ADDENDUM No. 3

ITB No. 4530

Street Surface Treatment Project - FY2019

Bids Due: May 31, 2018 at 2:00 P.M. (local time)

The following changes, additions, and/or deletions shall be made to the Invitation to Bid for Street Surface Treatment Project- FY2019, ITB No. 4530, on which proposals will be received on/or before May 31, 2018, at 2:00 P.M. (local time).

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes 26 pages.**

Bidder is to acknowledge receipt of this Addendum No. 3, including all attachments (if any) in its Bid by so indicating on page ITB-1 of the Invitation to Bid Form. Bids submitted without acknowledgment of receipt of this addendum will be considered nonconforming.

The following forms provided within the ITB document must be included in submitted bids:

- City of Ann Arbor Prevailing Wage Declaration of Compliance
- City of Ann Arbor Living Wage Ordinance Declaration of Compliance
- Vendor Conflict of Interest Disclosure Form
- City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance

<u>Bids that fail to provide these completed forms listed above upon bid opening will be</u> rejected as non-responsive and will not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

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

Section/Page(s) Change

All mentions As provided in ITB No. 4530 Addendum 2: Bid Due Date: Friday, May 25, 2018 at 10:00 a.m. (local time)

> As updated herein: Bid Due Date: Thursday, May 31, 2018 at 2:00 p.m. (local time)

Comment: The Due Date and Time for responses to this ITB has been extended to Thursday, May 31, 2018 at 2:00 p.m. (local time). Note that all other dates are unchanged.

Section/Page(s) Change

Pre-BidConference Summary and Attendance Record/Sign-In Sheet pagesConference/NP-1Addendum-3-3 thru Addendum-3-6.

Bid Forms/Replace these pages with attached pages Addendum-3-7 to Addendum-BF-1 to BF-33-9. Revised to include new and omitted pay items and changes to quantities.

DetailedDetailed Specification for Project Schedule; replace with attached pagesSpecifications/Addendum-3-10 to Addendum-3-11. Revised all dates referenced in
document with exception to the completion date.

DetailedSchedule of Streets; replace with attached page Addendum-3-12.Specifications/Removed duplicate references to City projects (CAA1 and CAA2), which
were listed as the same.

Detailed Detailed Specification for Maximum Unit Weight; remove this detailed specifications/ DS-15 Detailed Specification. It was mistakenly included in the bid document and it is not applicable.

DetailedDetailed Specification for Micro-Surfacing; replace with attached pagesSpecifications/Addendum-3-13 to Addendum-3-14. Revised the permissible hours of
nighttime work to conform with the Contract General Conditions.

Detailed Detailed Specification for Slurry Seal; remove this detailed specification. Specifications/ It is no longer applicable. Revised the surface treatment applications for the minor (local) streets from using the pay item Seal, Slurry, Modified to using Micro-Surface, Single Course.

Appendix /Not Applicable Insert into the Michigan Department of Transportation (MDOT) Special Provisions section of the Appendix the attached MDOT Special Provision for Filling and Leveling Hot Mix Asphalt Longitudinal Joints and Cracks with Asphalt Repair Mastic (12DS502(J235)) pages Addendum-3-15 and Addendum 3-16.

- Appendix/Not Applicable Project Listing of Streets; replace with attached pages Addendum-3-17 to Addendum-3-18. Revised the proposed treatment on the minor (local) streets from Seal, Slurry, Modified to Micro-Surface, Single Course, and revised the Cape Seal definition in note no. 2 for the minor (local) streets.
- Appendix/Not Applicable Project Log of Streets; replace with attached pages Addendum-3-19 to Addendum-3-26. On the major street logs removed pay items associated with 4 inch and 6 inch longitudinal pavement markings using thermoplastic material, and replaced them with pay items using waterborne paint and sprayable thermoplastic materials. On the minor (local) street logs removed the proposed treatment pay item for Seal, Slurry, Modified and replaced it with Micro-Surface, Single Course. Added a log for miscellaneous project wide work.

Bidders are responsible for any conclusions that they may draw from the information contained in the Addendum.

PRE-BID CONFERNENCE

Street Surface Treatments Project – FY2019 (ITB No. 4530; City File No. 2018-020)

May 4, 2018 1:00 p.m., 4th Floor Conference Room Larcom Building - City Hall, 301 East Huron Street, Ann Arbor, MI

<u>AGENDA</u>

This Bid Conference was called to order by the City's Project Manager, David Dykman, at 1:08 p.m. (local time).

I. Introductions

Those in attendance (see attached Attendance Record) introduced themselves.

a. Project Overview

The proposed project consists of work citywide that comprises approximately 6 miles of major and local streets or approximately 160,000 square yards of treatments. The current project schedule will span the majority of City's 2019 fiscal year starting on July 1, 2018, and ending on June 30, 2019.

- b. Bid Documents
 - i. Instructions to Bidders
 - 1. Bid Questions due via e-mail on or before Tuesday, May 8, 2018, 5:00 p.m. (Local Time)
 - 2. Bid Opening Wednesday, May 16, 2018, 2:00 p.m. (Local Time)
 - ii. Standard Specifications Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction
 - iii. Detailed Specifications
 - 1. General Conditions

Attention was given to this Detailed Specification, and those in attendance were advised to review its requirements.

2. Project Supervision

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements.

3. Certified Payroll Compliance and Reporting

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements. Davis Bacon wages rates will apply unless otherwise specified by the contract. The applicable wage decision is the one in affect 10 days prior to the bid date and it is not in the bid documents.

4. Resident Notification

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements.

- 5. Project Schedule
 - Starting Date On or after Thursday, July 5, 2018

PRE-BID CONFERNENCE

Street Surface Treatments Project – FY2019 (ITB No. 4530; City File No. 2018-020)

- Completion Date On or before Sunday, June 30, 2019
- Project Schedule of Streets

The "Schedule of Streets" shows the proposed work locations and scheduling requirements/restrictions. There appear to be errors in this document with reference to City project/date restrictions. An addendum will address these errors.

6. No Parking Signs

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements. It was noted that staff form various City departments/units are working to possibly revise the requirements of this detailed specification. An addendum will address these revisions if they have been finalized.

i. Notice(s) to Bidders

Attention was given to the Notice(s) to Bidders contained in the Appendix, and those in attendance work were advised to review its requirements. Several project locations associated with this project are within, or in close proximity to, various City projects, which may be occurring at the same time thus requiring coordination.

ii. MDOT Special Provisions and Supplemental Specifications

Attention was given to these special provisions and supplemental specifications, and those in attendance work were advised to review their requirements.

iii. Project Listing of Streets/Log/Location Maps (Major and Minor/Local Streets)

The appendix contains a "Project Listing of Streets" applicable to this project, and a a log identifying the estimated quantities and pay items of work related to each street. Missing from the log is documentation related to miscellaneous quantities related to the project. An addendum will address this omission.

II. Construction

- a. Hours of Work: 7:00 am 8:00 pm Monday thru Saturday (Sundays w/approval)
- b. Maintenance of Traffic (lane closures/opening to traffic, local traffic access, etc)

All work on Major Streets as part this year project will require maintenance of traffic on one lane in both directions and the utilization of flag control during certain times. There are no planned detours. The bid documents include the applicable MDOT Maintenance of Traffic Typicals.

c. Permits (Right-of-Way, Lane Closure(s), etc)

The successful bidder will obtain a Right-of-Way permit with the City prior to the starting any project work. The City will issue press releases regarding the maintenance of traffic on the major streets; however, in special circumstances it may also require the successful bidder to obtain a Lane Closure permit to perform its work.

