Include the following:

- Locations of dust-control partitions at each phase of work.
- HVAC system isolation schematic drawing.
- Location of proposed air-filtration system discharge.
- Waste-handling procedures.
- Other dust-control measures.

- G. Noise and Vibration Control Plan: Identify construction activities that may impact the occupancy and use of existing spaces within the building or adjacent existing buildings, whether occupied by others, or occupied by the Owner. Include the following:

- Methods used to meet the goals and requirements of the Owner.
- Concrete cutting method(s) to be used.
- Location of construction devices on the site.
- Show compliance with the use and maintenance of quieted construction devices for the duration of the Project.
- Indicate activities that may disturb building occupants and that are planned to be performed during non-standard working hours as coordinated with the Owner.
- Indicate locations of sensitive equipment areas or other areas requiring special attention as identified by Owner. Indicate means for complying with Owner's requirements.

25.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines.

25.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 26 - PRODUCTS

26.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts;

minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

- B. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain-link fence, sized to height of fence, in color selected by Architect from manufacturer's standard colors.
- C. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil (0.25-mm) minimum thickness, with flame-spread rating of 15 or less in accordance with ASTM E84 and passing NFPA 701 Test Method 2.
- D. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats, minimum 36 by 60 inches (914 by 1524 mm).

- E. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

26.2 TEMPORARY FACILITIES

- A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
- Store combustible materials apart from building.

26.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
- Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 - Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction and clean HVAC system as required in Section 017700 "Closeout Procedures."
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 27 - EXECUTION

27.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
- Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

27.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- C. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

- Prior to commencing work, isolate the HVAC system in area where work is to be performed.
 - Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
- Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
- Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

27.3 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.



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SEAL:



CAVAZOS
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SCHOOL
ROOFING
IMPROVEMENTS
ECISD CSP 25-78

1501 FREDDY
GONZALEZ DR,
MCALLEN, TX,
78504

CLIENT:

ECISD

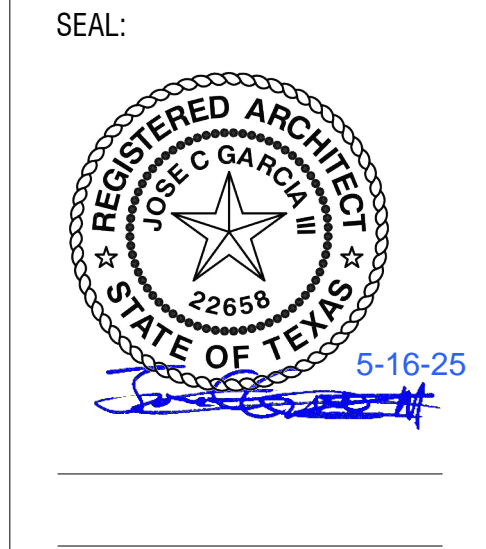
REVISION:

No.	Description	Date

PROJECT #: 25-030102
DRAWN BY:
CHECKED BY: CG3
DATE: 4/23/2025

GENERAL
SPECS

G2.3



1501 FREDDY
GONZALEZ DR,
MCALLEN, TX,
78504

REVISION:		
No.	Description	Date

GENERAL SPECS

B.	Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.	1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.	C.	Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.	D.	Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.	1. Use of Permanent Toilets: Use of Owner's existing or new toilet facilities is not permitted.	E.	Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.	1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.	F.	Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.	G.	Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.	1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.	27.4	SUPPORT FACILITIES INSTALLATION	A.	Comply with the following:	1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible in accordance with ASTM E136. Comply with NFPA 241.	2. Utilize designated area within existing building for temporary field offices.	3. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.	B.	Traffic Controls: Comply with requirements of authorities having jurisdiction.	1. Protect existing site improvements to remain, including curbs, pavement, and utilities.	2. Maintain access for fire-fighting equipment and access to fire hydrants.	C.	Parking: Use designated areas of Owner's existing parking areas for construction personnel.	D.	Storage and Staging: Use designated areas of Project site for storage and staging needs.	E.	Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.	1. Identification Signs: Provide Project identification signs as indicated on Drawings.	2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.	a. Provide temporary, directional signs for construction personnel and visitors.	3. Maintain and touch up signs, so they are legible at all times.	F.	Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."	G.	Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.	1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.	27.5	SECURITY AND PROTECTION FACILITIES INSTALLATION	A.	Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.	1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.	1. Comply with work restrictions specified in Section 011000 "Summary."	C.	Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.	1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.	2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.	3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.	4. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.	D.	Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.	E.	Tree and Plant Protection: Comply with requirements specified in Section 015639 "Temporary Tree and Plant Protection."	F.	Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals, so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.	G.	Site Enclosure Fence: Before construction operations begin furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.	1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.	2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.	H.	Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.	I.	Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.	J.	Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.	K.	Covered Walkway: Erect protective, covered walkway for passage of individuals through or adjacent to Project site. Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction.	1. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.	2. Paint and maintain appearance of walkway for duration of the Work.	L.	Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.	1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.	M.	Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.	1. Construct dustproof partitions with gypsum wallboard, with joints taped on occupied side, and fire-retardant-treated plywood on construction operations side.	2. Construct dustproof partitions with two layers of 6-mil (0.14-mm) polyethylene sheet on each side. Cover floor with two layers of 6-mil (0.14-mm) polyethylene sheet, extending sheets 18 inches (460 mm) up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant-treated plywood.	a. Construct vestibule and airlock at each entrance through temporary partition with not less than 48 inches (1219 mm) between doors. Maintain water-dampened foot mats in vestibule.	3. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.	4. Insulate partitions to control noise transmission to occupied areas.	5. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.	27.6	MOISTURE AND MOLD CONTROL	A.	Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.	B.	Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:	1. Protect porous materials from water damage.	2. Protect stored and installed material from flowing or standing water.	3. Keep porous and organic materials from coming into prolonged contact with concrete.	4. Remove standing water from decks.	5. Keep deck openings covered or dammed.	C.	Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:	1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.	2. Keep interior spaces reasonably clean and protected from water damage.	3. Periodically collect and remove waste containing cellulose or other organic matter.	4. Discard or replace water-damaged material.	5. Do not install material that is wet.	6. Discard and replace stored or installed material that begins to grow mold.	7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.	D.	Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:	1. Control moisture and humidity inside building by maintaining effective dry-in conditions.	2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.	3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.	a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective and require replacing.	b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.	c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.	27.7	OPERATION, TERMINATION, AND REMOVAL	A.	Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.	B.	Maintenance: Maintain facilities in good operating condition until removal.	1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.	C.	Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.	D.</
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a. Non-limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following."		31.2	SUMMARY	construction that has been cut and patched in a visually unsatisfactory manner.		B. Engage a project manager experienced in laying out the Work, using the following accepted surveying practices:	indicated, verify size and type required for load conditions with manufacturer.		containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.																
b. Provision of products of an unnamed manufacturer is not considered a substitution, if the product complies with requirements.		A.	Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:	B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.		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.	1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.		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.															
7. 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 may additionally 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.				PART 32 - PRODUCTS	32.1 MATERIALS	2. Establish limits on use of Project site.	2. Allow for building movement, including thermal expansion and contraction.																		
						3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.	3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.																		
						4. Inform installers of lines and levels to which they must comply.	I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Architect. Fit exposed connections together to form hairline joints.																		
						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.																			
a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.		B.	Related Requirements:	1. Section 011000 "Summary" for coordination of and limits on use of Project site. 2. Section 013300 "Submittal Procedures" for submitting surveys. 3. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning. 4. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.	32.1 MATERIALS	A. Comply with requirements specified in other Sections.	I. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.		33.7 PROGRESS CLEANING	A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.															
C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.		1.	If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.	31.3 DEFINITIONS	A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.	B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.	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. Use materials that are not considered hazardous.		33.6 CUTTING AND PATCHING	A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.															
D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.		1.	Prior to commencing work requiring cutting and patching, review extent of cutting and patching anticipated and examine procedures for ensuring satisfactory result from cutting and patching work. Inform Architect of scheduled meeting. Require representatives of each entity directly concerned with cutting and patching to attend, including the following:	31.4 PREINSTALLATION MEETINGS	A. Cutting and Patching Conference: Conduct conference at Project site.	1. Select products for which sustainable design documentation submittals are available from manufacturer.	1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding. 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.		33.4 FIELD ENGINEERING	A. Identification: Owner will identify existing benchmarks, control points, and property corners.															

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 34 - GENERAL

34.1 RELATED DOCUMENTS

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

34.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:

1. Salvaging nonhazardous [demolition] [and] [construction] waste.
2. Disposing of nonhazardous [demolition] [and] [construction] waste.

