WILLIAM A. KIBBE & ASSOCIATES, INC.
ENGINEERS | ARCHITECTS | SURVEYORS

ADDENDUM NO. 1

PROJECT:	Currie West Clubhouse Expansion
OWNER:	City of Midland, Michigan
ENGINEER / ARCHITECT:	WILLIAM A. KIBBE & ASSOCIATES, INC.
PROJECT LOCATION:	1300 Currie Pkwy, Midland, MI 48640
DATE:	June 4, 2026
WAK PROJECT NO.	25-0456-0295

A. INSTRUCTIONS:

1. The Construction Documents "Issued for Bid" dated May 12, 2026, for the above referenced project are modified as noted in this Addendum.

2. All work performed under this document shall be subject to the General Conditions of the Contract and Specifications for similar work in connection with this project.

B. ATTACHMENTS:

1. Pre-Bid sign-in sheets (1 pages).

2. Drawings: A2.21, A3.01 M3.1, M7.0, E3.0, Reference potos.

C. CLARIFICATIONS

1. Contractor to demo existing metal shed from within the new building footprint.

2. CMU foundation walls may be substituted as an alternate. CMU foundation walls will need to be 12" block with #5's @ 48" extending into the concrete footing with a std 90 degree hook and a bond beam at the top course with (2) #5's continuous. Grout solid at bond beam and at vertical reinforcing. Tooth new CMU with existing at intersection with existing foundation wall. Concrete wall footing will remain as detailed.

3. Dowel new wall footings into existing using #4 bars @ 12” with Hilti RE500 V3 epoxy and 8” embedment.

D. CHANGES TO SPECIFICATIONS

1. RE-ISSED Specification section 061000 ROUGH CARPENTRY (attached).
   Refer to Part 2 – Products, removing the FSC certified wood requirement.

2. RE-ISSED Specification section 087000 DOOR HARDWARE (attached).
   Refer to revised section 2.5 Cylinder Key Control and keying: Cylinder masters and Grand Master key to match the owners existing keying system.

3. RE-ISSED Specification section 321813 SYNTHETIC GRASS SURFACING (attached).
   Refer to revised product and manufactured for synthetic turn and re-issued drawing A3.01).

E. CHANGES TO DRAWINGS

1. A2.21 (reissued) & Reference Photos. Refer to clouded note referencing division of work required inside existing pro shop.
   Contractor shall include in bid, any work required for removing and reinstalling casework and wall hanging displays as required within the pro shop to complete demolition and new construction work. Owner will remove any rolling merchandise displays.

2. A3.01 (reissued)
   Refer to clouded revision of turf products and style.

3. M3.1 (reissued) – Note 3 modified to be more specific. Note 7 modified to include all duct exposed to outdoor conditions to be insulated. Note 8 modified to include installing and balancing a balance damper in each return branch. Note 10 modified to include a motorized damper to interlock with furnace.

4. M7.0 (reissued) – Electric duct heater schedule and notes added. Modified detail #1 to be more accurate.

5. E3.0 (reissued) – Moved SUB PANEL in Storage G108 to correct existing location.

F. ACKNOWLEDGEMENT

1. Respondents must acknowledge receipt of Addendum in their bid submission. Failure to do so may result in disqualification.

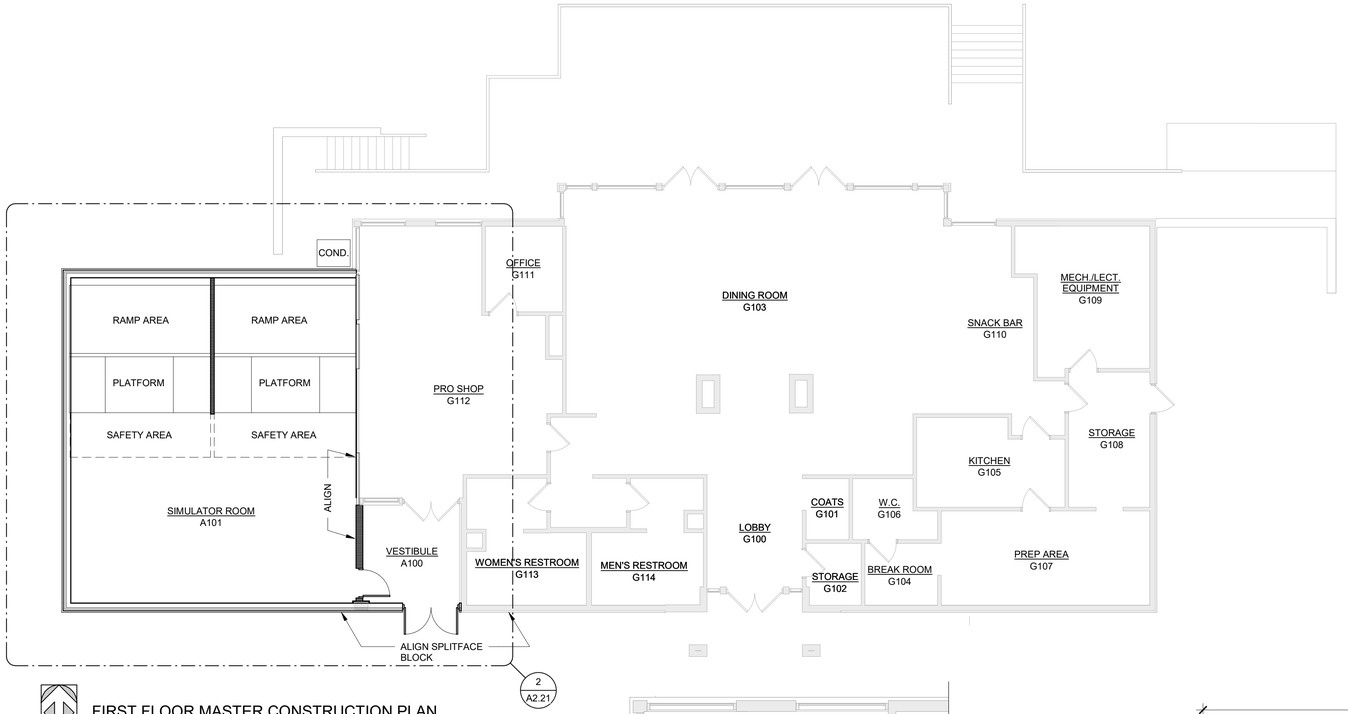
END OF ADDENDUM

CITY OF Midland

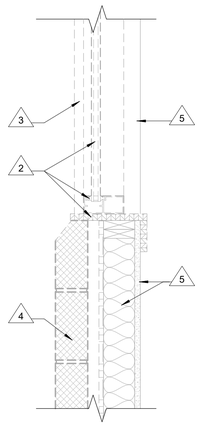
City Hall • 333 West Ellsworth Street • Midland, Michigan 48640-5132 • 989.837.3300 • 989.835.2717 Fax

BID NO. 4650
Project Name: Currie West Clubhouse Expansion
Project Location: 1300 Currie Pkwy, Midland, MI 48640
Voluntary Pre-Bid Walkthrough: Tuesday, May 19, 2026 at 9:00 AM

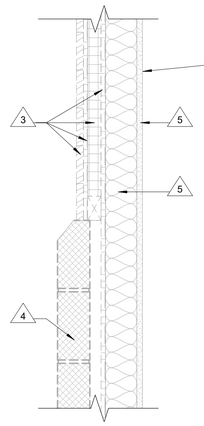
Company	Printed Name	Phone Number	Email Address
Three Rivers	Jordan Wilson	989 513 2520	JWilson@TriconPave.com
SUGAR	JAKE POPE	989 430 9748	JAKE@SUGARCONSTRUCTION.com
Sugar	Greg Myers	989 205-2006	Greg M @ Sugar Construction.com
Escon	Brandon Garza	989-996-0780	b.garza@escon.us
Escon	Trevor Gross	989-239-4178	t.gross@escon.us
WOBIG CONSTRUCTION	KEVIN ROTH	989-752-1294	WOBIGCONST@SBCGLOBAL.NET
JR Heineman	DALE Johnson	989 598 4402	DALE@JRHeineman.com
JE Johnson	Gavin Gonzales	989 615 0523	DennyA@JEJohnson.com
JE Johnson	Brandon Stonecipher	989 615 0523	dennya@jejohnson.com
GreatLakesBay Construction	JEFF KIENBAUM	989-941-2959	JEFF@GLBCONSTRUCTION.com
STALLIE P/M	TOM VAN PARIS	989-737-5078	TOMVANPARIS@STALLIE.US
Rumford Construction	Collin Netzley	989 754 6262	Collin@Rumford.com
Okeefe Electric	Steven Roberts	989-698-6961	Steven@okeefeelectric.net
Sugar Construction	Drew Kirber	989. 948.8474	Drew@Sugarconstruction.com
New Adventure Development	Josh Schmidt	989 492 8364	Josh@NewAdventureDevelopment.com
BAY VALLEY ELECTRIC	TJ Flynn		SERVICES@BAYVALLEYELECTRIC.com



NORTH FIRST FLOOR MASTER CONSTRUCTION PLAN
SCALE: 1/8" = 1'-0"