PRE-BID CONFERNENCE

Street Surface Treatments Project – FY2019 (ITB No. 4530; City File No. 2018-020)

d. Special Concerns (pedestrian access, notifications to residents/property owners, parking prohibitions, etc)

The successful bidder will maintain access for pedestrians and to residences/businesses at all times to the full extent possible. It will also notify property owners in advance of the work in accordance with the detailed specification in the bid documents.

III. Addendum Items

No addenda have been issued to date for this project; however, Addendum 1 is expected to be released by Tuesday, May 8, 2018, or Wednesday, May 9, 2018, at the latest unless other necessary revisions are encountered requiring its release be delayed further. This addendum will address the aforementioned items, the Pre-Bid Conference Summary, and any other items brought to the City's attention. Bid Questions due via e-mail on or before Tuesday, May 8, 2018, 5:00 p.m. (Local Time)

IV. Other Items/Questions

- 1. It was noted that the contract for this work includes the option for a one-year extension providing both parties are agreeable to doing so.
- 2. It was noted that revisions to several of the thermoplastic longitudinal pavement marking items contained in the bid document are forthcoming and will be addressed in an addendum. Thermoplastic for 4 and 6 inch longitudinal markings will be replaced with waterborne paint and sprayable thermoplastic using a two-step process. An addendum will address these revisions.
- 3. It was noted the City is considering eliminating the Detailed Specification for Slurry Seal and the pay item Seal, Slurry, Modified and instead applying the pay item Micro-Surface, Single Course to the minor (local) streets. If necessary, an addendum will address this revision.

Contact Information:

David Dykman Project Manager Phone: (734) 794-6410 ext. 43685 Fax: (734) 994-1744 E-mail: ddykman@a2gov.org PRE-BID CONFERENCE SIGN-IN SHEET

PROJECT: Street Surface Treatement Project - FY2019 (ITB No. 4530, City File No. 2018-020)

DATE: May 4, 2018

BKreis @Ashphalt-AMERICAN PAVEMENTS. COM astraverenstan Materials. com dclemons@a2gov.org ddykman@a2gov.org and a when when when Estimation @ EMAIL Mobile: (**78**9) <u>8/8 - 2753</u> Office: (734) 794-6410, ext 43685 Offlice: (734) 794-6410, ext 43612 Office: (8/0)724-4767 Mobile: (248)787-1520 TELEPHONE Fax: (734) <u>994-1744</u> Fax: (734) <u>994-17</u>44 Office: (|0|4) <u>& 1</u> Office: (() 너)_ Mobile: (Mobile: (Zip: 42315 Bip: 43315 Envir Fax No. Fax No. Mobile: (Mobile: Office: (Mobile: Fax No. Office: (Mobile: Fax No. Fax No. Mobile: Office: (Maintenance City, State: Imlay City MIZID: 48449 1×2× City, State: PLAIN Gry, OH Zip: 46034 Zip: <u>48104</u> Zip: 48104 Address: 1392 DVZIZU 2D Address: 7475 MODITGOMERN Zip: Zip: Zip: MAILING ADDRESS PLEASE PRINT Address: 384 Industril Address: <u>301 E. Huron Street</u> Address: <u>301 E Huron Street</u> City, State: Ann Arbor MI City, State: Ann Arbor, MI City, State: City, State: City, State: Address: Address: Address: City of Ann Arbor -Project Management REPRESENTING City of Ann Arbor -Project Management PAVEMENTS Pavement -Smuth HMERILAN Supervisor - Civil Engineering Specialists Benjamin Project Manager David Clemons David Dykman NAME HARLEY FIGHT AUPLEL MECH

Addendum-3-6

BID FORM

Section 1 - Schedule of Prices

Street Surface Treatments - FY2019 File No. 2018-020 Bid No. 4530

Line <u>No.</u>	ltem <u>No.</u>	Item Description	<u>Unit</u>	Estimated <u>Quantity</u>	Unit Price	Total Price
10	1047051	_General Conditions, Max \$85,000.00	LSUM	1.00	\$	\$
20	1047051	_Project Supervision, Max \$50,000.00	LSUM	1.00	\$	\$
30	1047051	_Certified Payroll Compliance and Reporting	LSUM	1.00	\$	\$
40	1047051	_Resident Notification	LSUM	1.00	\$	\$
50	2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	135.00	\$	\$
60	2090001	Project Cleanup	LSUM	1.00	\$	\$
70	5017001	_Crack Filling with Asphalt Repair Mastic	Ft	1,000.00	\$	\$
80	5017011	_Cold Milling HMA Surface, Modified	Syd	3,882.00	\$	\$
90	5017031	_Hand Patching, Modified, Major Streets	Ton	377.00	\$	\$
100	5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	222.00	\$	\$
110	5040005	Micro-Surface, Rutfilling	Ton	100.00	\$	\$
120	5047011	_Micro-Surface, Single Course	Syd	159,908.24	\$	\$
130	5057011	_Seal, Single Chip, Modified	Syd	82,948.00	\$	\$
140	8110049	Pavt Mrkg, Ovly Cold Plastic, Direction Arrow Sym, Bike	Ea	1.00	\$	\$
150	8110058	Pavt Mrkg, Ovly Cold Plastic, Bike, Small Sym	Ea	1.00	\$	\$
160	8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	5,400.00	\$	\$
170	8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	14,400.00	\$	\$
180	8110155	Pavt Mrkg, Sprayable Thermopl, 6 inch, White	Ft	2,000.00	\$	\$
190	8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	500.00	\$	\$
200	8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	850.00	\$	\$
210	8110212	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, White	Ft	120.00	\$	\$

TOTAL THIS PAGE

Addendum-3-7

BID FORM

Section 1 - Schedule of Prices

Street Surface Treatments - FY2019 File No. 2018-020 Bid No. 4530

Line <u>No.</u>	ltem <u>No.</u>	Item Description	<u>Unit</u>	Estimated <u>Quantity</u>	Unit Price	Total Price
220	8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	1,086.00	\$ 	\$
230	8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	275.00	\$ 	\$
240	8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	5,400.00	\$ 	\$
250	8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	14,400.00	\$ 	\$
260	8110233	Pavt Mrkg, Waterborne, 6 inch, White	Ft	2,000.00	\$	\$
270	8110332	Rem Raised Pavt Marker	Ea	100.00	\$ 	\$
280	8110343	Rem Spec Mrkg	Sft	1,025.00	\$ 	\$
290	8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	16.00	\$ 	\$
300	8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	3.00	\$ 	\$
310	8117050	_Pavt Mrkg, Thermopl, Thru Arrow Sym	Ea	2.00	\$ 	\$
320	8117050	_Pavt Mrkg, Thermopl, Only	Ea	12.00	\$	\$
330	8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	82.00	\$ 	\$
340	8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	82.00	\$ 	\$
350	8120030	Channelizing Device, 42 inch, Furn	Ea	703.00	\$ 	\$
360	8120031	Channelizing Device, 42 inch, Oper	Ea	703.00	\$ 	\$
370	8120140	Lighted Arrow, Type C, Furn	Ea	14.00	\$ 	\$
380	8120141	Lighted Arrow, Type C, Oper	Ea	14.00	\$ 	\$
390	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	21,800.00	\$	\$
400	8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	2,331.00	\$ 	\$
410	8120235	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, White, Temp	Ft	5,400.00	\$ 	\$
420	8120236	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, Yellow, Temp	Ft	14,400.00	\$ 	\$

