



**Addendum #001**  
**Invitation to Bid (ITB) 2443-2025**  
**Athletics Maintenance Building No. 3 Re-Roof Project**

**Date:** February 13, 2025

**Solicitation:** ITB 2443-2025 Athletics Maintenance Building No. 3 Re-Roof Project

**Proposals Due:** February 27, 2025, at 2:00 P.M. EST

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

**Please be advised that the changes below are applicable to the original specifications of the above-referenced solicitation. Added or new language to the ITN is highlighted in yellow, while deleted language has been stricken.**

**Change No. 1:**

**Revises Exhibit B, Architectural Construction Documents and Specifications (See Attached)**

**This Addendum provides the Board's written answers to the timely written questions received.**

Question	Answer
1. Specs list a streamline product as the BOD. The spec calls for an 18" panel, please confirm a 16" panel is acceptable as this is industry standard.	16" or 24" panels are ok to use
2. Specs list 3 approved panel alternates. The Berridge panel is a 36" exposed fastener <u>wall</u> panel. I don't think you can even use this on a roof. The PAC panel is a t-panel which is not the same as the BOD. The Englert panel is only available in 12" and 24" widths (not 18 or 16).	Englert 24" S2500 panel, MBCI Superlok panel, Pac-Clad Tite-Loc Plus panel are ok to use.
3. Would a Nucor, MBCI, and APEC panel be approved? Loc Seam equivalent.	MBCI panel will be approved
4. Says to remove the existing translucent panels, but they do not address what you do where the panels are removed. Assume you patch the holes with R-panel prior to installing rigid?	Skylight panels are now staying and being insulated over before final roof panel goes down. Being as the structural support will be on the purling's.
5. They seem to indicate installing 24 ga galvalume roofing material for the replaced interior gutter. We do not recommend this. Propose using a welded .060 aluminum gutter in its place.	Aluminum sheet: ASTM B209/B209M; 0.032 minimum thickness. Finish: Class 1 anodized and Color: Clear

Question	Answer
<p>6. Does not show underlayment under the new metal roof. I would think this would be required. This may require polyiso in lieu of EPS at the top layer of rigid.</p>	<p>Self-adhering rubber-modified asphalt sheet complying with ASTM D1970/D1970M; 22 mil total thickness; with strippable release film and woven polypropylene sheet top surface.</p> <ol style="list-style-type: none"> <li>1) Sheet thickness: 40 mil, 0.40 inch minimum total thickness</li> <li>2) Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M</li> <li>3) Manufacturers:               <ol style="list-style-type: none"> <li>a. Henry Company; Blueskin RF200</li> <li>b. GCP Applied Technologies; Grace ice and water shield</li> <li>c. Owens Corning; Titanium PSU30</li> <li>d. TAMCO underlayment is <u>not</u> to be used at all</li> </ol> </li> </ol>
<p>7. Per Section 074113 (Metal Roof Panels) on sheet SP1.2, the basis of design for the metal roof panels is Streamline panel, profile 175-SL. Per Florida Product Approval FL15253-R4 (shown below), the design pressure for this panel is -52.5psf at a maximum support purlin spacing of 48". Purlin spacing for the project is 60". Has an engineering report approved the installation of this panel to meet the higher uplift pressures shown on sheet S0.1 (including enhanced fastening at perimeters and corners) and on this structure with purlin spacing of 60"? If so, please provide report.</p>	<p>Englert 24" S2500 panel, MBCI Superlok panel, Pac-Clad Tite-Loc Plus panel are ok to use for the wider spacing of the purling's.</p>
<p>8. The roof panel basis of design is Streamline panel, profile 175-SL. This is a <u>snap-lock</u> panel. The panels listed as other acceptable manufacturers in Section 074113 2.01 B (sheet SP1.2) are <b>not equivalent</b>. Berridge M-panel is an exposed fastener panel, Englert A1300 is a <u>mechanically seamed panel for use over solid decking only</u>, and Petersen PAC T-250 is a mechanically seamed T-rib profile. None of the listed panels under "acceptable manufacturers" are equivalent to the basis of design. Please confirm what type panel needs to be installed and the approved equivalent profiles.</p>	<p>Englert 24" S2500 panel, MBCI Superlok panel, Pac-Clad Tite-Loc Plus panel are ok to use for the wider spacing of the purling's.</p>

## 100% Construction Documents

February 5, 2025

Project:  
**LCS Athletics Maintenance Building No. 3  
Re-Roofing**  
AL+W Project No. 24510.1

Issued by:  
Architects: Lewis + Whitlock, P.A.  
206 W. Virginia Street  
Tallahassee, FL 32301  
ph: 850.942.1718  
fax: 850.942.2110

This Addendum forms a part of the **100% Construction Documents** and modifies the original Specifications and Drawings dated October 25, 2024. Please attach this Addendum inside the front cover of the bound specifications and attached new drawings as required in the drawing set.

---

### Architectural

#### 1-1 Sheet D1.1– Demolition Roof Plan

**Revise** Vally Gutter Demo Section to show the demolition of the parapet fascia panels.  
**Revise** the Roof Demolition Plan to show the parapet fascia panels to be removed and to show the roof transition flashing to be removed at the area of the lower roof.

#### 1-2 Sheet A1.1– Roof Plan & Details

**Revise** the Vally Gutter Section to show the new metal fascia panels at the parapet and included height dimensions for those panels.  
**Revise** the Roof Plan to show the new parapet fascia panels and to show the area of roof needing additional insulation to make the roof plane the same height of the adjacent roof.

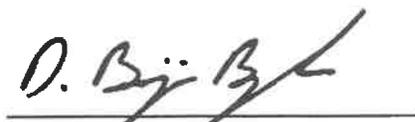
#### 1-3 Sheet A2.1– Exterior Elevations

**Revised** the North Elevation to show the new metal parapet fascia panels.  
**Revised** the West Elevation to show the new metal parapet fascia panels.  
**Revised** the East Elevation to show the new metal parapet fascia panels.

### Attachments:

New Sheets (24x36): D1.1, A1,1, and A2.1.

BY: Architects: Lewis + Whitlock, PA

  
\_\_\_\_\_  
Ben Baylor

## 100% Construction Documents

February 7, 2025

Project:  
**LCS Athletics Maintenance Building No. 3  
Re-Roofing**  
AL+W Project No. 24510.1

Issued by:  
Architects: Lewis + Whitlock, P.A.  
206 W. Virginia Street  
Tallahassee, FL 32301  
ph: 850.942.1718  
fax: 850.942.2110

This Addendum forms a part of the **100% Construction Documents** and modifies the original Specifications and Drawings dated October 25, 2024. Please attach this Addendum inside the front cover of the bound specifications and attached new drawings as required in the drawing set.

---

### Architectural

- 2-1 Sheet G1.1– Index of Drawings, Standard Abbreviations and General Notes**  
Revise Drawing Index to show new sheet SP1.4
  
- 2-2 Sheet SP1.3– Specifications**  
Revise Section 074113 Metal Roof Panels
  
- 2-3 Sheet SP1.4– Specifications**  
Add Sheet in its entirety  
Add Section 074213 Metal Wall Panels  
Revise Section 077123 Manufactured Gutters and Downspouts
  
- 2-4 Sheet D1.1– Demolition Roof Plan**  
Remove Translucent Skylight Demolition detail.  
Revise Roof Demolition Plan to update note referencing the removal of translucent skylight panels.
  
- 2-5 Sheet A1.1– Roof Plan & Details**  
Remove Translucent Skylight Panel Replacement detail.  
Revise Vally Gutter Section to show underlayment going up and over parapet wall.  
Revise Roof Plan to update note referencing the existing skylight panels to remain.

**2-6 Sheet A2.1– Exterior Elevations**

**Revised** the East Elevation to show the location of the existing translucent panels below the new roof and the area of lower roof that needs extra insulation.

Attachments:

Replace Sheets (24x36): G1.0, SP1.3, D1.1, A1.1, and A2.1  
New Sheets (24x36): SP1.4

BY: **Architects: Lewis + Whitlock, PA**

A handwritten signature in black ink, appearing to read "D. Bj. Bk", is written over a horizontal line.

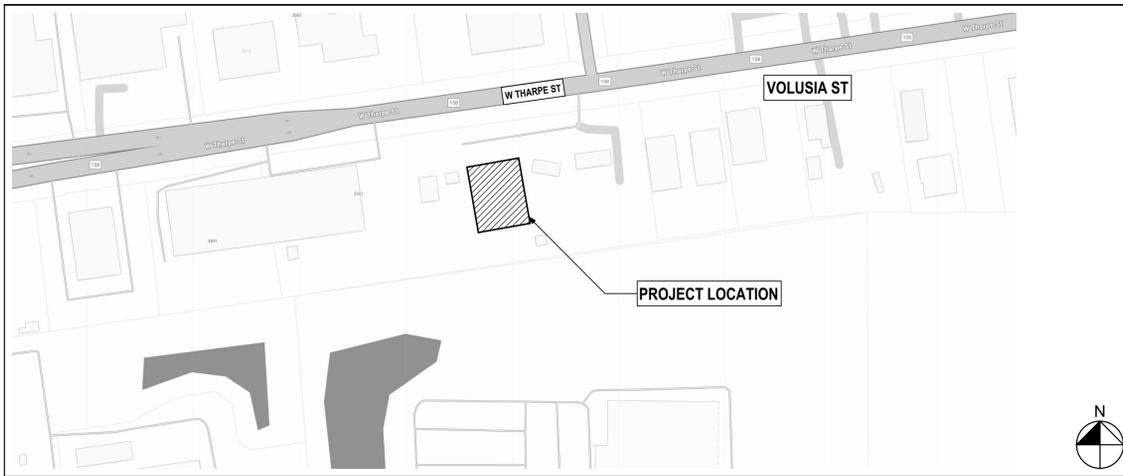
Ben Baylor

# LCS Athletics Maintenance Building No. 3 Re-Roofing

Tallahassee, FL  
for  
Leon County Schools

## 100% Construction Documents

October 25, 2024  
ALW Project #24510.1



Location Map

3295 W. Tharp St.



Area Map

Tallahassee, FL, 32303

**Legend of Architectural Symbols:**

- BUILDING SECTION REFERENCE:** 1 A1.1
- WALL SECTION REFERENCE:** 1 A1.1
- DETAIL REFERENCE:** 1 A1.1
- PROJECT NORTH:** [North Arrow]
- FINISH COLOR:** C1
- ELEVATION REFERENCE POINT:** [Symbol]
- CONSTRUCTION NOTES NUMERICAL:** 2
- DEMOLITION NOTES ALPHABETICAL:** A
- REVISION:** [Symbol]
- DOOR NUMBER:** [Symbol]
- NUMBER INDICATES SECTION, ELEVATION OR DETAIL:** 1 A1.1
- SHEET NUMBER WHERE ELEVATION, SECTION OR DETAIL IS DRAWN:** 1 A1.1
- DASH AND DOT:** FIRE RATED WALLS
- DOUBLE DASHED LINE:** PROPERTY LINES, BOUNDARY LINES
- DASHED LINES:** HIDDEN, FUTURE, OR EXIST. CONST. TO BE REMOVED
- BREAK LINE:** TO BREAK OFF PARTS OF DRAWING
- SINGLE DASH LINE:** COLUMN LINES