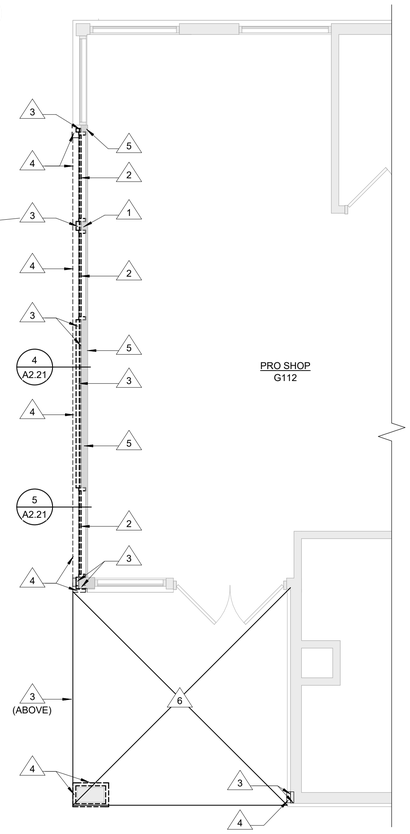


4 A2.21 DEMO DETAIL
SCALE: 1 1/2" = 1'-0"



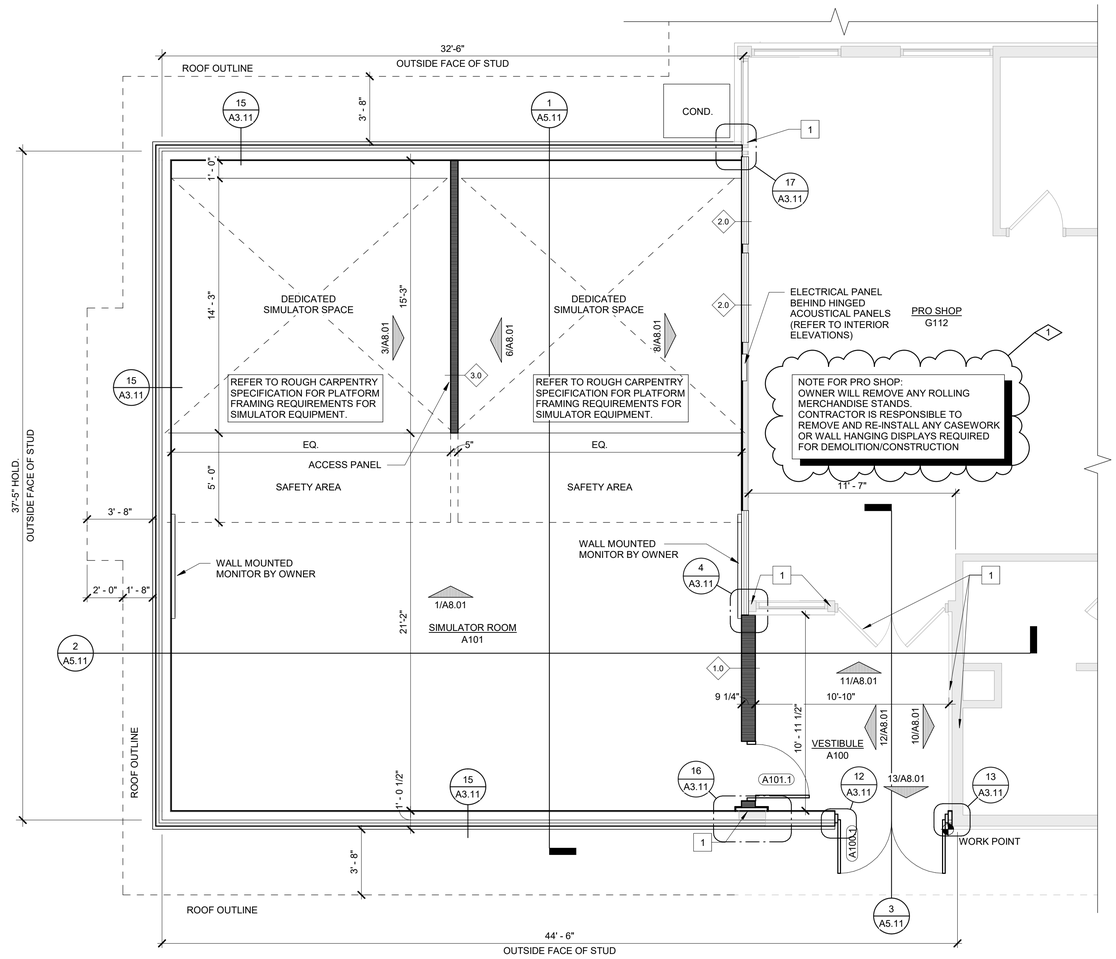
5 A2.21 DEMO DETAIL
SCALE: 1 1/2" = 1'-0"

INTENT OF DEMOLITION IS TO REMOVE EXISTING EXTERIOR WALL CONSTRUCTION DOWN TO EXISTING STUDS ON THE WEST FACING EXTERIOR WALL. VERIFY EXTENT OF DEMOLITION WITH NEW CONSTRUCTION DIMENSIONS, SEE FIRST FLOOR PARTIAL CONSTRUCTION PLAN



INTENT OF DEMOLITION IS TO REMOVE EXISTING EXTERIOR WALL CONSTRUCTION DOWN TO EXISTING STUDS ON THE WEST FACING EXTERIOR WALL. VERIFY EXTENT OF DEMOLITION WITH NEW CONSTRUCTION DIMENSIONS, SEE FIRST FLOOR PARTIAL CONSTRUCTION PLAN

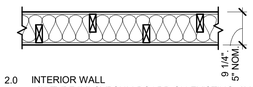
NORTH FIRST FLOOR DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



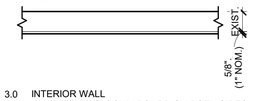
2 A2.21 FIRST FLOOR PARTIAL CONSTRUCTION PLAN
SCALE: 1/4" = 1'-0"

WALL TYPES:

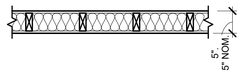
1.0 INTERIOR WALL
5/8" TYPE "X" GYPSUM BOARD ON BOTH SIDES OF 2X4 STAGGERED WOOD STUDS 16" O.C. w/ THERAMAL BATTS. EXTEND FROM FINISH FLOOR TO UNDERSIDE OF STRUCTURE ABOVE



2.0 INTERIOR WALL
5/8" TYPE "X" GYPSUM BOARD ON EXISTING 2X4 WOOD STUDS @ 16" O.C. w/ SOUND ATTENTUATION BLANKETS. EXTEND FROM FINISH FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.



3.0 INTERIOR WALL
5/8" TYPE "X" GYPSUM BOARD ON BOTH SIDES OF NEW 2X4 WOOD STUDS @ 16" O.C. w/ SOUND ATTENTUATION BLANKETS. EXTEND FROM FINISH FLOOR TO UNDERSIDE OF STRUCTURE ABOVE.



DEMOLITION KEYNOTES

1 REMOVE EXISTING WALL CONSTRUCTION COMPLETELY - FULL HEIGHT
2 REMOVE EXISTING WINDOW, FRAME, AND SILL COMPLETELY
3 REMOVE EXISTING WOOD SIDING, TRIM, OSB LAYER AND RIGID INSULATION COMPLETELY
4 REMOVE EXISTING C.M.U. SPLITFACE BLOCK COMPLETELY
5 EXISTING WOOD STUD, BATT INSULATION, AND GYP. BOARD TO REMAIN
6 REMOVE EXISTING ROUGH SAWN CEDAR

PLAN KEYNOTES

1 EXISTING TO REMAIN

CONSTRUCTION GENERAL NOTES:

1. WALL TYPES ARE INDICATED AS A DIAMOND WITH A NUMBER. REFER TO THIS SHEET FOR DESCRIPTION OF WALL TYPES.
2. PLAN DIMENSIONS DO NOT INCLUDE WALL THICKNESS (REFER TO WALL TYPES).
3. WINDOW TYPES ARE INDICATED AS AN OVAL WITH "W" AND A NUMBER. REFER TO SHEET A3.11 FOR WINDOW ELEVATIONS.
4. DOOR FRAMES ARE TO BE LOCATED 4" FROM THE PERPENDICULAR WALL ON THE HINGE SIDE OF THE DOOR AT GYPSUM WALL LOCATIONS AND 8" AT MASONRY WALLS UNLESS NOTED OTHERWISE.
5. PROVIDE BLOCKING AT ALL WALL AND CEILING MOUNTED ITEMS INCLUDING BUT NOT LIMITED TO: PLUMBING ACCESSORIES, MONITORS, MEDICAL EQUIPMENT, ETC.
6. ALL AREAS DAMAGED BY DEMOLITION WORK ARE TO BE PATCHED AND REPAIRED OR REPLACED TO MATCH ADJACENT SURFACES.
7. PATCH AND REPAIR REMAINING WALLS; AT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DEMOLITION POINTS WITH SIMILAR MATERIALS IN SIZE, COLOR AND TEXTURE.
8. REMOVE ALL NAILS, FASTENERS AND MISCELLANEOUS ITEMS ATTACHED TO WALLS. PREPARE ALL EXISTING SURFACES AS NEEDED TO RECEIVE NEW FINISHES.
9. PATCH AND REPAIR ALL EXISTING FLOORS AS REQUIRED WHERE EXISTING WALLS HAVE BEEN REMOVED.
10. FURNITURE OR EQUIPMENT TO BE BUILT AND/OR INSTALLED BY CONTRACTOR IS SPECIFICALLY NOTED, DIMENSIONED OR DETAILED. ALL OTHER FURNITURE OR EQUIPMENT WILL BE PROVIDED AND INSTALLED BY OWNER.

