ADDENDUM

Project: Enger Tower Gazebo
Project No. 10075.03

Owner: City of Duluth

Architect: Collaborative Design Group
100 Portland Ave South, #100
Minneapolis, MN 55454
(612) 332-3654; FAX (612) 332-3626

Addendum: No. 04
Date: 08/22/2011

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated July 29th 2011 and previously issued Addenda dated August 10th 2011, August 15th 2011, and August 17th 2011. Portions of the Bidding and Contract Documents not altered by this addendum remain in full force.

Acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

ATTACHMENTS

Project Manual Sections:
1. 01 2300 – Alternates
2. 07 3128 – Synthetic Slate Shingles

Drawings: The following drawings are revised and reissued with this addendum: A001, A010, A200, A300, A400, & A401.

Sketches: The following sketches are issued with this addendum: None.

CHANGES TO SPECIFICATIONS:
06 1324 – Heavy Timber Framing
- Sub-paragraph 2.01 E (Manufacturers), Add: Manomin Resawn Timbers; 15152 Freeland Ave, Hugo, MN 55038; Phone 651-464-1771; www.mrtimbers.com.

07 3116 – Metal Shingles: Delete Section.
07 3128 – Synthetic Slate Shingles: Add section to specification.

CHANGES TO DRAWINGS:
A001:
- Add list of Alternates; Add structural design responsibility note.
A010:
- Clarify extents of new and existing walks; note location of existing (relocated) benches; indicate pergolas as Deduct Alternate #3.

A200:
- Drawing 1 Foundation Plan – Add note designating pergolas as being Deduct Alternate 3;
- Drawing 2 Plan - Add note designating pergolas as being Deduct Alternate 3;
- Details 4 and 5 – Remove reference to rubble stone piers (stone caps to remain).

A300:
- Drawings 1, 2, 3, and 4 – Add note designating pergolas as being Deduct Alternate 3; remove “Metal” reference at shingles; modify pergolas to indicate elimination of stone piers (stone caps to remain).

A400:
- Drawing 1 – Remove “Metal” reference at shingles;
- Drawing 2 - Add note designating pergola as being Deduct Alternate 3; modify pergolas to indicate elimination of stone piers (stone caps to remain).

A401:
- Drawing 1 – Remove “Metal” reference at shingles; increase depth of rafter end.
- Drawing 5 - Eliminate stone piers (stone cap to remain).

END OF ADDENDUM
PART 1  GENERAL

1.01 SECTION INCLUDES
   A. Description of alternates.

1.02 ACCEPTANCE OF ALTERNATES
   A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Owner-Contractor Agreement.
   B. Coordinate related work and modify surrounding work to integrate the Work of each alternate.

1.03 SCHEDULE OF ALTERNATES
   A. Alternate No. 1: Value of contributed or discounted (pro bono) materials.
   B. Alternate No. 2: Value of contributed or discounted (pro bono) labor.
   C. Alternate No. 3: Eliminate north and south pergolas and associated work.
   D. Alternate No. 4: Provide native White Pine in lieu of Douglas Fir.
   E. Alternate No. 5: Voluntary deduct - contractor identified savings (specify).

PART 2  PRODUCTS - NOT USED

PART 3  EXECUTION - NOT USED

END OF SECTION
PART 1 GENERAL

1.01 DESCRIPTION

A. Furnish and install synthetic slate tile roofing system, including underlayment.

B. Related Work:
   1. Section 06 1500 - Wood Decking: Roof substrate.
   2. Section 07 6200 - Sheet Metal Flashing and Trim.

1.02 QUALITY ASSURANCE

A. Roofing applicator shall be certified by the product manufacturer. Provide proof of certification.

B. Deviation from this specification shall not be allowed without written approval from Architect and roofing manufacturer prior to start of roofing project.

C. Upon completion of installation, conduct an inspection by roofing manufacturer’s field service representative to ascertain roofing system has been installed according to manufacturer’s published specifications and details at time of bid. This inspection is not intended to be a final inspection for the benefit of the Owner, but for the benefit of the manufacturer to determine whether a warranty shall be issued. Work which does not pass inspection shall be corrected at Contractor’s expense.

