ADDENDUM NO. 1
TO THE
INVITATION TO BID - ITB #4320
2014 RAMP & SIDEWALK REPAIR PROJECT
CITY OF ANN ARBOR, MICHIGAN

The following changes, additions, and/or deletions shall be made to the Bid Documents for the 2014 Ramp & Sidewalk Repair Project, for the City of Ann Arbor, Michigan, Invitation To Bid – ITB #4320.

The information contained herein shall take precedence over the original documents and all previous addenda, and is appended thereto. **This Addendum includes 10 pages and 0 drawings.**

The Contractor is to acknowledge receipt of this Addendum No. 1 on page P-1 of the Bid Documents prior to submitting its Proposal.

Changes in the Bid Documents which are outlined below are referenced to a page or drawing in which they appear conspicuously. The Bidder is to take note in its review of the documents and include these changes as they affect work or details in other areas not specifically referenced here.

Item #1: Contract Documents, Advertisement to Bid, AD-1;

In the title, change "*ITB# 4328*" to "***ITB #4320***"

Item #2: Contract Documents, Bid Form, BF-1 through BF-2;
Replace pages BF-1 through BF-2 with the attached revised BF-1 (ADD-1-2) through BF-2 (ADD-1-3);

Add Item 212: "***Subgrade Undercutting Type II and Class II Granular Backfill***". This item is intended for use under sidewalks, ramps, and drive approaches, as needed.

Item #3: Contract Documents, Detailed Specifications;
After DS-18, Add page ADD-1-4

Detailed Specification for: Item #212 - Subgrade Undercutting Type II and Class II Granular Backfill

Item #4: Contract Documents, Detailed Specifications, DS-22 through DS-25;
Replace pages DS-22 through DS-25 with attached Detailed Specifications ADD-1-5 through ADD-1-10.

BID FORM

Section 1–Schedule of Prices

Project: 2014 Ramp & Sidewalk Repair Project
File #: 2014-021 Bid #: 4320

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
201	Project Supervision, Max $35,000	L.S.	1	$ _____	$ _____
202	General Conditions, Max $30,000	L.S.	1	$ _____	$ _____
203	Traffic Control, Max $40,000	L.S.	1	$ _____	$ _____
207	Remove HMA Pavement	S.F.	17,300	$ _____	$ _____
208	HMA Patching	TON	420	$ _____	$ _____
210	Subgrade Undercutting - Type II	C.Y.	20	$ _____	$ _____
211	21AA Limestone - C.I.P.	C.Y.	20	$ _____	$ _____
212	Subgrade Undercutting Type II and Class II Granular Backfill	S.F.	34,000	$ _____	$ _____
215	Remove Curb & Gutter - Any Type	L.F.	7,300	$ _____	$ _____
216	Remove Concrete Pavement (Repair) - Any Thickness	S.Y.	20	$ _____	$ _____
217	Remove Concrete Sidewalk or Drive - Any Thickness	S.F.	168,000	$ _____	$ _____
220	Concrete Pavement Repair - High Early	S.Y.	20	$ _____	$ _____
221	Concrete Curb & Gutter - Any Type	L.F.	6,700	$ _____	$ _____
222	Concrete Curb & Gutter - Any Type - High Early	L.F.	700	$ _____	$ _____
223	4-inch Sidewalk or Ramp	S.F.	126,000	$ _____	$ _____
224	6-inch Drive Approach, Ramp, or Sidewalk	S.F.	38,000	$ _____	$ _____
225	6-inch Drive Approach, Ramp, or Sidewalk - High Early	S.F.	4,400	$ _____	$ _____
226	8-inch Fibermesh Reinforced Concrete - High Early	S.F.	2,200	$ _____	$ _____
230	Detectable Warning, Cast In Place	S.F.	4,200	$ _____	$ _____

TOTAL PAGE BF-1 $ _____
(Also to be entered on Page BF-2)