**Architectural General Notes:**

- 1) THESE DRAWINGS AND RENDERINGS ARE INSTRUMENTS OF SERVICE. THE DRAWINGS AND COPIES THEREOF, INCLUDING ELECTRONIC MEDIA AND CAD FILES, ARE THE PROPERTY OF ARCHITECTS: LEWIS + WHITLOCK, P.A. THEIR USE, REPRESENTATION OR REPRODUCTION IN ACTUAL FORM OR CONTENT BY ANY ENTITY THAT POSSESSES THEM FOR ANY PURPOSE EXCEPT BY WRITTEN AGREEMENT WITH THE ARCHITECT IS PROHIBITED. THE COPYRIGHT NOTIFICATION SHALL BE TRUE AS IF DIRECTLY PLACED ON EACH DRAWING, DETAIL, EXHIBIT OR RENDERING ON THIS DOCUMENT AND SHALL NOT BE REMOVED FROM THESE DOCUMENTS.
- 2) ALL DIMENSIONS ARE TO THE FACE OF STUD OR STUD TRACK, CENTER LINE OF STUD OR STUD TRACK, FACE OF MASONRY AND TO THE CENTER LINE OF STRUCTURAL STEEL COLUMNS, UNLESS OTHERWISE INDICATED.
- 3) WHERE STRUCTURAL DESIGN LOADS ARE NOT PROVIDED FOR ANY COMPONENTS REQUIRING MANUFACTURER OR FABRICATOR ENGINEERING, AND MINIMUM LOADING CONDITIONS ARE NOT PROVIDED IN APPLICABLE CODES AND STANDARDS, CONSULT ARCHITECT PRIOR TO PROCEEDING.
- 4) DIMENSIONS FOR PATHS OF EGREGES INCLUDING CORRIDORS AND STAIRS SHALL MEAN CLEAR WIDTH BETWEEN CORRIDOR WALLS, AND AT STAIRS CLEAR WIDTH BETWEEN WALLS OR CURBS.
- 5) DO NOT SCALE DRAWINGS, IF THERE IS A CONFLICT IN DIMENSIONS OR IF THERE IS INSUFFICIENT DIMENSIONING, CONTACT THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING.
- 6) IF AN ORDER OF PRECEDENT FOR THE INTERPRETATION OF DOCUMENTS IS NOT PROVIDED IN THE PROJECT MANUAL (IF PROVIDED), AND A CONFLICT OCCURS IN THE SPECIFICATIONS, ON THE DRAWINGS, OR BETWEEN THE DRAWINGS AND SPECIFICATIONS, CONTACT THE ARCHITECT. ALL REQUEST FOR CLARIFICATION TO THE ARCHITECT SHALL BE MADE IN WRITING. THE ARCHITECT'S RESPONSE SHALL BE MADE IN WRITING AND NO FORMAL INSTRUCTIONS SHALL BE GIVEN VERBALLY.
- 7) WHERE CLEAR DIMENSIONS ARE INDICATED, THIS SHALL MEAN CLEAR WIDTH FROM FINISHED WALL TO FINISHED WALL OR CLEAR FLOOR AREA BETWEEN BUILDING COMPONENTS.
- 8) ALL FIRE RATED PARTITION OR WALL ASSEMBLIES SHALL EXTEND FROM THE FLOOR SLAB TO THE UNDERSIDE OF THE BUILDING STRUCTURE AND/OR DECK ABOVE. ALL PENETRATIONS IN RATED CONSTRUCTION SHALL BE PROPERLY SEALED TO INSURE THE RATING IS MAINTAINED.
- 9) ALL FIRE RATED FLOOR/CEILING OR ROOF/CEILING ASSEMBLIES SHALL BE CONTINUOUS BETWEEN PARTITIONS AND/OR WALLS FOR THE SPACE OR HORIZONTAL AREA INDICATED. ALL PENETRATIONS IN RATED CONSTRUCTION SHALL BE PROPERLY SEALED TO INSURE THE RATING IS MAINTAINED.
- 10) TYPICAL AND STANDARD DETAILS MAY BE PROVIDED IN THE DRAWINGS. IF A SPECIFIC DETAIL IS NOT PROVIDED FOR CONDITION OF FABRICATION AND/OR INSTALLATION, CONTACT THE ARCHITECT PRIOR TO PROCEEDING.
- 11) THE INSTALLATION OF MECHANICAL, PLUMBING AND ELECTRICAL ITEMS (INCLUDING UTILITIES, ROUGH-INS, SYSTEM COMPONENTS AND FINISHED FIXTURES) IN EXPOSED TO VIEW AREAS OR SPACES SHALL BE UNDERTAKEN WITH SKILL AND CRAFTSMANSHIP TO PROVIDE A FINISHED CONDITION ACCEPTABLE TO THE ARCHITECT. ALL EXPOSED TO VIEW ITEMS SHALL BE FINISHED WITH PAINT UNLESS OTHERWISE SPECIFIED TO BE PREFINISHED OR NOT TO BE PAINTED.
- 12) THESE GENERAL NOTES HAVE THE SAME AUTHORITY AS OTHER NOTES AND REFERENCES IN THE DRAWINGS OR SPECIFICATIONS AND SHALL NOT BE EXCLUDED IN THE EXECUTION OF THE WORK. THEY MAY REQUIRE COORDINATION BETWEEN VARIOUS TRADE CONTRACTORS. IN ADDITION TO THESE GENERAL NOTES, REFER TO DEMOLITION AND CONSTRUCTION NOTES SPECIFIC TO EACH DRAWING.
- 13) THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL REASONABLE SAFEGUARDS FOR SAFETY AND HEALTH, INCLUDING POSTING DANGER SIGNS AND OTHER WARNING AGAINST HAZARDS, AS WELL AS PROMULGATING SAFETY STANDARDS.
- 14) THE CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE OWNER FOR ON-SITE STORAGE OF MATERIALS
- 15) THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK PREMISE AT ALL TIMES AND SHALL CLEAN CONSTRUCTION SITE OF ALL DEBRIS DAILY. THE WORK PREMISE SHALL BE CLEAN AT COMPLETION OF JOB AND BEFORE FINAL PAYMENT IS MADE.
- 16) THE CONTRACTOR SHALL TAKE CARE NOT DAMAGE EXISTING SURFACES AND SHALL BE RESPONSIBLE FOR RESTORING AREAS DAMAGED BY THE CONTRACTOR (MATERIALS, FINISHES, ETC.) TO THEIR ORIGINAL CONDITIONS. SURFACES SHALL BE REPAINTED TO MATCH EXISTING ADJACENT FINISHES.

**Standard Abbreviations:**

A/C	-AIR CONDITIONING	FD	-FLOOR DRAIN	M	-METER	SAN	-SANITARY
ACI	-AMERICAN CONCRETE INSTITUTE	FEB	-FIRE EXTINGUISHER W/ BRACKET	MATL	-MATERIAL	SC	-SOLID CORE
ACT	-ACOUSTICAL CEILING TILE	FEC	-FIRE EXTINGUISHER IN CABINET	MAX	-MAXIMUM	SECT	-SECTION
ADJ	-ADJACENT	FF	-FINISH FLOOR	MC	-MECHANICAL	SEW	-SEWER
AFF	-ABOVE FINISH FLOOR	FHC	-FIRE HOSE CABINET	MECH	-MECHANICAL	SF	-SQUARE FEET
ALT	-ALTERNATE	FIN	-FINISH	MTL	-METAL	SGL	-SINGLE
ALUM	-ALUMINUM	FL	-FLOOR	MEZZ	-MEZZANINE	SIM	-SIMILAR
ASTM	-AMERICAN SOCIETY OF TSTG. & MTL.	FLG	-FLASHING	MFR	-MANUFACTURER	SJ	-SAWED JOINT
		FT	-FOOT OR FEET	MIN	-MINIMUM	SPKLR	-SPRINKLER
		FG	-FOOTING	MISC	-MISCELLANEOUS	SQ	-SQUARE
		GA	-GAUGE	MK	-MARK	SST	-STAINLESS STEEL
BD	-BOARD	GALV	-GALVANIZED	MO	-MASONRY OPENING	STD	-STANDARD
BLDG	-BUILDING	GEN	-GENERAL	MTD	-MOUNTED	STL	-STEEL
BLT	-BOLT	GND	-GROUND	MULL	-MULLION	STOR	-STORAGE
BM	-BEAM	GWB	-GYPSUM WALLBOARD	N	-NORTH	STRUCT	-STRUCTURAL
BOT	-BOTTOM	GYP	-GYPSUM	NA	-NOT APPLICABLE	SUSP	-SUSPENDED
BRG	-BEARING			NIC	-NOT IN CONTRACT	TBD	-TO BE DETERMINED
		C/C	-CENTER TO CENTER	NOM	-NOMINAL	TEL	-TELEPHONE
CEM	-CEMENT	CG	-CUBIC FEET	NS	-NON SHRINK	TEMP	-TEMPORARY, TEMPERATURE
CF	-CUBIC FEET	CG	-CUBIC FEET PER MINUTE	NTS	-NOT TO SCALE	T&G	-TONGUE & GROOVE
CFM	-CUBIC FEET PER MINUTE	CIR	-CIRCLE, CIRCULAR	OA	-OVERALL	THK	-THICK
COR	-CORNER GUARD	CIP	-CAST-IN-PLACE	OC	-ON CENTER	TOB	-TOP OF BEAM
CORR	-CORRUGATED	CJ	-CONTROL JOINT	OD	-OUTSIDE DIAMETER	TOC	-TOP OF CONCRETE
CS	-COUNTERSINK	CLG	-CEILING	OH	-OVERHEAD	TOF	-TOP OF FOOTING
CTR	-CENTER	CLO	-CLOSET	OPP	-OPPOSITE	TOS	-TOP OF STEEL
		CLR	-CLEARANCE, CLEAR	OPPH	-OPPOSITE HAND	TS	-STRUCTURAL TUBE STEEL
COMP	-COMPOSITE	CMU	-CONCRETE MASONRY UNIT	PCF	-POUNDS PER CUBIC FOOT	TV	-TELEVISION
CONC	-CONCRETE	COL	-COLUMN	PKG	-PACKING	TYP	-TYPICAL
CONSTR	-CONSTRUCTION	CONC	-CONCRETE	PL	-PLATE	UNF	-UNFINISHED
CONT	-CONTINUOUS	CONSTR	-CONSTRUCTION	PLM	-PLASTIC LAMINATE	UON	-UNLESS OTHERWISE NOTED
CORR	-CORRUGATED	CONT	-CONTINUOUS	PLYWD	-PLYWOOD	UR	-URINAL
CS	-COUNTERSINK	CORR	-CORRUGATED	PNL	-PANEL	VCT	-VINYL COMPOSITION TILE
CTR	-CENTER	CS	-COUNTERSINK	PR	-PAIR	VBR	-VAPOUR BARRIER
		CTR	-CENTER	PREP	-PREPARED	VERT	-VERTICAL
DBL	-DOUBLE	DBL	-DOUBLE	PSF	-POUNDS PER SQUARE FOOT	VEST	-VESTIBULE
DEFS	-DIRECT APPLIED EXT FINISH SYSTEM	DEG	-DEGREES	PSI	-POUNDS PER SQUARE INCH	VFY	-VERIFY
DEG	-DEGREES	DIA	-DIAMETER	PT	-PRESSURE TREATED, PAINT, POINT	VOL	-VOLUME
DIA	-DIAMETER	DIM	-DIMENSION	PVC	-POLYVINYL CHLORIDE	VT	-VENT TILE
DIM	-DIMENSION	DN	-DOWN	PVMT	-PAVEMENT	W/	-WITH
DN	-DOWN	DS	-DOWNSPOUT	QC	-QUALITY CONTROL	WC	-WATER CLOSET
DS	-DOWNSPOUT	DTL	-DETAIL	QT	-QUARRY TILE	WD	-WOOD
DTL	-DETAIL	DWG	-DRAWING	REF	-REFERENCE	W/O	-WITHOUT
DWG	-DRAWING	EA	-EACH	REINF	-REINFORCED, REINFORCEMENT	WP	-WATERPROOF WORKING POINT
EA	-EACH	EJ	-EXPANSION JOINT	REQD	-REQUIRED	WWF	-WELDED WIRE FABRIC
ELEC	-ELECTRICAL	ELEV	-ELEVATOR, ELEVATION	REV	-REVISION		
ELEV	-ELEVATOR, ELEVATION	ENCL	-ENCLOSURE	RH	-RIGHT HAND		
ENCL	-ENCLOSURE	EQ	-EQUAL	RM	-ROOM		
EQ	-EQUAL	EQUIP	-EQUIPMENT	RO	-ROUGH OPENING		
EQUIP	-EQUIPMENT	EWC	-ELECTRICAL WATERCOOLER				
EXH	-EXHAUST	EX	-EXISTING				
EX	-EXISTING	EXT	-EXTERIOR				
EXT	-EXTERIOR						

**Applicable Codes:**

Florida Building Code, Building (FBC-B)	8th Edition
Florida Building Code, Accessibility (FBC-A)	8th Edition
Florida Building Code, Existing Building (FBC-EB)	8th Edition
Florida Building Code, Mechanical	8th Edition
Florida Building Code, Fuel Gas	8th Edition
Florida Building Code, Plumbing	8th Edition
Florida Building Code, Energy Conservation	8th Edition
Florida Fire Prevention Code (FFPC)	8th Edition
National Electrical Code (NEC)	2020 Edition

**NOTE:** CONTRACTOR SHALL MAKE AVAILABLE TO THE BUILDING INSPECTOR, DOCUMENTATION NECESSARY TO VERIFY THAT ALL EXTERIOR ENVELOPE COMPONENTS REQUIRING PRODUCT APPROVAL PER FS 533.842 ARE IN COMPLIANCE WITH PRODUCT APPROVAL INSTALLATION REQUIREMENTS.

ID	Name	Current Issue
G1.0	Index of Drawings, Standard Abbreviations and General Notes	Addendum No. 2
<b>Architecture</b>		
SP1.1	Specifications	100% Construction Documents
SP1.2	Specifications	100% Construction Documents
SP1.3	Specifications	Addendum No. 2
D1.1	Demolition Roof Plan	Addendum No. 2
A1.1	Roof Plan & Details	Addendum No. 2
A2.1	Exterior Elevations	Addendum No. 2
<b>Structural</b>		
S0.1	Structural Notes and Details	100% Construction Documents

Z:\24510 - LCS Continuing Contract 2024-2027\24510.1 - BIM LCS Athletic Building Re-Roofing\Arch\cad\24510.1 - LCS Athletic Building Re-Roofing.pln

<p>Leon County Schools 3420 W. Tharpe St., Suite 100 Tallahassee, FL 32303</p>	<p>Client:</p>	<p>Job Title:</p>	<p>Project #: 24510.1</p>	<p>Phase: 100% Construction Documents</p>	
					<p>Consultant:</p>
<p>Architects Lewis + Whitlock 206 West Virginia St. Tallahassee, Florida 32301 850.942.1718 www.think3d.net</p>	<p>Description: <b>Index of Drawings, Standard Abbreviations and General Notes</b></p>				
<p>Sheet No.:</p>				<p><b>G1.0</b></p>	

PHASE:	DRAWN:	REVIEWED:	DATE:
CONCEPT SCHEM. DESIGN	BB	R. Lewis	2/7/2025
ADVANCED SCHEM. DESIGN			
20% CONSTRUCTION DOCS			
50% CONSTRUCTION DOCS			
PERMIT DOCS			
100% CONSTRUCTION DOCS			

THESE DRAWINGS AND RENDERINGS ARE INSTRUMENTS OF SERVICE. THE DRAWINGS AND ASSOCIATED COPIES THEREOF, INCLUDING ELECTRONIC MEDIA AND CAD FILES, ARE THE PROPERTY OF ARCHITECTS: LEWIS + WHITLOCK, P.A. THEIR USE, REPRESENTATION OR REPRODUCTION FOR ANY PURPOSE EXCEPT BY WRITTEN AGREEMENT WITH THE ARCHITECT IS PROHIBITED. THIS COPYRIGHT NOTIFICATION SHALL BE TRUE AS IF DIRECTLY PLACED ON EACH DRAWING AND SHALL NOT BE REMOVED FROM THESE DOCUMENTS.

DIVISION 11 - EQUIPMENT  
SECTION 116713  
BOWLING ALLEY EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Bowling Alley Equipment.

1.02 RELATED REQUIREMENTS

- A. Section 012300 - Alternates: Descriptions of items, administrative requirements.
B. Section 013000 - Administrative Requirements: Submittal procedures, project meetings, progress schedules and documentation, reports, coordination.
C. Section 014000 - Quality Requirements: Procedures for testing, inspection, mock-ups, reports, certificates; use of reference standards.
D. Section 017800 - Closeout Submittals: Project record documents, operation and maintenance (O&M) data, warranties and bonds.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.
B. Sequencing: Ensure that utility connections are achieved in an orderly and expeditious manner.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide manufacturer's technical information for all equipment to be provided, including details about materials, components, finishes and required utility connections.
C. Shop Drawings: Indicate required opening dimensions and tolerances, placement dimensions of equipment, and perimeter conditions of construction.
D. Samples: submit samples of all finish options for initial selection.
E. Manufacturer's Qualification Statement.
F. Installer's Qualification Statement.
G. Maintenance Data: Provide maintenance data for all equipment.
H. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least five years of documented experience.
B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.