NO.	REVISION	DATE
1	ADDENDUM 1	06/02/26
	ISSUED FOR BID	05/12/26

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ENGINEERS | ARCHITECTS | SURVEYORS

WTAARCH.COM

WTA ARCHITECTS
100 S Jefferson Ave, Suite 601
Saginaw, Michigan 48607
989 752 8107

ITB - 4650

PROJECT TITLE
ADDITION TO:
CURRIE GOLF COURSE - WEST CLUBHOUSE

MIDLAND, MICHIGAN

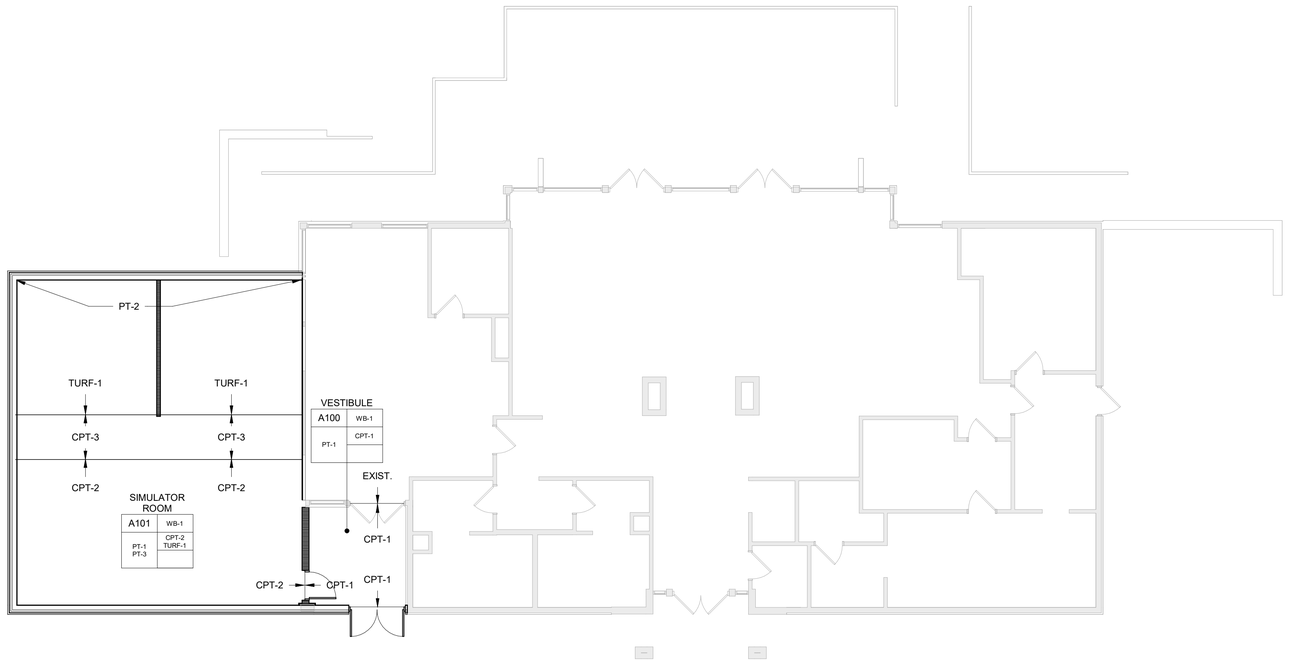
SHEET TITLE
FIRST FLOOR MASTER, DEMOLITION & PARTIAL CONSTRUCTION PLAN

PROJECT NUMBER	SHEET NUMBER
2025104	A2.21
PROJECT DATE: 2026	
CHECKED BY: Checker	

MATERIAL SCHEDULE

SN	MANUFACTURER	STYLE	COLOR	SIZE	REMARKS
ACOUSTICAL PANEL					
AP-1	FOAMITE	HIGH DENSITY, FIRM FOAM PANEL	BLACK	24"X24"X2"	SMOOTH WITH BEVEL EDGES
CARPET					
CPT-1	MANNINGTON	FORCE	TBD	20"X20"	
CPT-2	MANNINGTON	SCRIPT	METRO	24"X24"	INSTALL AS VERTICAL ASHLAR
CPT-3	INTERFACE	UR103 URBAN RENEWAL	100641 GRASS		
PAINT					
PT-1	SHERWIN WILLIAMS	TBD	TBD		WALL PAINT
PT-2	SHERWIN WILLIAMS	TBD	TBD		WALL PAINT
PT-3	SHERWIN WILLIAMS	TBD	TBD		ACCENT PAINT
PT-4	SHERWIN WILLIAMS	TBD	TBD		CEILING PAINT
TURF					
TURF-1	TARKETT SPORTS (FIELDTURF LANDSCAPE	EASY TURF - ELITE PRO	FIELD GREEN		
WOOD BASE					
WB-1	SEE SPEC.	FINISH AND COLOR TO MATCH ADJACENT CONSTRUCTION	MATCH EXIST.		

2



NORTH

FIRST FLOOR MASTER FINISH PLAN
SCALE: 1/8" = 1'-0"

INTERIOR GENERAL NOTES:

1. THE ROOM FINISH TAGS INDICATE OVERALL FINISH TO BE USED IN THE ROOM. ALL SURFACES TO USE THIS FINISH UNLESS OTHERWISE NOTED. SEE FINISH PLANS AND INTERIOR FINISH ELEVATIONS FOR ACCENT FINISHES.
2. REFER TO FINISH MATERIAL LEGEND FOR SPECIFIC MANUFACTURER, STYLE, COLOR & SIZE INFORMATION. REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
3. CONTRACTOR TO VERIFY MEP AND DIMENSIONAL ROUGH-IN REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT.

SCHEDULE OF REMARKS:

A. DOOR AND ROOM FINISH SCHEUDLE REMARKS ARE LOCATED HERE.

NO.	REVISION	DATE
2	ADDENDUM 2	06/03/26
	ISSUED FOR BID	05/12/26

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Saginaw, Michigan 48607
989 752 8107