34.3 DEFINITIONS

- A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

34.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition and construction waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

34.5 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, or individual employed and assigned by General Contractor, with a record of successful waste management coordination of projects with similar requirements. Superintendent may serve as Waste Management Coordinator.
- B. Refrigerant Recovery Technician Qualifications: Universal certified by EPA-approved certification program.
- C. Refrigerant Recovery Technician Qualifications: Comply with requirements in Section 024119 "Selective Demolition."
- D. Regulatory Requirements: Comply with transportation and disposal regulations of authorities having jurisdiction.
- E. Waste Management Conference(s): Conduct conference(s) at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:
1. Review and discuss waste management plan including responsibilities of each contractor and waste management coordinator.
2. Review requirements for documenting quantities of each type of waste and its disposition.
3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
5. Review waste management requirements for each trade.

PART 35 - PRODUCTS

PART 36 - EXECUTION

36.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
1. Comply with operation, termination, and removal requirements in Section 015000 "Temporary Facilities and Controls."
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.

1. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged and recycled.
2. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.
- D. Waste Management in Historic Zones or Areas: Transportation equipment and other materials shall be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, by 12 inches (300 mm) or more.

36.2 SALVAGING DEMOLITION WASTE

- A. Comply with requirements in Section 024119 "Selective Demolition" for salvaging demolition waste.
- B. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
3. Store items in a secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- C. Salvaged Items for Sale and Donation: Not permitted on Project site.
- D. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
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.
- E. Doors and Hardware: Brace open end of door frames. Except for removing door closures, leave door hardware attached to doors.
- F. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- G. Plumbing Fixtures: Separate by type and size.
- H. Lighting Fixtures: Separate lamps by type and protect from breakage.
- I. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

36.3 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. General: Except for items or materials to be salvaged or recycled, remove waste materials and legally dispose of at designated spoil areas on Owner's property.
- C. Burning: Do not burn waste materials.
- D. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 37 - GENERAL

37.1 RELATED DOCUMENTS

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

37.2 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.

B. Related Requirements:

1. Section 012900 "Payment Procedures" for requirements for Applications for Payment for Substantial Completion and Final Completion.
2. Section 013233 "Photographic Documentation" for submitting Final Completion construction photographic documentation.
3. Section 017823 "Operation and Maintenance Data" for additional operation and maintenance manual requirements.
4. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
5. Section 017900 "Demonstration and Training" for requirements to train the Owner's maintenance personnel to adjust, operate, and maintain products, equipment, and systems.

37.3 DEFINITIONS

- A. List of Incomplete Items: Contractor-prepared list of items to be completed or corrected, prepared for the Architect's use prior to Architect's inspection, to determine if the Work is substantially complete.

37.4 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

37.5 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest-control inspection.

37.6 MAINTENANCE MATERIAL SUBMITTALS

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

37.7 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.

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, 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 Architect. Label with manufacturer's name and model number.

- 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 Architect's signature for receipt of submittals.
5. Submit testing, adjusting, and balancing records.
6. Submit sustainable design submittals not previously submitted.
7. 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. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
6. Advise Owner of changeover in utility services.
7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.

8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
9. Complete final cleaning requirements.
10. Touch up paint 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. 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.

37.8 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:

1. Submit a final Application for Payment in accordance with 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.
5. Submit Final Completion photographic documentation.

- B. Inspection: Submit a written request for final inspection to determine acceptance 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 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. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

37.9 LIST OF INCOMPLETE ITEMS

- 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, listed by room or space number.
2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:
- a. Project name.
- b. Date.
- c. Name of Architect.
- d. Name of Contractor.
- e. Page number.
4. Submit list of incomplete items in the following format:
- a. PDF Electronic File: Architect [, through Construction Manager,] will return annotated file.

37.10 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.

- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.

- D. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

1. Submit on digital media acceptable to Architect.

E. Warranties in Paper Form:

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 (215-by-280-mm) paper.
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, and name of Contractor.

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

PART 38 - PRODUCTS

38.1 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.
1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 39 - EXECUTION

39.1 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 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 not planted, mulched, or paved to a smooth, even-textured surface.
- d. Remove tools, construction equipment, machinery, and surplus material from Project site.
- e. Remove snow and ice to provide safe access to building.
- f. 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.
- g. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- h. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
- i. Vacuum and mop concrete.
- j. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
- k. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
- l. Remove labels that are not permanent.
- m. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- o. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- p. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection).
- 1) Clean HVAC system in compliance with NADCA ACR. Provide written report on completion of cleaning.
- q. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
- r. Clean strainers.
- s. Leave Project clean and ready for occupancy.

- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.

- D. Construction Waste Disposal: Comply with waste-disposal requirements in Section 017419 "Construction Waste Management and Disposal."

39.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 40 - GENERAL

40.1 RELATED DOCUMENTS

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

40.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory manuals.
2. Emergency manuals.
3. Systems and equipment operation manuals.
4. Systems and equipment maintenance manuals.
5. Product maintenance manuals.

B. Related Requirements:

1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.

40.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

40.4 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

1. Architect and Commissioning Authority will comment on whether content of operation and maintenance submittals is acceptable.
2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.

- B. Format: Submit operation and maintenance manuals in the following format:

1. Submit by email to Architect. Enable reviewer comments on draft submittals.

- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Architect and Commissioning Authority will comment on whether general scope and content of manual are acceptable.

- D. Final 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 and Commissioning Authority will return copy with comments.

1. Correct or revise each manual to comply with Architect's and Commissioning Authority's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's [and Commissioning Authority's] comments and prior to commencing demonstration and training.

- E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

40.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. 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: Bookmark 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.

- B. Manuals, Paper Copy: Submit manuals in the form of hard-copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, post-type binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
- a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if



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MCALLEN, TX,
78504

CLIENT:

ECISD

REVISION:

No.	Description	Date

PROJECT #: 25-030102

DRAWN BY:

CHECKED BY: CG3

DATE: 4/23/2025

GENERAL
SPECS

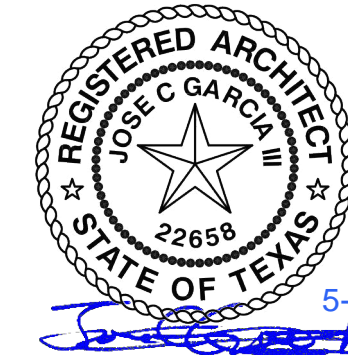
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ECISD CSP 25-78

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GONZALEZ DR,
MCALLEN, TX,
78504

CLIENT:

ECISD

REVISION:

No.	Description	Date

PROJECT #: 25-030102

DRAWN BY:

CHECKED BY: CG3

DATE: 4/23/2025

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4.

At completion of training, submit complete training manual(s) for Owner's use prepared in same PDF file format required for operation and maintenance manuals specified in Section 017823 "Operation and Maintenance Data."
- 46.5

QUALITY ASSURANCE
- A.

Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B.

Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 014000 "Quality Requirements," experienced in operation and maintenance procedures and training.
- C.

Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.
- D.

Reinstruction Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:

1.

Inspect and discuss locations and other facilities required for instruction.

2.

Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.

3.

Review required content of instruction.

4.

For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.
- 46.6

COORDINATION
- A.

Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B.

Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C.

Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data have been reviewed and approved by Architect.
- 46.7

INSTRUCTION PROGRAM
- A.

Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B.

Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:

1.

Basis of System Design, Operational Requirements, and Criteria: Include the following:

a.

System, subsystem, and equipment descriptions.

b.

Performance and design criteria if Contractor is delegated design responsibility.

c.

Operating standards.

d.

Regulatory requirements.

e.

Equipment function.

f.

Operating characteristics.

g.

Limiting conditions.

h.

Performance curves.

2.

Documentation: Review the following items in detail:

a.

Emergency manuals.

b.

Systems and equipment operation manuals.

c.

Systems and equipment maintenance manuals.

d.

Product maintenance manuals.

e.

Project Record Documents.

f.

Identification systems.

g.

Warranties and bonds.

h.

Maintenance service agreements and similar continuing commitments.
3.

Emergencies: Include the following, as applicable:

a.

Instructions on meaning of warnings, trouble indications, and error messages.

b.

Instructions on stopping.

c.

Shutdown instructions for each type of emergency.

d.

Operating instructions for conditions outside of normal operating limits.

e.

Sequences for electric or electronic systems.

f.

Special operating instructions and procedures.
4.

Operations: Include the following, as applicable:

a.

Startup procedures.

b.

Equipment or system break-in procedures.

c.

Routine and normal operating instructions.

d.

Regulation and control procedures.

e.

Control sequences.

f.

Safety procedures.

g.

Instructions on stopping.

h.

Normal shutdown instructions.

i.

Operating procedures for emergencies.

j.

Operating procedures for system, subsystem, or equipment failure.