TOTAL THIS PAGE \$_____

BID FORM

Section 1 - Schedule of Prices

Street Surface Treatments - FY2019 File No. 2018-020 Bid No. 4530

Line <u>No.</u>	ltem <u>No.</u>	Item Description	<u>Unit</u>	Estimated <u>Quantity</u>	Unit Price	Total Price
430	8120250	Plastic Drum, High Intensity, Furn	Ea	135.00	\$	\$
440	8120251	Plastic Drum, High Intensity, Oper	Ea	135.00	\$	\$
450	8120280	Raised Pavt Marker, Temp, Type 1, White, Monodirectional	Ea	108.00	\$	\$
460	8120281	Raised Pavt Marker, Temp, Type 1, Yellow, Bidirectional	Ea	288.00	\$	\$
470	8120310	Sign Cover	Ea	75.00	\$	\$
480	8120330	Sign, Portable, Changeable Message, Furn	Ea	6.00	\$	\$
490	8120331	Sign, Portable, Changeable Message, Oper	Ea	16.00	\$	\$
500	8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	2,972.00	\$	\$
510	8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	2,972.00	\$	\$
520	8120370	Traf Regulator Control	LSUM	1.00	\$	\$
530	8127050	_No Parking Sign	Ea	360.00	\$	\$
540	8127050	_Pedestrian Type II Barricade, Temp	Ea	20.00	\$	\$
550	8127051	_Minor Traffic Control, Max \$70,000.00	LSUM	1.00	\$	\$
					TOTAL THIS PAGE	\$
				TOT	AL FROM PAGE BF-1	\$

TOTAL FROM PAGE BF-2 \$_____

TOTAL BASE BID \$_____

CITY OF ANN ARBOR

DETAILED SPECIFICATION FOR PROJECT SCHEDULE

AA:DAD

1 of 2

05/23/18

Complete the entirety of work under this Contract in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

Organize, coordinate and diligently execute the work at the locations shown on the Schedule of Streets included herein. This schedule details the requirements, if any, for the Start of Work (on or after dates specified), the Completion of Work (on or before dates specified), Restricted Dates, the Maximum Calendar Days for Completion, and the Liquidated Damages per Calendar Day for each street. For the purpose of this Contract, the "Start of Work" definition is the date when either the "No-Parking" signs or the temporary traffic control measures become effective, whichever occurs first and relates only to the application of the designated surface treatment. Pavement repairs and other surface preparation work does not apply. The definition of the "Completion of Work" is the point in time when all work designated for a project location is complete. This includes, but is not limited to, placement of permanent pavement markings, street and underground utility and utility structure cleaning as required, removal of sedimentation and soil erosion control devices, removal of all temporary traffic control devices and "No Parking" signs, and other necessary project clean-up work as directed by the Engineer.

The Engineer shall limit the Contractor's work operations to a number of streets that, in the opinion of the Engineer, is reasonable to allow for proper and thorough inspection, and to reduce traffic control and/or safety problems. The contractor shall not have more than two (2) locations "active" at any given time with a maximum of one (1) of those locations being a Major Street. A location is "active" if work on the street has begun, and it has not yet complete. Regard an "Area" shown on the Schedule of Streets as one (1) location.

The City expects to furnish the Contractor with two (2) copies of the Contract, for its execution, on or before **June 4**, **2018**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance documentation, to the City by **June 22**, **2018**. The Contractor shall not begin the work before the applicable date(s) as described herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract and Notice to Proceed.

By no later than **July 6**, **2018**, the Contractor shall submit a detailed schedule of work (progress schedule) for the Engineer's review and approval. The progress schedule must fully comply with the scheduling requirements contained on the Schedule of Streets. The schedule shall clearly indicate, in detail, the start and the finish date of each work task on each street. The Contractor shall update the approved progress schedule each week, and present it to the Engineer at the weekly progress meeting, and must consult with the Engineer for review and approval of any proposed deviations from the most current, approved, schedule.

The Contractor shall begin project work on or after **July 16, 2018**, and only upon receipt of the fully executed Contract, Notice to Proceed and approved Progress Schedule. The City will consider granting appropriate time extensions should delays prevent the Contractor from starting work on this date.

Complete the entire project on or before **June 30**, **2019**. Completion of the project means all locations shown on the Schedule of Streets are complete and ready for use in accordance with the "Completion of Work" as defined above.

Failure to complete all work as specified within the times specified, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct dollar amounts specified in the Schedule of Streets as "Liquidated Damages" from the payments due the Contractor. The City will access "Liquidated Damages" for delays in the completion of the work for each street, for each calendar day the work remains incomplete beyond the required contract completion date.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project by the intermediate (location specific) and final completion dates. Should the Contractor demonstrate that they must work on some Sundays in order to maintain the project schedule, they may only do so with prior approval from the City, and only during approved working hours. There will be no additional compensation due to the Contractor for work performed on Sundays.

The Engineer may delay or stop the work due to threatening weather conditions. No compensation shall be due the Contractor for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties resulting from its decision to work in the rain.

The Contractor shall not work in the dark except as approved by the Engineer and shall provide lighting for night work as detailed elsewhere in this contract. The Engineer may stop the work, or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the Contractor cannot be complete the work within the remaining daylight hours, or if inadequate daylight is present to properly perform or inspect the work. No compensation shall be due to the Contractor for unused materials or downtime, when the Engineer directs work stoppage for reasons due to darkness and/or inadequate remaining daylight. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties, which result from working in the dark.

Assessment of Liquidated Damages will occur until the required work is complete in the current construction season. If, with the Engineer's approval, work extends beyond seasonal limitations, the assessment of Liquidated Damages will discontinue until the work resumes in the following construction season.

If the construction contract is not complete within the specified period(s) including any extensions of time granted thereto, at the sole discretion of the City of Ann Arbor it may terminate the Contract. Should this occur no additional compensation will be due to the Contractor, and the Contractor may be forbidden to bid on future City of Ann Arbor projects for a period of at least three (3) years. If the Engineer elects to terminate the Contract, payment for contract items with a Lump Sum unit price will be up to a maximum amount equal to the percentage of the contract work that is complete at the time of termination.

The City's decision to delete streets, add streets, change the construction limits on streets, or, the City's contribution to a delay of the construction on <u>any one street</u> shall not entitle the Contractor to receive additional compensation for work on any <u>other street(s)</u>, nor shall it relieve the Contractor of any responsibilities for completion of work on any <u>other street(s)</u>.

Include any/all to organize, coordinate, and schedule all of the project work in the contract unit price bid for the pay item **General Conditions**, **Max** \$____.

