

ADDENDUM NO. 1
TO THE DRAWINGS AND SPECIFICATIONS FOR:

McDONALD ATHLETIC COMPLEX RECREATION CENTER RENOVATION
4990 OLENTANGY RIVER ROAD, COLUMBUS, OHIO 43219
COLUMBUS DEPARTMENT OF RECREATION AND PARKS
1111 E. BROAD STREET, COLUMBUS, OHIO 43205

JANUARY 18, 2012

THE ADDENDUM MUST BE ACKNOWLEDGED FOR ON THE BID FORM.

TO ALL BIDDERS:

This addendum supplements and amends the original drawings and specifications and shall be taken into account in preparing your proposal. It is a part of the Contract Documents. **The bid opening date has NOT changed; it remains scheduled for Tuesday, January 24, 2012 at 11:00 am.**

SINGLE PRIME CONTRACT:

CHANGES TO THE PROJECT MANUAL:

Item 1:

Information: Attached is the sign-in sheet from the Pre-Bid Meeting, held Tuesday, January 17, 2012.

Item 2:

Information: the published project budget is \$2,250,000.

Item 3:

Project Manual, Specifications Section 01 32 16, paragraph 1.01, E, Milestone Dates table, revise durations as follows;

<u>Milestone</u>	<u>Duration after NTP</u>	<u>Date</u>
1. Notice to Proceed	0	Feb. 27, 2012
2. Pre-Construction Conference	2	Feb. 29, 2012
3. Demo/Construction Start Date	28	March 26, 2012
Materials Submittals Due	30	March 28, 2012
4. Demo Wood Floor/Abatem't Complete	77	May 14, 2012
5. All Const. Complete Except Wd. Flr.	133	July 9, 2012
Draft O&M Binder Due for Review	133	July 9, 2012
6. Wood Floor Install/Seal/Cure Complete	190	Sept. 4, 2012
7. Substantial Completion	190	Sept. 4, 2012
8. Punch List Complete, Owner Possession	200	Sept. 14, 2012
9. Closeout Documentation/Final Completion	229	Oct. 13, 2012

Item 4:

Project Manual, Specifications, Section 01 51 00 Construction Facilities and Temporary Controls, paragraph 3.10, A, delete paragraph A.

Item 5:

Project Manual, add new Specifications Section 03 36 50 Concrete Acid Stain, attached.

Item 6:

Project Manual, add new Specifications Section 07 53 00 Single-Ply Roofing Membrane, attached.

Item 7:

Project Manual, Specifications Section 09 64 20, Wood Gymnasium Flooring, paragraph 3.3, A, 1, revise to read;

"1. Machine sand with coarse, medium, and fine paper to a smooth, even, and uniform surface. Remove sanding dust from entire surface per finish sealer manufacturer's instructions."

Item 8:

Project Manual, Specifications Section 09 64 20, Wood Gymnasium Flooring, paragraph 3.3, A, 3, revise to read;

"3. Apply number of coats as required by the finish sealer manufacturer to achieve or exceed the expected millage thickness per the designed sealer finish system. At a minimum, (2) coats of seal and (2) coats of finish shall be provided."

Item 9:

Project Manual, Specifications Section 09 84 36 Acoustical Baffles, paragraph 2.02, A, 4, revise to read;

"4. Facing: 1.5 ounce sewn ripstop sailcloth. All edges face wrapped and stitched. Suspension eyelets across each 4 foot side as required."

Item 10:

Project Manual, Specifications Section 11 48 00, Athletic Equipment, paragraph 2.01, A, revise product number to be #KA25.

Item 11:

Project Manual, Specifications Section 11 48 00, Athletic Equipment, paragraph 2.01, B, add Aalco Manufacturing Company as an acceptable manufacturer.

CHANGES TO THE DRAWINGS:

Item 12:

Drawings, Sheet C2.0, photo #2. Revise note to read;

"Ponding next to existing foundation. Fill area with 6" compacted aggregate (#304) to ensure positive drainage to existing swale."

Item 13:

Drawings, Sheet SU1, General Notes, add General Note #2 to read;

"2. Provide all cutting, trenching, backfill, and asphalt patching required for new underground electrical work. Follow City of Columbus Materials Specifications."

Item 14:

Drawings, Sheet HM-1, Floor Plan 1/HM-1, Clarification;

Coded Notes A and B, shown in the center of the Gymnasium, both apply to the entire Gymnasium. The Divider Curtain (shown dashed) is not intended to indicate any separation of the work called out in these two notes.

Item 15:

Drawings, Sheet A0.1, Demolition Floor Plan 1/A0.1, clarification;

At eight (8) locations of coded note 2 in this floor plan, the motorized backstops to remain do not appear in the drawing. The coded note 2 leaders indicate approximate locations. Refer to Sheet A1.1, coded note 15, for graphic depiction of existing backstops to remain.