BID FORM

Section 1–Schedule of Prices

Project: 2014 Ramp & Sidewalk Repair Project
File #: 2014-021 Bid #: 4320

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
232	Surface Applied Detectable Warning	S.F.	100	$ _____	$ _____
235	Integral Sidewalk Retaining Wall (6" or less)	S.F.	560	$ _____	$ _____
236	Integral Sidewalk Retaining Wall (6"-18")	S.F.	700	$ _____	$ _____
237	Integral Sidewalk Retaining Wall (18"-36")	S.F.	30	$ _____	$ _____
239	Modular Sidewalk Installation	S.F.	1,000	$ _____	$ _____
250	Adjust Structure Cover	EACH	5	$ _____	$ _____
251	Adjust Curb Inlet Cover	EACH	5	$ _____	$ _____
252	Adjust Monument or Valve Box	EACH	5	$ _____	$ _____
253	Adjust Traffic Signal Handhole	EACH	5	$ _____	$ _____
254	Manhole Flange & Cover	EACH	2	$ _____	$ _____
255	Inlet Structure Cover	EACH	4	$ _____	$ _____
256	Point Structure	EACH	2	$ _____	$ _____
260	Mulch Blanket	S.Y.	10,400	$ _____	$ _____
262	Class A Sod	S.Y.	100	$ _____	$ _____
				TOTAL PAGE BF-2	**$** _____
				(Also to be entered below)	

TOTAL FROM PAGE BF-1 $ _____

TOTAL FROM PAGE BF-2 $ _____

TOTAL BASE BID: $ _____

DETAILED SPECIFICATION
FOR
ITEM #212 - SUBGRADE UNDERCUTTING TYPE II AND CLASS II GRANULAR BACKFILL

DESCRIPTION

This work includes removal of unsuitable granular base, subbase, or clay material(s) to a depth of 4-inches, and installing 4-inches of MDOT Class II granular base material for sidewalk, sidewalk ramps, and drive approaches on a prepared subgrade in accordance with Sections 301, 302 and 307 of the 2012 edition of the MDOT Standard Specifications for Construction, except as specified herein.

MATERIAL

The materials used for this work shall be MDOT Class II granular base material meeting the requirements of the City of Ann Arbor Standard Specifications.

CONSTRUCTION METHOD

At any time after sidewalks, sidewalk ramps, and/or drives have been removed; the Engineer may inspect the grade to determine the need for, and the limits of, undercuts. After undercut areas are excavated to a depth of 4-inches, the areas shall be trimmed, shaped, evenly graded and recompacted to not less than 95% of the soils maximum unit weight as determined by the AASHTO T-180 test. The Contractor shall properly dispose of all excess materials.

The Contractor is solely responsible for the maintenance and protection of the grade. Further, any damage to the grade which, in the opinion of the Engineer, is caused as a result of the Contractor's operation(s), or his/her subcontractors' or suppliers' operation(s), shall be repaired by the Contractor at the Contractor's expense. This includes any additional earthwork and/or maintenance materials as directed by the Engineer, for the purposes of the Contractor's maintenance and protection of the grade. The Contractor shall maintain the base, subbase and subgrade in a smooth, well drained condition at all times.

Subgrade Undercutting shall be backfilled with 4-inches of MDOT Class II granular backfill. The backfill material shall be compacted to not less than 95% of its maximum unit weight as determined by the AASHTO T-180 test.

Granular backfill shall not be placed if, in the opinion of the Engineer, there are any indications that they may become frozen before the specified densities are obtained. Granular backfill shall not be placed on a frozen base, subbase or subgrade.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

MEASUREMENT AND PAYMENT

The completed work, including subgrade undercutting and placement of granular backfill will be paid for at the Contract Unit Prices for the following Contract (Pay) Items:

PAY ITEM	PAY UNIT
Subgrade Undercutting Type II and Class II Granular Backfill	Square Foot

The unit prices for these items of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

DETAILED SPECIFICATION
FOR

ITEM #220 CONCRETE PAVEMENT REPAIR – HIGH EARLY
ITEM #221 CONCRETE CURB OR CURB & GUTTER - ANY TYPE
ITEM #222 CONCRETE CURB OR CURB & GUTTER - ANY TYPE – HIGH EARLY
ITEM #226 8-INCH FIBERMESH REINFORCED CONCRETE – HIGH EARLY

DESCRIPTION

This work shall consist of constructing concrete items including curb, gutter, curb and gutter, MDOT Type M drive openings, and pavement repairs with mechanical anchors and hook bolts, all of any type and/or dimensions, all of either regular, Fibermesh reinforced, and/or high-early concrete, in accordance with Sections 601, 602, 603, 801, 802, and 803 of the 2012 edition of the MDOT Standard Specifications for Construction, except as specified herein, as shown on the Plans, as shown in this Detailed Specification, and as directed by the Engineer.