Street Surface Treatment Project – FY2019 Project Schedule of Streets

Location (Street)	Limits of Work	Start of Work	Completion of Work	Restricted Dates	Maximum Calendar Days for Completion	Liquidated Damages per Calendar Day
Green Road	Plymouth Road to Gettysburg Road/Burbank Drive			CAA1, MMRL, UMFB	15	\$750.00
Fuller Road	East End of Huron River Bridge to Fuller Court			AAAF, LABR, MMRL, UMFB	15	\$1,000.00
Area 1	See Project Location List and Minor (Local) Streets Map			AAAF, *AAPS, LABR, MMRL, UMFB	21	\$500.00
Area 2	See Project Location List and Minor (Local) Streets Map			AAAF, LABR, MMRL, UMFB	20	\$500.00
Area 3	See Project Location List and Minor (Local) Streets Map			LABR, MMRL, UMFB	7	\$500.00
Area 4	See Project Location List and Minor (Local) Streets Map			LABR, MMRL, UMFB	10	\$500.00
Area 5	See Project Location List and Minor (Local) Streets Map			LABR, MMRL, UMFB	14	\$500.00
AAAF - No work pe	AAAF - No work permitted from July 19, 2018 thru July 22, 2018 due to the Ann Arbor Street Art Fairs.	22, 2018 due	to the Ann Arbo	or Street Art Fairs.		

- AAPS No work permitted when Ann Arbor Public Schools are in session (before June 18, 2018 or after September 3, 2018 until June 17, 2019). *This only applies to Lorraine Street in the Area 1 project location.
- CAA1 No work permitted during the City of Ann Arbor Green Road Sidewalk Gap Project (anticipated to start on or after August 20, 2018, and be complete by October 1, 2018).
 - LABR No work during the Labor Day holiday period from 3:00 p.m. August 31 to 7:00 a.m. September 4, 2018.
- MMRL No work during the Memorial Day holiday period from 3:00 p.m. May 25 to 7:00 a.m. May 29, 2018.

UMFB - No work permitted during scheduled home game dates for University of Michigan Football

Notes:

1. Upon starting work on the Minor (Local) streets in Areas 1, 2, 3, 4 and/or 5, perform all work in each area until it is complete and before starting work on a new area. The only exception to this requirement applies to Area No. 1 and the work on Lorraine Street, which the Contractor should schedule and perform separately when the Ann Arbor Public Schools are not in session, and only if all other work within this area cannot be performed in that timeframe.

CITY OF ANN ARBOR

DETAILED SPECIFICATION FOR MICRO-SURFACING

AA:DAD

1 of 2

05/23/18

a. Description. This work consists of preparing existing pavement and providing and placing a micro-surfacing mixture in accordance with section 504 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, as directed by the Engineer, and as described herein.

b. Materials. Provide materials in accordance with subsection 504.02 of the MDOT 2012 Standard Specifications for Construction with the following modification.

1. Add the following to subsection 504.02.A of the MDOT 2012 Standard Specifications for Construction.

- A. Screen 2FA fine aggregate used for micro-surfacing at the project site to ensure aggregate being introduced into the micro-surface mixture is not larger than the top size aggregate allowed in the mix design. Screen aggregate directly into the material transport units or micro-surface machine(s). Use aggregate screening unit capable of producing adequate tonnage to maintain project production in accordance with subsection 504.03.
- 2. Use CSS-1hM asphalt emulsion for micro-surfacing mixtures. The emulsified asphalt must conform to certification procedures described in the MDOT *Materials Quality Assurance Procedures Manual.*

c. Construction. Ensure all construction is in accordance with subsection 504.03 of the MDOT 2012 Standard Specifications for Construction with the following modifications.

1. Add the following to subsection 504.03.C of the MDOT 2012 Standard Specifications for Construction.

A. Use a pick-up sweeper to perform any sweeping required to prepare the existing surface.

2. Add the following to subsection 504.03.D of the MDOT 2012 Standard Specifications for Construction.

A. Take extreme care not to place micro-surface mixture on any concrete curb and gutter.

Conduct nighttime work between the hours of 8:00 p.m. and 7:00 a.m. at the locations shown on the "Project Schedule of Street" and in the "Project Log", unless otherwise directed. The Engineer may allow nighttime work at other locations with seven (7) day notification to the Engineer, and only after authorization by the City.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the respective contract unit prices using the following respective pay items:

Pay Item

Pay Unit

Micro-Surface, Standard	Square Yard
Micro-Surface, Single Course	Square Yard
Micro-Surface, Single Course, Nighttime Work	Square Yard

Measure Micro-Surface, Standard; Micro-Surface, Single Course; and Micro-Surface, Single Course, Nighttime Work area in place by their respective units square yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

The unit prices for **Micro-Surface**, regardless of the type required, include the cost of surface preparation; applying a bond coat; stationing and the establishment of yield intervals; placing temporary pavement markings; corrective action and any traffic control related to it; any required materials sampling and testing; and documentation.

The unit price for **Micro-Surface**, **Standard** also includes the cost for all materials, equipment, and labor required to place the micro-surfacing mixtures including the application of a rut filling course, a leveling course, and a surface course for full width coverage.

The unit price for **Micro Surface, Single Course** also includes the cost for all materials, equipment, and labor required to place the micro-surfacing mixtures by applying a single course of mixture for full width coverage.

The unit price for **Micro Surface**, **Single Course**, **Nighttime Work** also includes the cost for all materials, equipment, and labor required to place the micro-surfacing mixtures by applying a single course of mixture for full width coverage during the hours of work specified. Pay for lighting to conduct this work separately at the contract unit price for the pay item **Ltg for Night Work**.

The City will pay separately for temporary traffic control to place any mixture in accordance with the Detailed Specification for Maintaining Traffic, and removing pavement markings in accordance with subsection 812.04 of the MDOT 2012 Standard Specifications for Construction.

MICHIGAN DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

FILLING AND LEVELING HOT MIX ASPHALT LONGITUDINAL JOINTS AND CRACKS WITH ASPHALT REPAIR MASTIC

CFS:ARB

1 of 2 APPR:CRB:KPK:07-10-15

a. Description. This work consists of cleaning, filling, and leveling the longitudinal construction joints and cracks with asphalt repair mastic material.

Clean and fill longitudinal joints and cracks at the locations shown in the contract or as directed by the Engineer.

b. Materials. Provide a hot applied, pre-packaged, pourable, aggregate filled, polymer modified asphalt repair mastic.

Use Deery Level and Go Repair Mastic, Crafco Mastic One, or an approved equal as determined by the Engineer.

c. Equipment. Heat the material with a mastic mixer with a full sweep horizontal agitator that is able to maintain a uniformly mixed product. Heat asphalt repair mastic in a thermostatically controlled hot oil jacketed heating system, and have an effective means of dispensing product.

d. Surface Preparation. Clean all surfaces of dust, dirt, oil, grease, and loose material prior to application of the mastic. Clean all surfaces with clean, dry, oil free compressed air at 90 pounds per square inch (psi) minimum. Ensure the surface of the pavement is completely dry at the time of mastic application.

Apply asphalt repair mastic when pavement temperature exceeds 40 degrees Fahrenheit (F). Use a heat lance that puts no direct flame on the pavement to heat the surface as recommended by the manufacturer. Install mastic within 10 minutes of warming the pavement area. Do not overheat pavement surfaces.

e. Installation. Ensure the Contractor is trained and approved by the mastic manufacturer.

Heat the asphalt repair mastic to the appropriate installation temperature using a mastic mixer. Place the mastic onto the properly prepared pavement surface.

Use a heated hand squeegee to level and smooth the mastic until the material has formed a durable, well-bonded, level repair.

Apply the mastic to the longitudinal joint or crack from the bottom up in lifts appropriate to the specific application. Multiple lifts may be required to level deeper repair areas. Fill the uppermost 0.5 to 1 inch with the final lift after prior lifts have sufficiently cooled.

f. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Addendum-3-15

Pay Item	Pay Unit
Crack Filling with Asphalt Repair Mastic	Foot

Crack Filling with Asphalt Repair Mastic includes furnishing, hauling, and placing of all materials, the removal and disposal of old filler and debris, and for all labor, equipment, materials, and tools required to complete the work.