Item 16:

Drawings, Sheet A0.1, Demolition Floor Plan, 1/A0.1, clarification;

At location of coded note #5 in this floor plan, the existing court divider curtain does not appear on this demolition floor plan. Refer to 1/A1.1 for graphic depiction of approximate location of court divider curtain to remain.

Item 17:

Drawings, Sheet A1.1, General Notes, add general note 4 to read;

"4. For bidding purposes, contractor shall assume replacement of 400 board feet of damaged 2x4 fire-retardant-treated wood stud framing and blocking members."

Item 18:

Drawings, Sheet A1.1, Coded Notes, coded note 6 clarification;

Three (3) c.m.u. are to be toothed in at Men's Toilets 102 only, NOT at Women's Toilets 109.

Item 19:

Drawings, Sheet A1.1, Coded Notes, revise coded note 10 to read;

"10. Provide new door and reinstall existing hardware...." Remainder of note to remain as indicated.

Item 20:

Drawings, Sheet A1.1, 1/A1.1, Floor Plan, revise as follows;

Add coded note 13 at each of doors 114, 115, and 116, as well as at full width of both new electric water cooler alcoves.

Item 21:

Drawings, Sheet A1.1, 1/A1.1, Floor Plan, revise as follows;
Add coded note 14 in location of dashed overhead wall near door 101A.

Item 22:

Drawings, Sheet A2.1, Detail Numbering, revise;
Change detail number of the "Court Markings Plan" from 1 to 2.

Item 23:

Drawings, Sheet A1.2, 2/A1.2, Court Markings Plan, clarification;
At each end of the basketball courts, the intersection of two (2) centerlines indicates the center of the existing basketball hoop to remain.

Item 24:

Drawings, Sheet A2.1, General Roof Notes, general roof note 2, revise to read;
"2. The existing metal roof is under warranty. All work which modifies or disturbs the existing metal roofing system shall be coordinated through the existing roofing system manufacturer so as not to void the existing roofing warranty. The existing system manufacturer is Metal Worx Systems, Inc."

Item 25:

Drawings, Sheet 3.1, 1/A3.1, South Exterior Elevation, revise note describing new exterior building signage to read;
"Provide dimensional lettering: 14"...." Remainder of note shall remain as written.

Item 26:

Drawings, Sheet A3.2, 2/A3.2, add the following note to this elevation;
"Paint all existing roof edge purlins and existing wood fascias which are to remain."

Item 27:

Drawings, Sheet A4.1, Coded Notes, revise coded notes 4, 5, and 6 to read as follows;
"4. Provide new type E sectional door in Alternate #1 only.
5. NOTE NOT USED.
6. NOTE NOT USED."

Item 28:

Drawings, Sheet A4.1, Door Type Elevations, add Door Type G, pair of flush hollow metal doors, each leaf 3'-0" x 7'-0" x 1-3/4".

Item 29:

Drawings, Sheet A4.1, Door Schedule, revise doors 101B, 106, 114, 115, and 116 as follows. Items not noted remain as indicated;
Door 101B: change door elevation type to "E" and add coded note 4 in comments.
Door 106: change door size to 3'-0"+/- x 6'-10"+/- x 1-3/4", V.I.F., change door type elevation to "D," and change hardware set to "Reuse Existing."
Doors 114, 115, and 116, change door elevation type to "G" and change frame elevation type to "C."

Item 30:

Drawings, Sheet A5.1, Reflected Ceiling Plan Legend, revise description of third hatch pattern to read;

"ALTERNATE 2: Acoustic attenuation baffle, 4' wide x 23' long, total quantity of (54) to be provided if alternate 2 is accepted. Locations approximate. Coordinate final locations with lighting fixtures, ductwork, fans, and other items."

Item 31:

Drawings, Sheet A6.2, Interior Elevation 5/A6.2, add toilet accessory designation T-2 at location of toilet paper holder graphically indicated on the right-hand toilet partition.

Item 32:

Drawings, Sheet S1.0, Coded Notes, revise coded notes following coded note K to read;

"L. 304 compacted aggregate per civil drawings.

M. Brush and remove loose surface rust prior to painting. See picture 1. For bidding purposes, Contractor shall assume ten (10) typical locations."

Item 33:

Drawings, Sheet S1.0, Coded Notes, revise coded note D to read;

"D. Enlarge (2) 1/8" existing weep holes at each shoe to 3/8". Drill so as not to damage the arch."

Item 34:

Drawings, Sheet S1.0, Coded Notes, delete second instance of coded note K.

Item 35:

Drawings, Sheet S1.0, General Notes, revise general note 3 to read;

"3. Weather protect all exposed arches as shown w/ preformed aluminum covers and fascias installed by roofing contractor experienced in metal roofing/coping work. Coordinate with General Notes on Sheet A2.1 regarding existing roofing warranty."

Item 36:

Drawings, Sheet S1.0, Building Plan a/S1.0, revise as follows;

Delete four (4) instances of coded note L from the Building Plan.