1.06 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
B. Warranty period for equipment specified under Products section.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Brunswick Bowling Equipment.
1. Lanes (Brunswick Pro Lane Bowling Lane) Preferred lane surface.
2. A synthetic bowling lane which is 7/16" thick and is made from 100% solid phenolic laminate. The lane will feature a maple image and will include board lines, USBC Certified down-lane markings that provide additional targets serves as an instructional aid for bowlers. Lanes will have a complete edge-to-edge glow effect on lane and approach for use during "glow bowling" events under black light.
a. Alternating light/dark board design, with every fifth board being highlighted to provide target zones to aid bowlers.
b. Down-lane markings to help bowlers develop precise break points and improve scores.
c. Integrated foul line with no seam for better stability and durability.
d. Anti-skid pin deck to reduce sliding pins and out-of-range trouble calls, and will have "scribed" pin spots.
e. 60"-wide, textured approach panels for improved, more consistent sliding conditions.
f. The bowling lane will have a written lifetime warranty against delamination backed up by the manufacturer.
g. The bowling lane will have the ability to have custom glow ink images, logos, or printed images installed to match center brand purposes.
h. The bowling lane will have the ability to select from more than 100 custom colored lane option.
i. The lane will have a written 5-year warranty against defects.
j. The lane will have a written one-year warranty on labor backed up by the manufacturer when installed by the manufacturer.
B. Bowling Lane Foundation.
1. Bowling lane underlayment will be made from "laminated strand lumber". LSL is a structural grade composite lumber manufactured from strands of wood whose grain has been glued and pressed in parallel orientation. LSL is most often used in structural applications such as building truss systems, load bearing supports and framing. LSL provides a much more robust base for bowling lanes.
2. I-joist-supported foundation to provide outstanding dimensional stability and minimize floor movement.
C. Ball Return System
1. Fiberglass hood to maximize durability and resistance to bowler/ball damage.
2. Safety system shall use 8 infrared light beams across the exit/opening of the ball lift and shut down the ball lift if a foreign object enters the opening or the ball rack is full. The ball lift should restart automatically when the foreign object is removed with no staff intervention necessary.
3. Compatible with the Framework ball lift system.
4. Holds up to 12 balls each on the main rack. Optional racks are available to further expand capacity. Eight additional balls can be stored on a separate lower rack that is 1-1/2" off the lane surface for easy cleaning.
5. The control box must be above the lane surface for access.
6. The motor shall be located under the lane surface and out of the reach of bowlers and accessible through a trap door in the approach.
7. Ball rack shall be ergonomically placed at 15"-12" to accommodate all ages of bowlers.
D. Automatic Bumper Rails
1. Curved front rails to improve durability by reducing the force of ball impact.
2. 30 uprights per side (60 per lane) to reduce impact forces and improve durability.
3. Heavy-duty construction, including metal gears within the motor assembly, metal uprights, actuator arm, and rail.
4. Motorized rails automatically raise or lower for each bowler.
5. Integrated safety system provides continuous bowler protection in automatic mode.
6. Automatically detects foreign objects and raises itself in case a person crosses the foul line and gets their foot caught under the rail.
7. System should not be lowered via gravity to prevent a user from getting their foot stuck under the rail.
E. Lightwork Pindeck Lighting
1. A Pindeck Lighting solution which can change the look and feel of your center at any time, creating a new, exciting experience for bowlers and observers alike; including the following:
a. System with dozens of preset, multi-color patterns and sequences.
b. One fixture per lane including over 250 LED's in nine programmable clusters that can display every color of the spectrum.
c. Integrated microphones within each fixture which can sync lights to music.
d. Only one independent power source required for every 12-14 lanes.
e. DMX controller provides easy operation and customization of patterns and sequences.
F. Scoring and Management System (Sync)
1. Management System:
a. Hardware:
1) Back office server must be a commercial-grade server with dual Raid1 SSD hard drives and dual power supply for increased system reliability.
2) Back office server must be Windows Server 2016 or later
3) Client computer with Windows 10
4) All Clients and Servers should have 3-year warranties provided by Dell®
5) System must have optional 7" or 10" mobile tablet POS workstation with 16-hour battery life, shoulder sling, Windows 10 IoT, integrated point of sale functionality, and optional credit card reader.
6) System must have optional All-in-One Client with integrated receipt printers, swipe cards, and pole displays.
b. Bowling Lane Control
1) Scoresheet selection
2) Theme selection
3) Video control
4) Advertising and Messages
5) Lane transfers
6) Bowler name entry, email entry, and score corrections
7) Graphics controls
8) Integrated Intercom
c. Bumper Control by bowler
1) Bowling by Game
2) Bowling by Time
3) GS-X Pinsetter control including pin(s) selection
d. Guest Management
1) Guest Management view panel to easily track and move parties throughout the center.
2) Ability to assign to bowling and non-bowling resources.
3) Mobile waitlist texting management service with ability to text guests, estimate wait times, and receive guest confirmations.
4) Ability for guests to enter their bowling names, email address, and other information on their online reservation or waitlist text and have this information automatically sent to the management, scoring system, and CRM system.
5) Advanced Reservations.
6) Ability to reserve multiple resources, including lanes, party rooms, tables, etc. on a single reservation.
7) Ability to email invoices and reservation confirmations
8) Ability to attach products to reservations to save time when the reservation is activated.
9) Ability to accept individual bowler names and email addresses and assign this information to the lane when the reservation is activated.
e. Restaurant-Grade Point of Sale
1) User Security with employee roles and multiple access/manager override options.
2) Flexible tabbed transactions, including split/merge/move tabs, items, and transactions.

- 3) Food/Beverage functionality including food & beverage modifiers, remote order printing capability, and hold/fire functionality.
4) Unlimited products and product "packages", including ability customize logos, view panels, button size, and color.
5) Ability to interface products and product "packages" with web-based coupons.
6) Integrated 2D QR reader for coupon scanning and redemption.
7) Sales related to coupons redeemed should be tracked and reported on Pre-paid and Post-Paid transaction.
8) Restaurant/Table functionality, including ability to associate tabs with tables.
9) Quick-access buttons to assist wait staff, including ingredient list, price preview, and help text.
10) Table management and rental controls.
11) Account Tracking.
12) Ingredient tracking for export to common inventory management programs, including Yellow Dog software.
13) Interface to Chef-Tab Kitchen Display Systems.
14) Use payment card solution that keeps the scoring and management system out of scope for PA-DSS to support cost effective PCI compliance.
15) Journal Log feature to allow for historical reporting.
f. Back Office
1) Customize MOS and lane status view panels by role.
2) Employee memo features with manager tracking.
3) Multi-zone capabilities, along with custom resource control (billiards, restaurant tables, darts, party room, etc.).
4) System audit to identify potential theft issues.
5) Automated System Health to identify the status of scoring, management, and POS software and hardware.
6) Advanced reporting with XML- and CSV-based exports and ability import/export/merge reports.
7) Interface to MICROS POS system.
8) Interface to Azbar, and Berg beverage control systems.
9) Real-time sales reporting interface for YellowDog Inventory Management System and other 3rd parties.
10) Interfaces with Embed®, Intercard®, and Sacoa® amusement game card systems.
11) Automatically download marketing content from cloud-based marketing systems.
12) Automatically download software updates, and give administrators the ability to push software updates to the entire system from the Management software.
13) Complete labor management system with HotSchedules integration, labor forecasting, and virtual and physical limeclock solutions.
2. Scoring
a. Exclusive scoring system used by the USBC to run Open and Women's Championships through 2024.
b. Hardware
1) Scoring resolution should be true 1920x1080p HD.
2) Overhead electronics should be Windows operating system.
3) Bowler consoles available in stand-alone mounting format or mountable on Center Stage, Framework, and Striking Line furniture.
4) Bowler consoles to be no greater than 10.1" diagonal to minimize total footprint in the bowler's area.
5) Tablet bowler consoles use commercial-grade LED 50,000-hour backlight, capacitive touch technology, and offers standby capabilities to extend the life of the tablet.
6) Overhead monitors must have 32", 43", 49", and 55" LED widescreen monitors with 3-year warranties.
c. Technology
1) Product utilizes distributed scoring architecture which provides:
2) The ability for each bowler and each team to automatically track up to two other unique bowlers and teams.
3) The ability to automatically broadcast player events across a range of lanes when issued for groups.
4) The ability to continue bowling on lanes even if the scoring computer or tablet for the lanes fails.
5) The ability to schedule and display unique advertising simultaneously on individual lane or groups of lanes scoring monitors, both in-game and when the lane is off.
6) Scoring software cannot be designed using discontinued software programming languages such as Visual Basic.
7) Scoring computers will automatically "back-up" data every ball to the center management computer system. Center management computer will have the ability to recover capability of this data to the scoring computers.
8) Scoring system will provide the ability to set any pin combination on-demand from both the scoring console and the front desk computer when installed with Brunswick GS-X® pinsetters, providing bowlers with the easy capability to play games, practice spares and providing center personnel the ability to set spares or re-spot pins.
9) Scoring system will not have the need for a scoring camera and/or associated parts when being used with Brunswick GS-X® pinsetters. Automatic scoring will be done via a direct interface between the new scoring system and the GS-X pinsetters. The scoring computer software, bowler consoles, and other peripherals software and firmware can be updated automatically from a single location using the management system.
10) Interface to 3rd parties such as Magix Lanes so that those products may integrate bowling events (strikes, spares, etc.) into their guest experiences.
d. Bowling Games
1) Games for open and group event bowling, including pinpix, Rival Rumble, Kapow, The Buzz, Stat King, and numerous other 10-pin themes, including the ability to automatically broadcast player events across a range of lanes when issued for groups.
2) Games for birthdays, including Angry Birds Bowling, EZ Bowling, and Creature Feature that are simple, easy to understand, and fun to play.
3) Games that allow bowlers to submit and use their own photo from a mobile device.
4) Games for competitive bowlers, including The League, HORSE, myShot, and Best Frame.
5) Games that allows each bowler and each team to automatically track up to two other unique bowlers and teams.
6) Games that allow bowlers to select pin combinations that the group of bowlers competes against. This includes HORSE, which is to the street basketball game, and myShot, which allows bowlers to select a pin shot pattern and track their performance statistics.
7) Must offer a selection of games that utilizes the on-demand pinsetting capabilities of the GS- and StringPin pinsetters.
8) Automatically send scoresheets to bowler via email, with ability for bowlers to share to Facebook and Twitter from their mobile device.
9) Web site for bowlers to track their stats, scores, and receive special offers.
e. Customer Service
1) Ability to upload menus and/or create custom images that promote center specials and menu items. The custom image should include a Staff Call To Action function. The Staff Call To Action is a customizable specials button on the bowler console that notifies staff when a guest selects a given button.
2) VoIP intercom for tablet bowler console, with the ability to customize specific text based service messages.
3) 7" or 10" mobile POS tablet with tab management and remote order printer integration, with hardware having a 16-hour battery life.
4) Marketing and Loyalty/Rewards Integration
1) Must display advertisements in-game on the overhead monitor, bowler console, and digital signage platforms, with content generated using the cloud-based marketing and media management system.
2) Allow the bowler to sign in at the lane to track scores, stats, and get their scoresheet emailed to them at the end of the game.
3) Allow the bowler to provide email at the tablet console that will result in an email containing their scoresheet, offers, and ability to share to personal Facebook or Twitter accounts.
4) System must have a mobile-friendly web site that allows bowlers to track their stats, scores, and offers earned by visiting the center.
5) System must be able to track spending associated by bowler when redeeming unique offers/coupons.
g. Marketing
1) Scoring and Management system should include a fully integrated cloud-based Customer Relationship Management (CRM) system with the ability to create, schedule, and distribute marketing campaigns over multiple channels, including in-center scoring and POS systems, digital signage, Facebook, Twitter, email, and the center's web site from a single web-based interface.
2) Ability to schedule campaigns and marketing channels by day, time, location, and lane.
3) More than 45 pre-built marketing campaigns.
4) Campaign Builder - design marketing campaigns in as few as five clicks.
5) Media Manager - more than 200 marketing images.
6) Automatically send league recaps to bowlers.
7) Automatically collect and send scoresheet, reservation invoice, and receipts via email provided at the tablet bowler console, front desk, or through online reservation.
8) Ability to manage marketing content (images, videos, ads) through a web-based application. Application should provide the ability to tag, edit, and import/export media.
9) Ability to manage marketing for multiple centers from a single account.
10) Ability to create and send personalized offers to bowlers. Offers shall be scanned via QR code scanner at the POS system and all revenue from offer tracked in the CRM system along with redemption statistics.
11) Membership program that gives bowlers the ability to track their scores, stats, and personalized offers through a mobile-friendly web site.
12) Bowlers should be able to share emailed scoresheets to bowler's Facebook and Twitter accounts.
13) System should send users monthly summaries of Sync marketing activities, including a marketing score, metrics, and system notifications.
14) Digital Signage system should be controlled by centralized CRM system, including the ability to create and schedule content to be displayed. This can include the automatic display of scoring lane assignments, waitlists, and marketing content using predefined templates that accept videos and imagery.
15) All intellectual property for the new scoring system will be owned by the seller and licensed directly by seller to purchaser.
G. Freefall Pinsetter
1. The pinsetter, after the initial bowling ball is rolled, will automatically lift any standing pins and sweep all fallen pins from the pin deck. It then will automatically reset the standing pins and return the bowling ball to the bowler. After the second ball is thrown (or if all pins are knocked down on the initial first ball) the new pinsetter will automatically set 10 new pins for the bowler to begin a new delivery frame. The new pinsetter is supported over the pin deck by the kickbacks and will consist of 10 major subassemblies as follows:
a. Elevator - removes the bowling pins from the Transport Band sub-assembly for deposit into the Distributor sub-assembly.
b. Transport Band - moves fallen pins from the pin deck and deposits them to the Elevator.
c. Ball Cushion/Pit Curtain - absorbs impact of the bowling ball and pins.
d. Ball Accelerator - returns bowling ball to the bowler.
e. Sweep Wagon - sweeps all fallen pins from the pin deck.
f. Setting Table - Resets and Sets pins to the pin deck and provides pin count to Automatic Scorer.
g. Drive Frame - holds motors, gears and pulleys to manage all mechanical sub-assemblies.
h. Main Frame - supports the new machine on the kickbacks.
i. Distributor - moves pins from the Elevator to the Setting Table.
j. Electronics - provides programmable controller and machine intelligence.
2. In addition to performing all basic requirements to meet bowler and United States Bowling Congress (USBC) specifications, the new pinsetter will possess the following capabilities:
a. Will be able to automatically correct errors that occur if a pin falls before or after spotting.
b. Will have ability to remember and reset the last pin combination automatically.
c. Will not require a pinsetter cycle when the initial ball is delivered in the channel or just the 7/10 pins are knocked down.
d. Will be able to automatically correct bowler fouls and reset a full set of pins.