- k.

Seasonal and weekend operating instructions.
- l.

Required sequences for electric or electronic systems.
- m.

Special operating instructions and procedures.
5.

Adjustments: Include the following:

a.

Alignments.

b.

Checking adjustments.

c.

Noise and vibration adjustments.

d.

Economy and efficiency adjustments.
6.

Troubleshooting: Include the following:

a.

Diagnostic instructions.

b.

Test and inspection procedures.
7.

Maintenance: Include the following:

a.

Inspection procedures.

b.

Types of cleaning agents to be used and methods of cleaning.

c.

List of cleaning agents and methods of cleaning detrimental to product.

d.

Procedures for routine cleaning.

e.

Procedures for preventive maintenance.

f.

Procedures for routine maintenance.

g.

Instruction on use of special tools.
8.

Repairs: Include the following:

a.

Diagnosis instructions.

b.

Repair instructions.

c.

Disassembly; component removal, repair, and replacement; and reassembly instructions.

d.

Instructions for identifying parts and components.

e.

Review of spare parts needed for operation and maintenance.

- a.

Name of Contractor/Installer.
- b.

Business address.
- c.

Business phone number.
- d.

Point of contact.
- e.

Email address.
- C.

Recording: Mount camera on tripod before starting recording, unless otherwise necessary to adequately cover area of demonstration and training. Display continuous running time.

1.

Film training session(s) in segments not to exceed 15 minutes.

a.

Produce segments to present a single significant piece of equipment per segment.

b.

Organize segments with multiple pieces of equipment to follow order of Project Manual table of contents.

c.

Where a training session on a particular piece of equipment exceeds 15 minutes, stop filming and pause training session. Begin training session again upon commencement of new filming segment.
- D.

Light Levels: Verify light levels are adequate to properly light equipment. Verify equipment markings are clearly visible prior to recording.

1.

Furnish additional portable lighting as required.
- E.

Narration: Describe scenes on video recording by audio narration by microphone while video recording is recorded. Include description of items being viewed.
- F.

Transcript: Provide a transcript of the narration. Display images and running time captured from videotape opposite the corresponding narration segment.
- G.

Preproduced Video Recordings: Provide video recordings used as a component of training modules in same format as recordings of live training.

PART 47 - PRODUCTS

PART 48 - EXECUTION

END OF SECTION 017900

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.

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

1.2 SUMMARY

- A.

Section includes administrative and procedural requirements governing allowances.
- B.

Types of allowances include the following:

1.

Contingency allowances.
- C.

Related Requirements:

1.

Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

2.

Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 DEFINITIONS

- A.

Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

- A.

At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B.

At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C.

Purchase products and systems selected by Architect from the designated supplier.

1.5 ACTION SUBMITTALS

- A.

Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.
- B.

Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C.

Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 CONTINGENCY ALLOWANCES

- A.

Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B.

Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, insurance, equipment rental, and similar costs.
- C.

Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.
- D.

At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.8 TESTING AND INSPECTING ALLOWANCES

- A.

Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.
- B.

The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.

- C.

Costs of testing and inspection services not specifically required by the Contract Documents are Contractor responsibilities and are not included in the allowance.
- D.

At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.9 ADJUSTMENT OF ALLOWANCES

- A.

Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.

1.

Include installation costs in purchase amount only where indicated as part of the allowance.

2.

If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.

3.

Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.

4.

Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B.

Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1.

Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.

2.

No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A.

Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A.

Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A.

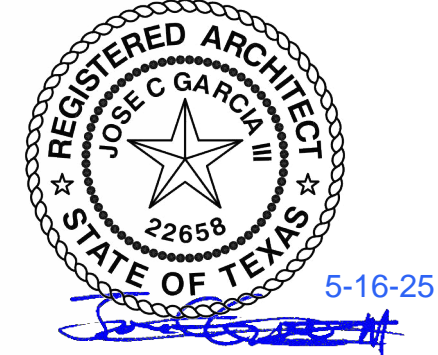
Allowance No. 1 - Contingency Allowance: Include a contingency allowance of **\$15,000.00** for use according to the Architect and/or Owner's written instructions.

END OF SECTION 012100



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ECISD

REVISION:

No.	Description	Date

PROJECT #: 25-030102
DRAWN BY:
CHECKED BY: CG3
DATE: 4/23/2025

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SECTION 075700 - COATED FOAMED ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
- Spray-applied, coated, polyurethane foam roofing.
 - Walkways.
- B. Scope of Work:
- This guide specification covers the installation of the Sprayed Polyurethane Roofing System (SPRS) which consists of a seamless sprayed-in-place polyurethane foam insulation covered with an elastomeric coating for use as an insulated roofing system for retrofit (re-roofing) construction. The coating materials shall be listed in the Energy Star® Roof Products Program.
 - This existing roof shall be prepared for an overlay of an SPRS system. The final (finish) exposed layer of the existing roof shall be prepared by removing any loose material and the existing roof substrate layers shall be secured for the new roof system. All materials are to be disposed of properly by the contractor. Refer to drawings for additional scope of work.

1.3 DEFINITIONS

- A. Applicator: A qualified person employed to apply spray-applied, coated, polyurethane foam roofing.
- B. Installer: A qualified firm contracted to install spray-applied, coated, polyurethane foam roofing.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at **Project site**.
- Review methods and procedures related to coated foamed roofing, including, but not limited to, the following:
 - Load limitations on in-place roofing.
 - Construction schedule. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - Surface preparation specified in other Sections.
 - Minimum curing period.
 - Forecasted weather conditions.
 - Special details and sheet flashings.
 - Repairs.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- Include manufacturer's written instructions for evaluating, preparing, and treating substrate; technical data; and tested physical and performance properties.
- B. Samples for Initial Selection: For each type of exposed product, finish, and color.
- Include Samples of auxiliary materials and accessories involving color and finish selection.
- C. Samples for Verification: For coated foamed roofing, prepared on Samples of size indicated below:
- Samples, **24 by 24 inches (600 by 600 mm)**, on rigid backing, showing polyurethane foam of thickness required and stepped coatings in colors required to illustrate buildup of coated foamed roofing.
 - Include Samples of auxiliary materials and accessories to verify color and finish selected.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For SPFA-qualified **Installer and applicators**.
- B. Product Certificates: For each type of coated foam roofing.
- C. Evaluation Reports: For coated foamed roofing, from ICC-ES.
- D. Field quality-control reports.
- E. Sample Warranty: For special warranty.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For coated foamed roofing to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified coated-foamed-roofing installer who is approved, authorized, or licensed by coating manufacturer for installation of coating manufacturer's product over polyurethane foam.

- Engage an installer who participates in and who has fulfilled requirements of the SPFA program for company accreditation as "SPFA PCP Accredited Company Roofing," with individual applicator certification for personnel assigned to work on Project.

- B. Comply with recommendations in SPFA AY-104.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site with manufacturer's name, product brand name and type, date of manufacture, shelf life, and directions for storing and mixing with other components.
- B. Store materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by manufacturer.
- C. Remove and replace material that cannot be applied within its stated shelf life.

1.10 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing work to be performed according to manufacturer's written instructions and warranty requirements.
- Apply materials within the range of ambient and substrate temperatures recommended in writing by material manufacturers, but not below **50 deg F (10 deg C)**.
 - Apply materials within range of relative humidity recommended in writing by manufacturer of each component, but not when relative humidity exceeds 85 percent, or when temperatures are less than **5 deg F (3 deg C)** above dew point.
 - Do not apply materials to damp or wet surfaces.
 - Do not apply primers, polyurethane foam, or coatings in snow, rain, fog, or mist, or when such weather conditions are imminent during the application and curing period.
 - Do not apply polyurethane foam when wind conditions result in surface finish textures not complying with requirements.
 - Do not apply coatings when wind conditions prevent uniform coating application.

1.11 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace coated foamed roofing that does not comply with requirements or that does not remain watertight within specified warranty period.
- Warranty Period: **20 years** from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations for Coated Foamed Roofing System: Obtain **coating from single source from single manufacturer and polyurethane foam from single manufacturer acceptable in writing to coating manufacturer**.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Coated foamed roofing shall withstand exposure to weather without failure due to defective manufacture, installation, or other defects in construction. Membrane roofing shall remain watertight.
- Material Compatibility: Provide polyurethane foam, coatings, substrate board, and auxiliary materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. Fire-Test-Response Characteristics: Provide coated foamed roofing with the fire-test-response characteristics indicated, as determined by testing identical systems according to test methods below for deck type and slopes indicated by a qualified testing and inspecting agency that is acceptable to authorities having jurisdiction.
- Class A** roof covering according to ASTM E108.
 - Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - Flame-Spread Index: 75 or less.
 - Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- C. Wind-Uplift Resistance: Design roofing system to resist the following wind-uplift pressures when tested according to FM 4474, UL 580, or UL 1897 for the county project is located.
- D. FM Approvals Listing: Provide roofing system and component materials that comply with requirements in **[FM Approvals Standard 4450 for steel roof decks and FM Approvals Standard 4470 for roof covers as part of a foamed roofing system and that are listed in FM Global's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.**
- Fire/Windstorm Classification: Class **1A-60 or better**.
 - Hail-Resistance Classification: **MH**.
- E. Energy Performance: Provide coated foam roofing that is listed on the EPA/DOE's "ENERGY STAR Roof Product List" for **low-slope** roof products.