Item 37:

Drawings, Sheet S1.0, Building Plan a/S1.0, clarification;

Section 1/S1.0 and coded note E occur only at the locations indicated. They are not typical.

Item 38:

Drawings, Sheet S1.0, Sections 1, 2, 3, and 4/S1.0, clarification;

The 'square' symbol which occurs in these sections should be taken to indicate a 3/4" fractional dimension. For example, "8 'square' x33 glulam arch" should be read as "8-3/4x33 glulam arch".

Item 39:

Drawings, Sheet S1.0, Section 4/S1.0, delete reference to "Alt. #1" in fascia note.

Item 40:

Drawings, Sheet S1.0, Section 5/S1.0, delete Section 5/S1.0.

Item 41:

Drawings, Sheet P0.1, "Plumbing Floor Plan", revise as follows;

- A. Change Note title at top right-hand corner of Sheet from "Plumbing Coded Notes" to "Plumbing General Notes."
- B. General Notes: Change General Note 12 to read as follows:
"12. Field-verify that all existing plumbing fixtures to remain are operational at the completion of the new work."
- C. Plumbing Enlarged Partial Floor Plan — South End: Change EWC-2 equipment tag on east side of building to EWC-1.
- D. Coded Notes: Change Coded Note 14 to read as follows:
"14. Water connection to EWC-1 (not shown) similar to EWC-2."

Item 42:

Drawings, Sheet H0.1, "HVAC Demolition Floor Plan," Coded Note 7: Revise to read as follows;

"7. Existing combination motor starters for roof exhaust fans to remain."

Item 43:

Drawings, Sheet H0.2, "HVAC Floor Plan," Coded Note 17: Add the word "(Typical)" above Coded Note 17 on the Floor Plan ([2] locations).

Item 44:

Drawings, Sheet Sheet E0.2, "Lighting Floor Plan":

- A. North Entrance: Change (3) existing exterior soffit lights to lighting fixture type "R-7" and change associated Coded Note 3 to Coded Note 2.
- B. South Entrance: Change (3) existing exterior soffit lights to lighting fixture type "R-7" and change associated Coded Note 3 to Coded Note 2.

Item 45:

Drawings, Sheet_Sheet E0.3, "Power Floor Plan":

- A. Gymnasium 101:
 1. Provide a surface-mounted junction box with blank cover plate on west wall at north end where wall curves. Mount junction box at top of wall along ceiling and extend 1-inch conduit with pullwire along ceiling and extend into Mechanical Room 113 for future use by the Owner.
 2. Provide a surface-mounted junction box with blank cover plate on west wall at south end where wall curves. Mount junction box at top of wall along ceiling and extend 1-inch conduit with pullwire along ceiling and extend into Mechanical Room 113 for future use by the Owner.
 3. Provide a surface-mounted junction box with blank cover plate on east wall at north end where wall curves. Mount junction

- box at top of wall along ceiling and extend 1-inch conduit with pullwire along ceiling and extend into Mechanical Room 113 for future use by the Owner.
4. Provide a surface-mounted junction box with blank cover plate on east wall at south end where wall curves. Mount junction box at top of wall along ceiling and extend 1-inch conduit with pullwire along ceiling and extend into Mechanical Room 113 for future use by the Owner.
- B. Mech. 115:
1. Change Coded Note 10 associated with ceiling smoke detector to Coded Note 1.
 2. Change Coded Note 1 associated with AHU-1 to Coded Note 10.
- C. Mech. 116: Change Coded Note 10 associated with ceiling smoke detector to Coded Note 1.

Item 46:

Drawings, Sheet E0.4, "Electrical Schedules," Lighting Fixture Schedule:

- A. Lighting fixture type "W-2": Add Cooper/Lumark as an approved equal.
- B. Add Lighting fixture type "R-7" to read as follows"
" Lithonia Model LGF-1/TRT-9RW-FFL-277 or approved equal by Prescolite, Portfolio, or Indy with (1) F32TRT/3000 lamp. Lighting fixture shall be a fluorescent downlight with recessed white gasketed refractor, gasketed fresnel lens, -5 deg. F. electronic ballast, and wet location label.

END OF ADDENDUM 1 ITEMS

ATTACHMENTS: PRE-BID SIGN-IN SHEET
Specifications Section 03 36 50 Concrete Acid Stain
Specifications Section 06 90 00 Structural Wood Restoration
Specifications Section 07 53 00 Single-Ply Sheet Roofing

PRE-BID MEETING SIGN - IN SHEET
McDonald Athletic Complex Recreation Center Renovation
Columbus Department of Recreation and Parks
Project Number: 1126
January 17, 2012, 10:00 am

REPRESENTATIVE	COMPANY	PHONE	EMAIL
Scott Rees	Litko Restoration Tech	614-581-5759	scree@litkorec.com
Brendan Moody	Sign Affects Ltd.	614-596-7284	bmoody@signaffects.com
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SECTION 03 36 50 CONCRETE ACID STAIN

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Concrete floor stain.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, including surface preparation and application instructions.
- B. Color Samples: Submit manufacturer's standard color chart.
- C. Installer's Project References: Submit list of successfully completed projects, including project name and location, name of architect, and type and quantity of concrete floor stain applied.
- D. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.