- e. Will be electronically triggered by a bowling ball passing an electronic photocell.
f. Will be able to conduct self-diagnostics in all different pinsetter modes.
g. Will provide electronic codes displayed so the pinsetter mechanic can diagnose errors and provide corrective action.
h. Will have ability to set individual pins on demand dependent on the Automatic Scorer Involved.
3. The mechanical and electrical specifications of the new pinsetter will be:
a. Dimensions of 126" long, 66" wide and 76" high and weighs 1,800 pounds (2,000 pound shipping weight).
b. Will be powered by four (4) each 3 phase motors:
1) Distributor/Elevator/Transport Band motor - 1/2 horsepower.
2) Setting Table motor - 1/2 horsepower.
3) Sweep motor - 1/2 horsepower.
4) Ball Accelerator motor - 1/2 horsepower (shared between 2 pinsetters).
c. Motors will be powered by 3 phase - 208 VAC, 220 VAC or 380 VAC with motor movements controlled by the new pinsetter electronics.
d. The ball return exit will be located on the side of the new pinsetter.
e. After first ball delivery the new pinsetter will be capable of picking up a pin that has moved 9 inches in any direction.
f. The written warranty associated with the new pinsetter will be:
1) Two (2) years mechanical parts and materials.
2) One (1) year on wear items such as belts, chains, etc.
3) One (1) year electrical parts.
4) Ninety (90) days labor.
5) All warranties reflect installation by manufacturer.
g. Machine should report error codes, machine states, and diagnostics to pinsetter controller and Automatic Scorer.
H. Lane Machine
1. Direct-to-lane conditioning system with 39 individual injectors to remove the variation that comes with transfer system machines.
2. Six-button Graphical User Interface to simplify ease of use and programming.
3. V-shaped squeegee cleaning system.
4. Option of running on AC or two different types of battery power.
5. Two (2) year warranty on the machine.
I. Substitutions: See Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Verify that building components are acceptable for installation of bowling equipment.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

3.03 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for additional requirements.
B. Provide manufacturer's field representative to inspect equipment installation for conformance with manufacturer's standards.

3.04 SYSTEM STARTUP

- A. Provide manufacturer's field representative to perform systems startup.
B. Prepare and start equipment and systems in accordance with manufacturers' instructions and recommendations.

3.05 ADJUSTING

- A. Adjust equipment for smooth operation.

3.06 CLOSEOUT ACTIVITIES

- A. Demonstration: Demonstrate operation of system to Owner's personnel.
1. Use operation and maintenance data as reference during demonstration.
2. Conduct walking tour of project.
3. Briefly describe function, operation, and maintenance of each component.
B. Training: Train Owner's personnel on operation and maintenance of system.
1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
2. Provide minimum of one day of training.
3. Instructor: Manufacturer's training personnel.
4. Location: At project site.

3.07 PROTECTION

- A. Protect installed flooring and equipment from subsequent construction operations.
B. Do not permit traffic over unprotected floor surface.

END OF SECTION 116713  
DIVISION 01 - GENERAL REQUIREMENTS  
SECTION 011000  
SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: LCS Athletics Maintenance Building No. 3 Re-Roof
B. Owner's Name: Leon County Schools.
C. Architect's Name: Architects Lewis + Whitlock, PA.
D. The project scope includes demolition and replacement of existing translucent roof panels. As well as adding retrofit standing seam roof with insulation above existing metal roof and replacing existing gutter and downspout system.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on the Cost of the Work plus a fee as described in Document 005000 - Contracting Forms and Supplements.

1.03 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
B. Owner intends to occupy the Project upon Substantial Completion.
C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
D. Schedule the Work to accommodate Owner occupancy.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
1. Locate and conduct construction activities in ways that will limit disturbance to site.
B. Provide access to and from site as required by law and by Owner:
1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
2. Do not obstruct roadways, sidewalks, or other public ways without permit.
C. Utility Outages and Shutdown:
1. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
2. Prevent accidental disruption of utility services to other facilities.

1.05 WORK SEQUENCE

- A. Coordinate construction schedule and operations with Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 011000  
SECTION 012500  
SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

1.02 RELATED REQUIREMENTS

- A. Section 002113 - Instructions to Bidders: Restrictions on timing of substitution requests.
B. Section 004325 - Substitution Request Form - During Procurement: Required form for substitution requests made prior to award of contract (During procurement).
C. Section 006325 - Substitution Request Form - During Construction: Required form for substitution requests made after award of contract (During construction).
D. Section 013000 - Administrative Requirements: Submittal procedures, coordination.
E. Section 016000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

1.03 DEFINITIONS

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
a. Substitution requests offering advantages solely to the Contractor will not be considered.
B. Substitutions: See General Conditions for definition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

Table with columns: PHASE, DRAWN, REVIEWED, DATE, REVISION, ID, DATE, B.B., C. WHITLOCK, 10/26/2024

Client: Leon County Schools  
3420 W. Tharpe St., Suite 100  
Tallahassee, FL 32303  
Job Title: LCS Athletics Maintenance Building  
No. 3 Re-Roofing

Consultant: Architects Lewis + Whitlock  
206 West Virginia St.  
Tallahassee, Florida 32301  
850.942.1718  
www.think3d.net  
Project #: 24510.1  
Phase: 100% Construction Documents

ALW  
Architects Lewis + Whitlock  
206 West Virginia St.  
Tallahassee, Florida 32301  
850.942.1718  
www.think3d.net  
Description:  
Specifications  
Sheet No.: SP1.1



- D. Store sensitive products in weatherlight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Provide off-site storage and protection when site does not permit on-site storage or protection.
- G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- H. Comply with manufacturer's warranty conditions, if any.
- I. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- J. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- K. Prevent contact with material that may cause corrosion, discoloration, or staining.
- L. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- M. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION 016000**  
**SECTION 017000**  
**EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Cleaning and protection.
- F. Demonstration and instruction of Owner personnel.
- G. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- H. General requirements for maintenance service.

**1.02 RELATED REQUIREMENTS**

- A. Section 078400 - Firestopping.

**1.03 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of Owner or separate Contractor.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities.

**1.04 PROJECT CONDITIONS**

- A. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
  - 1. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.
- B. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
  - 1. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
- C. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
- D. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

**1.05 COORDINATION**

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

**PART 2 PRODUCTS**

**2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

**3.02 PREPARATION**

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

**3.03 PREINSTALLATION MEETINGS**

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
  - 1. Review conditions of examination, preparation and installation procedures.
  - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

**3.04 GENERAL INSTALLATION REQUIREMENTS**

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

**3.05 ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as indicated.
  - 2. Report discrepancies to Architect before disturbing existing installation.
  - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove items indicated on drawings.
  - 2. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
  - 3. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- C. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.

- 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
- 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
- 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
  - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
  - b. Provide temporary connections as required to maintain existing systems in service.
- 4. Verify that abandoned services serve only abandoned facilities.
- 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

- D. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.

- E. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
  - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
  - 2. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.

- F. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- G. Clean existing systems and equipment.

- H. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- I. Do not begin new construction in alterations areas before demolition is complete.
- J. Comply with all other applicable requirements of this section.

**3.06 CUTTING AND PATCHING**

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.
  - 3. Provide openings for penetration of mechanical, electrical, and other services.
  - 4. Match work that has been cut to adjacent work.
  - 5. Repair areas adjacent to cuts to required condition.
  - 6. Repair new work damaged by subsequent work.
  - 7. Remove samples of installed work for testing when requested.
  - 8. Remove and replace defective and non-complying work.

- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

- E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.

- J. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
  - 2. Match color, texture, and appearance.
  - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

**3.07 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

**3.08 PROTECTION OF INSTALLED WORK**

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

**3.09 FINAL CLEANING**

- A. Use cleaning materials that are nonhazardous.
- B. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- C. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, drainage systems, and \_\_\_\_\_.
- D. Clean site; sweep paved areas, rake clean landscaped surfaces.
- E. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

**3.10 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  - 1. Provide copies to Architect and Owner.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

**3.11 MAINTENANCE**

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

**END OF SECTION 017000**  
**DIVISION 07 - THERMAL AND MOISTURE PROTECTION**  
**SECTION 072100**  
**THERMAL INSULATION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Board insulation over existing roofing material.

**1.02 RELATED REQUIREMENTS**

**1.03 REFERENCE STANDARDS**

- A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2015a.
- B. ASTM C1338 - Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings; 2019.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- D. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C; 2012.

**1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

**1.05 FIELD CONDITIONS**

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

**PART 2 PRODUCTS**

**2.01 APPLICATIONS**

- A. Insulation above existing metal roof panels: Expanded Polystyrene Foam

**2.02 FOAM BOARD INSULATION MATERIALS**

- A. Expanded Polystyrene (EPS) Board Insulation: Complies with ASTM C578.
  - 1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
  - 2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
  - 3. Board Size: 48 inch by 96 inch.
  - 4. Board Thickness: 2 1/2" over existing roof panels and 1" between new purlins.
  - 5. Board Edges: Square.

**2.03 ACCESSORIES**

- A. Tape: Reinforced polyethylene film with acrylic pressure sensitive adhesive.
  - 1. Application: Sealing of interior circular penetrations, such as pipes or cables.
  - 2. Width: Are required for application.
- B. Tape joints of rigid insulation in accordance with roofing and insulation manufacturers' instructions.
- C. Insulation Fasteners: Lengths of unfinished, 13 gauge, 0.072 inch high carbon spring steel with chisel or mitered tips, held in place by tension, length to suit insulation thickness and substrate, capable of securely supporting insulation in place.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

**3.02 BOARD INSTALLATION OVER LOW SLOPE ROOF DECK**

- A. Board Installation Over Roof Deck, General:
  - 1. See applicable roofing specification section for specific board installation requirements.
  - 2. Fasten insulation to deck in accordance with roofing manufacturer's written instructions and applicable Factory Mutual requirements.
  - 3. Do not apply more insulation than can be covered with roofing on the same day.

**3.03 FIELD QUALITY CONTROL**

- A. See Section 014000 - Quality Requirements for additional requirements.

**3.04 PROTECTION**

- A. Do not permit installed insulation to be damaged prior to its concealment.

**END OF SECTION 072100**  
**SECTION 074113**  
**METAL ROOF PANELS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Architectural roofing system of preformed steel panels.

**1.02 RELATED REQUIREMENTS**

- A. Section 072100 - Thermal Insulation: Rigid roof insulation.

**1.03 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Storage and handling requirements and recommendations.
  - 2. Installation methods.
  - 3. Specimen warranty.
- C. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
  - 1. Show work to be field-fabricated or field-assembled.
- D. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

**1.06 WARRANTY**

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Basis of Design:
  - 1. Metal Roof Panels: 18" min. to 24" max width
- B. Metal Roof Panels:
  - 1. Englert, Inc. S2500: www.englertinc.com
  - 2. MBCL Superlok: www.mbcl.com
  - 3. Petersen Aluminum Corporation; Tite-Loc Plus Panel: www.pac-clad.com
  - 4. Substitutions: See Section 016000 - Product Requirements.

**2.02 METAL ROOF PANELS**

- A. Metal Roof Panels: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.
- B. Metal Panels panels with factory-applied finish.
  - 1. Steel Panels:
    - a. Zinc-coated steel complying with ASTM A653/A653M; minimum G90 galvanizing.
    - b. Steel Thickness: Minimum 24 gauge (0.024 inch).
  - 2. Profile: Standing seam, with minimum 2.0 inch seam height; concealed fastener system for field seaming with special tool.
  - 3. Texture: Smooth, with intermediate ribs for added stiffness.
  - 4. Width: Maximum panel coverage of 24 inches.

**2.03 ATTACHMENT SYSTEM**

- A. Concealed System: Provide manufacturer's standard galvanized steel concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

**2.04 SECONDARY FRAMING**

- A. Secondary Framing for Roof Retrofit: Light gauge, asymmetrical section, steel zee profile framing pre-cut with notches that match size, shape and spacing of existing metal roof seams.
- B. Framing Material: ASTM A 1011/A 1011M, Designation SS steel sheet.

**2.05 FINISHES**

- A. Galvalume

**2.06 ACCESSORIES**

- A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, and caps of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
- B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
- C. Sealants:
  - 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
  - 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.
- D. Thermal Insulation: Provide rigid type, faced with white, flexible, non-dusting vapor retarder tested for maximum flame spread index of 50, per ASTM E84; for installation using spacer blocks.
  - 1. Underlayment: Self-adhering rubber-modified asphalt sheet complying with ASTM D1970/D1970M; 22 mil total thickness; with strippable release film and woven polypropylene sheet top surface.
  - 2. Sheet Thickness: 40 mil, 0.040 inch minimum total thickness.
  - 3. Self-Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
  - 4. Manufacturers:
    - a. Henry Company; Blueskin RF200: www.henry.com/#sle
    - b. GCP Applied Technologies; Grace Ice and Water Shield: www.gcpat.com/#sle
    - c. Owens Corning; Titanium PSU30: www.https://www.owenscorning.com/#sle
    - d. Tamco NOT TO BE USED

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

**3.02 PREPARATION**

- A. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
- B. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.