D. Roofing applicator shall be knowledgeable of, and adhere to, applicable building codes (local and national) and have or acquire appropriate licenses and permits for roofing system installation requirements and limitations in their local areas applicable at the time of the bid.

E. Specific testing requirements:
   2. Wind Driven Rain - PA10095 Test Standard.
   3. Wind uplift - UL 1897 Test Standard.

1.03 SUBMITTALS

A. Submit required project information to manufacturer PRIOR to project bid and the job start to enable the technical department to approve and assign a job number to the project, and to allow manufacturer to initiate warranty processes.
   1. Provide complete and accurate information, including approved deviations to this specification, as well as a roof drawing showing dimensions, penetrations, and roof slope.
   2. Information will be required for wind speeds greater than 70 MPH and deviation to standard slope requirements.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original unopened packages.

B. Packages shall be labeled with manufacturer's name, brand name and identification of various items.

C. Store materials above 45°F. If exposed to lower temperatures, restore product temperature to 45°F minimum before using.

D. Store materials in a dry protected area. Do not install damaged materials. Installed materials found to be damaged shall be replaced at Contractor's expense.
1.05 JOB CONDITIONS (CAUTIONS AND WARNINGS)
   A. Contact manufacturer for procedures when installing materials at temperatures lower than 45°F.
   B. Roofing surface must be free of ice, water, or snow prior to and during the roofing project.
   C. Decking materials must be dimensionally stable prior to installation. If the materials are not dry, follow manufacturer's recommendations.

1.06 WARRANTY
   A. Provide EcoStar Gold Star warranty.

PART 2 PRODUCTS

2.01 GENERAL
   A. Provide roof system products from one manufacturer.

2.02 TILES
      1. Style: Chisel Point.
      2. Color Blend: As selected by Architect from manufacturer's standard blends.
      3. Size: 10" or 12" widths by 18" long, and with a tapered nominal thickness of 1/4".
      4. Weight: as determined by the following acceptable tile exposures: 7" = 260 lbs per square.
      5. Product Composition: 80% recycled rubber and plastic compound with appropriate colorants and UV stabilizers.
   B. Substitutions: As approved by Architect prior to bid. Substitutions submitted after bidding shall not be accepted.

2.03 RELATED MATERIALS
   A. Underlayment:
      1. Glacier Guard™ ice & water underlayment - Smooth Surface High Temperature 300 (40mil).
      2. ELK VersaShield: installed over entire deck surface including over Glacier Guard. Install per manufacturer's specifications.
   B. Fasteners:
      1. AquaGuard:
         a. Roofing nails with one inch (1") diameter round or square head, plastic or metal, and 3/4" long shank. Metal parts of fastener are to be corrosion resistant.
      2. Tile Fasteners:
         a. Manufacturer's ring shank roofing nail with 3/8" diameter head, minimum of 2" long, or as required to penetrate into roof sheathing; shank made from stainless steel. Nails shall be supplied as a hand drive style.
   C. Snow guards: As recommended by synthetic tile roof system manufacturer.

PART 3 EXECUTION

3.01 SUBSTRATE CRITERIA
   A. Verify substrate is suitable to receive synthetic tile roof system materials. Do not proceed until defects have been corrected and conditions are approved by roofing materials manufacturer. Beginning installation of synthetic roofing materials constitutes acceptance of substrate.
   B. Minimum slope of substrate for installation of synthetic roof system shall be a 3/12 for 6" exposure installation and 6/12 for 7" exposure installation. Contact manufacturer's technical department for approval of applications on lower slopes or exceptions to this requirement.
3.02 INSTALLATION

A. Flashing and Sheet Metal: Install sheet metal and flashing metal in valleys and where indicated on drawings. Provide V-type metal valley flashing unless noted otherwise.

B. Install metal edging at eaves and roof edges.

C. Underlayment:
   1. Glacier Guard:
      a. Lap end joints 6" and side joints 3.5".
      b. Apply continuous 36" wide sheet in valley centered over valley.
      c. Apply rows of 36" wide sheets along eaves and rakes. Lap end joints 6" and side joints 3.5".
      d. Apply rows of 36" wide sheets along and around roof projections. Lap end joints 6" and side joints 3.5".
      e. Do not leave Glacier Guard Smooth Surface High Temp (300) exposed to the weather more than 60 days after the beginning of installation.
      f. Installation of Glacier Guard at temperatures below 40° F may require nailing or priming to hold membrane in place while adhesion develops.