1.3 QUALITY ASSURANCE

- A. Single Source Responsibility: Concrete floor stain materials shall be products of a single manufacturer.
- B. Preinstallation Meeting: Convene a preinstallation meeting before start of application of concrete floor stain. Require attendance of parties directly affecting work of this section, including Contractor, Architect, and applicator. Review surface preparation, application, protection, and coordination with other work.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened container/packaging, with labels clearly identifying manufacturer, product name, and concrete floor stain color.
- B. Storage: Store materials in a clean, dry area indoors in accordance with manufacturer's instructions. Keep containers sealed until ready for use.
 - 1. Concrete Floor Sealer: Keep away from ignition sources. Do not allow to freeze.
- C. Handling: Protect materials during handling and application to prevent damage or contamination.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply concrete floor stain when air or surface temperature is below 40 degrees F.
- B. Concrete Floor Sealer: Do not apply when air or surface temperature is below [55 degrees F]

1.6 SEQUENCING

- A. Prepare surface and apply concrete floor stain after other interior finish work is completed and before baseboards are installed.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Kemiko Concrete Products/Stone Tone Stain
- B. Life Deck Specialty Coatings/Acid Stain
- C. Camouflaged Concrete Corp./Acid Stain
- D. W.R. Meadows/Spectrum 930.

2.2 CONCRETE FLOOR STAIN

- A. Concrete Floor Stain
 - 1. Description: Combination of acid solution, wetting agents, and metallic ions. When mixed with water, chemically combines with portland cement to form permanent colors.
 - 2. Color: Color shall be selected by Owner and Architect from FULL LINE of manufacturer's colors.

2.3 ACCESSORIES

- A. Concrete Floor Sealer: provide sealer product as recommended by Acid Stain manufacturer

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive concrete floor stain. Notify Architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.2 SURFACE PREPARATION

- A. Protection:
 - 1. Protect walls and surrounding surfaces not to receive concrete floor stain.
 - 2. Do not allow stain to come in contact with wood or metal surfaces.
- B. Prepare concrete surface in accordance with manufacturer's instructions.
- C. Concrete shall be as specified in Section 03300. Ensure concrete is a minimum of 28 days old.
- D. Ensure concrete surface is clean, dry, structurally sound, and free from dirt, dust, oil, grease, solvents, paint, wax, asphalt, concrete curing compounds, sealing compounds, surface hardeners, bond breakers, adhesive residue, and other surface contaminants.
- E. Do not acid wash or use heavy alkali cleaners.

3.3 APPLICATION

- A. Apply concrete floor stain in accordance with manufacturer's instructions at locations indicated on the drawings.
- B. Control depth of color by adjusting volume of stain applied to floor.
- C. Apply 2 coats of concrete floor stain. Allow floor to completely dry after each coat. Do not scrub clean between coats.
- D. After floor has completely dried, scrub off stain residue in accordance with manufacturer's instructions. Allow floor to completely dry.
- E. Concrete Floor Sealer: Apply concrete floor sealer over concrete floor stain in accordance with manufacturer's instructions.
- F. Keep material containers closed when not in use to avoid contamination.

3.4 PROTECTION

- A. Protect stained concrete floor from damage during construction.
- B. Protect concrete surfaces from foot traffic for a minimum of 24 hours.
- C. Avoid washing concrete surfaces for a minimum of 48 hours.

END OF SECTION 03 36 50

SECTION 06 90 00 STRUCTURAL WOOD RESTORATION

1.0 GENERAL

1.01 PREQUALIFICATION REQUIREMENTS

1.1.1 Contractors or subcontractors desiring to perform the work of this Section shall provide the following information:

- A. Experience of the Contractor/Subcontractor:
1. Period of time the company has been performing the type of work required in this Section as a contractor/subcontractor.
 2. Resume of the lead craftsman who will implement work.
 3. Complete list of comparable completed projects and scope of work. Identify for each project:
 - i. Project name and address.
 - ii. Facility contact person and telephone number.
 - iii. Type of work (i.e., products, materials, and finishes) installed.
 - iv. Special project conditions, including layout, finishes, requirements, and other special project requirements.
 - v. Furnish photographs/slides of structural wood restoration of similar scale of performance aspects of comparable completed project work.
- B. Contractors are cautioned that only experienced contractors/subcontractors that can submit satisfactory documentation of comparable completed work of the type required for the work of this project will be considered for approval.
1. Contractor/Subcontractor performing the specialty work of this Section of specifications shall meet the requirements stated in the article entitled "Quality Assurance."
 2. Furnish a written outline of their understanding of the challenges and unique aspects of this project and their proposed method(s) for achieving the end finish results required for this portion of the work.
 3. Furnish evidence of current workload, and evidence of personnel and facilities available to perform the work required for the timely completion of the work of this project.
 4. Failure to meet these requirements and qualifications will be sufficient causes for rejection as an approved contractor/subcontractor.

