HERITAGE PARK SOUTH PAVILIONS CONSTRUCTION

ADDENDUM #1

Issued January 8, 2024

Item #1 – Agreement Form

A new agreement form has been included.

Item #2 – Updated Technical Specification for Concrete work

New specifications are included.

AGREEMENT FORM

THIS AGREEMENT made this _____ day of _____ in the year 2024, by and between Canton Township whose address is 1150 S Canton Road, Canton, Michigan 48188, hereinafter called the Owner, and _____, whose address is _____, hereinafter called the Contractor.

WITNESSETH that in consideration of the covenants of agreements hereinafter mentioned, to be performed by the parties hereunto and of the payments herein agreed to be made, it is mutually agreed as follows: The Contractor shall furnish all the materials, superintendence, labor, equipment, and transportation, and shall execute, construct, and finish, in an expeditious, substantial, and workmanlike manner to the satisfaction and acceptance of MCSA Group, Inc., hereinafter called the Landscape Architect, the Heritage Park South Pavilion on which Contractor has proposed a price. The above referred to work shall be executed from materials furnished in accordance with the accompanying plans, which it is agreed are with the Information for Bidders, Proposal, General Conditions, and Technical Specifications attached and made a part of this Agreement as if fully set forth herein.

The work covered by this Agreement shall be commenced no later than five (5) days from the date this Agreement is signed by the Owner. All work must be completed in accordance with the General Requirements & Instructions. If all work is not completed by July 19, 2024, the Contractor will be responsible for all Damages for Non-Completion, as per section 32 of the General Conditions.

And in consideration of the conclusion of the work herein and the fulfillment of all stipulations of this Agreement to the satisfaction and acceptance of the Landscape Architect, said Owner shall pay or cause to be paid to said Contractor, the amounts due the Contractor, based on the prices submitted by the Contractor in its proposal in the complete amount of $_____for those proposal items as accepted by the Owner and listed on Page A - 2 of this Agreement Form.

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands and seals; dated the day and year first written.

OWNER - Canton Township

By_____

Its:_____

CONTRACTOR -

By _____

Its:_____

Bid Proposal Items accepted by the Owner:

Item No

TECHNICAL SPECIFICATIONS
CONCRETE WORK - SECTION 02514

PART I - GENERAL

1.01 Description

This work shall consist of all labor, equipment, and materials necessary for complete installation of site concrete work as called for in the plans and details.

1.02 Testing

Standard 6-inch cylinders for compression tests of the concrete shall be prepared from each pour. Concrete for test specimens and assistance for making them on the project will be furnished by the Contractor. The furnishing of molds, the actual making of the test cylinders and all testing will be performed by the Contractor.

The sample shall be tested in accordance with the specification of the American Society for Testing Materials, Serial Designation C-31 or the current Michigan Department of Transportation Specifications. If the average results from test specimens cured at an average temperature of 70° F are below the 28 day required compressive strength it will be sufficient reason for rejecting for further use the materials entering into the concrete.

PART II - PRODUCTS

2.01 Concrete

Concrete shall be Type A, air-entrained concrete with a slump of not less than 3 inches nor more than 4 inches unless otherwise specified.

Portland Cement shall conform to the requirements of the current ASTM Specifications for Air-Entraining Portland Cement.

Fine Aggregate shall conform to the requirements for "Natural Sand, 2NS" of the current Standard Specifications of the Michigan Department of Transportation.

Course Aggregate shall conform to the requirements for Course Aggregate, 6 A (limestone) of the current Standard Specifications of the Michigan Department of Transportation.

Course aggregate for exposed aggregate and sandblasted concrete to be natural, dense graded ½ inch round stone with a maximum of five percent (5%) fines with the stone. Only washed and graded stone will be accepted. Crushed stone will not be accepted. Aggregate with soft, porous, calicious or other low-quality stone will be rejected. Color of aggregate to be natural stone with a predominance of bluff or brown stone.

At location on Project selected by Landscape Architect, place and finish 2 each, 3'x3'. Demonstrate methods of obtaining consistent visual appearance, including materials, workmanship, and curing method to be used throughout Project. Retain samples of cements, sands and aggregates used in mock-up for comparison with materials used in remaining Work.

Textural indicators shall be as per plans and detail. Provide full size sample for approval of Landscape Architect.

Water for mixing and curing the concrete shall be from Municipal Potable Water Supply, unless otherwise specified.