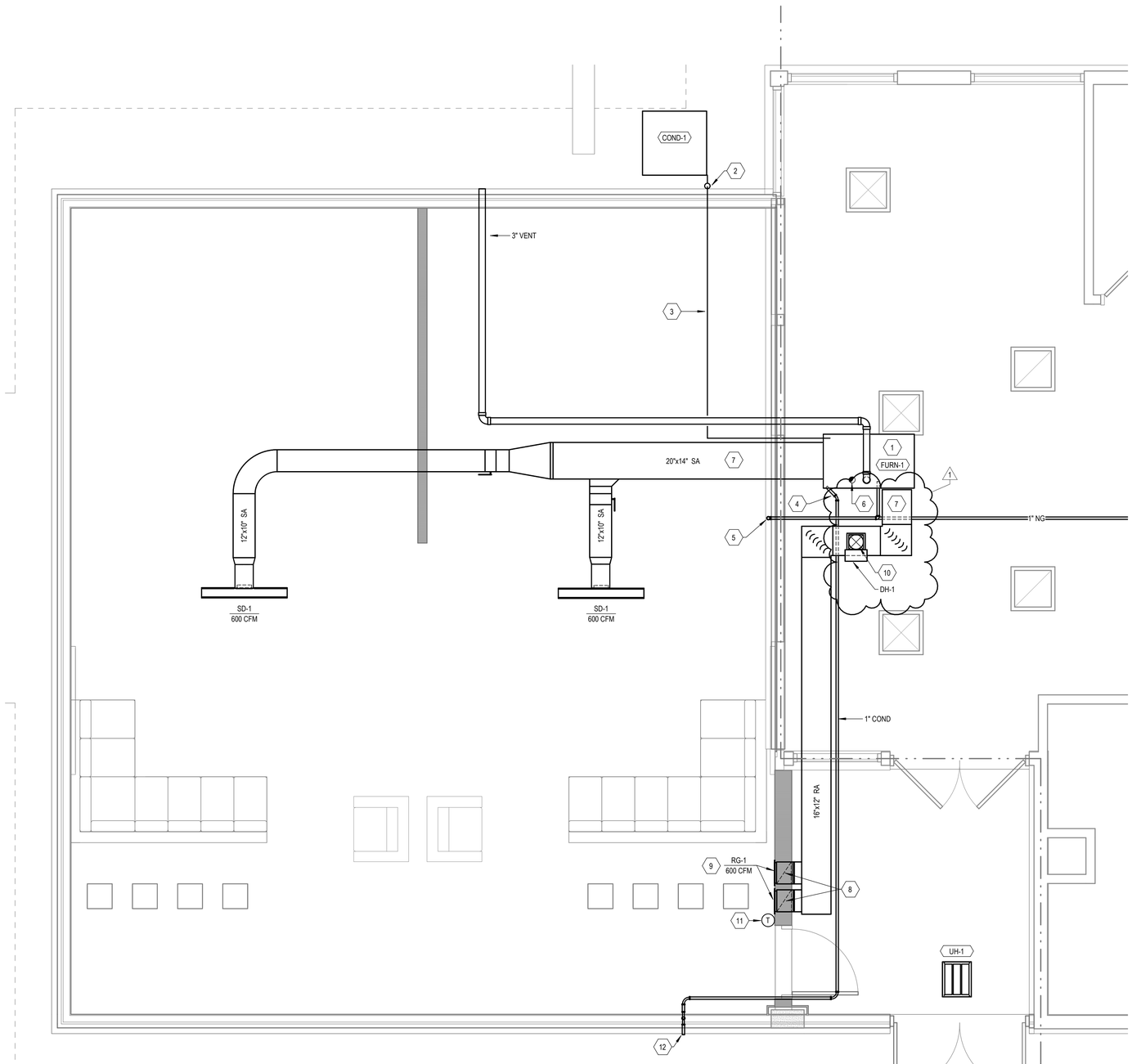
ITB - 4650

PROJECT TITLE
ADDITION TO:
CURRIE GOLF COURSE - WEST CLUBHOUSE

MIDLAND, MICHIGAN

SHEET TITLE
FIRST FLOOR MASTER FINISH PLAN

PROJECT NUMBER 2025104
PROJECT DATE 2026
CHECKED BY Checker
SHEET NUMBER A3.01



CONSTRUCTION NOTES

SYMBOL	DESCRIPTION
1	FIELD LOCATE UNIT IN CEILING SPACE ABOVE PRO SHOP. AVOID EXISTING SYSTEMS.
2	PROVIDE PIPE COVER OVER EXPOSED REFRIGERANT LINES. COORDINATE WITH ARCH ON FINISH.
3	FIELD ROUTE REFRIGERANT LINES TO CONDENSER. MAINTAIN PROPER SLOPE AND SUPPORT PER MMC. PIPING SHALL BE HARD DRAWN TYPE-ACR COPPER THAT IS TO BE CLEANED AND CAPPED. ANY JOINTS TO BE BRAZED WITH A NITROGEN PURGE.
4	PROVIDE CONDENSATE DRAIN PAN AND TRAP. ROUTE CONDENSATE PIPE IN 1" COPPER TO SOUTH LANDSCAPE AREA.
5	ROUTE 3/4" NG FROM CRAWL SPACE IN WALL.
6	3" COMBUSTION AIR UP THRU ROOF.
7	DUCT ROUTED IN ATTIC SPACE TO BE 3" INSULATED.
8	(2) 12" X 8" RETURN AIR DUCTS IN WALL. STRADDLE STUD. INSTALL BALANCE DAMPERS IN EACH BRANCH. BALANCE EACH DAMPER TO 600 CFM.
9	ALIGN BOTH RG-1 SQUARE TO FLOOR. INSTALL 2' A.F.F.
10	INSTALL 8" OUTDOOR AIR INTAKE. PROVIDE 24 VOLT MOTORIZED DAMPER AT UNDERSIDE OF ROOF DECK AND INTERLOCK WITH FURNACE FURN-1 SUCH THAT THE MOTORIZED DAMPER OPENS WHEN FURNACE IS IN OPERATION AND CLOSES WHEN FURNACE IS NOT IN OPERATION. INSTALL BALANCE DAMPER IN OUTDOOR AIR DUCT. BALANCE DAMPER TO 315 CFM. TRANSITION FROM 8" ROUND TO 8" X 5" FOR DUCT HEATER DH-1.
11	THERMOSTAT LOCATION SERVING FURN-1
12	TERMINATE CONDENSATE LINE TO LANDSCAPE AREA. PROVIDE INSECT SCREEN.

NO.	REVISION	DATE
1	ADDENDUM #1	06/03/26
	ISSUED FOR BID	05/12/26
	FINAL OWNER REVIEW	04/30/26

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989 752 8107

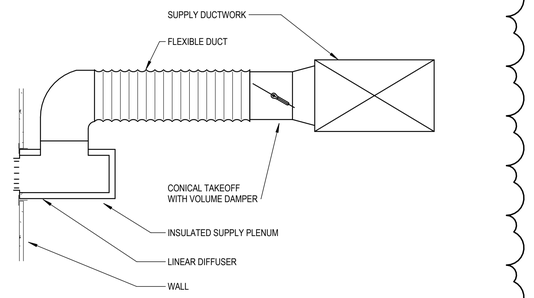
PROJECT TITLE
ADDITION TO:
CURRIE GOLF COURSE - WEST CLUBHOUSE
MIDLAND, MICHIGAN

SHEET TITLE
ENLARGED MECHANICAL PLAN

PROJECT NUMBER	SHEET NUMBER
25-0546-0295	M3.1
PROJECT DATE: 05/12/26	
CHECKED BY: M. LAWRIN	

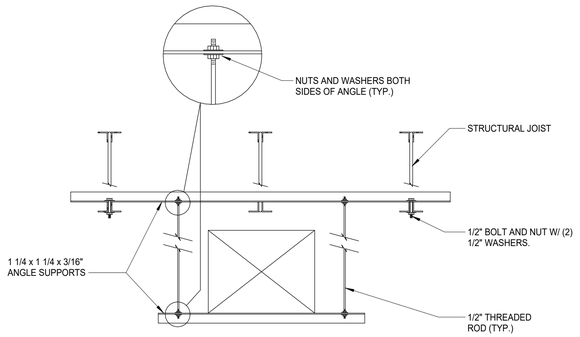
N

1 / M3.1 ENLARGED HVAC PLAN
SCALE: 3/8" = 1'-0"



1 M7.0 LINEAR DIFFUSER DUCT CONNECTION

NOT TO SCALE



2 M7.0 DUCT HANGER

NOT TO SCALE

FURNACE SCHEDULE

MARK	MANUFACTURER	MODEL	SUPPLY FAN	COOLING		HEATING		ELECTRICAL		
			CFM	TOTAL MBH	SENSIBLE MBH	INPUT MBH	OUTPUT MBH	VOLTAGE	PHASE	AMPS
FURN-1	CARRIER	59TP7A	1200	36.9	24	60	58	115	1	10.1

NOTES:

1. INCLUDE OUTDOOR UNIT 26TPA
2. INCLUDE INDOOR COIL CVAM

ELECTRIC UNIT HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	CAPACITY	ELECTRICAL		
					VOLTS	PHASE	MCA
UH-1	MARLEY ENGINEERED PRODUCTS	QFF	150 CFM	2 KW	208 V	1	9.8

NOTES:

1. UNIT TEMP TO BE SET TO 50°F.
2. INCLUDE DISCONNECT.
3. WHITE FINISH.

GRILLE, REGISTER & DIFFUSER SCHEDULE

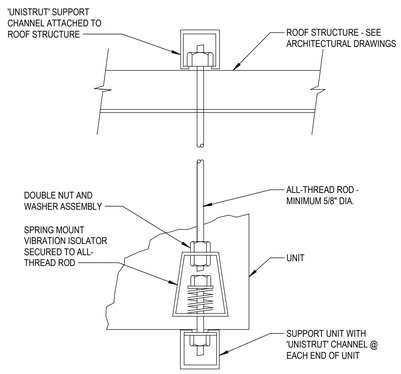
MARK	MANUFACTURER	MODEL	NECK SIZE	LENGTH	SLOTS	MOUNTING	MATERIAL	NOTES
RG-1	PRICE	535	12" X 8"	14"	-	SURFACE	STEEL	COORDINATE FINISH WITH ARCH
SD-1	PRICE	SDB150	10"	48"	4	SURFACE	STEEL	COORDINATE FINISH WITH ARCH

ELECTRIC DUCT HEATER SCHEDULE

MARK	SYSTEM SERVED	MANUFACTURER	MODEL	CFM	ELECTRICAL			DUCT	
					KW	VOLT	PH	WIDTH	HEIGHT
DH-1	FURN-1	MARLEY ENGINEERED PRODUCTS	HUA	315	3.22	208	1	8"	8"

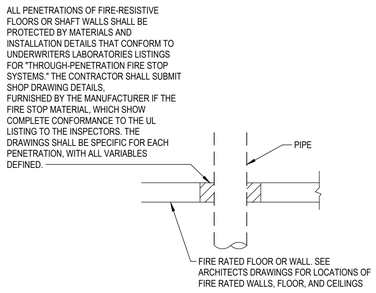
NOTES:

1. PROVIDE WITH SCR CONTROLLER. ELECTRIC DUCT HEATER TO BE INTERFACED WITH OUTSIDE AIR TEMPERATURE SENSOR AND FURN-1.
2. ELECTRIC DUCT HEATER SHALL OPERATE AND MODULATE AS REQUIRED WHENEVER TEMPERATURE OF OUTSIDE AIR IS BELOW 32°F IN ORDER TO MAINTAIN A MINIMUM MIXED AIR TEMPERATURE OF 60°F AT FURNACE FURN-1.