1.2 QUALITY ASSURANCE

1.2.1 Fabricator, Installer and Carver Qualifications: An experienced fabricator, installer and wood carver, who have completed structural wood restoration similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

1.3 SUMMARY

1.3.1 This section includes requirements for interior and exterior restoration of gluelam arches including the following:

- A. The following are part of the general work considered to be part of the base bid work for each building for the restoration of structural arches. All arch repair/restoration work shall be performed by a qualified subcontractor for the restoration work. All other work (ancillary work) may be performed by the General Contractor or other subcontractors.
 - 1. Remove existing exterior coatings from the arches. Dry the arches.
 - 2. Field verify and determine the extent of repair required as detailed.
 - 3. Except where replacement is required, install consolidant to all the exposed, unstable wood as herein specified. Approximately 5 percent of the surface area will require consolidant.
 - 4. Upon completion of all repairs, perform the following work:
 - i. Install aluminum cover (Division 7) on 3 sides with spacers as detailed, on exterior parts of the arches.
 - ii. Sand the filled areas as required and repaint (Division 9) interior arches to match the existing paint.
 - 5. Perform specific repairs of the arches as identified on the plan, including repairs of abutments/piers, (Division 3) repairs of holes etc., at each site. Enlarge all weep holes of the shoe as indicated. Apply "Dry Rot Control" to all exposed surfaces prior to covering up. Note that the repairs of wood decking, fascia and other surfaces are not part of the structural wood restoration work.
- B. In addition to the base work required, the following work shall be bid on based upon our estimated quantities.
- C. The following work is part of the contract documents:
 - i. For wood members deteriorated to a depth of one inch or less, remove all unstable wood, install consolidant and fill with structural putty.
 - ii. For wood member deteriorated to a depth deeper than one inch, remove all unstable wood, provide square edges, apply consolidant and install dutchmen
 - iii. All delamination and checking of glue joints deeper than 1-1/2" shall be repaired by epoxy injection as specified herein.
 - iv. Provide mock-up of each repair for approval prior to proceeding with the final work.

1.3.2 Related Sections:

- 1. Division 7 - Aluminum Coping
- 2. Division 7 - Joint Sealants
- 4. Division 9 - Painting

1.4 DEFINITIONS

1.4.1 Wood Restoration: The term “restore” is a general term applied to several different materials in this project as is defined in Section 01420. With respect to wood, it is defined as the process of returning an existing wood component or assembly as nearly as possible to its original form and condition, using appropriate repair procedures to correct wood defects or deficiencies.

- A. When used in the construction documents without further specific requirements, the term “restore” means:
 - 1. Scraping of existing finishes.
 - 2. Filling and patching holes and repairing of bolt holes.
 - 3. Applying of consolidents to weak areas.

- B. Other types of procedures included in the term “restore” include some or all of the following procedures depending upon the particular deficiencies in the woodwork examined.
 - 1. Stripping.
 - 2. Replacement of missing, damaged or deteriorated pieces.
 - 3. Plugging and patching of larger holes and filling of deteriorated lumber with dutchmen material to match existing.
 - 4. Repairing of excessive delamination.
 - 5. Tightening of open or loose joints.
 - 6. Wood consolidation.
 - 7. Structural putty of deteriorated work.
 - 8. Other work as shown or specified.

- C. The performance criteria for the term “restore”, when deficiencies are found in the structural woodwork at the time it is examined by the contractor, include that criteria in “Performance Requirements”.

- D. The following are additional procedures in the restoration process and are specified in the named sections.
 - 1. Division 7 - Aluminum Coping
 - 2. Division 8 - Joint Sealants
 - 3. Division 9 - Painting

1.4.2 It is not the intent of this definition, or section, for existing woodwork to be restored to a brand “new” appearance or condition. It is understood that woodwork which has been properly maintained in a working building may show signs of use, wear or age. It is the intent of these specifications to allow minor imperfections that can be associated with use, wear, and age to exist in the finish work. Damage due to modification, abuse, structural failure, improper use and maintenance, negligence and other effects above and beyond minor use, wear and age, is not acceptable in the finished work.