2.02 **Reinforcing**

Steel Reinforcement Materials shall conform to the requirements of current Standard Specifications of the Michigan Department of Transportation.

2.03 **Additives**

Curing of the concrete shall be performed by one of the appropriate methods as specified for "Concrete Curing Agents" in the current Standard Specifications of the Michigan Department of Transportation. Only clear curing agents or other methods that will not affect the natural colorations of the concrete will be permitted. Care shall be taken to avoid using agents or methods that affect the future use of specified sealants.

Calcium chloride shall not be used in any concrete without written approval from the Landscape Architect.

Ready mix concrete shall conform to the requirements of ASTM C 94. Batch plants must meet the requirements of ACI 304. Hand mixing will not be permitted except in emergencies or for very small quantities.

Air entraining admixtures shall conform to ASTM C 260 and shall be constituted so that the total air content is not less than 5% nor more than 8%.

2.04 Synthetic Fiber Reinforcing

Synthetic fiber reinforcing shall be SikaFiber® Novomesh®-950, 100% virgin polyolefin macro and micro fibers as manufactured by the Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071, https://usa.sika.com/ or approved equal.

Synthetic fibers shall be incorporated into all concrete whether indicated on the drawings or not. The incorporation of said fibers shall be documented on the delivery ticket from the ready mix producer.

Fibers shall be added to the concrete in strict accordance with manufacturer's printed instructions. Synthetic fibers shall be 3/4" in length and shall be added at a rate of 1-1/2 lbs./cubic yard of concrete.

PART III - EXECUTION

3.01 Concrete Mixing

The proportioning of aggregates and cement shall be weight in accordance with the current Michigan Department of Transportation "Mortar Voids" theory with the quantities of each shown on the delivery tickets for each batch.

Concrete shall be mixed only as required for immediate use and any which has developed initial set shall not be used. Concrete which has partially hardened, shall not be retempered or remixed. The use of a fractional sack of cement will not be permitted unless the fractional part is measured by weight. The mixer shall be cleaned thoroughly each time when out of operation for more than 30 minutes.

Concrete mixes will be measured as described in the current "Method of Slump Test for Consistency of Portland Cement Concrete" of the ASTM Designation C-143. The concrete shall at all times be of such consistency and workability, that it can be puddled readily into corners and angles of the forms and around joints, dowels, tie bars and reinforcement without excessive spading, segregation or undue accumulation of water or laitance on the surface.

The mixing of concrete in truck mixers enroute from the batching plant to the site of the work will be permitted only for mixers equipped with an approved revolution counter which will either record the number of revolutions of the mixer drum at mixing speeds and the number of revolutions at agitating speeds, for each batch, or will record the revolutions of the mixer drum only

when the mixer is operating at mixing speeds. Truck mixers not so equipped shall mix the concrete at the batching plant site. The mixing shall be done on a reasonable level area, sloping not more than 2 percent in any direction.

The concrete shall be discharged within a period of one hour after the introduction of the mixing water with the dry materials or within a period of 1-1½ hours after the cement has been placed in contact with the aggregates, and it shall be within the specified limits for consistency and air content and it shall not be segregated.

3.02 Forming

Concrete which is improperly formed, is out of alignment or level or displays surface defects shall be removed and replaced by the Contractor at no additional cost to the Owner unless patching or other corrective measures are approved. Approved permission to patch or otherwise correct such defects does not waive the Owners Agent's right to require complete removal of the defective work if the corrective measures do not adequately restore the quality and appearance of the concrete.

Forms shall be metal or wood, straight and free from distortion, and of sufficient strength to resist springing during the process of depositing and finishing the concrete. Wood forms or flexible steel forms shall be used on circular curb or special sections and shall be defined as any curved section of curb or wall constructed on a radius of 150 feet or less. They shall be of an approved section with a flat surface on top. The forms shall be of the full depth of the structure and shall be well built, substantial and unyielding. They shall be securely staked, braced, and tied to the required line and grade and sufficiently tight to prevent leakage of mortar. The inside surface of the forms shall be oiled with a light, clear paraffin-base oil which will not discolor or otherwise injuriously affect the concrete as on the walls to be treated with Thoroseal or equal.

Placing concrete shall not be permitted until the subgrade and forms have been approved by the Landscape Architect. The subgrade shall be wetted and the concrete deposited to the proper depth. The concrete shall be spaded sufficiently to eliminate all voids and tamped to bring the mortar to the surface, after which it shall be floated smooth and even by means of a wooden float.