- F. Energy Performance: Provide coated foamed roofing certified and labeled according to one of the following when tested according to CRRC-1:

- Three-year, aged solar reflectance of not less than **0.55** and emissivity of not less than **0.75**.

2.3 PRIMER AND INTENDED APPLICATION SUBSTRATE

- A. Asphalt/BUR, Masonry & Plywood: Primer shall be single-component, primer, black in color. The product BASIS OF DESIGN (or equal): Enviro-Prime as manufactured by Global Polymer Systems.
- B. Galvanized Metal and Other Non-Ferrous Metals BASIS OF DESIGN OR EQUAL: Pretreatment Primer No. 4860-420 (Reducer 1000-44) as manufactured by Cardinal Industrial Finishes, El Monte, CA,213-283-9335.
- 2.4 BASE SHEET AND FASTENERS
- A. A base sheet if required shall be 72 Lb. fiberglass, mineral surfaced cap sheet as manufactured by Manville, GAF, or equal.
- B. Nailable decks: The fasteners shall be 1-inch, square head, ring-shank nails as manufactured by Simplex or equal with sufficient length to penetrate sheathing or embed a minimum 1-inch into sheathing.
- C. Mechanical Fasteners and Plates; Screws shall be No. 12, coated, self-taping screws of sufficient length to penetrate the existing BUR and insulation with 1 inch penetration (minimum) into the substrate. The plates shall be 2 inch square, coated plates. The screws and plates shall be as manufactured by Olympic, DeckFast or equal.

2.5 POLYURETHANE INSULATION

- A. Polyurethane insulation shall be a two-component polyurethane insulation system formulated for use through airless equipment.
- B. BASIS OF DESIGN OR EQUAL: Enviroseal manufactured by Global Polymer Systems, Edinburg Texas.
- Density (sprayed in place) 2.7 - 3.0 pcf
 - Compressive strength >40 psi (nominal)
 - Tensile strength 90 psi
 - Shear strength 45 psi
 - Closed cell content 90 % min.
 - K factor (aged) 0.156
 - Flame spread UL-723 (ASTM E-84) <75
 - Roof Deck Classification UL 790 (ASTM E-108)
 - Maintenance and Repair Class A
 - FMRC 4470

C. FLUID APPLIED ELASTOMERIC COATINGS

- The elastomeric coating material shall be an acrylic elastomer coating and shall be an Energy Star® Listed Product and meet the Standards for Liquid Applied Coating Used in Roofing ASTM D-6083-97a.
- BASIS OF DESIGN OR EQUAL: ENVIROSHIELD II manufactured by Global Polymer Systems, Edinburg, TX
- Physical Properties:
 - Solids Content, by vol: 55 ± 2.0%
 - Viscosity: 110 ± 10 KU
 - Weight Per Gallon: 11.1 lbs. per gallon
 - Flash Point: None
 - Coverage (mils/100 SF/gal): 8.8 Dry Mils
 - Drying Time at 24 wet mils:
 - Dry to Touch 4 hours
 - Dry – Through 12 hours
 - Dry-to-Recoat >6 hours
 - Total Cure Time (aprx.): 30 days
 - Permeability: 14 ± 3 (ASTM – D-624)
 - Tensile Strength: 273 ± 20 psi (EC) or 500 ± 50 psi (HT)
 - Tear Resistance: 95 ± 3 psi (EC) or 133 ± 3 psi (HT)
 - Elongation: 233 ± 20% (EC) or 600 ± 50% (HT)
 - Aged, 1000 hrs: 155% ± 100
 - Adhesion/peel test on foam: 2.4 lbs/in.
 - Hardness Shore A (ASTM D-2240): 50-55
 - Low Temperature Flex: Pass
 - Service Temperature Range: 50° to 200°F
 - Roof Deck Classification: UL 790 (ASTM E-108)
 - Maintenance and Repair: Class A
- Meets ASTM D6083 - Standard Specification for Liquid Applied Acrylic Coating Used in Roofing ENERGY STAR® Certified
- Meets the requirements of California Energy Commission (CEC) Title 24 Section 118(i)3 Cool Roof Rating Council (CRRC) Rated
- FM Certified
- UL Certified as a component withing Class “A” and “B” fire rated roof coverings
- The minimum thickness of the acrylic coating shall be 52 dry mils.

2.6 CAULKING OR SEALANTS

- A. Caulking material shall be BASIS OF DESIGN OR EQUAL: ENVIRO-SIL sealant, a single-component 100% Solids Siliconized Urethane. Caulking of fabricated metal components or lapping metal joints (except equipment pan seams).

2.7 GRANULES:

- A. Granules shall be Dust Free White granules and shall be broadcast into the final coating application while it is still wet. (Only if specified for project)

2.8 EQUIPMENT:

- A. Equipment for spraying foam shall be manufactured specifically for the application of polyurethane foam. The equipment shall be airless, capable of maintaining a 1:1 volume ratio and have primary and hose heaters (300 feet of material hose maximum allowable to meet mix pressure requirements, Gusmer GX-7 gun with 90 PCD suggested for winter-grade foam systems).

- B. Coating equipment shall be an airless type as recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that related work is complete. Do not install coated foamed roofing until roof openings, curbs, and parapets, if any, are complete and roof drains, vents, and other roof penetrations are in place.
- B. Examine substrates, areas, and conditions under which coated foamed roofing will be applied, with Installer present, for compliance with requirements.
- C. Proceed with installation only after unsatisfactory conditions have been corrected and substrates are dry.
- D. Proceed with installation only after minimum concrete curing and drying period recommended in writing by coated foamed roofing manufacturer.
- E. Verify that concrete substrate is visibly dry and free of moisture. Test concrete substrate for capillary moisture by plastic sheet method according to ASTM D4263at start of each roof area or plane. Do not proceed with roofing work if moisture condenses under the plastic sheet.
- F. Raising, repairing and modifying existing air conditioning systems for the installation of curbs, metal pans and duct work.

3.2 SUBSTRATE BOARD

- A. General: Install substrate board with long joints in continuous straight lines, perpendicular to roof slopes with end joints staggered between rows. Tightly butt substrate boards together.
- B. Thermal Barrier: Fasten to top flanges of steel deck according to recommendations in FM Global's "Approval Guide" and its FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification.
- C. Thermal Barrier: Fasten to top flanges of steel deck to resist uplift pressure at corners, perimeter, and field of roof according to coated foamed roofing manufacturer's written instructions.

3.3 SURFACE PREPARATION

- A. General: Clean and prepare substrate according to coated foamed roofing manufacturer's written instructions. Provide clean, dust-free, dew-free, and dry substrate for coated foamed roofing application.
- B. Remove grease, oil, form-release agents, curing compounds, and other contaminants from substrate.
- C. Prepare substrate for re-covering according to Section 070150.19 "Preparation for Re-Roofing" and to coated foamed roofing manufacturer's written instructions.
- D. Cover and mask adjoining surfaces not receiving coated foamed roofing to prevent overspray or spillage affecting other construction. Temporarily close off roof drains, removing roof-drain plugs when not doing coated foamed roofing work or when rain is forecast.
- Remove masking after polyurethane foam application; cover and re-mask adjoining surfaces before coating polyurethane foam.
- E. Prime substrate as recommended in writing by coated foamed roofing manufacturer.
- F. Fill, cover, or tape joints and cracks in substrate that exceed a width of **1/4 inch (6 mm)**. Remove dust and dirt from narrower joints and cracks before applying polyurethane foam.
- G. Install vapor retarder according to coated foamed roofing manufacturer's written instructions.