1.5 PERFORMANCE REQUIREMENTS

1.5.1 The criteria for “restore” where specifically identified on the drawings is found in the Article called “DEFINITION, Paragraph A (1)”. Within each of the

assemblies of components identified on the drawings additional repairs may be necessary prior to performing the work under Paragraph A (1). The criteria for performing these additional restoration measures is as follows:

- A. Repair major structural deficiencies in woodwork such as missing, rotting, or otherwise unstable wood.
- B. Replace wood where more than fifty percent of the item has one or more of the major deficiencies.
- C. Repair surface defects larger than 3/8".
- D. Patch and repair holes deeper than 3/8 inch, including holes that penetrate the depth of the wood with structural putty.
- E. Remove previously applied patches or dutchmen that are not "tight" or solid to adjacent surface or the substrate.
- F. Where entire wood surface area has become detached from substrate; re-secure and perform other repairs required within.

PART 2 - GENERAL

2.1 WOOD MATERIALS

- 2.1.1 Exterior Lumber Material: Treated Southern pine, Douglas fir, or species to match existing.
- 2.1.2 Interior Lumber Material: Species to match existing or any compatible species.
- 2.1.3 Consolident Materials:
 - A. Wood Consolident: A two-part hardener and resin for impregnating wood fibers and hardens into a water-resistant material for consolidating and priming wood prior to application of epoxy wood filler material.
 - B. Product (Standard): LiquidWood as manufactured by Abatron, Inc., Kenosha, WI. or approved equal.
- 2.1.4 Wood Repair and Replacement Material: A structural adhesive putty system consisting of a hardener paste and a resin paste for filling cracks, holes, and voids in wood material.
 - A. Material is non-shrinking, weather-resistant, and dimensionally stable and can be shaped, carved out, sand, planed and sanded to conform to the desired shape as a filler/replacement material.
 - B. Material can be tinted with stains, dyes or pigments to match adjacent color materials.
 - C. Product (Standard): WoodEpoxy as manufactured by Abatron, Inc. Kenosha, WI. or approved equal.
- 2.1.5 Adhesive: Glues and adhesives for installation of dutchmen and other material repairs shall be as manufactured and recommended by the manufacturer Abatron, Inc. for site specific condition (moisture, temperature etc.) or approved equal adhesives.

- 2.1.6 Epoxy Injection Adhesive: Material for epoxy injection shall be Sika - 35, Hi – Mod LV as manufactured by Sika Corporation or approved equal.
- 2.1.7 Fasteners: Stainless steel fasteners shall be provided for all exterior application. The exterior fasteners shall be of steel. The size and depth shall be as indicated.
- 2.1.8 Dry Rot Control: The dry rot control shall be applied to exterior exposed arches after all repair work is completed. The material shall be Termite Prufe, brush applied, as manufactured by Copper Brite Inc., P.O. Box 50610, Santa Barbara, CA 93150-0610 or approved equal.

PART 3 - EXECUTION

3.1 EXAMINATION OF SURFACES

- 3.1.1 The drawings indicate the general areas to be restored and identify some of the specific locations, which require a specific restoration procedure, specified herein, or detailed on the drawings.
- 3.1.2 Investigate all existing surfaces where a defect is identified in this specifications section is encountered. Field mark the extent of each repair for review and approval by the architect. Perform the required restoration procedure described herein.

3.2 RESTORATION REQUIREMENTS

- 3.2.1 Specific components or areas on the building have been designated to receive a restoration procedure. This in no way limits or precludes this restoration procedure to that specific condition, but requires that this restoration occur on the building wherever that condition is encountered.
- 3.2.2 Examine existing surfaces, which are designated to be restored. Identify the designate the extent of each type of repair required.
- 3.2.3 Procedures for restoration of specific wood defects are specified herein further.

3.3 PROTECTIVE COATING STRIPPING

- 3.3.1 Remove protective coatings from the exposed exterior surfaces of the four corner arches that are to receive new three sided aluminum covers.
- 3.3.2 Use only equipment as recommended for application of a particular manufacturer.
- 3.3.3 Workmen shall be equipped with all protective equipment required for the paint removal operations. Comply full with EPA, OSHA, State of Ohio, and local regulations.

- 3.3.4 Provide required ventilation during stripping operations.
- 3.3.5 Protect adjacent surfaces and finished surface underneath the work area at all time with properly taped polyethylene sheet or heavy construction paper.
- 3.3.6 Apply stripping materials in accordance with manufacturer instructions under adequate illumination, and evenly applied with the proper type of application equipment. Let materials stay on for prescribed period of time.
- 3.3.7 Test for softness, and when it has softened through to the wood, carefully scrape off and remove the sludge. If some of the old finish remains on the wood, apply another coat of stripper and repeat procedure.
- 3.3.8 Apply neutralizing agent on surfaces which have had coating removed. Apply in accordance with manufacturer's recommendations.
- 3.3.9 Upon completion of the work remove all excess material from the work area. Bag, seal, and dispose of residual materials in accordance with applicable regulation. Lead paint shall be removed and disposed of per all EPA, OSHA, State of Ohio, and local regulations.