PHASE:	DRAWN:	REVISION:	DATE:
CONCEPT SCHEM. DESIGN	BB	1	2/7/2025
ADVANCED SCHEM. DESIGN			
50% CONSTRUCTION DOCS			
80% CONSTRUCTION DOCS			
PERMIT DOCS			
100% CONSTRUCTION DOCS	B.B.		10/26/2024

**LEON COUNTY SCHOOLS**

**Leon County Schools**  
 3420 W. Tharpe St., Suite 100  
 Tallahassee, FL 32303

**LCS Athletics Maintenance Building**  
 No. 3 Re-Roofing

Client: \_\_\_\_\_

Consultant: \_\_\_\_\_

Seal: \_\_\_\_\_

Job Title: \_\_\_\_\_

Project #: **24510.1**

Phase: **100% Construction Documents**

ALW

Architects Lewis + Whitlock  
 206 West Virginia St.  
 Tallahassee, Florida 32301  
 850.942.1718  
 www.think3d.net

Specifications

Sheet No.: **SP1.3**

- C. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.
- 3.03 INSTALLATION**
- A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
    1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
    2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
  - B. Accessories: Install all components required for a complete roofing assembly, including flashings, gutters, downspouts, trim, moldings, closure strips, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
  - C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.
    1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by the panel manufacturer.
    2. Incorporate concealed clips at panel joints, and apply snap-on battens to provide weathertight joints.
    3. Provide sealant tape or other approved joint sealer at lapped panel joints.
    4. Install sealant or sealant tape, as recommended by panel manufacturer, at end laps and side joints.
  - D. Insulation: Install insulation between roof covering and supporting members to present a neat appearance. Fold, staple, and tape seams unless otherwise approved by Architect.
- 3.04 CLEANING**
- A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratches, or other damage to the finish.
- 3.05 PROTECTION**
- A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.
  - B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

**END OF SECTION 074113**  
**SECTION 074213**  
**METAL WALL PANELS**

- PART 1 GENERAL**
- 1.01 SECTION INCLUDES**
- A. Metal wall panel system.
- 1.02 REFERENCE STANDARDS**
- A. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2013.
- 1.03 SUBMITTALS**
- A. See Section 013000 - Administrative Requirements for submittal procedures.
  - B. Product Data - Wall System: Manufacturer's data sheets on each product used, including:
    1. Physical characteristics of components shown on shop drawings.
    2. Storage and handling requirements and recommendations.
    3. Installation instructions and recommendations.
  - C. Manufacturer's qualification statement.
  - D. Installer's qualification statement.
- 1.04 QUALITY ASSURANCE**
- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
  - B. Installer Qualifications: Company specializing in installing products specified in this section with minimum three years of documented experience.
- 1.05 DELIVERY, STORAGE, AND HANDLING**
- A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
  - B. Store prefabricated material off the ground and protect it from weather; prevent twisting, bending, or abrasion; provide ventilation; slope metal sheets to ensure proper drainage.
  - C. Prevent contact with materials that cause discoloration or staining of products.
- 1.06 FIELD CONDITIONS**
- A. Do not install wall panels when air temperature or relative humidity is outside manufacturer's limits.
- PART 2 PRODUCTS**
- 2.01 MANUFACTURERS**
- A. Metal Wall Panels - Exposed Fasteners:
    1. Berridge Manufacturing Company; M Panel: www.berridge.com/#sle.
    2. Substitutions: See Section 016000 - Product Requirements.
- 2.02 METAL WALL PANEL SYSTEM**
- A. Wall Panel System: Factory-fabricated prefabricated metal panel system, site assembled.
    1. Provide exterior wall panels.
    2. Size components to support assembly dead loads and withstand live loads caused by positive and negative wind pressure acting normally to plane of wall.
    3. Maximum Allowable Deflection of Panel: L/180 for length (L) of span.
    4. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement between system and perimeter components when subject to seasonal temperature cycling, dynamic loading and release of loads, and deflection of structural support framing.
    5. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.
    6. Fabrication: Formed true to shape, accurate in size, square, and free from distortion or defects; pieces of longest practical lengths.
  - B. Exterior Wall Panels:
    1. Profile: Vertical.
    2. Side Seams: Interlocking.
    3. Panel Width:
      - a. M Panel: 36 inches
    4. Color: As selected by Architect from manufacturer's standard line.
  - C. Internal and External Corners: Same material, thickness, and finish as exterior sheets; profile to suit system; shop-cut to required angles.
  - D. Trim: Same material, thickness and finish as exterior sheets; brake formed to required profiles.
  - E. Anchors: Galvanized steel.
- 2.03 ACCESSORIES**
- A. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane, compatible with PVDF paint system.
  - B. Fasteners: Manufacturer's standard type to suit application; with soft neoprene washers, stainless steel.
    1. Metal-to-Metal Fasteners: Self-drilling, self-lapping screws, coated and corrosion-resistant.
  - C. Field Touch-Up Paint: As recommended by panel manufacturer.
  - D. Underlayment: Self-adhering polymer modified asphalt sheet complying with ASTM D1970/D1970M, with strippable release film and top surface of woven polypropylene sheet.

**END OF SECTION 074213**

- PART 3 EXECUTION**
- 3.01 EXAMINATION**
- A. Verify building framing members ready to receive panels.
  - B. Verify wall panel substrate ready to receive panels; see Section 054000.
  - C. Weather Barrier.
- 3.02 PREPARATION**
- A. Protect surrounding areas and adjacent surfaces from damage during execution of this work.
- 3.03 INSTALLATION**
- A. Install panels on walls in accordance with manufacturer's instructions.
  - B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint; allow to dry prior to wall panel installation.
  - C. Fasten panels to structural supports; align, level, and plumb.
  - D. Locate joints over supports.
  - E. Lap panel ends 4 inches wide, minimum.
  - F. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.
- 3.04 TOLERANCES**
- A. Offset From True Alignment Between Adjacent Members Abutting or In-Line: 1/4 inch in 20 feet wide, maximum.
  - B. Variation from Plane or Location As Indicated on Drawings: 1/4 inch wide, maximum.
- 3.05 CLEANING**
- A. Remove site cuttings from finish surfaces.
  - B. Remove protective material from wall panel surfaces.
- 3.06 PROTECTION**
- A. Protect metal wall panels until completion of project.
  - B. Touch up, repair, or replace damaged wall panels or accessories before Date of Substantial Completion.

**END OF SECTION 074213**

**SECTION 077123**  
**MANUFACTURED GUTTERS AND DOWNSPOUTS**

- PART 1 GENERAL**
- 1.01 SECTION INCLUDES**
- A. Pre-finished aluminum gutters and downspouts.
- 1.02 ADMINISTRATIVE REQUIREMENTS**
- A. Comply with SMACNA (ASMM) for sizing components for rainfall intensity determined by a storm occurrence of 1 in 10 years.
  - B. Comply with applicable code for size and method of rain water discharge.
- 1.03 SUBMITTALS**
- A. See Section 013000 - Administrative Requirements for submittal procedures.
  - B. Product Data: Provide data on prefabricated components.
  - C. Shop Drawings: Indicate locations, configurations, jointing methods, fastening methods, locations, and installation details.
- 1.04 DELIVERY, STORAGE, AND HANDLING**
- A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope to drain.
  - B. Prevent contact with materials that could cause discoloration, staining, or damage.
- PART 2 PRODUCTS**
- 2.01 MANUFACTURERS**
- A. Gutters and Downspouts:
    1. Englert, Inc: www.englertinc.com.
    2. MBCI: www.mbcinc.com.
    3. Petersen Aluminum Corporation: www.pac-clad.com.
- 2.02 MATERIALS**
- A. Aluminum Sheet: ASTM B209/B209M; 0.032 inch thick.
    1. Finish: Class I anodized.
    2. Color: Clear.
- 2.03 COMPONENTS**
- A. Gutters: Profile as indicated.
  - B. Downspouts: Profile as indicated.
  - C. Anchors and Supports: Profiled to suit gutters and downspouts.
    1. Anchoring Devices: In accordance with CDA requirements.
    2. Gutter Supports: Straps.
    3. Downspout Supports: Brackets.
  - D. Fasteners: Same material and finish as gutters and downspouts, with soft neoprene washers.
- 2.04 ACCESSORIES**
- A. Splash Pads: Precast concrete type, profiles size(s) as indicated; minimum 3,000 psi compressive strength at 28 days, with minimum 5 percent air entrainment.
- PART 3 EXECUTION**
- 3.01 EXAMINATION**
- A. Verify that surfaces are ready to receive work.
- 3.02 INSTALLATION**
- A. Install gutters, downspouts, and accessories in accordance with manufacturer's instructions.
  - B. Slope gutters min. 1/4" per 10' (or as required by code).

**END OF SECTION 077123**  
**SECTION 079200**  
**JOINT SEALANTS**

- PART 1 GENERAL**
- 1.01 SECTION INCLUDES**
- A. Nonsag gunnable joint sealants.
  - B. Joint backings and accessories.
- 1.02 SUBMITTALS**
- A. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
    1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
    2. List of backing materials approved for use with the specific product.
    3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
    4. Substrates the product should not be used on.
  - B. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
  - C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
  - D. Sustainable Design Documentation: For sealants and primers, submit VOC content and emissions documentation; see Section 016116.
- 1.03 QUALITY ASSURANCE**
- A. Maintain one copy of each referenced document covering installation requirements on site.
  - B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
  - C. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.
  - D. Field Quality Control Plan:
    1. Inspection and testing to be performed by the manufacturer's representative.
    2. Visual inspection of entire length of sealant joints.
    3. Non-destructive field adhesion testing of sealant joints.
      - a. For each different sealant and substrate combination, allow for one test every 12 inches in the first 10 linear feet of joint and one test every 24 inches thereafter.
      - b. If any failures occur in the first 10 linear feet, continue testing at 12 inches intervals at no extra cost to Owner.
    4. Field Adhesion Tests of Joints: Test for adhesion using most appropriate method in accordance with ASTM C1521, or other applicable method as recommended by manufacturer.
- 1.04 WARRANTY**
- A. Correct defective work within a five year period after Date of Substantial Completion.
  - B. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.
- PART 2 PRODUCTS**
- 2.01 MANUFACTURERS**
- A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
    1. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
    2. Pecora Corporation: www.pecora.com/#sle.
    3. Sika Corporation: www.usa-sika.com/#sle.
    4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.
- 2.02 JOINT SEALANT APPLICATIONS**
- A. Scope:
    1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
      - a. Joints between different exposed materials.
    2. Do not seal the following types of joints.
      - a. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
      - b. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
      - c. Joints where installation of sealant is specified in another section.
  - B. Exterior Joints: Use nonsag non-staining silicone sealant, unless otherwise indicated.
- 2.03 JOINT SEALANTS - GENERAL**
- A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.
  - B. Colors: As indicated on drawings.
- 2.04 NONSAG JOINT SEALANTS**
- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
    1. Movement Capability: +100/-50%, minimum.
    2. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
    3. Color: To be selected by Architect from manufacturer's standard range.
    4. Service Temperature Range: Minus 20 to 180 degrees F.
- 2.05 ACCESSORIES**
- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
    1. Open Cell: 40 to 50 percent larger in diameter than joint width.
  - B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

- C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
  - D. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.
  - E. Primers: Type recommended by sealant manufacturer to suit application; non-staining.
- PART 3 EXECUTION**
- 3.01 EXAMINATION**
- A. Verify that joints are ready to receive work.
  - B. Verify that backing materials are compatible with sealants.
  - C. Verify that backer rods are of the correct size.
- 3.02 PREPARATION**
- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
  - B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
  - C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
  - D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.
- 3.03 INSTALLATION**
- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
  - B. Perform installation in accordance with ASTM C1193.
  - C. Install bond breaker backing tape where backer rod cannot be used.
  - D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
  - E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
  - F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- 3.04 FIELD QUALITY CONTROL**
- A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.
  - B. Non-Destructive Adhesion Testing: If there are any failures in first 100 linear feet, notify Architect immediately.
  - C. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.
- 3.05 POST-OCCUPANCY**
- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at low temperature in thermal cycle. Report failures immediately and repair.

**END OF SECTION 079200**

PHASE:	CONCEPT SCHEM. DESIGN	DRAWN:	BB	REVIEWED:	R. Lewis	DATE:	2/7/2025
	ADVANCED SCHEM. DESIGN						
	50% CONSTRUCTION DOCS						
	80% CONSTRUCTION DOCS						
	PERMIT DOCS						
	100% CONSTRUCTION DOCS						

**END OF SECTION 079200**

**Leon County Schools**  
Tallahassee, Florida

**LCS Athletics Maintenance Building No.3 Re-Roofing**

Client: Leon County Schools  
Job Title: LCS Athletics Maintenance Building No.3 Re-Roofing