3.4 POLYURETHANE FOAM APPLICATION

- A. General: Mix and apply polyurethane foam according to ASTM D5469/D5469M and coated foamed roofing manufacturer's written instructions.
- Fill irregularities and depressions to prevent ponding water.
 - Apply the required full thickness of polyurethane foam in any specific area on same day.
 - Apply only the area of polyurethane foam that can be covered with required base coating on same day or within 24 hours.
 - Apply polyurethane foam to avoid overspray beyond immediate area of work.
- B. Uniformly apply total thickness of polyurethane foam indicated, but not less than **1 1/2" inch (25 mm)**, to a surface tolerance of plus **1/2" inch (6 mm)** and no minus.
- Slope to Drain: Vary thickness uniformly and fill low spots to achieve minimum **1/4-inch-per-foot (1:48)** slope to drain unless otherwise indicated.
- C. Apply polyurethane foam to roof penetrations, terminations, and vertical surfaces as indicated. Unless otherwise indicated, extend polyurethane foam at least **4 inches (100 mm)** above elevation of adjacent roof field.

- D. Surface Finish: Provide finished surface of polyurethane foam within the following range of surface textures as defined by ASTM D5469/D5469M:
- Texture: Smooth to **coarse orange peel**

- E. Remove and replace polyurethane foam not complying with surface-texture limitations. Remove defective thickness and prepare and reapply polyurethane foam with acceptable, uniform results.

3.5 COATING APPLICATION

- A. Allow polyurethane foam substrate to cure for a minimum of two hours before coating (or by manufacturer recommendation), and apply coating system to polyurethane foam no later than 24 hours after applying the foam. Remove dust, dirt, water, and other contaminants before applying coating system.
- B. Apply coating system to polyurethane foam by spray, roller, or other suitable application method according to coating manufacturer's written instructions.
- C. Apply base coat and one or more topcoats to obtain a uniform, seamless membrane free of blisters and pinholes. Apply each coat at right angles to preceding coat, using contrasting color tints for successive coats.
- Apply topcoat(s) after removing dust, dirt, water, and other contaminants from base coat.
 - Urethane Coating: Apply coating system to a minimum dry film thickness **recommended in writing by coated foamed roofing manufacturer**.
- D. Height at Terminations: Apply coating system at wall terminations and other vertical surfaces to extend vertically beyond polyurethane foam by a minimum of **4 inches (100 mm)**.
- E. Mineral Granules: Apply mineral granules over wet topcoat, using pressure equipment at the rate of **0.5 lb/sq. ft. (2.45 kg/sq. m)**. Remove excess granules after topcoat has cured.
- F. Sealant: Apply sealant to perimeter and other terminations where indicated on Drawings or required by coated foamed roofing manufacturer.
- G. Walkways: Install roof walkways in pattern and locations indicated and as follows:
 - Fabric-Reinforced, Granule-Coated Walkways: Mask off completed coating adjacent to walkways, and apply one additional topcoat to achieve a minimum dry film thickness recommended in writing by coated foamed roofing manufacturer. Lay reinforcing fabric into wet coating and apply another topcoat, completely filling fabric. Spread mineral granules uniformly at a rate of **0.5 lb/sq. ft. (2.45 kg/sq. m)** into final wet coating. Remove masking and excess granules after topcoat has cured.
- H. Aggregate: Apply aggregate uniformly over coated polyurethane foam at coated foamed roofing manufacturer's recommended rate, but not less than **6 lb/sq. ft. (29 kg/sq. m)** and a minimum thickness of **3/4 inch (19 mm)**. Spread with care to prevent puncturing coating and to minimize damage to substrate foam.

3.6 REPAIR AND RE-COATING

- A. Correct deficiencies in, or remove, foam or coatings that do not comply with requirements; fill and repair substrates and reapply materials.
- B. Repair and re-coat coated foamed roofing according to ASTM D6705/D6705M and manufacturer's written instructions.

3.7 CURING, PROTECTING, AND CLEANING

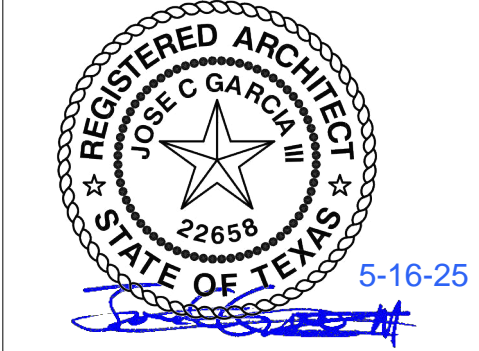
- A. Cure coatings according to manufacturer's written instructions, taking care to prevent contamination and damage during application stages and curing. Do not permit traffic on uncured coatings.
- B. Protect coated foamed roofing from damage and wear during remainder of construction period.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended in writing by manufacturer of affected construction.

END OF SECTION 075700



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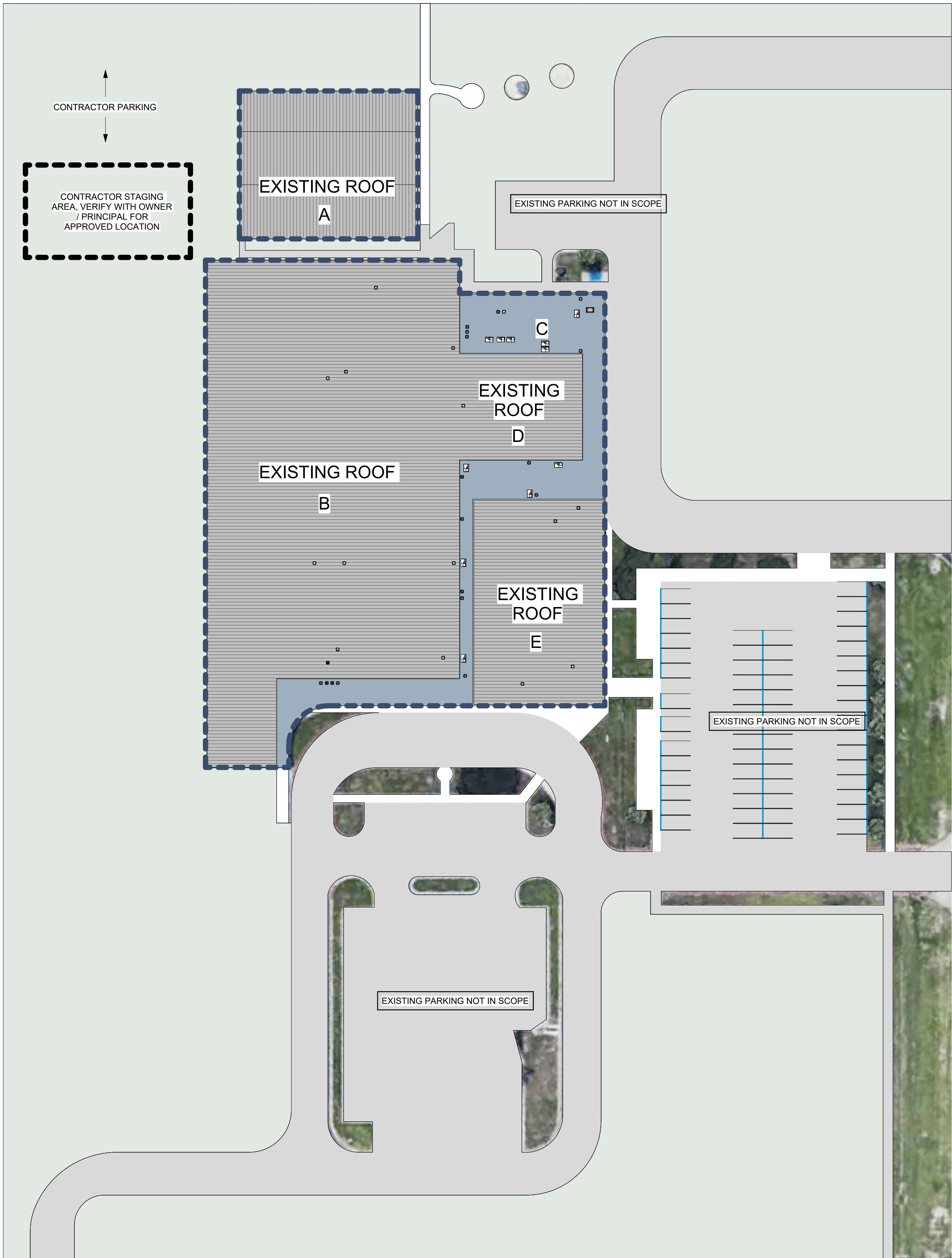
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GENERAL
SPECS

G2.9

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GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY ACTUAL ROOF DIMENSIONS
2. THE GENERAL CONTRACTOR SHALL EXERCISE CARE TO PREVENT DAMAGE TO ALL OTHER STRUCTURES IN THE AREA INCLUDING BUILDINGS, FENCES, ROADS PIPELINES, UTILITIES ETC. WHETHER PUBLICLY OR PRIVATELY OWNED.
3. THE GENERAL CONTRACTOR SHALL REPAIR ALL ASPHALT PAVING AND CONCRETE CURB, GUTTER, SIDEWALK, DRAINAGE, LANDSCAPING, OR ANY STRUCTURES DAMAGED DURING CONSTRUCTION.
4. THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN BARRICADES, TEMPORARY ENCLOSURES, DUST, BARRIERS, SIGNAGE, ETC. AS REQUIRED INSURE PROTECTION FOR WORKMEN AND OCCUPANTS OF THE BUILDING
5. THE GENERAL CONTRACTOR TO COORDINATE NO ACCUMULATION OF TRASH AND DEBRIS MATERIALS. DISPOSE OF TRASH IN A SAFE AND LEGAL MANNER.