3.4 APPLY CONSOLIDENT

The consolident liquid /wood shall be applied at the following locations:

- 3.4.1 All exposed arch member showing unstable, weak lumber to a depth more than 3/8 inch.
- 3.4.2 All areas where repair is to be made utilizing structural putty such as removing of material 1" or less deeper and replacing with putty, bolt holes etc.
- 3.4.3 All areas where repair is made utilizing Dutchmen and laminates. Drill 1/8" diameter holes minimum of one inch deep at 3 to 4 inches on center and apply consolident as per the written instructions of the manufacturer.

3.5 REPAIR UTILIZING STRUCTURAL PUTTY

- 3.5.1 Remove deteriorated material to sound depth, apply consolident as specified herein. Fill the area with the structural putty as per the written instructions of the manufacturer.

3.6 REPAIR WITH DUTCHMEN/LAMINATES

- 3.6.1 Remove deteriorated material; square the shape of the area to be repaired. Apply consolident. Apply wood adhesive. Install Dutchmen/Laminates with tight fit, fasten as detailed.

3.7 REPAIR WITH EPOXY INJECTION

3.7.1 All delamination/checking of depth 1-1/2" or deeper shall be repaired with pressure injecting the epoxy as per the manufacturers recommendation. Apply minimum pressure of 5 PSI. Protect all adjacent surfaces from damage. Secure and repair with countersunk fasteners as shown. Fill countersunk area with structural putty, sand and paint.

3.8 DRY ROT CONTROL

3.8.1 After completion of all applicable repairs of the exposed exterior arches and prior to be installation of the aluminum cap, apply Dry Rot Control, by brush at the rate of as per the written instructions of the manufacturer.

3.9 GENERAL REQUIREMENTS

3.9.1 The contractor shall note that preparation of surfaces and site condition as required for application is his responsibility, for all products specified herein. Protect adjacent structures. Any damage, staining or contamination is responsibility of the contractor.

3.9.2 Refer to relevant sections for related repair work such as sealant, coping, concrete repair, painting etc.

3.9.3 Sanding, filling, priming and other applicable surface preparation is the responsibility of the contractor.

END OF SECTION 06 90 00

SECTION 07 53 00 SINGLE-PLY SHEET ROOFING

1.0 GENERAL

1.01 DESCRIPTION

- A. THE CONTRACTOR AND ROOFING MANUFACTURER ARE REQUIRED TO REVIEW THE EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS. IN SUBMITTING A BID, THEY GUARANTEE THEY WILL PROVIDE WARRANTIES SPECIFIED WITHOUT REQUIRING MODIFICATIONS. IF MODIFICATIONS ARE NEEDED, THEN THE COST FOR SUCH MODIFICATIONS IS TO BE INCLUDED IN THE BID. THERE WILL NOT BE ANY ADDITIONAL COST TO THE OWNER FOR UNKNOWN DETAILS TO MEET MANUFACTURER'S SPECIFICATIONS.
- B. Modify existing roofing systems as indicated and provide complete fully-adhered single-ply sheet roofing system installation at locations as shown on the drawings.
- C. Provide new roofing insulations as indicated.
- D. Provide all related demolition, fascia and carpentry work.

1.02 QUALITY ASSURANCE

- A. ROOFING MANUFACTURER IS REQUIRED TO HAVE MANUFACTURED THEIR MEMBRANE FOR A MINIMUM OF TEN (10) YEARS.
- B. Roofing system installation shall be performed by an installer trained and approved by the manufacturer. The installer and his workmen shall be certified by the manufacturer and are subject to the approval of the Owner and the Architect.
- C. The Roofing Contractor and the Superintendent are to have five years experience installing the roof system specified. The Superintendent is to be familiar with the requirements of this project and is to be on the job at all times when roofing system work is in progress.
- D. The manufacturer's representative shall inspect the roof during the bidding process, again just prior to the installation of the system and finally at the completion of the installation. They shall advise the Architect of their findings in writing. The Contractor is required to correct any defective work indicated as such by the manufacturer's representative at no cost to the Owner.
 - 1. The manufacturer's representative shall notify the Architect of the time they plan to visit the site so that the Architect may be present.
- E. The roofing system as classified by Underwriters Laboratories, Inc. shall meet the requirements of the State of Ohio Building Code for at least a Class C rated roof system. The roofing system includes the existing roof decking, new roof insulation, any required sheathing, and the new roof membrane. Provide the appropriate membrane, insulation, sheathing, etc. to meet this requirement.
- F. The roofing system is to remain secured and watertight for a peak gust for wind velocity of 90 m.p.h.
- G. The roofing system installation shall meet the requirements of a 1-90 assembly..

1.03 SUBMITTALS

- A. Edited copies of the manufacturer's roofing specifications and warranty.
- B. Shop drawings showing mechanical fasteners, seam layout, fascia details and all other miscellaneous details.