Consultant: ALW

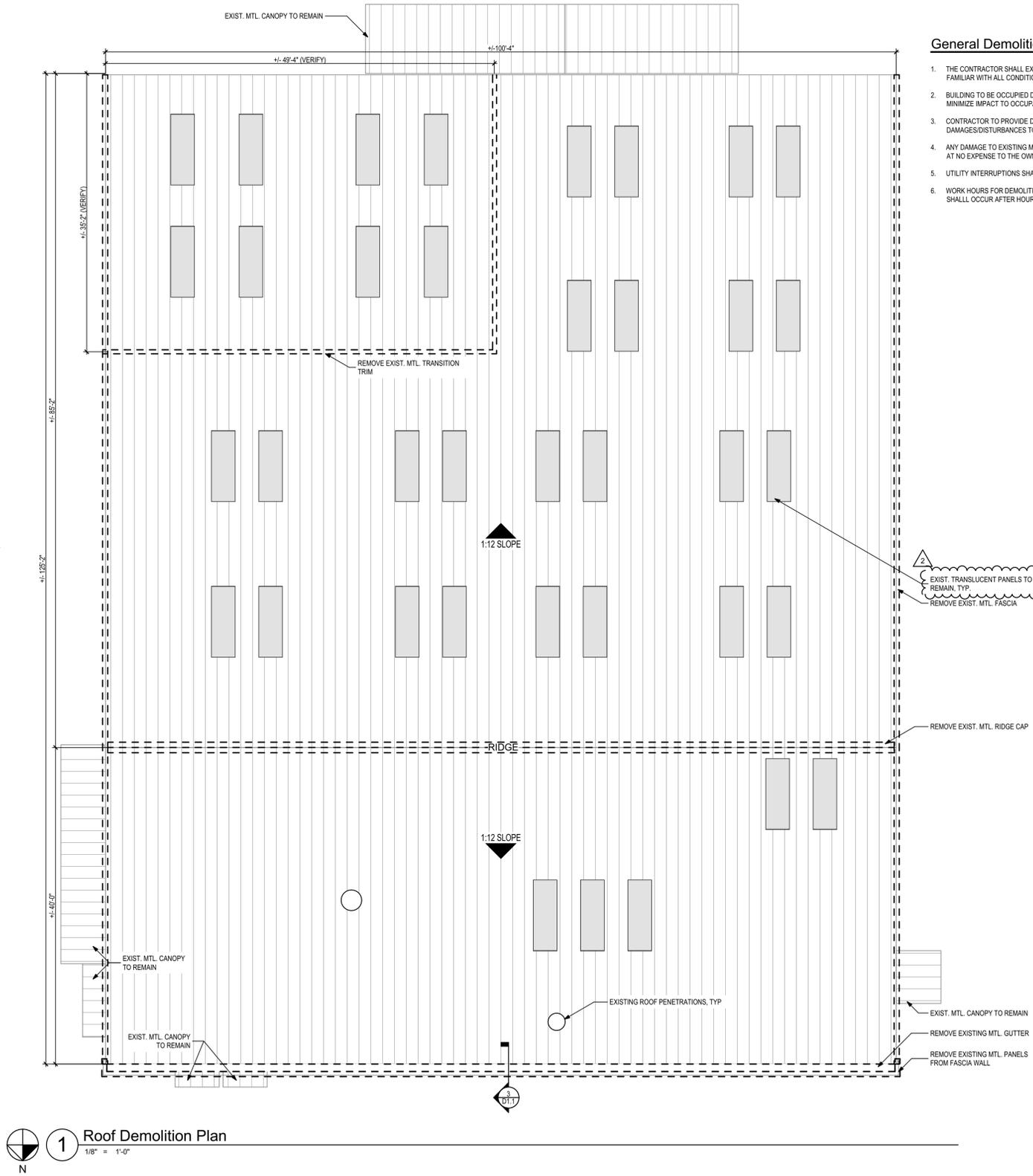
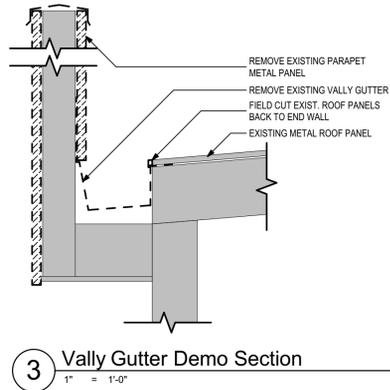
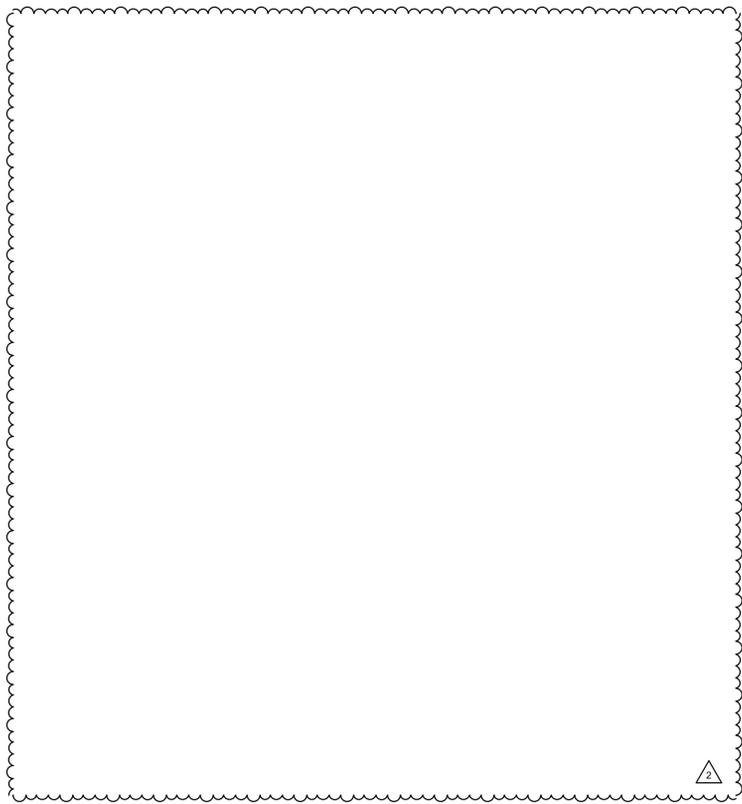
Project #: 24510.1  
Phase: 100% Construction Documents

Architects Lewis + Whitlock  
206 West Virginia St.  
Tallahassee, Florida 32301  
850.942.1718  
www.think3d.net

Description:  
**Specifications**

Sheet No.:  
**SP1.4**

THESE DRAWINGS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE. THE DRAWINGS AND ASSOCIATED COPIES THEREOF, INCLUDING ELECTRONIC FILES, ARE THE PROPERTY OF LEWIS + WHITLOCK, P.A.A. THEIR USE, REPRODUCTION OR REPRODUCTION FOR ANY PURPOSES EXCEPT AS AUTHORIZED BY WRITTEN AGREEMENT WITH THE FIRM IS STRICTLY PROHIBITED. THIS COPYRIGHT NOTIFICATION SHALL BE TRUE AS IF DIRECTLY PLACED ON EACH DRAWING AND SHALL NOT BE REMOVED FROM THESE DOCUMENTS.



**General Demolition Notes**

1. THE CONTRACTOR SHALL EXAMINE THE SITE AND EXISTING CONDITIONS AND BECOME FAMILIAR WITH ALL CONDITIONS WHICH MAY AFFECT THE WORK, PRIOR TO STARTING.
2. BUILDING TO BE OCCUPIED DURING CONSTRUCTION. CONTRACTOR TO SCHEDULE WORK TO MINIMIZE IMPACT TO OCCUPANTS.
3. CONTRACTOR TO PROVIDE DUST BARRIERS AND PROTECTIVE MATERIAL TO MINIMIZE DAMAGES/DISTURBANCES TO EXISTING ADJACENT MATERIALS.
4. ANY DAMAGE TO EXISTING MATERIALS NOT SCHEDULED FOR REMOVAL SHALL BE REPAIRED AT NO EXPENSE TO THE OWNER, TYP.
5. UTILITY INTERRUPTIONS SHALL BE SCHEDULED WITH USER 72 HOURS IN ADVANCE.
6. WORK HOURS FOR DEMOLITION SHALL BE SCHEDULED WITH USER 72 HR IN ADVANCED AND SHALL OCCUR AFTER HOURS IF REQUESTED BY USER.

**Demolition Legend**

- EXISTING METAL ROOF TO REMAIN
- EXISTING CONSTRUCTION TO REMAIN
- SKYLIGHT TO BE REMOVED
- CONSTRUCTION TO BE REMOVED

PHASE:	DRAWN:	REVIEWED:	DATE:	ID:	REVISION:	DATE:
CONCEPT SCHEM. DESIGN	B.B.	R. Lewis	2/25/2025	1	Adendum No. 1	
ADVANCED SCHEM. DESIGN	B.B.	R. Lewis	2/27/2025	2	Adendum No. 2	
50% CONSTRUCTION DOCS						
60% CONSTRUCTION DOCS						
PERMIT DOCS						
100% CONSTRUCTION DOCS	B.B.	C. WHITLOCK	10/26/2024			

**LEON COUNTY SCHOOLS**

**Leon County Schools**  
3420 W. Tharpe St., Suite 100  
Tallahassee, FL 32303

**LCS Athletics Maintenance Building**  
No. 3 Re-Roofing

Client: \_\_\_\_\_  
Consultant: \_\_\_\_\_  
Seal: \_\_\_\_\_

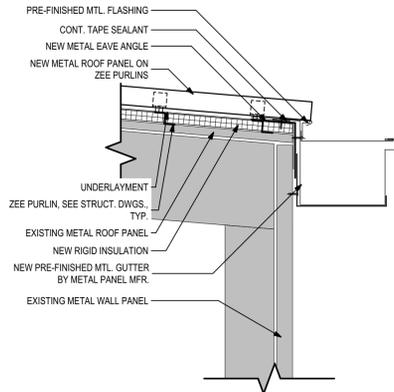
Job Title: \_\_\_\_\_  
Project #: **24510.1**  
Phase: **100% Construction Documents**

ALW

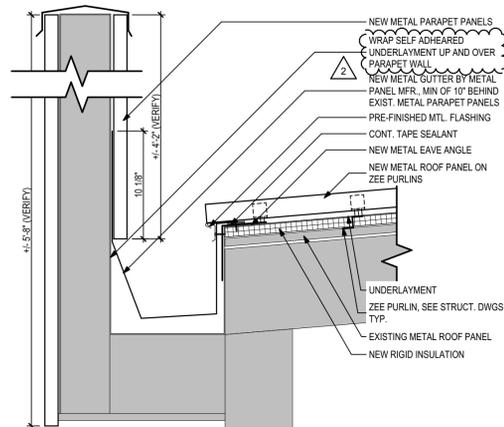
Architects Lewis + Whitlock  
206 West Virginia St.  
Tallahassee, Florida 32301  
850.942.1718  
www.think3d.net

Description:  
**Demolition Roof Plan**

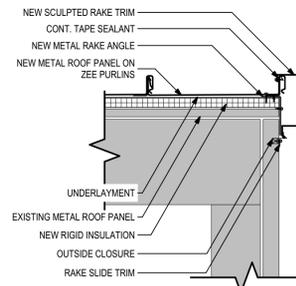
Sheet No.:  
**D1.1**



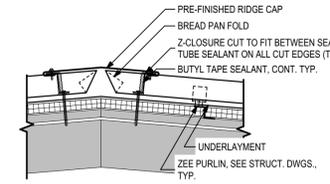
4 Gutter Detail  
1 1/2" = 1'-0"



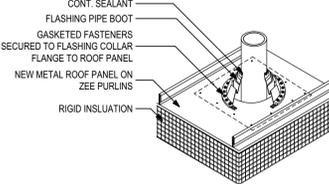
5 Vally Gutter Section  
1 1/2" = 1'-0"



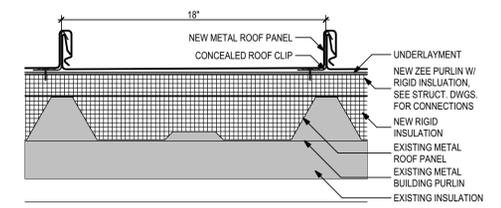
7 Rake Detail  
1 1/2" = 1'-0"



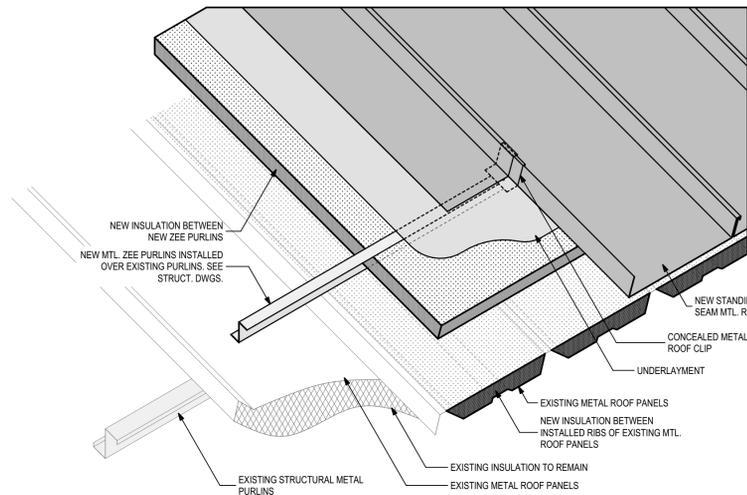
8 Ridge Detail  
1 1/2" = 1'-0"



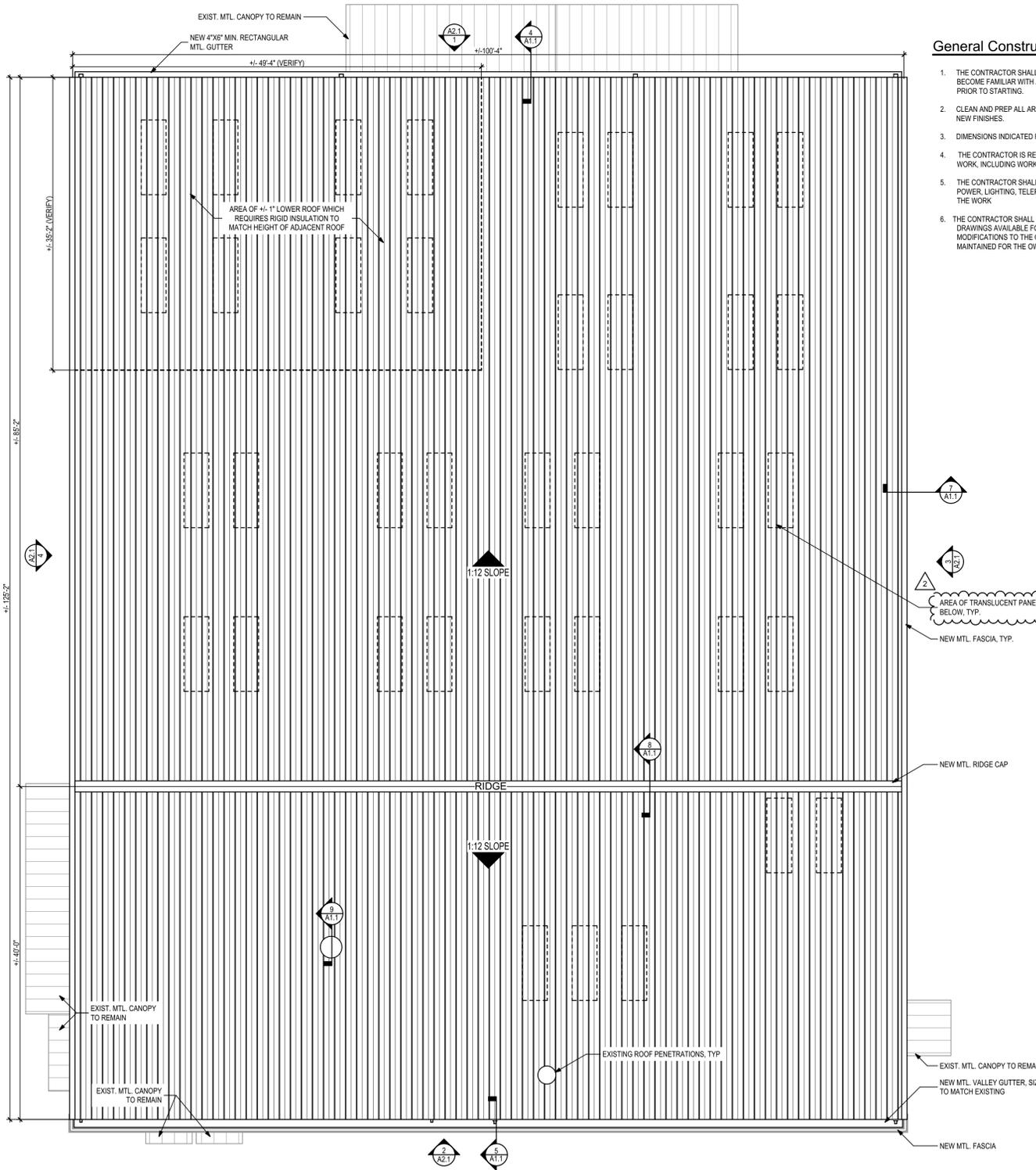
9 Typ. Penetration Detail  
1 1/2" = 1'-0"



6 Typical Roof Seam Detail  
3" = 1'-0"



3 Metal Roof Retrofit Detail  
3/8" = 1'-0"



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

**General Construction Notes**

1. THE CONTRACTOR SHALL EXAMINE THE SITE AND EXISTING CONDITIONS AND BECOME FAMILIAR WITH ALL CONDITIONS WHICH MAY AFFECT THE WORK, PRIOR TO STARTING.
2. CLEAN AND PREP ALL AREAS WITHIN SCOPE OF WORK TO RECEIVE NEW FINISHES.
3. DIMENSIONS INDICATED FOR EX. CONSTRUCTION ARE ACCURATE TO +/- 1".
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL TRADES AND WORK, INCLUDING WORK OF OTHERS WHERE AFFECTED.
5. THE CONTRACTOR SHALL PROVIDE BARRICADES, DUST CONTROL, TEMPORARY POWER, LIGHTING, TELEPHONE SERVICE, ETC. AS REQUIRED TO COMPLETE THE WORK.
6. THE CONTRACTOR SHALL MAINTAIN A FULL SET OF COMPLETE AND CURRENT DRAWINGS AVAILABLE FOR REVIEW AT THE JOB SITE AT ALL TIMES. ALL FIELD MODIFICATIONS TO THE ORIGINAL DESIGN DOCUMENTS SHALL BE NOTED AND MAINTAINED FOR THE OWNER'S RECORD COPY.