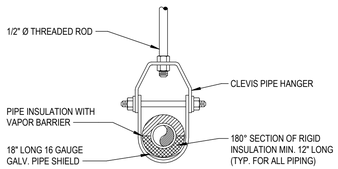
3 M7.0 UNIT MOUNTING DETAIL

NOT TO SCALE



4 M7.0 PIPE PENETRATION DETAIL

NOT TO SCALE



5 M7.0 PIPE SUPPORT DETAIL

NOT TO SCALE

NO.	REVISION	DATE
1	ADDENDUM #1	06/03/26
	ISSUED FOR BID	05/12/26
	FINAL OWNER REVIEW	04/30/26

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PROJECT TITLE

ADDITION TO:

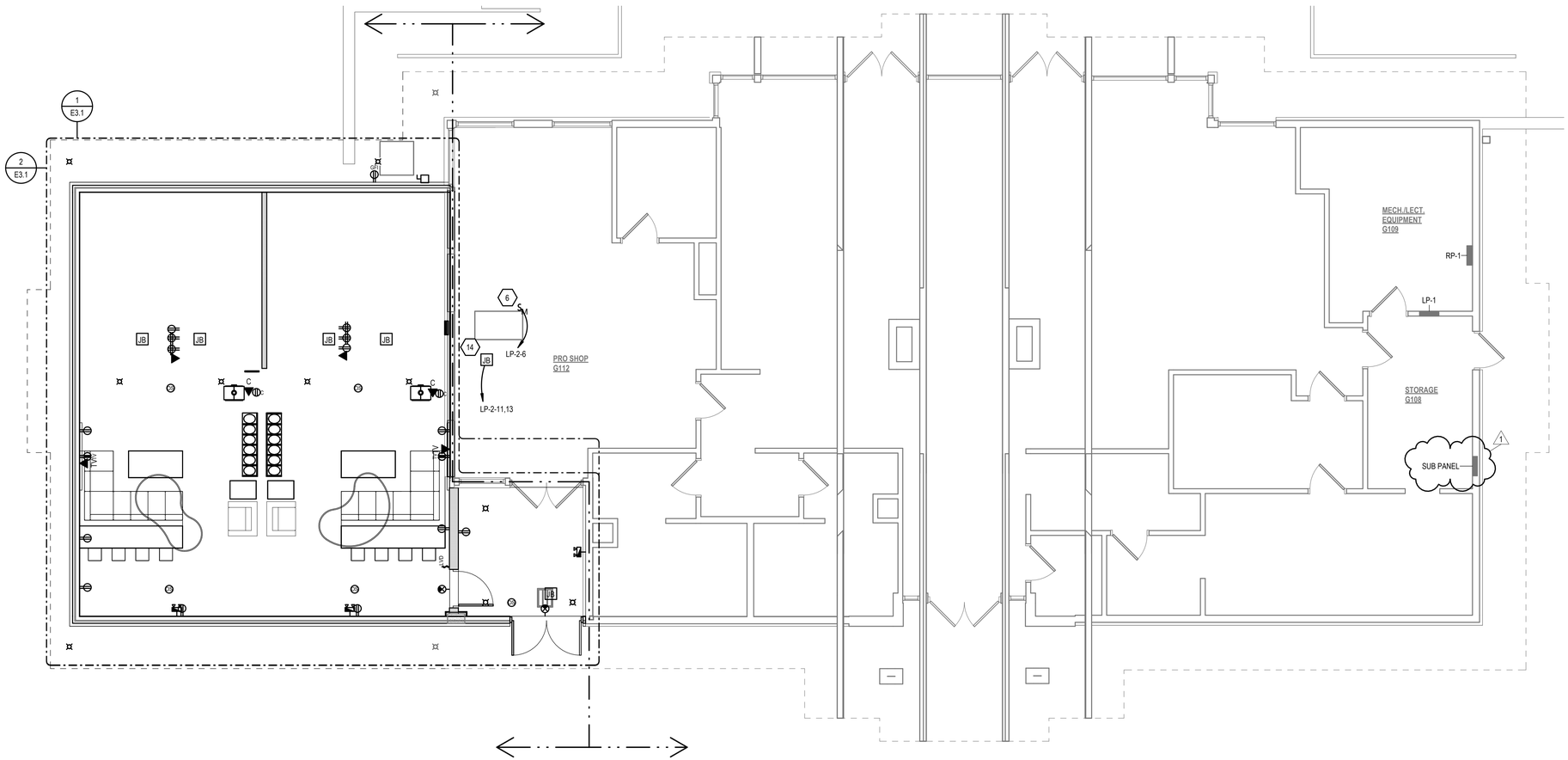
CURRIE GOLF COURSE - WEST CLUBHOUSE

MIDLAND, MICHIGAN

SHEET TITLE

DETAILS & SCHEDULES

PROJECT NUMBER	SHEET NUMBER
25-0546-0295	M7.0
PROJECT DATE: 05/12/26	
CHECKED BY: M. LAWRIN	



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OVERALL FLOOR PLAN

SCALE: 3/16" = 1'-0"

KEYED CONSTRUCTION NOTES

SYMBOL	DESCRIPTION
1	PROVIDE (1) 2" CONDUIT TO EACH CEILING SENSOR FROM UNDER PLATFORM TO ABOVE CEILING WITH A PULL STRING. CONDUITS TO BE RUN IN CENTER WALL BETWEEN SIMULATORS. COORDINATE INSTALLATION WITH SIMULATOR PM.
2	PROVIDE (1) 2" CONDUIT TO THE PROJECTOR FROM UNDER PLATFORM TO ABOVE CEILING WITH A PULL STRING. CONDUITS TO BE RUN IN CENTER WALL BETWEEN SIMULATORS. COORDINATE INSTALLATION WITH SIMULATOR PM.
3	CONNECT NEW SOFFIT LIGHTS TO SOFFIT LIGHTS CIRCUIT IN EXISTING BUILDING.
4	EXISTING BUILDING SOFFIT LIGHT TO REMAIN. UTILIZE CIRCUIT FOR NEW SOFFIT LIGHTS.
5	PROVIDE RECEPTACLE AND LOW VOLTAGE CONNECTION FOR WALL MOUNTED TV. COORDINATE INSTALLATION WITH OTHERS. CONFIRM MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.
6	PROVIDE LOCAL DISCONNECT SWITCH FOR FURNACE LOCATED IN CEILING ABOVE PRO SHOP. COORDINATE INSTALL AND LOCATION WITH OTHER TRADES.
7	PROVIDE 60A LOCAL DISCONNECT SWITCH FOR OUTDOOR CONDENSING UNIT. COORDINATE LOCATION AND INSTALL WITH OTHER TRADES
8	PROVIDE MAINTENANCE RECEPTACLE WITH WHEATHER PROOF WHILE IN USE COVER.
9	PROVIDE POWER CONNECTION TO UNIT HEATER IN CEILING. LOCAL DISCONNECT PROVIDED WITH UNIT. COORDINATE INSTALLATION WITH OTHER TRADES
10	RECEPTACLES TO BE LOCATED UNDERNEATH SIMULATOR ACCESS COVER PANEL FOR SIMULATOR POWER. COORDINATE LOCATION WITH SIMULATOR SUPPLIER.
11	CONNECT ALL EXIT AND EMERGENCY LIGHTING TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHING.
12	CONTRACTOR TO RECESS NEW LP-2 IN SIMULATOR BAY WALL. COORDINATE INSTALLATION WITH OTHER TRADES. GENERAL CONTRACTOR TO PROVIDE A HINGED DOOR COVER MATCHING THE ACCOUSTICAL PANEL TO CONCEAL PANELBOARD COVER.
13	WORK WITH OWNER IT TO RUN ETHERNET CABLE FROM IT ROOM TO SIMULATOR PLATFORM. COORDINATE INSTALLATION WITH SIMULATOR PM.
14	PROVIDE POWER CONNECTION TO DUCT HEATER. LOCAL DISCONNECT PROVIDED WITH UNIT. COORDINATE WITH OTHER TRADES.

NO.	REVISION	DATE
1	ADDENDUM #1	06/03/26
	ISSUED FOR BID	05/12/26
	FINAL OWNER REVIEW	04/30/26

WILLIAM A. KIBBE & ASSOCIATES, INC.
ENGINEERS | ARCHITECTS | SURVEYORS

WTAARCH.COM

WTA ARCHITECTS
100 S Jefferson Ave, Suite 601
Saginaw, Michigan 48607
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PROJECT TITLE

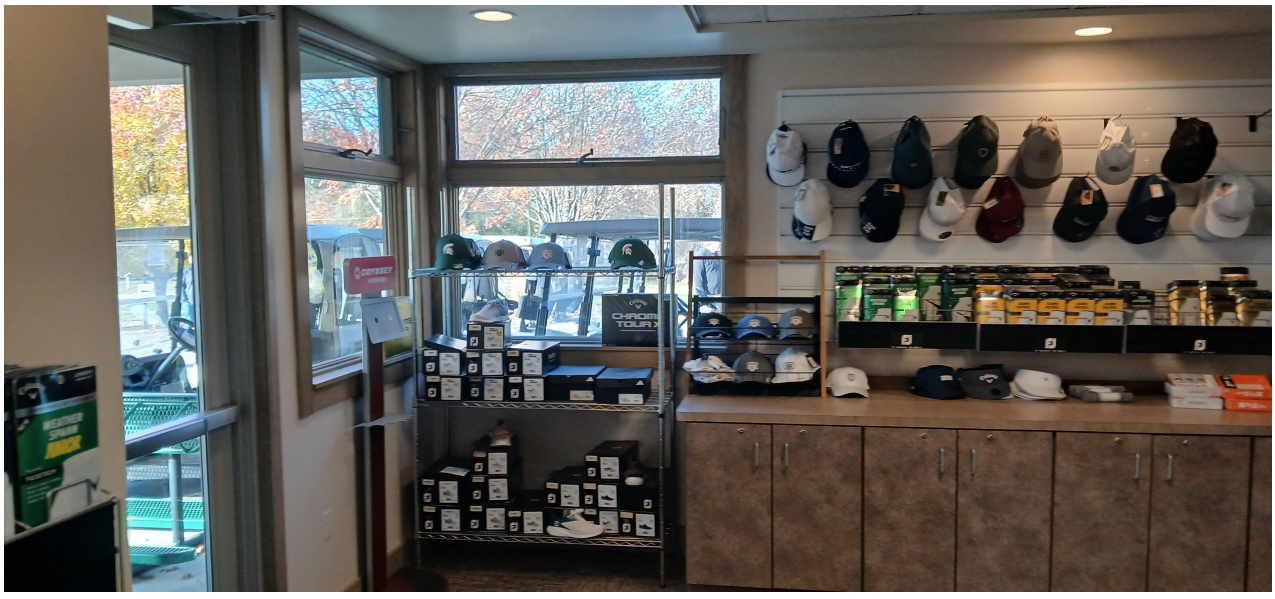
ADDITION TO:
CURRIE GOLF COURSE - WEST CLUBHOUSE