3.03 Reinforcement

All steel reinforcement shall be accurately placed in the position shown on the approved plans and firmly held during the placing of concrete. When placed

in the work, it shall be free from dirt, rust, mill scale, paint, oil or other foreign material. Bars shall be placed with a variation in spacing between adjacent bars of not more than one-sixth of the spacing shown on the plans, and the clear distance from the near surface of the concrete to the reinforcement shall not vary from the distance shown on the plans by more than one-fourth the plan distance. Bars shall be tied at all intersections except where the spacing is less than one foot in each direction in which case alternative intersections shall be tied. Supports for reinforcement which are to remain in the work shall be either precast concrete blocks of approved shape and dimensions, or approved preformed steel bar-chairs.

Bars shall not be spliced except as provided on the plans or as authorized by the Landscape Architect.

3.04 **Finishing**

Edges on all concrete shall be rounded to a radius of 1/4 inch with an approved finishing tool unless otherwise specified. All joints shall be rounded with an approved double edging tool having a radius of 1/4 inch on each side and the surface shall then be brushed lightly to produce a slightly roughened surface and remove the finishing tool marks except where otherwise specified.

All Portland Cement Concrete shall be finished with a light broom finish in the direction indicated on the plans, unless otherwise specified.

Exposing Aggregate: Begin exposing aggregate when paving will bear weight of cement mason on knee boards without indention. Brush with bristle broom and fine water spray to remove excess mortar until exposure of aggregate is uniform and at proper depth as approved by the Landscape Architect.

3.05 **Protection**

Protection of Concrete shall be performed in the following manner:

Sealant for curing shall be applied immediately in accordance with manufacturer's recommendations. (See part 3.05a)

Protection Against Rain - The Contractor shall take such precautions as are necessary to protect the concrete from damage.

Hot Weather Limitations - Casting of concrete during hot weather shall be limited by the temperature of the concrete at the time of placing. Concrete shall not be cast when the temperature of the concrete is above 90° F. Care

shall be taken to properly wet and protect all concrete placed in direct sun or in hot weather.

Cold Weather Limitations - No concrete shall be placed unless the temperature of the air in the shade and away from artificial heat is at least 25° F. and rising unless specifically approved.

Protection from Cold Weather - The Contractor shall be responsible for the concrete placed during cold weather and any concrete injured by frost action shall be removed and replaced at his expense.

3.05a **Sealant**

Sealant for curing shall be Kure-N-Seal 25 LV by Sonneborn. Sealant shall be applied at a coverage rate of 250 square feet per gallon. For application, proper surface preparation and drying time, consult the coatings manufacturer for more instructions. Sealant must comply with ASTM C 1315-96 Type I, Class A. Kure-N-Seal 25 LV by Sonneborn is available from S. A. Morman & Co. ph. 1.800.968.8012.

Sealant for curing of exposed aggregate and sandblasted concrete shall be Kure-N-Seal 30 by Sonneborn. Sealant shall be applied at a coverage rate of 250 square feet per gallon. For application, proper surface preparation and drying time, consult the coatings manufacturer for more instructions. Sealant must comply with ASTM C1315-96, Type 1, Classs A. Kure-N-Seal 30 by Sonneborn is available from S. A. Morman & Co. ph. 1.800.968.8012.

For subsequent coating applications, use Sonosil Curing aid, hardening and dustproofing compound for concrete. For application, proper surface preparation and drying time, consult the coatings manufacturer for more instructions. Sonosil by Sonneborn is available from S. A. Morman & Co. ph. 1.800.968.8012.

3.06 **Curing**

Forms shall be left in place for a period of not less than 12 hours. Immediately after they have been removed, all porous or honeycomb areas thus uncovered shall be filled smooth with mortar consisting of one part cement and two parts fine aggregate. Also, the ends of all expansion joints shall be cut open to the full width of the expansion joint material.

The main supporting forms, including all shoring and bracing shall remain in place for a period of not less than seven (7) days, and for such longer period as the Landscape Architect may direct.

3.07 **Expansion Joints**

Contractor to indicate the layout of the proposed expansion joints required in all concrete areas if not shown on construction documents.

Expansion joints at to be placed at a minimum of 30’ intervals to correct elevation and profile.

Contractor to align curb, gutter; and sidewalk expansion joints.

Place joints between paving components and building or other appurtenances.

Location of expansion joints is subject to approval of the Landscape Architect.