**Drawing Legend**

	EXISTING METAL ROOF TO REMAIN
	EXISTING CONSTRUCTION TO REMAIN
	NEW METAL ROOF
	NEW METAL FLASHING
	CONSTRUCTION ABOVE
	CONSTRUCTION BELOW

DATE	REVISION	BY	DATE
2/25/2025	1	R. Lewis	
2/27/2025	2	R. Lewis	

**Client:** Leon County Schools  
3420 W. Tharpe St., Suite 100  
Tallahassee, FL 32303

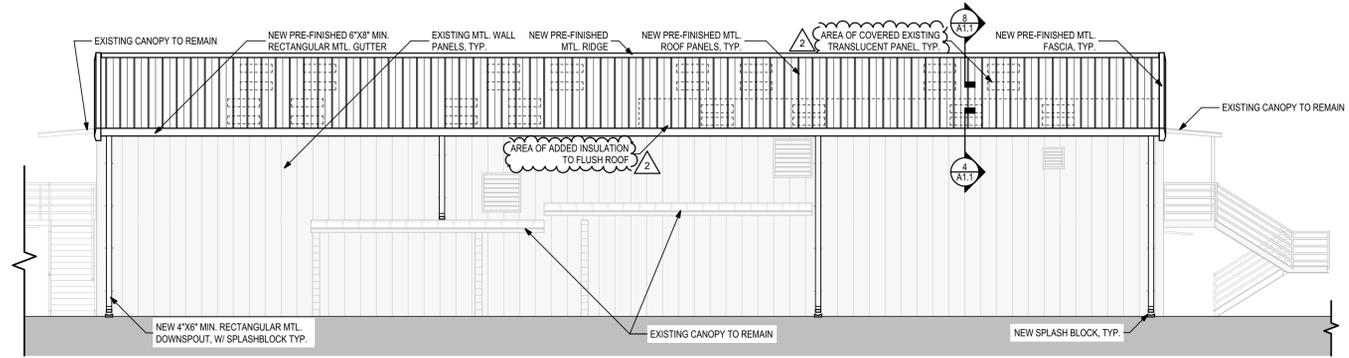
**Job Title:** LCS Athletics Maintenance Building  
No. 3 Re-Roofing

**Project #:** 24510.1  
**Phase:** 100% Construction Documents

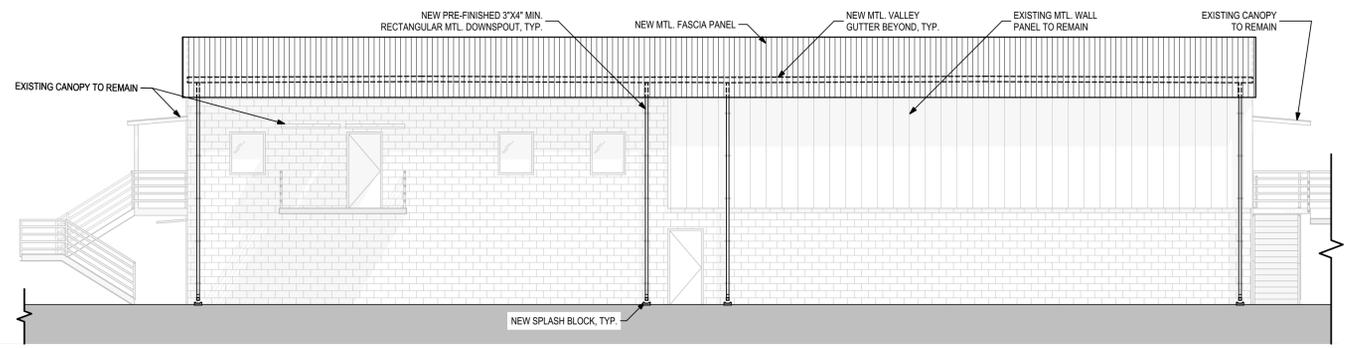
**Architects Lewis + Whitlock**  
206 West Virginia St.  
Tallahassee, Florida 32301  
850.942.1718  
www.think3d.net

**Description:** Roof Plan & Details

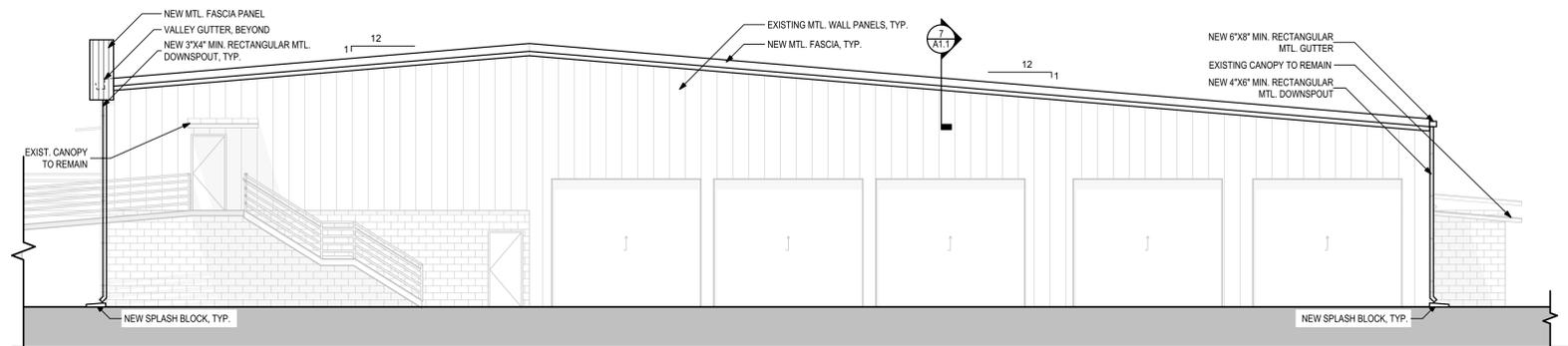
Sheet No.: **A1.1**



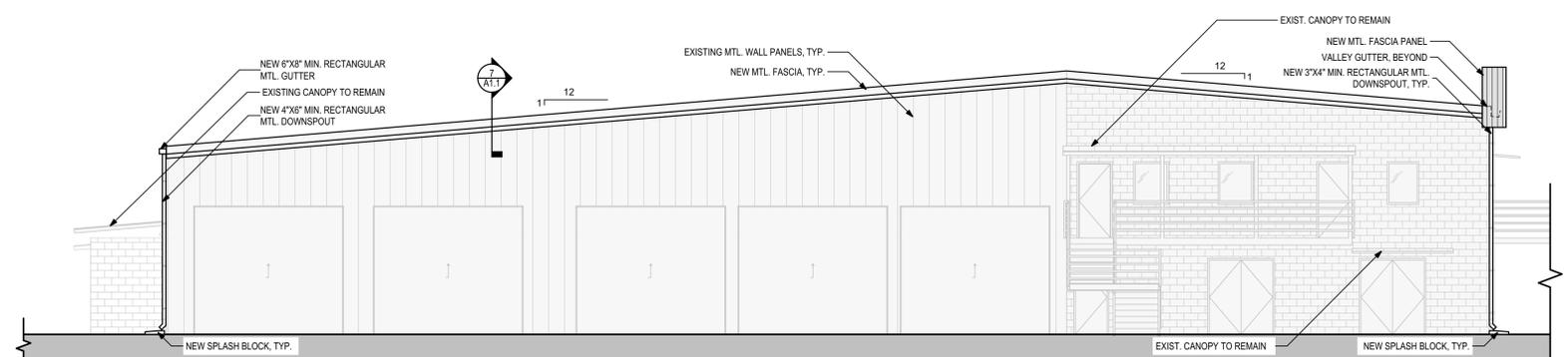
1 South Elevation  
1/8" = 1'-0"



2 North Elevation  
1/8" = 1'-0"



3 West Elevation  
1/8" = 1'-0"



4 East Elevation  
1/8" = 1'-0"

PHASE:	DRAWN:	REVIEWED:	DATE:	ID:	REVISION:	DATE:
CONCEPT SCHEM. DESIGN	B.B.	R. Lewis	2/25/2025	1	Adendum No. 1	
ADVANCED SCHEM. DESIGN	B.B.	R. Lewis	2/27/2025	2	Adendum No. 2	
20% CONSTRUCTION DOCS						
50% CONSTRUCTION DOCS						
PERMIT DOCS						
100% CONSTRUCTION DOCS	B.B.	C. WHITLOCK	10/26/2024			

  
**Leon County Schools**  
 3420 W. Tharpe St., Suite 100  
 Tallahassee, FL 32303

**LCS Athletics Maintenance Building**  
**No. 3 Re-Roofing**

Client:	Leon County Schools
Job Title:	LCS Athletics Maintenance Building No. 3 Re-Roofing
Consultant:	
Project #:	24510.1
Phase:	100% Construction Documents

ALW

Architects Lewis + Whitlock  
 206 West Virginia St.  
 Tallahassee, Florida 32301  
 850.942.1718  
 www.think3d.net

Description:  
**Exterior Elevations**

Sheet No.:  
**A2.1**

THESE DRAWINGS AND RENDERINGS ARE INSTRUMENTS OF SERVICE. THE DRAWINGS AND ASSOCIATED COPIES THEREOF, INCLUDING ELECTRONIC MEDIA AND CAD FILES, ARE THE PROPERTY OF ARCHITECTS LEWIS + WHITLOCK, P.A. THEIR USE, REPRESENTATION OR REPRODUCTION FOR ANY PURPOSE EXCEPT BY WRITTEN AGREEMENT WITH THE ARCHITECT IS PROHIBITED. THIS COPYRIGHT NOTIFICATION SHALL BE TRUE AS IF DIRECTLY PLACED ON EACH DRAWING OR PRINT. CONSULTING ON THIS DOCUMENT AND SHALL NOT BE REMOVED FROM THESE DOCUMENTS.

1. GENERAL NOTES

- 1.1. THE GOVERNING CODE FOR THIS PROJECT IS THE FLORIDA BUILDING CODE 8th EDITION (2023). THIS CODE PRESCRIBES WHICH EDITION OF EACH REFERENCE STANDARD APPLIES TO THIS PROJECT. UNLESS OTHERWISE NOTED, ALL WORK AND MATERIALS SHALL CONFORM WITH THE GOVERNING BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES, STANDARDS, REGULATIONS AND LAWS.
  - 1.2. THE CONTRACTOR SHALL COORDINATE ALL CONTRACT DOCUMENTS WITH FIELD CONDITIONS, DIMENSIONS, AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS. USE ONLY PRINTED DIMENSIONS. REPORT ANY DISCREPANCIES OR FIELD CONDITIONS ENCOUNTERED IN CONFLICT WITH THE DRAWINGS IN WRITING TO THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH WORK. DO NOT CHANGE SIZE OR LOCATION OF STRUCTURAL MEMBERS WITHOUT WRITTEN INSTRUCTIONS FROM THE ARCHITECT OR ENGINEER OF RECORD.
  - 1.3. THE STRUCTURE SHOWN ON THESE DRAWINGS IS SELF-SUPPORTING ONLY IN ITS COMPLETED FORM. THE DESIGN, ADEQUACY, SAFETY AND STABILITY OR ERECTION BRACING, FORMWORK, SHORING, AND TEMPORARY SUPPORTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
  - 1.4. DETAILS LABELED AS "TYPICAL" APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED, WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION.
  - 1.5. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTY, HIS OWN WORK, AND THE GENERAL PUBLIC FROM HARM. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND JOBSITE SAFETY INCLUDING ALL OSHA REQUIREMENTS. THE STRUCTURAL ENGINEER OF RECORD HAS NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION PERSONNEL RELATED TO THEIR WORK OR ANY HEALTH OR SAFETY PRECAUTIONS.
2. SHOP DRAWING SUBMITTAL & REVIEW
- 2.1. SHOP DRAWINGS ARE REQUIRED FOR THE FOLLOWING ITEMS, AT A MINIMUM:  
LIGHT GAUGE METAL FRAMING
  - 2.2. ALL SUBMISSIONS OF SHOP DRAWINGS FOR REVIEW SHALL BE MADE ELECTRONICALLY.
  - 2.3. ALLOW TEN (10) WORKING DAYS FOR REVIEW OF EACH SHOP DRAWING COMMENCING THE NEXT WORKING DAY AFTER RECEIPT. CONTRACTOR SHALL PLAN SCHEDULE ACCORDINGLY TO ACCOMMODATE THIS REVIEW TIME.
  - 2.4. SHOP DRAWINGS REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. CORRECTIONS OR COMMENTS MADE ON THIS REVIEW DO NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS AND OMISSIONS, NOR FROM COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. CORRECTIONS OR COMMENTS DO NOT AUTHORIZE AN INCREASE IN THE CONSTRUCTION BUDGET.
  - 2.5. REVIEW OF SHOP DRAWINGS DOES NOT CONSTITUTE ACCEPTANCE OF DEVIATIONS FROM CONTRACT DOCUMENTS OR PREVIOUS SHOP DRAWING REVIEW COMMENTS UNLESS SPECIFICALLY NOTED THEREIN BY THE ENGINEER OF RECORD.
  - 2.6. CONTRACTOR RESPONSIBILITIES PRIOR TO SUBMITTING A SHOP DRAWING OR ANY RELATED MATERIAL TO THE ENGINEER:
    - 2.6.1. REVIEW EACH SUCH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO WHICH ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
    - 2.6.2. REVIEW AND APPROVE EACH SET PRIOR TO SUBMISSION WHICH SHALL INCLUDE VERIFICATION OF ALL DIMENSIONS AND GENERAL CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.
  - 2.7. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL CHANGES OR DELAYS CAUSED BY SUBMITTING INCOMPLETE SHOP DRAWINGS AND SHALL NOT BEGIN CONSTRUCTION OR FABRICATION WITHOUT RECEIPT OF REVIEWED SHOP DRAWINGS.