MIDLAND, MICHIGAN

SHEET TITLE
OVERALL FLOOR PLAN

PROJECT NUMBER	SHEET NUMBER
25-0546-0295	E3.0
PROJECT DATE: 05/12/26	
CHECKED BY: R. KAIN	

PRO SHOP REFERNCE PHOTOS (WEST WALL)



SECTION 06100 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Framing with dimension lumber.
2. Framing with engineered wood products.
3. Shear wall panels.
4. Wood blocking, cants, and nailers.
5. Wood furring and grounds.
6. Plywood backing panels.
7. Platform Framing Requirements For Golf Simulator System.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.
1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements

1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
B. Evaluation Reports: For the following, from ICC-ES:
1. Wood-preservative-treated wood.
2. Engineered wood products.
3. Shear panels.
4. Power-driven fasteners.
5. Powder-actuated fasteners.
6. Expansion anchors.
7. Metal framing anchors.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

~~A. Certified Wood: Materials shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship for the following:~~

~~1. Dimension lumber framing.~~
~~2. Laminated-veneer lumber.~~
~~3. Parallel-strand lumber.~~
~~4. Rim boards.~~
~~5. Miscellaneous lumber.~~

B. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
   1. Factory mark each piece of lumber with grade stamp of grading agency.
   2. Provide dressed lumber, S4S, unless otherwise indicated.

C. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal (38-mm actual) thickness or less, 19 percent for more than 2-inch nominal (38-mm actual) thickness unless otherwise indicated.

D. Engineered Wood Products: Provide engineered wood products acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.
   1. Allowable Design Stresses: Provide engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.
   1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

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

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

D. Application: Treat items indicated on Drawings, and the following:
   1. Wood cants, nailers, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
   2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
   3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
   4. Wood framing members that are less than 18 inches (460 mm) above the ground in crawlspaces or unexcavated areas.
   5. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 FIRE-RETARDANT-TREATED MATERIALS

A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not

extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.

1. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.
2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.

C. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.

D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

E. Application: Treat items indicated on Drawings, and the following:
1. Concealed blocking.
2. Plywood backing panels.

2.4 DIMENSION LUMBER FRAMING

A. Non-Load-Bearing Interior Partitions: Construction or No. 2 or better grade.
1. Application: Interior partitions not indicated as load-bearing.
2. Species:
a. Mixed southern pine; SPIB.
b. Northern species; NLGA.
c. Eastern softwoods; NeLMA.
d. Western woods; WCLIB or WWPA.

B. Framing Other Than Non-Load-Bearing Interior Partitions: Construction or No. 2 grade.
1. Application: Framing other than interior partitions not indicated as load-bearing.
2. Species:
a. Hem-fir (north); NLGA.
b. Southern pine; SPIB.
c. Douglas fir-larch; WCLIB or WWPA.
d. Mixed southern pine; SPIB.
e. Spruce-pine-fir; NLGA.
f. Douglas fir-south; WWPA.
g. Hem-fir; WCLIB or WWPA.
h. Douglas fir-larch (north); NLGA.
i. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

C. Framing Other Than Non-Load-Bearing Interior Partitions: Any species and grade with a modulus of elasticity of at least 1,300,000 psi (8970 MPa) and an extreme fiber stress in bending of at least 850 psi (5.86 MPa) for 2-inch nominal (38-mm actual) thickness and 12-inch nominal (286-mm actual) width for single-member use.

2.5 ENGINEERED WOOD PRODUCTS

A. Engineered Wood Products, General: Products shall contain no urea formaldehyde.

B. Laminated-Veneer Lumber: Structural composite lumber made from wood veneers with grain primarily parallel to member lengths, evaluated and monitored according to ASTM D 5456 and manufactured with an exterior-type adhesive complying with ASTM D 2559.

1. Extreme Fiber Stress in Bending, Edgewise: 2600 psi (17.9 MPa) for 12-inch nominal- (286-mm actual-) depth members.
2. Modulus of Elasticity, Edgewise: 1,900,000 psi (13 050 MPa)

C. Wood I-Joists: Prefabricated units, I-shaped in cross section, made with solid or structural composite lumber flanges and wood-based structural panel webs, let into and bonded to flanges. Provide units complying with material requirements of and with structural capacities established and monitored according to ASTM D 5055.

1. Web Material: Either oriented strand board or plywood, complying with DOC PS 1 or DOC PS 2, Exposure 1.
2. Structural Properties: Provide units with depths and design values not less than those indicated.

3. Provide units complying with APA PRI-400, factory marked with APA trademark indicating nominal joist depth, joist class, span ratings, mill identification, and compliance with APA standard.

D. Rim Boards: Product designed to be used as a load-bearing member and to brace wood I-joists at bearing ends, complying with research/evaluation report for I-joists.

1. Material: product made from any combination solid lumber, wood strands, and veneers.
2. Thickness: 1 inch (25 mm), 1-1/8 inches (28 mm) and 1-1/4 inches (32 mm).

3. Provide performance-rated product complying with APA PRR-401, rim board grade, factory marked with APA trademark indicating thickness, grade, and compliance with APA standard.

2.6 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
1. Blocking.
2. Nailers.
3. Furring.
4. Grounds.

B. For items of dimension lumber size, provide Construction or No. 2 grade lumber of any species.

C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
1. Mixed southern pine; No. 2 grade; SPIB.
2. Eastern softwoods; No. 2 Common grade; NeLMA.
3. Northern species; No. 2 Common grade; NLGA.
4. Western woods; Construction or No. 2 Common grade; WCLIB or WWPA.

2.7 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch (13-mm) nominal thickness.

1. Plywood shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.8 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
   1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
B. Power-Driven Fasteners: NES NER-272.
C. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

2.9 METAL FRAMING ANCHORS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Cleveland Steel Specialty Co.
   2. KC Metals Products, Inc.
   3. Phoenix Metal Products, Inc.
   4. Simpson Strong-Tie Co., Inc.
   5. USP Structural Connectors.
B. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those of products of manufacturers listed. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.
C. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G60 (Z180) coating designation.
   1. Use for interior locations unless otherwise indicated.

2.10 MISCELLANEOUS MATERIALS

A. Sill-Sealer Gaskets: Closed-cell neoprene foam, 1/4 inch (6.4 mm) thick, selected from manufacturer's standard widths to suit width of sill members indicated.

B. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch (0.6 mm).

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
C. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
D. Install fire-retardant treated plywood backing panels with classification marking of testing agency exposed to view.
E. Shear Wall Panels: Install shear wall panels to comply with manufacturer's written instructions.

F. Metal Framing Anchors: Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

G. Do not splice structural members between supports unless otherwise indicated.

H. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

I. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

J. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. NES NER-272 for power-driven fasteners.

2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.

3.2 PROTECTION

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

B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes sufficiently wet that moisture content exceeds that specified, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 06100

SECTION 08700 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Refer to "General and Special Conditions", and "Instructions to Bidders", Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.

1.2 SUMMARY

A. Furnish all items of Door Hardware specified, scheduled, shown or required herein except those items specifically excluded from this section of the specification.

B. Related Sections include the following:
   1. Division 6 - Section "Rough Carpentry"
   2. Division 7 - Section "Joint Sealants"
   3. Division 8 - Section "Aluminum-Framed Entrances and Storefronts"
   4. Section 16000 – Electrical rough-in, conduit junction boxes, wiring, primary power and final hook-up of all finish hardware components requiring electrical connections.

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere, unless specifically listed in the hardware sets:
   1. Windows
   2. Cabinets of all kinds, including open wall shelving and locks.
   3. Toilet accessories of all kinds including grab bars.
   4. Operable panel partitions, except cylinders where detailed.
   5. Corner guards
   6. Access doors and panels
   7. Overhead coiling doors

1.3 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:
   1. Furnish finish hardware to comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction where such requirements exceed the requirements of the Specifications.
   2. Furnish finish hardware to comply with the requirements of the regulations for public building accommodations for physically handicapped persons of the governmental authority having jurisdiction and to comply with Americans with Disabilities Act.
   3. Provide hardware for fire-rated openings in compliance with NFPA 80 and state and local building code requirements. Provide only hardware that has been tested and listed by UL for types and sizes of doors required and complies with requirements of door and door frame labels.
   4. Where emergency exit devices are required on fire-rated doors that carry supplementary marking on the doors UL labels indicating "Fire Door to be equipped with Fire Exit Hardware" provide UL label on exit devices indicating "Fire Exit Hardware".