MATERIALS

Concrete mixtures shall be as follows (or as directed by the Engineer), and concrete materials shall meet the requirements specified in the referenced sections of the MDOT Standard Specifications:

Concrete Item	Concrete Mixture	MDOT Section
Pavement Repair - High-Early	P-NC, 7.0-sack	601
Curb or Curb & Gutter	P1, 6-sack	601
Curb or Curb & Gutter - High-Early	P-NC, 7.0-sack	601
8" Fibermesh Reinforced - High-Early	P-NC, 7.0-sack	601

Mechanical Anchors and Hook Bolts shall conform with the MDOT Standard Specifications, and to any details contained elsewhere herein.

"Fibermesh Reinforced" concrete shall have polypropylene fibrillated fibers added at the rate of 1.5 pounds per cubic yard. The fibers shall meet the requirements of ASTM C1116-89 "Specification for Fiber Reinforced Concrete and Shotcrete" Classification 4.1.3 Type III. The concrete shall be thoroughly mixed for a minimum of 5 minutes after the addition of the fibers to assure uniform distribution throughout the concrete.

CONSTRUCTION METHODS

General

Curb, gutter, curb and gutter, and drive openings shall be replaced within 24 hours of their removal.

The Contractor is responsible to construct curbs and all other concrete items within ADAAG compliance. All sidewalks and curb ramps must be constructed in accordance with MDOT Standard Detail R-28-H (version in place at time of the bid letting). The Engineer shall approve of all proposed grades prior to any removals and/or placement of concrete.

The Contractor shall excavate, cut, remove stumps, remove brush, remove pavement, grade, and trim as needed and as directed, and shall import, furnish, fill, place, grade, and compact 21AA crushed limestone aggregate as needed to: construct new concrete items; to repair or replace existing concrete items; to relocate existing concrete items to their new specified/directed elevations/locations, including all necessary grading at elevation changes of curb and gutter,; and at locations where existing concrete items are to be removed and turf is to be established in its place.

At locations where the subgrade, subbase or base becomes either disturbed, saturated or otherwise damaged, and where directed by the Engineer, the Contractor shall remove a minimum 6-inch thick layer of the subgrade, subbase or base, and replace it with approved MDOT 21AA crushed limestone aggregate material, compacted in place.

The Contractor shall coordinate with the City Forester prior to the removal of any tree roots greater than 2 inches in diameter.

The Contractor is responsible for any damage to concrete items, including but not limited to vandalism; vehicular, pedestrian and/or miscellaneous structural damage; surface texture damage; and rain damage.

The Contractor shall maintain on-site at all times, a sufficient quantity of adequate materials to protect concrete items. The Engineer may suspend or defer concrete placement if rain protection is not available. The Contractor shall not be entitled to any additional compensation due to work suspension or deferral resulting from a lack of adequate rain protection.

The subbase and adjacent concrete shall be sufficiently wet-down with water prior to placing concrete, to prevent water loss from the new concrete, and to form a better bond between old and new concrete. If a cold-joint becomes necessary, (the) existing concrete surface(s) shall be cleaned with compressed air to expose the aggregate in the concrete.

All concrete items shall be placed with the use for rigid forms, except along edges where the new concrete abuts an existing sidewalk or pavement. Any concrete placed without the use of forms shall be removed and replaced at the Contractor's expense. Where it is necessary to remove existing pavement to provide space for concrete formwork, a sufficient amount of the existing pavement shall be removed to allow for the use of a vibratory plate compactor in front of the curb.

Prior to compacting backfill in front of curb and gutter, the back of curb shall be backfilled with approved material and compacted by mechanical means to 95%.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

All concrete items shall be constructed such that positive drainage is maintained. Any areas that exhibit ponding water shall removed and replaced to the extents necessary to correct the problem as directed by the Engineer, at the Contractor's sole expense.

Restoration

The Contractor shall restore all disturbed areas to better than or equal to their original condition within two calendar days from the date of concrete placement. This includes the placement of seed and topsoil in all turf restoration locations and at locations where concrete items are removed and turf is to be established, all in accordance with the Detailed Specification for Topsoil and Seed Placement. **Restoration shall also include the replacement of any brickwork, decorative stone, or other adjacent materials.**

Restoration work associated with the items of work described in this Detailed Specification shall include the area between the back of the curb (or edge of pavement) to the edge of the sidewalk, as well as the area within 12 inches of the back of the sidewalk.