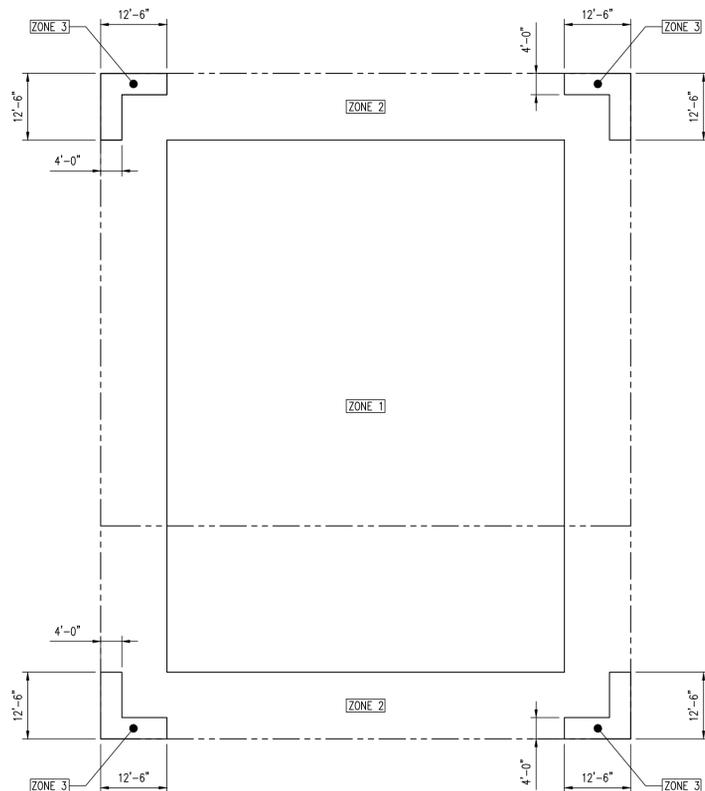
3. DESIGN LOADS

	LIVE LOAD
ROOF	20 PSF

4. WIND LOAD DESIGN CRITERIA (PER ASCE 7-22)

WIND SPEED (ULT/ASD)	= 120 MPH / 93 MPH
RISK CATEGORY	= II
WIND EXPOSURE CATEGORY	= B
ENCLOSURE CLASSIFICATION	= ENCLOSED

SEE CLADDING DIAGRAM (THIS SHEET FOR COMPONENTS AND CLADDING LOADING)



UPLIFT DIAGRAM  
SCALE: 1/8"=1'-0"



5. STRUCTURAL STEEL

- 5.1. FABRICATE AND ERECT STRUCTURAL STEEL IN CONFORMANCE, W/ AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", WITH COMMENTARY, AND ALL OSHA REQUIREMENTS.
  - 5.2. STRUCTURAL STEEL SHAPES SHALL BE FABRICATED FROM THE FOLLOWING MATERIALS:
    - 5.2.1. ROLLED W AND WT SHAPES: ASTM A992, GRADE 50.
    - 5.2.2. ROLLED M, S, C AND MC SHAPES AND ANGLES: ASTM A36, Fy=36 KSI.
    - 5.2.3. PLATES AND BARS: ASTM A36, Fy=36 KSI.
    - 5.2.4. STEEL PIPE: ASTM A53, GRADE B, Fy=35 KSI.
    - 5.2.5. COLD-FORMED HOLLOW STRUCTURAL SECTIONS (HSS):  
SQUARE AND RECTANGULAR SECTIONS: ASTM A500, GRADE C, Fy=50 KSI.  
ROUND SECTIONS: ASTM A500, GRADE C, Fy=46 KSI.
  - 5.3. ALL SHOP AND FIELD WELDING SHALL CONFORM TO THE AWS D1.1 STRUCTURAL WELDING CODE BY THE AMERICAN WELDING SOCIETY. USE E70 SERIES WELDING ELECTRODES, U.O.N. WHERE NECESSARY, REMOVE GALVANIZING OR PRIMER PRIOR TO WELDING.
  - 5.4. ALL ANCHOR BOLTS SHALL BE ASTM F1554-36, U.O.N.
  - 5.5. A325 BOLTS SHALL COMPLY WITH "SPECIFICATION FOR STRUCTURAL JOINTS USING: ASTM A325 OR A490 BOLTS", INCLUDING COMMENTARY.
  - 5.6. TYPICAL BOLTS USED IN STRUCTURAL CONNECTIONS FOR THIS PROJECT ARE 3/4 INCH DIAMETER, U.O.N.
6. COLD-FORMED STEEL FRAMING
- 6.1. ALL COLD-FORMED STEEL FRAMING SHALL CONFORM TO ASTM A1003 AND BE FABRICATED AND ERECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND WITH THE LATEST EDITION OF "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" BY THE AMERICAN IRON AND STEEL INSTITUTE (AISI).
  - 6.2. COLD-FORMED STEEL FRAMING SHOWN SHALL HAVE THE FOLLOWING MINIMUM MATERIAL PROPERTIES:
    - 6.2.1. 16 GAUGE (54 MIL) AND THICKER SHALL HAVE A MINIMUM YIELD STRESS OF Fy = 50 KSI AND A TENSILE STRENGTH OF Fu = 65 KSI.
    - 6.2.2. 18 GAUGE (43 MIL) AND THINNER SHALL HAVE A MINIMUM YIELD STRESS OF Fy = 33 KSI AND A TENSILE STRENGTH OF Fu = 45 KSI.
  - 6.3. USE GALVANIZED (G60) STEEL "C" STUDS, TRACKS, ANGLES AND STRAPS AS SHOWN ON DRAWINGS. ALL STUDS SHALL HAVE A MINIMUM FLANGE WIDTH OF 1-5/8 INCH WITH A 1/2 INCH RETURN UP. TRACKS SHALL BE A MINIMUM OF THE SAME GAUGE AS STUDS WITH MINIMUM OF 1-1/4 INCH LEG.
  - 6.4. MAXIMUM SPACING OF LATERAL BRIDGING FOR COLD-FORMED STEEL STUDS SHALL BE 4 FEET FOR SPANS GREATER THAN 10 FEET AND MIDSPAN FOR SHORTER SPANS. LATERAL BRIDGING SHALL ALSO BE PROVIDED AT FREE ENDS OF CANTILEVERED PARAPETS AND NEAR THE SUPPORTS OF CONTINUOUS SPANS.
  - 6.5. STUDS SHALL BE FREE OF KINKS AND TWISTS AND SHALL BE SECURELY SEATED FOR FULL END BEARING ON TOP AND BOTTOM TRACK.
  - 6.6. UNLESS INDICATED OTHERWISE, PROVIDE DOUBLE STUDS AT ALL JAMBS, CORNERS AND INTERSECTIONS.
  - 6.7. LIGHT GAUGE FRAMING (LGF) SHALL BE CONNECTED, AT A MINIMUM, AS FOLLOWS:
 

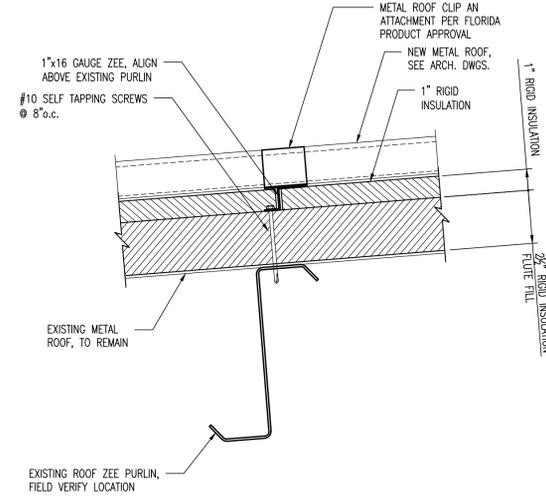
LGF TO STEEL:  
TRACKS - 1 PAF @ 12" O.C. STAGGERED  
CLIPS - 2 PAF

LGF TO CONCRETE:  
TRACKS - 1 PAF @ 12" O.C. STAGGERED  
CLIPS - 2 PAF

LGF TO LGF:  
TRACKS - #10 TO EACH FLANGE  
CLIPS/STUD - 4 #10
  - 6.8. SCREWS, WHERE REQUIRED, SHALL MEET THE MINIMUM REQUIREMENTS OF SAE J-429 GRADE 5 AND IFI-105. SCREWS SHALL HAVE A PROTECTIVE COATING EQUIVALENT TO CADMIUM OR ZINC PLATING, ASTM B766.
  - 6.9. POWDER ACTUATED FASTENERS (PAF) SHALL BE HILTI X-U KNURLED SHANK FASTENERS (WITH A MINIMUM SHANK DIAMETER OF 0.157 INCHES) OR APPROVED EQUAL. A MINIMUM EMBEDMENT OF 1 INCH SHALL BE PROVIDED FOR ALL CONCRETE CONNECTIONS.
  - 6.10. #12 SELF TAPPING SCREWS MAY BE USED IN LIEU OF THE SPECIFIED PAF FOR CONNECTIONS OF LIGHT GAUGE FRAMING TO STEEL AT THE SPACINGS SHOWN ABOVE FOR PAF IF THE THICKNESS OF THE STRUCTURAL STEEL ALLOWS FOR PROPER INSTALLATION.
  - 6.11. FIELD CUTTING OF LIGHT GAUGE FRAMING MEMBERS SHALL BE BY SAW OR SHEAR. TORCH CUTTING IS NOT PERMITTED.
  - 6.12. SPLICING OF FRAMING COMPONENTS, OTHER THAN THE CONTINUOUS TRACK AT THE TOP AND BOTTOM OF WALLS, IS NOT PERMITTED, U.O.N. SPLICING OF TRACK USED IN THE CONSTRUCTION OF THE JAMB, HEAD OR SILL ASSEMBLIES OF FRAMED WALL OPENINGS IS NOT PERMITTED. WHERE SPLICING OF TRACK IS NECESSARY BETWEEN STUD SPACINGS, A SECTION OF STUD SHALL BE PLACED IN THE ADJOINING TRACKS ACROSS THE JOINT AND FASTENED TO THE FLANGES AT BOTH SIDES OF THE WALL.

COMPONENT & CLADDING LOADS - ROOF			
TRIB AREA	PRESSURE	OVERHANG PRESSURE	
ZONE (1) ROOF - INTERIOR			
10 SQ. FT.	13.7	-53.5	-
20 SQ. FT.	12.8	-50	-
50 SQ. FT.	11.7	-45.3	-
100 SQ. FT.	10.8	-36.2	-
ZONE (2) ROOF - INTERIOR EDGE			
10 SQ. FT.	13.7	-70.6	-
20 SQ. FT.	12.8	-66.0	-
50 SQ. FT.	11.7	-60.0	-
100 SQ. FT.	10.8	-55.5	-
ZONE (3) ROOF - EXTERIOR EDGE			
10 SQ. FT.	13.7	-96.2	-
20 SQ. FT.	12.8	-87.1	-
50 SQ. FT.	11.7	-75.1	-
100 SQ. FT.	10.8	-66.0	-

NOTE:  
ALL COMPONENTS AND CLADDING LOADS ARE ULTIMATE. FACTOR AS REQUIRED FOR ALLOWABLE LOADING



(FIELD LOCATE PURLINS, 5'-0" O.C. MAX)

TYPICAL NEW ROOF ATTACHMENT DETAIL  
SCALE: 3/8"=1'-0"



PHASE:	DRAWN:	REVIEWED:	DATE:	ID:	REVISION:	DRAWN:	REVIEWED:	DATE:
CONCEPT SCHEM DESIGN	PHM							
ADVANCED SCHEM DESIGN			10/23/24					
50% CONSTRUCTION DOCS								
90% CONSTRUCTION DOCS								
PERMIT DOCS								
100% CONSTRUCTION DOCS								

Client: Leon County Schools  
Tallahassee, Florida

Job Title: LCS Athletics Maintenance Building  
No. 3 Re-Roofing

Consultant: Seal:

Project #: 24510.1  
Phase: 100% Construction Documents

Architects Lewis + Whitlock  
206 West Virginia St.  
Tallahassee, Florida 32301  
850.942.1718  
www.think3d.net

Description:  
Structural Notes & Details

Sheet No.:  
S0.1



THESE DRAWINGS AND REVISIONS ARE INSTRUMENTS OF SERVICE. THE DRAWINGS AND ASSOCIATED COPIES THEREOF, INCLUDING ELECTRONIC MEDIA AND CAD FILES, ARE THE PROPERTY OF ARCHITECT LEWIS + WHITLOCK P.A. THEIR USE, REPRODUCTION OR REPRODUCTION FOR ANY PURPOSES EXCEPT BY WRITTEN AGREEMENT WITH THE ARCHITECT IS PROHIBITED. THIS COPYRIGHT NOTICE SHALL BE TRUE AS IF DIRECTLY PLACED ON EACH DRAWING SHEET OR REVISIONS ON THIS DOCUMENT AND SHALL NOT BE REPRODUCED FROM THESE DOCUMENTS.