Beginning Ending Ending Ending Ending Ending Ending Area Not East End Huron Nive Bridge Faller Ct MANONS TREETS 0.0949 3.332 29.115 3.332 29.115 Fast End Huron Nive Bridge Certification 0.000 0.949 0.349 3.332 29.115 Annons Treets Annons Treets 0.000 0.149 0.333 2.471 2.421 Phrouth Nive Bridge Faller Ct 0.000 0.149 0.136 0.172 0.239 2.421 Protein St Nonvood St Ustword Nive Dimo 0.000 0.149 0.236 2.421 Platt Rd Packard St 0.000 0.149 0.236 2.431 2.421 Platt Rd Platt Rd Platt Rd Packard St 0.000 0.138 0.171 1.730 2.81 Platt Rd Platt Rd Platt Rd Platt Rd 0.000 0.138 0.130 0.236 5.743 Platt Rd Platt Rd Platt Rd	i	Limits	S	Beginning	Ending	Length (miles)	(miles)		Proposed	
MADRE STRETTS MADRE STRETTS Fuller Find Exast Find Hurrn Finer Find Exast Find Hurrn Find Find Exast Find Hurrn Hurrn Find Hurrn Hurrn Find Hurrn Hurrn Hurrn Hurrn Find Hurrn H	street Name	Beginning	Ending	Milepoint	Milepoint	Centerline	Lane	Area (syd)	Surface Treatment	
Fulle foad East fully fully fully Sound			MAJOR ST	TREETS						
Green foad Pymouth fid Getty Surg Rife Balank Dr 1.11% 5.000 0.811 3.331 2.332 3.331 Antered St Packard St Packard St Packard St 1.780 6.646 9.335 Antered St Packard St Packard St 0.000 0.136 0.147 0.236 4.721 Creek Drive I a Free St Packard St Nowood Street 0.000 0.136 0.136 0.239 0.239 0.236 1.506 La Free Street Packard St Nowood Street 0.000 0.136 0.239 0.236 0.537	Fuller Road	East End Huron River Bridge	Fuller Ct	0.000	0.949	0.949	3.322	29,115	Micro-Surface, Single Course	
MONG STREFTS JULY INDER CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT ACT CALL ISTREFT MICH CALL ISTREFT ACT CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT MICH CALL ISTREFT ACT CALL ISTREFT ACT CALL ISTREFT Creek Dr DOID DI CALL ISTREFT PART PALE CREEK CREEK CREEK CREEK CREEK CREEK CREEK CREEK CREEK CREEK CRECOND DI CALL ISTREFT <t< td=""><td>Green Road</td><td>Plymouth Rd</td><td>Gettysburg Rd/Burbank Dr</td><td>1.175</td><td>2.006</td><td>0.831</td><td>3.324</td><td>24,242</td><td>Micro-Surface, Single Course</td></t<>	Green Road	Plymouth Rd	Gettysburg Rd/Burbank Dr	1.175	2.006	0.831	3.324	24,242	Micro-Surface, Single Course	
minor (LOCAL) STRETS AREAL AREAL CREA CIST DATA ATA CREA CIST LaFERES TREAT AREAL CATZ 4721 CREA CIST PACARDITS PACARDITS <th colspa<="" td=""><td></td><td>r</td><td>_</td><td>1AJOR STREETS</td><td>SUBTOTAL</td><td>1.780</td><td>6.646</td><td>53,357</td><td></td></th>	<td></td> <td>r</td> <td>_</td> <td>1AJOR STREETS</td> <td>SUBTOTAL</td> <td>1.780</td> <td>6.646</td> <td>53,357</td> <td></td>		r	_	1AJOR STREETS	SUBTOTAL	1.780	6.646	53,357	
AREA No. 1 AREA No. 1 Celebrie Lafee St Packard St O.238 O.436 O.329 O.375 O.375 O.376 O.376 </td <td></td> <td></td> <td>MINOR (LOCA</td> <td>L) STREETS</td> <td></td> <td></td> <td></td> <td></td> <td></td>			MINOR (LOCA	L) STREETS						
Creek Dree La Fee Sk Packard St Out30 0.149 0.240 0.239 <td></td> <td></td> <td>AREA N</td> <td>lo. 1</td> <td></td> <td></td> <td></td> <td></td> <td></td>			AREA N	lo. 1						
Ethmood Street Packard St Nowood St 0.000 0.149 0.199 0.203 1.540 Lare Street Patr Hd Patr Hd <t< td=""><td>Creek Drive</td><td>La Fere St</td><td>Packard St</td><td>0.238</td><td>0.474</td><td>0.236</td><td>0.472</td><td>4,271</td><td>Cape Seal</td></t<>	Creek Drive	La Fere St	Packard St	0.238	0.474	0.236	0.472	4,271	Cape Seal	
Interfactor Creek Dr La Salle St. Could C105 C105 <thc105< th=""> <thc10< td=""><td>Elmwood Street</td><td>Packard St</td><td>Norwood St</td><td>0.000</td><td>0.149</td><td>0.149</td><td>0.298</td><td>2,798</td><td>Cape Seal</td></thc10<></thc105<>	Elmwood Street	Packard St	Norwood St	0.000	0.149	0.149	0.298	2,798	Cape Seal	
Introduction Patrixee, Ur Data bale Patrixee, Ur Dott Dist	La Fere Street	Creek Dr	La Salle St	0.000	0.105	0.105	0.210	1,540	Cape Seal	
Cokwood Street Deate M	Lorraine Street	Platt Rd	Pittsview Dr	0.000	0.379	0.379	0.758	6,031	Cape Seal	
Redword Avenue Diatt Rd Creek Dr 0.312 0.437 0.153 0.532 0.513 </td <td>Oakwood Street</td> <td>Platt Rd</td> <td>Bellwood Ave</td> <td>0.000</td> <td>0.198</td> <td>0.198</td> <td>0.396</td> <td>3,486</td> <td>Cape Seal</td>	Oakwood Street	Platt Rd	Bellwood Ave	0.000	0.198	0.198	0.396	3,486	Cape Seal	
Elimood Steet Norwood St. Elgewood Dr 0.149 0.249 0.521 5,213 5,	Redwood Avenue	Platt Rd	Creek Dr	0.312	0.427	0.115	0.230	1,620	Cape Seal	
Instruction	Elmwood Street	Norwood St	Edgewood Dr	0.149	0.440	0.291	0.582	5,217	Micro-Surface, Single Course	
Area No. 1 SUBTOTAL J.360 J.3460 L.333 AREA No. Broklyn Arenue Packard St Ferdon Rd O.000 O.325 O.3460 L.330 J.3460 J.3460 Broklyn Arenue Packard St Ferdon Rd Oron O.325 O.327 O.454 S.133 Hermitage Road Denoking Milnigror Rd O.000 O.325 O.327 O.454 S.130 Uncoln Arenue Eredon Rd Oron O.327 O.327 O.327 O.454 S.132 Uncoln Arenue Brackard St Ferdon Rd O.000 O.336 O.337 O.337 O.337 O.337 D.369 O.372 Voodlawn Arenue Packard St Ferdon Rd O.000 O.336 O.336 O.337 O.337 D.367 D.3720 Voodlawn Arenue Packard St Ferdon Rd O.000 O.345 O.346 O.337 D.3720 D.3720 Voodlawn Arenue Sheehan Are Packard St O.000 O.346<		Lorraine St	La Fere St	0.000	0.257	0.257	0.514	3,770	Micro-Surface, Single Course	
AREA No. 2 AREA No. 2 Bolden Avenue Packard St Ferdon Rd 0.000 0.368 0.736 5,743 Bolden Avenue Estdon Rd Orono 0.227 0.227 0.036 5,743 4,765 Bolden Avenue Estdon Rd Orono 0.128 0.136 0.736 5,743 4,765 Hermitage Road Ferdon Rd Orono 0.134 0.134 0.136 0.338		r		Area No.	I SUBTOTAL	1.730	3.460	28,733		
Brookyn Avenue Packard st Ferdon Rd Cuono 0.358 0.736 5,743 Brookyn Avenue E Stadium Blvd Granger Ave 0.000 0.327 0.370 2,507 Hendise F Stadium Blvd Granger Ave 0.000 0.135 0.136 0.370 2,507 Hondise Avenue Shadron Rd Granger Avenue 0.000 0.135 0.136 0.370 2,507 Incoln Avenue Shadron Kd Granger Avenue 0.000 0.135 0.136 0.370 2,507 South Boulevard Packard St Ferdon Rd 0.000 0.135 0.136 0.370 2,327 South Boulevard Packard St Packard St 0.000 0.135 0.136 0.370 2,327 South Boulevard Stehan Ave Stehan Ave Noodiskin Rd 0.000 0.135 0.136 0.370 2,327 Morton Avenue Stehan Ave Stehan Ave Stehan Ave 0.000 0.137 0.136 0.376 3,376 Mod			AREA N	lo. 2						
Golden Avenue E Stadium Blvd Granger Ave 0.000 0.227 0.434 4.205 1 Hermitage Road Ferdon Rd Wallingford Rd 0.000 0.185 0.370 2.607 2.607 Hermitage Road Uincoln Avenue Uincoln Avenue 0.000 0.185 0.330 0.337 2.320 2.320 Mitron Avenue Uincoln Avenue Uincoln Avenue 0.000 0.185 0.370 0.370 2.320 2.320 Mitron Avenue Uincoln Avenue Voodawn Avenue Vooda 0.000 0.185 0.370 0.370 2.370 2.822 Mondawn Avenue Packard St Ferdon Rd 0.000 0.185 0.370 0.370 2.822 Voodawn Avenue Sheehan Ave Green Rd Ferdon Rd 0.000 0.185 0.370 2.822 2.320 Koodawn Avenue Sheehan Ave Green Rd Ferdon Rd 0.000 0.187 0.369 0.336 0.370 2.822 Koodawn Avenue Frederick Dir Green Dir<		Packard St	Ferdon Rd	0.000	0.368	0.368	0.736	5,743	Cape Seal	