NOTE: CONTRACTOR TO FIELD VERIFY SQUARE FOOT QUANTITIES INCLUDING VERTICAL SURFACES



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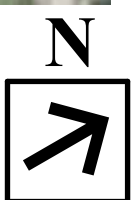
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SITE PLAN

A1.0

1 OVERALL SITE PLAN
1" = 40'-0"





EXISTING PHOTO 1



EXISTING PHOTO 2



EXISTING PHOTO 3



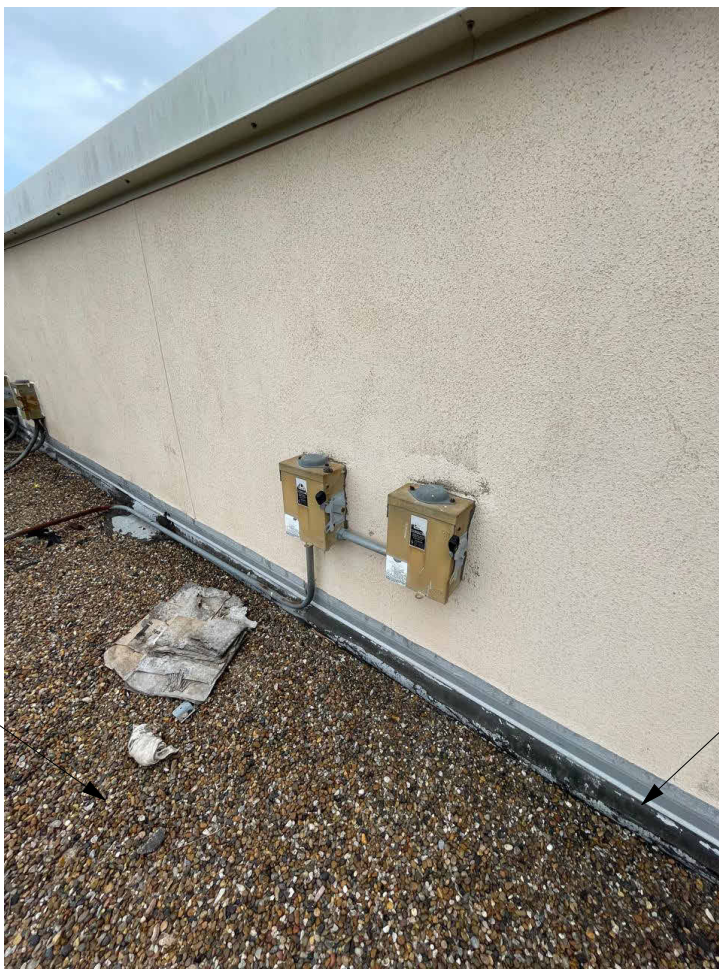
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EXISTING PHOTO 10



EXISTING PHOTO 11



EXISTING PHOTO 12



EXISTING PHOTO 13



EXISTING PHOTO 14

DEMO ROOF PLAN KEYNOTES

- 1 DEMOLISH AND REMOVE EXISTING GRAVEL AND PREP EXISTING ROOF SYSTEM FOR NEW ROOF OVERLAY, TYP.
- 2 DEMOLISH AND REMOVE EXISTING METAL COPING / METAL EDGE AS REQUIRED, PROVIDE BLOCKING AS NECESSARY FOR NEW ROOF OVERLAY SYSTEM AS DETAILED, PATCH REPAIR EXPOSED MASONRY/ FRAMING AS REQUIRED.
- 3 DEMOLISH AND REMOVE EXISTING TERMINATION BAR AND FLASHING AT BASE OF PARAPET WALL AND OR VERTICAL WALL TRANSITION, PREP WALL FOR NEW ROOFING SYSTEM OVERLAY AS DETAILED
- 4 DEMOLISH AND REMOVE EXISTING ROOF PENETRATION BOOT FLASHING AND OR BLOCKING AS REQUIRED FOR NEW APPROVED WATERPROOFING AND FLASHING, TYPICAL AT ALL ROOF PENETRATIONS
- 5 PREPARE EXISTING METAL ROOF FOR NEW SPRAY FOAM ROOF SYSTEM, CONTRACTOR TO REPAIR EXISTING METAL ROOF SUBSTRATE AS REQUIRED TO ACCEPT NEW FOAM ROOF SYSTEM, INCLUDING REMOVING PREVIOUS FOAM REPAIR AS REQUIRED.
- 6 DEMOLISH AND REMOVE EXISTING GUTTER SYSTEM, SCUPPER AND DOWNSPOUT, EXISTING CONCRETE SPLASH BLOCK TO REMAIN UNLESS DAMAGED, THEN REMOVE AND REPLACED
- 7 DEMOLISH AND REMOVE EXISTING METAL RAKE TRIM... ETC.
- 8 REMOVE EXISTING ROOF DRAIN COVER AND PIPE NOZZLE IF DAMAGED, EXISTING DRAIN TO BE FLUSHED
- 9 EXISTING ROOF HATCH TO REMAIN, EXISTING CURB AND FLASHING TO REMAIN OR PATCH AND REPAIRED AS REQUIRED, PREPARE ROOF HATCH CURB AND FLASHING FOR NEW SPRAY FOAM OVERLAY SYSTEM
- 10 EXISTING ROOF TOP A/C UNITS AND / OR WALL MOUNTED EQUIPMENT TO REMAIN, CONTRACTOR TO LIFT AND RESET OR REMOVE AND REINSTALL AS REQUIRED TO PROVIDE INSTALLATION OF NEW ROOF SYSTEM, TYPICAL
- 11 ALL EXPOSED ROOF-TOP CONDUIT AND PIPING TO REMAIN, CONTRACTOR TO LIFT & RESET, OR DISCONNECT & RECONNECT AS REQUIRED TO INSTALL NEW ROOF SYSTEM, TYPICAL. ALL PIPE PENETRATIONS THRU ROOF SHALL BE CLEANED OF EXISTING ROOF AND FLASHING MATERIAL AND PROVIDED NEW AS PER NEW ROOF SYSTEM REQUIREMENTS. INCLUDE NEW PIPE OR EQUIPMENT SUPPORTS AS REQUIRED FOR EXISTING COMPONENTS, TYPICAL
- 12 AT METAL CANOPY CONNECTION TO VERTICAL WALL TRANSITION, PATCH/REPAIR FLASHING AS REQUIRED FOR WATER-TIGHT CONNECTION.
- 13 EXISTING ROOF CANOPY TO REMAIN, AREA NOT IN SCOPE OF WORK