B. Hardware Supplier:

1. Shall be an established firm dealing in contract builders' hardware. He must have adequate inventory, qualified personnel on staff and be located within 100 miles of the project. Only domestic manufacturers are acceptable and the distributor must be a factory-authorized dealer for all materials required. The supplier shall be or have in employment an Architectural Hardware Consultant. (AHC).

C. Electrified Door Hardware Supplier:
   1. Shall be an experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials.
   2. Shall prepare data for electrified door hardware, including shop drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this project.
   3. Shall have experience in providing consulting services for electrified door hardware installations.

D. Pre-construction Meeting:
   1. Prior to development of the Hardware Schedule, a Finish Hardware Meeting will be held at the Architect's office The Construction Manager and the Hardware Supplier's personnel, directly responsible for preparing the Hardware Schedule, shall meet with the Architect and the Architect's Hardware Consultant. The purpose of the meeting is to review the contract documents' hardware schedule requirements and will include, but not be limited to the following:
      a. Review specification requirements for hardware schedule, formats, hardware locations, opening descriptions, and other information specified.
      b. Review products specified versus products proposed.
      c. Hardware Supplier shall distribute, at the meeting, samples of schedules from other projects of similar nature prepared by the same person as will prepare schedule for this project.

E. Pre-installation Meeting:
   1. Before hardware installation, Construction Manager shall request a hardware installation seminar be conducted on the installation of hardware; specifically that of locksets, closers, exit devices, overhead stops and coordinators. Manufacturer's representatives of the above products, in conjunction with the hardware supplier for the project, shall present the seminar. Seminar will be held at job site and attended by installers of hardware for aluminum, hollow metal and wood doors. Seminar to address proper coordination and installation of hardware, per finish hardware schedule for this specific project, by using installation manuals, hardware schedule, templates, physical product samples and installation video's.
   2. When any electrical or pneumatic hardware is specified this meeting shall also include the following trades/installers: Electrical, Security, Alarm systems and Architect.
   3. Convene one week prior to commencing work of this Section
   4. The Hardware Supplier shall include the cost of this seminar in his proposal.

F. Manufacturer:
   1. Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
   2. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.

1.4 SUBMITTALS

A. Hardware Schedule
   1. Submit proper number of Hardware Schedules to allow the Architect to retain two copies for his use, plus the number of copies required by the Contractor for his distribution and use. In any event, do not submit more than six copies.
   2. Include the following:
      a. Preface sheet listing category only and manufacturer's names of items being furnished as follows:

CATEGORY	SPECIFIED	SCHEDULED
Hinges	Manufacturer A	Manufacturer B
Lock sets	Manufacturer X	Manufacturer X
Kick Plates	Open	Manufacturer Z

   3. Hardware Locations: Refer to Article 3.1 B2 Locations.
   4. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, door material, frame material, and UL listing.
   5. Hardware Description: Quantity, category, product number, fasteners, and finish.
   6. Headings that refer to the specified Hardware Set Numbers.
   7. Scheduling Sequence shown in Hardware Sets.
   8. Product data of each hardware item, and shop drawings where required, for special conditions and specialty hardware.
   9. Electrified hardware system operation description.
   10. "Vertical" scheduling format only. "Horizontal" schedules will be returned "Not Approved."
   11. Typed Copy.
   12. Double-Spacing.
   13. 8-1/2 x 11 inch sheets
   14. U.S. Standard Finish symbols or BHMA Finish symbols.
B. Product Data:
   1. Submit, in booklet form using supplier's schedule covers as binders. Product data of items of hardware listed in supplier's schedule.
   2. Submit product data concurrently with hardware schedule.
C. Inspection Report:
   1. Submit inspection report specified in 3.1.C2 for locksets, exit devices, ADA special closers, door closers and all electrical hardware.
D. Samples:
   1. Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample, if required, of each type of exposed hardware unit, finished as required and tagged with full description for coordination with schedule.
   2. Samples will be returned to the supplier. Units, which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.
E. Elevation and Wiring Drawings:
   1. Submit elevation drawing showing relationship of all electrical and pneumatic hardware components to door and frame. Indicate number and gage of wires required.
   2. Submit wiring drawing showing point to point wire hook up for all components.

3. Submit system operations descriptions for each type of opening; describe each possible condition.

F. Submit to Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number, and deliver to the installer so designated by the contractor.

1.6 WARRANTY

A. Mortise locksets shall carry manufacturer’s 3-year warranty against manufacturing defects and workmanship.
B. Closers shall carry manufacturer's 10-year warranty against manufacturing defects and workmanship.
C. Exit devices shall carry manufacturer's 3-year warranty against manufacturing defects and workmanship.
D. Continuous gear hinges shall carry manufacturer's Lifetime warrantee to be free from defects in material and workmanship.
E. Balance of items shall carry a manufacturer's 1-year warranty against manufacturing defects and workmanship.
F. During the warranty period, replace defective work, including labor, materials and other costs incidental to the work. Inspect the work within 24 hours after receipt of notice from the Owner. Replace work found to be defective as defined in the Contract Documents.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Furnish each category with the products of only one manufacturer unless specified otherwise; this requirement is mandatory whether various manufacturers are listed or not.

2.2 PRODUCTS

A. Provide the products of manufacturer designated or if more than one manufacturer is listed, the comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, "no substitution" is implied.
B. Hinges
   1. Furnish hinges of cuts and size as listed in Hardware Sets.
   2. Where hinges are specified at openings with “existing frames”, provide size and weight to match existing preparations, regardless of the hinge specified in the Hardware Set.
   3. Numbers used are Ives. Equal products of BHMA members are acceptable.
C. Locksets and Latchsets:
   1. Function numbers listed are Falcon.
   2. Provide 2-3/4 inch backset.

3. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond doorframe trim at single doors and have 7/8" lip to center at pairs of 1-3/4" doors.
4. Locksets and Latchsets:
   a. Falcon T Series/W Series
5. Lockset Trim:
   a. Falcon Quantum

D. Closers
1. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
2. Acceptable manufacturers and types:
   a. LCN series as listed in sets.

E. OVERHEAD HOLDERS and STOPS
1. Type, function and fasteners must be same as Glynn-Johnson specified. Size per manufacturer's selector chart. Plastic end caps, hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
2. Manufacture products using base material of Brass/Bronze for US3, US4, & US10B finished products and 300 Stainless Steel for US32 & US32D finished products.
3. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer's selector chart.
   a. Glynn-Johnson

F. KICK PLATES
1. Furnish .050 inches thick, beveled 4 sides, 10" high x door width less 2" at single doors and less 1" at pairs. Where glass or louvers prevent this height, supply with height equal to height of bottom rail less
2. Kickplates shall be drilled and counter sunk for oval head, counter sunk screws. Pan head not acceptable.
3. Any BHMA manufacturing product meeting above is acceptable.

G. Bumpers:
3. Wrought, forged, or cast, approximately 2-1/2 inch diameter, convex or concave rubber center, concealed fasteners.
   a. Ives WS406/WS407 series
   b. BHMA L02101.

H. THRESHOLDS
1. Styles and profiles as specified in sets. Cope at jambs.
2. Furnish full wall opening width when frames are recessed.
4. Furnish with non-ferrous Stainless Steel Screws and Lead Anchors.
   a. Zero as listed in sets
   b. Equal by NGP or Reese.

I. MISCELLANEOUS
1. Furnish items not categorized in the above descriptions but specified by manufacturer’s names in Hardware Sets.

J. FASTENERS
1. Furnish fasteners of the proper type, size, quantity and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Furnish machine screws for attachment to

reinforced hollow metal doors and frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.

2. Sex bolts will not be permitted on reinforced metal doors or wood doors where blocking is specified.

K. Exit Devices:

1. Exit devices shall be a wide-stile crossbar type, fabricated of brass, bronze, or stainless-steel and plated to the standard architectural finishes to match the balance of the door hardware.
2. Strikes shall be roller type and come complete with a locking plate to prevent movement.
3. All exit devices shall be designed to meet or exceed ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing laboratory.
4. Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be UL labeled fire exit hardware.
5. Von Duprin 88 Series. Series and function numbers as listed in sets.
6. Trim: As listed in hardware sets.

2.3 FINISHES

A. Generally, Dull Chrome, US26D / BHMA 626. Provide finish for each item as indicated in sets.

2.4 TEMPLATES AND HARDWARE LOCATION

A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.
B. Furnish metal template to frame/door supplier for continuous hinge.
C. Refer to Article 3.1 B2, Locations, and coordinate with templates.

2.5 CYLINDERS KEY CONTROL AND KEYING

A. All cylinders for this project will be supplied by one supplier regardless of door type and location.
B. Provide a cylinder for all hardware components capable of being locked.
C. Provide cylinders master and grand master keyed to ~~7 pin SFIC system~~ match existing owner keying. Provide change keys, master keys and grand master keys as required by Owner.
D. Provide disposable or keyed construction cores for use during construction period.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:

1. Install hardware according to manufacturers installations and to manufacturers template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacture of the item.
2. Provide blocking/reinforcement for all wall mounted hardware.
3. Reinforced hollow metal doors and frames and reinforced aluminum door and frames: drilled and tapped machine screws.