Hernitage Road Ferdon Rd Wailingford Rd 0.000 0.185 0.370 2.607 2.607 Lincoln Avenue Stanglord Rd Granger Ave 0.000 0.194 0.385 2.920 8.532 Morton Avenue Packard St Ferdon Rd 0.0091 0.234 0.396 8.532 2.820 Morton Avenue Packard St Ferdon Rd 0.000 0.185 0.330 0.336 3.63 3.530 5.823 Voodlawn Avenue Shehan Ave Fackard St 0.000 0.185 0.370 0.370 2.823 5.833 5.326 2.823 5.835 <td></td> <td>E Stadium Blvd</td> <td>Granger Ave</td> <td>0.000</td> <td>0.227</td> <td>0.227</td> <td>0.454</td> <td>4,205</td> <td>Cape Seal</td>		E Stadium Blvd	Granger Ave	0.000	0.227	0.227	0.454	4,205	Cape Seal	
Incoln Arenue Shadford Rd Granger Ave 0.000 0.194 0.388 2.920 Morton Arenue Uncoln Ave Uncoln Ave Voodside Rd 0.091 0.545 0.444 0.098 8.352 South Boulevard Packard St Ferdon Rd 0.091 0.330 0.454 0.308 8.352 South Boulevard Shehan Ave Packard St Ferdon Rd 0.000 0.183 0.454 0.308 8.352 South Boulevard Shehan Ave Shehan Ave Shehan Ave 0.000 0.183 0.178 0.370 2.320 Woodlawn Avenue Shehan Ave Shehan Ave Shehan Ave 0.000 0.185 0.370 2.323 Middleton Drive Frederick Dri Green Rd Green Brier Dr//Middleton Dr 0.000 0.346 0.693 1.314 10.437 Middleton Drive Frederick Dr Green Brier Dr//Middleton Dr 0.000 0.346 0.692 6.911 Middleton Drive Frederick Drive Green Brier Dr//Middleton Dr 0.000		Ferdon Rd	Wallingford Rd	0.000	0.185	0.185	0.370	2,607	Cape Seal	
Morton Avenue Lincoln Ave Uncoln Avenue Nondside Rd 0.091 0.545 0.454 0.908 8.352 8 South Boulevard Packard St Ferdon Rd 0.096 0.330 0.334 0.468 3.720 8 3.730 8 3.730 3.736<		Shadford Rd	Granger Ave	0.000	0.194	0.194	0.388	2,920	Cape Seal	
		Lincoln Ave	Woodside Rd	0.091	0.545	0.454	0.908	8,352	Cape Seal	
Image: mark term	South Boulevard	Packard St	Ferdon Rd	0.096	0.330	0.234	0.468	3,720	Cape Seal	
Area No. 2 UBTOTAL 1.847 3.694 30,369 AREA No. 3 AREA No. 3 A 569 1.847 3.0,369 30,369 <	Woodlawn Avenue	Sheehan Ave	Packard St	0.000	0.185	0.185	0.370	2,822	Cape Seal	
AREA No.3 A Green Rd Green Niddleton Dr 0.000 0.346 0.333 Frederick Dr Green Dr/Middleton Dr 0.000 0.346 0.522 4,337 0.337 Frederick Dr Greenbrier Dr/Frederick Dr 0.000 0.346 0.526 6,091 1.314 10,428 Area NL Area NL Area NL Area NL Area Styder Ave Clague St 0.000 0.346 0.374 3,216 Area Styder Ave Clague St 0.000 0.137 0.374 3,216 Area Viglaue St 0.000 0.187 0.1092 Area Viglaue St 0.000 0.137 0.374 0.1092 Area Viglaue St 0.000 0.137 0.1092 Area Viglaue St 0.000 0.127 0.1092				Area No. 2	2 SUBTOTAL	1.847	3.694	30,369		
			AREA N	lo. 3						
Frederick Dr Greenbrick Dr 0.000 0.346 0.692 6,091 Area No. Area No. SUBTOTAL 0.607 1.214 10,428 Area No. Snyder Ave Clague St 0.000 0.187 0.607 10,428 Notice Name End of Cul-de-sac 0.000 0.187 0.374 3,216 Notice Name End of Cul-de-sac 0.000 0.060 0.077 0.374 3,216 Notice Name End of Cul-de-sac 0.000 0.187 0.177 0.170 1,092 Name Nather Dr Pauline Blvd 0.000 0.187 0.177 0.170 1,092 Name Name Van Dusen Dr 0.000 0.177 0.177 0.126 1,092 Name Name Van Dusen Dr 0.088 0.128 0.1690 1,092 Name Name Van Dusen Dr 0.784 0.912 0.126 1,092 Name Name Name Name 0.016 0.128	Frederick Drive	Green Rd	Greenbrier Dr/Middleton Dr	0.000	0.261	0.261	0.522	4,337	Cape Seal	
Area No. 3 SUBTOTAL 0.607 1.214 10,428 AREA No. AREA No. Area No. 0.187 0.374 3.216 Nultshire Dr End of cul-de-sac 0.000 0.187 0.374 3.216 Nultshire Dr End of cul-de-sac 0.000 0.060 0.060 0.120 1,092 Naples Ct Pauline Blvd 0.000 0.177 0.1374 0.316 1,092 Naples Ct Van Dusen Dr 0.0688 0.784 0.096 0.1202 1,092 1,690 Naples Ct Van Dusen Dr 0.784 0.096 0.128 0.126 1,690 1,690 Noder Ave/Algonac St End of Cul-de-sac 0.078 0.078 0.126 1,782 1,690 Nik Ave Naples Ct 0.304 0.784 0.912 0.136 1,782 1,833 15,832	Middleton Drive	Frederick Dr	Greenbrier Dr/Frederick Dr	0.000	0.346	0.346	0.692	6,091	Cape Seal	
AREA No. 4 Snyder Ave Clague St 0.000 0.187 0.374 3,216 Nultshire Dr End of Cul-de-sac 0.000 0.060 0.060 1,092 Nobles Ct Pauline Blvd 0.000 0.077 0.354 3,116 Naples Ct Clague St 0.688 0.777 0.354 3,116 Naples Ct Clague St 0.688 0.777 0.354 3,116 Naples Ct Clague St 0.688 0.784 0,092 1,690 Naples Ct Van Dusen Dr 0.784 0.096 0.126 1,690 Nyder Ave/Algonac St End of Cul-de-sac 0.000 0.078 0.126 1,282 Snyder Ave/Algonac St End of Cul-de-sac 0.000 0.078 0.136 1,282 Birk Ave Naples Ct 0.495 0.688 0.136 3,183					3 SUBTOTAL	0.607	1.214	10,428		
multiply Clague St 0.000 0.187 0.374 3,216 3,216 multiply wiltshire Dr End of Cul-de-sac 0.000 0.060 0.120 1,092 multiply End of Cul-de-sac 0.000 0.070 0.050 0.120 1,092 multiply Pauline Blvd 0.000 0.070 0.060 0.177 0.354 3,116 multiply Vanbles Ct Clague St 0.688 0.784 0.096 0.192 1,690 multiply Maples Ct Clague St 0.784 0.784 0.096 0.192 1,690 multiply Maples Ct 0.784 0.784 0.784 0.156 1,690 multiply Maples Ct 0.784 0.784 0.126 1,593 1,583 multiply Multiply 0.784 0.784 0.784 0.136 1,583 multiply Multiply 0.784 0.795 0.128 0.136 1,583 multiply Multiply <td< td=""><td></td><td></td><td>AREA N</td><td>lo. 4</td><td></td><td></td><td></td><td></td><td></td></td<>			AREA N	lo. 4						
Wiltshire Dr End of Cul-de-sac 0.000 0.060 0.120 1,092 Crosby Cres Pauline Blvd 0.000 0.177 0.354 3,116 Naples Ct Crosby Cres Pauline Blvd 0.000 0.177 0.354 3,116 Naples Ct Clague St 0.000 0.177 0.192 1,690 1,690 Naples Ct Van Dusen Dr 0.688 0.784 0.096 0.192 1,690 1,590 Noder Ave Van Dusen Dr 0.784 0.912 0.126 2,253 1,590 1,583 Snyder Ave/Algonac St End of Cul-de-sac 0.000 0.078 0.136 1,282 1,582 1,582 Birk Ave Naples Ct 0.495 0.688 0.193 0.386 3,183 15,832	Crosby Crescent	Snyder Ave	Clague St	0.000	0.187	0.187	0.374	3,216	Cape Seal	
Crosby Cres Pauline Blvd 0.000 0.177 0.354 3,116 Naples Ct Clague St 0.688 0.784 0.096 0.192 1,690 Algonac Ave Van Dusen Dr 0.784 0.128 0.256 2,253 1,590 Snyder Ave/Algonac St Van Dusen Dr 0.784 0.912 0.126 1,282 1,282 Birk Ave Naples Ct 0.000 0.078 0.136 0,136 1,282 Birk Ave Naples Ct 0.495 0.688 0.193 0.366 3,183	Rugby Court	Wiltshire Dr	End of Cul-de-sac	0.000	090.0	0.060	0.120	1,092	Cape Seal	
Naples Ct Clague St 0.688 0.784 0.096 0.192 1,690 Algonac Ave Van Dusen Dr 0.784 0.128 0.256 2,253 Snyder Ave/Algonac St End of Cul-de-sac 0.000 0.078 0.195 1,282 Birk Ave Naples Ct 0.495 0.688 0.193 0.366 3,183 Area No. 4 SuBTOTAL 0.919 1.838 15,832 15,832	Van Dusen Drive	Crosby Cres	Pauline Blvd	0.000	0.177	0.177	0.354	3,116	Cape Seal	
Algonac Ave Van Dusen Dr 0.784 0.912 0.126 2,253 Snyder Ave/Algonac St End of Cul-de-sac 0.000 0.078 0.156 1,282 Birk Ave Naples Ct 0.495 0.688 0.193 0.386 3,183 Area No. 4 SUBTOTAL 0.919 1.838 15,832 15,832	Algonac Street	Naples Ct	Clague St	0.688	0.784	0.096	0.192	1,690	Micro-Surface, Single Course	
Snyder Ave/Algonac St End of Cul-de-sac 0.000 0.078 0.156 1,282 Birk Ave Naples Ct 0.495 0.688 0.193 0.386 3,183 Area No. 4 SUBTOTAL 0.919 1.838 15,832 15,832	Clague Street	Algonac Ave	Van Dusen Dr	0.784	0.912	0.128	0.256	2,253	Micro-Surface, Single Course	
Birk Ave Naples Ct 0.495 0.688 0.193 0.386 3,183 Area No. 4 SUBTOTAL 0.919 1.838 15,832	Naples Court	Snyder Ave/Algonac St	End of Cul-de-sac	0.000	0.078	0.078	0.156	1,282	Micro-Surface, Single Course	
0.919 1.838	Snyder Avenue	Birk Ave	Naples Ct	0.495	0.688	0.193	0.386	3,183	Micro-Surface, Single Course	
-				Area No. 4	1 SUBTOTAL	0.919	1.838	15,832		