All restoration work and materials shall be in accordance with the City Standard Specifications.

Expansion Joints in Curb and Gutter

¾-inch wide expansion joints shall be placed at all street returns, at all expansion joints in an abutting pavement, at each side of all driveways (at radius points), elsewhere at 300-foot maximum intervals, and as directed by the Engineer.

Expansion joint material shall extend to the full depth of the joint. After installation, the top shall not be above the concrete nor be more than ½-inch below it. No reinforcing steel shall extend through expansion joints.

Plane of Weakness Joints in Curb and Gutter

Intermediate plane of weakness joints shall be placed to divide the structure into uniform sections, normally 10-feet in length, with a minimum being 8-feet in length, and shall be placed opposite all plane of weakness joints in the abutting concrete base course.

Plane of weakness joints shall be formed by narrow divider plates, which shall extend 3-inches into the exposed surfaces of the curb or curb and gutter. Plates shall be notched, if necessary, to permit the steel reinforcement to be continuous through the joint.

Concrete Pavement Repair - High Early

Prior to the placement of concrete, the Contractor shall install mechanical anchors and $^{5}/_{8}$-inch diameter hook bolts into adjacent (new or old) concrete items as required by the MDOT Standard Specifications and Details, as indicated on the Plans, and as directed by the Engineer. The Engineer may delete the installation of mechanical anchors and hook bolts where, in the Engineer's opinion, the adjacent concrete item(s) is/are observed to be of poor quality. The installation of mechanical anchors & hook bolts shall be included in this item of work.

During the placement of "Concrete Pavement Repair - High-Early", the Contractor shall use a high-frequency mechanical vibrator to compact and consolidate the concrete to provide even, homogeneous placement, and to prevent voids, honeycombing, and/or pockets of air from forming within the concrete.

MEASUREMENT AND PAYMENT

All concrete pavement repairs, including that which is installed with integral curb and gutter, will be measured and paid for by the area actually placed in square yards (S.Y.).

No additional compensation will be paid for the construction of concrete items adjacent to existing concrete curb, gutter, pavement, or any other pavement or surface feature(s).

No additional compensation will be paid for the removal of a 6-inch thick layer of the subgrade, subbase or base, and replacement with approved 21AA crushed limestone aggregate, compacted in place.

A deduction in length for catch basins and inlet castings will be made to measurements of Curb and Gutter.

Curb, gutter, curb and gutter, and MDOT type M openings, shall be paid as "Curb & Gutter – Any Type."

Restoration work within the limits described above will not be paid for separately, but shall be included in the appropriate associated items of work.

Completed work as measured for these items of work will be paid for at Contract Unit Price for the following Contract (Pay) Items:

PAY ITEMS	PAY UNIT
Concrete Pavement Repair – High Early	Square Yard
Concrete Curb or Curb & Gutter - ALL TYPES	Lineal Foot
8-Inch Fibermesh Reinforced Concrete - High Early	Square Foot

The unit prices for these items of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

DETAILED SPECIFICATION
FOR

ITEM #223 4-INCH SIDEWALK OR RAMP
ITEM #224 6-INCH DRIVE APPROACH, RAMP, OR SIDEWALK
ITEM #225 6-INCH DRIVE APPROACH, RAMP, OR SIDEWALK – HIGH EARLY

DESCRIPTION

This work shall consist of constructing concrete items including sidewalks and drive approaches, of regular and high-early concrete, in accordance with Sections 601, 602, 603, 801, 802, and 803 of the 2012 edition of the MDOT Standard Specifications for Construction, except as specified herein, as shown on the Plans, as shown in this Detailed Specification, and as directed by the Engineer.

MATERIALS

Concrete mixtures shall be as follows (or as directed by the Engineer), and concrete materials shall meet the requirements specified in the referenced sections of the MDOT Standard Specifications:

Concrete Item	Concrete Mixture	MDOT Section
4" or 6" Sidewalk/Ramp/Drive	P1, 6-sack	601
6" Sidewalk/Ramp/Drive - High-Early	P-NC, 7.0-sack	601

CONSTRUCTION METHODS

General

Sidewalk, sidewalk ramps, and drives shall be replaced within 24 hours of their removal.