4. Solid wood doors and frames: full thread wood screws. Drill pilot holes before inserting screws.
5. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keenform self-tapping. Use #13 or 3/16 drill for pilot.
6. Continuous Gear Hinges require continuous mortar guards of foam or cardboard 1/2" thick x frame height, applied with construction adhesive.
7. Install weather-strip gasket prior to parallel arm closer bracket, rim exit device or any stop mounted hardware. Gasket to provide a continuous seal around perimeter of door opening. Allow for gasket when installing finish hardware. Door closers will require special templating. Exit devices will require adjustment in backset.

B. Locations:
1. Dimensions are from finish floor to center line of items.
2. Include this list in Hardware Schedule.

CATEGORY	DIMENSION
Hinges	Door Manufacturer's Standard
Levers	Door Manufacturer's Standard

C. Final Adjustment:
1. Provide the services of a representative to inspect material furnished and its installation and adjustment, to make final hardware adjustment, and to instruct the Owner's personnel in adjustment, care and maintenance of hardware.
2. Locksets, closers and exit devices shall be inspected by the factory representative and adjusted after installation and after the HVAC system is in operation, to insure correct installation and proper adjustment in operation. The manufacturer's representative shall prepare a written report stating compliance, and also recording locations and kinds of noncompliance. The original report shall be forwarded to the Architect with copies to the Contractor, hardware distributor, hardware installer and building owner.

D. Technical and Warranty Information
1. At the completion of the project, the technical and warranty information coalesced and kept on file by the General Contractor/Construction Manager shall be given to the Owner or Owner's Agent. In addition to both the technical and warranty information, all factory order acknowledgement numbers supplied to the General Contractor/Construction Manager during the construction period shall be given to the Owner or Owner's Agent. The warranty information and factory order acknowledgement numbers shall serve to both expedite and properly execute any warranty work that may be required on the various hardware items supplied on the project.
2. Submit to General Contractor/Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products.

HARDWARE SETS

Hardware Group No. 01
A100.1
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
1	EA	PANIC HARDWARE	98-EO	626	VON
1	EA	PANIC HARDWARE	98-NL-OP-110MD	626	VON
2	EA	CYLINDER & CORE (AS REQ'D)	MATCH EXIST'G SYSTEM	626	SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O	630-316	IVE
2	EA	OH STOP	100S	630	GLY
2	EA	SURFACE CLOSER	4021 MC	689	LCN
2	EA	MOUNTING BRKT	4020-18G	689	LCN
1	SET	WEATHER SEAL	(BY FRAME MFR)		
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	65A-223	A	ZER

Hardware Group No. 02
A101.1
EACH TO HAVE:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	98-NL-OP-110MD	626	VON
1	EA	CYLINDER & CORE (AS REQ'D)	MATCH EXIST'G SYSTEM	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O	630-316	IVE
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4021 MC	689	LCN
1	EA	MOUNTING BRKT	4020-18G	689	LCN

SECTION 321813 - SYNTHETIC GRASS SURFACING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Synthetic grass surfacing.

B. Related Requirements:

1. Section 312000 "Earth Moving" for preparation, compaction, and grading of granular base.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Synthetic grass surfacing.

B. Shop Drawings: For synthetic grass surfacing.

1. Include sections and details.
2. Show locations of seams and method of seaming.
3. Show layout of game lines, numbers, and letters. Indicate application method of each line and marking.
4. Show location and layout of team logo/graphics.

C. Samples: For each type of synthetic grass surfacing indicated.

1. Turf Fabric: 12 inches square.

1.4 INFORMATIONAL SUBMITTALS

Retain "Qualification Data" Paragraph below with qualification requirements in Section 014000 "Quality Requirements" and as may be supplemented in "Quality Assurance" Article.

A. Qualification Data: For Installer.

B. Product Test Reports: For each synthetic grass surfacing assembly.

C. Field quality-control reports.

D. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For synthetic grass surfacing, including maintenance cleaning instructions, to include in maintenance manuals.

1.6 MAINTENANCE

A. Extra Materials: Deliver to owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals (Maintenance Materials) Section.
   1. Quantity: Furnish quantity of Flooring units equal to 15% of amount installed.
   2. Delivery, Storage, and Protection: Comply with owner's requirements for delivery, Storage, and protection of extra materials.
   3. Cleaning: Furnish flooring manufacturer's neutral cleaner for initial cleaning and maintenance of the finished floor surface.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Installer experienced in performing work of this section, who has specialized in installation of work similar to that required for this project.
   1. Confirmation: When requested, submit confirmation indicating qualification.

B. Manufacturer's Qualifications: Manufacturer capable of providing field service representation during construction and approving application method.

1.8 DELIVERY, STORAGE, AND HANDLING

A. General: Comply with Division 1 Product Requirements Sections.

B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays

C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

D. Storage and Protection: Store materials at temperature and humidity conditions recommended by manufacturer and protect from exposure to harmful weather conditions.

1.9 WARRANTY

A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

B. Manufacturer's Warranty: Submit, for owner's acceptance, manufacturer's standard warranty document, executed by authorized company official.

1. Warranty Period: 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Synthetic Turf Playing Surfaces: Assembly tested in accordance with ASTM F1551.

2.2 SYNTHETIC GRASS SURFACING

A. Synthetic Grass Surfacing for Field Sports: Complete surfacing system, consisting of synthetic yarns bound to water-permeable backing and infill indicated, suitable for multipurpose sport playing fields.

1. Basis of Design: FIELDTURF LANDSCAPE – BY TARKETT SPORTS –
   a. EASY TURF COLLECTION ELITE PRO

PROPERTY	VALUE	METHOD
Pile Height	0.50"	D5823
Pile Weight	42 OZ/YD^2	D5848
Total Weight	74 OZ/YD^2	D5848
Gauge	3/16"	D5793
Primary Backing Weight	8+ OZ/YD^2	D5848
Primary Yarn Type	Nylon	N/A
Primary Yarn Structure	Texturized Monofilament	N/A
Primary Yarn Color	Field Green	N/A
Primary Yarn Denier	4400	D1907
Coating Weight	24 OZ/YD^2	D5848
Coating Type	Solid	N/A
Water Permeability	N/A	DIN 18-035
Total Infill	None	N/A

PART 3 - EXECUTION

3.1 EXAMINATION

A. Temperature Requirements: Maintain air temperature in spaces where products will be installed for time period before, during, and after installation as recommended by manufacturer.

B. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

C. Examine base and other conditions, with Installer present, for compliance with requirements for installation tolerances, permeability, and other conditions affecting performance of the Work.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 MANUFACTURER’S INSTRUCTIONS

A. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog installation instructions, and product carton instructions for installation.

3.3 FIELD QUALITY REQUIREMENTS

A. Manufacturer's Field Services: Upon owner's request, provide manufacturer's field service, consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.

3.4 INSTALLATION OF SYNTHETIC GRASS SURFACING

A. Roll out turf fabric and allow to relax at least four hours prior to seaming.

B. Provide seams flat and snug, with no gaps or fraying. Remove yarns that are trapped within seams. Attach turf fabric to perimeter restraint system as recommended by the manufacturer.

3.5 CLEANING

A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

3.6 PROTECTION

A. Protection: Protect installed product and finish surfaces from damage during construction.

3.7 DEMONSTRATION

A. Train Owner's maintenance personnel in proper maintenance procedures for synthetic grass surfacing.

END OF SECTION 321813

FieldTurf LANDSCAPE
A Tarkett Sports Company

ELITE PRO

EASYTURF® COLLECTION

PROPERTY	VALUE	METHOD
Pile Height	0.50”	D5823
Pile Weight	42 OZ/YD^2	D5848
Total Weight	74 OZ/YD^2	D5848
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Primary Yarn Type	Nylon	N/A
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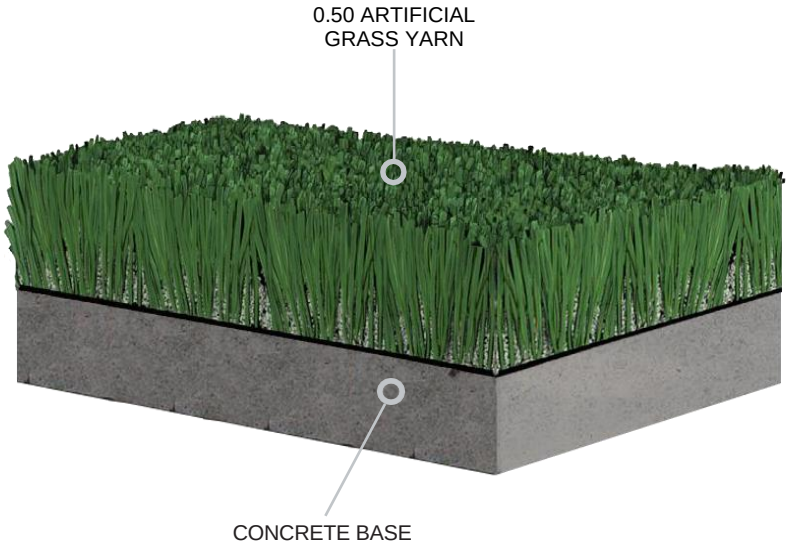
Primary Yarn Color	Field Green	N/A
Primary Yarn Denier	4400	D1907
Coating Weight	24 OZ/YD^2	D5848
Coating Type	Solid	N/A
Water Permeability	N/A	DIN 18-035
Total Infill	None	N/A

Variation of +/- 5% on above listed property values are within normal manufacturing tolerances.



Unmatched Warranty

Proudly Made in the USA with Global Components

Industry Leading Drainage and Performance

Environmentally Friendly