Addendum-3-17

Street Surface Treatment Project - FY2019 Project Listing of Streets

Ctroot Namo	Limits	S	Beginning	Ending	Length (miles)	(miles)		Proposed
	Beginning	Ending	Milepoint	Milepoint	Centerline	Lane	Area (byu)	Surface Treatment
		AREA No. 5	lo. 5					
Churchill Drive	End of Cul-de-sac	Scio Church Rd	0.000	0.332	0.332	0.664	2'860	Cape Seal
Delaware Drive	S 7th St	Mershon Dr	0.320	0.540	0.220	0.440	3,614	Cape Seal
Steeplechase Drive	Churchill Dr	Blaney Dr	0.000	0.102	0.102	0.204	1,736	Cape Seal
Wiltshire Drive	Churchill Dr	End of Cul-de-sac	0.000	0.212	0.212	0.424	3,771	Cape Seal
Morehead Drive	Churchill Dr	S 7th St	0.000	0.367	0.367	0.734	6,208	Micro-Surface, Single Course
			Area No. 5	Area No. 5 SUBTOTAL	1.233	2.466	21,189	
		MINOR (FC	MINOR (LOCAL) STREETS SUBTOTAL	SUBTOTAL	6.336	12.672	106,551	
		PROJECT T	PROJECT TOTALS (MAJOR & MINOR)	r & MINOR)	8.116	19.318	159,908	
					4.926	9.852	87'748	Cape Seal
					3.190	9.466	096'92	Micro-Surface, Single Course
NOTES:								

1) See Detailed Specification for Progress Schedule and the associated "Schedule of Streets" for scheduling requirements/restrictions.