The Contractor is responsible to construct all sidewalks, sidewalk ramps, and all other concrete items within ADAAG compliance. All sidewalks and curb ramps must be constructed in accordance with MDOT Standard Detail R-28-H (version in place at time of the bid letting). The Engineer shall approve of all proposed grades prior to any removals and/or placement of concrete.

The Contractor shall excavate, cut, remove stumps, remove brush, remove pavement, grade, and trim as needed and as directed, and shall compact existing base as needed to: construct new concrete items; to repair or replace existing concrete items; to relocate existing concrete items to their new specified/directed elevations/locations, including all necessary grading at elevation changes of sidewalks and ramps; and at locations where existing concrete items are to be removed and turf is to be established in its place.

The Contractor shall coordinate with the City Forester prior to the removal of any tree roots greater than 2 inches in diameter.

The Contractor is responsible for any damage to concrete items, including but not limited to vandalism; vehicular, pedestrian and/or miscellaneous structural damage; surface texture damage; and rain damage.

The Contractor shall maintain on-site at all times, a sufficient quantity of adequate materials to protect concrete items. The Engineer may suspend or defer concrete placement if rain protection is not available. The Contractor shall not be entitled to any additional compensation due to work suspension or deferral resulting from a lack of adequate rain protection.

The subbase and adjacent concrete shall be sufficiently wet-down with water prior to placing concrete, to prevent water loss from the new concrete, and to form a better bond between old and new concrete. If a cold-joint becomes necessary, (the) existing concrete surface(s) shall be cleaned with compressed air to expose the aggregate in the concrete.

All concrete items shall be placed with the use for rigid forms, except along edges where the new concrete abuts an existing sidewalk or pavement. Any concrete placed without the use of forms shall be removed and replaced at the Contractor's expense. Where it is necessary to remove existing pavement to provide space for concrete formwork, a sufficient amount of the existing pavement shall be removed to allow for the use of a vibratory plate compactor in front of the curb.

Prior to compacting backfill in front of curb and gutter, the back of curb shall be backfilled with approved material and compacted by mechanical means to 95%.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

All concrete items shall be constructed such that positive drainage is maintained. Any areas that exhibit ponding water shall removed and replaced to the extents necessary to correct the problem as directed by the Engineer, at the Contractor's sole expense.

Restoration

The Contractor shall restore all disturbed areas to better than or equal to their original condition within two calendar days from the date of concrete placement. This includes the placement of seed and topsoil in all turf restoration locations and at locations where concrete items are removed and turf is to be established, all in accordance with the Detailed Specification for Topsoil and Seed Placement. **Restoration shall also include the replacement of any brickwork, decorative stone, or other adjacent materials.**

Restoration work associated with the items of work described in this Detailed Specification shall include the area between the back of the curb (or edge of pavement) to the edge of the sidewalk, as well as the area within 12 inches of the back of the sidewalk.

All restoration work and materials shall be in accordance with the City Standard Specifications.

Contraction Joints in Sidewalk

Contraction joints shall be placed at 5-foot intervals and may be tooled or sawed. The method of forming joints and spacing shall be approved by the Engineer prior to construction.

Expansion Joints in Sidewalks

¾-inch wide expansion joints shall be placed through concrete sidewalks in line with the extension of all property lines, at all expansion joints in the abutting curb, gutter, and combination curb and gutter, and as directed by the Engineer. Transverse expansion joints shall be placed through the sidewalks at uniform intervals of not more than 300-feet.

½-inch wide expansion joints shall be placed between the sidewalk and back of abutting curb or gutter, at the juncture of two sidewalks, between the sidewalk and buildings and other rigid structures, and as directed by the Engineer.

MEASUREMENT AND PAYMENT

No additional compensation will be paid for the construction of concrete items adjacent to existing concrete curb, gutter, pavement, or any other pavement or surface feature(s).

Restoration work within the limits described above will not be paid for separately, but shall be included in the appropriate associated items of work.

Completed work as measured for these items of work will be paid for at Contract Unit Price for the following Contract (Pay) Items:

PAY ITEMS	PAY UNIT
4 or 6-Inch Sidewalk, Ramp, or Drive	Square Foot
6-Inch Drive Approach, Ramp or Sidewalk - High Early	Square Foot

The unit prices for these items of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.