   2. ELK VersaShield:
      a. ELK VersaShield underlayment must be installed over the entire deck surface including over the Glacier Guard in conjunction with EcoStar Class A Majestic Tiles for those projects requiring a UL Class A fire rating. ELK VersaShield should be installed per manufacturer's specification.

D. Synthetic Slate Tile Installation:
   1. After installing underlayment and before installing synthetic slate tiles, clean the surface of debris and dirt.
   2. Care must be taken to place tiles so color variations are evenly distributed over entire roof area. Shade variation will occur differently from pallet to pallet and within individual pallets. Tiles between bundles and pallets MUST be blended to insure even distribution of color variations. Color “mapping” or “blotching” in appearance is not acceptable and applicator will be required to correct. It is recommended that work not begin until all materials have been delivered to the job site so that material may be blended together. Conduct periodic ground inspections to ensure a random color pattern to the installation. Contact manufacturer's technical department for correct blending procedures.
   3. Minimum Fastening - No less than 2 ring shank fasteners per tile shall be used with a minimum length of 11/2". Install fasteners at designated “nail here” marks on tile. Failure to fasten tile at these locations may result in a “lifted” tile. CAUTION: When using a pneumatic nailer take care to insure nails are not over driven causing tiles to curl upward. Remove over driven tiles and install properly driven tiles. Never hold tiles from behind while nailing, as this will cause an upward curl of the tile.
   4. Do not install tiles against each other. Maintain a minimum gap of 3/8" between installed tiles. Maintain a minimum 3/8" gap between installed tiles and sidewalls or roof projection.
   5. Beginning at the eave, install a starter row of tiles gapped a minimum of 3/8" between tiles and any projections while achieving a 3/4" overhang with two ring shank fasteners per tile (in location shown on tiles). This layer of tiles will become the starter row. The final tile at roof edges must be minimum of 3" wide. This may involve cutting tile to fit. To cut tile to correct width score back of tile with a straight edge and utility knife and snap tile at score. Install first course of tiles in same manner as starter row with exception of second layer having a 1/2 tile offset to starter row. The first course of tiles should be installed flush with starter row with no exposure.
6. After initial starter and first row of tiles has been installed, chalk a line parallel to roof edge running perpendicular to first row of tiles. This chalk line will insure that tiles stay true and plumb to the roof edge throughout installation. Never use red chalk, as this will permanently stain roof tiles.

7. Continue installing tile courses up roof slope achieving correct chosen exposure. Place chalk lines horizontally up roof slope for every tile course. This will ensure each course is installed straight across roof surface.

8. Ensure that each tile has been flexed to provide a downward curve prior to tile fastening. Do not install tiles with an upward curve.

9. Do not install tiles which have been stored in temperatures lower than 45°F. If tiles have been stored in temperatures below 45°F, tiles must be brought back to a minimum material temperature of 45°F. As the temperature rises tiles will expand beyond the designed installation pattern if the product is installed while cold or frozen.

10. Snap a chalk line up hip line and at ridge to ensure a straight application up the roof surface.

11. Care must be taken to minimize foot traffic over completed areas of the roof. Tiles will show mud and dirt causing appearance problems. Removal of dirt and debris is responsibility of applicator. Use only cleaning agents approved by tile manufacturer.

12. Tiles can be slippery when wet; caution should be exhibited with early morning dew and after rain. Use toe boards and OSHA approved harnesses and safety equipment at all times.

13. Upon completion of roof system installation, inspect and remove debris from roof.

E. Phased Roofing - The weathering process of synthetic tiles will begin immediately upon installation and exposure to the elements. Therefore, every effort should be made to ensure that the roof assembly is installed at a continuous rate to completion. Lengthy delays in installation may result in appearance differences when installation is resumed and tiles that have not been exposed to the elements are installed adjacent to tiles that have been on the roof for an extended period of time.

END OF SECTION