- C. Product literature for each manufactured component such as roofing membrane, roofing insulation, fasteners, etc.
 - D. Samples of roofing membrane, roofing insulations, sheathings and fasteners.
 - E. Wind uplift classification data.
 - F. Fire classification data.
 - G. Fastener pull test results from a certified fastener company for existing roof deck.
 - H. Material safety data sheets.
- 1.04 DOCUMENT ON SITE
- A. Copies of all submittals, drawings and project manual.
 - B. Daily log of crew attendance and time records.
 - C. Daily log of each days work and weather conditions.
 - D. Material delivery records.
 - E. Material and data safety sheets.
- 1.05 DELIVERY AND STORAGE
- A. Deliver materials to job-site in new, dry, unopened and well marked containers showing product and manufacturer's name. ALL MATERIALS ARE TO BE COVERED WITH TARPS AS DELIVERED.
- 1.06 MANUFACTURER'S WARRANTY AND CONTRACTOR'S GUARANTEE
- A. Provide a written twenty (20) year Manufacturer's Total System Warranty. This warranty is to cover ALL materials installed.
 - B. Provide a written twenty (20) year Manufacturer's Membrane Warranty.
 - C. The roofing Contractor shall provide a written guarantee for all material and workmanship against defects for a period of two (2) years.
- 2.0 PRODUCTS
- 2.01 ROOFING MEMBRANE SYSTEMS
- A. TPO (thermoplastic polyolefin), fully adhered system, 60 mil reinforced membrane, WHITE in color, as manufactured by Carlisle SynTec Systems, Firestone Tire and Rubber Company, or Versico, Inc.
 - B. Use membrane with the required sheathings and/or insulations that meet the requirements of paragraph 1.02, E.
- 2.02 RELATED MATERIALS
- A. Miscellaneous wood blocking and wood nailers; S4S 1500 fc construction grade Douglas Fir conforming to standard 15 grading and dressing rules of the West Coast Lumber Inspection Bureau, or other species of wood of equal strength. All lumber shall be grade marked at the mill. Lumber is to be pressure treated by a method approved by the membrane manufacturer. Lumber provided under Section 06 10 10 Rough Carpentry.
 - B. Fasteners; self-tapping sheet metal screws, tapcons, etc. Provide all of required length, diameter, interval, and finish to effect attachment which will satisfy the requirements of the manufacturer's specifications or as stated on the drawings.
 - 1. All exposed fasteners, stainless steel. Provide all new fasteners and vinyl washers. Do not reuse existing fasteners.

2. The roofing insulation fasteners are to satisfy the requirements of the manufacturer's specifications where applicable.
- C. Flat roofing insulation; 1-1/2" thickness, polyisocyanurate insulation, selected for chemical compatibility with specific manufacturer's roofing membrane. NO WOOD FIBERBOARD IS TO BE USED FOR FLAT ROOFING INSULATION.
- D. Tapered roofing insulation; as shown on the drawings, polyisocyanurate insulation, selected for chemical compatibility with specific manufacturer's roofing membrane. NO WOOD FIBERBOARD IS TO BE USED FOR SADDLES OR TAPERED ROOFING INSULATION.
- E. Sheathing, if required for Warranty; "Dens Deck" gypsum board as required by manufacturer to meet Class C rated roof system.
- F. Flashings; compatible with membrane and other adjoining materials and in accordance with membrane manufacturer's specifications.
- G. Roofing sealants and pourable sealers; if required, compatible with membrane and other adjoining materials and in accordance with membrane manufacturer's specification.
- H. Terminal and anchor bars; metal or hard butyl rubber, in accordance with membrane manufacturer's specifications. Provide all to effect attachment which will satisfy the requirements of the manufacturer's specification.
- I. Premolded boots and pipe flashing; .050" thick flashing.
- J. Clamps; stainless steel air craft type.

3.0 EXECUTION

3.01 PREPARATION

- A. Inspect decking for correction installation conditions. Notify Architect of any damaged decking prior to installation of new roofing insulation. Also notify Architect of any damaged wood blocking, curbs, etc. that are encountered.
- B. Roofing system shall not be applied when the surrounding air, surface temperature, relative humidity or wind velocity is not within the range acceptable under the manufacturer's recommendations.

3.02 INSTALLATION OF WOOD NAILERS, FLAT INSULATION, TAPERED INSULATION AND SHEATHING

- A. Install wood nailers securely to resist the minimum force as required by the membrane manufacturer.
- B. Install flat roofing insulation and saddles where indicated on the drawings as recommended by the manufacturer. Attach to roof decking with insulation adhesive and as required by the manufacturer's installation instructions.
- C. Install sheathing, if required by the manufacturer to meet required rating.

3.03 INSTALLATION OF ROOFING MEMBRANE

- A. Install roofing membrane in accordance with the manufacturer's installation instructions.
- B. Install all flashings, terminal bars, anchor bars and sealants in accordance with the manufacturer's installation instructions.

END OF SECTION 07 53 00

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