2) Cape Seal invloves placing a single course of chip seal followed a single course of micro-surfacing on both major streets and minor (local) streets. This work will be paid respectively as Seal, Single Chip, Modified and Micro-Surface, Single Course.

Addendum-3-18

Street Surface Treatment Project - FY2019 Project Log of Streets

Major Street Location - Fuller Road

ItemCode	Item Description	<u>Unit</u>	Quantity
5017011	_Cold Milling HMA Surface, Modified	Syd	1,222.00
5017031	_Hand Patching, Modified, Major Streets	Ton	202.00
5047011	_Micro-Surface, Single Course	Syd	29,115.00
8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	2,600.00
8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	9,200.00
8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	170.00
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	750.00
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	275.00
8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	2,600.00
8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	9,200.00
8110343	Rem Spec Mrkg	Sft	784.00
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	14.00
8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	2.00
8117050	_Pavt Mrkg, Thermopl, Thru Arrow Sym	Ea	2.00
8117050	_Pavt Mrkg, Thermopl, Only	Ea	9.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	7.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	7.00
8120030	Channelizing Device, 42 inch, Furn	Ea	351.00
8120031	Channelizing Device, 42 inch, Oper	Ea	351.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	11,800.00
8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	1,195.00
8120235	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, White, Temp	Ft	2,600.000
8120236	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, Yellow, Temp	Ft	9,200.000
8120250	Plastic Drum, High Intensity, Furn	Ea	20.00
8120251	Plastic Drum, High Intensity, Oper	Ea	20.00
8120280	Raised Pavt Marker, Temp, Type 1, White, Monodirectional	Ea	52.000
8120281	Raised Pavt Marker, Temp, Type 1, Yellow, Bidirectional	Ea	184.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	4.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	4.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	1,246.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	1,246.00

Street Surface Treatment Project - FY2019 Project Log of Streets

Major Street Location - Green Road

ItemCode	Item Description	<u>Unit</u>	Quantity
5017011	_Cold Milling HMA Surface, Modified	Syd	1,060.00
5017031	_Hand Patching, Modified, Major Streets	Ton	175.00
5047011	_Micro-Surface, Single Course	Syd	24,242.24
8110049	Pavt Mrkg, Ovly Cold Plastic, Direction Arrow Sym, Bike	Ea	1.00
8110058	Pavt Mrkg, Ovly Cold Plastic, Bike, Small Sym	Ea	1.00
8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	2,800.00
8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	5,200.00
8110155	Pavt Mrkg, Sprayable Thermopl, 6 inch, White	Ft	2,000.00
8110212	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, White	Ft	120.00
8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	916.00
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	100.00
8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	2,800.00
8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	5,200.00
8110233	Pavt Mrkg, Waterborne, 6 inch, White	Ft	2,000.00
8110343	Rem Spec Mrkg	Sft	241.00
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	2.00
8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	1.00
8117050	_Pavt Mrkg, Thermopl, Only	Ea	3.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	5.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	5.00
8120030	Channelizing Device, 42 inch, Furn	Ea	352.00
8120031	Channelizing Device, 42 inch, Oper	Ea	352.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	10,000.00
8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	1,136.00
8120235	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, White, Temp	Ft	2,800.000
8120236	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, Yellow, Temp	Ft	5,200.000
8120250	Plastic Drum, High Intensity, Furn	Ea	20.00
8120251	Plastic Drum, High Intensity, Oper	Ea	20.00
8120280	Raised Pavt Marker, Temp, Type 1, White, Monodirectional	Ea	56.000
8120281	Raised Pavt Marker, Temp, Type 1, Yellow, Bidirectional	Ea	104.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	2.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	726.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	726.00

Project Log of Streets

ItemCode	Item Description	<u>Unit</u>	Quantity
5017011	_Cold Milling HMA Surface, Modified	Syd	431.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	60.00
5047011	_Micro-Surface, Single Course	Syd	28,733.00
5057011	_Seal, Single Chip, Modified	Syd	19,746.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	20.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	20.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	25.00
8120251	Plastic Drum, High Intensity, Oper	Ea	25.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

Project Log of Streets

ItemCode	Item Description	<u>Unit</u>	Quantity
5017011	_Cold Milling HMA Surface, Modified	Syd	456.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	63.00
5047011	_Micro-Surface, Single Course	Syd	30,369.00
5057011	_Seal, Single Chip, Modified	Syd	30,369.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	20.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	20.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	25.00
8120251	Plastic Drum, High Intensity, Oper	Ea	25.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

Project Log of Streets

ItemCode	Item Description	<u>Unit</u>	Quantity
5017011	_Cold Milling HMA Surface, Modified	Syd	157.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	22.00
5047011	_Micro-Surface, Single Course	Syd	10,428.00
5057011	_Seal, Single Chip, Modified	Syd	10,428.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	15.00
8120251	Plastic Drum, High Intensity, Oper	Ea	15.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

Project Log of Streets

ItemCode	Item Description	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	238.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	33.00
5047011	_Micro-Surface, Single Course	Syd	15,832.00
5057011	_Seal, Single Chip, Modified	Syd	7,424.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	15.00
8120251	Plastic Drum, High Intensity, Oper	Ea	15.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

Project Log of Streets

ItemCode	Item Description	<u>Unit</u>	Quantity
5017011	_Cold Milling HMA Surface, Modified	Syd	318.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	44.00
5047011	_Micro-Surface, Single Course	Syd	21,189.00
5057011	_Seal, Single Chip, Modified	Syd	14,981.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	15.00
8120251	Plastic Drum, High Intensity, Oper	Ea	15.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

Street Surface Treatment Project - FY2019 Project Log of Streets

Miscellaneous - Project Wide

ItemCode	Item Description	<u>Unit</u>	<u>Quantity</u>
1047051	_General Conditions, Max \$85,000.00	LSUM	1.00
1047051	_Project Supervision, Max \$50,000.00	LSUM	1.00
1047051	_Certified Payroll Compliance and Reporting	LSUM	1.00
1047051	_Resident Notification	LSUM	1.00
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	135.00
2090001	Project Cleanup	LSUM	1.00
5017001	_Crack Filling with Asphalt Repair Mastic	Ft	1,000.00
5040005	Micro-Surface, Rutfilling	Ton	100.00
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	500.00
8110332	Rem Raised Pavt Marker	Ea	100.00
8120310	Sign Cover	Ea	75.00
8120370	Traf Regulator Control	LSUM	1.00
8127050	_No Parking Sign	Ea	360.00
8127050	_Pedestrian Type II Barricade, Temp	Ea	20.00
8127051	_Minor Traffic Control, Max \$70,000.00	LSUM	1.00