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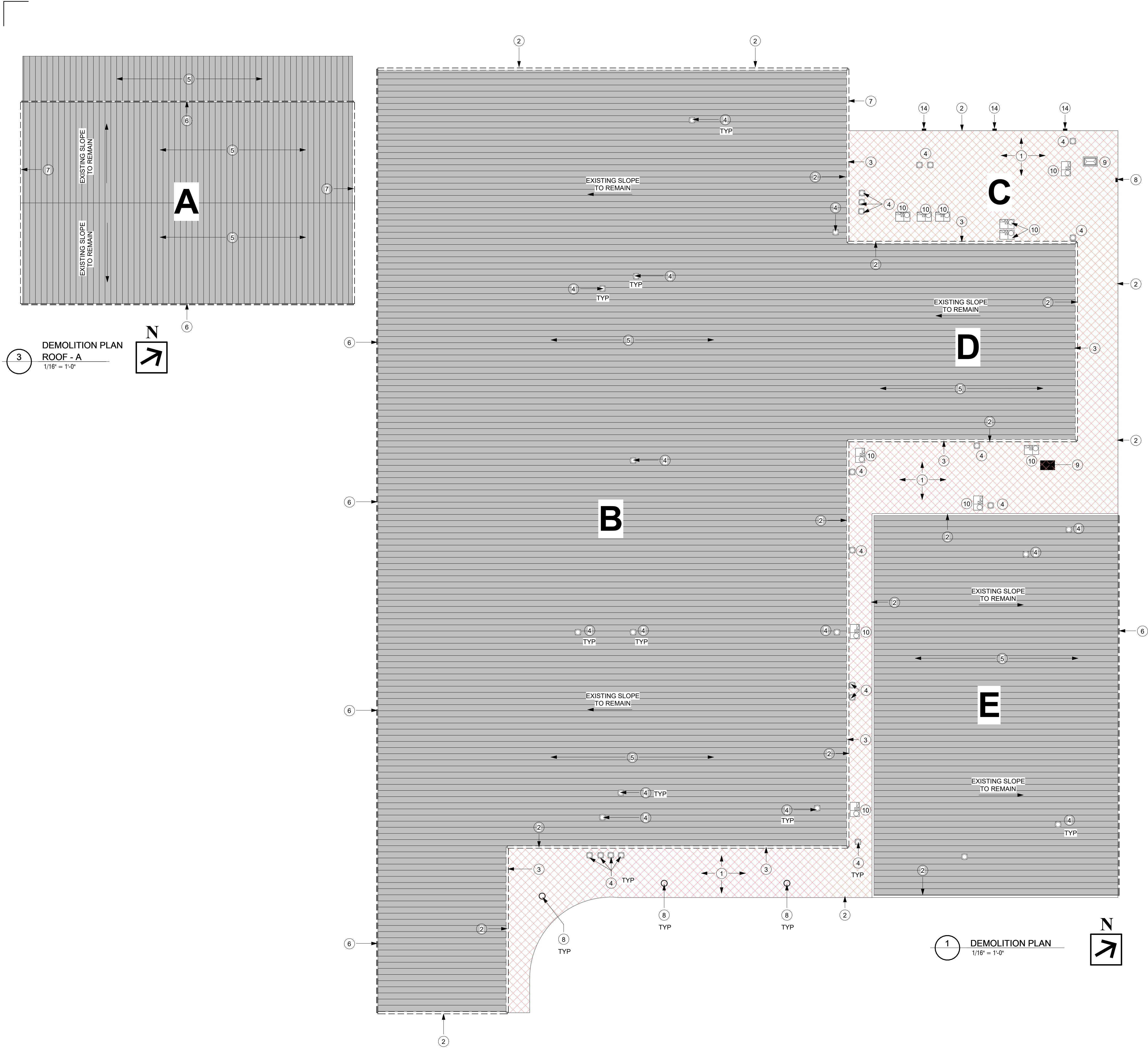
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EXISTING
CONDITIONS

A1.1



3 DEMOLITION PLAN
ROOF - A
1/16" = 1'-0"

DEMOLITION GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING OR COMMENCING WORK FOR CLARIFICATION
2. THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT, & BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT, AND SHALL NOT BE REUSED IN THE NEW CONSTRUCTION UNLESS OTHERWISE NOTED OR DIRECTED IN WRITING. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FEDERAL, STATE, & LOCAL REGULATIONS
3. CUTTING & PATCHING: PROVIDE MATERIALS FOR CUTTING & PATCHING WHICH WILL RESULT IN EQUAL OR BETTER WORK THAN THAT BEING CUT OR PATCHED
4. CONTRACTOR SHALL MAINTAIN BUILDING INTEGRITY, BUILDING SECURITY, AND WEATHER-TIGHT BUILDING ENVELOPE (TO INCLUDE EXTERIOR WALL(S), ROOF, EXTERIOR OPENINGS, ETC.) DURING CONSTRUCTION. CONTRACTOR TO COORDINATE BUILDING ACCESS WITH OWNER
5. COORDINATE ALL DEMOLITION WORK IN PHASES CONVENIENT TO OWNER OCCUPANCY AND SCHEDULE.

LEGEND

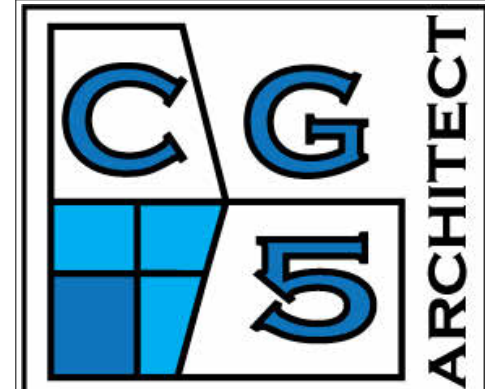
- 1 DEMOLISH AND REMOVE EXISTING GRAVEL AND PREP EXISTING ROOF SYSTEM FOR NEW ROOF OVERLAY
- 5 EXISTING METAL ROOF PREPARE EXISTING METAL ROOF FOR NEW SPRAY FOAM ROOF SYSTEM
- 13 ROOF NOT IN SCOPE

NOTE:
ALL HVAC ROOF TOP UNITS TO REMAIN. CONTRACTOR TO COORDINATE ROOF CURB DETAILING WITH NEW ROOFING SYSTEM.

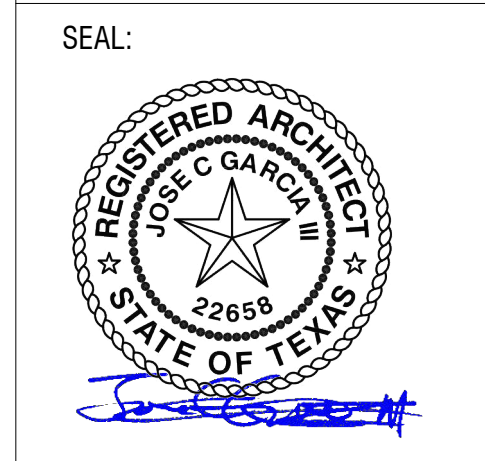
DEMO ROOF PLAN KEYNOTES

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- 11 ALL EXPOSED ROOF-TOP CONDUIT AND PIPING TO REMAIN, CONTRACTOR TO LIFT & RESET, OR DISCONNECT & RECONNECT AS REQUIRED TO INSTALL NEW ROOF SYSTEM, TYPICAL. ALL PIPE PENETRATIONS THRU ROOF SHALL BE CLEANED OF EXISTING ROOF AND FLASHING MATERIAL AND PROVIDED NEW AS PER NEW ROOF SYSTEM REQUIREMENTS. INCLUDE NEW PIPE OR EQUIPMENT SUPPORTS AS REQUIRED FOR EXISTING COMPONENTS, TYPICAL
- 12 AT METAL CANOPY CONNECTION TO VERTICAL WALL TRANSITION, PATCH/REPAIR FLASHING AS REQUIRED FOR WATER-TIGHT CONNECTION.
- 13 EXISTING ROOF CANOPY TO REMAIN, AREA NOT IN SCOPE OF WORK

1 DEMOLITION PLAN
1/16" = 1'-0"



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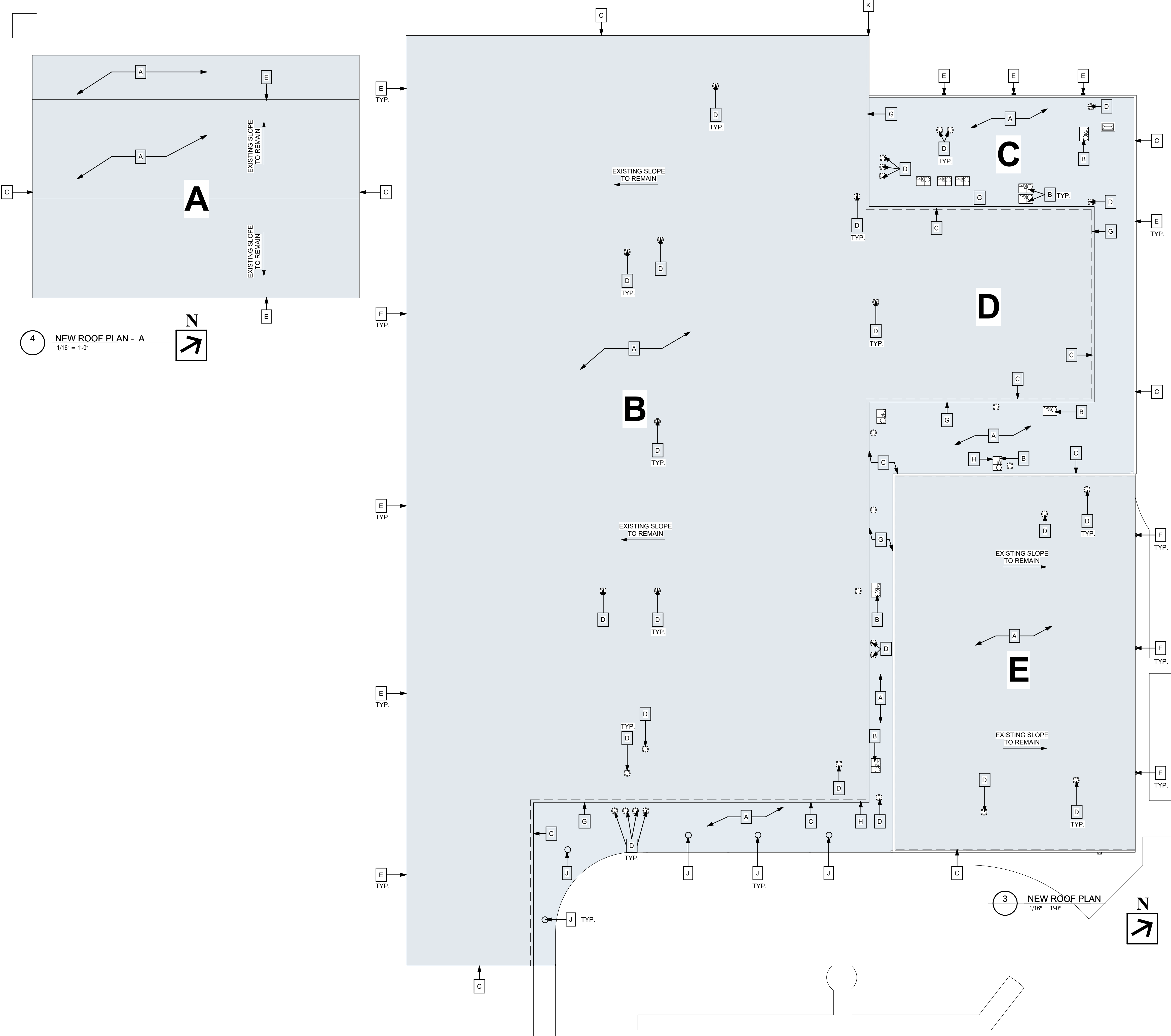
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DEMOLITION
PLAN

A1.2



GENERAL ROOF NOTES

1. CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL PLANS TO ASCERTAIN EXACT CONDITIONS AND COMPONENTS RELATED TO THE WORK DESCRIBED BY THESE DOCUMENTS. ALL WORK SHALL BE IN ACCORDANCE WITH ACCEPTED MANUFACTURER'S PRINTED INSTRUCTIONS AND NRCA STANDARDS
2. DIMENSIONS, DETAILS, EQUIPMENT SIZE AND LOCATION SHOWN ON THESE ROOF PLAN AND ROOF DETAILS ARE FOR INFORMATION AND REFERENCE ONLY. EXACT SIZE, LOCATION, TYPE OF MATERIAL AND TYPE OF CONSTRUCTION TO CONFIRM AND GENERAL CONTRACTOR TO COORDINATE.
3. UPON SUBSTANTIAL COMPLETION THE GENERAL CONTRACTOR SHALL EXAMINE AND ENSURE DRAIN LINES, GUTTERS AND DOWNSPOUTS ARE FREE OF DEBRIS AND BLOCKAGE, FLUSH WITH WATER TO ENSURE THAT DRAINS FLOW FREELY, WHERE APPLICABLE
4. THE USE OF THE TERM "PROVIDE" SHALL CONSTITUTE THE MEANING OF FURNISH AND INSTALL A COMPLETE AND READY TO USE SYSTEM OR PRODUCT
5. GENERAL CONTRACTOR SHALL PROVIDE ALL REQUIRED UTILITY, MEP, AND/OR STRUCTURAL COMPONENTS FOR ALL CONTRACTOR SUPPLIED EQUIPMENT OR SERVICES, REGARDLESS OF ANY OMISSIONS OR INCONSISTENCIES IN THE CONTRACT DOCUMENTS.
6. ALL WOOD BLOCKING AT ROOF SHALL BE FIRE-RETARDANT TREATED
7. ALL FLASHING, METAL AND MEMBRANE, SHALL BE MINIMUM OF 12" FROM ADJACENT SURFACE AND SHALL BE INSTALLED AND MAINTAINED TO PREVENT WEATHER TIGHTNESS.
8. PROVIDE PREFINISHED GALVANIZED METAL GUTTER SYSTEM UNLESS OTHERWISE NOTED, MATCH EXISTING SIZE AND LOCATIONS
9. PROVIDE CONCRETE SPLASHBLOCK (5000 PSI MIN) TYPICAL AT ALL DOWNSPOUT LOCATIONS
10. PROVIDE PRE-FINISHED GALVANIZED METAL DOWNSPOUTS UNLESS OTHERWISE NOTED, MATCH EXISTING SIZE AND LOCATIONS
11. REFER TO MEP FOR EXPOSED PIPE AND ROOF EQUIPMENT SUPPORT, COORDINATED WITH ROOFING MANUFACTURER DETAILING FOR ROOF WARRANTY ADHERENCE.
12. GENERAL CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES AND BUILDING SERVICE SYSTEMS PRIOR TO CONSTRUCTION TO PREVENT DAMAGE. IF ANY SYSTEM IS DAMAGED DURING CONSTRUCTION OR FOR PREPARATION OF NEW CONSTRUCTION, CONTRACTOR SHALL PATCH/REPAIR DAMAGED SYSTEM TO EXISTING CONDITION.
13. GENERAL CONTRACTOR SHALL PROVIDE EXTRA CARE TO PREVENT DAMAGE TO EXISTING CONCRETE WALKS, ASPHALT/CONCRETE DRIVE/PARKING AREAS, OR LANDSCAPE AREAS OUTSIDE OF CONSTRUCTION LIMITS, AND ALL DAMAGE SHALL BE PATCHED/REPAIRED TO EXISTING CONDITION
14. GENERAL CONTRACTOR TO COORDINATE ALL WORK WITH OWNER AND ARCHITECT
15. GENERAL CONTRACTOR TO CAREFULLY REMOVE, SALVAGE, STORE, ANY ROOF MOUNTED EQUIPMENT THAT MUST BE REMOVED TO PROVIDE NEW ROOFING SYSTEM, ANY DISTURBED ROOF MOUNTED EQUIPMENT MUST BE RE-INSTALLED OR RELOCATED TO EXISTING WORKING CONDITION
16. GENERAL CONTRACTOR SHALL COORDINATE ANY ROOF MOUNTED EQUIPMENT WITH OWNER PRIOR TO RELOCATION OR REMOVAL

NEW ROOF PLAN KEYNOTES

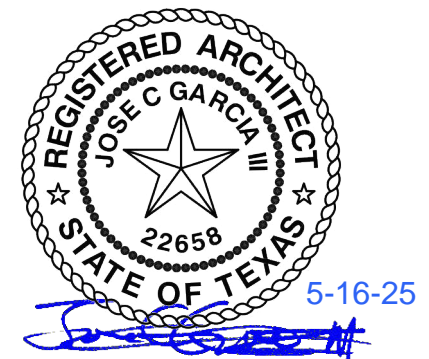
- A PROVIDE NEW SPRAYED POLYURETHANE ROOFING SYSTEM AS SPECIFIED
- B EXISTING MEP EQUIPMENT TO REMAIN, PROVIDE NEW CURB FLASHING AS PER MANUFACTURERS DETAILS
- C PROVIDE NEW PRE-FINISHED METAL COPING EDGE AT PARAPET OR ROOF EDGE AS DETAILED. PATCH/REPAIR WOOD BLOCKING, MASONRY, AND STUCCO AS REQUIRED, PRIOR TO INSTALLATION OF NEW ROOF SYSTEM AND METAL EDGE, TYPICAL
- D ROOF PENETRATION VENT STACK W BOOT REFER TO DETAILS
- E NEW PRE-FINISHED GUTTER SYSTEM, SCUPPER AND DOWNSPOUTS, PROVIDE NEW CONCRETE SPLASH BLOCK IF DAMAGED OR MISSING
- F PROVIDE NEW SPRAYED POLYURETHANE ROOFING SYSTEM AS SPECIFIED CONTINUOUS OVER PARAPET WALL, PROVIDE FULL COVERAGE
- G PROVIDE TERMINATION BAR AND COUNTER FLASHING AT VERTICAL SURFACE 12" MIN AS DETAILED
- H CONTRACTOR TO LIFT AND REPLACE EXISTING CONDUIT OR DRAIN PIPES, PROVIDE NEW LIFT BRACKETS AS NEEDED.
- J PROVIDE NEW ROOF DRAIN COVER, EXISTING ROOF DRAIN TO BE FLUSHED AND INSPECTED TO BRING TO ORIGINAL WORKING CONDITIONS, PROVIDE NEW PIPE NOZZLE AT END IF DAMAGED OR MISSING, PROVIDE NEW CONCRETE SPLASH BLOCK IF DAMAGED OR MISSING

NOTE:
REFER TO SHEET G2.9 FOR ROOF SPECIFICATIONS



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DATE: 4/23/2025

**NEW ROOF
PLAN**

A1.3